

RYCO



CONNECTING PARTNERSHIPS

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RYCO. THE COMPANY.

RYCO Hydraulics started manufacturing hoses, fittings and filters in 1946. As the hydraulics industry evolved, the Company expanded its range and the main product line soon became high-pressure hydraulic hose and fittings.

RYCO Hydraulics' simple belief of "Higher Technology Equals Greater Performance" applies throughout the Company. The Company's research and development centres and testing facilities are dedicated to developing innovative products and pioneering new processes in fluid conveying systems technology. Our specialised equipment and technology enable us to manufacture our large range of products efficiently and cost effectively.

"HIGHER TECHNOLOGY EQUALS GREATER PERFORMANCE"

RYCO. MISSION STATEMENT.

Our Mission is to listen to our customers and deliver the highest quality and technologically superior fluid conveying connection products and solutions.

RYCO. COMPANY VISION.

Our vision is to be the premier supplier and service provider of choice in every market we participate in.

RYCO. THE QUALITY.

RYCO Hydraulics is certified to current version of AS/NZS ISO 9001 "Quality Management Systems - Requirements" by NATA Certification Services International (NCSI - Registration No. 7029). Company Policy is to supply products and services that meet or exceed our industry standards. These standards include SAE, EN (DIN), AS, ISO, JIS, BS and BCS. The bottom line in Quality Control (QC) & Quality Assurance (QA) is Customer Confidence & Customer Satisfaction.

OUR AIM IS ZERO DEFECTS

RYCO. PRODUCT IDENTIFICATION.

All RYCO Hydraulics products are clearly branded with a unique RYCO Hydraulics part number and batch code, where practical. In today's quality conscious world, RYCO's invaluable batch coding system takes traceability and customer assurance to new levels. Not everyone is an expert in thread identification. Time and money are often wasted identifying goods or despatching the wrong item. Using clearly branded RYCO products reduces the chance of error, saving you time and money.

IF IT'S NOT BRANDED - IT'S NOT RYCO

RYCO. WAREHOUSE & DISTRIBUTION.

At RYCO Hydraulics, we understand that when you need your product, you need it fast. Our network of warehouses and distributors gives the greatest product availability to our customers. Our comprehensive ordering and despatch system ensures that your orders are correct before leaving the warehouse.

WE PRIDE OURSELVES ON SHIPPING CORRECTLY

DISCLAIMER: We reserve the right to alter the design, or discontinue any of the company's products or services without notice. While every effort has been made to ensure the accuracy of the information contained in this publication, our Company Policy of continual research and product development necessitates changes and refinements which may not be reflected in the following pages. If in doubt, please contact your nearest sales office. Illustrations are not to scale, and are indicative only.

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INTRODUCTION

HOW TO USE THIS BOOK

HOW TO USE THE RYCO PRODUCT TECHNICAL MANUAL

This Product Technical Manual is divided into seven colour coded sections; **Introduction, Hose, Couplings, Adaptors, Accessories, Filters** and **Technical**.

A colour coded indicator tab on the edge of every right hand page aids finding and identifying each section.

On pages 4 and 5 is an **Alphanumeric Index** if you know the Part Number you're looking for, and pages 6 to 9 provide a Contents by Section that lists the product ranges each section contains.

In addition, each section contains a **Contents** and/or **Pictorial Index** as relevant to further aid you in finding the exact information you require. In addition to a Contents and Pictorial Index, the **Couplings** section also contains an **Index by Endstyle Number**.

IMPORTANT – DO NOT MIX AND MATCH PRODUCT

Hydraulic Hose from one manufacturer is usually not compatible with fittings supplied by another manufacturer.

It is the responsibility of the hose assembly fabricator to consult the manufacturer's written assembly instructions or the manufacturers directly before intermixing hose and fittings from two manufacturers. Similarly, assembly equipment from one manufacturer is usually not interchangeable with that of another manufacturer. It is the responsibility of the hose assembly fabricator to consult the manufacturer's written instructions or the manufacturers directly for the proper assembly equipment. Always follow the manufacturer's instructions for proper preparation and fabrication of hose assemblies.



SAFETY GUIDE

FOR THE SELECTION AND USE OF HOSE, FITTINGS AND RELATED ACCESSORIES

Failure or improper selection or improper use of hose, fittings, or related accessories can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of hose, fittings, or related accessories include, but are not limited to:

- Fittings blown off at high speed.
- High velocity fluid discharge.
- Explosion, or burning, of the conveyed fluid.
- Electrocution from high voltage electric power lines or other sources of electricity.
- Contact with suddenly moving, or falling, objects that are held in position, or moved, by conveyed fluid.
- Injections by high-pressure fluid discharge.
- Dangerously whipping hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity build-up.
- Sparking, or explosion, while spraying paint or other flammable liquid.

THE COMPANY

An Australian-owned company, RYCO has built a strong reputation since it commenced manufacturing of hydraulic hose and fittings in Melbourne, Australia back in 1946.

Engineering excellence, customer-focus and highest quality products continue to attract new customers, from varied industries right across the world.

RYCO Research & Development centres are dedicated to improving product and pioneering new technologies and processes in fluid conveying systems. RYCO quality range of hydraulic hose and fittings is supported by a network of loyal and committed distributors across the world.

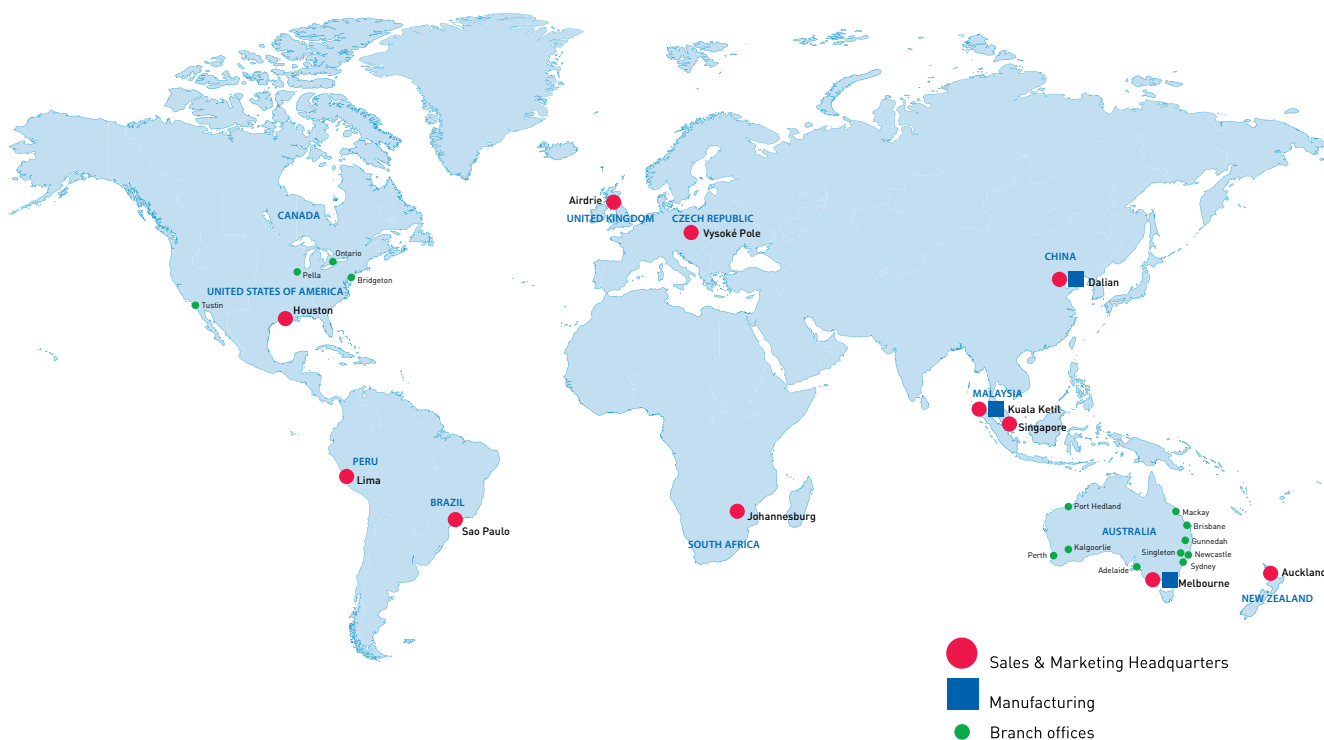
RYCO products supplied to a wide range of industries including mining, construction, utilities, defence, marine, oil & gas, OEMs and more. RYCO continue to expand its product range to meet growing needs of worldwide hydraulic industry.

GLOBAL RESOURCES

In today's competitive international business environment, the requirements for suppliers and customers to work closely together are greater than ever before.

RYCO has expanded its horizons and developed its manufacturing and distribution business on a global scale, working with industries in diverse sectors. RYCO has offices and warehouses strategically placed in Europe, Brazil, Singapore, South and North America and fully Quality Accredited manufacturing centres in Australia, China and Malaysia.

With such an extensive global footprint, RYCO can ensure quality product is delivered to our customers, whenever and wherever required.



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

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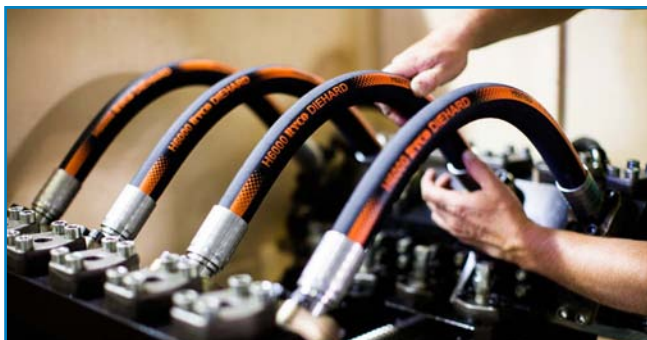
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RYCO QUALITY, SAFETY AND ENVIRONMENTAL POLICIES

RYCO's mission is to exceed our customers', shareholders, stakeholders' and employee expectations through continuous improvement.

We are driven by innovation, teamwork and the integrity of our people whilst embracing community, cultural and Quality, Environmental and Health and Safety (QEHS) awareness. RYCO achieve this objective through the integration of the QEHS Management System into day-to-day operations of all of the company's facilities.

QUALITY POLICY

RYCO specialises in the design, manufacture, distribution and sales of a comprehensive range of high pressure hydraulic hoses and fittings. The Company operates on a global scale and its products service a wide range of industrial applications.

Since 1946 RYCO has established an enviable reputation for expertise, service, quality and delivery.

RYCO's Mission is to exceed our customers', shareholders', suppliers' and employees' expectations through continuous improvement driven by innovation, teamwork and the integrity of our people whilst embracing community, cultural and environmental awareness.

RYCO's Quality system and policy requires compliance with applicable industry standards, statutory regulations, world best practice philosophy, value added processes, service and efficiency.

RYCO Management shall ensure that suitable infrastructure and resources are provided and utilised to guarantee Quality is not compromised.

Quality is the responsibility of all RYCO personnel.

The RYCO Quality System is based on "AS/NZS ISO 9001, Quality Management Systems - Requirements".

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Leigh Morrison
CEO,
RYCO

INTERNATIONAL
CERTIFIED
QUALITY
MANAGEMENT SYSTEMS

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QUALITY IS THE RESPONSIBILITY OF ALL RYCO PERSONNEL.

OCCUPATIONAL HEALTH AND SAFETY POLICY

RYCO specialises in the design, manufacture and sales of a comprehensive range of high pressure hydraulic hoses and fittings. The Company operates on a global scale and its products service a wide range of industrial applications.

RYCO is committed to protecting the health and safety of employees, contractors, visitors and the general public in the workplace. RYCO shall fulfil this commitment through a health and safety management system that is integrated with RYCO's business activities related to products, services and people.

RYCO employees, contractors and visitors have a duty of care to take reasonable care for their own health and safety and for the health and safety of persons who may be affected by their actions and inactions in the workplace.

RYCO will take reasonably practical steps to improve workplace health and safety conditions and to prevent injury and illness to its employees, contractors, visitors and the general public.

This Policy applies to RYCO fixed and mobile workplaces and persons attending those workplaces. This Policy will be reviewed from time to time for Continuous Improvement, changes to legislation, industry best practices and policy directions within RYCO.

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RYCO will take reasonably practical steps to improve workplace health and safety conditions and to prevent injury and illness to its employees, contractors, visitors and the general public.

RYCO shall:

- Comply with Legal Obligations and other OHS requirements- by ensuring that the RYCO business is conducted in accordance with the relevant occupational health and safety legislations, other applicable OHS requirements (eg. Codes of Practice, Standards and Client requirements) and RYCO Occupational Health and Safety Policies.
- Manage Risk - by identifying workplace hazards, performing hazard assessments and taking reasonably practical actions to prevent injury, loss or damage and control exposure to illness.
- Provide appropriate Instruction, Training and Supervision to enable RYCO employees, contractors and visitors to work safely and carry out their duties and responsibilities in a safe environment.
- Involve and Ensure meaningful and effective Consultation with its employees and contractors in matters potentially impacting workplace health and safety.
- Communicate clearly and openly RYCO's occupational health and safety commitments and performance.
- Establish clear Objectives and Targets to improve health and safety in the workplace.

This Policy applies to RYCO fixed and mobile workplaces and persons attending those workplaces. This Policy will be reviewed from time to time for Continuous Improvement, changes to legislation, industry best practices and policy directions within RYCO.

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RYCO

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ENVIRONMENTAL POLICY

RYCO specialises in the design, manufacture and sales of a comprehensive range of high pressure hydraulic hoses and fittings. The Company operates on a global scale and its products service a wide range of industrial applications.

RYCO is committed to compliance with applicable environmental legislation, regulations and any other requirements to which RYCO subscribes.

RYCO operates a program of continual improvement in environmental performance and pollution prevention, aiming to minimise the environmental impacts resulting from relevant activities.

This Policy applies to RYCO fixed and mobile workplaces and persons attending those workplaces. This Policy will be reviewed from time to time for Continuous Improvement, changes to legislation, industry best practices and policy directions within RYCO.

RYCO
 RYCO Hydraulics Pty. Ltd.
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 Australia
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 ABN 96 085 527 724

ENVIRONMENTAL POLICY

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RYCO is committed to compliance with applicable environmental legislation, regulations and any other requirements to which RYCO subscribes.

RYCO operates a program of continual improvement in environmental performance and pollution prevention, aiming to minimise the environmental impacts resulting from relevant activities.

Improvements in our environmental performance will be achieved by:

- Minimising, re-using and recycling solid waste.
- Ensuring recycling, safe disposal and reclaim of waste oil.
- Controlling and reducing where practical environmental noise.
- Reducing atmospheric emissions.
- Minimising the consumption of energy.
- Consider favourably upon suppliers and contractors who pursue good environmental management practices.
- Helping conserve resources by the design and production of products to reduce the use of raw materials, packaging and energy in manufacture, use and disposal.
- Maintaining an environmental management system which complies with ISO 14001 and enables environmental objectives and targets to be established and implemented.
- Promoting throughout the company a strong environmental ethic as part of its culture.
- Communicating openly and constructively with applicable government authorities, the community, and other interested parties.

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Leigh Morrison
 CEO,
RYCO

www.RYCO.com.au

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ABOUT RYCO – QUALITY ACCREDITATION

RYCO QUALITY ACCREDITATION

RYCO Hydraulics is certified to current version of AS/NZS ISO 9001 “**Quality Management Systems - Requirements**” by NATA Certification Services International (NCSI - Registration No. 7029). Company Policy is to supply products and services that meet or exceed our industry standards.

These standards include SAE, EN (DIN), AS, ISO, JIS, BS and BCS.

The bottom line in Quality Control (QC) & Quality Assurance (QA) is Customer Confidence & Customer Satisfaction.



RYCO Hydraulics / RYCO 24•7
19 Whitehall Street
Footscray Vic 3011

Operates a management system
that complies with the requirements of:

AS/NZS ISO 9001:2008

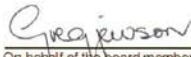
The Scope of Certification is:




Design, research and development, manufacture and supply of hydraulic hose assemblies, hose couplings, fittings, adaptors and pneumatic couplings and adaptors for the defence, marine, mining, agricultural, automotive and general industries.

Capabilities include specialist CAD design and drafting, facilities for mass production to close tolerances, high pressure hose testing facilities, impulse testing, hydrostatic and external cyclic pressure testing. A complete range of hydraulic hose assembly equipment including hose crimping machines and hose cut off saws are supplied and supported.

Management of RYCO 24•7 franchised mobile connector specialist services, which provide on-call, on-site servicing for emergency breakdown and/or repair maintenance work for hose and tube systems.

Date of Issue: 01 November 2012
Expiry Date: 31 October 2015
Certificate Number: 7029000-QMS-003
Certification Number: 7029
Certification Date: 06 April 1995


On behalf of the board members

To confirm the currency of this certificate please email certification@ncsi.com.au
This Certificate remains the property of NCS International Pty Limited ACN 078 459 211
7 Leeds Street, Rhodes NSW 2138
A wholly owned subsidiary of The National Association of Testing Authorities, Australia ACN 004 370 748
Accreditation by the Joint Accreditation System of Australia and New Zealand (www.jas-anz.org/register)



**CERTIFIED
QUALITY
MANAGEMENT SYSTEM**

ISO 9001

AS/NZS ISO 9001
A Company Policy.

COMMITTED TO CONTINUAL IMPROVEMENT

RYCO QUALITY ACCREDITATION

RYCO Hydraulics is committed to the objective of zero defects.

As a manufacturer of quality hydraulic hose and fittings, RYCO Hydraulics ensures that our products are accredited by independent third party organisations.

Some of the third party accreditations that RYCO Hydraulics manufactured product have achieved include:



RYCO Hydraulics recommends SAE J1273 as a guide to the selection, manufacture, installation and servicing of hydraulic hose assemblies. RYCO Hydraulics complies with and exceeds third party accreditations as well as international ISO and EN (DIN) standards.

RYCO Hydraulics specifically design and manufacture hydraulic hose and fittings to “match” each other for greater performance and safety. Use only hose assemblies that consist of RYCO “matched” hydraulic hose with RYCO “matched” fittings.

RYCO Hydraulics testing and evaluation processes guarantee the performance and quality required to meet the demands of today’s applications to safely convey fluids at high pressure.

RYCO Hydraulics are proud members of, and contribute to, the world’s main industry groups including:

- SAE** SAE International
- MSHA** U.S. Department of Labor, Mine Safety and Health Administration
- NAHAD** National Association of Hose and Accessories Distributors (USA)
- NCS** NATA Certification Services (AS/NZS ISO 9001:2008)
- NFPA** National Fluid Power Association (USA)
- RMA** Rubber Manufacturers Association
- ABS** American Bureau of Shipping
- MED** Marine Equipment Directive
- AGA** Australian Gas Association
- GL** Germanischer Lloyd
- DNV** Det Norske Veritas
- LR** Lloyd's Register
- USCG** US Coast Guard

**RYCO HYDRAULICS
COMPLIES WITH SAE J343
AND SAE AS3791 STANDARDS, AND WITH
THE RELEVANT ISO, EN AND DIN STANDARDS**



OEM Support

We understand that our success is dependent upon our clients' success.

- ☑ Comprehensive engineering solutions
- ☑ Hose management systems
- ☑ Vendor managed stock
- ☑ Cost reduction programs
- ☑ Kanban supply
- ☑ JIT deliveries
- ☑ Reliable despatch

In today's competitive international business environment, the requirements for suppliers and clients to work closely together is greater than ever before. At RYCO we do more than simply supply our product; we listen to our clients as we understand that our success is dependent upon our clients' success.

We actively work with our clients, connecting partnerships across our broad range of services. In partnership we implement and support cost reduction programs; comprehensive engineering solutions; hose management systems; vendor managed stock; Kanban supply; JIT deliveries; reliable despatch; all of which combine to give higher technology and greater performance to our clients.

Our hydraulics technology and professional expertise is regularly required to solve problems arising from the often unique applications of our clients. The experience and knowledge gained from involvement in these special applications increase our service levels so we can provide a superior service to our clients.

Whether you are a manufacturer involved in the worldwide export market, a mining operation in a remote location, or a local distributor, talk to RYCO about "Connecting Partnerships" to enhance your business.





Quality

Improved safety and risk management are of prime concern in today's industries. RYCO design hydraulic hose and fittings that MATCH, enabling RYCO hose assemblies to exceed SAE or EN/DIN performance requirements.

RYCO is certified to AS / NZS ISO 9001: 2008 "Quality Management Systems – Requirements" by NATA Certification Services International (NCSI – Registration No. 7029) and ISO 9002 "Quality Systems for Production and Installation" by the Department of Defence (Australia).



Service

A key service to our OEM customers is the onsite pre-production fluid routing service provided by RYCO 24·7 Mobile Connector Specialists.

RYCO 24·7 has extensive coverage specialising in mobile hydraulic hose, fittings, service and replacement 24 hours a day, 7 days a week.

RYCO 24·7 actively supports and services national contracts and Original Equipment Manufacturers (OEM) in industries covering the mining, agriculture, marine, construction, defence and industrial market sectors.

Production

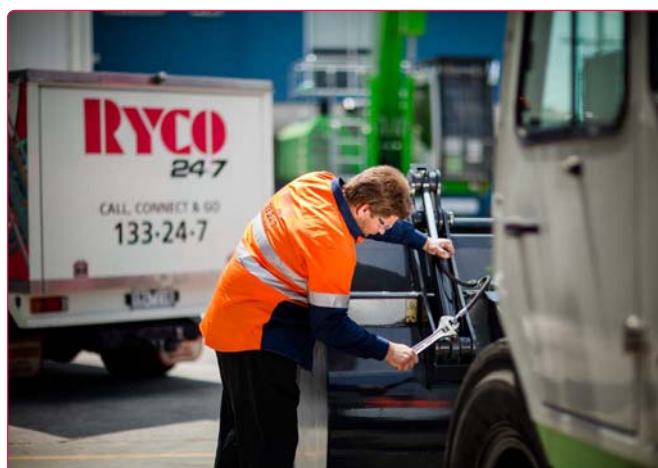
RYCO owns and operates manufacturing facilities in Australia, Malaysia and China, producing a complete range of hydraulic hose and fittings for the world market.

Due to our continuous improvement and investment program, and our specialised equipment and technology, we are able to manufacture a large range of hose and fittings efficiently and cost effectively. Our focus on production development and flexible manufacturing systems guarantee that we continually increase production levels and standards.



Innovation

RYCO's commitment to Innovation and Continuous Improvement ensures that we can deliver tomorrow's solutions today. We believe that our global strength in Engineering, Innovation and product development provide our customers a higher level of service and solutions that are unparalleled in the industry.



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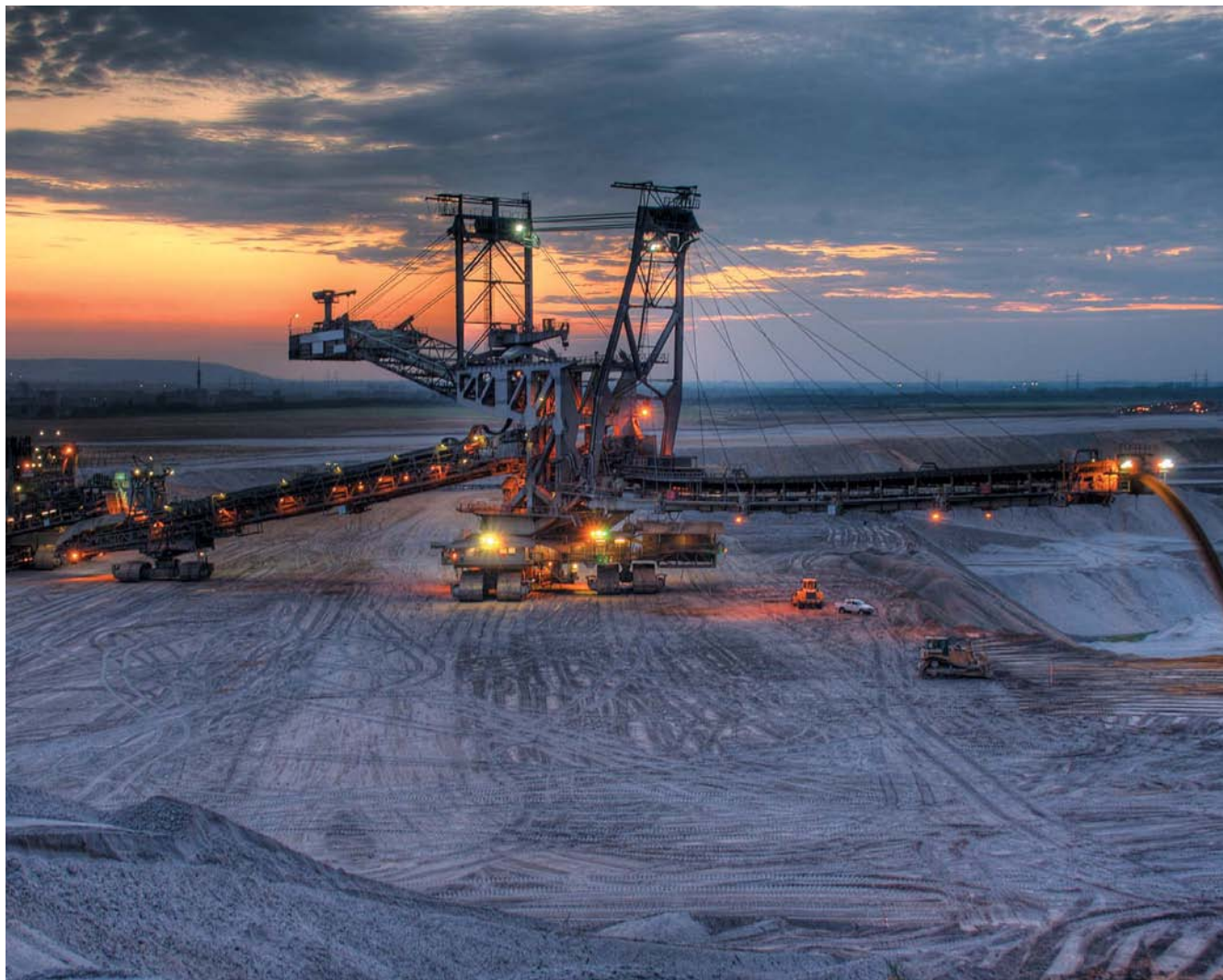
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ABOUT RYCO - MINING



RYCO IS A SPECIALIST SUPPLIER OF HYDRAULIC HOSE AND FITTINGS TO THE MINING INDUSTRY WITH OVER 65 YEARS EXPERIENCE.





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RYCO KNOW HOW

RYCO is a specialist supplier of hydraulic hose and fittings to the mining industry with over 65 years experience. Whether it is for heavy off-road mining vehicles, underground mining equipment at the coal face, lifting buckets of ore, or shifting mountains of overburden, you will find RYCO products hard at work.

RYCO has offices around the world and is committed to long term support of the resource industry on a global scale. **“Our People Are Our Greatest Asset”**. Dynamic and dedicated our teams bring together the best and most experienced people in the industry.

The focus is to continually improve on our current business activities and ensure we offer quality, technology and service to the resource industry, with safety being our prime objective.

MINING

In today’s competitive international business environment the requirement for suppliers and clients to work closely together is greater than ever before; particularly in the resource industry. At RYCO we do more than simply supply a product; we understand that our success is dependent on our client’s success, safety and quality.

Our teams of field engineers proactively work with our clients **“Connecting Partnerships”** across a broad scope of services to provide complete port to port solutions. The resulting fluid connection systems are designed to work. They are reliable. They are safe and can operate at their maximum potential.

RYCO is a solution based supplier providing our clients with a complete range of services including; on-time delivery; solving difficult engineering problems; cost reduction activities; on-site hose management systems and asset management. Many Mining operations around the globe rely on RYCO’s extensive knowledge of the mining industry and RYCO’s large range of services to deliver them substantial cost reduction benefits.

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ABOUT RYCO – MDG-41 AND MDG-15 SAFE



MDG 41

MDG 41 is a document which was created in response to an increasing number of incidents involving high-pressure fluid injection injuries on mine sites. In response to this, the NSW Department of Primary Industries (DPI) established a joint committee with involvement from the Mining Industry, Equipment Manufacturers, Repairers, and Suppliers of Fluid Power components in order to formulate a 'best practice' document. The result is Mechanical Design Guideline Number 41 (MDG 41).

The Mechanical Design Guidelines are a series of tools to assist companies in achieving compliance with the OH&S Act and Regulations through implementing industry best practices. We all have a duty of care to assess the hazards in the workplace and to implement systems and programs in order to eliminate or minimise the risk they present.

These documents prompt the review of many areas in fluid power systems that may present a risk and sets out guidelines of how they should be addressed using 'best industry practice'.

RYCO have a commitment to OH&S and the MDG's, and as such have developed products and strategies to assist our customers in understanding the requirements of the guideline. We can assist you to adopt the recommended practices outlined in MDG 41 and MDG 15.

MDG 15

MDG15 is a guideline for all mobile or transportable plant used at mines, and refers to MDG41 for fluid power systems. It has further requirements in relation to the routing of hosing.

MATCHED SYSTEM MDG 41 - CLAUSE 1.6.13

Where the hose and fittings (insert/ferrule) are from the same manufacturer and are assembled and crimped using the method as specified by that manufacturer.

MATCHED SOLUTIONS

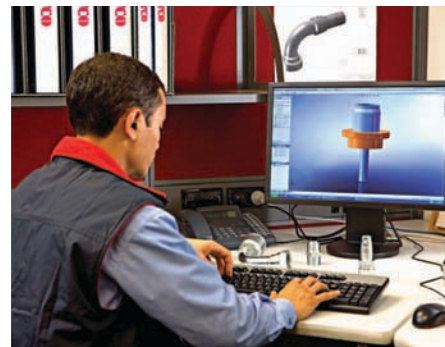
Today's hydraulic systems are required to withstand tremendous pressures. This means that the attachment of a fitting to the end of a hose becomes more critical. This may be a simple operation, but it is a complex engineering solution.

International Hose standards specify a set of materials and tolerances, such as internal and external dimensions and reinforcement types and patterns. The reality is that while these standards are adhered to by all manufacturers, the tolerances themselves are so broad that if the entire allowable tolerance was used in manufacturing, users would encounter a high failure rate due to hose and fitting tolerance mismatching. High quality hose manufacturers have to adopt their own tolerance limits which are often at least half of the allowed range.

This is where "Mixing and Matching" becomes an issue: Component manufacturer 'A' could produce parts on the lower limits of the tolerance, and manufacturer 'B' is on the upper end of the tolerance. If a fitting from 'B' was put on a hose from 'A' at the specified crimp diameter of 'B', there would be little chance of adequate fitting retention, which would most likely result in failure. Similarly if a fitting from 'A' was assembled to a hose from 'B' the likelihood is that the inner tube of the hose would be over-compressed or the hose reinforcement could be cut, again resulting in premature failure.

MDG 41 stipulates hose assemblies shall only be carried out using "Matched Hose and Fittings" (MDG 41 Clause 3.7.6.1k). MDG 41 defines a "Matched System" as "where the hose and fittings (insert/ferrule) are from the same manufacturer and are assembled and crimped using the method as specified by that manufacturer" (MDG 41 Clause 1.6.13).

Suppliers of manufactured hydraulic hose assemblies must be able to guarantee that the hose and fittings used are matched. RYCO products provide our customers with a matched system. Our design teams create and stringently test the hoses and fittings together to ensure optimum performance and reliability. All this is achieved using RYCO's assembly methods which are reliable and easy to follow.



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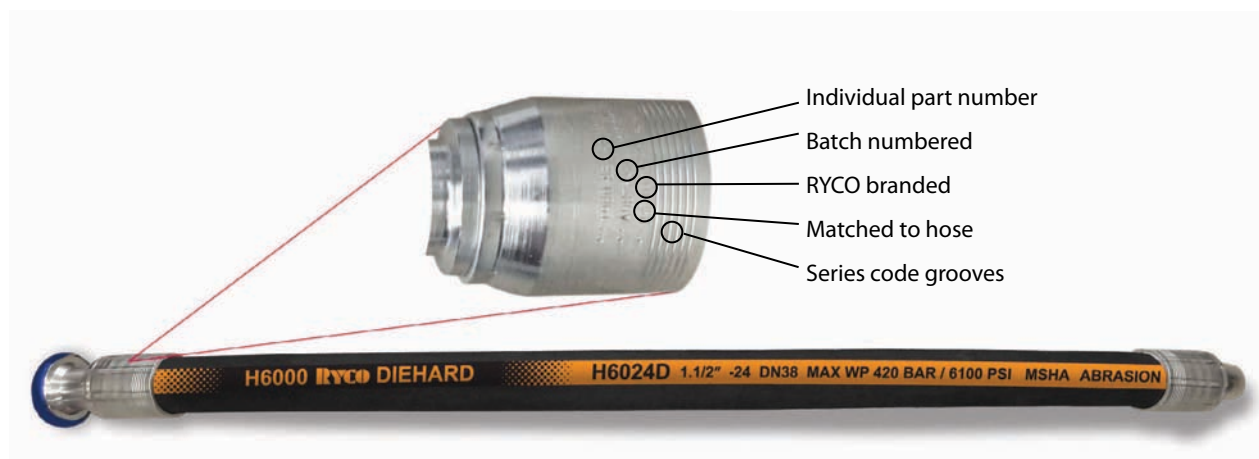
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HOSE ENDS
MDG 41 - CLAUSE 3.7.6.2
 Hose ends shall not be interchanged and shall be properly matched.
Note: Only select hose fittings compatible for the hose application.



COMPETENCE
MDG 41 CLAUSE - 3.7.6.6
 Persons fabricating hose assemblies shall be competent and trained in the proper use of equipment, materials, assembly procedures and testing. People should be assessed in their competence for hose assembly and the assessment should be recorded.

SAFETY SOLUTIONS

Our team of experienced engineering personnel can provide a engineering solution to suit your needs. Whether it's a simple question of product application, or the supply contract to multiple mine sites, we have the knowledge, experience and products to give you the most complete solution to your needs.

Experience is a very important quality in a supplier. The experience that RYCO has gained in many industries is a tangible asset, and one that keeps customer's coming back to us, because, like you, we've been out there working. The chances are that we've already supplied to someone who had exactly the same need for a solution as you, and that we've already helped someone else find that solution. "That's experience".

RYCO is aware of its responsibility to you the customer. We understand that the supply of our product does not finish with the goods being shipped.

Hydraulic hose assemblies can present a very real danger if misapplied. We understand this, and can provide you with the competence based training ensuring that you have the methods, products and knowledge to manufacture a matched hydraulic hose assembly each and every time.

RESEARCH

RYCO is a specialist supplier of hydraulic hose and fittings to the mining industry; heavy-duty mining requires heavy-duty product. RYCO is constantly working together with the mining industry to research and develop new technologies and solutions to your specific hydraulic requirements. MDG 41 is just one of these solutions.

INTRODUCTION

ABOUT RYCO – INNOVATION

INNOVATION

RYCO's commitment to Innovation and Continuous Improvement ensure that we can deliver tomorrow's solutions today. We believe that our global strength in Engineering, Innovation and product development provide our customers a high level of service and solutions unparalleled in the industry.

RYCO's Global Research and Development test facilities give our design teams the platform they require to continually improve our products to surpass the performance requirements as demanded by our customers and industry standards.

RYCO's product range is continually expanding and evolving, providing improved efficiency, higher working pressures and increased safety standards.

We design our product for tomorrow's requirements, today.

RYCO's Technology makes us a leader in our industry. Our policy of high investment in technology ensures that we not only maintain our position in the industry, but also continually improve and develop products that surpass industry standards.

We continually enhance our Hydraulic Hose Specifications as we introduce new technical developments.

RYCO's Coupling technology and higher performing ISOBARIC hose families make our matched assemblies a world leader in performance, efficiency and safety.

RYCO's extensive testing process of hydraulic hose, fittings and assemblies is crucial to deliver accredited and proven product quality.

WE DESIGN OUR PRODUCT FOR TOMORROW'S REQUIREMENTS, TODAY.



RYCO Dalian

TRAINING



RYCO offers a broad range of modular training solutions to meet the needs of the hydraulic industry.

With safety a priority RYCO training equips you with the knowledge and confidence you need .



RYCO's commitment is to continually improve our services to you, our partners.

We understand that training is an essential part of your business. We strive to provide the best in the industry.



RYCO is a specialist supplier of hydraulic hose and fittings with over 65 years experience.

RYCO training equips you with the knowledge and the confidence you need, and the KNOW HOW to back it up.

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HAVE - HOSE ASSEMBLY VISUAL EVALUATION



HAVE is a training presentation with three purposes:

- ☑ To highlight the dangers inherent with the use of high pressure hoses
- ☑ To demonstrate signs of potential failure
- ☑ To explain best practices for hose installation

HAVE Hose Assembly Visual Evaluation **RYCO** KNOW HOW

Are you making a fatal mistake?

In the past, many companies and personnel have viewed hydraulic hose and fittings as low tech, consumable product that should be fixed only when it fails.

The attitude is often: "She'll be right - We'll replace the hose when it's busted!"

Tragically, this could have dire consequences, and it could even be a FATAL mistake!

Here are some newspaper articles, reports and statistics detailing some of the potential consequences of such a decision:

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Hydraulic hoses are designed and built to work in high pressure systems.

Therefore a failing hose presents great potential for harm.

The RYCO HAVE training program to conveys a message demonstrating ways of reducing risks.

HAVE Hose Assembly Visual Evaluation **RYCO** KNOW HOW

Cover

Spiral Type

Braided Type

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RYCO HAVE is a computer based program that can be presented formally to a group, or run individually as a self-paced learning program.

Risk reduction is a 4 part process:

- Stop and identify the hazards
- Assess the risks
- Manage the risks
- Take action to make it safe

HALP® - HOSE ASSEMBLY LIFESPAN PREDICTOR

Hose Assembly Lifespan Predictor, an online program that predicts the lifespan of hose assemblies for given conditions and environments.



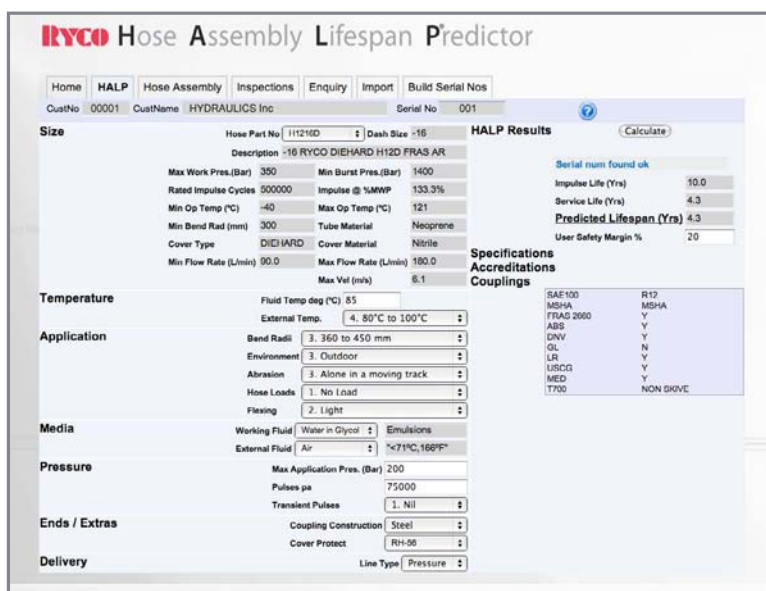
RYCO HALP® aids in determining the optimum time to carry out preventative maintenance and replace hose assemblies before they fail.

By being proactive HALP® assists in risk management and helps to prevent fluid injection injuries.



HALP® incorporates a database of hose assemblies, tracking their components and machine locations.

When coupled with predictive technology, HALP® keeps you on track with scheduled hose maintenance.



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ABOUT RYCO – SERVICES AND SUPPORT



RYCO 24•7 - MOBILE HOSE AND FITTING SERVICE

During 65 years of business, RYCO has increased its market coverage by establishing RYCO 24•7 Service Centres, Mobile Connector Specialists and Onsite Container Workshops in several countries around the world.

Today RYCO 24•7 has extensive coverage specialising in mobile hydraulic hose, fittings, service and replacement 24 hours a day, 7 days a week. RYCO 24•7 actively supports and services national contracts and Original Equipment Manufacturers (OEM) in industries covering mining, agriculture, marine, construction, defence and industrial markets.

With the continued support of RYCO Hydraulics, Australia's leading manufacturer of hydraulic hose and fittings we offer a network of RYCO 24•7 Service Centres, Mobile Connector Specialists and Onsite Container Workshops for the emergency break down, programmed maintenance, OEM support, installation and aftermarket business.

RYCO 24•7 MISSION STATEMENT

Our Mission is to listen to our customers and deliver the highest quality and technologically superior fluid conveying connection products and solutions.



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Increase productivity and profitability

Extensive training & support

Ensures minimal downtime

Set-up to suit specific site requirements

Onsite container workshop and inventory storage

Ideal for remote locations, fully relocatable

RYCO 24•7 SERVICES

RYCO 24•7 offers a comprehensive service for the hydraulic industry with emergency break down, programmed maintenance, Original Equipment Manufacturer support, installation and aftermarket business. Our professionally trained and dedicated teams are on call 24 hours a day, 7 days a week offering expert technical support for all types of hydraulic systems.

Whether it is mining, marine, agriculture, defence, construction, industrial or utilities the team at RYCO 24•7 will be on hand, anywhere, anytime, to offer you professional assistance.

RYCO 24•7 Service Centres, Mobile Connector Specialists and Onsite Container Workshops offer extensive national contract and Original Equipment Manufacturer support through the development of hose assembly design, configuration, installation and aftersales service.

Quite often hose assembly plumbing can be an afterthought when designing complex hydraulic systems. With RYCO 24•7 support, our technical teams have the knowledge to assist with efficient and effective port to port solutions in the early stages of system design.

With comprehensive product and system knowledge, RYCO 24•7 technicians can be an integral partner in developing a marketing leading product including efficiency in system performance, warranty reduction and aftersales service.

Also, RYCO 24•7 has developed a new range of onsite hose assembly workshops and product storage containers. Ideal solution for remote mining locations, construction sites, offshore and large manufacturing sites.

ONSITE HOSE CONTAINERS

As part of the ongoing focus on customer service, RYCO 24•7 has developed a new range of onsite hose assembly workshops and product storage containers. The RYCO 24•7 containers are an ideal solution for remote mining locations, construction sites, offshore and large manufacturing sites.

INTRODUCTION

RYCO EXPERIENCE

HYDRAULIC HOSE AND COUPLING TOLERANCING

A common misconception is that **IF** a coupling matches to a hose that meets SAE or EN (DIN) specification **THEN** that coupling will match with **ALL** hydraulic hoses that meet that specification. Conversely, **IF** a hose that meets SAE or EN (DIN) specification matches to a coupling **THEN** that hose will match with **ALL** couplings made for hoses within that specification. **THIS IS SIMPLY NOT TRUE.**

As stated in SAE J517, the specification for Hydraulic Hose:

"SAE J517 HOSE FROM ONE MANUFACTURER IS USUALLY NOT COMPATIBLE WITH SAE J516 CONNECTORS SUPPLIED BY ANOTHER MANUFACTURER. IT IS THE RESPONSIBILITY OF THE (HOSE ASSEMBLY) FABRICATOR TO CONSULT THE MANUFACTURER'S WRITTEN INSTRUCTIONS OR THE MANUFACTURERS DIRECTLY BEFORE INTERMIXING HOSE AND CONNECTORS FROM TWO MANUFACTURERS".

There are various societies and organisations that develop specifications for Hydraulic Hose. The major ones are:

- SAE** The Society of Automotive Engineers
- EN** European Normes (based on the former DIN German standards)
- ISO** International Organization for Standardization
- AS** Australian Standards

These standards cover the performance specifications and dimensional tolerances of Hydraulic Hose.

SAE dimensional tolerances are the most widely used. EN, ISO and AS dimensional tolerances are similar to the corresponding SAE standard. Therefore, it is generally possible to meet the dimensional tolerances of these standards with a single series of hose. In the main, EN (DIN) standards have higher working pressures than their corresponding SAE standards.

Dimensional tolerances of these standards are quite broad. Hoses not manufactured to tight tolerance control may still meet these standards, but will perform poorly due to compression variations and will have assembly difficulties. This is not commonly understood. Hence, the common misconception stated above.

RYCO Hydraulics has its own **HYDRAULIC HOSE SPECIFICATION**. **RYCO** dimensional tolerances are much tighter than SAE or EN, and often have higher maximum working pressures.

Close tolerancing enables **RYCO** to provide higher performance Hydraulic Hose. **RYCO** Couplings are designed to match technically superior **RYCO** Hydraulic Hose. Superior technology gives **SAFER, STRONGER AND LONGER LASTING HOSE ASSEMBLIES**.

DO NOT MIX/MATCH HOSE
AND COUPLINGS FROM
ONE MANUFACTURER
WITH HOSE AND COUPLINGS
FROM ANOTHER
MANUFACTURER.



RYCO HOSE IS MATCHED TO RYCO COUPLINGS

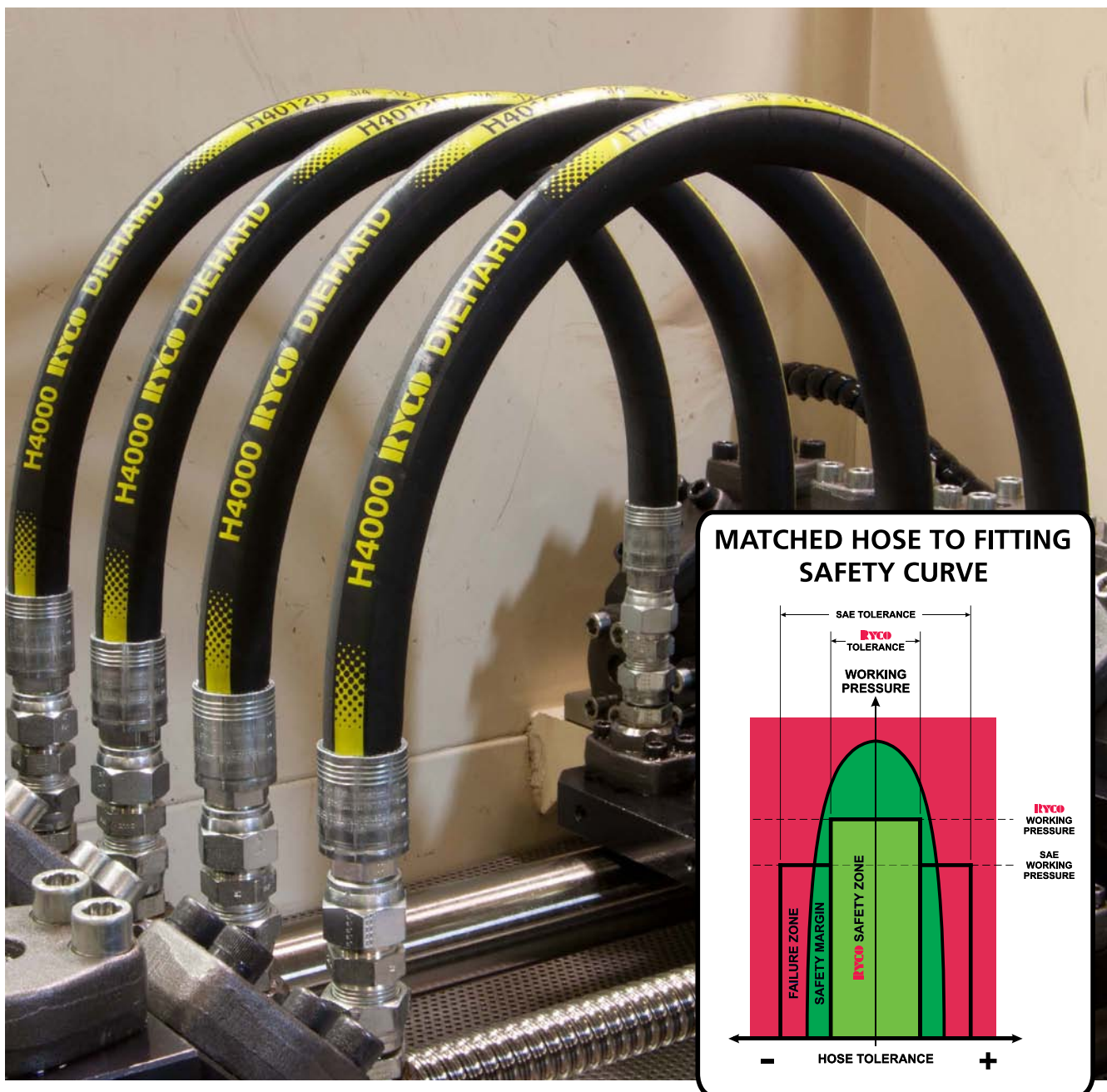
RYCO SAFETY ZONE

The RYCO SAFETY ZONE provides an increased margin of operational safety when using RYCO matched hose and fittings.

Hose tolerance bands for Hose Bore, Reinforcement Diameter, Braid Wall, Cover Thickness and Concentricity of RYCO hoses are typically half the tolerance specified by SAE and EN/DIN standards.

All hoses and all fittings are not equal, "RYCO fittings are designed, matched and qualified for use with RYCO hose."

All RYCO hydraulic hose and fittings are designed and manufactured to meet and exceed relevant industry standards. RYCO produces hydraulic hose that is dimensionally consistent and when matched with RYCO fittings, results in increased safety and performance.



SAFETY SAYS
"DO NOT MIX 'N' MATCH OR ELSE PAY THE PRICE!"

INTRODUCTION

IMPORTANT INFORMATION: HOSE COUPLING PART NUMBER CHANGES

RYCO's dedication to customer service is paramount. That's why we are constantly expanding our range of hose couplings to meet all of your application needs. In 2012, RYCO updated and improved the part numbering system, which was seamlessly integrated across the product range.

This new part numbering system entailed adding an extra numeric character to 2-digit end style (thread/connector termination) codes, and converting most alpha-numeric end styles to a 3-digit code. The exceptions to this rule are the following:

"N" will remain in the end style coding where "N" currently represents NPT or NPSM

"S" will replace current "SS" in the end style coding where "SS" currently represents Stainless Steel material

"B" will remain in the end style coding where "B" currently represents Brass material.

These changes are further highlighted and explained in the examples provided herein on pages 158 and 159, with a cross-reference of Previous to New end style codes listed in the Index by Endstyle Number on pages 170 to 174 in the Couplings section.

To maintain high levels of Customer Service, traceability and accurate product identification, for many years RYCO has been branding both ferrules and inserts of hose couplings. RYCO will continue to provide this level of detail on hose couplings (including ferrules and inserts) bearing the new part numbering format. There will be no change to the identification grooves that currently exist, except for those new hose coupling series' for which the basic markings/branding are represented on the graphics herein and in the RYCO Crimp Chart.

The basic nomenclature for identifying New to Previous hose coupling series' is as follows:

| ONE-PIECE COUPLING SERIES | | TWO-PIECE COUPLING SERIES | | | | FIELD-ATTACHABLE AND PUSH-ON COUPLING SERIES | | | |
|---------------------------|---------------|------------------------------|---------------|------------------------------|---------------|--|---------------|------------------------------|---------------|
| NEW | PREVIOUS | NEW | | PREVIOUS | | NEW | | PREVIOUS | |
| Series | Series | Coupling/ Ferrule | Insert | Coupling/ Ferrule | Insert | Coupling/ Ferrule | Insert | Coupling/ Ferrule | Insert |
| T1000 | — | 69000N | 9000N | 6900N | 900N | 8000 | — | 800 | — |
| T2000 | T200 | 1G000 | G000 | 1G00 | G00 | 33000 | — | 3300 | — |
| T4000 | T400 | | | | | K000 | 6000 | K00 | 600 |
| T7000 | T700 | | | | | L000 | 6000 | L00 | 600 |
| T9000 | T900 | | | | | M000 | 6000 | 400 | 600 |
| TT000 | 1100/RT00* | | | | | P000 | 6000 | — | — |
| | | | | | | V000 | 6000 | V00 | 600 |

*TT000 replaces the Two Piece 1100 Ferrule and RT00 insert.

It should be noted that the following remain identical for a coupling branded with the new part numbering convention and its equivalent part branded with the previous part numbering convention:

- assembly parameters (crimp diameters, mark length and skive lengths)
- performance
- design
- scope of application.

In addition to the hose coupling part numbering change, the following applies:

- The part number change was effective as of the January 2013 Price List
- Parts supplied and invoiced under either the new part number or the equivalent previous part number will be of identical price, including discount (excluding agreements over and above pricing listed in current Price List)
- Parts supplied under the new part number may reflect previous part number branding
- Both new and previous part numbers will appear on each invoice line until further notice
- Both new and previous couplings series are matched to the same range of RYCO hoses as listed in current RYCO literature (unless otherwise stated), and should be assembled as per the current RYCO Crimp Chart
- Thread/Connector and Hose Dash Size numbering remains unchanged.

One of the many, well recognised advantages of RYCO Hydraulics products is that virtually all parts are branded with the RYCO name and Part Number, making for easy identification and reducing the chance for errors.

The Part Number includes the Size of the Hose, or Thread or Connector ("Dash Size Part Numbering").

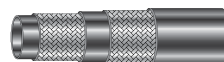
ESSENTIALLY:

IMPERIAL DIMENSIONS are expressed as the number of SIXTEENTHS of an inch.
 METRIC DIMENSIONS are expressed as the number of MILLIMETRES.
 Further explanation is given on the following pages.

FOR EXAMPLE:

1. **T26A** is T2A Series two wire braid non-skive hose:

-6 = 6/16" = 3/8" inside diameter.



2. **T2040-0812** is a T2040 JIC Female Coupling with:

Hose Size -08 = 8/16" = 1/2"

Thread Size -12 = 12/16" = 3/4"



3. **M75S-2208** is an M75S Adaptor with:

Thread A -22 = 22 mm Metric thread one end and

Thread B -08 = 8/16" = 1/2" BSPP thread other end.



4. **S27-0202**

S27 is BSPT Male Nipple Series

-0202 is size 1/8" by 1/8".

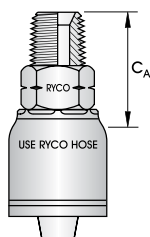


The size is clearly incorporated in the Part Number.

With a little familiarity, and by following the simple guidelines on the next pages, you will find that you can specify Part Numbers without needing to refer to the Product Technical Manual.

NPT **T2090**

60° SEAT



HOSE COUPLINGS

Part No. **T2090-0406**

T2090 is the Group Designator for NPT Male T2000 Series BITELOK One-Piece Crimp Couplings.

T2090-0406 T2000 T2000 Series BITELOK One-Piece Crimp Couplings

T2090-0406 090 NPT Male (End Style Termination)

T2090-0406 0406 is the Size Designator (Dash Size) (Hose Size then Thread Size)

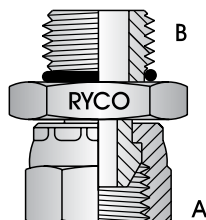
T2090-0406 04 Hose Size 4/16" = 1/4"

T2090-0406 06 Thread Size 6/16" = 3/8"

| HOSE SIZE | | THREAD SIZE | DASH SIZE | NPT MALE |
|-----------|------|-------------|-----------|-------------------|
| DN | inch | inch | | PART NO |
| 6 | 1/4 | 1/8 | -0402 | T2090-0402 |
| 6 | 1/4 | 1/4 | -0404 | T2090-0404 |
| 6 | 1/4 | 3/8 | -0406 | T2090-0406 |

BSP/UNO **S95**

STRAIGHT



ADAPTORS

Part No. **S95-0409**

S95 is the Group Designator for BSPP Female Swivel to UN O Ring Male

S95-0409 BSPP Female Swivel to UN O Ring Male

S95-0409 is the Dash Size (A end then B end)

S95-0409 4/16" Thread Size = 1/4"

S95-0409 9/16" Thread Size

| THREAD SIZE | | DASH SIZE | BSP FEMALE SWIVEL UN O RING MALE |
|-------------|------|-----------|----------------------------------|
| A | B | | PART NO |
| 1/8 | 7/16 | -0207 | |
| 1/4 | 9/16 | -0409 | S95-0409 |

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DASH SIZE PART NUMBERING

RYCO “DASH SIZE” DEFINITIONS

The “Dash Size” of a Hose, Coupling, Thread or Connector is:

1. FOR HOSE

The number of SIXTEENTHS of an inch in the Inside Diameter.

2. FOR THREADS OR CONNECTORS WITH IMPERIAL DIMENSIONS

a) JIC, SAE Threads, ORFS, UNO: the number of SIXTEENTHS of an inch in the size of the Male Thread.

b) BSP, NPT, SAE Flange, RYCO WEO, HAMMER UNION: the number of SIXTEENTHS of an inch in the Nominal Size of the Connector.

c) Tubing and Tube Bite: the number of SIXTEENTHS of an inch in the Outside Diameter of the Tube.

3. FOR THREADS OR CONNECTORS WITH METRIC DIMENSIONS

a) the number of MILLIMETRES in the OD of the Male Thread (pitch of thread is sometimes included).

b) Tubing and Tube Bite: the number of MILLIMETRES in the Outside Diameter of the Tube.

4. FOR CROCBITE, RKV, STAPLELOK & SUPERLOK COUPLINGS

The nominal size of the Coupling in MILLIMETRES.

5. FOR QUICK RELEASE COUPLINGS

The nominal size of the Coupling in SIXTEENTHS of an inch.

6. FOR HOSE PROTECTION

RWA, RH, RCS Inside Diameter in MILLIMETRES.

FS1072 Inside Diameter in SIXTEENTHS of an inch.

RSG/RSGY/RSGF Outside Diameter in MILLIMETRES.

7. FOR HYDRAULIC FILTERS EXCEPTION TO RULE.

Hydraulic Filters are dash sized for the number of EIGHTHS of an inch in the port size of the Filter.

RULES FOR “DASH SIZE” PART NUMBERING

HYDRAULIC HOSE

Part Number comprises the Hose Series Number followed by the Dash Size.

Note: For Dash Sizes -02, -03, -04, -05, -06 and -08 the “0” is not included in the Part Number except for Spiral Hose and Isobaric Hose.

Hose Series Numbers are shown in Hose Pictorial Index on pages 34 to 40.

Dash Sizes are shown in the Quick Reference Chart on page 32.

EXAMPLES

-16 size SRF Series Hose is SRF16

-12 size M2 Series Hose is M212

-10 size RTH1 Series Hose is RTH110

-08 size R4SPA Series (Spiral) Hose is R4SP08

NOTE

If there are letters at the end of the Hose Series Number, Dash Size comes before letters.

T3000A, T3000D, T3000S, T4000A, T4000D, T4000S, T5000A, T5000D, T5000S, T6000A, T6000D, T6000S, H3000A, H3000D, H3000S, H4000A, H4000D, H4000S, H5000A, H5000D, H5000S, H6000A, H6000D, H6000S, DF2A, D2B, H12A, H12D, H12S, M2G, PL1D, R4SHA, R4SHD, R4SPA, R4SPD, TP7N, TP7T, TP7TN, TP8N, TP8T, TP8TN, T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, TJ2D, TXA2D.

EXAMPLES

-32 size H6000D Series Hose is H6032D

-20 size H12A Series Hose is H1220A

-06 size DF2A Series Hose is DF26A

-06 size TP7TN Series hose is TP76TN

HOSE COUPLINGS

Part Numbers comprise Coupling Series and End Style Number followed by the Dash Size of the Hose and the Dash Size of either the Thread or Connector Size. Coupling Series and End Style Numbers are described at start of Hose Coupling Section. (See page 156 and pages 170 to 174).

EXAMPLES

T2000 BITELOK ONE-PIECE CRIMP COUPLING

3/4" hose x 1.1/16" JIC Female

Order Part No. T2040-1217

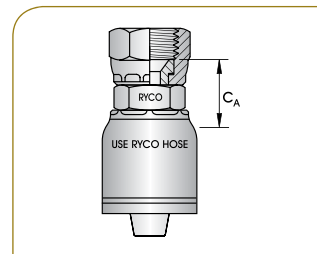
T2040-1217 T200 Series Coupling

T2040-1217 JIC Female End Style

T2040-1217 is the Size Designator (Dash Size),
(Hose Size then Thread Size)

T2040-1217 -12 = 12/16" = 3/4" hose

T2040-1217 -17 = 17/16" = 1.1/16" thread



FIELD ATTACHABLE INSERT

1/2" BSPT Male for 3/8" hose.

Order Part No. 6010-0608

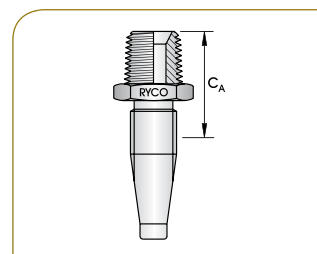
6010-0608 600 Series Insert

6010-0608 BSPT Male End Style

6010-0608 is the Size Designator (Dash Size),
(Hose Size then Thread Size)

6010-0608 -06 = 6/16" = 3/8" hose

6010-0608 -08 = 8/16" = 1/2" thread



ADAPTORS

Part Numbers comprise of Group Designator followed by Dash Size.

(Group Designators are shown in Adaptors Pictorial Index pages 296 to 303).

EXAMPLES

NPT MALE TO NPT MALE NIPPLE (STRAIGHT)

3/4" NPT Male x 1/4" NPT Male Nipple

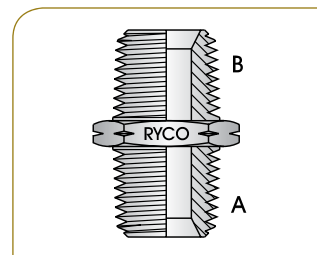
Order Part No. S27N-1208

S27N-1208 Group Designator for NPT Male Nipple

S27N-1208 is the Dash Size (A end then B end)

S27N-1208 -12 = 12/16" = 3/4" thread (A)

S27N-1208 -08 = 8/16" = 1/2" thread (B)



JIC MALE TO UNO RING MALE 90 ELBOW

3/4" JIC Male x 1.5/16" UNO Ring Male 90 Elbow

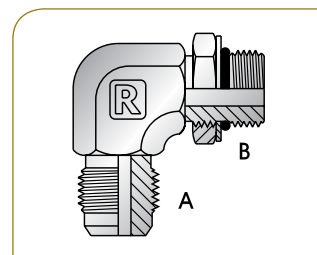
Order Part No. S91-1221

S91-1221 Group Designator for NPT Male Nipple

S91-1221 is the Dash Size (A end then B end)

S91-1221 -12 = 12/16" = 3/4" thread (JIC) (A)

S91-1221 -21 = 21/16" = 1.5/16" thread (UNO) (B)



There are supplementary rules which determine the listing order for multi-ended adaptors. These rules are shown in detail on pages 294 to 295.

See page 521 for Important Note regarding Thread Dash Sizes/Tube Dash Sizes.

INTRODUCTION

DASH SIZE PART NUMBERING

QUICK REFERENCE CHART OF DASH SIZE EQUIVALENTS

EXAMPLE: Find Dash Size for 1.5/16" JIC thread. Read down JIC & UNO column until 1.5/16" is reached.
Read off Dash Size in far left column (-21).

| DASH SIZE | * INCH | BSP INCH-TPI | NPT INCH-TPI | JIC & UNO INCH-TPI | SAE FLARE INCH-TPI | ORFS INCH-TPI |
|-----------|---------|--------------|----------------|--------------------|--------------------|---------------|
| -02 | 1/8 | 1/8 - 28 | 1/8 - 27 | | | |
| -03 | 3/16 | | | | | |
| -04 | 1/4 | 1/4 - 19 | 1/4 - 18 | | | |
| -05 | 5/16 | | | 5/16 - 24 | 5/16 - 24 | |
| -06 | 3/8 | 3/8 - 19 | 3/8 - 18 | 3/8 - 24 | 3/8 - 24 | |
| -07 | 7/16 | | | 7/16 - 20 | 7/16 - 20 | |
| -08 | 1/2 | 1/2 - 14 | 1/2 - 14 | 1/2 - 20 | 1/2 - 20 | |
| -09 | 9/16 | | | 9/16 - 18 | | 9/16 - 18 |
| -10 | 5/8 | 5/8 - 14 | | | 5/8 - 18 | |
| -11 | 11/16 | | | | | 11/16 - 16 |
| -12 | 3/4 | 3/4 - 14 | 3/4 - 14 | 3/4 - 16 | 3/4 - 16 | |
| -13 | 13/16 | | | | | 13/16 - 16 |
| -14 | 7/8 | | | 7/8 - 14 | 7/8 - 14 | |
| -15 | 15/16 | | | | | |
| -16 | 1 | 1 - 11 | 1 - 11.1/2 | | | 1 - 14 |
| -17 | 1.1/16 | | | 1.1/16 - 12 | 1.1/16 - 14 | |
| -18 | 1.1/8 | | | | | |
| -19 | 1.3/16 | | | | | 1.3/16 - 12 |
| -20 | 1.1/4 | 1.1/4 - 11 | 1.1/4 - 11.1/2 | | | |
| -21 | 1.5/16 | | | 1.5/16 - 12 | | |
| -22 | 1.3/8 | | | | | |
| -23 | 1.7/16 | | | | | 1.7/16 - 12 |
| -24 | 1.1/2 | 1.1/2 - 11 | 1.1/2 - 11.1/2 | | | |
| -25 | 1.9/16 | | | | | |
| -26 | 1.5/8 | | | 1.5/8 - 12 | | |
| -27 | 1.11/16 | | | | | 1.11/16 - 12 |
| -28 | 1.3/4 | | | | | |
| -29 | 1.13/16 | | | | | |
| -30 | 1.7/8 | | | 1.7/8 - 12 | | |
| -31 | 1.15/16 | | | | | |
| -32 | 2 | 2 - 11 | 2 - 11.1/2 | | | 2 - 12 |
| -33 | 2.1/16 | | | | | |
| -36 | 2.1/4 | | | | | |
| -40 | 2.1/2 | 2.1/2 - 11 | 2.1/2 - 8 | 2.1/2 - 12 | | |
| -42 | 2.5/8 | | | | | |
| -48 | 3 | 3 - 11 | | 3 - 8 | | |
| -50 | 3.1/8 | | | | | |
| -52 | 3.1/4 | | | | | |
| -60 | 3.3/4 | | | | | |
| -63 | 3.15/16 | | | | | |
| -75 | 4.11/16 | | | | | |

| DASH SIZE | ** MM | METRIC MM X PITCH |
|-----------|-------|--------------------------------------|
| -02 | 2 | |
| -03 | 3 | |
| -04 | 4 | |
| -05 | 5 | |
| -06 | 6 | |
| -07 | 7 | |
| -08 | 8 | |
| -09 | 9 | |
| -10 | 10 | |
| -11 | 11 | |
| -12 | 12 | |
| -13 | 13 | |
| -14 | 14 | 14 x 1,5 (-1415) |
| -15 | 15 | |
| -16 | 16 | 16 x 1,5 (-1615) |
| -17 | 17 | |
| -18 | 18 | 18 x 1,5 (-1815) |
| -19 | 19 | |
| -20 | 20 | 20 x 1,5 (-2015) |
| -21 | 21 | |
| -22 | 22 | 22 x 1,5 (-2215) |
| -23 | 23 | |
| -24 | 24 | 24 x 1,5 (-2415) |
| -25 | 25 | |
| -26 | 26 | 26 x 1,5 (-2615) |
| -27 | 27 | |
| -28 | 28 | |
| -29 | 29 | |
| -30 | 30 | 30 x 1,5 (-3015) 30 x 2,0 (-3020) |
| -31 | 31 | |
| -32 | 32 | |
| -33 | 33 | 33 x 1,5 (-3315) |
| -36 | 36 | 36 x 1,5 (-3615) 36 x 2,0 (-3620) |
| -40 | 40 | |
| -42 | 42 | 42 x 1,5 (-4215) 42 x 2,0 (-4220) |
| -48 | 48 | |
| -50 | 50 | 50 x 2,0 (-5020) |
| -52 | 52 | 52 x 2,0 (-5220) |
| -60 | 60 | 60 x 2,0 (-6020) |
| -63 | 63 | |
| -75 | 75 | |

***INCH COLUMN IS USED FOR:**

- Hose ID.
- Imperial Tube OD.
- FS1072 FIRE SLEEVE ID.
- Nominal size of SAE FLANGE.
- Nominal size of Quick Release Coupling.

****MM COLUMN IS USED FOR:**

- Metric Tube OD.
- Nominal size of CROCBITE, RKV, STAPLELOK and SUPERLOK Couplings.

■ HYDRAULIC HOSE



HOSE

PICTORIAL INDEX

| HOSE SERIES | | INSIDE DIAMETER | RECOMMENDED | CONSTRUCTION | PERFORMANCE SPECIFICATIONS MET OR EXCEEDED | COUPLING SERIES | |
|-----------------------|---------------------------|---|-----------------------------------|---|---|----------------------------|----------------|
| ISOBARIC BRAID | | | | | | | |
| 61 | T3000A AVENGER™ |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | ISO 18752-BC SAE 100R17 | T1000 T2000 |
| 62 | T3000D DIEHARD™ |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | ISO 18752-BC SAE 100R17 | T1000 T2000 |
| 63 | T3000S SLIDER™ |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene cover. | ISO 18752-BC SAE 100R17 | T1000 T2000 |
| 64 | T3600A AVENGER™ |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | ISO 18752-BC | T1000 T2000 |
| 65 | T3600D DIEHARD™ |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | ISO 18752-BC | T1000 T2000 |
| 66 | T3600S SLIDER™ |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene cover. | ISO 18752-BC | T1000 T2000 |
| 67 | T4000A AVENGER™ |  | -04 to -12 1/4" to 3/4" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | ISO 18752-AC SAE 100R19 | T2000 |
| 68 | T4000D DIEHARD™ |  | -04 to -12 1/4" to 3/4" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | ISO 18752-AC SAE 100R19 | T2000 |
| 69 | T4000S SLIDER™ |  | -04 to -12 1/4" to 3/4" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | ISO 18752-AC SAE 100R19 | T2000 |
| 70 | T5000A AVENGER™ |  | -04 to -08 1/4" to 1/2" | Very high pressure hydraulic oil lines. | Black, oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Black, oil and abrasion resistant synthetic rubber cover. | ISO 18752-AC | T2000 |
| 71 | T5000D DIEHARD™ |  | -04 to -08 1/4" to 1/2" | Very high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | ISO 18752-AC | T2000 |
| 72 | T5000S SLIDER™ |  | -04 to -08 1/4" to 1/2" | Very high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | ISO 18752-AC | T2000 |

| HOSE SERIES | | INSIDE DIAMETER | RECOMMENDED | CONSTRUCTION | PERFORMANCE SPECIFICATIONS MET OR EXCEEDED | COUPLING SERIES |
|------------------------------|---------------------------|---|----------------------------|--|--|--|
| ISOBARIC BRAID (CONT) | | | | | | |
| 73 | T6000A AVENGER™ |  | -04 to -06 1/4" to 3/8" | Extremely high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | ISO 18752-AC T2000 |
| 74 | T6000D DIEHARD™ |  | -04 to -06 1/4" to 3/8" | Extremely high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | ISO 18752-AC T2000 |
| 75 | T6000S SLIDER™ |  | -04 to -06 1/4" to 3/8" | Extremely high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | ISO 18752-AC T2000 |
| ISOBARIC SPIRAL | | | | | | |
| 76 | H3000A AVENGER™ |  | -20 to -32 1.1/4" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12 T7000 |
| 77 | H3000D DIEHARD™ |  | -20 to -32 1.1/4" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12 T7000 |
| 78 | H3000S SLIDER™ |  | -20 to -32 1.1/4" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12 T7000 |
| 79 | H4000A AVENGER™ |  | -06 to -32 3/8" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12 T7000 |
| 80 | H4000D DIEHARD™ |  | -06 to -32 3/8" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12 T7000 |
| 81 | H4000S SLIDER™ |  | -06 to -32 3/8" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12 T7000 |
| 82 | H5000A AVENGER™ |  | -06 to -32 3/8" to 2" | Very high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | EN 856 Type R13 ISO 18752-CC SAE 100R13 T7000 T9000 |
| 83 | H5000D DIEHARD™ |  | -06 to -32 3/8" to 2" | Very high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | EN 856 Type R13 ISO 18752-CC SAE 100R13 T7000 T9000 |
| 84 | H5000S SLIDER™ |  | -06 to -32 3/8" to 2" | Very high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | EN 856 Type R13 ISO 18752-CC SAE 100R13 T7000 T9000 |

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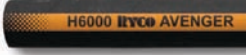


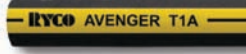




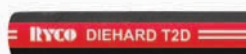
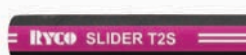
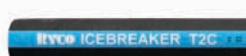

ACCESSORIES

FILTERS

TECHNICAL

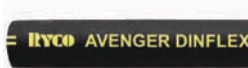

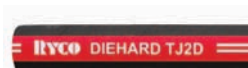
HOSE

PICTORIAL INDEX





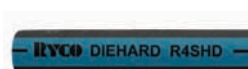
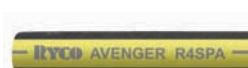

| HOSE SERIES | | INSIDE DIAMETER | RECOMMENDED | CONSTRUCTION | PERFORMANCE SPECIFICATIONS MET OR EXCEEDED | COUPLING SERIES | |
|-------------------------------|--------------------------------|---|----------------------------------|---|---|--|---------------------------------|
| ISOBARIC SPIRAL (CONT) | | | | | | | |
| 85 | H6000A AVENGER™ |  | -06 to -32 3/8" to 2" | Extremely high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four, six or eight alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | EN 856 Type R15 ISO 18752-CC SAE 100R15 | T7000 T9000 6900N (Skive) |
| 86 | H6000D DIEHARD™ |  | -06 to -32 3/8" to 2" | Extremely high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four, six or eight alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | EN 856 Type R15 ISO 18752-CC SAE 100R15 | T7000 T9000 6900N (Skive) |
| 87 | H6000S SLIDER™ |  | -06 to -32 3/8" to 2" | Extremely high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four, six or eight alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | ISO 3862 Type R15 ISO 18752-CC SAE 100R15 | T7000 T9000 6900N (Skive) |
| BRAID | | | | | | | |
| 88 | T1A AVENGER™ |  | -03 to -32 3/16" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | AS 3791 100R1AT DIN 20022-15N EN 853 Type 15N ISO 1436 Types R1AT & 15N SAE 100R1AT | T2000 T7000 6000 (K000) |
| 89 | T1D DIEHARD™ |  | -03 to -32 3/16" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | AS 3791 100R1AT DIN 20022-15N EN 853 Type 15N ISO 1436 Types R1AT & 15N SAE 100R1AT | T2000 T7000 6000 (K000) |
| 90 | T1S SLIDER™ |  | -03 to -32 3/16" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | AS 3791 100R1AT DIN 20022-15N EN 853 Type 15N ISO 1436 Types R1AT & 15N SAE 100R1AT | T2000 T7000 |
| 91 | T1F FIRE SUPPRESSION |  | -03 to -16 3/16" to 1" | Fire Suppression Systems of off-road vehicles, mining equipment, stationary engines, etc. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Red, heat resistant, abrasion resistant and oil resistant rubber cover. | AS 3791 100R1AT DIN 20022-15N EN 853 Type 15N ISO 1436 Types R1AT & 15N SAE 100R1AT | T2000 T7000 6000 (K000) |
| 92 | T2A AVENGER™ |  | -04 to -48 1/4" to 3" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | AS 3791 100R2AT DIN 20022-25N EN 853 Type 25N ISO 1436 Types R2AT & 25N SAE 100R2AT | T2000 T7000 6000 (L000) |
| 93 | T2D DIEHARD™ |  | -04 to -48 1/4" to 3" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | AS 3791 100R2AT DIN 20022-25N EN 853 Type 25N ISO 1436 Types R2AT & 25N SAE 100R2AT | T2000 T7000 6000 (L000) |
| 94 | T2S SLIDER™ |  | -04 to -32 1/4" to 2" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | AS 3791 100R2AT DIN 20022-25N EN 853 Type 25N ISO 1436 Type 2AT SAE 100R2AT | T2000 T7000 |
| 95 | T2C ICEBREAKER |  | -04 to -32 1/4" to 2" | High pressure hydraulic oil lines in applications where low temperature environmental conditions exist. | Specially formulated oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | AS 3791 100R2AT DIN 20022-25N EN 853 Type 25N ISO 1436 Types R2AT & 25N SAE 100R2AT | T2000 T7000 |
| 96 | TXA2D DIEHARD™ |  | -08 to -16 1/2" to 1" | Extra high pressure hydraulic oil lines where pressure exceeds 100R2 by at least 30%. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | AS 3791 100R2AT BCS 174 DIN 20022-25N EN 853 Type 25N ISO 1436 Types R2AT & 25N SAE 100R2AT | T2000 T7000 6000 (L000) |

| HOSE SERIES | | INSIDE DIAMETER | RECOMMENDED | CONSTRUCTION | PERFORMANCE SPECIFICATIONS MET OR EXCEEDED | COUPLING SERIES |
|-------------|--|-----------------|-------------|--------------|--|-----------------|
|-------------|--|-----------------|-------------|--------------|--|-----------------|

BRAID (CONT)

| | | | | | | |
|-----|------------------------------|---|----------------------------------|--|--|--|
| 97 | DF2A AVENGER™ |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | AS 3791 100R2AT EN 857 Type 25C ISO 1436 SAE 100R2AT SAE 100R16 T2000 |
| 100 | E2 ENERGY |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant synthetic rubber cover. | EN853 2SN SAE 100R2AT SAE 100R2S T2000 T7000 6000 (L000) |
| 98 | TJ2D DIEHARD™ JACK |  | -04 to -06 1/4" & 3/8" | Hydraulic Jack applications requiring a light weight, small outside diameter hose. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | Materials Handling Institute specification IJ 100 (July 1979) T2000 |

SPIRAL

| | | | | | | |
|-----|--------------------------|---|-------------------------------------|--|---|---|
| 101 | H12A AVENGER™ |  | -06 to -32 3/8" to 2" | Very high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | AS 3791 100R12 EN 856 Type R12 EN 856 Type 45P (-12 and above) ISO 3862 Type R12 SAE 100R12 T7000 |
| 102 | H12D DIEHARD™ |  | -06 to -40 3/8" to 2.1/2" | Very high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | AS 3791 100R12 EN 856 Type R12 EN 856 Type 45P (-12 and above) ISO 3862 Type R12 SAE 100R12 T7000 |
| 103 | H12S SLIDER™ |  | -06 to -32 3/8" to 3" | Very high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene. | AS 3791 100R12 EN 856 Type R12 EN 856 Type 45P (-12 and above) ISO 3862 Type R12 SAE 100R12 T7000 |
| 104 | R4SHA AVENGER™ |  | -12 to -32 3/4" to 2" | Extra high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | EN 856 Type 45H ISO 3862 Type 45H T7000 T9000 |
| 105 | R4SHD DIEHARD™ |  | -12 to -32 3/4" to 2" | Extra high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | EN 856 Type 45H ISO 3862 Type 45H T7000 T9000 |
| 106 | R4SPA AVENGER™ |  | -06 to -16 3/8" to 1" | Extra high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | EN 856 Type 45P ISO 3862 Type 45P T7000 (Skive) |
| 107 | R4SPD DIEHARD™ |  | -06 to -16 3/8" to 1" | Extra high pressure hydraulic oil lines. | Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover. | EN 856 Type 45P ISO 3862 Type 45P T7000 (Skive) |

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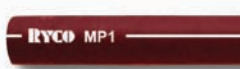

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| HOSE SERIES | | INSIDE DIAMETER | RECOMMENDED | CONSTRUCTION | PERFORMANCE SPECIFICATIONS MET OR EXCEEDED | COUPLING SERIES |
|---------------------------------------|----------------------------------|---|----------------------------|---|---|--|
| SPECIALTY AND HIGH TEMPERATURE | | | | | | |
| 108 | T5 TRUCKER |  | -04 to -32 1/4" to 2" | Medium to high pressure hydraulic oil applications. | Oil resistant synthetic rubber tube. Polyester inner braid covered with one braid of high tensile steel wire reinforcement. Polyester braid cover. | AS 3791 100R5 SAE 100R5 SAE J1402 Type All (up to -12 size) T4000 V000 |
| 109 | D2B DRILLER |  | -24 to -32 1.1/2" to 2" | Hydraulic oil or air lines. Drill rigs - high pressure, large bore air hose. | Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | T7000 |
| 110 | MS1000 MINESPRAY |  | -08 to -32 1/2" to 2" | Water and air spray suited for dust control in all industrial and mining applications. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | T2000 T4000 |
| 111 | CS1000 COALSPRAY |  | -08 to -32 1/2" to 2" | Water and air spray suited for dust control in all industrial and mining applications. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | T2000 T4000 |
| 112 | BT1 BIOTRANS |  | -04 to -16 1/4" to 1" | Transportation, marine fuel and engine hose applications. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. | SAE J1527 Type Class I SAE J30R2 (non-marine) USCG SAE J1942 T2000 6000 (K000) |
| 114 | RQP1 SURVIVOR™ |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required. | Synthetic rubber tube, compounded for temperature resistance and multi fluid resistance. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | AS 3791 100R1AT DIN 20022-1SN EN 853 Type 1SN ISO 1436 Types R1AT & 1SN SAE 100R1AT T2000 T7000 6000 (K000) |
| 115 | RQP2 SURVIVOR™ |  | -04 to -32 1/4" to 2" | High pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required. | Synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | AS 3791 100R2AT DIN 20022-2SN EN 853 Type 2SN ISO 1436 Types R2AT & 2SN SAE 100R2AT T2000 T7000 6000 (L000) |
| 116 | RQP5 SURVIVOR™ |  | -04 to -32 1/4" to 2" | Medium to high pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required. | Oil resistant synthetic rubber tube. Polyester inner braid covered with one braid of high tensile steel wire reinforcement. Polyester braid cover. | AS 3791 100R5 SAE 100R5 SAE J1402 Type All (up to -12 size) T4000 V000 |
| 117 | RQP6 SURVIVOR™ PUSH-ON |  | -04 to -12 1/4" to 3/4" | Hydraulic oil lines, transmission oil cooler lines, glycol antifreeze solutions, water, diesel fuels and air. | Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6 T4000 8000 |
| PRESSURE WASHER | | | | | | |
| 118 | TW1 TORNADO WASHER |  | -06 to -08 3/8" to 1/2" | Hot water pressure washer machines. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Synthetic rubber, oil, chicken fat and abrasion resistant cover. | T2000 |
| 119 | PW2 PRESSURE WASHER |  | -04 to -06 1/4" to 3/8" | Hot water pressure washer applications. | Heat resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | T2000 |

*Fitted as factory hose only

| HOSE SERIES | | INSIDE DIAMETER | RECOMMENDED | CONSTRUCTION | PERFORMANCE SPECIFICATIONS MET OR EXCEEDED | COUPLING SERIES |
|---------------------------|-------------------------------|---|-------------------------------------|---|---|--|
| SUCTION AND RETURN | | | | | | |
| 120 | SR SUCTION |  | -12 to -48 3/4" to 3" | Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines. | Oil resistant synthetic rubber tube. Textile reinforcement with spiral wire to prevent collapsing. Oil resistant and abrasion resistant synthetic rubber cover. | AS 3791 100R4 (except SR48) SAE 100R4 33000 T4000 |
| 121 | SRF COMPACT SUCTION |  | -12 to -32 3/4" to 2" | Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines. | Oil resistant synthetic rubber tube. Textile reinforcement with spiral wire to prevent collapsing. Oil resistant and abrasion resistant synthetic rubber cover. | AS 3791 100R4 SAE 100R4 33000 T4000 |
| TEFLON® | | | | | | |
| 122 | RTH1 TEFLON |  | -04 to -16 1/4" to 1" | High pressure hydraulic oil lines. Fluids at extremes of pressure and temperature. | PTFE tube (TEFLON®). One braid of high tensile Grade 304 stainless steel wire reinforcement. *DuPont Reg. TM | SAE 100R14. RTH112 meets ID and OD requirements of SAE 100R14. Other sizes have ID and OD different to SAE 100R14 TT000 |
| TEXTILE BRAID | | | | | | |
| 123 | FB2 BARRIER |  | -06 to -10 3/8" to 5/8" | Automotive air conditioning and refrigeration. Refrigerants R12, R134a, R22 & R114. | Synthetic rubber internal layer with Nylon Barrier tube. Two braids of synthetic yarn reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | SAE J2064 Type C Class II 1G000 |
| 124 | M1 FUEL LINE |  | -04 to -06 1/4" to 3/8" | Multi-purpose hose for use on fuel lines, PCV and EEC systems, and fuel return hose connections on diesel fuel injection systems. | Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant synthetic rubber cover. | SAE 30R7 N/A |
| 125 | MP1 MULTI-PURPOSE |  | -04 to -20 1/4" to 1.1/4" | Air, water, petroleum oils, kerosene and fuel oils. | Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | RMA Class A (tube) RMA Class B (cover) T4000 |
| 126 | M2 TEXTILE |  | -04 to -16 1/4" to 1" | Medium pressure hydraulic oil lines, antifreeze solutions, water. | Oil resistant synthetic rubber tube. Two textile braids reinforcement. Oil resistant and abrasion resistant synthetic rubber cover. | AS 3791 100R3 DIN 20021-2TE ISO 4079 Type R3 SAE 100R3 T4000 6000 (M000) |
| 128 | PL1 PUSH ON |  | -04 to -12 1/4" to 3/4" | Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air. | Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil and abrasion resistant synthetic rubber cover. | AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6 T4000 8000 |
| 129 | PL1D DIEHARD™ |  | -04 to -12 1/4" to 3/4" | Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air. | Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil and abrasion resistant synthetic rubber cover. | AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6 T4000 8000 |
| 127 | M2G LPG/C |  | -04 to -12 1/4" to 3/4" | Liquefied Petroleum Gas and Natural Gas. | Oil resistant synthetic rubber tube. Two textile braids reinforcement. Abrasion resistant synthetic rubber perforated cover. | AS/NZS 1869 Class C T4000 6000 (M000) |

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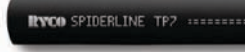

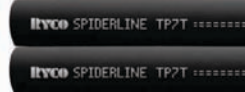


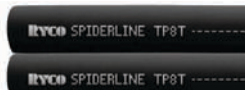


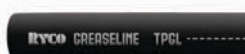

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| HOSE SERIES | | INSIDE DIAMETER | RECOMMENDED | CONSTRUCTION | PERFORMANCE SPECIFICATIONS MET OR EXCEEDED | COUPLING SERIES | |
|---------------------------------|-----------------------------------|---|-----------------------------------|---|--|--|----------------------|
| THERMOPLASTIC | | | | | | | |
| 132 | TP7 SPIDERLINE R7 |  | -03 to -16 3/16" to 1" | High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. | Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover. | AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7 | T1000 T4000 |
| 133 | TP7N ISOLATOR R7 |  | -04 to -16 1/4" to 1" | Hydraulic oil lines where electrical non-conductivity is required. | Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic cover. | AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7 | T1000 T4000 |
| 134 | TP7T SPIDERLINE TWIN R7 |  | -04 to -08 1/4" to 1/2" | Payout and return reels on forklifts and cranes, dispensing equipment and other applications requiring two hoses. | Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover. | AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7 | T1000 T4000 |
| 135 | TP7TN ISOLATOR TWIN R7 |  | -04 to -08 1/4" to 1/2" | Payout and return reels on forklifts and cranes, hydraulic powered hand tools and other applications requiring two hoses. | Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic cover. | AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7 | T1000 T4000 |
| 136 | TP8 SPIDERLINE R8 |  | -04 to -08 1/4" to 1/2" | High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. | Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover. | AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8 | T1000 |
| 137 | TP8N ISOLATOR R8 |  | -04 to -08 1/4" to 1/2" | Hydraulic oil lines where electrical non-conductivity is required. | Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic cover. | AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8 | T1000 |
| 138 | TP8T SPIDERLINE TWIN R8 |  | -04 to -08 1/4" to 1/2" | Payout and return reels on forklifts and cranes, dispensing equipment and other applications requiring two hoses. | Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover. | AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8 | T1000 |
| 139 | TP8TN ISOLATOR TWIN R8 |  | -04 to -08 1/4" to 1/2" | Payout and return reels on forklifts and cranes, hydraulic powered hand tools and other applications requiring two hoses. | Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic cover. | AS 3791 100R8 EN 855 Type R8 ISO 3949 SAE 100R8 | T1000 |
| 140 | TP3000 SPIDERLINE N8 |  | -04 to -08 1/4" to 1/2" | Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in forklift systems. | Polyester elastomer tube. One or two braids of synthetic fibre reinforcement. Special polyester, black with white ink-jet branding. Cover is perforated (pin-pricked). | SAE 100 R18 | T4000 |
| GREASING AND LUBRICATION | | | | | | | |
| 141 | TPGL GREASE LINE |  | -02 1/8" | High pressure greasing and lubrication systems. | Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover. | | TG000 6000 (P000) |
| 142 | R4000 |  | -03 3/16" | Flexible Grease Gun extension for high pressure greasing and lubrication systems. | Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover. | | — |

| HOSE PROTECTION | | INSIDE DIAMETER | RECOMMENDED | CONSTRUCTION | PERFORMANCE SPECIFICATIONS MET OR EXCEEDED | |
|-----------------|----------------------------------|---|---|---|--|--------------------------------|
| 144 | FS FIRE SLEEVE |  | -08 to -104 1/2" to 6.1/2" | Protection of hoses from heat and molten metal splashes. | Braided glass fibre tubing coated with silicon rubber. | SAE Aerospace Standard AS 1072 |
| 146 | RCS CROCSLEEVE |  | 23 to 129 mm 7/8" to 5" | Burst and pinhole protection. Protection of hoses from abrasion. Bundling hoses together. | Woven polyamide. RCSB - Black. RCSR - Red. | MSHA approved FRAS |
| 148 | RH RAWHIDE |  | 23 to 93 mm 7/8" to 3.5/8" | Protection of hoses from severe abrasion. Bundling hoses together. | Woven nylon tubing. | MSHA approved |
| 149 | RSG SPIRAL GUARD |  | 16 to 110 mm (OD) 5/8" to 4.1/2" | Protection of hoses from abrasion and impact. Bundling hoses together. | Polyethylene plastic spiral. Black. | |
| 149 | RSGF SPIRAL GUARD FRAS |  | 16 to 110 mm (OD) 5/8" to 4.1/2" | Protection of hoses from abrasion and impact. Bundling hoses together. | Polyethylene plastic spiral. Dark Grey. | MSHA approved FRAS |
| 149 | RSGY SPIRAL GUARD |  | 16 to 110 mm (OD) 5/8" to 4.1/2" | Protection of hoses from abrasion and impact. Bundling hoses together. | Polyethylene plastic spiral. Yellow. | |
| 150 | RWA PUSH ON |  | 12 to 75 mm 1/2" to 3" | Protection of hose cover from abrasion and gouges. | Spring Steel Wire, galvanised. | |
| 151 | RHYS PACKAGING SLEEVE |  | 48 & 79 mm 1.9" and 3.1" | Packaging and protection of hose assemblies during transport and storage. | Heavy duty, low density polyethylene sleeve. | |
| 152 | RHYT RHYT-10, -32 |  | Suits sizes -04 to -10 & -12 to -32 | Permanent identification of hose assemblies. | High performance plastic. | |
| 152 | RHWT RHWT-10, -32 |  | Suits sizes -04 to -10 & -12 to -32 | Permanent identification of hose assemblies. | High performance plastic. | |
| 153 | 750/760 SPRING GUARD |  | Suits some -04 (1/4") & -06 (3/8") hoses | Control bend radius at end of hose assemblies. | Spring Steel Wire, galvanised. | |

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RYCO

AVENGER

THE SMART CHOICE

ABRASION RESISTANT

MSHA - FLAME RESISTANT

H6000 **RYCO** AVENGER

H6032A 2"

RYCO QUALITY

The tables following on pages 43 to 49 list the approvals RYCO Hydraulics have with various third parties for hoses used in RYCO Matched Hose Assemblies. For each Certification Body/Organisation referenced in the table, listed is; the Approval/Certificate Number held by RYCO, and the Matched Coupling Series approved for the hose.

EXAMPLE:

A Hose Assembly using **T112A** needs to meet **Marine Equipment Directive (MED)** approval; the table shows:

The **MED Approval Number** for RYCO Hydraulics **T1A** Series Hose: **MED-B-3625**.

The **Matched Couplings** approved for use with **T112A** hose: **T2000 & T7000** Series BITELOK Crimp, and **K000** Series Field Attachable Couplings.

| RYCO HOSE TYPE APPROVALS | | | | | | | | | | | |
|--------------------------|----------|----------|----------|-------|-------|-------|-------|-------|-------|--|-------|
| HOSE SERIES | AVENGER | DIEHARD | SLIDER | | | | | | | | |
| T3000 | A | D | S | | | | | | | | |
| T3004 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T3005 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T3006 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T3008 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T3010 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T3012 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T3016 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T3600 | A | D | S | | | | | | | | |
| T3604 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T3605 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T3606 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T3608 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T3610 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T3612 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T3616 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T4000 | A | D | S | | | | | | | | |
| T4004 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T4005 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T4006 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T4008 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T4010 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T4012 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T5000 | A | D | S | | | | | | | | |
| T5004 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T5005 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T5006 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T5008 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T6000 | A | D | S | | | | | | | | |
| T6004 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T6005 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T6006 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |

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| RYCO HOSE TYPE APPROVALS | | | | | | | | | | | |
|--------------------------|----------|----------|----------|---|---|---|---|---|---|---|---|
| HOSE SERIES | AVENGER | DIEHARD | SLIDER |  |  |  |  |  |  |  |  |
| | A | D | S | ABS | DNV | GL | LR | MED | USCG | DOT | GOST-R |
| H3000 | A | D | S | | | | | | | | |
| H3020 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H3024 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H3032 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H4000 | A | D | S | | | | | | | | |
| H4006 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H4008 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H4010 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H4012 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H4016 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H4020 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H4024 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H4032 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H5000 | A | D | S | | | | | | | | |
| H5006 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H5008 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H5010 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H5012 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H5016 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H5020 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H5024 | • | • | • | T9000 | T9000 | T9000 | T9000 | T9000 | T9000 | | T9000 |
| H5032 | • | • | • | T9000 | T9000 | T9000 | T9000 | T9000 | T9000 | | T9000 |
| H6000 | A | D | S | | | | | | | | |
| H6006 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H6008 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H6010 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H6012 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H6016 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H6020 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H6024 | • | • | • | T9000 & 69000N | T9000 & 69000N | T9000 & 69000N | T9000 & 69000N | T9000 & 69000N | T9000 & 69000N | | T9000 & 69000N |
| H6032 | • | • | • | 69000N | 69000N | 69000N | 69000N | 69000N | 69000N | | 69000N |
| T1 | A | D | S | | | | | | | | |
| T13 | • | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T14 | • | • | • | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 | | T2000 & K000 |
| T15 | • | • | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T16 | • | • | • | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 | | T2000, T7000 & K000 |
| T18 | • | • | • | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 | | T2000, T7000 & K000 |
| T110 | • | • | • | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000 | | T2000, T7000 & K000 |
| T112 | • | • | • | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 | | T2000, T7000 & K000 |
| T116 | • | • | • | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T7000 | | T2000, T7000 & K000 |
| T120 | • | • | • | T2000, T7000 & A000 | T2000, T7000 & A000 | T2000, T7000 & A000 | T2000, T7000 & A000 | T2000, T7000 & A000 | T7000 | | T2000, T7000 & A000 |
| T124 | • | • | • | T7000 & A000 | T7000 & A000 | T7000 & A000 | T7000 & A000 | T7000 & A000 | T7000 | | T7000 & A000 |
| T132 | • | • | • | T7000 & A000 | T7000 & A000 | T7000 & A000 | T7000 & A000 | T7000 & A000 | T7000 | | T7000 & A000 |

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| RYCO HOSE TYPE APPROVALS | | | | | | | | | | | |
|--------------------------|----------|----------|----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|---------------------|
| HOSE SERIES | AVENGER | DIEHARD | SLIDER | | | | | | | | |
| T1 | | | | | | | | | | | |
| T13F | | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T14F | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | |
| T16F | | | | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | | |
| T18F | | | | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | | |
| T112F | | | | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | | |
| T2 | A | D | S | | | | | | | | |
| T24 | • | • | | T2000 & L000 | T2000 & L000 | T2000 & L000 | T2000 & L000 | T2000 & L000 | T2000 & L000 | | T2000 & L000 |
| T25 | • | • | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| T26 | • | • | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000 & T7000 | | T2000, T7000 & L000 |
| T28 | • | • | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000 & T7000 | | T2000, T7000 & L000 |
| T210 | • | • | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000 | | T2000, T7000 & L000 |
| T212 | • | • | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000 & T7000 | | T2000, T7000 & L000 |
| T216 | • | • | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T7000 | | T2000, T7000 & L000 |
| T220 | • | • | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T7000 | | T2000, T7000 & L000 |
| T224 | • | • | | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 | | T7000 & B000 |
| T232 | • | • | | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 | | T7000 & B000 |
| T240 | • | | | 12000 | 12000 | 12000 | 12000 | 12000 | 12000 | | 12000 |
| T2 | A | D | S | | | | | | | | |
| T24 | | | • | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | |
| T26 | | | • | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | | |
| T28 | | | • | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | | |
| T210 | | | • | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | | |
| T212 | | | • | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | | |
| T216 | | | • | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | | |
| T220 | | | • | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | T2000 & T7000 | | |
| T224 | | | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | |
| T232 | | | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | |
| DF2A | A | D | S | | | | | | | | |
| DF26A | • | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| DF28A | • | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| DF210A | • | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| DF212A | • | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| DF216A | • | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |

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DIEHARD

HOSE THAT WON'T SAY DIE

EXTRA ABRASION RESISTANT

FRAS - FLAME RESISTANT ANTI STATIC

H6000 RYCO DIEHARD

H6032D 2"

RYCO QUALITY

HIGHLY FLEXIBLE

| RYCO HOSE TYPE APPROVALS | | | | | | | | | | | |
|--------------------------|----------|----------|----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------|---------------------|
| HOSE SERIES | AVENGER | DIEHARD | SLIDER | ABS | DNV | GL | LR | MED | USCG | DOT | GOST-R |
| H12 | A | D | S | | | | | | | | |
| H1206 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H1208 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H1210 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H1212 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H1216 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H1220 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H1224 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| H1232 | • | • | • | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| BT1 | | | | | | | | | | | |
| BT14 | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | T2000 & K000 |
| BT15 | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | T2000 & K000 |
| BT16 | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | T2000 & K000 |
| BT18 | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | T2000 & K000 |
| BT110 | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | T2000 & K000 |
| BT112 | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | T2000 & K000 |
| BT116 | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | T2000 & K000 |
| RQP1 | | | | | | | | | | | |
| RQP14 | | | | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | T2000 & K000 | | T2000 & K000 |
| RQP15 | | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | | T2000 |
| RQP16 | | | | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | | T2000, T7000 & K000 |
| RQP18 | | | | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | | T2000, T7000 & K000 |
| RQP110 | | | | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | | T2000, T7000 & K000 |
| RQP112 | | | | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | | T2000, T7000 & K000 |
| RQP116 | | | | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | T2000, T7000 & K000 | | T2000, T7000 & K000 |
| RQP2 | | | | | | | | | | | |
| RQP24 | | | | T2000 & L000 | T2000 & L000 | T2000 & L000 | T2000 & L000 | T2000 & L000 | T2000 | T4000 & V000 | T2000 |
| RQP25 | | | | T2000 | T2000 | T2000 | T2000 | T2000 | T2000 | T4000 & V000 | T2000 |
| RQP26 | | | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T4000 & V000 | T2000, T7000 & L000 |
| RQP28 | | | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T4000 & V000 | T2000, T7000 & L000 |
| RQP210 | | | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T4000 & V000 | T2000, T7000 & L000 |
| RQP212 | | | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T4000 & V000 | T2000, T7000 & L000 |
| RQP216 | | | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | V000 | T2000, T7000 & L000 |
| RQP220 | | | | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T2000, T7000 & L000 | T7000 | V000 | T7000 |
| RQP224 | | | | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | V000 | T7000 & B000 |
| RQP232 | | | | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | T7000 & B000 | V000 | T7000 & B000 |

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| RYCO HOSE TYPE APPROVALS | | | | | | | | |
|--------------------------|---|---|--|--|---|--|---|--|
| HOSE SERIES |  ABS |  DNV |  GL |  LR |  MED |  USCG |  DOT |  GOST-R |
| RQP5 | | | | | | | | |
| RQP54 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 |
| RQP55 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 |
| RQP56 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 |
| RQP58 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 |
| RQP510 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 |
| RQP512 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 |
| RQP516 | V000 | V000 | V000 | V000 | V000 | V000 | V000 | V000 |
| RQP520 | V000 | V000 | V000 | V000 | V000 | V000 | V000 | V000 |
| RQP524 | V000 | V000 | V000 | V000 | V000 | V000 | V000 | V000 |
| RQP532 | V000 | V000 | V000 | V000 | V000 | V000 | V000 | V000 |
| T5 | | | | | | | | |
| T54 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | | T4000 & V000 |
| T55 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | | T4000 & V000 |
| T56 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | | T4000 & V000 |
| T58 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | | T4000 & V000 |
| T510 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | | T4000 & V000 |
| T512 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | T4000 & V000 | | T4000 & V000 |
| T516 | V000 | V000 | V000 | V000 | V000 | V000 | | V000 |
| T520 | V000 | V000 | V000 | V000 | V000 | V000 | | V000 |
| T524 | V000 | V000 | V000 | V000 | V000 | V000 | | V000 |
| T532 | V000 | V000 | V000 | V000 | V000 | V000 | | V000 |
| D2B | | | | | | | | |
| D224B | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| D232B | T7000 | T7000 | T7000 | T7000 | T7000 | T7000 | | T7000 |
| RTH1 | | | | | | | | |
| RTH14 | TT000 | TT000 | TT000 | TT000 | TT000 | TT000 | | TT000 |
| RTH16 | TT000 | TT000 | TT000 | TT000 | TT000 | TT000 | | TT000 |
| RTH18 | TT000 | TT000 | TT000 | TT000 | TT000 | TT000 | | TT000 |
| RTH110 | TT000 | TT000 | TT000 | TT000 | TT000 | TT000 | | TT000 |
| RTH112 | TT000 | TT000 | TT000 | TT000 | TT000 | TT000 | | TT000 |
| RTH116 | TT000 | TT000 | TT000 | TT000 | TT000 | TT000 | | TT000 |
| SR | | | | | | | | |
| SR12 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SR16 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SR20 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SR24 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SR32 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SR40 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |

* Refer to our website www.RYCO.com.au for current certificate approvals numbers.

| RYCO HOSE TYPE APPROVALS | | | | | | | | |
|--------------------------|-----|-----|----|----|-----|------|-----|--------|
| HOSE SERIES | ABS | DNV | GL | LR | MED | USCG | DOT | GOST-R |

| SRF | | | | | | | | |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--|---------------|
| SRF12 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SRF16 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SRF20 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SRF24 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |
| SRF32 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | T4000 & 33000 | | T4000 & 33000 |

| M2 | | | | | | | | |
|-------------|-------|-------|-------|-------|-------|-------|--|-------|
| M24 | T4000 | T4000 | T4000 | T4000 | T4000 | T4000 | | T4000 |
| M26 | T4000 | T4000 | T4000 | T4000 | T4000 | T4000 | | T4000 |
| M28 | T4000 | T4000 | T4000 | T4000 | T4000 | T4000 | | T4000 |
| M212 | T4000 | T4000 | T4000 | T4000 | T4000 | T4000 | | T4000 |

* Refer to our website www.RYCO.com.au for current certificate approvals numbers.

NOTE: MED/USCG approval must use FS1072 FIRESLEEVE for RTH1, SR, SRF, M2, T5 and RQP5.

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HOSE

COUPLINGS

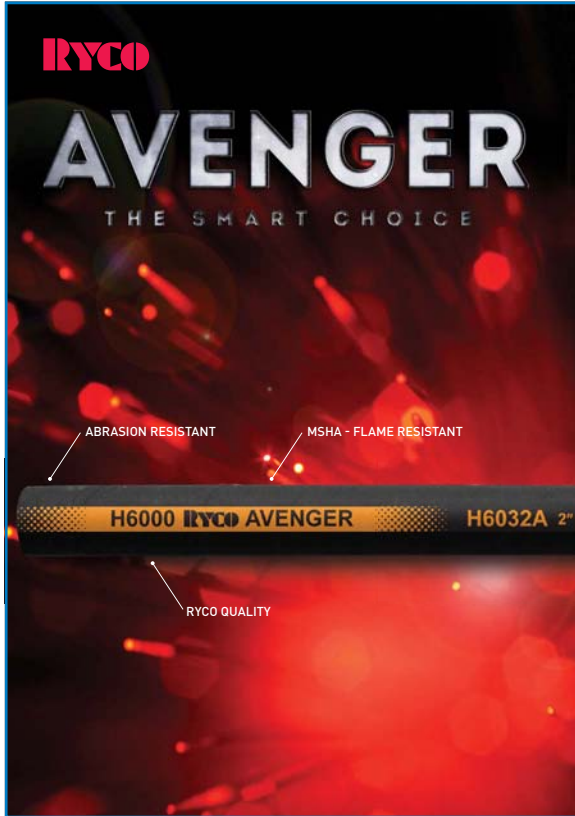
ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

HOSE COVERS



RYCO AVENGER™

THE SMART CHOICE

- **ABRASION RESISTANT**
- **MSHA FLAME RESISTANT**

AVENGER™ has a synthetic rubber cover compounded to resist abrasion and is specifically designed for multiple applications. The complete **AVENGER™** series meets MSHA Flame Resistant requirements.



RYCO DIEHARD™

HOSE THAT WON'T SAY DIE

- **EXTRA ABRASION RESISTANT**
- **MSHA FLAME RESISTANT**
- **FRAS FLAME RESISTANT & ANTI-STATIC**

DIEHARD™ has a synthetic rubber cover that is extra resistant to abrasion and complies with Flame Resistant and Anti-Static (FRAS) requirements of AS 2660 methods of test AS 1180.10B and AS 1180.13A, also meeting USA MSHA requirements. **DIEHARD™** complies with ISO 6945 method of test for abrasion resistance being less than 10% of the maximum weight loss allowed by EN 853, EN 856 and EN 857.

HYDRAULIC HOSE COVERS TO SUIT YOUR NEEDS

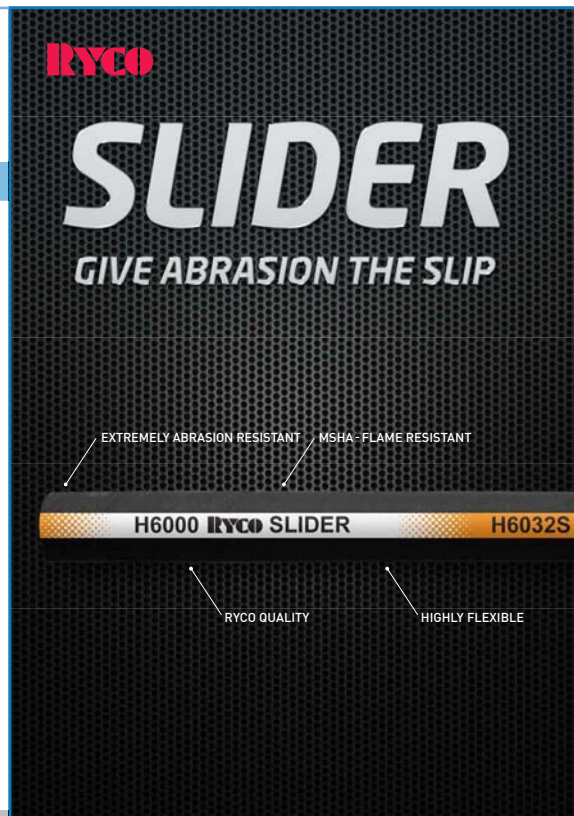
RYCO Hose styles cover a broad range of hydraulic applications. Different applications require different performance criteria. RYCO AVENGER™, DIEHARD™, SLIDER™ and SURVIVOR™ tube and cover compounds offer a perfect choice and are available across a range of our Hose Styles.

RYCO SLIDER™

GIVE ABRASION THE SLIP

- EXTREMELY ABRASION RESISTANT
- MSHA FLAME RESISTANT

SLIDER™ has an additional layer of polyethylene protection over the rubber cover of the hose. The result is an extremely abrasion resistant cover that complies with Flame Resistant requirement of AS 2660 method of test AS1180.10B, meeting USA MSHA requirements. SLIDER™ complies with ISO 6945 method of test for abrasion resistance being less than 0.2% of that allowed by EN 853, EN 856 and EN 857.



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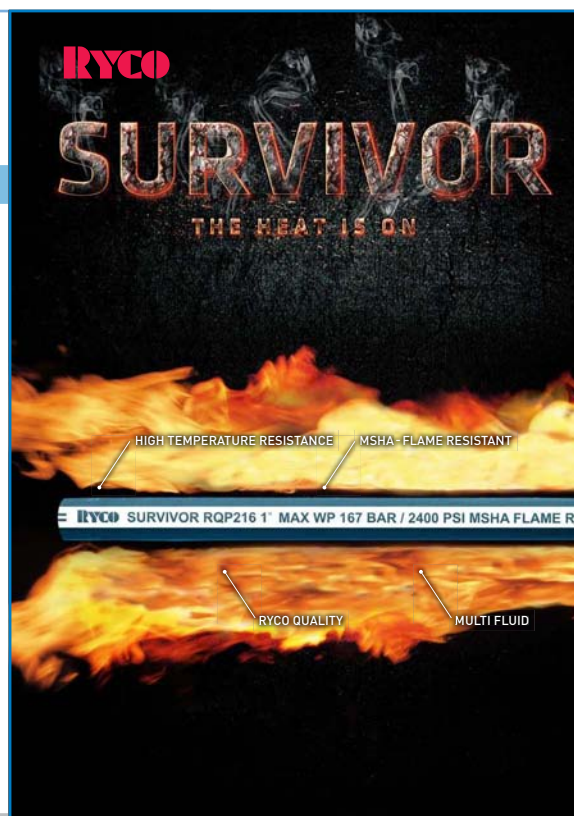
ADAPTORS

RYCO SURVIVOR™

THE HEAT IS ON

- HIGH TEMPERATURE (150°C/302°F)
- MSHA FLAME RESISTANT

Designed for high temperature applications and suitable for use with a variety of fluids.



ACCESSORIES

FILTERS

TECHNICAL



SLIDER

GIVE ABRASION THE SLIP

EXTREMELY ABRASION RESISTANT

MSHA - FLAME RESISTANT

H6000 **RYCO** SLIDER

H6032S

RYCO QUALITY

HIGHLY FLEXIBLE

RYCO

SURVIVOR

THE HEAT IS ON

HIGH TEMPERATURE RESISTANCE

MSHA - FLAME RESISTANT

RYCO SURVIVOR RQP216 1" MAX WP 167 BAR / 2400 PSI MSHA FLAME RES

RYCO QUALITY

MULTI FLUID

HOSE

SPECIFICATIONS SUMMARY

MAXIMUM WORKING PRESSURES

Maximum Working Pressures shown below (except for **RYCO PL1, PL1D, RQP6, SR** and **SRF** Series) are Dynamic Working Pressures for use with hydraulic fluid in systems with pressure surges or variable loads and are based on 4:1 safety factor (minimum burst to maximum working pressure).

RYCO PL1, PL1D and **RQP6** hoses are recommended for use with **RYCO 8000 Series** Push-On Fittings in systems with Static Working Pressures only, and are not recommended for vibration or pressure surge applications. The Maximum Working Pressures for **PL1, PL1D** and **RQP6** shown below are Static Working Pressures.

Hose subjected to both maximum temperature and maximum working pressure will have a shortened lifetime.

| HOSE SIZE | | | T3000A/D/S | T3600A/D/S | T4000A/D/S | T5000A/D/S | T6000A/D/S | H3000A/D/S | H4000A/D/S | H5000A/D/S | H6000A/D/S | T1A/D/S | T1F | T2A/D/S | T2C | TXA2D | DF2A | E2 | TJ2D | H12A/D/S | R45HA/D | R45PA/D | T5 | D2B | MS1000 | CS1000 |
|-----------|------|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|-----|---------|-----|-------|------|----|------|----------|---------|---------|----|-----|--------|--------|
| DN | INCH | DASH | BAR | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|--|
| 3 | 1/8 | -02 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 3/16 | -03 | | | | | | | | | | 250 | 250 | | | | | | | | | | | | | | |
| 6 | 1/4 | -04 | 245 | 250 | 280 | 350 | 420 | | | | | 225 | 225 | 420 | 420 | | 420 | 420 | 700 | | | | 210 | | | | |
| 8 | 5/16 | -05 | 245 | 250 | 280 | 350 | 420 | | | | | 215 | 215 | 350 | 350 | | 350 | 350 | 700 | | | | 210 | | | | |
| 10 | 3/8 | -06 | 215 | 250 | 280 | 350 | 420 | | 280 | 350 | 420 | 180 | 180 | 350 | 350 | | 350 | 350 | | 350 | | 445 | 155 | | | | |
| 12 | 1/2 | -08 | 215 | 250 | 280 | 350 | 420 | | 280 | 350 | 420 | 160 | 160 | 350 | 350 | 375 | 295 | 350 | | 350 | | 420 | 138 | | 70 | 70 | |
| 16 | 5/8 | -10 | 215 | 250 | 280 | 350 | | | 280 | 350 | 420 | 130 | 130 | 250 | 250 | 350 | 250 | 250 | | 350 | | 380 | 121 | | 70 | 70 | |
| 19 | 3/4 | -12 | 215 | 250 | 280 | 350 | | | 280 | 350 | 420 | 105 | 105 | 215 | 215 | 313 | 215 | 215 | | 350 | 420 | 380 | 103 | | 70 | 70 | |
| 25 | 1 | -16 | 215 | 250 | 280 | | | | 280 | 350 | 420 | 90 | 90 | 175 | 175 | 225 | 167 | 175 | | 350 | 380 | 350 | 55 | | 70 | 70 | |
| 31 | 1.1/4 | -20 | | | | | | 215 | 280 | 350 | 420 | 65 | | 140 | 140 | | | | | 275 | 350 | 210 | 43 | | 70 | 70 | |
| 38 | 1.1/2 | -24 | | | | | | 215 | 280 | 350 | 420 | 50 | | 100 | 100 | | | | | 255 | 300 | 185 | 35 | 100 | 70 | 70 | |
| 51 | 2 | -32 | | | | | | 215 | 280 | 350 | 420 | 40 | | 90 | 90 | | | | | 210 | 250 | 175 | 24 | 90 | 70 | 70 | |
| 63 | 2.1/2 | -40 | | | | | | | | | | | | 70 | | | | | | 140 | | | | | | | |
| 76 | 3 | -48 | | | | | | | | | | | | 70 | | | | | | | | | | | | | |

| HOSE SIZE | | | BT1 | RQP1 | RQP2 | RQP5 | RQP6 | TW1 | PW2 | SR | SRF | RTH1 | FB2 | M1 | MP1 | M2 | PL1 | PL1D | M2G | TP7, TP7N | TP7T, TP7TN | TP8, TP8N | TP8T, TP8TN | TP3000 | TPGL | |
|-----------|------|------|-----|------|------|------|------|-----|-----|----|-----|------|-----|----|-----|----|-----|------|-----|-----------|-------------|-----------|-------------|--------|------|--|
| DN | INCH | DASH | BAR | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|-------|-----|----|-----|-----|-----|----|-----|-----|-----|----|-----|----|-----|----|----|----|----|-----|-----|-----|-----|-----|-----|--|-----|
| 3 | 1/8 | -02 | | | | | | | | | | | | | | | | | | | | | | | | 250 |
| 5 | 3/16 | -03 | | | | | | | | | | | | | | | | | | | 210 | | | | | |
| 6 | 1/4 | -04 | 50 | 225 | 400 | 210 | 28 | | 400 | | | 170 | | 3,5 | 14 | 88 | 28 | 28 | 2,6 | 210 | 210 | 350 | 350 | 210 | | |
| 8 | 5/16 | -05 | 50 | 215 | 350 | 210 | 28 | | 400 | | | | | 3,5 | | | 28 | 28 | | 190 | 190 | | | | | |
| 10 | 3/8 | -06 | 50 | 180 | 350 | 155 | 28 | 210 | 400 | | | 165 | 35 | 3,5 | 14 | 79 | 28 | 28 | 2,6 | 160 | 160 | 280 | 280 | 210 | | |
| 12 | 1/2 | -08 | 50 | 160 | 300 | 138 | 28 | 210 | | | | 120 | 35 | | 14 | 70 | 28 | 28 | 2,6 | 140 | 140 | 245 | 245 | 210 | | |
| 16 | 5/8 | -10 | 50 | 130 | 250 | 121 | 24 | | | | | 105 | 35 | | 14 | | 24 | 24 | | | | | | | | |
| 19 | 3/4 | -12 | 50 | 120 | 215 | 103 | 21 | | | 21 | 21 | 85 | | | 14 | 52 | 21 | 21 | 2,6 | 90 | | | | | | |
| 25 | 1 | -16 | 50 | 90 | 167 | 55 | | | | 17 | 17 | 55 | | | 14 | | | | | 70 | | | | | | |
| 31 | 1.1/4 | -20 | | | 150 | 43 | | | | | | 14 | | | 14 | | | | | | | | | | | |
| 38 | 1.1/2 | -24 | | | 100 | 35 | | | | | | 10 | | | | | | | | | | | | | | |
| 51 | 2 | -32 | | | 90 | 24 | | | | | | 7 | | | | | | | | | | | | | | |
| 63 | 2.1/2 | -40 | | | | | | | | 4,3 | | | | | | | | | | | | | | | | |
| 76 | 3 | -48 | | | | | | | | 3,9 | | | | | | | | | | | | | | | | |

PRESSURE CONVERSION CHART 1 BAR = 14.5 PSI 1 MPA = 10 BAR

| | | | | | | | | | | | | | | | | |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| bar | 4 | 7 | 10 | 12 | 14 | 17 | 20 | 24 | 28 | 39 | 55 | 69 | 80 | 90 | 120 | 130 |
| psi | 58 | 100 | 145 | 175 | 200 | 250 | 300 | 350 | 400 | 565 | 800 | 1000 | 1160 | 1300 | 1740 | 1890 |
| bar | 160 | 180 | 200 | 215 | 225 | 250 | 300 | 337 | 350 | 375 | 400 | 420 | 435 | 500 | 585 | 690 |
| psi | 2300 | 2600 | 2900 | 3100 | 3250 | 3600 | 4350 | 4900 | 5100 | 5440 | 5800 | 6080 | 6310 | 7250 | 8480 | 10000 |

The Working Pressure of each Hose Coupling End Termination Style is shown in the Technical section. In most cases, the Working Pressure of the Hose Coupling End Termination Style that can be chosen for a particular hose exceeds the Maximum Working Pressure of the Hose.

It is possible however, to select a Hose Coupling with End Termination with lower Working Pressure than the Hose. In this case, as noted in SAE J516 and SAE J517, the rated Working Pressure of the Hose Assembly must not exceed the lower of the respective Working Pressure rated values.

EXAMPLE 1.

T28A Hose Assembly with T2040-0812 coupling one end and T2090-0808 coupling other end.
 From above table or from page 92, Maximum Working Pressure of T28A is 350 bar.
 From page 194, Maximum Working Pressure of T2040-0812 is 690 bar.
 From page 192, Maximum Working Pressure of T2090-0808 is 690 bar.
 The Maximum Working Pressure of the Hose Assembly is therefore 345 bar, the lowest of the respective Working Pressure rated values (in this case, the hose).

EXAMPLE 2.

H5016D Hose Assembly with T7130-1620 coupling one end and T7030-1621 coupling other end.
 From above table or from page 83, Maximum Working Pressure of H5016D is 350 bar.
 From page 228, Maximum Working Pressure of T7130-1620 is 280 bar.
 From page 220, Maximum Working Pressure of T7030-1621 is 420 bar.
 The Maximum Working Pressure of the Hose Assembly is therefore 280 bar, the lowest of the respective Working Pressure rated values (in this case, the T7130-1620).

See page 175 for more information.

IMPULSE LIFE

Although two or more hoses manufactured to different industry standard specifications may have identical Maximum Working Pressures, their suitability for the application must be considered. An important factor to consider is the magnitude and frequency of the pressure impulses that the hose assembly will experience.

FLAME RESISTANCE

All RYCO Hoses (except **RYCO E2, FB2, M1, MP1, PW2, TTW1, TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000, RQP5, SR, SRF, T5, RTH1 & PL1** Series) meet Flame Resistant Designation "U.S. MSHA" of the U.S. Department of Labor, Mine Safety and Health Administration and also comply with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Contact RYCO Technical Department for more information.

MINIMUM BEND RADIUS

Minimum Bend Radius figures published are the radius to the cover of the Hose at the inside of the bend.
 RYCO Hose Assemblies exceed the required impulse test requirements when bent to the published Minimum Bend Radius. Hose assemblies bent to smaller than the Minimum Bend Radius will have shortened lifetime.

ANTI-STATIC

"Anti-Static" refers to Hoses or Hose Assemblies being sufficiently electrically conductive to drain off static electricity. According to the requirements of AS 2660 Clause 2.2, the Hose or Hose assembly shall have an electrical resistance (measured from inside surface to outside surface) of less than 1 megohm per metre, when tested according to Method of Test AS 1180.13A. For applications requiring Anti-Static Hydraulic Hose Assemblies including, but not limited to, underground coal mines, where there is danger of ignition from static electricity discharge, only special Anti-Static Hose can be used.

RYCO DIEHARD™ Hoses and COALSPRAY comply with the requirements of AS 2660 and Method of Test AS 1180.13A.

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NON-CONDUCTIVE

Certain applications require that a Hose, or Hose Assembly, be Non-Conductive to prevent electrical current flow. For applications that require a Hose to be electrically Non-Conductive including, but not limited to, applications near high voltage electric lines, only special Non-Conductive Hoses can be used.

SKIVE/NON-SKIVE

Skiving refers to removing the cover at the ends of the Hose where the Hose Couplings are to be attached*. Most RYCO combinations of Hose and Couplings are Non-Skive.

In a Non-Skive application, RYCO BITELOK couplings bite down through the cover and grip the wire reinforcement. Some combinations of RYCO Hose and Couplings require skiving. If skiving is required, it is clearly stated in both the Hose Section and the Couplings Section.

*** (For H13, H15 and H6000 with 69000N couplings, a section of the tube must also be skived. This is called Internal Skiving).**

OUTSIDE DIAMETERS

See page 145 for reference chart of outside diameters.

SAFETY GUIDE – MAXIMUM TEMPERATURE LIMITS

Some RYCO Hose Series are not listed on page 57: **T1F, TJ2D, M2G, M1, FB2, RTH1, TW1, PW2, MP1.**

These Hoses are specific purpose Hoses, and their temperature limits are specified in the Hose Section of this Product Technical Manual. Contact RYCO Technical Department for any further queries.

Other RYCO Hose Series are listed on page 57. The Maximum Working Temperatures for these hoses, as listed in the Hose Section of this Product Technical Manual are for use with general purpose, mineral (petroleum) oil based hydraulic fluids, except where otherwise stated. Temperature limits for other hydraulic fluids, and some other common applications, are listed on page 57.

CAUTION:

Life expectancy of hoses is shortened at high temperatures. Detrimental effects increase when temperature is elevated, and also when; operating pressure, flow velocity, duration and frequency of exposure, and level of impurities in the media are high. Actual service life at temperatures approaching the recommended limits will depend on the particular application and the fluid being used.

Maximum Working Temperatures refer to the temperature of the media in the hose; not the environmental temperature around the outside of the hose. Please contact RYCO Technical Department for environmental temperatures in excess of 80°C (176°F), except **RQP1** and **RQP2** Series where environmental temperature is the same as media temperature.

Maximum Working Temperatures shown are for continuous temperatures. Slightly higher intermittent temperatures (up to 10% of time) may be acceptable with some hoses and some fluids, if reduced service life is acceptable. Please contact RYCO Technical Department for more information.

DO NOT expose Hose to Maximum Temperature and Maximum Working Pressure at the same time.

The fluid manufacturer's recommended maximum operating temperature for the fluid must not be exceeded. If different to the temperatures listed in the following table, the lower limit must take precedence. We recommend keeping the hose filled with the pressure medium at all times. Further information available on request.

| HOSE COVER | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------------------|--|--|------------------|--|
| AVENGER | T3000A, T4000A, T5000A, T6000A, T1A, T2A, DF2A | H3000A, H4000A, H5000A, H6000A, H12A, R4SPA, R4SHA | | |
| DIEHARD | T3000D, T4000D, T5000D, T6000D, T1D, T2D, TXA2D, TJ2D, PL1D | H3000D, H4000D, H5000D, H6000D, H12D, R4SPD, R4SHD | | |
| SLIDER | T3000S, T4000S, T5000S, T6000S, T1S, T2S | H3000S, H4000S, H5000S, H6000S, H12S | | |
| SURVIVOR | RQP6 | | RQP1, RQP2, RQP5 | |
| OTHER SERIES | SR, SRF, M2, T5, BT1, T1F, E2, PL1, DB2, T2C, CS1000, MS1000 | | | TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000, TPGL |

| MEDIA | TEMPERATURE LIMITS | | | |
|--|--|---|--|---|
| GENERAL PURPOSE MINERAL (PETROLEUM) BASED HYDRAULIC OIL¹ | -40°C to +100°C (-40°F to +212°F) RQP6: -40° to +125°C (-40°F to +257°F) | -40°C to +121°C (-40°F to +250°F) | -40°C to +150°C (-40°F to +302°F) | -40°C to +95°C (-40°F to +203°F) |
| WATER | +71°C (+160°F) | 0°C to +71°C (+32°F to +160°F) | 0°C to +121°C (+32°F to +250°F) | 0°C to +70°C (+32°F to +158°F) |
| WATER IN MINERAL OIL (40% to 80% water) | +85°C (+185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +121°C (-40°F to +250°F) | -40°C to +70°C (-40°F to +158°F) |
| MINERAL OIL IN WATER (more than 80% water) | +85°C (+185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +121°C (-40°F to +250°F) | -40°C to +70°C (-40°F to +158°F) |
| WATER/GLYCOL | +85°C (+185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +121°C (-40°F to +250°F) | -40°C to +70°C (-40°F to +158°F) |
| GLYCOL | +85°C (+185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +70°C (-40°F to +158°F) |
| PHOSPHATE ESTERS² | Not suitable | Not suitable | -40°C to +82°C (-40°F to +180°F) (see Note 2) | 40°C to +70°C (-40°F to +158°F) (see Note 2) |
| AIR³ | RQP6: -40°C to +100°C (-40°F to +212°F) ***OTHERS: +71°C (+160°F) | -40°C to +71°C (-40°F to +160°F) (see Note 3) | -40°C to +121°C (-40°F to +250°F) (see Note 3) | -40°C to +71°C (-40°F to +160°F) (see Note 3) |
| PETROL (GASOLINE) | Contact RYCO | Contact RYCO | Contact RYCO | Contact RYCO |
| DIESEL FUEL | PL1: -40°C to +49°C (-40°F to +160°F) T5: -40°C to +71°C (-40°F to +160°F) RQP6: -40°C to +71°C (-40°F to +160°F) OTHERS: +50°C (+122°F) | -40°C to +50°C (-40°F to +122°F) | Not suitable | |
| ENGINE LUBRICATING OIL, GEARBOX OIL | -40°C to +100°C (-40°F to +212°F) | -40°C to +100°C (-40°F to +212°F) | -40°C to +100°C (-40°F to +212°F) | -40°C to +95°C (-40°F to +203°F) |
| AUTOMATIC TRANSMISSION FLUID | -40°C to +100°C (-40°F to +212°F) | -40°C to +100°C (-40°F to +212°F) | -40°C to +100°C (-40°F to +212°F) | -40°C to +95°C (-40°F to +203°F) |

- For highly refined and special purpose mineral based hydraulic oils (for example aviation hydraulic oils, MIL spec oils, etc), contact RYCO Technical Department.
- Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.
- For use with Air at pressures above 17,2 bar (250 psi), cover of hose must be perforated/pin-pricked (except RQP5 and T5), to allow air permeating through hose to escape without blistering the cover. Maximum working pressure of wire braid and spiral reinforced hose must be reduced by 30% (except for RQP1 and RQP2). Observe all State and Federal Safety Regulations.

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ISOBARIC HOSE

1/2 BEND RADIUS MILLION CYCLE

PERFORMANCE AT A GLANCE:

H SERIES ISOBARIC SPIRAL HOSE

- Half SAE minimum bend radius.
- Highly flexible for easier routing and installation.
- Isobaric pressure from 215 bar/3100 psi (H3000) to 420 bar/6100 psi (H6000).
- Lighter weight means your hydraulic system is more compact and economical.
- 81 products in the H series Spiral range.
- Includes "World First" H6032 2" (DN51) hose.

T SERIES ISOBARIC BRAID HOSE

- Half SAE minimum bend radius.
- Highly flexible for easier routing and installation.
- Isobaric pressure from 215 bar/3100 psi (T3000) to 420 bar/6100 psi (T6000).
- Lighter weight means your hydraulic system is more compact and economical.
- 81 products in the T series Braid hose range.
- T3000 Braid is proven to impulse test of one million cycles in all sizes.
- Meets and exceeds the performance requirements of ISO 18752 (all series).

Up to half SAE minimum bend radius for T Series Isobaric Braid Hose and H Series Isobaric Spiral Hose.
H Series Isobaric Spiral and T3000 tested to one million impulse cycles.

WHAT PRESSURE IS YOUR SYSTEM?



**215 bar
3100 psi**



**250 bar
3625 psi**



**280 bar
4100 psi**



**350 bar
5100 psi**



**420 bar
6100 psi**



HOSE

ISOBARIC HOSE

RYCO MATCHED SYSTEM

RYCO hoses and couplings are designed and engineered to match for maximum safety, leak free performance and exceptional productivity and reliability.

H SERIES SPIRAL HOSE:



T7000 SERIES

Bitelok non-skive one-piece crimp

For RYCO Hose Series:
H3000 & H4000 all sizes.
H5000 sizes -06 to -24.
H6000 sizes -06 to -20.



T9000 SERIES

Bitelok non-skive one-piece crimp

For RYCO Hose Series:
H5000 size -32 only.
H6000 size -24 only.



69000N SERIES

Bitelok interlok internal/external skive two-piece crimp

For RYCO Hose Series:
H6000 sizes -12 to -32.

T SERIES BRAID HOSE:



T1000 SERIES

Bitelok non-skive one-piece crimp

For RYCO Hose Series:
T3000 & T3600 all sizes.

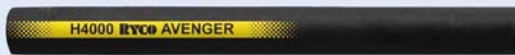


T2000 SERIES

Bitelok non-skive one-piece crimp

For RYCO Hose Series:
T3000, T3600, T4000, T5000 & T6000 all sizes.

RYCO HOSE COVERS:



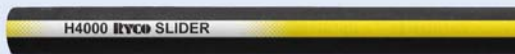
AVENGER™

- Abrasion resistant
- MSHA flame resistant



DIEHARD™

- Extra abrasion resistant
- MSHA flame resistant
- FRAS flame resistant and anti-static



SLIDER™

- Extremely abrasion resistant
- MSHA flame resistant

LAYLINE IDENTIFICATION

Colour-coded system enables easy and permanent identification of hoses.

PRESSURE RANGE / HOSE SERIES:

| | |
|--|------------------|
| | 420 bar/6100 psi |
| | 350 bar/5100 psi |
| | 280 bar/4100 psi |
| | 250 bar/3625 psi |
| | 215 bar/3100 psi |

COVER TYPE:

| | |
|--------------------|----------|
| H6000 RYCO AVENGER | AVENGER™ |
| H6000 RYCO DIEHARD | DIEHARD™ |
| H6000 RYCO SLIDER | SLIDER™ |

PART NUMBER:

Incorporates information relating to RYCO hose series, nominal hose size, and cover type in a simple, concise manner.

SIZE:

The nominal size of the hose is displayed in three commonly used formats (example shown below in appearance of order):

- 2" (Inch Size)
- 32 (Dash Size)
- DN51 (Metric / DN Size)

WORKING PRESSURE:

RYCO Isobaric range of hose working pressures vary from 215 bar/3100 psi to 420 bar /6100 psi.

FLAME RESISTANCE:

Flame Resistance and Anti-Static (FRAS) and/or MSHA flame resistance properties of the hose are clearly stated and visible.

H6000 RYCO AVENGER

H6032A 2" -32 DN51 MAX WP 420 BAR / 6100 PSI MSHA

T3000A

COMPACT ISOBARIC HOSE
215 BAR / 3100 PSI
MILLION CYCLE



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 215 bar / 3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -08 size) or two braids (-10 to -16 size) of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles**. Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.

Assembly Instructions page 498.

| T3000A - AVENGER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|--|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|----------------|------|---------------------------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T3004A | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 245 | 3500 | 980 | 14000 | 38 | 1.5 | 0,16 | 0.11 | T1000 T2000 |
| T3005A | 8 | -05 | 7,9 | 5/16 | 14,4 | 0.57 | 245 | 3500 | 980 | 14000 | 41 | 1.6 | 0,23 | 0.15 | T1000 T2000 |
| T3006A | 10 | -06 | 9,5 | 3/8 | 15,6 | 0.61 | 215 | 3100 | 860 | 12400 | 65 | 2.6 | 0,26 | 0.18 | T1000 T2000 |
| T3008A | 12 | -08 | 12,7 | 1/2 | 18,7 | 0.74 | 215 | 3100 | 860 | 12400 | 90 | 3.6 | 0,36 | 0.24 | T1000 T2000 |
| T3010A | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 215 | 3100 | 860 | 12400 | 100 | 3.9 | 0,56 | 0.38 | T1000 T2000 |
| T3012A | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 215 | 3100 | 860 | 12400 | 120 | 4.7 | 0,78 | 0.52 | T1000 T2000 |
| T3016A | 25 | -16 | 25,4 | 1 | 34,8 | 1.37 | 215 | 3100 | 860 | 12400 | 150 | 5.9 | 1,14 | 0.77 | T1000 T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T3000D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
215 BAR / 3100 PSI
MILLION CYCLE



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -08 size) or two braids (-10 to -16 size) of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles**.

Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.
Assembly Instructions page 498.

| T3000D – DIEHARD COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | | |
|---|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|----------------|------|---------------------------|-----------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T3004D | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 245 | 3500 | 980 | 14000 | 38 | 1.5 | 0,16 | 0.11 | T1000 | T2000 |
| T3005D | 8 | -05 | 7,9 | 5/16 | 14,4 | 0.57 | 245 | 3500 | 980 | 14000 | 41 | 1.6 | 0,23 | 0.15 | T1000 | T2000 |
| T3006D | 10 | -06 | 9,5 | 3/8 | 15,6 | 0.61 | 215 | 3100 | 860 | 12400 | 65 | 2.6 | 0,26 | 0.18 | T1000 | T2000 |
| T3008D | 12 | -08 | 12,7 | 1/2 | 18,7 | 0.74 | 215 | 3100 | 860 | 12400 | 90 | 3.6 | 0,36 | 0.24 | T1000 | T2000 |
| T3010D | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 215 | 3100 | 860 | 12400 | 100 | 3.9 | 0,56 | 0.38 | T1000 | T2000 |
| T3012D | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 215 | 3100 | 860 | 12400 | 120 | 4.7 | 0,78 | 0.52 | T1000 | T2000 |
| T3016D | 25 | -16 | 25,4 | 1 | 34,8 | 1.37 | 215 | 3100 | 860 | 12400 | 150 | 5.9 | 1,14 | 0.77 | T1000 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths,

T3000S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
215 BAR / 3100 PSI
MILLION CYCLE



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One or two braids (-10 to -16 size) of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles**.

Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE AND ANTI-STATIC:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.

Assembly Instructions page 498.

| T3000S - SLIDER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | | |
|--|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|-------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T3004S | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 245 | 3500 | 980 | 14000 | 38 | 1.5 | 0,16 | 0.11 | T1000 | T2000 |
| T3005S | 8 | -05 | 7,9 | 5/16 | 14,4 | 0.57 | 245 | 3500 | 980 | 14000 | 41 | 1.6 | 0,23 | 0.15 | T1000 | T2000 |
| T3006S | 10 | -06 | 9,5 | 3/8 | 15,6 | 0.61 | 215 | 3100 | 860 | 12400 | 65 | 2.6 | 0,26 | 0.18 | T1000 | T2000 |
| T3008S | 12 | -08 | 12,7 | 1/2 | 18,7 | 0.74 | 215 | 3100 | 860 | 12400 | 90 | 3.6 | 0,36 | 0.24 | T1000 | T2000 |
| T3010S | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 215 | 3100 | 860 | 12400 | 100 | 3.9 | 0,56 | 0.38 | T1000 | T2000 |
| T3012S | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 215 | 3100 | 860 | 12400 | 120 | 4.7 | 0,78 | 0.52 | T1000 | T2000 |
| T3016S | 25 | -16 | 25,4 | 1 | 34,8 | 1.37 | 215 | 3100 | 860 | 12400 | 150 | 5.9 | 1,14 | 0.77 | T1000 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T3600A

COMPACT ISOBARIC HOSE
250 BAR / 3625 PSI



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 250 bar / 3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar / 3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.

Assembly Instructions page 498.

| T3600A - AVENGER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | | |
|---|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-----------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T3604A | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 250 | 3625 | 1000 | 14500 | 38 | 1.5 | 0,16 | 0.11 | T1000 | T2000 |
| T3605A | 8 | -05 | 7,9 | 5/16 | 14,4 | 0.57 | 250 | 3625 | 1000 | 14500 | 41 | 1.6 | 0,23 | 0.15 | T1000 | T2000 |
| T3606A | 10 | -06 | 9,5 | 3/8 | 15,6 | 0.61 | 250 | 3625 | 1000 | 14500 | 49 | 1.9 | 0,27 | 0.18 | T1000 | T2000 |
| T3608A | 12 | -08 | 12,7 | 1/2 | 19,9 | 0.78 | 250 | 3625 | 1000 | 14500 | 68 | 2.7 | 0,45 | 0.30 | T1000 | T2000 |
| T3610A | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 250 | 3625 | 1000 | 14500 | 75 | 3.0 | 0,61 | 0.41 | T1000 | T2000 |
| T3612A | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 250 | 3625 | 1000 | 14500 | 90 | 3.6 | 0,78 | 0.52 | T1000 | T2000 |
| T3616A | 25 | -16 | 25,4 | 1 | 35,2 | 1.39 | 250 | 3625 | 1000 | 14500 | 113 | 4.4 | 1,30 | 0.87 | T1000 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T3600D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
250 BAR / 3625 PSI



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 250 bar / 3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar / 3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.
Assembly Instructions page 498.

| T3600D - DIEHARD COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | | |
|--|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|-------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T3604D | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 250 | 3625 | 1000 | 14500 | 38 | 1.5 | 0,16 | 0.11 | T1000 | T2000 |
| T3605D | 8 | -05 | 7,9 | 5/16 | 14,4 | 0.57 | 250 | 3625 | 1000 | 14500 | 41 | 1.6 | 0,23 | 0.15 | T1000 | T2000 |
| T3606D | 10 | -06 | 9,5 | 3/8 | 15,6 | 0.61 | 250 | 3625 | 1000 | 14500 | 49 | 1.9 | 0,27 | 0.18 | T1000 | T2000 |
| T3608D | 12 | -08 | 12,7 | 1/2 | 19,9 | 0.78 | 250 | 3625 | 1000 | 14500 | 68 | 2.7 | 0,45 | 0.30 | T1000 | T2000 |
| T3610D | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 250 | 3625 | 1000 | 14500 | 75 | 3.0 | 0,61 | 0.41 | T1000 | T2000 |
| T3612D | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 250 | 3625 | 1000 | 14500 | 90 | 3.6 | 0,78 | 0.52 | T1000 | T2000 |
| T3616D | 25 | -16 | 25,4 | 1 | 35,2 | 1.39 | 250 | 3625 | 1000 | 14500 | 113 | 4.4 | 1,30 | 0.87 | T1000 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T3600S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
250 BAR / 3625 PSI



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 250 bar / 3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R19.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

FEATURES:

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar / 3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T2000 Series (sizes -04 to -16) pages 188 to 208.

Assembly Instructions page 498.

| T3600S - SLIDER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | | |
|--|-----------|--------------------|--------------------|--------------------------------|------------------------------|---------------------------|-------------------|-----------------|------------|------------|-----------|-------------|-------------|--------------|------------------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | NOMINAL HOSE OD | MAXIMUM WORKING PRESSURE | MINIMUM BURST PRESSURE | MINIMUM BEND RADIUS | AVERAGE WEIGHT | COUPLING SERIES | | ONE PIECE | | | | | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T3604S | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 250 | 3625 | 1000 | 14500 | 38 | 1.5 | 0,16 | 0.11 | T1000 | T2000 |
| T3605S | 8 | -05 | 7,9 | 5/16 | 14,4 | 0.57 | 250 | 3625 | 1000 | 14500 | 41 | 1.6 | 0,23 | 0.15 | T1000 | T2000 |
| T3606S | 10 | -06 | 9,5 | 3/8 | 15,6 | 0.61 | 250 | 3625 | 1000 | 14500 | 49 | 1.9 | 0,27 | 0.18 | T1000 | T2000 |
| T3608S | 12 | -08 | 12,7 | 1/2 | 19,9 | 0.78 | 250 | 3625 | 1000 | 14500 | 68 | 2.7 | 0,45 | 0.30 | T1000 | T2000 |
| T3610S | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 250 | 3625 | 1000 | 14500 | 75 | 3.0 | 0,61 | 0.41 | T1000 | T2000 |
| T3612S | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 250 | 3625 | 1000 | 14500 | 90 | 3.6 | 0,78 | 0.52 | T1000 | T2000 |
| T3616S | 25 | -16 | 25,4 | 1 | 35,2 | 1.39 | 250 | 3625 | 1000 | 14500 | 113 | 4.4 | 1,30 | 0.87 | T1000 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T4000A

COMPACT ISOBARIC HOSE
280 BAR / 4100 PSI



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 280 bar / 4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -12) pages 188 to 208. Assembly Instructions page 498.

| T4000A - AVENGER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|---|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|------------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T4004A | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 280 | 4100 | 1120 | 16400 | 50 | 1.97 | 0,16 | 0.11 | T2000 |
| T4005A | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 280 | 4100 | 1120 | 16400 | 55 | 2.17 | 0,34 | 0.23 | T2000 |
| T4006A | 10 | -06 | 9,5 | 3/8 | 16,6 | 0.65 | 280 | 4100 | 1120 | 16400 | 65 | 2.56 | 0,37 | 0.25 | T2000 |
| T4008A | 12 | -08 | 12,7 | 1/2 | 20,6 | 0.81 | 280 | 4100 | 1120 | 16400 | 90 | 3.55 | 0,51 | 0.34 | T2000 |
| T4010A | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 280 | 4100 | 1120 | 16400 | 100 | 3.94 | 0,61 | 0.41 | T2000 |
| T4012A | 19 | -12 | 19,1 | 3/4 | 28,4 | 1.12 | 280 | 4100 | 1120 | 16400 | 120 | 4.73 | 0,92 | 0.62 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T4000D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
280 BAR / 4100 PSI



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar / 4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -04 to -12) pages 188 to 208. Assembly Instructions page 498.

| T4000D - DIEHARD COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|--|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T4004D | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 280 | 4100 | 1120 | 16400 | 50 | 1.97 | 0,16 | 0.11 | T2000 |
| T4005D | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 280 | 4100 | 1120 | 16400 | 55 | 2.17 | 0,34 | 0.23 | T2000 |
| T4006D | 10 | -06 | 9,5 | 3/8 | 16,6 | 0.65 | 280 | 4100 | 1120 | 16400 | 65 | 2.56 | 0,37 | 0.25 | T2000 |
| T4008D | 12 | -08 | 12,7 | 1/2 | 20,6 | 0.81 | 280 | 4100 | 1120 | 16400 | 90 | 3.55 | 0,51 | 0.34 | T2000 |
| T4010D | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 280 | 4100 | 1120 | 16400 | 100 | 3.94 | 0,61 | 0.41 | T2000 |
| T4012D | 19 | -12 | 19,1 | 3/4 | 28,4 | 1.12 | 280 | 4100 | 1120 | 16400 | 120 | 4.73 | 0,92 | 0.62 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T4000S

**EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
280 BAR / 4100 PSI**



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RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 280 bar / 4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -12) pages 188 to 208. Assembly Instructions page 498.

| T4000S - SLIDER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|--|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T4004S | 6 | -04 | 6,3 | 1/4 | 11,8 | 0.46 | 280 | 4100 | 1120 | 16400 | 50 | 1.97 | 0,16 | 0.11 | T2000 |
| T4005S | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 280 | 4100 | 1120 | 16400 | 55 | 2.17 | 0,34 | 0.23 | T2000 |
| T4006S | 10 | -06 | 9,5 | 3/8 | 16,6 | 0.65 | 280 | 4100 | 1120 | 16400 | 65 | 2.56 | 0,37 | 0.25 | T2000 |
| T4008S | 12 | -08 | 12,7 | 1/2 | 20,6 | 0.81 | 280 | 4100 | 1120 | 16400 | 90 | 3.55 | 0,51 | 0.34 | T2000 |
| T4010S | 16 | -10 | 15,9 | 5/8 | 23,4 | 0.92 | 280 | 4100 | 1120 | 16400 | 100 | 3.94 | 0,61 | 0.41 | T2000 |
| T4012S | 19 | -12 | 19,1 | 3/4 | 28,4 | 1.12 | 280 | 4100 | 1120 | 16400 | 120 | 4.73 | 0,92 | 0.62 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T5000A

COMPACT ISOBARIC HOSE
350 BAR / 5100 PSI



RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).








THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -08) pages 188 to 208.
Assembly Instructions page 498.

| T5000A - AVENGER COMPACT ISOBARIC HOSE | |  | |  | |  | |  | |  | |  | |  | |
|---|-----------|---|------|---|------|---|-----|---|------|--|----|---|------|---|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T5004A | 6 | -04 | 6,3 | 1/4 | 13,2 | 0.52 | 350 | 5100 | 1400 | 20400 | 50 | 1.97 | 0,28 | 0.19 | T2000 |
| T5005A | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 350 | 5100 | 1400 | 20400 | 55 | 2.17 | 0,34 | 0.23 | T2000 |
| T5006A | 10 | -06 | 9,5 | 3/8 | 17,1 | 0.67 | 350 | 5100 | 1400 | 20400 | 65 | 2.56 | 0,41 | 0.28 | T2000 |
| T5008A | 12 | -08 | 12,7 | 1/2 | 20,6 | 0.81 | 350 | 5100 | 1400 | 20400 | 90 | 3.55 | 0,57 | 0.38 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T5000D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
350 BAR / 5100 PSI



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RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -08) pages 188 to 208. Assembly Instructions page 498.

| T5000D - DIEHARD COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|--|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T5004D | 6 | -04 | 6,3 | 1/4 | 13,2 | 0.52 | 350 | 5100 | 1400 | 20400 | 50 | 1.97 | 0,28 | 0.19 | T2000 |
| T5005D | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 350 | 5100 | 1400 | 20400 | 55 | 2.17 | 0,34 | 0.23 | T2000 |
| T5006D | 10 | -06 | 9,5 | 3/8 | 17,1 | 0.67 | 350 | 5100 | 1400 | 20400 | 65 | 2.56 | 0,41 | 0.28 | T2000 |
| T5008D | 12 | -08 | 12,7 | 1/2 | 20,6 | 0.81 | 350 | 5100 | 1400 | 20400 | 90 | 3.55 | 0,57 | 0.38 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T5000S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
350 BAR / 5100 PSI



RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 350 bar/5100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -08) pages 188 to 208.
Assembly Instructions page 498.

| T5000S - SLIDER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|--|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|----|----------------|------|------------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T5004S | 6 | -04 | 6,3 | 1/4 | 13,2 | 0.52 | 350 | 5100 | 1400 | 20400 | 50 | 1.97 | 0,28 | 0.19 | T2000 |
| T5005S | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 350 | 5100 | 1400 | 20400 | 55 | 2.17 | 0,34 | 0.23 | T2000 |
| T5006S | 10 | -06 | 9,5 | 3/8 | 17,1 | 0.67 | 350 | 5100 | 1400 | 20400 | 65 | 2.56 | 0,41 | 0.28 | T2000 |
| T5008S | 12 | -08 | 12,7 | 1/2 | 20,6 | 0.81 | 350 | 5100 | 1400 | 20400 | 90 | 3.55 | 0,57 | 0.38 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T6000A

COMPACT ISOBARIC HOSE
420 BAR / 6100 PSI



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RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -06) pages 188 to 208.
Assembly Instructions page 498.

| T6000A - AVENGER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|---|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES |
| | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE |
| T6004A | 6 | -04 | 6,3 | 1/4 | 13,2 | 0.52 | 420 | 6100 | 1680 | 24400 | 50 | 1.97 | 0,28 | 0.19 | NON-SKIVE T2000 |
| T6005A | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 420 | 6100 | 1680 | 24400 | 55 | 2.17 | 0,35 | 0.24 | T2000 |
| T6006A | 10 | -06 | 9,5 | 3/8 | 17,6 | 0.69 | 420 | 6100 | 1680 | 24400 | 65 | 2.56 | 0,47 | 0.32 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC BRAID

T6000D

EXTRA ABRASION RESISTANT
FRAS
COMPACT ISOBARIC HOSE
420 BAR / 6100 PSI



RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -04 to -06) pages 188 to 208.
Assembly Instructions page 498.

| T6000D - DIEHARD COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|--|-----------|-----------------|-----|-----------------|------|--------------------------|-----|------------------------|------|---------------------|----|----------------|------|---------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T6004D | 6 | -04 | 6,3 | 1/4 | 13,2 | 0.52 | 420 | 6100 | 1680 | 24400 | 50 | 1.97 | 0,28 | 0.19 | T2000 |
| T6005D | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 420 | 6100 | 1680 | 24400 | 55 | 2.17 | 0,35 | 0.24 | T2000 |
| T6006D | 10 | -06 | 9,5 | 3/8 | 17,6 | 0.69 | 420 | 6100 | 1680 | 24400 | 65 | 2.56 | 0,47 | 0.32 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T6000S

EXTREMELY ABRASION RESISTANT
COMPACT ISOBARIC HOSE
420 BAR / 6100 PSI



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RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius and compact dimensions are advantages in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
ISO 18752-AC.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FEATURES:

Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -06) pages 188 to 208.
Assembly Instructions page 498.

| T6000S - SLIDER COMPACT ISOBARIC HOSE | | | | | | | | | | | | | | | |
|--|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|--------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES |
| | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE |
| T6004S | 6 | -04 | 6,3 | 1/4 | 13,2 | 0.52 | 420 | 6100 | 1680 | 24400 | 50 | 1.97 | 0,28 | 0.19 | NON-SKIVE T2000 |
| T6005S | 8 | -05 | 7,9 | 5/16 | 15,6 | 0.61 | 420 | 6100 | 1680 | 24400 | 55 | 2.17 | 0,35 | 0.24 | T2000 |
| T6006S | 10 | -06 | 9,5 | 3/8 | 17,6 | 0.69 | 420 | 6100 | 1680 | 24400 | 65 | 2.56 | 0,47 | 0.32 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H3000A

ISOBARIC SPIRAL HOSE
215 BAR / 3100 PSI
MILLION CYCLE



RECOMMENDED FOR:

High pressure hydraulic oil lines.
Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC,
SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series (sizes -20 to -32) pages 217 to 233. Assembly Instructions page 498.

| H3000A – AVENGER ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | |
|--|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|----------------|------|------------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| H3020A | 31 | -20 | 31,8 | 1.1/4 | 45,7 | 1.80 | 215 | 3100 | 860 | 12400 | 200 | 7.9 | 2,27 | 1.53 | T7000 |
| H3024A | 38 | -24 | 38,1 | 1.1/2 | 50,3 | 1.98 | 215 | 3100 | 860 | 12400 | 250 | 9.8 | 2,35 | 1.58 | T7000 |
| H3032A | 51 | -32 | 50,8 | 2 | 63,3 | 2.49 | 215 | 3100 | 860 | 12400 | 400 | 15.8 | 3,40 | 2.28 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H3000D

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC HOSE
215 BAR / 3100 PSI
MILLION CYCLE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

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FILTERS

TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 215 bar / 3100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC,
SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -20 to -32) pages 217 to 233.
Assembly Instructions page 498.

| H3000D - DIEHARD ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | COUPLING SERIES | |
|---------------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|----------------|------|-----------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| H3020D | 31 | -20 | 31,8 | 1.1/4 | 45,7 | 1.80 | 215 | 3100 | 860 | 12400 | 200 | 7.9 | 2,27 | 1.53 | T7000 |
| H3024D | 38 | -24 | 38,1 | 1.1/2 | 50,3 | 1.98 | 215 | 3100 | 860 | 12400 | 250 | 9.8 | 2,35 | 1.58 | T7000 |
| H3032D | 51 | -32 | 50,8 | 2 | 63,3 | 2.49 | 215 | 3100 | 860 | 12400 | 400 | 15.8 | 3,40 | 2.28 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H3000S

**EXTREMELY ABRASION RESISTANT
ISOBARIC SPIRAL HOSE
215 BAR / 3100 PSI
MILLION CYCLE**



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC, SAE 100R12

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar / 3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

**BITELOK NON-SKIVE ONE-PIECE CRIMP
T7000 Series** (sizes -20 to -32) pages 217 to 233.
Assembly Instructions page 498.

| H3000S - SLIDER ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | |
|---|-----------|-----------------|-------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE |
| H3020S | 31 -20 | 31,8 | 1.1/4 | 45,7 | 1.80 | 215 | 3100 | 860 | 12400 | 200 | 7.9 | 2,27 | 1.53 | NON-SKIVE T7000 |
| H3024S | 38 -24 | 38,1 | 1.1/2 | 50,3 | 1.98 | 215 | 3100 | 860 | 12400 | 250 | 9.8 | 2,35 | 1.58 | T7000 |
| H3032S | 51 -32 | 50,8 | 2 | 63,3 | 2.49 | 215 | 3100 | 860 | 12400 | 400 | 15.8 | 3,40 | 2.28 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H4000A

ISOBARIC SPIRAL HOSE
280 BAR / 4100 PSI
MILLION CYCLE



INTRODUCTION

HOSE

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ADAPTORS

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FILTERS

TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 280 bar / 4100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP (size DN25, -16),
ISO 18752-DC, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

| H4000A - AVENGER ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | |
|---------------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| H4006A | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 280 | 4100 | 1120 | 16400 | 62 | 2.4 | 0,61 | 0.41 | T7000 |
| H4008A | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 280 | 4100 | 1120 | 16400 | 90 | 3.5 | 0,78 | 0.52 | T7000 |
| H4010A | 16 | -10 | 15,9 | 5/8 | 24,9 | 0.98 | 280 | 4100 | 1120 | 16400 | 100 | 3.9 | 0,76 | 0.51 | T7000 |
| H4012A | 19 | -12 | 19,1 | 3/4 | 30,0 | 1.18 | 280 | 4100 | 1120 | 16400 | 120 | 4.7 | 1,13 | 0.76 | T7000 |
| H4016A | 25 | -16 | 25,4 | 1 | 36,9 | 1.45 | 280 | 4100 | 1120 | 16400 | 150 | 5.9 | 1,60 | 1.08 | T7000 |
| H4020A | 31 | -20 | 31,8 | 1.1/4 | 44,0 | 1.73 | 280 | 4100 | 1120 | 16400 | 210 | 8.3 | 2,07 | 1.39 | T7000 |
| H4024A | 38 | -24 | 38,1 | 1.1/2 | 50,8 | 2.00 | 280 | 4100 | 1120 | 16400 | 330 | 13.0 | 2,65 | 1.78 | T7000 |
| H4032A | 51 | -32 | 50,8 | 2 | 66,4 | 2.61 | 280 | 4100 | 1120 | 16400 | 400 | 15.8 | 4,73 | 3.18 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H4000D

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC SPIRAL HOSE
280 BAR / 4100 PSI
MILLION CYCLE



RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar / 4100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP (size DN25, -16), ISO 18752-DC, SAE 100R12

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

| H4000D - DIEHARD ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | |
|---------------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| H4006D | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 280 | 4100 | 1120 | 16400 | 62 | 2.4 | 0,61 | 0.41 | T7000 |
| H4008D | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 280 | 4100 | 1120 | 16400 | 90 | 3.5 | 0,78 | 0.52 | T7000 |
| H4010D | 16 | -10 | 15,9 | 5/8 | 24,9 | 0.98 | 280 | 4100 | 1120 | 16400 | 100 | 3.9 | 0,76 | 0.51 | T7000 |
| H4012D | 19 | -12 | 19,1 | 3/4 | 30,0 | 1.18 | 280 | 4100 | 1120 | 16400 | 120 | 4.7 | 1,13 | 0.76 | T7000 |
| H4016D | 25 | -16 | 25,4 | 1 | 36,9 | 1.45 | 280 | 4100 | 1120 | 16400 | 150 | 5.9 | 1,60 | 1.08 | T7000 |
| H4020D | 31 | -20 | 31,8 | 1.1/4 | 44,0 | 1.73 | 280 | 4100 | 1120 | 16400 | 210 | 8.3 | 2,07 | 1.39 | T7000 |
| H4024D | 38 | -24 | 38,1 | 1.1/2 | 50,8 | 2.00 | 280 | 4100 | 1120 | 16400 | 330 | 13.0 | 2,65 | 1.78 | T7000 |
| H4032D | 51 | -32 | 50,8 | 2 | 66,4 | 2.61 | 280 | 4100 | 1120 | 16400 | 400 | 15.8 | 4,73 | 3.18 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H4000S

EXTREMELY ABRASION RESISTANT
ISOBARIC SPIRAL HOSE
280 BAR / 4100 PSI
MILLION CYCLE



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TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines. Constant pressure (isobaric) 280 bar / 4100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R12, EN 856 Type 4SP (size DN25, -16),
ISO 18752-DC, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar / 4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

| H4000S - SLIDER ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | | |
|---|-----------|------|-----------------|-------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|------------------------------|--|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| H4006S | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 280 | 4100 | 1120 | 16400 | 62 | 2.4 | 0,61 | 0.41 | T7000 | |
| H4008S | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 280 | 4100 | 1120 | 16400 | 90 | 3.5 | 0,78 | 0.52 | T7000 | |
| H4010S | 16 | -10 | 15,9 | 5/8 | 24,9 | 0.98 | 280 | 4100 | 1120 | 16400 | 100 | 3.9 | 0,76 | 0.51 | T7000 | |
| H4012S | 19 | -12 | 19,1 | 3/4 | 30,0 | 1.18 | 280 | 4100 | 1120 | 16400 | 120 | 4.7 | 1,13 | 0.76 | T7000 | |
| H4016S | 25 | -16 | 25,4 | 1 | 36,9 | 1.45 | 280 | 4100 | 1120 | 16400 | 150 | 5.9 | 1,60 | 1.08 | T7000 | |
| H4020S | 31 | -20 | 31,8 | 1.1/4 | 44,0 | 1.73 | 280 | 4100 | 1120 | 16400 | 210 | 8.3 | 2,07 | 1.39 | T7000 | |
| H4024S | 38 | -24 | 38,1 | 1.1/2 | 50,8 | 2.00 | 280 | 4100 | 1120 | 16400 | 330 | 13.0 | 2,65 | 1.78 | T7000 | |
| H4032S | 51 | -32 | 50,8 | 2 | 66,4 | 2.61 | 280 | 4100 | 1120 | 16400 | 400 | 15.8 | 4,73 | 3.18 | T7000 | |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H5000A

ISOBARIC SPIRAL HOSE
350 BAR / 5100 PSI
MILLION CYCLE



RECOMMENDED FOR:

Very high pressure hydraulic oil lines.
Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R13, ISO 18752-CC, SAE 100R13.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -24) pages 217 to 233.

T9000 Series (size -32) pages 234 to 240.

Assembly Instructions page 498.

| H5000A - AVENGER ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | |
|---------------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| H5006A | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 350 | 5100 | 1400 | 20400 | 62 | 2.4 | 0,61 | 0.41 | T7000 |
| H5008A | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 350 | 5100 | 1400 | 20400 | 90 | 3.5 | 0,78 | 0.52 | T7000 |
| H5010A | 16 | -10 | 15,9 | 5/8 | 26,2 | 1.03 | 350 | 5100 | 1400 | 20400 | 100 | 3.9 | 0,98 | 0.66 | T7000 |
| H5012A | 19 | -12 | 19,1 | 3/4 | 29,6 | 1.17 | 350 | 5100 | 1400 | 20400 | 120 | 4.7 | 1,21 | 0.81 | T7000 |
| H5016A | 25 | -16 | 25,4 | 1 | 36,8 | 1.45 | 350 | 5100 | 1400 | 20400 | 150 | 5.9 | 1,72 | 1.16 | T7000 |
| H5020A | 31 | -20 | 31,8 | 1.1/4 | 45,0 | 1.77 | 350 | 5100 | 1400 | 20400 | 210 | 8.3 | 2,42 | 1.63 | T7000 |
| H5024A | 38 | -24 | 38,1 | 1.1/2 | 52,7 | 2.07 | 350 | 5100 | 1400 | 20400 | 330 | 13.0 | 3,44 | 2.31 | T7000 |
| H5032A | 51 | -32 | 50,8 | 2 | 67,5 | 2.66 | 350 | 5100 | 1400 | 20400 | 400 | 15.8 | 5,40 | 3.63 | T9000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H5000D

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC SPIRAL HOSE
350 BAR / 5100 PSI
MILLION CYCLE



INTRODUCTION

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RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (isobaric) 350 bar / 5100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R13, ISO 18752-CC, SAE100R13.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -24) pages 217 to 233.

T9000 Series (size -32) pages 234 to 233.

Assembly Instructions page 498.

| H5000D - DIEHARD ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | | |
|---------------------------------------|-----------|------|-----------------|-------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|-------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| H5006D | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 350 | 5100 | 1400 | 20400 | 62 | 2.4 | 0,61 | 0.41 | T7000 | |
| H5008D | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 350 | 5100 | 1400 | 20400 | 90 | 3.5 | 0,78 | 0.52 | T7000 | |
| H5010D | 16 | -10 | 15,9 | 5/8 | 26,2 | 1.03 | 350 | 5100 | 1400 | 20400 | 100 | 3.9 | 0,98 | 0.66 | T7000 | |
| H5012D | 19 | -12 | 19,1 | 3/4 | 29,6 | 1.17 | 350 | 5100 | 1400 | 20400 | 120 | 4.7 | 1,21 | 0.81 | T7000 | |
| H5016D | 25 | -16 | 25,4 | 1 | 36,8 | 1.45 | 350 | 5100 | 1400 | 20400 | 150 | 5.9 | 1,72 | 1.16 | T7000 | |
| H5020D | 31 | -20 | 31,8 | 1.1/4 | 45,0 | 1.77 | 350 | 5100 | 1400 | 20400 | 210 | 8.3 | 2,42 | 1.63 | T7000 | |
| H5024D | 38 | -24 | 38,1 | 1.1/2 | 52,7 | 2.07 | 350 | 5100 | 1400 | 20400 | 330 | 13.0 | 3,44 | 2.31 | T7000 | |
| H5032D | 51 | -32 | 50,8 | 2 | 67,5 | 2.66 | 350 | 5100 | 1400 | 20400 | 400 | 15.8 | 5,40 | 3.63 | | T9000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H5000S

EXTREMELY ABRASION RESISTANT
ISOBARIC SPIRAL HOSE
350 BAR / 5100 PSI
MILLION CYCLE



RECOMMENDED FOR:

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: EN 856 Type R13, ISO 18752-CC, SAE 100R13.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C, -40°F to +250°F.
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -24) pages 217 to 233.

T9000 Series (size -32) pages 234 to 240.

Assembly Instructions page 498.

| H5000S - SLIDER ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | |
|---|-----------|-----------------|-------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|-----------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE |
| H5006S | 10 -06 | 9,5 | 3/8 | 19,3 | 0.76 | 350 | 5100 | 1400 | 20400 | 62 | 2.4 | 0,61 | 0.41 | T7000 |
| H5008S | 12 -08 | 12,7 | 1/2 | 22,7 | 0.89 | 350 | 5100 | 1400 | 20400 | 90 | 3.5 | 0,78 | 0.52 | T7000 |
| H5010S | 16 -10 | 15,9 | 5/8 | 26,2 | 1.03 | 350 | 5100 | 1400 | 20400 | 100 | 3.9 | 0,98 | 0.66 | T7000 |
| H5012S | 19 -12 | 19,1 | 3/4 | 29,6 | 1.17 | 350 | 5100 | 1400 | 20400 | 120 | 4.7 | 1,21 | 0.81 | T7000 |
| H5016S | 25 -16 | 25,4 | 1 | 36,8 | 1.45 | 350 | 5100 | 1400 | 20400 | 150 | 5.9 | 1,72 | 1.16 | T7000 |
| H5020S | 31 -20 | 31,8 | 1.1/4 | 45,0 | 1.77 | 350 | 5100 | 1400 | 20400 | 210 | 8.3 | 2,42 | 1.63 | T7000 |
| H5024S | 38 -24 | 38,1 | 1.1/2 | 52,7 | 2.07 | 350 | 5100 | 1400 | 20400 | 330 | 13.0 | 3,44 | 2.31 | T7000 |
| H5032S | 51 -32 | 50,8 | 2 | 67,5 | 2.66 | 350 | 5100 | 1400 | 20400 | 400 | 15.8 | 5,40 | 3.63 | T9000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H6000A

ISOBARIC SPIRAL HOSE

420 BAR / 6100 PSI

MILLION CYCLE



INTRODUCTION

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RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R15, ISO 18752-CC, SAE 100R15.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to 1 million impulse cycles at up to 1/2 SAE 100R15 Minimum Bend Radius. **World First:** World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -20) pages 217 to 233.

T9000 Series (size -24) pages 234 to 240.

Assembly Instructions page 498.

BITELOK SKIVE TWO-PIECE CRIMP

69000N Series (sizes -12 to -32) pages 245 to 251.

Assembly Instructions page 504.

| H6000A - AVENGER ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | | |
|---------------------------------------|-----------|------|-----------------|-------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|-----------|--------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | 2 PC |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | SKIVE |
| H6006A | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 420 | 6100 | 1680 | 24400 | 75 | 2.9 | 0,61 | 0.41 | T7000 | |
| H6008A | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 420 | 6100 | 1680 | 24400 | 100 | 3.9 | 0,78 | 0.52 | T7000 | |
| H6010A | 16 | -10 | 15,9 | 5/8 | 26,2 | 1.03 | 420 | 6100 | 1680 | 24400 | 110 | 4.3 | 1,00 | 0.67 | T7000 | |
| H6012A | 19 | -12 | 19,1 | 3/4 | 30,6 | 1.20 | 420 | 6100 | 1680 | 24400 | 115 | 4.5 | 1,38 | 0.93 | T7000 | 69000N |
| H6016A | 25 | -16 | 25,4 | 1 | 37,5 | 1.48 | 420 | 6100 | 1680 | 24400 | 165 | 6.5 | 1,99 | 1.34 | T7000 | 69000N |
| H6020A | 31 | -20 | 31,8 | 1.1/4 | 46,4 | 1.83 | 420 | 6100 | 1680 | 24400 | 220 | 8.7 | 2,97 | 2.00 | T7000 | 69000N |
| H6024A | 38 | -24 | 38,1 | 1.1/2 | 53,1 | 2.09 | 420 | 6100 | 1680 | 24400 | 350 | 13.8 | 3,81 | 2.56 | | T9000 69000N |
| H6032A | 51 | -32 | 50,8 | 2 | 71,5 | 2.81 | 420 | 6100 | 1680 | 24400 | 400 | 15.8 | 7,10 | 4.77 | | 69000N |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

ISOBARIC SPIRAL

H6000D

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC SPIRAL HOSE
420 BAR / 6100 PSI
MILLION CYCLE



RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type R15, ISO 18752-CC, SAE 100R15.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R15 Minimum Bend Radius. **World First:** World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -20) pages 217 to 233.

T9000 Series (size -24) pages 234 to 240.

Assembly Instructions page 498.

BITELOK SKIVE TWO-PIECE CRIMP

69000N Series (sizes -12 to -32) pages 245 to 251.

Assembly Instructions page 504.

| H6000D - DIEHARD ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | |
|---------------------------------------|-----------|-----------------|-------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|-----------------|--------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES | |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE | 2 PC |
| H6006D | 10 -06 | 9,5 | 3/8 | 19,3 | 0.76 | 420 | 6100 | 1680 | 24400 | 75 | 2.9 | 0,61 | 0.41 | T7000 | |
| H6008D | 12 -08 | 12,7 | 1/2 | 22,7 | 0.89 | 420 | 6100 | 1680 | 24400 | 100 | 3.9 | 0,78 | 0.52 | T7000 | |
| H6010D | 16 -10 | 15,9 | 5/8 | 26,2 | 1.03 | 420 | 6100 | 1680 | 24400 | 110 | 4.3 | 1,00 | 0.67 | T7000 | |
| H6012D | 19 -12 | 19,1 | 3/4 | 30,6 | 1.20 | 420 | 6100 | 1680 | 24400 | 115 | 4.5 | 1,38 | 0.93 | T7000 | 69000N |
| H6016D | 25 -16 | 25,4 | 1 | 37,5 | 1.48 | 420 | 6100 | 1680 | 24400 | 165 | 6.5 | 1,99 | 1.34 | T7000 | 69000N |
| H6020D | 31 -20 | 31,8 | 1.1/4 | 46,4 | 1.83 | 420 | 6100 | 1680 | 24400 | 220 | 8.7 | 2,97 | 2.00 | T7000 | 69000N |
| H6024D | 38 -24 | 38,1 | 1.1/2 | 53,1 | 2.09 | 420 | 6100 | 1680 | 24400 | 350 | 13.8 | 3,81 | 2.56 | | T9000 69000N |
| H6032D | 51 -32 | 50,8 | 2 | 71,5 | 2.81 | 420 | 6100 | 1680 | 24400 | 400 | 15.8 | 7,10 | 4.77 | | 69000N |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H6000S

EXTRA ABRASION RESISTANT
FRAS
ISOBARIC SPIRAL HOSE
420 BAR / 6100 PSI
MILLION CYCLE



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RECOMMENDED FOR:

Extremely high pressure hydraulic oil lines.
Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes.
Small bend radius is an advantage in installations.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
ISO 3862 Type R15, ISO 18752-CC, SAE 100R15.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

FEATURES:

Tested to 1 million impulse cycles at up to 1/2 SAE 100R15 Minimum Bend Radius. **World First:** World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

-40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -20) pages 217 to 233.

T9000 Series (size -24) pages 234 to 240.

Assembly Instructions page 498.

BITELOK SKIVE TWO-PIECE CRIMP

69000N Series (sizes -12 to -32) pages 245 to 251.

Assembly Instructions page 504.

| H6000S - DIEHARD ISOBARIC SPIRAL HOSE | | | | | | | | | | | | | | | | |
|---------------------------------------|-----------|------|-----------------|-----------------|--------------------------|------|------------------------|------|---------------------|-------|----------------|------|-----------------|-------|-----------|--------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | NOMINAL HOSE OD | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES | | ONE PIECE | 2 PC |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | SKIVE |
| H6006S | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 420 | 6100 | 1680 | 24400 | 75 | 2.9 | 0,61 | 0.41 | T7000 | |
| H6008S | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 420 | 6100 | 1680 | 24400 | 100 | 3.9 | 0,78 | 0.52 | T7000 | |
| H6010S | 16 | -10 | 15,9 | 5/8 | 26,2 | 1.03 | 420 | 6100 | 1680 | 24400 | 110 | 4.3 | 1,00 | 0.67 | T7000 | |
| H6012S | 19 | -12 | 19,1 | 3/4 | 30,6 | 1.20 | 420 | 6100 | 1680 | 24400 | 115 | 4.5 | 1,38 | 0.93 | T7000 | 69000N |
| H6016S | 25 | -16 | 25,4 | 1 | 37,5 | 1.48 | 420 | 6100 | 1680 | 24400 | 165 | 6.5 | 1,99 | 1.34 | T7000 | 69000N |
| H6020S | 31 | -20 | 31,8 | 1.1/4 | 46,4 | 1.83 | 420 | 6100 | 1680 | 24400 | 220 | 8.7 | 2,97 | 2.00 | T7000 | 69000N |
| H6024S | 38 | -24 | 38,1 | 1.1/2 | 53,1 | 2.09 | 420 | 6100 | 1680 | 24400 | 350 | 13.8 | 3,81 | 2.56 | | T9000 69000N |
| H6032S | 51 | -32 | 50,8 | 2 | 71,5 | 2.81 | 420 | 6100 | 1680 | 24400 | 400 | 15.8 | 7,10 | 4.77 | | 69000N |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

T1A

ONE WIRE
NON SKIVE HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -03 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.

Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -03 to -16) pages 276 to 290.

K000 Series ferrule (sizes -03 to -16) page 276.

Assembly Instructions page 496.

| T1A - AVENGER NON-SKIVE HOSE | | | | | | | | | | | | | | | | |
|---------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|-----------|-----------|-------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | FIELD ATT | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T13A | 5 | -03 | 4,8 | 3/16 | 11,7 | 0.46 | 250 | 3600 | 1000 | 14500 | 35 | 1.4 | 0,19 | 0.13 | T2000 | 6000 (K000) |
| T14A | 6 | -04 | 6,3 | 1/4 | 13,3 | 0.52 | 225 | 3250 | 900 | 13000 | 38 | 1.5 | 0,22 | 0.15 | T2000 | 6000 (K000) |
| T15A | 8 | -05 | 7,9 | 5/16 | 14,9 | 0.59 | 215 | 3100 | 860 | 12400 | 50 | 2.0 | 0,25 | 0.17 | T2000 | |
| T16A | 10 | -06 | 9,5 | 3/8 | 17,3 | 0.68 | 180 | 2600 | 720 | 10400 | 50 | 2.0 | 0,31 | 0.21 | T2000 | T7000 6000 (K000) |
| T18A | 12 | -08 | 12,7 | 1/2 | 20,3 | 0.80 | 160 | 2300 | 640 | 9200 | 75 | 3.0 | 0,39 | 0.26 | T2000 | T7000 6000 (K000) |
| T110A | 16 | -10 | 15,9 | 5/8 | 23,6 | 0.93 | 130 | 1900 | 520 | 7600 | 89 | 3.5 | 0,49 | 0.33 | T2000 | T7000 6000 (K000) |
| T112A | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 105 | 1500 | 420 | 6000 | 109 | 4.3 | 0,62 | 0.42 | T2000 | T7000 6000 (K000) |
| T116A | 25 | -16 | 25,4 | 1 | 35,5 | 1.40 | 90 | 1300 | 360 | 5200 | 140 | 5.5 | 0,90 | 0.60 | T2000 | T7000 6000 (K000) |
| T120A | 31 | -20 | 31,8 | 1.1/4 | 43,2 | 1.70 | 65 | 945 | 260 | 3780 | 419 | 16.5 | 1,21 | 0.81 | T2000 | T7000 |
| T124A | 38 | -24 | 38,1 | 1.1/2 | 50,2 | 1.98 | 50 | 725 | 200 | 2900 | 500 | 19.7 | 1,45 | 0.97 | T2000 | T7000 |
| T132A | 51 | -32 | 50,8 | 2 | 63,6 | 2.50 | 40 | 580 | 160 | 2320 | 600 | 23.6 | 2,09 | 1.40 | T2000 | T7000 |

* When using A000 Series Field Attachable Couplings on T1A Series Hose, cover of hose must be skived at ends.

** Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T1D

EXTRA ABRASION RESISTANT
FRAS
ONE WIRE BRAID HOSE



INTRODUCTION

HOSE

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TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN,
ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

FEATURES:

The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life, when tested to EN 853 Type 1SN/SAE 100R1AT test conditions, result in increased service life and minimise equipment downtime.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -03 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -03 to -16) pages 276 to 290.

K000 Series ferrule (sizes -03 to -16) page 276.
Assembly Instructions page 496.

| T1D - DIEHARD NON-SKIVE HOSE | | | | | | | | | | | | | | | | | |
|------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|-----------|-----------|-------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | FIELD ATT | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | | |
| T13D | 5 | -03 | 4,8 | 3/16 | 11,7 | 0.46 | 250 | 3600 | 1000 | 14500 | 35 | 1.4 | 0,19 | 0.13 | T2000 | | 6000 (K000) |
| T14D | 6 | -04 | 6,3 | 1/4 | 13,3 | 0.52 | 225 | 3250 | 900 | 13000 | 38 | 1.5 | 0,22 | 0.15 | T2000 | | 6000 (K000) |
| T15D | 8 | -05 | 7,9 | 5/16 | 14,9 | 0.59 | 215 | 3100 | 860 | 12400 | 50 | 2.0 | 0,25 | 0.17 | T2000 | | |
| T16D | 10 | -06 | 9,5 | 3/8 | 17,3 | 0.68 | 180 | 2600 | 720 | 10400 | 50 | 2.0 | 0,31 | 0.21 | T2000 | T7000 | 6000 (K000) |
| T18D | 12 | -08 | 12,7 | 1/2 | 20,3 | 0.80 | 160 | 2300 | 640 | 9200 | 75 | 3.0 | 0,39 | 0.26 | T2000 | T7000 | 6000 (K000) |
| T110D | 16 | -10 | 15,9 | 5/8 | 23,6 | 0.93 | 130 | 1900 | 520 | 7600 | 89 | 3.5 | 0,49 | 0.33 | T2000 | T7000 | 6000 (K000) |
| T112D | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 105 | 1500 | 420 | 6000 | 109 | 4.3 | 0,62 | 0.42 | T2000 | T7000 | 6000 (K000) |
| T116D | 25 | -16 | 25,4 | 1 | 35,5 | 1.40 | 90 | 1300 | 360 | 5200 | 140 | 5.5 | 0,90 | 0.60 | T2000 | T7000 | 6000 (K000) |
| T120D | 31 | -20 | 31,8 | 1.1/4 | 43,2 | 1.70 | 65 | 945 | 260 | 3780 | 419 | 16.5 | 1,21 | 0.81 | T2000 | T7000 | |
| T124D | 38 | -24 | 38,1 | 1.1/2 | 50,2 | 1.98 | 50 | 725 | 200 | 2900 | 500 | 19.7 | 1,45 | 0.97 | T2000 | T7000 | |
| T132D | 51 | -32 | 50,8 | 2 | 63,6 | 2.50 | 40 | 580 | 160 | 2320 | 600 | 23.6 | 2,09 | 1.40 | T2000 | T7000 | |

* When using A000 Series Field Attachable Couplings on T1D Series Hose, cover of hose must be skived at ends.

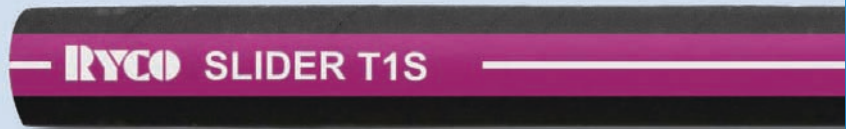
** Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

T1S

EXTREMELY ABRASION RESISTANT
ONE WIRE BRAID HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN,
ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -03 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.

Assembly Instructions page 498.

| T1S - SLIDER NON-SKIVE HOSE | | | | | | | | | | | | | | | |
|--------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| T13S | 5 | -03 | 4,8 | 3/16 | 11,7 | 0.46 | 250 | 3600 | 1000 | 14500 | 35 | 1.4 | 0,19 | 0.13 | T2000 |
| T14S | 6 | -04 | 6,3 | 1/4 | 13,3 | 0.52 | 225 | 3250 | 900 | 13000 | 38 | 1.5 | 0,22 | 0.15 | T2000 |
| T15S | 8 | -05 | 7,9 | 5/16 | 14,9 | 0.59 | 215 | 3100 | 860 | 12400 | 50 | 2.0 | 0,25 | 0.17 | T2000 |
| T16S | 10 | -06 | 9,5 | 3/8 | 17,3 | 0.68 | 180 | 2600 | 720 | 10400 | 50 | 2.0 | 0,31 | 0.21 | T2000 T7000 |
| T18S | 12 | -08 | 12,7 | 1/2 | 20,3 | 0.80 | 160 | 2300 | 640 | 9200 | 75 | 3.0 | 0,39 | 0.26 | T2000 T7000 |
| T110S | 16 | -10 | 15,9 | 5/8 | 23,6 | 0.93 | 130 | 1900 | 520 | 7600 | 89 | 3.5 | 0,49 | 0.33 | T2000 T7000 |
| T112S | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 105 | 1500 | 420 | 6000 | 109 | 4.3 | 0,62 | 0.42 | T2000 T7000 |
| T116S | 25 | -16 | 25,4 | 1 | 35,5 | 1.40 | 90 | 1300 | 360 | 5200 | 140 | 5.5 | 0,90 | 0.60 | T2000 T7000 |
| T120S | 31 | -20 | 31,8 | 1.1/4 | 43,2 | 1.70 | 65 | 945 | 260 | 3780 | 419 | 16.5 | 1,21 | 0.81 | T2000 T7000 |
| T124S | 38 | -24 | 38,1 | 1.1/2 | 50,2 | 1.98 | 50 | 725 | 200 | 2900 | 500 | 19.7 | 1,45 | 0.97 | T2000 T7000 |
| T132S | 51 | -32 | 50,8 | 2 | 63,6 | 2.50 | 40 | 580 | 160 | 2320 | 600 | 23.6 | 2,09 | 1.40 | T2000 T7000 |

* Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T1F

FIRE SUPPRESSION
ONE WIRE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Use in Fire Suppression Systems of off-road vehicles, mining equipment, stationary engines, etc. The hose is coloured red, for easy identification as part of the Fire Suppression System.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, oil resistant synthetic rubber. Resistant to aqueous film forming foam, dry chemical powder, carbon dioxide, and water based fire extinguishing agents.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Red, heat resistant, abrasion resistant and oil resistant rubber. Flame Resistant to Australian Standard AS 2660 and U.S. MSHA requirements. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

MED.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -03 to -16) pages 188 to 208.

T7000 Series (sizes -06 to -16) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -03 to -16) pages 276 to 290.

K000 Series ferrule (sizes -03 to -16) page 276.
Assembly Instructions page 496.

| T1F - FIRE SUPPRESSION NON-SKIVE HOSE | | | | | | | | | | | | | | | | | |
|--|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|-----------|-----------|-------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | FIELD ATT | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | | |
| T13F | 5 | -03 | 4,8 | 3/16 | 11,7 | 0.46 | 250 | 3600 | 1000 | 14500 | 89 | 3.5 | 0,19 | 0.13 | T2000 | | 6000 (K000) |
| T14F | 6 | -04 | 6,3 | 1/4 | 13,3 | 0.52 | 225 | 3250 | 900 | 13000 | 100 | 3.9 | 0,22 | 0.15 | T2000 | | 6000 (K000) |
| T15F | 8 | -05 | 7,9 | 5/16 | 14,9 | 0.59 | 215 | 3100 | 860 | 12400 | 114 | 4.5 | 0,25 | 0.17 | T2000 | | |
| T16F | 10 | -06 | 9,5 | 3/8 | 17,3 | 0.68 | 180 | 2600 | 720 | 10400 | 127 | 5.0 | 0,31 | 0.21 | T2000 | T7000 | 6000 (K000) |
| T18F | 12 | -08 | 12,7 | 1/2 | 20,3 | 0.80 | 160 | 2300 | 640 | 9200 | 178 | 7.0 | 0,39 | 0.26 | T2000 | T7000 | 6000 (K000) |
| T110F | 16 | -10 | 15,9 | 5/8 | 23,6 | 0.93 | 130 | 1900 | 520 | 7600 | 200 | 7.9 | 0,49 | 0.33 | T2000 | T7000 | 6000 (K000) |
| T112F | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 105 | 1500 | 420 | 6000 | 240 | 9.5 | 0,62 | 0.41 | T2000 | T7000 | 6000 (K000) |
| T116F | 25 | -16 | 25,4 | 1 | 35,5 | 1.40 | 90 | 1300 | 360 | 5200 | 300 | 11.8 | 0,90 | 0.60 | T2000 | T7000 | 6000 (K000) |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

T2A

TWO WIRE
NON SKIVE HOSE

RYCO AVENGER T2A



RECOMMENDED FOR:

High pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE 100R2AT, AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -48) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.

Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -20) pages 276 to 290.

L000 Series ferrule (sizes -04 to -20) page 276.

Assembly Instructions page 496.

| T2A - AVENGER NON-SKIVE HOSE | | | | | | | | | | | | | | | | |
|---------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|-----------|-----------|-------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | FIELD ATT | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T24A | 6 | -04 | 6,3 | 1/4 | 14,9 | 0.59 | 420 | 6100 | 1680 | 24400 | 100 | 3.9 | 0,35 | 0.24 | T2000 | 6000 (L000) |
| T25A | 8 | -05 | 7,9 | 5/16 | 16,5 | 0.65 | 350 | 5100 | 1400 | 20400 | 114 | 4.5 | 0,42 | 0.28 | T2000 | |
| T26A | 10 | -06 | 9,5 | 3/8 | 18,9 | 0.74 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,51 | 0.34 | T2000 | T7000 6000 (L000) |
| T28A | 12 | -08 | 12,7 | 1/2 | 21,9 | 0.86 | 350 | 5100 | 1400 | 20400 | 178 | 7.0 | 0,65 | 0.44 | T2000 | T7000 6000 (L000) |
| T210A | 16 | -10 | 15,9 | 5/8 | 25,1 | 0.99 | 250 | 3600 | 1000 | 14400 | 200 | 7.9 | 0,75 | 0.50 | T2000 | T7000 6000 (L000) |
| T212A | 19 | -12 | 19,1 | 3/4 | 29,1 | 1.15 | 215 | 3100 | 860 | 12400 | 240 | 9.5 | 0,93 | 0.62 | T2000 | T7000 6000 (L000) |
| T216A | 25 | -16 | 25,4 | 1 | 37,5 | 1.48 | 175 | 2500 | 700 | 10000 | 300 | 11.8 | 1,30 | 0.87 | T2000 | T7000 6000 (L000) |
| T220A | 31 | -20 | 31,8 | 1.1/4 | 47,6 | 1.87 | 140 | 2000 | 560 | 8000 | 419 | 16.5 | 1,97 | 1.33 | T2000 | T7000 6000 (L000) |
| T224A | 38 | -24 | 38,1 | 1.1/2 | 54,1 | 2.13 | 100 | 1450 | 400 | 5800 | 500 | 19.7 | 2,48 | 1.67 | T2000 | T7000 |
| T232A | 51 | -32 | 50,8 | 2 | 66,8 | 2.63 | 90 | 1300 | 360 | 5200 | 600 | 23.6 | 3,02 | 2.03 | T2000 | T7000 |
| T240A | 63 | -40 | 63,5 | 2.1/2 | 80,1 | 3.15 | 70 | 1000 | 280 | 4000 | 760 | 29.9 | 3,70 | 2.49 | T2000 | |
| T248A | 76 | -48 | 76,2 | 3 | 91,3 | 3.59 | 70 | 1000 | 280 | 4000 | 900 | 35.4 | 3,99 | 2.68 | T2000 | |

* When using B000 Series Field Attachable Couplings on T2A Series Hose, cover of hose must be skived at ends. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T2D

EXTRA ABRASION RESISTANT
FRAS
TWO WIRE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R2AT, DIN 20022 - 2SN, EN 853 Type 2SN,
ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

FEATURES:

The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life when tested to EN 853 Type 2SN/SAE 100R2AT test conditions result in, increased service life and minimise equipment downtime.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -48) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -20) pages 276 to 290.

L000 Series ferrule (sizes -04 to -20) page 276.
Assembly Instructions page 496.

| T2D - DIEHARD NON-SKIVE HOSE | | | | | | | | | | | | | | | | | |
|------------------------------|-----------|-----------------|-----------|-----------------|-----------|--------------------------|------------|------------------------|------------|---------------------|-----------|----------------|-------------|-----------------|------------------|-------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES | | | |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE | FIELD ATT | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | | |
| T24D | 6 | -04 | 6,3 | 1/4 | 14,9 | 0.59 | 420 | 6100 | 1680 | 24400 | 100 | 3.9 | 0,35 | 0.24 | T2000 | | 6000 (L000) |
| T25D | 8 | -05 | 7,9 | 5/16 | 16,5 | 0.65 | 350 | 5100 | 1400 | 20400 | 114 | 4.5 | 0,42 | 0.28 | T2000 | | |
| T26D | 10 | -06 | 9,5 | 3/8 | 18,9 | 0.74 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,51 | 0.34 | T2000 | T7000 | 6000 (L000) |
| T28D | 12 | -08 | 12,7 | 1/2 | 21,9 | 0.86 | 350 | 5100 | 1400 | 20400 | 178 | 7.0 | 0,65 | 0.44 | T2000 | T7000 | 6000 (L000) |
| T210D | 16 | -10 | 15,9 | 5/8 | 25,1 | 0.99 | 250 | 3600 | 1000 | 14400 | 200 | 7.9 | 0,75 | 0.50 | T2000 | T7000 | 6000 (L000) |
| T212D | 19 | -12 | 19,1 | 3/4 | 29,1 | 1.15 | 215 | 3100 | 860 | 12400 | 240 | 9.5 | 0,93 | 0.62 | T2000 | T7000 | 6000 (L000) |
| T216D | 25 | -16 | 25,4 | 1 | 37,5 | 1.48 | 175 | 2500 | 700 | 10000 | 300 | 11.8 | 1,30 | 0.87 | T2000 | T7000 | 6000 (L000) |
| T220D | 31 | -20 | 31,8 | 1.1/4 | 47,6 | 1.87 | 140 | 2000 | 560 | 8000 | 419 | 16.5 | 1,97 | 1.33 | T2000 | T7000 | 6000 (L000) |
| T224D | 38 | -24 | 38,1 | 1.1/2 | 54,1 | 2.13 | 100 | 1450 | 400 | 5800 | 500 | 19.7 | 2,48 | 1.67 | T2000 | T7000 | |
| T232D | 51 | -32 | 50,8 | 2 | 66,8 | 2.63 | 90 | 1300 | 360 | 5200 | 600 | 23.6 | 3,02 | 2.03 | T2000 | T7000 | |
| T240D | 63 | -40 | 63,5 | 2.1/2 | 80,1 | 3.15 | 70 | 1000 | 280 | 4000 | 760 | 29.9 | 3,70 | 2.49 | T2000 | | |
| T248D | 76 | -48 | 76,2 | 3 | 91,3 | 3.59 | 70 | 1000 | 280 | 4000 | 900 | 35.4 | 3,99 | 2.68 | T2000 | | |

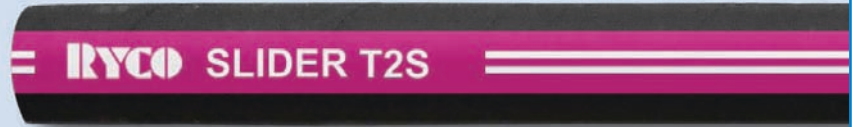
* When using B000 Series Field Attachable Couplings on T2D Series Hose, cover of hose must be skived at ends. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

T2S

EXTREMELY ABRASION RESISTANT
TWO WIRE BRAID HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to sliding abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Type 2AT, SAE 100R2AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -32) pages 188 to 208.

T7000 Series (sizes -05 to -32) pages 217 to 233.

Assembly Instructions page 498.

| T2S - SLIDER NON-SKIVE HOSE | | | | | | | | | | | | | | | | |
|--------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-----------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T24S | 6 | -04 | 6,3 | 1/4 | 14,9 | 0.59 | 420 | 6100 | 1680 | 24400 | 100 | 3.9 | 0,35 | 0.24 | T2000 | |
| T25S | 8 | -05 | 7,9 | 5/16 | 16,5 | 0.65 | 350 | 5100 | 1400 | 20400 | 114 | 4.5 | 0,42 | 0.28 | T2000 | T7000 |
| T26S | 10 | -06 | 9,5 | 3/8 | 18,9 | 0.74 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,51 | 0.34 | T2000 | T7000 |
| T28S | 12 | -08 | 12,7 | 1/2 | 21,9 | 0.86 | 350 | 5100 | 1400 | 20400 | 178 | 7.0 | 0,65 | 0.44 | T2000 | T7000 |
| T210S | 16 | -10 | 15,9 | 5/8 | 25,1 | 0.99 | 250 | 3600 | 1000 | 14400 | 200 | 7.9 | 0,75 | 0.50 | T2000 | T7000 |
| T212S | 19 | -12 | 19,1 | 3/4 | 29,1 | 1.15 | 215 | 3100 | 860 | 12400 | 240 | 9.5 | 0,93 | 0.62 | T2000 | T7000 |
| T216S | 25 | -16 | 25,4 | 1 | 37,5 | 1.48 | 175 | 2500 | 700 | 10000 | 300 | 11.8 | 1,30 | 0.87 | T2000 | T7000 |
| T220S | 31 | -20 | 31,8 | 1.1/4 | 47,6 | 1.87 | 140 | 2000 | 560 | 8000 | 419 | 16.5 | 1,97 | 1.33 | T2000 | T7000 |
| T224S | 38 | -24 | 38,1 | 1.1/2 | 54,1 | 2.13 | 100 | 1450 | 400 | 5800 | 500 | 19.7 | 2,48 | 1.67 | T2000 | T7000 |
| T232S | 51 | -32 | 50,8 | 2 | 66,8 | 2.63 | 90 | 1300 | 360 | 5200 | 600 | 23.6 | 3,02 | 2.03 | T2000 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

T2C

LOW TEMPERATURE HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where low temperature environmental conditions exist.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, specially formulated oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

FEATURES:

Low Temperature hose (-60°C/-76°F).

TEMPERATURE RANGE:

From -60°C to +100°C (-76°F to +212°F).

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).








COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.

Assembly Instructions pages 498.

| T2C LOW TEMPERATURE HOSE | |  | |  | |  | |  | |  | |  | |  | | |
|--------------------------|-----------|---|------|---|------|---|-----|---|------|--|-----|---|------|---|-----------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| T24C | 6 | -04 | 6,3 | 1/4 | 15,0 | 0.59 | 420 | 6100 | 1680 | 24400 | 100 | 4.0 | 0,38 | 0.26 | T2000 | |
| T25C | 8 | -05 | 7,9 | 5/16 | 16,6 | 0.65 | 350 | 5100 | 1400 | 20400 | 114 | 4.5 | 0,46 | 0.31 | T2000 | |
| T26C | 10 | -06 | 9,5 | 3/8 | 19,0 | 0.75 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,56 | 0.38 | T2000 | T7000 |
| T28C | 12 | -08 | 12,7 | 1/2 | 22,2 | 0.87 | 350 | 5100 | 1400 | 20400 | 178 | 7.0 | 0,65 | 0.44 | T2000 | T7000 |
| T210C | 16 | -10 | 15,9 | 5/8 | 25,2 | 0.99 | 250 | 3600 | 1000 | 14400 | 200 | 8.0 | 0.80 | 0.54 | T2000 | T7000 |
| T212C | 19 | -12 | 19,0 | 3/4 | 29,1 | 1.15 | 215 | 3100 | 860 | 12400 | 240 | 9.5 | 0,94 | 0.63 | T2000 | T7000 |
| T216C | 25 | -16 | 25,4 | 1 | 37,2 | 1.46 | 175 | 2500 | 700 | 10000 | 300 | 12.0 | 1,31 | 0.88 | T2000 | T7000 |
| T220C | 31 | -20 | 31,8 | 1.1/4 | 47,4 | 1.87 | 140 | 2000 | 560 | 8000 | 419 | 16.5 | 1,91 | 1.28 | T2000 | T7000 |
| T224C | 38 | -24 | 38,1 | 1.1/2 | 53,8 | 2.12 | 100 | 1450 | 400 | 5800 | 500 | 20.0 | 2,14 | 1.44 | T2000 | T7000 |
| T232C | 51 | -32 | 50,8 | 2 | 66,7 | 2.63 | 90 | 1300 | 360 | 5200 | 600 | 24.0 | 2,78 | 1.87 | T2000 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

TXA2D

EXTRA ABRASION RESISTANT
EXTRA HIGH PRESSURE
FRAS
TWO WIRE BRAID HOSE

RYCO DIEHARD TXA2D



RECOMMENDED FOR:

High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses. Ideal for high pressure use that requires a smaller outside diameter (except -20 size), lighter weight, and more flexibility than spiral hose.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, BCS 174, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

FEATURES:

The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life, when tested to EN 853 Type 2SN/SAE 100R2AT test conditions, result in increased service life and minimise equipment downtime.

FLAME RESISTANCE:

Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -08 to -16) pages 188 to 208.

T7000 Series (sizes -08 to -16) pages 217 to 233.

Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -08 to -16) pages 276 to 290.

L000 Series ferrule (sizes -08 to -16) page 276.

Assembly Instructions page 496.

| TXA2D - DIEHARD AGGRESSOR NON-SKIVE HOSE | | | | | | | | | | | | | | | | |
|--|-----------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|-----------------|-----------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES | | |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE | FIELD ATT | |
| TXA28D | 12 -08 | 12,7 | 1/2 | 22,0 | 0.87 | 375 | 5440 | 1500 | 21760 | 178 | 7.0 | 0,72 | 0.48 | T2000 | T7000 | 6000 (L000) |
| TXA210D | 16 -10 | 15,9 | 5/8 | 25,2 | 0.99 | 350 | 5100 | 1400 | 20400 | 200 | 8.0 | 0,87 | 0.58 | T2000 | T7000 | 6000 (L000) |
| TXA212D | 19 -12 | 19,1 | 3/4 | 29,1 | 1.15 | 313 | 4530 | 1252 | 18120 | 240 | 9.5 | 1,11 | 0.75 | T2000 | T7000 | 6000 (L000) |
| TXA216D | 25 -16 | 25,4 | 1 | 37,7 | 1.48 | 225 | 3250 | 900 | 13000 | 300 | 12.0 | 1,50 | 1.01 | T2000 | T7000 | 6000 (L000) |

Contact RYCO for Crimp Diameter and Mark Length for BITELOK Couplings.

DF2A

DINFLEX
TWO WIRE BRAID
COMPACT HOSE



INTRODUCTION

RECOMMENDED FOR:

High pressure hydraulic oil lines. DINFLEX Hose has the compact outside diameter of one wire braid hose, but exceeds the performance requirements of SAE 100R2 two wire braid hose. Additionally it has a smaller bend radius and higher flexibility than standard two wire braid hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, EN 857 Type 2SC, ISO 1436, SAE 100R2AT, SAE 100R16.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

| DF2A - DINFLEX NON-SKIVE HOSE | | | | | | | | | | | | | | | |
|-------------------------------|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES |
| | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE |
| DF24A | 6 | -04 | 6,3 | 1/4 | 13,4 | 0.53 | 420 | 6100 | 1680 | 24000 | 50 | 2.0 | 0,28 | 0.19 | NON-SKIVE T2000 |
| DF25A | 8 | -05 | 7,9 | 5/16 | 14,9 | 0.59 | 350 | 5100 | 1400 | 20400 | 56 | 2.2 | 0,41 | 0.27 | T2000 |
| DF26A | 10 | -06 | 9,5 | 3/8 | 17,3 | 0.68 | 350 | 5100 | 1400 | 20400 | 63 | 2.5 | 0,43 | 0.29 | T2000 |
| DF28A | 12 | -08 | 12,7 | 1/2 | 20,3 | 0.80 | 295 | 4250 | 1180 | 17000 | 88 | 3.5 | 0,51 | 0.34 | T2000 |
| DF210A | 16 | -10 | 15,9 | 5/8 | 23,6 | 0.93 | 250 | 3600 | 1000 | 14500 | 101 | 4.0 | 0,63 | 0.42 | T2000 |
| DF212A | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 215 | 3100 | 860 | 12400 | 120 | 4.7 | 0,81 | 0.55 | T2000 |
| DF216A | 25 | -16 | 25,4 | 1 | 35,5 | 1.40 | 167 | 2400 | 668 | 9700 | 152 | 6.0 | 1,10 | 0.74 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

BRAID

TJ2D

ABRASION RESISTANT
FRAS
JACK HOSE



RECOMMENDED FOR:

Hydraulic Jack applications requiring a light weight, small outside diameter hose. The very high abrasion resistant properties of the DIEHARD cover extend the life of the hose when it is subjected to the abrasion that may cause the premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: Materials Handling Institute specification IJ 100 (July 1979) for hydraulic hose and assemblies used with jacking systems.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +49°C (-40°F to +120°F).
For water, emulsions etc. see page 57.








WORKING PRESSURE:

Specification IJ 100 (July 1979) is based on 2:1 minimum burst to maximum working pressure safety factor. RYCO TJ2D Series hose has a 2.5:1 safety factor and is suitable for 700 bar/10,000 psi use in hydraulic jack applications ONLY.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 & -06) pages 188 to 208.

| TJ2D - DIEHARD JACK HOSE | |  | |  | |  | |  | |  | |  | |  | |
|--------------------------|-----------|---|-----|---|------|---|-----|---|------|--|-----|---|------|---|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| TJ24D | 6 | -04 | 6,3 | 1/4 | 14.9 | 0.59 | 700 | 10000 | 1750 | 25000 | 100 | 3.9 | 0.35 | 0.24 | T2000 |
| TJ26D | 10 | -06 | 9,5 | 3/8 | 18.9 | 0.74 | 700 | 10000 | 1750 | 25000 | 127 | 5.0 | 0.51 | 0.34 | T2000 |

NOTE: Ensure rated Working Pressure of chosen End Style meets or exceeds the 700 bar/10,000 psi Maximum Working Pressure of TJ2D hose.

For hydraulic jack applications, RYCO recommends the use of 3/8" NPTF Male Extended Couplings.

TJ24D: Part No. T209E-0406 BITELOK One-Piece Crimp. Use of RYCO 750 Spring Guards at each end of the hose assembly is also recommended.

TJ26D: Part No. T209E-0606 BITELOK One-Piece Crimp. Use of a Bend Restrictor device at each end of the hose assembly is also recommended.

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

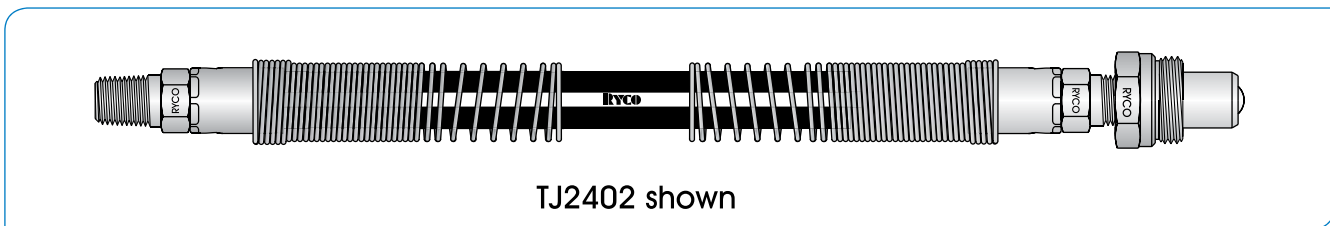
JACK HOSE ASSEMBLIES

For ease of ordering, Hose Assemblies can be specified using TJ24 and TJ26 numbers below, followed by overall length in millimetres. For example, to order a TJ24D Hose Assembly, 1800 mm overall length, with 3/8" NPTF male one end and male Screw-On coupling other end, with Spring Guards at each end; simply order TJ2402-1800. Standard lengths are 1000 mm, 2000 mm and 3000 mm. Other lengths are available.

JACK HOSE ASSEMBLIES (HOSE ENDS INCLUDE RYCO 750 SPRING GUARD**)

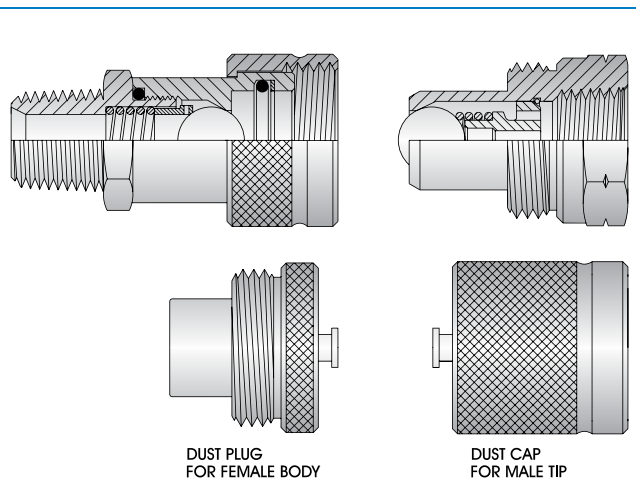
| HOSE ASSEMBLY No. | HOSE END 1 | HOSE END 2 |
|------------------------------|----------------|--|
| TJ2401-xxxx* TJ2601-xxxx* | 3/8" NPTF Male | 3/8" NPTF Male |
| TJ2402-xxxx* TJ2602-xxxx* | 3/8" NPTF Male | R100-06M Male Tip |
| TJ2403-xxxx* TJ2603-xxxx* | 3/8" NPTF Male | R100-06M Male Tip and R100-06DC Dust Cap |
| TJ2404-xxxx* TJ2604-xxxx* | 3/8" NPTF Male | R100-06FM Male and Female Coupling |
| TJ2405-xxxx* TJ2605-xxxx* | 3/8" NPTF Male | R100-06FMPC Male and Female Coupling with Dust Cap and Dust Plug |

* Substitute xxxx for overall length (mm)
 ** RYCO 750 Spring Guard is only available to suit TJ24D hose assemblies.



TJ2402 shown

R100 SERIES QUICK RELEASE COUPLINGS, 700 BAR/10,000 PSI, THREAD-TO-CONNECT.



- Designed for use in heavy duty applications on portable cylinders, rams and pumps, where low flow rates and pressures up to 700 bar/10,000 psi are involved.
- Threaded sleeve on female body engages thread on male tip. When the sleeve is screwed completely up, the two coupling halves are secured together. Can connect and disconnect with pressure in line.
- Precision ball type check valves.
- Threaded dust caps and plugs complete with captive chain are available.
- Female body is NPTF male threaded to screw directly into the cylinder or ram.
- Male tip is NPTF female threaded to screw onto hose coupling.

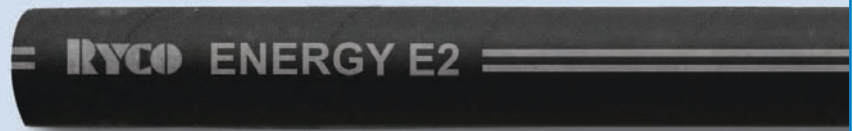
| NOMINAL SIZE | NPTF THREAD | MAXIMUM WORKING PRESSURE | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | DUST PLUG FOR MALE | DUST PLUG FOR FEMALE |
|--------------|-------------|--------------------------|-------|-----------------|-----------------|-------------------|--------------------|----------------------|
| | | bar | psi | | | | | |
| 1/4 | 1/4 | 700 | 10000 | R100-04F | R100-04M | R100-04FM | R100-06DP | R100-06DC |
| 3/8 | 3/8 | 700 | 10000 | R100-06F | R100-06M | R100-06FM | R100-06DP | R100-06DC |

See page [XX] for further information on RYCO R100 Series Couplings.

HOSE

BRAID

E2 ENERGY HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: EN853 2SN, SAE 100R2AT, SAE 100R2S.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Black, oil resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -16) pages 188 to 208.

T7000 Series (sizes -06 to -16) pages 217 to 233.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -16) pages 276 to 290.

L000 Series ferrule (sizes -04 to -16) page 276.
Assembly Instructions page 496.

| E2 - ENERGY HOSE | | | | | | | | | | | | | | COUPLING SERIES | | |
|------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|-----------------|-----------|-------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | FIELD ATT | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| E24 | 6 | -04 | 6,3 | 1/4 | 14,9 | 0.59 | 420 | 6100 | 1680 | 24400 | 100 | 3.9 | 0,35 | 0.24 | T2000 | 6000 (L000) |
| E25 | 8 | -05 | 7,9 | 5/16 | 16,5 | 0.65 | 350 | 5100 | 1400 | 20400 | 114 | 4.5 | 0,42 | 0.28 | T2000 | |
| E26 | 10 | -06 | 9,5 | 3/8 | 18,9 | 0.74 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,51 | 0.34 | T2000 | T7000 6000 (L000) |
| E28 | 12 | -08 | 12,7 | 1/2 | 21,9 | 0.86 | 350 | 5100 | 1400 | 20400 | 178 | 7.0 | 0,65 | 0.44 | T2000 | T7000 6000 (L000) |
| E210 | 16 | -10 | 15,9 | 5/8 | 25,1 | 0.99 | 250 | 3625 | 1000 | 14500 | 200 | 7.9 | 0,75 | 0.50 | T2000 | T7000 6000 (L000) |
| E212 | 19 | -12 | 19,1 | 3/4 | 29,1 | 1.15 | 215 | 3100 | 860 | 12400 | 240 | 9.5 | 0,93 | 0.62 | T2000 | T7000 6000 (L000) |
| E216 | 25 | -16 | 25,4 | 1 | 37,5 | 1.48 | 175 | 2500 | 700 | 10000 | 300 | 11.8 | 1,30 | 0.87 | T2000 | T7000 6000 (L000) |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H12A

VERY HIGH PRESSURE
MULTI-SPIRAL HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Very high pressure hydraulic oil lines. The extra high working pressures and excellent impulse life when tested to SAE 100R12 test conditions result in, increased service life and minimise equipment downtime.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

| H12A – AVENGER SPIRAL HOSE | | | | | | | | | | | | | | | |
|----------------------------|-----------|-----|-----------------|-------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES |
| | | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE |
| H1206A | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,61 | 0.41 | NON-SKIVE T7000 |
| H1208A | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 350 | 5100 | 1400 | 20400 | 178 | 7.0 | 0,78 | 0.52 | T7000 |
| H1210A | 16 | -10 | 15,9 | 5/8 | 26,2 | 1.03 | 350 | 5100 | 1400 | 20400 | 200 | 7.9 | 0,98 | 0.66 | T7000 |
| H1212A | 19 | -12 | 19,1 | 3/4 | 30,0 | 1.18 | 350 | 5100 | 1400 | 20400 | 240 | 9.5 | 1,21 | 0.81 | T7000 |
| H1216A | 25 | -16 | 25,4 | 1 | 37,4 | 1.47 | 350 | 5100 | 1400 | 20400 | 300 | 11.8 | 1,84 | 1.24 | T7000 |
| H1220A | 31 | -20 | 31,8 | 1.1/4 | 45,7 | 1.80 | 275 | 4000 | 1100 | 16000 | 400 | 15.8 | 2,34 | 1.57 | T7000 |
| H1224A | 38 | -24 | 38,1 | 1.1/2 | 53,0 | 2.09 | 255 | 3700 | 1020 | 14800 | 500 | 19.7 | 3,04 | 2.04 | T7000 |
| H1232A | 51 | -32 | 50,8 | 2 | 66,0 | 2.60 | 210 | 3050 | 840 | 12400 | 600 | 23.6 | 4,23 | 2.84 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPIRAL

H12D

EXTRA ABRASION RESISTANT
VERY HIGH PRESSURE
FRAS
MULTI-SPIRAL HOSE



RECOMMENDED FOR:

Very high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

The very high abrasion resistant properties of the cover, combined with the extra high working pressures and excellent impulse life, when tested to SAE 100R12 test conditions, result in increased service life and minimise equipment downtime.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

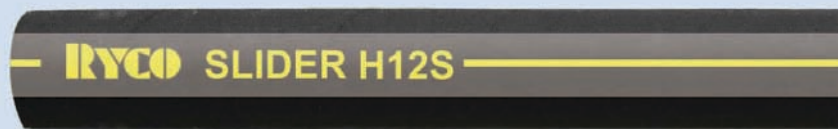
T7000 Series (sizes -06 to -40) pages 217 to 233.
Assembly Instructions page 498.

| H12D - DIEHARD SPIRAL HOSE | | | | | | | | | | | | | | |
|----------------------------|-----------|-----------------|-------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE |
| H1206D | 10 -06 | 9,5 | 3/8 | 19,3 | 0.76 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,61 | 0.41 | NON-SKIVE T7000 |
| H1208D | 12 -08 | 12,7 | 1/2 | 22,7 | 0.89 | 350 | 5100 | 1400 | 20400 | 178 | 7.0 | 0,78 | 0.52 | T7000 |
| H1210D | 16 -10 | 15,9 | 5/8 | 26,2 | 1.03 | 350 | 5100 | 1400 | 20400 | 200 | 7.9 | 0,98 | 0.66 | T7000 |
| H1212D | 19 -12 | 19,1 | 3/4 | 30,0 | 1.18 | 350 | 5100 | 1400 | 20400 | 240 | 9.5 | 1,21 | 0.81 | T7000 |
| H1216D | 25 -16 | 25,4 | 1 | 37,4 | 1.47 | 350 | 5100 | 1400 | 20400 | 300 | 11.8 | 1,84 | 1.24 | T7000 |
| H1220D | 31 -20 | 31,8 | 1.1/4 | 45,7 | 1.80 | 275 | 4000 | 1100 | 16000 | 400 | 15.8 | 2,34 | 1.57 | T7000 |
| H1224D | 38 -24 | 38,1 | 1.1/2 | 53,0 | 2.09 | 255 | 3700 | 1020 | 14800 | 500 | 19.7 | 3,04 | 2.04 | T7000 |
| H1232D | 51 -32 | 50,8 | 2 | 66,0 | 2.60 | 210 | 3050 | 840 | 12400 | 600 | 23.6 | 4,23 | 2.84 | T7000 |
| H1240D | 63 -40 | 63,5 | 2.1/2 | 82,6 | 3.25 | 140 | 2000 | 560 | 8000 | 650 | 25.6 | 5,20 | 3.49 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

H12S

EXTREMELY ABRASION RESISTANT
VERY HIGH PRESSURE
MULTI-SPIRAL HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Very high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to sliding abrasion that may cause premature failure of standard hoses.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

SLIDER™ Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

The extremely high abrasion resistant properties of the polyethylene sheathed cover, combined with the extra high working pressures and excellent impulse life, when tested to SAE 100R12 test conditions, result in increased service life and minimise equipment downtime.

MSHA - FLAME RESISTANCE:

SLIDER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +121°C (-40°F to +250°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 498.

| H12S - SLIDER SPIRAL HOSE | | | | | | | | | | | | | | | |
|---------------------------|-----------|------|-----------------|-----------------|--------------------------|------------------------|---------------------|----------------|-----------------|-----------|-----|------|------|-------|-----------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | NOMINAL HOSE OD | MAXIMUM WORKING PRESSURE | MINIMUM BURST PRESSURE | MINIMUM BEND RADIUS | AVERAGE WEIGHT | COUPLING SERIES | ONE PIECE | | | | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| H1206S | 10 | -06 | 9,5 | 3/8 | 19,3 | 0.76 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,61 | 0.41 | T7000 |
| H1208S | 12 | -08 | 12,7 | 1/2 | 22,7 | 0.89 | 350 | 5100 | 1400 | 20400 | 178 | 7.0 | 0,78 | 0.52 | T7000 |
| H1210S | 16 | -10 | 15,9 | 5/8 | 26,2 | 1.03 | 350 | 5100 | 1400 | 20400 | 200 | 7.9 | 0,98 | 0.66 | T7000 |
| H1212S | 19 | -12 | 19,1 | 3/4 | 30,0 | 1.18 | 350 | 5100 | 1400 | 20400 | 240 | 9.5 | 1,21 | 0.81 | T7000 |
| H1216S | 25 | -16 | 25,4 | 1 | 37,4 | 1.47 | 350 | 5100 | 1400 | 20400 | 300 | 11.8 | 1,84 | 1.24 | T7000 |
| H1220S | 31 | -20 | 31,8 | 1.1/4 | 45,7 | 1.80 | 275 | 4000 | 1100 | 16000 | 400 | 15.8 | 2,34 | 1.57 | T7000 |
| H1224S | 38 | -24 | 38,1 | 1.1/2 | 53,0 | 2.09 | 255 | 3700 | 1020 | 14800 | 500 | 19.7 | 3,04 | 2.04 | T7000 |
| H1232S | 51 | -32 | 50,8 | 2 | 66,0 | 2.60 | 210 | 3050 | 840 | 12400 | 600 | 23.6 | 4,23 | 2.84 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPIRAL

R4SHA

EXTRA HIGH PRESSURE
FOUR SPIRAL HOSE



RECOMMENDED FOR:

Extra high pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type 4SH, ISO 3862 Type 4SH.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 & T9000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (-20 to -32) pages 217 to 233.

T9000 Series (-12 to -16) pages 234 to 240.

Assembly Instructions page 498.

| R4SHA - AVENGER SPIRAL HOSE | | | | | | | | | | | | | | | |
|-----------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| R4SH12A | 19 | -12 | 19,1 | 3/4 | 31,8 | 1.25 | 420 | 6100 | 1680 | 24400 | 280 | 11.0 | 1,47 | 0.99 | T9000 |
| R4SH16A | 25 | -16 | 25,4 | 1 | 37,9 | 1.49 | 380 | 5500 | 1520 | 22000 | 340 | 13.4 | 1,97 | 1.32 | T9000 |
| R4SH20A | 31 | -20 | 31,8 | 1.1/4 | 44,4 | 1.75 | 350 | 5100 | 1400 | 20400 | 460 | 18.1 | 2,44 | 1.64 | T7000 |
| R4SH24A | 38 | -24 | 38,1 | 1.1/2 | 52,4 | 2.06 | 300 | 4350 | 1200 | 17400 | 560 | 22.1 | 3,13 | 2.10 | T7000 |
| R4SH32A | 51 | -32 | 50,8 | 2 | 66,8 | 2.63 | 250 | 3625 | 1000 | 14500 | 700 | 27.6 | 4,51 | 3.03 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

R4SHD

EXTRA HIGH PRESSURE
FOUR SPIRAL HOSE



INTRODUCTION

HOSE

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TECHNICAL

RECOMMENDED FOR:

Extra high pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type 4SH, ISO 3862 Type 4SH.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 & T9000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T7000 Series (-20 to -32) pages 217 to 233.

T9000 Series (-12 to -16) pages 234 to 240.
Assembly Instructions page 498.

| R4SHD – DIEHARD SPIRAL HOSE | | | | | | | | | | | | | | COUPLING SERIES | |
|-----------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|-----------------|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| R4SH12D | 19 | -12 | 19,1 | 3/4 | 31,8 | 1.25 | 420 | 6100 | 1680 | 24400 | 280 | 11.0 | 1,47 | 0.99 | T9000 |
| R4SH16D | 25 | -16 | 25,4 | 1 | 37,9 | 1.49 | 380 | 5500 | 1520 | 22000 | 340 | 13.4 | 1,97 | 1.32 | T9000 |
| R4SH20D | 31 | -20 | 31,8 | 1.1/4 | 44,4 | 1.75 | 350 | 5100 | 1400 | 20400 | 460 | 18.1 | 2,44 | 1.64 | T7000 |
| R4SH24D | 38 | -24 | 38,1 | 1.1/2 | 52,4 | 2.06 | 300 | 4350 | 1200 | 17400 | 560 | 22.1 | 3,13 | 2.10 | T7000 |
| R4SH32D | 51 | -32 | 50,8 | 2 | 66,8 | 2.63 | 250 | 3625 | 1000 | 14500 | 700 | 27.6 | 4,51 | 3.03 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPIRAL

R4SPA

EXTRA HIGH PRESSURE
FOUR SPIRAL HOSE



RECOMMENDED FOR:

Extra high pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type 4SP, ISO 3862 Type 4SP.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

AVENGER™ Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. Skiving required with T7000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

AVENGER™ complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK SKIVE ONE-PIECE CRIMP

T7000 Series (sizes -06 to -32) pages 217 to 233.
Assembly Instructions page 499.

| R4SPA - AVENGER SPIRAL HOSE | | | | | | | | | | | | | | | |
|-----------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|---------------------------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | SKIVE |
| R4SP06A | 10 | -06 | 9,5 | 3/8 | 20,9 | 0.82 | 445 | 6450 | 1780 | 25800 | 180 | 7.1 | 0,71 | 0.48 | T7000 |
| R4SP08A | 12 | -08 | 12,7 | 1/2 | 24,3 | 0.96 | 420 | 6100 | 1680 | 24400 | 230 | 9.1 | 0,86 | 0.58 | T7000 |
| R4SP10A | 16 | -10 | 15,9 | 5/8 | 27,8 | 1.09 | 380 | 5500 | 1520 | 22000 | 250 | 9.9 | 1,10 | 0.74 | T7000 |
| R4SP12A | 19 | -12 | 19,1 | 3/4 | 31,8 | 1.25 | 380 | 5500 | 1520 | 22000 | 300 | 11.8 | 1,47 | 0.99 | T7000 |
| R4SP16A | 25 | -16 | 25,4 | 1 | 38,6 | 1.52 | 350 | 5100 | 1400 | 20400 | 340 | 13.4 | 1,95 | 1.31 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

R4SPD

EXTRA HIGH PRESSURE
FOUR SPIRAL HOSE



INTRODUCTION

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TECHNICAL

RECOMMENDED FOR:

Extra high pressure hydraulic oil lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
EN 856 Type 4SP, ISO 3862 Type 4SP.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Four alternating layers of spiralled high tensile steel wire.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. Skiving required with T7000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK SKIVE ONE-PIECE CRIMP T7000 Series (sizes -06 to -16) pages 217 to 233. Assembly Instructions page 499.

| R4SPD – DIEHARD SPIRAL HOSE | | | | | | | | | | | | | | | |
|-----------------------------|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | SKIVE |
| R4SP06D | 10 | -06 | 9,5 | 3/8 | 20,9 | 0.82 | 445 | 6450 | 1780 | 25800 | 180 | 7.1 | 0,71 | 0.48 | T7000 |
| R4SP08D | 12 | -08 | 12,7 | 1/2 | 24,3 | 0.96 | 420 | 6100 | 1680 | 24400 | 230 | 9.1 | 0,86 | 0.58 | T7000 |
| R4SP10D | 16 | -10 | 15,9 | 5/8 | 27,8 | 1.09 | 380 | 5500 | 1520 | 22000 | 250 | 9.9 | 1,10 | 0.74 | T7000 |
| R4SP12D | 19 | -12 | 19,1 | 3/4 | 31,8 | 1.25 | 380 | 5500 | 1520 | 22000 | 300 | 11.8 | 1,47 | 0.99 | T7000 |
| R4SP16D | 25 | -16 | 25,4 | 1 | 38,6 | 1.52 | 350 | 5100 | 1400 | 20400 | 340 | 13.4 | 1,95 | 1.31 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPECIALTY AND HIGH TEMPERATURE

T5

POLYESTER BRAID
COVER HOSE



RECOMMENDED FOR:

Medium to high pressure hydraulic oil applications. The small bend radius, temperature resistance and light weight of RYCO T5 hose make it suitable for under the bonnet automotive/trucking applications including hydraulic oil, diesel fuel, lubrication oil and transmission oil coolers. Sizes T54 to T512 also comply with SAE J1402 Type All "Automotive Air Brake Hose" for use in truck "air brake systems including flexible connections from frame to axle, tractor to trailer, trailer to trailer, and other unshielded air lines that are exposed to potential pull or impact". T5 may be used with compressed air if maximum working pressure is reduced by 30%. T5 hose is normally used where there is minimal abrasion to the outside cover. If abrasion is likely, support the hose away from the source of abrasion using mounting clamps, or protect with RWA Wire Armour or RSG Spiral Guard. T5 is a reduced bore hose. It has a similar Inside Diameter to steel or copper tubing of the same nominal (outside diameter) size. See page 145 for more information.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R5, SAE 100R5, SAE J1402 Type All (up to -12 size).

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Polyester inner braid covered with one braid of high tensile steel wire.

COVER:

Black polyester braid. Skiving of cover is not required.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration and Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B when used with FS1072 Fire Sleeve.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

USCG - Hydraulic Systems, DoT

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -04 to -20) pages 209 to 216.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

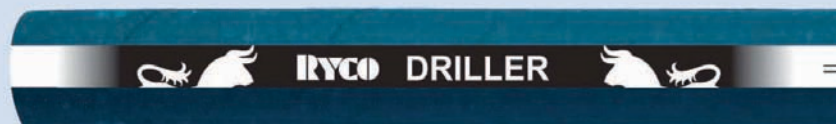
V000 Series (sizes -04 to -32) pages 262 to 275.
Assembly Instructions page 496.

| T5 - TRUCKER POLYESTER COVER HOSE | | | | | | | | | | | | | | | | | | | | |
|---|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|-------------------------|-----|-------------------------|-----|---------------|------|----------------|------|--------|-----------|------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND R SAE100R5 | | MINIMUM BEND R SAEJ1402 | | VACUUM RATING | | AVERAGE WEIGHT | | ONE PC | FIELD | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | mm | inch | inHg | mmHg | kg/m | lb/ft | NON-SKIVE | |
| T54 | 5 | -04 | 4,8 | 3/16 | 13,2 | 0.52 | 210 | 3050 | 840 | 12200 | 75 | 3.0 | 51 | 2.0 | 710 | 28 | 0,23 | 0.15 | T4000 | V000 |
| T55 | 6 | -05 | 6,4 | 1/4 | 14,8 | 0.58 | 210 | 3050 | 840 | 12200 | 85 | 3.3 | 64 | 2.5 | 710 | 28 | 0,26 | 0.17 | T4000 | V000 |
| T56 | 8 | -06 | 7,9 | 5/16 | 17,2 | 0.68 | 155 | 2250 | 620 | 9000 | 100 | 4.0 | 76 | 3.0 | 710 | 28 | 0,30 | 0.20 | T4000 | V000 |
| T58 | 10 | -08 | 10,3 | 13/32 | 19,4 | 0.76 | 138 | 2000 | 552 | 8000 | 117 | 4.6 | 89 | 3.5 | 710 | 28 | 0,36 | 0.24 | T4000 | V000 |
| T510 | 12 | -10 | 12,7 | 1/2 | 23,4 | 0.92 | 121 | 1750 | 484 | 7000 | 140 | 5.5 | 102 | 4.0 | 710 | 28 | 0,53 | 0.36 | T4000 | V000 |
| T512 | 16 | -12 | 15,9 | 5/8 | 27,4 | 1.08 | 103 | 1500 | 414 | 6000 | 165 | 6.5 | 114 | 4.5 | 710 | 28 | 0,65 | 0.44 | T4000 | V000 |
| T516 | 22 | -16 | 22,2 | 7/8 | 31,4 | 1.24 | 55 | 800 | 221 | 3200 | 187 | 7.4 | | | 510 | 20 | 0,63 | 0.42 | T4000 | V000 |
| T520 | 28 | -20 | 31,0 | 1.1/8 | 38,1 | 1.50 | 43 | 625 | 172 | 2500 | 229 | 9.0 | | | 510 | 20 | 0,90 | 0.60 | T4000 | V000 |
| T524 | 35 | -24 | 32,0 | 1.3/8 | 44,5 | 1.75 | 35 | 500 | 140 | 2000 | 267 | 10.5 | | | 380 | 15 | 1,00 | 0.67 | | V000 |
| T532 | 46 | -32 | 45,0 | 1.13/16 | 56,3 | 2.22 | 24 | 350 | 98 | 1400 | 337 | 13.3 | | | 280 | 11 | 1,48 | 0.99 | | V000 |

***IMPORTANT NOTE:** MAXIMUM WORKING PRESSURE and MINIMUM BURST PRESSURE shown above relate to SAE 100R5 specification and hose used in non Air Brake applications. For Air Brake applications, SAE J1402 Type All Air Brake Hose specification requires Minimum Burst Pressure 900 psi (62,1 bar) and Proof Pressure of 300 psi (20,7 bar) for all sizes, and reduced Minimum Bend Radii as shown below. T54 to T512 comply with SAE J1402 Minimum Bend Radius at SAE J1402 pressures, and SAE 100R5 Minimum Bend Radius at SAE 100R5 working pressures. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

D2B

DRILLER
HIGH TEMPERATURE
DRILL RIG HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Hydraulic oil or air lines. Drill rigs - high pressure, large bore air hose.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Perforated blue, oil and abrasion resistant synthetic rubber. No skiving required with T7000 Series BITELOK Crimp Couplings.

FEATURES:

Flame resistant cover. Smaller bend radius.

MSHA - FLAME RESISTANCE:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

Air: -40°C to + 121°C (-40°F to +250°F)
Oil: -40°C to + 135C (-40°F to +275°F)
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series (sizes -24 to -32) pages 217 to 233. Assembly Instructions page 498.

| D2B - DRILLER HOSE | | | | | | | | | | | | | | | |
|--------------------|-----------|------|-----------------|-------|-----------------|------|--------------------------|------|------------------------|------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| D224B | 38 | -24 | 38,1 | 1.1/2 | 48,0 | 1.89 | 100 | 1450 | 400 | 5800 | 250 | 10 | 1,49 | 1.00 | T7000 |
| D232B | 51 | -32 | 50,8 | 2 | 62,0 | 2.44 | 90 | 1300 | 360 | 5200 | 300 | 12 | 2,24 | 1.50 | T7000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPECIALTY AND HIGH TEMPERATURE

MS1000 MINESPRAY



RECOMMENDED FOR:

Water and air spray suited for dust control in all industrial and mining applications.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Yellow, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T4000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).








COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -12 to -32) pages 188 to 208.

T4000 Series (sizes -20 to -32) pages 209 to 216.

Assembly Instructions page 498.

| CS1000 - MINESPRAY HOSE | |  | |  | |  | |  | |  | |  | |  | |
|-------------------------|-----------|---|------|---|------|---|-----|---|-----|--|-----|---|------|---|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| MS1008 | 12 | -08 | 12,7 | 1/2 | 18,5 | 0.73 | 70 | 1000 | 280 | 4000 | 90 | 3.6 | 0,29 | 0.19 | T2000 |
| MS1010 | 16 | -10 | 15,9 | 5/8 | 22,1 | 0.87 | 70 | 1000 | 280 | 4000 | 100 | 3.9 | 0,35 | 0.24 | T2000 |
| MS1012 | 19 | -12 | 19,1 | 3/4 | 25,8 | 1.02 | 70 | 1000 | 280 | 4000 | 120 | 4.7 | 0,40 | 0.27 | T2000 |
| MS1016 | 25 | -16 | 25,4 | 1 | 32,5 | 1.28 | 70 | 1000 | 280 | 4000 | 150 | 5.9 | 0,62 | 0.42 | T2000 |
| MS1020 | 31 | -20 | 31,8 | 1.1/4 | 39,5 | 1.56 | 70 | 1000 | 280 | 4000 | 210 | 8.3 | 0,75 | 0.50 | T2000 T4000 |
| MS1024 | 38 | -24 | 38,1 | 1.1/2 | 46,0 | 1.81 | 70 | 1000 | 280 | 4000 | 250 | 9.9 | 1,00 | 0.67 | T2000 T4000 |
| MS1032 | 51 | -32 | 50,8 | 2 | 59,1 | 2.33 | 70 | 1000 | 280 | 4000 | 300 | 11.8 | 1,42 | 0.95 | T2000 T4000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

CS1000

COALSPRAY



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Water and air spray suited for dust control in all industrial and mining applications.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Yellow, oil resistant and abrasion resistant synthetic rubber.

No skiving required with T2000 & T4000 Series BITELOK

Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -12 to -32) pages 188 to 208.

T4000 Series (sizes -20 to -32) pages 209 to 216.

Assembly Instructions page 498.

| CS1000 - COALSPRAY HOSE | | | | | | | | | | | | | | | | |
|-------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|----------------|------|---------------------------|-----------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| CS1008 | 12 | -08 | 12,7 | 1/2 | 18,5 | 0.73 | 70 | 1000 | 280 | 4000 | 90 | 3.6 | 0,29 | 0.19 | T2000 | |
| CS1010 | 16 | -10 | 15,9 | 5/8 | 22,1 | 0.87 | 70 | 1000 | 280 | 4000 | 100 | 3.9 | 0,35 | 0.24 | T2000 | |
| CS1012 | 19 | -12 | 19,1 | 3/4 | 25,8 | 1.02 | 70 | 1000 | 280 | 4000 | 120 | 4.7 | 0,40 | 0.27 | T2000 | |
| CS1016 | 25 | -16 | 25,4 | 1 | 32,5 | 1.28 | 70 | 1000 | 280 | 4000 | 150 | 5.9 | 0,62 | 0.42 | T2000 | |
| CS1020 | 31 | -20 | 31,8 | 1.1/4 | 39,5 | 1.56 | 70 | 1000 | 280 | 4000 | 210 | 8.3 | 0,75 | 0.50 | T2000 | T4000 |
| CS1024 | 38 | -24 | 38,1 | 1.1/2 | 46,0 | 1.81 | 70 | 1000 | 280 | 4000 | 250 | 9.9 | 1,00 | 0.67 | T2000 | T4000 |
| CS1032 | 51 | -32 | 50,8 | 2 | 59,1 | 2.33 | 70 | 1000 | 280 | 4000 | 300 | 11.8 | 1,42 | 0.95 | T2000 | T4000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPECIALTY AND HIGH TEMPERATURE

BT1

ONE WIRE BRAID HOSE



RECOMMENDED FOR:

Transportation, marine fuel and engine hose applications. Low pressure hydraulic oil return lines, general purpose water, glycol antifreeze solutions, biodiesel, diesel fuel, ethanol, gasoline/petrol or air.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE J1527 Type Class I, USCG SAE J1942, SAE J30R2 (non-marine). Meets SAE J30R2 performance requirements for non-marine applications and SAE J1527 Type Class I and USCG SAEJ1942 for marine applications.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Blue, oil resistant and abrasion resistant synthetic rubber.

MSHA - FLAME RESISTANCE:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

TEMPERATURE RANGE:

| MEDIA | TEMP °C | |
|---|---------|------|
| | MIN | MAX |
| Petroleum based hydraulic fluids | -40 | +135 |
| Water, water/oil emulsion and water/glycol hydraulic fluids | — | 80 |
| Engine oil, lubricating oils | -40 | 121 |
| Air | — | 121 |
| Diesel, JP8 | -20 | 100 |
| Biodiesel | -40 | 100 |
| Gasoline/petrol | -20 | 80 |
| Ethanol blends (15% max.ethanol) | -20 | 80 |

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -16) pages 276 to 290.

K000 Series ferrule (sizes -04 to -16) page 276.

Assembly Instructions page 496.

| BT1 - BIOTRANS HOSE | | | | | | | | | | | | | | | | |
|---------------------|-----------|-----------------|-----------|-----------------|-----------|--------------------------|------------|------------------------|------------|---------------------|-----------|----------------|-------------|-----------------|------------------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES | | |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PC | FIELD ATT | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| BT14 | 6 | -04 | 6,3 | 1/4 | 13,3 | 0.52 | 50 | 725 | 200 | 2900 | 25 | 1.0 | 0,22 | 0.15 | T2000 | 6000 (K000) |
| BT15 | 8 | -05 | 7,9 | 5/16 | 14,9 | 0.59 | 50 | 725 | 200 | 2900 | 30 | 1.2 | 0,25 | 0.17 | T2000 | |
| BT16 | 10 | -06 | 9,5 | 3/8 | 17,3 | 0.68 | 50 | 725 | 200 | 2900 | 35 | 1.4 | 0,31 | 0.21 | T2000 | 6000 (K000) |
| BT18 | 12 | -08 | 12,7 | 1/2 | 20,3 | 0.80 | 50 | 725 | 200 | 2900 | 55 | 2.2 | 0,39 | 0.26 | T2000 | 6000 (K000) |
| BT110 | 16 | -10 | 15,9 | 5/8 | 23,6 | 0.93 | 50 | 725 | 200 | 2900 | 70 | 2.8 | 0,49 | 0.33 | T2000 | 6000 (K000) |
| BT112 | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 50 | 725 | 200 | 2900 | 82 | 3.2 | 0,62 | 0.41 | T2000 | 6000 (K000) |
| BT116 | 25 | -16 | 25,4 | 1 | 35,5 | 1.40 | 50 | 725 | 200 | 2900 | 105 | 4.1 | 0,90 | 0.60 | T2000 | 6000 (K000) |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.



BIOTRANS

TRANSPORTING OUR FUTURE

WIDE RANGE OF FLUIDS

MULTI PURPOSE HOSE



MSHA

HOSE

SPECIALTY AND HIGH TEMPERATURE

RQP1

HIGH TEMPERATURE
MULTI FLUID
ONE WIRE BRAID HOSE

RYCO RQP1



RECOMMENDED FOR:

High pressure hydraulic oil applications where pressure or temperature requirements exceed the performance requirements of SAE 100R1AT and DIN 20022-1SN, or where resistance to phosphate ester** fluid is required. May be used with compressed air if cover of hose is perforated (pin-pricked) and additional Safety Devices are used.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

TUBE:

Black, synthetic rubber, specifically compounded for temperature resistance and multi fluid resistance.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Blue, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings*.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B.

TEMPERATURE RANGE:

From -40°C to +150°C (-40°F to +302°F).

For water, water/oil emulsions, diesel fuels, glycol, air, and some phosphate esters** see page 57.

**Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -16) pages 188 to 208.

T7000 Series (sizes -06 to -16) pages 217 to 233.

Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE*

6000 Series insert (sizes -04 to -16) pages 276 to 290.

K000 Series ferrule (sizes -04 to -16) page 276.

Assembly Instructions page 496.

| RQP1 - SURVIVOR NON-SKIVE HOSE | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|----------------|------|-----------|-----------|-------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | FIELD ATT | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| RQP14 | 6 | -04 | 6,4 | 1/4 | 13,4 | 0.53 | 225 | 3250 | 900 | 13000 | 100 | 4.0 | 0,24 | 0.16 | T2000 | 6000 (K000) |
| RQP15 | 8 | -05 | 7,9 | 5/16 | 15,0 | 0.59 | 215 | 3120 | 860 | 12500 | 114 | 4.5 | 0,27 | 0.18 | T2000 | |
| RQP16 | 10 | -06 | 9,5 | 3/8 | 17,4 | 0.69 | 180 | 2600 | 720 | 10400 | 127 | 5.0 | 0,34 | 0.23 | T2000 | T7000 6000 (K000) |
| RQP18 | 12 | -08 | 12,7 | 1/2 | 20,5 | 0.81 | 160 | 2300 | 640 | 9300 | 178 | 7.0 | 0,44 | 0.30 | T2000 | T7000 6000 (K000) |
| RQP110 | 16 | -10 | 15,9 | 5/8 | 23,7 | 0.93 | 130 | 1880 | 520 | 7540 | 200 | 8.0 | 0,51 | 0.34 | T2000 | T7000 6000 (K000) |
| RQP112 | 19 | -12 | 19,1 | 3/4 | 27,6 | 1.09 | 120 | 1740 | 480 | 7000 | 240 | 9.5 | 0,64 | 0.43 | T2000 | T7000 6000 (K000) |
| RQP116 | 25 | -16 | 25,4 | 1 | 35,7 | 1.41 | 90 | 1300 | 360 | 5200 | 300 | 12.0 | 0,98 | 0.66 | T2000 | T7000 6000 (K000) |

* Field Attachable Couplings should not be used on RQP1 Hose at maximum working pressure when temperature exceeds 121°C (250°F). Field Attachable Couplings may be used on RQP1 Hose at over 121°C but at reduced working pressure. Contact RYCO for more information. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

RQP2

HIGH TEMPERATURE
MULTI FLUID
TWO WIRE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

High pressure hydraulic oil applications where pressure or temperature requirements exceed the performance requirements of SAE 100R2AT, DIN 20022-2SN and EN 853 Type 2SN, or where resistance to phosphate ester[†] fluid is required. May be used with compressed air if cover of hose is perforated (pin-pricked) and additional Safety Devices are used.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

TUBE:

Black, synthetic rubber, specifically compounded for temperature resistance and multi fluid resistance.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Blue, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings*.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety & Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 & Method of Test AS 1180.10B.

TEMPERATURE RANGE:

From -40°C to +150°C (-40°F to +302°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -04 to -32) pages 188 to 208.

T7000 Series (sizes -06 to -32) pages 217 to 233.

Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE*

6000 Series insert (sizes -04 to -20) pages 276 to 290.

L000 Series ferrule (sizes -04 to -20) page 276.

Assembly Instructions page 496.

| RQP2 - SURVIVOR NON-SKIVE HOSE | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|-----|----------------|------|-----------|-----------|-------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | FIELD ATT | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | | |
| RQP24 | 6 | -04 | 6,4 | 1/4 | 15,0 | 0.59 | 400 | 5800 | 1600 | 23200 | 100 | 4.0 | 0,39 | 0.26 | T2000 | | 6000 (L000) |
| RQP25 | 8 | -05 | 7,9 | 5/16 | 16,6 | 0.65 | 350 | 5100 | 1400 | 20400 | 114 | 4.5 | 0,45 | 0.30 | T2000 | | |
| RQP26 | 10 | -06 | 9,5 | 3/8 | 19,0 | 0.75 | 350 | 5100 | 1400 | 20400 | 127 | 5.0 | 0,53 | 0.36 | T2000 | T7000 | 6000 (L000) |
| RQP28 | 12 | -08 | 12,7 | 1/2 | 22,0 | 0.87 | 300 | 4350 | 1200 | 17400 | 178 | 7.0 | 0,65 | 0.44 | T2000 | T7000 | 6000 (L000) |
| RQP210 | 16 | -10 | 15,9 | 5/8 | 25,2 | 0.99 | 250 | 3600 | 1000 | 14500 | 200 | 8.0 | 0,77 | 0.52 | T2000 | T7000 | 6000 (L000) |
| RQP212 | 19 | -12 | 19,1 | 3/4 | 29,1 | 1.15 | 215 | 3100 | 860 | 12400 | 240 | 9.5 | 0,93 | 0.62 | T2000 | T7000 | 6000 (L000) |
| RQP216 | 25 | -16 | 25,4 | 1 | 37,7 | 1.48 | 167 | 2400 | 670 | 9600 | 300 | 12.0 | 1,38 | 0.93 | T2000 | T7000 | 6000 (L000) |
| RQP220 | 31 | -20 | 31,8 | 1.1/4 | 48,0 | 1.89 | 150 | 2175 | 600 | 8700 | 419 | 16.5 | 2,03 | 1.36 | T2000 | T7000 | 6000 (L000) |
| RQP224 | 38 | -24 | 38,1 | 1.1/2 | 54,4 | 2.14 | 100 | 1450 | 400 | 5800 | 500 | 20.0 | 2,30 | 1.55 | T2000 | T7000 | |
| RQP232 | 51 | -32 | 50,8 | 2 | 67,3 | 2.65 | 90 | 1300 | 360 | 5200 | 600 | 24.0 | 3,16 | 2.12 | T2000 | T7000 | |

* Field Attachable Couplings should not be used on RQP2 Hose at maximum working pressure when temperature exceeds 121°C (250°F). Field Attachable Couplings may be used on RQP2 Hose at over 121°C but at reduced working pressure. Contact RYCO Hydraulics for more information.
 † Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SPECIALTY AND HIGH TEMPERATURE

RQP5

HIGH TEMPERATURE
POLYESTER BRAID COVER
ONE WIRE HOSE



RECOMMENDED FOR:

Medium to high pressure hydraulic oil applications, or where resistance to phosphate ester** fluid is required. The small bend radius, temperature resistance and light weight of RYCO RQP5 hose make it suitable for under the bonnet automotive/trucking applications including hydraulic oil, diesel fuel, lubrication oil and transmission oil coolers. Sizes RQP54 to RQP512 also comply with SAE J1402 Type All "Automotive Air Brake Hose" for use in truck "air brake systems including flexible connections from frame to axle, tractor to trailer, trailer to trailer, and other unshielded air lines that are exposed to potential pull or impact". RQP5 may be used with compressed air if maximum working pressure is reduced by 30%. RQP5 hose is normally used where there is minimal abrasion to the outside cover. If abrasion is likely, support the hose away from the source of abrasion using mounting clamps, or protect with RWA Wire Armour or RSG Spiral Guard. RQP5 is a reduced bore hose. It has a similar Inside Diameter to steel or copper tubing of the same nominal (Outside Diameter) size. See page 263 for Branding Information.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R5, SAE 100R5, SAE J1402 Type All (up to -12 size).

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Polyester inner braid covered with one braid of high tensile steel wire.

COVER:

Blue polyester braid. Skiving of cover is not required.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration and Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B when used with FS1072 Fire Sleeve.

TEMPERATURE RANGE:

From -40°C to +150°C (-40°F to +302°F).
For water, emulsions etc. see page 57.

**Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

MED and USCG - Hydraulic and Fuel Systems, DoT.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (Sizes -04 to -20) pages 209 to 216.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

V000 Series (sizes -04 to -32) pages 262 to 275.
Assembly Instructions page 496.

| RQP5 - SURVIVOR POLYESTER COVER HOSE | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|--------------------------|-----|--------------------------|-----|---------------|------|----------------|------|--------|-----------|------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND R SAE 100R5 | | MINIMUM BEND R SAE J1402 | | VACUUM RATING | | AVERAGE WEIGHT | | ONE PC | FIELD | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | mm | inch | inHg | mmHg | kg/m | lb/ft | NON-SKIVE | |
| RQP54 | 5 | -04 | 4,8 | 3/16 | 13,2 | 0.52 | 210 | 3050 | 840 | 12200 | 75 | 3.0 | 51 | 2.0 | 0,23 | 0.15 | 710 | 28 | T4000 | V000 |
| RQP55 | 6 | -05 | 6,4 | 1/4 | 14,8 | 0.58 | 210 | 3050 | 840 | 12200 | 85 | 3.3 | 64 | 2.5 | 0,26 | 0.17 | 710 | 28 | T4000 | V000 |
| RQP56 | 8 | -06 | 7,9 | 5/16 | 17,2 | 0.68 | 155 | 2250 | 620 | 9000 | 100 | 4.0 | 76 | 3.0 | 0,30 | 0.20 | 710 | 28 | T4000 | V000 |
| RQP58 | 10 | -08 | 10,3 | 13/32 | 19,4 | 0.76 | 138 | 2000 | 552 | 8000 | 117 | 4.6 | 89 | 3.5 | 0,36 | 0.24 | 710 | 28 | T4000 | V000 |
| RQP510 | 12 | -10 | 12,7 | 1/2 | 23,4 | 0.92 | 121 | 1750 | 484 | 7000 | 140 | 5.5 | 102 | 4.0 | 0,53 | 0.36 | 710 | 28 | T4000 | V000 |
| RQP512 | 16 | -12 | 15,9 | 5/8 | 27,4 | 1.08 | 103 | 1500 | 414 | 6000 | 165 | 6.5 | 114 | 4.5 | 0,65 | 0.44 | 710 | 28 | T4000 | V000 |
| RQP516 | 22 | -16 | 22,2 | 7/8 | 31,4 | 1.24 | 55 | 800 | 221 | 3200 | 187 | 7.4 | | | 0,63 | 0.42 | 510 | 20 | T4000 | V000 |
| RQP520 | 28 | -20 | 31,0 | 1.1/8 | 38,1 | 1.50 | 43 | 625 | 172 | 2500 | 229 | 9.0 | | | 0,90 | 0.60 | 510 | 20 | T4000 | V000 |
| RQP524 | 35 | -24 | 32,0 | 1.3/8 | 44,5 | 1.75 | 35 | 500 | 140 | 2000 | 267 | 10.5 | | | 1,00 | 0.67 | 380 | 15 | | V000 |
| RQP532 | 46 | -32 | 45,0 | 1.13/16 | 56,3 | 2.22 | 24 | 350 | 98 | 1400 | 337 | 13.3 | | | 1,48 | 0.99 | 280 | 11 | | V000 |

***IMPORTANT NOTE:** MAXIMUM WORKING PRESSURE and MINIMUM BURST PRESSURE shown above relate to SAE 100R5 specification and hose used in non Air Brake applications. For Air Brake applications, SAE J1402 Type All Air Brake Hose specification requires Minimum Burst Pressure 900 psi (62,1 bar) and Proof Pressure of 300 psi (20,7 bar) for all sizes, and reduced Minimum Bend Radii as shown below. RQP54 to RQP512 comply with SAE J1402 Minimum Bend Radius at SAE J1402 pressures, and SAE 100R5 Minimum Bend Radius at SAE 100R5 working pressures. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

RQP6

HIGH TEMPERATURE
ONE TEXTILE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Hydraulic oil lines, transmission oil cooler lines, glycol antifreeze solutions, water, diesel fuels and air.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One textile braid.

COVER:

Blue, oil resistant and abrasion resistant synthetic rubber.

MSHA - FLAME RESISTANCE:

Meets Flame Resistance Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirement of Australian Standard AS 2660 and Method of Test AS 1180.10B.

TEMPERATURE RANGE:

Petroleum base hydraulic oils & transmission oils:

-40°C to +135°C (-40°F to +275°F) constant, and up to +150°C (+302°F) intermittent (up to 10% of operating time).

Air: -40°C to +100°C (-40°F to +212°F)

Diesel fuels: -40°C to +71°C (-40°F to +160°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

RQP6 Hose, and 800 Series Push-On Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications. RQP6 Hose should not be used at both maximum working pressure and maximum temperature simultaneously.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (Sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

8000 SERIES PUSH-ON

RQP6 Hose simply pushes on to 800 Series Couplings, and for Static Working Pressures up to 50% of Maximum Static Working Pressures a clamp is not required. For diesel fuel and other potentially dangerous, or critical applications such as transmission oil cooler lines, and for Static Working Pressures above 50% of maximum; a clamp around the hose is required. Do not overtighten clamp as this will damage hose. Factory crimped couplings are also available in some sizes.

| RQP6 - SURVIVOR HIGH TEMPERATURE PUSH ON HOSE | | | | | | | | | | | | | | | | | | |
|---|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|---------------|------|----------------|------|-----------------|--------|------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | VACUUM RATING | | AVERAGE WEIGHT | | COUPLING SERIES | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | inHg | mmHg | kg/m | lb/ft | NON-SK | |
| RQP64 | 6 | -04 | 6,4 | 1/4 | 12,3 | 0.48 | 28 | 410 | 112 | 1640 | 65 | 2.5 | 710 | 28 | 0,12 | 0.08 | T4000 | 8000 |
| RQP65 | 8 | -05 | 7,9 | 5/16 | 13,9 | 0.55 | 28 | 410 | 112 | 1640 | 75 | 3.0 | 710 | 28 | 0,14 | 0.09 | T4000 | 8000 |
| RQP66 | 10 | -06 | 9,5 | 3/8 | 15,5 | 0.61 | 28 | 410 | 112 | 1640 | 75 | 3.0 | 635 | 25 | 0,17 | 0.11 | T4000 | 8000 |
| RQP68 | 12 | -08 | 12,7 | 1/2 | 19,0 | 0.75 | 28 | 410 | 112 | 1640 | 100 | 4.0 | 460 | 18 | 0,22 | 0.15 | T4000 | 8000 |
| RQP610 | 16 | -10 | 15,9 | 5/8 | 22,6 | 0.89 | 24 | 350 | 96 | 1400 | 125 | 5.0 | 380 | 15 | 0,29 | 0.19 | T4000 | 8000 |
| RQP612 | 20 | -12 | 19,1 | 3/4 | 25,8 | 1.02 | 21 | 305 | 84 | 1220 | 150 | 6.0 | 380 | 15 | 0,34 | 0.23 | T4000 | 8000 |

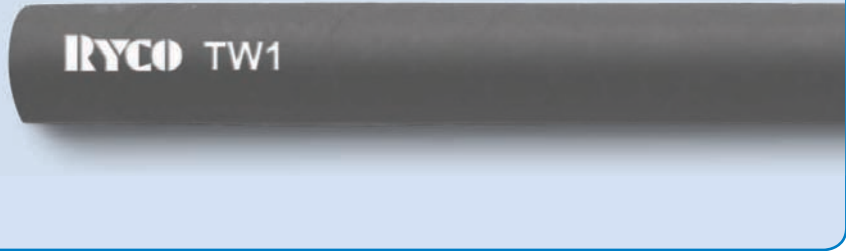
Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

PRESSURE WASHER

TW1

TORNADO WASHER
ONE WIRE BRAID



RECOMMENDED FOR:

Hot Water Pressure Washer Machines.

TUBE:

Black, oil resistant synthetic rubber. Heat, cleaning chemicals and detergent resistant.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Grey synthetic rubber; oil, chicken fat and abrasion resistant. The cover of TW1 Hose is formulated to resist marking. No skiving required with T2000 Series BITELOK Crimp Couplings.

TEMPERATURE RANGE:

TW1 TORNADO WASHER Hose handles hot water up to +155°C (+310°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).








COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 Series (sizes -06 to -08) pages 188 to 208. Assembly Instructions page 498.

Common hose couplings used on TW1 Hose include:

- T2020S** BSPP Female Live Swivel
- T2940** PW Female
- T2950** PW Gun Handle Tube.

| TW1 – TORNADO WASHER HOSE | |  | |  | |  | |  | |  | |  | |  | |
|---------------------------|-----------|---|------|---|------|---|-----|---|-----|--|----|---|------|---|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| TW16 | 10 | -06 | 9,5 | 3/8 | 17,4 | 0.69 | 210 | 3050 | 840 | 12200 | 60 | 2.4 | 0,34 | 0.23 | T2000 |
| TW18 | 12 | -08 | 12,7 | 1/2 | 20,6 | 0.81 | 210 | 3050 | 840 | 12200 | 90 | 3.5 | 0,45 | 0.30 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

PW2

PRESSURE WASHER
TWO WIRE BRAID



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Hot Water Pressure Washer Machines.

TUBE:

Black, heat resistant synthetic rubber.

REINFORCEMENT:

Two braids of high tensile steel wire.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber. The cover of PW2 hose is formulated to resist marking. No skiving required with T2000 Series BITELOK Crimp Couplings.

TEMPERATURE RANGE:

PW2 PRESSURE WASHER Hose handles hot water up to +150°C (+302°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T2000 series (sizes -04 to -06) pages 188 to 208. Assembly Instructions page 498.

Common hose couplings used on PW2 Hose include:

T2020S BSPP Female Live Swivel

T2940 PW Female

T2950 PW Gun Handle Tube.

(Note: The rated Maximum Working Pressures of **T2020S Series** couplings are lower than the Maximum Working Pressures of **PW2 Series** hoses.)

| PW2 - PRESSURE WASHER HOSE | | | | | | | | | | | | | | | |
|----------------------------|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| PW24 | 6 | -04 | 6,4 | 1/4 | 15,0 | 0.59 | 400 | 5800 | 1600 | 23200 | 100 | 4.0 | 0,39 | 0.26 | T2000 |
| PW25 | 8 | -05 | 7,9 | 5/16 | 16,6 | 0.65 | 400 | 5800 | 1600 | 23200 | 114 | 4.5 | 0,46 | 0.31 | T2000 |
| PW26 | 10 | -06 | 9,5 | 3/8 | 19,0 | 0.75 | 400 | 5800 | 1600 | 23200 | 130 | 5.0 | 0,56 | 0.38 | T2000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

SUCTION & RETURN

SR

SUCTION & RETURN HOSE



RECOMMENDED FOR:

Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R4 (except SR48), SAE 100R4.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Textile reinforcement with spiral wire to prevent collapsing.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

COUPLINGS:

Working pressure shown is for hose performance capabilities. Performance of a hose assembly depends on couplings used.

1. For Suction Applications, and Low Pressure Delivery (up to 25% of Maximum Working Pressure).

33000 SERIES COUPLINGS WITH RSC CLAMP

33000 Series (sizes -12 to -48) pages 258 to 261.

33000 Series Couplings require a suitable clamp around the outside of the hose. Refer to RYCO RSC Clamps shown below. Assembly instructions page 501.

2. For Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure).

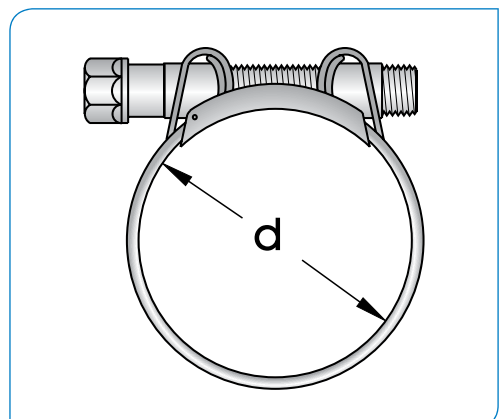
BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -12 and -16) pages 209 to 216.

Assembly Instructions page 498.

| SR - SUCTION AND RETURN HOSE | | | | | | | | | | | | | | | | |
|------------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|---------------|------|----------------|------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | VACUUM RATING | | AVERAGE WEIGHT | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | mmHg | inHg | kg/m | lb/ft |
| SR12 | 19 | -12 | 19,1 | 3/4 | 31,5 | 1.24 | 21 | 300 | 84 | 1200 | 125 | 4.9 | 635 | 25 | 0,82 | 0.55 |
| SR16 | 25 | -16 | 25,4 | 1 | 40,0 | 1.57 | 17 | 250 | 68 | 1000 | 150 | 5.9 | 635 | 25 | 1,00 | 0.67 |
| SR40 | 63 | -40 | 63,5 | 2.1/2 | 78,5 | 3.09 | 4,3 | 62 | 17 | 250 | 350 | 13.8 | 635 | 25 | 2,37 | 1.59 |
| SR48 | 76 | -48 | 76,2 | 3 | 90,7 | 3.57 | 3,9 | 56 | 16 | 225 | 450 | 17.7 | 635 | 25 | 2,45 | 1.65 |

| HOSE PART NO | CLAMP PART NO | CLAMP ADJUSTMENT RANGE | RECOMMENDED TIGHTENING TORQUE | |
|--------------|---------------|------------------------|-------------------------------|--------|
| | | d mm | N.m | ft.lbf |
| SR12 | RSC-3134 | 31 to 34 | 20 | 15 |
| SR16 | RSC-3740* | 37 to 40 | 20 | 15 |
| | RSC-4043* | 40 to 43 | 20 | 15 |
| SR40 | RSC-7379 | 73 to 79 | 25 | 18 |
| SR48 | RSC-8591 | 85 to 91 | 25 | 18 |



NOTE: For sizes -20, -24 & -32, use RYCO SRF Hose.
*Due to the manufacturing tolerance on outside diameter of the hose and the range of adjustment of the clamp, it is necessary to confirm correct clamp at time of assembly.

SRF

COMPACT
SUCTION & RETURN HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines. Small bend radius is an advantage in installations where space is minimal. (Tighter Bend Radius than SAE 100R4)

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R4, SAE 100R4.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Textile reinforcement with spiral wire to prevent collapsing.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

Working pressure shown is for hose performance capabilities. Performance of a hose assembly depends on couplings used.

- For Suction Applications, and Low Pressure Delivery (up to 25% of Maximum Working Pressure).**

33000 SERIES COUPLINGS WITH RSC CLAMP

33000 Series (sizes -12 to -32) pages 258 to 261.
3300 Series Couplings require a suitable clamp around the outside of the hose. Refer to RYCO RSC Clamps shown below.
Assembly instructions page 501.

- For Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure).**

BITELOK NON-SKIVE ONE-PIECE CRIMP

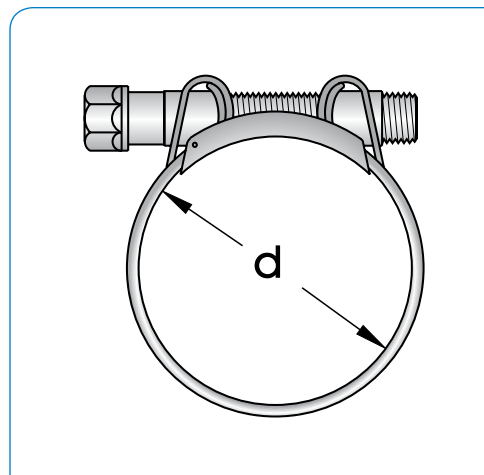
T4000 Series (sizes -12 to -32) pages 209 to 216.
Assembly Instructions page 498.

| SRF - DEFiant COMPACT SUCTION AND RETURN HOSE | | | | | | | | | | | | | | | | |
|---|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|---------------|------|----------------|------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | VACUUM RATING | | AVERAGE WEIGHT | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | mmHg | inHg | kg/m | lb/ft |
| SRF12 | 19 | -12 | 19,1 | 3/4 | 31,5 | 1.24 | 21 | 300 | 84 | 1200 | 63 | 2.5 | 635 | 25 | 0,82 | 0.55 |
| SRF16 | 25 | -16 | 25,4 | 1 | 40,0 | 1.57 | 17 | 250 | 68 | 1000 | 75 | 2.9 | 635 | 25 | 1,00 | 0.67 |
| SRF20 | 31 | -20 | 31,8 | 1.1/4 | 46,5 | 1.83 | 14 | 200 | 56 | 800 | 100 | 3.9 | 635 | 25 | 1,19 | 0.80 |
| SRF24 | 38 | -24 | 38,1 | 1.1/2 | 53,1 | 2.09 | 10 | 150 | 40 | 600 | 125 | 4.9 | 635 | 25 | 1,39 | 0.93 |
| SRF32 | 51 | -32 | 50,8 | 2 | 65,5 | 2.58 | 7 | 100 | 28 | 400 | 150 | 5.9 | 635 | 25 | 1,94 | 1.30 |

| HOSE PART NO | CLAMP PART NO | CLAMP ADJUSTMENT RANGE | RECOMMENDED TIGHTENING TORQUE | |
|--------------|---------------|------------------------|-------------------------------|--------|
| | | d mm | N.m | ft.lbf |
| SRF12 | RSC-3134 | 31 to 34 | 20 | 15 |
| SRF16 | RSC-3740* | 37 to 40 | 20 | 15 |
| | RSC-4043* | 40 to 43 | 20 | 15 |
| SRF20 | RSC-4347* | 43 to 47 | 20 | 15 |
| | RSC-4751* | 47 to 51 | 20 | 15 |
| SRF24 | RSC-5155 | 51 to 55 | 20 | 15 |
| SRF32 | RSC-6368 | 63 to 68 | 25 | 18 |

NOTE: For sizes -20, -24 & -32, use RYCO SRF Hose.

*Due to the manufacturing tolerance on outside diameter of the hose and the range of adjustment of the clamp, it is necessary to confirm correct clamp at time of assembly.



RTH1

STAINLESS STEEL
BRAID TEFLON* HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines. Fluids at extremes of pressure and temperature. RYCO RTH1 Series Hose Lining is chemically pure, inert and contains no leachable additives. RYCO RTH1 is remarkably resistant to high temperature and flame. It has a very high melting point, thermal degradation threshold and auto-ignition temperature. Warning: RTH1 Hose Liner is non-conductive. Do not use with high velocity fluids and gases, as static electricity may be generated and cause premature failure of hose. If in doubt contact RYCO Hydraulics technical department.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE 100R14. RTH112 meets ID and OD requirements of SAE 100R14. Other sizes have ID and OD different to SAE 100R14.

TUBE:

TEFLON* (PTFE).

REINFORCEMENT:

One braid of high tensile Grade 304 stainless steel wire.

TEMPERATURE RANGE:

From -60°C to +260°C (-76°F to +500°F).
(According to application).
For water, emulsions etc. see page 57.

| WORKING TEMPERATURE | | % OF WORKING PRESSURE THAT MAY BE USED SAFELY |
|---------------------|--------------------|---|
| °C | °F | Percentage |
| -60°C to +100°C | (-76°F to +212°F) | 100 |
| +101°C to +150°C | (+214°F to +302°F) | 93 |
| +151°C to +200°C | (+304°F to +392°F) | 85 |
| +201°C to +250°C | (+394°F to +482°F) | 77 |
| +251°C to +260°C | (+484°F to +500°F) | 70 |

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

MED and USCG.

COUPLINGS:

ONE-PIECE CRIMP

TT000 Series (sizes -04 to -16) pages 241 to 243.
Assembly instructions page 500.

| RTH1 - TEFLON* HOSE | | | | | | | | | | | | | | | | | |
|---------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------------------|-----|------------------------|-----|---------------------|-----|----------------|------|---------------------------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MAXIMUM WORKING PRESSURE SAE100R14 | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | |
| RTH14 | 6 | -04 | 6,4 | 1/4 | 9,4 | 0.37 | 170 | 2450 | 103 | 1500 | 680 | 9800 | 75 | 3.0 | 0,12 | 0.08 | TT000 |
| RTH16 | 10 | -06 | 9,5 | 3/8 | 11,7 | 0.46 | 165 | 2375 | 103 | 1500 | 660 | 9500 | 125 | 5.0 | 0,14 | 0.09 | TT000 |
| RTH18 | 12 | -08 | 12,7 | 1/2 | 15,4 | 0.61 | 120 | 1750 | 55 | 800 | 485 | 7000 | 140 | 5.5 | 0,22 | 0.15 | TT000 |
| RTH110 | 16 | -10 | 15,9 | 5/8 | 18,4 | 0.72 | 105 | 1500 | 55 | 800 | 420 | 6000 | 165 | 6.5 | 0,28 | 0.19 | TT000 |
| RTH112 | 19 | -12 | 19,1 | 3/4 | 22,1 | 0.87 | 85 | 1250 | 55 | 800 | 345 | 5000 | 200 | 8.0 | 0,33 | 0.22 | TT000 |
| RTH116 | 25 | -16 | 25,4 | 1 | 28,6 | 1.13 | 55 | 800 | 55 | 800 | 220 | 3200 | 300 | 12.0 | 0,46 | 0.31 | TT000 |

* DuPont Registered TM
Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

FB2

BARRIER
TWO TEXTILE BRAID HOSE
NYLON BARRIER



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Automotive air conditioning systems and other refrigeration and air conditioning systems using refrigerants R12 and R134A. Also suitable for use with R22 and R114. The internal rubber layer assures coupling integrity and reduces the risk of refrigerant loss around the couplings, and the nylon barrier reduces the permeation of refrigerant, to protect the environment. FB2 is a reduced bore hose. It has a similar Inside Diameter to metal tubing of the same nominal size. For example, 5/8" (OD) tubing has an Inside Diameter of approximately 1/2". FB210 is also 1/2" Inside Diameter.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE J2064 Type C Class II.

TUBE:

Black, synthetic rubber internal layer (polychloroprene) with Nylon Barrier.

REINFORCEMENT:

Two braids of synthetic yarn.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with 1G000 Series Crimp Couplings.

TEMPERATURE RANGE:

From -30°C to +125°C (-22°F to +257°F).
 For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

1G000 SERIES CRIMP COUPLINGS page 252 and 253. Assembly instruction page 502.

1G000 Series Crimp Couplings consist of G00 Series Insert and 1G000 Series Crimp Ferrule.

Use only with 1G000 Series Crimp Ferrules.

Worm drive hose clamps must not be used with FB2 Hose.

| FB2 - BARRIER AIR CONDITIONING HOSE | | | | | | | | | | | | | | | | |
|-------------------------------------|-----------|------|-----------------|-------|-----------------|------|--------------------------|-----|------------------------|------|---------------------|------|----------------|-------|--|----------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES 1G000 CRIMP COUPLINGS | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | Insert | Ferrule |
| FB26 | 8 | -06 | 7,9 | 5/16 | 19,0 | 0.75 | 35 | 500 | 140 | 2000 | 16 | 0.6 | 0,28 | 0.19 | G000 | 1G000-06 |
| FB28 | 10 | -08 | 10,3 | 13/32 | 23,0 | 0.91 | 35 | 500 | 140 | 2000 | 25 | 1.0 | 0,42 | 0.28 | G000 | 1G000-08 |
| FB210 | 12 | -10 | 12,7 | 1/2 | 25,4 | 1.00 | 35 | 500 | 140 | 2000 | 32 | 1.3 | 0,48 | 0.32 | G000 | 1G000-10 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

TEXTILE BRAID

M1

FUEL LINE
ONE TEXTILE BRAID HOSE



RECOMMENDED FOR:

Multi-purpose hose for use on fuel lines, PCV and EEC systems, and for fuel return hose connections on diesel fuel injection systems. For use with leaded and unleaded petrol, oil, diesel and other fuels.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE 30R7.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One textile braid.

COVER:








Black, oil resistant synthetic rubber. Resists the effects of high heat and ozone found in engine compartments.

TEMPERATURE RANGE:

From -40°C to +125°C (-40°F to +257°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

| M1 - FUEL LINE HOSE | |  | |  | |  | |  | |  | |  | |  | | |
|---------------------|-----------|---|-----|---|------|---|-----|---|-----|--|-----|---|------|---|------|------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | VACUUM RATING AT 20°C (68°F) | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | mmHg | inHg |
| M14 | 6 | -04 | 6,4 | 1/4 | 12,7 | 0.50 | 3,5 | 50 | 14 | 200 | 75 | 3.0 | 0,14 | 0.09 | 610 | 24 |
| M15 | 8 | -05 | 7,9 | 5/16 | 14,3 | 0.56 | 3,5 | 50 | 14 | 200 | 75 | 3.0 | 0,17 | 0.11 | 610 | 24 |
| M16 | 10 | -06 | 9,5 | 3/8 | 15,9 | 0.63 | 3,5 | 50 | 14 | 200 | 100 | 4.0 | 0,18 | 0.12 | 610 | 24 |

MP1

MULTI PURPOSE
ONE TEXTILE BRAID HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Air, water, petroleum oils, kerosene and fuel oils.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
RMA (USA) Class A High Oil Resistance (tube),
RMA (USA) Class B Medium Oil Resistance (cover),

TUBE:

Black, oil resistant synthetic rubber. RMA (USA) Class A High Oil Resistance.

REINFORCEMENT:

One textile braid.

COVER:

Red, oil resistant and abrasion resistant synthetic rubber (Modified Nitrile). RMA (USA) Class B Medium Oil Resistance. No skiving required with T4000 Series BITELOK Crimp Couplings.

FEATURES:

Tube non-conductive at 1000 volts DC. Meets electrical resistance of one megohm per inch when subjected to 1000 volts DC. Incorrect storage and use may adversely affect electrical properties.

TEMPERATURE RANGE:

Air, water, petroleum & lubricating oils: -40°C to +93°C (-40°F to +200°F). Petrol, kerosene, fuel oils: -40°C to +49°C (-40°F to +120°F). For continuous service at upper temperature limit, reduce maximum working pressure by 30%. For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure), and are for the performance of the hose with RYCO T4000 Series BITELOK One-Piece couplings only. Maximum working pressure for a hose assembly with other couplings depends on the type of coupling and the type of clamp used. MP1 Hose should not be used at maximum working pressure and maximum working temperature simultaneously.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -04 to -20) pages 209 to 216. Assembly Instructions page 498.

Standard industrial hose barbed tails with hose clamps may also be suitable depending on working pressure required.

Not suitable for use with RYCO 8000 Series Push-On couplings.

| MP1 - MULTI PURPOSE HOSE | | | | | | | | | | | | | | | |
|--------------------------|-----------|------|-----------------|-------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| MP14 | 6 | -04 | 6,4 | 1/4 | 13,5 | 0.53 | 13,8 | 200 | 55,2 | 800 | 50 | 2.0 | 0,16 | 0.11 | T4000 |
| MP16 | 10 | -06 | 9,5 | 3/8 | 17,5 | 0.69 | 13,8 | 200 | 55,2 | 800 | 70 | 3.0 | 0,24 | 0.16 | T4000 |
| MP18 | 12 | -08 | 12,7 | 1/2 | 21,4 | 0.84 | 13,8 | 200 | 55,2 | 800 | 85 | 4.0 | 0,33 | 0.22 | T4000 |
| MP110 | 16 | -10 | 15,9 | 5/8 | 25,4 | 1.00 | 13,8 | 200 | 55,2 | 800 | 105 | 5.0 | 0,43 | 0.29 | T4000 |
| MP112 | 19 | -12 | 19,1 | 3/4 | 28,6 | 1.13 | 13,8 | 200 | 55,2 | 800 | 120 | 5.0 | 0,48 | 0.32 | T4000 |
| MP116 | 25 | -16 | 25,4 | 1 | 37,3 | 1.47 | 13,8 | 200 | 55,2 | 800 | 155 | 8.0 | 0,82 | 0.55 | T4000 |
| MP120 | 31 | -20 | 31,8 | 1.1/4 | 43,9 | 1.73 | 13,8 | 200 | 55,2 | 800 | 230 | 10.0 | 1,00 | 0.68 | T4000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

TEXTILE BRAID

M2

TEXTILE
TWO TEXTILE BRAID HOSE



RECOMMENDED FOR:

Medium pressure hydraulic oil lines, antifreeze solutions, water.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R3, DIN 20021-2TE, ISO 4079 Type R3, SAE 100R3.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two textile braids.

COVER:

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with T4000 Series BITELOK Crimp Couplings and M000 Series Field Attachable Couplings.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.








COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -04 to -12) pages 209 to 216.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

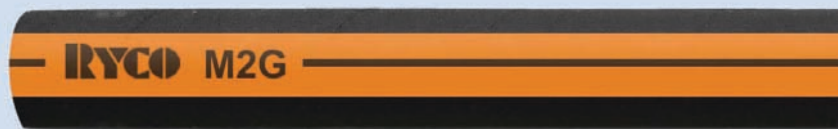
6000 Series insert (sizes -04 to -12) pages 276 to 290.
M000 Series ferrule (sizes -04 to -12) page 276.
Assembly Instructions page 496.

| M2 - TEXTILE BRAID | |  | |  | |  | |  | |  | |  | |  | | |
|--------------------|-----------|---|------|---|------|---|-----|---|-----|--|------|---|-------|---|-----------|-------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PC | FIELD ATT | |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | | |
| M24 | 6 | -04 | 6,4 | 1/4 | 14,3 | 0.56 | 88 | 1250 | 350 | 5000 | 75 | 3.0 | 0,16 | 0.11 | T4000 | 6000 (M000) |
| M26 | 10 | -06 | 9,5 | 3/8 | 19,0 | 0.75 | 79 | 1125 | 315 | 4500 | 100 | 4.0 | 0,28 | 0.19 | T4000 | 6000 (M000) |
| M28 | 12 | -08 | 12,7 | 1/2 | 23,8 | 0.94 | 70 | 1000 | 280 | 4000 | 125 | 5.0 | 0,41 | 0.28 | T4000 | 6000 (M000) |
| M212 | 19 | -12 | 19,1 | 3/4 | 31,7 | 1.25 | 52 | 750 | 210 | 3000 | 240 | 9.5 | 0,65 | 0.44 | T4000 | 6000 (M000) |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

M2G

TWO TEXTILE BRAID HOSE
LPG (CLASS C)



INTRODUCTION

IMPORTANT INFORMATION

RYCO **M2G Series** LPG Hose has Australian Gas Association approval (AGA approval No. 4247) only when used with RYCO **T4000 Series** BITELOK One-Piece Non-Skive Crimp Couplings, or RYCO **M000 Series** Field Attachables.

AVAILABLE ONLY AS FACTORY FITTED HOSE ASSEMBLIES.

WARNING: Do not use Field Attachable Couplings for domestic applications. (This is a requirement of Australian Standard AS/NZS 1869).

For any queries, please contact RYCO Technical Department.

HOSE

RECOMMENDED FOR:

Liquefied Petroleum Gas and Natural Gas.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS/NZS 1869 Class C (2,6 MPa working pressure, +65°C/+149°F max. temperature).

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

Two textile braids.

COVER:

Black, abrasion resistant synthetic rubber. Pin-pricked (perforated). No skiving required with T4000 Series BITELOK Crimp Couplings and M000 Series Field Attachable Couplings.

TEMPERATURE RANGE:

From -20°C to +65°C (-4°F to +149°F).

THIRD PARTY APPROVALS:

AUSTRALIAN GAS ASSOCIATION Approval No. 4247.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -12) pages 276 to 290. **M000 Series** ferrule (sizes -04 to -12) page 276. Assembly Instructions page 496.

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

| M2G - LPG HOSE | | | | | | | | | | | | | | | | | | | |
|----------------|-----------|-----------------|------|-----|------|-----------------|-----|-----|-----|--------------------------|------|------------------------|-------|---------------------|-----------|----------------|--|-----------------|--|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | | | NOMINAL HOSE OD | | | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES | |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PC | FIELD ATT | | | | |
| M24G | 6 | -04 | 6,4 | 1/4 | 14,3 | 0.56 | 26 | 375 | 104 | 1500 | 75 | 3.0 | 0,16 | 0.11 | T4000 | 6000 (M000) | | | |
| M26G | 10 | -06 | 9,5 | 3/8 | 19,0 | 0.75 | 26 | 375 | 104 | 1500 | 100 | 4.0 | 0,28 | 0.19 | T4000 | 6000 (M000) | | | |
| M28G | 12 | -08 | 12,7 | 1/2 | 23,8 | 0.94 | 26 | 375 | 104 | 1500 | 125 | 5.0 | 0,41 | 0.28 | T4000 | 6000 (M000) | | | |
| M212G | 19 | -12 | 19,1 | 3/4 | 31,7 | 1.25 | 26 | 375 | 104 | 1500 | 240 | 9.5 | 0,65 | 0.44 | T4000 | 6000 (M000) | | | |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

TEXTILE BRAID

PL1

PUSH-ON HOSE
ONE TEXTILE BRAID HOSE



RECOMMENDED FOR:

Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One textile braid.

COVER:

Black, oil and abrasion resistant synthetic rubber. No skiving required with T4000 Series BITELOK Crimp Couplings.

MSHA - FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B.

TEMPERATURE RANGE:

From -40°C to +95°C (-40°F to +203°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure). PL1 Hose, and 800 Series Push-On Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications. PL1 Hose should not be used at both maximum working pressure and maximum temperature simultaneously.

COUPLINGS:









BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (Sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

8000 Series Push-On (sizes -04 to -12).

PL1 Hose simply pushes on to 8000 Series Couplings. For diesel fuel and other potentially dangerous, or critical applications crimp fittings are required.

| PL1 PUSH ON HOSE | |  | |  | |  | |  | |  | |  | |  | |  | | |
|---------------------|-----------|---|-----------|---|-----------|---|------------|---|------------|---|-----------|--|-------------|---|-------------|---|------------------|------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM STATIC WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | VACUUM RATING | | AVERAGE WEIGHT | | COUPLING SERIES | | |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | mmHg | inHg | kg/m | lb/ft | ONE PC | FIELD | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | mmHg | inHg | kg/m | lb/ft | NON-SKIVE | |
| PL14 | 6 | -04 | 6,4 | 1/4 | 12,3 | 0.48 | 28 | 410 | 112 | 1640 | 65 | 2.5 | 710 | 28 | 0,12 | 0.08 | T4000 | 8000 |
| PL15 | 8 | -05 | 8,0 | 5/16 | 13,9 | 0.55 | 28 | 410 | 112 | 1640 | 75 | 3.0 | 710 | 28 | 0,14 | 0.09 | T4000 | 8000 |
| PL16 | 10 | -06 | 9,5 | 3/8 | 15,5 | 0.61 | 28 | 410 | 112 | 1640 | 75 | 3.0 | 635 | 25 | 0,17 | 0.11 | T4000 | 8000 |
| PL18 | 12 | -08 | 12,7 | 1/2 | 19,0 | 0.75 | 28 | 410 | 112 | 1640 | 100 | 4.0 | 460 | 18 | 0,22 | 0.15 | T4000 | 8000 |
| PL110 | 16 | -10 | 16,0 | 5/8 | 22,6 | 0.89 | 24 | 350 | 96 | 1400 | 125 | 5.0 | 380 | 15 | 0,29 | 0.19 | T4000 | 8000 |
| PL112 | 19 | -12 | 19,1 | 3/4 | 25,8 | 1.02 | 21 | 305 | 84 | 1220 | 150 | 6.0 | 380 | 15 | 0,34 | 0.23 | T4000 | 8000 |

PL1D

EXTRA ABRASION RESISTANT
FRAS
ONE TEXTILE BRAID HOSE
PUSH ON HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

TUBE:

Black, oil resistant synthetic rubber.

REINFORCEMENT:

One textile braid.

COVER:

DIEHARD™ Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T4000 Series BITELOK Crimp Couplings.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD™ complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure). PL1 Hose, and 800 Series Push-On Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications. PL1 Hose should not be used at both maximum working pressure and maximum temperature simultaneously.

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T4000 Series (Sizes -04 to -12) pages 209 to 216.
Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

8000 Series Push-On (sizes -04 to -12).

PL1 Hose simply pushes on to 8000 Series Couplings. For diesel fuel and other potentially dangerous, or critical applications crimp fittings are required.

| PL1 D PUSH ON HOSE | | | | | | | | | | | | | | | | COUPLING SERIES | | |
|-----------------------|-----------|-----------------|------|-----------------|------|---------------------------------|-----|------------------------|-----|---------------------|-----|---------------|------|----------------|------|-----------------|-----------|------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM STATIC WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | VACUUM RATING | | AVERAGE WEIGHT | | ONE PC | FIELD | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | mmHg | inHg | kg/m | lb/ft | NON-SKIVE | |
| PL14D | 6 | -04 | 6,4 | 1/4 | 12,7 | 0.50 | 28 | 410 | 112 | 1640 | 75 | 3.0 | 710 | 28 | 0,12 | 0.08 | T4000 | 8000 |
| PL15D | 8 | -05 | 8,0 | 5/16 | 14,3 | 0.56 | 28 | 410 | 112 | 1640 | 75 | 3.0 | 710 | 28 | 0,15 | 0.10 | T4000 | 8000 |
| PL16D | 10 | -06 | 9,5 | 3/8 | 15,9 | 0.63 | 28 | 410 | 112 | 1640 | 75 | 3.0 | 635 | 25 | 0,17 | 0.11 | T4000 | 8000 |
| PL18D | 12 | -08 | 12,7 | 1/2 | 19,8 | 0.78 | 28 | 410 | 112 | 1640 | 125 | 5.0 | 460 | 18 | 0,23 | 0.15 | T4000 | 8000 |
| PL110D | 16 | -10 | 16,0 | 5/8 | 23,0 | 0.91 | 24 | 350 | 96 | 1400 | 150 | 6.0 | 380 | 15 | 0,29 | 0.19 | T4000 | 8000 |
| PL112D | 19 | -12 | 19,1 | 3/4 | 26,4 | 1.04 | 21 | 305 | 84 | 1220 | 175 | 6.9 | 380 | 15 | 0,36 | 0.24 | T4000 | 8000 |



SPIDERLINE

KINK FREE FLEXIBILITY



RYCO SPIDERLINE TP76 3/8" -06 DN10 MAX WP 160 BAR

TP7 & TP7T (SAE 100R7)

RYCO SPIDERLINE TP86 3/8" -06 DN10 MAX WP 280 BAR

TP8 & TP8T (SAE 100R8)

COMPACT OUTSIDE
DIAMETER

REDUCE WEIGHT



ISOLATOR

HALT THE CHARGE



RYCO ISOLATOR TP76N 3/8" -06 DN10 MAX WP 1

TP7N & TP7TN (SAE 100R7)

RYCO ISOLATOR TP86N 3/8" -06 DN10 MAX WP 2

TP8N & TP8TN (SAE 100R8)

ELECTRICAL
NON-CONDUCTIVITY

COMPACT OUTSIDE
DIAMETER

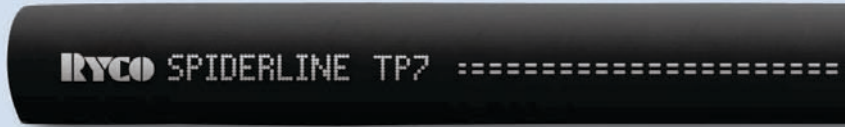
REDUCE WEIGHT

HOSE

THERMOPLASTIC

TP7

SPIDERLINE
R7 HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -03 to -16) pages 177 to 187.

T4000 Series (sizes -04 to -16) pages 209 to 216.
Assembly Instructions page 498.

| TP7 - SPIDERLINE HOSE | | | | | | | | | | | | | | COUPLING SERIES | | |
|-----------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|-----|----------------|------|-----------------|-----------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PIECE | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| TP73 | 5 | -03 | 5,0 | 3/16 | 9,6 | 0.38 | 210 | 3000 | 840 | 12000 | 25 | 1.0 | 0,06 | 0.04 | T1000 | |
| TP74 | 6 | -04 | 6,5 | 1/4 | 12,2 | 0.48 | 210 | 3000 | 840 | 12000 | 35 | 1.4 | 0,10 | 0.07 | T1000 | T4000 |
| TP75 | 8 | -05 | 8,1 | 5/16 | 14,3 | 0.56 | 190 | 2700 | 760 | 10800 | 45 | 1.8 | 0,13 | 0.09 | T1000 | T4000 |
| TP76 | 10 | -06 | 9,7 | 3/8 | 16,0 | 0.63 | 160 | 2300 | 640 | 9200 | 55 | 2.2 | 0,15 | 0.10 | T1000 | T4000 |
| TP78 | 12 | -08 | 13,0 | 1/2 | 20,3 | 0.80 | 140 | 2000 | 560 | 8000 | 75 | 3.0 | 0,22 | 0.15 | T1000 | T4000 |
| TP712 | 19 | -12 | 19,5 | 3/4 | 27,1 | 1.07 | 90 | 1300 | 360 | 5200 | 140 | 5.5 | 0,34 | 0.23 | T1000 | T4000 |
| TP716 | 25 | -16 | 25,9 | 1 | 34,0 | 1.34 | 70 | 1000 | 280 | 4000 | 190 | 7.5 | 0,46 | 0.31 | T1000 | T4000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TP7N

ISOLATOR
R7 NON CONDUCTIVE HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Hydraulic oil lines where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources). Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +70°C (+158°F). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The high strength, non-metallic reinforcement gives these hoses excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

FEATURES:

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 kV/305 mm or 250 kV/m for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -16) pages 177 to 187.

T4000 Series (sizes -04 to -16) pages 209 to 216.

Assembly Instructions page 498.

| TP7N - ISOLATOR NON-CONDUCTIVE HOSE | | | | | | | | | | | | | | | | |
|--|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|-------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| TP74N | 6 | -04 | 6,5 | 1/4 | 12,2 | 0.48 | 210 | 3000 | 840 | 12000 | 35 | 1.4 | 0,10 | 0.07 | T1000 | T4000 |
| TP76N | 10 | -06 | 9,7 | 3/8 | 16,0 | 0.63 | 160 | 2300 | 640 | 9200 | 55 | 2.2 | 0,15 | 0.10 | T1000 | T4000 |
| TP78N | 12 | -08 | 13,0 | 1/2 | 20,3 | 0.80 | 140 | 2000 | 560 | 8000 | 75 | 3.0 | 0,22 | 0.15 | T1000 | T4000 |
| TP712N | 19 | -12 | 19,5 | 3/4 | 27,1 | 1.07 | 90 | 1300 | 360 | 5200 | 140 | 5.5 | 0,34 | 0.23 | T1000 | T4000 |
| TP716N | 25 | -16 | 25,9 | 1 | 34,0 | 1.34 | 70 | 1000 | 280 | 4000 | 190 | 7.5 | 0,46 | 0.31 | T1000 | T4000 |

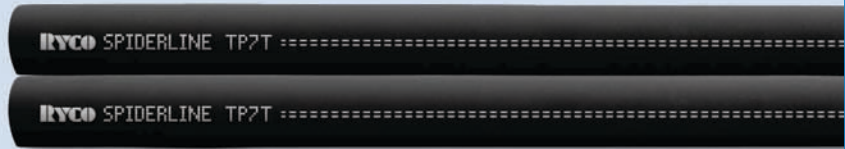
Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

THERMOPLASTIC

TP7T

SPIDERLINE
R7 TWIN HOSE



RECOMMENDED FOR:

RYCO TP7T SPIDERLINE TWIN Hose consists of two TP7 Series Hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used on dispensing equipment and other applications requiring two hoses.

High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

Air & Water +70 °C (+158 °F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.

T4000 Series (sizes -04 to -08) pages 209 to 216.

Assembly Instructions pages 498 and 505.

| TP7T - SPIDERLINE TWIN HOSE | | | | | | | | | | | | | | | | |
|-----------------------------|-----------|-----------------|------|-----------------|------|--------------------------|-----|------------------------|-----|---------------------|----|----------------|------|---------------------------|-----------|-------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| TP74T | 6 | -04 | 6,5 | 1/4 | 12,2 | 0.48 | 210 | 3000 | 840 | 12000 | 35 | 1.4 | 0,20 | 0.13 | T1000 | T4000 |
| TP75T | 8 | -05 | 8,1 | 5/16 | 14,3 | 0.56 | 190 | 2700 | 760 | 10800 | 45 | 1.8 | 0,26 | 0.18 | T1000 | T4000 |
| TP76T | 10 | -06 | 9,7 | 3/8 | 16,0 | 0.63 | 160 | 2300 | 640 | 9200 | 55 | 2.2 | 0,30 | 0.20 | T1000 | T4000 |
| TP78T | 12 | -08 | 13,0 | 1/2 | 20,3 | 0.80 | 140 | 2000 | 560 | 8000 | 75 | 3.0 | 0,44 | 0.30 | T1000 | T4000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TP7TN

ISOLATOR
R7 NON CONDUCTIVE
TWIN HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

RYCO TP7TN ISOLATOR TWIN Hose consists of two TP7N Series Hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used for hydraulic powered hand tools, such as loppers and chain saws, and other applications requiring two hoses. TP7TN is used where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources). Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +70°C (+158°F). Suitable for use with some gases, fluids and chemicals (contact RYCO Hydraulics Technical Department). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The polyester reinforcement gives TP7TN Hose excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

FEATURES:

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 kV/305 mm or 250 kV/m for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.

T4000 Series (sizes -04 to -08) pages 209 to 216.

Assembly Instructions pages 498 and 505.

| TP7TN - ISOLATOR NON-CONDUCTIVE TWIN HOSE | | | | | | | | | | | | | | | | |
|--|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|-------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| TP74TN | 6 | -04 | 6,5 | 1/4 | 12,2 | 0.48 | 210 | 3000 | 840 | 12000 | 35 | 1.4 | 0,20 | 0.13 | T1000 | T4000 |
| TP76TN | 10 | -06 | 9,7 | 3/8 | 16,0 | 0.63 | 160 | 2300 | 640 | 9200 | 55 | 2.2 | 0,30 | 0.20 | T1000 | T4000 |
| TP78TN | 12 | -08 | 13,0 | 1/2 | 20,3 | 0.80 | 140 | 2000 | 560 | 8000 | 75 | 3.0 | 0,44 | 0.30 | T1000 | T4000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

THERMOPLASTIC

TP8

SPIDERLINE
R8 HOSE



RECOMMENDED FOR:

High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of aramid fibre.

COVER:

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

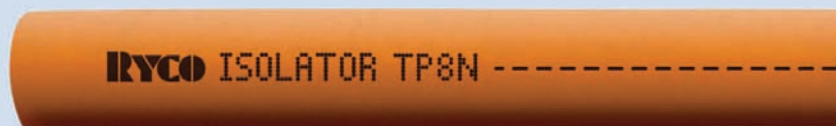
T1000 Series (sizes -04 to -08) pages 177 to 187.
Assembly Instructions page 498.

| TP8 - SPIDERLINE HOSE | | | | | | | | | | | | | | | |
|-----------------------|-----------|-----------------|-----------|-----------------|-----------|--------------------------|------------|------------------------|------------|---------------------|-----------|----------------|-------------|-----------------|------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES | |
| | | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| TP84 | 6 | -04 | 6,5 | 1/4 | 11,5 | 0.45 | 350 | 5000 | 1400 | 20000 | 50 | 2.0 | 0,09 | 0.06 | T1000 |
| TP86 | 10 | -06 | 9,7 | 3/8 | 15,5 | 0.61 | 280 | 4000 | 1120 | 16000 | 60 | 2.4 | 0,14 | 0.09 | T1000 |
| TP88 | 12 | -08 | 13,0 | 1/2 | 19,9 | 0.78 | 245 | 3500 | 980 | 14000 | 80 | 3.1 | 0,20 | 0.13 | T1000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TP8N

ISOLATOR
R8 NON CONDUCTIVE HOSE



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TECHNICAL

RECOMMENDED FOR:

Hydraulic oil lines where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources). Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +70°C (+158°F). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The high strength, non-metallic reinforcement gives these hoses excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of aramid fibre.

COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

FEATURES:

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 kV/305 mm or 250 kV/m for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.
Assembly Instructions page 498.

| TP8N – ISOLATOR NON-CONDUCTIVE HOSE | | | | | | | | | | | | | | | |
|--|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES |
| | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | ONE PIECE |
| TP84N | 6 | -04 | 6,5 | 1/4 | 11,5 | 0.45 | 350 | 5000 | 1400 | 20000 | 50 | 2.0 | 0,09 | 0.06 | NON-SKIVE T1000 |
| TP86N | 10 | -06 | 9,7 | 3/8 | 15,5 | 0.61 | 280 | 4000 | 1120 | 16000 | 60 | 2.4 | 0,14 | 0.09 | T1000 |
| TP88N | 12 | -08 | 13,0 | 1/2 | 19,9 | 0.78 | 245 | 3500 | 980 | 14000 | 80 | 3.1 | 0,20 | 0.13 | T1000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

THERMOPLASTIC

TP8T

SPIDERLINE
R8 TWIN HOSE



RECOMMENDED FOR:

RYCO TP8T SPIDERLINE TWIN Hose consists of two TP8 Series Hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used on dispensing equipment and other applications requiring two hoses.

High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of:
AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of aramid fibre.

COVER:

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

Air & Water +70 °C (+158 °F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:








Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.

Assembly Instructions pages 498 and 505.

| TP8T - SPIDERLINE TWIN HOSE | |  | |  | |  | |  | |  | |  | |  | |
|-----------------------------|-----------|---|------|---|------|---|-----|---|------|--|----|---|------|---|-----------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| TP84T | 6 | -04 | 6,5 | 1/4 | 11,5 | 0.45 | 350 | 5000 | 1400 | 20000 | 50 | 2.0 | 0,17 | 0.11 | T1000 |
| TP86T | 10 | -06 | 9,7 | 3/8 | 15,5 | 0.61 | 280 | 4000 | 1120 | 16000 | 60 | 2.4 | 0,27 | 0.18 | T1000 |
| TP88T | 12 | -08 | 13,0 | 1/2 | 19,9 | 0.78 | 245 | 3500 | 980 | 14000 | 80 | 3.1 | 0,40 | 0.27 | T1000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TP8TN

ISOLATOR
R8 NON CONDUCTIVE TWIN HOSE



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HOSE

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RECOMMENDED FOR:

RYCO TP8TN ISOLATOR TWIN Hose consists of two TP8N Series Hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used for hydraulic powered hand tools, such as loppers and chain saws, and other applications requiring two hoses. TP8TN is used where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources). Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +70°C (+158°F). Suitable for use with some gases, fluids and chemicals (contact RYCO Hydraulics Technical Department). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The aramid reinforcement gives TP8TN Hose excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: AS 3791 100R8, EN 855 Type R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

REINFORCEMENT:

One or two braids of aramid fibre.

COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

FEATURES:

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 kV/305 mm or 250 kV/m for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).
Air & Water +70 °C (+158 °F).
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP

T1000 Series (sizes -04 to -08) pages 177 to 187.
Assembly Instructions pages 498 and 505.

| TP8TN - ISOLATOR NON-CONDUCTIVE TWIN HOSE | | | | | | | | | | | | | | | | |
|--|-----------|------|-----------------|------|-----------------|------|--------------------------|------|------------------------|-------|---------------------|------|----------------|-------|---------------------------|--|
| PART NO | HOSE SIZE | | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | COUPLING SERIES ONE PIECE | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE | |
| TP84TN | 6 | -04 | 6,5 | 1/4 | 11,5 | 0.45 | 350 | 5000 | 1400 | 20000 | 50 | 2.0 | 0,17 | 0.11 | T1000 | |
| TP86TN | 10 | -06 | 9,7 | 3/8 | 15,5 | 0.61 | 280 | 4000 | 1120 | 16000 | 60 | 2.4 | 0,27 | 0.18 | T1000 | |
| TP88TN | 12 | -08 | 13,0 | 1/2 | 19,9 | 0.78 | 245 | 3500 | 980 | 14000 | 80 | 3.1 | 0,40 | 0.27 | T1000 | |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

THERMOPLASTIC

TP3000

LOW TEMPERATURE R18
ISOBARIC HOSE
210 BAR / 3000 PSI



RECOMMENDED FOR:

Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in forklift systems. Optimum bonding characteristics and special cover also make it the ideal hose for equipment operating in cold environments, while maintaining a high level of flexibility.

PERFORMANCE:

Meets or Exceeds the Performance Requirements of: SAE 100 R18.

TUBE:

Polyester elastomer.

REINFORCEMENT:

One or two braids of synthetic fibre.

COVER:

Special polyester, black with white ink-jet branding. Cover is perforated (pin-pricked).

FEATURES:

Special polyester cover resistant to low temperatures and harsh weather conditions. Optimum bonding between tube, braids and cover for tight bend radii without cover wrinkling.

TEMPERATURE RANGE:

From -55°C to +100°C (-67°F to +212°F)
Air & Water +70 °C (+158 °F)
For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:

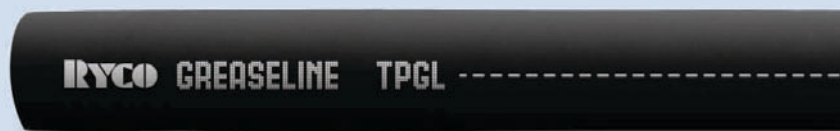
BITELOK NON-SKIVE ONE-PIECE CRIMP
T4000 Series (sizes -04 to -08) pages 209 to 216.
Assembly Instructions page 498.

| TP3000 - ISOBARIC THERMOPLASTIC HOSE | | | | | | | | |
|--------------------------------------|-----------|-----------------|-----------------|--------------------------|------------------------|---------------------|----------------|---------------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | NOMINAL HOSE OD | MAXIMUM WORKING PRESSURE | MINIMUM BURST PRESSURE | MINIMUM BEND RADIUS | AVERAGE WEIGHT | COUPLING SERIES |
| | | mm | inch | bar | psi | mm | lb/ft | ONE PIECE |
| TP3004 | 6 -04 | 6,5 | 1/4 | 210 | 3000 | 35 | 0,09 | NON-SKIVE T4000 |
| TP3006 | 10 -06 | 9,7 | 3/8 | 210 | 3000 | 45 | 0,16 | T4000 |
| TP3008 | 12 -08 | 13,0 | 1/2 | 210 | 3000 | 70 | 0,29 | T4000 |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

TPGL

THERMOPLASTIC
HIGH PRESSURE
GREASELINE HOSE



INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

RECOMMENDED FOR:

Thermoplastic constant pressure hose for high pressure greasing and lubrication systems.

TUBE:

White, oil resistant seamless thermoplastic polymer.

REINFORCEMENT:

One braid of synthetic fibre.

COVER:

Black, oil and abrasion resistant thermoplastic polymer. Cover is non-perforated.

FEATURES:

Polyester reinforcement for high pressure. Extremely compact and flexible, and highly kink resistant. Special low-friction smooth cover for easy installation and compact routing.

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

COUPLINGS:
BITELOK NON-SKIVE ONE-PIECE CRIMP

TG000 Series (size -02) page 244. Assembly Instructions page 498.

FIELD ATTACHABLE NON-SKIVE

6000 Series insert (size -02) pages 276 to 290. **P000 Series** ferrule (size -02) page 276.

| TPGL - THERMOPLASTIC GREASELINE HOSE | | | | | | | | | | | | | | | |
|--------------------------------------|-----------|-----------------|-----|-----------------|-----|--------------------------|-----|------------------------|------|---------------------|----|----------------|------|--------|---------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | | NOMINAL HOSE OD | | MAXIMUM WORKING PRESSURE | | MINIMUM BURST PRESSURE | | MINIMUM BEND RADIUS | | AVERAGE WEIGHT | | ONE PC | FIELD ATT |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| TPGL2 | 4 | -02 | 4,0 | 0.16 | 8,3 | 0.33 | 250 | 3600 | 1000 | 14400 | 25 | 0.98 | 0,05 | 0.03 | TG000 6000 (P000) |

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HOSE

GREASING AND LUBRICATION

R4100

FLEXIBLE GREASE GUN EXTENSIONS



RECOMMENDED FOR:

Rubber-covered hose for high pressure greasing and lubrication systems.

TUBE:

Black, oil resistant seamless synthetic rubber.

REINFORCEMENT:

One braid of high tensile steel wire.

COVER:

Black, oil and abrasion resistant synthetic rubber.

FEATURES:

Suit standard grease guns.

High tensile wire reinforcement for high pressure and durability.

Available in a variety of lengths

TEMPERATURE RANGE:

From -40°C to +100°C (-40°F to +212°F).

For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

R4100 - FLEXIBLE GREASE GUN EXTENSIONS

| PART NO | OVERALL LENGTH | | END 1 CONNECTION | END 2 CONNECTION |
|--------------|----------------|------|------------------|------------------|
| | mm | inch | | |
| Hose | | | | |
| R4100 | 255 | 10 | 1/8" BSPT MALE | 1/8" BSPT MALE |
| R4200 | 380 | 15 | 1/8" BSPT MALE | 1/8" BSPT MALE |
| R4101 | 460 | 18 | 1/8" BSPT MALE | 1/8" BSPT MALE |
| R4201 | 610 | 24 | 1/8" BSPT MALE | 1/8" BSPT MALE |
| R4202 | 710 | 28 | 1/8" BSPT MALE | 1/8" BSPT MALE |



HOSE PROTECTION

EXTRA ABRASION RESISTANT

FRAS - FLAME RESISTANT ANTI STATIC



RYCO QUALITY

BUNDLE MULTIPLE HOSES

RCS CROCSLEEVE SHOWN ABOVE
THE LATEST IN RYCO'S SUPERIOR RANGE OF HOSE PROTECTION PRODUCTS

HOSE

HOSE PROTECTION – FS1072 FIRE SLEEVE

FS1072

FIRE SLEEVE



MEETS OR EXCEEDS THE PERFORMANCE REQUIREMENTS OF:
SAE AEROSPACE STANDARD AS 1072.

RECOMMENDED FOR:

Increasing service life of hoses used in hostile environments. It is a tough, flexible insulation, which not only protects from intense external radiant heat, but also sheds molten metal splash. Consequently, damage to hoses is reduced and service life is increased. In the event of fire, hoses carrying flammable or hazardous materials remain intact longer. It can also be used to protect cables, pipes and wire ropes. RYCO FS1072 FIRE SLEEVE can also be used to reduce heat loss from hoses.

CONSTRUCTION:

RYCO FS1072 FIRE SLEEVE is manufactured from high bulk braided glass fibre tubing, coated with silicon rubber. The “danger red” colour of the silicon rubber is due to heavy loading of iron oxide to improve heat resistance.

TEMPERATURE RANGE:

Continuous exposure:

from -54°C to +260°C (-65°F to +500°F)

15 to 20 minutes:

from +260°C to +1090°C (+500°F to +2000°F)

15 to 30 seconds:

from +1090°C to +1640°C (+2000°F to +3000°F)

TYPICAL PROPERTIES:

K Value in $\frac{\text{BTU}}{^{\circ}\text{F}\cdot\text{hr}\cdot\text{in}^2}$ 1.20

K Value in $\frac{\text{Cal}}{\text{cm}\cdot\text{sec}\cdot\text{cm}^2\cdot^{\circ}\text{C}}$ 0.0004134

FLAME RESISTANCE:

7 seconds to extinguish with no afterglow.

ABRASION RESISTANCE:

Wyzenbeck 9500 cycles, 3.1/3 lb pressure, 6 lb tension using fine emery cloth.

OIL AND FLUID RESISTANCE:

Remains functional after immersion for 120hr @ 80°F in MIL-H-5606, MIL-L-6082, Skydrol 500 LD and Skydrol 500.

SIZE SELECTION:

FS1072 FIRE SLEEVE performs best when installed with a loose fit over a hose. However, some end users insist on a tight fit for the sake of appearance. To achieve this tight fit, use compressed air to expand FIRE SLEEVE as it is installed over the hose. Length of FIRE SLEEVE will shorten in length as it increases in diameter, so allow for some extra length to compensate for this.

For a loose fit, there is no hard and fast rule to relate the Nominal Inside Diameter of FIRE SLEEVE with the Nominal Outside Diameter of the hose being covered. However, it is important to take two factors into account: hose length and hose cover.

For hoses up to 5 metres (16 ft) long, use a Nominal Inside Diameter of FIRE SLEEVE 15% larger than the Nominal Outside Diameter of hose being covered. For hoses over 5 metres (16 ft) long, use a size 20% larger. Remember the FIRE SLEEVE must slide over the outside of the hose. The longer the hose, the tougher it is to install, especially if enough tolerance on a long hose has not been allowed.

As the FIRE SLEEVE must slide over the outside of the hose, the hose covering also requires special consideration. A hose with a rough rubber cover is more difficult to slide FIRE SLEEVE over than a hose with a smooth cover.

For hose covers that have a high co-efficient of friction, be sure to allow for greater tolerance between the Nominal Inside Diameter of FIRE SLEEVE and the Nominal Outside Diameter of the hose to be covered.

Sizes FS1072-08 to FS1072-104:

Standard coil length is 15,24 metres (50 ft); or cut lengths. Lengths longer than 15,24 metres (50 ft) are also available, contact RYCO Customer Service.

Sizes FS1072-80 and FS1072-104:

Standard coil length is 5 metres (16.4 ft)

FS1072 FIRE SLEEVE can be slit longitudinally to form a flat FIRE TAPE which can be wound around larger diameter hoses and secured with stainless steel ties or FSTAPE-16.

FSTAPE-16

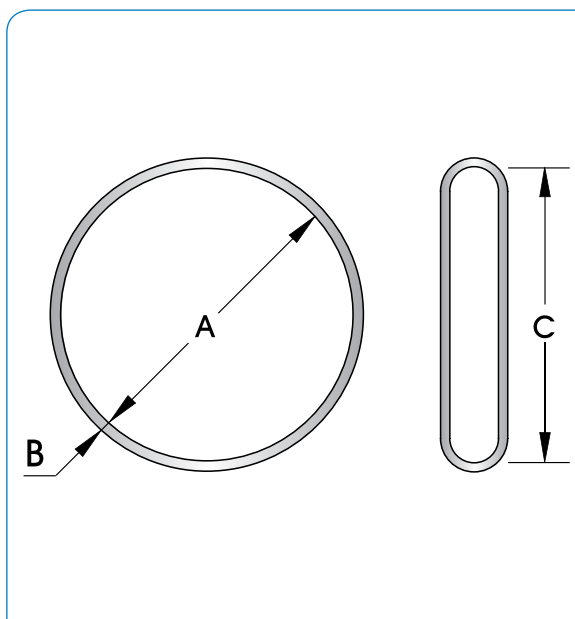
FSTAPE-16 is an iron oxide, red silicone rubber tape. It is designed to be, not only self-bonding and self-curing, but to also bond and cure onto FS1072 FIRE SLEEVE. It can be used to join separate sections of FIRE SLEEVE, as well as to repair any scuffed or nicked areas of FIRE SLEEVE. It can be used as an end sealant (instead of clamps) to prevent moisture and hydraulic oils wicking into the inner fibreglass braid.

FSTAPE-16 is supplied in a roll 25 mm WIDE x 11 metres LONG x 0,5 mm THICK (1 inch x 36 ft x 0.02 inch)



FS1072 FIRE SLEEVE SPECIFICATIONS

| PART NO | FIRE SLEEVE DIMENSIONS | | | | | | | |
|------------|------------------------|--------|------------------------|--------|-------------------------------|--------|----------------|-------|
| | NOMINAL ID | | NOMINAL WALL THICKNESS | | NOMINAL INSIDE FLAT DIMENSION | | NOMINAL WEIGHT | |
| | A mm | A inch | B mm | B inch | C mm | C inch | kg/m | lb/ft |
| FS1072-08 | 12,7 | 0.50 | 4,3 | 0.17 | 20,0 | 0.79 | 0,19 | 0.13 |
| FS1072-11 | 17,5 | 0.69 | 4,3 | 0.17 | 27,5 | 1.08 | 0,29 | 0.19 |
| FS1072-14 | 22,2 | 0.87 | 4,4 | 0.17 | 34,9 | 1.37 | 0,28 | 0.19 |
| FS1072-16 | 25,4 | 1.00 | 4,8 | 0.19 | 39,9 | 1.57 | 0,31 | 0.21 |
| FS1072-18 | 28,6 | 1.13 | 4,7 | 0.19 | 46,6 | 1.84 | 0,37 | 0.25 |
| FS1072-20 | 31,8 | 1.25 | 4,7 | 0.19 | 47,4 | 1.87 | 0,36 | 0.24 |
| FS1072-22 | 34,9 | 1.38 | 4,8 | 0.19 | 54,8 | 2.17 | 0,43 | 0.29 |
| FS1072-24 | 38,1 | 2.50 | 4,0 | 0.16 | 58,3 | 2.29 | 0,46 | 0.31 |
| FS1072-30 | 47,6 | 1.87 | 4,0 | 0.16 | 74,8 | 2.93 | 0,54 | 0.36 |
| FS1072-32 | 50,8 | 2.00 | 4,0 | 0.16 | 79,8 | 3.14 | 0,55 | 0.37 |
| FS1072-40 | 63,5 | 2.50 | 4,1 | 0.16 | 94,2 | 3.71 | 0,84 | 0.56 |
| FS1072-44 | 69,9 | 2.75 | 5,0 | 0.20 | 109,8 | 4.32 | 0,85 | 0.57 |
| FS1072-64 | 102,0 | 4.02 | 5,0 | 0.20 | 160,2 | 6.32 | 1,07 | 0.72 |
| FS1072-80 | 127,0 | 5.00 | 5,0 | 0.20 | 199,5 | 7.89 | 2,26 | 1.52 |
| FS1072-104 | 165,0 | 6.50 | 5,0 | 0.20 | 259,2 | 10.21 | 2,86 | 1.92 |



HOSE NOMINAL OUTSIDE DIAMETER REFERENCE CHART

This chart may be used as a quick reference to assist in choosing correct size of Hose Protection. Dimensions are nominal only, and are in millimetres. Divide by 25.4 to convert to inches.

| HOSE SIZE | | | HOSE SERIES | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|-------|------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|------|---------|------|-------|------|------|------|----------|---------|---------|------|------|--------|--------|------|--|--|--|
| DN | inch | Dash | T3000A/D/S | T3600A/D/S | T4000A/D/S | T5000A/D/S | T6000A/D/S | H3000A/D/S | H4000A/D/S | H5000A/D/S | H6000A/D/S | T1A/D/S | T1F | T2A/D/S | T2C | TXA2D | DF2A | E2 | TJ2D | H12A/D/S | R4SHA/D | R4SPA/D | T5 | D2B | M51000 | CS1000 | | | | |
| 3 | 1/8 | -02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 3/16 | -03 | | | | | | | | | | 11,7 | 11,7 | | | | | | | | | | | | | | | | | |
| 6 | 1/4 | -04 | 11,8 | 11,8 | 11,8 | 13,2 | 13,2 | | | | | 13,3 | 13,3 | 14,9 | 15,0 | | 13,4 | 14,9 | 14,9 | | | | | 13,2 | | | | | | |
| 8 | 5/16 | -05 | 14,4 | 14,4 | 15,6 | 15,6 | 15,6 | | | | | 14,9 | 14,9 | 16,5 | 16,6 | | 14,9 | 16,5 | 18,9 | | | | | 14,8 | | | | | | |
| 10 | 3/8 | -06 | 15,6 | 15,6 | 16,6 | 17,1 | 17,6 | | 19,3 | 19,3 | 19,3 | 17,3 | 17,3 | 18,9 | 19,0 | | 17,3 | 18,9 | | 19,3 | | 20,9 | 17,2 | | | | | | | |
| 12 | 1/2 | -08 | 18,7 | 18,7 | 20,6 | 20,6 | 21,5 | | 22,7 | 22,7 | 22,7 | 20,3 | 20,3 | 21,9 | 22,2 | 22,0 | 20,3 | 21,9 | | 22,7 | | 24,3 | 19,4 | | | 18,5 | 18,5 | | | |
| 16 | 5/8 | -10 | 23,4 | 23,4 | 23,4 | 24,8 | | | 24,9 | 26,2 | 26,2 | 23,6 | 23,6 | 25,1 | 25,2 | 25,2 | 23,6 | 25,1 | | 26,2 | | 27,8 | 23,4 | | | 22,1 | 22,1 | | | |
| 19 | 3/4 | -12 | 27,6 | 27,6 | 28,4 | 27,8 | | | 30,0 | 29,6 | 30,6 | 27,6 | 27,6 | 29,1 | 29,1 | 29,1 | 27,6 | 29,1 | | 30,0 | 31,8 | 31,8 | 27,4 | | | 25,8 | 25,8 | | | |
| 25 | 1 | -16 | 34,8 | 34,8 | 35,2 | | | | 36,9 | 36,8 | 37,5 | 35,5 | 35,5 | 37,5 | 37,2 | 37,7 | 35,5 | 37,5 | | 37,4 | 37,9 | 38,6 | 31,4 | | | 32,5 | 32,5 | | | |
| 31 | 1.1/4 | -20 | | | | | | 45,7 | 44,0 | 45,0 | 46,4 | 43,2 | | 47,6 | 47,4 | | | | | 45,7 | 44,4 | 49,6 | 38,1 | | | 39,5 | 39,5 | | | |
| 38 | 1.1/2 | -24 | | | | | | 50,3 | 50,8 | 52,7 | 53,1 | 50,2 | | 54,1 | 53,8 | | | | | 53,0 | 52,4 | 56,0 | 44,5 | 48,1 | | 46,0 | 46,0 | | | |
| 51 | 2 | -32 | | | | | | 63,3 | 66,4 | 67,5 | 71,5 | 63,6 | | 66,8 | 66,7 | | | | | 66,0 | 66,8 | 68,9 | 56,3 | 61,8 | | 59,1 | 59,1 | | | |
| 63 | 2.1/2 | -40 | | | | | | | | | | | | 80,1 | | | | | | 82,6 | | | | | | | | | | |
| 76 | 3 | -48 | | | | | | | | | | | | 93,4 | | | | | | | | | | | | | | | | |

| DN | inch | Dash | BT1 | RQP1 | RQP2 | RQP5 | RQP6 | TW1 | PW2 | SR | SRF | RTH1 | FB2 | M1 | MP1 | M2 | PL1 | PL1D | M2G | TP7, TP7N | TP7T, TP7TN | TP8, TP8N | TP8T, TP8TN | TP3000 | TPGL |
|----|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-------------|-----------|-------------|--------|------|
| 3 | 1/8 | -02 | | | | | | | | | | | | | | | | | | | | | | | 8,3 |
| 5 | 3/16 | -03 | | | | | | | | | | | | | | | | | | | 9,6 | | | | |
| 6 | 1/4 | -04 | 13,3 | 13,4 | 15,0 | 13,2 | 12,7 | | 15,0 | | | 9,4 | | 12,7 | 13,5 | 14,3 | 12,3 | 12,3 | 14,3 | 12,2 | 12,2 | 11,5 | 11,5 | 12,2 | |
| 8 | 5/16 | -05 | 14,9 | 15,0 | 16,6 | 14,8 | 14,3 | | 16,6 | | | | | 14,3 | | | 13,9 | 13,9 | | 14,3 | 14,3 | | | | |
| 10 | 3/8 | -06 | 17,3 | 17,4 | 19,0 | 17,2 | 15,9 | 17,4 | 19,0 | | | 11,7 | 19,0 | 15,9 | 17,5 | 19,0 | 15,5 | 15,5 | 19,0 | 16,0 | 16,0 | 15,5 | 15,5 | 16,6 | |
| 12 | 1/2 | -08 | 20,3 | 20,5 | 22,0 | 19,4 | 19,8 | 20,6 | | | | 15,4 | 23,0 | | 21,4 | 23,8 | 19,0 | 19,0 | 23,8 | 20,3 | 20,3 | 19,9 | 19,9 | 22,5 | |
| 16 | 5/8 | -10 | 23,6 | 23,7 | 25,2 | 23,4 | 23,0 | | | | | 18,4 | 25,4 | | 25,4 | | 22,6 | 22,6 | | | | | | | |
| 19 | 3/4 | -12 | 27,6 | 27,6 | 29,1 | 27,4 | 26,4 | | | 31,5 | 31,5 | 22,1 | | | 28,6 | 31,7 | 25,8 | 25,8 | 31,7 | 27,1 | | | | | |
| 25 | 1 | -16 | 35,5 | 35,7 | 37,7 | 31,4 | | | | 40,0 | 40,0 | 28,6 | | | 37,3 | | | | | 34,0 | | | | | |
| 31 | 1.1/4 | -20 | | | 48,0 | 38,1 | | | | | | 46,5 | | | 43,9 | | | | | | | | | | |
| 38 | 1.1/2 | -24 | | | 54,4 | 44,5 | | | | | | 53,1 | | | | | | | | | | | | | |
| 51 | 2 | -32 | | | 67,3 | 56,3 | | | | | | 65,5 | | | | | | | | | | | | | |
| 63 | 2.1/2 | -40 | | | | | | | | 78,5 | | | | | | | | | | | | | | | |
| 76 | 3 | -48 | | | | | | | | 90,7 | | | | | | | | | | | | | | | |

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HOSE

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HOSE PROTECTION – RCS CROCSLEEVE

RCS

**CROCSLEEVE
FLAME RESISTANT
ANTI-STATIC**



RECOMMENDED FOR:

Hose burst and pinhole protection and protection of individual hoses from severe abrasion. The CROCSLEEVE Provides a cost effective method of bundling hoses together, while providing abrasion resistance to the bundle. When abrasion occurs, the thousands of tiny filaments in the sleeve bulk up to continually renew the surface.

CONSTRUCTION:

Densely woven, polyamide tubular sleeve. Black or Red colour. The CROCSLEEVE is not affected by exposure to air, water, hydraulic oil and many other fluids. The inside bore of the CROCSLEEVE is smooth, allowing hose to move inside the sleeve, and allowing easy installation.

FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Meets Flame Resistant Designation "U.S. MSHA" of the U.S. Department of Labor, Mine Safety and Health Administration. The CROCSLEEVE is both Flame Resistant and Anti-Static.

TEMPERATURE RANGE:

From -50°C to +121°C (-58°F to +250°F).

SIZE SELECTION:

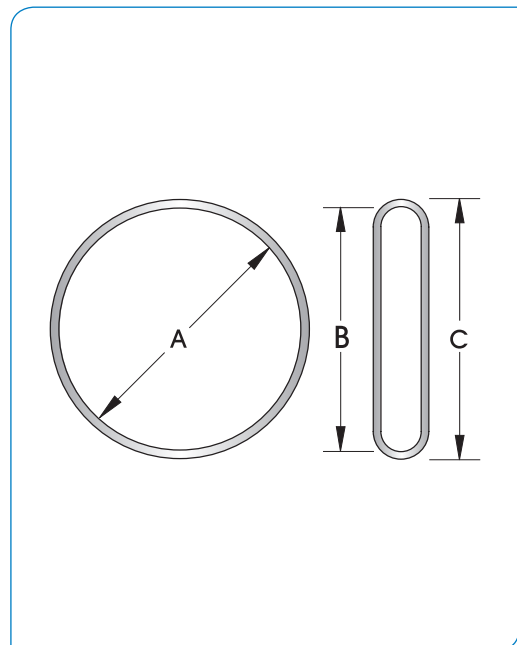
Choose a size that is slightly larger than the hose or hoses to be sleeved - the recommended size is 50% larger than the nominal Hose OD. If the CROCSLEEVE is to be installed onto fitted hose assemblies, then allow for the maximum outside profile of the hose fittings.

ASSEMBLY INSTRUCTIONS:

1. Cut the CROCSLEEVE to length.
2. Seal the loose fibres of the cut edges with a heat gun or hot knife, to prevent fraying.
3. Install the CROCSLEEVE over the hoses or hose assemblies.
4. Secure in place using 2 x RCSTD-12 CROCTIES for hose sizes -3 to -12 or 3 x RCSTD-32 CROCTIES for hose sizes -16 to -32.

RCS CROCSLEEVE SPECIFICATIONS

| CROCSLEEVE DIMENSIONS | | | | | | | | | |
|-----------------------|----------|------------|--------|-----------------|--------|-----------------|--------|----------------|-------|
| PART NO | | NOMINAL ID | | NOMINAL FLAT ID | | NOMINAL FLAT OD | | NOMINAL WEIGHT | |
| BLACK | RED | A mm | A inch | B mm | B inch | C mm | C inch | kg/m | lb/ft |
| RCSB-20 | RCSR-20 | 20 | 0.79 | 31 | 1.22 | 34 | 1.34 | 0,039 | 0.026 |
| RCSB-23 | RCSR-23 | 23 | 0.91 | 36 | 1.42 | 39 | 1.54 | 0,044 | 0.030 |
| RCSB-27 | RCSR-27 | 27 | 1.06 | 42 | 1.65 | 45 | 1.77 | 0,052 | 0.035 |
| RCSB-31 | RCSR-31 | 31 | 1.22 | 49 | 1.93 | 52 | 2.05 | 0,060 | 0.040 |
| RCSB-36 | RCSR-36 | 36 | 1.42 | 54 | 2.13 | 57 | 2.24 | 0,065 | 0.044 |
| RCSB-44 | RCSR-44 | 44 | 1.73 | 69 | 2.72 | 72 | 2.83 | 0,082 | 0.055 |
| RCSB-47 | RCSR-47 | 47 | 1.85 | 74 | 2.91 | 77 | 3.03 | 0,086 | 0.058 |
| RCSB-55 | RCSR-55 | 55 | 2.17 | 86 | 3.39 | 89 | 3.50 | 0,102 | 0.068 |
| RCSB-60 | RCSR-60 | 60 | 2.36 | 94 | 3.70 | 97 | 3.82 | 0,111 | 0.074 |
| RCSB-66 | RCSR-66 | 66 | 2.60 | 104 | 4.09 | 107 | 4.21 | 0,122 | 0.082 |
| RCSB-73 | RCSR-73 | 73 | 2.87 | 115 | 4.53 | 118 | 4.65 | 0,135 | 0.091 |
| RCSB-93 | RCSR-93 | 93 | 3.66 | 146 | 5.75 | 149 | 5.87 | 0,170 | 0.114 |
| RCSB-112 | RCSR-112 | 112 | 4.41 | 176 | 6.93 | 179 | 7.05 | 0,206 | 0.138 |
| RCSB-129 | RCSR-129 | 129 | 5.08 | 202 | 7.95 | 205 | 8.07 | 0,360 | 0.241 |



CROCSLEEVE SIZE VERSUS HOSE AND DASH SIZE SELECTION TABLE

| PART NO. | | T3000D/S | T3600D/S | T4000D/S | T5000D/S | T6000D/S | H3000D/S | H4000D/S | H5000D/S | H6000D/S | H12D/S | R4SHD | R4SPD | T1D/S | T2D/S | D2B |
|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|-------|-------|-------|---------|---------|
| BLACK | RED | Dash Size | | | | | | | | | | | | | | |
| RCSB-20 | RCSR-20 | -04 | -04 | -04 | -04 | -04 | | | | | | | | | -03,-04 | |
| RCSB-23 | RCSR-23 | -05 | -05 | -05 | -05 | -05 | | | | | | | | | -05 | -04 |
| RCSB-27 | RCSR-27 | -06 | -06 | -06 | -06 | -06 | | | | | | | | | -06 | -05 |
| RCSB-31 | RCSR-31 | -08 | -08 | -08 | -08 | | | -06 | -06 | -06 | -06 | | | -06 | -08 | -06 |
| RCSB-36 | RCSR-36 | -10 | -10 | -10 | -10 | -08 | | -08 | -08 | -08 | -08 | | | -08 | -10 | -08 |
| RCSB-44 | RCSR-44 | -12 | -12 | -12 | -12 | | | -10 | -10 | -10 | -10 | | | -10 | -12 | -10,-12 |
| RCSB-47 | RCSR-47 | | | | | | | -12 | -12 | -12 | -12 | -12 | -12 | | | |
| RCSB-55 | RCSR-55 | -16 | -16 | -16 | | | | -16 | -16 | -16 | | -16 | | | -16 | -16 |
| RCSB-60 | RCSR-60 | | | | | | | | | | -16 | | -16 | | | |
| RCSB-66 | RCSR-66 | | | | | | | -20 | -20 | | | -20 | | -20 | | |
| RCSB-73 | RCSR-73 | | | | | | | -20 | | -20 | -20 | | -20 | -24 | -20 | -24 |
| RCSB-93 | RCSR-93 | | | | | | | -24 | -24 | -24 | -24 | -24 | -24 | -32 | -24 | -93 |
| RCSB-112 | RCSR-112 | | | | | | | -32 | -32 | -32 | -32 | -32 | -32 | | -32 | |
| RCSB-129 | RCSR-129 | | | | | | | | | | -40 | | | | -40 | |

CROCSLEEVE - SAFETY FIRST

| DESIGN FEATURES | BENEFITS |
|--------------------------------------|--|
| GREATER STRENGTH | CROCSLEEVE is made from high density PA (polyamide) for greater strength. |
| FLAME RESISTANT - ABRASION RESISTANT | CROCSLEEVE is Flame Resistant and Anti-Static - FRAS. |
| BURST RESISTANT | CROCSLEEVE is very resistant to hose burst. |
| PIN HOLE RESISTANT | CROCSLEEVE is very resistant to hose pin holes. |
| LEAK RESISTANT | CROCSLEEVE will allow pressure build up of up to 7 bar (100 psi). |
| STABLE | CROCSLEEVE is stable and has great resistance to sun, atmospheric agents and ageing. |
| NON-TOXIC | CROCSLEEVE is non toxic. |
| TOUGH | CROCSLEEVE is super tough. |
| COLOURS | CROCSLEEVE comes in BLACK (RCSB) and RED (RCSR). |
| EASY INSTALLATION | CROCSLEEVE has a smooth bore providing easy installation of the hose. |

| CHEMICALLY COMPATIBLE | | | |
|-------------------------|-----------|--------------------------|-----------|
| Acetone | Very Good | Ether | Very Good |
| Alcohols | Very Good | Gasoline | Very Good |
| Bacterium | Very Good | Ionic Metallic Solutions | Very Good |
| Benzene | Very Good | Mineral Oil | Very Good |
| Carbon Tetrachloride | Very Good | Moths | Very Good |
| Chlorine Based Solvents | Very Good | Mould | Very Good |
| Diluted Acids | Good | Oil | Very Good |
| Diluted Bases | Very Good | Vegetable Oil | Very Good |

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HOSE PROTECTION – RAWHIDE NYLON HOSE SLEEVE

RH

RAWHIDE
NYLON HOSE SLEEVE



RECOMMENDED FOR:

Protection of individual hoses from severe abrasion. Provides a cost effective method of bundling hoses together, while providing abrasion resistance to the bundle. When abrasion occurs, the thousands of tiny filaments in the sleeve bulk up, to continually renew the surface.

CONSTRUCTION:

Densely woven, multi-filament nylon, tubular sleeve. Black colour. Nylon is not affected by exposure to air, water, hydraulic oil and many other fluids. The inside bore of the sleeve is smooth, allowing hose to move inside the sleeve, and allowing easy installation.

FLAME RESISTANCE:

Meets Flame Resistant Designation "U.S. MSHA" of the U.S. Department of Labor, Mine Safety and Health Administration.

TEMPERATURE RANGE:

From - 50°C to + 121°C (- 58°F to + 250°F).

SIZE SELECTION:

Choose a size that is slightly larger than the hose or hoses to be sleeved (see chart on page 145). If sleeve is to be installed onto fitted hose assemblies, allow for the maximum outside profile of the hose fittings.

ASSEMBLY INSTRUCTIONS:

1. Cut the Nylon Hose Sleeve to length.
2. The loose fibres of the cut edges can be sealed with a heat gun or hot knife, to prevent fraying.
3. Install over hoses or hose assemblies.
4. Secure in place using cable ties, band clamps or hose clamps.

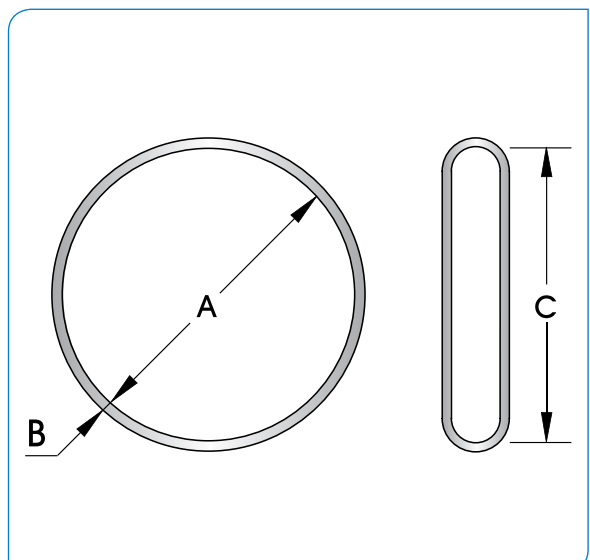
STANDARD COIL LENGTHS:

91,4 metre (300 ft) long coils; or cut lengths.



RH RAWHIDE SPECIFICATIONS

| RAWHIDE NYLON HOSE SLEEVE | | | | | | | | |
|---------------------------|------------|--------|------------------------|--------|-------------------------------|--------|----------------|-------|
| PART NO | NOMINAL ID | | NOMINAL WALL THICKNESS | | NOMINAL INSIDE FLAT DIMENSION | | NOMINAL WEIGHT | |
| | A mm | A inch | B mm | B inch | C mm | C inch | kg/m | lb/ft |
| RH-23 | 22,9 | 0.90 | 2,3 | 0.09 | 29,8 | 1.41 | 0,06 | 0.03 |
| RH-27 | 26,9 | 1.06 | 2,3 | 0.09 | 39,8 | 1.67 | 0,07 | 0.04 |
| RH-31 | 31,0 | 1.22 | 2,3 | 0.09 | 49,9 | 1.92 | 0,08 | 0.05 |
| RH-36 | 36,0 | 1.42 | 2,5 | 0.10 | 56,6 | 2.23 | 0,09 | 0.06 |
| RH-46 | 46,0 | 1.81 | 2,5 | 0.10 | 72,1 | 2.84 | 0,12 | 0.08 |
| RH-56 | 55,6 | 2.19 | 2,5 | 0.10 | 87,4 | 3.44 | 0,15 | 0.10 |
| RH-61 | 60,5 | 2.38 | 2,5 | 0.10 | 95,0 | 3.74 | 0,16 | 0.11 |
| RH-67 | 66,8 | 2.63 | 2,5 | 0.10 | 104,6 | 4.12 | 0,17 | 0.12 |
| RH-73 | 73,2 | 2.88 | 2,5 | 0.10 | 115,1 | 4.53 | 0,19 | 0.13 |
| RH-93 | 93,0 | 3.66 | 2,5 | 0.10 | 146,1 | 5.75 | 0,25 | 0.17 |



RSG

POLYETHYLENE SPIRAL GUARD
RSG (BLACK), RSGY (YELLOW),
RSGF (FRAS)



INTRODUCTION

RECOMMENDED FOR:

Lightweight, cost-effective protection of hoses and cables from abrasion and impact. It can also be used to bundle hoses together in groups. RSGF meets Flame Resistance Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

CONSTRUCTION:

Polyethylene plastic spiral, with rounded edges to protect hose cover. RSG Black; RSGY Yellow; RSGF FRAS (Dark Grey). Polyethylene is not affected by exposure to air, water, hydraulic oil and many other fluids.

TEMPERATURE RANGE:

From -40°C to +120°C (-40°F to +248°F).

ASSEMBLY INSTRUCTIONS:

RYCO Spiral Guard can easily be applied after hose assembly because of its spiral form. Place one end of completed hose assembly in a vice. Wrap coil onto hose. It is recommended to choose RYCO Spiral Guard size so that it is a tight fit on the hose. This will keep the Spiral Guard in place on the hose. The Spiral Guard expands to fit the hose or hose bundle. Allow extra length of Spiral Guard to allow for this expansion.

SIZE SELECTION:

The tables below show RYCO Spiral Guard size selection for a tight fit on the hose. Due to the Spiral Guard expanding to fit the hose, extra length of Spiral Guard must be allowed. This extra length can be estimated as follows:
T26A Nominal OD = 18,9 mm (see chart on page 145)
RSG-20L Nominal ID = 15,0 mm (from chart below)
Estimated length of RSG-20L to cover 2,3 metres of T26A
$$= \frac{18,9}{15,0} \times 2,3 \text{ m} = 2,90 \text{ metres}$$

HOW TO ORDER:

Complete the Part Number: **RSG-16L, RSGY-75L, RSGF-50L** etc.

Sizes -16L to -90L: 20 m (65.6 ft) coils or cut to length.

Size -110L: 10 m (32.8 ft) coils or cut to length.

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

SPIRAL GUARD

HOSE SERIES

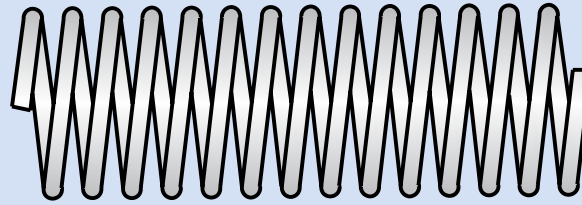
| DASH SIZE | NOMINAL ID | | NOMINAL OD | | T3000A/D/S | T3600A/D/S | T4000A/D/S | T5000A/D/S | T6000A/D/S | H3000A/D/S | H4000A/D/S | H5000A/D/S | H6000A/D/S | T1A/D/S | T1F | T2A/D/S | T2C | TXA2D | DF2A | E2 | TJ2D | H12A/D/S | R45HA/D | R45PA/D | T5 | D2B | MS1000 | CS1000 | |
|-----------|------------|------|------------|------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|-------|---------|---------|--------|---------|--------|------|----------|---------|---------|---------|-------|---------|---------|-----|
| | mm | inch | mm | inch | | | | | | | | | | | | | | | | | | | | | | | | | |
| -12L | 9,0 | 0,35 | 13,0 | 0,51 | -4 | -4 | -4 | -4 | | | | | | -3 | -3 | | | | -4 | | | | | | | | | | |
| -16L | 12,0 | 0,47 | 16,5 | 0,65 | -5,-6 | -5,-6 | -5 | -5 | -4,-5 | | | | | -4,-5 | -4,-5 | -4 | -4 | | -5 | -4 | -4 | | | | | -4,-5 | | | |
| -20L | 15,0 | 0,59 | 20,0 | 0,79 | -8 | -8 | -6,-8 | -6,-8 | -6 | | -6 | -6 | -6 | -6,-8 | -6,-8 | -5,-6 | -5,-6 | | -6 | -5,-6 | -5 | -6 | | | | -6,-8 | | -8 | -8 |
| -25L | 19,0 | 0,75 | 24,5 | 0,96 | -10 | -10 | -8,-10 | -8,-10 | -8 | | -8 | -8 | -8 | -10 | -10 | -8,-10 | -8,-10 | -8,-10 | -8 | -8,-10 | | -8 | | | | -10 | -10 | -10 | -10 |
| -32L | 23,0 | 0,91 | 30,0 | 1,18 | -12 | -12 | -12 | -10,-12 | | | -10,-12 | -10,-12 | -10,-12 | -12 | -12 | -12 | -12 | -12 | -10,-12 | -12 | | -10,12 | | | | -12 | -12 | -12 | -12 |
| -40L | 30,5 | 1,20 | 39,0 | 1,54 | -16 | -16 | -16 | -16 | | | -16 | -16 | -16 | -16 | -16 | -16 | -16 | -16 | -16 | -16 | | 16 | -12,-16 | -12,16 | -16,-20 | -16 | -16 | -16 | -16 |
| -50L | 38,0 | 1,50 | 46,5 | 1,83 | | | | | | -20 | -20 | -20 | -20 | -20,-24 | | -20 | -20 | | | | | -20 | -20 | -20 | -24 | | -20,-24 | -20,-24 | |
| -63L | 47,0 | 1,85 | 58,0 | 2,28 | | | | | | -24 | -24 | -24 | -24 | -32 | | -24 | -24,-32 | | | | | -24 | -24 | -24 | -32 | -24 | -32 | -32 | -32 |
| -75L | 61,0 | 2,40 | 73,0 | 2,87 | | | | | | -32 | -32 | -32 | -32 | | | -32,-40 | -32 | | | | | -32 | -32 | -32 | | -32 | | | |
| -90L | 70,5 | 2,78 | 84,5 | 3,33 | | | | | | | | | | | | -48 | | | | | | -40 | | | | | | | |
| -110L | 84,0 | 3,31 | 99,0 | 3,90 | | | | | | | | | | | | | | | | | | | | | | | | | |

| DASH SIZE | NOMINAL ID | | NOMINAL OD | | BT1 | RQP1 | RQP2 | RQP5 | RQP6 | TW1 | PW2 | SR | SRF | RTH1 | FB2 | M1 | MP1 | M2 | PL1 | PL1D | M2G | TP7, TP7N | TP7T, TP7TN | TP8, TP8N | TP8T, TP8TN | TP3000 | TPGL | |
|-----------|------------|------|------------|------|--------|-------|--------|---------|-------|-----|-------|----|-----|---------|-----|-------|--------|-----|-------|-------|-------|-----------|-------------|-----------|-------------|--------|------|----|
| | mm | inch | mm | inch | | | | | | | | | | | | | | | | | | | | | | | | |
| -12L | 9,0 | 0,35 | 13,0 | 0,51 | | -4 | | | | | | | | -4,-6 | | | | | | | | | | | | | | |
| -16L | 12,0 | 0,47 | 16,5 | 0,65 | -4,-5 | -5 | -4 | -5 | -5,-6 | | -4 | | | -8 | | -5,-6 | | -4 | -5,-6 | -5,-6 | | -4 | -4 | -4 | -4 | -4 | -4 | -2 |
| -20L | 15,0 | 0,59 | 20,0 | 0,79 | -6 | -6,-8 | -5,-6 | -6,-8 | -8 | -6 | -5,-6 | | | -10 | -6 | | -4,-6 | -6 | -8 | -8 | -4,-6 | -8 | -8 | -8 | -8 | -6 | -6 | |
| -25L | 19,0 | 0,75 | 24,5 | 0,96 | -8,-10 | -10 | -8,-10 | -10 | -10 | -8 | | | | -12 | -8 | | -8,-10 | -8 | -10 | -10 | -8 | | | | | | -8 | |
| -32L | 23,0 | 0,91 | 30,0 | 1,18 | -12 | -12 | -12 | -12 | -12 | | | | | -16 | -10 | | -12 | -12 | -12 | -12 | -12 | -12 | | | | | | |
| -40L | 30,5 | 1,20 | 39,0 | 1,54 | -16 | -16 | -16 | -16,-20 | | | | | | -12 | | | -16 | | | | | -16 | | | | | | |
| -50L | 38,0 | 1,50 | 46,5 | 1,83 | | | | | | | | | | | | | | | | | | | | | | | | |
| -63L | 47,0 | 1,85 | 58,0 | 2,28 | | | | | | | | | | -20,-24 | | | | | | | | | | | | | | |
| -75L | 61,0 | 2,40 | 73,0 | 2,87 | | | | | | | | | | -32 | | | | | | | | | | | | | | |
| -90L | 70,5 | 2,78 | 84,5 | 3,33 | | | | | | | | | | | | | | | | | | | | | | | | |
| -110L | 84,0 | 3,31 | 99,0 | 3,90 | | | | | | | | | | -48 | | | | | | | | | | | | | | |

HOSE

HOSE PROTECTION – RWA WIRE ARMOUR

RWA
WIRE ARMOUR



RECOMMENDED FOR:

Protection for Hose Cover in arduous operating conditions; especially against abrasion and deep gouges, thus prolonging the life of the Hose.

CONSTRUCTION:

Spring Steel Wire; galvanised for corrosion protection.

TEMPERATURE RANGE:

Suitable for use with all RYCO Hoses at their published temperature ranges.

ASSEMBLY INSTRUCTIONS:

1. Slide RWA Wire Armour over hose after first end of hose assembly is completed.
2. Then complete second end of hose assembly.

STANDARD LENGTH:

6 metres (19.7 ft) in all sizes.

| WIRE ARMOUR | | | HOSE SERIES | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|------------|------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|---------|--------|-------|------|-----|------|----------|---------|---------|-----|-------|---------|---------|-----|
| PART NO | NOMINAL ID | | T3000A/D/S | T3600A/D/S | T4000A/D/S | T5000A/D/S | T6000A/D/S | H3000A/D/S | H4000A/D/S | H5000A/D/S | H6000A/D/S | T1A/D/S | T2A/D/S | T2C | TXA2D | DF2A | E2 | TJ2D | H12A/D/S | R4SHA/D | R4SPA/D | T5 | D2B | MS1000 | CS1000 | |
| | mm | inch | | | | | | | | | | | | | | | | | | | | | | | | |
| RWA-12 | 12 | 0.47 | | | | | | | | | | | | | | | | | | | | | | | | |
| RWA-16 | 16 | 0.63 | -4,-5 | -4,-5 | -4 | -4 | -4 | | | | | -4,-5 | -4 | | | -4 | -4 | | | | | | -4,-5 | | | |
| RWA-20 | 20 | 0.78 | -6 | -6 | -5,-6 | -5,-6 | -5,-6 | | | | | -6 | -5 | -4,-5 | | -6 | -5 | 4 | | | | | -6 | | | |
| RWA-21 | 21 | 0.83 | -8 | -8 | | | | | -6 | -6 | -6 | -6 | -6 | -6 | | -6 | -5 | | | | | | -8 | | -8 | -8 |
| RWA-23 | 23 | 0.91 | | | -8 | -8 | 8 | | | | | -8 | -8 | | -8 | -8 | -8 | | | -6 | -6 | | | | | |
| RWA-27 | 27 | 1.06 | -10 | -10 | -10 | -10 | | | -8,-10 | -8 | -8 | -10 | | -8,-10 | | -10 | -10 | | | -8 | -8 | -10 | | -10,-12 | -10,-12 | |
| RWA-30 | 30 | 1.19 | -12 | -12 | -12 | -12 | | | | -10 | -10 | -12 | -10 | | -10 | -12 | | | -10 | | -10 | -12 | | | | |
| RWA-31 | 31 | 1.22 | | | | | | | | -12 | | | -12 | -12 | -12 | | -12 | | | | | | | | | |
| RWA-34 | 34 | 1.34 | | | | | | | -12 | -12 | | | | | | | | | | -12 | -12 | -12 | -16 | | -16 | -16 |
| RWA-39 | 39 | 1.52 | -16 | -16 | -16 | | | | -16 | -16 | -16 | -16 | | -16 | | -16 | -16 | | | -16 | | | | | | |
| RWA-41 | 41 | 1.61 | | | | | | | | | | | -16 | -16 | | | | | -16 | -16 | -20 | | | -20 | -20 | |
| RWA-49 | 49 | 1.93 | | | | | | -20 | -20 | -20 | -20 | -20 | -20 | -20 | -20 | | | | -20 | -20 | | -24 | | -24 | -24 | |
| RWA-56 | 56 | 2.2 | | | | | | -24 | -24 | -24 | -24 | -24 | -24 | -24 | | | | | -24 | -24 | -20 | | -24 | | | |
| RWA-61 | 61 | 2.4 | | | | | | | | | | | | | | | | | | | -24 | -32 | | -32 | -32 | |
| RWA-68 | 68 | 2.68 | | | | | | -32 | -32 | | | -32 | -32 | -32 | | | | | -32 | | | | -32 | | | |
| RWA-75 | 75 | 2.95 | | | | | | | | -32 | -32 | | | | | | | | | -32 | -32 | | | | | |

| PART NO | NOMINAL ID | | BT1 | RQP1 | RQP2 | RQP5 | RQP6 | TW1 | PW2 | SR | SRF | RTH1 | FB2 | M1 | MP1 | M2 | PL1 | PL1D | M2G | TP7, TP7N | TP7T, TP7TN | TP8, TP8N | TP8T, TP8TN | TP3000 | TPGL |
|---------|------------|------|-------|-------|------|-------|-------|-----|-------|-----|-----|-------|-----|-------|-----|-----|-------|-------|-----|-----------|-------------|-----------|-------------|--------|------|
| | mm | inch | | | | | | | | | | | | | | | | | | | | | | | |
| RWA-12 | 12 | 0.47 | | | | | | | | | | -4 | | | | | | | | -3 | | | | | -2 |
| RWA-16 | 16 | 0.63 | -4,-5 | -4,-5 | -4 | -4,-5 | -4,-5 | | | | | -6,-8 | | -4,-5 | -4 | -4 | -4,-5 | -4,-5 | -4 | -4,-5 | -4,-5 | -4 | -4 | -4 | -4 |
| RWA-20 | 20 | 0.78 | -6 | -6 | -5 | -6 | -6 | -6 | -4,-5 | | | | | -6 | -6 | -6 | -6 | -6 | -6 | -6 | -6 | -6 | -6 | -6 | -6 |
| RWA-21 | 21 | 0.83 | | | -6 | -8 | -8 | | -6 | | | -10 | -6 | | -6 | -6 | -8 | -8 | -6 | | -8 | -8 | | | |
| RWA-23 | 23 | 0.91 | -8 | -8 | -8 | | | -8 | | | | | -8 | | -8 | | | | | -8 | -8 | | | | |
| RWA-27 | 27 | 1.06 | -10 | -10 | | -10 | -10 | | | | | -12 | -10 | | -10 | -8 | -10 | -10 | -8 | | | | | -8 | |
| RWA-30 | 30 | 1.19 | -12 | -12 | -10 | -12 | -12 | | | | | | | | -12 | -12 | -12 | | | -12 | | | | | |
| RWA-31 | 31 | 1.22 | | | -12 | | | | | | | -16 | | | | | | | | | | | | | |
| RWA-34 | 34 | 1.34 | | | | -16 | | | | | | | | | | | | | -12 | | | | | | |
| RWA-39 | 39 | 1.52 | -16 | | | | | | | -12 | -12 | | | | | | | | | -16 | | | | | |
| RWA-41 | 41 | 1.61 | | -16 | -16 | -20 | | | | -16 | -16 | | | | | | | | | | | | | | |
| RWA-49 | 49 | 1.93 | | | -20 | -24 | | | | | -20 | | | | | | | | | | | | | | |
| RWA-56 | 56 | 2.2 | | | -24 | | | | | | -24 | | | | | | | | | | | | | | |
| RWA-61 | 61 | 2.4 | | | | -32 | | | | | | | | | | | | | | | | | | | |
| RWA-68 | 68 | 2.68 | | | -32 | | | | | | -32 | | | | | | | | | | | | | | |
| RWA-75 | 75 | 2.95 | | | | | | | | | | | | | | | | | | | | | | | |

RHYS PACKAGING SLEEVE



INTRODUCTION

RECOMMENDED FOR:

Packaging and protection of hose assemblies, in transit and in storage. RYCO RHYS Packaging Sleeve is installed over the finished hose assembly. The ends may be heat sealed, or folded over and stapled, or taped closed.

CONSTRUCTION:

Heavy gauge low density polyethylene clear plastic tubing; printed at intervals with “RYCO” logo, and incorporating an area for the hose assembly Part Number to be written.

ASSEMBLY INSTRUCTIONS:

1. Select correct size of RYCO RHYS Packaging Sleeve. It must be large enough to allow for the maximum outside profile of the hose couplings.

Two sizes are available:

RHYS-75 suits most hoses up to -16 (1”) hose bore.

RHYS-125 suits most hoses from -16 to -32 (1” to 2”) hose.

2. If required, write the hose assembly Part Number onto the Packaging Sleeve using a ball point pen.

3. Slide the hose assembly into the RHYS Packaging Sleeve.

4. Trim Packaging Sleeve to length, and seal ends.

STANDARD COIL LENGTHS:

350 metres (1,150 feet).

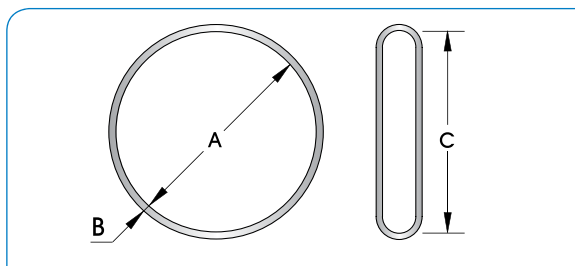
HOSE

COUPLINGS

ADAPTORS

RHYS HOSE ASSEMBLY PACKAGING SLEEVE SPECIFICATIONS

| PART NO | PACKAGING SLEEVE | | | | | | | |
|-----------------|------------------|--------|------------------------|--------|-------------------------------|--------|----------------|-------|
| | NOMINAL ID | | NOMINAL WALL THICKNESS | | NOMINAL INSIDE FLAT DIMENSION | | NOMINAL WEIGHT | |
| | A mm | A inch | B mm | B inch | C mm | C inch | kg/m | lb/ft |
| RHYS-75 | 48 | 1.9 | 0,15 | 0.006 | 75 | 3.0 | 0,021 | 0.014 |
| RHYS-125 | 79 | 3.1 | 0,15 | 0.006 | 125 | 5.0 | 0,035 | 0.023 |



ACCESSORIES

FILTERS

TECHNICAL

HOSE

HOSE PROTECTION – RHYT HOSE TAG

RHYT/ RHWT HOSE TAG



RECOMMENDED FOR:

Permanent identification of hose assemblies. RYCO Hose Tags enable hose assembly information to be attached to the hose assembly in a cost effective manner.

Two sizes of Hose Tags allow all common hose sizes to be tagged.

Information can be written or printed on the Hose Tag prior to being attached to the hose. When the Hose Tag is wrapped on the hose, a clear panel at the end of the tag wraps over to protect the written or printed information.

Hose Tag remains in position on the hose due to the adhesive backing, and the Hose Tag bends with the hose, ensuring that flexibility is not affected.

The slim profile of the attached Hose Tag reduces the risk of accidental removal. Hose Tag does not damage or cut the cover of the hose.

CONSTRUCTION:

Heat, oil, ozone, sunlight, and weather resistant high performance plastic.

Adhesive-backed for permanent attachment to the hose assembly. Area to write or print information, with a clear panel that wraps over to protect the hose assembly identification information.

TEMPERATURE RANGE:

Suitable for use with all RYCO Hoses at their published temperature ranges.

ASSEMBLY INSTRUCTIONS:

1. Select correct size of RYCO RHYT Hose Tag for the hose assembly that is to be identified.

Two sizes are available:

RHYT-10 and **RHWT-10** suits hose sizes -04 to -10 (1/4" to 5/8").

RHYT-32 and **RHWT-32** suits hose sizes -12 to -32 (3/4" to 2").

2. Using a ball point pen or label printer, apply the required information onto the Hose Tag.
3. Remove the release paper from the back of the Hose Tag to expose the adhesive.
4. While ensuring that the Hose Tag is parallel to the axis of the hose, wrap the Hose Tag tightly around the hose, then continue to wrap the clear plastic panel over the Hose Tag.
5. Press firmly to ensure that the adhesive bonds.

RHYT HOSE TAGS SPECIFICATIONS

| RHYT/RHWT HOSE TAGS | | | |
|---------------------|--------------------------|------------|------------|
| PART NO | SUITS HOSE SIZE ID RANGE | | |
| | DN | INCH | DASH |
| RHYT-10 | 6 to 16 | 1/4 to 5/8 | -04 to -10 |
| RHYT-32 | 12 to 51 | 3/4 to 2 | -12 to -32 |
| RHWT-10 | 6 to 16 | 1/4 to 5/8 | -04 to -10 |
| RHWT-32 | 12 to 51 | 3/4 to 2 | -12 to -32 |

Contact RYCO for further information.

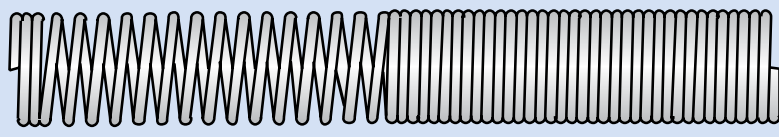
RHYT-32

RHYT-10

RHWT-32

RHWT-10

750/760 SPRING GUARD



RECOMMENDED FOR:

TJ24D and TJ26D Specialist Jacking Hose Assemblies, to control bend radius at end of hoses to avoid excessive strain on hose couplings. Can also be used with **PW24, PW26, T24A, T24C, T24D, T24S, T26A, T26C, T26D** and **T26S** Hoses. Can be used with **L000** Series Field Attachable and **T2000** Series BITELOK Couplings.

- 750** Suits some -4 (1/4") and -6 (3/8") hoses
- 760** Suits some -6 (3/8") hoses

CONSTRUCTION:

Spring Steel Wire; galvanised for corrosion protection.

ASSEMBLY INSTRUCTIONS:

Slide Spring Guards over the hose before assembling hose ends. After ends are assembled, twist and push Spring Guards onto the ferrules. The close pitched end of the Spring Guard goes over the ferrule, and the wide pitched end goes over the hose (as depicted in below image).



HOSE

HOW TO ORDER RYCO HYDRAULIC HOSE

SEE PAGES 486 AND 487 FOR "HOW TO ORDER HOSE ASSEMBLIES".

Coil length of RYCO Hydraulic Hose varies according to Hose Series and Size.

Wire braid, textile braid and spiral wire reinforced hydraulic hoses are in most cases manufactured in long lengths on flexible mandrels, which results in coils of hose of different lengths. These hoses are produced and supplied in random lengths.

SR Suction Hose is manufactured on rigid mandrels of a specified length.

SR Hose 20 metres (65.6 ft)

If hose is part of a general stock order, every effort will be made to supply length closest to length ordered, but length supplied may be shorter or longer than length ordered. If ordering "a coil" of hose, please specify the length required. If a specific cut length is required, this must be specified when ordering, e.g. 19,5 metres exact length and may be subject to surcharge.

Shown in the table below is the availability of RYCO Hydraulic Hose in Coils (C), and on Reels (R) or in Bulk Cartons (B). Details of average quantities packed on reels (or in cartons) and their dimensions are available from RYCO on request.

| HOSE SIZE | | HOSE SERIES | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|--------|-------------|------------|------------|------------|------------|------------|--------|----------|------------|----------|---------|---------|-----|-------|-----|---------|-----|-------|------|-----|------|-----|------|------|------|-----|
| DASH | INCH | T3000A/D/S | T4000A/D/S | T5000A/D/S | T6000A/D/S | H3000A/D/S | H4000A/D/S | H5000A | H5000D/S | H6000A/D/S | H12A/D/S | R4SPA/D | R4SHA/D | T1A | T1D/S | T1F | T2A/D/S | T2C | TXA2D | DF2A | E2 | TJ2D | BT1 | R0P1 | R0P2 | R0P5 | |
| -03 | 3/16" | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -04 | 1/4" | R,B | R,B | R,B | R,B | | | | | | | R,B | | R,B | R,B | R,B | R,B | | | R,B | | R,B | R,B | R,B | R,B | R,B | R,B |
| -05 | 5/16" | | | | | | | | | | | | | R,B | | R,B | R,B | | | | | | | | | | |
| -06 | 3/8" | R,B | R,B | R,B | R,B | | | | R,B | R,B | R,B | R,B | | R,B | R,B | R,B | R,B | | | R,B | | R,B | R,B | R,B | R,B | R,B | R,B |
| -08 | 1/2" | R,B | R,B | R,B | R,B | | R,B | | R,B | R,B | R,B | R,B | | R,B | R,B | R,B | R,B | | | R,B | R,B | | R,B | R,B | R,B | R,B | R,B |
| -10 | 5/8" | R,B | R,B | | | | R,B | | R,B | R,B | R,B | R,B | | R,B | R,B | R,B | R,B | | | R,B | R,B | | R,B | R,B | R,B | R,B | R,B |
| -12 | 3/4" | R,B | R,B | | | | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | | | R,B | R,B | | R,B | R,B | R,B | R,B | R,B |
| -16 | 1" | R,B | | | | | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | | | R,B | R,B | | R,B | R,B | R,B | R,B | R,B |
| -20 | 1.1/4" | | | | | C,B | C,B | | C,B | C,B | C,B | | C,B | C,B | C,B | | C,B | | | C,B | | | | | | C,B | C,B |
| -24 | 1.1/2" | | | | | C,B | C,B | | C,B | C,B | C,B | | C,B | C,B | C,B | | C,B | | | | | | | | | C,B | C,B |
| -32 | 2" | | | | | C,B | C,B | | C,B | C,B | C,B | | | C,B | C,B | | C,B | | | | | | | | | C,B | C,B |
| -40 | 2.1/2" | | | | | | | | | | | | | | | | C,B | | | | | | | | | | |
| -48 | 3" | | | | | | | | | | | | | | | | | | | | | | | | | | |

| HOSE SIZE | | HOSE SERIES | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|--------|-------------|-----|-----|--------|--------|-----|-----|------|-----|-----|-----|-----|----|----------|-----|-----|-----|------|------|-------|-----|------|------|-------|--------|-----|
| DASH | INCH | R0P6 | T5 | D2B | MS1000 | CS1000 | TW1 | PW2 | RTH1 | SR | SRF | M1 | MP1 | M2 | PL1/PL1D | M2G | FB2 | TP7 | TP7N | TP7T | TP7TN | TP8 | TP8N | TP8T | TP8TN | TP3000 | |
| -03 | 3/16" | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -04 | 1/4" | R,B | R,B | | | | | | | R,B | | | | | R,B | R,B | R,B | R,B | | | R,B | R,B | R,B | R,B | R,B | R,B | R,B |
| -05 | 5/16" | | | | | | | | | | | | | | | | | | | | | | | | | | |
| -06 | 3/8" | R,B | R,B | | | | | | | R,B | R,B | R,B | | | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B |
| -08 | 1/2" | R,B | R,B | | | | | | | R,B | R,B | R,B | | | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B |
| -10 | 5/8" | R,B | R,B | | | | | | | R,B | | | | | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B | R,B |
| -12 | 3/4" | R,B | R,B | | | | | | | R,B | R | R | | | R,B | R,B | R,B | R,B | R,B | R,B | R,B | | R,B | R,B | | | |
| -16 | 1" | | R,B | | | | | | | | R | R | | | R,B | R,B | R,B | R,B | | | R,B | R,B | | R,B | R,B | | |
| -20 | 1.1/4" | | | | | | | | | | C | C | | | C,B | | | | | | | | | | | | |
| -24 | 1.1/2" | | | | | | | | | | C | C | | | C,B | | | | | | | | | | | | |
| -32 | 2" | | | | | | | | | | C | C | | | | | | | | | | | | | | | |
| -40 | 2.1/2" | | | | | | | | | | C | C | | | | | | | | | | | | | | | |
| -48 | 3" | | | | | | | | | | C | | | | | | | | | | | | | | | | |

■ COUPLINGS



COUPLINGS

CONTENTS

THIS SECTION IS ARRANGED IN THE FOLLOWING COUPLING SERIES ORDER:

| PAGES | COUPLING SERIES | APPLICATION |
|--|---|--|
| BITELOK ONE-PIECE CRIMP COUPLINGS (Series numbers have changed. Previous series in brackets.) | | |
| 177 to 187 | T1000 | BITELOK One-Piece Crimp for T3000 & T3600 Braid Hose, TP7, TP7T, TP7N, TP7TN, TP8, TP8T, TP8N, TP8TN Thermoplastic Hose |
| 188 to 208 | T2000 (T200) | BITELOK One-Piece Crimp for Wire Braid Hose |
| 209 to 216 | T4000 (T400) | BITELOK One-Piece Crimp for M2, M2G, MP1, RQP5, TP7, TP7N, TP7T, TP7TN, TP3000, PL1, PL1D, RQP6, MS1000, CS1000, SR, SRF and T5 hose |
| 217 to 233 | T7000 (T700) | BITELOK One-Piece Crimp for Wire Braid Hose and selected High Pressure Spiral Hose |
| 234 to 240 | T9000 (T900) | BITELOK One-Piece Crimp for H5032, H6024 and selected sizes of R4SH hose |
| 241 to 243 | TT000 | BITELOK One-Piece Crimp for RTH1 Hose |
| 244 | TG000 | BITELOK One-Piece Crimp for TPGL Greaseline |
| BITELOK TWO-PIECE CRIMP COUPLINGS (Series numbers have changed. Previous series in brackets.) | | |
| 245 to 251 | 69000N (6900N) | BITELOK Interlok Two-Piece Crimp for H6000 Isobaric Hose |
| 252 to 253 | 1G000 (1G00) | Two-Piece Crimp for FB2 Air Conditioning Hose |
| FIELD ATTACHABLE COUPLINGS (Series numbers have changed. Previous series in brackets.) | | |
| 254 to 257 | 8000 (800) | Push-On for PL1, PL1D and RQP6 Hose |
| 258 to 261 | 33000 (3300) | Suction and Return for SR and SRF Hose |
| 262 to 275 | V000 (V00) | Field Attachable for RQP5 and T5 Hose |
| 276 | K000 (K00), L000 (L00) M000 (400) P000 | Field Attachable Ferrules |
| 276 to 290 | 6000 (600) | Field Attachable Inserts for Wire Braid Hose, M2 and M2G Series Textile Braid Hose, and TPGL Hose With appropriate Ferrules, these form K000, L000, M000, P000 and V000 Series Field Attachable Couplings |
| TWO INDEXES FOLLOW: | | |
| 160 to 40 | — | Pictorial Index |
| 170 to 174 | — | Index by End Style Number & Coupling Series |

WITHIN EACH COUPLING SERIES THE LISTING ORDER IS ALPHABETICAL * BY THREAD OR CONNECTOR TYPE:

BSP (BSPT, BSPP, BSPP ENCAPSULATED SEAL, BSPP O RING, BANJO)
 NPT* (NPT, NPTF, NPSM)
 CROCBITE
 GREASELINE
 JIC
 JIS (BSP, METRIC)
 JOINER
 METRIC (DKL, DKOL, DKS, DKOS, FRENCH GAZ, FRENCH MILLIMETRIC, JIS, BANJO)
 ORFS
 PW
 RKVP/RKVF
 RYCO WEO
 STAPLELOK, SUPERLOK
 SAE (Thread, then Flange)
 SALVAGE
 STANDPIPE
 TUBE BITE
 UNO (O RING BOSS)
 HAMMER UNION (WING UNION)

*NOTE: NPT is not in strict alphabetical order. NPT is similar in concept to BSP therefore has been placed directly after BSP.

WITHIN EACH ALPHABETICAL THREAD OR CONNECTOR TYPE, THE LISTING ORDER IS:

MALE
 FEMALE
 SPECIAL FEATURES (live swivel, etc)
 SPECIAL SEATS (flat, concave, etc)
 ELBOWS (45° then 90°)
 TUBE BENDS (in increasing degree of bend from 10° to 110°)

PLEASE BE AWARE THAT COUPLING PART NUMBERS HAVE CHANGED. SEE PAGE 28 IN INTRODUCTION AND THE EXAMPLES ON PAGES 158 TO 159 FOR MORE INFORMATION.

PLEASE NOTE THAT THE NEW AND EXTENDED RANGE OF RYCO STAINLESS STEEL COUPLINGS AND ADAPTORS WILL BE INTRODUCED IN 2014. CONTACT YOUR LOCAL RYCO REPRESENTATIVES FOR MORE DETAILS.

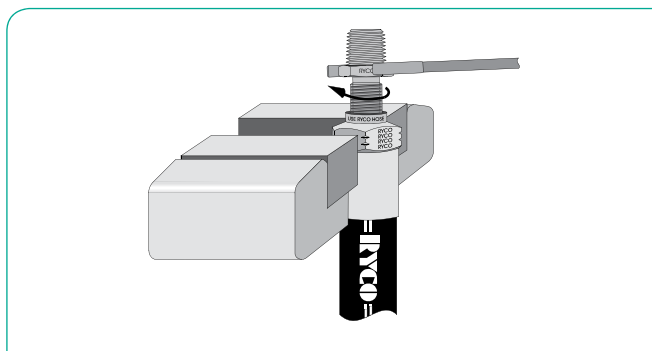
RYCO Hydraulics manufacture hose couplings in many different styles and sizes to match each RYCO hose series, with a wide range of thread and connection types.

Hose Couplings must be carefully matched to the hose. When the hose for an application has been selected, it is crucial that the couplings to be fitted are designed specifically for that hose. This information is listed in this RYCO PRODUCT TECHNICAL MANUAL on the pages for each Hose Series, and also on the pages for each Coupling Series.

HOSE COUPLINGS CAN BE BROADLY DIVIDED INTO TWO TYPES:

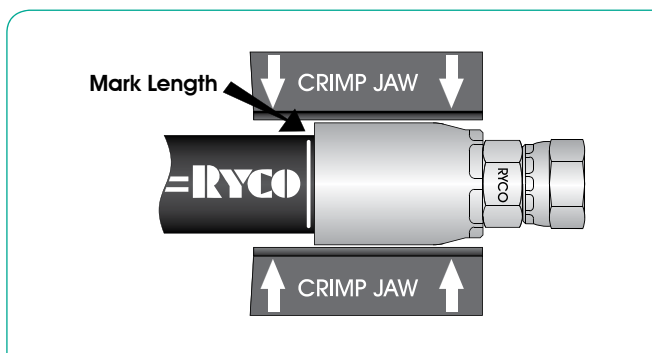
1) FIELD ATTACHABLE COUPLINGS

Attached to the hose using commonly available hand tools. Push-On Hose Couplings and Suction and Return Hose Couplings are often classed as Field Attachable couplings.



2) CRIMP, OR SWAGE, COUPLINGS

Permanently attached to the hose using a crimping, or swaging, machine.



DO NOT MIX / MATCH HOSE AND COUPLINGS FROM DIFFERENT MANUFACTURERS.

It is critical that the hose and coupling manufacturer are the same and that they are assembled using the manufacturer's recommended equipment, components and procedures.

NOTE: Illustrations are indicative only, and are not to scale.

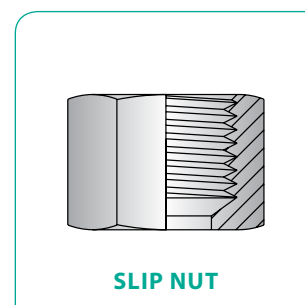
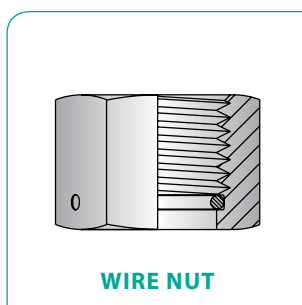
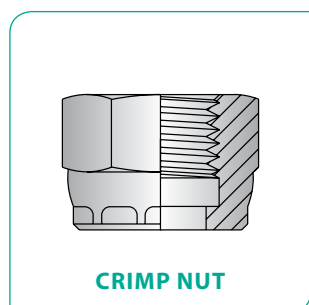
NOTE: Drop Length (DL) and Cut-off Allowance (C_A) dimensions shown are for reference only, and may vary according to manufacturing method.

Female Swivel Nut fittings are typically illustrated as "Crimp Nut", except T7020H (T702H) and T9000 (T900) Series.

Generally, RYCO Fittings including T9000 (T900) Series are as follows:

1. BSPP, NPSM, JIC, JIS, ORFS and SAE nuts are "Crimp Nut" up to and including 1" Hose Size; and "Wire Nut" 1.1/4" to 2" Hose Size.
2. PW and SAE Inverted Flare Male nuts are always "Slip Nut."
3. Metric DKL, DKOL, DKS and DKOS nuts are generally "Slip Nut" where possible and "Wire/Crimp Nut" on jump sizes.
4. T7022 (T702H) is "Wire Nut".

There are many exceptions to these general rules; for precise information, contact RYCO.



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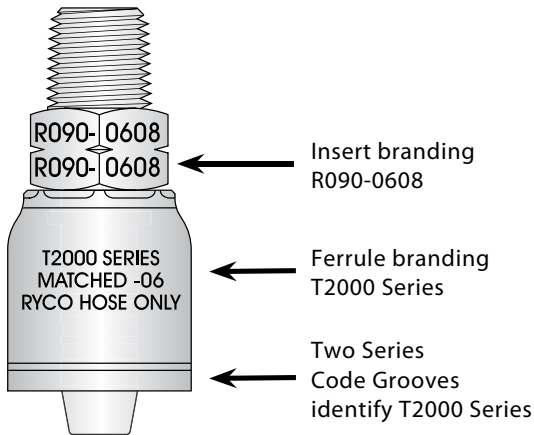
IMPORTANT INFORMATION: HOSE COUPLING PART NUMBER CHANGES

BRANDING EXAMPLES

The pictorial examples in the following pages indicate the differences in branding and identification between New and Previous Coupling Series. Ferrules are branded with the Coupling Series and the following identification marks;

- T1000 has no series code grooves
 - T2000 (T200) has two series code grooves
 - T4000 (T400) has three series code grooves
 - T7000 (T700) has four series code grooves
 - T9000 (T900) has six series code grooves
 - TT000 has two series code grooves (one at each end of the ferrule)
 - TG000 has no series code grooves
 - 69000N (6900N) has six series code grooves
- Field Attachable Coupling identification is shown on page 276.

NEW T2000



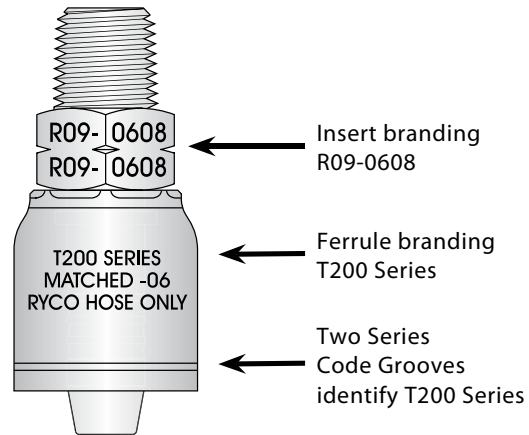
To complete the Part Number for Coupling:

Insert Part Branding is R090-0608
Series is T2000 (from T2000 Ferrule Branding or Two Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T2"
(first two characters of Series)

(replace R with T2) R090-0608 → T2090-0608

PREVIOUS T200



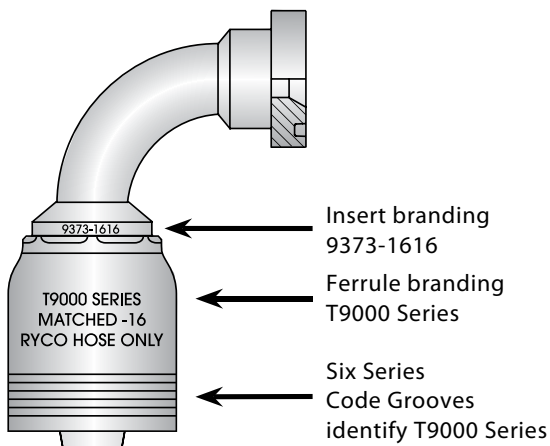
To complete the Part Number for Coupling:

Insert Part Branding is R09-0608
Series is T200 (from T200 Ferrule Branding or Two Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T2"
(first two characters of Series)

(replace R with T2) R09-0608 → T209-0608

NEW T9000



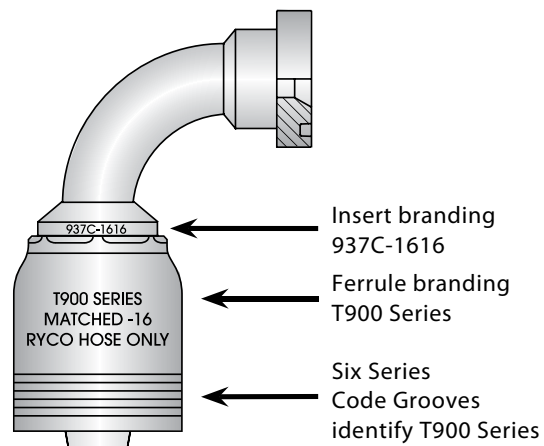
To complete the Part Number for Coupling:

Insert Part Branding is 9373-1616
Series is T9000 (from T9000 Ferrule Branding or Six Series Code Grooves)

Simply add "T" to Insert Part Branding

(add T) 9373-1616 → T9373-1616

PREVIOUS T900



To complete the Part Number for Coupling:

Insert Part Branding is 937C-1616
Series is T900 (from T900 Ferrule Branding or Six Series Code Grooves)

Simply add "T" to Insert Part Branding

(add T) 937C-1616 → T937C-1616

IMPORTANT INFORMATION: HOSE COUPLING PART NUMBER CHANGES

IMPORTANT INFORMATION- NEW COUPLING SERIES TT000

As part of RYCO's commitment to innovation and continuous improvement, we have created a new one-piece coupling series to supercede the discontinued two-piece 1100 Ferrule and RT series insert. The new coupling series is the TT000.

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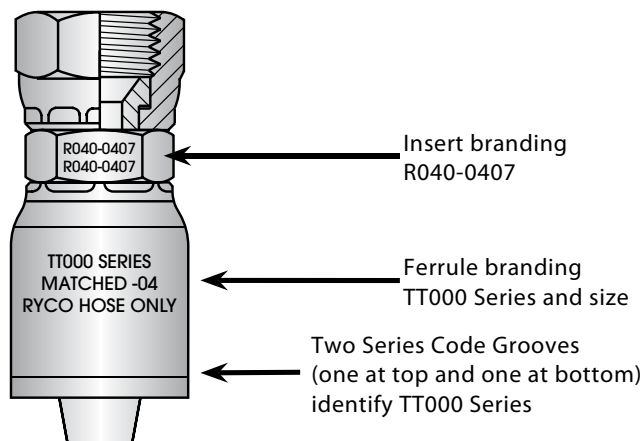
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NEW TT000



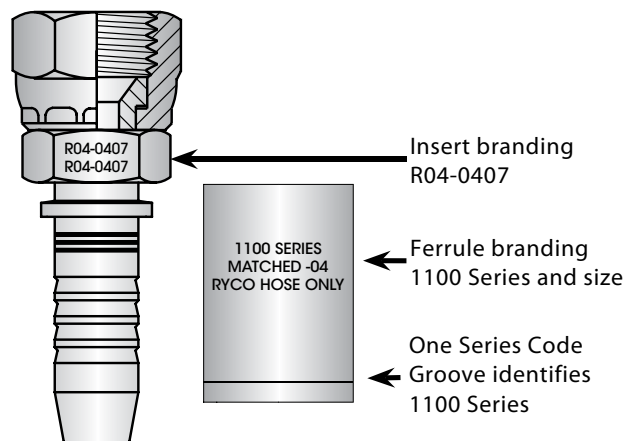
To complete the Part Number for Coupling:

Insert Part Branding is R040-0407
Series is TT000 (from TT000 Ferrule Branding or Two Series Code Grooves, one at each end of the ferrule)

Simply replace "R" of Insert Part Branding with "TT"
(first two characters of Series)

(replace R with TT) R040-0407 → TT040-0407

PREVIOUS 1100 AND RT INSERT



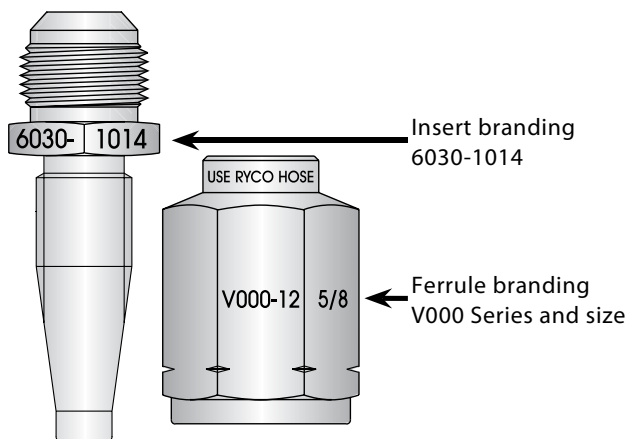
To complete the Part Number for Coupling:

Insert Part Branding is R04-0407
Series is 1100

Simply replace "R" of Insert Part Branding with "11"
(first two characters of Series)

(replace R with 11) R04-0407 → 1104-0407

NEW V000



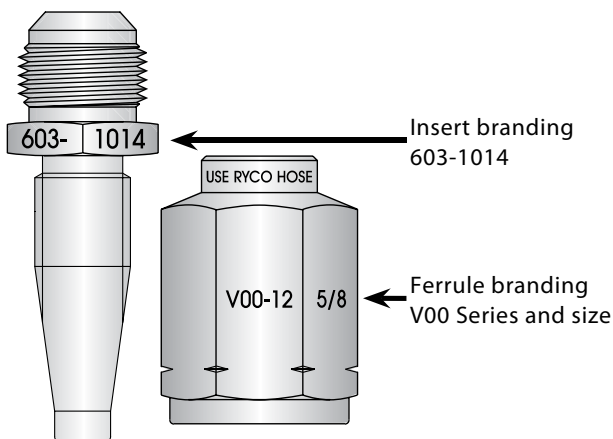
To complete the Part Number for Coupling:

Insert Part Branding is 6030-1014
Series is V000

Simply replace "6" of Insert Part Branding with "V"
(first character of Series)

(replace 6 with V) 6030-1014 → V030-1014

PREVIOUS V00



To complete the Part Number for Coupling:

Insert Part Branding is 603-1014
Series is V00

Simply replace "6" of Insert Part Branding with "V"
(first character of Series)

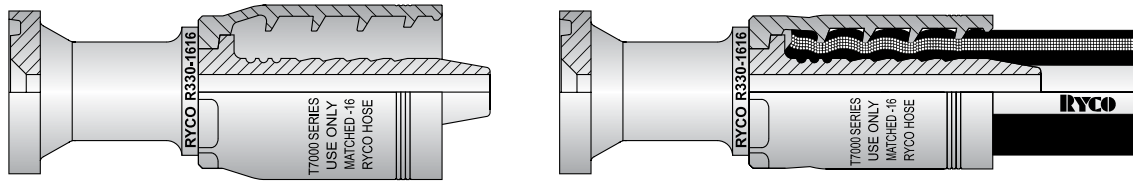
(replace 6 with V) 603-1014 → V03-1014

COUPLINGS

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BITELOK ONE-PIECE CRIMP COUPLINGS

RYCO BITELOK Crimp Couplings are permanently attached fittings, assembled onto the hose with a swaging press.



RYCO BITELOK One-Piece Crimp Couplings have the ferrule already attached to the hose insert at the factory. This eliminates the possibility of selecting the wrong ferrule type when fabricating hose assemblies, which can cause failure of the assembly.

Each BITELOK One-Piece Crimp Coupling Series suits specific styles of hose, as shown in the table below. T1000, T2000, T4000, T7000 and T9000 BITELOK One-Piece Crimp Couplings Series can be used on more than one hose style - only the finished crimp diameter changes.

BITELOK One-Piece Crimp couplings eliminate the need to "skive" the cover off the hose before attaching the couplings - even for Spiral reinforced hoses. This makes assembly simple, quick and efficient. Simply push the coupling onto the hose to the correct mark length, and crimp the ferrule. The teeth inside the ferrule BITE down though the cover to LOK onto the reinforcement wires*.

* T4000 Series for One and Two Braid Textile reinforced hoses do not bite down to the textile reinforcement.

| BITELOK SERIES | SUITS HOSE TYPE | RYCO HOSE SERIES AND SIZES |
|----------------|--|---|
| T1000 | Thermoplastic Hoses & R17 Wire Braid NO SERIES CODE GROOVES AT END OF FERRULE | For RYCO Hose Series T3000, T3600 all sizes. For RYCO Hose Series TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN all sizes. |
| T2000 | One and Two Wire Braided Hoses TWO SERIES CODE GROOVES AT END OF FERRULE | For RYCO Hose Series T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, DF2A, TXA2D, TJ2D, RQP1, RQP2, TW1, PW2 up to size -48. For RYCO Hose Series T3000, T3600, T4000, T5000, T6000, E2, BT1. For RYCO Hose Series CS1000, MS1000 up to -32. |
| T4000 | Some One and Two Textile Braided Hoses and some Thermoplastic Hoses THREE SERIES CODE GROOVES AT END OF FERRULE | For RYCO Hose Series TP7, TP7N, TP7T, TP7TN, TP3000 all sizes. For RYCO Hose Series SR and SRF sizes -12 to -32. For RYCO Hose Series M2, M2G, PL1, PL1D and RQP6 sizes -4 to -12. For RYCO Hose Series MP1 sizes -4 to -20. For RYCO Hose Series RQP5 and T5 sizes -4 to -12. For RYCO Hose Series CS1000, MS1000 sizes -20 to -32. |
| T7000 | Selected Spiral Hoses One and Two Wire Braided Hoses FOUR SERIES CODE GROOVES AT END OF FERRULE | For RYCO Hose Series H3000, H4000, T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, BT1, E2, D2B, DF2A, H12A, H12D, H12S, TXA2D, RQP1, RQP2 all sizes. For RYCO Hose Series H5000 up to -24. For RYCO Hose Series H6000 up to -20. For RYCO Hose Series R4SP (cover must be skived) and R4SH (sizes -20 to -32). |
| T9000 | Selected Spiral Hoses SIX SERIES CODE GROOVES AT END OF FERRULE | For RYCO Hose H5032, H6024, R4SH12, R4SH16. |

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MALE STRAIGHT

MALE STRAIGHT cont'd

MALE STRAIGHT cont'd







MALE STRAIGHT cont'd

| | | | | | | | | | |
|---|---|---|---|---|--|---|---|---|--|
| T1010 P177 | T1013 P177 | T1017 P177 | T1320 P178 | | | | T1090 P180 | | |
| T2010 P188 | T2013 P188 | T2017 P188 | T2220 P189/P195 | T2320 P189 | T2475 P190 | T2090 P192 | T2091 P192 | | |
| T4010 P209 | T4013 P209 | | | | T4320 P209 | T4090 P210 | | | |
| T7010 P217 | T7014 P217 | T7013 P217 | | | | | T7090 P218 | T7091 P218 | |
| T9010 P234 | T9013 P234 | | | | | T9090 P234 | T9091 P234 | | |
|  |  |  |  |  |  |  |  |  | |
| BSPT MALE | BSPT MALE HEAVY | BSPP MALE | BSPP MALE CAPTIVE SEAL | BSPP MALE 60° CONVEX SEAT (JIS) | BSPT MALE SWIVEL | BSP BANJO | NPT MALE | NPT MALE EXTENDED | |
| T1320N P180 | | | T1030 P181 | T1650 P183 | T1630 P184 | | | | |
| T2320N P192 | T2880 P193 | T2880A P194 | T2030 P194 | T2650 P196 | T2630 P198 | T2920 P199 | T2924 P199 | T2470 P200 | |
| T4320N P210 | | | T4030 P211 | | | | | | |
| T7880 P219 | | T7880A P219 | T7030 P220 | T7630 P223 | T7920 P223 | T7924 P224 | | | |
| T9880 P235 | | | T9030 P235 | | T9630 P236 | | | | |
|  |  |  |  |  |  |  |  |  | |
| NPT MALE SWIVEL | CROCBITE MALE | CROCBITE MALE HIGH FLOW | JIC MALE | METRIC DKL MALE 24° CONE | METRIC DKS MALE 24° CONE | METRIC FRENCH GAZ MALE | METRIC FRENCH MILLIMETRIC MALE | METRIC BANJO | |
| T1840 P185 | | | | | | | T1530 P186 | | |
| T2840 P201 | T2950 P202 | T2896 P203 | T2890 P203 | T2480 P204 | T2870 P204 | T2530 P205 | T2740 P205 | | |
| T4840 P213 | | | | | | | T4530 P214 | T4740 P214 | |
| T7840 P225 | | T7896 P226 | T7890 P226 | T7480 P226 | T7870 P227 | T7876 P227 | | | |
| T9896 P236 | | | | | T9870 P237 | T9876 P237 | | | |
|  |  |  |  |  |  |  |  |  | |
| ORFS MALE | PW GUN HANDLE TUBE | RKVP MALE | RKVF MALE | RYCO WEO MALE | STAPLELOK MALE | SUPERLOK MALE | SAE MALE | SAE INVERTED MALE FLARE | |
| T1200 P187 | | T1380 P187 | | | | | | | |
| T2200 P208 | | T2380 P208 | | | | | | | |
| T7200 P233 | | | | | | | | | |
|  |  | | | | | | | | |
| UN O RING MALE (O RING BOSS) | UN O RING MALE SWIVEL (O RING BOSS) | | | | | | | | |

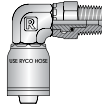
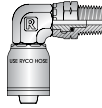
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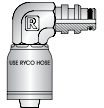
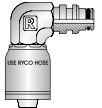

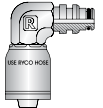
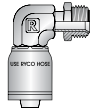
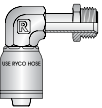


MALE
45° & 60°

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| T2881 P193 | T2482 P204 | T2871 P204 | T2750 P205 | T2760 P205 | |
| T4750 P214 | | | | | |
| T7881 P219 | T7881A P219 | T7482 P226 | T7871 P227 | | |
| T9881 P235 | | | T9871 P237 | | |
|  |  |  |  |  |  |
| CROCBITE MALE 45° ELBOW | CROCBITE MALE HIGH FLOW 45° ELBOW | RYCO WEO MALE 45° TUBE BEND | STAPLELOK MALE 45° ELBOW | SAE INVERTED MALE FLARE 45° TUBE BEND | SAE INVERTED MALE FLARE 60° TUBE BEND |










MALE
90°

| | |
|---|---|
| T1340 P178 | T1340N P180 |
| T2340 P189 | T2340N P192 |
| T1390 P187 | |
| T2882 P193 | T2390 P208 |
| T4770 214 | |
| T7882 P219 | T7882A P219 |
| T7483 P226 | T7872 P227 |
| T9882 P235 | |
| T9872 P237 | |
|  |  |
| BSPT MALE SWIVEL 90° ELBOW | NPT MALE SWIVEL 90° ELBOW |

MALE
90°

| | | | | | | | | | |
|---|---|---|---|---|--|---|---|--|--|
| | | | | | | | T1390 P187 | | |
| T2882 P193 | T2483 P204 | T2872 P204 | T2780 P205 | T2790 P205 | T2770 P205 | T2390 P208 | | | |
| T4770 214 | | | | | | | | | |
| T7882 P219 | T7882A P219 | T7483 P226 | T7872 P227 | | | | | | |
| T9882 P235 | | T9872 P237 | | | | | | | |
|  |  |  |  |  |  |  |  | | |
| CROCBITE MALE 90° ELBOW | CROCBITE MALE HIGH FLOW 90° ELBOW | RYCO WEO MALE 90° TUBE BEND | STAPLELOK MALE 90° ELBOW | SAE INVERTED MALE FLARE 90° ELBOW | SAE INVERTED MALE FLARE 90° EXTENDED ELBOW | SAE INVERTED MALE FLARE 90° TUBE BEND | UN O RING MALE SWIVEL (O RING BOSS) 90° ELBOW | | |

FEMALE
STRAIGHT

| | | | | | | | | |
|---|---|---|---|---|--|---|---|---|
| T1020 P177 | | T1120 P182 | | | T1020N P180 | T1040 P181 | | |
| T2020 P188 | T2028B P189 | T2024 P189 | T2120 P189/P195 | T2190 P193 | T2020N P193 | T2861 P194 | T2040 P194 | |
| T4020 P209 | | T4120 P210/P212 | | | T4020N P210 | | T4040 P211 | |
| T7020 P217 | | T7022 P217 | | | | T7020N P218 | | T7040 P220 |
| T9020 P234 | | | | | | T9040 P235 | | |
|  |  |  |  |  |  |  |  |  |
| BSPP FEMALE | BSPP FEMALE LIVE SWIVEL | BSPP FEMALE HEAVY | BSPP FEMALE FLAT FACE | BSPP FEMALE 60° CONCAVE SEAT (JIS) | NPT FEMALE FIXED | NPSM FEMALE | GREASE LINE FIXED FEMALE | JIC FEMALE |

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FEMALE STRAIGHT cont'd

FEMALE STRAIGHT cont'd & FEMALE 45°

FEMALE 45° cont'd

FEMALE 90°

| | | | | | | | |
|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------------|----------------------|----------------------|
| T1501 P183 | | T1711 P184 | | T1680 P184 | | T1800 P185 | |
| T2600 P197 | T2501 P197 | T2711 P198 | T2921 P199 | T2925 P199 | T2680 P196/P200 | T2800 P201 | T2899 P203 |
| T4600 P213 | | | | | | T4800 P213 | |
| T7045 P220 | T7501 P222 | T7711 P223 | T7921 P223 | T7925 P224 | T7680 P222/P224 | T7800 P225 | T7899 P226 |
| T9045 P235 | | | T9711 P236 | | | T9800 P236 | T9899 P236 |

| | | | | | | | | |
|--------------------------|--------------------------------|-----------------------------|-----------------------------|-----------------------------------|---|--|-------------|-------------|
| | | | | | | | | |
| JIC FEMALE HIGH PRESSURE | METRIC DKL FEMALE 24°/60° CONE | METRIC DKOL FEMALE 24° CONE | METRIC DKOS FEMALE 24° CONE | METRIC FRENCH GAZ FEMALE 24° CONE | METRIC FRENCH MILLIMETRIC FEMALE 24° CONE | METRIC FEMALE 60° CONCAVE SEAT (JIS) KOMATSU | ORFS FEMALE | RKVP FEMALE |

| | | | | | | | | | | | |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
| T1540 P186 | | T1060 P178 | | T1080 P181 | | T1580 P186 | | T1270 P179 | | T1250 P182 | |
| T2894 P203 | T2540 P205 | T2940 P202 | T2060 P190 | T2080 P194 | T2580 P205 | T2270 P191 | T2250 P195 | | | | |
| T4540 P214 | | | | | | | | | | T4250 P211 | |
| T7894 P226 | | | T7060 P217 | | T7080 P220 | | T7270 P218 | | T7250 P221 | | |

| | | | | | | | | | | | |
|-------------|------------|------------------------|-----------------------|----------------------|----------------------|---------------------------|--------------------------|--|--|----------------------|--|
| | | | | | | | | T9250 P235 | | T9255 P235 | |
| | | | | | | | | | | | |
| RKVP FEMALE | SAE FEMALE | PRESSURE WASHER FEMALE | BSPP FEMALE 45° ELBOW | JIC FEMALE 45° ELBOW | SAE FEMALE 45° ELBOW | BSPP FEMALE 45° TUBE BEND | JIC FEMALE 45° TUBE BEND | JIC FEMALE HIGH PRESSURE 45° TUBE BEND | | | |

| | | | | | | | | | | | | | | |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|--|
| T1510 P183 | | T1720 P184 | | T1810 P185 | | T1050 P178 | | T1070 P181 | | T1570 P186 | | T1260 P179 | | |
| T2660 P197 | T2510 P197 | T2720 P198 | T2810 P202 | T2050 P190 | | | | T2070 P194 | | T2570 P205 | | T2260 P191 | | |
| T4660 P213 | | | T4810 P213 | | T4550 P214 | | T4050 P209 | | T4570 P214 | | T4260 P209 | | | |
| | | | | T7720 P223 | | T7810 P225 | | T7050 P217 | | T7070 P220 | | T7260 P218 | | |

| | | | | | | | | | | | | |
|--|---|---|---------------------------|--------------------------|-----------------------|----------------------|----------------------|---------------------------|--|----------------------|--|--|
| | | | | T9720 P236 | | T9810 P236 | | T9050 234 | | T9260 P234 | | |
| | | | | | | | | | | | | |
| METRIC DKL FEMALE 24°/60° CONE 45° TUBE BEND | METRIC DKOL FEMALE 24° CONE 45° TUBE BEND | METRIC DKOS FEMALE 24° CONE 45° TUBE BEND | ORFS FEMALE 45° TUBE BEND | SAE FEMALE 45° TUBE BEND | BSPP FEMALE 90° ELBOW | JIC FEMALE 90° ELBOW | SAE FEMALE 90° ELBOW | BSPP FEMALE 90° TUBE BEND | | | | |

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|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| T1210 P179 | T1243 P182 | T1240 P182 | T1280 P182 | | | T1520 P183 | T1730 P184 |
| T2210 P191 | T2243 P195 | T2240 P195 | T2280 P195 | T2670 P197 | T2520 P197 | T2730 P198 | T2923 P199 |
| | | T4243 P212 | T4240 P212 | T4280 P212 | T4670 P213 | | |
| T7210 P218 | T7243 P221 | T7240 P221 | T7245 P221 | T7280 P221 | T7730 P223 | | T7923 P223 |
| | | T9243 P235 | T9240 P235 | T9245 P235 | T9730 P236 | | |

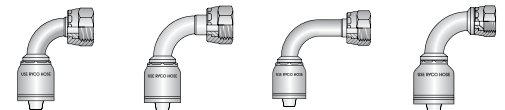
FEMALE
90°
cont'd



| | | | | | | | | |
|------------------------------|------------------------------|-------------------------------|--|-----------------------------|---|--|--|--|
| BSPF FEMALE 90° LONG BEND | JIC FEMALE 90° SHORT BEND | JIC FEMALE 90° MEDIUM BEND | JIC FEMALE HIGH PRESSURE 90° MEDIUM BEND | JIC FEMALE 90° LONG BEND | METRIC DKL FEMALE 24°/60° CONE 90° TUBE BEND | METRIC DKOL FEMALE 24° CONE 90° TUBE BEND | METRIC DKOS FEMALE 24° CONE 90° TUBE BEND | METRIC FRENCH GAZ FEMALE 24° CONE 90° TUBE BEND |
|------------------------------|------------------------------|-------------------------------|--|-----------------------------|---|--|--|--|

| | | | | | | | |
|----------------------|----------------------|----------------------|----------------------|--|--|----------------------|----------------------|
| T1823 P185 | T1820 P185 | T1830 P185 | T1900 P183 | | | T1230 P186 | |
| T2823 P202 | T2820 P202 | T2830 P202 | T2900 P196 | | | T2230 P207 | T2180 P207 |
| | | T4820 P213 | | | | T4230 P216 | |
| T7823 P225 | T7820 P225 | T7830 P225 | T7900 P222 | | | T7230 P233 | |
| | | T9820 P236 | | | | T9230 P240 | |

FEMALE
90°
cont'd



| | | | |
|-------------------------------|--------------------------------|------------------------------|-----------------------------|
| ORFS FEMALE 90° SHORT BEND | ORFS FEMALE 90° MEDIUM BEND | ORFS FEMALE 90° LONG BEND | SAE FEMALE 90° TUBE BEND |
|-------------------------------|--------------------------------|------------------------------|-----------------------------|

JOINER



JOINER

SALVAGE/
STANDPIPE



SALVAGE
(LIFESAVER) IMPERIAL
STANDPIPE

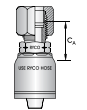
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|----------------------|----------------------|----------------------|----------------------|--|--|----------------------|----------------------|----------------------|
| T2640 P207 | T2643 P207 | T2646 P207 | T2850 P208 | | | T2130 P206 | | |
| | | | T4850 P216 | | | T4130 P215 | | |
| T7640 P232 | T7643 P232 | T7646 P232 | | | | T7130 P228 | T7140 P228 | T7290 P229 |
| | | | | | | T9130 P238 | | |

SALVAGE/
STANDPIPE
cont'd



| | | |
|---------------------|--------------------------------------|--------------------------------------|
| METRIC STANDPIPE | METRIC STANDPIPE 45° TUBE BEND | METRIC STANDPIPE 90° TUBE BEND |
|---------------------|--------------------------------------|--------------------------------------|

TUBE
BITE



TUBE BITE

SAE
FLANGE
CODE 61



| | | |
|-------------------|--------------------------------------|------------------------------------|
| CODE 61 FLANGE | CODE 61 FLANGE 22.5° TUBE BEND | CODE 61 FLANGE 30° TUBE BEND |
|-------------------|--------------------------------------|------------------------------------|

| | | | | | | | | |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| T2150 P206 | | | T2170 P206 | | | | | |
| T4150 P215 | | | T4170 P215 | | | | | |
| T7150 P228 | T7300 P228 | T7160 P229 | T7170 P229 | T7171 P229 | T7172 P229 | T7173 P229 | T7174 P230 | T7910 P230 |
| T9150 P238 | | T9170 P238 | | | | T9910 P238 | | |

SAE
FLANGE
CODE 61
cont'd



| | | | | | | | | |
|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---|-------------------------------------|
| CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 60° TUBE BEND | CODE 61 FLANGE 67.5° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND | CODE 61 FLANGE 90° LONG BEND | CODE 61 FLANGE 90° LONG BEND | CODE 61 FLANGE 90° LONG BEND | CODE 61 FLANGE 90° SPECIAL TUBE BEND | CODE 61 FLANGE 110° TUBE BEND |
|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---|-------------------------------------|

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SAE
FLANGE
CODE 62

| | | | | | | | |
|-------------------|--------------------------------------|------------------------------------|------------------------------------|------------------------------------|--------------------------------------|------------------------------------|-------------------------------------|
| T7330 P230 | T7440 P230 | T7450 P230 | T7350 P230 | T7460 P231 | T7360 P231 | T7370 P231 | T7930 P231 |
| T9330 P238 | T9440 P238 | T9450 P238 | T9350 P238 | T9460 P239 | T9360 P239 | T9370 P239 | T9930 P239 |
| | | | | | | | |
| CODE 62 FLANGE | CODE 62 FLANGE 22.5° TUBE BEND | CODE 62 FLANGE 30° TUBE BEND | CODE 62 FLANGE 45° TUBE BEND | CODE 62 FLANGE 60° TUBE BEND | CODE 62 FLANGE 67.5° TUBE BEND | CODE 62 FLANGE 90° TUBE BEND | CODE 62 FLANGE 110° TUBE BEND |

SPECIAL
FLANGE
RYCO
CODE 62C

| | | | | | | | |
|----------------|-----------------------------------|---------------------------------|---------------------------------|---------------------------------|-----------------------------------|---------------------------------|----------------------------------|
| T7333 P231 | T7443 P231 | T7453 P231 | T7353 P231 | T7463 P232 | T7363 P232 | T7373 P232 | T7933 P232 |
| T9333 P239 | T9443 P239 | T9453 P239 | T9353 P239 | T9463 P240 | T9363 P240 | T9373 P240 | T9933 P240 |
| | | | | | | | |
| R62C FLANGE | R62C FLANGE 22.5° TUBE BEND | R62C FLANGE 30° TUBE BEND | R62C FLANGE 45° TUBE BEND | R62C FLANGE 60° TUBE BEND | R62C FLANGE 67.5° TUBE BEND | R62C FLANGE 90° TUBE BEND | R62C FLANGE 110° TUBE BEND |

HAMMER
UNION

| | | | | | | | |
|-----------------------------|--------------------------------|--|--|--|--|--|--|
| T71502 P233 | T71501 P233 | | | | | | |
| T91502 P240 | T91501 P240 | | | | | | |
| | | | | | | | |
| FIG 1502 MALE (WITH NUT) | FIG 1502 FEMALE (WITH SEAL) | | | | | | |









TT000 ONE-PIECE CRIMP COUPLINGS FOR RTH1 SERIES HOSE

| | | | | | | | | | |
|----------------------------|---------------------------|--|---------------|----------------|---------------|-------------------------------|---------------|---------------------------|-----------------------------|
| TT010 P241 | TT320 P241 | TT030 P242 | TT090 P242 | TT020 P241 | TT040 P242 | TT600 P243 | TT540 P243 | TT250 P242 | TT050 P241 |
| | | | | | | | | | |
| BSPT MALE | BSPT MALE SWIVEL | JIC MALE | NPT MALE | BSPP FEMALE | JIC FEMALE | DKL FEMALE 24°/60° CONE | SAE FEMALE | JIC FEMALE 45° BEND | BSPP FEMALE 90° ELBOW |
| TT260 P241 | TT240 P242 | TT670 P243 | | | | | | | |
| | | | | | | | | | |
| BSPP FEMALE 90° BEND | JIC FEMALE 90° BEND | DKL FEMALE 24°/60° CONE 90° TUBE BEND | | | | | | | |













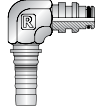
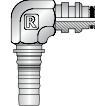








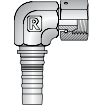
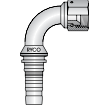






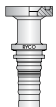

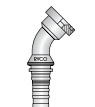







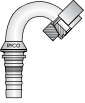

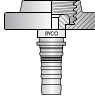

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TG000 ONE-PIECE CRIMP COUPLINGS FOR TPGL SERIES HOSE (GREASELINE)

| TG010 P244 | TG320 P244 | TG090 P244 | TG320N P244 | TG030 P244 | TG020 P244 | TG020N P244 | TG040 P244 |
|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |
| BSPT MALE | BSPT MALE SWIVEL | NPT MALE | NPT MALE SWIVEL | JIC MALE | BSPP FEMALE | NPSM FEMALE | JIC FEMALE |

69000N (6900N) BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS FOR H6000 SERIES HOSE

| 69000N P245 | 9010N P245 | 9090N P246 | 9880N P246 | 9030N P246 | 9630N P247 | 9840N P247 | 9896N P247 | 9870N P250 | 9876N P250 |
|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |
| CRIMP FERRULE | BSPT MALE | NPT MALE | CROCBITE MALE | JIC MALE | METRIC DKS MALE 24° CONE | ORFS MALE | RKVP MALE | STAPLELOK MALE | SUPERLOK MALE |
| 9881N P246 | 9871N P250 | 9882N P246 | 9872N P250 | 9020N P245 | 9040N P246 | 9711N P247 | 9800N P247 | 9899N P247 | 9250N P246 |
|  |  |  |  |  |  |  |  |  |  |
| CROCBITE MALE 45° ELBOW | STAPLELOK MALE 45° ELBOW | CROCBITE MALE 90° ELBOW | STAPLELOK MALE 90° ELBOW | BSPP FEMALE | JIC FEMALE | METRIC DKOS FEMALE 24° CONE | ORFS FEMALE | RKVP FEMALE | JIC FEMALE 45° TUBE BEND |
| 9720N P247 | 9810N P247 | 9050N P245 | 9240N P246 | 9730N P247 | 9820N P247 | 9130N P248 | 9150N P248 | 9170N P248 | 9330N P249 |
|  |  |  |  |  |  |  |  |  |  |
| METRIC DKOS FEMALE 24° CONE 45° TUBE BEND | ORFS FEMALE 45° TUBE BEND | BSPP FEMALE 90° ELBOW | JIC FEMALE 90° TUBE BEND | METRIC DKOS FEMALE 24° CONE 90° TUBE BEND | ORFS FEMALE 90° MEDIUM BEND | CODE 61 FLANGE | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND | CODE 62 FLANGE |
| 9333N P249 | 9350N P249 | 9353N P249 | 9370N P249 | 9371N P249 | 9373N P249 | 9335N P250 | 9445N P250 | 9355N P250 | 9375N P250 |
|  |  |  |  |  |  |  |  |  |  |
| R62C FLANGE | CODE 62 FLANGE 45° TUBE BEND | RYCO CODE 62C FLANGE 45° TUBE BEND | CODE 62 FLANGE 90° TUBE BEND | CODE 62 FLANGE 90° LONG TUBE BEND | RYCO CODE 62C FLANGE 90° TUBE BEND | RYCO CODE 62K FLANGE | RYCO CODE 62K FLANGE 30° TUBE BEND | RYCO CODE 62K FLANGE 45° TUBE BEND | RYCO CODE 62K FLANGE 90° TUBE BEND |
| 9100N P250 | 9900N P246 | 91502N P251 | 91501N P251 | | | | | | |
|  |  |  |  | | | | | | |
| RYCO CODE 62K FLANGE 135° TUBE BEND | JOINER | FIG 1502 MALE (WITH NUT) | FIG 1502 FEMALE (WITH SEAL) | | | | | | |

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1G000 (1G00) BITELOK TWO-PIECE CRIMP COUPLINGS FOR FB2 SERIES HOSE

| | | | | | | | | | |
|----------------------|----------------------|-----------------------------|----------------------|---------------------|----------------------|-------------------------------|-------------------------------------|----------------------|----------------------|
| 1G000 P252 | GP010 P252 | GP340 P252 | GP020 P252 | G540 P253 | G580 P253 | GP050 P252 | GP240 P252 | G570 P253 | G230 P253 |
| | | | | | | | | | |
| CRIMP FERRULE | PILOT O RING MALE | PILOT O RING MALE 90° ELBOW | PILOT O RING FEMALE | SAE FEMALE | SAE FEMALE 45° ELBOW | PILOT O RING FEMALE 90° ELBOW | PILOT O RING FEMALE 90° ELBOW SHORT | SAE FEMALE 90° ELBOW | SALVAGE (LIFE SAVER) |

8000 (800) PUSH-ON COUPLINGS FOR PL1, PL1D AND RQP6 SERIES HOSE

PL1, PL1D and RQP6 Hose simply pushes on to 8000 Series couplings. Clamps are required for critical applications, and when Working Pressure exceeds 50% of the Maximum Static Working Pressure. Do not overtighten Clamps as this will damage hose.

| | | | | | | | | | |
|-----------------------|-----------------------|----------------------------|----------------------------|--------------------------|-------------------------|------------------------------|---------------------|---------------------|-------------------------|
| 8010 P254 | 8111 P254 | 8090 P255 | 8030 P255 | 8530 P256 | 8740 P256 | 8200 P257 | 8020 P254 | 8040 P255 | 8540 P256 |
| | | | | | | | | | |
| BSPT MALE | BSPP O RING MALE | NPT MALE | JIC / SAE MALE | JIC / SAE MALE | SAE INVERTED FLARE MALE | UN O RING MALE (O RING BOSS) | BSPP FEMALE | JIC / SAE FEMALE | JIC / SAE FEMALE |
| 8060 P254 | 8050 P254 | 8070 P255 | 8570 P256 | 8240 P255 | 8900 P256 | 8230 P256 | 8180 P257 | 8640 P257 | 8100 P257 |
| | | | | | | | | | |
| BSPP FEMALE 45° ELBOW | BSPP FEMALE 90° ELBOW | JIC / SAE FEMALE 90° ELBOW | JIC / SAE FEMALE 90° ELBOW | JIC FEMALE 90° TUBE BEND | JOINER | SALVAGE (LIFE SAVER) | IMPERIAL STANDPIPE | METRIC STANDPIPE | 200 AIR COUPLING NIPPLE |

33000 (3300) SUCTION AND RETURN COUPLINGS FOR SR AND SRF SERIES HOSE

33000 Series Couplings require a suitable Clamp around the outside of the hose.

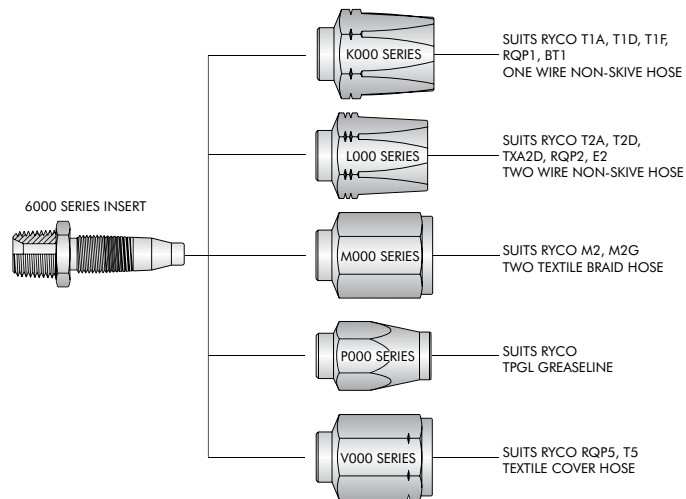
| | | | | | | | | | |
|-----------------------|----------------------|----------------------|------------------------------|------------------------------|----------------------|----------------------------|-----------------------|--|----------------------|
| RSC P260 | 33010 P258 | 33111 P258 | 33090 P259 | 33200 P261 | 33400 P258 | 33410 P258 | 33400N P259 | 33420 P261 | 33020 P259 |
| | | | | | | | | | |
| SUCTION HOSE CLAMP | BSPT MALE | BSPP O RING MALE | NPT MALE | UN O RING MALE (O RING BOSS) | BSPT MALE 90° ELBOW | BSPP O RING MALE 90° ELBOW | NPT MALE 90° ELBOW | UN O RING MALE (O RING BOSS) 90° ELBOW | BSPP FEMALE |
| 33024 P259 | 33040 P259 | 33130 P260 | 33150 P260 | 33170 P260 | | | | | |
| | | | | | | | | | |
| BSPP FEMALE FLAT FACE | JIC FEMALE | CODE 61 FLANGE | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND | | | | | |

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FIELD ATTACHABLE FERRULES FOR 6000 (600) SERIES INSERTS

The RYCO Field Attachable system consists of five ferrule styles, each specific to a hose type, and one common Insert. Field Attachable Inserts and Ferrules can be ordered individually, or as a complete coupling for specific hose types.



| K000 P276 | L000 P276 | V000 P264 | M000 P276 | P000 P276 |
|--|--|-----------------------------------|--------------------------------------|----------------------------|
| | | | | |
| SUITS RYCO T1A, T1D, T1F, RQP1 ONE WIRE NON-SKIVE HOSE | SUITS RYCO T2A, T2D, TXA2D, TJ2D, RQP2 TWO WIRE NON-SKIVE HOSE | SUITS RYCO RQP5, T5 TEXTILE COVER | SUITS RYCO M2 TWO TEXTILE BRAID HOSE | SUITS RYCO TPGL GREASELINE |

6000 (600) SERIES FIELD ATTACHABLE INSERTS

6000 Series Inserts for K000, L000, V000, M000 and P000 ferrules. Common V000 Series are indicated in the bar above Insert Group designation eg. (V010). Where there are two page references, the second is the V000 Series page reference.

| [V010] | | [V090] | | [V030] | | [V530] | | | |
|--------------------------|------------------------------|-------------------------------------|---------------------------------------|---------------------------------------|----------------------------|-----------------------------------|--|---|---------------------------------------|
| 6010 P278/P264 | 6320 P278 | 6090 P280/P266 | 6091 P280 | 6320N (632N) | 6860 P280 | 6030 P282/P266 | 6650 P284 | 6630 P285 | 6530 P286/P272 |
| | | | | | | | | | |
| BSPT MALE | BSPT MALE SWIVEL | NPT MALE | NPT MALE EXTENDED | NPT MALE SWIVEL | GREASE LINE MALE | JIC MALE | METRIC DKL MALE 24° CONE | METRIC DKS MALE 24° CONE | SAE MALE |
| [V740] | | [V200] | | [V750] | | [V770] | | | |
| 6740 P287/P273 | 6200 P290/P275 | 6380 P290 | 6750 P287/P274 | 6760 P287 | 6340 P278 | 6780 P287 | 6790 P287 | 6390 P290 | 6770 P287/P274 |
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| 1502A | 502A | Figure 1502 Hammer Union Male (reduced head dia.) | | | | | | | | | | | | |
| P010 | P01 | Pilot O Ring Male | | | | | | | | | | | | |
| P020 | P02 | Pilot O Ring Female | | | | | | | | | | | | |
| P050 | P05 | Pilot O Ring Female 90° Elbow | | | | | | | | | | | | |
| P240 | P24 | Pilot O Ring Female 90° Elbow Short | | | | | | | | | | | | |
| P340 | P34 | Pilot O Ring Male 90° Elbow | | | | | | | | | | | | |

EXAMPLES OF PREVIOUS TO NEW HOSE COUPLING PART NUMBERS

| EXAMPLE #1 | NEW | PREVIOUS |
|----------------------|--------------------|-------------|
| Part # | T2020N-0808 | T202N-0808 |
| End Style # | 020N | 02N |
| EXAMPLE #2 | NEW | PREVIOUS |
| Part # | T7240-1217 | T724-1217 |
| End Style # | 240 | 24 |
| EXAMPLE #3 | NEW | PREVIOUS |
| Part # (insert only) | 9333N-2424 | 933CN-2424 |
| Part # (coupling) | 69333N-2424 | 6933CN-2424 |
| End Style # | 333 | 33C |

WORKING PRESSURE OF HOSE ASSEMBLIES

Working Pressure of each Hose Coupling End Style Termination is shown in the Technical section. In most cases, the Working Pressure of the Hose Coupling End Style Termination that can be chosen for a particular hose exceeds the Maximum Working Pressure of the Hose. It is possible however, to select a Hose Coupling with an End Style having a lower Working Pressure than the Hose. In this case, as noted in SAE J516 and SAE J517, the rated Working Pressure of the Hose Assembly must not exceed the lower of the respective Working Pressure rated values.

EXAMPLE 1.

T28A Hose Assembly with **T2040-0812** coupling one end and **T2090-0808** coupling other end.

From page 92, Maximum Working Pressure of **T28A** is 350 bar.

From page 194, Maximum Working Pressure of **T2040-0812** is 690 bar.

From page 192, Maximum Working Pressure of **T2090-0808** is 690 bar.

The Maximum Working Pressure of the Hose Assembly is therefore 350 bar, the lowest of the respective Maximum Working Pressure rated values (in this case, the hose).

EXAMPLE 2.

H5016D Hose Assembly with **T7130-1620** coupling one end and **T7030-1621** coupling other end.

From page 83, Maximum Working Pressure of **H5016D** is 350 bar.

From page 228, Maximum Working Pressure of **T7130-1620** is 280 bar.

From page 220, Maximum Working Pressure of **T7030-1621** is 420 bar.

The Maximum Working Pressure of the Hose Assembly is therefore 280 bar, the lowest of the respective Maximum Working Pressure rated values (in this case, the **T7130-1620**).

33000 SERIES COUPLINGS FOR SR AND SRF SERIES HOSE

The Maximum Working Pressure of a **SR** or **SRF** Series Hose Assembly depends on the couplings used, and the method of attachment. See pages 120 and 121.

33000 Series Couplings with **RSC** Clamps are suited to Suction Applications, and Low Pressure Delivery (up to 25% of Maximum Working Pressure of the hose).

T4000 Bitelok One-Piece Crimp Couplings are suited to Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure of the hose).

EXAMPLE:

SRF20 Hose Assembly with **33020-2020** Couplings each end secured with **RSC-4347** Clamps.

From page 121, Maximum Working Pressure of **SRF20** hose is 14 bar.

From page 259, Maximum Working Pressure of **33020-2020** coupling is 215 bar.

Maximum Working Pressure of the Hose Assembly is 25% of 14 bar = 3,5 bar.

If this Hose Assembly was made with **T4020-2020** Bitelok One-Piece Crimp Couplings instead:

From page 120, Maximum Working Pressure of **SR20** hose is 14 bar.

From page 209, Maximum Working Pressure of **T4020-2020** coupling is 215 bar.

Maximum Working Pressure of the Hose Assembly is 100% of 14 bar = 14 bar.

8000 SERIES COUPLINGS FOR PL1 AND RQP6 SERIES HOSE

PL1, **PL1D** and **RQP6** Series hose, and **8000** Series Push-On Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications.

PL1, **PL1D** and **RQP6** Series hose should not be used at both maximum working pressure and maximum temperature simultaneously.

8000 Series Push-On pages 254 to 257.

Assembly Instructions page 503.

PL1, **PL1D** and **RQP6** Series hose simply pushes on to **8000** Series Couplings, and for Static Working Pressures up to 50% of Maximum Static Working Pressures a clamp is not required. For diesel fuel and other potentially dangerous or critical applications, and Static Working Pressures above 50% of maximum; a clamp around the hose is required. Do not overtighten clamp as this will damage hose. Factory crimped couplings are also available in some sizes. Contact RYCO for more information.

DROP LENGTH & CUT-OFF ALLOWANCE DIMENSIONS FOR COUPLINGS

In this Product Technical Manual, dimensional values for Drop Length (DL) and Cut-off Allowance (C_A) are published.

Due to different manufacturing methods and design changes, DL and C_A values may vary from time to time.

Before attaching couplings to the hose, measure and check that the DL and C_A dimensions of the actual coupling to be used complies with that published, or is suitable for the application.

COUPLINGS

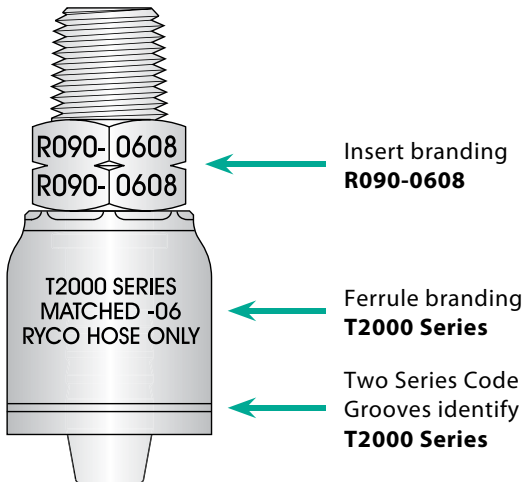
INFORMATION

RYCO BITELOK T1000, T2000, T4000, T7000 AND TT000 SERIES COUPLINGS

Branding of T1000, T2000, T4000, T7000 and TT000 Couplings shows a universal prefix "R".

T1000 has one identification groove, T2000 has two grooves, T4000 has three grooves, T7000 has four grooves and TT000 has two grooves (one at the top and one at the bottom of the ferrule) branded on the ferrule (body) of the Couplings signifying their series designation.

T2000 EXAMPLE



Insert branding
R090-0608

Ferrule branding
T2000 Series

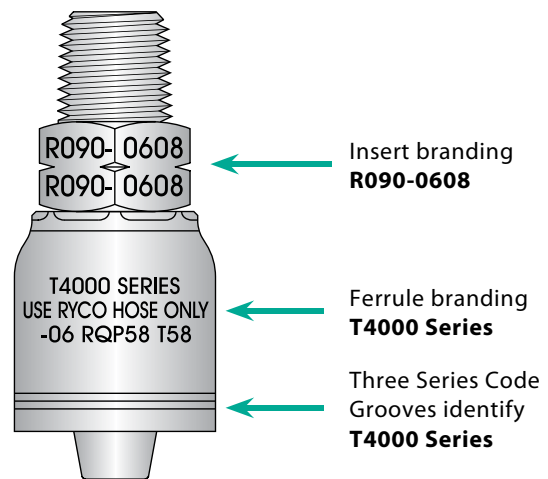
Two Series Code
Grooves identify
T2000 Series

To complete the Part Number for Coupling:
Insert Part Branding is **R090-0608**

Series is **T2000** (from **T2000** Ferrule Branding or
Two Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T2"
(first two characters of Series): **T2090-0608**

T4000 EXAMPLE



Insert branding
R090-0608

Ferrule branding
T4000 Series

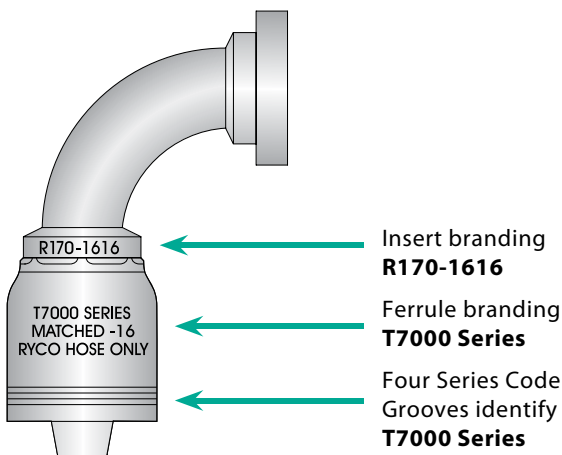
Three Series Code
Grooves identify
T4000 Series

To complete the Part Number for Coupling:
Insert Part Branding is **R090-0608**

Series is **T4000** (from **T4000** Ferrule Branding or
Three Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T4"
(first two characters of Series): **T4090-0608**

T7000 EXAMPLE



Insert branding
R170-1616

Ferrule branding
T7000 Series

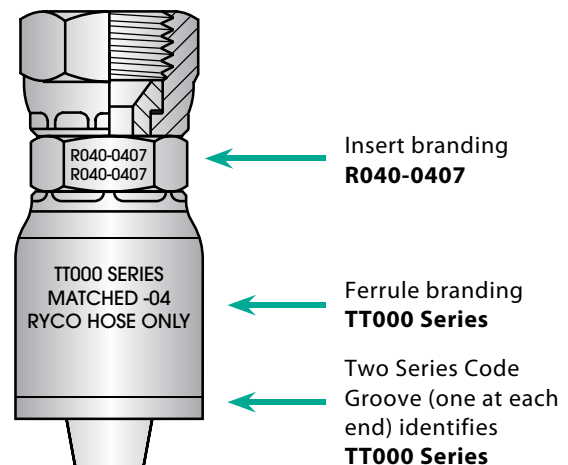
Four Series Code
Grooves identify
T7000 Series

To complete the Part Number for Coupling:
Insert Part Branding is **R170-1616**

Series is **T7000** (from **T7000** Ferrule Branding or
Four Series Code Grooves)

Simply replace "R" of Insert Part Branding with "T7"
(first two characters of Series): **T7170-1616**

TT000 EXAMPLE



Insert branding
R040-0407

Ferrule branding
TT000 Series

Two Series Code
Groove (one at each
end) identifies
TT000 Series

To complete the Part Number for Coupling:
Insert Part Branding is **R040-0407**

Series is **TT000** (from Two Series Code Groove, one at
each end)

Simply replace "R" of Insert Part Branding with "TT"
(first two characters of Series): **TT040-0407**

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR T1000 SERIES

NON-SKIVE

For RYCO Hose Series T3000A, T3000D, T3000S, T3600A, T3600D, T3600S all sizes.
For RYCO Hose Series TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN all sizes.

BSP

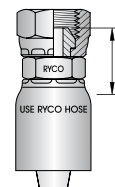
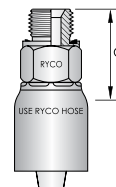
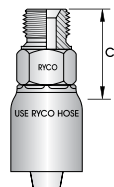
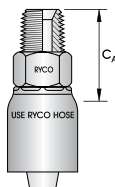
T1010

T1013

T1017

T1020

60° SEAT
EXCEPT T1017
ENCAPSULATED SEAL
INCLUDED



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | BSPP MALE | BSPP MALE ENCAPSULATED SEAL | BSPP FEMALE | | | | |
|-----------|------|-----------|-----------|-------------------|----------------|-----------------------------|----------------|-------------------|----------------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 6 | 1/4 | 1/8 | -0402 | T1010-0402 | 25 | | | | | T1020-0402 | 23 |
| 6 | 1/4 | 1/4 | -0404 | T1010-0404 | 30 | T1013-0404 | 27 | T1017-0404 | 30 | T1020-0404 | 24 |
| 6 | 1/4 | 3/8 | -0406 | T1010-0406 | 30 | | | | | T1020-0406 | 26 |
| 6 | 1/4 | 1/2 | -0408 | T1010-0408 | 32 | | | | | | |
| 8 | 5/16 | 1/4 | -0504 | | | T1013-0504 | 25 | | | T1020-0504 | 22 |
| 8 | 5/16 | 3/8 | -0506 | T1010-0506 | 25 | T1013-0506 | 25 | | | T1020-0506 | 24 |
| 8 | 5/16 | 1/2 | -0508 | T1010-0508 | 32 | | | | | | |
| 10 | 3/8 | 1/4 | -0604 | T1010-0604 | 33 | | | | | T1020-0604 | 22 |
| 10 | 3/8 | 3/8 | -0606 | T1010-0606 | 33 | T1013-0606 | 33 | T1017-0606 | 33 | T1020-0606 | 26 |
| 10 | 3/8 | 1/2 | -0608 | T1010-0608 | 38 | T1013-0608 | 32 | | | T1020-0608 | 28 |
| 12 | 1/2 | 3/8 | -0806 | T1010-0806 | 35 | | | | | T1020-0806 | 25 |
| 12 | 1/2 | 1/2 | -0808 | T1010-0808 | 40 | T1013-0808 | 31 | T1017-0808 | 37 | T1020-0808 | 26 |
| 12 | 1/2 | 3/4 | -0812 | | | | | | | T1020-0812 | 30 |
| 16 | 5/8 | 1/2 | -1008 | T1010-1008 | 41 | | | | | T1020-1008 | 27 |
| 16 | 5/8 | 5/8 | -1010 | T1010-1010 | 41 | T1013-1010 | 34 | | | T1020-1010 | 26 |
| 16 | 5/8 | 3/4 | -1012 | T1010-1012 | 41 | T1013-1012 | 40 | | | T1020-1012 | 28 |
| 19 | 3/4 | 3/4 | -1212 | T1010-1212 | 41 | T1013-1212 | 40 | T1017-1212 | 40 | T1020-1212 | 28 |
| 19 | 3/4 | 1 | -1216 | T1010-1216 | 46 | | | | | T1020-1216 | 33 |
| 25 | 1 | 1 | -1616 | T1010-1616 | 48 | T1013-1616 | 45 | T1017-1616 | 45 | T1020-1616 | 37 |
| 25 | 1 | 1.1/4 | -1620 | | | | | | | T1020-1620 | 40 |

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

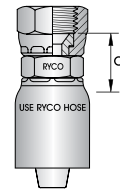
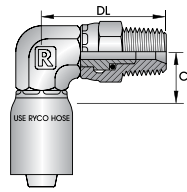
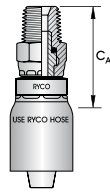
BSP

T1320

T1340

T1120

60° SEAT
SPECIAL SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE SWIVEL | BSPT MALE SWIVEL 90° ELBOW | BSPP FEMALE 60° CONCAVE SEAT (JIS) | | | | |
|-----------|------|-----------|-----------|-------------------|----------------------------|------------------------------------|----------------|----|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | | | | | | T1120-0404 | 21 |
| 10 | 3/8 | 1/4 | -0604 | | | | | | | |
| 10 | 3/8 | 3/8 | -0606 | T1320-0606 | 49 | T1340-0606 | 23 | 44 | T1120-0606 | 22 |
| 10 | 3/8 | 1/2 | -0608 | T1320-0608 | 53 | T1340-0608 | 23 | 48 | | |
| 12 | 1/2 | 1/2 | -0808 | T1320-0808 | 55 | T1340-0808 | 29 | 50 | T1120-0808 | 27 |
| 19 | 3/4 | 3/4 | -1212 | | | T1340-1212 | 30 | 54 | T1120-1212 | 26 |
| 25 | 1 | 1 | -1616 | | | | | | T1120-1616 | 32 |

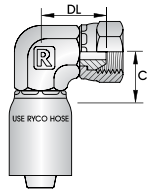
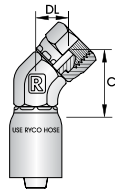
NOTE: These "Live Swivel" T1320 and T1340 Series Couplings are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement. This **T1120** Series Coupling is also listed in the **METRIC** section on page 182.

BSP

T1060

T1050

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 45° ELBOW | BSPP FEMALE 90° ELBOW | | | | |
|-----------|------|-----------|-----------|-----------------------|-----------------------|----|-------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | T1060-0404 | 30 | 15 | T1050-0404 | 21 | 24 |
| 6 | 1/4 | 3/8 | -0406 | | | | T1050-0406 | 21 | 28 |
| 8 | 5/16 | 3/8 | -0506 | | | | T1050-0506 | | |
| 10 | 3/8 | 3/8 | -0606 | T1060-0606 | 36 | 18 | T1050-0606 | 23 | 28 |
| 10 | 3/8 | 1/2 | -0608 | | | | T1050-0608 | 23 | 31 |
| 12 | 1/2 | 1/2 | -0808 | T1060-0808 | 40 | 18 | T1050-0808 | 29 | 31 |
| 19 | 3/4 | 3/4 | -1212 | T1060-1212 | 44 | 20 | T1050-1212 | 30 | 36 |
| 25 | 1 | 1 | -1616 | T1060-1616 | 51 | 23 | T1050-1616 | 32 | 40 |

NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

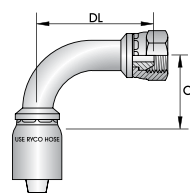
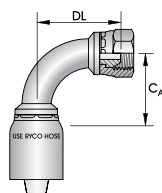
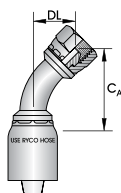
BSP

T1270

T1260

T1210

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 45° TUBE BEND | | | BSPP FEMALE 90° TUBE BEND | | | BSPP FEMALE 90° LONG BEND | | |
|-----------|------|-----------|-----------|---------------------------|----------------|----|---------------------------|----------------|----|---------------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | T1270-0404 | 34 | 16 | T1260-0404 | 27 | 29 | T1210-0404 | 25 | 47 |
| 6 | 1/4 | 3/8 | -0406 | | | | T1260-0406 | 27 | 28 | | | |
| 8 | 5/16 | 1/4 | -0504 | | | | T1260-0504 | 28 | 29 | | | |
| 8 | 5/16 | 3/8 | -0506 | T1270-0506 | 44 | 19 | T1260-0506 | 35 | 34 | | | |
| 10 | 3/8 | 3/8 | -0606 | T1270-0606 | 43 | 18 | T1260-0606 | 35 | 33 | T1210-0606 | 32 | 55 |
| 10 | 3/8 | 1/2 | -0608 | T1270-0608 | 45 | 19 | T1260-0608 | 34 | 33 | | | |
| 12 | 1/2 | 1/2 | -0808 | T1270-0808 | 49 | 22 | T1260-0808 | 40 | 45 | T1210-0808 | 38 | 70 |
| 16 | 5/8 | 5/8 | -1010 | T1270-1010 | 55 | 23 | T1260-1010 | 49 | 50 | T1210-1010 | 44 | 81 |
| 16 | 5/8 | 3/4 | -1012 | T1270-1012 | 58 | 28 | | | | | | |
| 19 | 3/4 | 3/4 | -1212 | T1270-1212 | 70 | 29 | T1260-1212 | 55 | 58 | T1210-1212 | 52 | 96 |
| 25 | 1 | 1 | -1616 | T1270-1616 | 85 | 41 | T1260-1616 | 67 | 77 | T1210-1616 | 65 | 116 |

NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

COUPLINGS

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

NPT

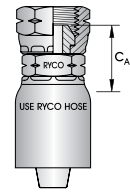
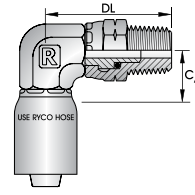
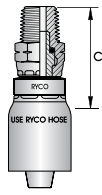
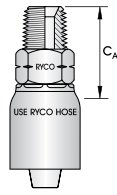
T1090

T1320N

T1340N

T1020N

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT MALE | | NPT MALE SWIVEL | | NPT MALE SWIVEL 90° ELBOW | | | NPSM FEMALE | |
|-----------|------|-----------|-----------|-------------------|----------------|--------------------|----------------|---------------------------|----------------|----|--------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A |
| 6 | 1/4 | 1/8 | -0402 | T1090-0402 | 25 | T1320N-0402 | 39 | | | | T1020N-0402 | 21 |
| 6 | 1/4 | 1/4 | -0404 | T1090-0404 | 30 | T1320N-0404 | 39 | T1340N-0404 | 21 | 41 | T1020N-0404 | 24 |
| 6 | 1/4 | 3/8 | -0406 | T1090-0406 | 30 | T1320N-0406 | 41 | | | | | |
| 6 | 1/4 | 1/2 | -0408 | T1090-0408 | 32 | | | | | | | |
| 8 | 5/16 | 1/4 | -0504 | T1090-0504 | 30 | | | | | | | |
| 8 | 5/16 | 3/8 | -0506 | T1090-0506 | 30 | | | | | | | |
| 10 | 3/8 | 1/4 | -0604 | T1090-0604 | 33 | T1320N-0604 | 39 | | | | T1020N-0604 | 22 |
| 10 | 3/8 | 3/8 | -0606 | T1090-0606 | 33 | T1320N-0606 | 41 | T1340N-0606 | 23 | 41 | T1020N-0606 | 27 |
| 10 | 3/8 | 1/2 | -0608 | T1090-0608 | 38 | T1320N-0608 | 45 | | | | T1020N-0608 | 28 |
| 12 | 1/2 | 3/8 | -0806 | T1090-0806 | 35 | T1320N-0806 | 42 | | | | | |
| 12 | 1/2 | 1/2 | -0808 | T1090-0808 | 40 | T1320N-0808 | 46 | T1340N-0808 | 29 | 51 | T1020N-0808 | 29 |
| 12 | 1/2 | 3/4 | -0812 | T1090-0812 | 37 | | | | | | | |
| 16 | 5/8 | 1/2 | -1008 | T1090-1008 | 41 | | | | | | | |
| 16 | 5/8 | 3/4 | -1012 | T1090-1012 | 41 | | | | | | | |
| 19 | 3/4 | 1/2 | -1208 | T1090-1208 | 41 | | | | | | | |
| 19 | 3/4 | 3/4 | -1212 | T1090-1212 | 41 | T1320N-1212 | 47 | T1340N-1212 | 30 | 56 | T1020N-1212 | 28 |
| 19 | 3/4 | 1 | -1216 | T1090-1216 | 43 | | | | | | | |
| 25 | 1 | 3/4 | -1612 | T1090-1612 | 43 | | | | | | | |
| 25 | 1 | 1 | -1616 | T1090-1616 | 48 | T1320N-1616 | 58 | T1340N-1616 | 32 | 69 | T1020N-1616 | 33 |
| 25 | 1 | 1.1/4 | -1620 | T1090-1620 | 46 | | | | | | | |

NOTE: These "Live Swivel" **T1320N** and **T1340N** Series Couplings are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

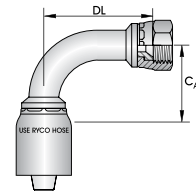
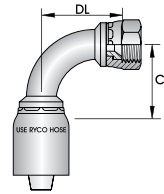
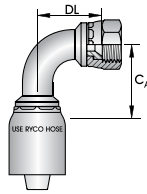
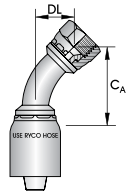
NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

COUPLINGS

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC T1250 T1243 T1240 T1280

37° FLARE

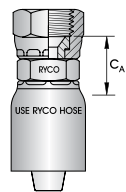


| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE 45° TUBE BEND | | | JIC FEMALE 90° SHORT BEND | | | JIC FEMALE 90° MEDIUM BEND | | | JIC FEMALE 90° LONG BEND | | |
|-----------|------|-----------|-----------|-----------|--------------------------|----------------|----|---------------------------|----------------|----|----------------------------|----------------|----|--------------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T1250-0407 | 31 | 10 | T1243-0407 | 27 | 21 | T1240-0407 | 26 | 32 | T1280-0407 | 43 | 47 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | T1250-0408 | 40 | 12 | | | | T1240-0408 | 26 | 32 | | | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | T1250-0409 | 40 | 12 | T1243-0409 | 27 | 22 | T1240-0409 | 26 | 38 | T1280-0409 | 47 | 54 |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | T1250-0509 | 39 | 11 | | | | T1240-0509 | 35 | 38 | | | |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T1250-0609 | 39 | 11 | T1243-0609 | 31 | 23 | T1240-0609 | 35 | 38 | T1280-0609 | 52 | 54 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | T1250-0612 | 42 | 15 | T1243-0612 | 31 | 29 | T1240-0612 | 35 | 41 | T1280-0612 | 62 | 64 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T1250-0812 | 45 | 15 | T1243-0812 | 43 | 29 | T1240-0812 | 41 | 41 | T1280-0812 | 53 | 64 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T1250-0814 | 48 | 18 | T1243-0814 | 43 | 33 | T1240-0814 | 41 | 47 | T1280-0814 | 54 | 70 |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | T1250-0817 | 47 | 21 | | | | T1240-0817 | 41 | 45 | | | |
| 16 | 5/8 | 3/4 | 3/8 | -1012 | | | | | | | T1240-1012 | 43 | 41 | | | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | T1250-1014 | 50 | 19 | T1243-1014 | 43 | 32 | T1240-1014 | 48 | 42 | T1280-1014 | 51 | 70 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | T1250-1017 | 54 | 24 | T1243-1017 | 43 | 48 | T1240-1017 | 48 | 58 | T1280-1017 | 51 | 96 |
| 19 | 3/4 | 7/8 | 5/8 | -1214 | | | | | | | T1240-1214 | 48 | 48 | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T1250-1217 | 65 | 22 | T1243-1217 | 56 | 48 | T1240-1217 | 55 | 57 | T1280-1217 | 56 | 96 |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | T1250-1221 | 74 | 28 | | | | T1240-1221 | 56 | 71 | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | T1250-1621 | 77 | 30 | T1243-1621 | 64 | 58 | T1240-1621 | 68 | 72 | T1280-1621 | 75 | 114 |
| 25 | 1 | 1.5/8 | 1.1/4 | -1626 | | | | | | | T1240-1626 | 68 | 78 | | | |

JIS

T1120

JAPANESE INDUSTRIAL STANDARD (JIS)
BSPP THREAD FORM
60° CONVEX / CONCAVE SEAT



| HOSE SIZE | THRD SIZE | DASH SIZE | BSPP FEMALE 60° CONCAVE SEAT (JIS) | | |
|-----------|-----------|-----------|------------------------------------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | T1120-0404 | 21 |
| 10 | 3/8 | 3/8 | -0606 | T1120-0606 | 22 |
| 10 | 3/8 | 1/2 | -0608 | T1120-0608 | 26 |
| 12 | 1/2 | 1/2 | -0808 | T1120-0808 | 27 |
| 19 | 3/4 | 3/4 | -1212 | T1120-1212 | 26 |
| 25 | 1 | 1 | -1616 | T1120-1616 | 32 |

NOTE: This T1120 Series Coupling is also listed in the BSP section on page 178.

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

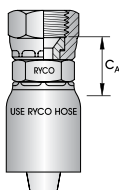
FILTERS

TECHNICAL

JIS

T1680

JAPANESE INDUSTRIAL STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT

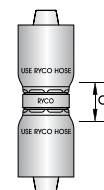


| HOSE SIZE | | THRD SIZE | DASH SIZE | METRIC FEMALE 60° CONCAVE SEAT (JIS) | |
|-----------|------|-----------|-----------|--------------------------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 14x1,5 | -0414 | T1680-0414 | 20 |
| 8 | 5/16 | 16x1,5 | -0516 | T1680-0516 | 20 |
| 10 | 3/8 | 18x1,5 | -0618 | T1680-0618 | 22 |
| 10 | 3/8 | 22x1,5 | -0622 | T1680-0622 | 26 |
| 12 | 1/2 | 22x1,5 | -0822 | T1680-0822 | 25 |
| 12 | 1/2 | 24x1,5 | -0824 | T1680-0824 | 32 |
| 16 | 5/8 | 24x1,5 | -1024 | T1680-1024 | 25 |
| 16 | 5/8 | 30x1,5 | -1030 | T1680-1030 | 30 |
| 19 | 3/4 | 24x1,5 | -1224 | T1680-1224 | 27 |
| 19 | 3/4 | 30x1,5 | -1230 | T1680-1230 | 30 |
| 19 | 3/4 | 33x1,5 | -1233 | T1680-1233 | 30 |
| 25 | 1 | 33x1,5 | -1633 | T1680-1633 | 28 |

NOTE: These T1680 Series Couplings are also listed in the **METRIC** section on page 184.

JOINER

T1900



| HOSE SIZE | | DASH SIZE | JOINER | |
|-----------|------|-----------|-------------------|----------------|
| DN | inch | | PART NO | C _A |
| 6 | 1/4 | -0404 | T1900-0404 | 14 |
| 8 | 5/16 | -0505 | T1900-0505 | 14 |
| 10 | 3/8 | -0606 | T1900-0606 | 15 |
| 12 | 1/2 | -0808 | T1900-0808 | 15 |
| 16 | 5/8 | -1010 | T1900-1010 | 15 |
| 19 | 3/4 | -1212 | T1900-1212 | 15 |
| 25 | 1 | -1616 | T1900-1616 | 25 |

METRIC

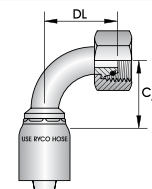
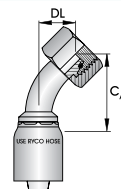
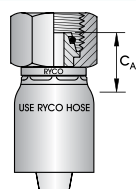
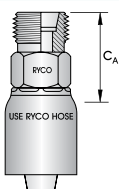
T1650

T1501

T1510

T1520

DKOL
METRIC O RING (LIGHT)
24° CONE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | DKL MALE 24° CONE | DKOL FEMALE 24° CONE | DKOL FEMALE 24° CONE 45° TUBE BEND | | DKOL FEMALE 24° CONE 90° TUBE BEND | | | | | |
|-----------|------|-----------|-----------|-----------|-------------------|----------------------|------------------------------------|----------------|------------------------------------|----------------|----|-------------------|----------------|----|
| DN | inch | mm | mm | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 12x1,5 | 6 | -0412 | T1650-0412 | 25 | T1501-0412 | 21 | T1510-0412 | 36 | 18 | T1520-0412 | 26 | 31 |
| 6 | 1/4 | 14x1,5 | 8 | -0414 | T1650-0414 | 25 | T1501-0414 | 22 | T1510-0414 | 35 | 17 | T1520-0414 | 26 | 31 |
| 6 | 1/4 | 16x1,5 | 10 | -0416 | | | T1501-0416 | 22 | | | | | | |
| 8 | 5/16 | 14x1,5 | 8 | -0514 | | | T1501-0514 | 22 | | | | | | |
| 8 | 5/16 | 16x1,5 | 10 | -0516 | T1650-0516 | 29 | T1501-0516 | 23 | T1510-0516 | 45 | 20 | T1520-0516 | 35 | 35 |
| 8 | 5/16 | 18x1,5 | 12 | -0518 | T1650-0518 | 26 | T1501-0518 | 23 | T1510-0518 | 45 | 20 | T1520-0518 | 35 | 35 |
| 10 | 3/8 | 16x1,5 | 10 | -0616 | T1650-0616 | 29 | T1501-0616 | 23 | T1510-0616 | 45 | 20 | T1520-0616 | 36 | 35 |
| 10 | 3/8 | 18x1,5 | 12 | -0618 | T1650-0618 | 29 | T1501-0618 | 23 | T1510-0618 | 45 | 20 | T1520-0618 | 36 | 35 |
| 10 | 3/8 | 22x1,5 | 15 | -0622 | T1650-0622 | 24 | | | | | | | | |
| 12 | 1/2 | 22x1,5 | 15 | -0822 | T1650-0822 | 32 | T1501-0822 | 26 | T1510-0822 | 51 | 22 | T1520-0822 | 40 | 44 |
| 12 | 1/2 | 26x1,5 | 18 | -0826 | T1650-0826 | 32 | T1501-0826 | 29 | T1510-0826 | 53 | 24 | T1520-0826 | 40 | 48 |
| 16 | 5/8 | 26x1,5 | 18 | -1026 | T1650-1026 | 29 | T1501-1026 | 26 | T1510-1026 | 59 | 28 | T1520-1026 | 48 | 54 |
| 19 | 3/4 | 26x1,5 | 18 | -1226 | | | T1501-1226 | 28 | | | | | | |
| 19 | 3/4 | 30x2,0 | 22 | -1230 | T1650-1230 | 31 | T1501-1230 | 27 | T1510-1230 | 73 | 31 | T1520-1230 | 56 | 65 |
| 25 | 1 | 36x2,0 | 28 | -1636 | T1650-1636 | 37 | T1501-1636 | 33 | T1510-1636 | 91 | 46 | T1520-1636 | 69 | 79 |

NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

COUPLINGS

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

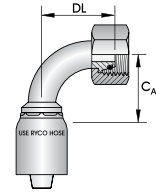
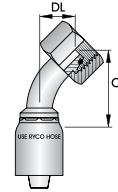
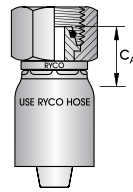
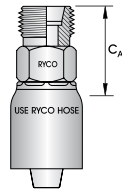
T1630

T1711

T1720

T1730

DKOS
METRIC O RING (HEAVY)
24° CONE

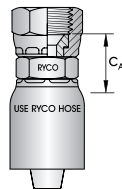


| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | DKS MALE 24° CONE | DKOS FEMALE 24° CONE | DKOS FEMALE 24° CONE 45° TUBE BEND | DKOS FEMALE 24° CONE 90° TUBE BEND | | | | | | | |
|-----------|-----------|-----------|-----------|-------------------|----------------------|------------------------------------|------------------------------------|----------------|-------------------|----------------|----|-------------------|----------------|----|
| DN | inch | mm | mm | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 14x1,5 | 6 | -0414 | | | T1711-0414 | 19 | T1720-0414 | 36 | 16 | T1730-0414 | 27 | 28 |
| 6 | 1/4 | 16x1,5 | 8 | -0416 | T1630-0416 | 27 | T1711-0416 | 22 | T1720-0416 | 36 | 17 | T1730-0416 | 27 | 31 |
| 6 | 1/4 | 18x1,5 | 10 | -0418 | T1630-0418 | 23 | T1711-0418 | 22 | T1720-0418 | 46 | 20 | T1730-0418 | 27 | 30 |
| 8 | 5/16 | 18x1,5 | 10 | -0518 | | | T1711-0518 | 26 | T1720-0518 | 45 | 20 | | | |
| 8 | 5/16 | 20x1,5 | 12 | -0520 | T1630-0520 | 30 | T1711-0520 | 30 | T1720-0520 | 45 | 20 | T1730-0520 | 34 | 37 |
| 10 | 3/8 | 20x1,5 | 12 | -0620 | T1630-0620 | 30 | T1711-0620 | 24 | T1720-0620 | 45 | 20 | T1730-0620 | 36 | 36 |
| 10 | 3/8 | 22x1,5 | 14 | -0622 | T1630-0622 | 29 | T1711-0622 | 26 | T1720-0622 | 46 | 20 | T1730-0622 | 35 | 36 |
| 10 | 3/8 | 24x1,5 | 16 | -0624 | | | T1711-0624 | 27 | | | | | | |
| 12 | 1/2 | 24x1,5 | 16 | -0824 | T1630-0824 | 30 | T1711-0824 | 28 | T1720-0824 | 53 | 24 | T1730-0824 | 40 | 48 |
| 16 | 5/8 | 30x2,0 | 20 | -1030 | T1630-1030 | 31 | T1711-1030 | 31 | T1720-1030 | 63 | 31 | T1730-1030 | 44 | 58 |
| 19 | 3/4 | 30x2,0 | 20 | -1230 | T1630-1230 | 35 | T1711-1230 | 30 | T1720-1230 | 74 | 35 | T1730-1230 | 56 | 68 |
| 19 | 3/4 | 36x2,0 | 25 | -1236 | T1630-1236 | 37 | T1711-1236 | 33 | T1720-1236 | 76 | 35 | T1730-1236 | 57 | 68 |
| 25 | 1 | 42x2,0 | 30 | -1642 | T1630-1642 | 43 | T1711-1642 | 36 | T1720-1642 | 87 | 37 | T1730-1642 | 69 | 77 |

METRIC

T1680

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



| HOSE SIZE | THRD SIZE | DASH SIZE | METRIC FEMALE 60° CONCAVE SEAT (JIS) | | |
|-----------|-----------|-----------|--------------------------------------|-------------------|----|
| DN | inch | mm | PART NO | C _A | |
| 6 | 1/4 | 14x1,5 | -0414 | T1680-0414 | 20 |
| 8 | 5/16 | 16x1,5 | -0516 | T1680-0516 | 20 |
| 10 | 3/8 | 18x1,5 | -0618 | T1680-0618 | 22 |
| 10 | 3/8 | 22x1,5 | -0622 | T1680-0622 | 26 |
| 12 | 1/2 | 22x1,5 | -0822 | T1680-0822 | 25 |
| 12 | 1/2 | 24x1,5 | -0824 | T1680-0824 | 32 |
| 16 | 5/8 | 24x1,5 | -1024 | T1680-1024 | 25 |
| 16 | 5/8 | 30x1,5 | -1030 | T1680-1030 | 30 |
| 19 | 3/4 | 24x1,5 | -1224 | T1680-1224 | 27 |
| 19 | 3/4 | 30x1,5 | -1230 | T1680-1230 | 30 |
| 19 | 3/4 | 33x1,5 | -1233 | T1680-1233 | 30 |
| 25 | 1 | 33x1,5 | -1633 | T1680-1633 | 30 |

NOTE: This T1680 Series Coupling is also listed in the JIS section on page 183.

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

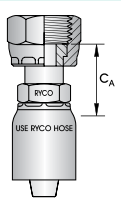
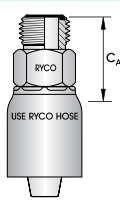
ACCESSORIES

FILTERS

TECHNICAL

ORFS **T1840** **T1800**

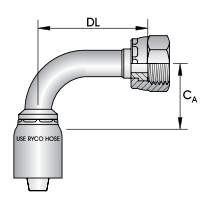
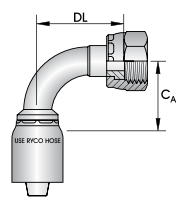
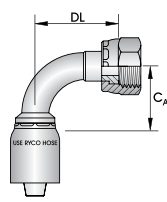
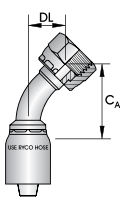
**O RING
FACE SEAL**



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS MALE | | ORFS FEMALE | |
|-----------|------|-----------|-----------|-----------|-------------------|----------------|-------------------|----------------|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | T1840-0409 | 25 | T1800-0409 | 28 |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | T1840-0411 | 26 | T1800-0411 | 32 |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | | | T1800-0511 | 33 |
| 10 | 3/8 | 9/16 | 1/4 | -0609 | | | T1800-0609 | 29 |
| 10 | 3/8 | 11/16 | 3/8 | -0611 | T1840-0611 | 29 | T1800-0611 | 31 |
| 10 | 3/8 | 13/16 | 1/2 | -0613 | T1840-0613 | 31 | T1800-0613 | 34 |
| 12 | 1/2 | 11/16 | 3/8 | -0811 | | | T1800-0811 | 31 |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | T1840-0813 | 33 | T1800-0813 | 34 |
| 12 | 1/2 | 1 | 5/8 | -0816 | T1840-0816 | 36 | T1800-0816 | 40 |
| 12 | 1/2 | 1.3/16 | 3/4 | -0819 | | | T1800-0819 | 43 |
| 16 | 5/8 | 1 | 5/8 | -1016 | T1840-1016 | 37 | T1800-1016 | 38 |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | T1840-1019 | 38 | T1800-1019 | 43 |
| 19 | 3/4 | 1 | 5/8 | -1216 | | | T1800-1216 | 38 |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | T1840-1219 | 38 | T1800-1219 | 43 |
| 19 | 3/4 | 1.7/16 | 1 | -1223 | T1840-1223 | 38 | T1800-1223 | 52 |
| 25 | 1 | 1.7/16 | 1 | -1623 | T1840-1623 | 41 | T1800-1623 | 54 |

ORFS **T1810** **T1823** **T1820** **T1830**

**O RING
FACE SEAL**



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS FEMALE 45° TUBE BEND | | | ORFS FEMALE 90° SHORT BEND | | | ORFS FEMALE 90° MEDIUM BEND | | | ORFS FEMALE 90° LONG BEND | | |
|-----------|------|-----------|-----------|-----------|---------------------------|----------------|----|----------------------------|----------------|----|-----------------------------|----------------|----|---------------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | T1810-0409 | 39 | 18 | T1823-0409 | 27 | 21 | T1820-0409 | 26 | 32 | T1830-0409 | 28 | 47 |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | T1810-0411 | 39 | 18 | T1823-0411 | 26 | 26 | T1820-0411 | 32 | 38 | T1830-0411 | 28 | 55 |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | | | | | | | T1820-0511 | 32 | 38 | | | |
| 10 | 3/8 | 11/16 | 3/8 | -0611 | T1810-0611 | 45 | 21 | T1823-0611 | 32 | 24 | T1820-0611 | 32 | 38 | T1830-0611 | 32 | 54 |
| 10 | 3/8 | 13/16 | 1/2 | -0613 | T1810-0613 | 40 | 15 | T1823-0613 | 35 | 29 | T1820-0613 | 32 | 41 | T1830-0613 | 33 | 64 |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | T1810-0813 | 49 | 20 | T1823-0813 | 43 | 30 | T1820-0813 | 38 | 41 | T1830-0813 | 41 | 65 |
| 12 | 1/2 | 1 | 5/8 | -0816 | T1810-0816 | 46 | 19 | T1823-0816 | 42 | 35 | T1820-0816 | 41 | 47 | T1830-0816 | 48 | 70 |
| 12 | 1/2 | 1.3/16 | 3/4 | -0819 | | | | T1823-0819 | 42 | 48 | T1820-0819 | 42 | 58 | T1830-0819 | 46 | 96 |
| 16 | 5/8 | 1 | 5/8 | -1016 | T1810-1016 | 59 | 20 | T1823-1016 | 40 | 32 | T1820-1016 | 50 | 47 | T1830-1016 | 51 | 70 |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | T1810-1019 | 58 | 24 | T1823-1019 | 40 | 48 | T1820-1019 | 45 | 58 | T1830-1019 | 51 | 96 |
| 19 | 3/4 | 13/16 | 1/2 | -1213 | | | | | | | T1820-1213 | 41 | 41 | | | |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | T1810-1219 | 64 | 29 | T1823-1219 | 56 | 49 | T1820-1219 | 54 | 59 | T1830-1219 | 58 | 96 |
| 19 | 3/4 | 1.7/16 | 1 | -1223 | T1810-1223 | 60 | 26 | T1823-1223 | 55 | 56 | T1820-1223 | 56 | 71 | T1830-1223 | 55 | 114 |
| 25 | 1 | 1.7/16 | 1 | -1623 | T1810-1623 | 84 | 34 | T1823-1623 | 64 | 56 | T1820-1623 | 69 | 71 | T1830-1623 | 74 | 114 |

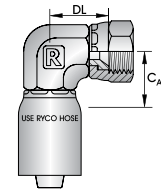
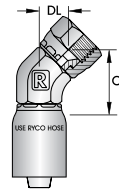
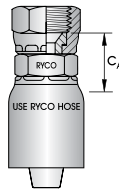
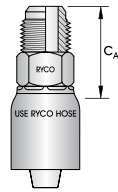
NOTE: Hose Compatibility for the T1000 series can be found on page 177.

COUPLINGS

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

| SAE | T1530 | T1540 | T1580 | T1570 |
|-----|-------|-------|-------|-------|
|-----|-------|-------|-------|-------|

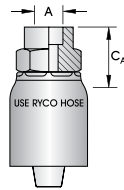
45° FLARE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | SAE MALE | SAE FEMALE | SAE FEMALE 45° ELBOW | SAE FEMALE 90° ELBOW | | | | | | | |
|-----------|-----------|-----------|-----------|----------|-------------------|----------------------|----------------------|---------|-------------------|----|---------|-------------------|----|----|
| DN | inch | inch | inch | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | | T1540-0407 | 19 | | | | | | | |
| 6 | 1/4 | 5/8 | 3/8 | -0410 | T1530-0410 | 31 | T1540-0410 | 21 | | | | | | |
| 10 | 3/8 | 1/2 | 5/16 | -0608 | T1530-0608 | 32 | T1540-0608 | 20 | T1580-0608 | 32 | 14 | T1570-0608 | 23 | 22 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | T1530-0610 | 34 | T1540-0610 | 20 | T1580-0610 | 32 | 15 | T1570-0610 | 23 | 23 |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | | T1540-1217 | 26 | | | | | | | |

| SALVAGE | T1230 |
|---------|-------|
|---------|-------|

TUBE WELD



| HOSE SIZE | A | DASH SIZE | SALVAGE (LIFESAVER) | | |
|-----------|------|-----------|---------------------|-------------------|----|
| DN | inch | inch | PART NO | C _A | |
| 6 | 1/4 | 1/4 | -0404 | T1230-0404 | 18 |
| 6 | 1/4 | 5/16 | -0405 | T1230-0405 | 18 |
| 6 | 1/4 | 3/8 | -0406 | T1230-0406 | 18 |
| 10 | 3/8 | 3/8 | -0606 | T1230-0606 | 19 |
| 10 | 3/8 | 1/2 | -0608 | T1230-0608 | 19 |
| 12 | 1/2 | 1/2 | -0808 | T1230-0808 | 19 |
| 12 | 1/2 | 5/8 | -0810 | T1230-0810 | 21 |
| 16 | 5/8 | 5/8 | -1010 | T1230-1010 | 21 |
| 16 | 5/8 | 3/4 | -1012 | T1230-1012 | 21 |
| 19 | 3/4 | 3/4 | -1212 | T1230-1212 | 21 |
| 25 | 1 | 1 | -1616 | T1230-1616 | 27 |

NOTE: Hose Compatibility for the T1000 series can be found on page 177.

T1000 SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

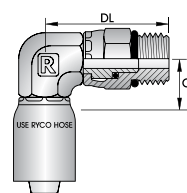
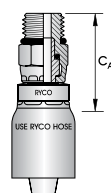
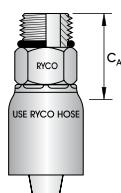
UNO (O RING BOSS)

T1200

T1380

T1390

O RING SUPPLIED



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | UN O RING MALE | UN O RING MALE SWIVEL | UN O RING MALE SWIVEL 90° ELBOW | | | | |
|-----------|------|-----------|-----------|-----------|-------------------|-----------------------|---------------------------------|----------------|-------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T1200-0407 | 25 | | | | | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | T1200-0408 | 25 | | | | | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | T1200-0409 | 25 | | | | | |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T1200-0609 | 28 | T1380-0609 | 41 | T1390-0609 | 23 | 36 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | T1200-0612 | 29 | T1380-0612 | 41 | T1390-0612 | 23 | 41 |
| 10 | 3/8 | 7/8 | 5/8 | -0614 | T1200-0614 | 28 | | | T1390-0614 | 23 | 38 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T1200-0812 | 31 | T1380-0812 | 42 | T1390-0812 | 29 | 43 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T1200-0814 | 33 | T1380-0814 | 43 | T1390-0814 | 29 | 40 |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | T1200-0817 | 32 | T1380-0817 | 42 | | | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | T1200-1014 | 34 | T1380-1014 | 42 | | | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | T1200-1017 | 32 | | | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T1200-1217 | 36 | T1380-1217 | 44 | T1390-1217 | 30 | 44 |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | T1200-1221 | 34 | | | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | T1200-1621 | 39 | | | | | |

NOTE: These "Live Swivel" **T1380** and **T1390** Series Inserts are for Maximum Working Pressure: 350 bar (5100 psi): -09 & -12 Thread Size, 280 bar (4100 psi): -14 & -17 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

NOTE: Hose Compatibility for the **T1000** series can be found on page 177.

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

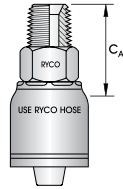
HOSE COMPATIBILITY FOR T2000 SERIES

NON-SKIVE

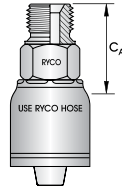
For RYCO Hose Series T3000A, T3000D, T3000S, T3600A, T3600D, T3600S, T4000A, T4000D, T4000S, T5000A, T5000D, T5000S, T6000A, T6000D, T6000S, T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, TXA2D, DF2A, RQP1, RQP2, TW1, PW2, E2, BT1, TJ2D, CS1000 and MS1000.

BSP

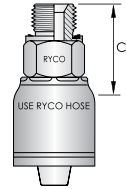
**T2010
(T201)**



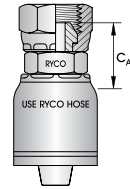
**T2013
(T201P)**



**T2017
(T201C)**



**T2020
(T202)**



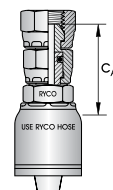
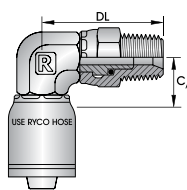
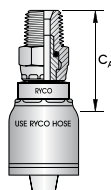
**60° SEAT
EXCEPT T2017
ENCAPSULATED SEAL
INCLUDED**

| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | | BSPP MALE | | BSPP MALE ENCAPSULATED SEAL | | BSPP FEMALE | |
|-----------|-------|-----------|-----------|-------------------|----------------|-------------------|----------------|-----------------------------|----------------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 5 | 3/16 | 1/8 | -0302 | T2010-0302 | 25 | T2013-0302 | 25 | | | | |
| 6 | 1/4 | 1/8 | -0402 | T2010-0402 | 25 | T2013-0402 | 24 | | | T2020-0402 | 23 |
| 6 | 1/4 | 1/4 | -0404 | T2010-0404 | 30 | T2013-0404 | 27 | T2017-0404 | 30 | T2020-0404 | 24 |
| 6 | 1/4 | 3/8 | -0406 | T2010-0406 | 30 | T2013-0406 | 30 | | | T2020-0406 | 26 |
| 6 | 1/4 | 1/2 | -0408 | T2010-0408 | 32 | | | | | | |
| 8 | 5/16 | 1/4 | -0504 | | | T2013-0504 | 27 | | | T2020-0504 | 22 |
| 8 | 5/16 | 3/8 | -0506 | T2010-0506 | 30 | T2013-0506 | 30 | | | T2020-0506 | 24 |
| 8 | 5/16 | 1/2 | -0508 | T2010-0508 | 32 | | | | | | |
| 10 | 3/8 | 1/4 | -0604 | T2010-0604 | 33 | | | | | T2020-0604 | 22 |
| 10 | 3/8 | 3/8 | -0606 | T2010-0606 | 33 | T2013-0606 | 33 | T2017-0606 | 33 | T2020-0606 | 26 |
| 10 | 3/8 | 1/2 | -0608 | T2010-0608 | 38 | T2013-0608 | 32 | | | T2020-0608 | 28 |
| 12 | 1/2 | 3/8 | -0806 | T2010-0806 | 35 | | | | | T2020-0806 | 25 |
| 12 | 1/2 | 1/2 | -0808 | T2010-0808 | 40 | T2013-0808 | 31 | T2017-0808 | 37 | T2020-0808 | 26 |
| 12 | 1/2 | 5/8 | -0810 | T2010-0810 | 40 | T2013-0810 | 34 | | | | |
| 12 | 1/2 | 3/4 | -0812 | | | | | | | T2020-0812 | 30 |
| 16 | 5/8 | 1/2 | -1008 | T2010-1008 | 41 | | | | | T2020-1008 | 27 |
| 16 | 5/8 | 5/8 | -1010 | T2010-1010 | 41 | T2013-1010 | 34 | | | T2020-1010 | 26 |
| 16 | 5/8 | 3/4 | -1012 | T2010-1012 | 41 | T2013-1012 | 40 | | | T2020-1012 | 28 |
| 19 | 3/4 | 3/4 | -1212 | T2010-1212 | 41 | T2013-1212 | 40 | T2017-1212 | 40 | T2020-1212 | 28 |
| 19 | 3/4 | 1 | -1216 | T2010-1216 | 46 | | | | | T2020-1216 | 33 |
| 25 | 1 | 1 | -1616 | T2010-1616 | 48 | T2013-1616 | 45 | T2017-1616 | 45 | T2020-1616 | 38 |
| 25 | 1 | 1.1/4 | -1620 | | | | | | | T2020-1620 | 40 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T2010-2020 | 53 | T2013-2020 | 51 | T2017-2020 | 51 | T2020-2020 | 43 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T2010-2424 | 55 | | | | | T2020-2424 | 45 |
| 51 | 2 | 2 | -3232 | T2010-3232 | 66 | | | | | T2020-3232 | 54 |
| 63 | 2.1/2 | 2.1/2 | -4040 | T2010-4040 | | | | | | T2020-4040 | |

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

BSP T2320 (T232) T2340 (T234) T2028B (T202S)

60° SEAT

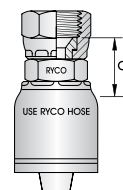
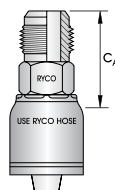
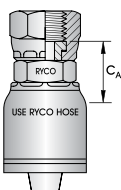


| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE SWIVEL | | BSPT MALE SWIVEL 90° ELBOW | | | BSPP FEMALE LIVE SWIVEL | |
|-----------|------|-----------|-----------|-------------------|----------------|----------------------------|----------------|----|-------------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | | | | | | T2028B-0404 | 40 |
| 10 | 3/8 | 1/4 | -0604 | | | | | | T2028B-0604 | 41 |
| 10 | 3/8 | 3/8 | -0606 | T2320-0606 | 49 | T2340-0606 | 23 | 44 | | |
| 10 | 3/8 | 1/2 | -0608 | T2320-0608 | 53 | T2340-0608 | 23 | 48 | | |
| 12 | 1/2 | 1/2 | -0808 | T2320-0808 | 55 | T2340-0808 | 29 | 50 | | |
| 19 | 3/4 | 3/4 | -1212 | | | T2340-1212 | 30 | 54 | | |

NOTE: These "Live Swivel" T2320, T2340 and T2020S Series Couplings are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

BSP T2024 (T202F) T2220 (T222) T2120 (T212)

SPECIAL SEATS



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE FLAT FACE | | BSPP MALE 60° CONVEX SEAT (JIS) | | BSPP FEMALE 60° CONCAVE SEAT (JIS) | |
|-----------|------|-----------|-----------|-----------------------|----------------|---------------------------------|----------------|------------------------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | | | T222-0404 | 31 | T2120-0404 | 21 |
| 10 | 3/8 | 3/8 | -0606 | | | T222-0606 | 35 | T2120-0606 | 22 |
| 10 | 3/8 | 1/2 | -0608 | T2024-0608 | 22 | | | T2120-0608 | 26 |
| 12 | 1/2 | 1/2 | -0808 | T2024-0808 | 22 | T222-0808 | 39 | T2120-0808 | 27 |
| 19 | 3/4 | 3/4 | -1212 | | | | | T2120-1212 | 26 |
| 25 | 1 | 1 | -1616 | | | | | T2120-1616 | 32 |

NOTE: These T2220 and T2120 Series Couplings are also listed in the METRIC section on page 195.

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

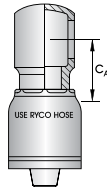
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

BSP

T2475

STRAIGHT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSP BANJO | |
|-----------|------|-----------|-----------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | T2475-0404 | 25 |
| 8 | 5/16 | 3/8 | -0506 | T2475-0506 | 27 |
| 10 | 3/8 | 3/8 | -0606 | T2475-0606 | 27 |
| 10 | 3/8 | 1/2 | -0608 | T2475-0608 | 28 |
| 12 | 1/2 | 1/2 | -0808 | T2475-0808 | 29 |
| 16 | 5/8 | 5/8 | -1010 | T2475-1010 | 30 |
| 19 | 3/4 | 3/4 | -1212 | T2475-1212 | 37 |
| 25 | 1 | 1 | -1616 | T2475-1616 | 45 |

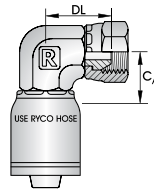
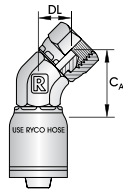
NOTE: Other configurations available on request. For BBB Banjo Bolt see page 366 and RL21D Seal see page 309.

BSP

T2060 (T206)

T2050 (T205)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 45° ELBOW | | | BSPP FEMALE 90° ELBOW | | |
|-----------|-------|-----------|-----------|-----------------------|----------------|----|-----------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | T2060-0404 | 30 | 15 | T2050-0404 | 21 | 24 |
| 6 | 1/4 | 3/8 | -0406 | | | | T2050-0406 | 21 | 28 |
| 8 | 5/16 | 3/8 | -0506 | | | | T2050-0506 | 23 | 28 |
| 10 | 3/8 | 3/8 | -0606 | T2060-0606 | 36 | 18 | T2050-0606 | 23 | 28 |
| 10 | 3/8 | 1/2 | -0608 | | | | T2050-0608 | 23 | 31 |
| 12 | 1/2 | 1/2 | -0808 | T2060-0808 | 40 | 18 | T2050-0808 | 29 | 31 |
| 19 | 3/4 | 3/4 | -1212 | T2060-1212 | 44 | 20 | T2050-1212 | 30 | 36 |
| 25 | 1 | 1 | -1616 | T2060-1616 | 51 | 23 | T2050-1616 | 32 | 40 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T2060-2020 | 42 | 25 | T2050-2020 | 43 | 49 |
| 38 | 1.1/2 | 1.1/2 | -2424 | | | | T2050-2424 | 60 | 59 |
| 51 | 2 | 2 | -3232 | | | | T2050-3232 | 56 | 62 |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

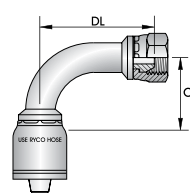
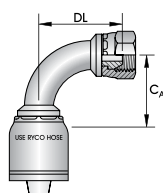
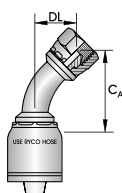
BSP

T2270
(T227)

T2260
(T226)

T2210
(T221)

60° SEAT

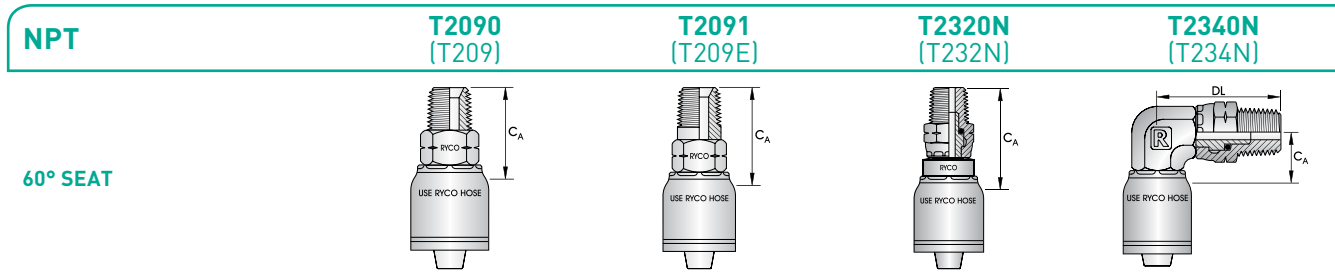


| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 45° TUBE BEND | | | BSPP FEMALE 90° TUBE BEND | | | BSPP FEMALE 90° LONG BEND | | |
|-----------|-------|-----------|-----------|---------------------------|----------------|----|---------------------------|----------------|-----|---------------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 1/8 | -0402 | | | | T2260-0402 | 27 | 29 | | | |
| 6 | 1/4 | 1/4 | -0404 | T2270-0404 | 35 | 17 | T2260-0404 | 27 | 29 | T2210-0404 | 25 | 47 |
| 6 | 1/4 | 3/8 | -0406 | | | | T2260-0406 | 27 | 28 | | | |
| 8 | 5/16 | 1/4 | -0504 | | | | T2260-0504 | 27 | 29 | | | |
| 8 | 5/16 | 3/8 | -0506 | T2270-0506 | 44 | 19 | T2260-0506 | 35 | 34 | | | |
| 10 | 3/8 | 3/8 | -0606 | T2270-0606 | 43 | 18 | T2260-0606 | 35 | 34 | T2210-0606 | 32 | 55 |
| 10 | 3/8 | 1/2 | -0608 | T2270-0608 | 45 | 19 | T2260-0608 | 34 | 33 | | | |
| 12 | 1/2 | 1/2 | -0808 | T2270-0808 | 49 | 22 | T2260-0808 | 40 | 45 | T2210-0808 | 38 | 70 |
| 12 | 1/2 | 5/8 | -0810 | T2270-0810 | 49 | 23 | T2260-0810 | 40 | 45 | T2210-0810 | 40 | 72 |
| 16 | 5/8 | 5/8 | -1010 | T2270-1010 | 55 | 23 | T2260-1010 | 49 | 50 | T2210-1010 | 44 | 81 |
| 16 | 5/8 | 3/4 | -1012 | T2270-1012 | 58 | 28 | | | | | | |
| 19 | 3/4 | 3/4 | -1212 | T2270-1212 | 70 | 29 | T2260-1212 | 55 | 58 | T2210-1212 | 52 | 96 |
| 25 | 1 | 1 | -1616 | T2270-1616 | 85 | 41 | T2260-1616 | 67 | 72 | T2210-1616 | 65 | 116 |
| 31 | 1.1/4 | 1 | -2016 | | | | T2260-2016 | 69 | 77 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T2270-2020 | 105 | 46 | T2260-2020 | 90 | 91 | T2210-2020 | 86 | 142 |
| | 1.3/8 | 1.1/2 | -2224 | T2270-2224 | 118 | 52 | T2260-2224 | 100 | 106 | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T2270-2424 | 118 | 52 | T2260-2424 | 104 | 105 | | | |
| 51 | 2 | 2 | -3232 | T2270-3232 | 142 | 65 | T2260-3232 | 137 | 132 | | | |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS



| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT MALE | NPT MALE EXTENDED | NPT MALE SWIVEL | NPT MALE SWIVEL 90° ELBOW | | | | | |
|-----------|-------|-----------|-----------|-------------------|-------------------|-------------------|---------------------------|--------------------|----------------|--------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL |
| 5 | 3/16 | 1/8 | -0302 | T2090-0302 | 24 | | | | | | | |
| 5 | 3/16 | 1/4 | -0304 | T2090-0304 | 30 | | | | | | | |
| 6 | 1/4 | 1/8 | -0402 | T2090-0402 | 25 | | | T2320N-0402 | 42 | | | |
| 6 | 1/4 | 1/4 | -0404 | T2090-0404 | 30 | | | T2320N-0404 | 42 | T2340N-0404 | 21 | 41 |
| 6 | 1/4 | 3/8 | -0406 | T2090-0406 | 30 | T2091-0406 | 38 | T2320N-0406 | 41 | | | |
| 6 | 1/4 | 1/2 | -0408 | T2090-0408 | 32 | | | | | | | |
| 8 | 5/16 | 1/4 | -0504 | T2090-0504 | 30 | | | | | | | |
| 8 | 5/16 | 3/8 | -0506 | T2090-0506 | 30 | | | | | | | |
| 10 | 3/8 | 1/4 | -0604 | T2090-0604 | 33 | | | T2320N-0604 | 39 | | | |
| 10 | 3/8 | 3/8 | -0606 | T2090-0606 | 33 | T2091-0606 | 41 | T2320N-0606 | 41 | T2340N-0606 | 23 | 41 |
| 10 | 3/8 | 1/2 | -0608 | T2090-0608 | 38 | | | T2320N-0608 | 45 | | | |
| 12 | 1/2 | 3/8 | -0806 | T2090-0806 | 35 | | | T2320N-0806 | 42 | | | |
| 12 | 1/2 | 1/2 | -0808 | T2090-0808 | 40 | | | T2320N-0808 | 46 | T2340N-0808 | 29 | 51 |
| 12 | 1/2 | 3/4 | -0812 | T2090-0812 | 37 | | | | | | | |
| 16 | 5/8 | 1/2 | -1008 | T2090-1008 | 41 | | | | | | | |
| 16 | 5/8 | 3/4 | -1012 | T2090-1012 | 41 | | | | | | | |
| 19 | 3/4 | 1/2 | -1208 | T2090-1208 | 41 | | | | | | | |
| 19 | 3/4 | 3/4 | -1212 | T2090-1212 | 41 | | | T2320N-1212 | 47 | T2340N-1212 | 30 | 55 |
| 19 | 3/4 | 1 | -1216 | T2090-1216 | 43 | | | | | | | |
| 25 | 1 | 3/4 | -1612 | T2090-1612 | 43 | | | | | | | |
| 25 | 1 | 1 | -1616 | T2090-1616 | 48 | | | T2320N-1616 | 58 | T2340N-1616 | 32 | 73 |
| 25 | 1 | 1.1/4 | -1620 | T2090-1620 | 46 | | | | | | | |
| 31 | 1.1/4 | 1 | -2016 | T2090-2016 | 52 | | | | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T2090-2020 | 53 | | | | | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T2090-2424 | 55 | | | | | | | |
| 51 | 2 | 2 | -3232 | T2090-3232 | 56 | | | | | | | |

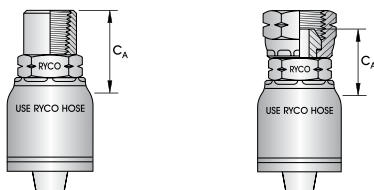
NOTE: These "Live Swivel" **T2320N** and **T2340N** Series Couplings are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

NPT T2190 (T219) T2020N (T202N)

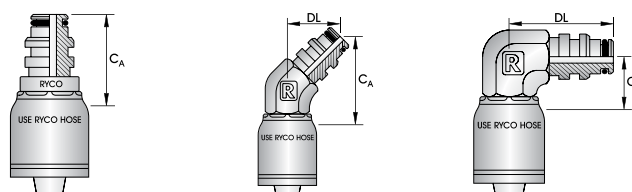
60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT FIXED FEMALE | | NPSM FEMALE | |
|-----------|-------|-----------|-----------|-------------------|----|--------------------|----|
| DN | inch | inch | | PART NO | CA | PART NO | CA |
| 6 | 1/4 | 1/8 | -0402 | | | T2020N-0402 | |
| 6 | 1/4 | 1/4 | -0404 | T2190-0404 | 26 | T2020N-0404 | 24 |
| 6 | 1/4 | 3/8 | -0406 | T2190-0406 | 28 | | |
| 10 | 3/8 | 1/4 | -0604 | | | T2020N-0604 | 22 |
| 10 | 3/8 | 3/8 | -0606 | T2190-0606 | 29 | T2020N-0606 | 27 |
| 10 | 3/8 | 1/2 | -0608 | T2190-0608 | 33 | T2020N-0608 | 28 |
| 12 | 1/2 | 3/8 | -0806 | T2190-0806 | 28 | | |
| 12 | 1/2 | 1/2 | -0808 | T2190-0808 | 34 | T2020N-0808 | 29 |
| 16 | 5/8 | 3/4 | -1012 | T2190-1012 | 37 | | |
| 19 | 3/4 | 3/4 | -1212 | T2190-1212 | 36 | T2020N-1212 | 28 |
| 25 | 1 | 1 | -1616 | | | T2020N-1616 | 33 |
| 31 | 1.1/4 | 1.1/4 | -2020 | | | T2020N-2020 | 41 |
| 38 | 1.1/2 | 1.1/2 | -2424 | | | T2020N-2424 | 45 |
| 51 | 2 | 2 | -3232 | | | T2020N-3232 | 54 |

CROCBITE T2880 T2881 T2882

CROCBITE
HIGH PRESSURE



| HOSE SIZE | | MWP | DASH SIZE | CROCBITE MALE | CROCBITE MALE 45° ELBOW | | | CROCBITE MALE 90° ELBOW | | | |
|-----------|-------|-----|-----------|-------------------|-------------------------|-------------------|-----|-------------------------|-------------------|----|-----|
| DN | inch | bar | | PART NO | CA | PART NO | CA | DL | PART NO | CA | DL |
| 10 | 3/8 | 450 | -0610 | T2880-0610 | 39 | T2881-0610 | 43 | 28 | T2882-0610 | 23 | 49 |
| 12 | 1/2 | 450 | -0812 | T2880-0812 | 39 | T2881-0812 | 45 | 28 | T2882-0812 | 29 | 51 |
| 19 | 3/4 | 420 | -1220 | T2880-1220 | 48 | T2881-1220 | 58 | 34 | T2882-1220 | 35 | 60 |
| 25 | 1 | 420 | -1625 | T2880-1625 | 65 | T2881-1625 | 73 | 48 | T2882-1625 | 45 | 84 |
| 31 | 1.1/4 | 420 | -2032 | T2880-2032 | 68 | T2881-2032 | 77 | 50 | T2882-2032 | 52 | 94 |
| 38 | 1.1/2 | 420 | -2440 | T2880-2440 | 71 | T2881-2440 | 88 | 53 | T2882-2440 | 61 | 101 |
| 51 | 2 | 420 | -3250 | T2880-3250 | 97 | T2881-3250 | 107 | 73 | T2882-3250 | 66 | 135 |
| 63 | 2.1/2 | 350 | -4063 | T2880-4063 | 97 | T2881-4063 | 114 | 75 | T2882-4063 | 80 | 146 |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

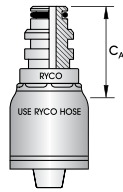
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

CROCBITE

T2880A

CROCBITE
HIGH FLOW

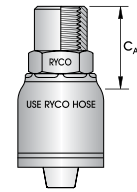


| HOSE SIZE | | MWP | DASH SIZE | CROCBITE MALE | |
|-----------|-------|-----|-----------|--------------------|----------------|
| DN | inch | bar | | PART NO | C _A |
| 51 | 2 | 350 | -3250 | T2880A-3250 | 94 |
| 63 | 2.1/2 | 280 | -4063 | T2880A-4063 | 93 |
| 76 | 3 | 215 | -4875 | T2880A-4875 | |

GREASE LINE

T2861 (T286)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | GREASE LINE FIXED FEMALE | |
|-----------|------|-----------|-----------|--------------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/2-27TPI | -0408 | T2861-0408 | 23 |

JIC

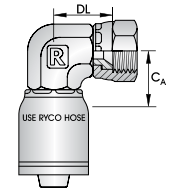
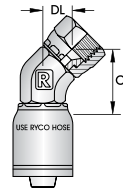
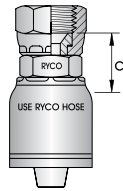
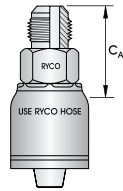
T2030 (T203)

T2040 (T204)

T2080 (T208)

T2070 (T207)

37° FLARE



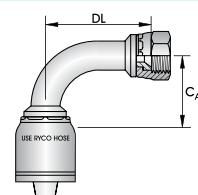
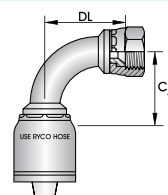
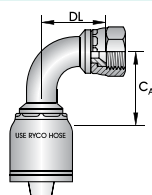
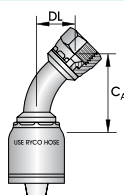
| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC MALE | | JIC FEMALE | | JIC FEMALE 45° ELBOW | | JIC FEMALE 90° ELBOW | | | |
|-----------|-------|-----------|-----------|-----------|-------------------|----------------|-------------------|----------------|----------------------|----------------|----------------------|-------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | | | T2040-0307 | 22 | | | | T2070-0307 | 22 | 17 |
| 6 | 1/4 | 3/8 | 3/16 | -0406 | | | T2040-0406 | 22 | | | | | | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T2030-0407 | 29 | T2040-0407 | 22 | T2080-0407 | 27 | 10 | T2070-0407 | 21 | 17 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | T2030-0408 | 29 | T2040-0408 | 22 | T2080-0408 | 27 | 11 | T2070-0408 | 21 | 17 |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | T2030-0409 | 30 | T2040-0409 | 22 | T2080-0409 | 27 | 11 | T2070-0409 | 21 | 22 |
| 6 | 1/4 | 3/4 | 1/2 | -0412 | T2030-0412 | 32 | T2040-0412 | 23 | | | | | | |
| 8 | 5/16 | 1/2 | 5/16 | -0508 | T2030-0508 | 29 | T2040-0508 | 22 | | | | | | |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | T2030-0509 | 30 | T2040-0509 | 22 | | | | | | |
| 10 | 3/8 | 7/16 | 1/4 | -0607 | | | T2040-0607 | 22 | | | | | | |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T2030-0609 | 32 | T2040-0609 | 22 | T2080-0609 | 30 | 13 | T2070-0609 | 23 | 22 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | T2030-0612 | 35 | T2040-0612 | 24 | T2080-0612 | 31 | 14 | T2070-0612 | 23 | 24 |
| 10 | 3/8 | 7/8 | 5/8 | -0614 | T2030-0614 | 37 | T2040-0614 | 27 | | | | | | |
| 12 | 1/2 | 9/16 | 3/8 | -0809 | | | T2040-0809 | 24 | | | | | | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T2030-0812 | 37 | T2040-0812 | 25 | T2080-0812 | 32 | 14 | T2070-0812 | 29 | 26 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T2030-0814 | 39 | T2040-0814 | 27 | T2080-0814 | 33 | 15 | T2070-0814 | 29 | 28 |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | T2030-0817 | 42 | T2040-0817 | 29 | | | | T2070-0817 | 29 | 30 |
| 16 | 5/8 | 3/4 | 1/2 | -1012 | | | T2040-1012 | 26 | | | | | | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | T2030-1014 | 41 | T2040-1014 | 28 | | | | | | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | T2030-1017 | 43 | T2040-1017 | 29 | | | | | | |
| 19 | 3/4 | 7/8 | 5/8 | -1214 | | | T2040-1214 | 29 | | | | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T2030-1217 | 43 | T2040-1217 | 30 | T2080-1217 | 37 | 16 | T2070-1217 | 30 | 31 |
| 19 | 3/4 | 1.3/16 | 7/8 | -1219 | T2030-1219 | 44 | T2040-1219 | 31 | | | | | | |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | T2030-1221 | 45 | T2040-1221 | 34 | | | | | | |
| 25 | 1 | 1.1/16 | 3/4 | -1617 | | | T2040-1617 | 33 | | | | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | T2030-1621 | 47 | T2040-1621 | 36 | T2080-1621 | 42 | 20 | T2070-1621 | 32 | 36 |
| 25 | 1 | 1.5/8 | 1.1/4 | -1626 | T2030-1626 | 48 | | | | | | | | |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | T2030-2026 | 52 | T2040-2026 | 44 | | | | | | |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | T2030-2430 | 57 | T2040-2430 | 49 | | | | | | |
| 51 | 2 | 2.1/2 | 2 | -3240 | T2030-3240 | 73 | T2040-3240 | 60 | | | | | | |
| 63 | 2.1/2 | 3 | 2.1/2 | -4048 | T2030-4048 | | T2040-4048 | 39 | | | | | | |

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC T2250 (T225) T2243 (T224S) T2240 (T224) T2280 (T228)

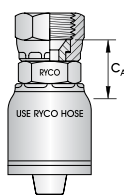
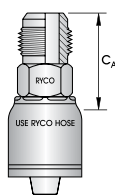
37° FLARE



| HOSE SIZE | | | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE 45° TUBE BEND | | | JIC FEMALE 90° SHORT BEND | | | JIC FEMALE 90° MEDIUM BEND | | | JIC FEMALE 90° LONG BEND | | |
|-----------|-------|--------|-------|-----------|------------|----------------|--------------------------|------------|----------------|---------------------------|------------|----------------|----------------------------|------------|----------------|--------------------------|--|--|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T2250-0407 | 31 | 10 | T2243-0407 | 27 | 21 | T2240-0407 | 26 | 32 | T2280-0407 | 43 | 47 | | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | T2250-0408 | 40 | 12 | | | | T2240-0408 | 26 | 32 | | | | | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | T2250-0409 | 40 | 12 | T2243-0409 | 27 | 22 | T2240-0409 | 26 | 38 | T2280-0409 | 47 | 54 | | |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | T2250-0509 | 39 | 11 | | | | T2240-0509 | 35 | 38 | | | | | |
| 10 | 3/8 | 7/16 | 1/4 | -0607 | | | | | | | T2240-0607 | 27 | 25 | | | | | |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T2250-0609 | 39 | 11 | T2243-0609 | 31 | 21 | T2240-0609 | 35 | 38 | T2280-0609 | 52 | 54 | | |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | T2250-0612 | 42 | 15 | | | | T2240-0612 | 35 | 41 | T2280-0612 | 59 | 64 | | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T2250-0812 | 45 | 15 | T2243-0812 | 43 | 29 | T2240-0812 | 41 | 41 | T2280-0812 | 53 | 64 | | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T2250-0814 | 48 | 18 | | | | T2240-0814 | 41 | 47 | T2280-0814 | 54 | 70 | | |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | T2250-0817 | 47 | 21 | | | | T2240-0817 | 41 | 45 | | | | | |
| 16 | 5/8 | 3/4 | | -1012 | | | | | | | T2240-1012 | 43 | 41 | | | | | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | T2250-1014 | 50 | 19 | T2243-1014 | 43 | 32 | T2240-1014 | 48 | 47 | T2280-1014 | 51 | 70 | | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | T2250-1017 | 52 | 24 | | | | T2240-1017 | 48 | 57 | T2280-1017 | 51 | 96 | | |
| 19 | 3/4 | 7/8 | 5/8 | -1214 | | | | | | | T2240-1214 | 48 | 48 | | | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T2250-1217 | 65 | 22 | | | | T2240-1217 | 55 | 57 | T2280-1217 | 56 | 96 | | |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | T2250-1221 | 74 | 28 | | | | T2240-1221 | 55 | 71 | | | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | T2250-1621 | 77 | 30 | | | | T2240-1621 | 68 | 73 | T2280-1621 | 75 | 114 | | |
| 25 | 1 | 1.5/8 | 1.1/4 | -1626 | | | | | | | T2240-1626 | 68 | 78 | | | | | |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | T2250-2026 | 97 | 39 | | | | T2240-2026 | 88 | 82 | T2280-2026 | 86 | 129 | | |
| 38 | 1.1/2 | 1.7/8 | | -2430 | T2250-2430 | 121 | 50 | | | | T2240-2430 | 106 | 106 | T2280-2430 | 104 | 141 | | |
| 51 | 2 | 2.1/2 | | -3240 | T2250-3240 | 152 | 63 | | | | T2240-3240 | 136 | 132 | T2280-3240 | 136 | 222 | | |

JIS T2220 (T222) T2120 (T212)

JAPANESE INDUSTRIAL STANDARD (JIS)
BSPP THREAD FORM
60° CONVEX / CONCAVE SEAT



| HOSE SIZE | | | | THRD SIZE | DASH SIZE | BSPP MALE 60° CONVEX SEAT (JIS) | | BSPP FEMALE 60° CONCAVE SEAT (JIS) | |
|-----------|------|------|-------|------------|----------------|---------------------------------|----------------|------------------------------------|--|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | | |
| 6 | 1/4 | 1/4 | -0404 | T2220-0404 | 31 | T2120-0404 | 21 | | |
| 10 | 3/8 | 3/8 | -0606 | T2220-0606 | 35 | T2120-0606 | 22 | | |
| 10 | 3/8 | 1/2 | -0608 | | | T2120-0608 | 26 | | |
| 12 | 1/2 | 1/2 | -0808 | T2220-0808 | 39 | T2120-0808 | 27 | | |
| 19 | 3/4 | 3/4 | -1212 | | | T2120-1212 | 26 | | |
| 25 | 1 | 1 | -1616 | | | T2120-1616 | 32 | | |

NOTE: These T2220 and T2120 Series Couplings are also listed in the BSP section on page 189.

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

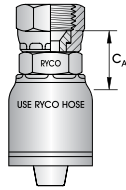
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIS

T2680 (T268)

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



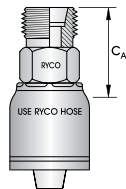
| HOSE SIZE | | THRD SIZE | DASH SIZE | METRIC FEMALE 60° CONCAVE SEAT (JIS) | |
|-----------|-------|-----------|-----------|--------------------------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 14x1,5 | -0414 | T2680-0414 | 20 |
| 8 | 5/16 | 16x1,5 | -0516 | T2680-0516 | 20 |
| 10 | 3/8 | 18x1,5 | -0618 | T2680-0618 | 22 |
| 10 | 3/8 | 22x1,5 | -0622 | T2680-0622 | 26 |
| 12 | 1/2 | 22x1,5 | -0822 | T2680-0822 | 25 |
| 12 | 1/2 | 24x1,5 | -0824 | T2680-0824 | 32 |
| 16 | 5/8 | 24x1,5 | -1024 | T2680-1024 | 25 |
| 16 | 5/8 | 30x1,5 | -1030 | T2680-1030 | 30 |
| 19 | 3/4 | 24x1,5 | -1224 | T2680-1224 | 27 |
| 19 | 3/4 | 30x1,5 | -1230 | T2680-1230 | 30 |
| 19 | 3/4 | 33x1,5 | -1233 | T2680-1233 | 30 |
| 25 | 1 | 33x1,5 | -1633 | T2680-1633 | 28 |
| 31 | 1.1/4 | 36x1,5 | -2036 | T2680-2036 | 31 |
| 31 | 1.1/4 | 42x1,5 | -2042 | T2680-2042 | 32 |

NOTE: These T2680 Series Couplings are also listed in the **METRIC** section on page 200.

METRIC

T2650 (T265)

DKL
METRIC (LIGHT)
24° CONE

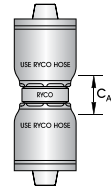


| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | DKL MALE 24° CONE | |
|-----------|------|-----------|-----------|-----------|-------------------|----------------|
| DN | inch | mm | mm | | PART NO | C _A |
| 6 | 1/4 | 12x1,5 | 6 | -0412 | T2650-0412 | 25 |
| 6 | 1/4 | 14x1,5 | 8 | -0414 | T2650-0414 | 25 |
| 6 | 1/4 | 16x1,5 | 10 | -0416 | T2650-0416 | 26 |
| 8 | 5/16 | 16x1,5 | 10 | -0516 | T2650-0516 | 29 |
| 8 | 5/16 | 18x1,5 | 12 | -0518 | T2650-0518 | 26 |
| 10 | 3/8 | 16x1,5 | 10 | -0616 | T2650-0616 | 29 |
| 10 | 3/8 | 18x1,5 | 12 | -0618 | T2650-0618 | 29 |
| 10 | 3/8 | 22x1,5 | 15 | -0622 | T2650-0622 | 24 |
| 12 | 1/2 | 22x1,5 | 15 | -0822 | T2650-0822 | 32 |
| 12 | 1/2 | 26x1,5 | 18 | -0826 | T2650-0826 | 32 |
| 16 | 5/8 | 26x1,5 | 18 | -1026 | T2650-1026 | 29 |
| 19 | 3/4 | 30x2,0 | 22 | -1230 | T2650-1230 | 31 |
| 25 | 1 | 36x2,0 | 28 | -1636 | T2650-1636 | 37 |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

JOINER

T2900 (T290)



| HOSE SIZE | | THRD SIZE | DASH SIZE | JOINER | |
|-----------|-------|-----------|-----------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | T2900-0404 | 14 |
| 8 | 5/16 | 5/16 | -0505 | T2900-0505 | 14 |
| 10 | 3/8 | 3/8 | -0606 | T2900-0606 | 15 |
| 12 | 1/2 | 1/2 | -0808 | T2900-0808 | 15 |
| 16 | 5/8 | 5/8 | -1010 | T2900-1010 | 15 |
| 19 | 3/4 | 3/4 | -1212 | T2900-1212 | 15 |
| 25 | 1 | 1 | -1616 | T2900-1616 | 25 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T2900-2020 | 25 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T2900-2424 | 26 |
| 51 | 2 | 2 | -3232 | T2900-3232 | 26 |
| 63 | 2.1/2 | 2.1/2 | -4040 | T2900-4040 | 26 |
| 76 | 3 | 3 | -4848 | T2900-4848 | |

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

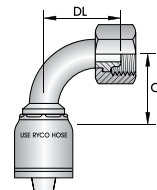
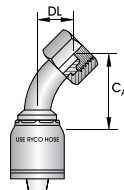
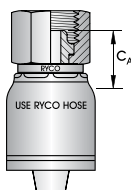
METRIC

T2600
(T260)

T2660
(T266)

T2670
(T267)

DKL
METRIC (LIGHT)
RYCO DKL FEMALE SWIVELS
UP TO M26 SIZE HAVE
MULTISEAL DKL 24° AND DKM
60° CONE. M30 AND OVER HAVE
DKL 24° CONE ONLY.



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | DKL FEMALE 24°/60° CONE | DKL FEMALE 24°/60° CONE 45° TUBE BEND | DKL FEMALE 24°/60° CONE 90° TUBE BEND | | | | | |
|-----------|-------|-----------|-----------|-----------|-------------------------|---------------------------------------|---------------------------------------|----|----|-------------------|----------------|----|
| DN | inch | mm | mm | | PART NO | C _A | PART NO | CA | DL | PART NO | C _A | DL |
| 6 | 1/4 | 12x1,5 | 6 | -0412 | T2600-0412 | 21 | T2660-0412 | 36 | 18 | T2670-0412 | 27 | 31 |
| 6 | 1/4 | 14x1,5 | 8 | -0414 | T2600-0414 | 21 | T2660-0414 | 36 | 17 | T2670-0414 | 27 | 31 |
| 6 | 1/4 | 16x1,5 | 10 | -0416 | T2600-0416 | 23 | | | | T2670-0416 | 27 | 32 |
| 8 | 5/16 | 16x1,5 | 10 | -0516 | T2600-0516 | 23 | T2660-0516 | 45 | 20 | T2670-0516 | 35 | 35 |
| 8 | 5/16 | 18x1,5 | 12 | -0518 | T2600-0518 | 25 | | | | | | |
| 10 | 3/8 | 16x1,5 | 10 | -0616 | T2600-0616 | 23 | T2660-0616 | 45 | 20 | T2670-0616 | 35 | 35 |
| 10 | 3/8 | 18x1,5 | 12 | -0618 | T2600-0618 | 23 | T2660-0618 | 45 | 20 | T2670-0618 | 35 | 35 |
| 12 | 1/2 | 22x1,5 | 15 | -0822 | T2600-0822 | 25 | T2660-0822 | 60 | 22 | T2670-0822 | 40 | 44 |
| 12 | 1/2 | 26x1,5 | 18 | -0826 | T2600-0826 | 26 | T2660-0826 | 50 | 22 | T2670-0826 | 41 | 53 |
| 16 | 5/8 | 26x1,5 | 18 | -1026 | T2600-1026 | 26 | T2660-1026 | 60 | 28 | T2670-1026 | 48 | 53 |
| 19 | 3/4 | 30x2,0 | 22 | -1230 | T2600-1230 | 26 | T2660-1230 | 73 | 32 | T2670-1230 | 56 | 64 |
| 25 | 1 | 36x2,0 | 28 | -1636 | T2600-1636 | 28 | T2660-1636 | 82 | 42 | T2670-1636 | 69 | 73 |
| 31 | 1.1/4 | 45x2,0 | 35 | -2045 | T2600-2045 | 34 | | | | | | |

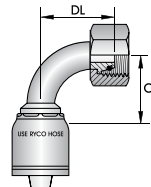
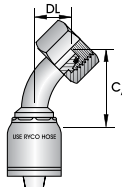
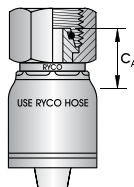
METRIC

T2501
(T250 & T250R)

T2510
(T251)

T2520
(T252)

DKOL
METRIC O RING (LIGHT)
24° CONE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | DKOL FEMALE 24° CONE | DKOL FEMALE 24° CONE 45° TUBE BEND | DKOL FEMALE 24° CONE 90° TUBE BEND | | | | | |
|-----------|-------|-----------|-----------|-----------|----------------------|------------------------------------|------------------------------------|-----|----|-------------------|----------------|----|
| DN | inch | mm | mm | | PART NO | C _A | PART NO | CA | DL | PART NO | C _A | DL |
| 6 | 1/4 | 12x1,5 | 6 | -0412 | T2501-0412 | 21 | T2510-0412 | 36 | 18 | T2520-0412 | 26 | 31 |
| 6 | 1/4 | 14x1,5 | 8 | -0414 | T2501-0414 | 22 | T2510-0414 | 35 | 17 | T2520-0414 | 26 | 31 |
| 6 | 1/4 | 16x1,5 | 10 | -0416 | T2501-0416 | 22 | | | | | | |
| 8 | 5/16 | 14x1,5 | 8 | -0514 | T2501-0514 | 22 | | | | | | |
| 8 | 5/16 | 16x1,5 | 10 | -0516 | T2501-0516 | 23 | T2510-0516 | 45 | 20 | T2520-0516 | 35 | 35 |
| 8 | 5/16 | 18x1,5 | 12 | -0518 | T2501-0518 | 23 | T2510-0518 | 45 | 20 | T2520-0518 | 35 | 35 |
| 10 | 3/8 | 16x1,5 | 10 | -0616 | T2501-0616 | 23 | T2510-0616 | 45 | 20 | T2520-0616 | 36 | 35 |
| 10 | 3/8 | 18x1,5 | 12 | -0618 | T2501-0618 | 23 | T2510-0618 | 45 | 20 | T2520-0618 | 36 | 35 |
| 12 | 1/2 | 22x1,5 | 15 | -0822 | T2501-0822 | 26 | T2510-0822 | 51 | 22 | T2520-0822 | 40 | 44 |
| 12 | 1/2 | 26x1,5 | 18 | -0826 | T2501-0826 | 29 | T2510-0826 | 53 | 24 | T2520-0826 | 40 | 48 |
| 16 | 5/8 | 26x1,5 | 18 | -1026 | T2501-1026 | 26 | T2510-1026 | 59 | 28 | T2520-1026 | 48 | 54 |
| 19 | 3/4 | 26x1,5 | 18 | -1226 | T2501-1226 | 28 | | | | | | |
| 19 | 3/4 | 30x2,0 | 22 | -1230 | T2501-1230 | 27 | T2510-1230 | 73 | 31 | T2520-1230 | 56 | 65 |
| 25 | 1 | 36x2,0 | 28 | -1636 | T2501-1636 | 33 | T2510-1636 | 91 | 46 | T2520-1636 | 69 | 79 |
| 31 | 1.1/4 | 45x2,0 | 35 | -2045 | T2501-2045 | | T2510-2045 | 101 | 40 | T2520-2045 | 88 | 72 |
| 38 | 1.1/2 | 52x2,0 | 42 | -2452 | T2501-2452 | | T2510-2452 | | | T2520-2452 | | |

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

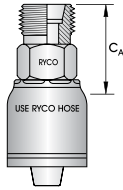
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

T2630
(T263)

DKS
METRIC (HEAVY)
24° CONE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | DKS MALE 24° CONE | | |
|-----------|-----------|-----------|-----------|-------------------|-------------------|----|
| DN | inch | mm | mm | | PART NO | CA |
| 6 | 1/4 | 16x1,5 | 8 | -0416 | T2630-0416 | 27 |
| 6 | 1/4 | 18x1,5 | 10 | -0418 | T2630-0418 | 23 |
| 8 | 5/16 | 20x1,5 | 12 | -0520 | T2630-0520 | 30 |
| 10 | 3/8 | 20x1,5 | 12 | -0620 | T2630-0620 | 30 |
| 10 | 3/8 | 22x1,5 | 14 | -0622 | T2630-0622 | 29 |
| 12 | 1/2 | 24x1,5 | 16 | -0824 | T2630-0824 | 30 |
| 16 | 5/8 | 30x2,0 | 20 | -1030 | T2630-1030 | 31 |
| 19 | 3/4 | 30x2,0 | 20 | -1230 | T2630-1230 | 35 |
| 19 | 3/4 | 36x2,0 | 25 | -1236 | T2630-1236 | 37 |
| 25 | 1 | 42x2,0 | 30 | -1642 | T2630-1642 | 43 |
| 31 | 1.1/4 | 52x2,0 | 38 | -2052 | T2630-2052 | 47 |

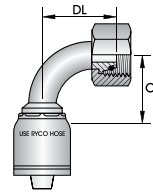
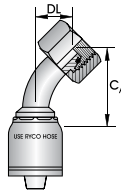
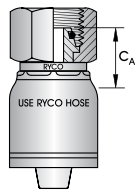
METRIC

T2711
(T271)

T2720
(T272)

T2730
(T273)

DKOS
METRIC O RING (HEAVY)
24° CONE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | DKOS FEMALE 24° CONE | DKOS FEMALE 24° CONE 45° TUBE BEND | DKOS FEMALE 24° CONE 90° TUBE BEND | | | | | | |
|-----------|-----------|-----------|-----------|----------------------|------------------------------------|------------------------------------|-------------------|-----|---------|-------------------|----|----|
| DN | inch | mm | mm | PART NO | CA | PART NO | CA | DL | PART NO | CA | DL | |
| 6 | 1/4 | 14x1,5 | 6 | -0414 | T2711-0414 | 19 | T2720-0414 | 35 | 16 | T2730-0414 | 27 | 28 |
| 6 | 1/4 | 16x1,5 | 8 | -0416 | T2711-0416 | 22 | T2720-0416 | 36 | 17 | T2730-0416 | 27 | 31 |
| 6 | 1/4 | 18x1,5 | 10 | -0418 | T2711-0418 | 22 | T2720-0418 | 36 | 17 | T2730-0418 | 27 | 30 |
| 8 | 5/16 | 18x1,5 | 10 | -0518 | T2711-0518 | 26 | T2720-0518 | 46 | 20 | | | |
| 8 | 5/16 | 20x1,5 | 12 | -0520 | T2711-0520 | 30 | T2720-0520 | 45 | 20 | T2730-0520 | 34 | 37 |
| 10 | 3/8 | 20x1,5 | 12 | -0620 | T2711-0620 | 24 | T2720-0620 | 45 | 20 | T2730-0620 | 36 | 36 |
| 10 | 3/8 | 22x1,5 | 14 | -0622 | T2711-0622 | 26 | T2720-0622 | 46 | 20 | T2730-0622 | 36 | 36 |
| 10 | 3/8 | 24x1,5 | 16 | -0624 | T2711-0624 | 27 | | | | | | |
| 12 | 1/2 | 24x1,5 | 16 | -0824 | T2711-0824 | 28 | T2720-0824 | 53 | 24 | T2730-0824 | 40 | 48 |
| 16 | 5/8 | 30x2,0 | 20 | -1030 | T2711-1030 | 31 | T2720-1030 | 63 | 31 | T2730-1030 | 45 | 58 |
| 19 | 3/4 | 30x2,0 | 20 | -1230 | T2711-1230 | 30 | T2720-1230 | 74 | 35 | T2730-1230 | 56 | 68 |
| 19 | 3/4 | 36x2,0 | 25 | -1236 | T2711-1236 | 33 | T2720-1236 | 76 | 35 | T2730-1236 | 55 | 68 |
| 25 | 1 | 42x2,0 | 30 | -1642 | T2711-1642 | 36 | T2720-1642 | 87 | 36 | T2730-1642 | 69 | 77 |
| 31 | 1.1/4 | 52x2,0 | 38 | -2052 | T2711-2052 | 40 | T2720-2052 | 128 | 48 | T2730-2052 | 90 | 89 |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

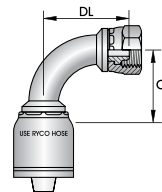
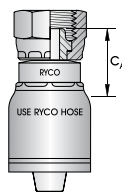
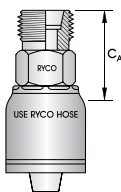
METRIC

T2920
(T292)

T2921
(T292F)

T2923
(T292G)

FRENCH GAZ
24° CONE



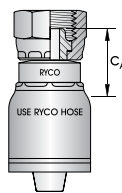
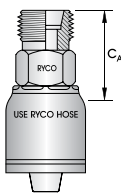
| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | METRIC FRENCH GAZ MALE | | METRIC FRENCH GAZ FEMALE | | METRIC FRENCH GAZ FEMALE 90° TUBE BEND | | | |
|-----------|-----------|-----------|-----------|------------------------|-------|--------------------------|-------|--|-------|----|--|
| | | | | PART NO | C_A | PART NO | C_A | PART NO | C_A | DL | |
| DN | inch | mm | mm | | | | | | | | |
| 6 | 1/4 | 20x1,5 | 13,25 | -0420 | | | | | | | |
| 8 | 5/16 | 20x1,5 | 13,25 | -0520 | | | | | | | |
| 10 | 3/8 | 20x1,5 | 13,25 | -0620 | | | | | | | |
| 12 | 1/2 | 24x1,5 | 16,75 | -0824 | | | | | | | |
| 16 | 5/8 | 30x1,5 | 21,25 | -1030 | | | | | | | |
| 19 | 3/4 | 36x1,5 | 26,75 | -1236 | | | | | | | |
| 25 | 1 | 45x1,5 | 33,50 | -1645 | | | | | | | |

METRIC

T2924
(T292M)

T2925
(T292N)

FRENCH MILLIMETRIC
24° CONE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | METRIC FRENCH MILLIMETRIC MALE | | METRIC FRENCH MILLIMETRIC FEMALE | |
|-----------|-----------|-----------|-----------|--------------------------------|-------|----------------------------------|-------|
| | | | | PART NO | C_A | PART NO | C_A |
| DN | inch | mm | mm | | | | |
| 16 | 5/8 | 27x1,5 | 20 | -1027 | | | |
| 19 | 3/4 | 30x1,5 | 22 | -1230 | | | |
| 19 | 3/4 | 33x1,5 | 25 | -1233 | | | |
| 19 | 3/4 | 36x1,5 | 28 | -1236 | | | |
| 25 | 1 | 36x1,5 | 28 | -1636 | | | |
| 25 | 1 | 39x1,5 | 30 | -1639 | | | |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

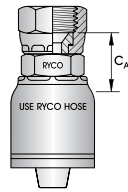
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

T2680 (T268)

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



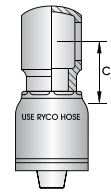
| HOSE SIZE | | THRD SIZE | DASH SIZE | METRIC FEMALE 60° CONCAVE SEAT (JIS) | |
|-----------|-------|-----------|-----------|--------------------------------------|----------------|
| DN | inch | mm | | PART NO | C _A |
| 6 | 1/4 | 14x1,5 | -0414 | T2680-0414 | 20 |
| 8 | 5/16 | 16x1,5 | -0516 | T2680-0516 | 20 |
| 10 | 3/8 | 18x1,5 | -0618 | T2680-0618 | 22 |
| 10 | 3/8 | 22x1,5 | -0622 | T2680-0622 | 26 |
| 12 | 1/2 | 22x1,5 | -0822 | T2680-0822 | 25 |
| 12 | 1/2 | 24x1,5 | -0824 | T2680-0824 | 32 |
| 16 | 5/8 | 24x1,5 | -1024 | T2680-1024 | 25 |
| 16 | 5/8 | 30x1,5 | -1030 | T2680-1030 | 30 |
| 19 | 3/4 | 24x1,5 | -1224 | T2680-1224 | 27 |
| 19 | 3/4 | 30x1,5 | -1230 | T2680-1230 | 30 |
| 19 | 3/4 | 33x1,5 | -1233 | T2680-1233 | 30 |
| 25 | 1 | 33x1,5 | -1633 | T2680-1633 | 30 |
| 31 | 1.1/4 | 36x1,5 | -2036 | T2680-2036 | 31 |
| 31 | 1.1/4 | 42x1,5 | -2042 | T2680-2042 | 32 |

NOTE: These T2680 Series Couplings are also listed in the JIS section on page 196.

METRIC

T2470

STRAIGHT



| HOSE SIZE | | THRD SIZE | DASH SIZE | METRIC BANJO | |
|-----------|------|-----------|-----------|-------------------|----------------|
| DN | inch | mm | | PART NO | C _A |
| 6 | 1/4 | 12 | -0412 | T2470-0412 | 23 |
| 6 | 1/4 | 14 | -0414 | T2470-0414 | 25 |
| 8 | 5/16 | 14 | -0514 | T2470-0514 | 25 |
| 8 | 5/16 | 16 | -0516 | T2470-0516 | 26 |
| 10 | 3/8 | 12 | -0612 | T2470-0612 | 26 |
| 10 | 3/8 | 14 | -0614 | T2470-0614 | 27 |
| 10 | 3/8 | 16 | -0616 | T2470-0616 | 27 |
| 10 | 3/8 | 18 | -0618 | T2470-0618 | 29 |
| 10 | 3/8 | 20 | -0620 | T2470-0620 | 30 |
| 10 | 3/8 | 22 | -0622 | T2470-0622 | 30 |
| 12 | 1/2 | 18 | -0818 | T2470-0818 | 30 |
| 12 | 1/2 | 22 | -0822 | T2470-0822 | 30 |
| 16 | 5/8 | 22 | -1022 | T2470-1022 | 30 |
| 16 | 5/8 | 26 | -1026 | T2470-1026 | 31 |
| 19 | 3/4 | 26 | -1226 | T2470-1226 | 38 |
| 19 | 3/4 | 30 | -1230 | T2470-1230 | |
| 19 | 3/4 | 36 | -1236 | T2470-1236 | |
| 25 | 1 | 30 | -1630 | T2470-1630 | 38 |
| 25 | 1 | 36 | -1636 | T2470-1636 | |

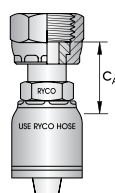
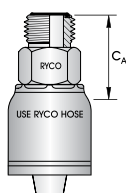
NOTE: Other configurations available on request. For BBM Banjo Bolt see page 366 and MBD Seal see page 337.

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

| ORFS | T2840 (T284) | T2800 (T280) |
|------|-----------------|-----------------|
|------|-----------------|-----------------|

O RING
FACE SEAL



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS MALE | ORFS FEMALE | | |
|-----------|-------|-----------|-----------|-----------|-------------------|----------------|-------------------|----------------|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | T2840-0409 | 25 | T2800-0409 | 28 |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | T2840-0411 | 26 | T2800-0411 | 32 |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | | | T2800-0511 | 33 |
| 10 | 3/8 | 9/16 | 1/4 | -0609 | | | T2800-0609 | 29 |
| 10 | 3/8 | 11/16 | 3/8 | -0611 | T2840-0611 | 29 | T2800-0611 | 31 |
| 10 | 3/8 | 13/16 | 1/2 | -0613 | T2840-0613 | 31 | T2800-0613 | 34 |
| 12 | 1/2 | 11/16 | 3/8 | -0811 | | | T2800-0811 | 31 |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | T2840-0813 | 33 | T2800-0813 | 34 |
| 12 | 1/2 | 1 | 5/8 | -0816 | T2840-0816 | 36 | T2800-0816 | 40 |
| 12 | 1/2 | 1.3/16 | 3/4 | -0819 | | | T2800-0819 | 43 |
| 16 | 5/8 | 1 | 5/8 | -1016 | T2840-1016 | 37 | T2800-1016 | 38 |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | T2840-1019 | 38 | T2800-1019 | 43 |
| 19 | 3/4 | 1 | 5/8 | -1216 | | | T2800-1216 | 38 |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | T2840-1219 | 38 | T2800-1219 | 43 |
| 19 | 3/4 | 1.7/16 | 1 | -1223 | T2840-1223 | 38 | T2800-1223 | 52 |
| 25 | 1 | 1.7/16 | 1 | -1623 | T2840-1623 | 41 | T2800-1623 | 54 |
| 31 | 1.1/4 | 1.11/16 | 1.1/4 | -2027 | T2840-2027 | 45 | T2800-2027 | 59 |

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NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

ORFS

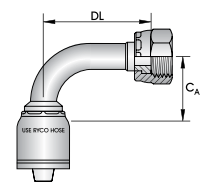
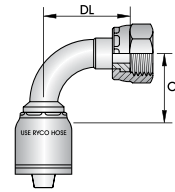
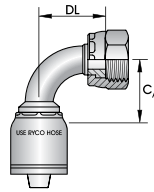
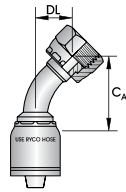
T2810
(T281)

T2823
(T282S)

T2820
(T282)

T2830
(T283)

O RING
FACE SEAL

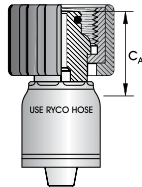


| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS FEMALE 45° TUBE BEND | | | ORFS FEMALE 90° SHORT BEND | | | ORFS FEMALE 90° MEDIUM BEND | | | ORFS FEMALE 90° LONG BEND | | |
|-----------|-------|-----------|-----------|-----------|---------------------------|----------------|----|----------------------------|----------------|----|-----------------------------|----------------|----|---------------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | T2810-0409 | 39 | 18 | T2823-0409 | 27 | 21 | T2820-0409 | 28 | 32 | T2830-0409 | 28 | 47 |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | T2810-0411 | 39 | 18 | T2823-0411 | 26 | 26 | T2820-0411 | 28 | 38 | T2830-0411 | 28 | 55 |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | | | | | | | T2820-0511 | 34 | 38 | | | |
| 10 | 3/8 | 11/16 | 3/8 | -0611 | T2810-0611 | 45 | 20 | T2823-0611 | 32 | 24 | T2820-0611 | 34 | 38 | T2830-0611 | 32 | 54 |
| 10 | 3/8 | 13/16 | 1/2 | -0613 | T2810-0613 | 40 | 17 | T2823-0613 | 35 | 29 | T2820-0613 | 34 | 41 | T2830-0613 | 32 | 64 |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | T2810-0813 | 49 | 19 | T2823-0813 | 43 | 30 | T2820-0813 | 41 | 41 | T2830-0813 | 42 | 65 |
| 12 | 1/2 | 1 | 5/8 | -0816 | T2810-0816 | 46 | 19 | T2823-0816 | 42 | 35 | T2820-0816 | 43 | 47 | T2830-0816 | 46 | 70 |
| 12 | 1/2 | 1.3/16 | 3/4 | -0819 | | | | T2823-0819 | 42 | 48 | T2820-0819 | 41 | 58 | T2830-0819 | 46 | 96 |
| 16 | 5/8 | 1 | 5/8 | -1016 | T2810-1016 | 59 | 20 | T2823-1016 | 40 | 32 | T2820-1016 | 47 | 47 | T2830-1016 | 51 | 70 |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | T2810-1019 | 58 | 24 | T2823-1019 | 40 | 48 | T2820-1019 | 46 | 58 | T2830-1019 | 50 | 96 |
| 19 | 3/4 | 13/16 | 1/2 | -1213 | | | | | | | T2820-1213 | 41 | 41 | | | |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | T2810-1219 | 64 | 29 | T2823-1219 | 56 | 49 | T2820-1219 | 54 | 59 | T2830-1219 | 58 | 96 |
| 19 | 3/4 | 1.7/16 | 1 | -1223 | T2810-1223 | 60 | 26 | T2823-1223 | 55 | 56 | T2820-1223 | 54 | 71 | T2830-1223 | 55 | 114 |
| 25 | 1 | 1.7/16 | 1 | -1623 | T2810-1623 | 86 | 34 | T2823-1623 | 64 | 56 | T2820-1623 | 67 | 71 | T2830-1623 | 81 | 113 |
| 31 | 1.1/4 | 1.11/16 | 1.1/4 | -2027 | T2810-2027 | 125 | 45 | T2823-2027 | | | T2820-2027 | 84 | 90 | T2830-2027 | 87 | 129 |

PW

T2940
(T294)

PRESSURE WASHER
SUITS KARCHER STYLE

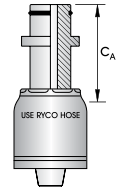


| HOSE SIZE | | THRD SIZE | DASH SIZE | PW FEMALE | |
|-----------|------|-----------|-----------|-------------------|----|
| DN | inch | inch | | PART NO | CA |
| 6 | 1/4 | 22x1,5 | -0422 | T2940-0422 | 30 |
| 8 | 5/16 | 22x1,5 | -0522 | T2940-0522 | 30 |
| 10 | 3/8 | 22x1,5 | -0622 | T2940-0622 | 30 |

PW

T2950
(T295)

PRESSURE WASHER
SUITS KARCHER STYLE



| HOSE SIZE | | TUBE OD | DASH SIZE | PW GUN HANDLE TUBE | |
|-----------|------|---------|-----------|--------------------|----|
| DN | inch | inch | | PART NO | CA |
| 6 | 1/4 | 9,8 | -0410 | T2950-0410 | 39 |
| 10 | 3/8 | | | | |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

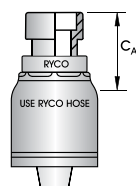
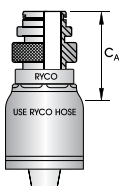
T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

RKVP

T2896

T2899

RKVP
HIGH PRESSURE



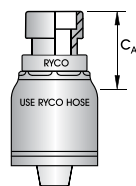
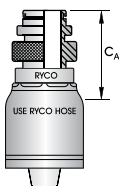
| HOSE SIZE | | RKVP SIZE | MAX WP | DASH SIZE | RKVP MALE | | RKVP FEMALE | |
|-----------|-------|-----------|--------|-----------|-------------------|----------------|-------------------|----------------|
| DN | inch | mm | bar | | PART NO | C _A | PART NO | C _A |
| 10 | 3/8 | 10 | 450 | -0610 | T2896-0610 | 51 | T2899-0610 | 34 |
| 12 | 1/2 | 12 | 450 | -0812 | T2896-0812 | 53 | T2899-0812 | 37 |
| 16 | 5/8 | 20 | 420 | -1020 | T2896-1020 | 57 | T2899-1020 | 38 |
| 19 | 3/4 | 20 | 420 | -1220 | T2896-1220 | 56 | T2899-1220 | 39 |
| 25 | 1 | 25 | 420 | -1625 | T2896-1625 | 51 | T2899-1625 | 47 |
| 31 | 1.1/4 | 32 | 420 | -2032 | T2896-2032 | 70 | T2899-2032 | 57 |
| 38 | 1.1/2 | 40 | 420 | -2440 | T2896-2440 | 88 | T2899-2440 | 61 |
| 51 | 2 | 50 | 420 | -3250 | T2896-3250 | 85 | T2899-3250 | 63 |
| 63 | 2.1/2 | 63 | 350 | -4063 | T2896-4063 | 111 | T2899-4063 | 78 |

RKVF

T2890

T2894

RKVF
HIGH FLOW



| HOSE SIZE | | RKVF SIZE | MAX WP | DASH SIZE | RKVF MALE | | RKVF FEMALE | |
|-----------|-------|-----------|--------|-----------|-------------------|----------------|-------------------|----------------|
| DN | inch | mm | bar | | PART NO | C _A | PART NO | C _A |
| 51 | 2 | 50 | 165 | -3250 | T2890-3250 | 77 | T2894-3250 | 54 |
| 63 | 2.1/2 | 63 | 70 | -4063 | T2890-4063 | 77 | T2894-4063 | 53 |
| 76 | 3 | 75 | 70 | -4875 | T2890-4875 | | T2894-4875 | |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

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T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

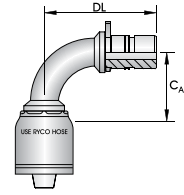
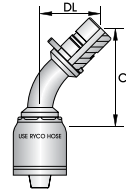
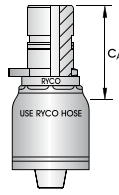
RYCO WEO

T2480
(T248)

T2482
(T248B)

T2483
(T248C)

RYCO WEO



| HOSE SIZE | | | PLUG-IN SIZE | | MAX WORKING PRESSURE | | RYCO WEO MALE | RYCO WEO MALE 45° TUBE BEND | RYCO WEO MALE 90° TUBE BEND | | | | | |
|-----------|------|------|--------------|------|----------------------|------|-------------------|-----------------------------|-----------------------------|----------------|----|-------------------|----------------|----|
| DN | Dash | inch | DN | inch | bar | psi | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 5 | -03 | 3/16 | 6 | 1/4 | 350 | 5100 | T2480-0304 | 31 | | | | | | |
| 6 | -04 | 1/4 | 6 | 1/4 | 350 | 5100 | T2480-0404 | 31 | T2482-0404 | 44 | 25 | T2483-0404 | 29 | 40 |
| 6 | -04 | 1/4 | 10 | 3/8 | 350 | 5100 | T2480-0406 | 35 | | | | | | |
| 8 | -05 | 5/16 | 10 | 3/8 | 350 | 5100 | T2480-0506 | 35 | T2482-0506 | 54 | 27 | T2483-0506 | 35 | 52 |
| 10 | -06 | 3/8 | 10 | 3/8 | 350 | 5100 | T2480-0606 | 35 | T2482-0606 | 55 | 27 | T2483-0606 | 35 | 52 |
| 10 | -06 | 3/8 | 12 | 1/2 | 350 | 5100 | T2480-0608 | 35 | | | | T2483-0608 | 35 | 54 |
| 12 | -08 | 1/2 | 12 | 1/2 | 350 | 5100 | T2480-0808 | 36 | T2482-0808 | 59 | 31 | T2483-0808 | 38 | 58 |
| 12 | -08 | 1/2 | 19 | 3/4 | 350 | 5100 | T2480-0812 | 47 | | | | | | |
| 16 | -10 | 5/8 | 19 | 3/4 | 350 | 5100 | T2480-1012 | 45 | T2482-1012 | 72 | 40 | T2483-1012 | 44 | 73 |
| 19 | -12 | 3/4 | 19 | 3/4 | 350 | 5100 | T2480-1212 | 45 | T2482-1212 | 82 | 43 | T2483-1212 | 54 | 82 |
| 25 | -16 | 1 | 25 | 1 | 250 | 3600 | T2480-1616 | 56 | T2482-1616 | 105 | 53 | T2483-1616 | 72 | 97 |

NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

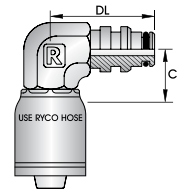
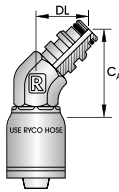
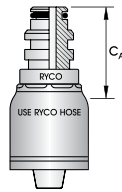
STAPLELOK

T2870
(T287)

T2871
(T288)

T2872
(T289)

STAPLE
O RING & BACK UP RING
SUPPLIED



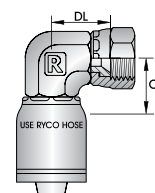
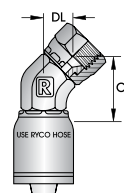
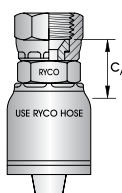
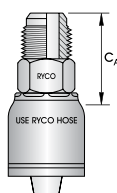
| HOSE SIZE | | | STAPLE SIZE | DASH SIZE | STAPLELOK MALE | STAPLELOK MALE 45° ELBOW | STAPLELOK MALE 90° ELBOW | | | | | |
|-----------|-------|----|-------------|-----------|-------------------|--------------------------|--------------------------|----------------|----|-------------------|----------------|-----|
| DN | inch | mm | | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 6 | -0406 | | T2870-0406 | 39 | T2871-0406 | 44 | 28 | T2872-0406 | 21 | 46 |
| 6 | 1/4 | 10 | -0410 | | T2870-0410 | 39 | T2871-0410 | 45 | 28 | T2872-0410 | 22 | 46 |
| 10 | 3/8 | 10 | -0610 | | T2870-0610 | 38 | T2871-0610 | 43 | 28 | T2872-0610 | 21 | 46 |
| 12 | 1/2 | 13 | -0812 | | T2870-0812 | 41 | T2871-0812 | 47 | 28 | T2872-0812 | 31 | 50 |
| 12 | 1/2 | 16 | -0816 | | T2870-0816 | 41 | | | | | | |
| 16 | 5/8 | 13 | -1012 | | T2870-1012 | 39 | | | | | | |
| 16 | 5/8 | 16 | -1016 | | T2870-1016 | 39 | T2871-1016 | 45 | 28 | T2872-1016 | 34 | 53 |
| 19 | 3/4 | 20 | -1220 | | T2870-1220 | 38 | T2871-1220 | 57 | 33 | T2872-1220 | 35 | 56 |
| 25 | 1 | 25 | -1625 | | T2870-1625 | 50 | T2871-1625 | 63 | 37 | T2872-1625 | 45 | 68 |
| 31 | 1.1/4 | 32 | -2032 | | T2870-2032 | 50 | T2871-2032 | 65 | 37 | T2872-2032 | 50 | 68 |
| 38 | 1.1/2 | 40 | -2440 | | T2870-2440 | 60 | T2871-2440 | 82 | 44 | T2872-2440 | 61 | 85 |
| 51 | 2 | 50 | -3250 | | T2870-3250 | 58 | T2871-3250 | 87 | 46 | T2872-3250 | 64 | 95 |
| 63 | 2.1/2 | 63 | -4063 | | T2870-4063 | 93 | T2871-4063 | 112 | 69 | T2872-4063 | 80 | 137 |
| 76 | 3 | 75 | -4875 | | T2870-4875 | | | | | | | |

NOTE: Hose Compatibility for the T2000 series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE T2530 (T253) T2540 (T254) T2580 (T258) T2570 (T257)

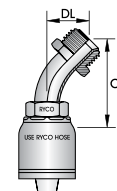
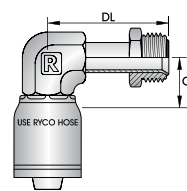
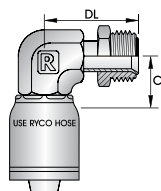
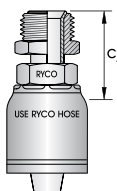
45° FLARE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | SAE MALE | | SAE FEMALE | | SAE FEMALE 45° ELBOW | | | SAE FEMALE 90° ELBOW | | | |
|-----------|-----------|-----------|-----------|----------|-------------------|----------------|-------------------|----------------------|-------------------|----------------|----------------------|-------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | | | T2540-0407 | 19 | | | | | | |
| 6 | 1/4 | 5/8 | 3/8 | -0410 | T2530-0410 | 31 | T2540-0410 | 21 | | | | | | |
| 10 | 3/8 | 1/2 | 5/16 | -0608 | T2530-0608 | 32 | T2540-0608 | 20 | T2580-0608 | 32 | 14 | T2570-0608 | 23 | 22 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | T2530-0610 | 34 | T2540-0610 | 20 | T2580-0610 | 32 | 15 | T2570-0610 | 23 | 23 |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | | | T2540-1217 | 26 | | | | | | |

SAE T2740 (T274) T2780 (T278) T2790 (T279) T2750 (T275)

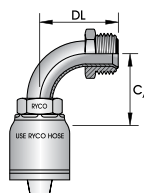
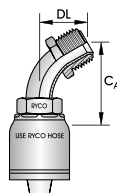
INVERTED MALE FLARE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | SAE INVERTED MALE FLARE | | SAE INVERTED MALE FLARE 90° ELBOW | | SAE INVERTED MALE FLARE 90° EXTENDED ELBOW | | | SAE INVERTED MALE FLARE 45° TUBE BEND | | | | |
|-----------|-----------|-----------|-----------|-------------------------|-------------------|-----------------------------------|-------------------|--|----|-------------------|---------------------------------------|----|-------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T2740-0407 | 40 | | | | | | | | | |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | T2740-0610 | 41 | T2780-0610 | 18 | 32 | T2790-0610 | 18 | 60 | T2750-0610 | 74 | 23 |
| 10 | 3/8 | 11/16 | 7/16 | -0611 | T2740-0611 | 45 | T2780-0611 | 18 | 36 | | | | | | |

SAE T2760 (T276) T2770 (T277)

INVERTED MALE FLARE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | SAE INVERTED MALE FLARE 60° TUBE BEND | | | SAE INVERTED MALE FLARE 90° TUBE BEND | | | |
|-----------|-----------|-----------|-----------|---------------------------------------|-------------------|----|---------------------------------------|-------------------|----|----|
| DN | inch | inch | inch | PART NO | C _A | DL | PART NO | C _A | DL | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T2760-0407 | 63 | 29 | T2770-0407 | 44 | 38 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | | | | T2770-0610 | 56 | 50 |

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

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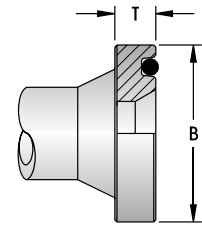
TECHNICAL

COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

| NOMINAL FLANGE | CODE 61 | | | | CODE 62 | | | | CODE 62C | | | |
|----------------|---------|------|------|-------|---------|------|-------|-------|----------|------|-------|-------|
| | B | | T | | B | | T | | B | | T | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/2 | 30,2 | 1.19 | 6,73 | 0.265 | 31,8 | 1.25 | 7,75 | 0.305 | | | | |
| *5/8 | 34,0 | 1.34 | 6,73 | 0.265 | | | | | | | | |
| 3/4 | 38,1 | 1.50 | 6,73 | 0.265 | 41,3 | 1.63 | 8,76 | 0.345 | 41,3 | 1.63 | 14,20 | 0.559 |
| 1 | 44,5 | 1.75 | 8,00 | 0.315 | 47,6 | 1.88 | 9,53 | 0.375 | 47,6 | 1.88 | 14,20 | 0.559 |
| 1.1/4 | 50,8 | 2.00 | 8,00 | 0.315 | 54,0 | 2.12 | 10,29 | 0.405 | 54,0 | 2.12 | 14,20 | 0.559 |
| 1.1/2 | 60,3 | 2.38 | 8,00 | 0.315 | 63,5 | 2.50 | 12,57 | 0.495 | 63,5 | 2.50 | 14,20 | 0.559 |
| 2 | 71,4 | 2.81 | 9,53 | 0.375 | 79,4 | 3.13 | 12,57 | 0.495 | 79,4 | 3.13 | 14,20 | 0.559 |
| 2.1/2 | 84,1 | 3.31 | 9,53 | 0.375 | | | | | | | | |
| 3 | 101,6 | 4.00 | 9,53 | 0.375 | | | | | | | | |



NOTE: *5/8 is used by Komatsu.
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

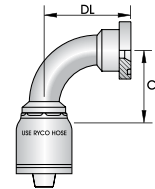
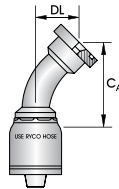
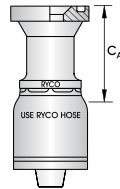
SAE FLANGE

T2130
(T213)

T2150
(T215)

T2170
(T217)

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
***[5/8 KOMATSU]**
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND | | | | | |
|-----------|-------|------------------|-----------|-------------------|------------------------------|------------------------------|----------------|----|-------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 12 | 1/2 | 1/2 | -0808 | T2130-0808 | 45 | T2150-0808 | 49 | 20 | T2170-0808 | 41 | 41 |
| 12 | 1/2 | 3/4 | -0812 | T2130-0812 | 47 | T2150-0812 | 51 | 24 | T2170-0812 | 41 | 46 |
| 16 | 5/8 | *5/8 | -1010 | T2130-1010 | 43 | T2150-1010 | 56 | 24 | T2170-1010 | 47 | 48 |
| 19 | 3/4 | *5/8 | -1210 | T2130-1210 | 45 | T2150-1210 | 56 | 26 | | | |
| 19 | 3/4 | 3/4 | -1212 | T2130-1212 | 46 | T2150-1212 | 65 | 26 | T2170-1212 | 55 | 54 |
| 19 | 3/4 | 1 | -1216 | T2130-1216 | 50 | T2150-1216 | 69 | 30 | T2170-1216 | 55 | 60 |
| 25 | 1 | 1 | -1616 | T2130-1616 | 52 | T2150-1616 | 81 | 30 | T2170-1616 | 68 | 68 |
| 25 | 1 | 1.1/4 | -1620 | T2130-1620 | 57 | T2150-1620 | 83 | 32 | T2170-1620 | 70 | 69 |
| 25 | 1 | 1.1/2 | -1624 | T2130-1624 | 84 | T2150-1624 | 85 | 33 | | | |
| 31 | 1.1/4 | 1 | -2016 | T2130-2016 | 85 | T2150-2016 | 88 | 30 | T2170-2016 | 78 | 68 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T2130-2020 | 59 | T2150-2020 | 100 | 36 | T2170-2020 | 88 | 78 |
| 31 | 1.1/4 | 1.1/2 | -2024 | T2130-2024 | 85 | T2150-2024 | 102 | 38 | T2170-2024 | 88 | 81 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T2130-2424 | 86 | T2150-2424 | 115 | 42 | T2170-2424 | 104 | 93 |
| 51 | 2 | 2 | -3232 | T2130-3232 | 96 | T2150-3232 | 150 | 58 | T2170-3232 | 137 | 130 |
| 63 | 2.1/2 | 2.1/2 | -4040 | T2130-4040 | 79 | T2150-4040 | | | T2170-4040 | | |
| 76 | 3 | 3 | -4848 | T2130-4848 | | | | | | | |

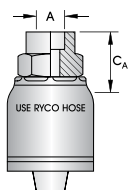
NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SALVAGE

T2230
(T223)

TUBE WELD

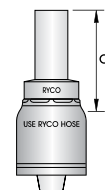


| HOSE SIZE | | A | DASH SIZE | SALVAGE (LIFESAVER) | |
|-----------|-------|-------|-----------|---------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | T2230-0404 | 18 |
| 6 | 1/4 | 5/16 | -0405 | T2230-0405 | 18 |
| 6 | 1/4 | 3/8 | -0406 | T2230-0406 | 18 |
| 10 | 3/8 | 3/8 | -0606 | T2230-0606 | 19 |
| 10 | 3/8 | 1/2 | -0608 | T2230-0608 | 19 |
| 12 | 1/2 | 1/2 | -0808 | T2230-0808 | 19 |
| 12 | 1/2 | 5/8 | -0810 | T2230-0810 | 21 |
| 16 | 5/8 | 5/8 | -1010 | T2230-1010 | 21 |
| 16 | 5/8 | 3/4 | -1012 | T2230-1012 | 21 |
| 19 | 3/4 | 3/4 | -1212 | T2230-1212 | 21 |
| 25 | 1 | 1 | -1616 | T2230-1616 | 27 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T2230-2020 | 31 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T2230-2424 | 41 |
| 51 | 2 | 2 | -3232 | T2230-3232 | 41 |

STANDPIPE

T2180
(T218)

IMPERIAL



| HOSE SIZE | | TUBE SIZE | DASH SIZE | IMPERIAL STANDPIPE | |
|-----------|------|-----------|-----------|--------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 3/8 | -0406 | T2180-0406 | 34 |
| 10 | 3/8 | 3/8 | -0606 | T2180-0606 | 35 |
| 12 | 1/2 | 1/2 | -0808 | T2180-0808 | 32 |
| 12 | 1/2 | 5/8 | -0810 | T2180-0810 | 42 |
| 19 | 3/4 | 3/4 | -1212 | T2180-1212 | 51 |
| 25 | 1 | 1 | -1616 | T2180-1616 | 57 |

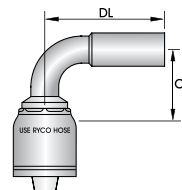
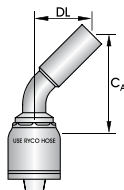
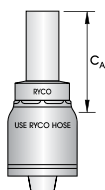
STANDPIPE

T2640
(T264)

T2643
(T264B)

T2646
(T264C)

METRIC



| HOSE SIZE | | TUBE SIZE | DASH SIZE | METRIC STANDPIPE | METRIC STANDPIPE 45° TUBE BEND | | | METRIC STANDPIPE 90° TUBE BEND | | | |
|-----------|------|-----------|-----------|-------------------|--------------------------------|---------|----------------|--------------------------------|---------|----------------|----|
| DN | inch | mm | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 6 | -0406 | T2640-0406 | 31 | | | | | | |
| 6 | 1/4 | 8 | -0408 | T2640-0408 | 31 | | | | | | |
| 6 | 1/4 | 10 | -0410 | T2640-0410 | 32 | | | | | | |
| 6 | 1/4 | 12 | -0412 | T2640-0412 | 32 | | | | | | |
| 8 | 5/16 | 10 | -0510 | T2640-0510 | 32 | | | | | | |
| 8 | 5/16 | 12 | -0512 | T2640-0512 | 32 | | | | | | |
| 10 | 3/8 | 12 | -0612 | T2640-0612 | 32 | | | | | | |
| 10 | 3/8 | 14 | -0614 | T2640-0614 | 38 | | | | | | |
| 12 | 1/2 | 15 | -0815 | T2640-0815 | 39 | | | | | | |
| 12 | 1/2 | 16 | -0816 | T2640-0816 | 39 | | | | | | |
| 16 | 5/8 | 16 | -1016 | T2640-1016 | 39 | | | | | | |
| 16 | 5/8 | 18 | -1018 | T2640-1018 | 35 | | | | | | |
| 16 | 5/8 | 20 | -1020 | T2640-1020 | 45 | | | | | | |
| 19 | 3/4 | 20 | -1220 | T2640-1220 | 45 | | | | | | |
| 19 | 3/4 | 22 | -1222 | T2640-1222 | 37 | | | | | | |
| 19 | 3/4 | 25 | -1225 | T2640-1225 | 45 | | | | | | |

NOTE: See page 337 for DKL and DKS Metric Nuts and Olives for use with Metric Standpipe Fittings.

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

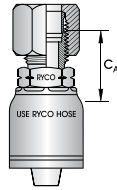
COUPLINGS

T2000 (T200) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

TUBE BITE

T2850
(T285)

COMPLETE WITH NUT
AND FLARELESS OLIVE



| HOSE SIZE | TUBE SIZE | DASH SIZE | TUBE BITE | | |
|-----------|-------------|-------------|-----------|-------------------|----------------------|
| DN | inch | inch | | PART NO | C_A |
| 6 | 1/4 | 1/4 | -0404 | T2850-0404 | 27 |
| 6 | 1/4 | 5/16 | -0405 | T2850-0405 | 27 |
| 10 | 3/8 | 5/16 | -0605 | T2850-0605 | 30 |
| 10 | 3/8 | 3/8 | -0606 | T2850-0606 | 30 |
| 10 | 3/8 | 1/2 | -0608 | T2850-0608 | 32 |
| 12 | 1/2 | 1/2 | -0808 | T2850-0808 | 34 |
| 12 | 1/2 | 5/8 | -0810 | T2850-0810 | 36 |
| 19 | 3/4 | 3/4 | -1212 | T2850-1212 | 39 |
| 25 | 1 | 1 | -1616 | T2850-1616 | 41 |

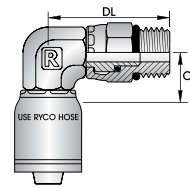
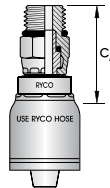
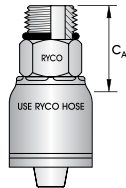
UNO (O RING BOSS)

T2200
(T220)

T2380
(T238)

T2390
(T239)

O RING SUPPLIED



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | UN O RING MALE | UN O RING MALE SWIVEL | UN O RING MALE SWIVEL 90° ELBOW | | | | | |
|-----------|-------------|-------------|-------------|----------------|-----------------------|---------------------------------|-------------------|----------------------|-------------------|----------------------|-----------|
| DN | inch | inch | inch | | PART NO | C_A | PART NO | C_A | PART NO | C_A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T2200-0407 | 25 | | | | | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | T2200-0408 | 25 | | | | | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | T2200-0409 | 25 | | | | | |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T2200-0609 | 28 | T2380-0609 | 41 | T2390-0609 | 23 | 36 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | T2200-0612 | 29 | T2380-0612 | 41 | T2390-0612 | 23 | 41 |
| 10 | 3/8 | 7/8 | 5/8 | -0614 | T2200-0614 | 28 | | | T2390-0614 | 23 | 38 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T2200-0812 | 31 | T2380-0812 | 42 | T2390-0812 | 29 | 43 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T2200-0814 | 33 | T2380-0814 | 43 | T2390-0814 | 29 | 40 |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | T2200-0817 | 32 | T2380-0817 | 42 | | | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | T2200-1014 | 34 | T2380-1014 | 42 | | | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | T2200-1017 | 32 | | | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T2200-1217 | 36 | T2380-1217 | 44 | T2390-1217 | 30 | 44 |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | T2200-1221 | 34 | | | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | T2200-1621 | 39 | | | | | |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | T2200-2026 | 43 | | | | | |

NOTE: These "Live Swivel" **T2380** and **T2390** Series Inserts are for Maximum Working Pressure: 350 bar (5100 psi); -09 & -12 Thread Size, 280 bar (4100 psi); -14 & -17 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **T2000** series can be found on page 188.

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR T4000 SERIES

NON-SKIVE

For RYCO Hose Series M2 sizes -04 to -12.
 For RYCO Hose Series M2G sizes -04 to -12.
 For RYCO Hose Series RQP5, T5 sizes -04 to -20.
 For RYCO Hose Series MP1 sizes -04 to -20.

NON-SKIVE

For RYCO Hose Series TP7, TP7N, TP7T, TP7TN, TP3000 all sizes.
 For RYCO Hose Series PL1, PL1D, RQP6, SR, SRF sizes -12 to -32.
 For RYCO Hose Series CS1000, MS1000 (sizes -20 to -32).

BSP

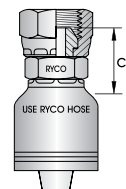
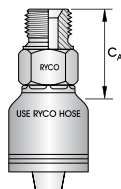
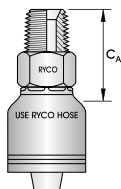
T4010 (T401)

T4013 (T401P)

T4320 (T432)

T4020 (T402)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | | BSP MALE | | BSPT MALE SWIVEL | | BSP FEMALE | |
|-----------|-------|-----------|-----------|-------------------|----------------|-------------------|----------------|-------------------|----------------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| | 1/8 | 1/8 | -0202 | | | | | T4320-0202 | | | |
| 5 | 3/16 | 1/4 | -0304 | T4010-0304 | 30 | | | | | T4020-0304 | 21 |
| 6 | 1/4 | 1/4 | -0404 | T4010-0404 | 30 | T4013-0404 | 27 | | | T4020-0404 | 24 |
| 8 | 5/16 | 1/4 | -0504 | T4010-0504 | 30 | | | | | T4020-0504 | 22 |
| 10 | 3/8 | 1/4 | -0604 | T4010-0604 | 30 | | | | | T4020-0604 | 22 |
| 10 | 3/8 | 3/8 | -0606 | T4010-0606 | 33 | T4013-0606 | 33 | | | T4020-0606 | 24 |
| 10 | 3/8 | 1/2 | -0608 | T4010-0608 | 38 | T4013-0608 | 32 | | | T4020-0608 | 27 |
| 12 | 1/2 | 3/8 | -0806 | T4010-0806 | 35 | | | | | | |
| 12 | 1/2 | 1/2 | -0808 | T4010-0808 | 40 | T4013-0808 | 31 | | | T4020-0808 | 26 |
| 12 | 1/2 | 3/4 | -0812 | | | | | | | T4020-0812 | 30 |
| 16 | 5/8 | 5/8 | -1010 | | | | | | | T4020-1010 | 26 |
| 16 | 5/8 | 3/4 | -1012 | T4010-1012 | 41 | | | | | T4020-1012 | 28 |
| 19 | 3/4 | 3/4 | -1212 | T4010-1212 | 41 | T4013-1212 | 40 | | | T4020-1212 | 28 |
| 25 | 1 | 1 | -1616 | T4010-1616 | 48 | T4013-1616 | 45 | | | T4020-1616 | 33 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T4010-2020 | 53 | T4013-2020 | 51 | | | T4020-2020 | 43 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T4010-2424 | 55 | | | | | T4020-2424 | 45 |
| 51 | 2 | 2 | -3232 | T4010-3232 | 66 | | | | | T4020-3232 | 54 |

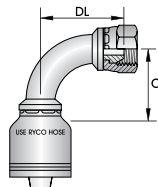
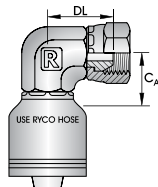
NOTE: This "Live Swivel" T4320 Series Insert is for Maximum Working Pressure: 420 bar (6100 psi): -02 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

BSP

T4050 (T405)

T4260 (T426)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSP FEMALE 90° ELBOW | | | BSP FEMALE 90° TUBE BEND | | |
|-----------|------|-----------|-----------|----------------------|----------------|----|--------------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | | | | T4260-0404 | 27 | 29 |
| 10 | 3/8 | 3/8 | -0606 | | | | T4260-0606 | 35 | 33 |
| 10 | 3/8 | 1/2 | -0608 | | | | T4260-0608 | 34 | 33 |
| 12 | 1/2 | 3/8 | -0806 | | | | T4260-0808 | 40 | 45 |
| 12 | 1/2 | 1/2 | -0808 | T4050-0808 | 29 | 31 | | | |
| 12 | 1/2 | 3/4 | -0812 | | | | T4260-1010 | 49 | 50 |
| 16 | 5/8 | 3/4 | -1012 | | | | T4260-1212 | 55 | 58 |
| 19 | 3/4 | 3/4 | -1212 | | | | T4260-1616 | 67 | 77 |

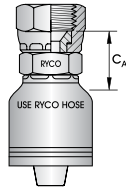
COUPLINGS

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

BSP

T4120
(T412)

**SPECIAL SEAT (JIS)
BSPP THREAD FORM
60° CONCAVE SEAT**



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 60° CONCAVE SEAT (JIS) | |
|-----------|------|-----------|-----------|--|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | T4120-0404 | 21 |
| 10 | 3/8 | 3/8 | -0606 | T4120-0606 | 25 |
| 10 | 3/8 | 1/2 | -0608 | T4120-0608 | 26 |
| 12 | 1/2 | 1/2 | -0808 | T4120-0808 | 27 |
| 19 | 3/4 | 3/4 | -1212 | T4120-1212 | 26 |

NOTE: These **T4120** Series Couplings are also listed in the **JIS** section on page 212.

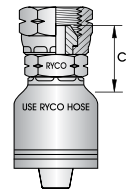
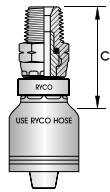
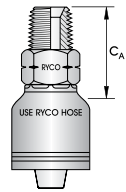
NPT

T4090
(T409)

T4320N
(T432N)

T4020N
(T402N)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT MALE | NPTF MALE SWIVEL | NPSM FEMALE | | | |
|-----------|---------|-----------|-----------|-------------------|------------------|--------------------|----------------|--------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 5 | 3/16 | 1/8 | -0302 | T4090-0302 | 24 | | | | |
| 5 | 3/16 | 1/4 | -0304 | T4090-0304 | 30 | | | | |
| 6 | 1/4 | 1/8 | -0402 | T4090-0402 | 25 | | | | |
| 6 | 1/4 | 1/4 | -0404 | T4090-0404 | 30 | | | T4020N-0404 | 24 |
| 8 | 5/16 | 1/4 | -0504 | T4090-0504 | 30 | | | | |
| 8 | 5/16 | 3/8 | -0506 | T4090-0506 | 30 | | | | |
| 10 | 3/8 | 1/4 | -0604 | T4090-0604 | 33 | | | | |
| 10 | 3/8 | 3/8 | -0606 | T4090-0606 | 33 | | | T4020N-0606 | 27 |
| 10 | 3/8 | 1/2 | -0608 | T4090-0608 | 38 | | | | |
| 12 | 1/2 | 3/8 | -0806 | T4090-0806 | 35 | T4320N-0806 | 42 | | |
| 12 | 1/2 | 1/2 | -0808 | T4090-0808 | 40 | | | T4020N-0808 | 25 |
| 12 | 1/2 | 3/4 | -0812 | T4090-0812 | 37 | | | | |
| 16 | 5/8 | 3/4 | -1012 | T4090-1012 | 41 | | | | |
| 19 | 3/4 | 3/4 | -1212 | T4090-1212 | 41 | | | | |
| 22 | 7/8 | 1 | -1416 | T4090-1416 | 44 | | | | |
| 25 | 1 | 1 | -1616 | T4090-1616 | 48 | | | | |
| 29 | 1.1/8 | 1.1/4 | -1820 | T4090-1820 | 46 | | | | |
| 31 | 1.1/4 | 1 | -2016 | T4090-2016 | 52 | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T4090-2020 | 53 | | | | |
| 35 | 1.3/8 | 1.1/2 | -2224 | T4090-2224 | 54 | | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T4090-2424 | 55 | | | | |
| 46 | 1.13/16 | 2 | -2932 | T4090-2932 | 66 | | | | |
| 51 | 2 | 2 | -3232 | T4090-3232 | 66 | | | | |

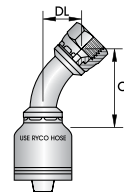
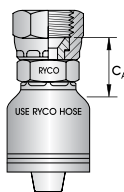
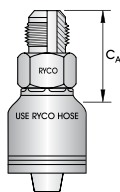
NOTE: This "Live Swivel" **T4320N** Series Insert is for Maximum Working Pressure: 420 bar (6100 psi): -06 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC T4030 (T403) T4040 (T404) T4250 (T425)

37° FLARE



| | | | | | JIC MALE | | JIC FEMALE | | JIC FEMALE 45° TUBE BEND | | |
|-----------|-----------|-----------|-----------|-------|-------------------|----------------|-------------------|----------------|--------------------------|----------------|----|
| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | T4030-0307 | 28 | T4040-0307 | 22 | T4250-0307 | 31 | 10 |
| 5 | 3/16 | 1/2 | 5/16 | -0308 | | | T4040-0308 | 22 | | | |
| 5 | 3/16 | 9/16 | 3/8 | -0309 | | | T4040-0309 | 22 | | | |
| 6 | 1/4 | 3/8 | 3/16 | -0406 | | | T4040-0406 | 22 | | | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T4030-0407 | 29 | T4040-0407 | 22 | T4250-0407 | 31 | 10 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | T4030-0408 | 29 | T4040-0408 | 22 | T4250-0408 | 40 | 12 |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | T4030-0409 | 30 | T4040-0409 | 22 | T4250-0409 | 40 | 12 |
| 8 | 5/16 | 1/2 | 5/16 | -0508 | | | T4040-0508 | 22 | | | |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | | | T4040-0509 | 22 | T4250-0509 | 39 | 11 |
| 8 | 5/16 | 3/4 | 1/2 | -0512 | | | T4040-0512 | 25 | | | |
| 10 | 3/8 | 7/16 | 1/4 | -0607 | | | T4040-0607 | 23 | | | |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T4030-0609 | 32 | T4040-0609 | 22 | | | |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | T4030-0612 | 35 | T4040-0612 | 24 | | | |
| 12 | 1/2 | 9/16 | 3/8 | -0809 | | | T4040-0809 | 23 | | | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T4030-0812 | 37 | T4040-0812 | 25 | | | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T4030-0814 | 39 | T4040-0814 | 27 | | | |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | | | T4040-0817 | 28 | | | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | T4030-1014 | 33 | T4040-1014 | 27 | | | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | T4030-1017 | 43 | T4040-1017 | 28 | T4250-1017 | 54 | 24 |
| 19 | 3/4 | 7/8 | 5/8 | -1214 | | | T4040-1214 | 28 | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T4030-1217 | 43 | T4040-1217 | 29 | T4250-1217 | 65 | 22 |
| 22 | 7/8 | 1.5/16 | | -1421 | | | T4040-1421 | 34 | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | | | T4040-1621 | 36 | T4250-1621 | 77 | 30 |
| 29 | 1.1/8 | 1.5/8 | | -1826 | | | T4040-1826 | 41 | | | |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | | | T4040-2026 | 44 | T4250-2026 | 121 | 50 |
| 35 | 1.3/8 | 1.7/8 | | -2230 | | | T4040-2230 | 48 | | | |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | | | T4040-2430 | 49 | | | |
| 46 | 1.13/16 | 2.1/2 | | -2940 | | | T4040-2940 | 60 | | | |
| 51 | 2 | 2.1/2 | 2 | -3240 | | | T4040-3240 | 60 | | | |

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

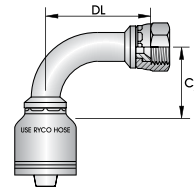
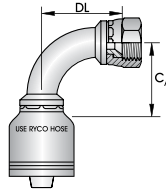
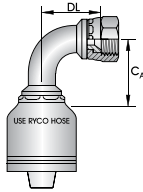
JIC

T4243
(T424S)

T4240
(T424)

T4280
(T428)

37° FLARE

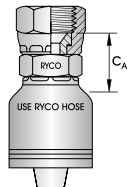


| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE 90° SHORT BEND | | | JIC FEMALE 90° MEDIUM BEND | | | JIC FEMALE 90° LONG BEND | | |
|-----------|-------|-----------|-----------|-----------|---------------------------|----------------|----|----------------------------|----------------|-----|--------------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | | | | T4240-0307 | 26 | 32 | | | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | T4243-0407 | 27 | 21 | T4240-0407 | 26 | 32 | | | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | | | | T4240-0408 | 26 | 32 | | | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | T4243-0409 | 27 | 22 | T4240-0409 | 26 | 38 | | | |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | | | | T4240-0509 | 35 | 38 | T4280-0509 | 36 | 55 |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T4243-0609 | 31 | 21 | T4240-0609 | 35 | 38 | T4280-0609 | 30 | 55 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | | | | T4240-0612 | 35 | 41 | T4280-0612 | 57 | 64 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T4243-0812 | 43 | 24 | T4240-0812 | 41 | 38 | | | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | | | | T4240-0814 | 41 | 47 | | | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | | | | T4240-1017 | 48 | 58 | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | | | | T4240-1217 | 55 | 57 | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | | | | T4240-1621 | 68 | 73 | | | |
| 29 | 1.1/8 | 1.5/8 | 1.1/4 | -1826 | | | | T4240-1826 | 88 | 81 | | | |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | | | | T4240-2026 | 88 | 81 | | | |
| 51 | 2 | 2.1/2 | 2 | -3240 | | | | T4240-3240 | 137 | 132 | | | |

JIS

T4120
(T412)

JAPANESE INDUSTRIAL
STANDARD (JIS)
BSPP THREAD FORM
60° CONCAVE SEAT



| HOSE SIZE | THRD SIZE | DASH SIZE | BSPP FEMALE 60° CONCAVE (JIS) | | |
|-----------|-----------|-----------|-------------------------------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | T4120-0404 | 21 |
| 10 | 3/8 | 3/8 | -0606 | T4120-0606 | 25 |
| 10 | 3/8 | 1/2 | -0608 | T4120-0608 | 26 |
| 12 | 1/2 | 1/2 | -0808 | T4120-0808 | 27 |
| 19 | 3/4 | 3/4 | -1212 | T4120-1212 | 26 |

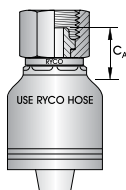
NOTE: These T4120 Series Couplings are also listed in the BSP section on page 210.

NOTE: Hose Compatibility for the T4000 series can be found on page 209.

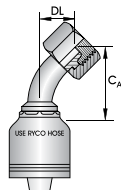
T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

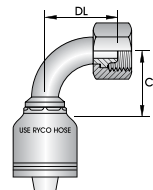
T4600
(T460)



T4660
(T466)



T4670
(T467)

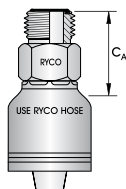


DKL
METRIC (LIGHT)
RYCO DKL FEMALE SWIVELS
UP TO M26 SIZE HAVE
MULTISEAL DKL 24° AND DKM
60° CONE. M30 AND OVER HAVE
DKL 24° CONE ONLY.

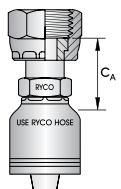
| HOSE SIZE | | | | THRD SIZE | TUBE SIZE | DASH SIZE | DKL FEMALE 24°/60° CONE | DKL FEMALE 24°/60° CONE 45° TUBE BEND | DKL FEMALE 24°/60° CONE 90° TUBE BEND | | | |
|-----------|------|--------|----|-----------|-------------------|----------------|----------------------------|---|---|-------------------|----------------|----|
| DN | inch | mm | mm | | PART NO | C _A | PART NO | CA | DL | PART NO | C _A | DL |
| 10 | 3/8 | 16x1,5 | 10 | -0616 | T4600-0616 | 23 | T4660-0616 | 45 | 20 | T4670-0616 | 35 | 35 |
| 10 | 3/8 | 18x1,5 | 12 | -0618 | T4600-0618 | 23 | T4660-0618 | 45 | 20 | T4670-0618 | 35 | 35 |
| 10 | 3/8 | 22x1,5 | 15 | -0622 | T4600-0622 | 26 | T4660-0622 | 46 | 20 | T4670-0622 | 34 | 37 |
| 19 | 3/4 | 30x2,0 | 22 | -1230 | T4600-1230 | 26 | T4660-1230 | 73 | 32 | T4670-1230 | 56 | 64 |

ORFS

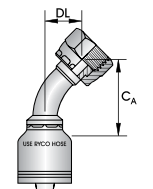
T4840
(T484)



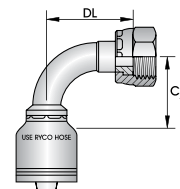
T4800
(T480)



T4810
(T481)



T4820
(T482)



O RING
FACE SEAL

| HOSE SIZE | | | | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS MALE | ORFS FEMALE | ORFS FEMALE 45° TUBE BEND | ORFS FEMALE 90° MEDIUM BEND | | | | |
|-----------|-------|---------|-------|-----------|-------------------|----------------|-------------------|----------------|------------------------------|--------------------------------|----|-------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | T4840-0409 | 25 | T4800-0409 | 28 | T4810-0409 | 39 | 18 | T4820-0409 | 26 | 32 |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | T4840-0411 | 26 | T4800-0411 | 32 | | | | T4820-0411 | 28 | 38 |
| 8 | 5/16 | 13/16 | 1/2 | -0513 | T4840-0513 | 31 | T4800-0513 | 32 | | | | | | |
| 10 | 3/8 | 11/16 | 3/8 | -0611 | T4840-0611 | 29 | T4800-0611 | 33 | T4810-0611 | 45 | 20 | T4820-0611 | 34 | 38 |
| 10 | 3/8 | 13/16 | 1/2 | -0613 | T4840-0613 | 31 | T4800-0613 | 34 | T4810-0613 | 40 | 17 | T4820-0613 | 34 | 29 |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | T4840-0813 | 33 | T4800-0813 | 34 | T4810-0813 | 49 | 19 | T4820-0813 | 41 | 41 |
| 16 | 5/8 | 1 | 5/8 | -1016 | T4840-1016 | 37 | | | T4810-1016 | 59 | 20 | | | |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | T4840-1219 | 38 | T4800-1219 | 43 | T4810-1219 | 64 | 29 | T4820-1219 | 54 | 59 |
| 19 | 3/4 | 1.7/16 | 1 | -1223 | T4840-1223 | 38 | T4800-1223 | 52 | | | | | | |
| 25 | 1 | 1.7/16 | 1 | -1623 | T4840-1623 | 41 | T4800-1623 | 54 | T4810-1623 | 86 | 34 | T4820-1623 | 67 | 71 |
| 31 | 1.1/4 | 1.11/16 | 1.1/4 | -2027 | T4840-2027 | 46 | T4800-2027 | 59 | T4810-2027 | 107 | 45 | T4820-2027 | 87 | 90 |
| 38 | 1.1/2 | 2 | 1.1/2 | -2432 | | | | | | | | T4820-2432 | 105 | 107 |

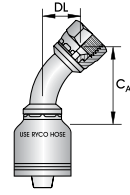
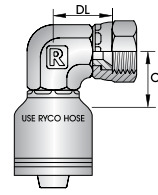
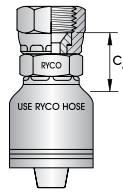
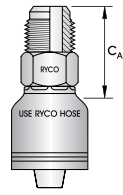
NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

COUPLINGS

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

| | | | | |
|------------|------------------------|------------------------|------------------------|------------------------|
| SAE | T4530 (T453) | T4540 (T454) | T4570 (T457) | T4550 (T455) |
|------------|------------------------|------------------------|------------------------|------------------------|

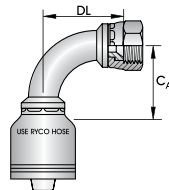
45° FLARE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | SAE MALE | SAE FEMALE | SAE FEMALE 90° ELBOW | SAE FEMALE 45° TUBE BEND | | | | | | | |
|-----------|-----------|-----------|-----------|----------|-------------------|----------------------|--------------------------|---------|-------------------|----|-------------------|-------------------|----|----|
| DN | inch | inch | inch | PART NO | C_A | PART NO | C_A | PART NO | C_A | DL | PART NO | C_A | DL | |
| 6 | 1/4 | 5/8 | 3/8 | -0410 | | T4540-0410 | 21 | | | | | | | |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | T4530-0510 | 33 | T4540-0510 | 20 | | | T4550-0510 | 38 | 17 | |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | T4530-0610 | 34 | T4540-0610 | 20 | T4570-0610 | 23 | 23 | T4550-0610 | 38 | 17 |

| | |
|------------|------------------------|
| SAE | T4560 (T456) |
|------------|------------------------|

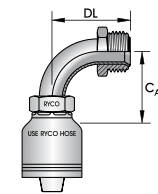
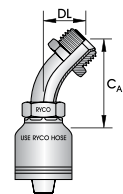
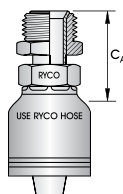
45° FLARE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | SAE FEMALE 90° TUBE BEND | | | |
|-----------|-----------|-----------|-----------|--------------------------|-------------------|----|----|
| DN | inch | inch | inch | PART NO | C_A | DL | |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | T4560-0610 | 35 | 32 |

| | | | |
|------------|------------------------|------------------------|------------------------|
| SAE | T4740 (T474) | T4750 (T475) | T4770 (T477) |
|------------|------------------------|------------------------|------------------------|

INVERTED MALE FLARE



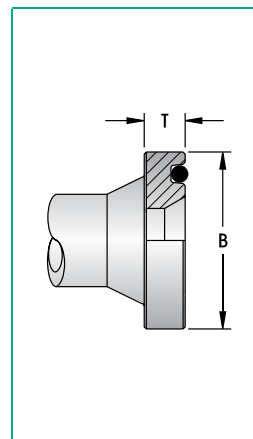
| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | SAE INVERTED MALE FLARE | SAE INVERTED MALE FLARE 45° TUBE BEND | SAE INVERTED MALE FLARE 90° TUBE BEND | | | | | | |
|-----------|-----------|-----------|-----------|-------------------------|---------------------------------------|---------------------------------------|-------------------|----|---------|-------------------|----|----|
| DN | inch | inch | inch | PART NO | C_A | PART NO | C_A | DL | PART NO | C_A | DL | |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | T4740-0510 | 41 | T4750-0510 | 74 | 23 | T4770-0510 | 56 | 50 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | T4740-0610 | 41 | T4750-0610 | 74 | 23 | T4770-0610 | 56 | 50 |
| 10 | 3/8 | 11/16 | 7/16 | -0611 | T4740-0611 | 45 | | | | | | |

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

| NOMINAL FLANGE | CODE 61 | | | | CODE 62 | | | | CODE 62C | | | |
|----------------|---------|------|------|-------|---------|------|-------|-------|----------|------|-------|-------|
| | B | | T | | B | | T | | B | | T | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/2 | 30,2 | 1.19 | 6,73 | 0.265 | 31,8 | 1.25 | 7,75 | 0.305 | | | | |
| *5/8 | 34,0 | 1.34 | 6,73 | 0.265 | | | | | | | | |
| 3/4 | 38,1 | 1.50 | 6,73 | 0.265 | 41,3 | 1.63 | 8,76 | 0.345 | 41,3 | 1.63 | 14,20 | 0.559 |
| 1 | 44,5 | 1.75 | 8,00 | 0.315 | 47,6 | 1.88 | 9,53 | 0.375 | 47,6 | 1.88 | 14,20 | 0.559 |
| 1.1/4 | 50,8 | 2.00 | 8,00 | 0.315 | 54,0 | 2.12 | 10,29 | 0.405 | 54,0 | 2.12 | 14,20 | 0.559 |
| 1.1/2 | 60,3 | 2.38 | 8,00 | 0.315 | 63,5 | 2.50 | 12,57 | 0.495 | 63,5 | 2.50 | 14,20 | 0.559 |
| 2 | 71,4 | 2.81 | 9,53 | 0.375 | 79,4 | 3.13 | 12,57 | 0.495 | 79,4 | 3.13 | 14,20 | 0.559 |
| 2.1/2 | 84,1 | 3.31 | 9,53 | 0.375 | | | | | | | | |
| 3 | 101,6 | 4.00 | 9,53 | 0.375 | | | | | | | | |



NOTE: *5/8 is used by Komatsu.

RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

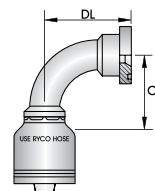
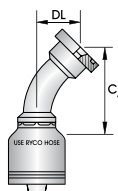
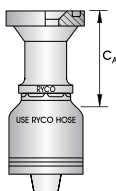
SAE FLANGE

T4130
(T413)

T4150
(T415)

T4170
(T417)

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
*(5/8 KOMATSU)
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND | | | | | |
|-----------|-------|------------------|-----------|-------------------|------------------------------|------------------------------|----------------|----|-------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | T4130-1212 | 46 | T4150-1212 | 65 | 26 | T4170-1212 | 55 | 54 |
| 19 | 3/4 | 1 | -1216 | T4130-1216 | 50 | | | | | | |
| 25 | 1 | 1 | -1616 | T4130-1616 | 52 | T4150-1616 | 81 | 30 | T4170-1616 | 68 | 68 |
| 25 | 1 | 1.1/4 | -1620 | T4130-1620 | 57 | | | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T4130-2020 | 59 | T4150-2020 | 100 | 36 | T4170-2020 | 88 | 78 |
| 31 | 1.1/4 | 1.1/2 | -2024 | T4130-2024 | 85 | | | | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T4130-2424 | 85 | T4150-2424 | 115 | 42 | T4170-2424 | 104 | 93 |
| 38 | 1.1/2 | 2 | -2432 | T4130-2432 | 95 | | | | | | |
| 51 | 2 | 2 | -3232 | T4130-3232 | 95 | T4150-3232 | 150 | 58 | T4170-3232 | 140 | 130 |

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

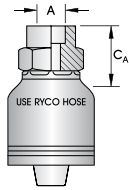
COUPLINGS

T4000 (T400) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SALVAGE

T4230
(T423)

TUBE
WELD

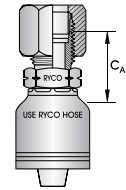


| HOSE SIZE | | A | DASH SIZE | SALVAGE (LIFESAVER) | |
|-----------|-------|-------|-----------|---------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 8 | 5/16 | 3/8 | -0506 | T4230-0506 | 18 |
| 10 | 3/8 | 3/8 | -0606 | T4230-0606 | 19 |
| 12 | 1/2 | 1/2 | -0808 | T4230-0808 | 19 |
| 16 | 5/8 | 3/4 | -1012 | T4230-1012 | 21 |
| 19 | 3/4 | 3/4 | -1212 | T4230-1212 | 21 |
| 25 | 1 | 1 | -1616 | T4230-1616 | 27 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T4230-2020 | 31 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T4230-2424 | 34 |
| 51 | 2 | 2 | -3232 | T4230-3232 | 41 |

TUBE BITE

T4850
(T485)

COMPLETE WITH NUT
AND FLARELESS OLIVE



| HOSE SIZE | | TUBE SIZE | DASH SIZE | TUBE BITE | |
|-----------|------|-----------|-----------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 10 | 3/8 | 3/8 | -0606 | T4850-0606 | 30 |

NOTE: Hose Compatibility for the **T4000** series can be found on page 209.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR T7000 SERIES

NON-SKIVE

For RYCO Hose Series H3000, H4000, H5000 (sizes -06 to -24) and H6000 (sizes -06 to -20).
 For RYCO Hose Series H12A, H12D, H12S all sizes.
 For RYCO Hose Series T1A, T1D, T1F, T1S, T2A, T2D, T2S, T2C, TXA2D, RQP1, RQP2, sizes -06 to -32.
 For RYCO Hose Series D2B, DF2A, E2, R4SHA and R4SHD (sizes -20 to -32).

SKIVE

For RYCO Hose Series R4SPA and R4SPD (cover must be skived) all sizes.

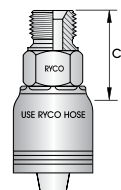
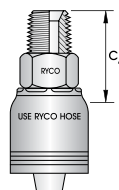
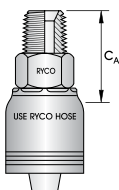
BSP

T7010 (T701)

T7014 (T701H)

T7013 (T701P)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | | BSPT MALE HEAVY DUTY | | BSPF MALE | |
|-----------|-------|-----------|-----------|-------------------|----------------|----------------------|----------------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 10 | 3/8 | 3/8 | -0606 | T7010-0606 | 33 | | | T7013-0606 | 33 |
| 12 | 1/2 | 1/2 | -0808 | T7010-0808 | 40 | | | T7013-0808 | 31 |
| 19 | 3/4 | 3/4 | -1212 | T7010-1212 | 41 | | | T7013-1212 | 40 |
| 25 | 1 | 1 | -1616 | T7010-1616 | 48 | T7014-1616 | 48 | T7013-1616 | 45 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7010-2020 | 53 | | | T7013-2020 | 51 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7010-2424 | 55 | | | T7013-2424 | 55 |
| 51 | 2 | 2 | -3232 | T7010-3232 | 66 | | | T7013-3232 | 67 |

BSP

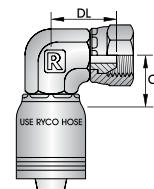
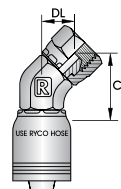
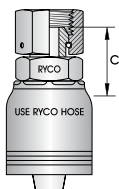
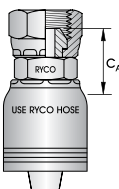
T7020 (T702)

T7022 (T702H)

T7060 (T706)

T7050 (T705)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPF FEMALE | | BSPF FEMALE HEAVY DUTY | | BSPF FEMALE 45° ELBOW | | BSPF FEMALE 90° ELBOW | | | |
|-----------|-------|-----------|-----------|-------------------|----------------|------------------------|----------------|-----------------------|----------------|-----------------------|-------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 10 | 3/8 | 3/8 | -0606 | T7020-0606 | 24 | | | | | | T7050-0606 | 23 | 28 |
| 12 | 1/2 | 1/2 | -0808 | T7020-0808 | 26 | T7022-0808 | 28 | T7060-0808 | 40 | 18 | T7050-0808 | 29 | 31 |
| 19 | 3/4 | 3/4 | -1212 | T7020-1212 | 28 | T7022-1212 | 34 | T7060-1212 | 44 | 20 | T7050-1212 | 30 | 36 |
| 25 | 1 | 1 | -1616 | T7020-1616 | 33 | T7022-1616 | 37 | T7060-1616 | 51 | 23 | T7050-1616 | 32 | 40 |
| 31 | 1.1/4 | 1 | -2016 | T7020-2016 | 39 | | | | | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7020-2020 | 40 | T7022-2020 | 44 | T7060-2020 | 42 | 25 | T7050-2020 | 41 | 47 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7020-2424 | 45 | | | | | | T7050-2424 | 60 | 59 |
| 51 | 2 | 2 | -3232 | T7020-3232 | 54 | | | | | | T7050-3232 | 56 | 62 |

NOTE: T7000 BSPF, JIC, JIS and Metric Swivel Nut Couplings are shown as "Crimp Nut". Larger sizes are "Wire Nut" or "Slip Nut". See note on page 157.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

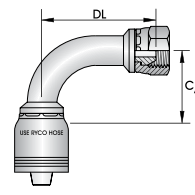
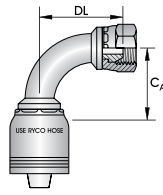
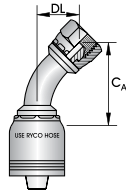
BSP

T7270
(T727)

T7260
(T726)

T7210
(T721)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 45° TUBE BEND | | | BSPP FEMALE 90° TUBE BEND | | | BSPP FEMALE 90° LONG BEND | | |
|-----------|-------|-----------|-----------|---------------------------|----------------|----|---------------------------|----------------|-----|---------------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 10 | 3/8 | 3/8 | -0606 | T7270-0606 | 43 | 18 | T7260-0606 | 35 | 33 | | | |
| 12 | 1/2 | 1/2 | -0808 | T7270-0808 | 49 | 22 | T7260-0808 | 40 | 45 | | | |
| 19 | 3/4 | 3/4 | -1212 | T7270-1212 | 70 | 29 | T7260-1212 | 55 | 58 | T7210-1212 | 55 | 96 |
| 25 | 1 | 1 | -1616 | T7270-1616 | 82 | 42 | T7260-1616 | 67 | 72 | T7210-1616 | 58 | 116 |
| 31 | 1.1/4 | 1 | -2016 | | | | T7260-2016 | 69 | 79 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7270-2020 | 103 | 44 | T7260-2020 | 87 | 88 | T7210-2020 | 87 | 142 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7270-2424 | 118 | 52 | T7260-2424 | 103 | 106 | | | |
| 51 | 2 | 2 | -3232 | T7270-3232 | 142 | 65 | T7260-3232 | 130 | 132 | | | |

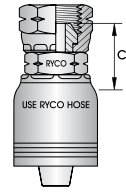
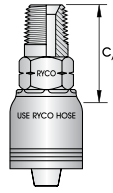
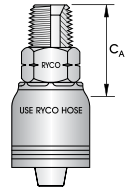
NPT

T7090
(T709)

T7091
(T709E)

T7020N
(T702N)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT MALE | | NPT MALE EXTENDED (API) | | NPSM FEMALE | |
|-----------|-------|-----------|-----------|-------------------|----------------|-------------------------|----------------|--------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 10 | 3/8 | 1/4 | -0604 | T7090-0604 | 33 | | | | |
| 10 | 3/8 | 3/8 | -0606 | T7090-0606 | 33 | | | | |
| 12 | 1/2 | 3/8 | -0806 | T7090-0806 | 35 | | | | |
| 12 | 1/2 | 1/2 | -0808 | T7090-0808 | 40 | | | | |
| 19 | 3/4 | 3/4 | -1212 | T7090-1212 | 41 | | | | |
| 25 | 1 | 3/4 | -1612 | T7090-1612 | 43 | | | | |
| 25 | 1 | 1 | -1616 | T7090-1616 | 48 | | | | |
| 31 | 1.1/4 | 1 | -2016 | T7090-2016 | 52 | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7090-2020 | 53 | | | T7020N-2020 | 41 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7090-2424 | 55 | | | T7020N-2424 | 45 |
| 51 | 2 | 2 | -3232 | T7090-3232 | 66 | T7091-3232 | 107 | T7020N-3232 | 54 |

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

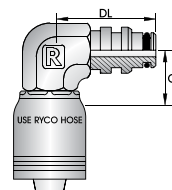
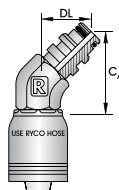
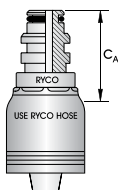
CROCBITE

T7880

T7881

T7882

CROCBITE
HIGH PRESSURE



| HOSE SIZE | | MWP | DASH SIZE | CROCBITE MALE | CROCBITE MALE 45° ELBOW | | | CROCBITE MALE 90° ELBOW | | | |
|-----------|-------|-----|-----------|-------------------|-------------------------|-------------------|----------------|-------------------------|-------------------|----------------|-----|
| DN | inch | bar | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 10 | 3/8 | 450 | -0610 | T7880-0610 | 39 | T7881-0610 | 43 | 28 | T7882-0610 | 23 | 49 |
| 12 | 1/2 | 450 | -0812 | T7880-0812 | 39 | T7881-0812 | 45 | 28 | T7882-0812 | 29 | 51 |
| 19 | 3/4 | 420 | -1220 | T7880-1220 | 46 | | | | | | |
| 25 | 1 | 420 | -1625 | T7880-1625 | 65 | | | | | | |
| 31 | 1.1/4 | 420 | -2032 | T7880-2032 | 68 | T7881-2032 | 77 | 50 | T7882-2032 | 52 | 94 |
| 38 | 1.1/2 | 420 | -2440 | T7880-2440 | 71 | T7881-2440 | 88 | 53 | T7882-2440 | 61 | 101 |
| 51 | 2 | 420 | -3250 | T7880-3250 | 97 | T7881-3250 | 107 | 73 | T7882-3250 | 66 | 135 |
| 63 | 2.1/2 | 350 | -4063 | T7880-4063 | 97 | T7881-4063 | 114 | 75 | T7882-4063 | 80 | 146 |

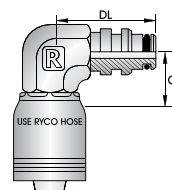
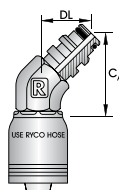
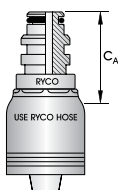
CROCBITE

T7880A

T7881A

T7882A

CROCBITE
HIGH FLOW



| HOSE SIZE | | MWP | DASH SIZE | CROCBITE MALE | CROCBITE MALE 45° ELBOW | | | CROCBITE MALE 90° ELBOW | | | |
|-----------|-------|-----|-----------|--------------------|-------------------------|--------------------|----------------|-------------------------|--------------------|----------------|-----|
| DN | inch | bar | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 50 | 2 | 350 | -3250 | T7880A-3250 | 94 | T7881A-3250 | 104 | 70 | T7882A-3250 | 68 | 129 |
| 63 | 2.1/2 | 280 | -4063 | T7880A-4063 | 93 | T7881A-4063 | 112 | 73 | T7882A-4063 | 79 | 141 |

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

| JIC | T7030 (T703) | T7040 (T704) | T7045 (T704V) |
|-----|-----------------|-----------------|------------------|
|-----|-----------------|-----------------|------------------|

37° FLARE

| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | JIC MALE | JIC FEMALE | JIC FEMALE HIGH PRESSURE | | | |
|-----------|-----------|-----------|-----------|----------|-------------------|--------------------------|-------------------|---------|-------------------|
| DN | inch | inch | inch | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T7030-0609 | 32 | T7040-0609 | 22 | |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | | | T7040-0612 | 24 | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T7030-0812 | 37 | T7040-0812 | 25 | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T7030-0814 | 39 | T7040-0814 | 27 | |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | | | T7040-0817 | 29 | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | T7030-1014 | 41 | T7040-1014 | 28 | |
| | 5/8 | 1.1/16 | | -1017 | | | T7040-1017 | 29 | |
| 19 | 3/4 | 7/8 | 5/8 | -1214 | | | T7040-1214 | 30 | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T7030-1217 | 45 | T7040-1217 | 30 | |
| 19 | 3/4 | 1.3/16 | 7/8 | -1219 | | | T7040-1219 | 31 | |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | T7030-1221 | 42 | T7040-1221 | 34 | |
| 25 | 1 | 1.1/16 | 3/4 | -1617 | | | T7040-1617 | 33 | |
| 25 | 1 | 1.5/16 | 1 | -1621 | T7030-1621 | 47 | T7040-1621 | 36 | T7045-1621 |
| 25 | 1 | 1.5/8 | 1.1/4 | -1626 | | | T7040-1626 | 41 | |
| 31 | 1.1/4 | 1.5/16 | 1 | -2021 | | | T7040-2021 | 41 | |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | T7030-2026 | 52 | T7040-2026 | 44 | T7045-2026 |
| 31 | 1.1/4 | 1.7/8 | 1.1/2 | -2030 | | | T7040-2030 | 48 | |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | T7030-2430 | 57 | T7040-2430 | 49 | T7045-2430 |
| 51 | 2 | 2.1/2 | 2 | -3240 | T7030-3240 | 74 | T7040-3240 | 60 | |

| JIC | T7080 (T708) | T7070 (T707) |
|-----|-----------------|-----------------|
|-----|-----------------|-----------------|

37° FLARE

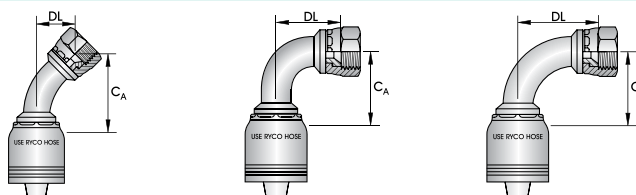
| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE 45° ELBOW | JIC FEMALE 90° ELBOW | | | | |
|-----------|-----------|-----------|-----------|----------------------|----------------------|----|---------|-------------------|----|
| DN | inch | inch | inch | PART NO | C _A | DL | PART NO | C _A | DL |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T7080-0812 | 32 | 14 | | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T7080-0814 | 33 | 15 | T7070-0814 | 29 |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T7080-1217 | 37 | 16 | T7070-1217 | 30 |
| 25 | 1 | 1.5/16 | 1 | -1621 | T7080-1621 | 42 | 20 | T7070-1621 | 32 |

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIC T7250 (T725) T7243 (T742S) T7240 (T724)

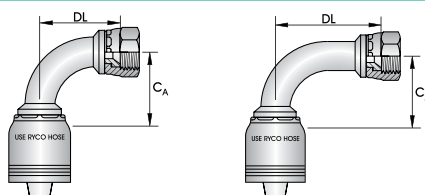
37° FLARE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE 45° TUBE BEND | | | JIC FEMALE 90° SHORT TUBE BEND | | | JIC FEMALE 90° TUBE BEND | | |
|-----------|-------|-----------|-----------|-----------|--------------------------|----------------|----|--------------------------------|----------------|----|--------------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | T7250-0609 | 39 | 11 | T7243-0609 | 31 | 21 | T7240-0609 | 35 | 38 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | T7250-0812 | 45 | 15 | T7243-0812 | 43 | 29 | T7240-0812 | 41 | 41 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | T7250-0814 | 48 | 18 | | | | T7240-0814 | 41 | 47 |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | T7250-1014 | 50 | 19 | T7243-1014 | 43 | 32 | T7240-1014 | 48 | 47 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | T7250-1017 | 52 | 24 | | | | T7240-1017 | 48 | 58 |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T7250-1217 | 65 | 22 | | | | T7240-1217 | 55 | 57 |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | T7250-1221 | 74 | 28 | | | | T7240-1221 | 56 | 71 |
| 25 | 1 | 1.5/16 | 1 | -1621 | T7250-1621 | 77 | 30 | | | | T7240-1621 | 68 | 73 |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | T7250-2026 | 97 | 39 | | | | T7240-2026 | 88 | 81 |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | T7250-2430 | 121 | 50 | | | | T7240-2430 | 103 | 106 |
| 51 | 2 | 2.1/2 | 2 | -3240 | T7250-3240 | 152 | 63 | | | | T7240-3240 | 137 | 132 |

JIC T7245 (T724V) T7280 (T728)

37° FLARE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE 90° TUBE BEND | | | JIC FEMALE 90° LONG BEND | | |
|-----------|-------|-----------|-----------|-----------|--------------------------|----------------|-----|--------------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | | | | T7280-1217 | 56 | 96 |
| 25 | 1 | 1.5/16 | 1 | -1621 | T7240-1621 | 68 | 73 | T7280-1621 | 75 | 114 |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | T7240-2026 | 88 | 81 | T7280-2026 | 86 | 129 |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | T7240-2430 | 103 | 106 | | | |

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

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HOSE

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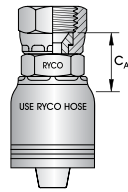
COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

JIS

T7680 (T768)

JAPANESE INDUSTRIAL
STANDARD
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



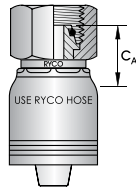
| HOSE SIZE | | THRD SIZE | DASH SIZE | METRIC FEMALE 60° CONCAVE SEAT (JIS) | |
|-----------|-------|-----------|-----------|--------------------------------------|----------------|
| DN | inch | mm | | PART NO | C _A |
| 10 | 3/8 | 18x1,5 | -0618 | T7680-0618 | 22 |
| 12 | 1/2 | 22x1,5 | -0822 | T7680-0822 | 25 |
| 12 | 1/2 | 24x1,5 | -0824 | T7680-0824 | 32 |
| 16 | 5/8 | 24x1,5 | -1024 | T7680-1024 | 25 |
| 19 | 3/4 | 24x1,5 | -1224 | T7680-1224 | 27 |
| 19 | 3/4 | 30x1,5 | -1230 | T7680-1230 | 30 |
| 25 | 1 | 33x1,5 | -1633 | T7680-1633 | 28 |
| 25 | 1 | 36x1,5 | -1636 | T7680-1636 | 34 |
| 31 | 1.1/4 | 36x1,5 | -2036 | T7680-2036 | 31 |
| 31 | 1.1/4 | 42x1,5 | -2042 | T7680-2042 | 32 |

NOTE: These T7680 Series Couplings are also listed in the **METRIC** section on page 224.

METRIC

T7501 (T750 & T750R)

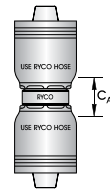
DKOL
METRIC O RING (LIGHT)
24° CONE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | DKOL FEMALE 24° CONE | |
|-----------|-------|-----------|-----------|-----------|----------------------|----------------|
| DN | inch | mm | mm | | PART NO | C _A |
| 31 | 1.1/4 | 45x2,0 | 35 | -2045 | T7501-2045 | 35 |
| 38 | 1.1/2 | 52x2,0 | 42 | -2452 | T7501-2452 | 45 |

JOINER

T7900 (T790)



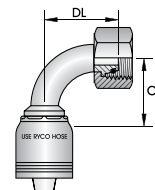
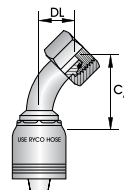
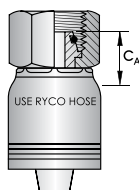
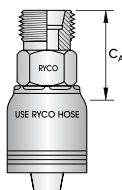
| HOSE SIZE | | DASH SIZE | JOINER | | |
|-----------|-------|-----------|-------------------|----------------|--|
| DN | inch | | PART NO | C _A | |
| 10 | 3/8 | -0606 | T7900-0606 | 15 | |
| 12 | 1/2 | -0808 | T7900-0808 | 15 | |
| 19 | 3/4 | -1212 | T7900-1212 | 15 | |
| 25 | 1 | -1616 | T7900-1616 | 25 | |
| 31 | 1.1/4 | -2020 | T7900-2020 | 24 | |
| 38 | 1.1/2 | -2424 | T7900-2424 | 25 | |
| 51 | 2 | -3232 | T7900-3232 | 26 | |
| 63 | 2.1/2 | -4040 | T7900-4040 | 26 | |

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC T7630 (T763) T7711 (T771) T7720 (T772) T7730 (T773)

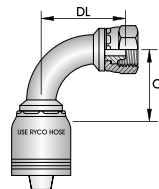
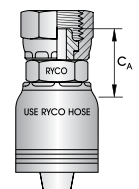
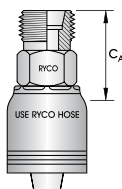
DKS
METRIC O RING
&
DKOS
METRIC O RING (HEAVY)
24° CONE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | DKS MALE 24° CONE | DKOS FEMALE 24° CONE | DKOS FEMALE 24° CONE 45° TUBE BEND | DKOS FEMALE 24° CONE 90° TUBE BEND | | | | | | | |
|-----------|-----------|-----------|-----------|-------------------|----------------------|------------------------------------|------------------------------------|-------------------|-------------------|----|---------|-------------------|----|----|
| DN | inch | mm | mm | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | |
| 10 | 3/8 | 20x1,5 | 12 | -0620 | | T7711-0620 | 24 | | | | | | | |
| 10 | 3/8 | 22x1,5 | 14 | -0622 | | T7711-0622 | 26 | | | | | | | |
| 12 | 1/2 | 24x1,5 | 16 | -0824 | T7630-0824 | 30 | T7711-0824 | 28 | T7720-0824 | 53 | 24 | T7730-0824 | 40 | 48 |
| 16 | 5/8 | 30x2,0 | 20 | -1030 | | T7711-1030 | 31 | | | | | | | |
| 16 | 5/8 | 36x2,0 | 25 | -1036 | | T7711-1036 | 33 | | | | | | | |
| 19 | 3/4 | 30x2,0 | 20 | -1230 | T7630-1230 | 35 | T7711-1230 | 30 | T7720-1230 | 74 | 35 | T7730-1230 | 55 | 68 |
| 19 | 3/4 | 36x2,0 | 25 | -1236 | T7630-1236 | 37 | T7711-1236 | 33 | T7720-1236 | 76 | 35 | T7730-1236 | 56 | 68 |
| 19 | 3/4 | 42x2,0 | 30 | -1242 | | T7711-1242 | 37 | | | | | | | |
| 25 | 1 | 30x2,0 | 20 | -1630 | | T7711-1630 | 34 | | | | | | | |
| 25 | 1 | 36x2,0 | 25 | -1636 | T7630-1636 | 41 | T7711-1636 | 34 | | | | | | |
| 25 | 1 | 42x2,0 | 30 | -1642 | T7630-1642 | 43 | T7711-1642 | 36 | T7720-1642 | 87 | 36 | T7730-1642 | 69 | 77 |
| 31 | 1.1/4 | 42x2,0 | 30 | -2042 | T7630-2042 | 48 | T7711-2042 | 38 | | | | | | |
| 31 | 1.1/4 | 52x2,0 | 38 | -2052 | | T7711-2052 | 40 | T7720-2052 | 128 | 48 | | T7730-2052 | 90 | 89 |
| 38 | 1.1/2 | 52x2,0 | 38 | -2452 | | T7711-2452 | 41 | | | | | | | |

METRIC T7920 (T792) T7921 (T792F) T7923 (T792G)

FRENCH GAZ
24° CONE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | METRIC FRENCH GAZ MALE | METRIC FRENCH GAZ FEMALE | METRIC FRENCH GAZ FEMALE 90° TUBE BEND | | | | |
|-----------|-----------|-----------|-----------|------------------------|--------------------------|--|----------------|---------|----------------|----|
| DN | inch | mm | mm | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL |
| 10 | 3/8 | 20x1,5 | 13,25 | -0620 | | | | | | |
| 12 | 1/2 | 24x1,5 | 16,75 | -0824 | | | | | | |
| 16 | 5/8 | 30x1,5 | 21,25 | -1030 | | | | | | |
| 19 | 3/4 | 36x1,5 | 26,75 | -1236 | T7920-1236 | 31 | | | | |
| 25 | 1 | 45x1,5 | 33,50 | -1645 | T7920-1645 | 39 | | | | |
| 31 | 1.1/4 | 52x1,5 | 42,25 | -2052 | T7920-2052 | 42 | | | | |

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

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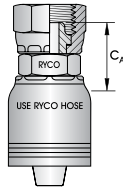
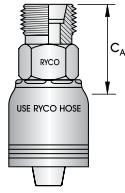
T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

T7924
(T792M)

T7925
(T792N)

FRENCH
MILLIMETRIC
24° CONE

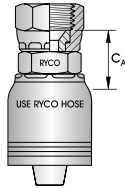


| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | METRIC FRENCH MILLIMETRIC MALE | METRIC FRENCH MILLIMETRIC FEMALE |
|-----------|-----------|-----------|-----------|--------------------------------|----------------------------------|
| DN | inch | mm | mm | PART NO | C _A |
| 16 | 5/8 | 27x1,5 | 20 | -1027 | |
| 19 | 3/4 | 30x1,5 | 22 | -1230 | |
| 19 | 3/4 | 33x1,5 | 25 | -1233 | |
| 19 | 3/4 | 36x1,5 | 28 | -1236 | |
| 25 | 1 | 36x1,5 | 28 | -1636 | |
| 25 | 1 | 39x1,5 | 30 | -1639 | |
| 25 | 1 | 45x1,5 | 35 | -1645 | |
| 31 | 1.1/4 | 45x1,5 | 35 | -2045 | |

METRIC

T7680
(T768)

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



| HOSE SIZE | THRD SIZE | DASH SIZE | METRIC FEMALE 60° CONCAVE SEAT (JIS) |
|-----------|-----------|-----------|--------------------------------------|
| DN | inch | inch | PART NO |
| 10 | 3/8 | 18x1,5 | -0618 |
| 12 | 1/2 | 22x1,5 | -0822 |
| 12 | 1/2 | 24x1,5 | -0824 |
| 16 | 5/8 | 24x1,5 | -1024 |
| 19 | 3/4 | 24x1,5 | -1224 |
| 19 | 3/4 | 30x1,5 | -1230 |
| 25 | 1 | 33x1,5 | -1633 |
| 25 | 1 | 36x1,5 | -1636 |
| 31 | 1.1/4 | 36x1,5 | -2036 |
| 31 | 1.1/4 | 42x1,5 | -2042 |
| 38 | 1.1/2 | 42x1,5 | -2442 |

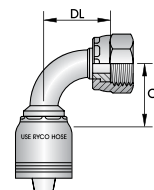
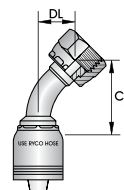
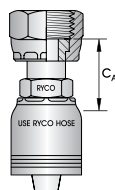
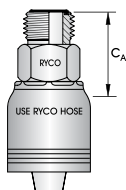
NOTE: These T7680 Series Couplings are also listed in the JIS section on page 222.

NOTE: Hose Compatibility for the T7000 series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

ORFS T7840 (T784) T7800 (T780) T7810 (T781) T7823 (T782S)

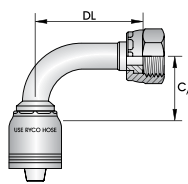
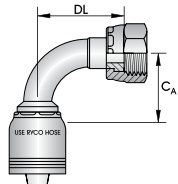
O RING
FACE SEAL



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS MALE | | | ORFS FEMALE | | | ORFS FEMALE 45° TUBE BEND | | | ORFS FEMALE 90° SHORT BEND | | |
|-----------|-------|-----------|-----------|-----------|-------------------|----------------|-------------------|----------------|-------------------|----------------|---------------------------|-------------------|----------------|----------------------------|--|--|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | | |
| 10 | 3/8 | 11/16 | 3/8 | -0611 | T7840-0611 | 29 | T7800-0611 | 31 | T7810-0611 | 45 | 20 | | | | | |
| 10 | 3/8 | 13/16 | 1/2 | -0613 | | | | | T7810-0613 | 40 | 17 | | | | | |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | T7840-0813 | 33 | T7800-0813 | 34 | T7810-0813 | 49 | 19 | | | | | |
| 12 | 1/2 | 1 | 5/8 | -0816 | | | T7800-0816 | 40 | T7810-0816 | 46 | 19 | | | | | |
| 12 | 1/2 | 1.3/16 | 3/4 | -0819 | | | T7800-0819 | 43 | | | | | | | | |
| 16 | 5/8 | 1 | 5/8 | -1016 | | | T7800-1016 | 38 | T7810-1016 | 59 | 20 | | | | | |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | T7840-1219 | 38 | T7800-1219 | 43 | T7810-1219 | 64 | 29 | T7823-1219 | 56 | 49 | | |
| 19 | 3/4 | 1.7/16 | 1 | -1223 | | | T7800-1223 | 52 | | | | | | | | |
| 25 | 1 | 1.7/16 | 1 | -1623 | T7840-1623 | 41 | T7800-1623 | 54 | T7810-1623 | 86 | 34 | T7823-1623 | 64 | 56 | | |
| 25 | 1 | 1.11/16 | 1.1/4 | -1627 | | | T7800-1627 | 59 | | | | | | | | |
| 31 | 1.1/4 | 1.11/16 | 1.1/4 | -2027 | T7840-2027 | 45 | T7800-2027 | 59 | T7810-2027 | 107 | 45 | T7823-2027 | | | | |
| 38 | 1.1/2 | 2 | 1.1/2 | -2432 | | | T7800-2432 | 66 | T7810-2432 | 126 | 53 | | | | | |

ORFS T7820 (T782) T7830 (T783)

O RING
FACE SEAL



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS FEMALE 90° MEDIUM BEND | | | ORFS FEMALE 90° LONG BEND | | |
|-----------|-------|-----------|-----------|-----------|-----------------------------|----------------|-----|---------------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL |
| 10 | 3/8 | 11/16 | 3/8 | -0611 | T7820-0611 | 32 | 38 | | | |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | T7820-0813 | 32 | 41 | | | |
| 12 | 1/2 | 1 | 5/8 | -0816 | T7820-0816 | 41 | 47 | | | |
| 12 | 1/2 | 1.3/16 | 3/4 | -0819 | T7820-0819 | 138 | 46 | | | |
| 16 | 5/8 | 1 | 5/8 | -1016 | T7820-1016 | 50 | 47 | | | |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | T7820-1219 | 51 | 59 | T7830-1219 | 55 | 96 |
| 25 | 1 | 1.7/16 | 1 | -1623 | T7820-1623 | 67 | 71 | T7830-1623 | 74 | 113 |
| 31 | 1.1/4 | 1.11/16 | 1.1/4 | -2027 | T7820-2027 | 84 | 90 | T7830-2027 | 86 | 129 |
| 38 | 1.1/2 | 2 | 1.1/2 | -2432 | T7820-2432 | 105 | 107 | | | |

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

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T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

RKVP

T7896

T7899

RKVP
HIGH PRESSURE



| HOSE SIZE | | | | RKVP SIZE | MAX WP | DASH SIZE | RKVP MALE | | RKVP FEMALE | |
|-----------|-------|----|-----|-----------|--------|-----------|-------------------|----------------|-------------------|----------------|
| DN | inch | mm | bar | | | | PART NO | C _A | PART NO | C _A |
| 10 | 3/8 | 10 | 450 | -0610 | | | T7896-0610 | 51 | T7899-0610 | 34 |
| 12 | 1/2 | 12 | 450 | -0812 | | | T7896-0812 | 53 | T7899-0812 | 37 |
| 16 | 5/8 | 20 | 420 | -1020 | | | T7896-1020 | 57 | T7899-1020 | 38 |
| 19 | 3/4 | 20 | 420 | -1220 | | | T7896-1220 | 56 | T7899-1220 | 39 |
| 25 | 1 | 25 | 420 | -1625 | | | T7896-1625 | 51 | T7899-1625 | 47 |
| 31 | 1.1/4 | 32 | 420 | -2032 | | | T7896-2032 | 70 | T7899-2032 | 57 |
| 38 | 1.1/2 | 40 | 420 | -2440 | | | T7896-2440 | 88 | T7899-2440 | 61 |
| 51 | 2 | 50 | 420 | -3250 | | | T7896-3250 | 85 | T7899-3250 | 63 |
| 63 | 2.1/2 | 63 | 350 | -4063 | | | T7896-4063 | 111 | T7899-4063 | 78 |

RKVF

T7890

T7894

RKVF
HIGH FLOW



| HOSE SIZE | | | | RKVF SIZE | MAX WP | DASH SIZE | RKVF MALE | | RKVF FEMALE | |
|-----------|-------|----|-----|-----------|--------|-----------|-------------------|----------------|-------------------|----------------|
| DN | inch | mm | bar | | | | PART NO | C _A | PART NO | C _A |
| 51 | 2 | 50 | 165 | -3250 | | | T7890-3250 | 77 | T7894-3250 | 54 |
| 63 | 2.1/2 | 63 | 70 | -4063 | | | T7890-4063 | 77 | T7894-4063 | 53 |

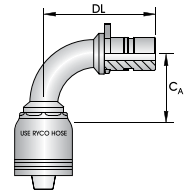
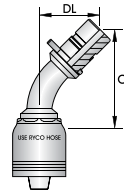
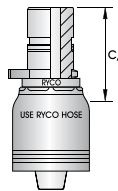
RYCO WEO

T7480 (T748)

T7482 (T748B)

T7483 (T748C)

WEO



| HOSE SIZE | | | PLUG-IN SIZE | | MAX WORKING PRESSURE | | RYCO WEO MALE | | RYCO WEO MALE 45° TUBE BEND | | | RYCO WEO MALE 90° TUBE BEND | | |
|-----------|------|------|--------------|------|----------------------|------|-------------------|----------------|-----------------------------|----------------|----|-----------------------------|----------------|----|
| DN | Dash | inch | DN | inch | bar | psi | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 10 | -06 | 3/8 | 10 | 3/8 | 350 | 5100 | T7480-0606 | 35 | T7482-0606 | 55 | 27 | T7483-0606 | 35 | 52 |
| 12 | -08 | 1/2 | 12 | 1/2 | 350 | 5100 | T7480-0808 | 36 | T7482-0808 | 59 | 31 | T7483-0808 | 38 | 58 |
| 16 | -10 | 5/8 | 19 | 3/4 | 350 | 5100 | T7480-1012 | 45 | T7482-1012 | 72 | 40 | T7483-1012 | 44 | 73 |
| 19 | -12 | 3/4 | 19 | 3/4 | 350 | 5100 | T7480-1212 | 45 | T7482-1212 | 82 | 43 | T7483-1212 | 54 | 82 |
| 25 | -16 | 1 | 25 | 1 | 250 | 3600 | T7480-1616 | 56 | T7482-1616 | 105 | 53 | T7483-1616 | 72 | 97 |

NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

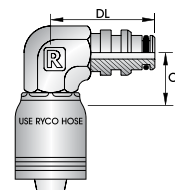
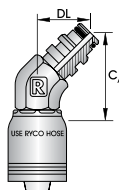
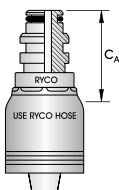
STAPLELOK

T7870
(T787)

T7871
(T788)

T7872
(T789)

STAPLE
O RING & BACK UP RING
SUPPLIED

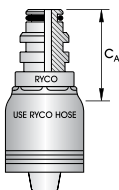


| HOSE SIZE | | STAPLE SIZE | DASH SIZE | STAPLELOK MALE | STAPLELOK MALE 45° ELBOW | | | STAPLELOK MALE 90° ELBOW | | | |
|-----------|-------|-------------|-----------|-------------------|--------------------------|-------------------|----------------|--------------------------|-------------------|----------------|-----|
| DN | inch | mm | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 10 | 3/8 | 10 | -0610 | T7870-0610 | 38 | T7871-0610 | 43 | 28 | T7872-0610 | 21 | 46 |
| 12 | 1/2 | 12 | -0812 | T7870-0812 | 41 | T7871-0812 | 47 | 28 | T7872-0812 | 31 | 50 |
| 16 | 5/8 | 16 | -1016 | T7870-1016 | 39 | T7871-1016 | 45 | 28 | T7872-1016 | 33 | 53 |
| 19 | 3/4 | 20 | -1220 | T7870-1220 | 38 | T7871-1220 | 57 | 33 | T7872-1220 | 35 | 56 |
| 25 | 1 | 25 | -1625 | T7870-1625 | 50 | T7871-1625 | 63 | 37 | T7872-1625 | 45 | 84 |
| 31 | 1.1/4 | 32 | -2032 | T7870-2032 | 50 | T7871-2032 | 65 | 37 | T7872-2032 | 50 | 68 |
| 38 | 1.1/2 | 40 | -2440 | T7870-2440 | 57 | T7871-2440 | 82 | 44 | T7872-2440 | 61 | 85 |
| 51 | 2 | 50 | -3250 | T7870-3250 | 58 | T7871-3250 | 87 | 46 | T7872-3250 | 64 | 95 |
| 63 | 2.1/2 | 63 | -4063 | T7870-4063 | 93 | T7871-4063 | 112 | 69 | T7872-4063 | 80 | 137 |

SUPERLOK

T7876
(T787S)

SUPERSTAPLE
O RING & BACK UP RING
SUPPLIED



| HOSE SIZE | | STAPLE SIZE | DASH SIZE | RYCO SUPERLOK MALE | |
|-----------|-------|-------------|-----------|--------------------|----------------|
| DN | inch | mm | | PART NO | C _A |
| 12 | 1/2 | 12 | -0813 | T7876-0812 | 41 |
| 16 | 5/8 | 16 | -1016 | T7876-1016 | |
| 19 | 3/4 | 20 | -1220 | T7876-1220 | 47 |
| 25 | 1 | 25 | -1625 | T7876-1625 | 55 |
| 31 | 1.1/4 | 32 | -2032 | T7876-2032 | 71 |
| 38 | 1.1/2 | 40 | -2440 | T7876-2440 | 78 |
| 51 | 2 | 50 | -3250 | T7876-3250 | 78 |

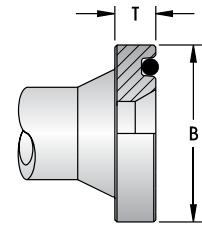
NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

| NOMINAL FLANGE | CODE 61 | | | | CODE 62 | | | | CODE 62C | | | |
|----------------|---------|------|------|-------|---------|------|-------|-------|----------|------|-------|-------|
| | B | | T | | B | | T | | B | | T | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/2 | 30,2 | 1.19 | 6,73 | 0.265 | 31,8 | 1.25 | 7,75 | 0.305 | | | | |
| *5/8 | 34,0 | 1.34 | 6,73 | 0.265 | | | | | | | | |
| 3/4 | 38,1 | 1.50 | 6,73 | 0.265 | 41,3 | 1.63 | 8,76 | 0.345 | 41,3 | 1.63 | 14,20 | 0.559 |
| 1 | 44,5 | 1.75 | 8,00 | 0.315 | 47,6 | 1.88 | 9,53 | 0.375 | 47,6 | 1.88 | 14,20 | 0.559 |
| 1.1/4 | 50,8 | 2.00 | 8,00 | 0.315 | 54,0 | 2.12 | 10,29 | 0.405 | 54,0 | 2.12 | 14,20 | 0.559 |
| 1.1/2 | 60,3 | 2.38 | 8,00 | 0.315 | 63,5 | 2.50 | 12,57 | 0.495 | 63,5 | 2.50 | 14,20 | 0.559 |
| 2 | 71,4 | 2.81 | 9,53 | 0.375 | 79,4 | 3.13 | 12,57 | 0.495 | 79,4 | 3.13 | 14,20 | 0.559 |
| 2.1/2 | 84,1 | 3.31 | 9,53 | 0.375 | | | | | | | | |
| 3 | 101,6 | 4.00 | 9,53 | 0.375 | | | | | | | | |



NOTE: *5/8 is used by Komatsu.

RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

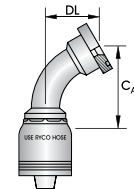
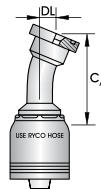
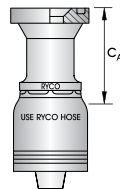
SAE FLANGE

T7130
(T713)

T7140
(T714)

T7150
(T715)

T7300
(T730)



RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
***(5/8 KOMATSU)**
O RING NOT SUPPLIED

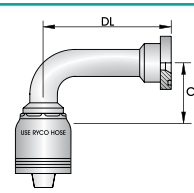
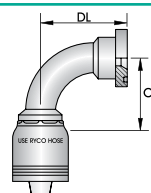
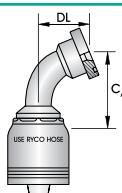
| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE | CODE 61 FLANGE 22.5° TUBE BEND | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 60° TUBE BEND | | | | | | | |
|-----------|-------|------------------|-----------|-------------------|--------------------------------|------------------------------|------------------------------|----|-------------------|----------------|----|-------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 12 | 1/2 | 1/2 | -0808 | T7130-0808 | 45 | | | | T7150-0808 | 49 | 20 | | | |
| 12 | 1/2 | 3/4 | -0812 | T7130-0812 | 47 | | | | T7150-0812 | 51 | 24 | | | |
| 19 | 3/4 | *5/8 | -1210 | T7130-1210 | 45 | | | | T7150-1210 | 56 | 26 | | | |
| 19 | 3/4 | 3/4 | -1212 | T7130-1212 | 46 | T7140-1212 | 72 | 12 | T7150-1212 | 65 | 26 | T7300-1212 | 78 | 37 |
| 19 | 3/4 | 1 | -1216 | T7130-1216 | 50 | T7140-1216 | 82 | 18 | T7150-1216 | 69 | 30 | T7300-1216 | 80 | 41 |
| 19 | 3/4 | 1.1/4 | -1220 | T7130-1220 | 56 | | | | | | | | | |
| 25 | 1 | 1 | -1616 | T7130-1616 | 52 | T7140-1616 | 93 | 14 | T7150-1616 | 81 | 30 | T7300-1616 | 99 | 46 |
| 25 | 1 | 1.1/4 | -1620 | T7130-1620 | 57 | T7140-1620 | 94 | 17 | T7150-1620 | 83 | 32 | T7300-1620 | 97 | 45 |
| 25 | 1 | 1.1/2 | -1624 | T7130-1624 | 84 | | | | | | | | | |
| 31 | 1.1/4 | 1 | -2016 | T7130-2016 | 85 | | | | T7150-2016 | 88 | 30 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7130-2020 | 59 | T7140-2020 | 107 | 16 | T7150-2020 | 100 | 36 | T7300-2020 | 119 | 51 |
| 31 | 1.1/4 | 1.1/2 | -2024 | T7130-2024 | 85 | T7140-2024 | 116 | 20 | T7150-2024 | 103 | 38 | T7300-2024 | 121 | 54 |
| 38 | 1.1/2 | 1.1/4 | -2420 | T7130-2420 | 59 | | | | | | | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7130-2424 | 85 | T7140-2424 | 118 | 24 | T7150-2424 | 115 | 42 | T7300-2424 | 144 | 60 |
| 38 | 1.1/2 | 2 | -2432 | T7130-2432 | 95 | T7140-2432 | 134 | 27 | T7150-2432 | 120 | 47 | T7300-2432 | 147 | 68 |
| 51 | 2 | 2 | -3232 | T7130-3232 | 101 | T7140-3232 | 156 | 56 | T7150-3232 | 150 | 58 | T7300-3232 | 181 | 82 |
| 51 | 2 | 2.1/2 | -3240 | T7130-3240 | 101 | | | | | | | | | |
| 63 | 2.1/2 | 2.1/2 | -4040 | T7130-4040 | 79 | | | | T7150-4040 | | | | | |

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

| SAE FLANGE | T7290 (T729) | T7160 (T716) | T7170 (T717) | T7171 (T717A) |
|------------|-----------------|-----------------|-----------------|------------------|
|------------|-----------------|-----------------|-----------------|------------------|

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
*(5/8 KOMATSU)
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE 30° TUBE BEND | | | CODE 61 FLANGE 67.5° TUBE BEND | | | CODE 61 FLANGE 90° TUBE BEND | | | CODE 61 FLANGE 90° SPECIAL TUBE BEND | | |
|-----------|-------|------------------|-----------|------------------------------|----------------|----|--------------------------------|----------------|----|------------------------------|----------------|-----|--------------------------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 12 | 1/2 | 1/2 | -0808 | | | | | | | T7170-0808 | 42 | 41 | | | |
| 12 | 1/2 | 3/4 | -0812 | | | | | | | T7170-0812 | 42 | 46 | T7171-0812 | 51 | 73 |
| 19 | 3/4 | *5/8 | -1210 | | | | | | | T7170-1210 | 51 | 48 | | | |
| 19 | 3/4 | 3/4 | -1212 | T7290-1212 | 70 | 18 | T7160-1212 | 76 | 45 | T7170-1212 | 55 | 54 | | | |
| 19 | 3/4 | 1 | -1216 | | | | T7160-1216 | 78 | 49 | T7170-1216 | 55 | 60 | T7171-1216 | 55 | 79 |
| 25 | 1 | 3/4 | -1612 | | | | | | | T7170-1612 | 60 | 54 | | | |
| 25 | 1 | 1 | -1616 | T7290-1616 | 94 | 22 | T7160-1616 | 88 | 50 | T7170-1616 | 68 | 68 | | | |
| 25 | 1 | 1.1/4 | -1620 | | | | T7160-1620 | 88 | 52 | T7170-1620 | 70 | 69 | | | |
| 25 | 1 | 1.1/2 | -1624 | | | | | | | T7170-1624 | 68 | 73 | | | |
| 31 | 1.1/4 | 1 | -2016 | | | | | | | T7170-2016 | 78 | 68 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7290-2020 | 104 | 20 | T7160-2020 | 132 | 67 | T7170-2020 | 88 | 78 | | | |
| 31 | 1.1/4 | 1.1/2 | -2024 | T7290-2024 | 110 | 23 | T7160-2024 | 133 | 68 | T7170-2024 | 88 | 81 | T7171-2024 | 84 | 79 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7290-2424 | 118 | 26 | T7160-2424 | 131 | 70 | T7170-2424 | 104 | 93 | | | |
| 38 | 1.1/2 | 2 | -2432 | T7290-2432 | 130 | 32 | T7160-2432 | 134 | 79 | T7170-2432 | 104 | 99 | T7171-2432 | 103 | 114 |
| 51 | 2 | 2 | -3232 | T7290-3232 | 149 | 30 | T7160-3232 | 169 | 93 | T7170-3232 | 137 | 130 | T7171-3232 | 138 | 165 |
| 51 | 2 | 2.1/2 | -3240 | | | | | | | T7170-3240 | 141 | 134 | | | |
| 63 | 2.1/2 | 2.1/2 | -4040 | | | | | | | T7170-4040 | | | | | |

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE FLANGE

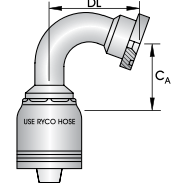
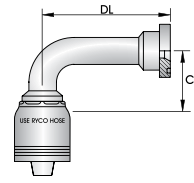
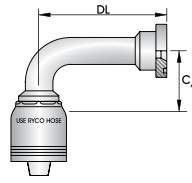
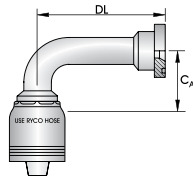
T7172
(T717B)

T7173
(T717L)

T7174
(T717D)

T7910
(T791)

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



| HOSE SIZE | | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE 90° SPECIAL TUBE BEND | CODE 61 FLANGE 90° LONG TUBE BEND | CODE 61 FLANGE 90° SPECIAL TUBE BEND | CODE 61 FLANGE 110° TUBE BEND | | | | | | | | |
|-----------|-------|-------|------------------|-------------------|--------------------------------------|-----------------------------------|--------------------------------------|-------------------------------|----------------|-------------------|---------|----------------|-------------------|---------|----------------|----|
| DN | inch | inch | | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | T7172-1212 | 56 | 96 | T7173-1212 | 55 | 78 | T7174-1212 | 55 | 96 | T7910-1212 | 75 | 63 | |
| 25 | 1 | 1 | -1616 | T7172-1616 | 71 | 67 | T7173-1616 | 71 | 94 | T7174-1616 | 70 | 118 | T7910-1616 | 82 | 80 | |
| 25 | 1 | 1.1/4 | -1620 | | | | T7173-1620 | 67 | 93 | T7174-1620 | 68 | 118 | T7910-1620 | 82 | 85 | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7172-2020 | 84 | 92 | T7173-2020 | 80 | 108 | T7174-2020 | 85 | 130 | T7910-2020 | 90 | 95 | |
| 31 | 1.1/4 | 1.1/2 | -2024 | | | | | | | | | | T7910-2024 | 90 | 98 | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7172-2424 | 103 | 148 | | | | T7174-2424 | 103 | 148 | T7910-2424 | 148 | 116 | |
| 38 | 1.1/2 | 2 | -2432 | | | | | | | | | | T7910-2432 | 149 | 107 | |
| 51 | 2 | 2 | -3232 | | | | | | | T7174-3232 | 136 | 203 | T7910-3232 | 149 | 142 | |

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

SAE FLANGE

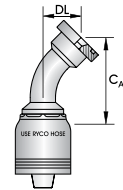
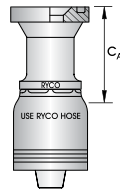
T7330
(T733)

T7440
(T744)

T7450
(T745)

T7350
(T735)

RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



| HOSE SIZE | | | NOM. FLANGE SIZE | DASH SIZE | CODE 62 FLANGE | CODE 62 FLANGE 22.5° TUBE BEND | CODE 62 FLANGE 30° TUBE BEND | CODE 62 FLANGE 45° TUBE BEND | | | | | | | |
|-----------|-------|-------|------------------|-------------------|----------------|--------------------------------|------------------------------|------------------------------|-------------------|---------|----------------|-------------------|---------|----------------|----|
| DN | inch | inch | | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 12 | 1/2 | 1/2 | -0808 | T7330-0808 | 45 | | | | | | | | | | |
| 12 | 1/2 | 3/4 | -0812 | T7330-0812 | 57 | | | | | | | | | | |
| 16 | 5/8 | 1/2 | -1008 | T7330-1008 | 45 | | | | | | | | | | |
| 16 | 5/8 | 3/4 | -1012 | T7330-1012 | 51 | | | | | | | | | | |
| 19 | 3/4 | 3/4 | -1212 | T7330-1212 | 51 | T7440-1212 | 77 | 16 | T7450-1212 | 70 | 19 | T7350-1212 | 66 | 28 | |
| 19 | 3/4 | 1 | -1216 | T7330-1216 | 54 | T7440-1216 | 81 | 18 | | | | T7350-1216 | 70 | 31 | |
| 25 | 1 | 3/4 | -1612 | T7330-1612 | 53 | | | | | | | T7350-1612 | 72 | 28 | |
| 25 | 1 | 1 | -1616 | T7330-1616 | 52 | T7440-1616 | 89 | 16 | T7450-1616 | 88 | 22 | T7350-1616 | 82 | 31 | |
| 25 | 1 | 1.1/4 | -1620 | T7330-1620 | 57 | | | | T7450-1620 | 88 | 25 | T7350-1620 | 85 | 34 | |
| 31 | 1.1/4 | 1 | -2016 | T7330-2016 | 85 | | | | | | | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7330-2020 | 59 | T7440-2020 | 107 | 17 | T7450-2020 | 107 | 22 | T7350-2020 | 102 | 38 | |
| 31 | 1.1/4 | 1.1/2 | -2024 | T7330-2024 | 85 | T7440-2024 | 137 | 22 | T7450-2024 | 112 | 25 | T7350-2024 | 106 | 41 | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7330-2424 | 85 | T7440-2424 | 126 | 24 | T7450-2424 | 134 | 33 | T7350-2424 | 118 | 45 | |
| 38 | 1.1/2 | 2 | -2432 | T7330-2432 | 95 | | | | | | | T7350-2432 | 120 | 50 | |
| 51 | 2 | 2 | -3232 | T7330-3232 | 95 | T7440-3232 | 162 | 28 | | | | T7350-3232 | 152 | 60 | |

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

NOTE: Hose Compatibility for the T7000 series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE FLANGE

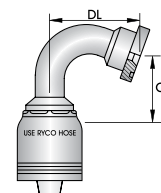
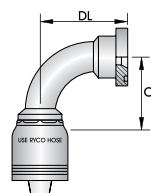
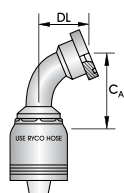
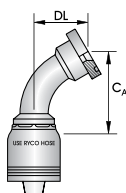
T7460
(T746)

T7360
(T736)

T7370
(T737)

T7930
(T793)

RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 62 FLANGE 60° TUBE BEND | | | CODE 62 FLANGE 67.5° TUBE BEND | | | CODE 62 FLANGE 90° TUBE BEND | | | CODE 62 FLANGE 110° TUBE BEND | | |
|-----------|-------|------------------|-----------|------------------------------|----------------|----|--------------------------------|----------------|----|------------------------------|----------------|-----|-------------------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 12 | 1/2 | 1/2 | -0808 | | | | | | | T7370-0808 | 42 | 42 | | | |
| 12 | 1/2 | 3/4 | -0812 | | | | | | | T7370-0812 | 42 | 46 | | | |
| 19 | 3/4 | 3/4 | -1212 | T7460-1212 | 80 | 36 | T7360-1212 | 77 | 47 | T7370-1212 | 55 | 56 | | | |
| 19 | 3/4 | 1 | -1216 | T7460-1216 | 82 | 37 | T7360-1216 | 78 | 57 | T7370-1216 | 55 | 61 | | | |
| 25 | 1 | 3/4 | -1612 | | | | | | | T7370-1612 | 60 | 56 | | | |
| 25 | 1 | 1 | -1616 | T7460-1616 | 96 | 44 | T7360-1616 | 89 | 51 | T7370-1616 | 68 | 70 | | | |
| 25 | 1 | 1.1/4 | -1620 | T7460-1620 | 97 | 46 | T7360-1620 | 93 | 72 | T7370-1620 | 70 | 71 | | | |
| 31 | 1.1/4 | 1 | -2016 | | | | | | | T7370-2016 | 78 | 70 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7460-2020 | 99 | 46 | T7360-2020 | 133 | 72 | T7370-2020 | 88 | 80 | | | |
| 31 | 1.1/4 | 1.1/2 | -2024 | T7460-2024 | 122 | 58 | T7360-2024 | 137 | 74 | T7370-2024 | 88 | 86 | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7460-2424 | 155 | 71 | | | | T7370-2424 | 104 | 98 | T7930-2424 | 149 | 117 |
| 38 | 1.1/2 | 2 | -2432 | | | | | | | T7370-2432 | 104 | 104 | T7930-2432 | 150 | 108 |
| 51 | 2 | 2 | -3232 | | | | | | | T7370-3232 | 137 | 131 | T7930-3232 | 150 | 143 |

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

SPECIAL FLANGE

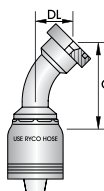
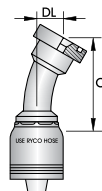
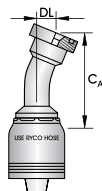
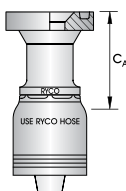
T7333
(T733C)

T7443
(T744C)

T7453
(T745C)

T7353
(T735C)

RYCO
CODE 62C
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | RYCO CODE 62C FLANGE | | | RYCO CODE 62C FLANGE 22.5° TUBE BEND | | | RYCO CODE 62C FLANGE 30° TUBE BEND | | | RYCO CODE 62C FLANGE 45° TUBE BEND | | |
|-----------|-------|------------------|-----------|----------------------|----------------|----|--------------------------------------|----------------|----|------------------------------------|----------------|----|------------------------------------|-----|----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | CA | DL |
| 19 | 3/4 | 3/4 | -1212 | T7333-1212 | 62 | | T7443-1212 | 82 | 19 | T7453-1212 | 81 | 23 | T7353-1212 | 69 | 31 |
| 19 | 3/4 | 1 | -1216 | T7333-1216 | 62 | | T7443-1216 | 85 | 20 | | | | T7353-1216 | 72 | 33 |
| 25 | 1 | 1 | -1616 | T7333-1616 | 64 | | T7443-1616 | 89 | 16 | T7453-1616 | 108 | 24 | T7353-1616 | 83 | 35 |
| 25 | 1 | 1.1/4 | -1620 | T7333-1620 | 71 | | T7443-1620 | 93 | 16 | T7453-1620 | 111 | 25 | T7353-1620 | 81 | 37 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7333-2020 | 86 | | T7443-2020 | 107 | 17 | T7453-2020 | 115 | 25 | T7353-2020 | 104 | 41 |
| 31 | 1.1/4 | 1.1/2 | -2024 | T7333-2024 | 86 | | T7443-2024 | 137 | 22 | T7453-2024 | 114 | 26 | T7353-2024 | 105 | 41 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7333-2424 | 88 | | T7443-2424 | 126 | 24 | T7453-2424 | 116 | 30 | T7353-2424 | 119 | 46 |
| 51 | 2 | 2 | -3232 | T7333-3232 | 97 | | | | | | | | T7353-3232 | 156 | 61 |

NOTE: These T7003 fittings have similar end styles to Caterpillar® XT-3 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-3™ Caterpillar®
For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

NOTE: Hose Compatibility for the T7000 series can be found on page 217.

COUPLINGS

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SPECIAL FLANGE

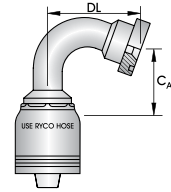
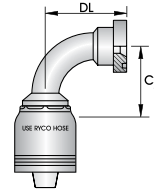
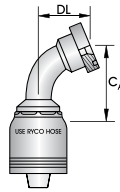
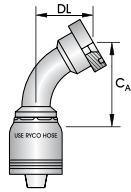
T7463
(T746C)

T7363
(T736C)

T7373
(T737C)

T7933
(T793C)

RYCO
CODE 62C
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | RYCO CODE 62C FLANGE 60° TUBE BEND | RYCO CODE 62C FLANGE 67.5° TUBE BEND | RYCO CODE 62C FLANGE 90° TUBE BEND | RYCO CODE 62C FLANGE 110° TUBE BEND | | | | | | | | |
|-----------|-------|------------------|-----------|------------------------------------|--------------------------------------|------------------------------------|-------------------------------------|----------------|----|-------------------|----------------|-----|-------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | T7463-1212 | 80 | 37 | T7363-1212 | 79 | 52 | T7373-1212 | 55 | 61 | | | |
| 19 | 3/4 | 1 | -1216 | T7463-1216 | 82 | 41 | T7363-1216 | 80 | 53 | T7373-1216 | 55 | 66 | | | |
| 25 | 1 | 1 | -1616 | T7463-1616 | 96 | 47 | T7363-1616 | 91 | 53 | T7373-1616 | 68 | 74 | | | |
| 25 | 1 | 1.1/4 | -1620 | T7463-1620 | 101 | 49 | T7363-1620 | 92 | 56 | T7373-1620 | 68 | 75 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7463-2020 | 120 | 56 | T7363-2020 | 113 | 67 | T7373-2020 | 85 | 83 | | | |
| 31 | 1.1/4 | 1.1/2 | -2024 | T7463-2024 | 145 | 66 | T7363-2024 | 136 | 76 | T7373-2024 | 86 | 85 | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7463-2424 | 144 | 68 | T7363-2424 | 136 | 77 | T7373-2424 | 99 | 99 | T7933-2424 | 140 | 120 |
| 51 | 2 | 2 | -3232 | | | | | | | T7272-3232 | 137 | 133 | | | |

NOTE: These **T7003** fittings have similar end styles to Caterpillar® XT-3 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-3™ Caterpillar®. For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 228.

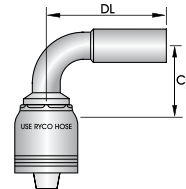
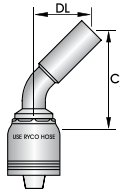
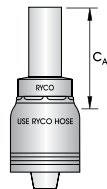
STANDPIPE

T7640
(T764)

T7643
(T764B)

T7646
(T764C)

METRIC



| HOSE SIZE | TUBE SIZE | DASH SIZE | METRIC STANDPIPE | METRIC STANDPIPE 45° TUBE BEND | METRIC STANDPIPE 90° TUBE BEND | | | | | |
|-----------|-----------|-----------|------------------|--------------------------------|--------------------------------|----------------|----|-------------------|----------------|----|
| DN | inch | mm | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 12 | 1/2 | 14 | -0814 | T7640-0814 | 40 | | | | | |
| 12 | 1/2 | 16 | -0816 | | | | | T7646-0816 | 41 | 53 |
| 19 | 3/4 | 20 | -1220 | T7640-1220 | 47 | | | | | |
| 19 | 3/4 | 25 | -1225 | | | | | | | |
| 25 | 1 | 25 | -1625 | | | | | | | |
| 31 | 1.1/4 | 30 | -2030 | T7640-2030 | 23 | | | | | |
| 31 | 1.1/4 | 38 | -2038 | T7640-2038 | 23 | | | | | |

NOTE: See page 337 for DKL and DKS Metric Nuts and Olives for use with Metric Standpipe Fittings.

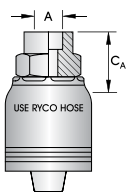
NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

T7000 (T700) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SALVAGE

T7230
(T723)

TUBE WELD



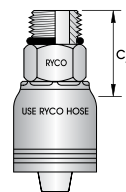
| HOSE SIZE | | A | DASH SIZE | SALVAGE (LIFESAVER) | |
|-----------|-------|-------|-----------|---------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 12 | 1/2 | 1/2 | -0808 | T7230-0808 | 19 |
| 12 | 1/2 | 5/8 | -0810 | T7230-0810 | 21 |
| 19 | 3/4 | 5/8 | -1210 | T7230-1210 | 21 |
| 19 | 3/4 | 3/4 | -1212 | T7230-1212 | 26 |
| 19 | 3/4 | 1 | -1216 | T7230-1216 | 21 |
| 25 | 1 | 3/4 | -1612 | T7230-1612 | 27 |
| 25 | 1 | 1 | -1616 | T7230-1616 | 26 |
| 25 | 1 | 1.1/4 | -1620 | T7230-1620 | 27 |
| 31 | 1.1/4 | 1 | -2016 | T7230-2016 | 29 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T7230-2020 | 31 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T7230-2424 | 34 |
| 51 | 2 | 2 | -3232 | T7230-3232 | 41 |

WARNING: Due to high pressures involved, special care must be taken when using **T7230** Salvage Couplings. See Clause 8 of the Terms & Conditions of Sale.

UNO (O RING BOSS)

T7200
(T720)

O RING SUPPLIED



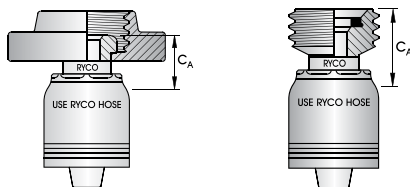
| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | UN O RING MALE | |
|-----------|------|-----------|-----------|-----------|-------------------|----------------|
| DN | inch | inch | inch | | PART NO | C _A |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T7200-1217 | 36 |
| 25 | 1 | 1.5/16 | 1 | -1621 | T7200-1621 | 39 |

HAMMER UNION

T71502

T71501

FIGURE 1502
STANDARD SERVICE



| HOSE SIZE | | THRD SIZE | DASH SIZE | FIG 1502 MALE (WITH NUT) | FIG 1502 FEMALE (WITH SEAL) |
|-----------|-------|-----------|-----------|--------------------------|-----------------------------|
| DN | inch | inch | | PART NO | C _A |
| 38 | 1.1/2 | 2 | -2432 | T71502-2432 | 110 |
| 51 | 2 | 2 | -3232 | T71502-3232 | 111 |

NOTE: Nut must be installed onto hose before coupling is installed and crimped. Replacement parts **RF1502N-32** nut and **RF1502W-32** Nitrile seal are available.

NOTE: Hose Compatibility for the **T7000** series can be found on page 217.

COUPLINGS

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR T9000 SERIES

NON-SKIVE

For RYCO Hose H5032, H6024, R4SH12, R4SH16.

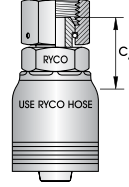
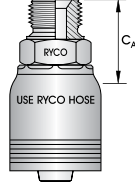
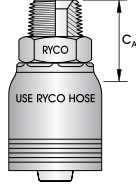
BSP

T9010
(T901)

T9013
(T901P)

T9020
(T902)

60° SEAT



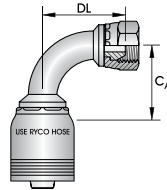
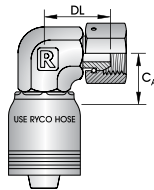
| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | BSPP MALE | BSPP FEMALE |
|-----------|-------------|-------------|-----------|-------------------|----------------------|-------------------|
| DN | inch | inch | | PART NO | C_A | PART NO |
| 19 | 3/4 | 3/4 | -1212 | T9010-1212 | 42 | T9013-1212 |
| 25 | 1 | 1 | -1616 | T9010-1616 | 49 | T9013-1616 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9010-2020 | 54 | T9013-2020 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9010-2424 | 61 | T9013-2424 |
| 51 | 2 | 2 | -3232 | T9010-3232 | 64 | T9013-3232 |

BSP

T9050
(T905)

T9260
(T926)

60° SEAT



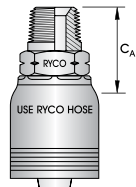
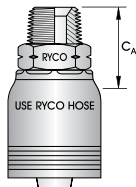
| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 90° ELBOW | BSPP FEMALE 90° TUBE BEND |
|-----------|-------------|-------------|-----------|-----------------------|---------------------------|
| DN | inch | inch | | PART NO | C_A |
| 19 | 3/4 | 3/4 | -1212 | T9050-1212 | 36 |
| 25 | 1 | 1 | -1616 | T9050-1616 | 40 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9050-2020 | 49 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9050-2424 | 59 |
| 51 | 2 | 2 | -3232 | T9050-3232 | 62 |

NPT

T9090
(T909)

T9091
(T909E)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT MALE | NPT MALE EXTENDED (API) |
|-----------|-------------|-------------|-----------|-------------------|-------------------------|
| DN | inch | inch | | PART NO | C_A |
| 19 | 3/4 | 3/4 | -1212 | T9090-1212 | 42 |
| 25 | 1 | 1 | -1616 | T9090-1616 | 49 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9090-2020 | 54 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9090-2424 | 55 |
| 51 | 2 | 2 | -3232 | T9090-3232 | 66 |

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

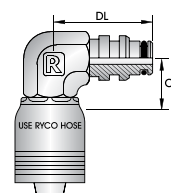
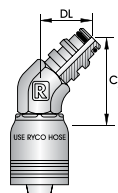
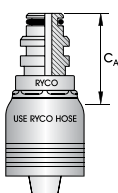
CROCBITE

T9880

T9881

T9882

CROCBITE
HIGH PRESSURE



| HOSE SIZE | | MWP | DASH SIZE | CROCBITE MALE | CROCBITE MALE 45° ELBOW | | | CROCBITE MALE 90° ELBOW | | | |
|-----------|-------|-----|-----------|-------------------|-------------------------|-------------------|----------------|-------------------------|-------------------|----------------|-----|
| DN | inch | bar | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 420 | -1220 | T9880-1220 | 47 | | | | | | |
| 25 | 1 | 420 | -1625 | T9880-1625 | 66 | | | | | | |
| 31 | 1.1/4 | 420 | -2032 | T9880-2032 | 68 | T9881-2032 | 77 | 50 | T9882-2032 | 52 | 94 |
| 38 | 1.1/2 | 420 | -2440 | T9880-2440 | 72 | T9881-2440 | 86 | 53 | T9882-2440 | 59 | 101 |
| 51 | 2 | 420 | -3250 | T9880-3250 | 102 | T9881-3250 | 114 | 73 | T9882-3250 | 73 | 135 |

JIC

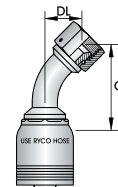
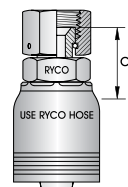
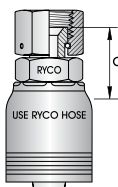
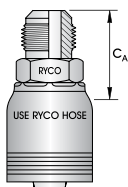
T9030 (T903)

T9040 (T904)

T9045 (T904V)

T9250 (T925)

37° FLARE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC MALE | JIC FEMALE | | JIC FEMALE HIGH PRESSURE | | JIC FEMALE 45° TUBE BEND | | | |
|-----------|-------|-----------|-----------|-----------|-------------------|----------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | T9030-1217 | 43 | T9040-1217 | 28 | | | T9250-1217 | 66 | 22 |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | | | T9040-1221 | 32 | | | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | T9030-1621 | 47 | T9040-1621 | 34 | T9045-1621 | 37 | T9250-1621 | 78 | 30 |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | T9030-2026 | 52 | T9040-2026 | 44 | T9045-2026 | 36 | T9250-2026 | 96 | 39 |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | T9030-2430 | 57 | T9040-2430 | 49 | T9045-2430 | 57 | T9250-2430 | 121 | 50 |
| 51 | 2 | 2.1/2 | 2 | -3240 | T9030-3240 | 73 | T9040-3240 | 60 | | | T9250-3240 | 156 | 63 |

JIC

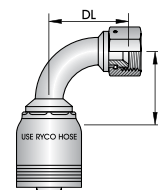
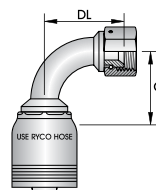
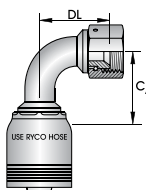
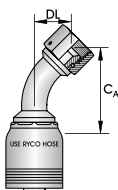
T9255 (T925V)

T9243 (T924S)

T9240 (T924)

T9245 (T924V)

37° FLARE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE HIGH PRESSURE 45° BEND | | | JIC FEMALE 90° SHORT BEND | | | JIC FEMALE 90° MEDIUM BEND | | | JIC FEMALE HIGH PRESSURE 90° MEDIUM BEND | | |
|-----------|-------|-----------|-----------|-----------|-----------------------------------|----------------|----|---------------------------|----------------|----|----------------------------|----------------|-----|--|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | | | | | | | T9240-1217 | 58 | 57 | | | |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | | | | | | | | | | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | T9255-1621 | 85 | 35 | | | | T9240-1621 | 69 | 72 | T9245-1621 | 69 | 72 |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | T9255-2026 | 104 | 43 | | | | T9240-2026 | 88 | 81 | T9245-2026 | 88 | 87 |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | T9255-2430 | 127 | 55 | | | | T9240-2430 | 104 | 106 | T9245-2430 | 103 | 111 |
| 51 | 2 | 2.1/2 | 2 | -3240 | | | | | | | T9240-3240 | 141 | 132 | | | |

NOTE: Hose Compatibility for the **T9000** series can be found on page 234.

COUPLINGS

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

METRIC

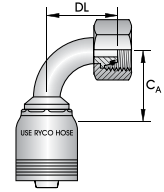
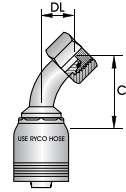
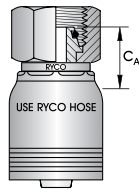
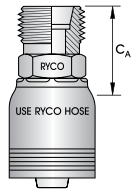
T9630
(T963)

T9711
(T971)

T9720
(T972)

T9730
(T973)

DKS/DKOS
METRIC O RING (HEAVY)



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | DKS MALE 24° CONE | DKOS FEMALE 24° CONE | DKOS FEMALE 24° CONE 45° TUBE BEND | DKOS FEMALE 24° CONE 90° TUBE BEND |
|-----------|-----------|-----------|-----------|-------------------|----------------------|------------------------------------|------------------------------------|
| DN | inch | inch | inch | PART NO | C _A | PART NO | C _A |
| 19 | 3/4 | 36x2,0 | 25 | -1236 | T9630-1236 | 40 | T9711-1236 |
| 25 | 1 | 42x2,0 | 30 | -1642 | T9630-1642 | 43 | T9711-1642 |
| 31 | 1.1/4 | 52x2,0 | 38 | -2052 | T9630-2052 | 48 | T9711-2052 |

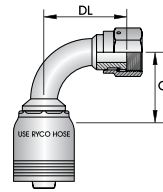
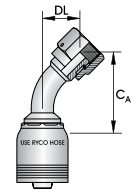
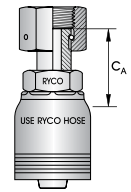
ORFS

T9800
(T980)

T9810
(T981)

T9820
(T982)

O RING
FACE SEAL



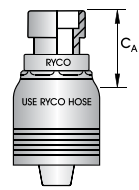
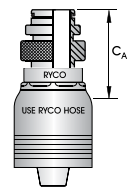
| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS FEMALE | ORFS FEMALE 45° TUBE BEND | ORFS FEMALE 90° MEDIUM BEND | |
|-----------|-----------|-----------|-----------|-------------|---------------------------|-----------------------------|-------------------|
| DN | inch | inch | inch | PART NO | C _A | PART NO | C _A |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | T9800-1219 | 44 | T9810-1219 |
| 25 | 1 | 1.7/16 | 1 | -1623 | T9800-1623 | 56 | T9810-1623 |
| 31 | 1.1/4 | 1.11/16 | 1.1/4 | -2027 | T9800-2027 | 59 | T9810-2027 |
| 38 | 1.1/2 | 2 | 1.1/2 | -2432 | T9800-2432 | 69 | |

RKVP

T9896

T9899

RKVP
HIGH PRESSURE



| HOSE SIZE | RKVP SIZE | MAX WP | DASH SIZE | RKVP MALE | RKVP FEMALE |
|-----------|-----------|--------|-----------|-----------|-------------------|
| DN | inch | mm | bar | PART NO | C _A |
| 19 | 3/4 | 20 | 420 | -1220 | T9896-1220 |
| 25 | 1 | 25 | 420 | -1625 | T9896-1625 |
| 31 | 1.1/4 | 32 | 420 | -2032 | T9896-2032 |
| 38 | 1.1/2 | 40 | 420 | -2440 | T9896-2440 |
| 51 | 2 | 50 | 420 | -3250 | T9896-3250 |

NOTE: Hose Compatibility for the **T9000** series can be found on page 234.

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

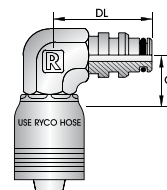
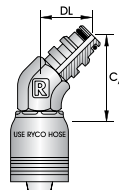
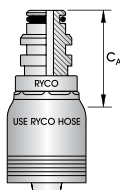
STAPLELOK

T9870
(T987)

T9871
(T988)

T9872
(T989)

STAPLE
O RING & BACK UP RING
SUPPLIED

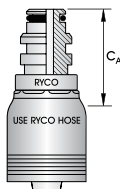


| HOSE SIZE | | STAPLE SIZE | DASH SIZE | STAPLELOK MALE | STAPLELOK MALE 45° ELBOW | | | STAPLELOK MALE 90° ELBOW | | | |
|-----------|-------|-------------|-----------|-------------------|--------------------------|-------------------|----------------|--------------------------|-------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 20 | -1220 | T9870-1220 | 39 | T9871-1220 | 59 | 33 | T9872-1220 | 37 | 56 |
| 25 | 1 | 25 | -1625 | T9870-1625 | 49 | T9871-1625 | 64 | 37 | T9872-1625 | 46 | 68 |
| 31 | 1.1/4 | 32 | -2032 | T9870-2032 | 49 | T9871-2032 | 65 | 37 | T9872-2032 | 48 | 68 |
| 38 | 1.1/2 | 40 | -2440 | T9870-2440 | 58 | T9871-2440 | 83 | 44 | T9872-2440 | 62 | 85 |
| 51 | 2 | 50 | -3250 | T9870-3250 | 58 | T9871-3250 | 91 | 46 | T9872-3250 | 67 | 95 |

SUPERLOK

T9876
(T987S)

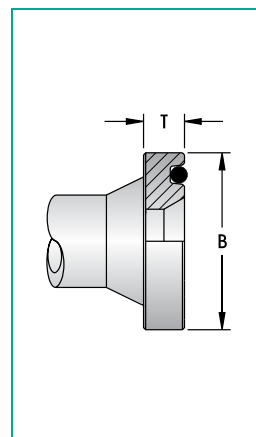
SUPERSTAPLE
O RING & BACK UP RING
SUPPLIED



| HOSE SIZE | | STAPLE SIZE | DASH SIZE | SUPERLOK MALE | |
|-----------|-------|-------------|-----------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 19 | 3/4 | 20 | -1220 | T9876-1220 | 48 |
| 25 | 1 | 25 | -1625 | T9876-1625 | 57 |
| 31 | 1.1/4 | 32 | -2032 | T9876-2032 | 71 |
| 38 | 1.1/2 | 40 | -2440 | T9876-2440 | 78 |
| 51 | 2 | 50 | -3250 | T9876-3250 | 83 |

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

| NOMINAL FLANGE | CODE 61 | | | | CODE 62 | | | | CODE 62C | | | |
|----------------|---------|------|------|-------|---------|------|-------|-------|----------|------|-------|-------|
| | B | | T | | B | | T | | B | | T | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/2 | 30,2 | 1.19 | 6,73 | 0.265 | 31,8 | 1.25 | 7,75 | 0.305 | | | | |
| *5/8 | 34,0 | 1.34 | 6,73 | 0.265 | | | | | | | | |
| 3/4 | 38,1 | 1.50 | 6,73 | 0.265 | 41,3 | 1.63 | 8,76 | 0.345 | 41,3 | 1.63 | 14,20 | 0.559 |
| 1 | 44,5 | 1.75 | 8,00 | 0.315 | 47,6 | 1.88 | 9,53 | 0.375 | 47,6 | 1.88 | 14,20 | 0.559 |
| 1.1/4 | 50,8 | 2.00 | 8,00 | 0.315 | 54,0 | 2.12 | 10,29 | 0.405 | 54,0 | 2.12 | 14,20 | 0.559 |
| 1.1/2 | 60,3 | 2.38 | 8,00 | 0.315 | 63,5 | 2.50 | 12,57 | 0.495 | 63,5 | 2.50 | 14,20 | 0.559 |
| 2 | 71,4 | 2.81 | 9,53 | 0.375 | 79,4 | 3.13 | 12,57 | 0.495 | 79,4 | 3.13 | 14,20 | 0.559 |
| 2.1/2 | 84,1 | 3.31 | 9,53 | 0.375 | | | | | | | | |
| 3 | 101,6 | 4.00 | 9,53 | 0.375 | | | | | | | | |



NOTE: *5/8 is used by Komatsu.
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

NOTE: Hose Compatibility for the **T9000** series can be found on page 234.

INTRODUCTION

HOSE

COUPLINGS

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ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SAE FLANGE

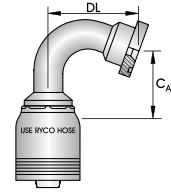
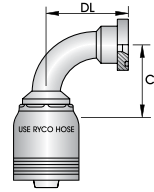
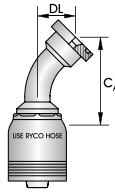
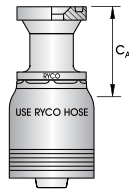
T9130
[T913]

T9150
[T915]

T9170
[T917]

T9910
[T991]

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND | CODE 61 FLANGE 110° TUBE BEND | | | | | | | |
|-----------|-------|------------------|-----------|-------------------|------------------------------|------------------------------|-------------------------------|----|-------------------|----------------|-----|-------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | T9130-1212 | 46 | T9150-1212 | 68 | 26 | T9170-1212 | 58 | 54 | | | |
| 25 | 1 | 1 | -1616 | T9130-1616 | 52 | T9150-1616 | 83 | 30 | T9170-1616 | 70 | 68 | | | |
| 25 | 1 | 1.1/4 | -1620 | T9130-1620 | 57 | T9150-1620 | 85 | 32 | T9170-1620 | 70 | 69 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9130-2020 | 59 | T9150-2020 | 99 | 36 | T9170-2020 | 87 | 78 | | | |
| 31 | 1.1/4 | 1.1/2 | -2024 | T9130-2024 | 85 | T9150-2024 | 102 | 38 | T9170-2024 | 87 | 81 | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9130-2424 | 86 | T9150-2424 | 116 | 42 | T9170-2424 | 105 | 93 | T9910-2424 | 148 | 107 |
| 38 | 1.1/2 | 2 | -2432 | T9130-2432 | 96 | T9150-2432 | 121 | 47 | T9170-2432 | 104 | 99 | T9910-2432 | 147 | 115 |
| 51 | 2 | 2 | -3232 | T9130-3232 | 100 | T9150-3232 | 154 | 58 | T9170-3232 | 148 | 130 | T9910-3232 | 166 | 136 |

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

SAE FLANGE

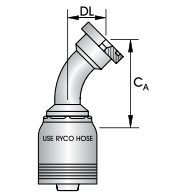
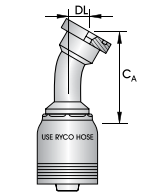
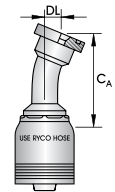
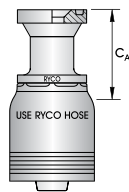
T9330
[T933]

T9440
[T944]

T9450
[T945]

T9350
[T935]

RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 62 FLANGE | CODE 62 FLANGE 22.5° TUBE BEND | CODE 62 FLANGE 30° TUBE BEND | CODE 62 FLANGE 45° TUBE BEND | | | | | | | |
|-----------|-------|------------------|-----------|-------------------|--------------------------------|------------------------------|------------------------------|----|-------------------|----------------|----|-------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | T9330-1212 | 53 | T9440-1212 | 80 | 16 | T9450-1212 | 73 | 19 | T9350-1212 | 69 | 28 |
| 19 | 3/4 | 1 | -1216 | T9330-1216 | 57 | | | | | | | T9350-1216 | 73 | 31 |
| 25 | 1 | 3/4 | -1612 | T9330-1612 | 54 | | | | | | | | | |
| 25 | 1 | 1 | -1616 | T9330-1616 | 57 | T9440-1616 | 91 | 16 | T9450-1616 | 90 | 22 | T9350-1616 | 84 | 31 |
| 25 | 1 | 1.1/4 | -1620 | T9330-1620 | 69 | | | | T9450-1620 | 90 | 25 | T9350-1620 | 85 | 34 |
| 31 | 1.1/4 | 1 | -2016 | T9330-2016 | 68 | | | | | | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9330-2020 | 69 | T9440-2020 | 108 | 17 | T9450-2020 | 108 | 22 | T9350-2020 | 101 | 38 |
| 31 | 1.1/4 | 1.1/2 | -2024 | T9330-2024 | 98 | T9440-2024 | 138 | 22 | T9450-2024 | 113 | 25 | T9350-2024 | 105 | 41 |
| 38 | 1.1/2 | 1.1/4 | -2420 | T9330-2420 | 70 | | | | | | | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9330-2424 | 100 | T9440-2424 | 127 | 24 | T9450-2424 | 135 | 33 | T9350-2424 | 119 | 45 |
| 38 | 1.1/2 | 2 | -2432 | T9330-2432 | 118 | | | | | | | T9350-2432 | 121 | 50 |
| 51 | 2 | 1.1/2 | -3224 | T9330-3224 | 105 | | | | | | | | | |
| 51 | 2 | 2 | -3232 | T9330-3232 | 122 | T9440-3232 | 167 | 28 | T9450-3232 | 165 | 40 | T9350-3232 | 157 | 60 |

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

NOTE: Hose Compatibility for the T9000 series can be found on page 234.

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

INTRODUCTION

HOSE

COUPLINGS

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TECHNICAL

SAE FLANGE

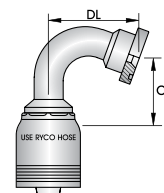
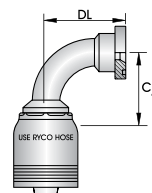
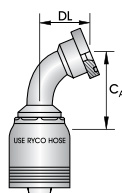
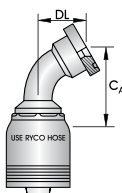
T9460
(T946)

T9360
(T936)

T9370
(T937)

T9930
(T993)

RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 62 FLANGE 60° TUBE BEND | | | CODE 62 FLANGE 67.5° TUBE BEND | | | CODE 62 FLANGE 90° TUBE BEND | | | CODE 62 FLANGE 110° TUBE BEND | | |
|-----------|-------|------------------|-----------|------------------------------|----------------|-----|--------------------------------|----------------|----|------------------------------|----------------|-----|-------------------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | T9460-1212 | 81 | 36 | T9360-1212 | 80 | 47 | T9370-1212 | 58 | 56 | | | |
| 19 | 3/4 | 1 | -1216 | | | | | | | T9370-1216 | 57 | 61 | | | |
| 25 | 1 | 3/4 | -1612 | | | | | | | T9370-1612 | 61 | 56 | | | |
| 25 | 1 | 1 | -1616 | T9460-1616 | 98 | 44 | T9360-1616 | 91 | 51 | T9370-1616 | 70 | 70 | | | |
| 25 | 1 | 1.1/4 | -1620 | T9460-1620 | 99 | 46 | T9360-1620 | 95 | 72 | T9370-1620 | 70 | 71 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9460-2020 | 100 | 46 | T9360-2020 | 134 | 72 | T9370-2020 | 87 | 80 | T9930-2020 | 89 | 97 |
| 31 | 1.1/4 | 1.1/2 | -2024 | T9460-2024 | 123 | 58 | T9360-2024 | 138 | 74 | T9370-2024 | 87 | 86 | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9460-2424 | 156 | 71 | | | | T9370-2424 | 105 | 98 | T9930-2424 | 119 | 142 |
| 38 | 1.1/2 | 2 | -2432 | T9460-2432 | 160 | 79 | | | | T9370-2432 | 104 | 104 | T9930-2432 | 143 | 122 |
| 51 | 2 | 2 | -3232 | T9460-3232 | 221 | 101 | | | | T9370-3232 | 165 | 131 | T9930-3232 | 170 | 143 |

NOTE: For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

SPECIAL FLANGE

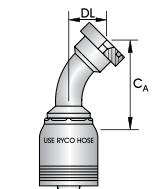
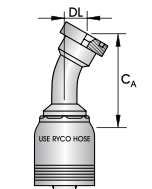
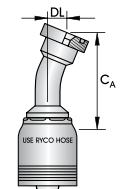
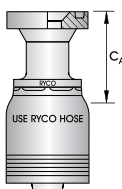
T9333
(T933C)

T9443
(T944C)

T9453
(T945C)

T9353
(T935C)

RYCO
CODE 62C
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | RYCO CODE 62C FLANGE | | RYCO CODE 62C FLANGE 22.5° TUBE BEND | | | RYCO CODE 62C FLANGE 30° TUBE BEND | | | RYCO CODE 62C FLANGE 45° TUBE BEND | | |
|-----------|-------|------------------|-----------|----------------------|----------------|--------------------------------------|----------------|----|------------------------------------|----------------|----|------------------------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | T9333-1212 | 88 | T9443-1212 | 80 | 16 | T9453-1212 | 84 | 23 | T9353-1212 | 72 | 31 |
| 25 | 1 | 1 | -1616 | T9333-1616 | 90 | T9443-1616 | 91 | 16 | T9453-1616 | 111 | 24 | T9353-1616 | 87 | 35 |
| 25 | 1 | 1.1/4 | -1620 | T9333-1620 | 90 | T9443-1620 | 95 | 16 | T9453-1620 | 114 | 25 | T9353-1620 | 84 | 37 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9333-2020 | 87 | T9443-2020 | 108 | 17 | T9453-2020 | 116 | 25 | T9353-2020 | 104 | 41 |
| 31 | 1.1/4 | 1.1/2 | -2024 | T9333-2024 | 87 | T9443-2024 | 138 | 22 | T9453-2024 | 115 | 26 | T9353-2024 | 106 | 41 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9333-2424 | 89 | T9443-2424 | 127 | 24 | T9453-2424 | 117 | 30 | T9353-2424 | 120 | 46 |
| 51 | 2 | 2 | -3232 | T9333-3232 | 110 | | | | | | | T9353-3232 | 159 | 61 |

NOTE: These T9000C fittings have similar end styles to Caterpillar® XT-5 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-5™ Caterpillar®.
For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

NOTE: Hose Compatibility for the T9000 series can be found on page 234.

COUPLINGS

T9000 (T900) SERIES BITELOK ONE-PIECE CRIMP COUPLINGS

SPECIAL FLANGE

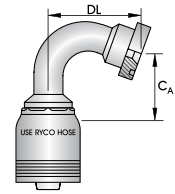
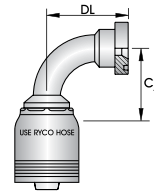
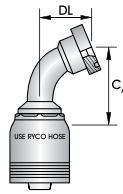
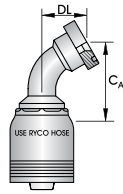
T9463
(T946C)

T9363
(T936C)

T9373
(T937C)

T9933
(T993C)

RYCO
CODE 62C
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



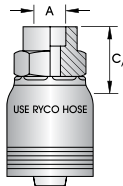
| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | RYCO CODE 62C FLANGE 60° TUBE BEND | RYCO CODE 62C FLANGE 67.5° TUBE BEND | RYCO CODE 62C FLANGE 90° TUBE BEND | RYCO CODE 62C FLANGE 110° TUBE BEND | | | | | | | | |
|-----------|-------|------------------|-----------|------------------------------------|--------------------------------------|------------------------------------|-------------------------------------|----------------|----|-------------------|----------------|-----|-------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | T9463-1212 | 87 | 46 | T9363-1212 | 82 | 52 | T9373-1212 | 58 | 63 | | | |
| 25 | 1 | 1 | -1616 | T9463-1616 | 99 | 47 | T9363-1616 | 94 | 53 | T9373-1616 | 70 | 74 | | | |
| 25 | 1 | 1.1/4 | -1620 | T9463-1620 | 104 | 49 | T9363-1620 | 95 | 56 | T9373-1620 | 70 | 75 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9463-2020 | 121 | 56 | T9363-2020 | 114 | 67 | T9373-2020 | 87 | 83 | | | |
| 31 | 1.1/4 | 1.1/2 | -2024 | T9463-2024 | 146 | 66 | T9363-2024 | 137 | 76 | T9373-2024 | 87 | 85 | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9463-2424 | 145 | 68 | T9363-2424 | 137 | 77 | T9373-2424 | 100 | 99 | T9933-2424 | 141 | 120 |
| 51 | 2 | 2 | -3232 | | | | | | | T9373-3232 | 165 | 133 | | | |

NOTE: These **T9000C** fittings have similar end styles to Caterpillar® XT-5 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-5™ Caterpillar®. For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

SALVAGE

T9230
(T923)

TUBE WELD



| HOSE SIZE | A | DASH SIZE | SALVAGE (LIFESAVER) | | |
|-----------|-------|-----------|---------------------|-------------------|----|
| DN | inch | inch | PART NO | C _A | |
| 19 | 3/4 | 3/4 | -1212 | T9230-1212 | 23 |
| 25 | 1 | 1 | -1616 | T9230-1616 | 27 |
| 31 | 1.1/4 | 1.1/4 | -2020 | T9230-2020 | 31 |
| 38 | 1.1/2 | 1.1/2 | -2424 | T9230-2424 | 34 |
| 51 | 2 | 2 | -3232 | T9230-3232 | 48 |

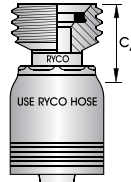
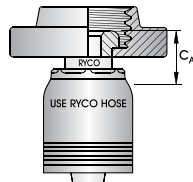
WARNING: Due to high pressures involved, special care must be taken when using **T9230** Salvage Couplings. See Clause 8 of the Terms & Conditions of Sale.

HAMMER UNION

T91502

T91501

FIGURE 1502
STANDARD SERVICE



| HOSE SIZE | THRD SIZE | DASH SIZE | FIG 1502 MALE (WITH NUT) | FIG 1502 FEMALE (WITH SEAL) | | | |
|-----------|-----------|-----------|--------------------------|-----------------------------|---------|--------------------|----|
| DN | inch | inch | PART NO | C _A | PART NO | C _A | |
| 38 | 1.1/2 | 2 | -2432 | T91502-2432 | 111 | T91501-2432 | 92 |
| 51 | 2 | 2 | -3232 | T91502-3232 | 115 | T91501-3232 | 96 |

NOTE: Nut must be installed onto hose before coupling is installed and crimped. Replacement parts **RF1502N-32** nut and **RF1502W-32** Nitrile seal are available.

NOTE: Hose Compatibility for the **T9000** series can be found on page 234.

TT000 ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR TT000 SERIES

For RYCO Hose Series RTH1.

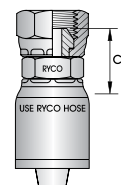
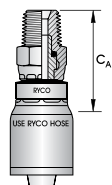
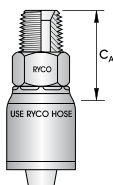
BSP

TT010

TT320

TT020

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | | BSPT MALE SWIVEL | | BSP FEMALE | |
|-----------|------|-----------|-----------|-------------------|----------------|-------------------|----------------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | TT010-0404 | 30 | | | TT020-0404 | 24 |
| 10 | 3/8 | 1/4 | -0604 | TT010-0604 | 33 | | | | |
| 10 | 3/8 | 3/8 | -0606 | TT010-0606 | 33 | | | TT020-0606 | 27 |
| 10 | 3/8 | 1/2 | -0608 | TT010-0608 | 38 | | | | |
| 12 | 1/2 | 3/8 | -0806 | TT010-0806 | 35 | | | | |
| 12 | 1/2 | 1/2 | -0808 | TT010-0808 | 40 | TT320-0808 | 55 | TT020-0808 | 29 |
| 16 | 5/8 | 1/2 | -1008 | | | | | TT020-1008 | 27 |
| 19 | 3/4 | 3/4 | -1212 | TT010-1212 | 42 | | | TT020-1212 | 27 |
| 25 | 1 | 1 | -1616 | TT010-1616 | 49 | | | TT020-1616 | 37 |

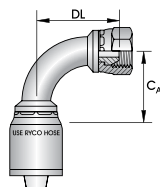
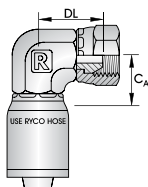
NOTE: This "Live Swivel" TT320 Series Insert is for Maximum Working Pressure: 350 bar (5100 psi): -08 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

BSP

TT050

TT260

60° SEAT



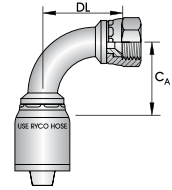
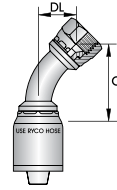
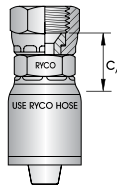
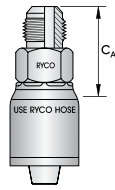
| HOSE SIZE | | THRD SIZE | DASH SIZE | BSP FEMALE 90° ELBOW | | | BSP FEMALE 90° BEND | | |
|-----------|------|-----------|-----------|----------------------|----------------|----|---------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | | | | TT260-0404 | 27 | 29 |
| 10 | 3/8 | 3/8 | -0606 | | | | TT260-0606 | 35 | 33 |
| 12 | 1/2 | 1/2 | -0808 | TT050-0808 | 29 | 31 | TT260-0808 | 40 | 45 |
| 19 | 3/4 | 3/4 | -1212 | | | | TT260-1212 | 55 | 58 |
| 25 | 1 | 1 | -1616 | | | | TT260-1616 | 62 | 62 |

COUPLINGS

TT000 ONE-PIECE CRIMP COUPLINGS

JIC TT030 TT040 TT250 TT240

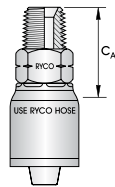
37° FLARE



| HOSE SIZE | | THRD SIZE | DASH SIZE | JIC MALE | JIC FEMALE | JIC FEMALE 45° BEND | JIC FEMALE 90° BEND | | | | | | |
|-----------|------|-----------|-----------|-------------------|----------------|---------------------|---------------------|-------------------|----------------|----|-------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | -0407 | TT030-0407 | 29 | TT040-0407 | 22 | | | | TT240-0407 | 26 | 32 |
| 6 | 1/4 | 1/2 | -0408 | TT030-0408 | 29 | TT040-0408 | 22 | | | | TT240-0408 | 26 | 32 |
| 6 | 1/4 | 9/16 | -0409 | TT030-0409 | 30 | TT040-0409 | 22 | | | | TT240-0409 | 26 | 38 |
| 10 | 3/8 | 9/16 | -0609 | TT030-0609 | 32 | TT040-0609 | 22 | TT250-0609 | 39 | 11 | TT240-0609 | 35 | 38 |
| 10 | 3/8 | 3/4 | -0612 | TT030-0612 | 35 | TT040-0612 | 24 | | | | TT240-0612 | 35 | 41 |
| 12 | 1/2 | 3/4 | -0812 | TT030-0812 | 37 | TT040-0812 | 25 | | | | TT240-0812 | 41 | 41 |
| 12 | 1/2 | 7/8 | -0814 | TT030-0814 | 39 | TT040-0814 | 27 | TT250-0814 | 48 | 18 | TT240-0814 | 41 | 47 |
| 16 | 5/8 | 7/8 | -1014 | | | TT040-1014 | 27 | | | | TT240-1014 | 48 | 47 |
| 16 | 5/8 | 1.1/16 | -1017 | | | TT040-1017 | 29 | | | | | | |
| 19 | 3/4 | 7/8 | -1214 | | | TT040-1214 | 29 | | | | | | |
| 19 | 3/4 | 1.1/16 | -1217 | | | TT040-1217 | 30 | | | | TT240-1217 | 55 | 57 |
| 25 | 1 | 1.5/16 | -1621 | | | TT040-1621 | 36 | | | | TT240-1621 | 68 | 73 |

NPT TT090

60° SEAT



| HOSE SIZE | THRD SIZE | DASH SIZE | NPT MALE | | |
|-----------|-----------|-----------|----------|-------------------|----|
| DN | inch | inch | PART NO | C _A | |
| 6 | 1/4 | 1/4 | -0404 | TT090-0404 | 30 |
| 10 | 3/8 | 3/8 | -0606 | TT090-0606 | 33 |
| 12 | 1/2 | 1/2 | -0808 | TT090-0808 | 40 |
| 19 | 3/4 | 3/4 | -1212 | TT090-1212 | 42 |
| 25 | 1 | 1 | -1616 | TT090-1616 | 48 |

NOTE: Hose Compatibility for the **TT000** series can be found on page 241.

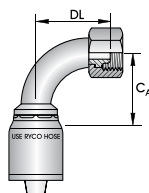
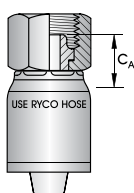
TT000 ONE-PIECE CRIMP COUPLINGS

METRIC

TT600

TT670

DKL 24°/60° CONE

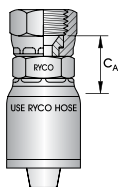


| HOSE SIZE | | THRD SIZE | DASH SIZE | DKL FEMALE 24°/60° CONE | | DKL FEMALE 24°/60° CONE 90° TUBE BEND | | |
|-----------|------|-----------|-----------|-------------------------|----------------|---------------------------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL |
| 12 | 1/2 | 1.3/8 | -0822 | TT600-0822 | 25 | TT670-0822 | 40 | 44 |

SAE

TT540

45° FLARE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | SAE FEMALE | |
|-----------|------|-----------|-----------|-----------|-------------------|----------------|
| DN | inch | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | TT540-0407 | 19 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | TT540-0408 | 19 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | TT540-0610 | 20 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | TT540-0612 | 22 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | TT540-0812 | 22 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | TT540-0814 | 26 |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | TT540-1014 | 25 |
| 19 | 3/4 | 7/8 | 5/8 | -1214 | TT540-1214 | 25 |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | TT540-1217 | 26 |

NOTE: Hose Compatibility for the **TT000** series can be found on page 241.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

TG000 ONE-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR TG000 SERIES

For RYCO Hose Series TPGL.

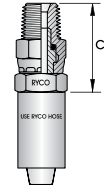
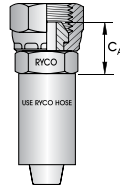
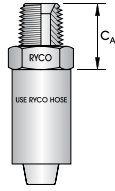
BSP

TG010

TG020

TG320

60° SEAT



| HOSE SIZE | | | | THRD SIZE | TUBE SIZE | DASH SIZE | BSPT MALE | BSPP FEMALE | BSPT MALE SWIVEL | | | |
|-----------|------|------|------|-----------|-----------|-----------|-------------------|----------------|-------------------|----------------|-------------------|----------------|
| DN | inch | inch | inch | | | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 4 | 1/8 | 1/8 | 1/8 | -0202 | | | TG010-0202 | 24 | TG020-0202 | 23 | TG320-0202 | 25 |

NOTE: This "Live Swivel" **TG320** Series Insert is for Maximum Working Pressure: 420 bar (6100 psi): -02 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

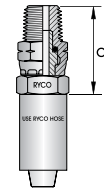
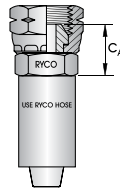
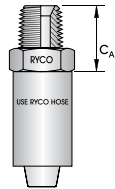
NPT

TG090

TG020N

TG320N

60° SEAT



| HOSE SIZE | | | | THRD SIZE | TUBE SIZE | DASH SIZE | NPT MALE | NPSM FEMALE | NPT MALE SWIVEL | | | |
|-----------|------|------|------|-----------|-----------|-----------|-------------------|----------------|--------------------|----------------|--------------------|----------------|
| DN | inch | inch | inch | | | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 4 | 1/8 | 1/8 | 1/8 | -0202 | | | TG090-0202 | 24 | TG020N-0202 | 23 | TG320N-0202 | 25 |

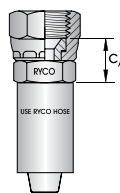
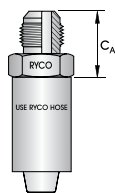
NOTE: This "Live Swivel" **TG320N** Series Insert is for Maximum Working Pressure: 420 bar (6100 psi): -02 Thread Size. Its swivel capability is to allow easy installation and orientation and avoid twisting of hose. It is not designed for continuous rotation or continuous movement.

JIC

TG030

TG040

37° FLARE



| HOSE SIZE | | | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC MALE | JIC FEMALE | | |
|-----------|------|------|------|-----------|-----------|-----------|-------------------|----------------|-------------------|----------------|
| DN | inch | inch | inch | | | | PART NO | C _A | PART NO | C _A |
| 4 | 1/8 | 7/16 | 1/4 | -0207 | | | TG030-0207 | 29 | TG040-0207 | 15 |

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

HOSE COMPATIBILITY FOR 69000N SERIES

INTERNAL AND EXTERNAL SKIVE

For RYCO Hose H6000 sizes -12 to -32.

Part No. is for Inserts only. Add prefix "6" to Part No. shown to include **69000N** Series Ferrule.

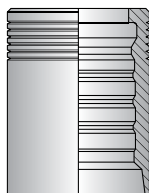
EXAMPLE: Part No. 9010N-1212 is Insert only. To include Ferrule as well as Insert, order Part No. 69010N-1212.

NOTE:

All **9000N** Female Swivel Nut Couplings are shown as "Wire Nut" or "Slip Nut". Some sizes of BSPP, JIC and Metric are "Crimp Nut". See note on page 157.

FERRULE

69000N
(6900N)



| HOSE SIZE | | DASH SIZE | FERRULE |
|-----------|-------|-----------|------------------|
| DN | inch | | PART NO |
| 19 | 3/4 | -12 | 69000N-12 |
| 25 | 1 | -16 | 69000N-16 |
| 31 | 1.1/4 | -20 | 69000N-20 |
| 38 | 1.1/2 | -24 | 69000N-24 |
| 51 | 2 | -32 | 69000N-32 |

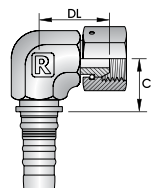
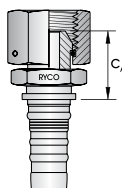
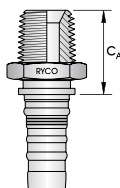
BSP

9010N
(901N)

9020N
(902N)

9050N
(905N)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | BSP FEMALE | BSP FEMALE 90° ELBOW | | |
|-----------|-------|-----------|-----------|-------------------|----------------|----------------------|----------------|-------------------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | 9010N-1212 | 43 | 9020N-1212 | 27 | |
| 25 | 1 | 1 | -1616 | 9010N-1616 | 50 | 9020NH-1616 | 37 | 9050N-1616 40 32 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 9010N-2020 | 54 | 9020N-2020 | 41 | |
| 38 | 1.1/2 | 1.1/2 | -2424 | 9010N-2424 | 61 | 9020N-2424 | 44 | |
| 51 | 2 | 2 | -3232 | 9010N-3232 | 64 | 9020N-3232 | 53 | |

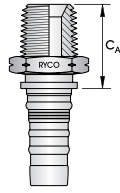
NOTE: 9020NH -1616 is Heavy Duty.

COUPLINGS

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

NPT

9090N
(909N)

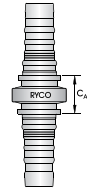


60° SEAT

| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT MALE | |
|-----------|-------|-----------|-----------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 19 | 3/4 | 3/4 | -1212 | 9090N-1212 | 47 |
| 25 | 1 | 1 | -1616 | 9090N-1616 | 50 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 9090N-2020 | 55 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 9090N-2424 | 62 |
| 51 | 2 | 2 | -3232 | 9090N-3232 | 48 |

JOINER

9900N
(990N)



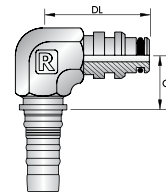
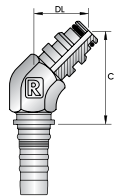
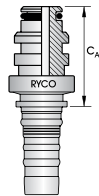
| HOSE SIZE | | DASH SIZE | JOINER | |
|-----------|------|-----------|-------------------|----------------|
| DN | inch | | PART NO | C _A |
| 51 | 2 | -3232 | 9090N-3232 | 41 |

CROCBITE

9880N

9881N

9882N



CROCBITE
HIGH PRESSURE

| HOSE SIZE | | MWP | DASH SIZE | CROCBITE MALE | | CROCBITE MALE 45° ELBOW | | | CROCBITE MALE 90° ELBOW | | |
|-----------|-------|-----|-----------|-------------------|----------------|-------------------------|----------------|----|-------------------------|----------------|-----|
| DN | inch | bar | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 420 | -1220 | 9880N-1220 | 47 | | | | | | |
| 25 | 1 | 420 | -1625 | 9880N-1625 | 66 | | | | | | |
| 31 | 1.1/4 | 420 | -2032 | 9880N-2032 | 70 | 9881N-2032 | 79 | 50 | 9882N-2032 | 54 | 94 |
| 38 | 1.1/2 | 420 | -2440 | 9880N-2440 | 73 | 9881N-2440 | 86 | 53 | 9882N-2440 | 59 | 101 |
| 51 | 2 | 420 | -3250 | 9880N-3250 | 102 | 9881N-3250 | 114 | 73 | 9882N-3250 | 74 | 135 |

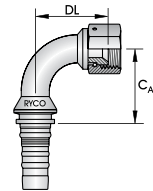
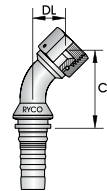
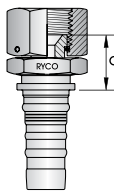
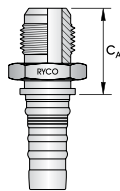
JIC

9030N
(903N)

9040N
(904N)

9250N
(925N)

9240N
(924N)



37° FLARE

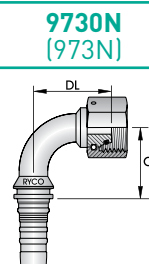
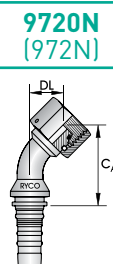
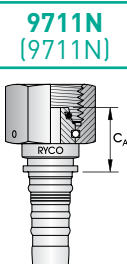
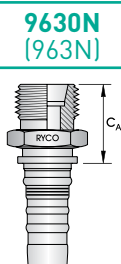
| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC MALE | | JIC FEMALE | | JIC FEMALE 45° TUBE BEND | | JIC FEMALE 90° TUBE BEND | | | |
|-----------|-------|-----------|-----------|-----------|-------------------|----------------|-------------------|----------------|--------------------------|----------------|--------------------------|-------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | 9030N-1217 | 46 | 9040N-1217 | 28 | 9250N-1217 | 67 | 22 | 9240N-1217 | 57 | 57 |
| 25 | 1 | 1.5/16 | 1 | -1621 | 9030N-1621 | 48 | 9040N-1621 | 40 | 9250N-1621 | 78 | 30 | 9240N-1621 | 69 | 72 |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | 9030N-2026 | 58 | 9040N-2026 | 40 | 9250N-2026 | 96 | 39 | 9240N-2026 | 88 | 81 |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | 9030N-2430 | 63 | 9040N-2430 | 43 | 9250N-2430 | 121 | 50 | 9240N-2430 | 104 | 106 |
| 51 | 2 | 2.1/2 | 2 | -3240 | 9030N-3240 | 71 | 9040N-3240 | 65 | 9250N-3240 | 156 | 63 | 9240N-3240 | 141 | 132 |

NOTE: Hose Compatibility for the **69000N** series can be found on page 245.

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

METRIC

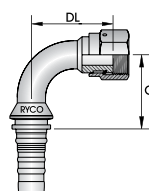
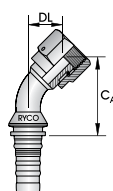
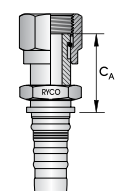
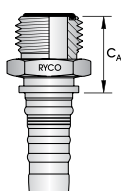
DKS/DKOS
METRIC O RING (HEAVY)



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | DKS MALE 24° CONE | DKOS FEMALE 24° CONE | DKOS FEMALE 24° CONE 45° TUBE BEND | DKOS FEMALE 24° CONE 90° TUBE BEND | | | | | | | |
|-----------|-----------|-----------|-----------|-------------------|----------------------|------------------------------------|------------------------------------|---------|-------------------|-----|---------|-------------------|----|----|
| DN | inch | mm | mm | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | |
| 19 | 3/4 | 36x2,0 | 25 | -1236 | 9630N-1236 | 42 | 9711N-1236 | 44 | 9720N-1236 | 89 | 36 | 9730N-1236 | 57 | 68 |
| 25 | 1 | 42x2,0 | 30 | -1642 | 9630N-1642 | 47 | 9711N-1642 | 38 | 9720N-1642 | 88 | 37 | 9730N-1642 | 70 | 77 |
| 31 | 1.1/4 | 52x2,0 | 38 | -2052 | 9630N-2052 | 52 | 9711N-2052 | 41 | 9720N-2052 | 129 | 48 | 9730N-2052 | 91 | 89 |

ORFS

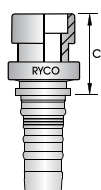
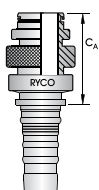
O RING
FACE SEAL



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS MALE | ORFS FEMALE | ORFS FEMALE 45° TUBE BEND | ORFS FEMALE 90° TUBE BEND | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-------------------|---------------------------|---------------------------|---------|-------------------|-----|---------|-------------------|----|----|
| DN | inch | inch | inch | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | |
| 25 | 1 | 1.7/16 | 1 | -1623 | 9840N-1623 | 42 | 9800N-1623 | 55 | 9810N-1623 | 87 | 34 | 9820N-1623 | 71 | 71 |
| 31 | 1.1/4 | 1.11/16 | 1.1/4 | -2027 | 9840N-2027 | 49 | 9800N-2027 | 61 | 9810N-2027 | 108 | 45 | 9820N-2027 | 88 | 90 |

RKVP

RKVP
HIGH PRESSURE



| HOSE SIZE | RKVP SIZE | MAX WP | DASH SIZE | RKVP MALE | RKVP FEMALE | | | |
|-----------|-----------|--------|-----------|-----------|-------------------|---------|-------------------|----|
| DN | inch | mm | bar | PART NO | C _A | PART NO | C _A | |
| 19 | 3/4 | 20 | 420 | -1220 | 9896N-1220 | 57 | 9899N-1220 | 40 |
| 25 | 1 | 25 | 420 | -1625 | 9896N-1625 | 61 | 9899N-1625 | 47 |
| 31 | 1.1/4 | 32 | 420 | -2032 | 9896N-2032 | 75 | 9899N-2032 | 55 |
| 38 | 1.1/2 | 40 | 420 | -2440 | 9896N-2440 | 89 | 9899N-2440 | 61 |
| 51 | 2 | 50 | 420 | -3250 | 9896N-3250 | 90 | 9899N-3250 | 67 |

NOTE: Hose Compatibility for the 69000N series can be found on page 245.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

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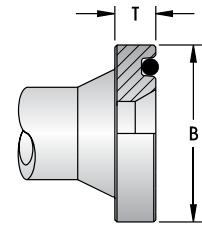
TECHNICAL

COUPLINGS

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

| NOMINAL FLANGE | CODE 61 | | | | CODE 62 | | | | CODE 62C | | | |
|----------------|---------|------|------|-------|---------|------|-------|-------|----------|------|-------|-------|
| | B | | T | | B | | T | | B | | T | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/2 | 30,2 | 1.19 | 6,73 | 0.265 | 31,8 | 1.25 | 7,75 | 0.305 | | | | |
| *5/8 | 34,0 | 1.34 | 6,73 | 0.265 | | | | | | | | |
| 3/4 | 38,1 | 1.50 | 6,73 | 0.265 | 41,3 | 1.63 | 8,76 | 0.345 | 41,3 | 1.63 | 14,20 | 0.559 |
| 1 | 44,5 | 1.75 | 8,00 | 0.315 | 47,6 | 1.88 | 9,53 | 0.375 | 47,6 | 1.88 | 14,20 | 0.559 |
| 1.1/4 | 50,8 | 2.00 | 8,00 | 0.315 | 54,0 | 2.12 | 10,29 | 0.405 | 54,0 | 2.12 | 14,20 | 0.559 |
| 1.1/2 | 60,3 | 2.38 | 8,00 | 0.315 | 63,5 | 2.50 | 12,57 | 0.495 | 63,5 | 2.50 | 14,20 | 0.559 |
| 2 | 71,4 | 2.81 | 9,53 | 0.375 | 79,4 | 3.13 | 12,57 | 0.495 | 79,4 | 3.13 | 14,20 | 0.559 |
| 2.1/2 | 84,1 | 3.31 | 9,53 | 0.375 | | | | | | | | |
| 3 | 101,6 | 4.00 | 9,53 | 0.375 | | | | | | | | |



NOTE: *5/8 is used by Komatsu.

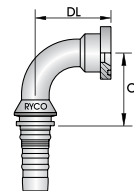
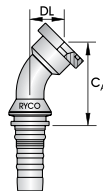
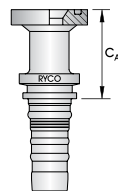
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

SAE FLANGE

9130N
(913N)

9150N
(915N)

9170N
(917N)



RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED

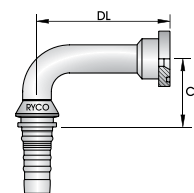
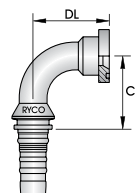
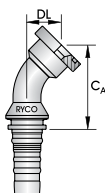
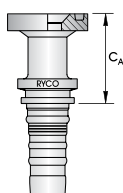
| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND |
|-----------|-------|------------------|-----------|-------------------|------------------------------|------------------------------|
| DN | inch | inch | | PART NO | PART NO | PART NO |
| 19 | 3/4 | 3/4 | -1212 | 9130N-1212 | 9150N-1212 | 9170N-1212 |
| 25 | 1 | 1 | -1616 | 9130N-1616 | 9150N-1616 | 9170N-1616 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 9130N-2020 | 9150N-2020 | 9170N-2020 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 9130N-2424 | 9150N-2424 | 9170N-2424 |

NOTE: Hose Compatibility for the **69000N** series can be found on page 245.

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

SAE FLANGE

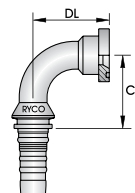
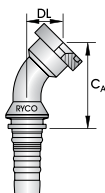
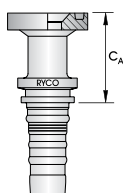
RYCO
CODE 62
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 62 FLANGE | CODE 62 FLANGE 45° TUBE BEND | CODE 62 FLANGE 90° TUBE BEND | CODE 62 FLANGE 90° LONG TUBE BEND | | | | | | | |
|-----------|-------|------------------|-----------|-------------------|------------------------------|------------------------------|-----------------------------------|----|-------------------|----------------|-----|-------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/4 | -1212 | 9330N-1212 | 53 | 9350N-1212 | 70 | 28 | 9370N-1212 | 59 | 56 | | | |
| 25 | 1 | 1 | -1616 | 9330N-1616 | 57 | 9350N-1616 | 83 | 31 | 9370N-1616 | 69 | 70 | | | |
| 31 | 1.1/4 | 1 | -2016 | | | | | | 9370N-2016 | 78 | 70 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | 9330N-2020 | 70 | 9350N-2020 | 103 | 38 | 9370N-2020 | 89 | 80 | 9371N-2020 | 89 | 150 |
| 31 | 1.1/4 | 1.1/2 | -2024 | 9330N-2024 | 98 | 9350N-2024 | 107 | 41 | 9370N-2024 | 88 | 86 | 9371N-2024 | 88 | 156 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 9330N-2424 | 102 | 9350N-2424 | 119 | 45 | 9370N-2424 | 105 | 98 | 9371N-2424 | 105 | 174 |
| 38 | 1.1/2 | 2 | -2432 | 9330N-2432 | 112 | 9350N-2432 | 124 | 50 | 9370N-2432 | 104 | 104 | | | |
| 51 | 2 | 2 | -3232 | 9330N-3232 | 122 | 9350N-3232 | 157 | 60 | 9370N-3232 | 165 | 131 | | | |

SPECIAL FLANGE

RYCO
CODE 62C
O RING NOT SUPPLIED



| HOSE SIZE | | THRD SIZE | DASH SIZE | RYCO CODE 62C FLANGE | RYCO CODE 62C FLANGE 45° TUBE BEND | RYCO CODE 62C FLANGE 90° TUBE BEND | | | | | |
|-----------|-------|-----------|-----------|----------------------|------------------------------------|------------------------------------|----------------|----|-------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 38 | 1.1/2 | 1.1/2 | -2424 | 9333N-2424 | 89 | 9353N-2424 | 120 | 46 | 9373N-2424 | 104 | 106 |

NOTE: These 9000N (900CN) fittings have similar end styles to Caterpillar® XT-6 range of Flanged Hose Couplings. Cat™ Caterpillar®, XT-6™ Caterpillar®.
For SAE Code 61/62 and RYCO Code 62C Flange dimensions, see page 237.

NOTE: Hose Compatibility for the 69000N series can be found on page 245.

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69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

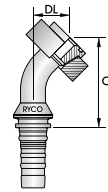
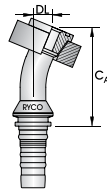
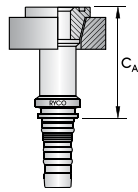
SPECIAL FLANGE

9335N

9445N

9355N

SPECIAL FLANGE
RYCO CODE 62K
O RING NOT SUPPLIED



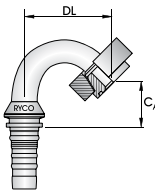
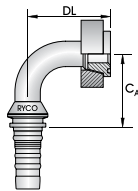
| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | RYCO CODE 62K FLANGE | RYCO CODE 62K FLANGE 22.5° TUBE BEND | RYCO CODE 62K FLANGE 45° TUBE BEND |
|-----------|-------|------------------|-----------|----------------------|--------------------------------------|---|
| DN | inch | inch | | PART NO | C _A | DL |
| 25 | 1 | 1 | -1616 | 9335N-1616 | | 9355N-1616 |
| 25 | 1 | 1.1/4 | -1620 | 9335N-1620 | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | 9335N-2020 | 75 | 9355N-2020 150 68 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 9335N-2424 | 96 | 9355N-2424 167 82 |
| 51 | 2 | 2 | -3232 | 9335N-3232 | 111 | 9445N-3232 231 42 9355N-3232 208 93 |

SPECIAL FLANGE

9375N

9100N

SPECIAL FLANGE
RYCO CODE 62K
O RING NOT SUPPLIED



| HOSE SIZE | | THR D SIZE | DASH SIZE | RYCO CODE 62K FLANGE 90° TUBE BEND | RYCO CODE 62K FLANGE 135° TUBE BEND | | |
|-----------|-------|------------|-----------|------------------------------------|-------------------------------------|-----|--------------------------|
| DN | inch | inch | | PART NO | C _A | DL | |
| 25 | 1 | 1 | -1616 | 9375N-1616 | 93 | 94 | |
| 31 | 1.1/4 | 1.1/4 | -2020 | 9375N-2020 | 130 | 123 | |
| 38 | 1.1/2 | 1.1/2 | -2424 | 9375N-2424 | 141 | 149 | |
| 51 | 2 | 2 | -3232 | 9375N-3232 | 174 | 185 | 9100N-449 109 242 |

STAPLELOK & SUPERLOK

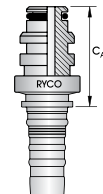
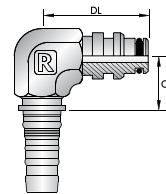
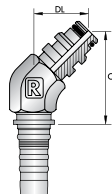
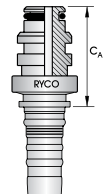
9870N

9871N

9872N

9876N

STAPLE & SUPERSTAPLE
O RING & BACK UP RING
SUPPLIED



| HOSE SIZE | | STAPLE SIZE | DASH SIZE | STAPLELOK MALE | STAPLELOK MALE 45° ELBOW | STAPLELOK MALE 90° ELBOW | SUPERLOK MALE |
|-----------|-------|-------------|-----------|-------------------|--------------------------|--------------------------|-------------------------|
| DN | inch | inch | | PART NO | C _A | DL | PART NO |
| 19 | 3/4 | 20 | -1220 | 9870N-1220 | 42 | 9871N-1220 | 59 33 9872N-1220 |
| 38 | 1.1/2 | 40 | -2440 | | | | 9876N-2440 |
| 51 | 2 | 50 | -3250 | | | | 9876N-3250 |

NOTE: Hose Compatibility for the **69000N** series can be found on page 245.

69000N (6900N) SERIES BITELOK INTERLOK TWO-PIECE CRIMP COUPLINGS

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

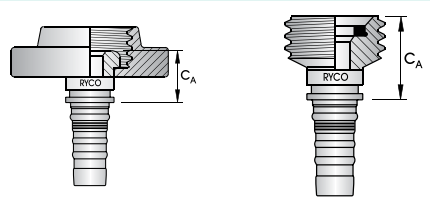
ACCESSORIES

FILTERS

TECHNICAL

HAMMER UNION 91502N 91501N

FIGURE 1502
STANDARD SERVICE



| HOSE SIZE | | THRD SIZE | DASH SIZE | FIG 1502 MALE (WITH NUT) | | FIG 1502 FEMALE (WITH SEAL) | |
|-----------|-------|-----------|-----------|--------------------------|-----|-----------------------------|----|
| DN | inch | inch | | PART NO | CA | PART NO | CA |
| 38 | 1.1/2 | 2 | -2432 | 91502N-2432 | 110 | 91501N-2432 | 91 |
| 51 | 2 | 2 | -3232 | 91502N-3232 | 111 | 91501N-3232 | 92 |

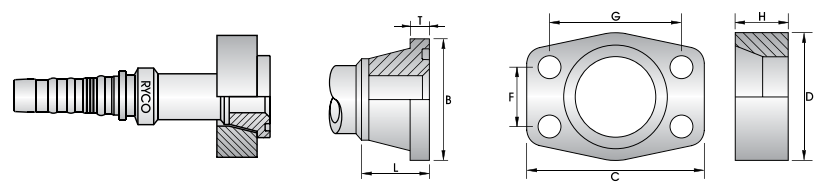
NOTE: Nut must be installed onto hose before coupling is installed and crimped. Replacement parts **RF1502N-32** nut and **RF1502W-32** Nitrile seal are available.

69000N SERIES COUPLING WITH RYCO CODE 62K SPECIAL FLANGE

SKIVE
For RYCO Hose H6000 sizes -16 to -32.
Part No. is for Complete Coupling including the **9000N** Insert, **69000N** Ferrule and **S142H** Flange Clamp Block.

NOTE:
RYCO **69000N** Series Hose Couplings with RYCO Code 62K are used on some heavy mining equipment. They utilize an interlock hose tail and ferrule, with a RYCO Code 62K Flange (with the same Outside Diameter and O Ring groove dimensions as SAE Code 62, but a different shape at the rear of the flange). RYCO Code 62K Flanges have a long taper at the back of the Flange Head for the Flange Clamp. The S142H Flange Clamp is a one-piece heavy block style that clamps the long taper.

DIMENSIONS FOR RYCO CODE 62K SPECIAL FLANGES



| NOM. FLANGE SIZE | DASH SIZE | B | | T | | L | | G | | F | | C | | H | | D | | BOLT HOLE DIA. | |
|------------------|-----------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|-------|------|----------------|------|
| inch | | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in |
| 1 | -16 | 49,3 | 1.94 | 9,1 | 0.39 | 30,0 | 1.18 | 57,2 | 2.25 | 27,8 | 1.06 | 81,0 | 3.19 | 26,9 | 1.06 | 70,3 | 2.77 | 13,0 | 0.51 |
| 1.1/4 | -20 | 53,8 | 2.12 | 10,0 | 0.39 | 34,3 | 1.35 | 66,7 | 2.63 | 31,8 | 1.25 | 95,9 | 3.78 | 32,0 | 1.26 | 98,5 | 3.88 | 15,2 | 0.60 |
| 1.1/2 | -24 | 68,4 | 2.69 | 13,0 | 0.51 | 44,7 | 1.76 | 79,4 | 3.13 | 36,5 | 1.44 | 112,5 | 4.43 | 39,1 | 1.54 | 94,4 | 3.72 | 16,9 | 0.67 |
| 2 | -32 | 79,2 | 3.12 | 13,0 | 0.51 | 55,0 | 2.17 | 96,8 | 3.81 | 44,5 | 1.75 | 133,5 | 5.23 | 50,4 | 1.98 | 114,3 | 4.50 | 20,7 | 0.81 |

NOTE: Hose Compatibility for the **69000N** series can be found on page 245.

COUPLINGS

1G000 SERIES AIR CONDITIONING CRIMP COUPLINGS

HOSE COMPATIBILITY FOR 1G000 SERIES

NON-SKIVE

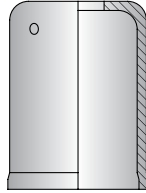
For RYCO Hose Series FB2 all sizes.

Part No. is for Inserts only. Add prefix "1" to Part No. shown to include 1G000 Series Ferrule.

EXAMPLE: Part No. G540-0610 is Insert only. To include 1G000 Series Ferrule as well as Insert, order Part No. 1G540-0610.

FERRULE

1G000
(1G00)



| HOSE SIZE | | DASH SIZE | FERRULE |
|-----------|-------|-----------|-----------------|
| DN | inch | | PART NO |
| 8 | 5/16 | -06 | 1G000-06 |
| 10 | 13/32 | -08 | 1G000-08 |
| 12 | 1/2 | -10 | 1G000-10 |

PILOT O RING

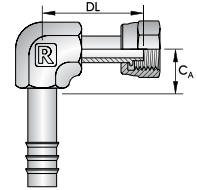
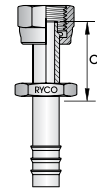
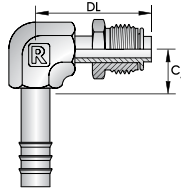
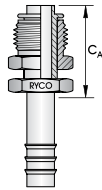
GP010
(GP01)

GP340
(GP34)

GP020
(GP02)

GP050
(GP05)

O RING NOT SUPPLIED
USE GREEN HNBR
O RING ONLY (RO-AC)
SEE PAGE 356

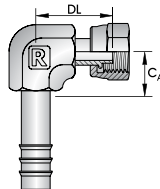


| HOSE SIZE | | THRD SIZE | DASH SIZE | PILOT O RING MALE | PILOT O RING MALE 90° ELBOW | PILOT O RING FEMALE | PILOT O RING FEMALE 90° ELBOW | | | | | | |
|-----------|-------|-----------|-----------|-------------------|-----------------------------|---------------------|-------------------------------|----|-------------------|----------------|-------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | PART NO | C _A | DL |
| 8 | 5/16 | 5/8 | -0610 | GP010-0610 | 39 | GP340-0610 | 47 | 39 | GP020-0610 | 39 | GP050-0610 | 47 | 39 |
| 10 | 13/32 | 3/4 | -0812 | GP010-0812 | 42 | GP340-0812 | 49 | 44 | GP020-0812 | 42 | GP050-0812 | 49 | 44 |
| 12 | 1/2 | 7/8 | -1014 | GP010-1014 | 44 | GP340-1014 | 51 | 48 | GP020-1014 | 44 | GP050-1014 | 51 | 48 |

PILOT O RING

GP240
(GP24)

O RING NOT SUPPLIED
USE GREEN HNBR
O RING ONLY (RO-AC)
SEE PAGE 356

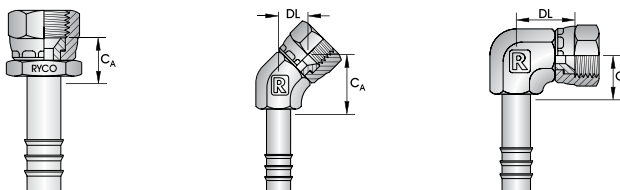


| HOSE SIZE | | THRD SIZE | DASH SIZE | PILOT O RING FEMALE 90° ELBOW SHORT | | |
|-----------|-------|-----------|-----------|-------------------------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | DL |
| 8 | 5/16 | 5/8 | -0610 | GP240-0610 | 47 | 25 |
| 10 | 13/32 | 3/4 | -0812 | GP240-0812 | 49 | 25 |
| 12 | 1/2 | 7/8 | -1014 | GP240-1014 | 51 | 27 |

1G000 SERIES AIR CONDITIONING CRIMP COUPLINGS

| | | | |
|------------|----------------------|----------------------|----------------------|
| SAE | G540 (G54) | G580 (G58) | G570 (G57) |
|------------|----------------------|----------------------|----------------------|

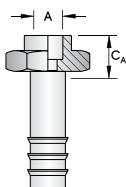
45° FLARE



| HOSE SIZE | | THRD SIZE | DASH SIZE | SAE FEMALE | | SAE FEMALE 45° ELBOW | | | SAE FEMALE 90° ELBOW | | |
|-----------|-------|-----------|-----------|------------------|----|----------------------|----|----|----------------------|----|----|
| DN | inch | inch | | PART NO | CA | PART NO | CA | DL | PART NO | CA | DL |
| 8 | 5/16 | 5/8 | -0610 | G540-0610 | 16 | G580-0610 | 21 | 14 | G570-0610 | 10 | 22 |
| 10 | 13/32 | 3/4 | -0812 | G540-0812 | 17 | G580-0812 | 25 | 15 | G570-0812 | 12 | 24 |
| 12 | 1/2 | 7/8 | -1014 | G540-1014 | 19 | G580-1014 | 25 | 14 | G570-1014 | 16 | 27 |

| | |
|----------------|----------------------|
| SALVAGE | G230 (G23) |
|----------------|----------------------|

TUBE WELD



| HOSE SIZE | | A | DASH SIZE | SALVAGE (LIVESAVER) | |
|-----------|-------|------|-----------|---------------------|----|
| DN | inch | inch | | PART NO | CA |
| 8 | 5/16 | 3/8 | -0606 | G230-0606 | 10 |
| 10 | 13/32 | 1/2 | -0808 | G230-0808 | 10 |
| 12 | 1/2 | 5/8 | -1010 | G230-1010 | 10 |

NOTE: Hose Compatibility for the **1G000** series can be found on page 252.

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HOSE

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COUPLINGS

8000 (800) SERIES PUSH-ON COUPLINGS

HOSE COMPATIBILITY FOR 8000 SERIES

For RYCO Hose Series PL1, PL1D and RQP6 all sizes.

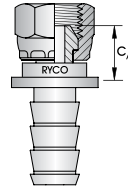
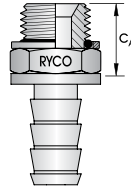
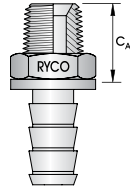
BSP

8010
(801)

8111
(811)

8020
(802)

60° SEAT



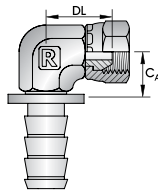
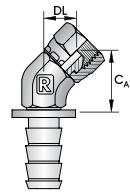
| HOSE SIZE | | THREAD SIZE | DASH SIZE | BSPT MALE | | BSPP O RING MALE | | BSPP FEMALE | |
|-----------|------|-------------|-----------|------------------|----------------|------------------|----------------|------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 6 | 1/4 | 1/8 | -0402 | 8010-0402 | 18 | | | 8020-0402 | 15 |
| 6 | 1/4 | 1/4 | -0404 | 8010-0404 | 22 | | | 8020-0404 | 15 |
| 6 | 1/4 | 3/8 | -0406 | 8010-0406 | 22 | | | 8020-0406 | 17 |
| 8 | 5/16 | 1/8 | -0502 | 8010-0502 | 18 | | | 8020-0502 | 15 |
| 8 | 5/16 | 1/4 | -0504 | 8010-0504 | 22 | | | 8020-0504 | 16 |
| 8 | 5/16 | 3/8 | -0506 | 8010-0506 | 22 | | | | |
| 10 | 3/8 | 1/4 | -0604 | 8010-0604 | 22 | | | | |
| 10 | 3/8 | 3/8 | -0606 | 8010-0606 | 22 | | | 8020-0606 | 17 |
| 10 | 3/8 | 1/2 | -0608 | 8010-0608 | 29 | | | 8020-0608 | 19 |
| 12 | 1/2 | 3/8 | -0806 | 8010-0806 | 22 | | | | |
| 12 | 1/2 | 1/2 | -0808 | 8010-0808 | 29 | | | 8020-0808 | 19 |
| 12 | 1/2 | 3/4 | -0812 | 8010-0812 | 29 | | | | |
| 16 | 5/8 | 1/2 | -1008 | 8010-1008 | 29 | 8111-1008 | 24 | 8020-1008 | 19 |
| 19 | 3/4 | 1/2 | -1208 | 8010-1208 | 29 | | | | |
| 19 | 3/4 | 3/4 | -1212 | 8010-1212 | 29 | | | 8020-1212 | 19 |

BSP

8060
(806)

8050
(805)

60° SEAT



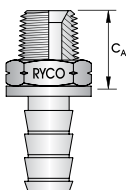
| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 45° ELBOW | | | BSPP FEMALE 90° ELBOW | | |
|-----------|------|-----------|-----------|-----------------------|----------------|----|-----------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | | | | 8050-0404 | 13 | 24 |
| 8 | 5/16 | 1/4 | -0504 | | | | 8050-0504 | 13 | 24 |
| 10 | 3/8 | 3/8 | -0606 | | | | 8050-0606 | 17 | 29 |
| 12 | 1/2 | 1/2 | -0808 | | | | 8050-0808 | 19 | 32 |
| 16 | 5/8 | 1/2 | -1008 | | | | 8050-1008 | 21 | 36 |
| 19 | 3/4 | 3/4 | -1212 | 8060-1212 | 30 | 27 | 8050-1212 | 22 | 36 |

8000 (800) SERIES PUSH-ON COUPLINGS

NPT

8090
(809)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT MALE | |
|-----------|------|-----------|-----------|------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/8 | -0402 | 8090-0402 | 18 |
| 6 | 1/4 | 1/4 | -0404 | 8090-0404 | 22 |
| 8 | 5/16 | 1/8 | -0502 | 8090-0502 | 18 |
| 8 | 5/16 | 1/4 | -0504 | 8090-0504 | 22 |
| 10 | 3/8 | 1/4 | -0604 | 8090-0604 | 22 |
| 10 | 3/8 | 3/8 | -0606 | 8090-0606 | 22 |
| 12 | 1/2 | 3/8 | -0806 | 8090-0806 | 22 |
| 12 | 1/2 | 1/2 | -0808 | 8090-0808 | 29 |
| 19 | 3/4 | 3/4 | -1212 | 8090-1212 | 30 |

JIC

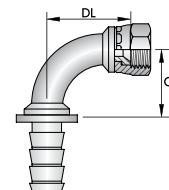
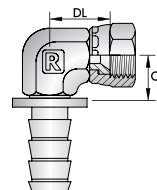
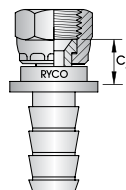
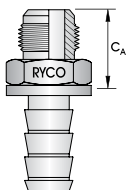
8030
(803)

8040
(804)

8070
(807)

8240
(824)

37° FLARE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC MALE | JIC FEMALE | JIC FEMALE 90° ELBOW | | | JIC FEMALE 90° TUBE BEND | | | | |
|-----------|------|-----------|-----------|-----------|------------------|----------------|----------------------|----------------|------------------|--------------------------|----|------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | 8030-0407 | 22 | 8040-0407 | 13 | 8070-0407 | 13 | 18 | | | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | 8030-0408 | 22 | 8040-0408 | 13 | 8070-0408 | 13 | 18 | | | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | | | 8040-0409 | 14 | | | | | | |
| 8 | 5/16 | 1/2 | 5/16 | -0508 | 8030-0508 | 22 | 8040-0508 | 13 | | | | | | |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | | | 8040-0509 | 14 | | | | | | |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | 8030-0609 | 22 | 8040-0609 | 14 | 8070-0609 | 17 | 23 | 8240-0609 | 28 | 38 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | 8030-0612 | 24 | 8040-0612 | 15 | 8070-0612 | 17 | 24 | | | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | 8030-0812 | 24 | 8040-0812 | 15 | 8070-0812 | 19 | 27 | 8240-0812 | 37 | 41 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | 8030-0814 | 28 | 8040-0814 | 16 | 8070-0814 | 19 | 28 | | | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | 8030-1014 | 28 | 8040-1014 | 16 | | | | 8240-1014 | 42 | 48 |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | 8030-1217 | 31 | 8040-1217 | 17 | 8070-1217 | 22 | 30 | | | |

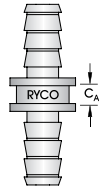
NOTE: Hose Compatibility for the **8000** series can be found on page 254.

COUPLINGS

8000 (800) SERIES PUSH-ON COUPLINGS

JOINER

8900
(890)



| HOSE SIZE | | THRD SIZE | DASH SIZE | SAE FEMALE 90° ELBOW | |
|-----------|------|-----------|-----------|----------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | 8900-0404 | 9 |
| 8 | 5/16 | 5/16 | -0505 | 8900-0505 | 9 |
| 10 | 3/8 | 3/8 | -0606 | 8900-0606 | 10 |
| 12 | 1/2 | 1/2 | -0808 | 8900-0808 | 10 |
| 16 | 5/8 | 5/8 | -1010 | 8900-1010 | 10 |
| 19 | 3/4 | 3/4 | -1212 | 8900-1212 | 10 |

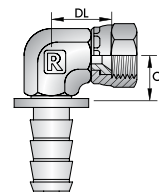
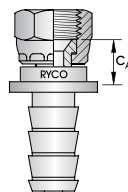
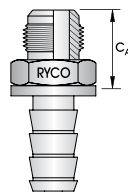
SAE

8530
(853)

8540
(854)

8570
(857)

45° FLARE

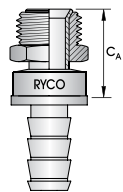


| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | SAE MALE | | SAE FEMALE | | SAE FEMALE 90° ELBOW | | |
|-----------|------|-----------|-----------|-----------|------------------|----------------|------------------|----------------|----------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | 8530-0510 | 23 | 8540-0510 | 14 | | | |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | 8530-0610 | 23 | 8540-0610 | 14 | 8570-0610 | 17 | 23 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | | | 8540-1017 | 16 | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | 8530-1217 | 35 | 8540-1217 | 17 | | | |

SAE

8740
(874)

INVERTED MALE FLARE BRASS

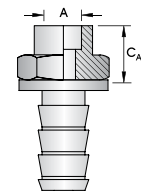


| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | SAE INVERTED MALE FLARE | |
|-----------|------|-----------|-----------|-----------|-------------------------|----------------|
| DN | inch | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | 8740-0407 | 23 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | 8740-0408 | 25 |
| 8 | 5/16 | 1/2 | 5/16 | -0508 | 8740-0508 | 25 |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | 8740-0510 | 28 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | 8740-0610 | 28 |

SALVAGE

8230
(823)

TUBE WELD



| HOSE SIZE | | A | DASH SIZE | SALVAGE (LIFESAVER) | |
|-----------|------|------|-----------|---------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 3/8 | -0406 | 8230-0406 | 14 |
| 10 | 3/8 | 1/4 | -0604 | 8230-0604 | 14 |
| 10 | 3/8 | 3/8 | -0606 | 8230-0606 | 14 |
| 12 | 1/2 | 1/2 | -0808 | 8230-0808 | 14 |
| 12 | 1/2 | 5/8 | -0810 | 8230-0810 | 16 |
| 16 | 5/8 | 5/8 | -1010 | 8230-1010 | 16 |
| 19 | 3/4 | 3/4 | -1212 | 8230-1212 | 16 |

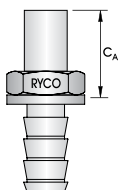
NOTE: Hose Compatibility for the **8000** series can be found on page 254.

8000 (800) SERIES PUSH-ON COUPLINGS

STANDPIPE

8180
(818)

IMPERIAL

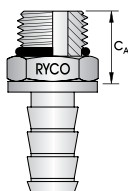


| HOSE SIZE | | TUBE SIZE | DASH SIZE | IMPERIAL STANDPIPE | |
|-----------|------|-----------|-----------|--------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | 8180-0404 | 30 |
| 6 | 1/4 | 5/16 | -0405 | 8180-0405 | 30 |
| 6 | 1/4 | 3/8 | -0406 | 8180-0406 | 31 |
| 10 | 3/8 | 3/8 | -0606 | 8180-0606 | 31 |
| 10 | 3/8 | 1/2 | -0608 | 8180-0608 | 31 |
| 12 | 1/2 | 1/2 | -0808 | 8180-0808 | 31 |
| 19 | 3/4 | 3/4 | -1212 | 8180-1212 | 31 |

UNO (O RING BOSS)

8200
(820)

O RING SUPPLIED

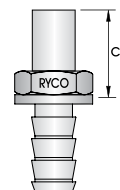


| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | UN O RING MALE (O RING BOSS) | | |
|-----------|-----------|-----------|-----------|------------------------------|------------------|----|
| DN | inch | inch | inch | PART NO | C _A | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | 8200-0812 | 20 |

STANDPIPE

8640
(864)

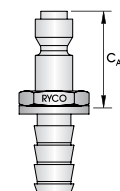
METRIC
MALE FLARE



| HOSE SIZE | | TUBE SIZE | DASH SIZE | METRIC STANDPIPE | |
|-----------|------|-----------|-----------|------------------|----------------|
| DN | inch | mm | | PART NO | C _A |
| 6 | 1/4 | 6 | -0406 | 8640-0406 | 30 |
| 6 | 1/4 | 8 | -0408 | 8640-0408 | 30 |
| 12 | 1/2 | 15 | -0815 | 8640-0815 | 33 |
| 19 | 3/4 | 20 | -1220 | 8640-1220 | 47 |
| 19 | 3/4 | 22 | -1222 | 8640-1222 | 39 |

200 COUPLING NIPPLE

8100
(810)



| HOSE SIZE | | DASH SIZE | BARB NIPPLES FOR RYCO 200 AIR COUPLING | |
|-----------|------|-----------|--|----------------|
| DN | inch | | PART NO | C _A |
| 6 | 1/4 | -0404 | 8100-0404 | 27 |
| 10 | 3/8 | -0604 | 8100-0604 | 27 |

INTRODUCTION

HOSE

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ACCESSORIES

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NOTE: Hose Compatibility for the **8000** series can be found on page 254.

COUPLINGS

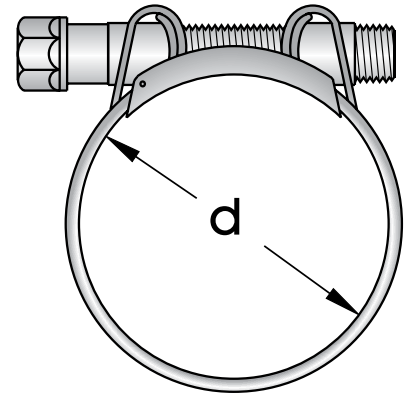
33000 (3300) SERIES SUCTION AND RETURN COUPLINGS

HOSE COMPATIBILITY FOR 33000 SERIES

For RYCO Hose Series SR and SRF all sizes.

33000 Series require a suitable clamp around the outside of the hose.

| HOSE DASH SIZE | CLAMP PART NO | CLAMP ADJUSTMENT RANGE | RECOMMENDED TIGHTENING TORQUE | |
|----------------|------------------|------------------------|-------------------------------|---------|
| | | | Nm | ft. lbs |
| -12 | RSC-3134 | 31 to 34 | 20 | 15 |
| -16 | RSC-3740* | 37 to 40 | 20 | 15 |
| | RSC-4043* | 40 to 43 | 20 | 15 |
| -20 | RSC-4347* | 43 to 47 | 20 | 15 |
| | RSC-4751* | 47 to 51 | 20 | 15 |
| -24 | RSC-5155 | 51 to 55 | 20 | 15 |
| -32 | RSC-6368 | 63 to 68 | 25 | 18 |
| -40 | RSC-7379 | 73 to 79 | 25 | 18 |
| -48 | RSC-8591 | 85 to 91 | 25 | 18 |



* Due to the manufacturing tolerance on outside diameter of the hose and the range of adjustment of the clamp, it is necessary to confirm correct clamp at time of assembly.

BSP

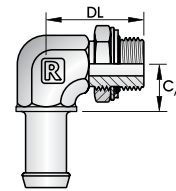
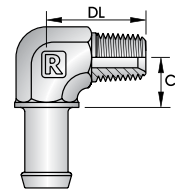
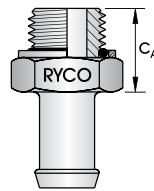
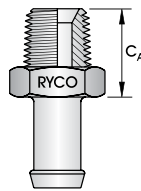
33010
(3301)

33111
(3311)

33400
(3340)

33410
(3341)

60° SEAT
FLAT SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | BSPP O RING MALE | BSPT MALE 90° ELBOW | BSPP O RING MALE 90° ELBOW | | | | | | |
|-----------|-------|-----------|-----------|-------------------|------------------|---------------------|----------------------------|-------------------|----------------|----|-------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 19 | 3/4 | 3/8 | -1206 | 33010-1206 | 23 | | | | | | | | |
| 19 | 3/4 | 1/2 | -1208 | 33010-1208 | 28 | | | 33400-1208 | 20 | 37 | | | |
| 19 | 3/4 | 3/4 | -1212 | 33010-1212 | 28 | | | 33400-1212 | 23 | 40 | | | |
| 19 | 3/4 | 1 | -1216 | 33010-1216 | 36 | | | | | | | | |
| 25 | 1 | 1/2 | -1608 | | | | | 33400-1608 | 23 | 42 | 33410-1608 | 23 | 46 |
| 25 | 1 | 3/4 | -1612 | 33010-1612 | 29 | 33111-1612 | 27 | 33400-1612 | 23 | 40 | 33410-1612 | 23 | 47 |
| 25 | 1 | 1 | -1616 | 33010-1616 | 36 | 33111-1616 | 30 | 33400-1616 | 29 | 50 | | | |
| 25 | 1 | 1.1/4 | -1620 | 33010-1620 | 38 | | | 33400-1620 | 35 | 60 | | | |
| 31 | 1.1/4 | 3/4 | -2012 | 33010-2012 | 31 | 33111-2012 | 27 | 33400-2012 | 30 | 45 | 33410-2012 | 28 | 50 |
| 31 | 1.1/4 | 1 | -2016 | 33010-2016 | 36 | 33111-2016 | 30 | 33400-2016 | 30 | 50 | 33410-2016 | 28 | 52 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 33010-2020 | 38 | 33111-2020 | 32 | 33400-2020 | 34 | 60 | 33410-2020 | 34 | 57 |
| 31 | 1.1/4 | 1.1/2 | -2024 | 33010-2024 | 39 | | | 33400-2024 | 39 | 67 | | | |
| 38 | 1.1/2 | 1 | -2416 | 33010-2416 | 36 | 33111-2416 | 30 | 33400-2416 | 36 | 60 | 33410-2416 | 34 | 57 |
| 38 | 1.1/2 | 1.1/4 | -2420 | 33010-2420 | 38 | 33111-2420 | 32 | 33400-2420 | 36 | 60 | 33410-2420 | 34 | 57 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 33010-2424 | 39 | | | 33400-2424 | 39 | 67 | | | |
| 51 | 2 | 1 | -3216 | 33010-3216 | 39 | | | | | | | | |
| 51 | 2 | 1.1/4 | -3220 | | | | | 33400-3220 | 51 | 75 | | | |
| 51 | 2 | 1.1/2 | -3224 | 33010-3224 | 40 | | | 33400-3224 | 51 | 75 | | | |
| 51 | 2 | 2 | -3232 | 33010-3232 | 44 | | | | | | | | |

33000 (3300) SERIES SUCTION AND RETURN COUPLINGS

INTRODUCTION

HOSE

COUPLINGS

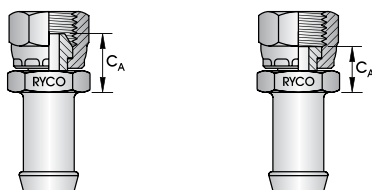
ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

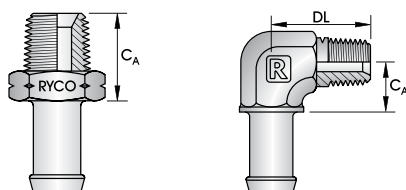
BSP 33020 (3302) 33024 (3302F)

 60° SEAT
FLAT SEAT


| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE | | BSPP FEMALE FLAT FACE | |
|-----------|-------|-----------|-----------|-------------------|----------------|-----------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A |
| 19 | 3/4 | 3/4 | -1212 | 33020-1212 | 24 | 33024-1212 | 19 |
| 25 | 1 | 1 | -1616 | 33020-1616 | 27 | 33024-1616 | 23 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 33020-2020 | 26 | 33024-2020 | 23 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 33020-2424 | 29 | 33024-2424 | 27 |
| 51 | 2 | 2 | -3232 | 33020-3232 | 41 | | |

NPT 33090 (3309) 33400N (3340N)

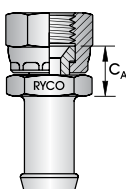
60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | NPT MALE | | NPT MALE 90° ELBOW | | |
|-----------|-------|-----------|-----------|-------------------|----------------|--------------------|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL |
| 19 | 3/4 | 1/2 | -1208 | | | 33400N-1208 | 20 | 37 |
| 25 | 1 | 3/4 | -1612 | 33090-1612 | 29 | | | |
| 25 | 1 | 1 | -1616 | 33090-1616 | 36 | 33400N-1616 | 29 | 50 |
| 31 | 1.1/4 | 3/4 | -2012 | 33090-2012 | 31 | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | 33090-2020 | 38 | | | |
| 38 | 1.1/2 | 1.1/4 | -2420 | 33090-2420 | 38 | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | 33090-2424 | 39 | | | |

JIC 33040 (3304)

37° FLARE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE | |
|-----------|-------|-----------|-----------|-----------|-------------------|----------------|
| DN | inch | inch | inch | | PART NO | C _A |
| 25 | 1 | 1.1/16 | 3/4 | -1617 | 33040-1617 | 22 |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | 33040-2026 | 26 |

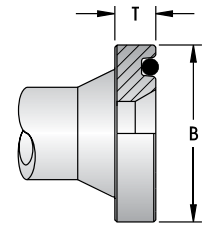
NOTE: Hose Compatibility for the **33000** series can be found on page 258.

COUPLINGS

33000 (3300) SERIES SUCTION AND RETURN COUPLINGS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

| NOMINAL FLANGE | CODE 61 | | | | CODE 62 | | | | CODE 62C | | | |
|----------------|---------|------|------|-------|---------|------|-------|-------|----------|------|-------|-------|
| | B | | T | | B | | T | | B | | T | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/2 | 30,2 | 1.19 | 6,73 | 0.265 | 31,8 | 1.25 | 7,75 | 0.305 | | | | |
| *5/8 | 34,0 | 1.34 | 6,73 | 0.265 | | | | | | | | |
| 3/4 | 38,1 | 1.50 | 6,73 | 0.265 | 41,3 | 1.63 | 8,76 | 0.345 | 41,3 | 1.63 | 14,20 | 0.559 |
| 1 | 44,5 | 1.75 | 8,00 | 0.315 | 47,6 | 1.88 | 9,53 | 0.375 | 47,6 | 1.88 | 14,20 | 0.559 |
| 1.1/4 | 50,8 | 2.00 | 8,00 | 0.315 | 54,0 | 2.12 | 10,29 | 0.405 | 54,0 | 2.12 | 14,20 | 0.559 |
| 1.1/2 | 60,3 | 2.38 | 8,00 | 0.315 | 63,5 | 2.50 | 12,57 | 0.495 | 63,5 | 2.50 | 14,20 | 0.559 |
| 2 | 71,4 | 2.81 | 9,53 | 0.375 | 79,4 | 3.13 | 12,57 | 0.495 | 79,4 | 3.13 | 14,20 | 0.559 |
| 2.1/2 | 84,1 | 3.31 | 9,53 | 0.375 | | | | | | | | |
| 3 | 101,6 | 4.00 | 9,53 | 0.375 | | | | | | | | |



NOTE: *5/8 is used by Komatsu.
 RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
 RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

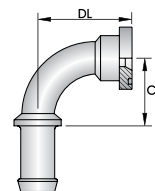
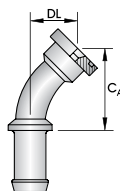
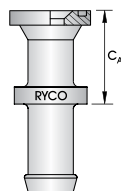
SAE FLANGE

33130
[3313]

33150
[3315]

33170
[3317]

RYCO
CODE 61
CLAMPS - SEE PAGES 345 & 346
O RING NOT SUPPLIED



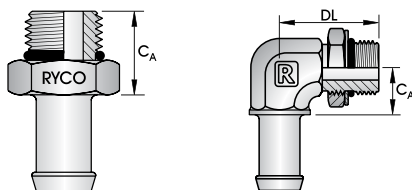
| HOSE SIZE | | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND | | | | | |
|-----------|-------|-------|------------------|-----------|-------------------|------------------------------|------------------------------|-----|----|-------------------|-----|-----|
| DN | inch | inch | | | PART NO | CA | PART NO | CA | DL | PART NO | CA | DL |
| 25 | 1 | 1 | -1616 | | 33130-1616 | 50 | 33150-1616 | 73 | 36 | 33170-1616 | 81 | 44 |
| 25 | 1 | 1.1/4 | -1620 | | 33130-1620 | 50 | 33150-1620 | 73 | 36 | 33170-1620 | 81 | 44 |
| 31 | 1.1/4 | 1 | -2016 | | | | | | | 33170-2016 | 69 | 80 |
| 31 | 1.1/4 | 1.1/4 | -2020 | | 33130-2020 | 50 | 33150-2020 | 81 | 39 | 33170-2020 | 69 | 80 |
| 31 | 1.1/4 | 1.1/2 | -2024 | | 33130-2024 | 50 | 33150-2024 | 86 | 40 | 33170-2024 | 69 | 80 |
| 38 | 1.1/2 | 1.1/4 | -2420 | | 33130-2420 | 49 | | | | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | | 33130-2424 | 50 | 33150-2424 | 87 | 41 | 33170-2424 | 92 | 103 |
| 38 | 1.1/2 | 2 | -2432 | | 33130-2432 | 52 | 33150-2432 | 95 | 46 | 33170-2432 | 92 | 104 |
| 51 | 2 | 2 | -3232 | | 33130-3232 | 62 | 33150-3232 | 109 | 56 | 33170-3232 | 103 | 114 |
| 51 | 2 | 2.1/2 | -3240 | | 33130-3240 | 52 | 33150-3240 | 109 | 56 | 33170-3240 | 103 | 114 |
| 63 | 2.1/2 | 2 | -4032 | | 33130-4032 | | 33150-4032 | | | 33170-4032 | | |

NOTE: Hose Compatibility for the **33000** series can be found on page 258.

33000 (3300) SERIES SUCTION AND RETURN COUPLINGS

UNO (O RING BOSS) 33200 (3320) 33420 (3342)

O RING SUPPLIED



| HOSE SIZE | | | | | UN O RING MALE (O RING BOSS) | | UN O RING MALE (O RING BOSS) 90° ELBOW | | |
|-----------|-------|--------|-------|-----------|------------------------------|----|--|----|----|
| DN | inch | inch | inch | DASH SIZE | PART NO | CA | PART NO | CA | DL |
| 19 | 3/4 | 7/8 | 5/8 | -1214 | 33200-1214 | 21 | 33420-1214 | 25 | 46 |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | 33200-1217 | 25 | 33420-1217 | 29 | 52 |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | 33200-1221 | 27 | 33420-1221 | 29 | 52 |
| 25 | 1 | 1.1/16 | 3/4 | -1617 | 33200-1617 | 25 | 33420-1617 | 29 | 52 |
| 25 | 1 | 1.5/16 | 1 | -1621 | 33200-1621 | 27 | 33420-1621 | 29 | 52 |
| 31 | 1.1/4 | 7/8 | 5/8 | -2014 | 33200-2014 | 24 | | | |
| 31 | 1.1/4 | 1.1/16 | 3/4 | -2017 | 33200-2017 | 27 | 33420-2017 | 29 | 52 |
| 31 | 1.1/4 | 1.3/16 | 7/8 | -2019 | 33200-2019 | 27 | 33420-2019 | 29 | 51 |
| 31 | 1.1/4 | 1.5/16 | 1 | -2021 | 33200-2021 | 27 | 33420-2021 | 29 | 52 |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | 33200-2026 | 28 | 33420-2026 | 36 | 57 |
| 38 | 1.1/2 | 1.1/16 | 3/4 | -2417 | 33200-2417 | 27 | | | |
| 38 | 1.1/2 | 1.5/16 | 1 | -2421 | 33200-2421 | 27 | 33420-2421 | 36 | 57 |
| 38 | 1.1/2 | 1.5/8 | 1.1/4 | -2426 | 33200-2426 | 28 | 33420-2426 | 36 | 57 |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | 33200-2430 | 30 | | | |
| 51 | 2 | 1.7/8 | 1.1/2 | -3230 | 33200-3230 | 30 | | | |

NOTE: Hose Compatibility for the **33000** series can be found on page 258.

INTRODUCTION

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TECHNICAL

COUPLINGS

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

HOSE COMPATIBILITY FOR V000 SERIES

FOR RYCO SURVIVOR RQP5 AND TRUCKER T5 HOSE SERIES

RYCO V000 Series Ferrules follow the dash size of **SURVIVOR RQP5** and **TRUCKER T5** series hose. **RQP5** and **T5** Series are SAE 100R5 specification hose, and, accordingly the dash size is the corresponding tube size. SAE 100R5 hose internal diameters (nominal bores), unlike SAE 100R1, R2, etc, are smaller than their dash sizes. For example, **T58** has nominal tube size of 1/2" and internal diameter of 13/32", whereas **T18** and **T28** have nominal bore size of 1/2" and internal diameter of 1/2". The reason for this difference is that T5 Series hoses are often used in applications where hose is connected to steel or copper tubing. The hose is sized so that its flow diameter is approximately the same as the flow diameter of the same nominal size tubing. Hence, the hose size relates to the nominal tube size.

RYCO V000 Series Ferrules are designed to match with **RYCO 6000** Series Inserts.

RYCO 6000 Series Inserts have the same nominal sizing as their corresponding **T1** and **T2** Series Hose. Therefore, V000 Series Ferrules and matching 6000 Series Inserts have different "dash" sizes. When matched together, V000 Series Couplings have the same dash size as the 6000 Series Inserts. See table below.

The chart below shows the relationship of Part Numbers for Ferrules, Inserts and Couplings for each size.

| SURVIVOR RQP5 | TRUCKER T5 | HOSE (TUBE) DASH SIZE | HOSE ID INCH | V000 SERIES FERRULE | FERRULE DASH SIZE | 6000 SERIES INSERTS | INSERT DASH SIZE | V000 SERIES COUPLINGS | COUPLING DASH SIZE |
|---------------|------------|-----------------------|--------------|---------------------|-------------------|---------------------|------------------|-----------------------|--------------------|
| RQP54 | T54 | -04 | 3/16 | V000-04 | -04 | 6xxx-03 | -03 | Vxxx-03 | -03 |
| RQP55 | T55 | -05 | 1/4 | V000-05 | -05 | 6xxx-04 | -04 | Vxxx-04 | -04 |
| RQP56 | T56 | -06 | 5/16 | V000-06 | -06 | 6xxx-05 | -05 | Vxxx-05 | -05 |
| RQP58 | T58 | -08 | 13/32 | V000-08 | -08 | 6xxx-06 | -06 | Vxxx-06 | -06 |
| RQP510 | T510 | -10 | 1/2 | V000-10 | -10 | 6xxx-08 | -08 | Vxxx-08 | -08 |
| RQP512 | T512 | -12 | 5/8 | V000-12 | -12 | 6xxx-10 | -10 | Vxxx-10 | -10 |
| RQP516 | T516 | -16 | 7/8 | V000-16 | -16 | 6xxx-14 | -14 | Vxxx-14 | -14 |
| RQP520 | T520 | -20 | 1.1/8 | V000-20 | -20 | 6xxx-18 | -18 | Vxxx-18 | -18 |
| RQP524 | T524 | -24 | 1.3/8 | V000-24 | -24 | 6xxx-22 | -22 | Vxxx-22 | -22 |
| RQP532 | T532 | -32 | 1.13/16 | V000-32 | -32 | 6xxx-29 | -29 | Vxxx-29 | -29 |

ADDITIONAL COUPLING END STYLES

Pages 209 to 215 show the T4000 Series Coupling End Styles that are also used with **RQP5** and **T5** hose.

As **RYCO V000** Series Ferrules match with **RYCO 6000** Series Inserts it is possible to use any **RYCO 6000** Insert from -03 to -10 listed in the **6000** Series Field Attachable Inserts with the matching Series Ferrule.

Refer to RYCO for the availability of other **6000** Series Field Attachable Inserts.

CUT-OFF ALLOWANCE (C_A) DIMENSIONS FOR FIELD ATTACHABLES

Due to differences in Ferrule design, many Cut-Off Allowance (C_A) dimensions vary between each Ferrule Series for the same matched Insert/Hose size.

The Cut-Off Allowance (C_A) dimensions published in "V Series Field Attachable Inserts" section allow for the Ferrule being eased back 5/8 of a turn after the hose has bottomed in the ferrule, as per "Field Attachable Assembly Instructions" (ease back between 1/2 and 3/4 of a turn).

The Cut-Off Allowance (C_A) values for **6000** Series Inserts, published in the tables on pages 264 to 275 are for **6000** Series Inserts used with **V000** Series Ferrules. If using V000 Series Ferrules with other matched **6000** Series Inserts listed on pages 278 to 290, contact RYCO Hydraulics Technical Department for the correct Cut-Off Allowance (C_A).

If the hose assembly length is critical, when calculating the Cut Length of hose, you must also allow for an increase in length of hose when the coupling is attached, due to compression within the coupling; see page 487.

For further information about Hose Assemblies and Cut-Off Allowances (C_A), see pages 486 to 492 of the Technical Section.

HOW TO ORDER

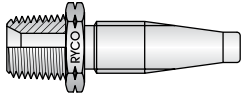
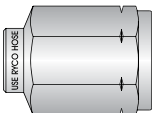
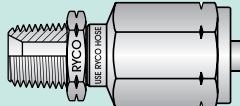
EXAMPLE To order 1/2" NPT male insert and ferrule for **T58** (13/32") hose.

(a) Individually Order ferrule **V000-08**.
V000 Series ferrules are used on **T5** hose; see chart on page 262, or chart for Couplings Selection on **T5** page 108.
 Ferrule Dash Size -08 is same as Dash Size of hose.

Order insert **6090-0608** (6000 Series).
T58 hose uses 6000-06 size inserts, see page 262.

(b) Complete Coupling Order **V090-0608**.
 Simply replace the first character of the insert's part number with the first character of the ferrule's part number.
 (replace 6 with V): **6090-0608** »» **V090-0608**

The **V000 Series** Couplings on pages 264 to 275 clearly show the Insert, Ferrule and Complete Coupling part numbers for each size of hose.

| 6090-0608 insert | plus V000-08 ferrule equals | V090-0608 complete coupling |
|---|---|---|
|  |  |  |

HOSE BRANDING:

In common with industry practice, **RYCO RQP5** and **T5** hoses are branded with their Part Number, and their Actual Inside Diameter. For example:

RYCO TRUCKER T55 1/4" MAX WP 3050 PSI•210 BAR MALAYSIA
 DOT RYCO MMY 1/4 All • RYCO AIR BRAKE (METRIC SIZE 6.3) SAE J1402 All

RYCO TRUCKER T56 5/16" MAX WP 2250 PSI•155 BAR MALAYSIA
 DOT RYCO MMY 5/16 All • RYCO AIR BRAKE (METRIC SIZE 8) SAE J1402 All

RYCO SURVIVOR RQP55 1/4" MAX WP 3050 PSI•210 BAR MALAYSIA
 DOT RYCO MMY 1/4 All • RYCO AIR BRAKE (METRIC SIZE 6.3) SAE J1402 All

RYCO SURVIVOR RQP56 5/16" MAX WP 3050 PSI•210 BAR MALAYSIA
 DOT RYCO MMY 5/16 All • RYCO AIR BRAKE (METRIC SIZE 8) SAE J1402 All

When ordering hose, it is important to be clear about what size is being referred to.

For example **T55** is -05 or **5/16"** Nominal Dash Size, and **1/4"** Actual Inside Diameter.

T56 is -06 or **3/8"** Nominal Dash Size, and **5/16"** Actual Inside Diameter.

Both hoses can be referred to as **5/16"**, depending on whether Nominal or Actual Inside Diameter is being referred to. Other sizes that crossover are:

T54 and **T55**; **T58** and **T510**; and **T510** and **T512**.

RQP54 and **RQP55**; **RQP58** and **RQP510**; and **RQP510** and **RQP512**.

It is NOT RECOMMENDED to refer to the size of the hose only, or there may be confusion about whether it is Actual or Nominal Diameter.

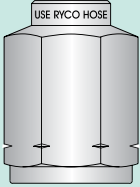
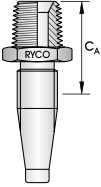
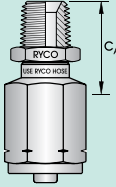
It is RECOMMENDED to only refer to the Part Number of the hose. Example: T56.

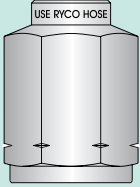
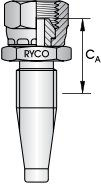
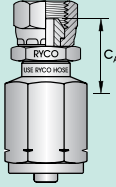
If the size is mentioned, the Part Number of the hose must also be included to remove any confusion.

EXAMPLE: 5/16" T56.

COUPLINGS

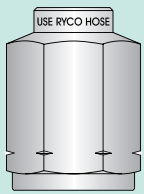
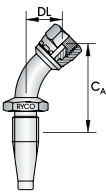
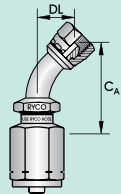
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

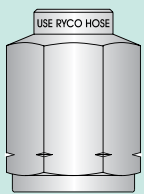
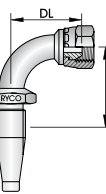
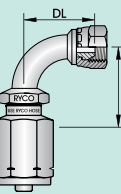
| BSP | | | | V000 (V00) FERRULE | 6010 (601) INSERT | V010 (V01) COUPLING | |
|------------------------|--------------|--------------|-------|---|---|---|----------------|
| 60° SEAT | | | |  |  |  | |
| HOSE SIZE ACTUAL ID | THRD SIZE | DASH SIZE | | BSPT MALE | | | |
| DN | inch | inch | | PART NO | PART NO | PART NO | C _A |
| 6 | 1/4 | 1/8 | -0402 | V000-05 | 6010-0402 | V010-0402 | 27 |
| 6 | 1/4 | 1/4 | -0404 | V000-05 | 6010-0404 | V010-0404 | 32 |
| 8 | 5/16 | 1/4 | -0504 | V000-06 | 6010-0504 | V010-0504 | 33 |
| 8 | 5/16 | 3/8 | -0506 | V000-06 | 6010-0506 | V010-0506 | 31 |
| 10 | 13/32 | 1/4 | -0604 | V000-08 | 6010-0604 | V010-0604 | 33 |
| 10 | 13/32 | 3/8 | -0606 | V000-08 | 6010-0606 | V010-0606 | 33 |
| 10 | 13/32 | 1/2 | -0608 | V000-08 | 6010-0608 | V010-0608 | 39 |
| 12 | 1/2 | 1/2 | -0808 | V000-10 | 6010-0808 | V010-0808 | 42 |
| 16 | 5/8 | 5/8 | -1010 | V000-12 | 6010-1010 | V010-1010 | 43 |
| 16 | 5/8 | 3/4 | -1012 | V000-12 | 6010-1012 | V010-1012 | 43 |
| 28 | 1.1/8 | 1.1/4 | -1820 | V000-20 | 6010-1820 | V010-1820 | 58 |

| BSP | | | | V000 (V00) FERRULE | 6020 (602) INSERT | V020 (V02) COUPLING | |
|------------------------|--------------|--------------|-------|---|---|---|----------------|
| 60° SEAT | | | |  |  |  | |
| HOSE SIZE ACTUAL ID | THRD SIZE | DASH SIZE | | BSPP FEMALE | | | |
| DN | inch | inch | | PART NO | PART NO | PART NO | C _A |
| 5 | 3/16 | 1/8 | -0302 | V000-04 | 6020-0302 | V020-0302 | 25 |
| 6 | 1/4 | 1/8 | -0402 | V000-05 | 6020-0402 | V020-0402 | 27 |
| 6 | 1/4 | 1/4 | -0404 | V000-05 | 6020-0404 | V020-0404 | 28 |
| 8 | 5/16 | 1/4 | -0504 | V000-06 | 6020-0504 | V020-0504 | 29 |
| 8 | 5/16 | 3/8 | -0506 | V000-06 | 6020-0506 | V020-0506 | 32 |
| 10 | 13/32 | 1/4 | -0604 | V000-08 | 6020-0604 | V020-0604 | 29 |
| 10 | 13/32 | 3/8 | -0606 | V000-08 | 6020-0606 | V020-0606 | 32 |
| 10 | 13/32 | 1/2 | -0608 | V000-08 | 6020-0608 | V020-0608 | 34 |
| 12 | 1/2 | 1/2 | -0808 | V000-10 | 6020-0808 | V020-0808 | 36 |
| 12 | 1/2 | 5/8 | -0810 | V000-10 | 6020-0810 | V020-0810 | 36 |
| 16 | 5/8 | 5/8 | -1010 | V000-12 | 6020-1010 | V020-1010 | 36 |
| 16 | 5/8 | 3/4 | -1012 | V000-12 | 6020-1012 | V020-1012 | 38 |
| 22 | 7/8 | 1 | -1416 | V000-16 | 6020-1416 | V020-1416 | 39 |
| 28 | 1.1/8 | 1.1/4 | -1820 | V000-20 | 6020-1820 | V020-1820 | 51 |

NOTE: Hose Compatibility for the V000 series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

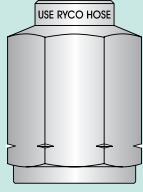
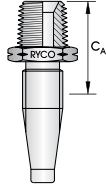
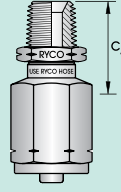
| BSP | | | | V000 (V00) FERRULE | 6270 (627) INSERT | V270 (V27) COUPLING | | | | | |
|----------|-------|-------|-----------|---|---|---|----------------|----|--|--|--|
| 60° SEAT | | | |  |  |  | | | | | |
| | | | | BSPP FEMALE - 45° TUBE BEND | | | | | | | |
| DN | inch | inch | DASH SIZE | PART NO | PART NO | PART NO | C _A | DL | | | |
| 6 | 1/4 | 1/4 | -0404 | V000-05 | 6270-0404 | V270-0404 | 44 | 17 | | | |
| 8 | 5/16 | 3/8 | -0506 | V000-06 | 6270-0506 | V270-0506 | 53 | 19 | | | |
| 10 | 13/32 | 3/8 | -0606 | V000-08 | 6270-0606 | V270-0606 | 53 | 18 | | | |
| 12 | 1/2 | 1/2 | -0808 | V000-10 | 6270-0808 | V270-0808 | 62 | 22 | | | |
| 16 | 5/8 | 5/8 | -1010 | V000-12 | 6270-1010 | V270-1010 | 67 | 23 | | | |
| 35 | 1.3/8 | 1.1/2 | -2224 | V000-24 | 6270-2224 | V270-2224 | 131 | 52 | | | |

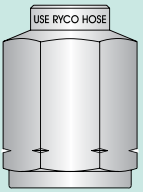
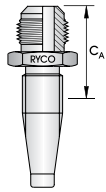
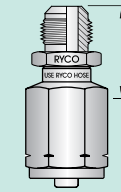
| BSP | | | | V000 (V00) FERRULE | 6260 (626) INSERT | V260 (V26) COUPLING | | | | | |
|----------|-------|-------|-----------|--|--|--|----------------|-----|--|--|--|
| 60° SEAT | | | |  |  |  | | | | | |
| | | | | BSPP FEMALE - 90° TUBE BEND | | | | | | | |
| DN | inch | inch | DASH SIZE | PART NO | PART NO | PART NO | C _A | DL | | | |
| 6 | 1/4 | 1/4 | -0404 | V000-05 | 6260-0404 | V260-0404 | 36 | 29 | | | |
| 8 | 5/16 | 3/8 | -0506 | V000-06 | 6260-0506 | V260-0506 | 44 | 34 | | | |
| 10 | 13/32 | 3/8 | -0606 | V000-08 | 6260-0606 | V260-0606 | 45 | 33 | | | |
| 10 | 13/32 | 1/2 | -0608 | V000-08 | 6260-0608 | V260-0608 | 45 | 33 | | | |
| 12 | 1/2 | 1/2 | -0808 | V000-10 | 6260-0808 | V260-0808 | 53 | 45 | | | |
| 16 | 5/8 | 5/8 | -1010 | V000-12 | 6260-1010 | V260-1010 | 61 | 50 | | | |
| 35 | 1.3/8 | 1.1/2 | -2224 | V000-24 | 6260-2224 | V260-2224 | 113 | 106 | | | |

NOTE: Hose Compatibility for the V000 series can be found on page 262.

COUPLINGS

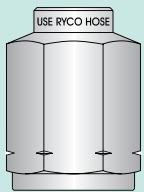
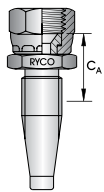
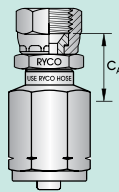
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

| NPT | | | | V000 (V00) FERRULE | 6090 (609) INSERT | V090 (V09) COUPLING | | |
|------------------------|--------------|--------------|-------|---|---|--|----------------|--|
| 60° SEAT | | | |  |  |  | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | DASH SIZE | | NPT MALE | | | | |
| DN | inch | inch | | PART NO | PART NO | PART NO | C _A | |
| 5 | 3/16 | 1/8 | -0302 | V000-04 | 6090-0302 | V090-0302 | 25 | |
| 5 | 3/16 | 1/4 | -0304 | V000-04 | 6090-0304 | V090-0304 | 30 | |
| 6 | 1/4 | 1/8 | -0402 | V000-05 | 6090-0402 | V090-0402 | 27 | |
| 6 | 1/4 | 1/4 | -0404 | V000-05 | 6090-0404 | V090-0404 | 32 | |
| 6 | 1/4 | 3/8 | -0406 | V000-05 | 6090-0406 | V090-0406 | 32 | |
| 8 | 5/16 | 1/4 | -0504 | V000-06 | 6090-0504 | V090-0504 | 33 | |
| 8 | 5/16 | 3/8 | -0506 | V000-06 | 6090-0506 | V090-0506 | 33 | |
| 10 | 13/32 | 1/4 | -0604 | V000-08 | 6090-0604 | V090-0604 | 33 | |
| 10 | 13/32 | 3/8 | -0606 | V000-08 | 6090-0606 | V090-0606 | 33 | |
| 10 | 13/32 | 1/2 | -0608 | V000-08 | 6090-0608 | V090-0608 | 39 | |
| 12 | 1/2 | 3/8 | -0806 | V000-10 | 6090-0806 | V090-0806 | 37 | |
| 12 | 1/2 | 1/2 | -0808 | V000-10 | 6090-0808 | V090-0808 | 42 | |
| 16 | 5/8 | 1/2 | -1008 | V000-12 | 6090-1008 | V090-1008 | 43 | |
| 16 | 5/8 | 3/4 | -1012 | V000-12 | 6090-1012 | V090-1012 | 43 | |
| 22 | 7/8 | 1 | -1416 | V000-16 | 6090-1416 | V090-1416 | 48 | |
| 28 | 1.1/8 | 1.1/4 | -1820 | V000-20 | 6090-1820 | V090-1820 | 58 | |
| 35 | 1.3/8 | 1.1/2 | -2224 | V000-24 | 6090-2224 | V090-2224 | 51 | |

| JIC | | | | V000 (V00) FERRULE | 6030 (603) INSERT | V030 (V03) COUPLING | | | |
|------------------------|--------------|--------------|--------------|---|---|--|---------|----------------|----|
| 37° FLARE | | | |  |  |  | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | JIC MALE | | | | | |
| DN | inch | inch | inch | PART NO | PART NO | C _A | PART NO | C _A | |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | V000-04 | 6030-0307 | 29 | V030-0307 | 30 |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6030-0407 | 31 | V030-0407 | 31 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | V000-05 | 6030-0408 | 31 | V030-0408 | 31 |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | V000-05 | 6030-0409 | 32 | V030-0409 | 32 |
| 6 | 1/4 | 3/4 | 1/2 | -0412 | V000-05 | 6030-0412 | 36 | V030-0412 | 27 |
| 10 | 13/32 | 9/16 | 3/8 | -0609 | V000-08 | 6030-0609 | 33 | V030-0609 | 33 |
| 10 | 13/32 | 3/4 | 1/2 | -0612 | V000-08 | 6030-0612 | 37 | V030-0612 | 37 |
| 10 | 13/32 | 7/8 | 5/8 | -0614 | V000-08 | 6030-0614 | 39 | V030-0614 | 39 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | V000-10 | 6030-0812 | 39 | V030-0812 | 39 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | V000-10 | 6030-0814 | 42 | V030-0814 | 42 |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | V000-10 | 6030-0817 | 46 | V030-0817 | 46 |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | V000-12 | 6030-1014 | 43 | V030-1014 | 43 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | V000-12 | 6030-1017 | 46 | V030-1017 | 46 |

NOTE: Hose Compatibility for the V000 series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

| JIC | | | | | V000 (V00) FERRULE | 6040 (604) INSERT | V040 (V04) COUPLING | | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|--|
| 37° FLARE | | | | |  |  |  | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | JIC FEMALE | | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | V000-04 | 6040-0307 | V040-0307 | 23 | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6040-0407 | V040-0407 | 25 | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | V000-05 | 6040-0408 | V040-0408 | 25 | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | V000-05 | 6040-0409 | V040-0409 | 26 | |
| 6 | 1/4 | 3/4 | 1/2 | -0412 | V000-05 | 6040-0412 | V040-0412 | 27 | |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | V000-06 | 6040-0509 | V040-0509 | 27 | |
| 10 | 13/32 | 7/16 | 1/4 | -0607 | V000-08 | 6040-0607 | V040-0607 | 27 | |
| 10 | 13/32 | 1/2 | 5/16 | -0608 | V000-08 | 6040-0608 | V040-0608 | 27 | |
| 10 | 13/32 | 9/16 | 3/8 | -0609 | V000-08 | 6040-0609 | V040-0609 | 27 | |
| 10 | 13/32 | 3/4 | 1/2 | -0612 | V000-08 | 6040-0612 | V040-0612 | 30 | |
| 10 | 13/32 | 7/8 | 5/8 | -0614 | V000-08 | 6040-0614 | V040-0614 | 31 | |
| 12 | 1/2 | 9/16 | 3/8 | -0809 | V000-10 | 6040-0809 | V040-0809 | 31 | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | V000-10 | 6040-0812 | V040-0812 | 32 | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | V000-10 | 6040-0814 | V040-0814 | 34 | |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | V000-10 | 6040-0817 | V040-0817 | 36 | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | V000-12 | 6040-1014 | V040-1014 | 34 | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | V000-12 | 6040-1017 | V040-1017 | 36 | |
| 22 | 7/8 | 1.5/16 | 1 | -1421 | V000-16 | 6040-1421 | V040-1421 | 37 | |
| 28 | 1.1/8 | 1.5/8 | 1.1/4 | -1826 | V000-20 | 6040-1826 | V040-1826 | 46 | |
| 35 | 1.3/8 | 1.7/8 | 1.1/2 | -2230 | V000-24 | 6040-2230 | V040-2230 | 45 | |
| 46 | 1.13/16 | 2.1/2 | 2 | -2940 | V000-32 | 6040-2940 | V040-2940 | 37 | |

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

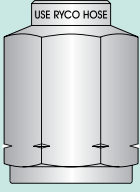
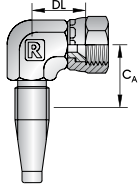
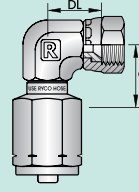
FILTERS

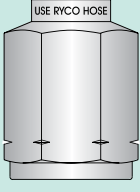
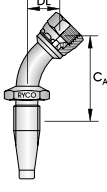
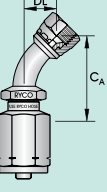
TECHNICAL

NOTE: Hose Compatibility for the **V000** series can be found on page 262.

COUPLINGS

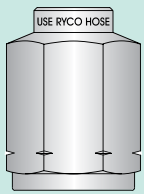
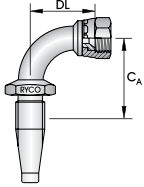
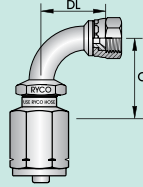
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

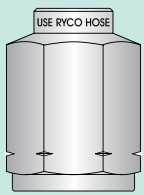
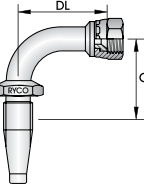
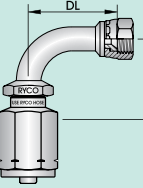
| JIC | | | | | V000 (V00) FERRULE | 6070 (607) INSERT | V070 (V07) COUPLING | | | |
|------------------------|--------------|--------------|--------------|-------|---|---|--|----------------|----|--|
| 37° FLARE | | | | |  |  |  | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | JIC FEMALE - 90° ELBOW | | | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | DL | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6070-0407 | V070-0407 | 23 | 18 | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | V000-05 | 6070-0408 | V070-0408 | 23 | 18 | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | V000-05 | 6070-0409 | V070-0409 | 23 | 18 | |
| 10 | 13/32 | 9/16 | 3/8 | -0609 | V000-08 | 6070-0609 | V070-0609 | 25 | 20 | |
| 10 | 13/32 | 3/4 | 1/2 | -0612 | V000-08 | 6070-0612 | V070-0612 | 25 | 21 | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | V000-10 | 6070-0812 | V070-0812 | 32 | 22 | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | V000-10 | 6070-0814 | V070-0814 | 32 | 23 | |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | V000-10 | 6070-0817 | V070-0817 | 32 | 25 | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | V000-12 | 6070-1014 | V070-1014 | 33 | 29 | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | V000-12 | 6070-1017 | V070-1017 | 31 | 28 | |

| JIC | | | | | V000 (V00) FERRULE | 6250 (625) INSERT | V250 (V25) COUPLING | | | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|----|--|
| 37° FLARE | | | | |  |  |  | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | JIC FEMALE - 45° TUBE BEND | | | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | DL | |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | V000-04 | 6250-0307 | V250-0307 | 40 | 10 | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6250-0407 | V250-0407 | 42 | 10 | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | V000-05 | 6250-0408 | V250-0408 | 42 | 12 | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | V000-05 | 6250-0409 | V250-0409 | 42 | 12 | |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | V000-06 | 6250-0509 | V250-0509 | 45 | 11 | |
| 10 | 13/32 | 9/16 | 3/8 | -0609 | V000-08 | 6250-0609 | V250-0609 | 45 | 11 | |
| 10 | 13/32 | 3/4 | 1/2 | -0612 | V000-08 | 6250-0612 | V250-0612 | 49 | 15 | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | V000-10 | 6250-0812 | V250-0812 | 57 | 15 | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | V000-10 | 6250-0814 | V250-0814 | 57 | 18 | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | V000-12 | 6250-1017 | V250-1017 | 62 | 24 | |
| 22 | 7/8 | 1.5/16 | 1 | -1421 | V000-16 | 6250-1421 | V250-1421 | 94 | 28 | |
| 35 | 1.3/8 | 1.7/8 | 1.1/2 | -2230 | V000-24 | 6250-2230 | V250-2230 | 131 | 50 | |

NOTE: Hose Compatibility for the V000 series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

| JIC | | | | | V000 (V00) FERRULE | 6240 (624) INSERT | V240 (V24) COUPLING | | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|-----|
| 37° FLARE | | | | |  |  |  | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | JIC FEMALE - 90° TUBE BEND | | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | DL |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | V000-04 | 6240-0307 | V240-0307 | 33 | 32 |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6240-0407 | V240-0407 | 35 | 32 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | V000-05 | 6240-0408 | V240-0408 | 35 | 32 |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | V000-05 | 6240-0409 | V240-0409 | 35 | 38 |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | V000-06 | 6240-0509 | V240-0509 | 45 | 38 |
| 10 | 13/32 | 9/16 | 3/8 | -0609 | V000-08 | 6240-0609 | V240-0609 | 45 | 38 |
| 10 | 13/32 | 3/4 | 1/2 | -0612 | V000-08 | 6240-0612 | V240-0612 | 45 | 41 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | V000-10 | 6240-0812 | V240-0812 | 54 | 41 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | V000-10 | 6240-0814 | V240-0814 | 54 | 47 |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | V000-12 | 6240-1014 | V240-1014 | 60 | 48 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | V000-12 | 6240-1017 | V240-1017 | 60 | 58 |
| 22 | 7/8 | 1.5/16 | 1 | -1421 | V000-16 | 6240-1421 | V240-1421 | 77 | 72 |
| 28 | 1.1/8 | 1.5/8 | 1.1/4 | -1826 | V000-20 | 6240-1826 | V240-1826 | 103 | 81 |
| 35 | 1.3/8 | 1.7/8 | 1.1/2 | -2230 | V000-24 | 6240-2230 | V240-2230 | 113 | 104 |

| JIC | | | | | V000 (V00) FERRULE | 6280 (628) INSERT | V280 (V28) COUPLING | | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|----|
| 37° FLARE | | | | |  |  |  | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | JIC FEMALE - 90° LONG TUBE BEND | | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6280-0407 | V280-0407 | 36 | 47 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | V000-05 | 6280-0408 | V280-0408 | 36 | 47 |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | V000-05 | 6280-0409 | V280-0409 | 36 | 54 |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | V000-06 | 6280-0509 | V280-0509 | 48 | 54 |
| 10 | 13/32 | 9/16 | 3/8 | -0609 | V000-08 | 6280-0609 | V280-0609 | 42 | 54 |
| 10 | 13/32 | 3/4 | 1/2 | -0612 | V000-08 | 6280-0612 | V280-0612 | 45 | 64 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | V000-10 | 6280-0812 | V280-0812 | 53 | 64 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | V000-10 | 6280-0814 | V280-0814 | 53 | 70 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | V000-12 | 6280-1017 | V280-1017 | 50 | 96 |

NOTE: Hose Compatibility for the **V000** series can be found on page 262.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

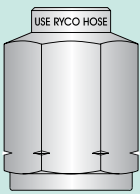
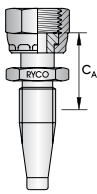
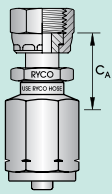
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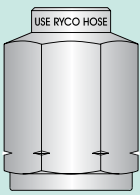
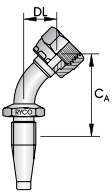
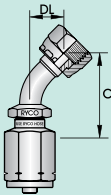
FILTERS

TECHNICAL

COUPLINGS

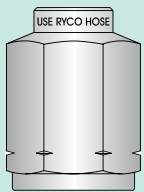
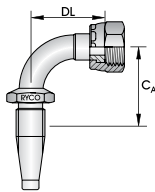
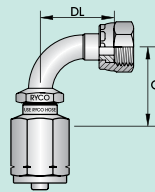
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

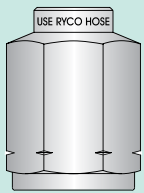
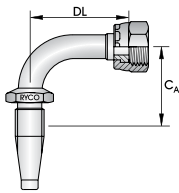
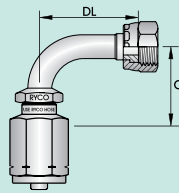
| ORFS | | | | | V000 (V00) FERRULE | 6800 (680) INSERT | V800 (V80) COUPLING | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|
| O RING FACE SEAL | | | | |  |  |  | |
| | | | | | ORFS FEMALE | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | PART NO | PART NO | PART NO | C _A |
| 5 | 3/16 | 9/16 | 1/4 | -0309 | V000-04 | 6800-0309 | V800-0309 | 32 |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | V000-05 | 6800-0409 | V800-0409 | 34 |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | V000-05 | 6800-0411 | V800-0411 | 36 |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | V000-06 | 6800-0511 | V800-0511 | 37 |
| 10 | 13/32 | 11/16 | 3/8 | -0611 | V000-08 | 6800-0611 | V800-0611 | 37 |
| 10 | 13/32 | 13/16 | 1/2 | -0613 | V000-08 | 6800-0613 | V800-0613 | 40 |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | V000-10 | 6800-0813 | V800-0813 | 41 |
| 12 | 1/2 | 1 | 5/8 | -0816 | V000-10 | 6800-0816 | V800-0816 | 47 |
| 16 | 5/8 | 1 | 5/8 | -1016 | V000-12 | 6800-1016 | V800-1016 | 47 |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | V000-12 | 6800-1019 | V800-1019 | 50 |
| 22 | 7/8 | 1.7/16 | 1 | -1423 | V000-16 | 6800-1423 | V800-1423 | 56 |

| ORFS | | | | | V000 (V00) FERRULE | 6810 (681) INSERT | V810 (V81) COUPLING | | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|----|
| O RING FACE SEAL | | | | |  |  |  | | |
| | | | | | ORFS FEMALE - 45° TUBE BEND | | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | PART NO | PART NO | PART NO | C _A | DL |
| 5 | 3/16 | 9/16 | 1/4 | -0309 | V000-04 | 6810-0309 | V810-0309 | 46 | 18 |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | V000-05 | 6810-0409 | V810-0409 | 48 | 18 |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | V000-05 | 6810-0411 | V810-0411 | 48 | 19 |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | V000-06 | 6810-0511 | V810-0511 | 54 | 20 |
| 10 | 13/32 | 11/16 | 3/8 | -0611 | V000-08 | 6810-0611 | V810-0611 | 54 | 20 |
| 10 | 13/32 | 13/16 | 1/2 | -0613 | V000-08 | 6810-0613 | V810-0613 | 50 | 17 |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | V000-10 | 6810-0813 | V810-0813 | 60 | 19 |
| 12 | 1/2 | 1 | 5/8 | -0816 | V000-10 | 6810-0816 | V810-0816 | 60 | 19 |
| 16 | 5/8 | 1 | 5/8 | -1016 | V000-12 | 6810-1016 | V810-1016 | 71 | 20 |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | V000-12 | 6810-1019 | V810-1019 | 71 | 24 |
| 22 | 7/8 | 1.7/16 | 1 | -1423 | V000-16 | 6810-1423 | V810-1423 | 96 | 34 |

NOTE: Hose Compatibility for the **V000** series can be found on pages 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

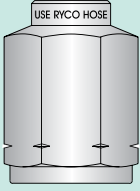
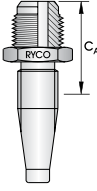
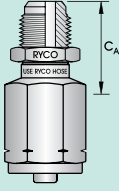
| ORFS | | | | | V000 (V00) FERRULE | 6820 (682) INSERT | V820 (V82) COUPLING | | | | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|----|--|--|
| O RING FACE SEAL | | | | |  |  |  | | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | ORFS FEMALE - 90° TUBE BEND | | | | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | DL | | |
| 5 | 3/16 | 9/16 | 1/4 | -0309 | V000-04 | 6820-0309 | V820-0309 | 35 | 32 | | |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | V000-05 | 6820-0409 | V820-0409 | 37 | 32 | | |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | V000-05 | 6820-0411 | V820-0411 | 37 | 38 | | |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | V000-06 | 6820-0511 | V820-0511 | 44 | 38 | | |
| 10 | 13/32 | 11/16 | 3/8 | -0611 | V000-08 | 6820-0611 | V820-0611 | 44 | 38 | | |
| 10 | 13/32 | 13/16 | 1/2 | -0613 | V000-08 | 6820-0613 | V820-0613 | 44 | 41 | | |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | V000-10 | 6820-0813 | V820-0813 | 52 | 41 | | |
| 12 | 1/2 | 1 | 5/8 | -0816 | V000-10 | 6820-0816 | V820-0816 | 55 | 47 | | |
| 16 | 5/8 | 1 | 5/8 | -1016 | V000-12 | 6820-1016 | V820-1016 | 59 | 47 | | |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | V000-12 | 6820-1019 | V820-1019 | 59 | 58 | | |
| 22 | 7/8 | 1.7/16 | 1 | -1423 | V000-16 | 6820-1423 | V820-1423 | 79 | 71 | | |

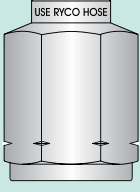
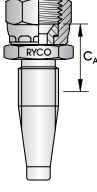
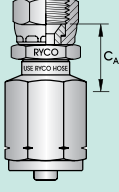
| ORFS | | | | | V000 (V00) FERRULE | 6830 (683) INSERT | V830 (V83) COUPLING | | | | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|-----|--|--|
| O RING FACE SEAL | | | | |  |  |  | | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | ORFS FEMALE - 90° LONG TUBE BEND | | | | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | DL | | |
| 5 | 3/16 | 9/16 | 1/4 | -0309 | V000-04 | 6830-0309 | V830-0309 | 35 | 47 | | |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | V000-05 | 6830-0409 | V830-0409 | 37 | 47 | | |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | V000-05 | 6830-0411 | V830-0411 | 37 | 54 | | |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | V000-06 | 6830-0511 | V830-0511 | 42 | 54 | | |
| 10 | 13/32 | 11/16 | 3/8 | -0611 | V000-08 | 6830-0611 | V830-0611 | 42 | 54 | | |
| 10 | 13/32 | 13/16 | 1/2 | -0613 | V000-08 | 6830-0613 | V830-0613 | 42 | 64 | | |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | V000-10 | 6830-0813 | V830-0813 | 53 | 65 | | |
| 12 | 1/2 | 1 | 5/8 | -0816 | V000-10 | 6830-0816 | V830-0816 | 58 | 70 | | |
| 16 | 5/8 | 1 | 5/8 | -1016 | V000-12 | 6830-1016 | V830-1016 | 63 | 70 | | |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | V000-12 | 6830-1019 | V830-1019 | 63 | 96 | | |
| 22 | 7/8 | 1.7/16 | 1 | -1423 | V000-16 | 6830-1423 | V830-1423 | 87 | 113 | | |

NOTE: Hose Compatibility for the V000 series can be found on page 262.

COUPLINGS

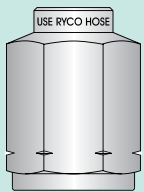
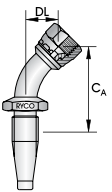
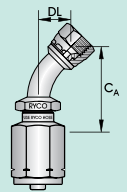
V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

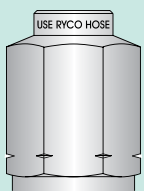
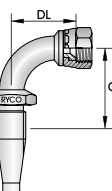
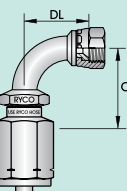
| SAE | | | | | V000 (V00) FERRULE | 6530 (653) INSERT | V530 (V53) COUPLING | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|
| 45° FLARE | | | | |  |  |  | |
| | | | | | SAE MALE | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | PART NO | PART NO | PART NO | C _A |
| 6 | 1/4 | 5/8 | 3/8 | -0410 | V000-05 | 6530-0410 | V530-0410 | 33 |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | V000-06 | 6530-0510 | V530-0510 | 34 |
| 10 | 13/32 | 1/2 | 5/16 | -0608 | V000-08 | 6530-0608 | V530-0608 | 33 |
| 10 | 13/32 | 5/8 | 3/8 | -0610 | V000-08 | 6530-0610 | V530-0610 | 34 |

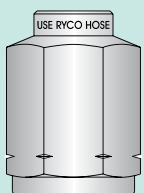
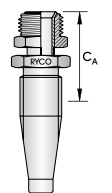
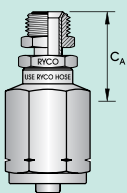
| SAE | | | | | V000 (V00) FERRULE | 6540 (654) INSERT | V540 (V54) COUPLING | |
|------------------------|--------------|--------------|--------------|-------|--|--|--|----------------|
| 45° FLARE | | | | |  |  |  | |
| | | | | | SAE FEMALE | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | PART NO | PART NO | PART NO | C _A |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | V000-04 | 6540-0307 | V540-0307 | 23 |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6540-0407 | V540-0407 | 25 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | V000-05 | 6540-0408 | V540-0408 | 25 |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | V000-06 | 6540-0510 | V540-0510 | 27 |
| 10 | 13/32 | 5/8 | 3/8 | -0610 | V000-08 | 6540-0610 | V540-0610 | 27 |
| 10 | 13/32 | 3/4 | 1/2 | -0612 | V000-08 | 6540-0612 | V540-0612 | 30 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | V000-10 | 6540-0814 | V540-0814 | 32 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | V000-12 | 6540-1017 | V540-1017 | 36 |

NOTE: Hose Compatibility for the **V000** series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

| SAE | | | | | V000 (V00) FERRULE | 6550 (655) INSERT | V550 (V55) COUPLING | | | | |
|------------------------|-------|------|------|-------|---|---|---|----------------------------|----|--|--|
| 45° FLARE | | | | |  |  |  | | | | |
| HOSE SIZE ACTUAL ID | | | | | THR D SIZE | TUBE SIZE | DASH SIZE | SAE FEMALE - 45° TUBE BEND | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | DL | | |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | V000-04 | 6550-0307 | V550-0307 | 40 | 15 | | |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | V000-06 | 6550-0510 | V550-0510 | 50 | 17 | | |
| 10 | 13/32 | 1/2 | 5/16 | -0608 | V000-08 | 6550-0608 | V550-0608 | 50 | 15 | | |
| 10 | 13/32 | 5/8 | 3/8 | -0610 | V000-08 | 6550-0610 | V550-0610 | 51 | 17 | | |

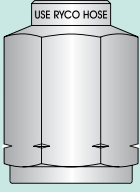
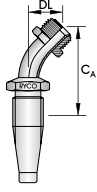
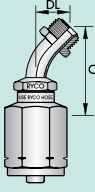
| SAE | | | | | V000 (V00) FERRULE | 6560 (656) INSERT | V560 (V56) COUPLING | | | | |
|------------------------|-------|------|------|-------|--|--|--|----------------------------|----|--|--|
| 45° FLARE | | | | |  |  |  | | | | |
| HOSE SIZE ACTUAL ID | | | | | THR D SIZE | TUBE SIZE | DASH SIZE | SAE FEMALE - 90° TUBE BEND | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | DL | | |
| 5 | 3/16 | 7/16 | 1/4 | -0307 | V000-04 | 6560-0307 | V560-0307 | 38 | 29 | | |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | V000-06 | 6560-0510 | V560-0510 | 44 | 33 | | |
| 10 | 13/32 | 5/8 | 3/8 | -0610 | V000-08 | 6560-0610 | V560-0610 | 44 | 33 | | |

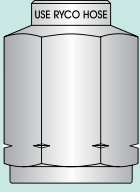
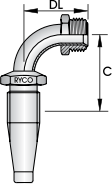
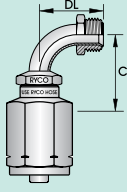
| SAE | | | | | V000 (V00) FERRULE | 6740 (674) INSERT | V740 (V74) COUPLING | | | | |
|------------------------|-------|-------|------|-------|---|---|---|-------------------------|--|--|--|
| INVERTED MALE FLARE | | | | |  |  |  | | | | |
| HOSE SIZE ACTUAL ID | | | | | THR D SIZE | TUBE SIZE | DASH SIZE | SAE INVERTED MALE FLARE | | | |
| DN | inch | inch | inch | | PART NO | PART NO | PART NO | C _A | | | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6740-0407 | V740-0407 | 46 | | | |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | V000-06 | 6740-0510 | V740-0510 | 47 | | | |
| 10 | 13/32 | 5/8 | 3/8 | -0610 | V000-08 | 6740-0610 | V740-0610 | 48 | | | |
| 10 | 13/32 | 11/16 | 7/16 | -0611 | V000-08 | 6740-0611 | V740-0611 | 51 | | | |

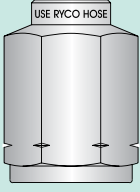
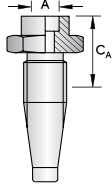
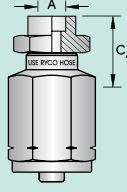
NOTE: Hose Compatibility for the V000 series can be found on page 262.

COUPLINGS

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

| SAE | | | | | V000 (V00) FERRULE | 6750 (675) INSERT | V750 (V75) COUPLING | | |
|------------------------|--------------|--------------|--------------|-------|---|---|---|----------------|----|
| INVERTED MALE FLARE | | | | |  |  |  | | |
| | | | | | SAE INVERTED MALE FLARE - 45° TUBE BEND | | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | PART NO | PART NO | PART NO | C _A | DL |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | V000-06 | 6750-0510 | V750-0510 | 80 | 23 |
| 10 | 13/32 | 5/8 | 3/8 | -0610 | V000-08 | 6750-0610 | V750-0610 | 80 | 23 |

| SAE | | | | | V000 (V00) FERRULE | 6770 (677) INSERT | V770 (V77) COUPLING | | |
|------------------------|--------------|--------------|--------------|-------|---|---|--|----------------|----|
| INVERTED MALE FLARE | | | | |  |  |  | | |
| | | | | | SAE INVERTED MALE FLARE - 90° TUBE BEND | | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | PART NO | PART NO | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | V000-05 | 6770-0407 | V770-0407 | 49 | 38 |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | V000-06 | 6770-0510 | V770-0510 | 62 | 50 |
| 10 | 13/32 | 5/8 | 3/8 | -0610 | V000-08 | 6770-0610 | V770-0610 | 62 | 50 |

| SALVAGE | | | | | V000 (V00) FERRULE | 6230 (623) INSERT | V230 (V23) COUPLING | |
|------------------------|-------|-------|--------------|--|---|---|--|----------------|
| TUBE WELD | | | | |  |  |  | |
| | | | | | SALVAGE (LIFESAVER) | | | |
| HOSE SIZE ACTUAL ID | | A | DASH SIZE | | PART NO | PART NO | PART NO | C _A |
| 5 | 3/16 | 1/4 | -0304 | | V000-04 | 6230-0304 | V230-0304 | 22 |
| 6 | 1/4 | 3/8 | -0406 | | V000-05 | 6230-0406 | V230-0406 | 24 |
| 8 | 5/16 | 3/8 | -0506 | | V000-06 | 6230-0506 | V230-0506 | 25 |
| 10 | 13/32 | 3/8 | -0606 | | V000-08 | 6230-0606 | V230-0606 | 25 |
| 10 | 13/32 | 1/2 | -0608 | | V000-08 | 6230-0608 | V230-0608 | 25 |
| 12 | 1/2 | 5/8 | -0810 | | V000-10 | 6230-0810 | V230-0810 | 29 |
| 16 | 5/8 | 3/4 | -1012 | | V000-12 | 6230-1012 | V230-1012 | 29 |
| 22 | 7/8 | 1 | -1416 | | V000-16 | 6230-1416 | V230-1416 | 32 |
| 28 | 1.1/8 | 1.1/4 | -1820 | | V000-20 | 6230-1820 | V230-1820 | 41 |
| 35 | 1.3/8 | 1.1/2 | -2224 | | V000-24 | 6230-2224 | V230-2224 | 33 |

NOTE: Hose Compatibility for the V000 series can be found on page 262.

V000 (V00) SERIES FIELD ATTACHABLE COUPLINGS

| UNO (O RING BOSS) | | | | | V000 (V00) FERRULE | 6200 (620) INSERT | V200 (V20) COUPLING | | |
|------------------------|--------------|--------------|--------------|-------|------------------------------|----------------------|------------------------|----------------|--|
| O RING SUPPLIED | | | | | | | | | |
| | | | | | UN O RING MALE (O RING BOSS) | | | | |
| HOSE SIZE ACTUAL ID | THRD SIZE | TUBE SIZE | DASH SIZE | | PART NO | PART NO | PART NO | C _A | |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | V000-05 | 6200-0409 | V200-0409 | 27 | |
| 10 | 13/32 | 9/16 | 3/8 | -0609 | V000-08 | 6200-0609 | V200-0609 | 28 | |
| 10 | 13/32 | 3/4 | 1/2 | -0612 | V000-08 | 6200-0612 | V200-0612 | 31 | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | V000-10 | 6200-0812 | V200-0812 | 33 | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | V000-10 | 6200-0814 | V200-0814 | 35 | |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | V000-10 | 6200-0817 | V200-0817 | 39 | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | V000-12 | 6200-1017 | V200-1017 | 39 | |

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

NOTE: Hose Compatibility for the **V000** series can be found on page 262.

COUPLINGS

FIELD ATTACHABLE FERRULES FOR 6000 (600) SERIES INSERTS

HOSE COMPATIBILITY FOR 6000 (600) SERIES

FIELD ATTACHABLE FERRULES FOR 600 SERIES INSERTS

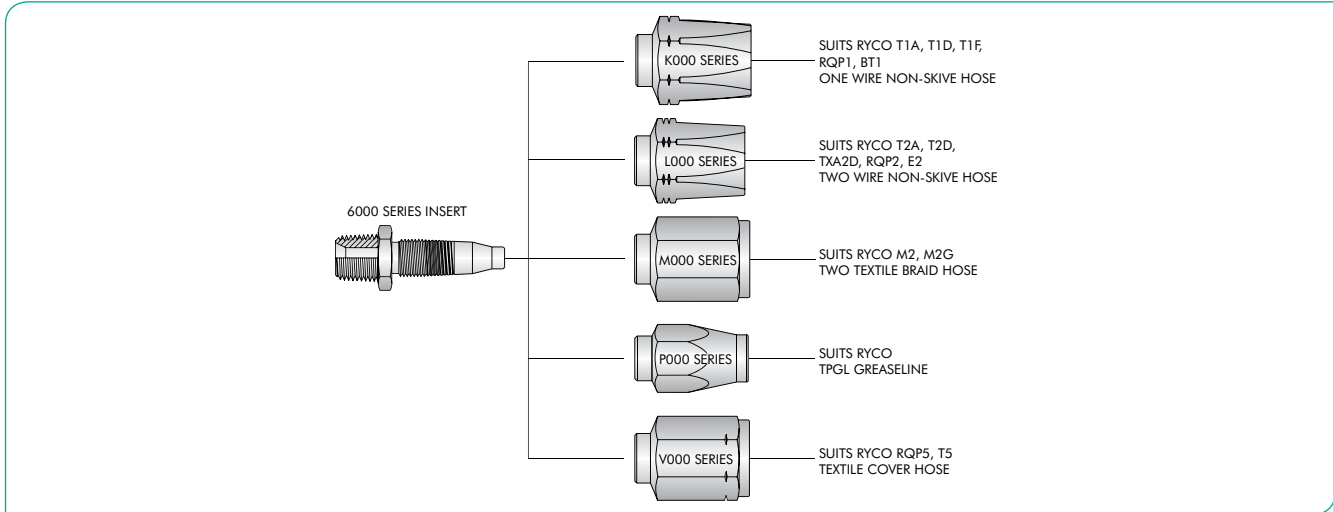
The RYCO Field Attachable system consists of five ferrule styles, each specific to a hose type, and one common insert.

Field attachable inserts and ferrules can be ordered individually, or as a complete coupling for specific hose types.

Field Attachable Inserts for RYCO Hose Series T1A, T2A, T1D, T2D, TXA2D, RQP1, RQP2, T1F, M2, M2G, BT1, E2.

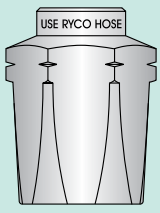
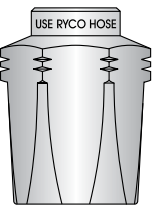
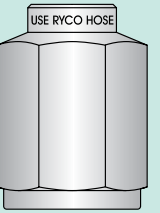
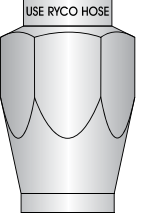
For **V000** Series for RQP5 and T5 Hose Series, see pages 262 to 275.

6000 Series Inserts are used with NON-SKIVE Ferrules **K000**, **L000**, **M000**, **P000** and **V000** Series.



V000 Series Couplings for T5 Hose Series are shown on pages 262 to 275.

6000 Series Inserts, for use with **K000**, **L000**, **M000** and **P000** Series Ferrules, are shown on pages 276 to 290.

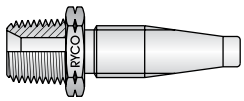
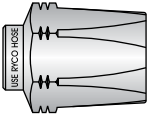
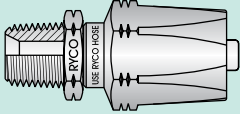
| FERRULES | | | | K000 (K00) | | L000 (L00) | | M000 (400) | | P000 | |
|------------------------|-------|------------|----------------|---|----|---|----|--|----|---|----|
| | | | |  | |  | |  | |  | |
| SUITS RYCO HOSE TYPE | | | | ONE WIRE BRAID NON-SKIVE | | TWO WIRE BRAID NON-SKIVE | | TWO TEXTILE BRAID | | GREASELINE | |
| SUITS RYCO HOSE SERIES | | | | RYCO T1A, T1D, T1F, RQP1, BT1 | | RYCO T2A, T2D, TXA2D, RQP2, E2 | | RYCO M2, M2G | | RYCO TPGL | |
| HOSE SIZE | | USE INSERT | | C _A ADJ | | C _A ADJ | | C _A ADJ | | C _A ADJ | |
| DN | inch | Dash | Series | PART NO | mm | PART NO | mm | PART NO | mm | PART NO | mm |
| | 1/8 | -02 | 6000-02 | | | | | | | P000-02 | 0 |
| 5 | 3/16 | -03 | 6000-03 | | | | | | | | |
| 6 | 1/4 | -04 | 6000-04 | K000-04 | 0 | L000-04 | 0 | M000-04 | 0 | | |
| 10 | 3/8 | -06 | 6000-06 | K000-06 | 0 | L000-06 | 0 | M000-06 | 0 | | |
| 12 | 1/2 | -08 | 6000-08 | K000-08 | +3 | L000-08 | 0 | M000-08 | 0 | | |
| 16 | 5/8 | -10 | 6000-10 | K000-10 | +1 | L000-10 | 0 | | | | |
| 19 | 3/4 | -12 | 6000-12 | K000-12 | +2 | L000-12 | 0 | M000-12 | 0 | | |
| 25 | 1 | -16 | 6000-16 | K000-16 | 0 | L000-16 | 0 | M000-16 | -2 | | |
| 31 | 1.1/4 | -20 | 6000-20 | | | L000-20 | 0 | | | | |
| 38 | 1.1/2 | -24 | 6000-24 | | | | | | | | |
| 51 | 2 | -32 | 6000-32 | | | | | | | | |

NOTE: For previous Part Number series, remove a zero from the end of the new series Part Number. Eg, **K000** series was previously **K00** series. Part Number **L000-04** was previously **L00-04**. The exception is **M000**, which was previously the **400** series.

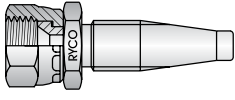
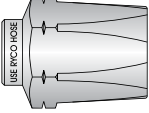
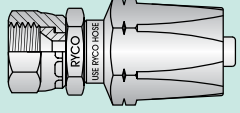
ALL SERIES (EXCEPT V SERIES)

Field Attachable Inserts and Ferrules can be ordered individually, or as complete Couplings. Each Ferrule Series is specific to a hose type as detailed on the previous page. For all Series, except V Series*, the following method is used:

- EXAMPLE 1** To order 1/2" NPT male Insert and Ferrule for 1/2" two wire non-skive hose (T2A).
- (a) Individually Order Insert **6090-0808** (6000 Series). See NPT 6000 Series Inserts on page 280.
Order Ferrule **L000-08**.
L000 Series Ferrules are used on T2A hose; see table on the previous page, or table for Matched Couplings for T2A on page 92.
Dash Size -08 part of **L000-08** comes from 1/2" hose = $8/16" = -08$; or from the tables.
- (b) Complete Coupling Order **L090-0808**.
Simply replace the first character of the Insert part number with the first character of the Ferrule part number.
(replace 6 with L) = **6090-0808** » **L090-0808**

| 6090-0808 Insert | plus L000-08 Ferrule equals | L090-0808 complete Coupling |
|---|---|---|
|  |  |  |

- EXAMPLE 2** To order 3/4"-16 JIC female Insert and Ferrule for 3/8" RQP1 series hose.
- (a) Individually Order Insert **6040-0612** (6000 Series). See JIC 6000 Series Inserts on page 282.
Order Ferrule **K000-06**.
K000 Series Ferrules are used on RQP1 hose; see table on previous page, table for Matched Couplings for RQP1 on page 114.
Dash Size -06 part of **K000-06** comes from 3/8" hose = $6/16" = -06$; or from the tables.
- (b) Complete Coupling Order **K040-0612**.
Simply replace the first character of the Insert part number with the first character of the Ferrule part number.
(replace 6 with K) = **6040-0612** » **K040-0612**

| 6040-0612 Insert | plus K000-06 Ferrule equals | K040-0612 complete Coupling |
|---|---|---|
|  |  |  |

* See page 263 for How To Order RYCO V000 Series Field Attachable Couplings for RQP5 and T5 Series Hose.

CUT-OFF ALLOWANCE (C_A) DIMENSIONS FOR FIELD ATTACHABLES

Due to differences in Ferrule design, many Cut-Off Allowance (C_A) dimensions vary between each Ferrule Series for the same matched Insert/Hose size.

The Cut-Off Allowance (C_A) dimensions published in "6000 Series Field Attachable Inserts" section allow for the Ferrule being eased back 5/8 of a turn after the hose has bottomed in the ferrule, as per "Field Attachable Assembly Instructions" (ease back between 1/2 and 3/4 of a turn).

The Cut-Off Allowance (C_A) values for 6000 Series Inserts, published in the tables on pages 278 to 290 are:
Up to and including -20 Size; the C_A is for **L000** Series (the most popular series)

To determine the correct Cut-Off Allowance (C_A) for other Ferrule Series, use the published figure from pages 278 to 290, and adjust by the C_A Adjustment dimension listed in the table on the previous page.

- EXAMPLE:** Determine the Cut-Off Allowance (C_A) for **K090-0808**.
From table on page 108, Cut-Off Allowance (C_A) for **6090-0808** (L090-0808) is 42 mm.
From the table on the previous page, adjustment for **K000** Series in -08 size is "add 3 mm".
Cut-Off Allowance (C_A) for K090-0808 = 42 mm + 3 mm = 45 mm.

If the hose assembly length is critical, when calculating the Cut Length of hose, you must also allow for an increase in length of hose when the coupling is attached, due to compression within the coupling; see page 487.

For further information about Hose Assemblies and Cut-Off Allowances (C_A), see pages 486 to 492 of the Technical Section.
* For Cut-Off Allowances (C_A), and **V Series** Couplings, refer to pages 262 to 275.

COUPLINGS

BSP

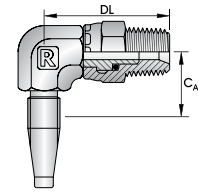
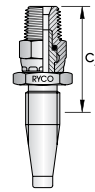
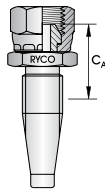
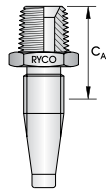
6010
[601]

6020
[602]

6320
[632]

6340
[634]

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPT MALE | | BSPF FEMALE | | BSPT MALE SWIVEL | | BSPT MALE SWIVEL 90° ELBOW | | |
|-----------|-------|-----------|-----------|-----------|----|-------------|----|------------------|----|----------------------------|----|----|
| DN | inch | inch | | PART NO | CA | PART NO | CA | PART NO | CA | PART NO | CA | DL |
| 4 | 3/16 | 1/8 | -0302 | | | 6020-0302 | 25 | | | | | |
| 6 | 1/4 | 1/8 | -0402 | 6010-0402 | 31 | 6020-0402 | 31 | | | | | |
| 6 | 1/4 | 1/4 | -0404 | 6010-0404 | 35 | 6020-0404 | 31 | | | | | |
| 6 | 1/4 | 3/8 | -0406 | 6010-0406 | 35 | 6020-0406 | 33 | | | | | |
| 8 | 5/16 | 1/4 | -0504 | 6010-0504 | 33 | 6020-0504 | 29 | | | | | |
| 8 | 5/16 | 3/8 | -0506 | 6010-0506 | 33 | 6020-0506 | 32 | | | | | |
| 10 | 3/8 | 1/8 | -0602 | 6010-0602 | 28 | | | | | | | |
| 10 | 3/8 | 1/4 | -0604 | 6010-0604 | 32 | 6020-0604 | 28 | | | | | |
| 10 | 3/8 | 3/8 | -0606 | 6010-0606 | 32 | 6020-0606 | 31 | 6320-0606 | 52 | 6340-0606 | 24 | 44 |
| 10 | 3/8 | 1/2 | -0608 | 6010-0608 | 38 | 6020-0608 | 33 | 6320-0608 | 56 | 6340-0608 | 24 | 48 |
| 12 | 1/2 | 1/4 | -0804 | 6010-0804 | 38 | | | | | | | |
| 12 | 1/2 | 3/8 | -0806 | 6010-0806 | 38 | 6020-0806 | 36 | | | | | |
| 12 | 1/2 | 1/2 | -0808 | 6010-0808 | 43 | 6020-0808 | 37 | 6320-0808 | 57 | 6340-0808 | 32 | 50 |
| 12 | 1/2 | 5/8 | -0810 | | | 6020-0810 | 38 | | | | | |
| 12 | 1/2 | 3/4 | -0812 | | | 6020-0812 | 38 | | | | | |
| 16 | 5/8 | 1/2 | -1008 | 6010-1008 | 46 | | | | | | | |
| 16 | 5/8 | 5/8 | -1010 | 6010-1010 | 46 | 6020-1010 | 39 | | | | | |
| 16 | 5/8 | 3/4 | -1012 | 6010-1012 | 46 | 6020-1012 | 40 | | | | | |
| 19 | 3/4 | 3/4 | -1212 | 6010-1212 | 42 | 6020-1212 | 38 | 6320-1212 | 60 | | | |
| 19 | 3/4 | 1 | -1216 | 6010-1216 | 50 | 6020-1216 | 42 | | | | | |
| 22 | 7/8 | 1 | -1416 | | | 6020-1416 | 39 | | | | | |
| 25 | 1 | 1 | -1616 | 6010-1616 | 54 | 6020-1616 | 46 | | | | | |
| 29 | 1.1/8 | 1.2/8 | | 6010-1820 | 58 | 6020-1820 | 51 | | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | 6010-2020 | 59 | 6020-2020 | 51 | | | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | 6010-2424 | 57 | 6020-2424 | 51 | | | | | |
| 51 | 2 | 2 | -3232 | 6010-3232 | 66 | 6020-3232 | 62 | | | | | |

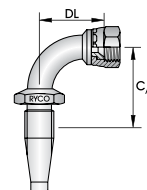
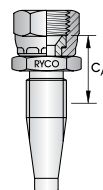
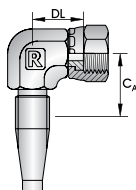
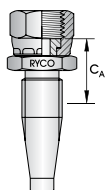
NOTE: These "Live Swivel" 6320 and 6340 Series Inserts are for Maximum Working Pressure: 420 bar (6100 psi): -04 & -06 Thread Size, 350 bar (5100 psi): -08 Thread Size, 280 bar (4100 psi): -12 Thread Size, 215 bar (3100 psi): -16 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

BSP **6024**
(602F) **6052**
(605F) **6120**
(612) **6311**
(631)

SPECIAL SEATS

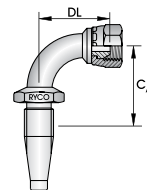
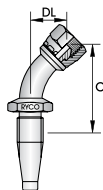
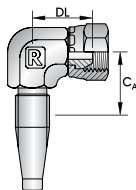
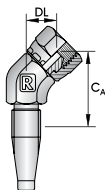


| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE FLAT FACE | | | BSPP FEMALE FLAT FACE 90° ELBOW | | | BSPP FEMALE 60° CONCAVE SEAT (JIS) | | | BSPP FEMALE 60° CONCAVE SEAT (JIS) 90° TUBE BEND | | |
|-----------|------|-----------|-----------|-----------------------|----------------|------------------|---------------------------------|----------------|----|------------------------------------|----------------|--|--|----------------|----|
| DN | inch | inch | | PART NO | C _A | | PART NO | C _A | DL | PART NO | C _A | | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | 6024-0404 | 28 | | | | | 6120-0404 | 31 | | | | |
| 10 | 3/8 | 3/8 | -0606 | 6024-0606 | 28 | | | | | 6120-0606 | 29 | | 6311-0606 | 44 | 30 |
| 10 | 3/8 | 1/2 | -0608 | 6024-0608 | 29 | 6052-0608 | 24 | 26 | | | | | | | |
| 12 | 1/2 | 1/2 | -0808 | 6024-0808 | 34 | | | | | 6120-0808 | 33 | | | | |
| 12 | 1/2 | 3/4 | -0812 | 6024-0812 | 34 | | | | | | | | | | |
| 19 | 3/4 | 3/4 | -1212 | 6024-1212 | 34 | | | | | 6120-1212 | 36 | | | | |
| 25 | 1 | 1 | -1616 | | | | | | | 6120-1616 | 43 | | | | |

NOTE: These **6120** and **6310** Series inserts are also listed in the **JIS** section on page 283.

BSP **6060**
(606) **6050**
(605) **6270**
(627) **6260**
(626)

60° SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 45° ELBOW | | | BSPP FEMALE 90° ELBOW | | | BSPP FEMALE 45° TUBE BEND | | | BSPP FEMALE 90° TUBE BEND | | |
|-----------|-------|-----------|-----------|-----------------------|----------------|----|-----------------------|----------------|----|---------------------------|----------------|----|---------------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | 6060-0404 | 40 | 15 | 6050-0404 | 27 | 24 | 6270-0404 | 47 | 17 | 6260-0404 | 39 | 29 |
| 6 | 1/4 | 3/8 | -0406 | | | | 6050-0406 | 26 | 28 | | | | | | |
| 8 | 5/16 | 3/8 | -0506 | | | | | | | 6270-0506 | 53 | 19 | 6260-0506 | 41 | 34 |
| 10 | 3/8 | 3/8 | -0606 | 6060-0606 | 39 | 18 | 6050-0606 | 24 | 28 | 6270-0606 | 52 | 18 | 6260-0606 | 44 | 33 |
| 10 | 3/8 | 1/2 | -0608 | | | | 6050-0608 | 24 | 31 | | | | 6260-0608 | 44 | 33 |
| 12 | 1/2 | 1/2 | -0808 | 6060-0808 | 48 | 18 | 6050-0808 | 32 | 31 | 6270-0808 | 64 | 22 | 6260-0808 | 55 | 45 |
| 12 | 1/2 | 5/8 | -0810 | | | | | | | | | | 6260-0810 | 56 | 45 |
| 16 | 5/8 | 5/8 | -1010 | 6060-1010 | 50 | | 6050-1010 | 35 | 30 | 6270-1010 | 70 | 23 | 6260-1010 | 64 | 50 |
| 19 | 3/4 | 3/4 | -1212 | 6060-1212 | 48 | 20 | 6050-1212 | 32 | 36 | 6270-1212 | 82 | 29 | 6260-1212 | 68 | 58 |
| 25 | 1 | 1 | -1616 | 6060-1616 | 60 | 23 | 6050-1616 | 39 | 40 | 6270-1616 | 97 | 39 | 6260-1616 | 82 | 72 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 6060-2020 | 65 | 25 | 6050-2020 | 43 | 49 | 6270-2020 | 124 | 44 | 6260-2020 | 105 | 88 |
| 35 | 1.3/8 | 1.1/2 | -2224 | | | | | | | 6270-2224 | 118 | 52 | 6260-2224 | 100 | 106 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 6060-2424 | 72 | | 6050-2424 | 50 | 59 | | | | | | |
| 51 | 2 | 2 | -3232 | 6060-3232 | 85 | | 6050-3232 | 56 | 62 | 6270-3232 | 165 | 65 | 6260-3232 | 152 | 132 |

NOTE: Hose Compatibility for the **6000** series can be found on page 276.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

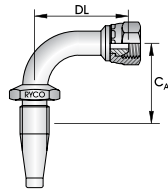
TECHNICAL

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

BSP

6210
(621)

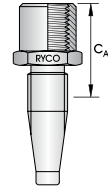
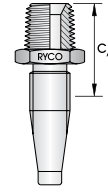


60° SEAT

BSP

6860
(686M)

6861
(686)



60° SEAT

| HOSE SIZE | THRD SIZE | DASH SIZE | BSP FEMALE 90° LONG TUBE BEND | | | |
|-----------|-----------|-----------|----------------------------------|------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | 6210-0404 | 39 | 47 |
| 10 | 3/8 | 3/8 | -0606 | 6210-0606 | 43 | 55 |
| 12 | 1/2 | 1/2 | -0808 | 6210-0808 | 54 | 70 |
| 12 | 1/2 | 5/8 | -0810 | 6210-0810 | 56 | 72 |
| 16 | 5/8 | 5/8 | -1010 | 6210-1010 | 61 | 81 |
| 19 | 3/4 | 3/4 | -1212 | 6210-1212 | 67 | 96 |
| 25 | 1 | 1 | -1616 | 6210-1616 | 83 | 116 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 6210-2020 | 105 | 142 |

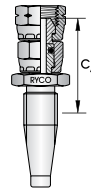
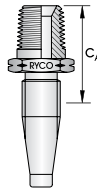
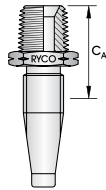
| HOSE SIZE | THRD SIZE | DASH SIZE | GREASE LINE MALE | | GREASE LINE FIXED FEMALE | | |
|-----------|-----------|------------|---------------------|------------------|-----------------------------|------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A |
| 6 | 1/4 | 1/2x27 TPI | -0408 | 6860-0408 | 32 | 6861-0408 | 32 |
| 10 | 3/8 | 1/2x27 TPI | -0608 | | | 6861-0608 | 29 |

NPT

6090
(609)

6091
(609E)

6960B
(696)



60° SEAT

| HOSE SIZE | THRD SIZE | DASH SIZE | NPT MALE | | NPT MALE EXTENDED | | NPSM FEMALE LIVE SWIVEL | | |
|-----------|-----------|-----------|----------|------------------|----------------------|------------------|----------------------------|-------------------|----------------|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A |
| 6 | 1/4 | 1/8 | -0402 | 6090-0402 | 31 | | | | |
| 6 | 1/4 | 1/4 | -0404 | 6090-0404 | 35 | | | 6960B-0404 | 50 |
| 6 | 1/4 | 3/8 | -0406 | 6090-0406 | 35 | 6091-0406 | 43 | | |
| 8 | 5/16 | 1/4 | -0504 | 6090-0504 | 33 | | | | |
| 8 | 5/16 | 3/8 | -0506 | 6090-0506 | 35 | | | | |
| 10 | 3/8 | 1/4 | -0604 | 6090-0604 | 32 | | | 6960B-0604 | 46 |
| 10 | 3/8 | 3/8 | -0606 | 6090-0606 | 32 | 6091-0606 | 40 | | |
| 10 | 3/8 | 1/2 | -0608 | 6090-0608 | 39 | | | | |
| 12 | 1/2 | 3/8 | -0806 | 6090-0806 | 38 | | | | |
| 12 | 1/2 | 1/2 | 0808 | 6090-0808 | 43 | | | | |
| 16 | 5/8 | 1/2 | -1008 | 6090-1008 | 45 | | | | |
| 16 | 5/8 | 3/4 | -1012 | 6090-1012 | 45 | | | | |
| 19 | 3/4 | 1/2 | -1208 | 6090-1208 | 42 | | | | |
| 19 | 3/4 | 3/4 | -1212 | 6090-1212 | 42 | | | | |
| 22 | 7/8 | 1 | -1416 | 6090-1416 | 48 | | | | |
| 25 | 1 | 1 | -1616 | 6090-1616 | 54 | | | | |
| | 1.1/8 | 1.1/4 | -1820 | 6090-1820 | 58 | | | | |
| 31 | 1.1/4 | 1.1/4 | -2020 | 6090-2020 | 59 | | | | |
| 35 | 1.3/8 | 1.1/2 | -2224 | 6090-2224 | 51 | | | | |
| 38 | 1.1/2 | 1.1/2 | -2424 | 6090-2424 | 53 | | | | |
| 51 | 2 | 2 | -3232 | 6090-3232 | 66 | | | | |

NOTE: These "Live Swivel" 6960B Series Inserts are for Maximum Working Pressure: 420 bar (6000 psi) -04 Hose Size, 350 bar (5100 psi) -06 Hose Size
Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

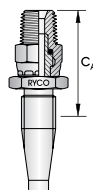
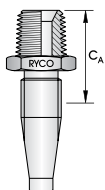
6000 (600) SERIES FIELD ATTACHABLE INSERTS

GREASELINE BSP

6010
(601)

6320
(632)

60° SEAT
FOR TPGL HOSE



| HOSE SIZE | | | THRD SIZE | DASH SIZE | BSPT MALE | | BSPT MALE SWIVEL | |
|-----------|------|------|-----------|-----------|------------------|----------------|------------------|----------------|
| DN | inch | inch | | | PART NO | C _A | PART NO | C _A |
| 4 | 1/8 | 1/4 | -0202 | | 6010-0202 | | 6320-0202 | |

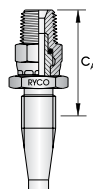
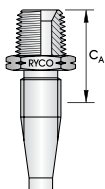
NOTE: For use with TPGL2 and P000-02. These "Live Swivel" 6320 Series Inserts are for Maximum Working Pressure: 420 bar (6100 psi) -02 Hose Size.

GREASELINE NPT

6090
(609)

6320N
(632N)

60° SEAT
FOR TPGL HOSE



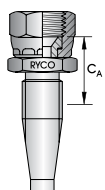
| HOSE SIZE | | | THRD SIZE | DASH SIZE | NPTF MALE | | NPTF MALE SWIVEL | |
|-----------|------|------|-----------|-----------|------------------|----------------|-------------------|----------------|
| DN | inch | inch | | | PART NO | C _A | PART NO | C _A |
| 4 | 1/8 | 1/8 | -0202 | | 6090-0202 | | 6320N-0202 | |

NOTE: For use with TPGL2 and P000-02. These "Live Swivel" 6320 Series Inserts are for Maximum Working Pressure: 420 bar (6100 psi) -02 Hose Size.

GREASELINE JIC

6040
(604)

37° FLARE
FOR TPGL HOSE



| HOSE SIZE | | | THRD SIZE | DASH SIZE | JIC FEMALE | |
|-----------|------|------|-----------|-----------|------------------|----------------|
| DN | inch | inch | | | PART NO | C _A |
| 4 | 1/8 | 7/16 | -0207 | | 6040-0207 | |

NOTE: For use with TPGL2 and P000-02. These "Live Swivel" 6320 Series Inserts are for Maximum Working Pressure: 420 bar (6100 psi) -02 Hose Size.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

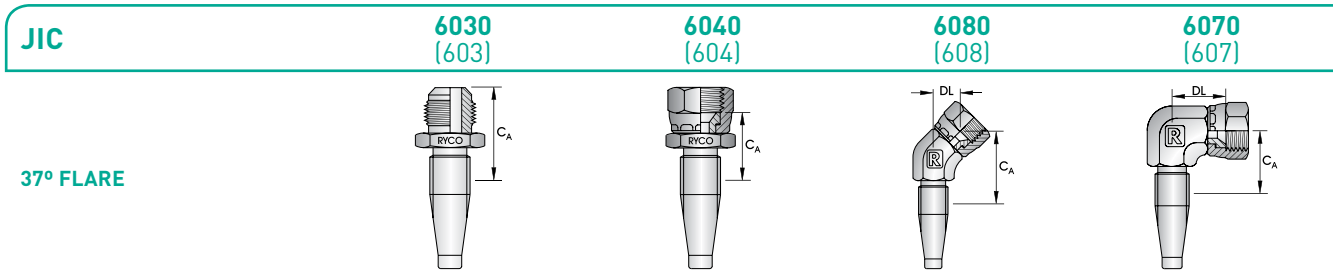
ACCESSORIES

FILTERS

TECHNICAL

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS



| HOSE SIZE | | | | | JIC MALE | | JIC FEMALE | | JIC FEMALE 45° ELBOW | | | JIC FEMALE 90° ELBOW | | |
|-----------|---------|--------|-------|-----------|------------------|----|-------------------|----|----------------------|----|----|----------------------|----|----|
| DN | inch | inch | inch | DASH SIZE | PART NO | CA | PART NO | CA | PART NO | CA | DL | PART NO | CA | DL |
| 3 | 1/8 | 7/16 | 1/4 | -0207 | | | 6040-0207* | 23 | | | | | | |
| 4 | 3/16 | 7/16 | 1/4 | -0307 | 6030-0307 | 29 | 6040-0307 | 23 | | | | | | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | 6030-0407 | 35 | 6040-0407 | 29 | 6080-0407 | 38 | 14 | 6070-0407 | 27 | 18 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | 6030-0408 | 35 | 6040-0408 | 29 | 6080-0408 | 38 | 14 | 6070-0408 | 27 | 18 |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | 6030-0409 | 35 | 6040-0409 | 29 | 6080-0409 | 38 | 14 | 6070-0409 | 27 | 22 |
| 6 | 1/4 | 3/4 | 1/2 | -0412 | 6030-0412 | 35 | 6040-0412 | 31 | | | | | | |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | | | 6040-0509 | 27 | | | | | | |
| 10 | 3/8 | 7/16 | 1/4 | -0607 | | | 6040-0607 | 26 | | | | 6070-0607 | 26 | 23 |
| 10 | 3/8 | 1/2 | 5/16 | -0608 | | | 6040-0608 | 26 | | | | | | |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | 6030-0609 | 32 | 6040-0609 | 26 | 6080-0609 | 36 | 12 | 6070-0609 | 24 | 23 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | 6030-0612 | 36 | 6040-0612 | 29 | 6080-0612 | 37 | 13 | 6070-0612 | 24 | 25 |
| 10 | 3/8 | 7/8 | 5/8 | -0614 | 6030-0614 | 38 | 6040-0614 | 30 | | | | | | |
| 12 | 1/2 | 9/16 | 3/8 | -0809 | | | 6040-0809 | 34 | | | | | | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | 6030-0812 | 40 | 6040-0812 | 34 | 6080-0812 | 46 | 15 | 6070-0812 | 32 | 28 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | 6030-0814 | 43 | 6040-0814 | 33 | 6080-0814 | 46 | 13 | 6070-0814 | 32 | 29 |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | 6030-0817 | 47 | 6040-0817 | 36 | 6080-0817 | 48 | 15 | 6070-0817 | 32 | 30 |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | 6030-1014 | 45 | 6040-1014 | 36 | 6080-1014 | 49 | 19 | 6070-1014 | 33 | 30 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | 6030-1017 | 48 | 6040-1017 | 38 | 6080-1017 | 48 | 14 | 6070-1017 | 33 | 30 |
| 19 | 3/4 | 7/8 | 5/8 | -1214 | | | 6040-1214 | 36 | | | | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | 6030-1217 | 46 | 6040-1217 | 36 | 6080-1217 | 48 | 15 | 6070-1217 | 32 | 30 |
| 19 | 3/4 | 1.3/16 | 7/8 | -1219 | 6030-1219 | 47 | 6040-1219 | 38 | | | | 6070-1219 | 31 | 35 |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | 6030-1221 | 49 | 6040-1221 | 39 | | | | | | |
| 22 | 7/8 | 1.5/16 | 1 | -1421 | | | 6040-1421 | 37 | | | | | | |
| 25 | 1 | 1.1/16 | 3/4 | -1617 | 6030-1617 | 52 | 6040-1617 | 43 | | | | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | 6030-1621 | 53 | 6040-1621 | 43 | 6080-1621 | 58 | 18 | 6070-1621 | 39 | 37 |
| 25 | 1 | 1.5/8 | 1.1/4 | -1626 | 6030-1626 | 60 | 6040-1626 | 44 | | | | | | |
| 29 | 1.1/8 | 1.5/8 | 1.1/4 | -1826 | | | 6040-1826 | 50 | | | | | | |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | 6030-2026 | 58 | 6040-2026 | 48 | 6080-2026 | 62 | 21 | 6070-2026 | 43 | 47 |
| 35 | 1.3/8 | 1.7/8 | 1.1/2 | -2230 | | | 6040-2230 | 45 | | | | | | |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | | | 6040-2430 | 50 | | | | | | |
| 46 | 1.13/16 | 2.1/2 | 2 | -2940 | | | 6040-2940 | 54 | | | | | | |
| 51 | 2 | 2.1/2 | 2 | -3240 | | | 6040-3240 | 62 | | | | | | |

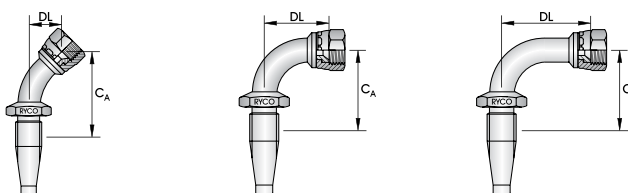
NOTE: * 6040-0207 is for use with TPGL2 and P000-02

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

JIC 6250 (625) 6240 (624) 6280 (628)

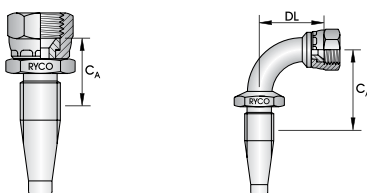
37° FLARE



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | JIC FEMALE 45° TUBE BEND | | | JIC FEMALE 90° TUBE BEND | | | JIC FEMALE 90° LONG BEND | | |
|-----------|-------|-----------|-----------|-----------|--------------------------|----------------|----|--------------------------|----------------|-----|--------------------------|----------------|-----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 4 | 3/16 | 7/16 | 1/4 | -0307 | 6250-0307 | 41 | 10 | 6240-0307 | 33 | 32 | | | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | 6250-0407 | 45 | 10 | 6240-0407 | 38 | 32 | 6280-0407 | 39 | 47 |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | 6250-0408 | 45 | 12 | 6240-0408 | 38 | 32 | 6280-0408 | 39 | 47 |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | 6250-0409 | 45 | 12 | 6240-0409 | 38 | 38 | 6280-0409 | 39 | 54 |
| 8 | 5/16 | 9/16 | 3/8 | -0509 | 6250-0509 | 42 | 11 | 6240-0509 | 45 | 38 | 6280-0509 | 48 | 55 |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | 6250-0609 | 42 | 11 | 6240-0609 | 44 | 38 | 6280-0609 | 41 | 55 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | 6250-0612 | 48 | 15 | 6240-0612 | 44 | 41 | 6280-0612 | 44 | 64 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | 6250-0812 | 60 | 15 | 6240-0812 | 56 | 41 | 6280-0812 | 53 | 62 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | 6250-0814 | 62 | 18 | 6240-0814 | 56 | 47 | 6280-0814 | 53 | 70 |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | 6250-1014 | 65 | 19 | 6240-1014 | 63 | 48 | 6280-1014 | 62 | 70 |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | 6250-1017 | 65 | 24 | 6240-1017 | 63 | 58 | 6280-1017 | 62 | 96 |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | 6250-1217 | 77 | 22 | 6240-1217 | 68 | 57 | 6280-1217 | 53 | 96 |
| 19 | 3/4 | 1.3/16 | 7/8 | -1219 | 6250-1219 | 76 | 24 | 6240-1219 | 68 | 58 | | | |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | 6250-1221 | 84 | 28 | 6240-1221 | 70 | 71 | | | |
| 22 | 7/8 | 1.5/16 | 1 | -1421 | 6250-1421 | 94 | 30 | 6240-1421 | 76 | 72 | | | |
| 25 | 1 | 1.1/16 | 3/4 | -1617 | | | | 6240-1617 | 77 | 58 | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | 6250-1621 | 99 | 30 | 6240-1621 | 83 | 72 | 6280-1621 | 91 | 114 |
| 29 | 1.1/8 | 1.5/8 | 1.1/4 | -1826 | | | | 6240-1826 | 103 | 81 | | | |
| 31 | 1.1/4 | 1.5/8 | 1.1/4 | -2026 | 6250-2026 | 118 | 39 | 6240-2026 | 106 | 81 | 6280-2026 | 104 | 129 |
| 35 | 1.3/8 | 1.7/8 | 1.1/2 | -2230 | 6250-2230 | 130 | 50 | 6240-2230 | 120 | 104 | | | |
| 38 | 1.1/2 | 1.7/8 | 1.1/2 | -2430 | 6250-2430 | 138 | 50 | | | | 6280-2430 | 119 | 141 |

JIS 6120 (612) 6311 (631)

JAPANESE INDUSTRIAL STANDARD (JIS)
BSPP THREAD FORM
60° CONCAVE SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | BSPP FEMALE 60° CONCAVE SEAT (JIS) | | BSPP FEMALE 60° CONCAVE SEAT (JIS) 90° TUBE BEND | | |
|-----------|------|-----------|-----------|------------------------------------|----------------|--|----------------|----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL |
| 6 | 1/4 | 1/4 | -0404 | 6120-0404 | 31 | | | |
| 10 | 3/8 | 3/8 | -0606 | 6120-0606 | 29 | 6311-0606 | 44 | 30 |
| 12 | 1/2 | 1/2 | -0808 | 6120-0808 | 33 | | | |
| 19 | 3/4 | 3/4 | -1212 | 6120-1212 | 36 | | | |
| 25 | 1 | 1 | -1616 | 6120-1616 | 43 | | | |

NOTE: These 6120 and 6310 Series inserts are also listed in the BSP section on page 279.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

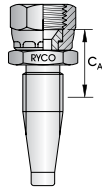
COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

JIS

6680
(668)

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



| HOSE SIZE | | THRD SIZE | DASH SIZE | METRIC FEMALE 60 CONCAVE SEAT (JIS) | |
|-----------|------|-----------|-----------|-------------------------------------|----------------|
| DN | inch | mm | | PART NO | C _A |
| 6 | 1/4 | 14x1,5 | -0414 | 6680-0414 | 33 |
| 10 | 3/8 | 18x1,5 | -0618 | 6680-0618 | 27 |
| 10 | 3/8 | 22x1,5 | -0622 | 6680-0622 | 30 |
| 12 | 1/2 | 22x1,5 | -0822 | 6680-0822 | 33 |
| 12 | 1/2 | 24x1,5 | -0824 | 6680-0824 | 33 |
| 16 | 5/8 | 24x1,5 | -1024 | 6680-1024 | 37 |
| 16 | 5/8 | 30x1,5 | -1030 | 6680-1030 | 37 |
| 19 | 3/4 | 24x1,5 | -1224 | 6680-1224 | 36 |
| 19 | 3/4 | 30x1,5 | -1230 | 6680-1230 | 36 |
| 19 | 3/4 | 33x1,5 | -1233 | 6680-1233 | 39 |
| 25 | 1 | 33x1,5 | -1633 | 6680-1633 | 41 |

NOTE: These 6680 Series inserts are also listed in the METRIC section on page 285.

METRIC

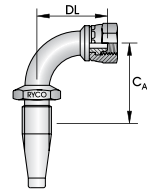
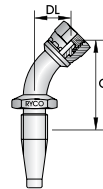
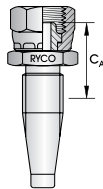
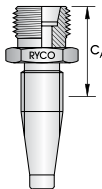
6650
(665)

6600
(660)

6660
(666)

6670
(667)

DKL
METRIC (LIGHT)
RYCO DKL FEMALE SWIVELS UP TO
M26 SIZE HAVE MULTISEAL DKL
24° AND DKM 60° CONE.
M30 AND OVER HAVE DKL
24° CONE ONLY.



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | DKL MALE 24° CONE | DKL FEMALE 24°/60° CONE | DKL FEMALE 24°/60° CONE 45° TUBE BEND | DKL FEMALE 24°/60° CONE 90° TUBE BEND | | | | | | |
|-----------|------|-----------|-----------|-----------|-------------------|-------------------------|---------------------------------------|---------------------------------------|------------------|----------------|----|------------------|----------------|----|
| DN | inch | mm | mm | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 12x1,5 | 6 | -0412 | 6650-0412 | 31 | 6600-0412 | 34 | 6660-0412 | 49 | 18 | 6670-0412 | 36 | 31 |
| 6 | 1/4 | 14x1,5 | 8 | -0414 | 6650-0414 | 31 | 6600-0414 | 34 | 6660-0414 | 48 | 17 | 6670-0414 | 39 | 31 |
| 6 | 1/4 | 16x1,5 | 10 | -0416 | | | 6600-0416 | 35 | | | | | | |
| 10 | 3/8 | 16x1,5 | 10 | -0616 | 6650-0616 | 29 | 6600-0616 | 32 | 6660-0616 | 54 | 20 | 6670-0616 | 44 | 35 |
| 10 | 3/8 | 18x1,5 | 12 | -0618 | 6650-0618 | 29 | 6600-0618 | 34 | 6660-0618 | 54 | 20 | 6670-0618 | 44 | 35 |
| 12 | 1/2 | 18x1,5 | 12 | -0818 | 6650-0818 | 33 | | | | | | | | |
| 12 | 1/2 | 22x1,5 | 15 | -0822 | 6650-0822 | 34 | 6600-0822 | 38 | 6660-0822 | 67 | 22 | 6670-0822 | 56 | 44 |
| 12 | 1/2 | 26x1,5 | 18 | -0826 | 6650-0826 | 34 | 6600-0826 | 39 | 6660-0826 | 66 | 23 | 6670-0826 | 56 | 53 |
| 16 | 5/8 | 26x1,5 | 18 | -1026 | 6650-1026 | 36 | 6600-1026 | 43 | 6660-1026 | 73 | 28 | 6670-1026 | 63 | 53 |
| 19 | 3/4 | 30x2,0 | 22 | -1230 | 6650-1230 | 35 | 6600-1230 | 43 | 6660-1230 | 43 | 30 | 6670-1230 | 69 | 64 |
| 25 | 1 | 36x2,0 | 28 | -1636 | 6650-1636 | 43 | 6600-1636 | 47 | 6660-1636 | 102 | 42 | 6670-1636 | 85 | 72 |

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

METRIC

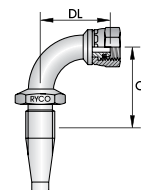
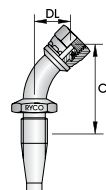
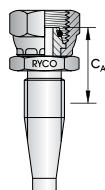
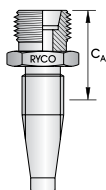
6630
[663]

6711
[671]

6720
[672]

6730
[673]

DKS/DKOS
METRIC O RING (HEAVY)
24° CONE

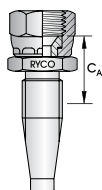


| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | DKS MALE 24° CONE | DKOS FEMALE 24° CONE | DKOS FEMALE 24° CONE 45° TUBE BEND | DKOS FEMALE 24° CONE 90° TUBE BEND | | | | | | | |
|-----------|-----------|-----------|-----------|-------------------|----------------------|------------------------------------|------------------------------------|---------|------------------|----|---------|------------------|----|----|
| DN | inch | mm | mm | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | |
| 6 | 1/4 | 16x1,5 | 8 | -0416 | 6630-0416 | 33 | 6711-0416 | 34 | 6720-0416 | 48 | 17 | 6730-0416 | 41 | 30 |
| 6 | 1/4 | 18x1,5 | 10 | -0418 | 6630-0418 | 33 | 6711-0418 | 34 | 6720-0418 | 47 | 17 | 6730-0418 | 41 | 32 |
| 10 | 3/8 | 20x1,5 | 12 | -0620 | 6630-0620 | 29 | 6711-0620 | 33 | 6720-0620 | 55 | 20 | 6730-0620 | 45 | 36 |
| 10 | 3/8 | 22x1,5 | 14 | -0622 | 6630-0622 | 33 | 6711-0622 | 36 | 6720-0622 | 56 | 19 | 6730-0622 | 45 | 37 |
| 12 | 1/2 | 24x1,5 | 16 | -0824 | 6630-0824 | 36 | 6711-0824 | 40 | 6720-0824 | 69 | 24 | 6730-0824 | 55 | 48 |
| 19 | 3/4 | 30x2,0 | 20 | -1230 | 6630-1230 | 40 | 6711-1230 | 44 | 6720-1230 | 87 | 35 | 6730-1230 | 68 | 67 |
| 19 | 3/4 | 36x2,0 | 25 | -1236 | 6630-1236 | 44 | 6711-1236 | 47 | 6720-1236 | 92 | 35 | 6730-1236 | 68 | 67 |
| 25 | 1 | 42x2,0 | 30 | -1642 | 6630-1642 | 49 | 6711-1642 | 49 | | | | | | |
| 31 | 1.1/4 | 52x2,0 | 38 | -2052 | | | 6711-2052 | 59 | | | | | | |

METRIC

6680
[668]

JAPANESE INDUSTRIAL
STANDARD (JIS)
"KOMATSU"
METRIC THREAD FORM
60° CONCAVE SEAT



| HOSE SIZE | THRD SIZE | DASH SIZE | METRIC FEMALE 60° CONCAVE SEAT (JIS) | | |
|-----------|-----------|-----------|--------------------------------------|------------------|----|
| DN | inch | inch | PART NO | C _A | |
| 6 | 1/4 | 14x1,5 | -0414 | 6680-0414 | 33 |
| 10 | 3/8 | 18x1,5 | -0618 | 6680-0618 | 27 |
| 10 | 3/8 | 22x1,5 | -0622 | 6680-0622 | 30 |
| 12 | 1/2 | 22x1,5 | -0822 | 6680-0822 | 33 |
| 12 | 1/2 | 24x1,5 | -0824 | 6680-0824 | 33 |
| 16 | 5/8 | 24x1,5 | -1024 | 6680-1024 | 37 |
| 16 | 5/8 | 30x1,5 | -1030 | 6680-1030 | 37 |
| 19 | 3/4 | 24x1,5 | -1224 | 6680-1224 | 36 |
| 19 | 3/4 | 30x1,5 | -1230 | 6680-1230 | 36 |
| 19 | 3/4 | 33x1,5 | -1233 | 6680-1233 | 39 |
| 25 | 1 | 33x1,5 | -1633 | 6680-1633 | 41 |

NOTE: These 6680 Series inserts are also listed in the JIS section on page 284.

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

ORFS

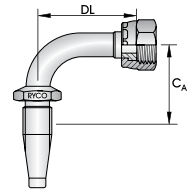
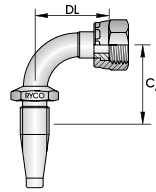
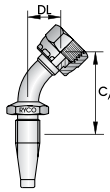
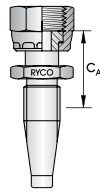
6800
(680)

6810
(681)

6820
(682)

6830
(683)

O RING
FACE SEAL



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | ORFS FEMALE | ORFS FEMALE 45° TUBE BEND | ORFS FEMALE 90° TUBE BEND | ORFS FEMALE 90° LONG BEND | | | | | | | | |
|-----------|-----------|-----------|-----------|-------------|---------------------------|---------------------------|---------------------------|-----|---------|------------------|-----|---------|------------------|-----|-----|
| DN | inch | inch | inch | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | |
| 4 | 3/16 | 9/16 | 1/4 | -0309 | 6800-0309 | 32 | 6810-0309 | 46 | 18 | 6820-0309 | 35 | 32 | 6830-0309 | 35 | 47 |
| 6 | 1/4 | 9/16 | 1/4 | -0409 | 6800-0409 | 38 | 6810-0409 | 51 | 18 | 6820-0409 | 40 | 32 | 6830-0409 | 41 | 47 |
| 6 | 1/4 | 11/16 | 3/8 | -0411 | 6800-0411 | 40 | 6810-0411 | 51 | 19 | 6820-0411 | 46 | 38 | 6830-0411 | 40 | 54 |
| 8 | 5/16 | 11/16 | 3/8 | -0511 | 6800-0511 | 38 | 6810-0511 | 55 | 20 | 6820-0511 | 44 | 38 | 6830-0511 | 41 | 54 |
| 10 | 3/8 | 11/16 | 3/8 | -0611 | 6800-0611 | 36 | 6810-0611 | 54 | 20 | 6820-0611 | 43 | 38 | 6830-0611 | 40 | 54 |
| 10 | 3/8 | 13/16 | 1/2 | -0613 | 6800-0613 | 39 | 6810-0613 | 49 | 17 | 6820-0613 | 43 | 41 | 6830-0613 | 42 | 64 |
| 12 | 1/2 | 13/16 | 1/2 | -0813 | 6800-0813 | 41 | 6810-0813 | 62 | 19 | 6820-0813 | 54 | 41 | 6830-0813 | 53 | 65 |
| 12 | 1/2 | 1 | 5/8 | -0816 | 6800-0816 | 47 | 6810-0816 | 62 | 20 | 6820-0816 | 57 | 47 | 6830-0816 | 58 | 70 |
| 16 | 5/8 | 1 | 5/8 | -1016 | 6800-1016 | 49 | 6810-1016 | 74 | 20 | 6820-1016 | 62 | 47 | 6830-1016 | 65 | 70 |
| 16 | 5/8 | 1.3/16 | 3/4 | -1019 | 6800-1019 | 52 | 6810-1019 | 74 | 24 | 6820-1019 | 62 | 58 | 6830-1019 | 63 | 96 |
| 19 | 3/4 | 1.3/16 | 3/4 | -1219 | 6800-1219 | 50 | 6810-1219 | 76 | 29 | 6820-1219 | 66 | 59 | 6830-1219 | 71 | 96 |
| 19 | 3/4 | 1.7/16 | 1 | -1223 | 6800-1223 | 61 | 6810-1223 | 78 | 26 | 6820-1223 | 71 | 53 | 6830-1223 | 70 | 114 |
| 22 | 7/8 | 1.7/16 | 1 | -1423 | 6800-1423 | 59 | 6810-1423 | 100 | 34 | 6820-1423 | 79 | 71 | 6830-1423 | 87 | 113 |
| 25 | 1 | 1.7/16 | 1 | -1623 | 6800-1623 | 65 | 6810-1623 | 125 | 45 | 6820-1623 | 85 | 71 | 6830-1623 | 93 | 113 |
| 31 | 1.1/4 | 1.11/16 | 1.1/4 | -2027 | 6800-2027 | 72 | 6810-2027 | 125 | 45 | 6820-2027 | 105 | 90 | 6830-2027 | 107 | 129 |

SAE

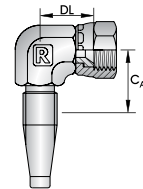
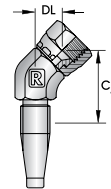
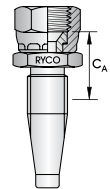
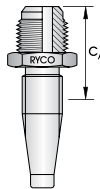
6530
(653)

6540
(654)

6580
(658)

6570
(657)

45° FLARE



| HOSE SIZE | THRD SIZE | TUBE SIZE | DASH SIZE | SAE MALE | SAE FEMALE | SAE FEMALE 45° ELBOW | SAE FEMALE 90° ELBOW | | | | | | | |
|-----------|-----------|-----------|-----------|----------|------------------|----------------------|----------------------|---------|------------------|----|---------|------------------|----|----|
| DN | inch | inch | inch | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL | |
| 4 | 3/16 | 7/16 | 1/4 | -0307 | | 6540-0307 | 23 | | | | | | | |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | | 6540-0407 | 29 | | | | | | | |
| 6 | 1/4 | 1/2 | 5/16 | -0408 | | 6540-0408 | 29 | | | | | | | |
| 6 | 1/4 | 5/8 | 3/8 | -0410 | 6530-0410 | 37 | 6540-0410 | 29 | | | | | | |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | 6530-0510 | 33 | 6540-0510 | 27 | | | | | | |
| 10 | 3/8 | 1/2 | 5/16 | -0608 | 6530-0608 | 32 | 6540-0608 | 26 | 6580-0608 | 35 | 10 | 6570-0608 | 26 | 22 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | 6530-0610 | 33 | 6540-0610 | 26 | 6580-0610 | 36 | 11 | 6570-0610 | 24 | 23 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | | 6540-0612 | 29 | | | | | | | |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | | 6540-0812 | 32 | | | | | | | |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | | 6540-0814 | 32 | | | | | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | | 6540-1217 | 36 | | | | | | | |

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

INTRODUCTION

HOSE

COUPLINGS

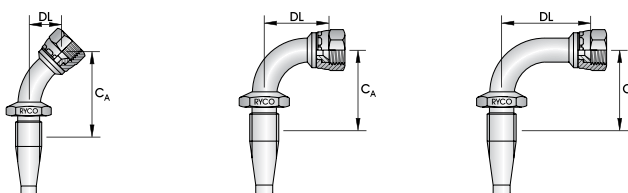
ADAPTORS

ACCESSORIES

FILTERS

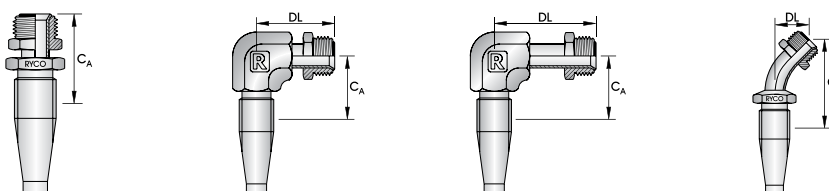
TECHNICAL

| | | | |
|------------|----------------------|----------------------|-----------------------|
| SAE | 6550 (655) | 6560 (656) | 6563 (656L) |
|------------|----------------------|----------------------|-----------------------|

45° FLARE


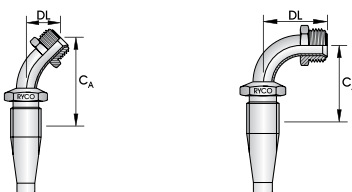
| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | SAE FEMALE 45° TUBE BEND | | | SAE FEMALE 90° TUBE BEND | | | SAE FEMALE 90° LONG TUBE BEND | | |
|-----------|------|-----------|-----------|-----------|--------------------------|----------------|----|--------------------------|----------------|----|-------------------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 4 | 3/16 | 7/16 | 1/4 | -0307 | 6550-0307 | 40 | 15 | 6560-0307 | 33 | 32 | | | |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | 6550-0510 | 51 | 17 | 6560-0510 | 44 | 38 | | | |
| 10 | 3/8 | 1/2 | 5/16 | -0608 | 6550-0608 | 49 | 15 | | | | | | |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | 6550-0610 | 56 | 17 | 6560-0610 | 43 | 38 | 6563-0610 | 43 | 55 |

| | | | | |
|------------|----------------------|----------------------|----------------------|----------------------|
| SAE | 6740 (674) | 6780 (678) | 6790 (679) | 6750 (675) |
|------------|----------------------|----------------------|----------------------|----------------------|

INVERTED MALE FLARE


| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | SAE INVERTED MALE FLARE | | | SAE INVERTED MALE FLARE 90° ELBOW | | | SAE INVERTED MALE FLARE 90° EXTENDED ELBOW | | | SAE INVERTED MALE FLARE 45° TUBE BEND | | |
|-----------|------|-----------|-----------|-----------|-------------------------|----------------|----|-----------------------------------|----------------|----|--|----------------|----|---------------------------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | 6740-0407 | 50 | | | | | | | | | | |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | 6740-0510 | 47 | | | | | | | | 6750-0510 | 84 | 23 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | 6740-0610 | 47 | | 6780-0610 | 26 | 32 | 6790-0610 | 26 | 60 | 6750-0610 | 83 | 23 |
| 10 | 3/8 | 11/16 | 7/16 | -0611 | 6740-0611 | 50 | | 6780-0611 | 26 | 36 | | | | | | |

| | | |
|------------|----------------------|----------------------|
| SAE | 6760 (676) | 6770 (677) |
|------------|----------------------|----------------------|

INVERTED MALE FLARE


| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | SAE INVERTED MALE FLARE 60° TUBE BEND | | | SAE INVERTED MALE FLARE 90° TUBE BEND | | |
|-----------|------|-----------|-----------|-----------|---------------------------------------|----------------|----|---------------------------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | DL | PART NO | C _A | DL |
| 6 | 1/4 | 7/16 | 1/4 | -0407 | 6760-0407 | 72 | 29 | 6770-0407 | 53 | 38 |
| 8 | 5/16 | 5/8 | 3/8 | -0510 | | | | 6770-0510 | 62 | 50 |
| 10 | 3/8 | 5/8 | 3/8 | -0610 | | | | 6770-0610 | 61 | 50 |

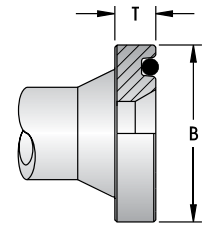
NOTE: Hose Compatibility for the **6000** series can be found on page 276.

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

DIMENSIONS FOR SAE CODE 61 AND CODE 62 FLANGES, AND RYCO CODE 62C FLANGES

| NOMINAL FLANGE | CODE 61 | | | | CODE 62 | | | | CODE 62C | | | |
|----------------|---------|------|------|-------|---------|------|-------|-------|----------|------|-------|-------|
| | B | | T | | B | | T | | B | | T | |
| inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/2 | 30,2 | 1.19 | 6,73 | 0.265 | 31,8 | 1.25 | 7,75 | 0.305 | | | | |
| *5/8 | 34,0 | 1.34 | 6,73 | 0.265 | | | | | | | | |
| 3/4 | 38,1 | 1.50 | 6,73 | 0.265 | 41,3 | 1.63 | 8,76 | 0.345 | 41,3 | 1.63 | 14,20 | 0.559 |
| 1 | 44,5 | 1.75 | 8,00 | 0.315 | 47,6 | 1.88 | 9,53 | 0.375 | 47,6 | 1.88 | 14,20 | 0.559 |
| 1.1/4 | 50,8 | 2.00 | 8,00 | 0.315 | 54,0 | 2.12 | 10,29 | 0.405 | 54,0 | 2.12 | 14,20 | 0.559 |
| 1.1/2 | 60,3 | 2.38 | 8,00 | 0.315 | 63,5 | 2.50 | 12,57 | 0.495 | 63,5 | 2.50 | 14,20 | 0.559 |
| 2 | 71,4 | 2.81 | 9,53 | 0.375 | 79,4 | 3.13 | 12,57 | 0.495 | 79,4 | 3.13 | 14,20 | 0.559 |
| 2.1/2 | 84,1 | 3.31 | 9,53 | 0.375 | | | | | | | | |
| 3 | 101,6 | 4.00 | 9,53 | 0.375 | | | | | | | | |



NOTE: *5/8 is used by Komatsu.

RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamps.
RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559 inch) in all sizes.

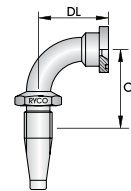
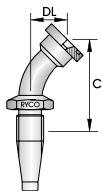
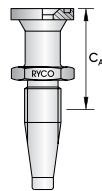
SAE FLANGE

6130
(613)

6150
(615)

6170
(617)

CLAMPS - SEE PAGES 345 & 346
*(5/8 KOMATSU)
O RING NOT SUPPLIED



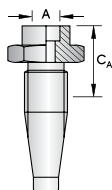
| HOSE SIZE | | NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE | CODE 61 FLANGE 45° TUBE BEND | CODE 61 FLANGE 90° TUBE BEND | | | | | |
|-----------|-------|------------------|-----------|------------------|------------------------------|------------------------------|----------------|----|------------------|----------------|-----|
| DN | inch | inch | | PART NO | C _A | PART NO | C _A | DL | PART NO | C _A | DL |
| 12 | 1/2 | 1/2 | -0808 | 6130-0808 | 52 | 6150-0808 | 64 | 20 | 6170-0808 | 56 | 41 |
| 12 | 1/2 | 3/4 | -0812 | 6130-0812 | 52 | 6150-0812 | 66 | 24 | 6170-0812 | 56 | 44 |
| 16 | 5/8 | *5/8 | -1010 | 6130-1010 | 58 | 6150-1010 | 71 | 24 | 6170-1010 | 62 | 48 |
| 19 | 3/4 | 3/4 | -1212 | 6130-1212 | 57 | 6150-1212 | 78 | 26 | 6170-1212 | 68 | 54 |
| 19 | 3/4 | 1 | -1216 | 6130-1216 | 58 | 6150-1216 | 82 | 30 | 6170-1216 | 68 | 60 |
| 19 | 3/4 | 1.1/4 | -1220 | 6130-1220 | 58 | 6150-1220 | 84 | 31 | 6170-1220 | 68 | 62 |
| 25 | 1 | 3/4 | -1612 | | | | | | 6170-1612 | 77 | 54 |
| 25 | 1 | 1 | -1616 | 6130-1616 | 69 | 6150-1616 | 96 | 30 | 6170-1616 | 83 | 68 |
| 25 | 1 | 1.1/4 | -1620 | 6130-1620 | 69 | 6150-1620 | 98 | 33 | 6170-1620 | 83 | 69 |
| 25 | 1 | 1.1/2 | -1624 | 6130-1624 | 68 | 6150-1624 | 100 | 33 | 6170-1624 | 83 | 73 |
| 31 | 1.1/4 | 1 | -2016 | 6130-2016 | 75 | 6150-2016 | 101 | 30 | 6170-2016 | 90 | 68 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 6130-2020 | 75 | 6150-2020 | 118 | 36 | 6170-2020 | 106 | 77 |
| 31 | 1.1/4 | 1.1/2 | -2024 | 6130-2024 | 75 | 6150-2024 | 121 | 38 | 6170-2024 | 106 | 81 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 6130-2424 | 73 | 6150-2424 | 135 | 42 | 6170-2424 | 121 | 93 |
| 38 | 1.1/2 | 2 | -2432 | 6130-2432 | 74 | | | | 6170-2432 | 121 | 99 |
| 51 | 2 | 2 | -3232 | 6130-3232 | 98 | 6150-3232 | 167 | 58 | 6170-3232 | 135 | 126 |

NOTE: Hose Compatibility for the **6000** series can be found on page 276.

6000 (600) SERIES FIELD ATTACHABLE INSERTS

SALVAGE

6230
(623)

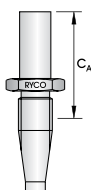


TUBE WELD

| HOSE SIZE | | A | DASH SIZE | SALVAGE (LIVESAVER) | |
|-----------|-------|-------|-----------|---------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 1/4 | -0404 | 6230-0404 | 28 |
| 6 | 1/4 | 3/8 | -0406 | 6230-0406 | 28 |
| 8 | 5/16 | 3/8 | -0506 | 6230-0506 | 26 |
| 10 | 3/8 | 3/8 | -0606 | 6230-0606 | 24 |
| 10 | 3/8 | 1/2 | -0608 | 6230-0608 | 24 |
| 12 | 1/2 | 1/2 | -0808 | 6230-0808 | 29 |
| 12 | 1/2 | 5/8 | -0810 | 6230-0810 | 29 |
| 12 | 1/2 | 3/4 | -0812 | 6230-0812 | 29 |
| 16 | 5/8 | 5/8 | -1010 | 6230-1010 | 31 |
| 16 | 5/8 | 3/4 | -1012 | 6230-1012 | 31 |
| 19 | 3/4 | 3/4 | -1212 | 6230-1212 | 30 |
| 19 | 3/4 | 1 | -1216 | 6230-1216 | 34 |
| 22 | 7/8 | 1 | -1416 | 6230-1416 | 32 |
| 25 | 1 | 3/4 | -1612 | 6230-1612 | 37 |
| 25 | 1 | 1 | -1616 | 6230-1616 | 39 |
| 25 | 1 | 1.1/4 | -1620 | 6230-1620 | 40 |
| 29 | 1.1/8 | 1.1/4 | -1820 | 6230-1820 | 40 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 6230-2020 | 44 |
| 35 | 1.3/8 | 1.1/2 | -2224 | 6230-2224 | 33 |
| 38 | 1.1/2 | 1.1/2 | -2424 | 6230-2424 | 39 |
| 38 | 2 | 2 | -3232 | 6230-3232 | 50 |

STANDPIPE

6180
(618)

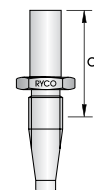


IMPERIAL

| HOSE SIZE | | TUBE SIZE | DASH SIZE | IMPERIAL STANDPIPE | |
|-----------|-------|-----------|-----------|--------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 6 | 1/4 | 5/16 | -0405 | 6180-0405 | 43 |
| 6 | 1/4 | 3/8 | -0406 | 6180-0406 | 44 |
| 10 | 3/8 | 3/8 | -0606 | 6180-0606 | 41 |
| 10 | 3/8 | 1/2 | -0608 | 6180-0608 | 41 |
| 12 | 1/2 | 1/2 | -0808 | 6180-0808 | 52 |
| 12 | 1/2 | 5/8 | -0810 | 6180-0810 | 52 |
| 16 | 5/8 | 3/4 | -1012 | 6180-1012 | 60 |
| 19 | 3/4 | 3/4 | -1212 | 6180-1212 | 66 |
| 19 | 3/4 | 7/8 | -1214 | 6180-1214 | 66 |
| 25 | 1 | 1 | -1616 | 6180-1616 | 70 |
| 31 | 1.1/4 | 1.1/4 | -2020 | 6180-2020 | 81 |

STANDPIPE

6640
(664)



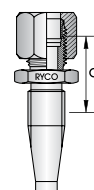
METRIC

| HOSE SIZE | | TUBE SIZE | DASH SIZE | METRIC STANDPIPE | |
|-----------|------|-----------|-----------|------------------|----------------|
| DN | inch | mm | | PART NO | C _A |
| 6 | 1/4 | 6 | -0406 | 6640-0406 | 43 |
| 6 | 1/4 | 8 | -0408 | 6640-0408 | 43 |
| 6 | 1/4 | 10 | -0410 | 6640-0410 | 44 |
| 10 | 3/8 | 10 | -0610 | 6640-0610 | 40 |
| 10 | 3/8 | 12 | -0612 | 6640-0612 | 40 |
| 10 | 3/8 | 14 | -0614 | 6640-0614 | 46 |
| 12 | 1/2 | 15 | -0815 | 6640-0815 | 47 |
| 12 | 1/2 | 16 | -0816 | 6640-0816 | 52 |
| 16 | 5/8 | 16 | -1016 | 6640-1016 | 54 |
| 19 | 3/4 | 20 | -1220 | 6640-1220 | 60 |
| 19 | 3/4 | 22 | -1222 | 6640-1222 | 52 |
| 25 | 1 | 30 | -1630 | 6640-1630 | 74 |

NOTE: See page 337 for DKL and DKS Metric Nuts and Olives for use with Metric Standpipe Fittings.

TUBE BITE

6850
(685)



COMPLETE WITH NUT AND FLARELESS OLIVE

| HOSE SIZE | | TUBE SIZE | DASH SIZE | TUBE BITE | |
|-----------|------|-----------|-----------|------------------|----------------|
| DN | inch | inch | | PART NO | C _A |
| 10 | 3/8 | 3/8 | -0606 | 6850-0606 | 32 |

NOTE: Hose Compatibility for the 6000 series can be found on page 276.

COUPLINGS

6000 (600) SERIES FIELD ATTACHABLE INSERTS

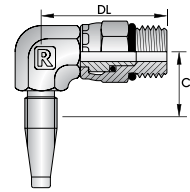
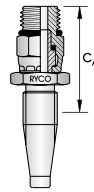
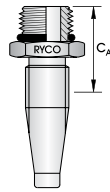
UNO (O RING BOSS)

6200
[620]

6380
[638]

6390
[639]

O RING SUPPLIED



| HOSE SIZE | | THRD SIZE | TUBE SIZE | DASH SIZE | UN O RING MALE | UN O RING MALE SWIVEL | UN O RING MALE SWIVEL 90° ELBOW | | | | |
|-----------|------|-----------|-----------|-----------|------------------|-----------------------|---------------------------------|----------------|------------------|----------------|----|
| DN | inch | inch | inch | | PART NO | C _A | PART NO | C _A | PART NO | C _A | DL |
| 6 | 1/4 | 9/16 | 3/8 | -0409 | 6200-0409 | 31 | 6380-0409 | 44 | 6390-0409 | 27 | 35 |
| 6 | 1/4 | 3/4 | 1/2 | -0412 | | | | | 6390-0412 | 28 | 49 |
| 10 | 3/8 | 9/16 | 3/8 | -0609 | 6200-0609 | 27 | | | 6390-0609 | 25 | 38 |
| 10 | 3/8 | 3/4 | 1/2 | -0612 | 6200-0612 | 30 | 6380-0612 | 47 | 6390-0612 | 24 | 41 |
| 10 | 3/8 | 7/8 | 5/8 | -0614 | 6200-0614 | 32 | | | 6390-0614 | 24 | 38 |
| 12 | 1/2 | 3/4 | 1/2 | -0812 | 6200-0812 | 33 | | | 6390-0812 | 32 | 43 |
| 12 | 1/2 | 7/8 | 5/8 | -0814 | 6200-0814 | 35 | 6380-0814 | 51 | 6390-0814 | 32 | 40 |
| 12 | 1/2 | 1.1/16 | 3/4 | -0817 | 6200-0817 | 39 | | | | | |
| 16 | 5/8 | 7/8 | 5/8 | -1014 | 6200-1014 | 37 | 6380-1014 | 53 | | | |
| 16 | 5/8 | 1.1/16 | 3/4 | -1017 | 6200-1017 | 41 | | | | | |
| 16 | 5/8 | 1.5/16 | 1 | -1021 | 6200-1021 | 43 | | | | | |
| 19 | 3/4 | 1.1/16 | 3/4 | -1217 | 6200-1217 | 39 | | | | | |
| 19 | 3/4 | 1.5/16 | 1 | -1221 | 6200-1221 | 41 | | | | | |
| 25 | 1 | 1.1/16 | 3/4 | -1617 | 6200-1617 | 50 | | | | | |
| 25 | 1 | 1.3/16 | 7/8 | -1619 | 6200-1619 | 45 | | | | | |
| 25 | 1 | 1.5/16 | 1 | -1621 | 6200-1621 | 45 | | | | | |

NOTE: These "Live Swivel" **6380** and **6390** Series Inserts are for Maximum Working Pressure: 350 bar (5100 psi): -09 & -12 Thread Size, 280 bar (4100 psi): -14 & -17 Thread Size. Their swivel capability is to allow easy installation and orientation and avoid twisting of hose. They are not designed for continuous rotation or continuous movement.

NOTE: Hose Compatibility for the **6000** series can be found on page 276.

■ ADAPTORS



ADAPTORS

CONTENTS

| THREAD OR CONNECTOR TYPE | MIXTURE | PAGE |
|----------------------------------|--|-----------|
| BSP | BSPT/BSPP/BSPP O RING BSPT/JIC & BSPP O RING/JIC BSP/ORFS BSP/SAE BSP/UNO | 304 - 319 |
| NPT & NPSM | NPT/NPT NPT/JIC NPT/ORFS NPT/SAE NPT/UNO & NPSM/UNO | 320 - 326 |
| JIC | JIC JIC/JIC JIC/ORFS JIC/UNO | 327 - 336 |
| JOINER | TUBEWELD/TUBEWELD | 336 |
| METRIC* | METRIC METRIC/BSPP O RING METRIC/JIC | 337 - 340 |
| ORFS | ORFS ORFS/ORFS ORFS/UNO | 340 - 343 |
| SAE THREADS | SAE SAE/SAE | 344 - 349 |
| SAE FLANGES* | SAE FLANGE CLAMPS & CLAMP KITS SAE FLANGE PLUGS & TUBE WELD SAE FLANGE/JIC SAE FLANGE/ORFS SAE FLANGE BLOCKS | 349 - 353 |
| SWIVEL JOINTS | BSP/BSPP JIC/JIC | 354 |
| UNO (O RING BOSS) | UNO UNO/UNO | 355 |
| MISCELLANEOUS | O RINGS PLASTIC CAP AND PLUGS TUBE BENDS | 356 - 362 |
| CROCBITE* | CROCBITE CROCBITE/CROCBITE CROCBITE/BSPT & CROCBITE/BSPP CROCBITE/NPT CROCBITE/UNO | — |
| STAPLELOK & SUPERLOK* | STAPLELOK & SUPERLOK BALL VALVES | — |
| RKVP/RKVF* | — | — |
| RYCO WEO* | RYCO WEO/RYCO WEO RYCO WEO/BSPP RYCO WEO/JIC RYCO WEO/METRIC RYCO WEO/UNO | 363 - 365 |

NOTE: If an ADAPTOR is available in both BSPT Male and BSPP O RING Male styles they are located close to each other.

*All adaptors with these thread or connector types are grouped together. The **METRIC, SAE FLANGE, CROCBITE, STAPLELOK, SUPERLOK, RKVP/RKVF** or **RYCO WEO** end takes precedence. All METRIC adaptors, regardless of other end mixture, are in the METRIC group, and all SAE FLANGE adaptors are in SAE FLANGE group. Therefore a JIC/METRIC nipple will be found in METRIC Section not JIC Section; and an SAE FLANGE/BSPP adaptor is in SAE FLANGE section not BSP section.

WORKING PRESSURES – STEEL ADAPTORS

Since many factors influence the pressure at which a hydraulic system will, or will not, perform satisfactorily, Maximum Working Pressures should be used as a **guide only** and not as a “standard” nor “specification” nor construed as a “guaranteed minimum.” Unless otherwise listed below, refer to pages 516 to 520 for **Maximum Working Pressure** guide. For further technical assistance contact RYCO or your RYCO distributor.

CAUTION: The Maximum Working Pressure of an Adaptor with a combination of Thread / End Styles and sizes is the Maximum Working Pressure of the least rated end.

NOTE: DROP LENGTHS (DL) AND CUT-OFF ALLOWANCES (CA):

Drop Lengths (DL) and Cut-off Allowances (CA) are in millimetres and are shown for reference only, and may vary according to manufacturing method, or due to design refinement.

There are three easy rules to remember to quickly find an ADAPTOR in this section. These are, in order:

RULE 1. ALPHABETICAL RULE

The ADAPTORS section follows THREAD or CONNECTOR TYPE order and is in the "ALPHABETICAL" sequence shown on the Contents Page opposite. (This order is strictly alphabetical; except for NPT, which is similar in concept to BSP and is placed directly after BSP; and CROCBITE, RKVP/RKVF, STAPLELOK, SUPERLOK and RYCO WEO which are placed at the end of the ADAPTORS section).

RULE 2. MIXTURE RULE

Where there is a MIXTURE of THREAD or CONNECTOR TYPES eg. JIC one end UNO other end, this adaptor will be found in the JIC section (because JIC comes alphabetically before UNO). All the JIC/JIC adaptors come first, then JIC/ORFS then JIC/UNO.

There are SEVEN EXCEPTIONS to this MIXTURE rule:

- METRIC**
- SAE FLANGE**
- CROCBITE**
- STAPLELOK**
- SUPERLOK**
- RKVP/RKVF**
- RYCO WEO**

In these cases, the **METRIC, SAE FLANGE, CROCBITE, STAPLELOK, SUPERLOK, RKVP/RKVF** or **RYCO WEO** end takes precedence. All METRIC adaptors, regardless of other end mixture, are in the METRIC group, and all SAE FLANGE adaptors are in SAE FLANGE group. Therefore a JIC/METRIC nipple will be found in METRIC Section not JIC Section; and an SAE FLANGE/BSP adaptor is in SAE FLANGE section not BSP section.

RULE 3. NUMBER OF ENDS RULE

Within each subsection the order is as follows:

| FIND BY END NUMBER | | |
|-----------------------------|---|--|
| ONE ENDED ADAPTORS | PLUG CAP | Male Plugs before Female Caps. |
| TWO ENDED ADAPTORS | TUBE WELD NUT & SLEEVE/NUT & OLIVE STRAIGHT 45° ELBOW 90° ELBOW 45° TUBE BEND 90° TUBE BEND | Male/Male before Male/Female before Female/Female |
| THREE ENDED ADAPTORS | TEE Y | Male Tees before Male/Female Tees before Female Tees |
| FOUR ENDED ADAPTORS | CROSS X | |

OTHER WAYS TO QUICKLY FIND AN ADAPTOR

- CONTENTS PAGE** on page 292.
- ALPHANUMERIC INDEX** on pages 4 and 5.
- PICTORIAL INDEX** on pages 160 to 303.

The PICTORIAL INDEX is in NUMBER OF ENDS rule order except 45° TUBE BENDS are after 45° ELBOWS, and 90° TUBE BENDS are after 90° ELBOWS.

All PLUGS first, then CAPS, TUBE WELDS, etc. finishing with CROSSES except all SAE FLANGES, SAE FLANGE BLOCKS and all CROCBITE, RKVP/RKVF, STAPLELOK, SUPERLOK and RYCO WEO are at the end of the index.

PLEASE NOTE THAT THE NEW AND EXTENDED RANGE OF RYCO STAINLESS STEEL COUPLINGS AND ADAPTORS WILL BE INTRODUCED IN 2013. CONTACT YOUR LOCAL RYCO REPRESENTATIVES FOR MORE DETAILS.

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

ADAPTORS

DASH SIZE NUMBERING RULES

The DASH SIZE numbering rules for HOSE and HOSE COUPLINGS are shown on pages 29 to 31, and are quite straightforward. With a little familiarity, you will find that you can specify Part Numbers without reference to the Product Technical Manual.

The DASH SIZE numbering rules for ADAPTORS are a little more complex, and are shown on this page, and the next page, for those who would like to understand the logic applied to determine the sequence ADAPTOR ends are listed.

Adaptors Dash Size numbering rules are very similar to the Three Rules on page 293. The main criteria is the **NUMBER OF ENDS** the Adaptor has, with other factors being **GENDER** (Male or Female) and **MIXTURE** of Thread or Connector type. Note also that BSPT, BSPP, and BSPP O RING are treated as "different" thread types.

1. ADAPTORS WITH ONE END. (Plugs and Caps, Lock Nuts, Bonded Seals etc.)

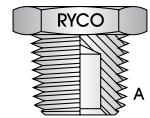
RULE IS: Adaptor Group Designator followed by Dash Size

EXAMPLE: **1/2" BSPT MALE PLUG**

Group Designator for BSPT Male Plug is S64 (from Pictorial Index page 296).

Dash Size for 1/2" BSP is -08 (see page 304).

Part Number is S64-08.



2. ADAPTORS WITH TWO ENDS. (Straights, Elbows, Tube Bends)

(A) SAME THREAD OR CONNECTOR TYPE. SAME GENDER

RULE IS: Larger Dash Size first, followed by smaller Dash Size.

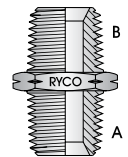
(Except if a Bulkhead fitting, Bulkhead End first).

EXAMPLE 1: 1/2" NPT MALE TO 3/4" NPT MALE NIPPLE

Group Designator is S27N.

Dash Size for 1/2" NPT is -08. Dash Size for 3/4" NPT is -12.

Part Number is S27N-1208.

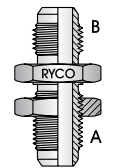


Example 2: 1.1/16" JIC MALE BULKHEAD TO 7/8" JIC MALE NIPPLE

Group Designator is S10.

Dash Size for 1.1/16" JIC is -17. Dash Size for 7/8" JIC is -14.

Part Number is S10-1714.



(B) SAME THREAD OR CONNECTOR TYPE. DIFFERENT GENDER

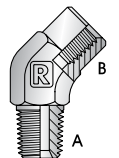
RULE IS: Dash Size of Male End first, then Dash Size of Female End.

EXAMPLE: **3/8" BSPT FEMALE TO 1/4" BSPT MALE 45° ELBOW**

Group Designator is S39.

Dash Size for 3/8" BSP is -06. Dash Size for 1/4" BSP is -04.

Part Number is S39-0406.



(C) TUBE WELD & NUT AND SLEEVE

Thread x Tube Weld **RULE IS:** Thread Dash Size First, then Tube Dash Size.

Flange x Tube Weld **RULE IS:** Flange Dash Size First, then Tube Dash Size.

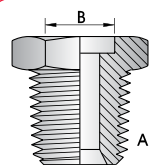
Nut and Sleeve **RULE IS:** Thread Dash Size First, then Tube Dash Size.

EXAMPLE 1: 1/2" BSPT MALE TO 3/4" TUBE OD TUBE WELD

Group Designator is S53.

Dash Size for 1/2" BSP is -08. Dash Size for 3/4" OD Tube is -12.

Part Number is S53-0812.

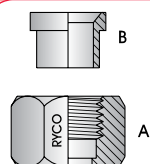


EXAMPLE 2: JIC NUT AND SLEEVE FOR 3/8" TUBE OD

Group Designator is S6.

Dash Size for 3/8" OD Tube is -06. JIC Thread Size for 3/8" Tube is 9/16" JIC (-09)

Part Number is S6-0906.



(D) MIX OF THREAD OR CONNECTOR TYPES

RULE IS: In order shown below, which is alphabetical except for NPT, which comes immediately after BSP; and METRIC and SAE FLANGE are in groups (all METRIC, SAE FLANGE, CROCBITE, STAPLELOK, SUPERLOK, RKVP/RKVF and RYCO WEO adaptors are grouped together regardless of the other end mixture).

| THREAD OR CONNECTOR TYPE | MIXTURE | EXAMPLES |
|--------------------------|--|---|
| BSP | BSPT MALE BSPT MALE BULKHEAD BSPP MALE WITHOUT O RING BSPP ENCAPSULATED MALE BSPP O RING MALE BSPP FACE SEAL MALE BSPT FEMALE FIXED BSPP FEMALE FIXED BSPP FEMALE SWIVEL | <p>EXAMPLES:</p> <ol style="list-style-type: none"> BSPT FEMALE TO JIC MALE ADAPTOR BSPT End comes first UNO MALE TO JIC MALE JIC End comes first NPT MALE to STAPLELOK FEMALE STAPLELOK is a Group, so Staplelok End comes first JIC MALE TO DKL MALE DKL is in METRIC Group so it comes first If adaptor is a mixture of "grouped" ends e.g. SAE Flange one end and Metric other, hierarchy is: CROCBITE STAPLELOK SUPERLOK RKVP/RKVF RYCO WEO SAE FLANGE METRIC <p>Therefore Metric Male to SAE Flange would be in SAE Flange section and SAE Flange end comes first.</p> |
| NPT | NPT MALE NPT FEMALE FIXED NPSM FEMALE SWIVEL | |
| JIC | JIC MALE BULKHEAD JIC MALE JIC FEMALE FIXED JIC FEMALE SWIVEL | |
| METRIC | DKL MALE DKS MALE JIS (KOMATSU) MALE METRIC O RING BOSS | |
| ORFS | ORFS MALE BULKHEAD ORFS MALE ORFS FEMALE | |
| SAE THREAD | SAE MALE BULKHEAD SAE MALE SAE FEMALE | |
| SAE FLANGE | O RING GROOVED FLANGE FLAT FACED FLANGE (BLANK) | |
| UNO (O RING BOSS) | UNO RING MALE UNO FEMALE FIXED | |
| CROCBITE | CROCBITE MALE CROCBITE FEMALE | |
| STAPLELOK | STAPLELOK MALE STAPLELOK FEMALE | |
| SUPERLOK | SUPERLOK MALE SUPERLOK FEMALE | |
| RKVP/RKVF | RKVP MALE RKVF MALE RKVP FEMALE RKVF FEMALE | |
| RYCO WEO | RYCO WEO MALE RYCO WEO FEMALE | |

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COUPLINGS

ADAPTORS

ACCESSORIES

(E) SWIVEL JOINTS

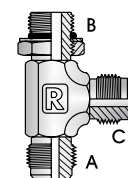
RULE IS: The Dash Size of Thread on the centre spindle comes first, and Dash Size of Thread on the rotating body comes second.

3. ADAPTORS WITH THREE ENDS. (Tees & Y's)

Always numbered in order

- Dash Size of Run End A
- Dash Size of Run End B
- Dash Size of Branch End C

RULES FOR DETERMINING WHICH OF RUN END A OR RUN END B COMES FIRST ARE SAME RULES AS FOR ADAPTORS WITH TWO ENDS (ABOVE).



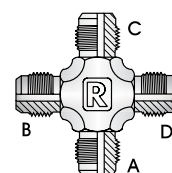
FILTERS

4. ADAPTORS WITH FOUR ENDS. (Crosses & X's)

- S32 BSPT Female Cross
- S32N NPT Female Cross
- S100 JIC Male Cross

only, no jump sizes & no mixes of threads.

RULE IS: Start at first end A, and then proceed clockwise.




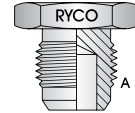
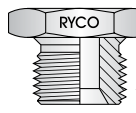
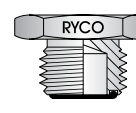
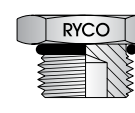


TECHNICAL

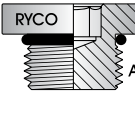
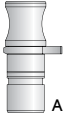
ADAPTORS

PICTORIAL INDEX

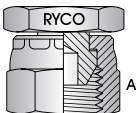

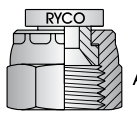
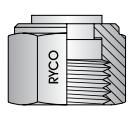
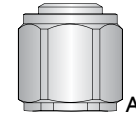
PLUG

| | | | | | | |
|---|---|---|---|--|---|---|
| S64 P304 | S73 P304 | S64N P320 | S56 P327 | M73 P337 | S111 P340 | S97 P355 |
|  |  |  |  |  |  |  |
| BSPT MALE PLUG | BSPP ENCAPSULATED MALE PLUG | NPT MALE PLUG | JIC MALE PLUG | METRIC MALE PLUG | ORFS MALE PLUG | UN O RING MALE PLUG |

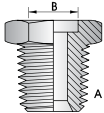
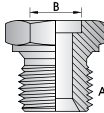
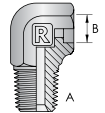
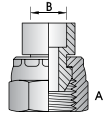
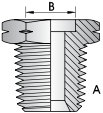
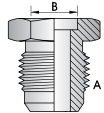
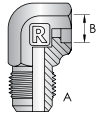
PLUG cont'd

| | | | | | | |
|---|---|--|--|--|--|--|
| S97AK P355 | RW723 P363 | | | | | |
|  |  | | | | | |
| UN O RING MALE ALLEN KEY HEAD PLUG | RYCO WEO MALE PLUG | | | | | |

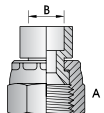
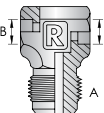

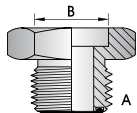
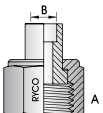
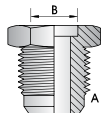
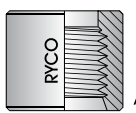
CAP

| | | | | | | |
|---|---|---|---|--|--|--|
| S59 P304 | S65 P327 | S65S P327 | S113 P340 | RW811 P363 | | |
|  |  |  |  |  | | |
| BSPP FEMALE SWIVEL CAP | JIC FEMALE CAP | JIC FEMALE SWIVEL CAP | ORFS FEMALE CAP | RYCO WEO FEMALE STOP CAP | | |

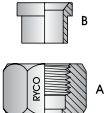
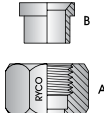
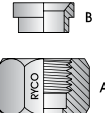
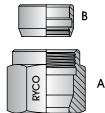
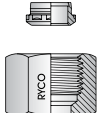
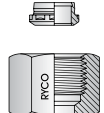
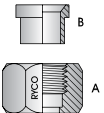
TUBE WELD WELD ON

| | | | | | | |
|---|---|---|---|--|---|---|
| S53 P304 | S53P P304 | S54 P304 | S58 P304 | S53N P320 | S51 P327 | S52 P327 |
|  |  |  |  |  |  |  |
| BSPT MALE TUBE WELD | BSPP MALE TUBE WELD | BSPT MALE TUBE WELD 90° ELBOW | BSPP FEMALE SWIVEL TUBE WELD | NPT MALE TUBE WELD | JIC MALE TUBE WELD | JIC MALE TUBE WELD 90° ELBOW |

TUBE WELD WELD ON cont'd

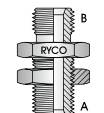
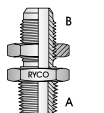
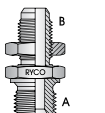
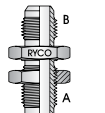
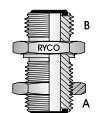
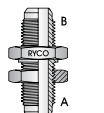
| | | | | | | |
|---|---|---|---|--|---|---|
| S57 P327 | S152 P327 | S112 P336 | S115 P340 | S106 P340 | SA51 P344 | S148 P355 |
|  |  |  |  |  |  |  |
| JIC FEMALE SWIVEL TUBE WELD | JIC MALE TUBE WELD TEE | JOINER TUBE WELD | ORFS MALE TUBE WELD | ORFS FEMALE SWIVEL TUBE WELD | SAE MALE TUBE WELD | UN O RING FEMALE HALF SOCKET WELD ON |

NUT & SLEEVE

| | | | | | | |
|---|---|---|---|--|---|---|
| S6 P328 | S6M P328 | S6S P328 | S134 P328 | M6L P337 | M6S P337 | SA6 P344 |
|  |  |  |  |  |  |  |
| JIC FEMALE NUT & SLEEVE | JIC FEMALE NUT & METRIC SLEEVE | JIC FEMALE NUT & SHORT SLEEVE | J-LOK NUT & OLIVE | METRIC DKL NUT & OLIVE | METRIC DKS NUT & OLIVE | SAE FEMALE NUT & SLEEVE |

NUT & OLIVE

BULKHEAD NIPPLE

| | | | | | | |
|---|---|---|---|--|---|--|
| S44 P306 | S130 P311 | S130P P311 | S10 P329 | S141 P341 | SA10 P344 | |
|  |  |  |  |  |  | |
| BSPP MALE BULKHEAD BSPP MALE | BSPTM NO SEAT JIC MALE BULKHEAD | BSPP MALE JIC MALE BULKHEAD | JIC MALE BULKHEAD JIC MALE | ORFS MALE BULKHEAD ORFS MALE | SAE MALE BULKHEAD SAE MALE | |

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MALE NIPPLE

| | | | | | | |
|------------------------|--|--|-----------------------|---------------------------------------|--|-----------------------|
| S27 P305 | S75 P306 | S46 P307 | S7 P312 | S74 P314 | S180 P317 | SA7 P317 |
| | | | | | | |
| BSPT MALE BSPT MALE | BSPT MALE BSPP ENCAPSULATED MALE | BSPP MALE BSPP ENCAPSULATED MALE | BSPT MALE JIC MALE | BSPP ENCAPSULATED MALE JIC MALE | BSPP ENCAPSULATED MALE ORFS MALE | BSPT MALE SAE MALE |

MALE NIPPLE cont'd

| | | | | | | |
|-----------------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|-----------------------|
| S93 P318 | S27N P321 | S7N P321 | S114N P325 | SA7N P326 | S17 P329 | S108 P333 |
| | | | | | | |
| BSPT MALE UN O RING MALE | NPT MALE NPT MALE | NPT MALE JIC MALE | NPT MALE ORFS MALE | NPT MALE SAE MALE | JIC MALE JIC MALE | JIC MALE ORFS MALE |

MALE NIPPLE cont'd

| | | | | | | |
|----------------------------|-------------------------------------|---|---|-------------------------|---|---|
| S90 P334 | S107 P334 | M75L P338 | M75S P338 | M7 P339 | M7L P339 | M7S P339 |
| | | | | | | |
| JIC MALE UN O RING MALE | JIC MALE EXTENDED UN O RING MALE | METRIC DKL MALE 24° CONE BSPP O RING MALE | METRIC DKS MALE 24° CONE BSPP O RING MALE | METRIC MALE JIC MALE | METRIC DKL MALE 24° CONE JIC MALE | METRIC DKS MALE 24° CONE JIC MALE |

MALE NIPPLE cont'd

| | | | | | | |
|------------------------|-----------------------------|----------------------|--|-------------------------|---------------------------|---------------------------|
| S116 P341 | S122 P342 | SA17 P344 | S162 P355 | RW722 P363 | RW727 P364 | RW725 P364 |
| | | | | | | |
| ORFS MALE ORFS MALE | ORFS MALE UN O RING MALE | SAE MALE SAE MALE | UN O RING MALE ADJUSTABLE UN O RING MALE | RYCO WEO MALE NIPPLE | RYCO WEO MALE JIC MALE | RYCO WEO MALE DKL MALE |

MALE NIPPLE cont'd

| | | | | | | |
|---------------------------|--|--|--|--|--|--|
| RW726 P365 | | | | | | |
| | | | | | | |
| RYCO WEO MALE DKS MALE | | | | | | |

REDUCING BUSH

| | | | | | | |
|---|---|--|---|--|--|--|
| S24 P305 | S102 P307 | S85 P318 | S24N P320 | | | |
| | | | | | | |
| BSPT MALE BSPT FEMALE FIXED REDUCING BUSH | BSPP ENCAPSULATED MALE BSPP FEMALE FIXED REDUCING BUSH | BSPT FEMALE FIXED UN O RING MALE REDUCING BUSH | NPT MALE NPT FEMALE FIXED REDUCING BUSH | | | |

STRAIGHT MALE X FEMALE

| | | | | | | |
|--------------------------------|---------------------------------|---|---|--------------------------------|-------------------------------|--|
| S72 P305 | S80 P305 | S43 P307 | S128 P312 | S61 P312 | S16 P312 | S71 P314 |
| | | | | | | |
| BSPT MALE BSPT FEMALE FIXED | BSPT MALE BSPP FEMALE SWIVEL | BSPP ENCAPSULATED MALE BSPP FEMALE SWIVEL | BSPT MALE JIC/UN O RING FEMALE FIXED DUAL SEAT | BSPT MALE JIC FEMALE SWIVEL | BSPT FEMALE FIXED JIC MALE | BSPP ENCAPSULATED MALE JIC FEMALE SWIVEL |

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**STRAIGHT
MALE X
FEMALE
cont'd**

| | | | | | | |
|---|-------------------------------------|--------------------------------------|------------------------------|--------------------------------|-------------------------------|------------------------------|
| S181 P317 | S96 P318 | S95 P319 | S72N P321 | S80N P321 | S61N P323 | S16N P323 |
| | | | | | | |
| BSPP ENCAPSULATED MALE ORFS FEMALE SWIVEL | BSPT FEMALE FIXED UN O RING MALE | BSPP FEMALE SWIVEL UN O RING MALE | NPT MALE NPT FEMALE FIXED | NPT MALE NPSM FEMALE SWIVEL | NPT MALE JIC FEMALE SWIVEL | NPT FEMALE FIXED JIC MALE |

**STRAIGHT
MALE X
FEMALE
cont'd**

| | | | | | | |
|------------------------------------|--------------------------------------|---|-----------------------------------|--------------------------------|--------------------------------|-------------------------------------|
| S96N P326 | S95N P326 | S66F P329 | S66 P329 | S109 P333 | S110 P333 | S101 P334 |
| | | | | | | |
| NPT FEMALE FIXED UN O RING MALE | NPSM FEMALE SWIVEL UN O RING MALE | JIC MALE JIC FEMALE FIXED REDUCER | JIC MALE JIC FEMALE REDUCER | JIC MALE ORFS FEMALE SWIVEL | JIC FEMALE SWIVEL ORFS MALE | JIC FEMALE SWIVEL UN O RING MALE |

**STRAIGHT
MALE X
FEMALE
cont'd**

| | | | | | | |
|--|--|------------------------------|--|-----------------------------|-----------------------------|-----------------------------|
| M71L P340 | M71S P340 | RW721 P364 | RW830 P364 | RW824 P364 | RW822 P364 | RW823 P365 |
| | | | | | | |
| METRIC DKL MALE 24° CONE JIC FEMALE SWIVEL | METRIC DKS MALE 24° CONE JIC FEMALE SWIVEL | RYCO WEO MALE BSPP FEMALE | RYCO WEO FEMALE BSPP ENCAPSULATED MALE | RYCO WEO FEMALE JIC MALE | RYCO WEO FEMALE DKL MALE | RYCO WEO FEMALE DKS MALE |

**STRAIGHT
MALE X
FEMALE
cont'd**

| | | | | | | |
|---|-----------------------------------|--|--|--|--|--|
| RW831 P365 | RW826 P365 | RW860 P364 | | | | |
| | | | | | | |
| RYCO WEO FEMALE METRIC MALE O RING BOSS | RYCO WEO FEMALE UN O RING MALE | RYCO WEO FEMALE SWIVEL BSPP ENCAPSULATED MALE | | | | |

**STRAIGHT
FEMALE X
FEMALE**

| | | | | | |
|-----------------------|---|----------------------|--|----------------------------|-----------------------------|
| S26 P306 | S81 P306 | S26N P321 | S81N P321 | S163 P355 | RW813 P363 |
| | | | | | |
| BSPT FEMALE SOCKET | BSPT FEMALE FIXED BSPP FEMALE SWIVEL | NPT FEMALE SOCKET | NPT FEMALE FIXED NPSM FEMALE SWIVEL | UN O RING FEMALE SOCKET | RYCO WEO FEMALE BULKHEAD |

**45° ELBOW
MALE X
MALE**

| | | | | | | |
|-------------------------------------|------------------------------------|---|------------------------------------|--|-----------------------------------|-----------------------------------|
| S45 P308 | S9 P313 | S69 P315 | SA9 P317 | S60 P319 | S9N P324 | SA9N P326 |
| | | | | | | |
| BSPT MALE BSPT MALE 45° ELBOW | BSPT MALE JIC MALE 45° ELBOW | BSPP O RING MALE JIC MALE 45° ELBOW | BSPT MALE SAE MALE 45° ELBOW | BSPT MALE UN O RING MALE 45° ELBOW | NPT MALE JIC MALE 45° ELBOW | NPT MALE SAE MALE 45° ELBOW |

**45° ELBOW
MALE X
MALE
cont'd**

| | | | | | | |
|---|--|--|--|--|--|--|
| S88 P335 | S123 P342 | | | | | |
| | | | | | | |
| JIC MALE UN O RING MALE 45° ELBOW | ORFS MALE UN O RING MALE 45° ELBOW | | | | | |

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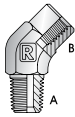
ACCESSORIES

FILTERS

TECHNICAL

**45° ELBOW
MALE X
FEMALE**

S39
P308



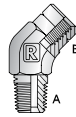
BSPT MALE
BSPT FEMALE FIXED
45° ELBOW

S84
P308



BSPT MALE
BSPP FEMALE SWIVEL
45° ELBOW

S39N
P322



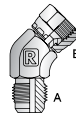
NPT MALE
NPT FEMALE FIXED
45° ELBOW

S84N
P322



NPT MALE
NPSM FEMALE SWIVEL
45° ELBOW

S23
P329



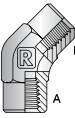
JIC MALE
JIC FEMALE
45° ELBOW

SA23
P344

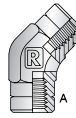


SAE MALE
SAE FEMALE SWIVEL
45° ELBOW

**45° ELBOW
FEMALE X
FEMALE**

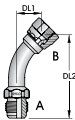


BSPT FEMALE FIXED
BSPT FEMALE FIXED
45° ELBOW

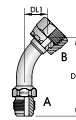


NPT FEMALE FIXED
NPT FEMALE FIXED
45° ELBOW

**45°
TUBE BEND
FEMALE X
FEMALE**

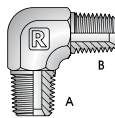


JIC MALE
JIC FEMALE SWIVEL
45° TUBE BEND

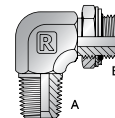


JIC MALE
ORFS FEMALE SWIVEL
45° TUBE BEND

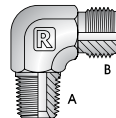
**90° ELBOW
MALE X
MALE**



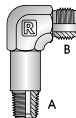
BSPT MALE
BSPT MALE
90° ELBOW



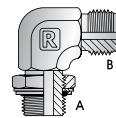
BSPT MALE
BSPP O RING MALE
90° ELBOW



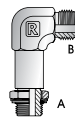
BSPT MALE
JIC MALE
90° ELBOW



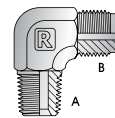
BSPT MALE EXTENDED
JIC MALE
90° ELBOW



BSPP O RING MALE
JIC MALE
90° ELBOW

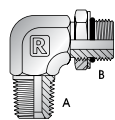


BSPP O RING MALE
EXTENDED
JIC MALE
90° ELBOW

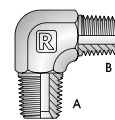


BSPT MALE
SAE MALE
90° ELBOW

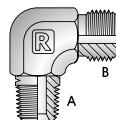
**90° ELBOW
MALE X
MALE
cont'd**



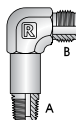
BSPT MALE
UN O RING MALE
90° ELBOW



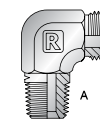
NPT MALE
NPT MALE
90° ELBOW



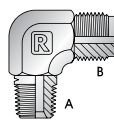
NPT MALE
JIC MALE
90° ELBOW



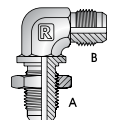
NPT MALE EXTENDED
JIC MALE
90° ELBOW



NPT MALE
ORFS MALE
90° ELBOW

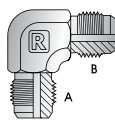


NPT MALE
SAE MALE
90° ELBOW

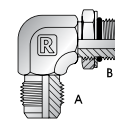


JIC MALE BULKHEAD
JIC MALE
90° ELBOW

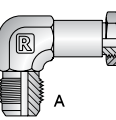
**90° ELBOW
MALE X
MALE
cont'd**



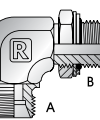
JIC MALE
JIC MALE
90° ELBOW



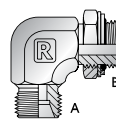
JIC MALE
UN O RING MALE
90° ELBOW



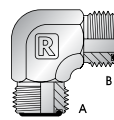
JIC MALE
UN O RING MALE
EXTENDED 90° ELBOW



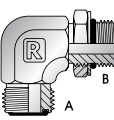
METRIC DKL MALE
BSPP O RING MALE
90° ELBOW



METRIC DKS MALE
BSPP O RING MALE
90° ELBOW

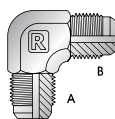


ORFS MALE
ORFS MALE
90° ELBOW



ORFS MALE
UN O RING MALE
90° ELBOW

**90° ELBOW
MALE X
MALE
cont'd**



SAE MALE
SAE MALE
90° ELBOW

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90° ELBOW MALE X FEMALE

| S25 P308 | S82 P308 | S105 P309 | S94 P319 | S25N P322 | S82N P322 | S94N P326 |
|---|--|---|---|---|---|---|
| | | | | | | |
| BSPT MALE BSPT FEMALE FIXED 90° ELBOW | BSPT MALE BSPP FEMALE SWIVEL 90° ELBOW | BSPP O RING MALE BSPP FEMALE SWIVEL 90° ELBOW | BSPP FEMALE SWIVEL UN O RING MALE 90° ELBOW | NPT MALE NPT FEMALE FIXED 90° ELBOW | NPT MALE NPSM FEMALE SWIVEL 90° ELBOW | NPSM FEMALE SWIVEL UN O RING MALE 90° ELBOW |

90° ELBOW MALE X FEMALE cont'd

| S15 P330 | S86 P335 | S118 P341 | S125 P342 | SA15 P344 |
|--|--|--|---|--|
| | | | | |
| JIC MALE JIC FEMALE SWIVEL 90° ELBOW | JIC FEMALE SWIVEL UN O RING MALE 90° ELBOW | ORFS MALE ORFS FEMALE SWIVEL 90° ELBOW | ORFS FEMALE SWIVEL UN O RING MALE 90° ELBOW | SAE MALE SAE FEMALE SWIVEL 90° ELBOW |

90° ELBOW FEMALE X FEMALE

| S28 P308 | S28N P322 |
|---|---|
| | |
| BSPT FEMALE BSPT FEMALE FIXED 90° ELBOW | NPT FEMALE FIXED NPT FEMALE FIXED 90° ELBOW |

90° TUBE BEND

| S4 P330 | S103 P330 | S137 P333 | S154 P341 |
|--|--|---|--|
| | | | |
| JIC MALE JIC FEMALE SWIVEL 90° TUBE BEND | JIC MALE JIC FEMALE SWIVEL 90° LONG BEND | JIC MALE ORFS FEMALE SWIVEL 90° TUBE BEND | ORFS MALE ORFS FEMALE SWIVEL 90° TUBE BEND |

TEE MALE X MALE

| S50 P310 | S104 P311 | S135 P311 | S21 P316 | S78 P316 | S20 P316 | S79 P316 |
|-------------------------------------|--|--|-----------------------------------|--|-----------------------------------|--|
| | | | | | | |
| BSPT MALE BSPT MALE BSPT MALE | BSPT MALE BSPP O RING MALE BSPT MALE | BSPT MALE BSPT MALE BSPP O RING MALE | BSPT MALE JIC MALE JIC MALE | BSPP O RING MALE JIC MALE JIC MALE | JIC MALE JIC MALE BSPT MALE | JIC MALE JIC MALE BSPP O RING MALE |

TEE MALE X MALE cont'd

| SA20 P317 | S50N P322 | S21N P325 | S20N P325 | SA20N P326 | S19 P331 | S62 P331 |
|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------------|
| | | | | | | |
| SAE MALE SAE MALE BSPT MALE | NPT MALE NPT MALE NPT MALE | NPT MALE JIC MALE JIC MALE | JIC MALE JIC MALE NPT MALE | SAE MALE SAE MALE NPT MALE | JIC MALE JIC MALE JIC MALE | JICM BULKHEAD JIC MALE JIC MALE |

TEE MALE X MALE cont'd

| S63 P331 | S92 P336 | S87 P336 | S119 P342 | S126 P343 | S127 P343 | SA19 P345 |
|---------------------------------------|--|--|-------------------------------------|--|--|----------------------------------|
| | | | | | | |
| JIC MALE JIC MALE JICM BULKHEAD | JIC MALE JIC MALE UN O RING MALE | JIC MALE UN O RING MALE JIC MALE | ORFS MALE ORFS MALE ORFS MALE | ORFS MALE ORFS MALE UN O RING MALE | ORFS MALE UN O RING MALE ORFS MALE | SAE MALE SAE MALE SAE MALE |

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**TEE
MALE X
FEMALE**

| | | | | | | |
|---|--|---|---|--|--|---|
| S48 P310 | S167 P310 | S47 P310 | S83 P310 | S48N P322 | S47N P322 | S68 P332 |
| | | | | | | |
| BSPT MALE BSPT FEMALE FIXED BSPT FEMALE FIXED | BSPT MALE BSPP FEMALE SWIVEL BSPT MALE | BSPT FEMALE FIXED BSPT FEMALE FIXED BSPT MALE | BSPP FEMALE SWIVEL BSPP FEMALE SWIVEL BSPT MALE | NPT MALE NPT FEMALE FIXED NPT FEMALE FIXED | NPT FEMALE FIXED NPT FEMALE FIXED NPT MALE | JIC MALE JIC MALE JIC FEMALE SWIVEL |

**TEE
MALE X
FEMALE
cont'd**

| | | | | | | |
|---|--|--|--|--|--|--|
| S67 P332 | S120 P342 | S121 P342 | | | | |
| | | | | | | |
| JIC MALE JIC FEMALE SWIVEL JIC MALE | ORFS MALE ORFS MALE ORFS FEMALE SWIVEL | ORFS MALE ORFS FEMALE SWIVEL ORFS MALE | | | | |

**TEE
FEMALE X
FEMALE**

| | | | | | | |
|---|---|--|--|--|--|--|
| S29 P311 | S139 P311 | S29N P322 | | | | |
| | | | | | | |
| BSPT FEMALE FIXED BSPT FEMALE FIXED BSPT FEMALE FIXED | BSPP FEMALE FIXED BSPP FEMALE FIXED BSPP FEMALE FIXED | NPT FEMALE FIXED NPT FEMALE FIXED NPT FEMALE FIXED | | | | |

CROSS

| | | | | | | |
|----------------------------|---------------------------|---------------------|--|--|--|--|
| S32 P311 | S32N P322 | S100 P332 | | | | |
| | | | | | | |
| BSPT FEMALE FIXED CROSS | NPT FEMALE FIXED CROSS | JIC MALE CROSS | | | | |

**SAE
FLANGE
CLAMPS &
KITS
CODE 61**

| | | | | | |
|--|----------------------------------|--|--|---|---|
| S40 P345 | S140 P345 | S40K P345 | S140K P345 | S40M P346 | S140M P346 |
| | | | | | |
| SPLIT FLANGE CLAMPS CODE 61 SUPPLIED IN PAIRS | SOLID FLANGE CLAMP CODE 61 | UNC BOLTS SPLIT FLANGE CLAMP KITS CODE 61 | UNC BOLTS SOLID FLANGE CLAMP KITS CODE 61 | METRIC BOLTS SPLIT FLANGE CLAMP KITS CODE 61 | METRIC BOLTS SOLID FLANGE CLAMP KITS CODE 61 |

**SAE
FLANGE
CLAMPS &
KITS
CODE 62**

| | | | | | |
|--|----------------------------------|--|--|---|---|
| S42 P345 | S142 P345 | S42K P345 | S142K P345 | S42M P346 | S142M P346 |
| | | | | | |
| SPLIT FLANGE CLAMPS CODE 62 SUPPLIED IN PAIRS | SOLID FLANGE CLAMP CODE 62 | UNC BOLTS SPLIT FLANGE CLAMP KITS CODE 62 | UNC BOLTS SOLID FLANGE CLAMP KITS CODE 62 | METRIC BOLTS SPLIT FLANGE CLAMP KITS CODE 62 | METRIC BOLTS SOLID FLANGE CLAMP KITS CODE 62 |

**SAE
FLANGE
PLUG &
TUBE WELD**

| | | | | | | |
|--------------------------|--------------------------|---------------------------------------|---------------------------------------|---|--|--|
| S979 P347 | S980 P347 | S981 P347 | S982 P347 | S982C P347 | | |
| | | | | | | |
| BLANK PLUG CODE 61 | BLANK PLUG CODE 62 | CODE 61 O RING FACE SOCKET WELD | CODE 62 O RING FACE SOCKET WELD | RYCO CODE 62C O RING FACE SOCKET WELD | | |

ADAPTORS

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SAE FLANGE JIC ADAPTORS

| S1 P348 | S3 P348 | S2 P348 | S2L P348 | S1H P348 | S3H P348 | S2H P348 |
|----------------------------|---|---|---|----------------------------|---|---|
| | | | | | | |
| CODE 61 FLANGE JIC MALE | CODE 61 FLANGE JIC MALE 45° TUBE BEND | CODE 61 FLANGE JIC MALE 90° TUBE BEND | CODE 61 FLANGE JIC MALE 90° LONG BEND | CODE 62 FLANGE JIC MALE | CODE 62 FLANGE JIC MALE 45° TUBE BEND | CODE 62 FLANGE JIC MALE 90° TUBE BEND |

SAE FLANGE ORFS ADAPTORS

| S147H P349 | S146H P349 | S143H P349 |
|-----------------------------|--|--|
| | | |
| CODE 62 FLANGE ORFS MALE | CODE 62 FLANGE ORFS MALE 45° TUBE BEND | CODE 62 FLANGE ORFS MALE 90° TUBE BEND |

SAE FLANGE BLOCKS CODE 61 BLIND & WELD

| S967 P350 | S940 P350 | S940F & FM P350 | S970 P351 | S970F & FM P351 | S976 P351 | S976F P351 |
|-------------------------|------------------------------------|--|------------------------------------|--|----------------------------------|--|
| | | | | | | |
| CODE 61 FLANGE BLIND | CODE 61 FLANGE SOCKET WELD TUBE | CODE 61 FLANGE FLAT SOCKET WELD TUBE | CODE 61 FLANGE SOCKET WELD PIPE | CODE 61 FLANGE FLAT SOCKET WELD PIPE | CODE 61 FLANGE BUTT WELD PIPE | CODE 61 FLANGE FLAT BUTT WELD PIPE |

SAE FLANGE BLOCKS CODE 62 BLIND & WELD

| S968 P350 | S941 P350 | S941F & FM P350 | S971 P351 | S971F & FM P351 | S977 P351 | S977F P351 |
|-------------------------|------------------------------------|--|------------------------------------|--|----------------------------------|--|
| | | | | | | |
| CODE 62 FLANGE BLIND | CODE 62 FLANGE SOCKET WELD TUBE | CODE 62 FLANGE FLAT SOCKET WELD TUBE | CODE 62 FLANGE SOCKET WELD PIPE | CODE 62 FLANGE FLAT SOCKET WELD PIPE | CODE 62 FLANGE BUTT WELD PIPE | CODE 62 FLANGE FLAT BUTT WELD PIPE |

SAE FLANGE BLOCKS CODE 61

| S951 P352 | S951F & FM P352 | S953 P352 | S957 P353 |
|-------------------------------|---------------------------------------|-----------------------------|----------------------------|
| | | | |
| CODE 61 FLANGE BSPP FEMALE | CODE 61 FLANGE FLAT BSPP FEMALE | CODE 61 FLANGE BSPP MALE | CODE 61 FLANGE JIC MALE |

SAE FLANGE BLOCK FASTENING KIT

| FK61 & M P349 |
|---------------------------------------|
| |
| SUITS SAE FLANGE BLOCKS CODE 61 |

SAE FLANGE BLOCKS CODE 62

| S952 P352 | S952F & FM P352 | S954 P352 | S958 P353 |
|-------------------------------|---------------------------------------|-----------------------------|----------------------------|
| | | | |
| CODE 62 FLANGE BSPP FEMALE | CODE 62 FLANGE FLAT BSPP FEMALE | CODE 62 FLANGE BSPP MALE | CODE 62 FLANGE JIC MALE |

SAE FLANGE BLOCK FASTENING KIT

| FK62 & M P349 |
|---------------------------------------|
| |
| SUITS SAE FLANGE BLOCKS CODE 62 |

SWIVEL JOINTS

| S37 P354 | S36 P354 | S131 P354 | S33 P354 | S34 P354 | S35 P354 | SJK/RKS P354 |
|--|---|--|--|--|--|----------------------------|
| | | | | | | |
| BSPT MALE BSPT MALE 90° SWIVEL JOINT | BSPT MALE BSPP FEMALE SWIVEL 90° SWIVEL JOINT | JIC MALE JIC FIXED FEMALE SWIVEL JOINT | JIC MALE JIC MALE 90° SWIVEL JOINT | JIC MALE JIC FEMALE 90° SWIVEL JOINT | JIC FEMALE JIC MALE 90° SWIVEL JOINT | REPLACEMENT SEAL KIT |

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O RINGS

| ROD-AC P356 | ROD-BP P356 | ROD-DL P356 | ROD-DS P356 | ROD-FS P356 | ROD-SF P357 | ROD-UN P357 |
|---|--|---------------------------------------|---------------------------------------|----------------------|----------------------------|----------------------------|
| | | | | | | |
| AIR CONDITIONING PILOT FITTING 70 DUROMETER (GREEN HNBR) | BSPP O RING MALE THREAD 90 DUROMETER | DKOL FEMALE METRIC 70 DUROMETER | DKOS FEMALE METRIC 70 DUROMETER | ORFS 90 DUROMETER | SAE FLANGE 90 DUROMETER | UNO THREAD 90 DUROMETER |

**O RINGS
cont'd**

| ROD-WD/BE P357 | 35B P309 | | 36B P309 | 35/37 P332 | MBD P337 | RL21D P309 |
|--------------------------------|--------------------------------|--|------------------|---------------------------|-----------------|--|
| | | | | | | |
| BSPP ENCAPSULATED MALE SEAL | COMPONENTS & ACCESSORIES | | BSPP LOCK NUT | BSPP RETAINING RING | JIC LOCK NUT | METRIC METAL BONDED SEAL W/ CENTRALISING LIP |
| | | | | | | BSPP METAL BONDED SEAL W/ CENTRALISING LIP |

**COMPONENTS
&
ACCESSORIES
cont'd**

| BBB P366 | BBM P366 | RL20SH P366 |
|-------------------|----------------------|--|
| | | |
| BSP BANJO BOLT | METRIC BANJO BOLT | BALL VALVE BSPP FEMALE BSPP FEMALE |

**PLASTIC
PROTECTORS**

| BPD P358 | BCD P358 | JPD P358 | JCD P358 | JCTD P358 | MPD P359 | MCD P359 |
|------------------------------------|--------------------------------|--|-------------------------------------|--|--------------------------------|-----------------------------|
| | | | | | | |
| PLUG SUITS FEMALE BSP & NPSM | CAP SUITS MALE BSP & NPT | PLUG SUITS FEMALE JIC, SAE & UNO | CAP SUITS MALE JIC, SAE & UNO | TEAR OFF CAP SUITS MALE JIC, SAE & UNO | PLUG SUITS FEMALE METRIC | CAP SUITS MALE METRIC |

**PLASTIC
PROTECTORS
cont'd**

| OPD P359 | OCD P359 | FC61D P360 | FC62D P360 | PPD P360 |
|------------------------------|---------------------------|--------------------------------|---------------------------------------|--------------------------------|
| | | | | |
| PLUG SUITS FEMALE ORFS | CAP SUITS MALE ORFS | SUITS SAE CODE 61 FLANGE | SUITS SAE CODE 62 & R62C FLANGE | SUITS 800 SERIES FITTING |

**TUBE
BENDS
IMPERIAL
OUTSIDE
DIAMETER**

| 14 P361 | 15 P361 | 25 P361 | 25HL P361 | 17 P361 | 16 P361 |
|-----------------|---------------|---------------|------------------------|---------------|-----------------|
| | | | | | |
| 22.5° TUBE BEND | 30° TUBE BEND | 45° TUBE BEND | 45° TUBE BEND HEAVY | 60° TUBE BEND | 67.5° TUBE BEND |

**TUBE
BENDS
IMPERIAL
OUTSIDE
DIAMETER
cont'd**

| 24A P362 | 24B P362 | 24 P362 | 24HL P362 | 21 P362 | 91 P362 |
|-------------------------------|-------------------------------|---------------|------------------------|-----------------------|------------------------|
| | | | | | |
| 90° SPECIAL LONG TUBE BEND | 90° SPECIAL LONG TUBE BEND | 90° TUBE BEND | 90° TUBE BEND HEAVY | 90° LONG TUBE BEND | 110° LONG TUBE BEND |

ADAPTORS

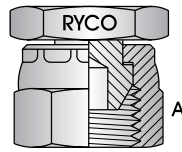
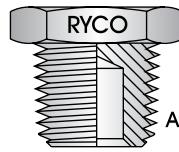
BSP ADAPTORS

BSP

S64

S59

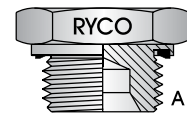
**PLUG
CAP**



BSPP

S73

**PLUG
SEAL SUPPLIED**



| THREAD A | DASH SIZE | BSPT MALE PLUG | BSPP FEMALE SWIVEL CAP |
|-------------|-----------|-------------------|---------------------------|
| inch | | PART NO | PART NO |
| 1/8 | -02 | S64-02 | S59-02 |
| 1/4 | -04 | S64-04 | S59-04 |
| 3/8 | -06 | S64-06 | S59-06 |
| 1/2 | -08 | S64-08 | S59-08 |
| 3/4 | -12 | S64-12 | S59-12 |
| 1 | -16 | S64-16 | S59-16 |
| 1.1/4 | -20 | S64-20 | S59-20 |
| 1.1/2 | -24 | S64-24 | S59-24 |
| 2 | -32 | S64-32 | S59-32 |

| THREAD A | DASH SIZE | BSPP ENCAPSULATED MALE PLUG |
|-------------|-----------|--------------------------------|
| inch | | PART NO |
| 1/8 | -02 | S73-02 |
| 1/4 | -04 | S73-04 |
| 3/8 | -06 | S73-06 |
| 1/2 | -08 | S73-08 |
| 3/4 | -12 | S73-12 |
| 1 | -16 | S73-16 |
| 1.1/4 | -20 | S73-20 |
| 1.1/2 | -24 | S73-24 |
| 2 | -32 | S73-32 |

NOTE: S73 was previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

BSP

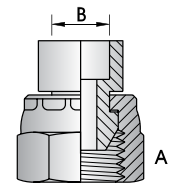
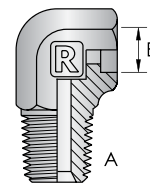
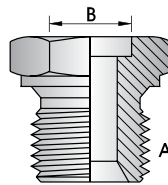
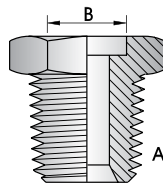
S53

S53P

S54

S58

TUBE WELD



| THREAD A | TUBE OD B | DASH SIZE | BSPT MALE TUBE WELD | BSPP MALE TUBE WELD | BSPT MALE TUBE WELD 90° ELBOW | BSPP FEM SWIVEL TUBE WELD |
|-------------|--------------|--------------|------------------------|------------------------|-------------------------------------|------------------------------|
| inch | inch | | PART NO | PART NO | PART NO | PART NO |
| 1/4 | 3/8 | -0406 | S53-0406 | | S54-0406 | S58-0406 |
| 3/8 | 3/8 | -0606 | S53-0606 | | | S58-0606 |
| 3/8 | 1/2 | -0608 | S53-0608 | | S54-0608 | |
| 3/8 | 5/8 | -0610 | | | S54-0610 | |
| 1/2 | 1/2 | -0808 | S53-0808 | S53P-0808 | S54-0808 | S58-0808 |
| 1/2 | 5/8 | -0810 | S53-0810 | S53P-0810 | S54-0810 | |
| 1/2 | 3/4 | -0812 | S53-0812 | | S54-0812 | |
| 3/4 | 3/4 | -1212 | S53-1212 | | S54-1212 | S58-1212 |
| 3/4 | 7/8 | -1214 | S53-1214 | | S54-1214 | |
| 3/4 | 1 | -1216 | S53-1216 | | | |
| 1 | 1 | -1616 | S53-1616 | | S54-1616 | S58-1616 |
| 1 | 1.1/4 | -1620 | S53-1620 | | | |
| 1.1/4 | 1.1/4 | -2020 | S53-2020 | | | S58-2020 |
| 1.1/2 | 1.1/2 | -2424 | S53-2424 | | | S58-2424 |
| 1.1/2 | 1.15/16 | -2431 | S53-2431 | | | |
| 2 | 2 | -3232 | | | | S58-3232 |

ADAPTORS

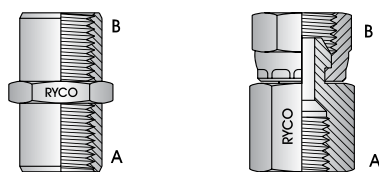
BSP ADAPTORS

BSP/BSP

S26

S81

STRAIGHT



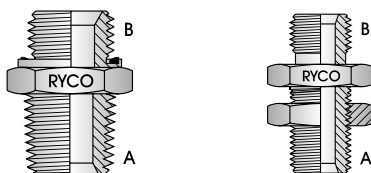
| THREAD | | DASH SIZE | BSPT FEMALE SOCKET | BSPT FEMALE FIXED BSPP FEMALE SWIVEL |
|-------------|-------------|-----------|--------------------|--------------------------------------|
| A | B | | | |
| inch | inch | | PART NO | PART NO |
| 1/8 | 1/8 | -0202 | S26-0202 | |
| 1/4 | 1/4 | -0404 | S26-0404 | S81-0404 |
| 3/8 | 1/4 | -0604 | S26-0604 | |
| 3/8 | 3/8 | -0606 | S26-0606 | S81-0606 |
| 1/2 | 1/4 | -0804 | S26-0804 | |
| 1/2 | 3/8 | -0806 | S26-0806 | S81-0806 |
| 1/2 | 1/2 | -0808 | S26-0808 | S81-0808 |
| 3/4 | 1/4 | -1204 | S26-1204 | |
| 3/4 | 1/2 | -1208 | S26-1208 | |
| 3/4 | 3/4 | -1212 | S26-1212 | S81-1212 |
| 1 | 3/4 | -1612 | S26-1612 | |
| 1 | 1 | -1616 | S26-1616 | S81-1616 |
| 1.1/4 | 1.1/4 | -2020 | S26-2020 | |
| 1.1/2 | 1.1/2 | -2424 | S26-2424 | |
| 2 | 2 | -3232 | S26-3232 | |

BSP/BSPP

S75

S44

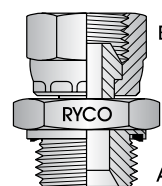
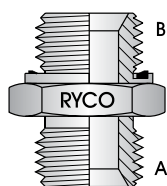
STRAIGHT
SEAL SUPPLIED



| THREAD | | DASH SIZE | BSPT MALE BSPP ENCAPSULATED MALE | BSPP MALE BULKHEAD BSPP MALE |
|-------------|-------------|-----------|----------------------------------|------------------------------|
| A | B | | | |
| inch | inch | | PART NO | PART NO |
| 1/4 | 1/4 | -0404 | S75-0404 | S44-0404 |
| 1/4 | 3/8 | -0406 | S75-0406 | |
| 1/4 | 1/2 | -0408 | S75-0408 | |
| 3/8 | 1/4 | -0604 | S75-0604 | |
| 3/8 | 3/8 | -0606 | S75-0606 | S44-0606 |
| 3/8 | 1/2 | -0608 | S75-0608 | |
| 1/2 | 1/4 | -0804 | S75-0804 | |
| 1/2 | 3/8 | -0806 | S75-0806 | |
| 1/2 | 1/2 | -0808 | S75-0808 | S44-0808 |
| 1/2 | 5/8 | -0810 | S75-0810 | |
| 1/2 | 3/4 | -0812 | S75-0812 | |
| 3/4 | 1/2 | -1208 | S75-1208 | |
| 3/4 | 3/4 | -1212 | S75-1212 | S44-1212 |
| 3/4 | 1 | -1216 | S75-1216 | |
| 1 | 3/4 | -1612 | S75-1612 | |
| 1 | 1 | -1616 | S75-1616 | S44-1616 |
| 1 | 1.1/4 | -1620 | S75-1620 | |
| 1.1/4 | 1.1/4 | -2020 | S75-2020 | S44-2020 |
| 1.1/2 | 1.1/2 | -2424 | S75-2424 | |
| 2 | 2 | -3232 | S75-3232 | |

NOTE: S75 was previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

| | | | |
|-----------------|------------|-------------|------------|
| BSP/BSPP | S46 | S102 | S43 |
|-----------------|------------|-------------|------------|

**STRAIGHT
SEAL SUPPLIED**


| THREAD | | DASH SIZE | BSPP MALE BSPP ENCAPSULATED MALE | BSPP ENCAPSULATED MALE BSPP FEMALE FIXED REDUCING BUSH | BSPP ENCAPSULATED MALE BSPP FEMALE SWIVEL |
|--------|-------|--------------|--|---|---|
| A | B | | | | |
| inch | inch | | PART NO | PART NO | PART NO |
| 1/8 | 1/8 | -0202 | | | S43-0202 |
| 1/4 | 1/8 | -0402 | | S102-0402 | |
| 1/4 | 1/4 | -0404 | S46-0404 | | S43-0404 |
| 1/4 | 3/8 | -0406 | S46-0406 | | |
| 3/8 | 1/8 | -0602 | | S102-0602 | |
| 3/8 | 1/4 | -0604 | | S102-0604 | |
| 3/8 | 3/8 | -0606 | S46-0606 | | S43-0606 |
| 3/8 | 1/2 | -0608 | S46-0608 | | S43-0608 |
| 1/2 | 1/4 | -0804 | S46-0804 | S102-0804 | |
| 1/2 | 3/8 | -0806 | | S102-0806 | S43-0806 |
| 1/2 | 1/2 | -0808 | S46-0808 | | S43-0808 |
| 1/2 | 3/4 | -0812 | S46-0812 | | |
| 3/4 | 1/4 | -1204 | | S102-1204 | |
| 3/4 | 3/8 | -1206 | | S102-1206 | |
| 3/4 | 1/2 | -1208 | | S102-1208 | |
| 3/4 | 3/4 | -1212 | S46-1212 | | S43-1212 |
| 3/4 | 1 | -1216 | S46-1216 | | |
| 1 | 1/2 | -1608 | | S102-1608 | |
| 1 | 3/4 | -1612 | | S102-1612 | |
| 1 | 1 | -1616 | S46-1616 | | S43-1616 |
| 1.1/4 | 3/4 | -2012 | | S102-2012 | |
| 1.1/4 | 1 | -2016 | | S102-2016 | |
| 1.1/4 | 1.1/4 | -2020 | S46-2020 | | S43-2020 |
| 1.1/4 | 1.1/2 | -2024 | S46-2024 | | |
| 1.1/2 | 1 | -2416 | | S102-2416 | |
| 1.1/2 | 1.1/4 | -2420 | | S102-2420 | |
| 1.1/2 | 1.1/2 | -2424 | S46-2424 | | |
| 2 | 2 | -3232 | S46-3232 | | |

NOTE: S43, S46 & S102 were previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

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BSP ADAPTORS

BSP/BSP

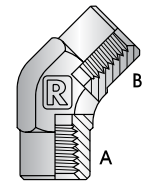
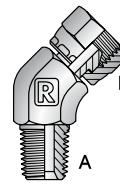
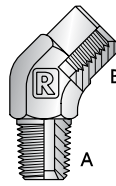
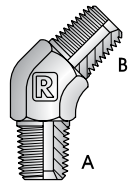
S45

S39

S84

S31

45° ELBOW



| THREAD | | DASH SIZE | BSPT MALE | BSPT MALE | BSPT MALE | BSPT FEMALE FIXED |
|--------|------|-----------|-----------|-------------------|--------------------|-------------------|
| A | B | | BSPT MALE | BSPT FEMALE FIXED | BSPT FEMALE SWIVEL | BSPT FEMALE FIXED |
| | | | 45° ELBOW | 45° ELBOW | 45° ELBOW | 45° ELBOW |
| inch | inch | | PART NO | PART NO | PART NO | PART NO |
| 1/8 | 1/8 | -0202 | | | | S31-0202 |
| 1/4 | 1/4 | -0404 | S45-0404 | S39-0404 | S84-0404 | S31-0404 |
| 1/4 | 3/8 | -0406 | | S39-0406 | | |
| 3/8 | 3/8 | -0606 | S45-0606 | S39-0606 | S84-0606 | S31-0606 |
| 1/2 | 3/8 | -0806 | | | S84-0806 | |
| 1/2 | 1/2 | -0808 | S45-0808 | S39-0808 | S84-0808 | S31-0808 |
| 3/4 | 1/2 | -1208 | S45-1208 | | | |
| 3/4 | 3/4 | -1212 | S45-1212 | S39-1212 | S84-1212 | S31-1212 |
| 1 | 1 | -1616 | S45-1616 | | S84-1616 | S31-1616 |

BSP/BSP

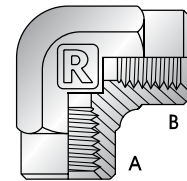
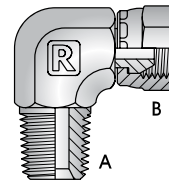
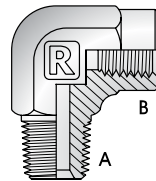
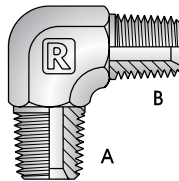
S49

S25

S82

S28

90° ELBOW



| THREAD | | DASH SIZE | BSPT MALE | BSPT MALE | BSPT MALE | BSPT FEMALE FIXED |
|--------|-------|-----------|-----------|-------------------|--------------------|-------------------|
| A | B | | BSPT MALE | BSPT FEMALE FIXED | BSPT FEMALE SWIVEL | BSPT FEMALE FIXED |
| | | | 90° ELBOW | 90° ELBOW | 90° ELBOW | 90° ELBOW |
| inch | inch | | PART NO | PART NO | PART NO | PART NO |
| 1/8 | 1/8 | -0202 | S49-0202 | S25-0202 | S82-0202 | S28-0202 |
| 1/4 | 1/8 | -0402 | S49-0402 | | | |
| 1/4 | 1/4 | -0404 | S49-0404 | S25-0404 | S82-0404 | S28-0404 |
| 3/8 | 1/4 | -0604 | S49-0604 | S25-0604 | | |
| 3/8 | 3/8 | -0606 | S49-0606 | S25-0606 | S82-0606 | S28-0606 |
| 3/8 | 1/2 | -0608 | | S25-0608 | | |
| 1/2 | 1/4 | -0804 | S49-0804 | | | |
| 1/2 | 3/8 | -0806 | S49-0806 | S25-0806 | S82-0806 | |
| 1/2 | 1/2 | -0808 | S49-0808 | S25-0808 | S82-0808 | S28-0808 |
| 1/2 | 3/4 | -0812 | | S25-0812 | S82-0812 | |
| 3/4 | 1/2 | -1208 | S49-1208 | | | |
| 3/4 | 3/4 | -1212 | S49-1212 | S25-1212 | S82-1212 | S28-1212 |
| 3/4 | 1 | -1216 | | | S82-1216 | |
| 1 | 3/4 | -1612 | S49-1612 | | S82-1612 | |
| 1 | 1 | -1616 | S49-1616 | S25-1616 | S82-1616 | S28-1616 |
| 1.1/4 | 3/4 | -2012 | S49-2012 | | | |
| 1.1/4 | 1 | -2016 | S49-2016 | | | |
| 1.1/4 | 1.1/4 | -2020 | S49-2020 | S25-2020 | | S28-2020 |
| 1.1/2 | 1.1/2 | -2424 | S49-2424 | | | |

ADAPTORS

BSP ADAPTORS

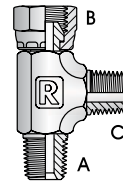
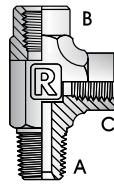
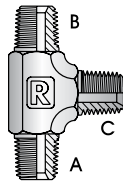
BSP/BSP

S50

S48

S167

TEE



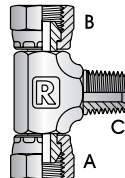
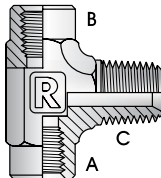
| THREAD | | | DASH SIZE | BSPT MALE | BSPT MALE | BSPT MALE |
|--------|-------|-------|-----------|------------|-------------------|-------------------|
| A | B | C | | BSPT MALE | BSPT FEMALE FIXED | BSPT FEMALE FIXED |
| inch | inch | inch | | PART NO | PART NO | PART NO |
| 1/8 | 1/8 | 1/8 | -020202 | S50-020202 | S48-020202 | |
| 1/4 | 1/4 | 1/4 | -040404 | S50-040404 | S48-040404 | S167-040404 |
| 3/8 | 3/8 | 3/8 | -060606 | S50-060606 | S48-060606 | S167-060606 |
| 3/8 | 3/8 | 1/2 | -060608 | S50-060608 | | |
| 1/2 | 1/2 | 1/2 | -080808 | S50-080808 | S48-080808 | S167-080808 |
| 1/2 | 1/2 | 3/4 | -080812 | S50-080812 | | |
| 3/4 | 1/2 | 3/4 | -120812 | S50-120812 | | |
| 3/4 | 3/4 | 1/2 | -121208 | S50-121208 | | |
| 3/4 | 3/4 | 3/4 | -121212 | S50-121212 | S48-121212 | S167-121212 |
| 1 | 3/4 | 1 | -161216 | S50-161216 | | |
| 1 | 1 | 1 | -161616 | S50-161616 | S48-161616 | S167-161616 |
| 1.1/4 | 1.1/4 | 1.1/4 | -202020 | S50-202020 | | |

BSP/BSP

S47

S83

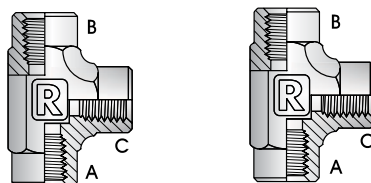
TEE



| THREAD | | | DASH SIZE | BSPT FEMALE FIXED | BSPT FEMALE FIXED | BSPT FEMALE FIXED |
|--------|------|------|-----------|-------------------|-------------------|-------------------|
| A | B | C | | BSPT FEMALE FIXED | BSPT FEMALE FIXED | BSPT FEMALE FIXED |
| inch | inch | inch | | PART NO | PART NO | PART NO |
| 1/4 | 1/4 | 1/4 | -040404 | | S83-040404 | |
| 3/8 | 3/8 | 3/8 | -060606 | | S83-060606 | |
| 1/2 | 1/2 | 1/2 | -080808 | S47-080808 | S83-080808 | |
| 3/4 | 3/4 | 3/4 | -121212 | S47-121212 | S83-121212 | |
| 1 | 1 | 1 | -161616 | | S83-161616 | |

BSP/BSP S29 S139

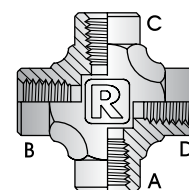
TEE



| THREAD | | | DASH SIZE | BSPT FEMALE FIXED | BSPP FEMALE FIXED |
|--------|-------|-------|-----------|-------------------|--------------------|
| A | B | C | | BSPT FEMALE FIXED | BSPP FEMALE FIXED |
| inch | inch | inch | | PART NO | PART NO |
| 1/8 | 1/8 | 1/8 | -020202 | S29-020202 | |
| 1/4 | 1/4 | 1/4 | -040404 | S29-040404 | S139-040404 |
| 3/8 | 3/8 | 3/8 | -060606 | S29-060606 | |
| 1/2 | 1/2 | 1/2 | -080808 | S29-080808 | |
| 3/4 | 3/4 | 3/4 | -121212 | S29-121212 | |
| 1 | 1 | 1 | -161616 | S29-161616 | |
| 1.1/4 | 1.1/4 | 1.1/4 | -202020 | S29-202020 | |
| 2 | 2 | 2 | -323232 | S29-323232 | S139-323232 |

BSP/BSP S32

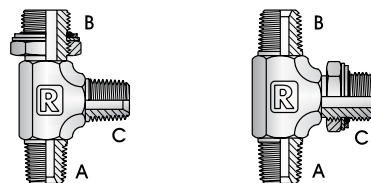
CROSS



| THREAD | DASH SIZE | BSPT FEMALE FIXED |
|------------|-----------|---------------------|
| A, B, C, D | SIZE | CROSS |
| inch | | PART NO |
| 1/4 | -04040404 | S32-04040404 |
| 3/8 | -06060606 | S32-06060606 |
| 1/2 | -08080808 | S32-08080808 |
| 3/4 | -12121212 | S32-12121212 |
| 1 | -16161616 | S32-16161616 |

BSP/BSPP O RING S104 S135

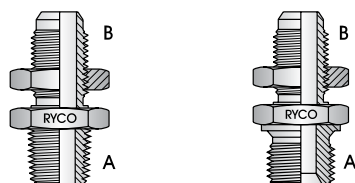
**TEE
O RING & RETAINING
RING SUPPLIED**



| THREAD | | | DASH SIZE | BSPT MALE | BSPP MALE |
|--------|-------|-------|-----------|--------------------|--------------------|
| A | B | C | | BSPT MALE | BSPP MALE |
| inch | inch | inch | | PART NO | PART NO |
| 1/4 | 1/4 | 1/4 | -040404 | S104-040404 | |
| 1/4 | 3/8 | 1/4 | -040604 | S104-040604 | |
| 3/8 | 3/8 | 3/8 | -060606 | S104-060606 | S135-060606 |
| 1/2 | 1/2 | 1/2 | -080808 | S104-080808 | |
| 3/4 | 3/4 | 3/4 | -121212 | S104-121212 | |
| 1 | 1 | 1 | -161616 | S104-161616 | |
| 1.1/4 | 1.1/4 | 1.1/4 | -202020 | S104-202020 | |

BSP/JIC S130 S130P

BULKHEAD



| THREAD | DASH SIZE | BSPTM NO SEAT | BSPP MALE |
|--------|-----------|----------------|-------------------|
| A | B | JICM BULKHEAD | JICM BULKHEAD |
| inch | inch | PART NO | PART NO |
| 3/8 | 9/16 | -0609 | S130P-0609 |
| 1/2 | 3/4 | -0812 | S130-0812 |
| 1/2 | 7/8 | -0814 | S130P-0814 |

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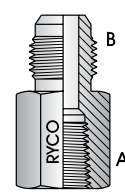
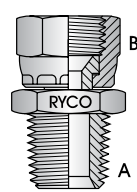
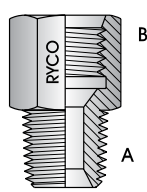
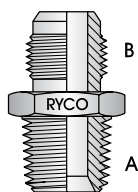
TECHNICAL

ADAPTORS

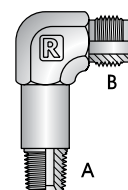
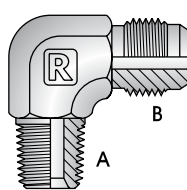
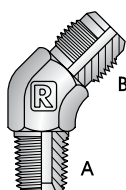
BSP ADAPTORS

| BSP/JIC | S7 | S128 | S61 | S16 |
|---------|----|------|-----|-----|
|---------|----|------|-----|-----|

STRAIGHT



| THREAD | | DASH SIZE | BSPT MALE JIC MALE | BSPT MALE JIC/UN O RING FEMALE FIXED DUAL SEAT | BSPT MALE JIC FEMALE SWIVEL | BSPT FEMALE FIXED JIC MALE |
|-------------|-------------|-----------|--------------------|--|-----------------------------|----------------------------|
| A | B | | | | | |
| inch | inch | | PART NO | PART NO | PART NO | PART NO |
| 1/8 | 3/8 | -0206 | S7-0206 | | | |
| 1/8 | 7/16 | -0207 | S7-0207 | | | S16-0207 |
| 1/8 | 1/2 | -0208 | S7-0208 | | | |
| 1/8 | 9/16 | -0209 | S7-0209 | | | S16-0209 |
| 1/4 | 7/16 | -0407 | S7-0407 | | S61-0407 | |
| 1/4 | 1/2 | -0408 | S7-0408 | | | |
| 1/4 | 9/16 | -0409 | S7-0409 | | S61-0409 | S16-0409 |
| 1/4 | 3/4 | -0412 | S7-0412 | | | |
| 1/4 | 7/8 | -0414 | | S128-0414 | | |
| 3/8 | 7/16 | -0607 | S7-0607 | | | |
| 3/8 | 1/2 | -0608 | S7-0608 | | | |
| 3/8 | 9/16 | -0609 | S7-0609 | | S61-0609 | |
| 3/8 | 3/4 | -0612 | S7-0612 | | S61-0612 | S16-0612 |
| 3/8 | 7/8 | -0614 | S7-0614 | | S61-0614 | |
| 3/8 | 1.1/16 | -0617 | S7-0617 | | | |
| 1/2 | 7/16 | -0807 | S7-0807 | | | |
| 1/2 | 9/16 | -0809 | S7-0809 | | | S16-0809 |
| 1/2 | 3/4 | -0812 | S7-0812 | S128-0812 | S61-0812 | S16-0812 |
| 1/2 | 7/8 | -0814 | S7-0814 | S128-0814 | S61-0814 | S16-0814 |
| 1/2 | 1.1/16 | -0817 | S7-0817 | | | S16-0817 |
| 1/2 | 1.5/16 | -0821 | S7-0821 | | | |
| 5/8 | 3/4 | -1012 | S7-1012 | | | |
| 3/4 | 9/16 | -1209 | S7-1209 | | | |
| 3/4 | 3/4 | -1212 | S7-1212 | | | |
| 3/4 | 7/8 | -1214 | S7-1214 | | | |
| 3/4 | 1.1/16 | -1217 | S7-1217 | | S61-1217 | S16-1217 |
| 3/4 | 1.3/16 | -1219 | S7-1219 | | | |
| 3/4 | 1.5/16 | -1221 | S7-1221 | | | |
| 1 | 7/8 | -1614 | S7-1614 | | | |
| 1 | 1.1/16 | -1617 | S7-1617 | | | |
| 1 | 1.3/16 | -1619 | S7-1619 | | | |
| 1 | 1.5/16 | -1621 | S7-1621 | | S61-1621 | |
| 1 | 1.5/8 | -1626 | S7-1626 | | | |
| 1.1/4 | 1.1/16 | -2017 | S7-2017 | | | |
| 1.1/4 | 1.5/16 | -2021 | S7-2021 | | | |
| 1.1/4 | 1.5/8 | -2026 | S7-2026 | | | |
| 1.1/2 | 1.5/16 | -2421 | S7-2421 | | | |
| 1.1/2 | 1.5/8 | -2426 | S7-2426 | | S61-2426 | |
| 1.1/2 | 1.7/8 | -2430 | S7-2430 | | | |
| 2 | 2.1/2 | -3240 | S7-3240 | | | |

BSP/JIC
S9
S8
S11
45° ELBOW
90° ELBOW


| THREAD | | DASH SIZE | BSPT MALE JIC MALE 45° ELBOW | BSPT MALE JIC MALE 90° ELBOW | BSPT MALE EXT JIC MALE 90° ELBOW |
|--------|--------|-----------|------------------------------|------------------------------|----------------------------------|
| A | B | | PART NO | PART NO | PART NO |
| 1/8 | 7/16 | -0207 | S9-0207 | S8-0207 | S11-0207 |
| 1/8 | 1/2 | -0208 | | S8-0208 | |
| 1/8 | 9/16 | -0209 | | S8-0209 | |
| 1/4 | 7/16 | -0407 | S9-0407 | S8-0407 | |
| 1/4 | 1/2 | -0408 | S9-0408 | S8-0408 | |
| 1/4 | 9/16 | -0409 | S9-0409 | S8-0409 | |
| 1/4 | 3/4 | -0412 | S9-0412 | S8-0412 | |
| 3/8 | 7/16 | -0607 | | S8-0607 | |
| 3/8 | 1/2 | -0608 | | S8-0608 | |
| 3/8 | 9/16 | -0609 | S9-0609 | S8-0609 | |
| 3/8 | 3/4 | -0612 | S9-0612 | S8-0612 | |
| 3/8 | 7/8 | -0614 | S9-0614 | S8-0614 | |
| 1/2 | 7/16 | -0807 | | S8-0807 | |
| 1/2 | 9/16 | -0809 | S9-0809 | S8-0809 | |
| 1/2 | 3/4 | -0812 | S9-0812 | S8-0812 | |
| 1/2 | 7/8 | -0814 | S9-0814 | S8-0814 | S11-0814 |
| 1/2 | 1.1/16 | -0817 | S9-0817 | S8-0817 | |
| 5/8 | 7/8 | -1014 | | S8-1014 | |
| 3/4 | 9/16 | -1209 | | S8-1209 | |
| 3/4 | 3/4 | -1212 | | S8-1212 | |
| 3/4 | 7/8 | -1214 | S9-1214 | S8-1214 | |
| 3/4 | 1.1/16 | -1217 | S9-1217 | S8-1217 | |
| 3/4 | 1.3/16 | -1219 | | S8-1219 | |
| 3/4 | 1.5/16 | -1221 | S9-1221 | S8-1221 | |
| 1 | 1.1/16 | -1617 | | S8-1617 | |
| 1 | 1.5/16 | -1621 | S9-1621 | S8-1621 | |
| 1 | 1.5/8 | -1626 | S9-1626 | S8-1626 | |
| 1.1/4 | 1.5/16 | -2021 | | S8-2021 | |
| 1.1/4 | 1.5/8 | -2026 | S9-2026 | S8-2026 | |
| 1.1/2 | 1.7/8 | -2430 | S9-2430 | S8-2430 | |

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ADAPTORS

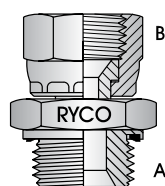
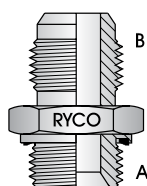
BSP ADAPTORS

BSPP/JIC

S74

S71

STRAIGHT
SEAL SUPPLIED

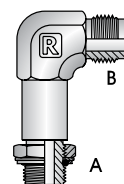
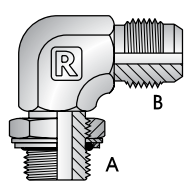
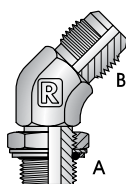


| THREAD | | DASH SIZE | BSPP | BSPP |
|--------|--------|-----------|-------------------------------|--|
| A | B | | ENCAPSULATED MALE JIC MALE | ENCAPSULATED MALE JIC FEMALE SWIVEL |
| inch | inch | | PART NO | PART NO |
| 1/8 | 7/16 | -0207 | S74-0207 | |
| 1/8 | 9/16 | -0209 | S74-0209 | |
| 1/4 | 7/16 | -0407 | S74-0407 | S71-0407 |
| 1/4 | 1/2 | -0408 | S74-0408 | |
| 1/4 | 9/16 | -0409 | S74-0409 | S71-0409 |
| 1/4 | 3/4 | -0412 | S74-0412 | |
| 1/4 | 1.1/16 | -0417 | S74-0417 | |
| 3/8 | 7/16 | -0607 | S74-0607 | |
| 3/8 | 9/16 | -0609 | S74-0609 | S71-0609 |
| 3/8 | 3/4 | -0612 | S74-0612 | S71-0612 |
| 3/8 | 7/8 | -0614 | S74-0614 | S71-0614 |
| 3/8 | 1.1/16 | -0617 | S74-0617 | |
| 1/2 | 7/16 | -0807 | S74-0807 | |
| 1/2 | 1/2 | -0808 | | S71-0808 |
| 1/2 | 9/16 | -0809 | S74-0809 | |
| 1/2 | 3/4 | -0812 | S74-0812 | S71-0812 |
| 1/2 | 7/8 | -0814 | S74-0814 | S71-0814 |
| 1/2 | 1.1/16 | -0817 | S74-0817 | |
| 3/4 | 9/16 | -1209 | S74-1209 | |
| 3/4 | 3/4 | -1212 | S74-1212 | |
| 3/4 | 7/8 | -1214 | S74-1214 | S71-1214 |
| 3/4 | 1.1/16 | -1217 | S74-1217 | S71-1217 |
| 3/4 | 1.5/16 | -1221 | S74-1221 | |
| 3/4 | 1.5/8 | -1226 | S74-1226 | |
| 1 | 1.1/16 | -1617 | S74-1617 | S71-1617 |
| 1 | 1.5/16 | -1621 | S74-1621 | S71-1621 |
| 1 | 1.5/8 | -1626 | S74-1626 | |
| 1.1/4 | 1.1/16 | -2017 | S74-2017 | |
| 1.1/4 | 1.5/16 | -2021 | S74-2021 | S71-2021 |
| 1.1/4 | 1.5/8 | -2026 | S74-2026 | |
| 1.1/2 | 1.1/16 | -2417 | S74-2417 | |
| 1.1/2 | 1.5/16 | -2421 | S74-2421 | |
| 1.1/2 | 1.5/8 | -2426 | S74-2426 | |
| 1.1/2 | 1.7/8 | -2430 | S74-2430 | |
| 2 | 1.5/16 | -3221 | S74-3221 | |

NOTE: S71 and S74 were previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

BSP O RING/JIC **S69** **S76** **S70**

**45° ELBOW
90° ELBOW
O RING & RETAINING
RING SUPPLIED**



| THREAD | | DASH SIZE | BSP O RING MALE | BSP O RING MALE | BSP O RING MALE EXT |
|--------|--------|-----------|-----------------------|-----------------------|-----------------------|
| A | B | | JIC MALE 45° ELBOW | JIC MALE 90° ELBOW | JIC MALE 90° ELBOW |
| inch | inch | | PART NO | PART NO | PART NO |
| 1/8 | 7/16 | -0207 | | S76-0207 | |
| 1/8 | 9/16 | -0209 | | S76-0209 | |
| 1/4 | 7/16 | -0407 | | S76-0407 | |
| 1/4 | 1/2 | -0408 | | S76-0408 | |
| 1/4 | 9/16 | -0409 | S69-0409 | S76-0409 | |
| 1/4 | 3/4 | -0412 | | S76-0412 | |
| 3/8 | 7/16 | -0607 | | S76-0607 | |
| 3/8 | 9/16 | -0609 | | S76-0609 | S70-0609 |
| 3/8 | 3/4 | -0612 | | S76-0612 | S70-0612 |
| 3/8 | 7/8 | -0614 | | S76-0614 | |
| 1/2 | 1/2 | -0808 | | S76-0808 | |
| 1/2 | 9/16 | -0809 | S69-0809 | S76-0809 | |
| 1/2 | 3/4 | -0812 | S69-0812 | S76-0812 | S70-0812 |
| 1/2 | 7/8 | -0814 | S69-0814 | S76-0814 | S70-0814 |
| 1/2 | 1.1/16 | -0817 | | S76-0817 | |
| 3/4 | 9/16 | -1209 | | S76-1209 | |
| 3/4 | 3/4 | -1212 | | S76-1212 | |
| 3/4 | 7/8 | -1214 | | S76-1214 | |
| 3/4 | 1.1/16 | -1217 | | S76-1217 | S70-1217 |
| 3/4 | 1.5/16 | -1221 | | S76-1221 | |
| 1 | 1.1/16 | -1617 | | S76-1617 | |
| 1 | 1.5/16 | -1621 | S69-1621 | S76-1621 | S70-1621 |
| 1.1/4 | 1.5/16 | -2021 | | S76-2021 | |
| 1.1/4 | 1.5/8 | -2026 | | S76-2026 | |

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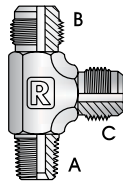
ADAPTORS

BSP ADAPTORS

BSP/JIC

S21

TEE

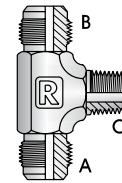


| THREAD | | | DASH SIZE | BSPT MALE JIC MALE JIC MALE | PART NO |
|--------|--------|--------|-----------|-----------------------------------|-------------------|
| A | B | C | | | |
| 1/8 | 7/16 | 7/16 | -020707 | | S21-020707 |
| 1/4 | 7/16 | 7/16 | -040707 | | S21-040707 |
| 1/4 | 9/16 | 9/16 | -040909 | | S21-040909 |
| 3/8 | 9/16 | 9/16 | -060909 | | S21-060909 |
| 3/8 | 9/16 | 3/4 | -060912 | | S21-060912 |
| 3/8 | 3/4 | 3/4 | -061212 | | S21-061212 |
| 1/2 | 3/4 | 3/4 | -081212 | | S21-081212 |
| 1/2 | 7/8 | 7/8 | -081414 | | S21-081414 |
| 1/2 | 1.1/16 | 1.1/16 | -081717 | | S21-081717 |
| 3/4 | 1.1/16 | 1.1/16 | -121717 | | S21-121717 |
| 1 | 1.1/16 | 1.1/16 | -161717 | | S21-161717 |
| 1 | 1.5/16 | 1.5/16 | -162121 | | S21-162121 |

BSP/JIC

S20

TEE

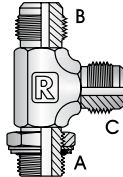


| THREAD | | | DASH SIZE | JIC MALE JIC MALE BSPT MALE | PART NO |
|--------|--------|-------|-----------|-----------------------------------|-------------------|
| A | B | C | | | |
| 7/16 | 7/16 | 1/8 | -070702 | | S20-070702 |
| 7/16 | 7/16 | 1/4 | -070704 | | S20-070704 |
| 1/2 | 1/2 | 1/4 | -080804 | | S20-080804 |
| 1/2 | 1/2 | 1/2 | -080808 | | S20-080808 |
| 9/16 | 9/16 | 1/4 | -090904 | | S20-090904 |
| 3/4 | 3/4 | 3/8 | -121206 | | S20-121206 |
| 3/4 | 3/4 | 1/2 | -121208 | | S20-121208 |
| 3/4 | 1.1/16 | 1/2 | -121708 | | S20-121708 |
| 7/8 | 7/8 | 3/8 | -141406 | | S20-141406 |
| 7/8 | 7/8 | 1/2 | -141408 | | S20-141408 |
| 1.1/16 | 1.1/16 | 3/4 | -171712 | | S20-171712 |
| 1.1/16 | 1.1/16 | 1 | -171716 | | S20-171716 |
| 1.5/16 | 1.5/16 | 3/4 | -212112 | | S20-212112 |
| 1.5/8 | 1.5/8 | 1.1/4 | -262620 | | S20-262620 |

BSPP O RING/JIC

S78

TEE
O RING & RETAINING
RING SUPPLIED

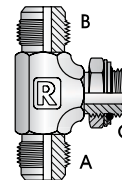


| THREAD | | | DASH SIZE | BSPP O RING MALE JIC MALE JIC MALE | PART NO |
|--------|--------|--------|-----------|--|-------------------|
| A | B | C | | | |
| 1/4 | 7/16 | 7/16 | -040707 | | S78-040707 |
| 1/4 | 9/16 | 9/16 | -040909 | | S78-040909 |
| 1/4 | 3/4 | 3/4 | -041212 | | S78-041212 |
| 3/8 | 9/16 | 9/16 | -060909 | | S78-060909 |
| 3/8 | 3/4 | 3/4 | -061212 | | S78-061212 |
| 1/2 | 3/4 | 3/4 | -081212 | | S78-081212 |
| 1/2 | 7/8 | 7/8 | -081414 | | S78-081414 |
| 1/2 | 1.1/16 | 1.1/16 | -081717 | | S78-081717 |
| 3/4 | 3/4 | 3/4 | -121212 | | S78-121212 |
| 3/4 | 1.1/16 | 1.1/16 | -121717 | | S78-121717 |
| 1 | 1.5/16 | 1.5/16 | -162121 | | S78-162121 |
| 1.1/4 | 1.1/16 | 1.1/16 | -201717 | | S78-201717 |
| 1.1/4 | 1.5/8 | 1.5/8 | -202626 | | S78-202626 |

BSPP O RING/JIC

S79

TEE
O RING & RETAINING
RING SUPPLIED



| THREAD | | | DASH SIZE | JIC MALE JIC MALE BSPP O RING MALE | PART NO |
|--------|--------|-------|-----------|--|-------------------|
| A | B | C | | | |
| 7/16 | 7/16 | 1/4 | -070704 | | S79-070704 |
| 9/16 | 9/16 | 1/4 | -090904 | | S79-090904 |
| 9/16 | 9/16 | 3/8 | -090906 | | S79-090906 |
| 3/4 | 3/4 | 3/8 | -121206 | | S79-121206 |
| 3/4 | 3/4 | 1/2 | -121208 | | S79-121208 |
| 7/8 | 7/8 | 1/2 | -141408 | | S79-141408 |
| 7/8 | 7/8 | 3/4 | -141412 | | S79-141412 |
| 1.1/16 | 1.1/16 | 3/4 | -171712 | | S79-171712 |
| 1.5/16 | 1.5/16 | 3/4 | -212112 | | S79-212112 |
| 1.5/16 | 1.5/16 | 1 | -212116 | | S79-212116 |
| 1.5/8 | 1.5/8 | 1.1/4 | -262620 | | S79-262620 |

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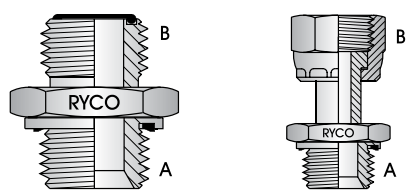
ACCESSORIES

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TECHNICAL

BSP/ORFS **S180** **S181**

**STRAIGHT
SEAL SUPPLIED**

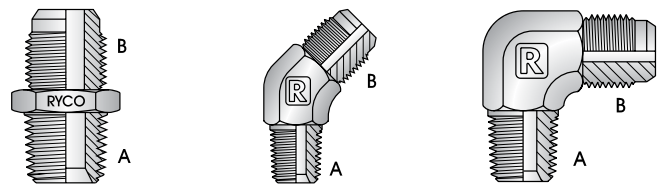


| THREAD | | DASH SIZE | BSPP MALE | BSPP MALE |
|-------------|-------------|-----------|------------------|--------------------|
| A | B | | ORFS MALE | ORFS FEMALE SWIVEL |
| inch | inch | | PART NO | PART NO |
| 1/4 | 11/16 | -0411 | S180-0411 | S181-0411 |
| 3/8 | 11/16 | -0611 | S180-0611 | S181-0611 |
| 3/8 | 13/16 | -0613 | S180-0613 | S181-0613 |
| 1/2 | 13/16 | -0813 | S180-0813 | S181-0813 |
| 3/4 | 1.3/16 | -1219 | S180-1219 | |

NOTE: S180 and S181 were previously O Ring & Retaining Ring design. Stock of previous design may exist and may be supplied.

BSP/SAE **SA7** **SA9** **SA8**

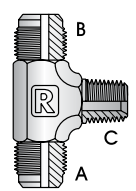
**STRAIGHT
45° ELBOW
90° ELBOW**



| THREAD | | DASH SIZE | BSPT MALE | BSPT MALE | BSPT MALE |
|-------------|-------------|-----------|-----------------|--------------------|--------------------|
| A | B | | SAE MALE | SAE MALE 45° ELBOW | SAE MALE 90° ELBOW |
| inch | inch | | PART NO | PART NO | PART NO |
| 1/8 | 3/8 | -0206 | | | SA8-0206 |
| 1/8 | 5/8 | -0210 | | | SA8-0210 |
| 1/4 | 5/8 | -0410 | SA7-0410 | SA9-0410 | SA8-0410 |
| 3/8 | 5/8 | -0610 | SA7-0610 | SA9-0610 | SA8-0610 |
| 3/4 | 1.1/16 | -1217 | SA7-1217 | | SA8-1217 |

BSP/SAE **SA20**

TEE



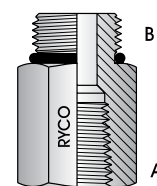
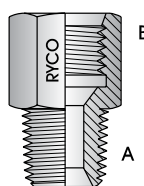
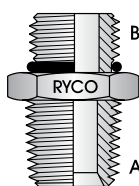
| THREAD | | | DASH SIZE | SAE MALE |
|-------------|-------------|-------------|-----------|-----------------------|
| A | B | C | | SAE MALE BSPT MALE |
| inch | inch | inch | | PART NO |
| 3/4 | 3/4 | 3/8 | -121206 | SA20-121206 |

ADAPTORS

BSP ADAPTORS

| BSP/UNO | S93 | S128 | S85 | S96 |
|---------|-----|------|-----|-----|
|---------|-----|------|-----|-----|

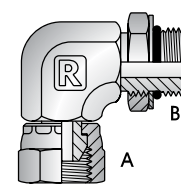
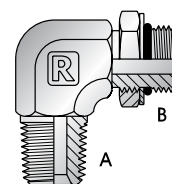
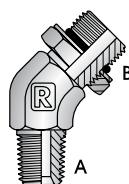
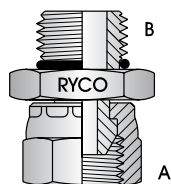
**STRAIGHT
O RING SUPPLIED**



| THREAD | | DASH SIZE | BSPT MALE UN O RING MALE | BSPT MALE JIC/UN O RING FEMALE FIXED DUAL SEAT | BSPT FEMALE FIXED UN O RING MALE REDUCING BUSH | BSPT FEMALE FIXED UN O RING MALE |
|--------|--------|-----------|--------------------------|--|--|----------------------------------|
| A | B | | | | | |
| inch | inch | | PART NO | PART NO | PART NO | PART NO |
| 1/8 | 9/16 | -0209 | | | S85-0209 | |
| 1/8 | 3/4 | -0212 | | | S85-0212 | |
| 1/8 | 7/8 | -0214 | | | S85-0214 | |
| 1/4 | 9/16 | -0409 | S93-0409 | | | S96-0409 |
| 1/4 | 3/4 | -0412 | S93-0412 | | S85-0412 | |
| 1/4 | 7/8 | -0414 | S93-0414 | S128-0414 | S85-0414 | |
| 1/4 | 1.1/16 | -0417 | | | S85-0417 | |
| 1/4 | 1.5/16 | -0421 | | | S85-0421 | |
| 3/8 | 9/16 | -0609 | S93-0609 | | | |
| 3/8 | 3/4 | -0612 | S93-0612 | | | S96-0612 |
| 3/8 | 7/8 | -0614 | S93-0614 | | S85-0614 | S96-0614 |
| 3/8 | 1.1/16 | -0617 | S93-0617 | | S85-0617 | |
| 3/8 | 1.5/16 | -0621 | | | S85-0621 | |
| 1/2 | 9/16 | -0809 | S93-0809 | | | |
| 1/2 | 3/4 | -0812 | S93-0812 | S128-0812 | | S96-0812 |
| 1/2 | 7/8 | -0814 | S93-0814 | S128-0814 | S85-0814 | S96-0814 |
| 1/2 | 1.1/16 | -0817 | S93-0817 | | S85-0817 | |
| 1/2 | 1.5/16 | -0821 | | | S85-0821 | |
| 1/2 | 1.5/8 | -0826 | | | S85-0826 | |
| 5/8 | 7/8 | -1014 | S93-1014 | | | |
| 5/8 | 1.1/16 | -1017 | S93-1017 | | | |
| 3/4 | 3/4 | -1212 | S93-1212 | | | |
| 3/4 | 7/8 | -1214 | S93-1214 | | | |
| 3/4 | 1.1/16 | -1217 | S93-1217 | | | |
| 3/4 | 1.5/16 | -1221 | S93-1221 | | S85-1221 | |
| 3/4 | 1.5/8 | -1226 | | | S85-1226 | |
| 1 | 1.1/16 | -1617 | S93-1617 | | | |
| 1 | 1.5/16 | -1621 | S93-1621 | | | |
| 1 | 1.5/8 | -1626 | S93-1626 | | S85-1626 | |
| 1.1/4 | 1.5/16 | -2021 | S93-2021 | | | |
| 1.1/4 | 1.5/8 | -2026 | S93-2026 | | | |
| 1.1/2 | 1.5/8 | -2426 | S93-2426 | | | |
| 1.1/2 | 1.7/8 | -2430 | S93-2430 | | | |

BSP/UNO **S95** **S60** **S89** **S94**

**STRAIGHT
45° ELBOW
90° ELBOW
O RING SUPPLIED**



| THREAD | | DASH SIZE | BSPP FEMALE SWIVEL UN O RING MALE | BSPT MALE UN O RING MALE 45° ELBOW | BSPT MALE UN O RING MALE 90° ELBOW | BSPP FEMALE SWIVEL UN O RING MALE 90° ELBOW |
|-------------|-------------|-----------|--------------------------------------|--|--|---|
| A | B | | | | | |
| inch | inch | | PART NO | PART NO | PART NO | PART NO |
| 1/8 | 7/16 | -0207 | | | | S94-0207 |
| 1/4 | 9/16 | -0409 | S95-0409 | S60-0409 | S89-0409 | S94-0409 |
| 1/4 | 3/4 | -0412 | | | S89-0412 | |
| 1/4 | 7/8 | -0414 | | | | |
| 3/8 | 9/16 | -0609 | | | S89-0609 | |
| 3/8 | 3/4 | -0612 | S95-0612 | S60-0612 | S89-0612 | S94-0612 |
| 3/8 | 7/8 | -0614 | S95-0614 | S60-0614 | S89-0614 | |
| 3/8 | 1.1/16 | -0617 | | | | |
| 1/2 | 3/4 | -0812 | S95-0812 | S60-0812 | S89-0812 | S94-0812 |
| 1/2 | 7/8 | -0814 | S95-0814 | S60-0814 | S89-0814 | S94-0814 |
| 1/2 | 1.1/16 | -0817 | | S60-0817 | S89-0817 | |
| 3/4 | 3/4 | -1212 | | | S89-1212 | |
| 3/4 | 7/8 | -1214 | S95-1214 | | S89-1214 | |
| 3/4 | 1.1/16 | -1217 | S95-1217 | S60-1217 | S89-1217 | S94-1217 |
| 3/4 | 1.5/16 | -1221 | | | | |
| 1 | 1.5/16 | -1621 | S95-1621 | S60-1621 | S89-1621 | S94-1621 |
| 1 | 1.5/8 | -1626 | | | S89-1626 | |
| 1.1/4 | 1.5/8 | -2026 | | | S89-2026 | S94-2026 |

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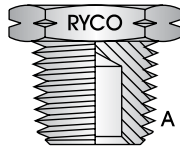
ADAPTORS

NPT ADAPTORS

NPT

S64N

PLUG

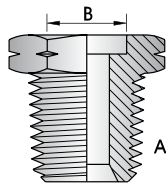


| THREAD A | DASH SIZE | NPT MALE PLUG |
|-------------|-----------|----------------|
| inch | | PART NO |
| 1/8 | -02 | S64N-02 |
| 1/4 | -04 | S64N-04 |
| 3/8 | -06 | S64N-06 |
| 1/2 | -08 | S64N-08 |
| 3/4 | -12 | S64N-12 |
| 1 | -16 | S64N-16 |
| 1.1/4 | -20 | S64N-20 |
| 1.1/2 | -24 | S64N-24 |
| 2 | -32 | S64N-32 |

NPT

S53N

TUBE WELD

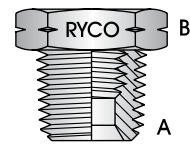


| THREAD A | TUBE OD A | DASH SIZE | NPT MALE TUBE WELD |
|-------------|-------------|-----------|--------------------|
| inch | inch | | PART NO |
| 3/8 | 1/2 | -0608 | S53N-0608 |
| 3/4 | 3/4 | -1212 | S53N-1212 |

NPT/NPT

S24N

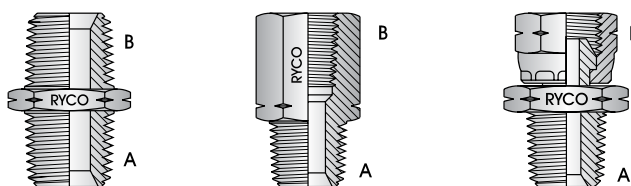
REDUCING BUSH



| THREAD | | DASH SIZE | NPT MALE NPT FEMALE FIXED REDUCING BUSH |
|-------------|-------------|-----------|---|
| A | B | | |
| inch | inch | | PART NO |
| 1/4 | 1/8 | -0402 | S24N-0402 |
| 3/8 | 1/8 | -0602 | S24N-0602 |
| 3/8 | 1/4 | -0604 | S24N-0604 |
| 1/2 | 1/8 | -0802 | S24N-0802 |
| 1/2 | 1/4 | -0804 | S24N-0804 |
| 1/2 | 3/8 | -0806 | S24N-0806 |
| 3/4 | 1/8 | -1202 | S24N-1202 |
| 3/4 | 1/4 | -1204 | S24N-1204 |
| 3/4 | 3/8 | -1206 | S24N-1206 |
| 3/4 | 1/2 | -1208 | S24N-1208 |
| 1 | 3/8 | -1606 | S24N-1606 |
| 1 | 1/2 | -1608 | S24N-1608 |
| 1 | 3/4 | -1612 | S24N-1612 |
| 1.1/4 | 1/2 | -2008 | S24N-2008 |
| 1.1/4 | 3/4 | -2012 | S24N-2012 |
| 1.1/4 | 1 | -2016 | S24N-2016 |
| 1.1/2 | 1/2 | -2408 | S24N-2408 |
| 1.1/2 | 1 | -2416 | S24N-2416 |
| 1.1/2 | 1.1/4 | -2420 | S24N-2420 |
| 2 | 1.1/2 | -3224 | S24N-3224 |

NPT/NPT **S27N** **S72N** **S80N**

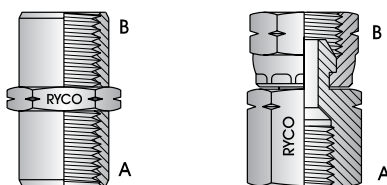
STRAIGHT



| THREAD | | DASH SIZE | NPT MALE | NPT MALE | NPT MALE |
|-------------|-------------|-----------|------------------|------------------|--------------------|
| A | B | | NPT MALE NIPPLE | NPT FEMALE FIXED | NPSM FEMALE SWIVEL |
| inch | inch | | PART NO | PART NO | PART NO |
| 1/8 | 1/8 | -0202 | S27N-0202 | S72N-0202 | S80N-0202 |
| 1/8 | 1/4 | -0204 | | S72N-0204 | |
| 1/4 | 1/8 | -0402 | S27N-0402 | | |
| 1/4 | 1/4 | -0404 | S27N-0404 | S72N-0404 | S80N-0404 |
| 1/4 | 3/8 | -0406 | | S72N-0406 | |
| 3/8 | 1/4 | -0604 | S27N-0604 | | |
| 3/8 | 3/8 | -0606 | S27N-0606 | S72N-0606 | S80N-0606 |
| 3/8 | 1/2 | -0608 | | S72N-0608 | S80N-0608 |
| 1/2 | 1/4 | -0804 | S27N-0804 | | |
| 1/2 | 3/8 | -0806 | S27N-0806 | | |
| 1/2 | 1/2 | -0808 | S27N-0808 | S72N-0808 | S80N-0808 |
| 1/2 | 3/4 | -0812 | | S72N-0812 | |
| 3/4 | 1/2 | -1208 | S27N-1208 | | |
| 3/4 | 3/4 | -1212 | S27N-1212 | S72N-1212 | S80N-1212 |
| 1 | 3/4 | -1612 | S27N-1612 | | |
| 1 | 1 | -1616 | S27N-1616 | S72N-1616 | S80N-1616 |
| 1.1/4 | 1 | -2016 | S27N-2016 | | |
| 1.1/4 | 1.1/4 | -2020 | S27N-2020 | | S80N-2020 |
| 1.1/2 | 3/4 | -2412 | S27N-2412 | | |
| 1.1/2 | 1.1/2 | -2424 | S27N-2424 | | |
| 2 | 1.1/2 | -3224 | S27N-3224 | | |
| 2 | 2 | -3232 | | | S80N-3232 |

NPT/NPT **S26N** **S81N**

STRAIGHT



| THREAD | | DASH SIZE | NPT FEMALE | NPT FEMALE |
|-------------|-------------|-----------|------------------|--------------------------|
| A | B | | SOCKET | FIXED NPSM FEMALE SWIVEL |
| inch | inch | | PART NO | PART NO |
| 1/8 | 1/8 | -0202 | S26N-0202 | S81N-0202 |
| 1/4 | 1/4 | -0404 | S26N-0404 | S81N-0404 |
| 3/8 | 3/8 | -0606 | S26N-0606 | S81N-0606 |
| 1/2 | 1/2 | -0808 | S26N-0808 | S81N-0808 |
| 3/4 | 3/4 | -1212 | S26N-1212 | S81N-1212 |
| 1 | 1 | -1616 | S26N-1616 | S81N-1616 |
| 1.1/4 | 1.1/4 | -2020 | | S81N-2020 |
| 2 | 2 | -3232 | S26N-3232 | |

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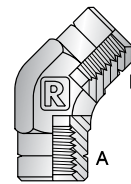
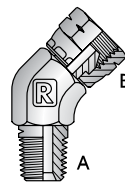
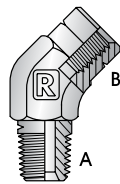
NPT/NPT

S39N

S84N

S31N

45° ELBOW



| THREAD | | DASH SIZE | NPT MALE NPT FEMALE FIXED 45° ELBOW | NPT MALE NPSM FEMALE SWIVEL 45° ELBOW | NPT FEMALE FIXED NPT FEMALE FIXED 45° ELBOW |
|--------|-------|-----------|---|---|---|
| A | B | | PART NO | PART NO | PART NO |
| 1/8 | 1/8 | -0202 | S39N-0202 | | S31N-0202 |
| 1/4 | 1/4 | -0404 | S39N-0404 | S84N-0404 | |
| 3/8 | 3/8 | -0606 | | S84N-0606 | |
| 1/2 | 3/8 | -0806 | | S84N-0806 | |
| 1/2 | 1/2 | -0808 | | S84N-0808 | |
| 1 | 1 | -1616 | | S84N-1616 | |
| 1.1/4 | 1.1/4 | -2020 | | S84N-2020 | |

NPT/NPT

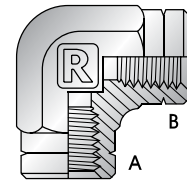
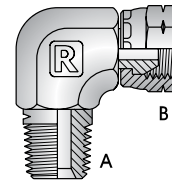
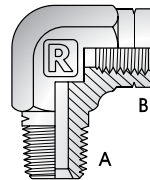
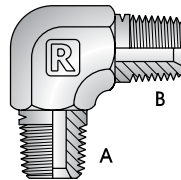
S49N

S25N

S82N

S28N

90° ELBOW



| THREAD | | DASH SIZE | NPT MALE NPT MALE 90° ELBOW | NPT MALE NPT FEMALE FIXED 90° ELBOW | NPT MALE NPSM FEMALE SWIVEL 90° ELBOW | NPT FEMALE FIXED NPT FEMALE FIXED 90° ELBOW |
|--------|-------|-----------|-----------------------------------|---|---|---|
| A | B | | PART NO | PART NO | PART NO | PART NO |
| 1/8 | 1/8 | -0202 | S49N-0202 | S25N-0202 | | S28N-0202 |
| 1/4 | 1/4 | -0404 | S49N-0404 | S25N-0404 | S82N-0404 | S28N-0404 |
| 3/8 | 1/4 | -0604 | S49N-0604 | | | |
| 3/8 | 3/8 | -0606 | S49N-0606 | S25N-0606 | S82N-0606 | S28N-0606 |
| 1/2 | 1/2 | -0808 | S49N-0808 | S25N-0808 | S82N-0808 | S28N-0808 |
| 3/4 | 3/4 | -1212 | S49N-1212 | S25N-1212 | S82N-1212 | S28N-1212 |
| 1 | 1 | -1616 | S49N-1616 | S25N-1616 | S82N-1616 | S28N-1616 |
| 1.1/4 | 1.1/4 | -2020 | | S25N-2020 | S82N-2020 | |

NPT/NPT

S50N

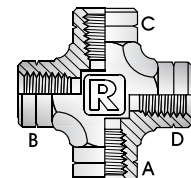
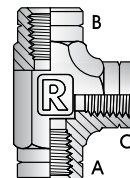
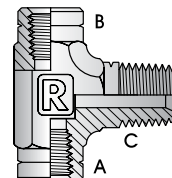
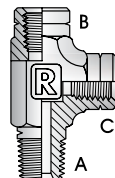
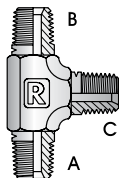
S48N

S47N

S29N

S32N

TEE CROSS



| THREAD ALL ENDS | DASH SIZE | NPT MALE NPT MALE NPT MALE | NPT MALE NPT FEMALE FIXED NPT FEMALE FIXED | NPT FEMALE FIXED NPT FEMALE FIXED NPT MALE | NPT FEMALE FIXED NPT FEMALE FIXED NPT FEMALE FIXED | NPT FEMALE FIXED CROSS |
|--------------------|--------------|----------------------------------|--|--|--|---------------------------|
| inch | | PART NO | PART NO | PART NO | PART NO | PART NO |
| 1/8 | -020202 | S50N-020202 | S48N-020202 | | S29N-020202 | |
| 1/4 | -040404 | S50N-040404 | S48N-040404 | S47N-040404 | S29N-040404 | S32N-04040404 |
| 3/8 | -060606 | S50N-060606 | S48N-060606 | | S29N-060606 | S32N-06060606 |
| 1/2 | -080808 | S50N-080808 | S48N-080808 | | S29N-080808 | S32N-08080808 |
| 3/4 | -121212 | S50N-080808 | S48N-121212 | | S29N-121212 | S32N-12121212 |
| 1 | -161616 | | S48N-161616 | | S29N-161616 | S32N-16161616 |
| 1.1/4 | -202020 | | | | S29N-202020 | |
| 1.1/2 | -242424 | | | | S29N-242424 | |

ADAPTORS

NPT ADAPTORS

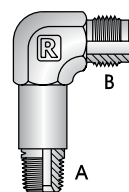
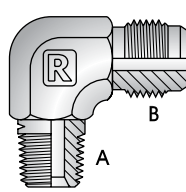
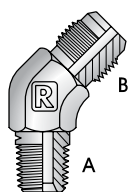
NPT/JIC

S9N

S8N

S11N

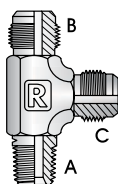
45° ELBOW
90° ELBOW



| THREAD | | DASH SIZE | NPT MALE JIC MALE 45° ELBOW | NPT MALE JIC MALE 90° ELBOW | NPT MALE EXT JIC MALE 90° ELBOW |
|--------|--------|-----------|-----------------------------------|-----------------------------------|---------------------------------------|
| A | B | | | | |
| inch | inch | | PART NO | PART NO | PART NO |
| 1/8 | 7/16 | -0207 | S9N-0207 | S8N-0207 | S11N-0207 |
| 1/8 | 1/2 | -0208 | | S8N-0208 | |
| 1/8 | 9/16 | -0209 | | S8N-0209 | |
| 1/4 | 7/16 | -0407 | S9N-0407 | S8N-0407 | |
| 1/4 | 1/2 | -0408 | S9N-0408 | S8N-0408 | |
| 1/4 | 9/16 | -0409 | S9N-0409 | S8N-0409 | |
| 1/4 | 3/4 | -0412 | S9N-0412 | S8N-0412 | |
| 3/8 | 7/16 | -0607 | | S8N-0607 | |
| 3/8 | 1/2 | -0608 | | S8N-0608 | |
| 3/8 | 9/16 | -0609 | S9N-0609 | S8N-0609 | |
| 3/8 | 3/4 | -0612 | S9N-0612 | S8N-0612 | |
| 3/8 | 7/8 | -0614 | S9N-0614 | S8N-0614 | |
| 1/2 | 9/16 | -0809 | S9N-0809 | S8N-0809 | |
| 1/2 | 3/4 | -0812 | S9N-0812 | S8N-0812 | |
| 1/2 | 7/8 | -0814 | S9N-0814 | S8N-0814 | |
| 1/2 | 1.1/16 | -0817 | S9N-0817 | S8N-0817 | |
| 3/4 | 3/4 | -1212 | | S8N-1212 | |
| 3/4 | 7/8 | -1214 | S9N-1214 | S8N-1214 | |
| 3/4 | 1.1/16 | -1217 | S9N-1217 | S8N-1217 | |
| 3/4 | 1.3/16 | -1219 | | S8N-1219 | |
| 3/4 | 1.5/16 | -1221 | S9N-1221 | S8N-1221 | |
| 1 | 1.1/16 | -1617 | | S8N-1617 | |
| 1 | 1.5/16 | -1621 | S9N-1621 | S8N-1621 | |
| 1 | 1.5/8 | -1626 | | S8N-1626 | |
| 1.1/4 | 1.5/16 | -2021 | | S8N-2021 | |
| 1.1/4 | 1.5/8 | -2026 | S9N-2026 | S8N-2026 | |
| 1.1/2 | 1.7/8 | -2430 | S9N-2430 | S8N-2430 | |
| 2 | 2.1/2 | -3240 | S9N-3240 | S8N-3240 | |

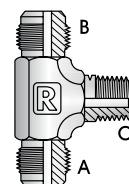
NPT/JIC S21N

TEE



NPT/JIC S20N

TEE

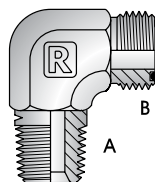
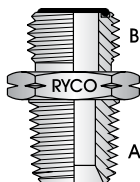


| THREAD | | | DASH SIZE | NPT MALE JIC MALE JIC MALE | PART NO |
|--------|--------|--------|-----------|----------------------------------|--------------------|
| A | B | C | | | |
| 1/8 | 7/16 | 7/16 | -020707 | | S21N-020707 |
| 1/4 | 7/16 | 7/16 | -040707 | | S21N-040707 |
| 1/4 | 9/16 | 9/16 | -040909 | | S21N-040909 |
| 3/8 | 9/16 | 9/16 | -060909 | | S21N-060909 |
| 3/8 | 3/4 | 3/4 | -061212 | | S21N-061212 |
| 1/2 | 3/4 | 3/4 | -081212 | | S21N-081212 |
| 1/2 | 7/8 | 7/8 | -081414 | | S21N-081414 |
| 3/4 | 1.1/16 | 1.1/16 | -121717 | | S21N-121717 |

| THREAD | | | DASH SIZE | JIC MALE JIC MALE NPT MALE | PART NO |
|--------|--------|-----|-----------|----------------------------------|--------------------|
| A | B | C | | | |
| 7/16 | 7/16 | 1/8 | -070702 | | S20N-070702 |
| 7/16 | 7/16 | 1/4 | -070704 | | S20N-070704 |
| 1/2 | 1/2 | 1/4 | -080804 | | S20N-080804 |
| 9/16 | 9/16 | 1/4 | -090904 | | S20N-090904 |
| 9/16 | 9/16 | 3/8 | -090906 | | S20N-090906 |
| 3/4 | 3/4 | 3/8 | -121206 | | S20N-121206 |
| 3/4 | 3/4 | 1/2 | -121208 | | S20N-121208 |
| 7/8 | 7/8 | 1/2 | -141408 | | S20N-141408 |
| 1.1/16 | 1.1/16 | 3/4 | -171712 | | S20N-171712 |
| 1.5/16 | 1.5/16 | 1 | -212116 | | S20N-212116 |

NPT/ORFS S114N S145N

STRAIGHT
90° ELBOW
O RING INCLUDED



| THREAD | | DASH SIZE | NPT MALE ORFS MALE | NPT MALE ORFS MALE 90° ELBOW |
|--------|--------|-----------|-----------------------|------------------------------------|
| A | B | | | |
| 1/4 | 9/16 | -0409 | S114N-0409 | S145N-0409 |
| 3/8 | 11/16 | -0611 | S114N-0611 | S145N-0611 |
| 1/2 | 13/16 | -0813 | S114N-0813 | S145N-0813 |
| 1/2 | 1 | -0816 | S114N-0816 | S145N-0816 |
| 3/4 | 1.3/16 | -1219 | S114N-1219 | S145N-1219 |
| 1 | 1.7/16 | -1623 | S114N-1623 | S145N-1623 |

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NPT ADAPTORS

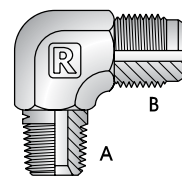
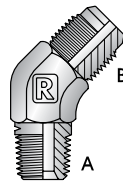
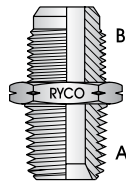
NPT/SAE

SA7N

SA9N

SA8N

STRAIGHT
45° ELBOW
90° ELBOW

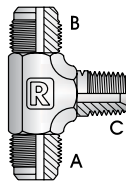


| THREAD | | DASH SIZE | NPT MALE SAE MALE | NPT MALE SAE MALE 45° ELBOW | NPT MALE SAE MALE 90° ELBOW |
|--------|--------|-----------|----------------------|-----------------------------------|-----------------------------------|
| A | B | | | | |
| inch | inch | | PART NO | PART NO | PART NO |
| 1/8 | 1/2 | -0208 | SA7N-0208 | | |
| 1/8 | 5/8 | -0210 | SA7N-0210 | | SA8N-0210 |
| 1/4 | 7/16 | -0407 | SA7N-0407 | | SA8N-0407 |
| 1/4 | 1/2 | -0408 | SA7N-0408 | | SA8N-0408 |
| 1/4 | 5/8 | -0410 | SA7N-0410 | SA9N-0410 | SA8N-0410 |
| 3/8 | 1/2 | -0608 | SA7N-0608 | | |
| 3/8 | 5/8 | -0610 | SA7N-0610 | | SA8N-0610 |
| 1/2 | 3/4 | -0812 | SA7N-0812 | | |
| 3/4 | 1.1/16 | -1217 | SA7N-1217 | | SA8N-1217 |

NPT/SAE

SA20N

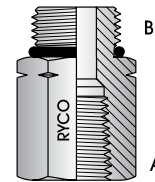
TEE



NPT/UNO

S96N

STRAIGHT
O RING SUPPLIED



| THREAD | | | DASH SIZE | SAE MALE SAE MALE NPT MALE |
|--------|------|------|-----------|----------------------------------|
| A | B | C | | |
| inch | inch | inch | | PART NO |
| 7/16 | 7/16 | 1/4 | -070704 | SA20N-070704 |
| 1/2 | 1/2 | 1/4 | -080804 | SA20N-080804 |

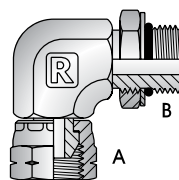
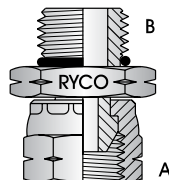
| THREAD | | DASH SIZE | NPT FEMALE FIXED UN O RING MALE |
|--------|--------|-----------|------------------------------------|
| A | B | | |
| inch | inch | | PART NO |
| 1/2 | 3/4 | -0812 | S96N-0812 |
| 3/4 | 1.5/16 | -1221 | S96N-1221 |

NPSM/UNO

S95N

S94N

STRAIGHT
90° ELBOW
O RING SUPPLIED



| THREAD | | DASH SIZE | NPSM FEMALE SWIVEL UN O RING MALE | NPSM FEMALE UN O RING MALE |
|--------|------|-----------|--------------------------------------|-------------------------------|
| A | B | | | |
| inch | inch | | PART NO | PART NO |
| 1/4 | 9/16 | -0409 | | S94N-0409 |
| 1/2 | 3/4 | -0812 | S95N-0812 | |

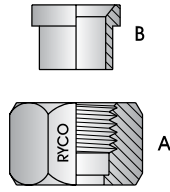
ADAPTORS

JIC ADAPTORS

JIC

S6

**TUBE NUT &
SLEEVE
(FLARE TYPE)**

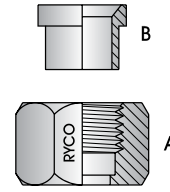


| THREAD A | TUBE OD B | DASH SIZE | JIC FEMALE NUT & SLEEVE |
|-------------|--------------|--------------|----------------------------|
| inch | inch | | PART NO |
| 7/16 | 1/4 | -0704 | S6-0704 |
| 1/2 | 5/16 | -0805 | S6-0805 |
| 9/16 | 3/8 | -0906 | S6-0906 |
| 3/4 | 1/2 | -1208 | S6-1208 |
| 7/8 | 5/8 | -1410 | S6-1410 |
| 1.1/16 | 3/4 | -1712 | S6-1712 |
| 1.3/16 | 7/8 | -1914 | S6-1914 |
| 1.5/16 | 1 | -2116 | S6-2116 |
| 1.5/8 | 1.1/4 | -2620 | S6-2620 |

JIC

S6M

**TUBE NUT &
METRIC SLEEVE
(FLARE TYPE)**

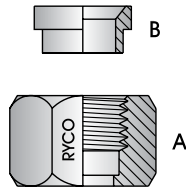


| THREAD A | TUBE OD B | DASH SIZE | JIC FEMALE NUT & METRIC SLEEVE |
|-------------|--------------|--------------|-----------------------------------|
| inch | mm | | PART NO |
| 7/16 | 6 | -0706 | S6M-0706 |
| 1/2 | 8 | -0808 | S6M-0808 |
| 9/16 | 10 | -0910 | S6M-0910 |
| 3/4 | 12 | -1212 | S6M-1212 |
| 7/8 | 16 | -1416 | S6M-1416 |
| 1.1/16 | 19 | -1719 | S6M-1719 |
| 1.3/16 | 20 | -1920 | S6M-1920 |
| 1.5/16 | 25 | -2125 | S6M-2125 |
| 1.5/8 | 32 | -2632 | S6M-2632 |

JIC

S6S

**TUBE NUT &
SHORT SLEEVE
(FLARE TYPE)**

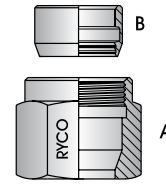


| THREAD A | TUBE OD B | DASH SIZE | JIC FEMALE NUT & SHORT SLEEVE |
|-------------|--------------|--------------|----------------------------------|
| inch | inch | | PART NO |
| 9/16 | 3/8 | -0906 | S6S-0906 |
| 3/4 | 1/2 | -1208 | S6S-1208 |
| 7/8 | 5/8 | -1410 | S6S-1410 |

J-LOK

S134

**JIC FEMALE NUT
& FLARELESS OLIVE**

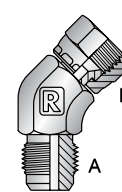
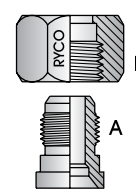
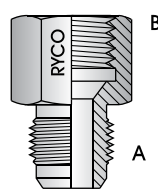
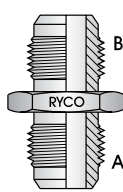


| THREAD A | TUBE OD B | DASH SIZE | J-LOK NUT & OLIVE |
|-------------|--------------|--------------|----------------------|
| inch | inch | | PART NO |
| 7/16 | 1/4 | -0704 | S134-0704 |
| 9/16 | 3/8 | -0906 | S134-0906 |
| 3/4 | 1/2 | -1208 | S134-1208 |
| 7/8 | 5/8 | -1410 | S134-1410 |
| 1.1/16 | 3/4 | -1712 | S134-1712 |
| 1.5/16 | 1 | -2116 | S134-2116 |

NOTE: S134 Assembly Instructions page 510.

JIC/JIC **S10** **S17** **S66F** **S66** **S23**

**STRAIGHT
BULKHEAD
45° ELBOW**



| THREAD | | DASH SIZE | JIC MALE BULKHEAD JIC MALE | JIC MALE JIC MALE | JIC MALE JIC FEMALE FIXED REDUCER | JIC MALE JIC FEMALE REDUCER | JIC MALE JIC FEMALE SWIVEL 45° ELBOW |
|--------|--------|-----------|----------------------------|-------------------|-----------------------------------|-----------------------------|--------------------------------------|
| A | B | | PART NO | PART NO | PART NO | PART NO | PART NO |
| 7/16 | 7/16 | -0707 | S10-0707 | S17-0707 | | | S23-0707 |
| 7/16 | 9/16 | -0709 | | | S66F-0709 | S66-0709 | |
| 7/16 | 3/4 | -0712 | | | S66F-0712 | S66-0712 | |
| 7/16 | 7/8 | -0714 | | | S66F-0714 | S66-0714 | |
| 7/16 | 1.1/16 | -0717 | | | S66F-0717 | S66-0717 | |
| 7/16 | 1.5/16 | -0721 | | | S66F-0721 | S66-0721 | |
| 1/2 | 1/2 | -0808 | | S17-0808 | | | S23-0808 |
| 9/16 | 7/16 | -0907 | | S17-0907 | S66F-0907 | | |
| 9/16 | 9/16 | -0909 | S10-0909 | S17-0909 | | | S23-0909 |
| 9/16 | 3/4 | -0912 | | | S66F-0912 | S66-0912 | |
| 9/16 | 7/8 | -0914 | | | S66F-0914 | S66-0914 | |
| 9/16 | 1.1/16 | -0917 | | | S66F-0917 | S66-0917 | |
| 9/16 | 1.5/16 | -0921 | | | S66F-0921 | S66-0921 | |
| 9/16 | 1.5/8 | -0926 | | | S66F-0926 | | |
| 3/4 | 9/16 | -1209 | | S17-1209 | S66F-1209 | S66-1209* | |
| 3/4 | 7/16 | -1207 | | | S66F-1207 | | |
| 3/4 | 3/4 | -1212 | S10-1212 | S17-1212 | | | S23-1212 |
| 3/4 | 7/8 | -1214 | | | S66F-1214 | S66-1214 | |
| 3/4 | 1.1/16 | -1217 | | | S66F-1217 | S66-1217 | |
| 3/4 | 1.5/16 | -1221 | | | S66F-1221 | S66-1221 | |
| 3/4 | 1.5/8 | -1226 | | | S66F-1226 | | |
| 3/4 | 1.7/8 | -1230 | | | S66F-1230 | | |
| 7/8 | 3/4 | -1412 | | S17-1412 | S66F-1412 | S66-1412* | |
| 7/8 | 7/8 | -1414 | S10-1414 | S17-1414 | | | S23-1414 |
| 7/8 | 1.1/16 | -1417 | | | S66F-1417 | S66-1417 | |
| 1.1/16 | 7/16 | -1707 | | S17-1707 | | | |
| 1.1/16 | 1/2 | -1708 | | S17-1708 | | | |
| 1.1/16 | 9/16 | -1709 | | S17-1709 | S66F-1709 | | |
| 1.1/16 | 3/4 | -1712 | | S17-1712 | S66F-1712 | | |
| 1.1/16 | 7/8 | -1714 | S10-1714 | S17-1714 | S66F-1714 | S66-1714 | |
| 1.1/16 | 1.1/16 | -1717 | S10-1717 | S17-1717 | | | S23-1717 |
| 1.1/16 | 1.5/16 | -1721 | | | S66F-1721 | S66-1721 | |
| 1.1/16 | 1.5/8 | -1726 | | | S66F-1726 | | |
| 1.3/16 | 1.3/16 | -1919 | S10-1919 | S17-1919 | | | |
| 1.5/16 | 3/4 | -2112 | | | S66F-2112 | S66-2112 | |
| 1.5/16 | 7/8 | -2114 | | S17-2114 | | | |
| 1.5/16 | 1.1/16 | -2117 | | S17-2117 | S66F-2117 | S66-2117 | |
| 1.5/16 | 1.5/16 | -2121 | S10-2121 | S17-2121 | | | S23-2121 |
| 1.5/16 | 1.5/8 | -2126 | | | S66F-2126 | S66-2126 | |
| 1.5/16 | 1.7/8 | -2130 | | | S66F-2130 | | |
| 1.5/8 | 1.5/16 | -2621 | | S17-2621 | S66F-2621 | S66-2621 | |
| 1.5/8 | 1.5/8 | -2626 | S10-2626 | S17-2626 | | | S23-2626 |
| 1.7/8 | 1.7/8 | -3030 | S10-3030 | S17-3030 | | | S23-3030 |
| 2.1/2 | 1.5/16 | -4021 | | | S66F-4021 | | |
| 2.1/2 | 2.1/2 | -4040 | S10-4040 | S17-4040 | | | |

NOTE: *These Sizes are One Piece Construction - see S66F range.

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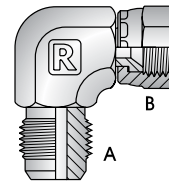
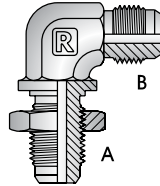
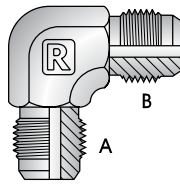
JIC/JIC

S18

S13

S15

90° ELBOW



| THREAD | | DASH SIZE | JIC MALE | JIC MALE BULKHEAD | JIC MALE |
|--------|--------|-----------|--------------------|--------------------|-----------------------------|
| A | B | | JIC MALE 90° ELBOW | JIC MALE 90° ELBOW | JIC FEMALE SWIVEL 90° ELBOW |
| inch | inch | | PART NO | PART NO | PART NO |
| 7/16 | 7/16 | -0707 | S18-0707 | S13-0707 | S15-0707 |
| 1/2 | 1/2 | -0808 | S18-0808 | S13-0808 | S15-0808 |
| 9/16 | 9/16 | -0909 | S18-0909 | S13-0909 | S15-0909 |
| 3/4 | 9/16 | -1209 | S18-1209 | | |
| 3/4 | 3/4 | -1212 | S18-1212 | S13-1212 | S15-1212 |
| 7/8 | 3/4 | -1412 | S18-1412 | | S15-1412 |
| 7/8 | 7/8 | -1414 | S18-1414 | S13-1414 | S15-1414 |
| 7/8 | 1.1/16 | -1417 | | | S15-1417 |
| 1.1/16 | 7/8 | -1714 | S18-1714 | | S15-1714 |
| 1.1/16 | 1.1/16 | -1717 | S18-1717 | S13-1717 | S15-1717 |
| 1.3/16 | 1.3/16 | -1919 | S18-1919 | | S15-1919 |
| 1.5/16 | 1.1/16 | -2117 | S18-2117 | | |
| 1.5/16 | 1.5/16 | -2121 | S18-2121 | S13-2121 | S15-2121 |
| 1.5/8 | 1.5/8 | -2626 | S18-2626 | S13-2626 | S15-2626 |
| 1.7/8 | 1.7/8 | -3030 | | | S15-3030 |

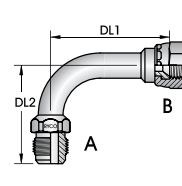
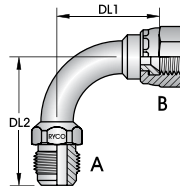
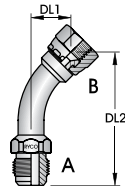
JIC/JIC

S5

S4

S103

45° BEND 90° BEND

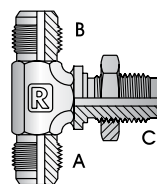
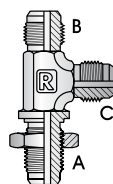
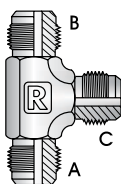


| THREAD | | DASH SIZE | JIC MALE | | | JIC MALE | | | JIC MALE | | |
|--------|--------|-----------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| A | B | | JIC FEMALE SWIVEL 45° TUBE BEND | JIC FEMALE SWIVEL 90° TUBE BEND | JIC FEMALE SWIVEL 90° LONG BEND | JIC FEMALE SWIVEL 45° TUBE BEND | JIC FEMALE SWIVEL 90° TUBE BEND | JIC FEMALE SWIVEL 90° LONG BEND | JIC FEMALE SWIVEL 45° TUBE BEND | JIC FEMALE SWIVEL 90° TUBE BEND | JIC FEMALE SWIVEL 90° LONG BEND |
| inch | inch | | PART NO | DL1 | DL2 | PART NO | DL1 | DL2 | PART NO | DL1 | DL2 |
| 7/16 | 7/16 | -0707 | | | | S4-0707 | 22 | 38 | S103-0707 | 47 | 38 |
| 9/16 | 9/16 | -0909 | S5-0909 | 16 | 54 | S4-0909 | 27 | 43 | S103-0909 | 55 | 44 |
| 3/4 | 3/4 | -1212 | S5-1212 | 22 | 64 | S4-1212 | 38 | 60 | S103-1212 | 62 | 60 |
| 7/8 | 7/8 | -1414 | S5-1414 | 24 | 72 | S4-1414 | 48 | 66 | S103-1414 | 70 | 66 |
| 1.1/16 | 1.1/16 | -1717 | S5-1717 | 30 | 90 | S4-1717 | 57 | 78 | S103-1717 | 96 | 78 |
| 1.5/16 | 1.5/16 | -2121 | S5-2121 | 33 | 102 | S4-2121 | 73 | 92 | S103-2121 | 114 | 94 |
| 1.5/8 | 1.5/8 | -2626 | S5-2626 | 46 | 121 | S4-2626 | 82 | 108 | S103-2626 | 140 | 108 |
| 1.7/8 | 1.7/8 | -3030 | | | | S4-3030 | 104 | 130 | | | |
| 2.1/2 | 2.1/2 | -4040 | | | | S4-4040 | 140 | 164 | S103-4040 | 222 | 164 |

NOTE: Drop Lengths (DL) dimensions are in millimetres.

JIC/JIC **S19** **S62** **S63**

TEE



| THREAD | | | DASH SIZE | JIC MALE | JIC MALE BULKHEAD | JIC MALE |
|-------------|-------------|-------------|-----------|-------------------|-------------------|-------------------|
| A | B | C | | JIC MALE | JIC MALE | JIC MALE BULKHEAD |
| inch | inch | inch | | PART NO | PART NO | PART NO |
| 7/16 | 7/16 | 7/16 | -070707 | S19-070707 | S62-070707 | S63-070707 |
| 1/2 | 1/2 | 1/2 | -080808 | S19-080808 | S62-080808 | S63-080808 |
| 9/16 | 9/16 | 9/16 | -090909 | S19-090909 | S62-090909 | S63-090909 |
| 9/16 | 9/16 | 3/4 | -090912 | | S62-090912 | |
| 3/4 | 1/2 | 3/4 | -120812 | S19-120812 | | |
| 3/4 | 3/4 | 9/16 | -121209 | S19-121209 | | |
| 3/4 | 3/4 | 3/4 | -121212 | S19-121212 | S62-121212 | S63-121212 |
| 3/4 | 3/4 | 7/8 | -121214 | S19-121214 | S62-121214 | |
| 3/4 | 3/4 | 1.1/16 | -121217 | S19-121217 | | |
| 7/8 | 3/4 | 7/8 | -141214 | S19-141214 | | |
| 7/8 | 7/8 | 3/4 | -141412 | S19-141412 | | |
| 7/8 | 7/8 | 7/8 | -141414 | S19-141414 | S62-141414 | S63-141414 |
| 7/8 | 7/8 | 1.1/16 | -141417 | S19-141417 | S62-141417 | |
| 1.1/16 | 3/4 | 3/4 | -171212 | S19-171212 | | |
| 1.1/16 | 7/8 | 7/8 | -171414 | S19-171414 | | |
| 1.1/16 | 1.1/16 | 7/8 | -171714 | S19-171714 | | |
| 1.1/16 | 1.1/16 | 1.1/16 | -171717 | S19-171717 | S62-171717 | S63-171717 |
| 1.1/16 | 1.1/16 | 1.5/16 | -171721 | S19-171721 | | |
| 1.1/16 | 1.1/16 | 1.5/8 | -171726 | S19-171726 | | |
| 1.3/16 | 1.3/16 | 1.3/16 | -191919 | S19-191919 | | |
| 1.5/16 | 7/8 | 7/8 | -211414 | S19-211414 | | |
| 1.5/16 | 1.1/16 | 1.1/16 | -211717 | S19-211717 | | |
| 1.5/16 | 1.5/16 | 7/8 | -212114 | S19-212114 | | |
| 1.5/16 | 1.5/16 | 1.1/16 | -212117 | S19-212117 | | |
| 1.5/16 | 1.5/16 | 1.5/16 | -212121 | S19-212121 | S62-212121 | S63-212121 |
| 1.5/8 | 1.5/8 | 1.5/8 | -262626 | S19-262626 | S62-262626 | S63-262626 |

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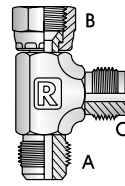
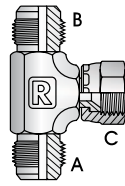
JIC ADAPTORS

JIC/JIC

S68

S67

TEE



| THREAD | | | DASH SIZE | JIC MALE | JIC MALE |
|--------|--------|--------|-----------|-------------------|-------------------|
| A | B | C | | JIC FEMALE SWIVEL | JIC FEMALE SWIVEL |
| inch | inch | inch | | PART NO | PART NO |
| 7/16 | 7/16 | 7/16 | -070707 | S68-070707 | S67-070707 |
| 1/2 | 1/2 | 1/2 | -080808 | S68-080808 | S67-080808 |
| 9/16 | 9/16 | 9/16 | -090909 | S68-090909 | S67-090909 |
| 9/16 | 3/4 | 9/16 | -091209 | | S67-091209 |
| 3/4 | 3/4 | 9/16 | -121209 | | S67-121209 |
| 3/4 | 3/4 | 3/4 | -121212 | S68-121212 | S67-121212 |
| 7/8 | 7/8 | 9/16 | -141409 | | S67-141409 |
| 7/8 | 7/8 | 3/4 | -141412 | | S67-141412 |
| 7/8 | 7/8 | 7/8 | -141414 | S68-141414 | S67-141414 |
| 7/8 | 7/8 | 1.1/16 | -141417 | | S67-141417 |
| 7/8 | 1.1/16 | 7/8 | -141714 | | S67-141714 |
| 1.1/16 | 1.1/16 | 7/8 | -171714 | S68-171714 | S67-171714 |
| 1.1/16 | 1.1/16 | 1.1/16 | -171717 | S68-171717 | S67-171717 |
| 1.1/16 | 1.5/16 | 1.1/16 | -172117 | | S67-172117 |
| 1.5/16 | 1.5/16 | 7/8 | -212114 | | S67-212114 |
| 1.5/16 | 1.5/16 | 1.1/16 | -212117 | S68-212117 | S67-212117 |
| 1.5/16 | 1.5/16 | 1.5/16 | -212121 | S68-212121 | S67-212121 |
| 1.5/8 | 1.5/8 | 1.5/8 | -262626 | S68-262626 | S67-262626 |
| 1.7/8 | 1.7/8 | 1.7/8 | -303030 | S68-303030 | S67-303030 |

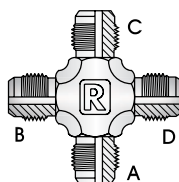
JIC

S100

JIC LOCK NUT

35/37

CROSS



LOCK NUT



| THREAD A, B, C, D | DASH SIZE | JIC MALE CROSS |
|----------------------|--------------|----------------------|
| inch | | PART NO |
| 9/16 | -09090909 | S100-09090909 |
| 3/4 | -12121212 | S100-12121212 |
| 7/8 | -14141414 | S100-14141414 |
| 1.1/16 | -17171717 | S100-17171717 |
| 1.5/16 | -21212121 | S100-21212121 |

| THREAD | DASH SIZE | JIC LOCK NUT |
|--------|--------------|-----------------|
| inch | | PART NO |
| 7/16 | -07 | 37-07 |
| 1/2 | -08 | 37-08 |
| 9/16 | -09 | 37-09 |
| 3/4 | -12 | 37-12 |
| 7/8 | -14 | 37-14 |
| 1.1/16 | -17 | 37-17 |
| 1.3/16 | -19 | 37-19 |
| 1.5/16 | -21 | 37-21 |
| 1.5/8 | -26 | 35-26 |

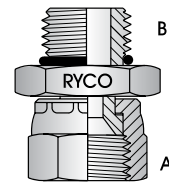
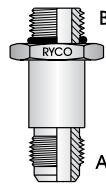
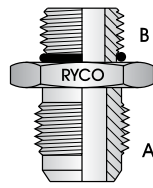
NOTE: 37- is JIC B/H Lock Nut, 35- is UNO Adj. Male Nut (-26 size is common for both).

ADAPTORS

JIC ADAPTORS

| JIC/UNO | S90 | S107 | S101 |
|---------|-----|------|------|
|---------|-----|------|------|

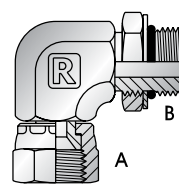
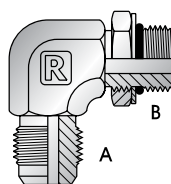
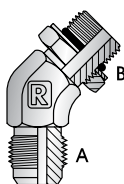
**STRAIGHT
O RING SUPPLIED**



| THREAD | | DASH SIZE | JIC MALE UN O RING MALE | JIC MALE EXT UN O RING MALE | JIC FEMALE SWIVEL UN O RING MALE |
|--------|--------|--------------|----------------------------|--------------------------------|-------------------------------------|
| A | B | | PART NO | PART NO | PART NO |
| 7/16 | 7/16 | -0707 | S90-0707 | | S101-0707 |
| 7/16 | 9/16 | -0709 | S90-0709 | | S101-0709 |
| 7/16 | 3/4 | -0712 | S90-0712 | | |
| 1/2 | 1/2 | -0808 | S90-0808 | | |
| 1/2 | 3/4 | -0812 | S90-0812 | | |
| 1/2 | 7/8 | -0814 | S90-0814 | | S101-0814 |
| 9/16 | 7/16 | -0907 | S90-0907 | | S101-0907 |
| 9/16 | 1/2 | -0908 | S90-0908 | | |
| 9/16 | 9/16 | -0909 | S90-0909 | S107-0909 | S101-0909 |
| 9/16 | 3/4 | -0912 | S90-0912 | | S101-0912 |
| 9/16 | 7/8 | -0914 | S90-0914 | | S101-0914 |
| 9/16 | 1.1/16 | -0917 | S90-0917 | | |
| 3/4 | 7/16 | -1207 | S90-1207 | | |
| 3/4 | 9/16 | -1209 | S90-1209 | | S101-1209 |
| 3/4 | 3/4 | -1212 | S90-1212 | S107-1212 | S101-1212 |
| 3/4 | 7/8 | -1214 | S90-1214 | | S101-1214 |
| 3/4 | 1.1/16 | -1217 | S90-1217 | | S101-1217 |
| 3/4 | 1.5/16 | -1221 | S90-1221 | | |
| 7/8 | 3/4 | -1412 | S90-1412 | S107-1412 | S101-1412 |
| 7/8 | 7/8 | -1414 | S90-1414 | S107-1414 | S101-1414 |
| 7/8 | 1.1/16 | -1417 | S90-1417 | | S101-1417 |
| 7/8 | 1.5/16 | -1421 | S90-1421 | | S101-1421 |
| 1.1/16 | 3/4 | -1712 | S90-1712 | | S101-1712 |
| 1.1/16 | 7/8 | -1714 | S90-1714 | S107-1714 | S101-1714 |
| 1.1/16 | 1.1/16 | -1717 | S90-1717 | S107-1717 | S101-1717 |
| 1.1/16 | 1.3/16 | -1719 | S90-1719 | | |
| 1.1/16 | 1.5/16 | -1721 | S90-1721 | | S101-1721 |
| 1.1/16 | 1.5/8 | -1726 | S90-1726 | | |
| 1.3/16 | 1.1/16 | -1917 | S90-1917 | | |
| 1.3/16 | 1.3/16 | -1919 | S90-1919 | | |
| 1.3/16 | 1.5/16 | -1921 | S90-1921 | | |
| 1.5/16 | 3/4 | -2112 | S90-2112 | | |
| 1.5/16 | 7/8 | -2114 | S90-2114 | | S101-2114 |
| 1.5/16 | 1.1/16 | -2117 | S90-2117 | | S101-2117 |
| 1.5/16 | 1.3/16 | -2119 | S90-2119 | | |
| 1.5/16 | 1.5/16 | -2121 | S90-2121 | S107-2121 | S101-2121 |
| 1.5/16 | 1.5/8 | -2126 | S90-2126 | | |
| 1.5/8 | 1.1/16 | -2617 | S90-2617 | | |
| 1.5/8 | 1.5/16 | -2621 | S90-2621 | | |
| 1.5/8 | 1.5/8 | -2626 | S90-2626 | | S101-2626 |
| 1.5/8 | 1.7/8 | -2630 | S90-2630 | | |
| 1.7/8 | 1.7/8 | -3030 | S90-3030 | | S101-3030 |

JIC/UNO **S88** **S91** **S86**

45° ELBOW
90° ELBOW
O RING SUPPLIED



| THREAD | | DASH SIZE | JIC MALE UN O RING MALE 45° ELBOW | JIC MALE UN O RING MALE 90° ELBOW | JIC FEMALE SWIVEL UN O RING MALE 90° ELBOW |
|--------|--------|-----------|-----------------------------------|-----------------------------------|--|
| A | B | | PART NO | PART NO | PART NO |
| 7/16 | 7/16 | -0707 | S88-0707 | S91-0707 | |
| 7/16 | 1/2 | -0708 | | S91-0708 | |
| 7/16 | 9/16 | -0709 | | S91-0709 | |
| 1/2 | 1/2 | -0808 | | S91-0808 | |
| 9/16 | 7/16 | -0907 | | S91-0907 | |
| 9/16 | 1/2 | -0908 | | S91-0908 | |
| 9/16 | 9/16 | -0909 | S88-0909 | S91-0909 | S86-0909 |
| 9/16 | 3/4 | -0912 | S88-0912 | S91-0912 | |
| 9/16 | 7/8 | -0914 | | S91-0914 | |
| 9/16 | 1.1/16 | -0917 | | S91-0917 | |
| 3/4 | 9/16 | -1209 | | S91-1209 | |
| 3/4 | 3/4 | -1212 | S88-1212 | S91-1212 | S86-1212 |
| 3/4 | 7/8 | -1214 | S88-1214 | S91-1214 | |
| 3/4 | 1.1/16 | -1217 | | S91-1217 | |
| 3/4 | 1.5/16 | -1221 | | S91-1221 | |
| 7/8 | 3/4 | -1412 | S88-1412 | S91-1412 | S86-1412 |
| 7/8 | 7/8 | -1414 | S88-1414 | S91-1414 | S86-1414 |
| 7/8 | 1.1/16 | -1417 | | S91-1417 | |
| 1.1/16 | 3/4 | -1712 | S88-1712 | S91-1712 | |
| 1.1/16 | 7/8 | -1714 | | S91-1714 | |
| 1.1/16 | 1.1/16 | -1717 | S88-1717 | S91-1717 | S86-1717 |
| 1.1/16 | 1.3/16 | -1719 | | S91-1719 | |
| 1.1/16 | 1.5/16 | -1721 | | S91-1721 | |
| 1.3/16 | 1.1/16 | -1917 | | S91-1917 | |
| 1.3/16 | 1.3/16 | -1919 | S88-1919 | S91-1919 | |
| 1.3/16 | 1.5/16 | -1921 | | S91-1921 | |
| 1.5/16 | 1.1/16 | -2117 | S88-2117 | S91-2117 | |
| 1.5/16 | 1.3/16 | -2119 | S88-2119 | | |
| 1.5/16 | 1.5/16 | -2121 | S88-2121 | S91-2121 | |
| 1.5/16 | 1.5/8 | -2126 | S88-2126 | S91-2126 | |
| 1.5/8 | 1.5/16 | -2621 | S88-2621 | S91-2621 | |
| 1.5/8 | 1.5/8 | -2626 | S88-2626 | S91-2626 | |

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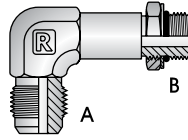
ADAPTORS

JIC ADAPTORS & JOINER

JIC/UNO

S12

**EXTENDED
90° ELBOW
O RING SUPPLIED**

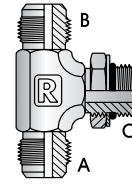


| THREAD | | DASH SIZE | JIC MALE UN O RING MALE EXTENDED 90° ELBOW |
|--------|--------|--------------|--|
| A | B | | |
| inch | inch | | PART NO |
| 9/16 | 9/16 | -0909 | S12-0909 |
| 9/16 | 7/8 | -0914 | S12-0914 |
| 3/4 | 3/4 | -1212 | S12-1212 |
| 3/4 | 7/8 | -1214 | S12-1214 |
| 7/8 | 7/8 | -1414 | S12-1414 |
| 7/8 | 1.1/16 | -1417 | S12-1417 |
| 1.1/16 | 7/8 | -1714 | S12-1714 |
| 1.1/16 | 1.1/16 | -1717 | S12-1717 |
| 1.5/16 | 1.5/16 | -2121 | S12-2121 |

JIC/UNO

S92

**TEE
O RING SUPPLIED**

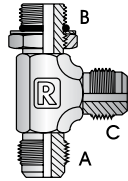


| THREAD | | | DASH SIZE | JIC MALE JIC MALE UN O RING MALE |
|--------|--------|--------|--------------|--|
| A | B | C | | |
| inch | inch | inch | | PART NO |
| 7/16 | 7/16 | 7/16 | -070707 | S92-070707 |
| 1/2 | 1/2 | 1/2 | -080808 | S92-080808 |
| 9/16 | 9/16 | 7/16 | -090907 | S92-090907 |
| 9/16 | 9/16 | 9/16 | -090909 | S92-090909 |
| 9/16 | 9/16 | 3/4 | -090912 | S92-090912 |
| 3/4 | 9/16 | 3/4 | -120912 | S92-120912 |
| 3/4 | 3/4 | 9/16 | -121209 | S92-121209 |
| 3/4 | 3/4 | 3/4 | -121212 | S92-121212 |
| 3/4 | 3/4 | 7/8 | -121214 | S92-121214 |
| 7/8 | 3/4 | 3/4 | -141212 | S92-141212 |
| 7/8 | 7/8 | 7/8 | -141414 | S92-141414 |
| 1.1/16 | 1.1/16 | 1.1/16 | -171717 | S92-171717 |
| 1.5/16 | 1.1/16 | 1.5/16 | -211721 | S92-211721 |
| 1.5/16 | 1.5/16 | 1.1/16 | -212117 | S92-212117 |
| 1.5/16 | 1.5/16 | 1.5/16 | -212121 | S92-212121 |

JIC/UNO

S87

**TEE
O RING SUPPLIED**



| THREAD | | | DASH SIZE | JIC MALE UN O RING MALE JIC MALE |
|--------|--------|--------|--------------|--|
| A | B | C | | |
| inch | inch | inch | | PART NO |
| 7/16 | 7/16 | 7/16 | -070707 | S87-070707 |
| 7/16 | 7/8 | 9/16 | -071409 | S87-071409 |
| 9/16 | 9/16 | 9/16 | -090909 | S87-090909 |
| 9/16 | 3/4 | 3/4 | -091212 | S87-091212 |
| 3/4 | 3/4 | 3/4 | -121212 | S87-121212 |
| 3/4 | 3/4 | 7/8 | -121214 | S87-121214 |
| 3/4 | 7/8 | 3/4 | -121412 | S87-121412 |
| 7/8 | 3/4 | 7/8 | -141214 | S87-141214 |
| 7/8 | 7/8 | 3/4 | -141412 | S87-141412 |
| 7/8 | 7/8 | 7/8 | -141414 | S87-141414 |
| 7/8 | 1.1/16 | 7/8 | -141714 | S87-141714 |
| 7/8 | 1.1/16 | 1.1/16 | -141717 | S87-141717 |
| 1.1/16 | 7/8 | 1.1/16 | -171417 | S87-171417 |
| 1.1/16 | 1.1/16 | 9/16 | -171709 | S87-171709 |
| 1.1/16 | 1.1/16 | 3/4 | -171712 | S87-171712 |
| 1.1/16 | 1.1/16 | 7/8 | -171714 | S87-171714 |
| 1.1/16 | 1.1/16 | 1.1/16 | -171717 | S87-171717 |
| 1.5/16 | 1.5/16 | 1.1/16 | -212117 | S87-212117 |
| 1.5/16 | 1.5/16 | 1.5/16 | -212121 | S87-212121 |

JOINER

S112

TUBE WELD



| TUBE OD | DASH SIZE | JOINER TUBE WELD |
|------------|--------------|---------------------|
| inch | | PART NO |
| 3/4 | -1212 | S112-1212 |
| 1 | -1616 | S112-1616 |
| 1.1/4 | -2020 | S112-2020 |
| 1.1/2 | -2424 | S112-2424 |
| 2 | -3232 | S112-3232 |

METRIC M73

**PLUG
REQUIRES BONDED
SEAL (P/N MB)**



| THREAD A | METRIC PLUG |
|-------------|-----------------|
| mm | PART NO |
| 12x1,5 | M73-1215 |
| 14x1,5 | M73-1415 |
| 16x1,5 | M73-1615 |
| 18x1,5 | M73-1815 |
| 20x1,5 | M73-2015 |
| 22x1,5 | M73-2215 |
| 24x1,5 | M73-2415 |
| 26x1,5 | M73-2615 |
| 27x2,0 | M73-2720 |
| 28x1,5 | M73-2815 |
| 30x2,0 | M73-3020 |
| 33x2,0 | M73-3320 |
| 36x2,0 | M73-3620 |
| 42x2,0 | M73-4220 |
| 52x2,0 | M73-5220 |

METRIC MBD

**METAL BONDED SEAL
WITH CENTRALISING LIP**

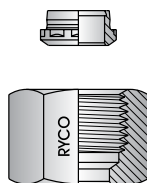


| THREAD | DASH SIZE | METRIC METAL BONDED SEAL WITH CENTRALISING LIP | |
|-----------|-----------|--|-----------------|
| mm | | PART NO | PACK QTY |
| 10 | -10 | MBD-10 | 10 |
| 12 | -12 | MBD-12 | 10 |
| 14 | -14 | MBD-14 | 10 |
| 16 | -16 | MBD-16 | 10 |
| 18 | -18 | MBD-18 | 10 |
| 20 | -20 | MBD-20 | 10 |
| 22 | -22 | MBD-22 | 5 |
| 24 | -24 | MBD-24 | 5 |
| 26 | -26 | MBD-26 | 5 |
| 30 | -30 | MBD-30 | 5 |
| 28 | -28 | MBD-28 | 5 |
| 30 | -30 | MBD-30 | 5 |
| 33 | -33 | MBD-33 | 5 |
| 36 | -36 | MBD-36 | 5 |
| 42 | -42 | MBD-42 | 5 |
| 48 | -48 | MBD-48 | 5 |

Note: Bonded Seals are sold only in packs of 5 or 10. Part Number Series for individual seal is MB. Example: Order Part No MB-12 for individual seal. (D is removed from MBD).

METRIC M6L

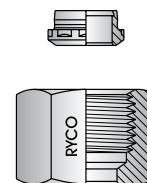
**DLK LIGHT SERIES
NUT AND OLIVE
(CUTTING RING)**



| THREAD | TUBE OD | DASH SIZE | DKL NUT AND OLIVE |
|-----------|------------|--------------|----------------------|
| mm | mm | | PART NO |
| 12x1,5 | 6 | -06 | M6L-06 |
| 14x1,5 | 8 | -08 | M6L-08 |
| 16x1,5 | 10 | -10 | M6L-10 |
| 18x1,5 | 12 | -12 | M6L-12 |
| 22x1,5 | 15 | -15 | M6L-15 |
| 26x1,5 | 18 | -18 | M6L-18 |
| 30x2,0 | 22 | -22 | M6L-22 |
| 36x2,0 | 28 | -28 | M6L-28 |

METRIC M6S

**DKS HEAVY SERIES
NUT AND OLIVE
(CUTTING RING)**



| THREAD | TUBE OD | DASH SIZE | DKS NUT AND OLIVE |
|-----------|------------|--------------|----------------------|
| mm | mm | | PART NO |
| 14x1,5 | 6 | -06 | M6S-06 |
| 16x1,5 | 8 | -08 | M6S-08 |
| 18x1,5 | 10 | -10 | M6S-10 |
| 20x1,5 | 12 | -12 | M6S-12 |
| 22x1,5 | 14 | -14 | M6S-14 |
| 24x1,5 | 16 | -16 | M6S-16 |
| 30x2,0 | 20 | -20 | M6S-20 |
| 36x2,0 | 25 | -25 | M6S-25 |
| 42x2,0 | 30 | -30 | M6S-30 |
| 52x2,0 | 38 | -38 | M6S-38 |

ADAPTORS

METRIC ADAPTORS

METRIC/BSPP O RING

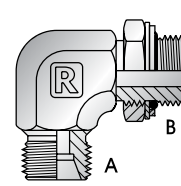
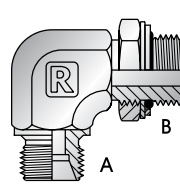
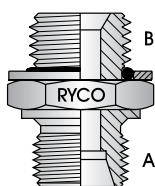
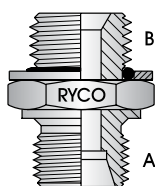
M75L

M75S

M77L

M77S

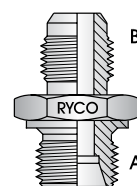
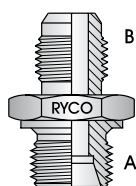
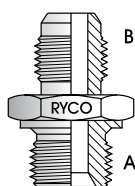
STRAIGHT
90° ELBOW
BSPP O RING AND
RETAINING RING SUPPLIED
METRIC END REQUIRES
BONDED SEAL (P/N MB)
IF USED IN A PORT



| THREAD | | DASH SIZE | DKL MALE 24° CONE BSPP O RING MALE | | DKS MALE 24° CONE BSPP O RING MALE | | DKL MALE 24° CONE BSPP O RING MALE 90° ELBOW | | DKS MALE 24° CONE BSPP O RING MALE 90° ELBOW | |
|--------|-------|-----------|------------------------------------|------------|------------------------------------|------------|--|------------|--|------------|
| A | B | | PART NO | TUBE OD mm | PART NO | TUBE OD mm | PART NO | TUBE OD mm | PART NO | TUBE OD mm |
| 14x1,5 | 1/4 | -1404 | M75L-1404 | 8 | | | | | | |
| 16x1,5 | 1/4 | -1604 | | | M75S-1604 | 8 | | | | |
| 18x1,5 | 1/8 | -1802 | | | M75S-1802 | 10 | | | | |
| 18x1,5 | 1/4 | -1804 | | | M75S-1804 | 10 | M77L-1804 | 12 | M77S-1804 | 10 |
| 18x1,5 | 3/8 | -1806 | | | M75S-1806 | 10 | M77L-1806 | 12 | | |
| 18x1,5 | 1/2 | -1808 | M75L-1808 | 12 | | | M77L-1808 | 12 | | |
| 20x1,5 | 3/8 | -2006 | | | M75S-2006 | 12 | | | | |
| 22x1,5 | 1/2 | -2208 | | | M75S-2208 | 14 | | | | |
| 22x1,5 | 3/4 | -2212 | M75L-2212 | 15 | | | | | | |
| 24x1,5 | 3/8 | -2406 | | | M75S-2406 | 16 | | | | |
| 24x1,5 | 1/2 | -2408 | | | M75S-2408 | 16 | | | M77S-2408 | 16 |
| 30x2,0 | 1/2 | -3008 | | | | | | | M77S-3008 | 20 |
| 30x2,0 | 3/4 | -3012 | | | M75S-3012 | 20 | | | | |
| 36x2,0 | 3/4 | -3612 | | | M75S-3612 | 25 | | | M77S-3612 | 25 |
| 36x2,0 | 1 | -3616 | | | M75S-3616 | 25 | | | | |
| 42x2,0 | 3/4 | -4212 | | | | | | | M77S-4212 | 30 |
| 42x2,0 | 1.1/4 | -4220 | | | M75S-4220 | 30 | | | | |
| 52x2,0 | 1.1/2 | -5224 | | | M75S-5224 | 38 | | | | |

| METRIC/JIC | M7 | M7L | M7S |
|-------------------|-----------|------------|------------|
|-------------------|-----------|------------|------------|

**STRAIGHT
METRIC END REQUIRES
BONDED SEAL (P/N MB)
IF USED IN A PORT**



| THREAD | | DASH SIZE | METRIC MALE | DKL MALE 24° CONE | DKS MALE 24° CONE | | |
|--------|--------|-----------|----------------|-------------------|-------------------|-----------------|------------|
| A | B | | JIC MALE | JIC MALE | JIC MALE | JIC MALE | |
| inch | inch | | PART NO | PART NO | TUBE OD mm | PART NO | TUBE OD mm |
| 12x1,5 | 7/16 | -1207 | | M7L-1207 | 6 | | |
| 12x1,5 | 9/16 | -1209 | | M7L-1209 | 6 | | |
| 14x1,5 | 9/16 | -1409 | | M7L-1409 | 8 | | |
| 14x1,5 | 3/4 | -1412 | | M7L-1412 | 8 | | |
| 16x1,5 | 7/16 | -1607 | M7-1607 | M7L-1607 | 10 | | |
| 16x1,5 | 9/16 | -1609 | M7-1609 | | | | |
| 16x1,5 | 3/4 | -1612 | M7-1612 | | | | |
| 16x1,5 | 7/8 | -1614 | M7-1614 | | | | |
| 18x1,5 | 9/16 | -1809 | | | | M7S-1809 | 10 |
| 18x1,5 | 9/16 | -1809 | M7-1809 | M7L-1809 | 12 | | |
| 18x1,5 | 3/4 | -1812 | M7-1812 | M7L-1812 | 12 | | |
| 18x1,5 | 7/8 | -1814 | M7-1814 | | | | |
| 20x1,5 | 3/4 | -2012 | M7-2012 | | | | |
| 20x1,5 | 7/8 | -2014 | M7-2014 | | | | |
| 20x1,5 | 1.1/16 | -2017 | M7-2017 | | | | |
| 22x1,5 | 3/4 | -2212 | | M7L-2212 | 15 | | |
| 22x1,5 | 7/8 | -2214 | | M7L-2214 | 15 | | |
| 22x1,5 | 1.1/16 | -2217 | M7-2217 | | | | |
| 24x1,5 | 3/4 | -2412 | | | | M7S-2412 | 16 |
| 24x1,5 | 1.1/16 | -2417 | | | | M7S-2417 | 16 |
| 26x1,5 | 1.1/16 | -2617 | M7-2617 | | | | |
| 26x1,5 | 1.5/16 | -2621 | M7-2621 | | | | |
| 27x2,0 | 1.1/16 | -2717 | M7-2717 | | | | |
| 27x2,0 | 1.5/16 | -2721 | M7-2721 | | | | |
| 28x1,5 | 1.1/16 | -2817 | M7-2817 | | | | |
| 28x1,5 | 1.5/16 | -2821 | M7-2821 | | | | |
| 30x2,0 | 7/8 | -3014 | | | | M7S-3014 | 20 |
| 33x2,0 | 1.1/16 | -3317 | M7-3317 | | | | |
| 33x2,0 | 1.5/16 | -3321 | M7-3321 | | | | |
| 33x2,0 | 1.5/8 | -3326 | M7-3326 | | | | |
| 36x2,0 | 1.1/16 | -3617 | | | | M7S-3617 | 25 |
| 42x2,0 | 1.5/16 | -4221 | M7-4221 | | | M7S-4221 | 30 |
| 42x2,0 | 1.5/8 | -4226 | M7-4226 | | | | |
| 42x2,0 | 1.7/8 | -4230 | M7-4230 | | | | |
| 48x2,0 | 1.5/8 | -4826 | M7-4826 | | | | |
| 48x2,0 | 1.7/8 | -4830 | M7-4830 | | | | |

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ADAPTORS

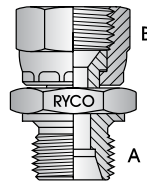
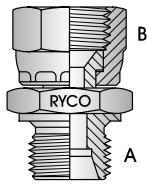
METRIC & ORFS ADAPTORS

METRIC/JIC

M71L

M71S

**STRAIGHT
METRIC END REQUIRES
BONDED SEAL (P/N MB)
IF USED IN A PORT**



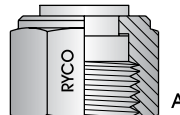
| THREAD | | DASH SIZE | DKL MALE 24° CONE JIC FEMALE | TUBE OD mm | DKS MALE 24° CONE JIC FEMALE | TUBE OD mm |
|--------|--------|--------------|---------------------------------|------------------|---------------------------------|------------------|
| A | B | | | | | |
| 18x1,5 | 7/16 | -1807 | | | M71S-1807 | 10 |
| 18x1,5 | 9/16 | -1809 | | | M71S-1809 | 10 |
| 18x1,5 | 9/16 | -1809 | M71L-1809 | 12 | | |
| 24x1,5 | 3/4 | -2412 | | | M71S-2412 | 16 |
| 30x2,0 | 1.1/16 | -3017 | | | M71S-3017 | 20 |

ORFS

S111

S113

**PLUG
CAP
O RING INCLUDED**



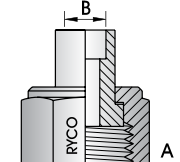
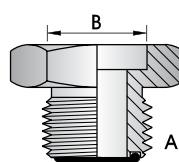
| THREAD A | DASH SIZE | ORFS MALE PLUG | ORFS FEMALE CAP |
|-------------|--------------|-------------------|--------------------|
| inch | | PART NO | PART NO |
| 9/16 | -09 | S111-09 | S113-09 |
| 11/16 | -11 | S111-11 | S113-11 |
| 13/16 | -13 | S111-13 | S113-13 |
| 1 | -16 | S111-16 | S113-16 |
| 1.3/16 | -19 | S111-19 | S113-19 |
| 1.7/16 | -23 | S111-23 | S113-23 |
| 1.11/16 | -27 | S111-27 | S113-27 |
| 2 | -32 | S111-32 | S113-32 |

ORFS

S115

S106

**TUBE WELD
O RING INCLUDED**



| THREAD A | TUBE OD B | DASH SIZE | ORFS MALE TUBE WELD | ORFS FEMALE SWIVEL TUBE WELD |
|-------------|--------------|--------------|------------------------|------------------------------------|
| inch | inch | | PART NO | PART NO |
| 9/16 | 1/4 | -0904 | S115-0904 | S106-0904 |
| 11/16 | 3/8 | -1106 | S115-1106 | S106-1106 |
| 13/16 | 1/2 | -1308 | S115-1308 | S106-1308 |
| 1 | 5/8 | -1610 | S115-1610 | S106-1610 |
| 1.3/16 | 3/4 | -1912 | S115-1912 | S106-1912 |
| 1.7/16 | 1 | -2316 | S115-2316 | S106-2316 |
| 1.11/16 | 1.1/4 | -2720 | S115-2720 | S106-2720 |

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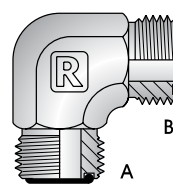
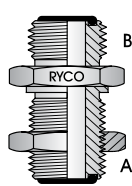
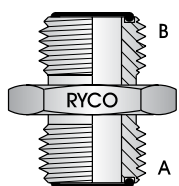
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ORFS/ORFS **S116** **S141** **S117**

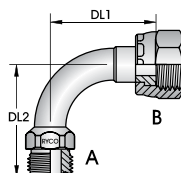
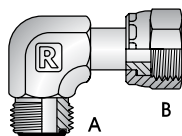
**STRAIGHT
BULKHEAD NIPPLE
90° ELBOW
O RINGS INCLUDED**



| THREAD | | DASH SIZE | ORFS MALE ORFS MALE | ORFS MALE BULKHEAD ORFS MALE | ORFS MALE ORFS MALE 90° ELBOW |
|-------------|-------------|-----------|------------------------|------------------------------------|-------------------------------------|
| A | B | | | | |
| inch | inch | | PART NO | PART NO | PART NO |
| 9/16 | 9/16 | -0909 | S116-0909 | S141-0909 | S117-0909 |
| 11/16 | 9/16 | -1109 | S116-1109 | | |
| 11/16 | 11/16 | -1111 | S116-1111 | S141-1111 | S117-1111 |
| 13/16 | 11/16 | -1311 | S116-1311 | | |
| 13/16 | 13/16 | -1313 | S116-1313 | S141-1313 | S117-1313 |
| 1 | 13/16 | -1613 | S116-1613 | | |
| 1 | 1 | -1616 | S116-1616 | S141-1616 | S117-1616 |
| 1.3/16 | 9/16 | -1909 | S116-1909 | | |
| 1.3/16 | 13/16 | -1913 | S116-1913 | | |
| 1.3/16 | 1 | -1916 | S116-1916 | | |
| 1.3/16 | 1.3/16 | -1919 | S116-1919 | S141-1919 | S117-1919 |
| 1.7/16 | 1.3/16 | -2319 | S116-2319 | | |
| 1.7/16 | 1.7/16 | -2323 | S116-2323 | S141-2323 | S117-2323 |
| 1.11/16 | 1.11/16 | -2727 | | S141-2727 | |

ORFS/ORFS **S118** **S154**

**STRAIGHT
BULKHEAD NIPPLE
90° ELBOW
O RINGS INCLUDED**



| THREAD | | DASH SIZE | ORFS MALE ORFS FEMALE SWIVEL 90° ELBOW | ORFS MALE ORFS MALE 90° ELBOW | | |
|-------------|-------------|-----------|--|-------------------------------------|-------|-----|
| A | B | | | PART NO | DL1 | DL2 |
| inch | inch | | PART NO | | | |
| 9/16 | 9/16 | -0909 | S118-0909 | | | |
| 11/16 | 11/16 | -1111 | S118-1111 | | | |
| 13/16 | 13/16 | -1313 | S118-1313 | | | |
| 1 | 1 | -1616 | S118-1616 | | | |
| 1.3/16 | 1.3/16 | -1919 | S118-1919 | | | |
| 1.7/16 | 1.7/16 | -2323 | S118-2323 | S154-2323 | 84 80 | |

NOTE: Drop Lengths (DL) dimensions are in millimetres.

ADAPTORS

ORFS ADAPTORS

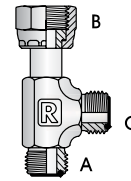
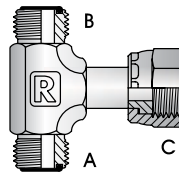
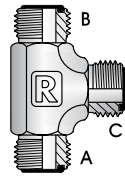
ORFS/ORFS

S119

S120

S121

TEE
O RINGS INCLUDED



| THREAD | | | DASH SIZE | ORFS MALE ORFS MALE ORFS MALE | ORFS MALE ORFS MALE ORFS FEMALE SWIVEL | ORFS MALE ORFS FEMALE SWIVEL ORFS MALE |
|--------|--------|--------|-----------|-------------------------------------|--|--|
| A | B | C | | | | |
| inch | inch | inch | | PART NO | PART NO | PART NO |
| 9/16 | 9/16 | 9/16 | -090909 | S119-090909 | S120-090909 | S121-090909 |
| 11/16 | 11/16 | 11/16 | -111111 | S119-111111 | | S121-111111 |
| 13/16 | 13/16 | 13/16 | -131313 | S119-131313 | S120-131313 | S121-131313 |
| 1 | 1 | 13/16 | -161613 | | | S121-161613 |
| 1 | 1 | 1 | -161616 | S119-161616 | S120-161616 | S121-161616 |
| 1.3/16 | 1.3/16 | 13/16 | -191913 | | | S121-191913 |
| 1.3/16 | 1.3/16 | 1.3/16 | -191919 | S119-191919 | S120-191919 | S121-191919 |
| 1.7/16 | 1.7/16 | 1.7/16 | -232323 | S119-232323 | S120-232323 | S121-232323 |

ORFS/UNO

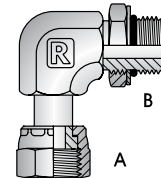
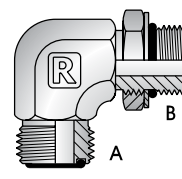
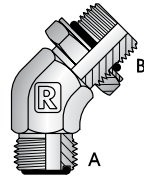
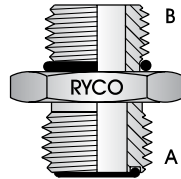
S122

S123

S124

S125

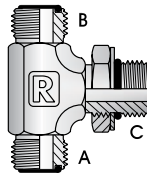
STRAIGHT
45° ELBOW
90° ELBOW
O RINGS INCLUDED



| THREAD | | DASH SIZE | ORFS MALE UN O RING MALE | ORFS MALE UN O RING MALE 45° ELBOW | ORFS MALE UN O RING MALE 90° ELBOW | ORFS FEMALE SWIVEL UN O RING MALE 90° ELBOW |
|---------|--------|-----------|-----------------------------|--|--|---|
| A | B | | | | | |
| inch | inch | | PART NO | PART NO | PART NO | PART NO |
| 9/16 | 7/16 | -0907 | S122-0907 | S123-0907 | S124-0907 | S125-0907 |
| 9/16 | 9/16 | -0909 | S122-0909 | S123-0909 | S124-0909 | |
| 9/16 | 3/4 | -0912 | S122-0912 | | | |
| 11/16 | 7/16 | -1107 | S122-1107 | S123-1107 | S124-1107 | |
| 11/16 | 9/16 | -1109 | S122-1109 | S123-1109 | S124-1109 | S125-1109 |
| 13/16 | 9/16 | -1309 | S122-1309 | | S124-1309 | |
| 13/16 | 3/4 | -1312 | S122-1312 | S123-1312 | S124-1312 | S125-1312 |
| 13/16 | 7/8 | -1314 | S122-1314 | | | |
| 13/16 | 1.1/16 | -1317 | S122-1317 | | | |
| 1 | 3/4 | -1612 | S122-1612 | | S124-1612 | |
| 1 | 7/8 | -1614 | S122-1614 | S123-1614 | S124-1614 | S125-1614 |
| 1 | 1.1/16 | -1617 | S122-1617 | | | |
| 1.3/16 | 7/8 | -1914 | S122-1914 | | S124-1914 | |
| 1.3/16 | 1.1/16 | -1917 | S122-1917 | S123-1917 | S124-1917 | S125-1917 |
| 1.3/16 | 1.5/16 | -1921 | S122-1921 | | | |
| 1.7/16 | 1.1/16 | -2317 | S122-2317 | | | |
| 1.7/16 | 1.5/16 | -2321 | S122-2321 | S123-2321 | S124-2321 | S125-2321 |
| 1.11/16 | 1.5/8 | -2726 | S122-2726 | | | |
| 2 | 1.5/8 | -3226 | S122-3226 | | | |

ORFS/UNO **S126**

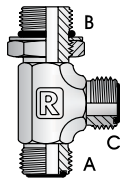
TEE
O RINGS INCLUDED



| THREAD | | | DASH SIZE | ORFS MALE ORFS MALE UN O RING MALE |
|-------------|-------------|-------------|-----------|--|
| A | B | C | | |
| inch | inch | inch | | PART NO |
| 13/16 | 13/16 | 3/4 | -131312 | S126-131312 |

ORFS/UNO **S127**

TEE
O RINGS INCLUDED



| THREAD | | | DASH SIZE | ORFS MALE UN O RING MALE ORFS MALE |
|-------------|-------------|-------------|-----------|--|
| A | B | C | | |
| inch | inch | inch | | PART NO |
| 9/16 | 7/16 | 9/16 | -090709 | S127-090709 |
| 11/16 | 9/16 | 11/16 | -110911 | S127-110911 |
| 13/16 | 3/4 | 13/16 | -131213 | S127-131213 |
| 1 | 7/8 | 1 | -161416 | S127-161416 |
| 1.3/16 | 1.1/16 | 1.3/16 | -191719 | S127-191719 |
| 1.7/16 | 1.5/16 | 1.7/16 | -232123 | S127-232123 |
| 1.11/16 | 1.5/8 | 1.11/16 | -272627 | S127-272627 |

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SAE ADAPTORS

| SAE | | | SA51 | SA6 |
|---|--------------|--------------|-----------------------|------------------------------|
| TUBE WELD TUBE NUT & SLEEVE (FLARE TYPE) | | | | |
| | | | | |
| THREAD A | TUBE OD B | DASH SIZE | SAE MALE TUBE WELD | SAE FEMALE NUT AND SLEEVE |
| inch | inch | | PART NO | PART NO |
| 5/8 | 3/8 | -1006 | SA51-1006 | SA6-1006 |
| 1.1/16 | 3/4 | -1712 | | SA6-1712 |

| SAE/SAE | | | SA17 | SA10 | SA23 |
|---|-------------|--------------|----------------------|----------------------------------|--|
| STRAIGHT BULKHEAD NIPPLE 45° ELBOW | | | | | |
| | | | | | |
| THREAD | | DASH SIZE | SAE MALE SAE MALE | SAE MALE BULKHEAD SAE MALE | SAE MALE SAE FEMALE SWIVEL 45° ELBOW |
| A | B | | | | |
| inch | inch | | PART NO | PART NO | PART NO |
| 7/16 | 7/16 | -0707 | SA17-0707 | | |
| 1/2 | 1/2 | -0808 | SA17-0808 | SA10-0808 | |
| 5/8 | 5/8 | -1010 | SA17-1010 | | SA23-1010 |
| 3/4 | 3/4 | -1212 | SA17-1212 | SA10-1212 | |
| 7/8 | 7/8 | -1414 | SA17-1414 | | |
| 1.1/16 | 1.1/16 | -1717 | SA17-1717 | | |

| SAE/SAE | | | SA18 | SA15 |
|------------------|-------------|--------------|-----------------------------------|--|
| 90° ELBOW | | | | |
| | | | | |
| THREAD | | DASH SIZE | SAE MALE SAE MALE 90° ELBOW | SAE MALE SAE FEMALE SWIVEL 90° ELBOW |
| A | B | | | |
| inch | inch | | PART NO | PART NO |
| 5/8 | 5/8 | -1010 | SA18-1010 | SA15-1010 |
| 3/4 | 3/4 | -1212 | | SA15-1212 |
| 7/8 | 7/8 | -1414 | | SA15-1414 |
| 1.1/16 | 1.1/16 | -1717 | | SA15-1717 |

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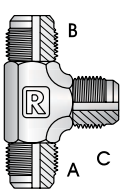
ACCESSORIES

FILTERS

TECHNICAL

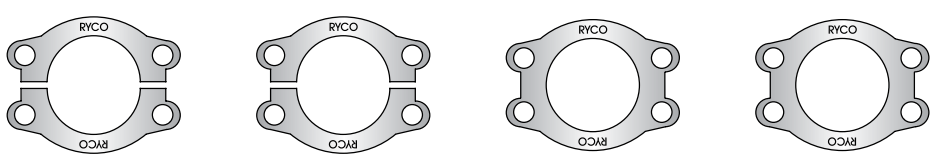
SAE/SAE SA19

TEE



| THREAD | | | DASH SIZE | SAE MALE SAE MALE SAE MALE |
|--------|------|------|-----------|----------------------------------|
| A | B | C | | |
| inch | inch | inch | | PART NO |
| 5/8 | 5/8 | 5/8 | -101010 | SA19-101010 |

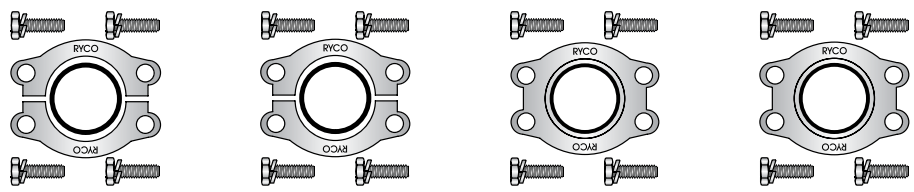
SAE FLANGE CLAMPS S40 S42 S140 S142



| NOMINAL FLANGE | DASH SIZE | SPLIT FLANGE CLAMPS CODE 61 SUPPLIED IN PAIRS | SPLIT FLANGE CLAMPS CODE 62 SUPPLIED IN PAIRS | SOLID FLANGE CLAMP CODE 61 | SOLID FLANGE CLAMP CODE 62 |
|----------------|-----------|---|---|-------------------------------|-------------------------------|
| inch | | PART NO | PART NO | PART NO | PART NO |
| 1/2 | -08 | S40-08 | S42-08 | S140-08 | S142-08 |
| 3/4 | -12 | S40-12 | S42-12 | S140-12 | S142-12 |
| 1 | -16 | S40-16 | S42-16 | S140-16 | S142-16 |
| 1.1/4 | -20 | S40-20 | S42-20 | S140-20 | S142-20 |
| 1.1/2 | -24 | S40-24 | S42-24 | S140-24 | S142-24 |
| 2 | -32 | S40-32 | S42-32 | S140-32 | S142-32 |
| 2.1/2 | -40 | S40-40 | | S140-40 | |
| 3 | -48 | S40-48 | | S140-48 | |
| 4 | -64 | S40-64 | | S140-64 | |

SAE FLANGE CLAMP KITS - UNC BOLTS S40K S42K S140K S142K

WITH O RING
BOLTS &
WASHERS



| NOMINAL FLANGE | DASH SIZE | UNC BOLTS SPLIT FLANGE CLAMP KITS CODE 61 | UNC BOLTS SPLIT FLANGE CLAMP KITS CODE 62 | UNC BOLTS SOLID FLANGE CLAMP KITS CODE 61 | UNC BOLTS SOLID FLANGE CLAMP KITS CODE 62 |
|----------------|-----------|---|---|---|---|
| inch | | PART NO | PART NO | PART NO | PART NO |
| 1/2 | -08 | S40K-08 | S42K-08 | S140K-08 | S142K-08 |
| 3/4 | -12 | S40K-12 | S42K-12 | S140K-12 | S142K-12 |
| 1 | -16 | S40K-16 | S42K-16 | S140K-16 | S142K-16 |
| 1.1/4 | -20 | S40K-20 | S42K-20 | S140K-20 | S142K-20 |
| 1.1/2 | -24 | S40K-24 | S42K-24 | S140K-24 | S142K-24 |
| 2 | -32 | S40K-32 | S42K-32 | S140K-32 | S142K-32 |
| 2.1/2 | -40 | S40K-40 | | S140K-40 | |

ADAPTORS

SAE ADAPTORS

SAE FLANGE CLAMP KITS - METRIC BOLTS

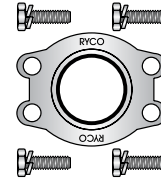
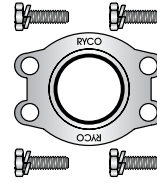
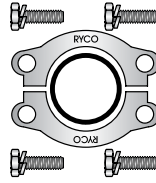
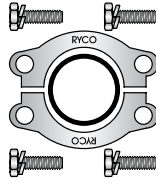
S40M

S42M

S140M

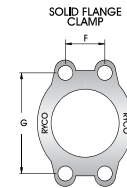
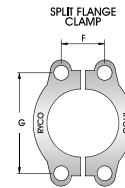
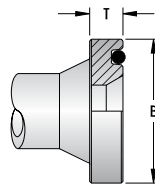
S142M

WITH O RING,
BOLTS &
WASHERS



| NOMINAL FLANGE | DASH SIZE | METRIC BOLTS SPLIT FLANGE CLAMP KITS CODE 61 | METRIC BOLTS SPLIT FLANGE CLAMP KITS CODE 62 | METRIC BOLTS SOLID FLANGE CLAMP KITS CODE 61 | METRIC BOLTS SOLID FLANGE CLAMP KITS CODE 62 |
|----------------|-----------|--|--|--|--|
| inch | | PART NO | PART NO | PART NO | PART NO |
| 1/2 | -08 | S40M-08 | S42M-08 | S140M-08 | S142M-08 |
| 3/4 | -12 | S40M-12 | S42M-12 | S140M-12 | S142M-12 |
| 1 | -16 | S40M-16 | S42M-16 | S140M-16 | S142M-16 |
| 1.1/4 | -20 | S40M-20 | S42M-20 | S140M-20 | S142M-20 |
| 1.1/2 | -24 | S40M-24 | S42M-24 | S140M-24 | S142M-24 |
| 2 | -32 | S40M-32 | S42M-32 | S140M-32 | S142M-32 |
| 2.1/2 | -40 | S40M-40 | | S140M-40 | |

DIMENSIONS OF SAE FLANGES & FLANGE CLAMPS



| NOM. FLANGE | DASH SIZE | BØ | | T | | F | | G | | PORT THREAD & BOLT LENGTH | | | |
|----------------|-----------|-------|------|-------|-------|------|------|-------|------|---------------------------|-------|------------|----|
| | | mm | inch | mm | inch | mm | inch | mm | inch | UNC | inch | METRIC | mm |
| CODE 61 | | | | | | | | | | | | | |
| 1/2 | -08 | 30,2 | 1.19 | 6,73 | 0.265 | 17,5 | 0.69 | 38,1 | 1.50 | 5/16 - 18 | 1.1/4 | M8 x 1,25 | 35 |
| *5/8 | -10 | 34,0 | 1.34 | 6,73 | 0.265 | 19,8 | 0.78 | 42,9 | 1.69 | 5/16 - 18 | | M8 x 1,25 | |
| 3/4 | -12 | 38,1 | 1.50 | 6,73 | 0.265 | 22,2 | 0.88 | 47,6 | 1.88 | 3/8 - 16 | 1.1/4 | M10 x 1,5 | 35 |
| 1 | -16 | 44,5 | 1.75 | 8,00 | 0.315 | 26,2 | 1.03 | 52,4 | 2.06 | 3/8 - 16 | 1.1/4 | M10 x 1,5 | 35 |
| 1.1/4 | -20 | 50,8 | 2.00 | 8,00 | 0.315 | 30,2 | 1.19 | 58,7 | 2.31 | 7/16 - 14 | 1.1/2 | M10 x 1,5 | 40 |
| 1.1/2 | -24 | 60,3 | 2.38 | 8,00 | 0.315 | 35,7 | 1.41 | 69,8 | 2.75 | 1/2 - 13 | 1.1/2 | M12 x 1,75 | 45 |
| 2 | -32 | 71,4 | 2.81 | 9,53 | 0.375 | 42,9 | 1.69 | 77,8 | 3.06 | 1/2 - 13 | 1.1/2 | M12 x 1,75 | 45 |
| 2.1/2 | -40 | 84,1 | 3.31 | 9,53 | 0.375 | 50,8 | 2.00 | 88,9 | 3.50 | 1/2 - 13 | 1.3/4 | M12 x 1,75 | 45 |
| 3 | -48 | 101,6 | 4.00 | 9,53 | 0.375 | 61,9 | 2.44 | 106,4 | 4.19 | 5/8 - 11 | 1.3/4 | M16 x 2,0 | 45 |
| CODE 62 | | | | | | | | | | | | | |
| 1/2 | -08 | 31,7 | 1.25 | 7,75 | 0.305 | 18,2 | 0.72 | 40,5 | 1.59 | 5/16 - 18 | 1.1/4 | M8 x 1,25 | 35 |
| 3/4 | -12 | 41,3 | 1.63 | 8,76 | 0.345 | 23,8 | 0.94 | 50,8 | 2.00 | 3/8 - 16 | 1.1/2 | M10 x 1,5 | 40 |
| 1 | -16 | 47,6 | 1.88 | 9,53 | 0.375 | 27,8 | 1.09 | 57,2 | 2.25 | 7/16 - 14 | 1.3/4 | M12 x 1,75 | 45 |
| 1.1/4 | -20 | 54,0 | 2.12 | 10,29 | 0.405 | 31,8 | 1.25 | 66,7 | 2.63 | 1/2 - 13 | 1.3/4 | M14 x 2,0 | 45 |
| 1.1/2 | -24 | 63,5 | 2.50 | 12,57 | 0.495 | 36,5 | 1.44 | 79,4 | 3.13 | 5/8 - 11 | 2.1/4 | M16 x 2,0 | 60 |
| 2 | -32 | 79,4 | 3.13 | 12,57 | 0.495 | 44,5 | 1.75 | 96,8 | 3.81 | 3/4 - 10 | 2.3/4 | M20x 2,5 | 70 |

*NOTE: 5/8 is used by Komatsu.

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SAE FLANGE **S979** **S980**

**BLANK PLUG
O RING NOT SUPPLIED**

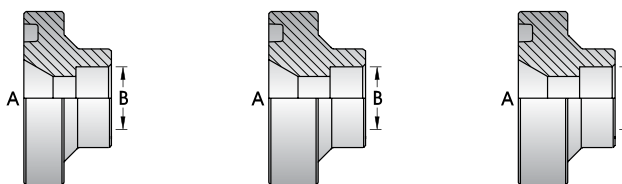


| NOMINAL FLANGE | DASH SIZE | BLANK PLUG CODE 61 | BLANK PLUG CODE 62 |
|----------------|-----------|--------------------|--------------------|
| inch | | PART NO | PART NO |
| 1/2 | -08 | S979-08 | S980-08 |
| 3/4 | -12 | S979-12 | S980-12 |
| 1 | -16 | S979-16 | S980-16 |
| 1.1/4 | -20 | S979-20 | S980-20 |
| 1.1/2 | -24 | S979-24 | S980-24 |
| 2 | -32 | S979-32 | S980-32 |
| 2.1/2 | 40 | S979-40 | |

NOTE: Flat Face side will seal against O Ring port. O Ring side will seal against Flat Face port.
O Ring not supplied.
FLANGE OD can be found on page 346, **CLAMPS** can be found on page 345.

SAE FLANGE **S981** **S982** **S982C**

**TUBE WELD
O RING NOT SUPPLIED
*(5/8 KOMATSU)**



| NOM. FLANGE A | TUBE OD B | DASH SIZE | CODE 61 O RING FACE SOCKET WELD | CODE 62 O RING FACE SOCKET WELD | RYCO CODE 62C O RING FACE SOCKET WELD |
|---------------|-------------|-----------|---------------------------------|---------------------------------|---------------------------------------|
| inch | inch | | PART NO | PART NO | PART NO |
| 1/2 | 5/8 | -0810 | S981-0810 | | |
| *5/8 | 5/8 | -1010 | S981-1010 | | |
| 3/4 | 5/8 | -1210 | S981-1210 | | |
| 3/4 | 3/4 | -1212 | S981-1212 | S982-1212 | S982C-1212 |
| 3/4 | 1 | -1216 | | S982-1216 | |
| 1 | 3/4 | -1612 | S981-1612 | S982-1612 | S982C-1612 |
| 1 | 1 | -1616 | S981-1616 | S982-1616 | S982C-1616 |
| 1 | 1.1/4 | -1620 | S981-1620 | | |
| 1.1/4 | 1 | -2016 | S981-2016 | S982-2016 | S982C-2016 |
| 1.1/4 | 1.1/4 | -2020 | S981-2020 | S982-2020 | S982C-2020 |
| 1.1/4 | 1.1/2 | -2024 | S981-2024 | | |
| 1.1/2 | 1.1/4 | -2420 | S981-2420 | S982-2420 | S982C-2420 |
| 1.1/2 | 1.1/2 | -2424 | S981-2424 | S982-2424 | S982C-2424 |
| 2 | 1.1/4 | -3220 | S981-3220 | | |
| 2 | 1.1/2 | -3224 | S981-3224 | S982-3224 | |
| 2 | 2 | -3232 | S981-3232 | S982-3232 | |
| 2.1/2 | 2 | -4032 | S981-4032 | | |
| 2.1/2 | 2.1/2 | -4040 | S981-4040 | | |

NOTE: **FLANGE OD** can be found on page 346, **CLAMPS** can be found on page 345.

ADAPTORS

SAE ADAPTORS

SAE FLANGE/JIC

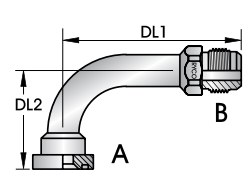
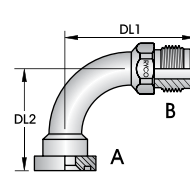
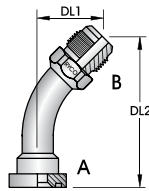
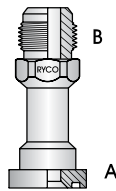
S1

S3

S2

S2L

CODE 61
O RING NOT SUPPLIED



| NOM. FLANGE A | THREAD B | DASH SIZE | CODE 61 FLANGE JIC MALE | CODE 61 FLANGE JIC MALE 45° TUBE BEND | CODE 61 FLANGE JIC MALE 90° TUBE BEND | CODE 61 FLANGE JIC MALE 90° LONG BEND |
|---------------|----------|-----------|-------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| inch | inch | | PART NO | PART NO DL1 DL2 | PART NO DL1 DL2 | PART NO DL1 DL2 |
| 1/2 | 3/4 | -0812 | S1-0812 | S3-0812 32 61 | S2-0812 58 41 | |
| 1/2 | 7/8 | -0814 | | | S2-0814 68 46 | |
| 3/4 | 3/4 | -1212 | S1-1212 | | S2-1212 57 46 | |
| 3/4 | 7/8 | -1214 | S1-1214 | S3-1214 38 71 | S2-1214 66 50 | |
| 3/4 | 1.1/16 | -1217 | S1-1217 | S3-1217 41 82 | S2-1217 75 56 | |
| 1 | 1.1/16 | -1617 | S1-1617 | S3-1617 46 85 | S2-1617 78 61 | |
| 1 | 1.5/16 | -1621 | S1-1621 | S3-1621 46 94 | S2-1621 88 66 | S2L-1621 116 66 |
| 1.1/4 | 1.1/16 | -2017 | | | S2-2017 77 62 | |
| 1.1/4 | 1.5/16 | -2021 | S1-2021 | S3-2021 48 96 | S2-2021 89 69 | |
| 1.1/4 | 1.5/8 | -2026 | S1-2026 | S3-2026 53 110 | S2-2026 104 81 | |
| 1.1/2 | 1.5/16 | -2421 | S1-2421 | | S2-2421 87 74 | |
| 1.1/2 | 1.5/8 | -2426 | S1-2426 | S3-2426 55 113 | S2-2426 100 86 | |
| 1.1/2 | 1.7/8 | -2430 | S1-2430 | S3-2430 67 125 | S2-2430 127 93 | |
| 2 | 1.5/8 | -3226 | | | S2-3226 106 88 | |
| 2 | 1.7/8 | -3230 | S1-3220 | | | |
| 2 | 2.1/2 | -3240 | | | S2-3240 152 125 | |

NOTE: Drop Lengths (DL) dimensions are in millimetres.
FLANGE OD can be found on page 346, CLAMPS can be found on page 345.

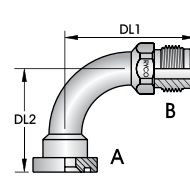
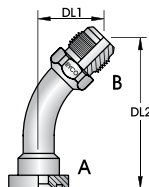
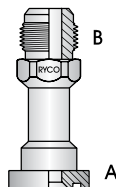
SAE FLANGE/JIC

S1H

S3H

S2H

CODE 62
O RING NOT SUPPLIED



| NOM. FLANGE A | THREAD B | DASH SIZE | CODE 62 FLANGE JIC MALE | CODE 62 FLANGE JIC MALE 45° TUBE BEND | CODE 62 FLANGE JIC MALE 90° TUBE BEND |
|---------------|----------|-----------|-------------------------|---------------------------------------|---------------------------------------|
| inch | inch | | PART NO | PART NO DL1 DL2 | PART NO DL1 DL2 |
| 3/4 | 7/8 | -1214 | | | S2H-1214 66 52 |
| 3/4 | 1.1/16 | -1217 | S1H-1217 | S3H-1217 48 82 | S2H-1217 79 55 |
| 3/4 | 1.5/16 | -1221 | | | S2H-1221 83 55 |
| 1 | 1.1/16 | -1617 | S1H-1617 | | S2H-1617 78 60 |
| 1 | 1.5/16 | -1621 | S1H-1621 | S3H-1621 50 95 | S2H-1621 87 69 |
| 1.1/4 | 1.1/16 | -2017 | | | S2H-2017 76 66 |
| 1.1/4 | 1.5/16 | -2021 | S1H-2021 | | |
| 1.1/4 | 1.5/8 | -2026 | | | S2H-2026 105 79 |
| 1.1/2 | 1.5/16 | -2421 | S1H-2421 | | S2H-2421 77 90 |
| 1.1/2 | 1.5/8 | -2426 | S1H-2426 | | S2H-2426 102 88 |
| 2 | 2.1/2 | -3240 | | | S2H-3240 149 131 |

NOTE: Drop Lengths (DL) dimensions are in millimetres.
FLANGE OD can be found on page 346, CLAMPS can be found on page 345.

SAE ADAPTORS & SAE FLANGE BLOCKS

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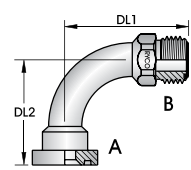
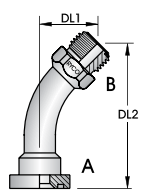
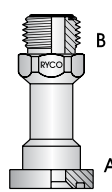
ACCESSORIES

FILTERS

TECHNICAL

SAE FLANGE/ORFS S147H S146H S143H

**CODE 62
SAE FLANGE
O RING NOT SUPPLIED**



| NOM. FLANGE A | THREAD B | DASH SIZE | CODE 62 FLANGE ORFS MALE | CODE 62 FLANGE ORFS MALE 45° TUBE BEND | CODE 62 FLANGE ORFS MALE 90° TUBE BEND |
|---------------|----------|-----------|--------------------------|--|--|
| inch | inch | | PART NO | PART NO | PART NO |
| 1 | 1.7/16 | -1623 | S147H-1623 | S146H-1623 | S143H-1623 |
| 1.1/2 | 2 | -2432 | | | S143H-2432 |
| | | | | DL1 DL2 | DL1 DL2 |
| | | | | 70 125 | 94 77 |
| | | | | | 115 94 |

NOTE: Drop Lengths (DL) dimensions are in millimetres.
FLANGE OD can be found on page 346, **CLAMPS** can be found on page 345.

ADAPTORS - SAE FLANGE BLOCKS

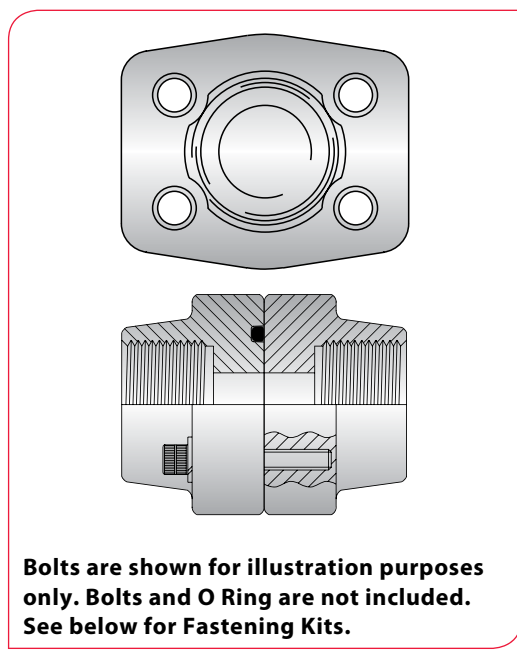
RYCO SAE Flange Blocks shown on pages 350 to 353 incorporate the SAE Flange Head and the SAE Flange Clamp into a single forged carbon steel unit.
RYCO SAE Flange Blocks with O Ring groove have unthreaded bolt holes.

RYCO Flat Flange blocks **S940F, S941F, S970F, S971F, S976F, S977F, S951F** and **S952F** have UNC threaded bolt holes for use with **FK61** and **FK62** Fastening Kits. (NOTE suffix "F" means Flat Face with UNC threaded bolt holes).

RYCO Flat Flange blocks **S940FM, S941FM, S970FM, S971FM, S951FM** and **S952FM** have METRIC threaded bolt holes for use with **FK61M** and **FK62M** Fastening Kits. (NOTE suffix "FM" means Flat Face with METRIC threaded bolt holes).

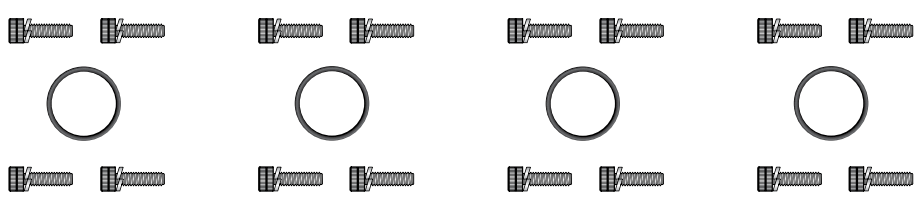
FOR DIMENSIONS OF SAE FLANGE BLOCKS, SEE PAGE 532.
Due to restricted clearance on the neck of Socket Weld and BSPP Female Flange Blocks, Hex Head Bolts cannot be used. **FK61, FK61M, FK62** and **FK62M** Fastening Kits, which include Socket Head Cap Bolts and special Square Section Spring Washers, must be used.

Blind, Butt Weld, BSPP Male and JIC Male Flange Blocks may be used with Hex Head Bolts and standard Spring Washers if preferred.



SAE FLANGE BLOCKS FK61 FK62 FK61M FK62M

**FASTENING KITS
WITH O RING,
SOCKET HEAD
CAP BOLTS
& WASHERS**



| NOM. FLANGE SIZE | DASH SIZE | SUITS SAE FLANGE BLOCKS CODE 61, UNC BOLTS | SUITS SAE FLANGE BLOCKS CODE 62, UNC BOLTS | SUITS SAE FLANGE BLOCKS CODE 61, METRIC BOLTS | SUITS SAE FLANGE BLOCKS CODE 62, METRIC BOLTS |
|------------------|-----------|--|--|---|---|
| inch | | PART NO | PART NO | PART NO | PART NO |
| 1/2 | -08 | FK61-08 | FK62-08 | FK61M-08 | FK62M-08 |
| 3/4 | -12 | FK61-12 | FK62-12 | FK61M-12 | FK62M-12 |
| 1 | -16 | FK61-16 | FK62-16 | FK61M-16 | FK62M-16 |
| 1.1/4 | -20 | FK61-20 | FK62-20 | FK61M-20 | FK62M-20 |
| 1.1/2 | -24 | FK61-24 | FK62-24 | FK61M-24 | FK62M-24 |
| 2 | -32 | FK61-32 | FK62-32 | FK61M-32 | FK62M-32 |

ADAPTORS

SAE FLANGE BLOCKS

SAE FLANGE BLOCKS

S967

S968

**BLIND BLANKING
FLANGE
O RING & BOLTS
NOT SUPPLIED**



| NOM. FLANGE SIZE | DASH SIZE | CODE 61 FLANGE BLIND | CODE 62 FLANGE BLIND |
|------------------|-----------|----------------------|----------------------|
| inch | | PART NO | PART NO |
| 1/2 | -08 | S967-08 | S968-08 |
| 3/4 | -12 | S967-12 | S968-12 |
| 1 | -16 | S967-16 | S968-16 |
| 1.1/4 | -20 | S967-20 | S968-20 |
| 1.1/2 | -24 | S967-24 | S968-24 |
| 2 | -32 | S967-32 | S968-32 |

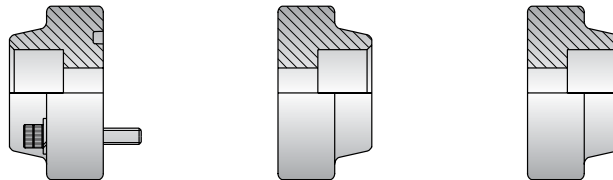
SAE FLANGE BLOCKS

S940

S940F

S940FM

**CODE 61
SOCKET WELD
TO SUIT IMPERIAL TUBE
O RING & BOLTS NOT
SUPPLIED**



| NOM. FLANGE SIZE | NOM. TUBE SIZE | DASH SIZE | TO SUIT TUBE OD | CODE 61 FLANGE SOCKET WELD TUBE | CODE 61 FLANGE FLAT SOCKET WELD TUBE UNC BOLT HOLES | CODE 61 FLANGE FLAT SOCKET WELD TUBE METRIC BOLT HOLES |
|------------------|----------------|-----------|-----------------|---------------------------------|---|--|
| inch | inch | | mm | PART NO | PART NO | PART NO |
| 1/2 | 1/2 | -0808 | 12,7 | S940-0808 | S940F-0808 | S940FM-0808 |
| 3/4 | 3/4 | -1212 | 19,1 | S940-1212 | S940F-1212 | S940FM-1212 |
| 1 | 1 | -1616 | 25,4 | S940-1616 | S940F-1616 | S940FM-1616 |
| 1.1/4 | 1.1/4 | -2020 | 31,8 | S940-2020 | S940F-2020 | S940FM-2020 |
| 1.1/2 | 1.1/2 | -2424 | 38,1 | S940-2424 | S940F-2424 | S940FM-2424 |
| 2 | 2 | -3232 | 50,8 | S940-3232 | S940F-3232 | S940FM-3232 |

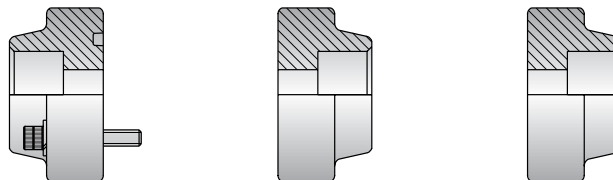
SAE FLANGE BLOCKS

S941

S941F

S941FM

**CODE 62
SOCKET WELD
TO SUIT IMPERIAL TUBE
O RING & BOLTS NOT
SUPPLIED**



| NOM. FLANGE SIZE | NOM. TUBE SIZE | DASH SIZE | TO SUIT TUBE OD | CODE 62 FLANGE SOCKET WELD TUBE | CODE 62 FLANGE FLAT SOCKET WELD TUBE UNC BOLT HOLES | CODE 62 FLANGE FLAT SOCKET WELD TUBE METRIC BOLT HOLES |
|------------------|----------------|-----------|-----------------|---------------------------------|---|--|
| inch | inch | | mm | PART NO | PART NO | PART NO |
| 3/4 | 3/4 | -1212 | 19,1 | S941-1212 | S941F-1212 | S941FM-1212 |
| 1 | 1 | -1616 | 25,4 | S941-1616 | S941F-1616 | S941FM-1616 |
| 1.1/4 | 1.1/4 | -2020 | 31,8 | S941-2020 | S941F-2020 | S941FM-2020 |
| 1.1/2 | 1.1/2 | -2424 | 38,1 | S941-2424 | S941F-2424 | S941FM-2424 |
| 2 | 2 | -3232 | 50,8 | S941-3232 | S941F-3232 | S941FM-3232 |

NOTE: Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See page 349 for Fastening Kits.

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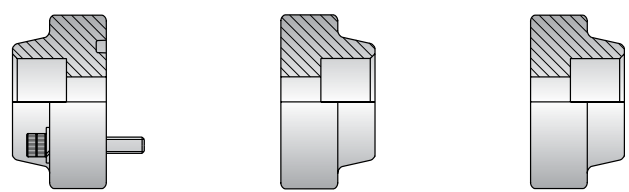
ACCESSORIES

FILTERS

TECHNICAL

SAE FLANGE BLOCKS **S970** **S970F** **S970FM**

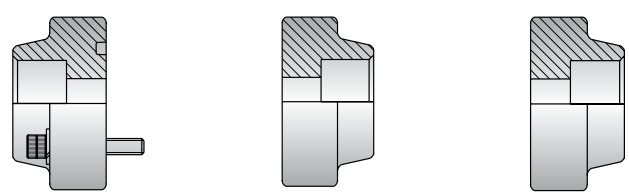
**CODE 61
SOCKET WELD
TO SUIT IMPERIAL PIPE
O RING & BOLTS NOT
SUPPLIED**



| NOM. FLANGE SIZE | NOM. PIPE SIZE | DASH SIZE | TO SUIT PIPE OD | CODE 61 FLANGE SOCKET WELD PIPE | CODE 61 FLANGE FLAT SOCKET WELD PIPE UNC BOLT HOLES | CODE 61 FLANGE FLAT SOCKET WELD PIPE METRIC BOLT HOLES |
|------------------|----------------|-----------|-----------------|---------------------------------|---|--|
| inch | inch | | mm | PART NO | PART NO | PART NO |
| 1/2 | 1/2 | -0808 | 21,3 | S970-0808 | S970F-0808 | S970FM-0808 |
| 3/4 | 3/4 | -1212 | 26,7 | S970-1212 | S970F-1212 | S970FM-1212 |
| 1 | 1 | -1616 | 33,4 | S970-1616 | S970F-1616 | S970FM-1616 |
| 1.1/4 | 1.1/4 | -2020 | 42,2 | S970-2020 | S970F-2020 | S970FM-2020 |
| 1.1/2 | 1.1/2 | -2424 | 48,3 | S970-2424 | S970F-2424 | S970FM-2424 |
| 2 | 2 | -3232 | 60,3 | S970-3232 | S970F-3232 | S970FM-3232 |

SAE FLANGE BLOCKS **S971** **S971F** **S971FM**

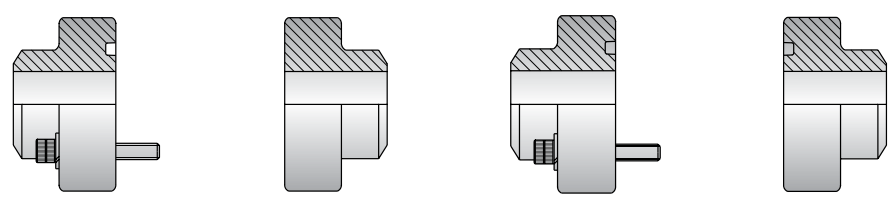
**CODE 62
SOCKET WELD
TO SUIT IMPERIAL PIPE
O RING & BOLTS NOT
SUPPLIED**



| NOM. FLANGE SIZE | NOM. PIPE SIZE | DASH SIZE | TO SUIT PIPE OD | CODE 62 FLANGE SOCKET WELD PIPE | CODE 62 FLANGE FLAT SOCKET WELD PIPE UNC BOLT HOLES | CODE 62 FLANGE FLAT SOCKET WELD PIPE METRIC BOLT HOLES |
|------------------|----------------|-----------|-----------------|---------------------------------|---|--|
| inch | inch | | mm | PART NO | PART NO | PART NO |
| 3/4 | 3/4 | -1212 | 26,7 | S971-1212 | S971F-1212 | S971FM-1212 |
| 1 | 1 | -1616 | 33,4 | S971-1616 | S971F-1616 | S971FM-1616 |
| 1.1/4 | 1.1/4 | -2020 | 42,2 | S971-2020 | S971F-2020 | S971FM-2020 |
| 1.1/2 | 1.1/2 | -2424 | 48,3 | S971-2424 | S971F-2424 | S971FM-2424 |
| 2 | 2 | -3232 | 60,3 | S971-3232 | S971F-3232 | S971FM-3232 |

SAE FLANGE BLOCKS **S976** **S976F** **S977** **S977F**

**BUTT WELD
TO SUIT IMPERIAL PIPE
O RING & BOLTS NOT
SUPPLIED**



| NOM. FLANGE SIZE | NOM. PIPE SIZE | DASH SIZE | TO SUIT PIPE OD | CODE 61 FLANGE BUTT WELD PIPE | CODE 61 FLANGE FLAT BUTT WELD PIPE UNC BOLT HOLES | CODE 62 FLANGE BUTT WELD PIPE | CODE 62 FLANGE FLAT BUTT WELD PIPE UNC BOLT HOLES |
|------------------|----------------|-----------|-----------------|-------------------------------|---|-------------------------------|---|
| inch | inch | | mm | PART NO | PART NO | PART NO | PART NO |
| 1/2 | 1/2 | -0808 | 21,3 | S976-0808 | S976F-0808 | S977-0808 | S977F-0808 |
| 3/4 | 3/4 | -1212 | 26,7 | S976-1212 | S976F-1212 | S977-1212 | S977F-1212 |
| 1 | 1 | -1616 | 33,4 | S976-1616 | S976F-1616 | S977-1616 | S977F-1616 |
| 1.1/4 | 1.1/4 | -2020 | 42,2 | S976-2020 | S976F-2020 | S977-2020 | S977F-2020 |
| 1.1/2 | 1.1/2 | -2424 | 48,3 | S976-2424 | S976F-2424 | S977-2424 | S977F-2424 |
| 2 | 2 | -3232 | 60,3 | S976-3232 | S976F-3232 | S977-3232 | S977F-3232 |

NOTE: Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See page 349 for Fastening Kits.

ADAPTORS

SAE FLANGE BLOCKS

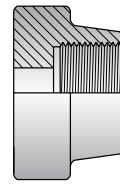
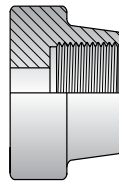
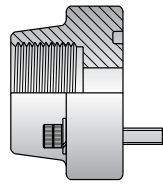
SAE FLANGE BLOCKS

S951

S951F

S951FM

CODE 61
BSPP FEMALE
O RING & BOLTS NOT
SUPPLIED



| NOM. FLANGE SIZE | THREAD SIZE | DASH SIZE | CODE 61 FLANGE BSPP FEMALE | CODE 61 FLANGE FLAT BSPP FEMALE UNC BOLT HOLES | CODE 61 FLANGE FLAT BSPP FEMALE METRIC BOLT HOLES |
|------------------|-------------|-----------|----------------------------|--|---|
| inch | inch | | PART NO | PART NO | PART NO |
| 1/2 | 1/2 | -0808 | S951-0808 | S951F-0808 | S951FM-0808 |
| 3/4 | 3/4 | -1212 | S951-1212 | S951F-1212 | S951FM-1212 |
| 1 | 1 | -1616 | S951-1616 | S951F-1616 | S951FM-1616 |
| 1.1/4 | 1.1/4 | -2020 | S951-2020 | S951F-2020 | S951FM-2020 |
| 1.1/2 | 1.1/2 | -2424 | S951-2424 | S951F-2424 | S951FM-2424 |
| 2 | 2 | -3232 | S951-3232 | S951F-3232 | S951FM-3232 |

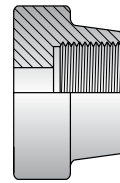
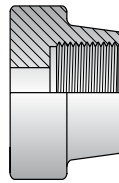
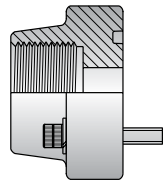
SAE FLANGE BLOCKS

S952

S952F

S952FM

CODE 62
BSPP FEMALE
O RING & BOLTS NOT
SUPPLIED



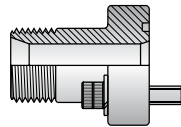
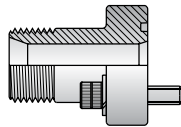
| NOM. FLANGE SIZE | THREAD SIZE | DASH SIZE | CODE 62 FLANGE BSPP FEMALE | CODE 62 FLANGE FLAT BSPP FEMALE UNC BOLT HOLES | CODE 62 FLANGE FLAT BSPP FEMALE METRIC BOLT HOLES |
|------------------|-------------|-----------|----------------------------|--|---|
| inch | inch | | PART NO | PART NO | PART NO |
| 3/4 | 3/4 | -1212 | S952-1212 | S952F-1212 | S952FM-1212 |
| 1 | 1 | -1616 | S952-1616 | S952F-1616 | S952FM-1616 |
| 1.1/4 | 1.1/4 | -2020 | S952-2020 | S952F-2020 | S952FM-2020 |
| 1.1/2 | 1.1/2 | -2424 | S952-2424 | S952F-2424 | S952FM-2424 |
| 2 | 2 | -3232 | S952-3232 | S952F-3232 | S952FM-3232 |

SAE FLANGE BLOCKS

S953

S954

BSPP MALE
O RING & BOLTS NOT
SUPPLIED

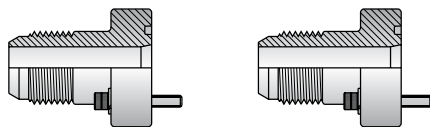


| NOM. FLANGE SIZE | THREAD SIZE | DASH SIZE | CODE 61 FLANGE BSPP MALE | CODE 62 FLANGE BSPP MALE |
|------------------|-------------|-----------|--------------------------|--------------------------|
| inch | inch | | PART NO | PART NO |
| 1/2 | 1/2 | -0808 | S953-0808 | S954-0808 |
| 3/4 | 3/4 | -1212 | S953-1212 | S954-1212 |
| 1 | 1 | -1616 | S953-1616 | S954-1616 |
| 1.1/4 | 1.1/4 | -2020 | S953-2020 | S954-2020 |
| 1.1/2 | 1.1/2 | -2424 | S953-2424 | S954-2424 |

NOTE: Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See page 349 for Fastening Kits.

SAE FLANGE BLOCKS **S957** **S958**

**JIC MALE
O RING & BOLTS NOT
SUPPLIED**



| NOM. FLANGE SIZE | THREAD SIZE | DASH SIZE | CODE 61 FLANGE JIC MALE | CODE 62 FLANGE JIC MALE |
|------------------|-------------|-----------|-------------------------|-------------------------|
| inch | inch | | PART NO | PART NO |
| 1/2 | 3/4 | -0812 | S957-0812 | S958-0812 |
| 3/4 | 1.1/16 | -1217 | S957-1217 | S958-1217 |
| 1 | 1.5/16 | -1621 | S957-1621 | S958-1621 |
| 1.1/4 | 1.5/8 | -2026 | S957-2026 | S958-2026 |
| 1.1/2 | 1.7/8 | -2430 | S957-2430 | S958-2430 |

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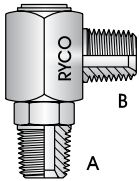
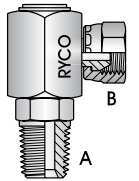
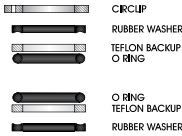
FILTERS

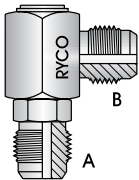
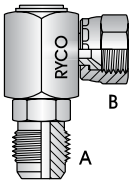
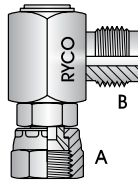
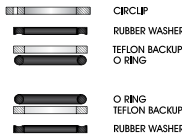
TECHNICAL

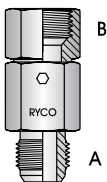
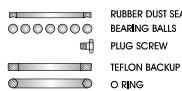
NOTE: Bolts are shown for illustration purposes only. Bolts and O Ring are not included. See page 349 for Fastening Kits.

ADAPTORS

SWIVEL JOINT ADAPTORS

| SWIVEL JOINT | | | S37 | S36 | SEAL KITS SJK |
|---|------|-----------|---|---|--|
| BSP/BSP 360° ROTATION 10 RPM - NOT CONTINUOUS 3000 PSI MAX | | |  |  |  |
| THREAD | | DASH SIZE | BSPT MALE | BSPT MALE | REPLACEMENT SEAL KIT |
| A | B | | BSPT MALE 90° SWIVEL JOINT | BSPP FEMALE SWIVEL 90° SWIVEL JOINTS | |
| inch | inch | | PART NO | PART NO | PART NO |
| 1/2 | 1/2 | -0808 | S37-0808 | S36-0808 | SJK-08 |
| 3/4 | 3/4 | -1212 | S37-1212 | S36-1212 | SJK-12 |

| SWIVEL JOINT | | | S33 | S34 | S35 | SEAL KITS SJK |
|---|--------|-----------|---|---|--|---|
| JIC/JIC 360° ROTATION 10 RPM - NOT CONTINUOUS 3000 PSI MAX | | |  |  |  |  |
| THREAD | | DASH SIZE | JIC MALE | JIC MALE | JIC FEMALE | REPLACEMENT SEAL KIT |
| A | B | | JIC MALE 90° SWIVEL JOINT | JIC FEMALE 90° SWIVEL JOINT | JIC MALE 90° SWIVEL JOINT | |
| inch | inch | | PART NO | PART NO | PART NO | PART NO |
| 7/8 | 7/8 | -1414 | S33-1414 | S34-1414 | S35-1414 | SJK-08 |
| 1.1/16 | 1.1/16 | -1717 | S33-1717 | S34-1717 | S35-1717 | SJK-12 |

| SWIVEL JOINT | | | S131 | SEAL KITS RKS |
|---|--------|-----------|---|---|
| JIC/JIC 360° ROTATION 20 RPM - NOT CONTINUOUS 4000 PSI MAX | | |  |  |
| THREAD | | DASH SIZE | JIC MALE | REPLACEMENT SEAL KIT |
| A | B | | JIC FEMALE FIXED SWIVEL JOINT | |
| inch | inch | | PART NO | PART NO |
| 1.1/16 | 1.1/16 | -1717 | S131-1717 | RKS131-1717 |
| 1.5/16 | 1.5/16 | -2121 | S131-2121 | RKS131-2121 |

NOTE: RYCO Swivel Joints are ideal for use wherever hose moves, bends or twists. They permit the use of less hose in flexing applications, producing neater space-saving installations and resulting in lower maintenance costs. Compact and lightweight, the RYCO Swivel Joint turns with very low torque under pressure, assuring fluid line flexibility and efficiency of operation.

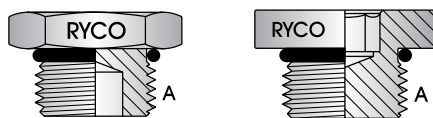
Swivel Joints must not be used as high speed rotary unions, or as load bearing or structural components. They must be connected with a flexible hose on one end. External loads, e.g. the weight of the hose and couplings attached to the swivel joint; must be minimised to avoid premature wear and leakage.

Operating Temperature Range: From -40°C to + 100°C (-40°F to + 212°F).

Fluid Compatibility: Mineral / petroleum based hydraulic oils.

UNO **S97** **S97AK**

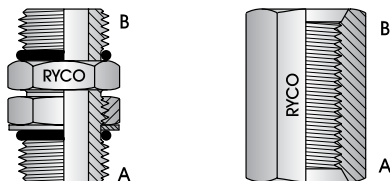
**PLUG
O RING INCLUDED**



| THREAD A | | DASH SIZE | UN O RING MALE PLUG | UN O RING ALLEN KEY HEAD |
|-------------|--|--------------|------------------------|-----------------------------|
| inch | | | PART NO | PART NO |
| 3/8 | | -06 | | S97AK-06 |
| 7/16 | | -07 | S97-07 | S97AK-07 |
| 1/2 | | -08 | S97-08 | S97AK-08 |
| 9/16 | | -09 | S97-09 | S97AK-09 |
| 3/4 | | -12 | S97-12 | S97AK-12 |
| 7/8 | | -14 | S97-14 | S97AK-14 |
| 1.1/16 | | -17 | S97-17 | S97AK-17 |
| 1.3/16 | | -19 | S97-19 | |
| 1.5/16 | | -21 | S97-21 | |
| 1.5/8 | | -26 | S97-26 | |
| 1.7/8 | | -30 | S97-30 | |

UNO/UNO **S162** **S163**

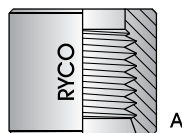
**STRAIGHT
O RING INCLUDED**



| THREAD A | | B | DASH SIZE | UN O RING MALE ADJUSTABLE UN O RING MALE | UN O RING FEMALE SOCKET |
|-------------|-------------|---|--------------|--|-------------------------------|
| inch | inch | | | PART NO | PART NO |
| 9/16 | 9/16 | | -0909 | | S163-0909 |
| 3/4 | 3/4 | | -1212 | S162-1212 | |

UNO **S148**

**HALF SOCKET
WELD ON**



| THREAD A | DASH SIZE | UN O RING FEMALE FIXED HALF WELD ON |
|-------------|--------------|---|
| inch | | PART NO |
| 9/16 | -09 | S148-09 |
| 3/4 | -12 | S148-12 |
| 7/8 | -14 | S148-14 |

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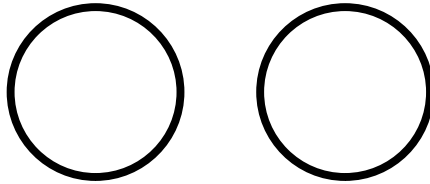
ADAPTORS

MISCELLANEOUS - O RINGS

O RINGS

ROD-AC
SUIT AIR CON

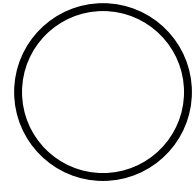
ROD-FS
SUIT ORFS



| THREAD SIZE | TUBE SIZE | 70 DUROMETER (GREEN HNBR) | | 90 DUROMETER | |
|-------------|-----------|---------------------------|----------|--------------|----------|
| inch | inch | PART NO | PACK QTY | PART NO | PACK QTY |
| 9/16 | 1/4 | | | ROD-FS09 | 10 |
| 5/8 | 3/8 | ROD-AC10 | 10 | | |
| 11/16 | 3/8 | | | ROD-FS11 | 10 |
| 3/4 | 1/2 | ROD-AC12 | 10 | | |
| 13/16 | 1/2 | | | ROD-FS13 | 10 |
| 7/8 | 5/8 | ROD-AC14 | 10 | | |
| 1 | 5/8 | | | ROD-FS16 | 10 |
| 1.3/16 | 3/4 | | | ROD-FS19 | 10 |
| 1.7/16 | 1 | | | ROD-FS23 | 10 |
| 1.11/16 | 1.1/4 | | | ROD-FS27 | 10 |
| 2 | 1.1/2 | | | ROD-FS32 | 10 |

O RINGS

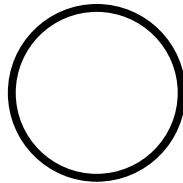
ROD-BP
SUIT BSPP



| THREAD SIZE | 90 DUROMETER | |
|-------------|--------------|----------|
| inch | PART NO | PACK QTY |
| 1/8 | ROD-BP02 | 10 |
| 1/4 | ROD-BP04 | 10 |
| 3/8 | ROD-BP06 | 10 |
| 1/2 | ROD-BP08 | 10 |
| 5/8 | ROD-BP10 | 10 |
| 3/4 | ROD-BP12 | 10 |
| 1 | ROD-BP16 | 10 |
| 1.1/4 | ROD-BP20 | 10 |
| 1.1/2 | ROD-BP24 | 10 |
| 2 | ROD-BP32 | 10 |

O RINGS

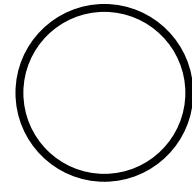
ROD-DL
SUIT DKOL
FEMALE METRIC



| THREAD SIZE | TUBE SIZE | 70 DUROMETER | |
|-------------|-----------|--------------|----------|
| mm | mm | PART NO | PACK QTY |
| 12x1,5 | 6 | ROD-DL12 | 10 |
| 14x1,5 | 8 | ROD-DL14 | 10 |
| 16x1,5 | 10 | ROD-DL16 | 10 |
| 18x1,5 | 12 | ROD-DL18 | 10 |
| 22x1,5 | 15 | ROD-DL22 | 10 |
| 26x1,5 | 18 | ROD-DL26 | 10 |
| 30x2,0 | 22 | ROD-DL30 | 10 |
| 36x2,0 | 28 | ROD-DL36 | 10 |
| 45x2,0 | 35 | ROD-DL45 | 10 |
| 52x2,0 | 42 | ROD-DL52 | |

O RINGS

ROD-DS
SUIT DKOS
FEMALE METRIC



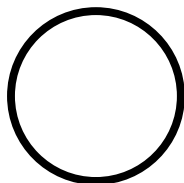
| THREAD SIZE | TUBE SIZE | 70 DUROMETER | |
|-------------|-----------|--------------|----------|
| mm | mm | PART NO | PACK QTY |
| 14x1,5 | 6 | ROD-DS14 | 10 |
| 16x1,5 | 8 | ROD-DS16 | 10 |
| 18x1,5 | 10 | ROD-DS18 | 10 |
| 20x1,5 | 12 | ROD-DS20 | 10 |
| 22x1,5 | 14 | ROD-DS22 | 10 |
| 24x1,5 | 16 | ROD-DS24 | 10 |
| 30x2,0 | 20 | ROD-DS30 | 10 |
| 36x2,0 | 25 | ROD-DS36 | 10 |
| 42x2,0 | 30 | ROD-DS42 | 10 |
| 52x2,0 | 38 | ROD-DS52 | 10 |

NOTE: O Rings/Seals are sold only in packs of 10. Part Number Series for individual seal is RO. Example: Order Part No RO-BP02 for individual seal. (D is removed from ROD). Surcharges for breaking packages may apply.

MISCELLANEOUS - O RINGS

O RINGS

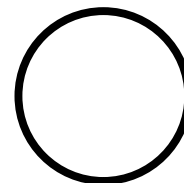
ROD-SF
SUIT SAE FLANGE



| NOMINAL FLANGE SIZE | 90 DUROMETER | |
|---------------------|--------------|----------|
| inch | PART NO | PACK QTY |
| 1/2 | ROD-SF08 | 10 |
| 5/8 | ROD-SF10 | 10 |
| 3/4 | ROD-SF12 | 10 |
| 1 | ROD-SF16 | 10 |
| 1.1/4 | ROD-SF20 | 10 |
| 1.1/2 | ROD-SF24 | 10 |
| 2 | ROD-SF32 | 10 |
| 2.1/2 | ROD-SF40 | 10 |

O RINGS

ROD-UN
SUIT UNO



| NOM FLANGE SIZE | TUBE SIZE | 90 DUROMETER | |
|-----------------|-----------|--------------|----------|
| inch | inch | PART NO | PACK QTY |
| 7/16 | 1/4 | ROD-UN07 | 10 |
| 1/2 | 5/16 | ROD-UN08 | 10 |
| 9/16 | 3/8 | ROD-UN09 | 10 |
| 3/4 | 1/2 | ROD-UN12 | 10 |
| 7/8 | 5/8 | ROD-UN14 | 10 |
| 1.1/16 | 3/4 | ROD-UN17 | 10 |
| 1.3/16 | 7/8 | ROD-UN19 | 10 |
| 1.5/16 | 1 | ROD-UN21 | 10 |
| 1.5/8 | 1.1/4 | ROD-UN26 | 10 |
| 1.7/8 | 1.1/2 | ROD-UN30 | 10 |

INTRODUCTION

HOSE

COUPLINGS

SEALS

ROD-WD/ROD-BE
SUIT BSPP
ENCAPSULATED MALE



| THREAD SIZE | 90 DUROMETER | |
|-------------|--------------|----------|
| inch | PART NO | PACK QTY |
| 1/8 | ROD-WD084 | 10 |
| 1/4 | ROD-WD116 | 10 |
| 3/8 | ROD-WD147 | 10 |
| 1/2 | ROD-WD185 | 10 |
| 3/4 | ROD-WD239 | 10 |
| 1 | ROD-WD297 | 10 |
| 1.1/4 | ROD-WD388 | 10 |
| 1.1/2 | ROD-WD447 | 10 |
| 2 | ROD-BE32* | 10 |

*NOTE: Seal is a circular cross-section.

ADAPTORS

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NOTE: O Rings/Seals are sold only in packs of 10. Part Number Series for individual seal is RO. Example: Order Part No RO-BP02 for individual seal. (D is removed from ROD). Surcharges for breaking packages may apply.

ADAPTORS

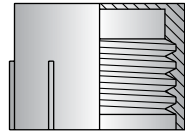
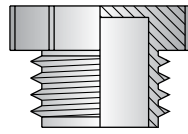
MISCELLANEOUS - PLASTIC CAPS AND PLUGS

BSP/NPT

BPD

BCD

THREADED
PLASTIC
PROTECTORS



| THREAD SIZE | PACK QTY | PLUG SUITS FEMALE BSP & NPSM | CAP SUITS MALE BSP & NPT |
|-------------|----------|------------------------------|--------------------------|
| inch | | PART NO | PART NO |
| 1/8 | 100 | BPD-02 | BCD-02 |
| 1/4 | 100 | BPD-04 | BCD-04 |
| 3/8 | 100 | BPD-06 | BCD-06 |
| 1/2 | 100 | BPD-08 | BCD-08 |
| 3/4 | 100 | BPD-12 | BCD-12 |
| 1 | 100 | BPD-16 | BCD-16 |
| 1.1/4 | 10 | BPD-20 | BCD-20 |
| 1.1/2 | 10 | BPD-24 | BCD-24 |
| 2 | 10 | BPD-32 | BCD-32 |

JIC/SAE/UNO

JPPD

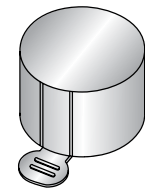
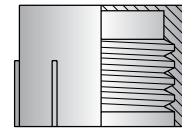
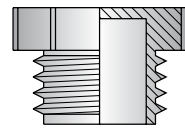
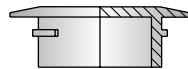
JPD

JCD

JCTD

THREADED
PLASTIC PROTECTORS

TEAR OFF PLASTIC
THREAD PROTECTOR



| THREAD SIZE | PACK QTY | PUSH-IN PLUG SUITS FEMALE JIC, SAE & UNO | PLUG SUITS FEMALE JIC, SAE & UNO | CAP SUITS MALE JIC, SAE & UNO | TEAR OFF CAP SUITS MALE JIC, SAE & UNO |
|-------------|----------|--|----------------------------------|-------------------------------|--|
| | | PART NO | PART NO | PART NO | PART NO |
| 7/16-20 | 100 | JPPD-07 | JPD-07 | JCD-07 | JCTD-07 |
| 1/2-20 | 100 | | JPD-08 | JCD-08 | |
| 9/16-18 | 100 | JPPD-09 | JPD-09 | JCD-09 | JCTD-09 |
| 5/8-18 | 100 | | JPD-10 | JCD-10 | |
| 3/4-16 | 100 | JPPD-12 | JPD-12 | JCD-12 | JCTD-12 |
| 7/8-14 | 100 | JPPD-14 | JPD-14 | JCD-14 | JCTD-14 |
| 1.1/16-12 | 100 | JPPD-17 | JPD-17 | JCD-17 | JCTD-17 |
| 1.3/16-12 | 100 | | JPD-19 | JCD-19 | |
| 1.5/16-12 | 100 | | JPD-21 | JCD-21 | JCTD-21 |
| 1.5/8-12 | 10 | | JPD-26 | JCD-26 | JCTD-26 |
| 1.7/8-12 | 10 | | | | JCTD-30 |

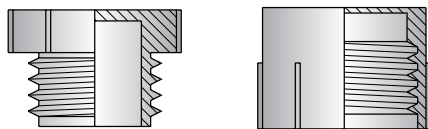
NOTE: Plastic Thread Protectors are sold only in packs with quantities as shown. To order individual Plastic Thread Protectors, remove the "D" preceding the part number dash. Example: Order Part No BP-02 for individual part ("D" is removed from BPD-02 packaged Part No). Surcharges for breaking packages may apply.

Part Numbers for Plastic Caps and Plugs: First letter denotes Thread Type, **B = BSP, O = ORFS** etc. Second letter denotes Plug or Cap, **P = Plug, C = Cap**. A "D" before the dash represents the packaged part number (omit for unpackaged, individual Plug or Cap). Numbers after the dash represent the Thread Size or Dash Size of the Plug or Cap.

MISCELLANEOUS - PLASTIC CAPS AND PLUGS

METRIC MPD MCD

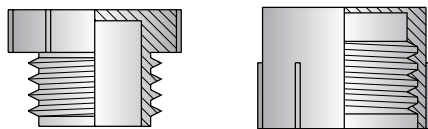
**THREADED
PLASTIC
PROTECTORS**



| THREAD SIZE | PACK QTY | PLUG SUITS FEMALE METRIC | CAP SUITS MALE METRIC |
|-------------|----------|--------------------------|-----------------------|
| mm | | PART NO | PART NO |
| 12x1,5 | 100 | MPD-1215 | MCD-1215 |
| 14x1,5 | 100 | MPD-1415 | MCD-1415 |
| 16x1,5 | 100 | MPD-1615 | MCD-1615 |
| 18x1,5 | 100 | MPD-1815 | MCD-1815 |
| 20x1,5 | 100 | MPD-2015 | MCD-2015 |
| 22x1,5 | 100 | MPD-2215 | MCD-2215 |
| 24x1,5 | 100 | MPD-2415 | MCD-2415 |
| 26x1,5 | 100 | MPD-2615 | MCD-2615 |
| 30x1,5 | 10 | MPD-3015 | |
| 30x2,0 | 10 | MPD-3020 | MCD-3020 |
| 36x2,0 | 10 | MPD-3620 | MCD-3620 |
| 42x2,0 | 10 | MPD-4220 | MCD-4220 |
| 45x2,0 | 10 | MPD-4250 | MCD-4250 |
| 52x2,0 | 10 | MPD-5220 | MCD-5220 |

ORFS OPD OCD

**THREADED
PLASTIC
PROTECTORS**



| THREAD SIZE | PACK QTY | PLUG SUITS FEMALE ORFS | CAP SUITS MALE ORFS |
|-------------|----------|------------------------|---------------------|
| inch | | PART NO | PART NO |
| 9/16 | 100 | USE JPD-09 | USE JCD-09 |
| 11/16 | 100 | OPD-11 | OCD-11 |
| 13/16 | 100 | OPD-13 | OCD-13 |
| 1 | 100 | OPD-16 | OCD-16 |
| 1.3/16 | 100 | USE JPD-19 | USE JCD-19 |
| 1.7/16 | 100 | OPD-23 | OCD-23 |
| 1.11/16 | 10 | | OCD-27 |

NOTE: Plastic Thread Protectors are sold only in packs with quantities as shown. To order individual Plastic Thread Protectors, remove the "D" preceding the part number dash. Example: Order Part No BP-02 for individual part ("D" is removed from BPD-02 packaged Part No). Surcharges for breaking packages may apply.

Part Numbers for Plastic Caps and Plugs: First letter denotes Thread Type, **B = BSP**, **O = ORFS** etc. Second letter denotes Plug or Cap, **P = Plug**, **C = Cap**. A "D" before the dash represents the packaged part number (omit for unpackaged, individual Plug or Cap). Numbers after the dash represent the Thread Size or Dash Size of the Plug or Cap.

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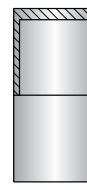
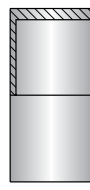
TECHNICAL

ADAPTORS

MISCELLANEOUS - PLASTIC CAPS AND PLUGS

| | | | |
|-------------------|--------------|--------------|------------------|
| SAE FLANGE | FC61D | FC62D | R62C TYPE |
|-------------------|--------------|--------------|------------------|

FLANGE COVERS
PLASTIC
CODE 61
CODE 62
R62C TYPE



| NOM. FLANGE SIZE | PACK QTY | SUITS SAE CODE 61 FLANGE | SUITS SAE CODE 62 FLANGE | SUITS R62C FLANGE |
|------------------|----------|--------------------------|--------------------------|---------------------|
| | | PART NO | PART NO | PART NO |
| 1/2 | 100 | FC61D-08 | FC62D-08 | |
| 3/4 | 100 | FC61D-12 | FC62D-12 | USE FC62D-12 |
| 1 | 100 | FC61D-16 | FC62D-16 | USE FC62D-16 |
| 1.1/4 | 10 | FC61D-20 | FC62D-20 | USE FC62D-20 |
| 1.1/2 | 10 | FC61D-24 | FC62D-24 | USE FC62D-24 |
| 2 | 10 | FC61D-32 | FC62D-32 | |

| | |
|-------------------|------------|
| 800 SERIES | PPD |
|-------------------|------------|

PUSH ON
HOSE TAIL
PLASTIC COLLAR



| HOSE SIZE | PACK QTY | SUITS 800 SERIES FITTING |
|-----------|----------|--------------------------|
| | | PART NO |
| 1/4 | 100 | PPD-04 |
| 5/16 | 100 | PPD-05 |
| 3/8 | 100 | PPD-06 |
| 1/2 | 100 | PPD-08 |
| 5/8 | 100 | PPD-10 |
| 3/4 | 100 | PPD-12 |

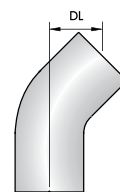
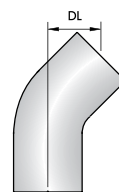
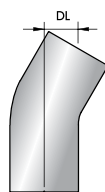
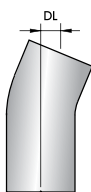
NOTE: Plastic Thread Protectors are sold only in packs with quantities as shown. To order individual Plastic Thread Protectors, remove the "D" preceding the part number dash. Example: Order Part No BP-02 for individual part ("D" is removed from BPD-02 packaged Part No). Surcharges for breaking packages may apply.

Part Numbers for Plastic Caps and Plugs: First letter denotes Thread Type, **B = BSP, O = ORFS** etc. Second letter denotes Plug or Cap, **P = Plug, C = Cap**. A "D" before the dash represents the packaged part number (omit for unpackaged, individual Plug or Cap). Numbers after the dash represent the Thread Size or Dash Size of the Plug or Cap.

MISCELLANEOUS - TUBE BENDS

TUBE BENDS 14 15 25 25HL

IMPERIAL
OUTSIDE
DIAMETER

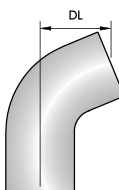
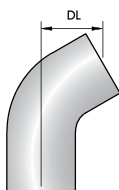


| TUBE SIZE | DASH SIZE | 22.5° TUBE BEND | | 30° TUBE BEND | | 45° TUBE BEND | | 45° TUBE BEND HEAVY | |
|-----------|-----------|-----------------|----|---------------|----|---------------|----|---------------------|----|
| inch | | PART NO | DL | PART NO | DL | PART NO | DL | PART NO | DL |
| 1/4 | -04 | | | | | 25-04 | 8 | | |
| 3/8 | -06 | | | | | 25-06 | 10 | | |
| 1/2 | -08 | | | | | 25-08 | 11 | | |
| 5/8 | -10 | | | | | 25-10 | 12 | | |
| 3/4 | -12 | 14-12 | 7 | 15-12 | 8 | 25-12 | 14 | 25HL-12 | 14 |
| 1 | -16 | 14-16 | 8 | 15-16 | 9 | 25-16 | 17 | 25HL-16 | 17 |
| 1.1/4 | -20 | 14-20 | 9 | 15-20 | 10 | 25-20 | 20 | 25HL-20 | 20 |
| 1.1/2 | -24 | 14-24 | 12 | 15-24 | 10 | 25-24 | 23 | 25HL-24 | 23 |
| 2 | -32 | 14-32 | 17 | | | 25-32 | 30 | 25HL-32 | 30 |

NOTE: Tube Bends can be used in conjunction with S112 Tube Joiners shown on page 336, when a tube bender is not available, or tighter bends than can be achieved by bending hydraulic tube are required. Drop Lengths (DL) dimensions are in millimetres.

TUBE BENDS 17 16

IMPERIAL
OUTSIDE
DIAMETER



| TUBE SIZE | DASH SIZE | 60° TUBE BEND | | 67.5° TUBE BEND | |
|-----------|-----------|---------------|----|-----------------|----|
| inch | | PART NO | DL | PART NO | DL |
| 3/4 | -12 | 17-12 | 26 | 16-12 | 30 |
| 1 | -16 | 17-16 | 31 | 16-16 | 36 |
| 1.1/4 | -20 | 17-20 | 35 | 16-20 | 42 |
| 1.1/2 | -24 | 17-24 | 45 | 16-24 | 53 |
| 2 | -32 | 17-32 | 65 | 16-32 | 75 |

NOTE: Tube Bends can be used in conjunction with S112 Tube Joiners shown on page 336, when a tube bender is not available, or tighter bends than can be achieved by bending hydraulic tube are required. Drop Lengths (DL) dimensions are in millimetres.

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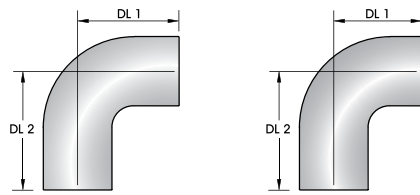
TECHNICAL

ADAPTORS

MISCELLANEOUS - TUBE BENDS

TUBE BENDS 24A 24B

IMPERIAL
OUTSIDE
DIAMETER

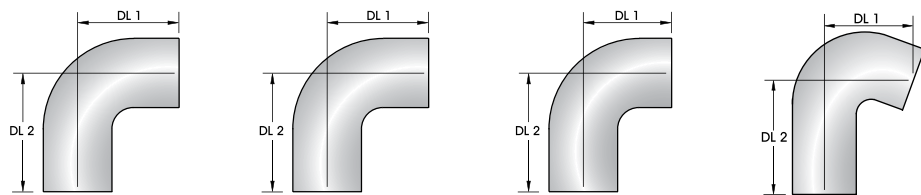


| TUBE BEND | DASH SIZE | 90° SPECIAL LONG TUBE BEND | | | 90° SPECIAL LONG TUBE BEND | | |
|-----------|-----------|----------------------------|-----|-----|----------------------------|-----|-----|
| inch | | PART NO | DL1 | DL2 | PART NO | DL1 | DL2 |
| 5/8 | -10 | 24A-10 | 37 | 64 | | | |
| 3/4 | -12 | 24A-12 | 42 | 66 | 24B-12 | 42 | 84 |
| 1.1/4 | -20 | 24A-20 | 61 | 68 | 24B-20 | 61 | 80 |
| 1.1/2 | -24 | 24A-24 | 77 | 101 | 24B-24 | 77 | 137 |
| 2 | -32 | 24A-32 | 107 | 153 | | | |

NOTE: Tube Bends can be used in conjunction with S112 Tube Joiners shown on page 336, when a tube bender is not available, or tighter bends than can be achieved by bending hydraulic tube are required. Drop Lengths (DL) dimensions are in millimetres.

TUBE BENDS 24 24HL 21 91

IMPERIAL
OUTSIDE
DIAMETER



| TUBE BEND | DASH SIZE | 90° TUBE BEND | | | 90° TUBE BEND HEAVY | | | 90° LONG TUBE BEND | | | 110° LONG TUBE BEND | | |
|-----------|-----------|---------------|-----|-----|---------------------|-----|-----|--------------------|-----|-----|---------------------|-----|-----|
| inch | | PART NO | DL1 | DL2 | PART NO | DL1 | DL2 | PART NO | DL1 | DL2 | PART NO | DL1 | DL2 |
| 1/4 | -04 | 24-04 | 17 | 17 | | | | 21-04 | 17 | 38 | | | |
| 3/8 | -06 | 24-06 | 22 | 22 | | | | 21-06 | 22 | 48 | | | |
| 1/2 | -08 | 24-08 | 27 | 27 | | | | 21-08 | 27 | 54 | | | |
| 5/8 | -10 | 24-10 | 31 | 31 | | | | 21-10 | 31 | 59 | | | |
| 3/4 | -12 | 24-12 | 36 | 36 | 24HL-12 | 36 | 36 | 21-12 | 36 | 67 | | | |
| 1 | -16 | 24-16 | 47 | 47 | 24HL-16 | 47 | 47 | 21-16 | 47 | 81 | | | |
| 1.1/4 | -20 | 24-20 | 57 | 57 | 24HL-20 | 57 | 57 | 21-20 | 57 | 97 | | | |
| 1.1/2 | -24 | 24-24 | 66 | 66 | 24HL-24 | 66 | 66 | 21-24 | 67 | 114 | 91-24 | 95 | 127 |
| 2 | -32 | 24-32 | 86 | 86 | 24HL-32 | 86 | 86 | | | | 91-32 | 131 | 141 |

NOTE: Tube Bends can be used in conjunction with S112 Tube Joiners shown on page 336, when a tube bender is not available, or tighter bends than can be achieved by bending hydraulic tube are required. Drop Lengths (DL) dimensions are in millimetres.

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HOSE

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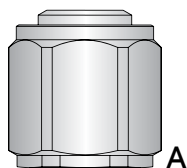
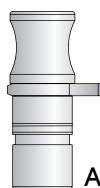
ACCESSORIES

FILTERS

TECHNICAL

RYCO WEO **RW723** **RW811**

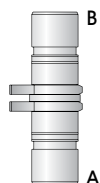
**PLUG
CAP**



| RYCO WEO SIZE A | | DASH SIZE | RYCO WEO MALE STOP PLUG | RYCO WEO FEMALE STOP CAP |
|--------------------|-------------|--------------|----------------------------|-----------------------------|
| DN | inch | | PART NO | PART NO |
| 6 | 1/4 | -04 | RW723-04 | RW811-04 |
| 10 | 3/8 | -06 | RW723-06 | RW811-06 |
| 12 | 1/2 | -08 | RW723-08 | RW811-08 |
| 19 | 3/4 | -12 | RW723-12 | RW811-12 |
| 25 | 1 | -16 | RW723-16 | RW811-16 |

RYCO WEO **RW722**

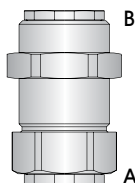
STRAIGHT



| RYCO WEO SIZE A, B | | DASH SIZE | RYCO WEO MALE NIPPLE |
|-----------------------|-------------|--------------|-------------------------|
| DN | inch | | PART NO |
| 6 | 1/4 | -0404 | RW722-0404 |
| 10 | 3/8 | -0606 | RW722-0606 |
| 12 | 1/2 | -0808 | RW722-0808 |
| 19 | 3/4 | -1212 | RW722-1212 |
| 25 | 1 | -1616 | RW722-1616 |

RYCO WEO **RW813**

FEMALE BULKHEAD



| RYCO WEO SIZE A, B | | THREAD A, B | DASH SIZE | RYCO WEO FEMALE BULKHEAD |
|-----------------------|-------------|----------------|--------------|-----------------------------|
| DN | inch | inch | | PART NO |
| 6 | 1/4 | M21,5x1,5 | -0404 | RW813-0404 |
| 10 | 3/8 | M26x1,5 | -0606 | RW813-0606 |
| 12 | 1/2 | M30x2,0 | -0808 | RW813-0808 |

NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

ADAPTORS

RYCO WEO ADAPTORS

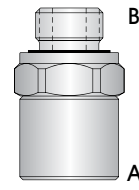
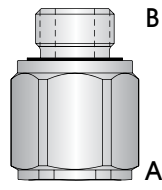
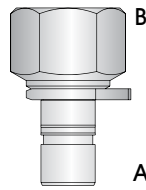
RYCO WEO/BSPP

RW721

RW830

RW860

STRAIGHT



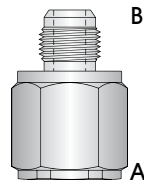
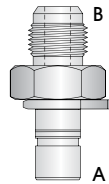
| RYCO WEO SIZE A | | THREAD SIZE B | DASH SIZE | RYCO WEO MALE BSPP FEMALE | RYCO WEO FEMALE BSPP ENCAPSULATED MALE | RYCO WEO FEMALE SWIVEL BSPP ENCAPSULATED MALE |
|--------------------|------|---------------------|--------------|------------------------------|--|--|
| DN | inch | inch | | PART NO | PART NO | PART NO |
| 6 | 1/4 | 1/4 | -0404 | | RW830-0404 | |
| 10 | 3/8 | 3/8 | -0606 | RW721-0606 | RW830-0606 | RW860-0606 |
| 12 | 1/2 | 1/2 | -0808 | RW721-0808 | RW830-0808 | RW860-0808 |
| 19 | 3/4 | 3/8 | -1212 | RW721-1212 | RW830-1212 | RW860-1212 |
| 25 | 1 | 1 | -1616 | | RW830-1616 | |

RYCO WEO/JIC

RW727

RW824

STRAIGHT



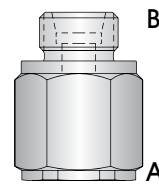
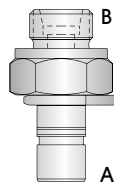
| RYCO WEO SIZE A | | THREAD SIZE B | DASH SIZE | RYCO WEO MALE JIC MALE | RYCO WEO FEMALE JIC MALE |
|--------------------|------|---------------------|--------------|---------------------------|-----------------------------|
| DN | inch | inch | | PART NO | PART NO |
| 6 | 1/4 | 7/16 | -0407 | RW727-0407 | RW824-0407 |
| 10 | 3/8 | 9/16 | -0609 | RW727-0609 | RW824-0609 |
| 12 | 1/2 | 3/4 | -0812 | RW727-0812 | RW824-0812 |
| 12 | 1/2 | 7/8 | -0814 | | RW824-0814 |
| 12 | 1/2 | 1.1/16 | -0817 | | RW824-0817 |
| 19 | 3/4 | 1.1/16 | -1217 | RW727-1217 | RW824-1217 |

RYCO WEO/METRIC

RW725

RW822

STRAIGHT

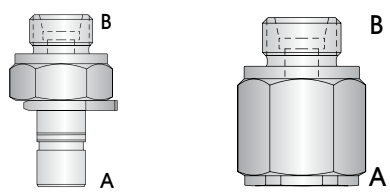


| RYCO WEO SIZE A | | THREAD SIZE B | TUBE OD | DASH SIZE | RYCO WEO MALE DKL MALE | RYCO WEO FEMALE DKL MALE |
|--------------------|------|---------------------|---------|--------------|---------------------------|-----------------------------|
| DN | inch | inch | mm | | PART NO | PART NO |
| 6 | 1/4 | M14x1,5 | 8 | -0414 | RW725-0414 | RW822-0414 |
| 10 | 3/8 | M18x1,5 | 12 | -0618 | RW725-0618 | RW822-0618 |
| 12 | 1/2 | M22x1,5 | 15 | -0822 | RW725-0822 | RW822-0822 |
| 19 | 3/4 | M30x2,0 | 22 | -1230 | RW725-1230 | RW822-1230 |

NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

RYCO WEO/METRIC **RW726** **RW823**

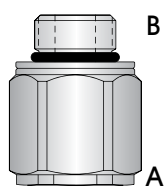
STRAIGHT



| RYCO WEO SIZE A | | THREAD SIZE B | TUBE OD | DASH SIZE | RYCO WEO MALE DKS MALE | RYCO WEO FEMALE DKS MALE |
|--------------------|-------------|---------------------|------------|--------------|---------------------------|-----------------------------|
| DN | inch | inch | mm | | PART NO | PART NO |
| 6 | 1/4 | M16x1,5 | 8 | -0416 | RW726-0416 | RW823-0416 |
| 10 | 3/8 | M20x1,5 | 12 | -0620 | RW726-0620 | RW823-0620 |
| 12 | 1/2 | M24x1,5 | 16 | -0824 | RW726-0824 | RW823-0824 |
| 19 | 3/4 | M36x2,0 | 25 | -1236 | RW726-1236 | RW823-1236 |

RYCO WEO/METRIC O RING BOSS **RW831**

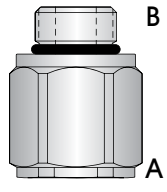
STRAIGHT



| RYCO WEO SIZE A | THREAD SIZE B | DASH SIZE | RYCO WEO MALE METRIC MALE O RING BOSS |
|--------------------|---------------------|--------------|---|
| DN | inch | inch | PART NO |
| 10 | 3/8 | M12x1,5 | -06 RW831-0612 |
| 10 | 3/8 | M16x1,5 | -06 RW831-0616 |
| 12 | 1/2 | M18x1,5 | -08 RW831-0818 |
| 19 | 3/4 | M22x1,5 | -12 RW831-1222 |
| 19 | 3/4 | M27x2,0 | -12 RW831-1227 |

RYCO WEO/UNO **RW826**

STRAIGHT



| RYCO WEO SIZE A | THREAD SIZE B | DASH SIZE | RYCO WEO FEMALE UN O RING MALE |
|--------------------|---------------------|--------------|-----------------------------------|
| DN | inch | inch | PART NO |
| 6 | 1/4 | 7/16 | -0407 RW826-0407 |
| 10 | 3/8 | 9/16 | -0609 RW826-0609 |
| 12 | 1/2 | 3/4 | -0812 RW826-0812 |
| 12 | 1/2 | 7/8 | -0814 RW826-0814 |
| 12 | 1/2 | 1.1/16 | -0817 RW826-0817 |
| 19 | 3/4 | 1.1/16 | -1217 RW826-1217 |
| 25 | 1 | 1.5/16 | -1621 RW826-1621 |

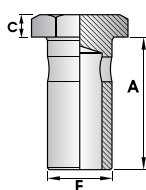
NOTE: RYCO WEO male and female couplings and adaptors do not contain a shut-off valve. When not in use, cap the RYCO WEO male using the appropriate size RW811 series stop cap and plug the RYCO WEO female/cartridge using the appropriate size RW723 series stop plug.

ADAPTORS

ACCESSORIES

BSP BANJO BOLT

BBB

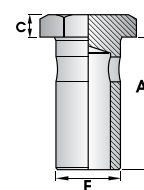


| THREAD SIZE E | DIMENSIONS (mm) | | | BSP BANJO BOLT |
|---------------|-----------------|------|-----|----------------|
| | A | C | A/F | |
| inch | | | | PART NO |
| G1/4"-19 | 28,5 | 6,0 | 19 | BBB-04 |
| G3/8"-19 | 38,5 | 7,0 | 22 | BBB-06 |
| G1/2"-14 | 44,0 | 8,5 | 27 | BBB-08 |
| G5/8"-14 | 48,5 | 10,0 | 30 | BBB-10 |
| G3/4"-14 | 56,0 | 10,0 | 32 | BBB-12 |
| G1"-11 | 68,5 | 13,0 | 41 | BBB-16 |

NOTE: RL21D Seals for BBB Banjo Bolts can be found on page 309.

METRIC BANJO BOLT

BBM

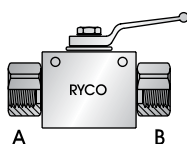


| THREAD SIZE E | DIMENSIONS (mm) | | | METRIC BANJO BOLT |
|---------------|-----------------|----|-----|-------------------|
| | A | C | A/F | |
| mm | | | | PART NO |
| M10x1,0 | 19 | 6 | 14 | BBM-10 |
| M12x1,5 | 24 | 6 | 17 | BBM-12 |
| M14x1,5 | 26 | 6 | 19 | BBM-14 |
| M16x1,5 | 28 | 6 | 22 | BBM-16 |
| M18x1,5 | 32 | 6 | 24 | BBM-18 |
| M20x1,5 | 37 | 7 | 27 | BBM-20 |
| M22x1,5 | 39 | 7 | 27 | BBM-22 |
| M26x1,5 | 45 | 7 | 32 | BBM-26 |
| M30x1,5 | 51 | 7 | 36 | BBM-30 |
| M36x2,0 | 71 | 12 | 46 | BBM-36 |

NOTE: MBD Seals for BBM Banjo Bolts can be found on page 337.

BSPP BALL VALVE

RL20SH



| THREAD SIZE | | DASH SIZE | MAX. WORKING PRESSURE | | BALL VALVE BSPP FEMALE BSPP FEMALE |
|-------------|-------------|-----------|-----------------------|------------|------------------------------------|
| A | B | | bar | psi | |
| inch | inch | | bar | psi | PART NO |
| 1/4 | 1/4 | -0404 | 500 | 7250 | RL20SH-0404 |
| 3/8 | 3/8 | -0606 | 500 | 7250 | RL20SH-0606 |
| 1/2 | 1/2 | -0808 | 500 | 7250 | RL20SH-0808 |
| 3/4 | 3/4 | -1212 | 400 | 5800 | RL20SH-1212 |
| 1 | 1 | -1616 | 350 | 5100 | RL20SH-1616 |
| 1.1/4 | 1.1/4 | -2020 | 350 | 5100 | RL20SH-2020 |
| 1.1/2 | 1.1/2 | -2424 | 350 | 5100 | RL20SH-2424 |
| 2 | 2 | -3232 | 350 | 5100 | RL20SH-3232 |

ACCESSORIES



ACCESSORIES

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| 372 | Pictorial Index-Crimping Equipment |
| 373 to 381 | R1620 EASY TEST |
| 374 | R1620 Easy Test - Test Point Couplings |
| 375 to 376 | R1620 Easy Test - Inline Test Point Adaptors |
| 377 | R1620 Easy Test – Test Hose And Hose Assemblies |
| 378 | R1620 Easy Test – Couplings For Test Hoses |
| 379 | R1620 Easy Test – Adaptors |
| 380 to 381 | R1620 - RG01 Pressure Gauge And Test Kits |
| 382 to 402 | QUICK RELEASE COUPLINGS |
| 382 to 383 | R80, R81, R82, R85 & R86 Poppet Check Valve Quick Release Couplings |
| 384 to 385 | R91, R94 & R96 Ball Check Valve Quick Release Couplings |
| 386 to 387 | Quick Release Couplings – Accessories & Spare Parts |
| 388 to 389 | Quick Release Couplings - Series Technical Data |
| 390 to 391 | R100 10,000 psi Screw Together Quick Release Couplings |
| 392 to 393 | R110 Flat Face Valve Quick Release Couplings |
| 394 to 395 | R120 Thread to Connect Heavy Duty Quick Release Couplings |
| 396 to 397 | R130 High Flow Quick Release Couplings |
| 398 to 399 | R140 PBR Interchange Quick Release Couplings |
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| 403 to 409 | MOUNTING CLAMPS |
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| 422 | Airline Couplings |
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| 428 | R125-1D |
| 430 | R250-3D |
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| 432 | RY32 |
| 433 | RY65 |
| 434 | RY80 |
| 435 | RY125 |
| 436 | R13Y-9000 |
| 437 | CS12/CS14 Cut-Off Saws |
| 438 | Crimping Equipment Accessories |

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

TEST POINT COUPLINGS

| | | | | | | |
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| R1620-BT P374 | R1620-BP P358 | R1620-NT P374 | R1620-MR P374 | R1620-MP P359 | R1620-MM P374 | R1620-UN P374 |
| | | | | | | |
| BSPT MALE | BSPP ENCAPSULATED MALE | NPT MALE | METRIC MALE O RING SEAL | METRIC ENCAPSULATED MALE | METRIC MALE METAL SEAL | UN O RING (O RING BOSS) |

INLINE TEST POINT ADAPTORS

| | | | | | |
|---|---|---|---|--------------------------------------|--------------------------------------|
| S160 P375 | S159 P375 | S961 P376 | S962 P376 | FK61L P376 | FK62L P376 |
| | | | | | |
| BSPT MALE BSPP FEMALE SWIVEL M16 X 2,0 TEST POINT | JIC MALE JIC FEMALE SWIVEL M16 X 2,0 TEST POINT | CODE 61 CODE 61 FLAT M16 X 2,0 TEST POINT | CODE 62 CODE 62 FLAT M16 X 2,0 TEST POINT | CODE 61 FASTENING KIT UNC BOLT | CODE 62 FASTENING KIT UNC BOLT |

FASTENING KITS (CONT)

| | | | | | |
|---|---|---------------------------------|----------------------|----------------------|----------------------|
| FK61LM P376 | FK62LM P376 | TEST HOSE AND ASSEMBLIES | RT7-M P377 | R1621 P377 | R1622 P377 |
| | | | | | |
| CODE 61 FASTENING KIT METRIC BOLT | CODE 62 FASTENING KIT METRIC BOLT | | TEST HOSE | TEST HOSE ASSEMBLY | TEST HOSE ASSEMBLY |

TEST HOSE COUPLINGS

| | | | | | | |
|-------------------------------------|----------------------------------|-------------------------------|-------------------------------------|------------------------------|---------------------------|--|
| 7202 P378 | 7202G P378 | 7204 P378 | 7262 P378 | TEST HOSE ACCESSORIES | 750-M P378 | CP01 P378 |
| | | | | | | |
| BSPP FEMALE SWIVEL 60° CONE SEAT | BSPP FEMALE SWIVEL GAUGE SEAT | JIC FEMALE SWIVEL 37° SEAT | METRIC SUITS M16X 2,0 TEST POINT | | BEND RESTRICTOR SPRING | PLASTIC PLUG M16 X 2,0 WITH PLASTIC COLLAR |

TEST POINT ADAPTORS

| | | | | | |
|---------------------------------|--------------------------------|--------------------|-----------------------|-----------------------|---------------------------------------|
| C81 P379 | C81N P379 | C27 P379 | C80 P379 | C99 P379 | C24 P379 |
| | | | | | |
| M16 X 2,0 FEMALE BSPP FEMALE | M16 X 2,0 FEMALE NPT FEMALE | JOINER | CONVERSION ADAPTOR | CONVERSION ADAPTOR | M10 X 1,0 FIXED FEMALE BSPT FEMALE |

PRESSURE GAUGE AND TEST KITS

| | | | | | | |
|--------------------------------|------------------------------|---------------------------|---------------------------|--------------------------------|----------------------------------|----------------------------------|
| RG01/RG11 P380 | RG02/RG12 P380 | RG01-COVER P381 | RG11-COVER P381 | QUICK RELEASE COUPLINGS | R80 P382 | R81 P382 |
| | | | | | | |
| PRESSURE GAUGE BOTTOM ENTRY | PRESSURE GAUGE REAR ENTRY | PRESSURE GAUGE COVER | PRESSURE GAUGE COVER | | ISO TYPE A POPPET CHECK VALVE | ISO TYPE A POPPET CHECK VALVE |

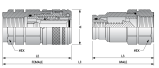
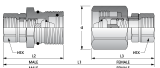
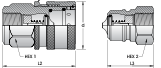

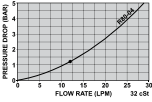
QUICK RELEASE COUPLINGS (CONT)

| | | | | | | |
|----------------------------------|----------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------|
| R82 P382 | R85 P382 | R86 P382 | R91 P384 | R94 P384 | R96 P384 | R100 P390 |
| | | | | | | |
| ISO TYPE A POPPET CHECK VALVE | ISO TYPE A POPPET CHECK VALVE | ISO TYPE A POPPET CHECK VALVE | ISO TYPE A BALL CHECK VALVE | ISO TYPE A BALL CHECK VALVE | ISO TYPE A BALL CHECK VALVE | 10,000 PSI SCREW TOGETHER |








ACCESSORIES

PICTORIAL INDEX

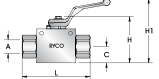
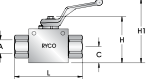
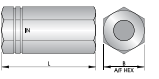

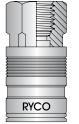
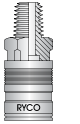
QUICK RELEASE COUPLINGS (CONT)

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| FLAT FACE VALVE | THREAD TO CONNECT HEAVY DUTY | THREAD TO CONNECT HEAVY DUTY | THREAD TO CONNECT HEAVY DUTY | PRESSURE DROP FLOW RATE DATA |

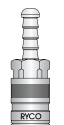





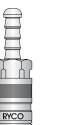
QUICK RELEASE COUPLING ACCESSORIES & SPARE PARTS

| | | | | | | |
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| R81-08CPM 387 | RB 387 | QDPC/RDP/RDC P387 | MOUNTING CLAMPS & ACCESSORIES | RCS P403 | RCD P403 | ACCESSORIES P404-P409 |
|  |  |  |  |  |  |  |
| CONNECT UNDER PRESSURE MALE TIP | BREAKAWAY BRACKETS & BREAKAWAY KITS | RUBBERISED DUST CAPS DUST PLUGS | | MOUNTING CLAMPS SINGLE | MOUNTING CLAMPS DOUBLE | MOUNTING CLAMPS ASSEMBLY & ACCESSORIES |

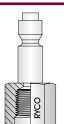


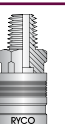
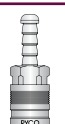
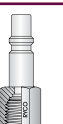

BALL VALVES

| | | | | | |
|---|---|---|---|---|---|
| RL20 P410 | RL20SH P410 | RCV P412 | AIRLINE COUPLINGS | 200/200S P415 | 200/200S P415 |
|  |  |  |  |  |  |
| BSPP FEMALE BALL VALVE | BSPP FEMALE BALL VALVE | BSPP FEMALE CHECK VALVE | | BSPT FEMALE AUTOMATIC COUPLING | BSPT MALE AUTOMATIC COUPLING |


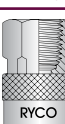
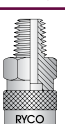
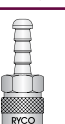
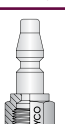

AIRLINE COUPLINGS (CONT)

| | | | | | | |
|---|---|---|---|--|---|---|
| 200/200S P415 | 200/200S/290 P416 | 200/200S/290 P416 | 200/200S/290 P416 | 290 P415 | 290 P415 | 290 P415 |
|  |  |  |  |  |  |  |
| HOSE BARB AUTOMATIC COUPLING | BSPP FEMALE COUPLING NIPPLE | BSPT MALE COUPLING NIPPLE | HOSE BARB COUPLING NIPPLE | BSPP FEMALE AUTOMATIC COUPLING | BSPT MALE AUTOMATIC COUPLING | HOSE BARB AUTOMATIC COUPLING |




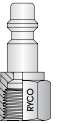



AIRLINE COUPLINGS (CONT)

| | | | | | | |
|---|---|---|---|--|---|---|
| 217 P416 | 217A P416 | 300 P417 | 300 P417 | 300 P417 | 300 P417 | 300 P417 |
|  |  |  |  |  |  |  |
| SCHRADER SHORT | SCHRADER LONG | BSPP FEMALE AUTOMATIC COUPLING | BSPT MALE AUTOMATIC COUPLING | HOSE BARB AUTOMATIC COUPLING | BSPP FEMALE COUPLING NIPPLE | BSPT MALE COUPLING NIPPLE |

AIRLINE COUPLINGS (CONT)

| | | | | | | |
|---|---|---|---|--|---|---|
| 300 P417 | 400 P418 | 400 P418 | 400 P418 | 400 P418 | 400 P418 | 400 P418 |
|  |  |  |  |  |  |  |
| HOSE BARB COUPLING NIPPLE | BSPP FEMALE AUTOMATIC COUPLING | BSPT MALE AUTOMATIC COUPLING | HOSE BARB AUTOMATIC COUPLING | BSPP FEMALE COUPLING NIPPLE | BSPT MALE COUPLING NIPPLE | HOSE BARB COUPLING NIPPLE |

AIRLINE COUPLINGS (CONT)

| | | | | | | |
|---|---|---|---|--|---|---|
| 500 P420 | 500 P420 | 500 P420 | 500 P420 | 500 P420 | 500 P420 | 500R P419 |
|  |  |  |  |  |  |  |
| BSPP FEMALE AUTOMATIC COUPLING | BSPT MALE AUTOMATIC COUPLING | HOSE BARB AUTOMATIC COUPLING | BSPP FEMALE COUPLING NIPPLE | BSPT MALE COUPLING NIPPLE | HOSE BARB COUPLING NIPPLE | BSPT FEMALE AUTOMATIC COUPLING |

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AIRLINE COUPLINGS (CONT)

| | | | | | | |
|---------------------------|--------------------------|----------------------|---------------------|----------------------------|---------------------------|---------------------|
| 502R P419 | 224 P421 | 223 P421 | 222* P421 | 221 P421 | 216* P421 | 211* P422 |
| | | | | | | |
| BSPT MALE COUPLING NIPPLE | EASY HAND CLASP BLOW GUN | PUSH BUTTON BLOW GUN | AIR-FLEX BLOW GUN | SCREW-ON AIR-FLEX BLOW GUN | AIR CHUCK COUPLING NIPPLE | AIR CHUCK HOSE BARB |

AIRLINE COUPLINGS (CONT)

| | | | | | | |
|-----------------------|----------------------|-----------------------|---------------------------|---------------------|---------------------|---------------------|
| 214 P422 | 218A* P423 | 259* P423 | 231* P423 | 257* P423 | 372* P424 | 342* P424 |
| | | | | | | |
| AIR CHUCK BSPP FEMALE | BSPT MALE HOSE BARB | BSPP FEMALE HOSE BARB | BSPP NUT & TAIL HOSE BARB | BARB HOSE BARB | HOSE BARB 90° ELBOW | HOSE BARB 90° ELBOW |

AIRLINE COUPLINGS (CONT)

| | | | | | | |
|---------------------|-------------------------|--|--|--|--|--|
| 382* P424 | 352* P424 | | | | | |
| | | | | | | |
| HOSE BARB TEE | HOSE BARB BSPT MALE TEE | | | | | |

ADDITIONAL PART NUMBERS

NOTE: Please note that part numbers for Airline Couplings marked with an asterisk (*) are available under more than one Part Number. See the table below for the additional Part Numbers they are available under.

| PART NO | PART | ADDITIONAL PART NUMBERS |
|-------------|---------------------------|---|
| 222 | Air-Flex Blow Gun | 422, 522 |
| 216 | Air Chuck Coupling Nipple | 416, 516 |
| 211 | Air Chuck Hose Barb | 213 |
| 218A | BSPT Male Hose Barb | 218, 219, 207, 268S, 220, 208, 267S, 260, 209, 307, 309, 210, 308, 310, 310-8, 310-10A, 310-2A, 310-9, 310-7A, 310-3A |
| 259 | BSPP Female Hose Barb | 236, 269S, 237, 261S, 238, 262S, 264S, 263S, 265S |
| 231 | BSPP Nut & Tail Hose Barb | 232 |
| 257 | Barb Hose Barb | 227, 228, 229, 258 |
| 372 | Hose Barb 90° Elbow | 375, 377, 379 |
| 342 | Hose Barb 90° Elbow | 343, 346, 344, 347, 349 |
| 382 | Hose Barb Tee | 385, 387, 389 |
| 352 | Hose Barb BSPT Male Tee | 353, 356A, 354, 357, 359 |

ACCESSORIES

PICTORIAL INDEX

| CRIMPERS & CUT-OFF SAWS | | MAX. HOSE SIZE | POWER OPTIONS | CRIMP DIA. SETTING | OPERATION |
|-------------------------|--|---|--|---|---|
| 429 | R16HP 1" HORIZONTAL CRIMPER |  | 1" | Hand Pump | Vernier Dial Manual Stop |
| 428 | R125 1.1/4" HORIZONTAL CRIMPER |  | 1.1/4" (Six Spiral) 1.1/2" (Wire Braid) | Single Phase, 12V, 24V | Electronic control panel Automatic Stop |
| 430 | R250 2" HORIZONTAL CRIMPER |  | 2" (Six Spiral) 3" (Wire Braid) | Three Phase | Electronic control panel Automatic Stop |
| 431 | RY20 1.1/4" HORIZONTAL CRIMPER |  | 1.1/4" | Single Phase, Three Phase | Electronic control panel Automatic Stop |
| 432 | RY32 2" HORIZONTAL CRIMPER |  | 2" | Single Phase, Three Phase | Electronic control panel Automatic Stop |
| 433 | RY65 3" HORIZONTAL CRIMPER |  | 3" | Three Phase | Electronic control panel Manual, Semi-Automatic, Automatic |
| 434 | RY80 4" HORIZONTAL CRIMPER |  | 4" | Three Phase | Electronic control panel Manual, Semi-Automatic, Automatic |
| 435 | RY125 6" HORIZONTAL CRIMPER |  | 6" | Three Phase | Electronic control panel Manual, Semi-Automatic, Automatic |
| 436 | R13Y-9000 AIR/HYDRAULIC PUMP |  | — | RYCO R13Y Air/Hydraulic Pump is an economical power pump, providing oil at pressures up to 700 bar (10,000 psi). It operates with compressed air, supplied at pressures between by 4 bar (60 psi) and 8 bar (120 psi). The three position treadle provides for advance, hold, and retract operation. | |
| 437 | CS12/CS14 CUT-OFF SAWS |  | 2" (Braided) 1.1/2" (Spiral) | RYCO CS12/CS14 Series Cut-Off Saws are designed especially for use in mobile service vans or workshop environments. All models are ready for connection to exhaust fume extraction. | |

R1620

EASY TEST



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RECOMMENDED FOR:

RYCO R1620 Easy Test Series is a complete system of Test Points, Inline Test Adaptors, Test Hose Assemblies, Pressure Gauges, Adaptors and Test Point Kits. The system is designed to allow fast, direct connection of pressure measuring gauges and transducers to a hydraulic system. Other applications include; switching, control, and pilot lines; venting/bleeding points; and sample points.

Once installed, connection to the Test Point can be made at up to 400 bar system pressure without the need for tools, and without leakage or spillage. Connection at pressures between 400 bar and Maximum Working Pressure of 630 bar may require tools.

Typical applications include mobile plant, agricultural equipment, industrial equipment, power packs and cylinders, logging and mining, oil processing and exploration, and steel production.

RYCO R1620 Easy Test Test Points can be installed into hydraulic circuits as permanent original equipment, or can be installed temporarily while testing is performed. Inline Test Adaptors also allow quick and easy retro-fitting of Test Points between hoses, or hoses and ports.

RYCO R1620 Easy Test Series utilise the M16x2,0 connection system. Adaptors that enable connection to other connection systems are available: M16x1,5; M12x1,5; S12,65x1,5; and Stake.

FEATURES:

- Connect, and disconnect, under system pressure; up to 400 bar by hand, and up to 630 bar with tools.
- Maximum Working Pressure 630 bar.
- No leakage or spillage when connections are made. The probe in the hose or gauge connection seals into the coupling before the ball check valve is opened.
- Metal protective cap, with captive chain.
- Anti vibration O Ring on body fitted as standard, stops chain collar from rattling.

TECHNICAL DATA:

TEST POINTS AND CAPS:

Steel, zinc-nickel plated for corrosion resistance.

INLINE TEST ADAPTORS:

Steel, RYCOTE CrVI free plated for corrosion resistance.

VALVE IN TEST POINT:

Metal Ball, sealing on metal seat.

SEALS:

Nitrile (Buna N).

OPERATING TEMPERATURE RANGE:

From -35°C to +100°C (-31°F to +212°F).

MAXIMUM WORKING PRESSURE:

630 bar / 9135 psi. Size and temperature dependent - refer to hose working pressures and dimensions data tables for further information.

MAXIMUM CONNECTION PRESSURE:

Up to 400 bar/5800 psi by hand. Between 400 bar and 630 bar requires tools (such as multi-grip pliers to ensure effective connection. Caution: do not overtighten when using tools to tighten connection as this may damage the test point connection, which may result in premature leakage or failure of the connection.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

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R1620 EASY TEST - TEST POINT COUPLINGS

NOTE: RYCO R1620 EASY TEST Test Points Couplings can be installed into hydraulic circuits as permanent original equipment, or can be installed temporarily while testing is performed.

BSP/NPT

BT

BP

NT

TEST POINT COUPLINGS



| THREAD SIZE | | DASH SIZE | BSP | | |
|-------------|-------------|-----------|-------------------|------------------------|-------------------|
| TEST POINT | MALE | | BSPT MALE | BSPP ENCAPSULATED MALE | NPT MALE |
| | inch | | PART NO | PART NO | PART NO |
| M16x2,0 | 1/8 | -02 | R1620-BT02 | R1620-BP02 | R1620-NT02 |
| M16x2,0 | 1/4 | -04 | R1620-BT04 | R1620-BP04 | R1620-NT04 |

METRIC

MR

MP

MM

TEST POINT COUPLINGS

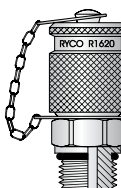


| THREAD SIZE | | DASH SIZE | METRIC | | |
|-------------|---------|-----------|-------------------------|--------------------------|------------------------|
| TEST POINT | MALE | | METRIC MALE O RING SEAL | METRIC ENCAPSULATED MALE | METRIC MALE METAL SEAL |
| | | | PART NO | PART NO | PART NO |
| M16x2,0 | M8x1,0 | -08 | R1620-MR08 | | |
| M16x2,0 | M10x1,0 | -10 | R1620-MR10 | | |
| M16x2,0 | M12x1,5 | -12 | | R1620-MP12 | |
| M16x2,0 | M14x1,5 | -14 | | | R1620-MM14 |

UNO (O RING BOSS)

UN

TEST POINT COUPLINGS



| THREAD SIZE | | DASH SIZE | UN O RING MALE (O RING BOSS) |
|-------------|-------------|-----------|------------------------------|
| TEST POINT | MALE | | |
| | inch | | PART NO |
| M16x2,0 | 7/16 | -07 | R1620-UN07 |
| M16x2,0 | 1/2 | -08 | R1620-UN08 |
| M16x2,0 | 9/16 | -09 | R1620-UN09 |

R1620 EASY TEST - INLINE TEST POINT ADAPTORS

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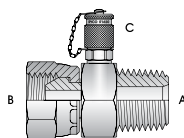
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NOTE: RYCO R1620 EASY TEST Inline Test Point Adaptors can be installed into circuits as permanent original equipment, or can be installed temporarily while testing is performed. InLine Test Point Adaptors also allow quick and easy retro-fitting of Test Points between hoses, or hoses and ports.

BSP S160

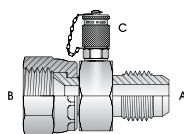
INLINE TEST POINT ADAPTORS



| THREAD SIZE | | | DASH SIZE | BSPT MALE BSPP FEMALE SWIVEL M16 X 2,0 TEST POINT |
|-------------|-------------|---------|-----------|---|
| A | B | C | | |
| inch | inch | | | PART NO |
| 1/4 | 1/4 | M16x2,0 | -040416 | S160-040416 |
| 3/8 | 3/8 | M16x2,0 | -060616 | S160-060616 |
| 1/2 | 1/2 | M16x2,0 | -080816 | S160-080816 |
| 3/4 | 3/4 | M16x2,0 | -121216 | S160-121216 |
| 1 | 1 | M16x2,0 | -161616 | S160-161616 |
| 1.1/4 | 1.1/4 | M16x2,0 | -202016 | S160-202016 |

JIC S159

INLINE TEST POINT ADAPTORS



| THREAD SIZE | | | DASH SIZE | JIC MALE JIC FEMALE SWIVEL M16 X 2,0 TEST POINT |
|-------------|-------------|---------|-----------|---|
| A | B | C | | |
| inch | inch | | | PART NO |
| 7/16 | 7/16 | M16x2,0 | -070716 | S159-070716 |
| 9/16 | 9/16 | M16x2,0 | -090916 | S159-090916 |
| 3/4 | 3/4 | M16x2,0 | -121216 | S159-121216 |
| 7/8 | 7/8 | M16x2,0 | -141416 | S159-141416 |
| 1.1/16 | 1.1/16 | M16x2,0 | -171716 | S159-171716 |
| 1.5/16 | 1.5/16 | M16x2,0 | -212116 | S159-212116 |
| 1.5/8 | 1.5/8 | M16x2,0 | -262616 | S159-262616 |

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R1620 EASY TEST – INLINE TEST POINT ADAPTORS

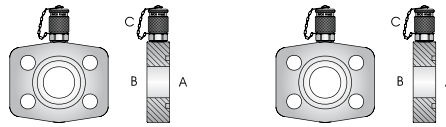
NOTE: RYCO R1620 EASY TEST Inline Test Point Adaptors can be installed into circuits as permanent original equipment, or can be installed temporarily while testing is performed. InLine Test Point Adaptors also allow quick and easy retrofitting of Test Points between hoses, or hoses and ports.

SAE FLANGE

S961

S962

INLINE TEST POINT ADAPTORS



| NOMINAL FLANGE SIZE | | THREAD SIZE C | DASH SIZE | CODE 61 CODE 61 FLAT M16X2,0 TEST POINT | CODE 62 CODE 62 FLAT M16X2,0 TEST POINT |
|---------------------|-------|------------------|-----------|---|---|
| A | B | | | | |
| inch | inch | | | PART NO | PART NO |
| 3/4 | 3/4 | M16x2,0 | -121216 | | S962-121216 |
| 1 | 1 | M16x2,0 | -161616 | S961-161616 | S962-161616 |
| 1.1/4 | 1.1/4 | M16x2,0 | -202016 | S961-202016 | S962-202016 |
| 1.1/2 | 1.1/2 | M16x2,0 | -242416 | S961-242416 | S962-242416 |
| 2 | 2 | M16x2,0 | -323216 | S961-323216 | S962-323216 |

NOTE: Longer bolts are required when mounting S961 and S962 Inline Test Adaptors between an SAE Flange Hose Coupling and an SAE Flange Port. Fastening Kits, consisting of the four hex head Long Bolts, four Spring Washers, and O Ring are available. See table below.

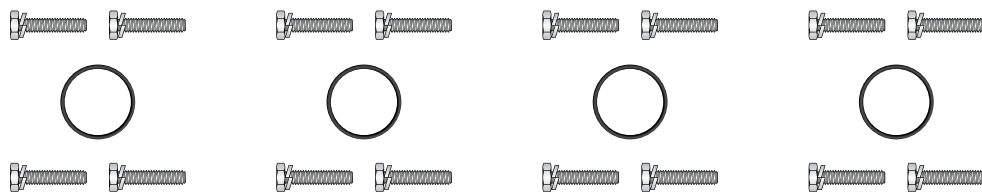
FASTENING KITS

FK61L

FK62L

FK61LM

FK62LM



| NOMINAL FLANGE SIZE | DASH SIZE | CODE 61 FASTENING KIT UNC BOLTS | CODE 62 FASTENING KIT UNC BOLT | CODE 61 FASTENING KIT METRIC BOLT | CODE 62 FASTENING KIT METRIC BOLTS |
|---------------------|-----------|---------------------------------------|--------------------------------------|---|--|
| inch | | PART NO | PART NO | PART NO | PART NO |
| 3/4 | -12 | | FK62L-12 | | FK62LM-12 |
| 1 | -16 | FK61L-16 | FK62L-16 | FK61LM-16 | FK62LM-16 |
| 1.1/4 | -20 | FK61L-20 | FK62L-20 | FK61LM-20 | FK62LM-20 |
| 1.1/2 | -24 | FK61L-24 | FK62L-24 | FK61LM-24 | FK62LM-24 |
| 2 | -32 | FK61L-32 | FK62L-32 | FK61LM-32 | FK62LM-32 |

R1620 EASY TEST – TEST HOSE AND HOSE ASSEMBLIES

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RT7 TEST HOSE FOR R1620 EASY TEST

RECOMMENDED FOR:

Connections between Test Points and pressure measuring gauges and transducers; or between Test Points and control, charging or pilot lines.

TUBE:

Black, oil resistant seamless thermoplastic (Polyamide).

REINFORCEMENT:

One braid of synthetic yarn (Polyester).

COVER:

Black, oil and abrasion resistant thermoplastic (Polyamide).

TEMPERATURE RANGE:

From -35°C to +100°C (-31°F to +212°F) continuous.
From -35°C to +120°C (-31°F to +248°F) intermittent.

WORKING PRESSURE:

Maximum Working Pressures as shown below are dependent on temperature. Refer to chart below for adjustment factors.

COUPLINGS:

7200 Series Two Piece Crimp page 378.
Contact RYCO for assembly instructions.

RT7-M HOSE WORKING PRESSURES AND DIMENSIONS

| RT7 - M TEST HOSE | | | | | | | | | | | | | |
|-------------------|-----------|-----------------|-----------------|---------------------------------------|----------------------------------|----------------|---------------------------|------------|-----------|-------------|-------------|--------------|------------------|
| PART NO | HOSE SIZE | NOMINAL HOSE ID | NOMINAL HOSE OD | MAXIMUM WORKING PRESSURE ¹ | MINIMUM BEND RADIUS ² | AVERAGE WEIGHT | COUPLING SERIES TWO-PIECE | | | | | | |
| Hose | DN | Dash | mm | inch | mm | inch | bar | psi | mm | inch | kg/m | lb/ft | NON-SKIVE |
| RT7-M02 | 2 | -02 | 2,0 | 5/64 | 5,0 | 0.17 | 630 | 9135 | 20 | 0.79 | 0,016 | 0.011 | 7200 |
| RT7-M04 | 4 | -04 | 4,0 | 5/32 | 8,6 | 0.34 | 380 | 5510 | 40 | 1.57 | 0,042 | 0.028 | 7200 |

NOTE:

1) PRESSURES are for temperature of +30°C to +50°C (+86°F to +122°F).
If working temperature is not in this range, use the working pressures as shown in the table below.
2) Minimum Bend Radii, when operating at temperatures at or below -20°C (-4°F) are; RT7-M02 = 30mm (1.18"); RT7-M04 = 60mm (2.36").

| PART NO | FROM -35°C TO 0°C (-31°F TO +32°F) | | FROM 0°C TO 30°C (+32°F TO +86°F) | | FROM +30°C TO +50°C (+86°F TO +122°F) | | FROM +50°C TO +80°C (+122°F TO +176°F) | | FROM +80°C TO +100°C (+176°F TO +212°F) | |
|----------------|------------------------------------|-------|-----------------------------------|-------|---------------------------------------|------|--|------|---|------|
| | bar | psi | bar | psi | bar | psi | bar | psi | bar | psi |
| RT7-M02 | 768 | 11140 | 693 | 10050 | 630 | 9135 | 542 | 7860 | 485 | 7030 |
| RT7-M04 | 463 | 6710 | 418 | 6060 | 380 | 5510 | 327 | 4740 | 293 | 4250 |

R1621/R1622 - TEST HOSE ASSEMBLIES

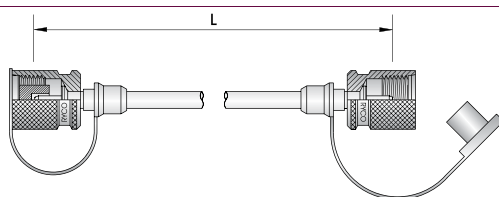
Two combinations of hose couplings with **RT7-M02** Test Hose Assemblies are available as easy to order assemblies:

HOSE ASSEMBLY R1621-XXXX

7262-M0216 (M16x2,0) swivels both ends (replace xxxx with the length required in mm)

Standard lengths available are:

R1621-200, 400, 600, 800, 1000, 1200, 1500, 2000, 2500, 3000, 4000, 5000, 6000

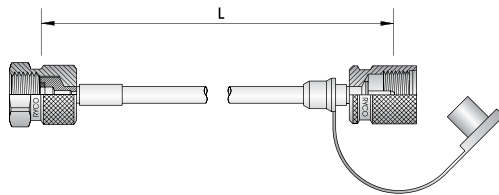


HOSE ASSEMBLY R1622-XXXX

7262-M0216 (M16x2,0) swivel one end, 7202G-M0204 (1/4" BSP Gauge) swivel other end (replace xxxx with the length required in mm)

Standard lengths available are:

R1622-200, 400, 600, 800, 1000, 1200, 1500, 2000, 2500, 3000, 4000, 5000, 6000



OTHER COUPLING COMBINATIONS

Other couplings combinations can be ordered as hose assemblies using, Hose Part No*Length*Coupling End 1*Coupling End 2 for example **RT7-M02*3000*7204-M0207*7262-M0216**

ACCESSORIES

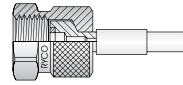
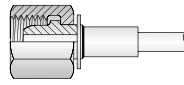
R1620 EASY TEST – COUPLINGS FOR TEST HOSES

BSP/BSP GAUGE

7202

7202G

PLASTIC PLUG INCLUDED



| HOSE PART NO | THREAD SIZE | DASH SIZE | BSPP FEMALE SWIVEL 60° CONE SEAT | BSPP FEMALE SWIVEL GAUGE SEAT |
|--------------|-------------|-----------|----------------------------------|-------------------------------|
| | inch | | PART NO | PART NO |
| RT7-M02 | 1/4 | -M0204 | 7202-M0204 | 7202G-M0204 |
| RT7-M02 | 1/2 | -M0208 | | 7202G-M0208 |
| RT7-M04 | 1/4 | -M0404 | 7202-M0404 | 7202G-M0404 |

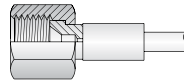
JIC

7204

ACCESSORIES

750-M

PLASTIC PLUG INCLUDED



| HOSE PART NO | THREAD SIZE | DASH SIZE | JIC FEMALE SWIVEL 37° SEAT |
|--------------|-------------|-----------|----------------------------|
| | inch | | PART NO |
| RT7-M02 | 7/16 | -M0207 | 7204-M0207 |
| RT7-M02 | 9/16 | -M0209 | 7204-M0209 |
| RT7-M04 | 7/16 | -M0407 | 7204-M0407 |
| RT7-M04 | 9/16 | -M0409 | 7204-M0409 |

| HOSE PART NO | BEND RESTRICTOR SPRING |
|--------------|------------------------|
| | PART NO |
| RT7-M02 | 750-M02 |
| RT7-M04 | 750-M04 |

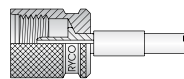
METRIC M16X2,0

7262

ACCESSORIES

CP01

CP01-M02
PLASTIC PLUG INCLUDED



| HOSE PART NO | THREAD SIZE | DASH SIZE | METRIC SUITS M16X2,0 TEST POINT |
|--------------|-------------|-----------|---------------------------------|
| | mm | | PART NO |
| RT7-M02 | M16x2,0 | -M0216 | 7262-M0216 |
| RT7-M04 | M16x2,0 | -M0416 | 7262-M0416 |

| HOSE PART NO | PLASTIC PLUG M16X2,0 WITH PLASTIC COLLAR |
|--------------|--|
| | PART NO |
| RT7-M02 | CP01-M02 |

NOTE: CP01-M02 is included with 7262-M0216. 750-M Spring must be ordered separately.

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TECHNICAL

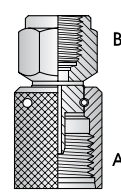
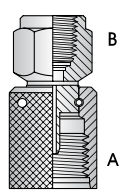
DIRECT GAUGE ADAPTORS

C81

C81N

PLASTIC PLUG INCLUDED

Direct Gauge Adaptors allow the connection of a Pressure Gauge directly to a Test Point. The Pressure Gauge can be oriented to face any particular direction by adjustment of the Swivel Nut.



| THREAD SIZE | | DASH SIZE | M16X2,0 FEMALE BSPP FEMALE | M16X2,0 FEMALE NPT FEMALE |
|-------------|-------------|-----------|----------------------------|---------------------------|
| A | B | | PART NO | PART NO |
| | inch | | | |
| M16x2,0 | 1/4 BSPP | -1604 | C81-1604 | |
| M16x2,0 | 1/2 BSPP | -1608 | C81-1608 | |
| M16x2,0 | 1/4 NPT | -1604 | | C81N-1604 |

JOINER/CONVERSION ADAPTORS

C27

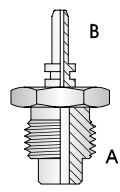
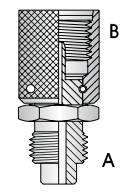
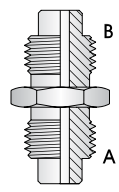
C80

C99

PLASTIC PLUG INCLUDED

Joiners allow the connection of two female hose couplings with M16x2,0 threads.

Conversion Adaptors allow the interconnection of other series of Test Points with threads other than M16x2,0.

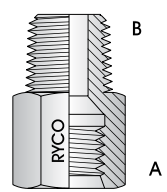


| THREAD SIZE | | DASH SIZE | JOINER | CONVERSION ADAPTOR | CONVERSION ADAPTOR |
|-------------|------------|-----------|-----------------|--------------------|--------------------|
| A | B | | PART NO | PART NO | PART NO |
| M16x2,0 | M16x2,0 | -1616 | C27-1616 | | |
| S12,65x1,5 | M16x2,0 | -1216 | | C80-1216 | |
| M16x2,0 | S12,65x1,5 | -1612 | | C80-1612 | |
| M16x2,0 | M16x1,5 | -1615 | | C80-1615 | |
| M16x2,0 | PLUG IN | -16SK | | | C99-16SK |

REDUCING ADAPTOR

C24

C24-1004 can be used with many other RYCO M and S Series adaptors, allowing **R1620-MR10** Test Points to be plumbed into the hydraulic system.



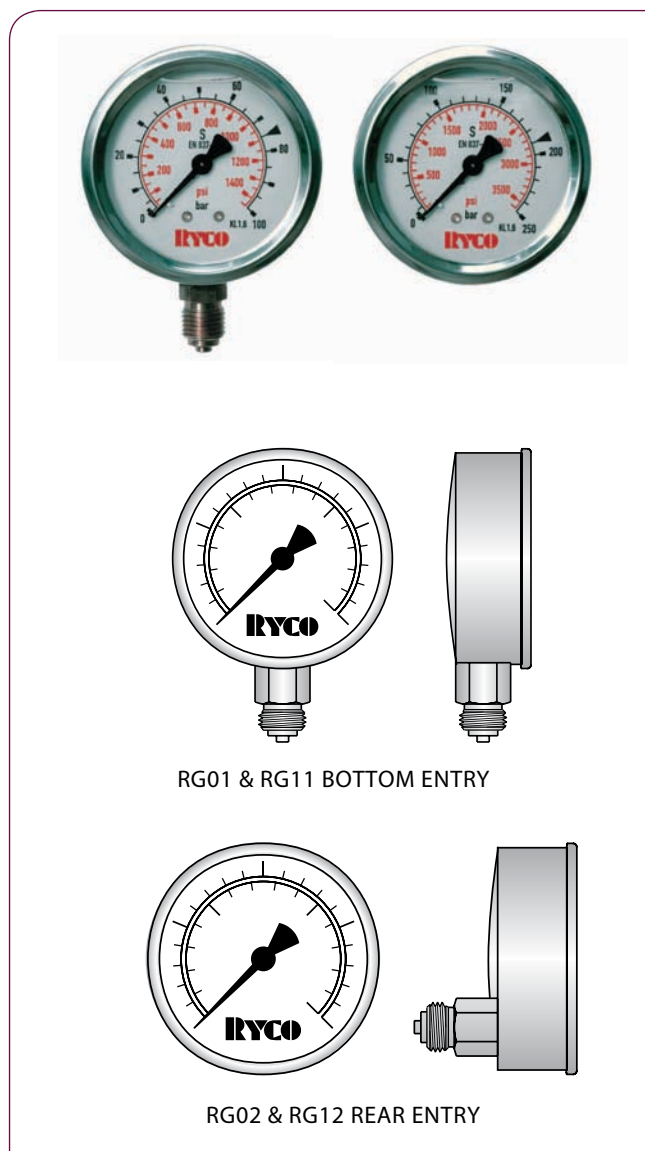
| THREAD SIZE | | DASH SIZE | M10X1,0 FIXED FEMALE BSPT MALE |
|-------------|-----|-----------|--------------------------------|
| A | B | | PART NO |
| M10x1,0 | 1/4 | -1004 | C24-1004 |

ACCESSORIES

R1620 - RG01 PRESSURE GAUGE AND TEST KITS

RG01 PRESSURE GAUGE FOR R1620 EASY TEST

63 MM & 100 MM



RG01 & RG11 BOTTOM ENTRY

RG02 & RG12 REAR ENTRY

TECHNICAL DATA

CASE:

Stainless Steel.
O Ring seal between case and entry stem.
Pressure relief in case top.

RG01 & RG02: 63 mm

RG11 & RG12: 100 mm.

WINDOW:

Clear plastic.

SCALE MARKINGS:

Dual scale. Marked in bar (outer scale) and psi (inner scale).

CONNECTING THREAD:

RG01: Brass, bottom entry 1/4" BSPP.

RG02: Brass, rear entry 1/4" BSPP.

RG11: Brass, bottom entry 1/2" BSPP.

RG12: Brass, rear entry 1/2" BSPP.

DAMPING:

Glycerine filled.

ACCURACY CLASS:

RG01 & RG02: ±1.6% of full scale, per EN 837-1/6

RG11 & RG12: ±1.0% of full scale, per EN 837-1/6

Test Certificate available on request (charges apply).

OPERATING TEMPERATURE RANGE:

From -20°C to +60°C (-4°F to +140°F).

WORKING PRESSURE:

| | 63 MM GAUGES | 100 MM GAUGES |
|---------------------|-------------------------|--------------------------|
| Steady: | 3/4 of full scale value | full scale value |
| Fluctuating: | 2/3 of full scale value | 90% of full scale value |
| Short time: | full scale value | 130% of full scale value |

NOTE: A Triangle symbol is marked on the face of the Pressure Gauge at the reading for steady operation. The Pressure Gauge must not be continually subjected to pressures above this reading in accordance with the guidelines above, or damage to the Bourdon Tube may occur.

| PRESSURE RANGE | DASH SIZE | 63 MM DIAMETER 1/4" BSPP | | 100 MM DIAMETER 1/2" BSPP | |
|----------------|-----------|--------------------------|-----------------|---------------------------|-----------------|
| | | BOTTOM ENTRY | REAR ENTRY | BOTTOM ENTRY | REAR ENTRY |
| bar | | PART NO | PART NO | PART NO | PART NO |
| -1 to 3 | -003 | RG01-003 | RG02-003 | RG11-003 | RG12-003 |
| 0 to 10 | -010 | RG01-010 | RG02-010 | RG11-010 | RG12-010 |
| 0 to 16 | -016 | RG01-016 | RG02-016 | RG11-016 | RG12-016 |
| 0 to 25 | -025 | RG01-025 | RG02-025 | RG11-025 | RG12-025 |
| 0 to 40 | -040 | RG01-040 | RG02-040 | RG11-040 | RG12-040 |
| 0 to 60 | -060 | RG01-060 | RG02-060 | RG11-060 | RG12-060 |
| 0 to 100 | -100 | RG01-100 | RG02-100 | RG11-100 | RG12-100 |
| 0 to 160 | -160 | RG01-160 | RG02-160 | RG11-160 | RG12-160 |
| 0 to 250 | -250 | RG01-250 | RG02-250 | RG11-250 | RG12-250 |
| 0 to 400 | -400 | RG01-400 | RG02-400 | RG11-400 | RG12-400 |
| 0 to 600 | -600 | RG01-600 | RG02-600 | RG11-600 | RG12-600 |

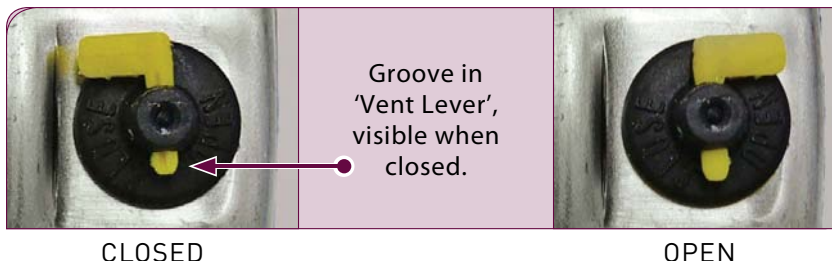
R1620 - RG01 PRESSURE GAUGE AND TEST KITS

CASE PRESSURE RELIEF INSTRUCTIONS

RYCO Pressure Gauges feature a Case Pressure Relief to allow the Bourdon Tube to expand and contract during operation.

During normal operation, the yellow 'Vent Lever' needs to be moved to the 'OPEN' position to allow the case to 'breathe', see picture on right.

NOTE: On initial supply the indicator may not be on 'zero', to correct this simply open the 'Vent Lever' to relieve the case pressure.



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HOSE

WALL AND PANEL MOUNT BRACKETS AND FLANGES



| PART NUMBER | DESCRIPTION |
|-------------|--|
| RG01-WMOUNT | BRACKET WALL MOUNT 63MM GAUGE |
| RG02-FMOUNT | FLANGE 3H PANEL MOUNT 63MM REAR ENTRY |
| RG02-PMOUNT | BRACKET PANEL MOUNT 63MM REAR ENTRY |
| RG11-WMOUNT | BRACKET WALL MOUNT 100MM GAUGE |
| RG12-FMOUNT | FLANGE 3H PANEL MOUNT 100MM REAR ENTRY |
| RG12-PMOUNT | BRACKET PANEL MOUNT 100MM REAR ENTRY |

COUPLINGS

ADAPTORS

RG01-COVER/RG11-COVER PRESSURE GAUGE COVERS

RECOMMENDED FOR:

Helps protect RYCO Pressure Gauges in situations where they may be subjected to knocks in harsh environments. The cover easily fits over the Pressure Gauge; installation can be prior to, or after connecting the Pressure Gauge.

RG01-COVER suits RG01 & RG02 Series 63 mm Gauges,
RG11-COVER suits RG11 & RG12 Series 100 mm Gauges.

CONSTRUCTION:

Blue, synthetic rubber.



ACCESSORIES

FILTERS

PRESSURE TEST KITS

R1620 EASY TEST Test Points, InLine Test Point Adaptors, Test Hoses, Adaptors and Pressure Gauges supplied in a Protective Case are available. Contact RYCO Customer Service Department for details.

TECHNICAL

ACCESSORIES

POPPET CHECK VALVE QUICK RELEASE COUPLINGS

R80, R81, R82, R85 & R86

POPPET CHECK VALVE QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

General purpose steel hydraulic couplings. Heavy Duty Plating. Typical applications include; industrial equipment, hydraulic hand tools, agricultural machinery, construction and mobile plant, hydraulic cylinders, test rigs and power packs, logging equipment, mining machinery, oil processing and steel production.

FEATURES:

- **Poppet Check Valves** with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.
- **Single Acting Sleeve** is manually retracted to connect, or disconnect.
- **Push/Pull Sleeve** can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.
- 1/2" Nominal Body Sizes can be mounted in dual breakaway bracket, protecting hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor. See page 386.
- **RYCO Quick Release Couplings** have full spanner hex for ease of installation and extra balls in locking mechanism for extra security.
- Couplings are able to swivel when unpressurised, reducing hose kinking and twisting. This feature reduces twist on the hose; the couplings should not be used as swivel joints.
- -08,-12 & -16 Nominal Body Sizes of R81, R82, R85 & R86 Series can be interconnected to same Nominal Body Size.
- Individual Nominal Body Sizes of R80, R81, R82 & R86 Series, and -08, 12 & -16 Nominal Body Sizes of R85 Series, can be connected to same Nominal Body Size of R91, R94 & R96 Series (Ball Check Valves), however the lower of the flow rates and working pressures apply.

TECHNICAL DATA

SEALS:

Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.

OPERATING TEMPERATURE RANGE:

From -25°C to +125°C (-13°F to +257°F).

WORKING PRESSURE:

See chart on opposite page.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 400 and 402. Improved flow and less pressure drop compared to Ball Type Check Valves.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

SPECIFICATIONS AND CROSS REFERENCE:

R85 Series: all sizes conform to ISO Type A and cross reference with other ISO Type A couplings.

R80, R81, R82 & R86 Series: 1/2", 3/4" & 1" Nominal Body sizes conform to ISO Type A and cross reference with other ISO Type A couplings. 1/4", 3/8" & 1/2" Nominal Body sizes cross reference with Pioneer and Safeway. See pages 388 and 389 for cross reference listing.

POPPET CHECK VALVE QUICK RELEASE COUPLINGS

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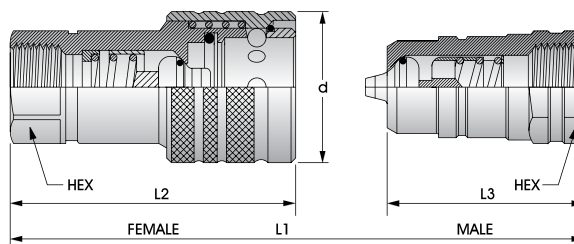
FILTERS

TECHNICAL

SINGLE ACTING SLEEVE POPPET CHECK VALVE

Single Acting Sleeve is manually retracted to connect, or disconnect.

Poppet Check Valves with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.

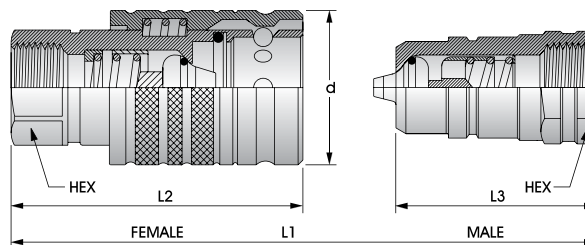


| FEMALE THREAD SIZE | NOM. BODY SIZE | RYCO PART NUMBER | | | MAXIMUM WORKING PRESSURE | | d | L1 | L2 | L3 | SPANNER HEX SIZE |
|--------------------|----------------|------------------|----------|-------------------|--------------------------|------|--------------------|-------------------------|--------------------|-----------------|------------------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | bar | psi | DIAMETER OF SLEEVE | LENGTH COUPLED TOGETHER | LENGTH FEMALE BODY | LENGTH MALE TIP | |
| inch | inch | | | | bar | psi | mm | mm | mm | mm | Hex |
| 1/4 BSPP | 1/4 | R80-04F | R80-04M | R80-04FM | 350 | 5100 | 27 | 76 | 56 | 38 | 19 |
| 3/8 BSPP | 3/8 | R80-06F | R80-06M | R80-06FM | 350 | 5100 | 34 | 85 | 63 | 43 | 24 |
| 1/2 BSPP | 1/2 | R81-08F | R81-08M | R81-08FM | 300 | 4350 | 38 | 96 | 70 | 48 | 27 |
| 3/4 BSPP | 3/4 | R82-12F | R82-12M | R82-12FM | 250 | 3625 | 45 | 114 | 85 | 57 | 34 |
| 1 BSPP | 1 | R82-16F | R82-16M | R82-16FM | 250 | 3625 | 52 | 131 | 99 | 65 | 41 |
| 1/4 NPT | 1/4 | R85-04F | R85-04M | R85-04FM | 350 | 5100 | 26 | 70 | 49 | 35 | 19 |
| 3/8 NPT | 3/8 | R85-06F | R85-06M | R85-06FM | 350 | 5100 | 30 | 85 | 61 | 43 | 22 |
| 3/4 NPT | 3/4 | R85-12F | R85-12M | R85-12FM | 250 | 3625 | 45 | 114 | 85 | 57 | 34 |
| 1 NPT | 1 | R85-16F | R85-16M | R85-16FM | 250 | 3625 | 52 | 131 | 99 | 65 | 41 |
| 3/4 UNO | 1/2 | R86-12F | R86-12M | R86-12FM | 300 | 4350 | 38 | 96 | 70 | 48 | 27 |

PUSH/PULL SLEEVE POPPET CHECK VALVE

Push/Pull Sleeve can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.

Poppet Check Valves with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.



| FEMALE THREAD SIZE | NOM. BODY SIZE | RYCO PART NUMBER | | | MAXIMUM WORKING PRESSURE | | d | L1 | L2 | L3 | SPANNER HEX SIZE |
|--------------------|----------------|------------------|----------|-------------------|--------------------------|------|--------------------|-------------------------|--------------------|-----------------|------------------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | bar | psi | DIAMETER OF SLEEVE | LENGTH COUPLED TOGETHER | LENGTH FEMALE BODY | LENGTH MALE TIP | |
| inch | inch | | | | bar | psi | mm | mm | mm | mm | Hex |
| 1/2 BSPP | 1/2 | R81-08P | R81-08M | R81-08PM | 300 | 4350 | 38 | 96 | 70 | 48 | 27 |
| 1/2 NPT | 1/2 | R85-08P | R85-08M | R85-08PM | 300 | 4350 | 38 | 96 | 70 | 48 | 27 |
| 3/4 UNO | 1/2 | R86-12P | R86-12M | R86-12PM | 300 | 4350 | 38 | 96 | 70 | 48 | 27 |
| 7/8 UNO | 1/2 | R86-14P | R86-14M | R86-14PM | 300 | 4350 | 38 | 110 | 74 | 58 | 30 |

ACCESSORIES

BALL CHECK VALVE QUICK RELEASE COUPLINGS

R91, R94 & R96

BALL CHECK VALVE QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

General purpose steel hydraulic couplings. Heavy Duty Plating. Typical applications include; industrial equipment, hydraulic hand tools, agricultural machinery, construction and mobile plant, hydraulic cylinders, test rigs and power packs, logging equipment, mining machinery, oil processing and steel production.

FEATURES:

- **Ball Check Valves** are precision machined for long reliable life (some slight weeping may occur if couplings are pressurised when disconnected). Check Valves automatically close on disconnection, and open on connection.
- **Single Acting Sleeve** is manually retracted to connect, or disconnect.
- **Push/Pull Sleeve** can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.
- 1/2" Nominal Body Sizes can be mounted in dual breakaway bracket, protecting hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor. See page 386.
- RYCO Quick Release Couplings have full spanner hex for ease of installation and extra balls in locking mechanism for extra security
- Couplings are able to swivel when unpressurised, reducing hose kinking and twisting. This feature is to reduce twist on hose; the couplings should not be used as swivel joints.
- Individual Nominal Body Sizes of R91, R94 & R96 Series can be interconnected. Can be connected to same Nominal Body Size of R80, R81, R82, R86, and -08, -12 & -16 Nominal Body Sizes of R85 Series (Poppet Check Valves), however the lower of the flow rates and working pressures apply.

TECHNICAL DATA

SEALS:

Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.

OPERATING TEMPERATURE RANGE:

From -25°C to +125°C (-13°F to +257°F).

WORKING PRESSURE:

See chart on opposite page.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 400 and 402.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

SPECIFICATIONS AND CROSS REFERENCE:

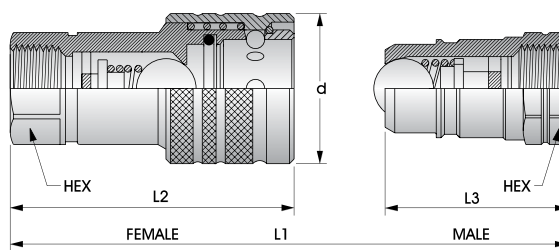
1/2", 3/4" & 1" Nominal Body sizes conform to ISO Type A and cross reference with other ISO Type A couplings. 1/4", 3/8" & 1/2" Nominal Body sizes cross reference with Pioneer and Safeway. See pages 388 and 389 for cross reference listing.

BALL CHECK VALVE QUICK RELEASE COUPLINGS

SINGLE ACTING SLEEVE BALL CHECK VALVE

Single Acting Sleeve is manually retracted to connect, or disconnect.

Ball Check Valves are precision machined for long reliable life (some slight weeping may occur if couplings are pressurised when disconnected). Check Valves automatically close on disconnection, and open on connection.

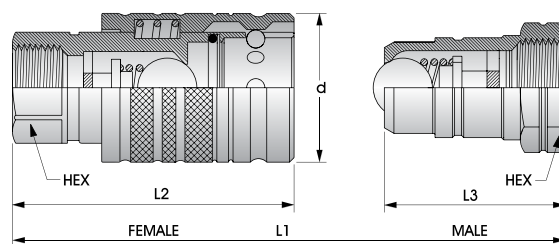


| FEMALE THREAD SIZE | NOM. BODY SIZE | RYCO PART NUMBER | | | MAXIMUM WORKING PRESSURE | | d DIAMETER OF SLEEVE | L1 LENGTH COUPLED TOGETHER | L2 LENGTH FEMALE BODY | L3 LENGTH MALE TIP | SPANNER HEX SIZE |
|--------------------|----------------|------------------|----------|-------------------|--------------------------|------|----------------------|----------------------------|-----------------------|--------------------|------------------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | bar | psi | | | | | |
| 1/2 BSPP | 1/2 | R91-08F | R91-08M | R91-08FM | 250 | 3625 | 38 | 96 | 70 | 48 | 27 |
| 1/4 NPTF | 1/4 | R94-04F | R94-04M | R94-04FM | 350 | 5100 | 27 | 76 | 56 | 38 | 19 |
| 3/8 NPTF | 3/8 | R94-06F | R94-06M | R94-06FM | 250 | 3625 | 34 | 85 | 63 | 43 | 24 |
| 1/2 NPTF | 1/2 | R94-08F | R94-08M | R94-08FM | 250 | 3625 | 38 | 96 | 70 | 48 | 27 |

PUSH/PULL SLEEVE BALL CHECK VALVE

Push/Pull Sleeve can be moved in either direction to connect, or disconnect. When sleeve is held firmly by hand, or in a bracket, Male Tip will simply push in to connect to Female Body.

Ball Check Valves are precision machined for long reliable life (some slight weeping may occur if couplings are pressurised when disconnected). Check Valves automatically close on disconnection, and open on connection.



| FEMALE THREAD SIZE | NOM. BODY SIZE | RYCO PART NUMBER | | | MAXIMUM WORKING PRESSURE | | d DIAMETER OF SLEEVE | L1 LENGTH COUPLED TOGETHER | L2 LENGTH FEMALE BODY | L3 LENGTH MALE TIP | SPANNER HEX SIZE |
|--------------------|----------------|------------------|----------|-------------------|--------------------------|------|----------------------|----------------------------|-----------------------|--------------------|------------------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | bar | psi | | | | | |
| 1/2 BSPP | 1/2 | R91-08P | R91-08M | R91-08PM | 250 | 3625 | 38 | 96 | 70 | 48 | 27 |
| 1/2 NPTF | 1/2 | R94-08P | R94-08M | R94-08PM | 250 | 3625 | 38 | 96 | 70 | 48 | 27 |
| 3/4 UNO | 1/2 | R96-12P | R96-12M | R96-12PM | 250 | 3625 | 38 | 96 | 70 | 48 | 27 |

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QUICK RELEASE COUPLINGS – ACCESSORIES & SPARE PARTS

R81-08CPM CONNECT UNDER PRESSURE MALE TIP

These Male Tips are able to be connected to the Female Body, even if there is residual pressure in the Male Tip provided that the circuit has been switched off or isolated, i.e. the pump is turned off and circuit is not being supplied with pressure and flow; they are not designed to be connected under pressure while the circuit is operating.

A secondary valve in the poppet of the Male allows sufficient oil to escape to unload the pressure inside the Male Tip at the moment of connecting (same dimensions as **R81-08M** and **R85-08M** on page 382).



RB BREAKAWAY BRACKETS AND BREAKAWAY KITS

RB-08P DUAL 1/2 INCH KIT

Comprises: 2 x **R81-08PM** Female & Male Couplers Push/Pull
 1 x **RB-08X** Bracket
 4 x **C38X** Circlips
 2 x **RDP-08** Dust Plugs
 2 x **RDC-08** Dust Caps

ALSO AVAILABLE SEPARATELY:

RB-08 DUAL BRACKET FOR 1/2 INCH COUPLINGS (includes 4 Circlips)



1/2" Nominal Body Size Quick release Couplings can be mounted in dual breakaway bracket, by means of circlips around sleeve. This protects hose from damage if subjected to excessive pulling force, allowing coupling halves to break apart, eg. a towed farm implement disconnecting from tractor.

A Push/Pull Sleeve coupling mounted in breakaway bracket will allow male tip to push-to-connect. A Single Acting coupling requires coupling to be pushed forward from behind breakaway bracket to connect.

ACCESSORIES AND SPARE PARTS

| PACK PART NO | PACK CONTAINS | | SUITS |
|-------------------|---------------|---|---|
| R80D-04TO | 5 ea | -04 O Ring and Teflon Back Up Washer | R80-04F, R94-04F |
| R80D-06TO | 5 ea | -06 O Ring and Teflon Back Up Washer | R80-06F, R94-06F |
| R81D-08TO | 5 ea | -08 O Ring and Teflon Back Up Washer | R81-08F, R86-12F, R94-08F NOTE: Also suits newer Push/Pull Sleeve Couplings with lip. R81-08P, R85-08P, R86-12P, R91-08F, R91-08P, R94-08P, R96-12P |
| R81D-08PTO | 5 ea | -08 O Ring and Teflon Back Up Washer Push/Pull Sleeve | R81-08P, R85-08P, R86-12P, R91-08F, R91-08P, R94-08P, R96-12P NOTE: Suits older Push/Pull Sleeve couplings without lip. If coupling has lip in front of O Ring, use R81D-08TO . |
| R82D-12TO | 5 ea | -12 O Ring and Teflon Back Up Washer | R82-12F, R85-12F |
| R82D-16TO | 5 ea | -16 O Ring and Teflon Back Up Washer | R82-16F, R85-16F |
| R85D-04TO | 5 ea | -04 O Ring and Teflon Back Up Washer | R85-04F |
| R85D-06TO | 5 ea | -06 O Ring and Teflon Back Up Washer | R85-06F |
| R86D-14SK | 5 ea | -14 Seal Kit (O Ring and Teflon Back Up Washer) | R86-14F |

NOTE: O Rings and Back Up Washers; sold in packs only

ACCESSORIES AND SPARE PARTS (CONT)

RUBBERISED DUST CAPS AND PLUGS
QDPC = BLACK DUST PLUG/CAP
RDP = RED DUST PLUG
RDC = RED DUST CAP



QDPC Black Dust Plug/Cap shown

| BLACK NUMBER | RED NUMBER | SUITS |
|----------------|---------------|---|
| QDPC-04 | | R80-04F, R85-04F, R94-04F |
| | | R80-04M, R85-04M, R94-04M |
| QDPC-06 | | R80-06F, R85-06F, R94-06F |
| | | R80-06M, R85-06M, R94-06M |
| QDPC-08 | RDP-08 | R81-08F, R81-08P, R85-08P, R86-12F, R86-12P, R86-14P, R91-08F, R91-08P, R96-12P, R94-08F, R94-08P |
| | RDC-08 | R81-08M, R85-08M, R86-12M, R86-14M, R91-08M, R94-08M, R96-12M |
| QDPC-12 | | R82-12F, R85-12F |
| | | R82-12M, R85-12M |
| QDPC-16 | | R82-16F, R85-16F |
| | | R82-16M, R85-16M |

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QUICK RELEASE COUPLINGS - SERIES TECHNICAL DATA

CROSS REFERENCE CHART

All standards specify the dimensions of Male Tips. Female Bodies are not dimensioned and are designed to accept Male Tips.

| RYCO PART NO | | | PARKER/PIONEER PART NO | | SAFEWAY PART NO | | |
|--|----------------|-----------------|------------------------|-------------|-----------------|---------|----------|
| FEMALE | MALE | COMPLETE | FEMALE | MALE | FEMALE | MALE | COMPLETE |
| 1/4" INDUSTRIAL/AGRICULTURAL | | | | | | | |
| R80-04F | R80-04M | R80-04FM | 4050-2P | 4010-2P | | | |
| R94-04F | R94-04M | R94-04FM | 4050-2 | 4010-2 | S45-2 | S41-2 | S40-2 |
| 3/8" INDUSTRIAL/AGRICULTURAL | | | | | | | |
| R80-06F | R80-06M | R80-06FM | 4050-3P* | 4010-3P* | | | |
| R94-06F | R94-06M | R94-06FM | 4050-3 | 4010-3 | S45-3 | S41-3 | S40-3 |
| 1/4" ISO A CONFORMS TO ISO 7241-1 SERIES A | | | | | | | |
| R85-04F | R85-04M | R85-04FM | 6601-4-4 | 6602-4-4 | S565-2 | S561-2 | S56-2 |
| 3/8" ISO A CONFORMS TO ISO 7241-1 SERIES A | | | | | | | |
| R85-06F | R85-06M | R85-06FM | 6601-6-6 | 6602-6-6 | S565-3 | S561-3 | S56-3 |
| 1/2" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675, AS2393, SAE J1036 | | | | | | | |
| R81-08F | R81-08M | R81-08FM | 6601-8-10* | 6602-8-10* | S25-4P* | S71-4P* | S20-4P* |
| R81-08P | R81-08M | R81-08PM | | | S45-4P* | S71-4P* | S40-4P* |
| R85-08P | R85-08M | R85-08PM | 6601-8-10 | 6602-8-10 | S565-4 | S561-4 | S56-4 |
| R86-12F | R86-12M | R86-12FM | 6608-8-10 | 6610-8-10 | S25-15P | S71-15P | S20-15P |
| R86-12P | R86-12M | R86-12PM | | | S45-15P | S71-15P | S40-15P |
| R91-08F | R91-08M | R91-08FM | 4050-4* | 8010-4* | S25-4* | S71-4* | S20-4* |
| R91-08P | R91-08M | R91-08PM | 4250-4* | 8010-4* | S45-4* | S71-4* | S40-4* |
| R94-08F | R94-08M | R94-08FM | 4050-4 | 8010-4 | S25-4 | S71-4 | S20-4 |
| R94-08P | R94-08M | R94-08PM | 4250-4 | 8010-4 | S45-4 | S71-4 | S40-4 |
| R96-12P | R96-12M | R96-12PM | 4050-15 | 8010-15 | S45-15 | S71-15 | S40-15 |
| 3/4" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675 | | | | | | | |
| R82-12F | R82-12M | R82-12FM | 6601-12-12* | 6602-12-12* | S565-6* | S561-6* | S56-6* |
| R85-12F | R85-12M | R85-12FM | 6601-12-12 | 6602-12-12 | S565-6 | S561-6 | S56-6 |
| 1" ISO A CONFORMS TO ISO 7241-1 SERIES A | | | | | | | |
| R82-16F | R82-16M | R82-16FM | 6601-16-16* | 6602-16-16* | S565-8* | S561-8* | S56-8* |
| R85-16F | R85-16M | R85-16FM | 6601-16-16 | 6602-16-16 | S565-8 | S561-8 | S56-8 |

NOTE: *Indicates; for Cross Referenced coupling, RYCO Coupling is BSPP threadform, Competitor's Coupling is NPT threadform.

QUICK RELEASE COUPLINGS - SERIES TECHNICAL DATA

CROSS REFERENCE CHART

All standards specify the dimensions of Male Tips. Female Bodies are not dimensioned and are designed to accept Male Tips.

| RYCO PART NO | | | AEROQUIP PART NO | | | FASTER PART NO | |
|--|----------------|-----------------|------------------|------------------|-----------------|----------------|-----------|
| FEMALE | MALE | COMPLETE | FEMALE | MALE | COMPLETE | FEMALE | MALE |
| 1/4" INDUSTRIAL/AGRICULTURAL | | | | | | | |
| R80-04F | R80-04M | R80-04FM | FD42-1001-04-04* | FD42-1002-04-04* | FD42-100-04-04* | NV14GAS | NV14GASM |
| 1/4" INDUSTRIAL/AGRICULTURAL | | | | | | | |
| R80-06F | R80-06M | R80-06FM | | | | NV38GASF | NV38GASM |
| 1/4" ISO A CONFORMS TO ISO 7241-1 SERIES A | | | | | | | |
| R85-04F | R85-04M | R85-04FM | 5601-4-4S | 5602-4-4S | 5600-4-4S | ANV14NPTF | ANV14NPTM |
| 3/8" ISO A CONFORMS TO ISO 7241-1 SERIES A | | | | | | | |
| R85-06F | R85-06M | R85-06FM | 5601-6-6S | 5602-6-6S | 5600-6-6S | ANV38NPTF | ANV38NPTM |
| 1/2" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675, AS2393, SAE J1036 | | | | | | | |
| R81-08F | R81-08M | R81-08FM | | | | ANV12GASF | ANV12GASM |
| R81-08P | R81-08M | R81-08PM | 5622-8-10S | 5623-8-10S* | | PV12GASF | NV12GASM |
| R85-08P | R85-08M | R85-08PM | 5601-8-10S | 5602-8-10S | 5600-8-10S | ANV12NPTF | ANV12NPTM |
| R86-12P | R86-12M | R86-12PM | 5608-8-10S | 5610-8-10S | 5606-8-10S | | |
| R91-08P | R91-08M | R91-08PM | | | | PS12GASF | NS12GASM |
| R94-08P | R94-08M | R94-08PM | | | | PS12NPTF | NS12NPTM |
| 3/4" ISO A CONFORMS TO ISO 7241-1 SERIES A, ISO 5675 | | | | | | | |
| R82-12F | R82-12M | R82-12FM | 5622-12-12S | 5623-12-12S* | | ANV34GASF | ANV34GASM |
| R85-12F | R85-12M | R85-12FM | 5601-12-12S | 5602-12-12S | 5600-12-12S | ANV34NPTF | ANV34NPTM |
| 1" ISO A CONFORMS TO ISO 7241-1 SERIES A | | | | | | | |
| R82-16F | R82-16M | R82-16FM | 5622-16-16S | 5623-16-16S* | | ANV1GASF | ANV1GASM |
| R85-16F | R85-16M | R85-16FM | 5601-16-16S | 5602-16-16S | 5600-16-16S | ANV1NPTF | ANV1NPTM |

NOTE: *Indicates; for Cross Referenced coupling, RYCO Coupling is BSPP threadform, Competitor's Coupling is NPT threadform.

RECOMMENDED MAXIMUM PRESSURE FOR CONNECTION & DISCONNECTION

Trapped pressure in couplers may make it difficult to connect or disconnect. Shown below are ISO Recommended Maximum Internal Pressure for Connection and Disconnection by hand.

| NOMINAL BODY SIZE | | RECOMMENDED MAX PRESSURE | | NOMINAL BODY SIZE | | RECOMMENDED MAX PRESSURE | |
|-------------------|-----|--------------------------|--|-------------------|-----|--------------------------|--|
| inch | bar | psi | | inch | bar | psi | |
| 1/4" | 10 | 145 | | 3/4" | 3,2 | 45 | |
| 3/8" & 1/2" | 6,3 | 90 | | 1" | 2,5 | 35 | |

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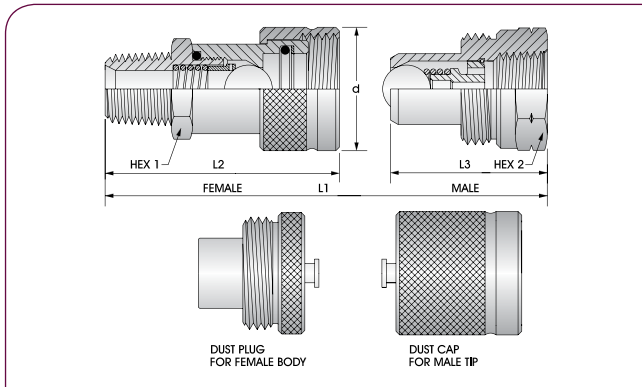
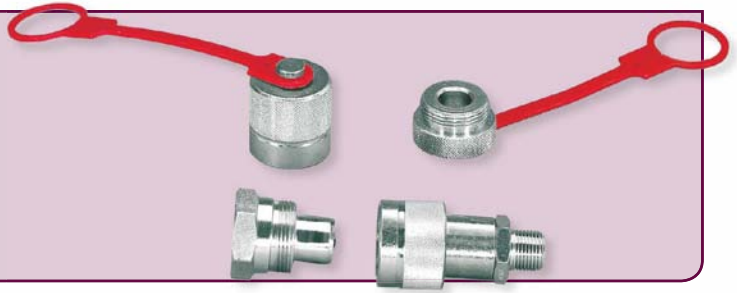
TECHNICAL

ACCESSORIES

10,000 PSI SCREW TOGETHER QUICK RELEASE COUPLINGS

R100

10,000 PSI
SCREW TOGETHER
QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

Designed for use in high pressure applications on portable cylinders, rams, pumps, and hydraulic rescue equipment where low flow rates and pressures up to 700 bar/10,000 psi are involved. Heavy Duty Silver colour plating.

FEATURES:

- Threaded Sleeve on Female Body engages thread on Male Tip. When sleeve is screwed completely up, the two coupling halves are secured together, and the ball check valves open. Can connect and disconnect with residual pressure in lines.
- Precision ball type check valves.
- Metal Threaded Dust Caps, and Dust Plugs, complete with plastic retaining loop are available.
- Female Body is male threaded to screw directly into cylinder or ram.
- Male Tip is female threaded to screw directly onto male threaded hose fitting.

TECHNICAL DATA

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

SEALS:

Nitrile (Buna N) O Rings. Back Up Washer prevents extrusion of O Ring at high pressures.

OPERATING TEMPERATURE RANGE:

From -20°C to +125°C (-4°F to +257°F).

WORKING PRESSURE:

See chart at right.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 400 and 402.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

CROSS REFERENCE:

R100-06 cross reference see page opposite.

10,000 PSI SCREW TOGETHER QUICK RELEASE COUPLINGS

PART NUMBERS AND SPECIFICATIONS

| THREAD SIZE | NOM. BODY SIZE | RYCO PART NUMBER | | | | | MAXIMUM WORKING PRESSURE | |
|-------------|----------------|------------------|-----------------|-------------------|----------------------|-------------------|--------------------------|-------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | DUST PLUG FOR FEMALE | DUST CAP FOR MALE | bar | psi |
| 1/4 NPTF | 3/8 | R100-04F | R100-04M | R100-04FM | R100-06DP | R100-06DC | 700 | 10000 |
| 3/8 NPTF | 3/8 | R100-06F | R100-06M | R100-06FM | R100-06DP | R100-06DC | 700 | 10000 |

| THREAD SIZE | NOM. BODY SIZE | d DIAMETER OF SLEEVE | DIAMETER MALE TIP | DIMENSIONS | | | L1 LENGTH COUPLED TOGETHER | L2 LENGTH FEMALE BODY | L3 LENGTH MALE TIP |
|-------------|----------------|----------------------|-------------------|------------|------|----|----------------------------|-----------------------|--------------------|
| | | | | HEX 1 | HEX2 | mm | | | |
| 1/4 NPTF | 3/8 | 35 | 19 | 24 | 32 | 89 | 74 | 40,5 | |
| 3/8 NPTF | 3/8 | 35 | 19 | 24 | 32 | 87 | 72 | 40,5 | |

CROSS REFERENCE CHART

| | FEMALE BODY | MALE TIP | COMPLETE COUPLING | MALE & FEMALE WITH DUST CAP & PLUG | DUST PLUG | DUST CAP |
|-----------------------|-----------------|-----------------|-------------------|------------------------------------|------------------|------------------|
| RYCO | R100-06F | R100-06M | R100-06FM | R100-06FMPC | R100-06DP | R100-06DC |
| ENERPAC | CR-400 | CH-604 | | C-604 | CD-411 | CD-411 |
| POWERTEAM | 9796 | 9798 | | 9795 | 9797 | 9799 |
| PARKER/PIONEER | 3050-3 | 3010-3 | | | 3005-3 | 3009-3 |
| SAFEWAY | S35-3P | S31-3P | S30-3P | | S34-3 | S39-3 |
| FASTER | PWM1/38NPTF | PWM-38NPTM | PWM-38NPT | | | |

SPARE PARTS AND ACCESSORIES

| PACK PART NO | PACK CONTAINS | | SUITS |
|-------------------|---------------|----------------------------------|--------------------|
| R100D-06TO | 5 ea | O Ring and Teflon Back Up Washer | R100-06F, R100-04F |

NOTE: O Rings and Back Up Washers; sold in packs only

NOTE:
R100-04FMPC is complete 1/4" Male and Female Coupling, with Dust Plug and Dust Cap.
R100-06FMPC is complete 3/8" Male and Female Coupling, with Dust Plug and Dust Cap.

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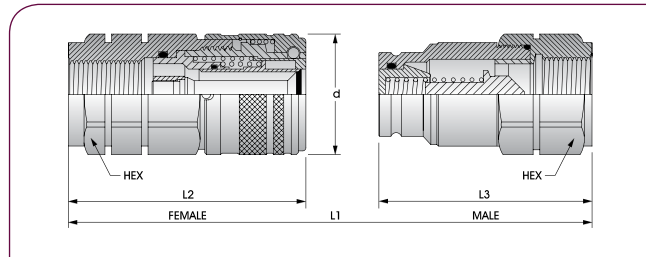
TECHNICAL

ACCESSORIES

FLAT FACE VALVE QUICK RELEASE COUPLINGS

R110

FLAT FACE VALVE QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

Wherever hydraulic oil spillage is a safety, or environmental hazard, either in plant or in the field. Flat Face Valve design minimises fluid loss on disconnection for a cleaner, safer environment. Recommended for quick changeover of hydraulic hand tools in “cherry picker” platforms, and in the mining, road construction and maintenance fields, as well as many industrial applications.

FEATURES:

- Heavy Duty Plating.
- High flow rates with low pressure loss.
- Low fluid spillage and air inclusion during connection and disconnection.
- Easily cleaned exterior surfaces reduce possibility of contamination of hydraulic system.
- Easy, one-handed automatic push-to-connect operation when either half of coupling is solid mounted. Sleeve does not have to be retracted to enable connection. Connects against 17,2 bar/250 psi static pressure.
- Rotating Sleeve Lock safety feature (simply rotate the retracting sleeve) guards against unintentional disconnection. Cannot be disconnected unless pin and recess on sleeve are aligned.
- To disconnect, rotate the sleeve to align pin and recess on sleeve. Pull back the sleeve and the halves pop apart.

TECHNICAL DATA

CONNECTION AND DISCONNECTION:

Connects against 17,2 bar/250 psi static pressure.

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

OPERATING TEMPERATURE RANGE:

From -20°C to +125°C (-4°F to +257°F).

WORKING PRESSURE:

See chart at right.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 401 and 402.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

SPECIFICATIONS:

All sizes comply with ISO 16028.

3/8" Nominal Body size also conforms to HTMA dimensions (Hydraulic Tool Manufacturers Association), and Specification ANSI/NFPA T3.20.15-1991.

CROSS REFERENCE:

RYCO R110 Series cross reference with the following Series: Parker FEM, Snaptite 74, Aeroquip FD 89, Faster FFI/FFN, Safeway FF/FFE 491/495. RYCO R110 Series will cross reference with other couplings manufactured to comply with ISO 16028.



Dust Cap
Accessories

FLAT FACE VALVE QUICK RELEASE COUPLINGS

PART NUMBERS AND SPECIFICATIONS

| FEMALE THREAD SIZE BSPP | NOM. BODY SIZE | RYCO PART NUMBER | | | MAXIMUM WORKING PRESSURE | |
|----------------------------------|----------------------|-------------------|-------------------|----------------------|-----------------------------|------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | bar | psi |
| 1/4 | 1/4 | R110-0404F | R110-0404M | R110-0404FM | 400 | 5800 |
| 3/8 | 3/8 | R110-0606F | R110-0606M | R110-0606FM | 350 | 5100 |
| 1/2 | 3/8 | R110-0608F | R110-0608M | R110-0608FM | 350 | 5100 |
| 1/2 | 1/2 | R110-0808F | R110-0808M | R110-0808FM | 350 | 5100 |
| 3/4 | 1/2 | R110-0812F | R110-0812M | R110-0812FM | 350 | 5100 |
| 3/4 | 3/4 | R110-1212F | R110-1212M | R110-1212FM | 350 | 5100 |
| 1 | 3/4 | R110-1216F | R110-1216M | R110-1216FM | 350 | 5100 |
| 1.1/4 | 1 | R110-1620F | R110-1620M | R110-1620FM | 350 | 5100 |

| THREAD SIZE | NOM. BODY SIZE | DIMENSIONS | | | | |
|----------------|----------------------|----------------------------|---------------------|-------------------------------------|--------------------------------|-----------------------------|
| | | d DIAMETER OF SLEEVE | SPANNER HEX SIZE | L1 LENGTH COUPLED TOGETHER | L2 LENGTH FEMALE BODY | L3 LENGTH MALE TIP |
| 1/4 | 1/4 | 28 | 22 | 100 | 59 | 52 |
| 3/8 | 3/8 | 32 | 30 | 118 | 74 | 61 |
| 1/2 | 3/8 | 32 | 30 | 118 | 74 | 61 |
| 1/2 | 1/2 | 38 | 36 | 143 | 87 | 73 |
| 3/4 | 1/2 | 38 | 36 | 143 | 87 | 73 |
| 3/4 | 3/4 | 48 | 41 | 154 | 95 | 81 |
| 1 | 3/4 | 48 | 41 | 154 | 95 | 81 |
| 1.1/4 | 1 | 55 | 55 | 177 | 110 | 90 |

SPARE PARTS AND ACCESSORIES

| PACK PART NO | PACK CONTAINS | | SUITS |
|--------------------|---------------|---------------------------|---------------------------|
| R110D-04MTO | 5 ea | O Ring and Back Up Washer | R110-0404M |
| R100D-06MTO | 5 ea | O Ring and Back Up Washer | R110-0606M & R110-0608M |
| R110D-08MTO | 5 ea | O Ring and Back Up Washer | R110-0808M & R110-0812M |
| R110D-12MTO | 5 ea | O Ring and Back Up Washer | R110-1212M & R110-1216M |
| R110-06MC | Dust Cap | | R110-0606M and R110-0608M |
| R110-06FC | Dust Cap | | R110-0606F and R110-0608F |
| R110-08MC | Dust Cap | | R110-0808M and R110-0812M |
| R110-08FC | Dust Cap | | R110-0808F and R110-0812F |

NOTE: O Rings and Back Up Washers; sold in packs only

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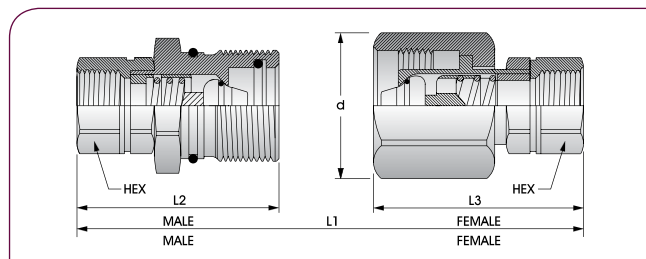
TECHNICAL

ACCESSORIES

THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS

R120

THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

High pressure applications involving pressure impulses requiring Heavy Duty hydraulic quick release couplings. Rugged thread-to-connect operation allows higher working pressures, and improved performance under pressure impinging conditions. Threaded nut on Female Body engages thread on Male Tip. When nut is screwed completely up, the two coupling halves are secured together, and the Poppet Check Valves open to allow flow.

FEATURES:

- Poppet Check Valves with rubber poppet seal. Check Valves automatically close on disconnection, and open on connection.
- An external O Ring on Male Tip seals inside swivel nut on Female Body to exclude dust and foreign matter from threads.
- Soft Plastic Dust Caps and Dust Plugs are available.

TECHNICAL DATA

CONNECTION AND DISCONNECTION:

Possible with trapped circuit pressure of up to 103 bar (1500 psi), provided that pump is turned off and circuit is not being supplied with pressure and flow.

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

SEALS:

Nitrile (Buna N) O Ring female body seal. Back Up Washer prevents extrusion of O Ring at high pressure.

OPERATING TEMPERATURE RANGE:

From -20°C to +125°C (-4°F to +257°F).

WORKING PRESSURE:

See chart on page opposite.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 401 for Pressure Drop and page 402. for Nominal Flow Rates.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS

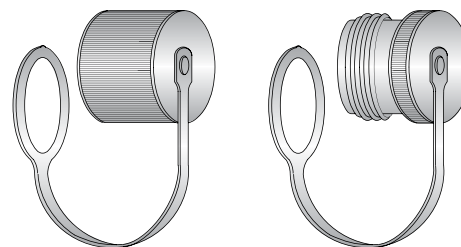
PART NUMBERS AND SPECIFICATIONS

| FEMALE THREAD SIZE BSPP | NOM. BODY SIZE | RYCO PART NUMBER | | | MAXIMUM WORKING PRESSURE | |
|----------------------------------|----------------------|------------------|-----------------|----------------------|-----------------------------|------------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | bar | psi |
| inch | inch | | | | bar | psi |
| 1/2 | 1/2 | R120-08F | R120-08M | R120-08FM | 400 | 5800 |
| 3/4 | 1 | R120-12F | R120-12M | R120-12FM | 300 | 4350 |
| 1 | 1 | R120-16F | R120-16M | R120-16FM | 300 | 4350 |

| THREAD SIZE | NOM. BODY SIZE | DIMENSIONS | | | | |
|----------------|----------------------|----------------------------|---------------------|-------------------------------------|------------------------------|-------------------------------|
| | | d DIAMETER OF SLEEVE | SPANNER HEX SIZE | L1 LENGTH COUPLED TOGETHER | L2 LENGTH MALE BODY | L3 LENGTH FEMALE TIP |
| inch | inch | mm | mm | mm | mm | mm |
| 1/2 | 1/2 | 42 | 30 | 102 | 66 | 63 |
| 3/4 | 1 | 55 A/F | 41 | 153 | 100 | 87 |
| 1 | 1 | 55 A/F | 41 | 153 | 100 | 87 |

SPARE PARTS AND ACCESSORIES

O RING DUST SEALS, O RINGS, BACK UP WASHERS, DUST CAPS, DUST PLUGS (DUST CAP SHOWN AT LEFT, DUST PLUG SHOWN AT RIGHT)



| PACK PART NO | PACK CONTAINS | | SUITS |
|-------------------|---------------|---|-----------------------|
| R120-08DP | Dust Cap | | R120-08F |
| R120-08DC | Dust Cap | | R120-08M |
| R120-16DP | Dust Cap | | R120-12F and R120-16F |
| R120-16DC | Dust Cap | | R120-12M and R120-16M |
| R120D-08SK | 5ea | O Ring Dust Seals, O Ring, Back Up Washer | R120-08M |
| R120D-16SK | 5ea | O Ring Dust Seals, O Ring, Back Up Washer | R120-12M and R120-16M |

NOTE: R120-08F Sleeve is Round. R120-12F and R120-16F Sleeve is Hex.

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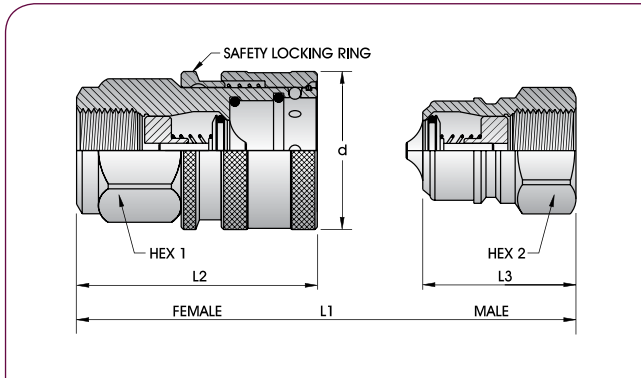
TECHNICAL

ACCESSORIES

HIGH FLOW QUICK RELEASE COUPLINGS

R130

HIGH FLOW QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

RYCO R130 High Flow Quick Release Couplings are general purpose steel hydraulic couplings, recommended for use in applications where high flow and low pressure drop are important. Typical applications are mobile plant including tip trucks; industrial equipment; test rigs and power packs; logging and mining; greasing equipment; oil processing; and steel production.

FEATURES:

- Double O Rings in Female Body seal against Male Tip for extra fluid security.
- Single Acting Sleeve is manually retracted to connect or disconnect.
- Safety Locking Ring safety feature (move the Safety Locking Ring forward until it meets the Sleeve, then rotate clockwise approximately 60°. This helps prevent the Coupling from being disconnected unintentionally).
- Poppet Check Valves feature rubber poppet seal for improved sealing when disconnected.
- Check Valves automatically close on disconnection and open on connection.

TECHNICAL DATA

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

SEALS:

Two Nitrile (Buna N) O Rings.
Back Up Washer -06 and -08 sizes.

OPERATING TEMPERATURE RANGE:

From -20°C to +125°C (-4°F to +257°F).

WORKING PRESSURE:

See chart on page opposite.

PRESSURE DROP AND NOMINAL FLOW RATES:

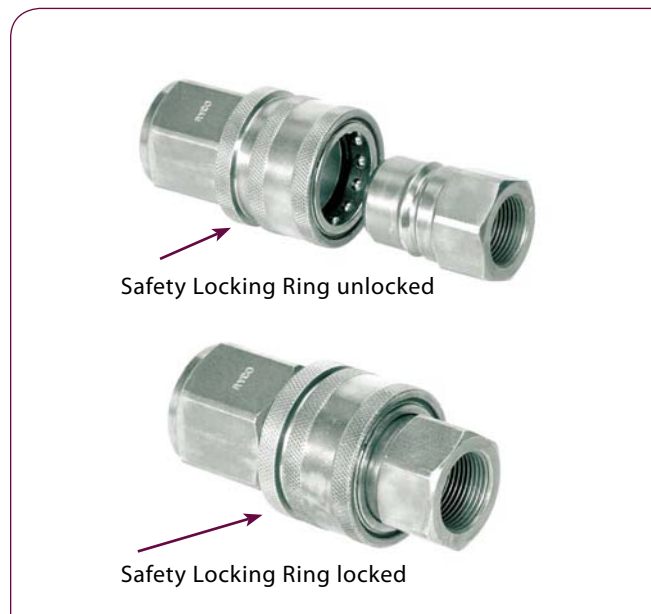
See page 401 for Pressure Drop and page 402. for Nominal Flow Rates.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

CROSS REFERENCE:

TEMA 3800, 5000, 7500 and 10000 series.
See table on page opposite.



HIGH FLOW QUICK RELEASE COUPLINGS

PART NUMBERS AND SPECIFICATIONS

| FEMALE THREAD SIZE BSPP | NOM. BODY SIZE | RYCO PART NUMBER | | | MAXIMUM WORKING PRESSURE | |
|----------------------------------|----------------------|------------------|-----------------|----------------------|-----------------------------|------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | bar | psi |
| inch 3/8 | inch 3/8 | R130-06F | R130-06M | R130-06FM | 350 | 5100 |
| 1/2 | 1/2 | R130-08F | R130-08M | R130-08FM | 300 | 4350 |
| 3/4 | 3/4 | R130-12F | R130-12M | R130-12FM | 280 | 4060 |
| 1 | 1 | R130-16F | R130-16M | R130-16FM | 250 | 3630 |

| THREAD SIZE | NOM. BODY SIZE | d DIAMETER OF SLEEVE | DIMENSIONS | | | L1 LENGTH COUPLED TOGETHER | L2 LENGTH MALE BODY | L3 LENGTH FEMALE TIP |
|----------------|----------------------|----------------------------|---------------------|----------|------------|-------------------------------------|------------------------------|-------------------------------|
| | | | SPANNER HEX SIZE | | | | | |
| | | | 1 | 2 | | | | |
| inch 3/8 | inch 3/8 | mm 35 | mm 30 | mm 22 | mm 81.5 | mm 64 | mm 40.5 | |
| 1/2 | 1/2 | 40 | 36 | 27 | 83 | 66.5 | 41.5 | |
| 3/4 | 3/4 | 52 | 42 | 36 | 112 | 85 | 56 | |
| 1 | 1 | 65 | 55 | 46 | 126 | 99 | 63 | |

CROSS REFERENCE CHART

| RYCO PART NO | TEMA PART NO | RYCO PART NO | TEMA PART NO |
|-----------------|--------------|-----------------|--------------|
| R130-06F | 3810 | R130-12F | 7510 |
| R130-06M | 3820 | R130-12M | 7520 |
| R130-08F | 5010 | R130-16F | 10010 |
| R130-08M | 5020 | R130-16M | 10020 |

SPARE PARTS AND ACCESSORIES

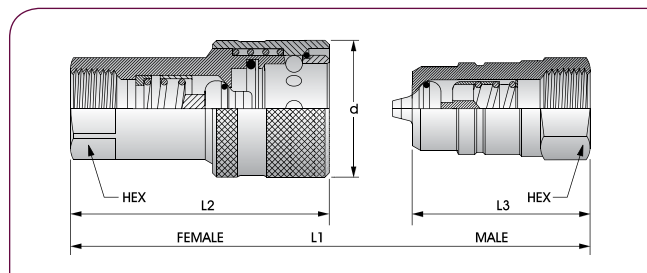
| PACK PART NO | PACK CONTAINS | | SUITS |
|-------------------|---------------|---------------------------------------|----------|
| R130D-06SK | 5ea | Seal Kit (O Rings and Back Up Washer) | R130-06F |
| R130D-08SK | 5ea | Seal Kit (O Rings and Back Up Washer) | R130-08F |
| R130D-12SK | 5ea | Seal Kit (2 different size O Rings) | R130-12F |
| R130D-16SK | 5ea | Seal Kit (2 same size O Rings) | R130-16F |

ACCESSORIES

PBR INTERCHANGE QUICK RELEASE COUPLINGS

R140

PBR INTERCHANGE QUICK RELEASE COUPLINGS



RECOMMENDED FOR:

Truck and trailer applications, particularly in Australia and New Zealand. Also suitable for medium pressure general hydraulic systems.

FEATURES:

- Poppet Check Valves with rubber poppet seal for improved sealing when disconnected. Check Valves automatically close on disconnection, and open on connection.
- Single Acting Sleeve is manually retracted to connect, or disconnect.
- RYCO Quick Release Couplings have full spanner hex for ease of installation and extra balls in locking mechanism for extra security.
- Couplings are able to swivel when unpressurised, reducing hose kinking and twisting. This feature reduces twist on the hose; the couplings should not be used as swivel joints.

TECHNICAL DATA

FEMALE BODY AND MALE TIP:

Steel, zinc plated and passivated (CrVI free) for corrosion resistance.

SEALS:

Nitrile O-Ring. Back up washer prevents extrusion of O-Ring at high pressures.

OPERATING TEMPERATURE RANGE:

From -25°C to +125°C (-13°F to +257°F).

WORKING PRESSURE:

See chart at right.

PRESSURE DROP AND NOMINAL FLOW RATES:

See page 400 and 401.

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

SPECIFICATIONS AND CROSS REFERENCE:

RYCO R140 Series cross reference with the following Series: PBR 3310, Faster NZ, Stucchi IRN.

PBR INTERCHANGE QUICK RELEASE COUPLINGS

| FEMALE THREAD SIZE | NOM. BODY SIZE | RYCO PART NUMBER | | | MAXIMUM WORKING PRESSURE | | d DIAMETER OF SLEEVE | L1 LENGTH COUPLED TOGETHER | L2 LENGTH FEMALE BODY | L3 LENGTH MALE TIP | SPANNER HEX SIZE |
|--------------------------|----------------------|-------------------|-------------------|----------------------|--------------------------------|------|-------------------------------|-------------------------------------|--------------------------------|-----------------------------|---------------------|
| | | FEMALE BODY | MALE TIP | COMPLETE COUPLING | bar | psi | mm | mm | mm | mm | Hex |
| 1 BSPP | 1 | R140-1616F | R140-1616M | R140-1616FM | 300 | 4350 | 64,5 | 132,6 | 108 | 66 | 46 |

INTRODUCTION

SPARE PARTS AND ACCESSORIES

| PACK PART NO | PACK CONTAINS | SUITS |
|------------------|--|-------------------|
| R140-16SK | 5 ea Seal Kit (O Rings and Back Up Washer) | R140-1616F |
| R140-16MC | Dust Cap Male | R140-1616M |
| R140-16FC | Dust Cap Female | R140-1616F |

NOTE: O Rings and Back Up Washers; sold in packs only

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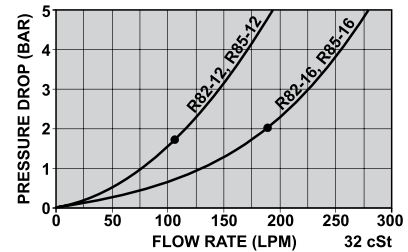
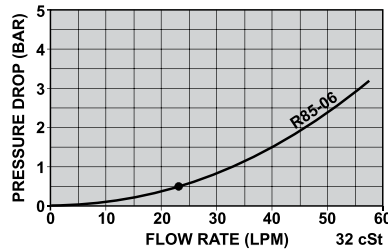
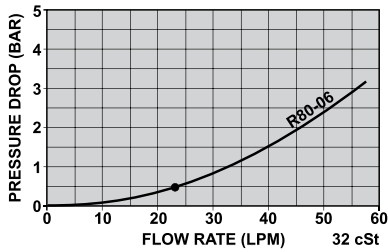
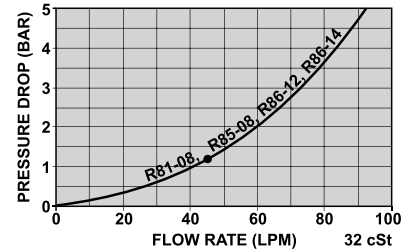
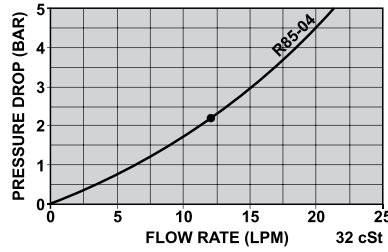
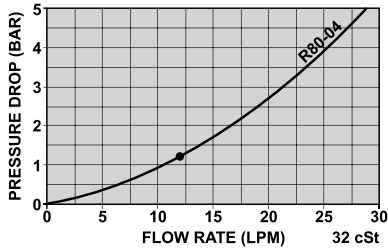
TECHNICAL

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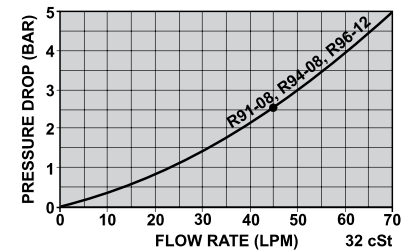
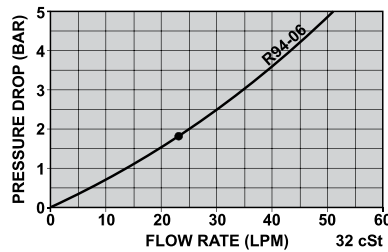
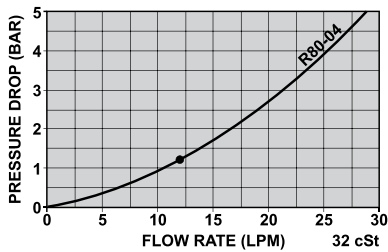
PRESSURE DROP GRAPHS

NOTE: The point marked on the Flow Rate curve is the Nominal Flow Rate value based on maximum flow velocity of oil through the coupling of 9 metres per second. It is the preferred Maximum Flow Rate for maximum life of seals. See page 402 for more information.

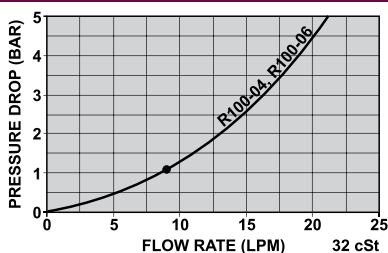
R80, R81, R82, R85 & R86 SERIES – POPPET CHECK VALVES



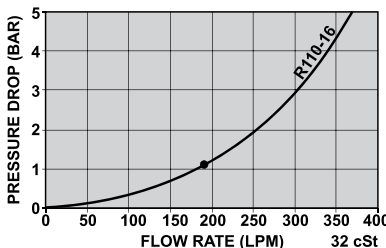
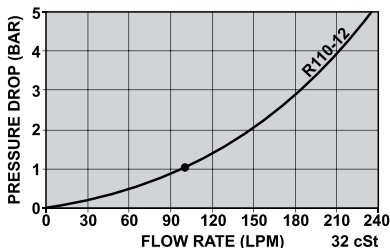
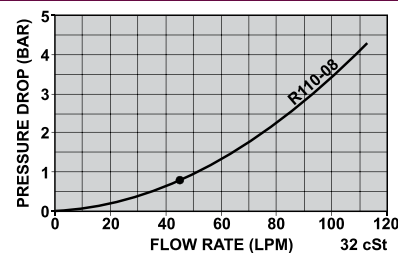
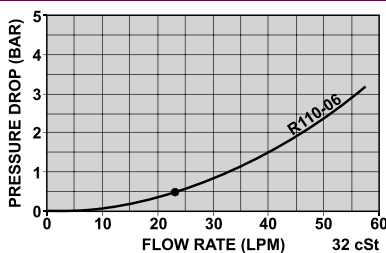
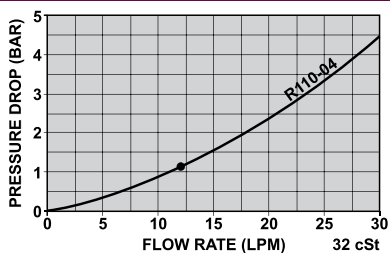
R91, R94 & R96 SERIES – BALL CHECK VALVES



R100 SERIES - 10,000 PSI SCREW TOGETHER QUICK RELEASE COUPLINGS

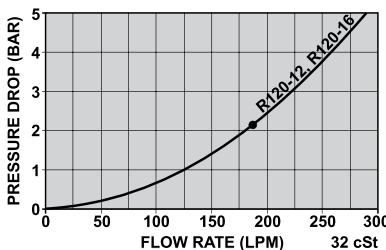
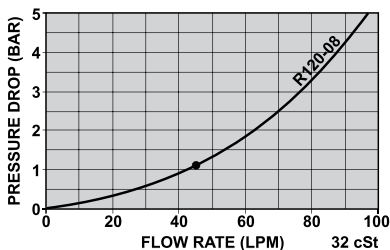


R110 SERIES - FLAT FACE VALVE QUICK RELEASE COUPLINGS

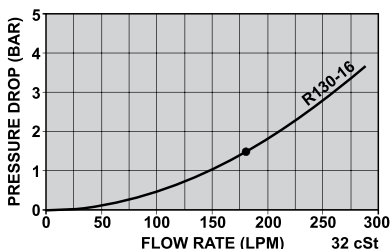
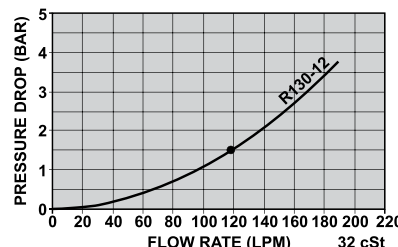
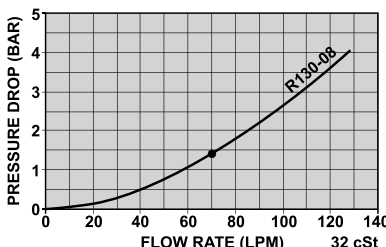
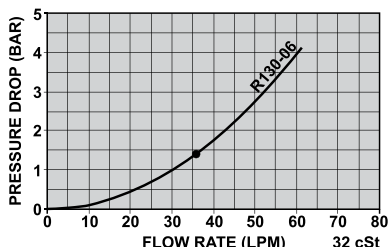


NOTE: Dash numbers for the R110 Series in these graphs refers to the Nominal Body Size of the Coupling, see page 392.

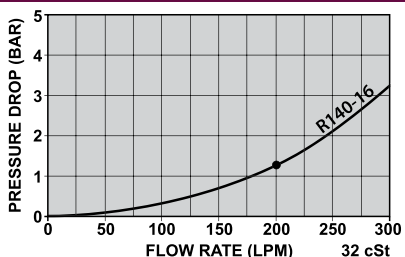
R120 SERIES - THREAD TO CONNECT HEAVY DUTY QUICK RELEASE COUPLINGS



R130 SERIES - HIGH FLOW QUICK RELEASE COUPLINGS



R140 SERIES - PBR INTERCHANGE QUICK RELEASE COUPLINGS



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NOMINAL FLOW RATES FOR QUICK RELEASE COUPLINGS

NOTE:

- Nominal Flow Rate values are based on maximum flow velocity of oil through the coupling of 9 metres per second. It is the preferred Maximum Flow Rate for maximum life of seals.
- Flow Rate For 2,0 bar Pressure Drop values may be used in some applications; but they may reduce seal life. Contact RYCO for more information.
- The data applies to oil of 32 centistoke viscosity, as specified in ISO 7241/2 Test Methods for Quick-action Couplings. For oils of viscosity other than 32 centistokes, the change in flow rate and pressure drop is NOT LINEAR. Contact RYCO for more information. See page 485 for graph of Viscosity Change with Temperature for popular mineral oil based hydraulic oils.
- To convert Litres per Minute to Gallons per Minute: for Imperial Gallons per Minute, divide Litres per Minute by 4.54, for US Gallons per Minute, divide Litres per Minute by 3.78

| PART NUMBER | NOMINAL BODY SIZE | NOMINAL FLOW RATE | PRESSURE DROP AT NOMINAL FLOW RATE | FLOW RATE FOR 2,0 BAR PRESSURE DROP |
|--|-------------------|--------------------------|------------------------------------|-------------------------------------|
| FOR OIL WITH 32 CENTISTOKE VISCOSITY | | | | |
| | inch | litres per minute | bar | psi |
| | | | | litres per minute |
| R80 SERIES POPPET CHECK VALVES | | | | |
| R80-04 | 1/4 | 12 | 1,3 | 18 |
| R80-06 | 3/8 | 23 | 0,5 | 8 |
| R81-08 | 1/2 | 45 | 1,3 | 18 |
| R82-12 | 3/4 | 106 | 1,8 | 26 |
| R82-16 | 1 | 189 | 2,0 | 30 |
| R85-04 | 1/4 | 12 | 2,3 | 33 |
| R85-06 | 3/8 | 23 | 0,5 | 8 |
| R85-08 | 1/2 | 45 | 1,3 | 18 |
| R85-12 | 3/4 | 106 | 1,8 | 26 |
| R85-16 | 1 | 189 | 2,0 | 30 |
| R86-12 | 1/2 | 45 | 1,3 | 18 |
| R86-14 | 1/2 | 45 | 1,3 | 18 |
| R90 SERIES BALL CHECK VALVES | | | | |
| R91-08 | 1/2 | 30 | 1,3 | 18 |
| R94-04 | 1/4 | 11 | 2,0 | 29 |
| R94-06 | 3/8 | 21 | 1,6 | 23 |
| R94-08 | 1/2 | 30 | 1,3 | 18 |
| R96-12 | 1/2 | 30 | 1,3 | 18 |
| R100 SERIES 10,000 psi SCREW TOGETHER | | | | |
| R100-04 | 3/8 | 8,6 | 1,1 | 16 |
| R100-06 | 3/8 | 8,6 | 1,1 | 16 |
| R110 SERIES FLAT FACE VALVES | | | | |
| R110-04 | 1/4 | 12 | 1,3 | 19 |
| R110-06 | 3/8 | 23 | 0,5 | 8 |
| R110-08 | 1/2 | 45 | 0,9 | 13 |
| R110-12 | 3/4 | 100 | 1,1 | 16 |
| R110-16 | 1 | 189 | 1,2 | 17 |
| R120 SERIES HEAVY DUTY SCREW TOGETHER | | | | |
| R120-08 | 1/2 | 45 | 1,1 | 16 |
| R120-12 | 1 | 189 | 2,1 | 31 |
| R120-16 | 1 | 189 | 2,1 | 31 |
| R130 SERIES HIGH FLOW POPPET CHECK VALVES | | | | |
| R130-06 | 3/8 | 36 | 1,4 | 20 |
| R130-08 | 1/2 | 70 | 1,4 | 20 |
| R130-12 | 3/4 | 118 | 1,5 | 22 |
| R130-16 | 1 | 180 | 1,5 | 22 |

RCS & RCD

MOUNTING CLAMPS SINGLE
MOUNTING CLAMPS DOUBLE



RCS Series - Single (left) and RCD Series - Double (right)

RECOMMENDED FOR:

Fast, economic and safe mounting of hydraulic hose and hydraulic tube onto machinery and steelwork. The jaws of the clamp grip the hose or tube to reduce vibration, and help absorb noise and shocks.

ORDERING DETAILS:

ORDER AS COMPLETE CLAMPS:

RCSD and **RCDD** are packs of 5 complete clamps. ("D" is added after RCS and RCD, for example RCSD-06 is a pack of components for 5 complete RCS-06 clamps.) Complete Clamps are supplied unassembled.

ORDER AS INDIVIDUAL COMPONENTS:

Standard Pack Size for Components is 50 pieces for Groups 1 to 3, and 25 pieces for Groups 4 and 5.

SIZE SELECTION:

RCS Series Clamps are available with nominal diameters from 6 mm to 50,8 mm, **RCD** Series Clamps are available with nominal diameters from 6 mm to 42 mm. The Nominal Diameter Size of the Clamp is the minimum diameter range of the Clamp, for example, a 20 mm clamp suits Outside Diameters from 20,0 mm up to 21,9 mm. After assembly, the two Jaw halves of a correctly chosen Clamp should not contact each other.

TECHNICAL DATA

SPECIFICATION:

RCS and RCD Series Mounting Clamps comply with Specification DIN 3015.

OPERATING TEMPERATURE:

From -30°C to +90°C (-22°F to +194°F).

MATERIALS:

Bottom Plate:

Steel, zinc plated and passivated (CrVI free).

Jaws:

Green, polypropylene. Upper and lower jaws are identical, and size is moulded into each half. Black, self-extinguishing polyamide jaws, are available on request.

Top Plate:

Steel, zinc plated and passivated (CrVI free).

Bolts:

Steel, plated.

Rails:

Steel, unplated.

Rail Nuts:

Aluminium.

Stacking Plates:

Steel, zinc plated and passivated (CrVI free).

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RCS AND RCD MOUNTING CLAMPS - ASSEMBLY INSTRUCTIONS

ASSEMBLY INSTRUCTIONS

ASSEMBLY WITH BOTTOM PLATE.

Weld metal Bottom Plate in position. (Do not weld with Polypropylene Jaws in place). Position lower half of Jaws on Bottom Plate. Insert Hose or Tube. Position upper half of Jaws over Hose or Tube and secure in place with Top Plate and Bolt(s).

Clamps should be positioned both before and after bends, as near as possible to the bend.

ASSEMBLY WITH MOUNTING RAIL

Mounting Rail is available in lengths of 2 metres, and in three different heights. Mounting Rail can be welded on, or screwed on. Insert Rail Nut(s) into Mounting Rail, and when located in the correct position, twist Rail Nut in clockwise direction to lock it in place.

Then mount lower half of Jaws onto Rail Nut, insert Hose or Tube and position upper half of Jaws; secure in place with Top Plate and Bolt(s).

Clamps should be positioned both before and after bends, as near as possible to the bend.

ASSEMBLY WITH STACKING COMPONENTS

Fasten Bottom Plate or Mounting Rail & Rail Nuts. Position lower half of Jaws; then Hose or Tube; and then upper half of Jaws. Secure in place with Stacking Bolt(s), ensuring the extended hex of Stacking Bolt(s) protrudes above upper half of Jaws. Stacking Plate is then placed over Stacking Bolt(s) to prevent the Bolt(s) turning. The next Mounting Clamp can then be mounted on top of first clamp.

RCS Single Clamps must be of the same Group to be stacked on top of each other. RCD Double Clamps of different Groups of Groups 2 to 5 can be stacked. RCD Double Group 1 Clamps can only be stacked on other Double Group 1 Clamps.

Clamps should be positioned both before and after bends, as near as possible to the bend.

MOUNTING

Standard mounting is Weld On Bottom Plate. Can also be rail mounted, and can be stacked vertically on top of each other. For Groups 1-3 of RCS Series Single Clamps; Double Bottom Plates and Multiple Bottom Plates allow mounting of more than one Clamp on a common bottom plate.

RECOMMENDED SPACING AND BOLT TORQUE

| RECOMMENDED SPACING | |
|---------------------|---------------------------------|
| CLAMP | MAXIMUM DISTANCE BETWEEN CLAMPS |
| mm | mm |
| 6 to 14 | 900 |
| 15 to 22 | 1200 |
| 23 to 28 | 1500 |
| 30 to 38 | 2000 |
| 40 to 48,3 | 2500 |
| 50 to 57 | 3000 |

| RECOMMENDED BOLT TORQUE | | | | |
|--------------------------|------------|-----------|-----------------|--------|
| SERIES | | BOLT SIZE | TORQUE SETTINGS | |
| | | | Nm | ft.lbf |
| RCS Series Single Clamps | All Groups | M6 | 8 | 6 |
| RCD Series Double Clamps | Group 1 | M6 | 5 | 4 |
| RCD Series Double Clamps | Group 2-4 | M8 | 12 | 9 |
| RCD Series Double Clamps | Group 5 | M8 | 8 | 6 |

RIBBED AND SMOOTH BORE JAWS

On the following pages, Part Numbers for Complete Claps and Jaws are for standard ribbed jaws. Smooth Bore jaws are also available; simply add S to the end of the Part Number.

EXAMPLE 1:

RCS-06S is Part Number for complete clamp with smooth jaws.

RCS-06JS is Part Number for smooth jaws pair.

EXAMPLE 2:

RCD-06S is Part Number for complete clamp with smooth jaws.

RCD-06JS is Part Number for smooth jaws pair.



STANDARD RIBBED JAW



SMOOTH BORE JAW

RCS & RCD MOUNTING CLAMPS - HOSE COMPATIBILITY

HOSE COMPATIBILITY

| NOM CLAMP SIZE MM | SUITS HOSE TYPE & SIZE | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|----------|---------|---------|---------|---------|-----|-----|-------|------|----|------|-----|------|------|------|--|
| | T3000A/D/S | T3600A/D/S | T4000A/D/S | T5000A/D/S | T6000A/D/S | H3000A/D/S | H4000A/D/S | H5000A/D/S | H6000A/D/S | H12A/D/S | R45HA/D | R4SPA/D | T1A/D/S | T2A/D/S | T1F | T2C | TXA2D | DF2A | E2 | TJ2D | BT1 | RQP1 | RQP2 | RQP5 | |
| 10 | -4 | -4 | -4 | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.7 | | | | -4 | -4 | | | | | | | | | | | | | | | | | | | | |
| 14 | -5 | -5 | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | -6 | -6 | -5 | -5 | -5 | | | | | | | | | | | | | | | | | | | | |
| 16 | | | -6 | -6 | -6 | | | | | | | | | | | | | | | | | | | | |
| 18 | -8 | -8 | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | -8 | -8 | -8 | | | | | | | | | | | | | | | | | | | | |
| 22 | -10 | -10 | -10 | -10 | | | | | | | | | | | | | | | | | | | | | |
| 25.4 | -12 | -12 | | -12 | | | | | | | | | | | | | | | | | | | | | |
| 28 | | | -12 | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | -16 | -16 | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | | | -16 | | | | | | | | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | | | | | | | | | | | | |

| NOM CLAMP SIZE MM | SUITS HOSE TYPE & SIZE | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|------------------------|-----|-----|--------|--------|-----|-----|------|----|-----|----|-----|----|-----|------|-----|-----|-----------|-------------|-----------|-------------|--------|------|--|
| | RQP6 | T5 | D2B | MS1000 | CS1000 | TW1 | PW2 | RTH1 | SR | SRF | M1 | MP1 | M2 | PL1 | PL1D | M2G | FB2 | TP7, TP7N | TP7T, TP7TN | TP8, TP8N | TP8T, TP8TN | TP3000 | TPGL | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | |
| 12.7 | -4 | -4 | | | | | | | | | | | | | | | | | | | | | | |
| 14 | -5 | -5 | | | | | | | | | | | | | | | | | | | | | | |
| 15 | -6 | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | -6 | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | -8 | -8 | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | -10 | -10 | | | | | | | | | | | | | | | | | | | | | | |
| 25.4 | -12 | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | | -12 | | | | | | | | | | | | | | | | | | | | | | |
| 30 | | -16 | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | | | | | | | | | | | | | | | | | | | | | | | | |
| 38 | | -20 | | | | | | | | | | | | | | | | | | | | | | |
| 42 | | -24 | -24 | | | | | | | | | | | | | | | | | | | | | |

NOTE: Above details are correct as at time of publication. Selection chart is intended as a guide for the selection of clamps; manufacturing tolerances may affect size selection. Size selection of clamp should be confirmed with the actual hose to be used.

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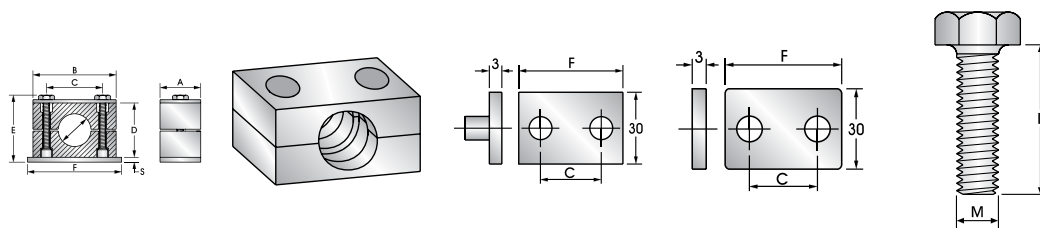
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RCS MOUNTING CLAMPS

| RCS | RCS-J | RCS-PB | RCS-PT | RCS-BH |
|-----|-------|--------|--------|--------|
|-----|-------|--------|--------|--------|

SINGLE CLAMPS



| | NOMINAL CLAMP SIZE | COMPLETE CLAMP | JAWS (PAIR) | PLATE BOTTOM | PLATE TOP | BOX HEX (2 PER CLAMP) |
|----------------|------------------------------|--|---|----------------|----------------|-----------------------|
| GROUP 1 | 6 8 10 12 | RCS-06 RCS-08 RCS-10 RCS-12 | RCS-06J RCS-08J RCS-10J RCS-12J | RCS-1PB | RCS-1PT | RCS-1BH |
| GROUP 2 | 12,7 14 15 16 18 | RCS-127 RCS-14 RCS-15 RCS-16 RCS-18 | RCS-127J RCS-14J RCS-15J RCS-16J RCS-18J | RCS-2PB | RCS-2PT | RCS-2BH |
| GROUP 3 | 19 20 22 25 25,4 | RCS-19 RCS-20 RCS-22 RCS-25 RCS-254 | RCS-19J RCS-20J RCS-22J RCS-25J RCS-254J | RCS-3PB | RCS-3PT | RCS-3BH |
| GROUP 4 | 28 30 | RCS-28 RCS-30 | RCS-28J RCS-30J | RCS-4PB | RCS-4PT | RCS-4BH |
| GROUP 5 | 32 35 38 42 | RCS-32 RCS-35 RCS-38 RCS-42 | RCS-32J RCS-35J RCS-38J RCS-42J | RCS-5PB | RCS-5PT | RCS-5BH |
| GROUP 6 | 50,8 | RCS-508 | RCS-508J | RCS-6PB | RCS-6PT | RCS-6BH |

CLAMP DIMENSIONS

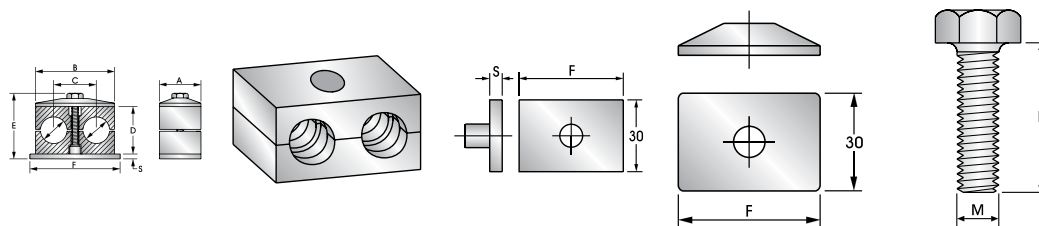
Clamps are divided into Groups 1 to 6. Within each Group, all components except the Jaws have the same size.

| DIMENSIONS MM | A | B | C | D | E | F | S | BOLT M X L |
|----------------|----|----|----|----|----|----|---|------------|
| GROUP 1 | 30 | 37 | 20 | 27 | 37 | 42 | 3 | M6 x 30 |
| GROUP 2 | 30 | 43 | 26 | 33 | 43 | 48 | 3 | M6 x 35 |
| GROUP 3 | 30 | 50 | 33 | 35 | 45 | 55 | 3 | M6 x 40 |
| GROUP 4 | 30 | 57 | 40 | 42 | 53 | 62 | 3 | M6 x 45 |
| GROUP 5 | 30 | 68 | 52 | 58 | 69 | 74 | 3 | M6 x 60 |
| GROUP 6 | 30 | 86 | 66 | 66 | 77 | 88 | 3 | M6 X 70 |

RCD MOUNTING CLAMPS

| RCD | RCD-J | RCD-PB | RCD-PT | RCD-BH |
|-----|-------|--------|--------|--------|
|-----|-------|--------|--------|--------|

DOUBLE CLAMPS



| | NOMINAL CLAMP SIZE | COMPLETE CLAMP | JAWS (PAIR) | PLATE BOTTOM | PLATE TOP | BOX HEX (1 PER CLAMP) |
|----------------|---|--|---|----------------|----------------|---------------------------------|
| GROUP 1 | 6-6 8-8 10-10 12-12 | RCD-06 RCD-08 RCD-10 RCD-12 | RCD-06J RCD-08J RCD-10J RCD-12J | RCD-1PB | RCD-1PT | RCD-1BH (Use RCS-2BH) |
| GROUP 2 | 12,7- 12,7 14-14 15-15 16-16 18-18 | RCD-127 RCD-14 RCD-15 RCD-16 RCD-18 | RCD-127J RCD-14J RCD-15J RCD-16J RCD-18J | RCD-2PB | RCD-2PT | RCD-2BH |
| GROUP 3 | 19-19 20-20 22-22 25-25 25,4- 25,4 | RCD-19 RCD-20 RCD-22 RCD-25 RCD-254 | RCD-19J RCD-20J RCD-22J RCD-25J RCD-254J | RCD-3PB | RCD-3PT | RCD-3BH |
| GROUP 4 | 28-28 30-30 | RCD-28 RCD-30 | RCD-28J RCD-30J | RCD-4PB | RCD-4PT | RCD-4BH |
| GROUP 5 | 32-32 35-35 38-38 42-42 | RCD-32 RCD-35 RCD-38 RCD-42 | RCD-32J RCD-35J RCD-38J RCD-42J | RCD-5PB | RCD-5PT | RCD-5BH |

CLAMP DIMENSIONS

Clamps are divided into Groups 1 to 5. Within each Group, all components except the Jaws have the same size.

| DIMENSIONS MM | A | B | C | D | E | F | S | BOLT M X L |
|----------------|----|-----|----|----|----|-----|---|------------|
| GROUP 1 | 30 | 37 | 20 | 25 | 40 | 37 | 3 | M6 x 30 |
| GROUP 2 | 30 | 53 | 29 | 26 | 43 | 55 | 5 | M8 x 35 |
| GROUP 3 | 30 | 67 | 36 | 37 | 54 | 70 | 5 | M8 x 45 |
| GROUP 4 | 30 | 82 | 45 | 42 | 60 | 85 | 5 | M8 x 50 |
| GROUP 5 | 30 | 106 | 56 | 54 | 72 | 110 | 5 | M8 x 60 |

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

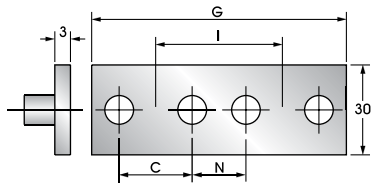
FILTERS

TECHNICAL

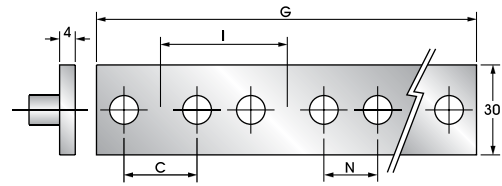
ACCESSORIES

RCS & RCD MOUNTING CLAMPS

RCS-PD & RCS-PM RCS CLAMPS DOUBLE & MULTIPLE PLATE BOTTOM



RCS-PD



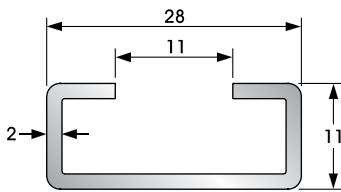
RCS-PM

PART NUMBERS AND SPECIFICATIONS

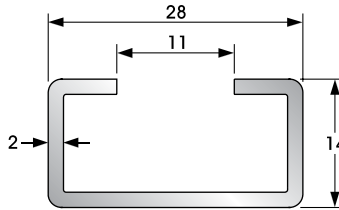
| TO SUIT GROUP | DOUBLE BOTTOM PLATE FOR 2 CLAMPS | DIMENSIONS | | | | | MULTIPLE BOTTOM PLATE FOR 10 CLAMPS |
|---------------|----------------------------------|------------|----------|----------|-----------|-----------|-------------------------------------|
| | | C | N | I | F | G | |
| GROUP 1 | PART NO RCS-1PD | mm 20 | mm 20 | mm 40 | mm 81 | mm 401 | PART NO RCS-1PM |
| GROUP 2 | PART NO RCS-2PD | mm 26 | mm 18 | mm 44 | mm 91 | mm 443 | PART NO RCS-2PM |
| GROUP 3 | PART NO RCS-3PD | mm 33 | mm 19 | mm 52 | mm 106 | mm 522 | PART NO RCS-3PM |

RC-RAIL RAIL MOUNT COMPONENTS

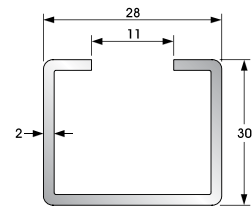
RAIL - supplied in 2 metre lengths. Suits **RCS** and **RCD** series clamps. Three different heights.



RC-RAIL-H11

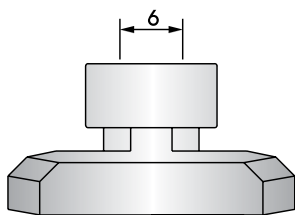


RC-RAIL-H14



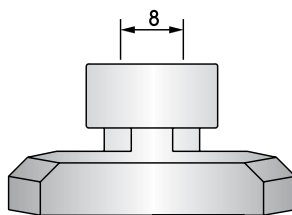
RC-RAIL-H30

RC-RN RAIL NUTS



RC-RN-M6

M6 THREAD SUITS ALL RCS CLAMPS & RCD GROUP 1 CLAMPS

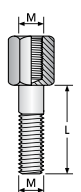


RC-RN-M8

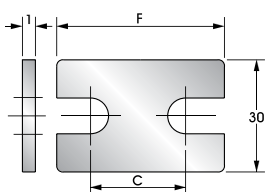
M8 THREAD SUITS RCD GROUPS 2 TO 5 CLAMPS



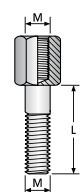
RCS & RCD STACKING COMPONENTS



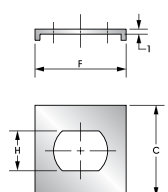
RCS-BS



RCS-PS



RCD-BS



RCD-PS

| SINGLE CLAMP STACKING | | SINGLE CLAMP PLATE STACKING | | DOUBLE CLAMP BOLT STACKING | | DOUBLE CLAMP PLATE STACKING | |
|-----------------------|------------------|-----------------------------|------------------|----------------------------|------------------|-----------------------------|----------------------|
| | DIMENSIONS M X L | | DIMENSIONS F X C | | DIMENSIONS M X L | | DIMENSIONS F X C X H |
| PART NO | mm | PART NO | mm | PART NO | mm | PART NO | mm |
| RCS-1BS | M6 x 20 | RCS-1PS | 34 x 20 | RCD-1BS | M6 x 20 | RCD-1PS | 32 x 30 x 13 |
| RCS-2BS | M6 x 25 | RCS-2PS | 40 x 26 | RCD-2BS | M8 x 20 | RCD-2PS | 32 x 30 x 14 |
| RCS-3BS | M6 x 30 | RCS-3PS | 48 x 33 | RCD-3BS | M8 x 29 | USE RCD-2PS* | 32 x 30 x 14 |
| RCS-4BS | M6 x 35 | RCS-4PS | 57 x 40 | RCD-4BS | M8 x 34 | USE RCD-2PS* | 32 x 30 x 14 |
| RCS-5BS | M6 x 50 | RCS-5PS | 68 x 52 | RCD-5BS | M8 x 47 | USE RCD-2PS* | 32 x 30 x 14 |

NOTE: *Group 2 Stacking Plate also suits Groups 3, 4 & 5.

ACCESSORIES

RL20 AND RL20SH BSPP BALL VALVES

RL20 RL20SH BSPP BALL VALVES



RL20SH shown above

RECOMMENDED FOR:

RYCO RL20 and **RL20SH** Ball Valves are used to open or close flow. The Valve is delivered in the open position, with the handle aligned with the longitudinal axis of the body, permitting flow through the valve body. The Valve is closed, and flow is stopped when the handle is turned 90° clockwise from the open position (when viewed from above).

NOTE: Alloy handle of **RL20** has potential to spark if struck by steel and **RL20** is not suitable for use in underground coal mines. Use **RL20SH** instead.

FEATURES:

- Flow can be in either direction (two way).
- Eight sizes; from -0404 (1/4 inch) to -3232 (2 inch).
- Working pressures from 350 to 500 bar (5100 to 7250 psi), depending on size.
- Also suitable for suction and vacuum service.
- Special ball seal design ensures seal at both low and high pressure.
- Handle can be reoriented if required.
- RL20, and RL20SH-0404 to -0808 have two mounting holes in body, to allow Ball Valve to be bolted in place.

TECHNICAL DATA

PORTS:

BSPP Female.

BODY:

RL20 from -0404 to -1616 sizes:

Carbon Steel, zinc plated and passivated (CrVI free).

RL20SH from -0404 to -0808 sizes:

Carbon Steel, zinc plated and passivated (CrVI free).

RL20SH -1212 and -1616 sizes:

Carbon Steel, black finish.

RL20SH from -2020 to -3232 sizes:

Forged Steel, black finish.

BALL:

Nickel plated steel.

STEM:

Zinc plated steel.

HANDLE:

RL20 have alloy handle. RL20SH have steel handle, or alloy complying with underground coal mining specifications. Contact RYCO for more information.

BALL SEALING:

Polyamide.

STEM SEALING:

Nitrile (Buna N).

MAXIMUM WORKING PRESSURE:

See table on opposite page.

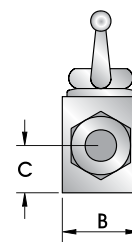
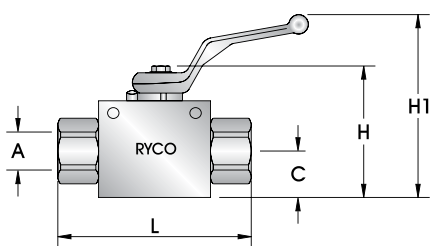
OPERATING TEMPERATURE:

From -10°C to +100°C (-14°C to +212°F).

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

PART NUMBERS AND SPECIFICATIONS



| PART NO | PORT BSPP | MIN. BORE | MAXIMUM WORKING PRESSURE | |
|--------------------|---------------|-----------|--------------------------|------|
| | | | bar | psi |
| | A inch | mm | | |
| RL20-0404 | 1/4 | 6 | 500 | 7250 |
| RL20-0606 | 3/8 | 10 | 500 | 7250 |
| RL20-0808 | 1/2 | 13 | 500 | 7250 |
| RL20-1212 | 3/4 | 20 | 400 | 5800 |
| RL20-1616 | 1 | 24 | 350 | 5100 |
| RL20SH-0404 | 1/4 | 6 | 500 | 7250 |
| RL20SH-0606 | 3/8 | 10 | 500 | 7250 |
| RL20SH-0808 | 1/2 | 13 | 500 | 7250 |
| RL20SH-1212 | 3/4 | 20 | 400 | 5800 |
| RL20SH-1616 | 1 | 24 | 350 | 5100 |
| RL20SH-2020 | 1.1/4 | 32 | 350 | 5100 |
| RL20SH-2424 | 1.1/2 | 38 | 350 | 5100 |
| RL20SH-3232 | 2 | 48 | 350 | 5100 |

| PART NO | DIMENSIONS | | | | | |
|--------------------|----------------|-------------|-----------------|----------------|-------------|-----------|
| | LENGTH OVERALL | WIDTH | HEIGHT TO LEVER | HEIGHT TO STEM | HEIGHT PORT | WEIGHT |
| | L mm | B mm | H1 mm | H mm | C mm | kg |
| RL20-0404 | 72 | 26 | 64 | 47 | 13 | 0,40 |
| RL20-0606 | 75 | 32 | 69 | 52 | 16 | 0,55 |
| RL20-0808 | 85 | 35 | 76 | 56 | 18 | 0,65 |
| RL20-1212 | 93 | 50 | 96 | 75 | 23 | 1,45 |
| RL20-1616 | 114 | 57 | 104 | 85 | 28 | 2,05 |
| RL20SH-0404 | 72 | 26 | 64 | 47 | 13 | 0,45 |
| RL20SH-0606 | 75 | 32 | 69 | 52 | 16 | 0,60 |
| RL20SH-0808 | 85 | 35 | 76 | 56 | 18 | 0,70 |
| RL20SH-1212 | 96 | 49 | 125 | 79 | 24,5 | 1,60 |
| RL20SH-1616 | 113 | 60 | 130 | 83 | 26,5 | 2,20 |
| RL20SH-2020 | 110 | 80 | 160 | 104 | 38 | 3,55 |
| RL20SH-2424 | 120 | 84 | 185 | 120 | 42 | 4,10 |
| RL20SH-3232 | 140 | 105 | 200 | 143 | 50 | 5,60 |

ACCESSORIES

RCV BSPP CHECK VALVES

RCV BSPP CHECK VALVES



RECOMMENDED FOR:

RYCO RCV Check Valves permit free flow of fluid in one direction, and prevent flow in the reverse direction.

Not recommended for use checking high velocity reverse flow resulting in shock conditions.

FEATURES:

- Steel poppet valve with metal-to-metal seat.
- Seven sizes from -0404 (1/4 inch) to -2424 (1.1/2 inch).
- 200 bar/2900 psi working pressure for all sizes.
- Two Cracking pressures available:
0,35 bar/5 psi standard.
Optional 3,5 bar/50 psi Springs available.
- Flow direction shown by grooves and "IN" stamped at inlet end.

TECHNICAL DATA

PORTS:

BSPP Female.

BODY:

Carbon Steel, zinc plated and passivated.

POPPET SEAL:

Metal-to-metal seat.

SPRING:

Spring steel, chrome finish.

MAXIMUM WORKING PRESSURE:

200 bar/2900 psi in all sizes.

OPERATING TEMPERATURE:

From -10°C to +80°C (+14°F to +176°F).

FLUID COMPATIBILITY:

Mineral/petroleum based hydraulic oils.

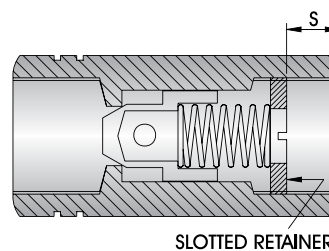
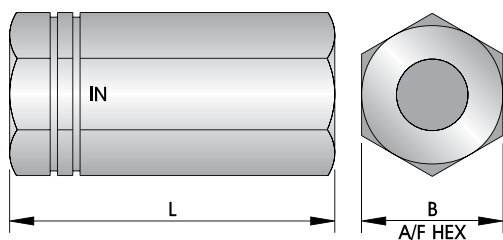
CRACKING PRESSURE:

0,35 bar/5 psi standard.

3,5 bar/50 psi optional. Order **RCVSH** Heavy Spring.

To Fit RCVSH Heavy Spring: Unscrew slotted retainer, remove standard spring and replace with heavy spring. Replace retainer, and screw in until it is distance "S" from end (see table on page opposite). Lock retainer in place with thread locking fluid.

PART NUMBERS AND SPECIFICATIONS



| PART NO | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE | |
|-----------------|-------------|--------------|--------------------------|------|
| | | | bar | psi |
| | inch | LPM | | |
| RCV-0404 | 1/4 | 20 | 200 | 2900 |
| RCV-0606 | 3/8 | 30 | 200 | 2900 |
| RCV-0808 | 1/2 | 50 | 200 | 2900 |
| RCV-1212 | 3/4 | 80 | 200 | 2900 |
| RCV-1616 | 1 | 150 | 200 | 2900 |
| RCV-2020 | 1.1/4 | 200 | 200 | 2900 |
| RCV-2424 | 1.1/2 | 270 | 200 | 2900 |

| PART NO | DIMENSIONS | | | OPTIONAL SPRING 3,5 BAR | |
|-----------------|----------------|---------|--------|-------------------------|-------------|
| | LENGTH OVERALL | A/F HEX | WEIGHT | PART NO | S FOR RCVSH |
| | L mm | B mm | kg | | mm |
| RCV-0404 | 65 | 19 | 0,11 | RCVSH-04 | 14,5 |
| RCV-0606 | 75 | 25 | 0,25 | RCVSH-06 | 15,2 |
| RCV-0808 | 85 | 30 | 0,36 | RCVSH-08 | 19,5 |
| RCV-1212 | 100 | 38 | 0,68 | RCVSH-12 | 21,5 |
| RCV-1616 | 115 | 41 | 0,80 | RCVSH-16 | 22,0 |
| RCV-2020 | 130 | 55 | 1,65 | RCVSH-20 | 27,0 |
| RCV-2424 | 132 | 65 | 2,55 | RCVSH-24 | 27,0 |

ACCESSORIES

AIRLINE COUPLINGS

AIRLINE COUPLINGS



500 Series shown

RYCO AIRLINE COUPLINGS – FEATURES

RUGGED – LONG LASTING

All **RYCO AIRLINE** Couplings have stainless steel springs and balls, synthetic rubber seals, and brass or hardened steel sleeves. Australian designed, for Australian conditions.

SUPER-HI-FLOW

Efficient “Super-Hi-Flow” design produces maximum airflow, with minimum pressure drop. This means more air-power at your tool... where you need it.

ONE TOUCH OPERATION

Retract the sleeve on **290** and **500** Series – “one touch” – and the nipple ejects from the coupling.

The sleeve remains in the release position. To reconnect, **290**, **500** and **500R** Series simply push together with their nipples – “one touch” – to seal and lock – no need to retract the sleeve again. The sleeve snaps forward to confirm positive connection.

SELF SEALING – 360° SWIVEL

Couplings can be coupled and uncoupled up to 17,2 bar/250 psi line pressure. The valve in the coupling automatically seals when your tool is disconnected. Nipple is unvalved. 360° swivel feature allows free movement when unpressurised to avoid hose kinking or twisting.

THREAD LOCKED

Our Automatic Couplings are thread-locked on assembly to eradicate damage from high frequency vibration. **300** Series feature Crimp Ring construction.

THE RYCO AIRPOWER RANGE – SPECIFICATIONS

Recommended for: General industrial pneumatic use with air compressors, air hoses, blow guns, air driven hand tools, air supply to spray painting equipment, tyre inflating equipment, etc.

Only **RYCO 500R** Series Couplings are recommended for Respiratory Breathing Air. **RYCO 500R** and all other RYCO Series are **NOT RECOMMENDED** for Underwater Diving applications.

| SPECIFICATIONS | | 200 SERIES BRASS | 200S SERIES STEEL | 290 SERIES SUPER HI-FLOW | 300 SERIES INDUSTRIAL | 400 SERIES SUPER HI-FLOW | 500 SERIES SUPER HI-FLOW | 500R SERIES BREATHING AIR |
|--------------------------------------|------------|------------------|-------------------|--------------------------|-----------------------|--------------------------|--------------------------|---------------------------|
| FLOW CAPACITY @ 7 bar/100 psi | CFM | 60 | 60 | 90 | 165 | 90 | 100 | 100 |
| | LPM | 1700 | 1700 | 2500 | 4700 | 2500 | 2800 | 2800 |
| MAX. WORKING PRESSURE | bar | 15 | 20 | 35 | 35 | 15 | 35 | 35 |
| | psi | 220 | 290 | 500 | 500 | 220 | 500 | 500 |
| TEMPERATURE RANGE | °C | -20° to +80° | -20° to +80° | -20° to +80° | -20° to +80° | -20° to +80° | -20° to +80° | -20° to +80° |
| | °F | -4° to +176° | -4° to +176° | -4° to +176° | -4° to +176° | -4° to +176° | -4° to +176° | -4° to +176° |

MATERIAL

| | 200 SERIES BRASS | 200S SERIES STEEL | 290 SERIES SUPER HI-FLOW | 300 SERIES INDUSTRIAL | 400 SERIES SUPER HI-FLOW | 500 SERIES SUPER HI-FLOW | 500R SERIES BREATHING AIR |
|----------------|------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|---|
| BODY | BRASS | STEEL | STEEL | STEEL | STEEL | STEEL | BRASS |
| SLEEVE | BRASS | HARDENED STEEL | HARDENED STEEL | HARDENED STEEL | HARDENED STEEL | HARDENED STEEL | BRASS |
| SEALS | NITRILE | NITRILE | NITRILE | NITRILE | NITRILE | NITRILE | NITRILE |
| BALLS | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL |
| SPRING | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL | STAINLESS STEEL |
| NIPPLE | BRASS | HARDENED STEEL | HARDENED STEEL | HARDENED STEEL | HARDENED STEEL | HARDENED STEEL | HARDENED STEEL |
| PLATING | UNPLATED | RYCOTE CrVI free (SILVER) | RYCOTE CrVI free (SILVER) | RYCOTE CrVI free (SILVER) | RYCOTE CrVI free (SILVER) | CHROME PLATED (COUPLING) RYCOTE CrVI free (NIPPLE) | UNPLATED (COUPLING) RYCOTE CrVI free (NIPPLE) |

200, 200S & 290 SERIES AIRLINE COUPLINGS

200, 200S & 290 SERIES – SPECIFICATIONS

| AIRLINE COUPLINGS | | | | MATCHED CONNECTORS | | | | | | CORROSION RESISTANCE | LONG LASTING | HARD WEARING | HARDENED SLEEVE | SELF LOCKING | ONE TOUCH OPERATION | HEAVY DUTY | INDUSTRIAL STRENGTH | BRASS VLAVE | STEEL COUPLING |
|-------------------|-------|-----------|------|--------------------|------|-----|-----|-----|-----|----------------------|--------------|--------------|-----------------|--------------|---------------------|------------|---------------------|-------------|----------------|
| SERIES | BODY | FLOW RATE | | 200 | 200S | 290 | 300 | 400 | 500 | | | | | | | | | | |
| | | CFM | LPM | | | | | | | | | | | | | | | | |
| 200 | BRASS | 60 | 1700 | 200 | | | | | | ✓ | ✓ | ✓ | | | | | | | |
| 200S | STEEL | 60 | 1700 | | 200S | | | | | | ✓ | ✓ | ✓ | | | | | | |
| 290 | STEEL | 90 | 2500 | 200 | 200S | 290 | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |

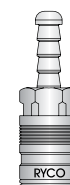
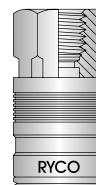
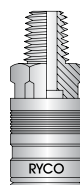
200 & 200S AIRLINE COUPLINGS

BSPT MALE

BSPP FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



| SUITED SERIES | | | | | | THREAD/ BARB | BRASS | STEEL | BRASS | STEEL | BRASS | STEEL |
|---------------|------|-----|-----|-----|-----|-----------------|------------|-------------|------------|-------------|------------|-------------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO | PART NO | PART NO | PART NO |
| ✓ | ✓ | | | | | 1/4 | 201 | 201S | 200 | 200S | 245 | 245S |
| ✓ | ✓ | | | | | 5/16 | | | | | 240 | 240S |
| ✓ | ✓ | | | | | 3/8 | 244 | 244S | 243 | 243S | 241 | 241S |

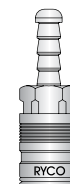
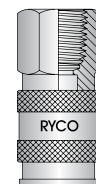
290 AIRLINE COUPLINGS

BSPT MALE

BSPT FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



| SUITED SERIES | | | | | | THREAD/ BARB | STEEL | STEEL | STEEL |
|---------------|------|-----|-----|-----|-----|-----------------|------------|------------|-------------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO |
| | | ✓ | | | | 1/4 | 291 | 290 | 296 |
| | | ✓ | | | | 5/16 | | | 297A |
| | | ✓ | | | | 3/8 | 293 | 292 | 298 |
| | | ✓ | | | | 1/2 | 295 | 294 | 299 |

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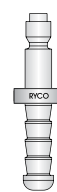
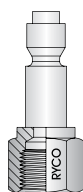
TECHNICAL

ACCESSORIES

200, 200S & 290 SERIES AIRLINE COUPLINGS

| | | | |
|--|--------------------|------------------|------------------|
| 200, 200S & 290 AIRLINE COUPLINGS | BSPP FEMALE | BSPT MALE | HOSE BARB |
|--|--------------------|------------------|------------------|

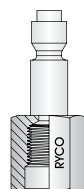
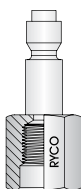
COUPLING NIPPLE



| SUITED SERIES | | | | | | THREAD BSPT | BRASS | STEEL | BRASS | STEEL | BRASS | STEEL |
|---------------|------|-----|-----|-----|-----|----------------|---------|---------|---------|---------|---------|---------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO | PART NO | PART NO | PART NO |
| ✓ | ✓ | ✓ | | | | 1/8 | 255 | | | 204 | | |
| ✓ | ✓ | ✓ | | | | 3/16 | | | | | 256 | |
| ✓ | ✓ | ✓ | | | | 1/4 | 203 | 203S | 202 | 202S | 205 | 205S |
| ✓ | ✓ | ✓ | | | | 5/16 | | | | | 206 | 206S |
| ✓ | ✓ | ✓ | | | | 3/8 | | 266S | | 251S | 206A | 206AS |
| ✓ | ✓ | ✓ | | | | 1/2 | | 270S | | 252S | | 254S |

| | | |
|-----------------|------------|-------------|
| SCHRADER | 217 | 217A |
|-----------------|------------|-------------|

COUPLING NIPPLE

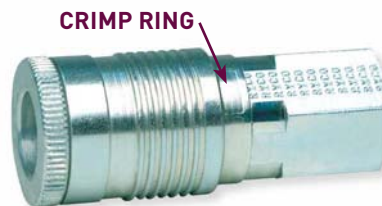


| SUITED SERIES | | | | | | SCHRADER SHORT BRASS | SCHRADER LONG BRASS |
|---------------|------|-----|-----|-----|-----|-------------------------|------------------------|
| 200 | 200S | 290 | 300 | 400 | 500 | PART NO | PART NO |
| ✓ | ✓ | ✓ | | | | 217 | 217A |

300 INDUSTRIAL SERIES AIRLINE COUPLINGS

300 SERIES – SPECIFICATIONS

300 Series feature **Crimp Ring** construction. The Crimp Ring locks into grooves in the coupling, and ensures that the Coupling cannot be disassembled by high frequency vibrations or shock loads. "Factory Sealed" for the life of the Coupling.



| AIRLINE COUPLINGS | | | | MATCHED CONNECTORS | | | | | | CORROSION RESISTANCE | LONG LASTING | HARD WEARING | HARDENED SLEEVE | SELF LOCKING | ONE TOUCH OPERATION | HEAVY DUTY | INDUSTRIAL STRENGTH | BRASS VALVE | STEEL COUPLING | |
|-------------------|-------|-----------|------|--------------------|------|-----|-----|-----|-----|----------------------|--------------|--------------|-----------------|--------------|---------------------|------------|---------------------|-------------|----------------|--|
| SERIES | BODY | FLOW RATE | | 200 | 200S | 290 | 300 | 400 | 500 | | | | | | | | | | | |
| 300 | STEEL | 165 | 4700 | | | | 300 | | | | | | | | | | | | | |

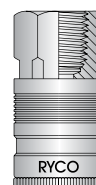
300 AIRLINE COUPLINGS INDUSTRIAL

BSPT MALE

BSPT FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



| SUITED SERIES | | | | | | THREAD/ BARB | STEEL | STEEL | STEEL |
|---------------|------|-----|-----|-----|-----|--------------|------------|------------|------------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO |
| | | | ✓ | | | 3/8 | 323 | 322 | 340 |
| | | | ✓ | | | 1/2 | 321 | 320 | 341 |

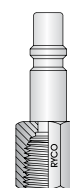
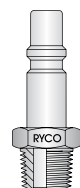
300 AIRLINE COUPLINGS INDUSTRIAL

BSPT MALE

BSPF FEMALE

HOSE BARB

COUPLING NIPPLES



| SUITED SERIES | | | | | | THREAD/ BARB | STEEL | STEEL | STEEL |
|---------------|------|-----|-----|-----|-----|--------------|------------|------------|------------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO |
| | | | ✓ | | | 1/4 | 332 | | |
| | | | ✓ | | | 3/8 | 304 | 330 | 305 |
| | | | ✓ | | | 1/2 | 302 | 303 | 306 |
| | | | ✓ | | | 3/4 | | | 331 |

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400 HI FLOW SERIES AIRLINE COUPLINGS

400 SERIES - SPECIFICATIONS

| AIRLINE COUPLINGS | | | | MATCHED CONNECTORS | | | | | | CORROSION RESISTANCE | LONG LASTING | HARD WEARING | HARDENED SLEEVE | SELF LOCKING | ONE TOUCH OPERATION | HEAVY DUTY | INDUSTRIAL STRENGTH | BRASS V-LAVE | STEEL COUPLING |
|-------------------|-------|-----------|------|--------------------|------|-----|-----|------|-----|----------------------|--------------|--------------|-----------------|--------------|---------------------|------------|---------------------|--------------|----------------|
| SERIES | BODY | FLOW RATE | | 200 | 200S | 290 | 300 | 400 | 500 | | | | | | | | | | |
| 400* | STEEL | 90 | 2500 | | | | | 400* | | ✓ | ✓ | ✓ | | | | | | | ✓ |

NOTE: *400 Series AIRLINE Couplings cross references with Nitto couplings.

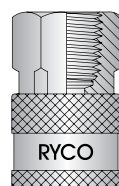
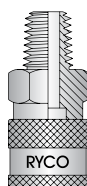
400 AIRLINE COUPLINGS SUPER HI FLOW

BSPT MALE

BSPT FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



| SUITED SERIES | | | | | | THREAD/ BARB | STEEL | STEEL | STEEL |
|---------------|------|-----|-----|-----|-----|-----------------|---------|---------|---------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO |
| | | | | ✓ | | 1/4 | 420SM | 420SF | 420SH |
| | | | | ✓ | | 5/16 | | | 425SH |
| | | | | ✓ | | 3/8 | 430SM | 430SF | 430SH |
| | | | | ✓ | | 1/2 | 440SM | 440SF | 440SH |

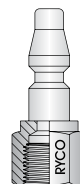
400 AIRLINE COUPLINGS SUPER HI FLOW

BSPT MALE

BSPT FEMALE

HOSE BARB

COUPLING NIPPLES



| SUITED SERIES | | | | | | THREAD/ BARB | STEEL | STEEL | STEEL |
|---------------|------|-----|-----|-----|-----|-----------------|---------|---------|---------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO |
| | | | | ✓ | | 1/8 | 410PM | 410PF | |
| | | | | ✓ | | 1/4 | 420PM | 420PF | 420PH |
| | | | | ✓ | | 5/16 | | | 425PH |
| | | | | ✓ | | 3/8 | 430PM | 430PF | 430PH |
| | | | | ✓ | | 1/2 | 440PM | 440PF | 440PH |
| | | | | ✓ | | SCHL* | | 417A | |

NOTE: SCHL* stands for SCHRADER-LONG.

500R SERIES RESPIRATORY BREATHING AIR AIRLINE COUPLINGS

500R SERIES - RESPIRATORY BREATHING AIR

RYCO 500R Series Couplings are designed for Respiratory Breathing Air applications, where breathing air is supplied to the operator via air-line. They comply with the relevant clauses of **AS/NZS 1716** "Respiratory Protection Devices".

Disconnection of the Coupling requires two deliberate movements:

1. The Nipple must be pushed further into the Female Body.
 2. While holding the Nipple in, retract the Sleeve.
- This feature reduces the risk of accidental disconnection.

Additionally, **RYCO 500R** Series Coupling Nipples have a longer shank than **RYCO 500** Series. **RYCO 500** Series Coupling Nipples cannot be connected to **RYCO 500R** Series Couplings.

RECOMMENDED FOR:

Typical Respiratory Breathing Air applications; work in confined spaces, oxygen deficient or toxic areas, chemical processing and spraying, spray painting, rescue equipment, asbestos removal, sand blasting, tank cleaning, and fumigation. **RYCO 500R** Series Couplings are **NOT RECOMMENDED** for Underwater Diving applications.

An Independent Test Report, showing compliance of **RYCO 500R** Series Couplings to **AS/NZS 1716-1994** "Respiratory Protection Devices" is available. This Test Report covers the following clauses of **AS/NZS 1716**:

Clause 8.3.4 "Connectors and couplings"
 "All air-line connections shall be of "safety type" i.e. requiring at least two deliberate actions to separate the connection or coupling" and **Clause 8.4.6.1** "Strength of (air-line and) couplings".

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500R SERIES - SPECIFICATIONS

| AIRLINE COUPLINGS | | | | MATCHED CONNECTORS | | | | | | CORROSION RESISTANCE | LONG LASTING | HARD WEARING | HARDENED SLEEVE | SELF LOCKING | ONE TOUCH OPERATION | HEAVY DUTY | INDUSTRIAL STRENGTH | BRASS VALVE | STEEL COUPLING |
|-------------------------|-------|-----------|------|--------------------|------|-----|-----|-----|-------|----------------------|--------------|--------------|-----------------|--------------|---------------------|------------|---------------------|-------------|----------------|
| SERIES | BODY | FLOW RATE | | 200 | 200S | 290 | 300 | 400 | 500 | | | | | | | | | | |
| 500R⁺ | BRASS | 100 | 2800 | | | | | | 500R* | | | | | | | | | | |

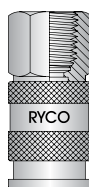
NOTE: * **RYCO 500R** Series Couplings are designed for Respiratory Breathing Air applications, where breathing air is supplied to the operator via air-line. They comply with the relevant clauses of **AS/NZS 1716** "Respiratory Protection Devices".

500R AIRLINE COUPLINGS RESPIRATORY BREATHING AIR

BSPT FEMALE

BSPT MALE

AUTOMATIC COUPLINGS
COUPLING NIPPLES

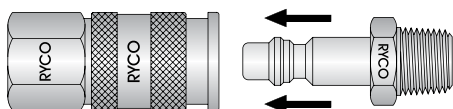


| SUITED SERIES | | | | | | THREAD/ BARB | BRASS | STEEL |
|---------------|------|-----|-----|-----|-----|-----------------|-------------------------|-------------------------|
| 200 | 200S | 290 | 300 | 400 | 500 | 1/4 | PART NO 500R | PART NO 502R |

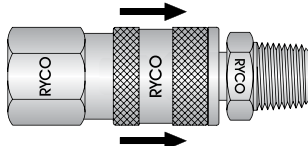
CONNECTING AND DISCONNECTING RYCO 500R SERIES COUPLINGS

HOW TO CONNECT

SIMPLY PUSH NIPPLE INTO FEMALE BODY

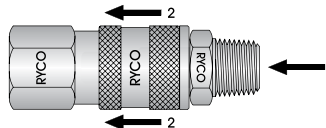


SLEEVE MOVES FORWARD AND CONNECTION IS COMPLETE

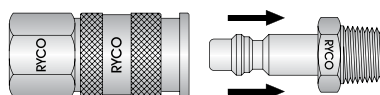


HOW TO DISCONNECT

1. PUSH NIPPLE FURTHER INTO FEMALE BODY
2. HOLD NIPPLE IN AND RETRACT SLEEVE



NIPPLE IS RELEASED FROM FEMALE BODY AND DISCONNECTION IS COMPLETE



ACCESSORIES

500 SUPER HI FLOW SERIES AIRLINE COUPLINGS

500 SERIES - SPECIFICATIONS

| AIRLINE COUPLINGS | | | | MATCHED CONNECTORS | | | | | | CORROSION RESISTANCE | LONG LASTING | HARD WEARING | HARDENED SLEEVE | SELF LOCKING | ONE TOUCH OPERATION | HEAVY DUTY | INDUSTRIAL STRENGTH | BRASS VLAVE | STEEL COUPLING |
|-------------------|-------|-----------|------|--------------------|------|-----|-----|-----|------|----------------------|--------------|--------------|-----------------|--------------|---------------------|------------|---------------------|-------------|----------------|
| SERIES | BODY | FLOW RATE | | 200 | 200S | 290 | 300 | 400 | 500 | | | | | | | | | | |
| 500* | STEEL | 100 | 2800 | | | | | | 500* | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | |

* 500 Series AIRLINE Couplings cross references with CEJN couplings.

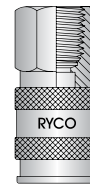
500 AIRLINE COUPLINGS SUPER HI FLOW

BSPT MALE

BSPP FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



| SUITED SERIES | | | | | | THREAD/ BARB | STEEL | STEEL | STEEL |
|---------------|------|-----|-----|-----|-----|-----------------|---------|---------|---------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO |
| | | | | | ✓ | 1/4 | 501 | 500 | 545 |
| | | | | | ✓ | 5/16 | | | 540 |
| | | | | | ✓ | 3/8 | 544 | 543 | 541 |
| | | | | | ✓ | 1/2 | 547 | 546 | 542 |

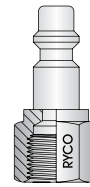
500 AIRLINE COUPLINGS SUPER HI FLOW

BSPT MALE

BSPP FEMALE

HOSE BARB

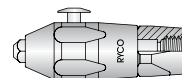
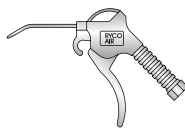
COUPLING NIPPLES



| SUITED SERIES | | | | | | THREAD/ BARB | STEEL | STEEL | STEEL |
|---------------|------|-----|-----|-----|-----|-----------------|---------|---------|---------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO | PART NO |
| | | | | | ✓ | 1/8 | 504 | | |
| | | | | | ✓ | 1/4 | 502 | 503 | 505 |
| | | | | | ✓ | 5/16 | | | 506 |
| | | | | | ✓ | 3/8 | 551 | 566 | 506A |
| | | | | | ✓ | 1/2 | 552 | 570 | 554 |
| | | | | | ✓ | SCHL* | 517A | | |

NOTE: SCHL* stands for SCHRADER-LONG.

BLOW GUNS 224 223



| SUITED SERIES | | | | | | THREAD BSPP | EASY HAND CLASP BLOW GUN | PUSH BUTTON BLOW GUN |
|---------------|------|-----|-----|-----|-----|----------------|-----------------------------|-------------------------|
| 200 | 200S | 290 | 300 | 400 | 500 | | PART NO | PART NO |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 1/4 | 224 | 223 |

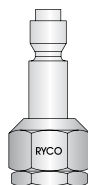
AIR-FLEX BLOW GUNS

- Leakproof internal valve
- Operates by slight pressure between hand & thumb
- Relaxing pressure instantly shuts air off
- Includes part no 2215 extension



| SUITED SERIES | | | | | | THREAD | AIR-FLEX BLOW GUN | SCREW-ON AIR-FLEX BLOW GUN |
|---------------|------|-----|-----|-----|-----|-----------|----------------------|----------------------------------|
| 200 | 200S | 290 | 300 | 400 | 500 | inch | PART NO | PART NO |
| ✓ | ✓ | ✓ | | | | | 222 | |
| | | | | ✓ | | | 422 | |
| | | | | | ✓ | | 522 | |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 1/4" BSPP | | 221 |

AIR CHUCKS



| SUITED SERIES | | | | | | THREAD BSPP | AIR CHUCKS |
|---------------|------|-----|-----|-----|-----|----------------|------------|
| 200 | 200S | 290 | 300 | 400 | 500 | inch | PART NO |
| ✓ | ✓ | ✓ | | | | | 216 |
| | | | | ✓ | | | 416 |
| | | | | | ✓ | | 516 |

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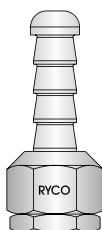
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AIR CHUCKS

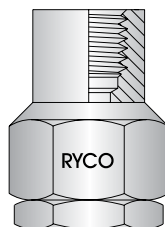
211/213



| SUITED SERIES | | | | | | BARB SIZE | AIR CHUCKS |
|---------------|-------------|------------|------------|------------|------------|-------------|----------------|
| 200 | 200S | 290 | 300 | 400 | 500 | inch | PART NO |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 1/4 | 211 |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 3/8 | 213 |

AIR CHUCKS

214

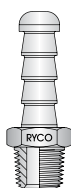


| SUITED SERIES | | | | | | THREAD SIZE | AIR CHUCKS |
|---------------|-------------|------------|------------|------------|------------|-------------|----------------|
| 200 | 200S | 290 | 300 | 400 | 500 | inch | PART NO |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 1/4" BSPT | 214 |

AIRLINE COUPLINGS HOSE BARBS

HOSE BARBS BSPT MALE

STRAIGHT



| BARB | THREAD | MATERIAL | HOSE BARB BSPT MALE |
|------|--------|----------|------------------------|
| inch | inch | | PART NO |
| 3/16 | 1/8 | Brass | 218A |
| 3/16 | 1/4 | Brass | 218 |
| 1/4 | 1/8 | Brass | 219 |
| 1/4 | 1/4 | Brass | 207 |
| 1/4 | 3/8 | Steel | 268S |
| 5/16 | 1/8 | Brass | 220 |
| 5/16 | 1/4 | Brass | 208 |
| 5/16 | 3/8 | Steel | 267S |
| 3/8 | 1/8 | Brass | 260 |
| 3/8 | 1/4 | Brass | 209 |
| 3/8 | 3/8 | Steel | 307 |
| 3/8 | 1/2 | Steel | 309 |
| 1/2 | 1/4 | Brass | 210 |
| 1/2 | 3/8 | Steel | 308 |
| 1/2 | 1/2 | Steel | 310 |
| 1/2 | 3/4 | Steel | 310-8 |
| 3/4 | 1/2 | Steel | 310-10A |
| 3/4 | 3/4 | Steel | 310-2A |
| 3/4 | 1 | Steel | 310-9 |
| 1 | 3/4 | Steel | 310-7A |
| 1 | 1 | Steel | 310-3A |

HOSE BARBS BSPP NUT & TAIL

STRAIGHT

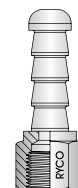


| BARB | THREAD | MATERIAL | FEMALE NUT & TAIL |
|------|--------|----------|----------------------|
| inch | inch | | PART NO |
| 1/4 | 1/4 | * | 231 |
| 5/16 | 1/4 | * | 232 |

NOTE: *Steel Nut/Brass Tail

HOSE BARBS BSPP FEMALE

STRAIGHT



| BARB | THREAD | MATERIAL | HOSE BARB BSPP FEMALE |
|------|--------|----------|--------------------------|
| inch | inch | | PART NO |
| 3/16 | 1/4 | Brass | 259 |
| 1/4 | 1/4 | Brass | 236 |
| 1/4 | 3/8 | Steel | 269S |
| 5/16 | 1/4 | Brass | 237 |
| 5/16 | 3/8 | Steel | 261S |
| 3/8 | 1/4 | Brass | 238 |
| 3/8 | 3/8 | Steel | 262S |
| 3/8 | 1/2 | Steel | 264S |
| 1/2 | 3/8 | Steel | 263S |
| 1/2 | 1/2 | Steel | 265S |

HOSE BARBS BARB JOINER

JOINER



| BARB | MATERIAL | HOSE BARB BARB |
|------|----------|-------------------|
| inch | | PART NO |
| 3/16 | Brass | 257 |
| 1/4 | Brass | 227 |
| 5/16 | Brass | 228 |
| 3/8 | Brass | 229 |
| 1/2 | Brass | 258 |

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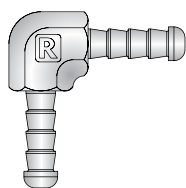
ACCESSORIES

AIRLINE COUPLINGS HOSE BARBS

HOSE BARBS

90° ELBOW

90° ELBOW



| BARB | MATERIAL | BARB JOINER 90° ELBOW |
|-------------|----------|--------------------------|
| inch | | PART NO |
| 1/4 | Steel | 372 |
| 5/16 | Steel | 375 |
| 3/8 | Steel | 377 |
| 1/2 | Steel | 379 |

HOSE BARBS

TEE

TEE

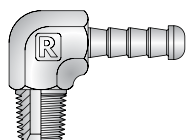


| BARB | MATERIAL | BARB JOINER TEE |
|-------------|----------|--------------------|
| inch | | PART NO |
| 1/4 | Steel | 382 |
| 5/16 | Steel | 385 |
| 3/8 | Steel | 387 |
| 1/2 | Steel | 389 |

HOSE BARBS

90° ELBOW

90° ELBOW



| BARB | THREAD | MATERIAL | HOSE BARB BSPT MALE 90° ELBOW |
|-------------|--------|----------|-------------------------------------|
| inch | | | PART NO |
| 1/4 | 1/4 | Steel | 342 |
| 5/16 | 1/4 | Steel | 343 |
| 5/16 | 3/8 | Steel | 346 |
| 3/8 | 1/4 | Steel | 344 |
| 3/8 | 3/8 | Steel | 347 |
| 1/2 | 1/2 | Steel | 349 |

HOSE BARBS

TEE

TEE



| BARB | THREAD | MATERIAL | HOSE BARB BSPT MALE TEE PIECE |
|-------------|-------------|----------|-------------------------------------|
| inch | inch | | PART NO |
| 1/4 | 1/4 | Steel | 352 |
| 5/16 | 1/4 | Steel | 353 |
| 5/16 | 3/8 | Steel | 356A |
| 3/8 | 1/4 | Steel | 354 |
| 3/8 | 3/8 | Steel | 357 |
| 1/2 | 1/2 | Steel | 359 |

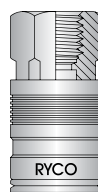
AIRLINE COUPLINGS

BSPT MALE

BSPT FEMALE

HOSE BARB

AUTOMATIC COUPLINGS



| THREAD/ BARB | PER CARD | AIRLINE COUPLINGS BSPT MALE | | | AIRLINE COUPLINGS BSPT FEMALE | | | AIRLINE COUPLINGS HOSE BARB | | |
|-----------------|----------|--------------------------------|---------------|---------------|----------------------------------|---------------|---------------|--------------------------------|---------------|---------------|
| inch | | 200 SERIES | 290 SERIES | 400 SERIES | 200 SERIES | 290 SERIES | 400 SERIES | 200 SERIES | 290 SERIES | 400 SERIES |
| 1/4 | 1 | P201 | P291 | P420SM | P200 | P290 | P420SF* | | P296 | P420SH |
| 5/16 | 1 | | | | | | | | P297A | P425SH |
| 3/8 | 1 | | P293 | P430SM | | P292 | P430SF* | | P298 | P430SH |

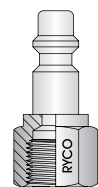
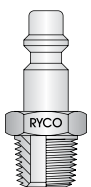
NOTE: *Thread is BSPT Female

COUPLING NIPPLES

BSPT MALE

BSPP FEMALE

HOSE BARB



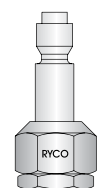
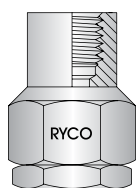
| THREAD/ BARB | PER CARD | COUPLING NIPPLE BSPT MALE | | | COUPLING NIPPLE BSPP FEMALE | | | COUPLING NIPPLE HOSE BARB | | |
|-----------------|----------|------------------------------|---------------|---------------|--------------------------------|---------------|---------------|------------------------------|---------------|---------------|
| inch | | 200 SERIES | 290 SERIES | 400 SERIES | 200 SERIES | 290 SERIES | 400 SERIES | 200 SERIES | 290 SERIES | 400 SERIES |
| 1/4 | 2 | P202 | P202S | P420PM | P203 | P203S | P420PF* | P205 | P205S | P420PH |
| 5/16 | 2 | | | | | | | P206 | P206S | P425PH |
| 3/8 | 2 | | P251S | P430PM | | P266S | P430PF* | P206A | P206AS | P430PH |

NOTE: *Thread is BSPT Female

AIR CHUCK

P214

P216



| THREAD | PER CARD | AIR CHUCK BSPP FEMALE | AIR CHUCK COUPLING NIPPLE | |
|-------------|----------|--------------------------|------------------------------|------------|
| inch | | PART NO | 200 SERIES | 290 SERIES |
| 1/4" FEMALE | 1 | P214 | P216 | P216 |

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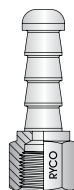
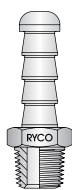
TECHNICAL

ACCESSORIES

AIRLINE HANG SELL PACKS

AIRLINE FITTINGS

STRAIGHT JOINER



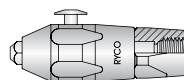
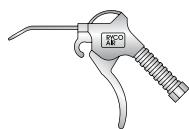
| BARB | THREAD | PER CARD | HOSE BARB BSPT MALE | HOSE BARB BSPP FEMALE | BARB JOINER |
|-------------|--------|----------|------------------------|--------------------------|----------------|
| inch | | | PART NO | PART NO | PART NO |
| 1/4 | 1/4 | 2 | P207 | P236 | P227* |
| 1/4 | 3/8 | 2 | P268S | P269S | |
| 5/16 | 1/4 | 2 | P208 | P237 | P228* |
| 5/16 | 3/8 | 2 | P267S | P261S | |
| 3/8 | 1/4 | 2 | P209 | P238 | P229* |
| 3/8 | 3/8 | 2 | P307 | P262S | |

NOTE: *Thread Size N/A for these parts - barb size is the same for both ends.

BLOW GUNS

P224

P223



| THREAD | PER CARD | EASY HAND CLASP BLOW GUN | PUSH BUTTON BLOW GUN |
|---------------|----------|-----------------------------|-------------------------|
| inch | | PART NO | PART NO |
| 1/4" BSPP FEM | 1 | P224 | P223 |

NOTE: P224 includes 2025 Airline Nipple.

CHOOSING A CRIMPER

HYDRAULIC HOSE CRIMPERS (also known as Swagers or Swaging Presses) are used to permanently assemble Crimp Couplings onto Hydraulic Hose.

Shown on the next 12 pages are RYCO's extensive range of Hydraulic Hose Crimpers.

A number of factors need to be considered when choosing a Crimper; and RYCO Hydraulics Customer Service staff are pleased to assist in identifying the best model to suit your budget and needs.

Factors Include:

HOSE SIZES TO BE CRIMPED

Generally, Crimpers are in either 1", 1.1/4" or 2" Hose Size capacity.

POWERING OPTIONS

Options are; Hand Pump, Auxiliary Pump (eg. air/oil), 12 Volt, 24 Volt, Single Phase, Three Phase.

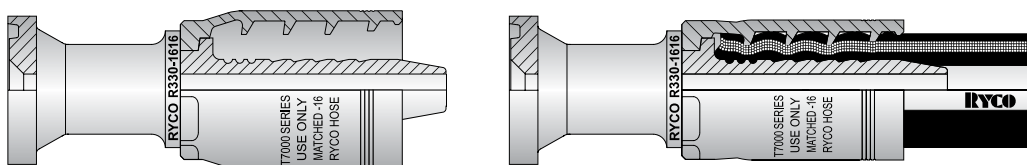
VERTICAL OR HORIZONTAL HOSE FEEDING INTO CRIMPER

CRIMP DIAMETER SETTING

Options are; scale pin, colour wheel, vernier dial, computer controlled.

METHOD OF OPERATION

Manual or automatic stop when crimping diameter is reached.



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CRIMPER SAFETY GUIDE

FOR THE SELECTION AND USE OF RYCO CRIMPERS

For latest and most up to date RYCO Crimp Charts refer to RYCO.com.au

For safety and exceptional performance do not mix and match hose and couplings as hydraulic hoses from one manufacturer is usually not compatible with fittings from another manufacturer.

ACCESSORIES

CRIMPING EQUIPMENT

R125 1.1/4" CRIMPER



RECOMMENDED FOR:

RYCO R125 Series are compact and efficient swaging machines, equally suitable for repair shop applications and high volume production of hose assemblies. This series is available in a single phase version (**R125-1D-115 & R125-1D-240**), 12 volts (**R125-12V**) and 24 volts (**R125-24V**).

TECHNICAL DATA

- Crimp Diameter is easily set by easy to use electronic control panel; operation is by Push Buttons, with automatic stop when crimping is complete.
- Hose is fed horizontally into the machine from the front or rear.
- Rapid retraction of dies is powered by the machine's hydraulic system.
- Crimping Die Sets are easily changed segment by segment using the forked hand tool, or the whole die set can be changed in one operation using optional Rapid Change Tool.
- Hose Couplings from 1/4" up to maximum hose size 1.1/4" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings. Additional Die Sets can be purchased to crimp smaller hose sizes.

DIE SETS

| Die Set * | Colour | CLOSED DIA. mm | DIE LENGTH mm | Inc. | Opt. |
|---------------|-----------|----------------|---------------|------|------|
| R125-F | Dk Green | 13,7 | 75 | | ✓ |
| R125-G | Grey | 15,8 | 75 | ✓ | |
| R125-H | Red | 18,4 | 75 | ✓ | |
| R125-I | Lt Yellow | 21,3 | 75 | ✓ | |
| R125-J | Dk Blue | 24,7 | 75 | ✓ | |
| R125-K | Lt Green | 28,7 | 75 | ✓ | |
| R125-L | Black | 33,3 | 75 | ✓ | |
| R125-M | White | 38,6 | 75 | ✓ | |
| R125-N | Lt Blue | 44,8 | 75 | | ✓ |
| R125-O | Dk Yellow | 50,3 | 85 | ✓ | |
| R125-P | Magenta | 56,3 | 85 | | ✓ |

ACCESSORIES

| Part No | Description | # | Inc | Opt |
|-------------------|---------------------------------|---|-----|-----|
| R125-60100 | Die Holder Rack (holds 11 sets) | 1 | ✓ | |
| R125-26100 | RYCO Rapid Change Tool | 1 | ✓ | |
| R100-22120 | Forked Hand Tool | 1 | ✓ | |
| R100-22000 | Spare Die Pin | 4 | ✓ | |
| R100-12100 | Spare Die Retaining Cartridge | 1 | ✓ | |
| R100-12900 | Lithium-Moly. Grease 450g. | 1 | ✓ | |
| R100-55900 | Foot Control Switch | 1 | | ✓ |

*See page 438 for more information on accessories.

R125 - SPECIFICATIONS

| ELECTRICAL | | | | PHYSICAL - CRIMPER DIMENSIONS | | | | HYDRAULIC | | | |
|----------------------|--------|-------------|--------------------|-------------------------------|-------|--------|---------------------|----------------|-----------------------|--------------------|---------------|
| VOLTAGE ¹ | PHASE | MOTOR POWER | MOTOR SPEED @ 50HZ | WIDTH | DEPTH | HEIGHT | WEIGHT ² | RATED PRESSURE | PUMP FLOW RATE @ 50HZ | RESERVOIR CAPACITY | REC. OIL TYPE |
| | | kW | rpm | mm | mm | mm | kg | bar | L/min | L | Grade |
| 115 | Single | 1,8 | 2900/50Hz | 675 | 597 | 419 | 91 | 320 | 3,0 | 5,0 | 46 Grade |
| 240 | Single | 2,2 | 3330/60Hz | 675 | 597 | 419 | 91 | 320 | 3,0 | 5,0 | 46 Grade |

R125 - TECHNICAL INFORMATION

| PART NUMBER | MAX. HOSE SIZE (SIX SPIRAL) | MAX. HOSE SIZE (WIRE BRAID) | CRIMPING RANGE DIAMETER | MAX. DIE OPENING | CRIMPING FORCE |
|--|-----------------------------|-----------------------------|-------------------------|------------------|----------------|
| | inch | inch | mm | mm | kN |
| R125-1D-115 R125-1D-240 R125-12V R125-24V | 1.1/4 | 1.1/2 | 13,7-56,5 | 25 | 2000 |

NOTE: * Other die sets available depending on country or application.

1) Voltage can be varied on request to suit regional standards

2) Without oil and dies

R16HP

1" HORIZONTAL CRIMPER


RECOMMENDED FOR:

RYCO R16HP is a truly portable crimper; light weight (only 25 kg/55 lb) and compact in dimensions, but robust in construction. It is operated by a hydraulic hand pump, but can also be supplied with **R13Y-9000** Air/Hydraulic Pump, see page 436.

RYCO R16HP is ideally suited for manufacture of, small numbers of hose assemblies in repair workshops, mobile service vans and areas where electrical power is not available. It can be carried to the job site using the built in handle. A built in drawer (5 compartments) holds Die Sets. Crimping Die Sets clip into Master Dies, and are released with a twist.

TECHNICAL DATA

- Hose Couplings from 1/4" up to maximum hose size 1" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings.
- Additional Die Sets can be purchased to crimp smaller hose sizes.
- Hose is fed horizontally into the machine from the front only.
- Retraction of dies is by springs.
- Crimp Diameter is easily set by accurate Vernier Scale.
- When the preset Crimp Diameter is reached, an Indicator Lamp is lit, and operation of the pump must be manually stopped.
- Maximum Input Pressure for **R16HP** is 620 bar (9,000 psi).

DIE SETS

| Die Set * | Description | Inc. | Opt. |
|---------------|--------------------|------|------|
| R16-07 | Die Set 1" 7mm | | ✓ |
| R16-10 | Die Set 1" 10-12mm | | ✓ |
| R16-12 | Die Set 1" 12-14mm | | ✓ |
| R16-14 | Die Set 1" 14-16mm | ✓ | |
| R16-16 | Die Set 1" 16-19mm | ✓ | |
| R16-19 | Die Set 1" 19-23mm | ✓ | |
| R16-23 | Die Set 1" 23-27mm | ✓ | |
| R16-27 | Die Set 1" 27-31mm | ✓ | |
| R16-31 | Die Set 1" 31-38mm | ✓ | |

ACCESSORIES

| Part No | Description | # | Inc | Opt |
|-------------------|----------------------------|---|-----|-----|
| R100-12900 | Lithium-Moly. Grease 450g. | 1 | | ✓ |
| R13Y-900 | Air/Hydraulic Pump | 1 | | ✓ |

R16HP - SPECIFICATIONS

| ELECTRICAL | | | | PHYSICAL - CRIMPER DIMENSIONS | | | | HYDRAULIC | | | |
|----------------------|-------|-------------|--------------------|-------------------------------|-------|--------|---------------------|----------------|-----------------------|--------------------|---------------|
| VOLTAGE ¹ | PHASE | MOTOR POWER | MOTOR SPEED @ 50HZ | WIDTH | DEPTH | HEIGHT | WEIGHT ² | RATED PRESSURE | PUMP FLOW RATE @ 50HZ | RESERVOIR CAPACITY | REC. OIL TYPE |
| | | kW | rpm | mm | mm | mm | kg | bar | L/min | L | Grade |
| | | | | 386 | 331 | 271 | 25 | 620 | | | |

R16HP - TECHNICAL INFORMATION

| PART NUMBER | MAXIMUM HOSE SIZE | CRIMPING RANGE DIAMETER | MAXIMUM DIE OPENING | CRIMPING FORCE |
|--------------|-------------------|-------------------------|---------------------|----------------|
| | inch | mm | mm | kN |
| R16HP | 1 | 7-38 | 20 | 955 |

NOTE: * Other die sets available depending on country or application.
 1) Voltage can be varied on request to suit regional standards
 2) Without oil and dies

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CRIMPING EQUIPMENT

R250 2" CRIMPER



RECOMMENDED FOR:

RYCO R250 Series are designed to handle large jobs with speed and efficiency. They are powered by a three phase electric motor. This series is only available with a base.

TECHNICAL DATA

- Crimp Diameter is easily set by easy to use electronic control panel; operation is by Push Buttons with automatic stop when crimping is complete.
- Hose is fed horizontally into the machine from the front or rear. The horizontal attitude of the swage mechanism provides operators with the most ergonomic position for crimping, an important consideration especially when large 2" diameter multi spiral assemblies are required.
- Rapid retraction of dies is powered by the machine's hydraulic system.
- Crimping Die Sets are easily changed segment by segment using the forked hand tool, or the whole die set can be changed in one operation using optional Rapid Change Tool.
- Hose Couplings from 1/4" up to maximum hose size 2" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings. Additional Die Sets can be purchased to crimp smaller and some larger hose sizes.

DIE SETS

| Die Set * | Colour | CLOSED DIA. mm | DIE LENGTH mm | Inc. | Opt. |
|-----------|-----------|----------------|---------------|------|------|
| R200-F | Dk Green | 13,7 | 75 | | ✓ |
| R200-G | Grey | 15,8 | 75 | ✓ | |
| R200-H | Red | 18,4 | 75 | ✓ | |
| R200-I | Lt Yellow | 21,3 | 75 | ✓ | |
| R200-J | Dk Blue | 24,7 | 75 | ✓ | |
| R200-K | Lt Green | 28,7 | 75 | ✓ | |
| R200-L | Black | 33,3 | 75 | ✓ | |
| R200-M | White | 38,6 | 75 | ✓ | |
| R200-N | Lt Blue | 44,8 | 85 | | ✓ |
| R200-O | Dk Yellow | 50,3 | 85 | ✓ | |
| R200-P | Magenta | 56,3 | 100 | ✓ | |
| R200-Q | Orange | 62,4 | 110 | ✓ | |
| R200-R | Brown | 69,2 | 110 | ✓ | |
| R200-S | Lime | 76,10 | 120 | ✓ | |

ACCESSORIES

| Part No | Description | # | Inc | Opt |
|------------|---------------------------------|---|-----|-----|
| R250-60110 | Die Holder Rack (holds 12 sets) | 1 | ✓ | |
| R250-26100 | RYCO Rapid Change Tool | 1 | ✓ | |
| R100-22120 | Forked Hand Tool | 1 | ✓ | |
| R200-22000 | Spare Die Pin | 4 | ✓ | |
| R200-12100 | Spare Die Retaining Cartridge | 1 | ✓ | |
| R100-12900 | Lithium-Moly. Grease 450g. | 1 | ✓ | |
| R100-55900 | Foot Control Switch | 1 | | ✓ |

*See page 438 for more information on accessories.

R250 - SPECIFICATIONS

| ELECTRICAL | | | | PHYSICAL - CRIMPER DIMENSIONS | | | | HYDRAULIC | | | |
|-------------------------------------|-------|-------------|--------------------|-------------------------------|-------|--------|---------------------|----------------|-----------------------|--------------------|---------------|
| VOLTAGE ¹ | PHASE | MOTOR POWER | MOTOR SPEED @ 50HZ | WIDTH | DEPTH | HEIGHT | WEIGHT ² | RATED PRESSURE | PUMP FLOW RATE @ 50HZ | RESERVOIR CAPACITY | REC. OIL TYPE |
| | | kW | rpm | mm | mm | mm | kg | bar | L/min | L | Grade |
| 415 | Three | 5,5 | 1,470 | 735 | 535 | 725 | 250 | 320 | 15,9 | 60,0 | 46 Grade |
| Crimper Dimensions with Base | | | | 735 | 575 | 1,410 | 290 | | | | |

R250 - TECHNICAL INFORMATION

| PART NUMBER | MAX. HOSE SIZE (SIX SPIRAL) | MAX. HOSE SIZE (WIRE BRAID) | CRIMPING RANGE DIAMETER | MAX. DIE OPENING | CRIMPING FORCE |
|-------------|-----------------------------|-----------------------------|-------------------------|------------------|----------------|
| | inch | inch | mm | mm | kN |
| R250-3D | 2 | 3 | 13,7-98,2 mm | 39 | 3,800 |

NOTE: * Other die sets available depending on country or application.

1) Voltage can be varied on request to suit regional standards

2) Without oil and dies

RY20

1.1/4" CRIMPER

DIGITAL CONTROL



INTRODUCTION

RECOMMENDED FOR:

RYCO RY20 Series are compact and efficient swaging machines, equally suitable for repair shop applications and high volume production of hose assemblies. They are powered by either a single phase electric motor (**RY20C-1**), or a three phase electric motor (**RY20C-3**). This series is also available with a base (**RY20CB-1** & **RY20CB-3**).

TECHNICAL DATA

- Crimp Diameter is easily set by easy to use electronic control panel; operation is by Push Buttons, with automatic stop when crimping is complete.
- Hose is fed horizontally into the machine from the front or rear.
- Rapid retraction of dies is powered by the machine's hydraulic system.
- Crimping Die Sets are easily changed segment by segment using the forked hand tool, or the whole die set can be changed in one operation using optional Rapid Change Tool.
- Hose Couplings from 1/4" up to maximum hose size 1.1/4" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings. Additional Die Sets can be purchased to crimp smaller hose sizes.

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DIE SETS

| Die Set * | CRIMPING RANGE mm | DIE LENGTH mm | Inc. | Opt. |
|----------------|----------------------|------------------|------|------|
| RY32-10 | 10-12 | 55 | | ✓ |
| RY32-12 | 12-14 | 55 | ✓ | |
| RY30-14 | 14-16 | 55 | ✓ | |
| RY32-16 | 16-19 | 55 | ✓ | |
| RY32-19 | 19-22 | 55 | ✓ | |
| RY32-22 | 22-26 | 70 | ✓ | |
| RY32-26 | 26-30 | 70 | ✓ | |
| RY32-30 | 30-34 | 75 | ✓ | |
| RY32-34 | 34-39 | 75 | ✓ | |
| RY32-39 | 39-45 | 75 | ✓ | |
| RY32-45 | 45-51 | 90 | ✓ | |
| RY32-51 | 51-57 | 90 | ✓ | |
| RY32-57 | 57-63 | 100 | | ✓ |

ACCESSORIES

| Part No | Description | # | Inc | Opt |
|-------------------|----------------------|---|-----|-----|
| RY32-22120 | Forked Hand Tool | 1 | ✓ | |
| RY32-22130 | Greaser Hand Tool | 1 | ✓ | |
| RY32-12900 | Lithium-Moly. Grease | 1 | ✓ | |
| RY32-22140 | Back Stop | 1 | ✓ | |
| RY32-26100 | Rapid Change Tool | 1 | ✓* | |
| RY32-22150 | Grease Gun | 1 | | ✓ |
| RY20-BASE | Die Rack Base | 1 | ✓* | |

*Rapid Change Tool and Die Rack Base standard only in **RY20CB**

| RY20 - SPECIFICATIONS | | | | | | | |
|---|----------------------|--------|-------------|-------------------------------|-------|--------|---------------------|
| PART NUMBER | ELECTRICAL | | | PHYSICAL - CRIMPER DIMENSIONS | | | |
| | VOLTAGE ¹ | PHASE | MOTOR POWER | WIDTH | DEPTH | HEIGHT | WEIGHT ² |
| RY20C-1 | 220* | Single | 3.60 | 610 | 600 | 600 | 190 |
| RY20C-3 | 440* | Three | 3.60 | 610 | 600 | 600 | 190 |
| Crimper Dimensions with Base (RY20CB-1/RY20CB-3) | | | | 680 | 570 | 1,350 | 226 |

| RY20 - TECHNICAL INFORMATION | | | | |
|------------------------------|----------------------|-------------------------|------------------|--------------------|
| PART NUMBER | MAX. HOSE SIZE | CRIMPING RANGE DIAMETER | MAX. DIE OPENING | CRIMPING FORCE |
| RY20C-1/RY20C-3 | inch 1.1/4 | mm 10-63 | mm 26 | kN 1,700 |

NOTE: * Other die sets available depending on country or application.
 1) Voltage can be varied on request to suit regional standards
 2) Without oil and dies

ACCESSORIES

CRIMPING EQUIPMENT

RY32

2" CRIMPER
DIGITAL CONTROL



RECOMMENDED FOR:

RYCO RY32 Series are designed to handle large jobs with speed and efficiency. They are powered by a single phase electric motor (RY32CB-1) or a three phase electric motor (RY32CB-3). This series is only available with a base.

TECHNICAL DATA

- Crimp Diameter is easily set by easy to use electronic control panel; operation is by Push Buttons with automatic stop when crimping is complete.
- Hose is fed horizontally into the machine from the front or rear. The horizontal attitude of the swage mechanism provides operators with the most ergonomic position for crimping, an important consideration especially when large 2" diameter multi spiral assemblies are required.
- Rapid retraction of dies is powered by the machine's hydraulic system.
- Crimping Die Sets are easily changed segment by segment using the forked hand tool, or the whole die set can be changed in one operation using optional Rapid Change Tool.
- Hose Couplings from 1/4" up to maximum hose size 2" can be crimped.
- Contact RYCO for capability to crimp each RYCO Coupling Series and size, and ability to accommodate Compact Elbow and Tube Bend couplings. Additional Die Sets can be purchased to crimp smaller and some larger hose sizes.

DIE SETS

| Die Set * | CRIMPING RANGE mm | DIE LENGTH mm | Inc. | Opt. |
|-----------|----------------------|------------------|------|------|
| RY32-10 | 10-12 | 55 | | ✓ |
| RY32-12 | 12-14 | 55 | ✓ | |
| RY30-14 | 14-16 | 55 | ✓ | |
| RY32-16 | 16-19 | 55 | ✓ | |
| RY32-19 | 19-22 | 55 | ✓ | |
| RY32-22 | 22-26 | 70 | ✓ | |
| RY32-26 | 26-30 | 70 | ✓ | |
| RY32-30 | 30-34 | 75 | ✓ | |
| RY32-34 | 34-39 | 75 | ✓ | |
| RY32-39 | 39-45 | 75 | ✓ | |
| RY32-45 | 45-51 | 90 | ✓ | |
| RY32-51 | 51-57 | 90 | ✓ | |
| RY32-57 | 57-63 | 100 | ✓ | |
| RY32-63 | 63-69 | 120 | ✓ | |
| RY32-69 | 69-75 | 120 | ✓ | |
| RY32-74 | 74-80 | 120 | | ✓ |
| RY32-78 | 78-87 | 120 | | ✓ |

ACCESSORIES

| Part No | Description | # | Inc | Opt |
|------------|----------------------|---|-----|-----|
| RY32-22120 | Forked Hand Tool | 1 | ✓ | |
| RY32-22130 | Greaser Hand Tool | 1 | ✓ | |
| RY32-12900 | Lithium-Moly. Grease | 1 | ✓ | |
| RY32-22140 | Back Stop | 1 | ✓ | |
| RY32-26100 | Rapid Change Tool | 1 | ✓ | |
| RY32-22150 | Grease Gun | 1 | | ✓ |

RY32 - SPECIFICATIONS

| PART NUMBER | ELECTRICAL | | | PHYSICAL - CRIMPER DIMENSIONS | | | |
|-------------|----------------------|--------|-------------------|-------------------------------|-------------|--------------|---------------------------|
| | VOLTAGE ¹ | PHASE | MOTOR POWER kW | WIDTH mm | DEPTH mm | HEIGHT mm | WEIGHT ² kg |
| RY32CB-1 | 220 | Single | 3,60 | 680 | 570 | 1400 | 263 |
| RY32CB-3 | 440 | Three | 3,60 | 680 | 570 | 1400 | 263 |

RY32 - TECHNICAL INFORMATION

| PART NUMBER | MAX. HOSE SIZE inch | CRIMPING RANGE DIAMETER mm | MAX. DIE OPENING mm | CRIMPING FORCE kN |
|------------------|------------------------|----------------------------------|------------------------|----------------------|
| RY32CB-1/R32CB-3 | 2 | 10-87 | 32 | 2,200 |

NOTE: * Other die sets available depending on country or application.

1) Voltage can be varied on request to suit regional standards

2) Without oil and dies

RY65

3" CRIMPER
DIGITAL CONTROL



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RECOMMENDED FOR:

RYCO RY65 Series crimpers are designed to handle large jobs with speed and efficiency. This series is designed to crimp hose couplings up to 3" with a crimping force of 3,200 kN. These full scale production units offer; high speed for increased productivity, large die openings to allow small and large hose assemblies to pass through easily, a wide range of available die sets, and high strength.

TECHNICAL DATA

- These heavy duty units include the Rapid Change system and inbuilt storage rack for dies as standard features.
- **RYCO RY65** Series crimpers incorporate the electronic controller with three modes, Manual, Semi-automatic and Automatic.
- The retraction diameter of the dies may be programmed, and together with quick die retraction powered by the machine's hydraulics and use of automatic backstop to control swage cycle, speed in high volume production is increased.

DIE SETS

| Die Set * | CRIMPING RANGE mm | DIE LENGTH mm | Inc. | Opt. |
|-----------|----------------------|------------------|------|------|
| RY32-10 | 10-12 | 55 | ✓ | |
| RY32-12 | 12-14 | 55 | ✓ | |
| RY30-14 | 14-16 | 55 | ✓ | |
| RY32-16 | 16-19 | 55 | ✓ | |
| RY32-19 | 19-22 | 55 | ✓ | |
| RY32-22 | 22-26 | 70 | ✓ | |
| RY32-26 | 26-30 | 70 | ✓ | |
| RY32-30 | 30-34 | 75 | ✓ | |
| RY32-34 | 34-39 | 75 | ✓ | |
| RY32-39 | 39-45 | 75 | ✓ | |
| RY32-45 | 45-51 | 90 | ✓ | |
| RY32-51 | 51-57 | 90 | ✓ | |
| RY32-57 | 57-63 | 100 | ✓ | |
| RY32-63 | 63-69 | 120 | ✓ | |
| RY32-69 | 69-75 | 120 | ✓ | |
| RY32-74 | 74-80 | 120 | ✓ | |
| RY32-78 | 78-87 | 120 | ✓ | |

ACCESSORIES

| Part No | Description | # | Inc | Opt |
|------------|----------------------|---|-----|-----|
| RY80-22120 | Forked Hand Tool | 1 | ✓ | |
| RY80-22130 | Greaser Hand Tool | 1 | ✓ | |
| RY80-12900 | Lithium-Moly. Grease | 1 | ✓ | |
| RY80-22140 | Back Stop | 1 | ✓ | |
| RY80-26100 | Rapid Change Tool | 1 | ✓ | |
| RY80-22160 | Foot Pedal | 1 | ✓ | |
| RY80-22150 | Grease Gun | 1 | ✓ | |

| RY65 - SPECIFICATIONS | | | | | | | |
|-----------------------|----------------------|-------|-------------|-------------------------------|------------|------------|---------------------|
| PART NUMBER | ELECTRICAL | | | PHYSICAL - CRIMPER DIMENSIONS | | | |
| | VOLTAGE ¹ | PHASE | MOTOR POWER | WIDTH | DEPTH | HEIGHT | WEIGHT ² |
| RY65C-3 | 440* | Three | kW 5,50 | mm 980 | mm 1000 | mm 1600 | kg 1,400 |

| RY65 - TECHNICAL INFORMATION | | | | |
|------------------------------|----------------|-------------------------|------------------|----------------|
| PART NUMBER | MAX. HOSE SIZE | CRIMPING RANGE DIAMETER | MAX. DIE OPENING | CRIMPING FORCE |
| RY65C-3 | inch 3 | mm 10-87 | mm 65 | kN 3,200 |

NOTE: * Other die sets available depending on country or application.
1) Voltage can be varied on request to suit regional standards
2) Without oil and dies

ACCESSORIES

CRIMPING EQUIPMENT

RY80

4" CRIMPER
DIGITAL CONTROL



RECOMMENDED FOR:

RYCO RY80 Series crimpers are designed to handle large jobs with speed and efficiency. This series is designed to crimp hose couplings up to 4" with a crimping force of 3,200 kN. These full scale production units offer; high speed for increased productivity, large die openings to allow small and large hose assemblies to pass through easily, a wide range of available die sets, and high strength.

TECHNICAL DATA

- These heavy duty units include the Rapid Change system and inbuilt storage rack for dies as standard features.
- **RYCO RY80** Series crimpers incorporate the electronic controller with three modes, Manual, Semi-automatic and Automatic.
- The retraction diameter of the dies may be programmed, and together with quick die retraction powered by the machine's hydraulics and use of automatic backstop to control swage cycle, speed in high volume production is increased.

ACCESSORIES

| Part No | Description | # | Inc | Opt |
|------------|------------------------------|---|-----|-----|
| RY80-22120 | Forked Hand Tool | 1 | ✓ | |
| RY80-22130 | Greaser Hand Tool | 1 | ✓ | |
| RY80-12900 | Lithium-Moly. Grease | 1 | ✓ | |
| RY80-22140 | Back Stop | 1 | ✓ | |
| RY80-26100 | Rapid Change Tool | 1 | ✓ | |
| RY80-22160 | Foot Pedal | 1 | ✓ | |
| RY80-22170 | Master Die Show Removal Tool | 1 | ✓ | |
| RY80-22150 | Grease Gun | 1 | ✓ | |

DIE SETS

| Die Set * | CRIMPING RANGE mm | DIE LENGTH mm | Inc. | Opt. |
|-----------|----------------------|------------------|------|------|
| RY32-10 | 10-12 | 55 | ✓ | |
| RY32-12 | 12-14 | 55 | ✓ | |
| RY30-14 | 14-16 | 55 | ✓ | |
| RY32-16 | 16-19 | 55 | ✓ | |
| RY32-19 | 19-22 | 55 | ✓ | |
| RY32-22 | 22-26 | 70 | ✓ | |
| RY32-26 | 26-30 | 70 | ✓ | |
| RY32-30 | 30-34 | 75 | ✓ | |
| RY32-34 | 34-39 | 75 | ✓ | |
| RY32-39 | 39-45 | 75 | ✓ | |
| RY32-45 | 45-51 | 90 | ✓ | |
| RY32-51 | 51-57 | 90 | ✓ | |
| RY32-57 | 57-63 | 100 | ✓ | |
| RY32-63 | 63-69 | 120 | ✓ | |
| RY32-69 | 69-75 | 120 | ✓ | |
| RY32-74 | 74-80 | 120 | ✓ | |
| RY32-78 | 78-87 | 120 | ✓ | |
| RY80-84 | 84-92 | 120 | ✓ | |
| RY80-92 | 92-100 | 120 | ✓ | |
| RY80-100 | 100-108 | 120 | ✓ | |
| RY80-108 | 108-116 | 120 | ✓ | |
| RY80-116 | 116-124 | 120 | ✓ | |

RY80 - SPECIFICATIONS

| PART NUMBER | ELECTRICAL | | | PHYSICAL - CRIMPER WITH BASE DIMENSIONS | | | |
|-------------|----------------------|-------|-------------|---|------------|------------|---------------------|
| | VOLTAGE ¹ | PHASE | MOTOR POWER | WIDTH | DEPTH | HEIGHT | WEIGHT ² |
| RY80C-3 | 440* | Three | kW 5,50 | mm 980 | mm 1000 | mm 1600 | kg 1450* |

RY80 - TECHNICAL INFORMATION

| PART NUMBER | MAX. HOSE SIZE | CRIMPING RANGE DIAMETER | MAX. DIE OPENING | CRIMPING FORCE |
|-------------|----------------|-------------------------|------------------|----------------|
| RY80C-3 | inch 4 | mm 4-124 | mm 80 | kN 3,200 |

NOTE: * Other die sets available depending on country or application.

1) Voltage can be varied on request to suit regional standards

2) Without oil and dies

RY125

6" CRIMPER
DIGITAL CONTROL



RECOMMENDED FOR:

RYCO RY125 Series crimpers are designed to handle large jobs with speed and efficiency. This series is designed to crimp hose couplings up to 6" with a crimping force of 4,000 kN. These full scale production units offer; high speed for increased productivity, large die openings to allow small and large hose assemblies to pass through easily, a wide range of available die sets, and high strength.

TECHNICAL DATA

- These heavy duty units include the Rapid Change system and inbuilt storage rack for dies as standard features.
- **RYCO RY125** Series crimpers incorporate the electronic controller with three modes, Manual, Semi-automatic and Automatic.
- The retraction diameter of the dies may be programmed, and together with quick die retraction powered by the machine's hydraulics and use of automatic backstop to control swage cycle, speed in high volume production is increased.

ACCESSORIES

| Part No | Description | # | Inc | Opt |
|-------------|------------------------------|---|-----|-----|
| RY125-22120 | Forked Hand Tool | 1 | ✓ | |
| RY125-22130 | Greaser Hand Tool | 1 | ✓ | |
| RY125-12900 | Lithium-Moly. Grease | 1 | ✓ | |
| RY125-22140 | Back Stop | 1 | ✓ | |
| RY125-26100 | Rapid Change Tool | 1 | ✓ | |
| RY125-22160 | Foot Pedal | 1 | ✓ | |
| RY125-22170 | Master Die Show Removal Tool | 1 | ✓ | |
| RY125-22150 | Grease Gun | 1 | ✓ | |

DIE SETS

| Die Set * | CRIMPING RANGE | DIE LENGTH | Inc. | Opt. |
|-----------|----------------|------------|------|------|
| | mm | mm | | |
| RY32-10 | 10-12 | 55 | ✓ | |
| RY32-12 | 12-14 | 55 | ✓ | |
| RY32-14 | 14-16 | 55 | ✓ | |
| RY32-16 | 16-19 | 55 | ✓ | |
| RY32-19 | 19-22 | 55 | ✓ | |
| RY32-22 | 22-26 | 70 | ✓ | |
| RY32-26 | 26-30 | 70 | ✓ | |
| RY32-30 | 30-34 | 75 | ✓ | |
| RY32-34 | 34-39 | 75 | ✓ | |
| RY32-39 | 39-45 | 75 | ✓ | |
| RY32-45 | 45-51 | 90 | ✓ | |
| RY32-51 | 51-57 | 90 | ✓ | |
| RY32-57 | 57-63 | 100 | ✓ | |
| RY32-63 | 63-69 | 120 | ✓ | |
| RY32-69 | 69-75 | 120 | ✓ | |
| RY32-74 | 74-80 | 120 | ✓ | |
| RY32-78 | 78-87 | 120 | ✓ | |
| RY125-84 | 84-92 | 120 | ✓ | |
| RY125-92 | 92-100 | 120 | ✓ | |
| RY125-100 | 100-108 | 120 | ✓ | |
| RY125-108 | 108-116 | 120 | ✓ | |
| RY125-116 | 116-124 | 120 | ✓ | |
| RY125-126 | 126-136 | 120 | ✓ | |
| RY125-136 | 136-146 | 120 | ✓ | |
| RY125-146 | 146-156 | 120 | ✓ | |
| RY125-156 | 156-166 | 120 | ✓ | |
| RY125-166 | 166-178 | 120 | ✓ | |
| RY125-178 | 178-190 | 120 | ✓ | |
| RY125-190 | 190-202 | 120 | ✓ | |

RY125 - SPECIFICATIONS

| PART NUMBER | ELECTRICAL | | | PHYSICAL - CRIMPER DIMENSIONS | | | |
|-------------|----------------------|-------|-------------|-------------------------------|------------|------------|---------------------|
| | VOLTAGE ¹ | PHASE | MOTOR POWER | WIDTH | DEPTH | HEIGHT | WEIGHT ² |
| RY125C-3 | 440 | Three | kW 5,50 | mm 1050 | mm 1300 | mm 1750 | kg 2200 |

RY125 - TECHNICAL INFORMATION

| PART NUMBER | MAX. HOSE SIZE | CRIMPING RANGE DIAMETER | MAX. DIE OPENING | CRIMPING FORCE |
|-------------|----------------|-------------------------|------------------|----------------|
| RY125C-3 | inch 6 | mm 6-202 | mm 125 | kN 4,000 |

NOTE: * Other die sets available depending on country or application.

1) * voltage can be varied on request to suit regional standards

2) Without oil and dies

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R13Y-9000

AIR/HYDRAULIC PUMP



RECOMMENDED FOR:

RYCO R13Y Air/Hydraulic Pump is an economical power pump, providing oil at pressures up to 700 bar (10,000 psi).

It operates with compressed air, supplied at pressures between by 4 bar (60 psi) and 8 bar (120 psi).

The three position treadle provides for advance, hold, and retract operation.

TECHNICAL DATA

- RYCO **R13Y-9000** supplies 620 bar (9,000 psi) oil pressure, and is only suitable for use with **RYCO R16HP** crimper.
- To connect the **RYCO R13Y-9000** to **RYCO R16HP** crimper, the following Hose Assembly should be used: TJ24D*LENGTH*T2711-0418+750*T2020N-0404+S27N-0604+750

R13Y-9000 - SPECIFICATIONS

| PART NUMBER | PUMP SPECIFICATIONS | | | | | | PHYSICAL - PUMP DIMENSIONS | | | |
|------------------|---------------------|-----------------------------------|-----------------|-----------------|-----------------|--------------|----------------------------|-------|--------|--------|
| | USABLE OIL CAPACITY | COMPRESSED AIR INPUT REQUIREMENTS | AIR CONSUMPTION | AIR INPUT PORT | OIL OUTLET PORT | OIL PRESSURE | WIDTH | DEPTH | HEIGHT | WEIGHT |
| | L | bar/psi | lpm | at front | at side | bar/psi | mm | mm | mm | kg |
| R13Y-9000 | 0,586 | 4/60 - 8/120 | 255 | 1/4" NPT female | 3/8" NPT female | 620/9000 | 142 | 375 | 145 | 5,4 |

CS12/CS14

CUT-OFF SAWS



CS12B (at left) and CS12F (at right) shown

RECOMMENDED FOR:

RYCO CS12/CS14 Series Cut-Off Saws are designed especially for use in mobile service vans or workshop environments. All models are ready for connection to exhaust fume extraction.

CS12B: Hand lever operated, Bench mounted, 12" cut off saw.

CS12F: Foot pedal operated, Free standing, 12" cut off saw.

CS14: Heavy duty, Hand lever operated, Bench mounted, 14" cut off saw.

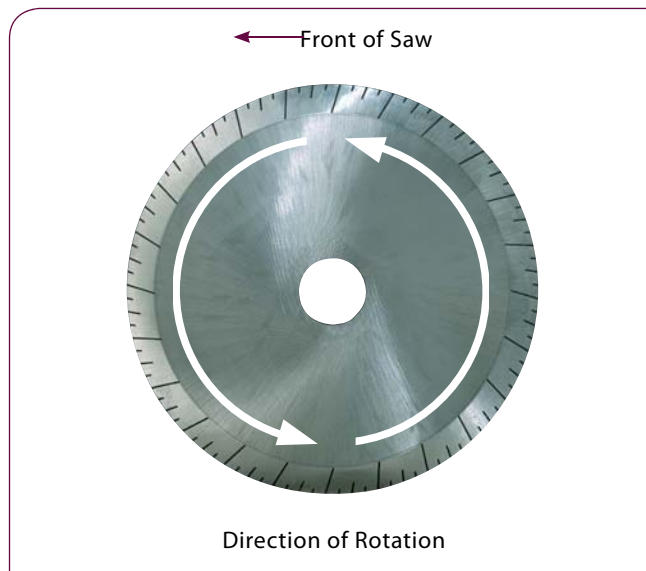
TECHNICAL DATA

- **CUTTING:** Cut up to 2" braided hose and 1.1/2" Spiral hose¹. 12" (300mm) cutting disc.
- **VOLTAGE:** Available in four voltage configurations: 240V single phase, 415V three phase, 12V DC and 24V DC.
- **INCREASED SAFETY:** Improved protection from the cutting blade. Pull motion hand lever CS12B or foot pedal CS12F controls cutting operation, instead of pushing towards the saw.
- **CLEAR GUARDS:** Clear guard to help protect from debris².
- **FUME EXTRATION:** Outlet for connection to fume extraction.

RYCO STEEL CUT-OFF SAW BLADES

RYCO Steel Cut-Off Saw Blades are designed for optimum hose cutting ability, providing safe, efficient cutting of braided and multi-spiral hoses. Matched to the RPM of RYCO Cut-Off Saws they are the only Saw Blades recommended for use with RYCO Cut-Off Saws. They are not suitable for use on non-RYCO Cut-Off Saws.

| PART NO | BLADE SIZE |
|---------|-------------|
| CWS12 | 300mm (12") |
| CWS14 | 350mm (14") |



| CS12/CS14 - SPECIFICATIONS | | | | | |
|----------------------------|------------|------------------|---------------------|-------------|-------------|
| POWER SOURCE | WIRE BRAID | CUTTING CAPACITY | | MOTOR POWER | |
| | | 4 SPIRAL | 6 SPIRAL | KW | SPEED (RPM) |
| 12V/24V | 1.1/4" | 1" | 3/4" | 1,1 | 2,800 |
| 240V | 2" | 1.1/4" | 1.1/4" | 2,2 | 2,750 |
| 415V | 2" | 1.1/2" | 1.1/2" ¹ | 3,0 | 2,750 |
| 415V (CS14) | 2" | 2" | 2" | 3,0 | 2,750 |

| CS12/CS14 - TECHNICAL INFORMATION | | | | | | |
|-----------------------------------|------------|----|--------|-------|--------|--------|
| PART NUMBER | BLADE SIZE | | LENGTH | WIDTH | HEIGHT | WEIGHT |
| | mm | in | mm | mm | mm | kg |
| CS12B | 300 | 12 | 600 | 503 | 739 | 50 |
| CS12F | 300 | 12 | 712 | 562 | 1127 | 60 |
| CS14-4HP-415 | 350 | 14 | 790 | 565 | 640 | 66 |

NOTE:

- 1) When used with RYCO Hose Support Pegs
- 2) Safety Glasses must still be worn while operating cut-off saws with clear guard.

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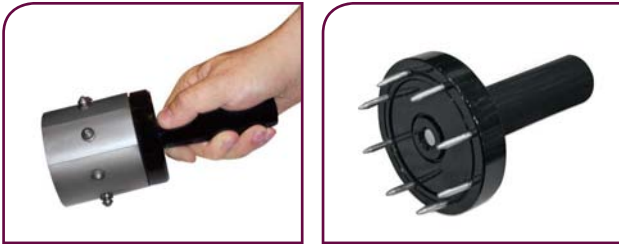
CRIMPING EQUIPMENT ACCESSORIES

CRIMPING EQUIPMENT ACCESSORIES

R125 RAPID CHANGE TOOL

(R125-26100)

When used in conjunction with the **R125 Die Holder Rack** the **R125 Rapid Change Tool** allows for fast changing of die sets. The pins on the **R125 Rapid Change Tool** engage the holes in the dies. As the crimp head opens or closes, the dies are engaged to or disengaged from the crimp head. The **R125 Rapid Change Tool** is magnetic, ensuring dies are held securely during transfer to or from the **R125** crimper.



R125 DIE HOLDER RACK

(R125-60100)

RYCO R125 is supplied complete with the **R125 Die Holder Rack** which may be benchtop or wall mounted. Using the supplied **R125 Rapid Change Tool**, a complete die change can be facilitated in just seconds.



R250 RAPID CHANGE TOOL

(R250-26100)

When used in conjunction with the **R250 Die Holder Rack** the **R250 Rapid Change Tool** allows for fast changing of die sets. The pins on the **R250 Rapid Change Tool** engage the holes in the dies. As the crimp head opens or closes, the dies are engaged to or disengaged from the crimp head. The **R250 Rapid Change Tool** is magnetic, ensuring dies are held securely during transfer to or from the **R250** crimper.



R250 DIE HOLDER BASE














(R250-60100)




RYCO R250 is supplied complete with the **R250 Die Holder Base** with in-built storage drawer. Using the supplied **R250 Rapid Change Tool**, a complete die change can be facilitated in just seconds.



FILTERS

PICTORIAL INDEX

| HYDRAULIC FILTERS | | PORTS | MAX PRESSURE | FILTRATION | FLOW RATES |
|-------------------|--|---|---|----------------|--|
| 446 | RIF-10 INLINE SPIN-ON FILTERS 1.1/4" PORTS |  | 1.1/4" BSPP | 10 bar/150 psi | 10 & 25 MIC ABS 10 & 25 MIC NOM to 170 LPM |
| 448 | RIF-12 INLINE SPIN-ON FILTERS 1.1/2" PORTS |  | 1.1/2" BSPP & SAE CODE 61 | 10 bar/150 psi | 10 & 25 MIC ABS 10 & 25 MIC NOM to 290 LPM |
| 451 | RIF14-1 INLINE SPIN-ON FILTER 1" PORTS |  | 1" BSPT | 7 bar/100 psi | 32 MICRON to 60 LPM |
| 444 | RIF-06 INLINE SPIN-ON FILTERS 3/4" PORTS |  | 3/4" BSPP | 10 bar/150 psi | 10 & 20 MIC ABS 10 & 25 MIC NOM to 70 LPM |
| 452 | RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS |  | 3/8" BSPT | 7 bar/100 psi | 15, 20, 32 MICRON to 18 LPM |
| 454 | RHF HEAVY DUTY INLINE FILTERS |  | 1/2" to 1.1/2" BSPP | 20 bar/290 psi | 10, 25 & 149 MIC to 150 LPM |
| 456 | RTI & RFI TANK TOP FILTERS |  | 1/2" to 1.1/4" BSPP | 10 bar/150 psi | 10 & 25 MICRON to 110 LPM |
| 458 | RCF COMBINATION FILTERS |  | 1/2" to 1.1/2" BSPP 2.1/2" SAE CD 61 | 20 bar/290 psi | 10, 25 & 149 MIC to 540 LPM |
| 460 | RIF15 INLINE SPIN-ON WATER TRAP FILTER |  | 1" BSPT | 7 bar/100 psi | 15 MICRON to 60 LPM |
| 461 | RG & REI CLOGGING INDICATORS |  | Return line and suction line gauges and electrical indicators | | |
| 462 | RLG & RLGT LEVEL AND TEMPERATURE GAUGES |  | LENGTHS: 76 mm, 127 mm & 254 mm (3", 5" & 10") | | |
| 463 | RSCN SUCTION STRAINERS |  | 1/4" to 3" BSPP | | 149 MICRON 12 to 600 LPM |
| 464 | RD DIFFUSERS |  | 3/4" to 2" BSPP | | 100 to 480 LPM |

| RESERVOIR ACCESSORIES | | PORTS | MAX PRESSURE | FILTRATION | FLOW RATES |
|-----------------------|--|---|--|---------------------|--|
| 465 | R60 & R300 AIR BREATHER FILTERS |  | 1/4" to 2.1/2" BSP 3/4" UNO | 10, 27, 40, 149 MIC | DISPLACEMENT: 90 to 4000 LPM |
| 466 | R381 PUSH-ON BREATHER |  | R381: PUSH-ON BREATHER CAP | | |
| 467 | RFSB FILLER CAP/STRAINER/ AIR BREATHERS |  | TWO SIZES. BAYONET CAP, METAL STRAINER BASKET | 10 & 40 MICRON | DISPLACEMENT: 90 to 720 LPM |
| 468 | R365 FILLER STRAINER |  | R365: 2" BSPP CAP, METAL STRAINER BASKET | | |

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| 469 | – Definition of Filtration |
| 469 | – The Need for Filtration in Hydraulic Systems |
| 469 | – How Filters Work |
| 470 | WHAT IS A MICRON? |
| 470 | PRESSURE DROP |
| 470 | BYPASS VALVES |
| 471 | SELECTION OF THE FILTER SIZE |
| 471 | – Warnings |
| 472 | IMPROVED FILTRATION AT NO EXTRA COST |
| 472 | – Nominal Filtration |
| 472 | – Beta Ratings |
| 472 | – Absolute Filtration |
| 473 | PRESSURE DROP FLOW GRAPHS FOR FILTERS |
| 475 | WARNINGS |
| 477 | EFFECT OF TEMPERATURE AND VISCOSITY ON FLOW RATE AND PRESSURE DROP |
| 479 | CROSS REFERENCE FOR RYCO RIF-E AND RIF-EA SPIN-ON FILTERS |
| 480 | – How To Use This Table |
| 482 | INSTRUCTIONS FOR CHANGING FILTER ELEMENTS |

IMPORTANT NOTE ON DASH SIZES:

Dash Sizes for Ports of Hydraulic Filters and Reservoir Accessories are in **EIGHTHS of an inch** (not SIXTEENTHS);

-06 = 6/8 = 3/4 inch

except that **R362, R356** and **R358** Series Air Breathers are sized in **SIXTEENTHS of an inch**.

Reference is made to "Filter Series" in several manners in this manual.

For example, an **RIF-RP1210** Filter assembly is a:

RYCO Inline Filter with Spin-On Canister (**RIF**), 1,0 bar Bypass for Return Lines (**R**),
two parallel Canisters and BSPP Ports (**P**), 1.1/2" Ports (**12**), and 10 Micron filtration (**10**).

It could be referred to/included in the following "Filter Series" groups:

as an "**RIF**" Filter includes all RYCO Inline Filters with Spin-On Canisters, all types & sizes
 as an "**RIF-12**" Filter includes all RYCO Inline Filters, Spin-On Canisters, 1.1/2" Ports (SAE or BSPP)
 as an "**RIF-R**" Filter includes all RYCO Inline Filters, Spin-On Canisters, Return Line
 as an "**RIF-RP**" Filter includes all RYCO Inline Filters, Return Line, two parallel Spin-On Canisters & BSPP Ports
 as an "**RIF-R12**" Filter includes all RYCO Inline Filters with Spin-On canisters, Return Line, 1.1/2" SAE Code 61 or BSPP Ports

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INFORMATION ABOUT RYCO RIF-E AND RIF-EA SPIN-ON FILTERS

There are two series (**RIF-E** and **RIF-EA**) and two sizes (**3/4"** and **1.1/4"**) of Spin-On Canisters shown on pages 446 and 448. (The size **3/4"** and **1.1/4"** refers to the Port size of the Filter Head).

These yellow Spin-On Canisters, and the Filter Heads they are used with, are sized and threaded the same as other internationally available Canisters and Heads:

Canisters from Europe ("European standard") mostly have BSPP Threads.

Canisters from USA ("American standard") mostly have UNF Threads.

RYCO have Spin-On Filter Canisters and Filter Heads using both the BSPP "European" and the UNF "American" system.

3/4" SPIN-ON FILTERS

PAGES 444 TO 445

For 3/4" Canisters and Heads, Post and Canister Threads are either BSPP 3/4"-14 TPI or UNF 1"-12 TPI.

The Thread Diameters are almost the same, but the pitch of the threads is different.

The Top Plates and Gaskets of the Canisters look similar.



In both BSPP and UNF canisters, the Gasket is supplied fitted in a groove in the Canister.

It is essential to use a BSPP Canister with a BSPP Filter Post, and a UNF Canister with a UNF Filter Post.

RYCO have 3/4" Spin-On Filter Series using both the BSPP "European" and the UNF "American" system:

RIF-E0610 and RIF-E0625 Spin-On Canisters have BSPP Threads

RIF-EA0810 and RIF-EA0825 Spin-On Canisters have UNF Threads.

| BSPP "EUROPEAN STANDARD" | UNF "AMERICAN STANDARD" |
|---|--|
| <p>RIF-RH06 Filter Head 3/4"-14 TPI BSPP Post Thread</p> <p>RIF-E0610 and RIF-E0625 Spin-On Canister 3/4"-14 TPI BSPP Canister Thread</p> <p>Gasket is supplied fitted in Canister and seals against Gasket Seating area of Filter Head.</p>  | <p>"A" in part number denotes UNF Threads</p> <p>RIF-RHA06 Filter Head 1"-12 TPI UNF Post Thread</p> <p>RIF-EA0810 and RIF-EA0825 Spin-On Canister 1"-12 TPI UNF Canister Thread</p> <p>Gasket is supplied fitted in Canister and seals against Gasket Seating area of Filter Head.</p>  |

NOTE:

The last two digits of Part Number of **RIF-E06** and **RIF-E10** Series Canisters are the ABSOLUTE filtration rating.

The last two digits of Part Number of **RIF-EA08** and **RIF-EA12** Series Canister are the NOMINAL filtration rating.

See pages 469 to 472 for more information on ABSOLUTE and NOMINAL filtration ratings.

1. ABSOLUTE means at least 98.7% of particles of the micron size and above are removed.
2. NOMINAL means approximately 50% of particles of the micron size and above are removed.

Part Numbers for Filter Heads on this and the following page are for Return Line Filter Heads.

For Suction Line Filter Heads, replace "R" after dash with "S", eg **RIF-SH06**.

For Blocked Bypass Filter Heads, replace "R" after dash with "B", eg **RIF-BHA06**.

1.1/4" SPIN-ON FILTERS

PAGES 446 TO 449

Similarly to 3/4" Spin-On Filters, for 1.1/4" Spin-On Filters:

Canisters from Europe ("European standard") mostly have BSPP Threads.

Canisters from USA ("American standard") mostly have UNF Threads.

RYCO have 1.1/4" Spin-On Filter Series using both the BSPP "European" and the UNF "American" system:

RIF-E1010 and **RIF-E1025** Spin-On Canisters have BSPP Threads.

RIF-EA1210 and **RIF-EA1225** Spin-On Canisters have UNF Threads.

The Top Plate of BSPP Canisters are shaped so the thread is close to the top of the Canister.

The Top Plate of UNF Canisters are "dished", with the thread below the top of the Canister.

This difference allows the use of a Dual Post Thread on the Filter Head.

BSPP 1.1/4"-11 TPI Canister threads onto the top part of a Dual Post Thread.

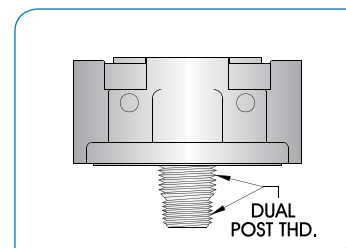
UNF 1.1/2"-16 TPI Canister threads onto the bottom part of a Dual Post Thread.

RYCO RIF-RH10, **RIF-SH10** and **RIF-BH10** 1.1/4" Filter Heads, on page 446, have dual BSPP and UNF Post Threads, to allow the use of both types of Canisters.

RYCO RIF-12 1.1/2" Filter Heads on page 448, using two 1.1/4" Canisters, also have Dual Post Threads.

The Gasket also seals differently in the two systems, BSPP and UNF, and there are two Gasket seating areas in a Dual Post Head. The BSPP Canister Gasket is supplied fitted in a groove in the Canister.

The UNF Canister Gasket is supplied loose, to be fitted into the groove in the Filter Head.



| BSPP "EUROPEAN STANDARD" | | UNF "AMERICAN STANDARD" | |
|--|--|---|--|
| <p>RIF-RH10 Filter Head 1.1/4"-11 TPI BSPP Post Thread</p> <p>RIF-E1010 and RIF-E1025 Spin-On Canister 1.1/4"-11 TPI BSPP Canister Thread</p> <p>Gasket is supplied fitted in Canister and seals against inner Gasket Seating area of Filter Head.</p> | | <p>"A" in part number denotes UNF Threads</p> <p>RIF-RH10 Filter Head 1.1/2"-16 TPI UNF Post Thread</p> <p>RIF-EA1210 and RIF-EA1225 Spin-On Canister 1.1/2"-16 TPI UNF Canister Thread</p> <p>Gasket is supplied loose and seals against outer Gasket Seating area of Filter Head.</p> | |
| | | <p>Additionally, there are different types of Gaskets used by various manufacturers of UNF Threaded Filter Heads.</p> <p>Two Gaskets are supplied with RYCO RIF-EA1210 and RIF-EA1225 UNF Threaded Spin-On Canisters (only one is to be used).</p> <p>RIF-EA12GW wide L-Section Gasket for use with RYCO Filter Heads and other heads with similar (wide) groove.</p> | |
| | | <p>RIF-EA12GM square-section Gasket with green stripe for use with Filter Heads with narrow groove.</p> <p>Photo shows a Filter Head with single UNF Post Thread and single Gasket Seating area only.</p> <p>WARNING: The Gasket must be a tight fit in the groove of the Head. Use of incorrect Gasket prevents sealing, and may cause damage. Refer to pages 446, 479 and 480; and RYCO Technical Department for further information.</p> | |

INTRODUCTION

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FILTERS

TECHNICAL

RIF-06 INLINE SPIN-ON FILTERS 3/4" PORTS



RECOMMENDED FOR:

RYCO RIF-06 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- RYCO RIF-RH06, RIF-SH06 and RIF-BH06 Filter Heads have BSPP threaded post and are used with RIF-E0610 and RIF-E0625 Spin-On Canisters. RYCO RIF-RHA06, RIF-SHA06 and RIF-BHA06 Filter Heads have UNF threaded post and are used with RIF-EA0810 and RIF-EA0825 Spin-On Canisters. See page 442 for more information.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Flow direction arrow.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit return or suction lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 461.
- Tapped and Plugged Ports for Clogging Indicator. Both Positions on Inlet Port are tapped and plugged for Return Line filters. Both Positions on Outlet Port are tapped and plugged for Suction Line filters.
- All four Positions are tapped and plugged for Blocked Bypass filters.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Powder coated steel casing.
Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber; rectangular section.

FILTRATION MEDIA: Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.

FILTRATION RATINGS:

RIF-E0610: 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.
RIF-E0625: 25 Micron Absolute (10 Mic Nom). $\beta_{20} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA0810: 10 Micron Nominal (25 Mic Abs). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.
RIF-EA0825: 25 Micron Nominal (32 Mic Abs). $\beta_{32} \geq 75$, $\beta_{25} \geq 2$.

MAXIMUM WORKING PRESSURE/VACUUM:

10 bar/150 psi in Return Line applications.
635 mmHg/25 inHg in Suction Line applications.
5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RIF-R Series for Return Lines 1,0 bar/14.5 psi.
RIF-S Series for Suction Lines 0,2 bar/2.9 psi.
RIF-B Series Blocked Bypass for special applications.

CLOGGING INDICATORS:

RGR Gauge for return lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge calibrated with negative pressures (for suction lines) and positive pressures (for return lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for RIF-R and 0,03 bar (0.5 psi) for RIF-S with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RIF-06 INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

| MOUNTING INSTRUCTIONS | DIMENSIONS (MM) |
|--|-----------------|
| <p>RYCO RIF-06 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.</p> <p>Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.</p> <p>Allow 25 mm (1") clearance below Spin-On Canister to allow Canister to be changed.</p> <p>Instructions for changing Canister are branded on the Canister, and are also shown on page 482.</p> | |

| DIMENSIONS | | | | | | | | | |
|-------------------|----------------|-----------------|--------------------|------------------|-----------------------|-----------------------|-------------|-----------------|--------------|
| CANISTER DIAMETER | OVERALL HEIGHT | CANISTER HEIGHT | WIDTH ACROSS PORTS | PORT THREAD BSPP | MOUNTING HOLE CENTRES | MOUNTING HOLE THREADS | WEIGHT HEAD | WEIGHT CANISTER | WEIGHT TOTAL |
| D mm | H mm | L mm | W mm | A inch | X mm | | kg | kg | kg |
| 93 | 182 | 135 | 103 | 3/4 | 38 | M6 x 1,0 | 0,36 | 0,48 | 0,84 |

CROSS REFERENCE INFORMATION

The Posts on **RYCO RIF-RH06**, **RIF-SH06** and **RIF-BH06** Filter Heads have 3/4"-14 TPI BSPP thread.

RYCO RIF-E0610 and **RIF-E0625** and "EUROPEAN STANDARD" Canisters have 3/4"-14 TPI BSPP thread.

The Posts on **RYCO RIF-RHA06**, **RIF-SHA06** and **RIF-BHA06** Filter Heads have 1"-12 TPI UNF thread.

RYCO RIF-EA0810 and **RIF-EA0825** and "AMERICAN STANDARD" Canisters have 1"-12 TPI UNF thread.

RYCO RIF-E0610 and **RIF-E0625** Canisters can be used on standard BSPP threaded post Filter Heads.

RYCO RIF-EA0810 and **RIF-EA0825** Canisters can be used on standard UNF threaded post Filter Heads.

For Cross Reference information, please see page 442 and page 479.

| BSPP CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING) | | | | | | | | | |
|---|------------------|--------------|---------------------------------|----------|---------------------|--------------------|------------------------------|------------------|-----------------|
| COMPLETE FILTER | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE/VACUUM | | ABSOLUTE FILTRATION | NOMINAL FILTRATION | REPLACEMENT SPIN-ON CANISTER | HEAD ONLY | |
| SERIES | PART NO | inch | lpm | | micron | micron | PART NO | PART NO | |
| Return Filter 1,0 bar Bypass | RIF-R0610 | 3/4 | 40 | 10 bar | 150 psi | 10 | 3 | RIF-E0610 | RIF-RH06 |
| | RIF-R0625 | 3/4 | 55 | 10 bar | 150 psi | 25 | 10 | RIF-E0625 | RIF-RH06 |
| Suction Filter 0,2 bar Bypass | RIF-S0610 | 3/4 | 4 | 635 mmHg | 25 inHg | 10 | 3 | RIF-E0610 | RIF-SH06 |
| | RIF-S0625 | 3/4 | 6 | 635 mmHg | 25 inHg | 25 | 10 | RIF-E0625 | RIF-SH06 |
| Blocked Bypass Filter | RIF-B0610 | 3/4 | | | | 10 | 3 | RIF-E0610 | RIF-BH06 |
| | RIF-B0625 | 3/4 | | | | 25 | 10 | RIF-E0625 | RIF-BH06 |

| UNF CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING) | | | | | | | | | |
|--|-------------------|--------------|---------------------------------|----------|---------------------|--------------------|------------------------------|-------------------|------------------|
| COMPLETE FILTER | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE/VACUUM | | ABSOLUTE FILTRATION | NOMINAL FILTRATION | REPLACEMENT SPIN-ON CANISTER | HEAD ONLY | |
| SERIES | PART NO | inch | lpm | | micron | micron | PART NO | PART NO | |
| Return Filter 1,0 bar Bypass | RIF-RA0610 | 3/4 | 55 | 10 bar | 150 psi | 25 | 10 | RIF-EA0810 | RIF-RHA06 |
| | RIF-RA0625 | 3/4 | 70 | 10 bar | 150 psi | 32 | 25 | RIF-EA0825 | RIF-RHA06 |
| Suction Filter 0,2 bar Bypass | RIF-SA0610 | 3/4 | 6 | 635 mmHg | 25 inHg | 25 | 10 | RIF-EA0810 | RIF-SHA06 |
| | RIF-SA0625 | 3/4 | 9 | 635 mmHg | 25 inHg | 32 | 25 | RIF-EA0825 | RIF-SHA06 |
| Blocked Bypass Filter | RIF-BA0610 | 3/4 | | | | 25 | 10 | RIF-EA0810 | RIF-BHA06 |
| | RIF-BA0625 | 3/4 | | | | 32 | 25 | RIF-EA0825 | RIF-BHA06 |

RIF-10 INLINE SPIN-ON FILTERS 1.1/4" PORTS



RECOMMENDED FOR:

RYCO RIF-10 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Specially moulded Gaskets.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Flow direction arrow.
- RYCO RIF-RH10, RIF-SH10 and RIF-BH10 Filter Heads are Dual Threaded on the Filter Post giving worldwide compatibility of Spin-On Canisters. RYCO RIF-RH10, RIF-SH10 and RIF-BH10 Filter Heads can be used with both RIF-E10 and RIF-EA12 Series Spin-On Canisters. See page 443 for more information.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit Return Lines or Suction Lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 461.
- Tapped and Plugged Ports for Clogging Indicator. Both Positions on Inlet Port are tapped and plugged for Return Line filters. Both Positions on Outlet Port are tapped and plugged for Suction Line filters. All four Positions are tapped and plugged for Blocked Bypass filters.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Powder coated steel casing. Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber.

FILTRATION MEDIA: Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

FILTRATION RATINGS:

RIF-E1010: 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.

RIF-E1025: 25 Micron Absolute (10 Mic Nom). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA1210: 10 Micron Nominal (27 Mic Abs). $\beta_{27} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA1225: 25 Micron Nominal (36 Mic Abs). $\beta_{36} \geq 75$, $\beta_{25} \geq 2$.

MAXIMUM WORKING PRESSURE/VACUUM:

10 bar/150 psi in Return Line applications.

635 mmHg/25 inHg in Suction Line applications.

5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.

OPERATING TEMPERATURE:

80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RIF-R Series for Return Lines 1,0 bar/14.5 psi.

RIF-S Series for Suction Lines 0,2 bar/2.9 psi.

RIF-B Series Blocked Bypass for special applications.

CLOGGING INDICATORS:

RGR Gauge for return lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge calibrated with negative pressures (for suction lines) and positive pressures (for return lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES:

As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for **RIF-R** and 0,03 bar (0.5 psi) for **RIF-S** with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines" and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RIF-10 INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

RYCO RIF-10 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.

Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 35 mm (1.35") clearance below Spin-On Canister to allow Canister to be changed.

Instructions for changing Canister are branded on the Canister, and are also shown on page 482.

DIMENSIONS

| CANISTER DIAMETER | OVERALL HEIGHT | CANISTER HEIGHT | WIDTH ACROSS PORTS | PORT THREAD BSPP | MOUNTING HOLE CENTRES | MOUNTING HOLE THREADS | WEIGHT HEAD | WEIGHT CANISTER | WEIGHT TOTAL |
|-------------------|----------------|-----------------|--------------------|------------------|-----------------------|-----------------------|-------------|-----------------|--------------|
| D mm | H mm | L mm | W mm | A inch | X mm | | kg | kg | kg |
| 127 | 246 | 178 | 140 | 1.1/4 | 48 | M8 X 1,25 | 0,96 | 1,08 | 2,04 |

CROSS REFERENCE INFORMATION

The Posts on **RYCO RIF-RH10**, **RIF-SH10** and **RIF-BH10** Series Heads are Dual Threaded to allow the use of both common types of Spin-On Canisters.

RYCO RIF-E1010 and **RIF-E1025** and "European standard" Canisters have Top Plate with 1.1/4"-11 TPI BSPP thread to screw onto the upper part of the Dual Post Thread.

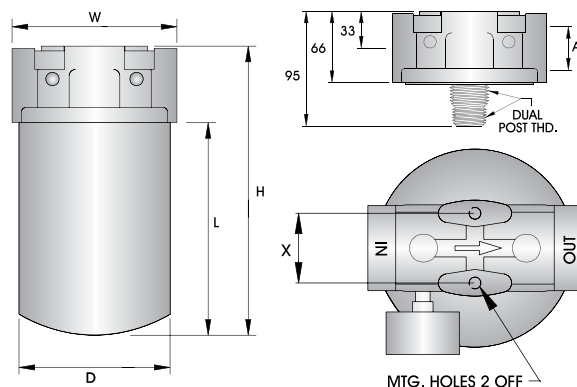
RYCO RIF-EA1210 and **RIF-EA1225** and "American standard" Canisters have a dished Top Plate with 1.1/2"-16 TPI UNF thread to screw onto the lower part of the Dual Post Thread.

RYCO RIF-E1010 AND RIF-E1025 Canisters, threaded 1.1/4"-11 TPI BSPP, can be used on standard BSPP or Dual Threaded Post Filter Heads.

RYCO RIF-EA1210 and **RIF-EA1225** Canisters, threaded 1.1/2"-16 TPI UNF, can be used on standard UNF or Dual Threaded Post Filter Heads.

For Cross Reference information, please see pages 442 and 479.

DIMENSIONS (mm)



PART NUMBERS AND SPECIFICATIONS

| COMPLETE FILTER | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE/VACUUM | ABSOLUTE FILTRATION | NOMINAL FILTRATION | REPLACEMENT SPIN-ON CANISTER | HEAD ONLY |
|-----------------|-----------|--------------|---------------------------------|---------------------|--------------------|------------------------------|-----------|
|-----------------|-----------|--------------|---------------------------------|---------------------|--------------------|------------------------------|-----------|

BSPP CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING)

| SERIES | PART NO | inch | lpm | | | micron | micron | PART NO | PART NO |
|----------------------------------|------------------|-------|-----|----------|---------|--------|--------|------------------|-----------------|
| Return Filter 1,0 bar Bypass | RIF-R1010 | 1.1/4 | 100 | 10 bar | 150 psi | 10 | 3 | RIF-E1010 | RIF-RH10 |
| | RIF-R1025 | 1.1/4 | 135 | 10 bar | 150 psi | 25 | 10 | RIF-E1025 | RIF-RH10 |
| Suction Filter 0,2 bar Bypass | RIF-S1010 | 1.1/4 | 8 | 635 mmHg | 25 inHg | 10 | 3 | RIF-E1010 | RIF-SH10 |
| | RIF-S1025 | 1.1/4 | 16 | 635 mmHg | 25 inHg | 25 | 10 | RIF-E1025 | RIF-SH10 |
| Blocked Bypass Filter | RIF-B1010 | 1.1/4 | | | | 10 | 3 | RIF-E1010 | RIF-BH10 |
| | RIF-B1025 | 1.1/4 | | | | 25 | 10 | RIF-E1025 | RIF-BH10 |

UNF CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING)

| SERIES | PART NO | inch | lpm | | | micron | micron | PART NO | PART NO |
|----------------------------------|-------------------|-------|-----|----------|---------|--------|--------|-------------------|-----------------|
| Return Filter 1,0 bar Bypass | RIF-RA1010 | 1.1/4 | 135 | 10 bar | 150 psi | 27 | 10 | RIF-EA1210 | RIF-RH12 |
| | RIF-RA1025 | 1.1/4 | 170 | 10 bar | 150 psi | 36 | 25 | RIF-EA1225 | RIF-RH12 |
| Suction Filter 0,2 bar Bypass | RIF-SA1010 | 1.1/4 | 16 | 635 mmHg | 25 inHg | 27 | 10 | RIF-EA1210 | RIF-SH12 |
| | RIF-SA1025 | 1.1/4 | 20 | 635 mmHg | 25 inHg | 36 | 25 | RIF-EA1225 | RIF-SH12 |
| Blocked Bypass Filter | RIF-BA1010 | 1.1/4 | | | | 27 | 10 | RIF-EA1210 | RIF-BH12 |
| | RIF-BA1025 | 1.1/4 | | | | 36 | 25 | RIF-EA1225 | RIF-BH12 |

RIF-12 INLINE SPIN-ON FILTERS 1.1/4" PORTS



Left to right: RIF-V12, RIF-P12, RIF-C12

RECOMMENDED FOR:

RYCO RIF-12 Series Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment. Working pressures up to 10 bar (150 psi), and high flow rates enable these Filters to be utilised in a wide range of applications.

FEATURES OF RYCO SPIN-ON CANISTERS & HEADS:

- RIF-V12 series with BSPP Ports.
RIF-P12 series with BSPP Ports.
RIF-C12 series with SAE Code 61 Ports (with UNC Bolt Holes).
- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- High efficiency.
- Multi layer filtration media.
- Available in two different Absolute filtration ratings, and two different Nominal filtration ratings.
- High working pressures.
- Specially moulded Gaskets.
- Rolled seam on Canisters.
- High collapse resistance inner core.
- High quality cast Aluminium Head.
- Tapped mounting holes.
- Easy to install.
- RYCO RIF-12 Filter Heads are Dual Threaded on the Filter Post giving world wide compatibility of Spin-On Canisters. RIF-12 Filter Heads can be used with both RIF-E10 and RIF-EA12 Series Spin-On Canisters. See page 442 for more information.
- For Cross Reference information, see page 447; the same Spin-On Canisters are used. See also pages 442 and 479.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- Two different Bypass Valve cracking pressures are available to suit Return Line or Suction Lines, plus Blocked Bypass for special applications.
- Clogging Indicators available, see page 461.
- Tapped and Plugged Ports for Clogging Indicator. For RIF-V12 Series, there are two Positions, one each for Return Line and Suction Line applications. Both are tapped and plugged. For RIF-P12 and RIF-C12 Series, both Return Line Positions on Inlet side for Return Line filters are tapped and plugged. Both Suction Line Positions on Outlet side for Suction Line filters are tapped and plugged.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Powder coated steel casing. Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber.

FILTRATION MEDIA: Cellulose with reinforced synthetic fibres, folic impregnated resin; extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.

FILTRATION RATINGS:

RIF-E1010: 10 Micron Absolute (3 Mic Nom). $\beta_{10} \geq 75$, $\beta_3 \geq 2$.

RIF-E1025: 25 Micron Absolute (10 Mic Nom). $\beta_{25} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA1210: 10 Micron Nominal (27 Mic Abs). $\beta_{27} \geq 75$, $\beta_{10} \geq 2$.

RIF-EA1225: 25 Micron Nominal (36 Mic Abs). $\beta_{36} \geq 75$, $\beta_{25} \geq 2$.

MAXIMUM WORKING PRESSURE/VACUUM:

10 bar/150 psi in Return Line applications.

635 mmHg/25 inHg in Suction Line applications.

5,5 bar/80 psi for Return Line applications with Blocked Bypass Valve.

Operating Temperature: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RIF-R Series for return lines 1,0 bar/14.5 psi.

RIF-S Series for suction lines 0,2 bar/2.9 psi.

RIF-B Series Blocked Bypass for special applications.

CLOGGING INDICATORS:

RGR Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for RIF-R and 0,03 bar (0.5 psi) for RIF-S with 30 centistoke viscosity oil (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RIF-12 INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

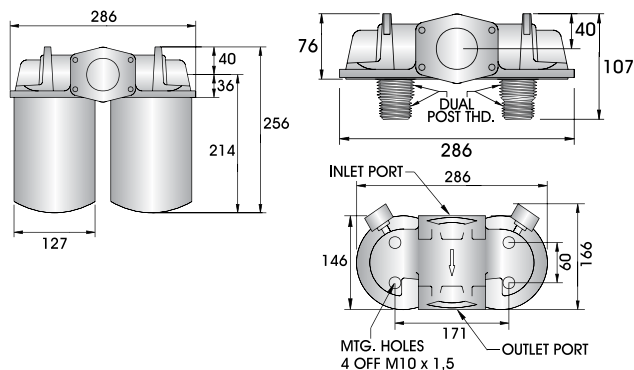
RYCO RIF-12 Series Filter Heads can be mounted to equipment by means of two or four tapped mounting holes in head. Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.

Allow 35 mm (1.35") clearance below Spin-On Canister to allow Canister to be changed.

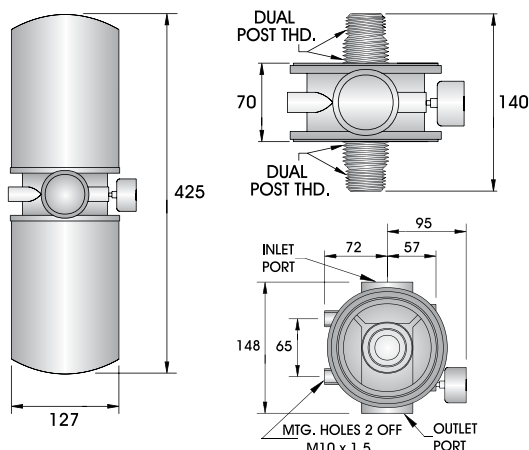
Instructions for changing Canister are branded on the Canister, and are also shown on page 482.

DIMENSIONS (mm)

RIF - P12/C12 SERIES



RIF - V12 SERIES



PART NUMBERS AND SPECIFICATIONS

| COMPLETE FILTER | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE/VACUUM | ABSOLUTE FILTRATION | NOMINAL FILTRATION | REPLACEMENT SPIN-ON CANISTER | HEAD ONLY |
|-----------------|-----------|--------------|---------------------------------|---------------------|--------------------|------------------------------|-----------|
|-----------------|-----------|--------------|---------------------------------|---------------------|--------------------|------------------------------|-----------|

BSPP CANISTER THREADS, LAST 2 DIGITS ARE THE ABSOLUTE RATING

| SERIES | PART NO | inch | lpm | | | micron | micron | PART NO | PART NO |
|----------------------------------|-------------------|-------------|-----|----------|---------|--------|--------|------------------|------------------|
| Return Filter 1,0 bar Bypass | RIF-RV1210 | 1.1/2 BSPP | 160 | 10 bar | 150 psi | 10 | 3 | RIF-E1010 | RIF-RVH12 |
| | RIF-RV1225 | 1.1/2 BSPP | 225 | 10 bar | 150 psi | 25 | 10 | RIF-E1025 | RIF-RVH12 |
| | RIF-RP1210 | 1.1/2 BSPP | 160 | 10 bar | 150 psi | 10 | 3 | RIF-E1010 | RIF-RPH12 |
| | RIF-RP1225 | 1.1/2 BSPP | 225 | 10 bar | 150 psi | 25 | 10 | RIF-E1025 | RIF-RPH12 |
| | RIF-RC1210 | 1.1/2 CD 61 | 160 | 10 bar | 150 psi | 10 | 3 | RIF-E1010 | RIF-RCH12 |
| | RIF-RC1225 | 1.1/2 CD 61 | 225 | 10 bar | 150 psi | 25 | 10 | RIF-E1025 | RIF-RCH12 |
| Suction Filter 0,2 bar Bypass | RIF-SV1210 | 1.1/2 BSPP | 15 | 635 mmHg | 25 inHg | 10 | 3 | RIF-E1010 | RIF-SVH12 |
| | RIF-SV1225 | 1.1/2 BSPP | 27 | 635 mmHg | 25 inHg | 25 | 10 | RIF-E1025 | RIF-SVH12 |
| | RIF-SP1210 | 1.1/2 BSPP | 15 | 635 mmHg | 25 inHg | 10 | 3 | RIF-E1010 | RIF-SPH12 |
| | RIF-SP1225 | 1.1/2 BSPP | 27 | 635 mmHg | 25 inHg | 25 | 10 | RIF-E1025 | RIF-SPH12 |
| | RIF-SC1210 | 1.1/2 CD 61 | 15 | 635 mmHg | 25 inHg | 10 | 3 | RIF-E1010 | RIF-SCH12 |
| | RIF-SC1225 | 1.1/2 CD 61 | 27 | 635 mmHg | 25 inHg | 25 | 10 | RIF-E1025 | RIF-SCH12 |
| Blocked Bypass Filter | RIF-BV1210 | 1.1/2 BSPP | | | | 10 | 3 | RIF-E1010 | RIF-BVH12 |
| | RIF-BV1225 | 1.1/2 BSPP | | | | 25 | 10 | RIF-E1025 | RIF-BVH12 |
| | RIF-BP1210 | 1.1/2 BSPP | | | | 10 | 3 | RIF-E1010 | RIF-BPH12 |
| | RIF-BP1225 | 1.1/2 BSPP | | | | 25 | 10 | RIF-E1025 | RIF-BPH12 |
| | RIF-BC1210 | 1.1/2 CD 61 | | | | 10 | 3 | RIF-E1010 | RIF-BCH12 |
| | RIF-BC1225 | 1.1/2 CD 61 | | | | 25 | 10 | RIF-E1025 | RIF-BCH12 |

Technical specifications for RIF-12 Inline Spin-On Filters continued on next page.

FILTERS

RIF-12 INLINE SPIN-ON FILTERS 1.1/2" PORTS

Technical specifications for RIF-12 Inline Spin-On Filters continued from previous page.

| PART NUMBERS AND SPECIFICATIONS | | | | | | | | | |
|---|--------------|-----------------|---------------------------------------|----------|------------------------|-----------------------|------------------------------------|--------------|-----------|
| COMPLETE FILTER | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE/VACUUM | | ABSOLUTE FILTRATION | NOMINAL FILTRATION | REPLACEMENT SPIN-ON CANISTER | HEAD ONLY | |
| UNF CANISTER THREADS (LAST 2 DIGITS ARE THE ABSOLUTE RATING) | | | | | | | | | |
| SERIES | PART NO | inch | lpm | | | micron | micron | PART NO | PART NO |
| Return Filter 1,0 bar Bypass | RIF-RVA1210 | 1.1/2 BSPP | 225 | 10 bar | 150 psi | 27 | 10 | RIF-EA1210 | RIF-RVH12 |
| | RIF-RVA1225 | 1.1/2 BSPP | 290 | 10 bar | 150 psi | 36 | 25 | RIF-EA1225 | RIF-RVH12 |
| | RIF-RPA1210 | 1.1/2 BSPP | 225 | 10 bar | 150 psi | 27 | 10 | RIF-EA1210 | RIF-RPH12 |
| | RIF-RPA1225 | 1.1/2 BSPP | 290 | 10 bar | 150 psi | 36 | 25 | RIF-EA1225 | RIF-RPH12 |
| | RIF-RCA1210 | 1.1/2 CD 61 | 225 | 10 bar | 150 psi | 27 | 10 | RIF-EA1210 | RIF-RCH12 |
| | RIF-RCA1225 | 1.1/2 CD 61 | 290 | 10 bar | 150 psi | 36 | 25 | RIF-EA1225 | RIF-RCH12 |
| Suction Filter 0,2 bar Bypass | RIF-SVA1210 | 1.1/2 BSPP | 27 | 635 mmHg | 25 inHg | 27 | 10 | RIF-EA1210 | RIF-SVH12 |
| | RIF-SVA1225 | 1.1/2 BSPP | 34 | 635 mmHg | 25 inHg | 36 | 25 | RIF-EA1225 | RIF-SVH12 |
| | RIF-SPA1210 | 1.1/2 BSPP | 27 | 635 mmHg | 25 inHg | 27 | 10 | RIF-EA1210 | RIF-SPH12 |
| | RIF-SPA1225 | 1.1/2 BSPP | 34 | 635 mmHg | 25 inHg | 36 | 25 | RIF-EA1225 | RIF-SPH12 |
| | RIF-SCA1210 | 1.1/2 CD 61 | 27 | 635 mmHg | 25 inHg | 27 | 10 | RIF-EA1210 | RIF-SCH12 |
| | RIF-SCA1225 | 1.1/2 CD 61 | 34 | 635 mmHg | 25 inHg | 36 | 25 | RIF-EA1225 | RIF-SCH12 |
| Blocked Bypass Filter | RIF-BVA1210 | 1.1/2 BSPP | | | | 27 | 10 | RIF-EA1210 | RIF-BVH12 |
| | RIF-BVA1225 | 1.1/2 BSPP | | | | 36 | 25 | RIF-EA1225 | RIF-BVH12 |
| | RIF-BPA1210 | 1.1/2 BSPP | | | | 27 | 10 | RIF-EA1210 | RIF-BPH12 |
| | RIF-BPA1225 | 1.1/2 BSPP | | | | 36 | 25 | RIF-EA1225 | RIF-BPH12 |
| | RIF-BCA1210 | 1.1/2 CD 61 | | | | 27 | 10 | RIF-EA1210 | RIF-BCH12 |
| | RIF-BCA1225 | 1.1/2 CD 61 | | | | 36 | 25 | RIF-EA1225 | RIF-BCH12 |

RIF14-1 INLINE SPIN-ON FILTERS 1" PORTS



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TECHNICAL

RECOMMENDED FOR:

RYCO RIF14-1 Filters are designed for installation in mineral and petroleum based hydraulic oil return lines, to maximum working temperature 80°C (176°F) and maximum working pressure 7 bar (100 psi).

FEATURES:

- Disposable Spin-On Canisters.
- Changing of filter element is quick and simple.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 1 inch BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by flow direction arrow.
- Bypass Valve in the Aluminium Head allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Painted steel casing. Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber.

TECHNICAL DATA (CONTINUED)

FILTRATION MEDIA: Cellulose with synthetic fibres added, phenolic resin impregnated, and silicone treated for water resistance; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

FILTRATION RATING: 32 Micron Nominal.

MAXIMUM WORKING PRESSURE: 7 bar (100 psi). Not suitable for Suction Line applications.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE: 0,7 bar (10 psi)

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,3 bar (4.4 psi) with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RIF14-1 INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

| MOUNTING INSTRUCTIONS | | | | | DIMENSIONS (MM) | | | | |
|---|--|--|--|--|-----------------|--|--|--|--|
| <p>RYCO RIF14-1 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.</p> <p>Filter Heads can be mounted directly between rigid pipes provided, that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.</p> <p>Allow 15 mm (0.6") clearance below Spin-On Canister to allow Canister to be changed.</p> <p>Instructions for changing Canister are shown on page 482.</p> | | | | | | | | | |

| DIMENSIONS | | | | | | | | | |
|-------------------|----------------|-----------------|--------------------|------------------|-----------------------|-----------------------|-------------|-----------------|--------------|
| CANISTER DIAMETER | OVERALL HEIGHT | CANISTER HEIGHT | WIDTH ACROSS PORTS | PORT THREAD BSPT | MOUNTING HOLE CENTRES | MOUNTING HOLE THREADS | WEIGHT HEAD | WEIGHT CANISTER | WEIGHT TOTAL |
| D mm | H mm | L mm | W mm | A inch | X mm | | kg | kg | kg |
| 94 | 205 | 140 | 116 | 1 | 63,3 | 3/8 - 16 | 0,49 | 0,48 | 0,97 |

| RIF14-1 INLINE SPIN-ON FILTER 1" PORTS | | | | | | |
|--|-----------|--------------|--------------------------|--------------------|------------------------------|------------|
| COMPLETE FILTER | PORT BSPT | NOMINAL FLOW | MAXIMUM WORKING PRESSURE | NOMINAL FILTRATION | REPLACEMENT SPIN-ON CANISTER | PART NO |
| PART NO | inch | lpm | | micron | PART NO | |
| RIF-RA0610 | 3/4 | 55 | 10 bar | 150 psi | 10 | RIF-EA0810 |

FILTERS

RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS

RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS



RECOMMENDED FOR:

RYCO RIF-FA9 and RIF-FA10 Filters are designed for installation in mineral and petroleum based hydraulic oil return lines. RYCO RIF-FA8 and RIF-FA39 Filters are designed for petrol and diesel fuel filtration. Not suitable for aviation applications.

FEATURES:

- Disposable Spin-On Canisters.
- Changing of filter elements is quick and simple.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 3/8" BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by a flow direction arrow.
- Filter Head dimensions are the same for all RIF-FA Series.
- Bypass Valve built into the Canister of RIF-FA9 and RIF-FA10 allows the flow of oil to bypass the Canister if the Filter becomes blocked with contaminant.
- RIF-FA8 and RIF-FA39 have no Bypass Valve. Spin-On Canisters must be replaced at regular intervals, before clogging occurs.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Painted steel casing. Z39 Canister is also zinc passivated inside and out for extra corrosion resistance. Pressed steel top plate.

GASKET: Nitrile (Buna N) oil resistant rubber.

FILTRATION MEDIA: Cellulose, phenolic resin impregnated and silicone treated for water resistance, extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

MAXIMUM WORKING PRESSURE: See table below. Not suitable for Suction Line applications.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE & LOCATION:

RIF-FA9 and RIF-FA10: 1,0 bar (14.5 psi) in Canister. RIF-FA8 and RIF-FA39: no Bypass Valve.

NOMINAL FLOW RATES: As shown below cause a clean element pressure drop as follows:
with 30 centistoke viscosity oil; 0,5 bar (7.3 psi) for RIF-FA9 and RIF-FA10 (see page 380 for more detail). The actual flow rate will vary if the oil is of a different viscosity.
with petrol and diesel fuel; 0,3 bar (4.4 psi) for RIF-FA8 and RIF-FA39. See also pages 473, 475 and 477 for more information.

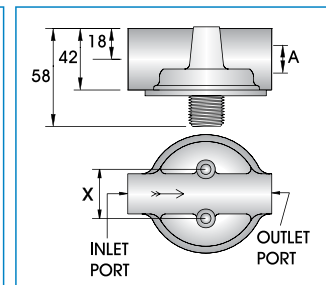
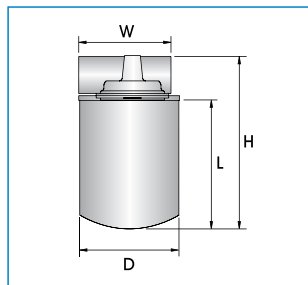
RIF-FA INLINE SPIN-ON FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

Allow 20 mm (3/4") clearance below Spin-On Canister to allow Canister to be changed.

Instructions for changing Canister are shown on page 482.

DIMENSIONS (mm)



RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS

| COMPLETE FILTER | CANISTER DIAMETER | OVERALL HEIGHT | CANISTER HEIGHT | DIMENSIONS | | | MOUNTING HOLE CENTRES | MOUNTING HOLE THREADS | WEIGHT HEAD | WEIGHT CANISTER | WEIGHT TOTAL |
|-----------------|-------------------|----------------|-----------------|--------------------|------------------|------|-----------------------|-----------------------|-------------|-----------------|--------------|
| | | | | WIDTH ACROSS PORTS | PORT THREAD BSPT | | | | | | |
| PART NO | D mm | H mm | L mm | W mm | A inch | X mm | | | kg | kg | kg |
| RIF-FA10 | 100 | 145 | 103 | 88 | 3/8 | 38,1 | | 5/16 - 18 | 0,33 | 0,41 | 0,74 |
| RIF-FA9 | 93 | 185 | 143 | 88 | 3/8 | 38,1 | | 5/16 - 18 | 0,33 | 0,46 | 0,79 |
| RIF-FA8 | 93 | 185 | 143 | 88 | 3/8 | 38,1 | | 5/16 - 18 | 0,33 | 0,48 | 0,81 |
| RIF-FA39 | 93 | 142 | 100 | 88 | 3/8 | 38,1 | | 5/16 - 18 | 0,33 | 0,39 | 0,72 |

| RIF-FA INLINE SPIN-ON FILTERS 3/8" PORTS | | | | | | |
|--|-----------|--------------|--------------------------|-----|--------------------|------------------------------|
| COMPLETE FILTER | PORT BSPT | NOMINAL FLOW | MAXIMUM WORKING PRESSURE | | NOMINAL FILTRATION | REPLACEMENT SPIN-ON CANISTER |
| PART NO | inch | lpm | bar | psi | micron | PART NO |
| RIF-FA10 | 3/8 | 13 | 7 | 100 | 32 | Z89A |
| RIF-FA9 | 3/8 | 13 | 7 | 100 | 32 | Z9 |
| RIF-FA8 | 3/8 | 18 | 5,5 | 80 | 20 | Z8 |
| RIF-FA39 | 3/8 | 18 | 5,5 | 80 | 15 | Z39 |

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FILTERS

RHF HEAVY DUTY INLINE FILTERS

RHF HEAVY DUTY INLINE FILTERS



RECOMMENDED FOR HEAVY DUTY:

RYCO RHF Series Heavy Duty Inline Filters are designed for installation in return lines or suction lines of both stationary and mobile hydraulic equipment.

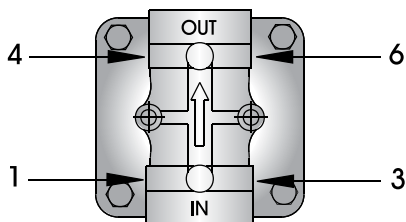
Heavy duty design, maximum working pressures up to 20 bar (290 psi) and high flow rates enable these Filters to be used in a wide range of applications. They may also be used for low pressure delivery applications.

There are three sizes: RHF-05, RHF-10 and RHF-20; with RHF-10 and RHF-20 models each available with two different Port sizes.

In addition to standard Filter Elements, 149 Micron Stainless Steel Mesh Filter Elements are available. They are especially suitable for Suction Line use, as they are easier to service than an in-tank Suction Strainer.

FEATURES:

- All Aluminium Cast Construction.
- One Piece castings for Filter Head and Bowl.
- Tapped mounting holes.
- Easy to install.
- BSPP threaded Ports.
- Inlet and Outlet Ports are clearly identified.
- Sealing of Filter Head and Bowl is by O Ring located in groove in Bowl.
- Bypass Valve in the Aluminium Head.
- Two different Bypass Valve cracking pressures are available to suit Return Lines or Suction Lines, plus Blocked Bypass for special applications.
- Drain Plug on RHF-10 and RHF-20 sizes allows Filter to be drained prior to changing Filter Element.
- Clogging Indicators available, see page 461.
- Tapped and Plugged Port for Clogging Indicator. Position 3 on Inlet Port is tapped (for Return Line Filters). If required, Positions 1, 4 or 6 can also be tapped.



TECHNICAL DATA

FILTER HEAD AND BOWL: Cast Aluminium.

GASKET: Nitrile (Buna N) oil resistant rubber O Ring between Filter Head and Bowl.

FILTRATION RATINGS: 10 Micron Nominal; 25 Micron Nominal; and 149 Micron Absolute.

FILTRATION MEDIA: 10 and 25 Micron Nominal are Cellulose, phenolic resin impregnated; 149 Micron is Stainless Steel Mesh. All are extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

MAXIMUM WORKING PRESSURE/VACUUM:

20 bar/290 psi in Return Line applications.
635 mmHg/25 inHg Maximum Vacuum in Suction Line applications. Recommended use for suction lines is Stainless Steel Mesh Filter Element, Cellulose not recommended. 5.5 bar/80 psi for Return Line applications with Blocked Bypass Valve.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Head.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RIF-R Series for return lines 1,0 bar/14.5 psi.
RIF-S Series for suction lines 0,2 bar/2.9 psi.
RIF-B Series Blocked Bypass for special applications.

CLOGGING INDICATORS:

RGR Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) or RHF-R and 0,03 bar (0.5 psi) for RHF-S with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

RHF HEAVY DUTY INLINE FILTERS - TECHNICAL SPECIFICATIONS

| MOUNTING INSTRUCTIONS | DIMENSIONS |
|--|------------|
| <p>RYCO RHF Series Filters can be mounted to equipment by means of two tapped mounting holes in head.</p> <p>Filters can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Head casting.</p> <p>Allow length L of Bowl clearance below Bowl to allow Filter Elements to be changed.</p> <p>Instructions for changing filter elements are shown on page 482.</p> | |

| DIMENSIONS | | | | | | | | | | | |
|---------------|---------------|----------------|-------------|--------------------|------------------|--------------------|--------------------|-----------------------|-----------------------|-----------------------|--------------|
| CASTING SIZE | BOWL DIAMETER | OVERALL HEIGHT | BOWL HEIGHT | WIDTH ACROSS PORTS | PORT THREAD BSPP | PORT CENTRE TO TOP | HEAD TOP TO GASKET | MOUNTING HOLE CENTRES | MOUNTING HOLE THREADS | WEIGHT FILTER ELEMENT | WEIGHT TOTAL |
| | D mm | H mm | L mm | W mm | A inch | C mm | Z mm | X mm | | kg | kg |
| RHF-05 | 66 | 149 | 105 | 88 | 1/2 | 21 | 44 | 38 | M8 x 1,25 | 0,12 | 0,9 |
| RHF-10 | 88 | 185 | 135 | 114 | 3/4 or 1 | 23 | 50 | 44 | M8 x 1,25 | 0,15 | 1,5 |
| RHF-20 | 119 | 305 | 240 | 142 | 1.1/4 or 1.1/2 | 31 | 65 | 57 | M10 x 1,5 | 0,37 | 3,5 |

| RHF HEAVY DUTY INLINE FILTERS | | | | | | | |
|----------------------------------|---------------------|--------------|--|----------|--------------------|----------------------------|-------------------|
| COMPLETE FILTER | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE/VACUUM | | NOMINAL FILTRATION | REPLACEMENT FILTER ELEMENT | |
| SERIES | PART NO | inch | lpm | | | micron | PART NO |
| Return Filter 1,0 bar Bypass | RHF-R050410 | 1/2 | 20 | 20 bar | 290 psi | 10 | RHF-E0510 |
| | RHF-R050425 | 1/2 | 25 | 20 bar | 290 psi | 25 | RHF-E0525 |
| | RHF-R100610 | 3/4 | 35 | 20 bar | 290 psi | 10 | RHF-E1010 |
| | RHF-R100625 | 3/4 | 55 | 20 bar | 290 psi | 25 | RHF-E1025 |
| | RHF-R100810 | 1 | 35 | 20 bar | 290 psi | 10 | RHF-E1010 |
| | RHF-R100825 | 1 | 55 | 20 bar | 290 psi | 25 | RHF-E1025 |
| | RHF-R201010 | 1.1/4 | 95 | 20 bar | 290 psi | 10 | RHF-E2010 |
| | RHF-R201025 | 1.1/4 | 150 | 20 bar | 290 psi | 25 | RHF-E2025 |
| | RHF-R201210 | 1.1/2 | 95 | 20 bar | 290 psi | 10 | RHF-E2010 |
| RHF-R201225 | 1.1/2 | 150 | 20 bar | 290 psi | 25 | RHF-E2025 | |
| Suction Filter 0,2 bar Bypass | RHF-S0504149 | 1/2 | 5 | 635 mmHg | 25 inHg | 149 | RHF-E05149 |
| | RHF-S1006149 | 3/4 | 15 | 635 mmHg | 25 inHg | 149 | RHF-E10149 |
| | RHF-S1008149 | 1 | 15 | 635 mmHg | 25 inHg | 149 | RHF-E10149 |
| | RHF-S2010149 | 1.1/4 | 40 | 635 mmHg | 25 inHg | 149 | RHF-E20149 |
| | RHF-S2012149 | 1.1/2 | 40 | 635 mmHg | 25 inHg | 149 | RHF-E20149 |
| Blocked Bypass Filter | RHF-B0504XX | 1/2 | REPLACE XX IN PART NUMBER WITH 10, 25 OR 149 MICRON AS REQUIRED. | | | XX | RHF-E05XX |
| | RHF-B1006XX | 3/4 | | | | XX | RHF-E10XX |
| | RHF-B1008XX | 1 | | | | XX | RHF-E10XX |
| | RHF-B2010XX | 1.1/4 | | | | XX | RHF-E20XX |
| | RHF-B2012XX | 1.1/2 | | | | XX | RHF-E20XX |

FILTERS

RTI AND RFI TANK TOP FILTERS

RTI & RFI TANK TOP FILTERS



Left to right: RTI series and RFI series

RECOMMENDED FOR:

RYCO RTI and RFI Series Tank Top Filters are designed for Return Line installation on the top of hydraulic oil reservoirs on earth moving, construction, agricultural and industrial equipment. They are compact and easy to mount, and only a small part of the Filter projects above the top of the reservoir. The Filter Element is replaceable by removing the Top Cover Plate.

RTI Tank Immersed Series has Inlet Port above the top of the tank.
RFI Fully Immersed Series has Inlet Port below the top of the tank.

FEATURES:

- All Aluminium Cast Construction.
- One-Piece casting for Main Body Housing.
- Cast Top Cover Plate.
- Maximum Working Pressure 10 bar (150 psi) all sizes.
- Inlet Port (BSPP) is at side of Filter. **NOTE:** RTI-R10 has two Inlet ports. Both can be used, otherwise one must be plugged - plug not supplied.
- Outlet Port (BSPP) is at bottom of Filter.
- Easy installation of RYCO RD Series Diffuser onto Outlet Port, see page 464.
- Outlet Port can be extended below the level of the oil, to reduce foaming and aeration.
- O Ring seals Top Cover Plate to Main Body Housing.
- Bypass Valve built into the Filter Element.
- Flow of oil bypasses the Filter Element if the Filter becomes blocked with contaminant.
- Permanent magnet bonded to bottom of Top Cover Plate to catch coarse ferrous particles.
- Gauge Port tapped into Top Cover Plate.
- Clogging Indicators available, see page 461.
- Supplied with Gasket to seal Filter to Tank.
- RTI Series have O Ring located in groove in mounting flange, to seal filter housing to reservoir.
- RFI Series have Cork Gasket, to seal filter housing to reservoir.

TECHNICAL DATA

MAIN BODY HOUSING AND TOP COVER PLATE:

Cast Aluminium.

GASKETS:

1. Nitrile (Buna N) oil resistant rubber O Ring between Main Body Housing and Top Cover Plate.

2. **RTI SERIES:** O Ring supplied for seal between Main Body Housing and Tank.

RFI SERIES: Cork Gasket supplied for seal between Main Body Housing and Tank.

FILTRATION MEDIA: Cellulose, phenolic resin impregnated; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

FILTRATION RATINGS: 10 Micron Nominal, and 25 Micron Nominal.

MAXIMUM WORKING PRESSURE:

10 bar/150 psi in Return Line applications.
Not suitable for Suction Line applications.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: In Filter Cartridge.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE: 1,0 bar/14.5 psi.

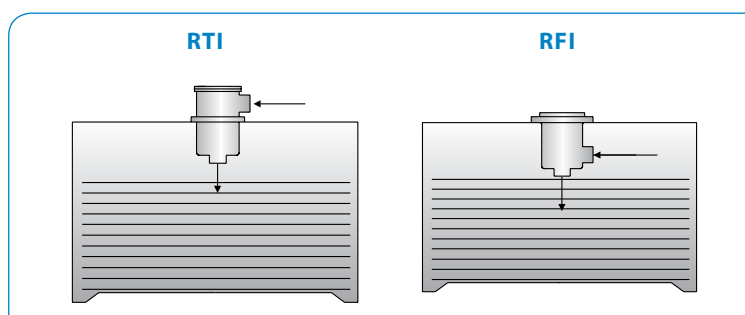
CLOGGING INDICATORS:

RGR Gauge for Return lines. Colour coded Green & Red sectors for quick visual inspection.

REIR Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of a different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".



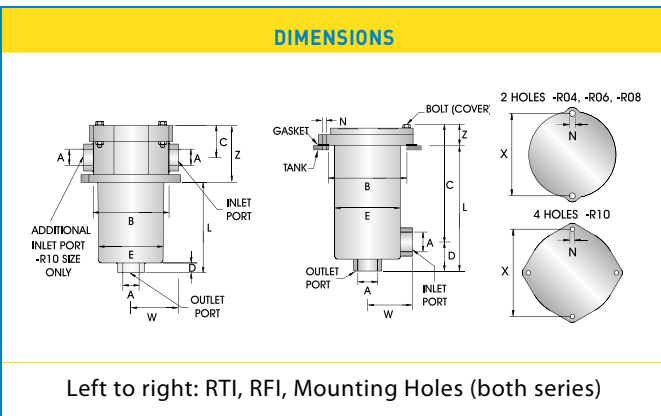
RTI AND RFI TANK TOP FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

RYCO RTI and RFI Series Filters are mounted in the top of the reservoir. A circular hole is cut in the reservoir. Mounting bolt holes are drilled (and tapped if required) and the Filter Housing is bolted in place.

The Filters can be mounted inline between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Housing casting, and the housing is supported.

Instructions for changing Filter Element are shown on page 482. Allow length L of Bowl clearance below Bowl to allow Filter Elements to be changed.



| RYCO FILTER SERIES | PORT THREAD BSP | DIMENSIONS | | | | | | MOUNTING DIMENSIONS | | | WEIGHT FILTER ELEMENT | WEIGHT TOTAL |
|--------------------|-----------------|------------|------------------|-------------|----------------------|--------------------|--------------------|---------------------|-------------|----------|-----------------------|--------------|
| | | BOWL DIA | INTO TANK HEIGHT | PORT HEIGHT | WIDTH PORT TO CENTRE | PORT CENTRE TO TOP | HEAD TOP TO GASKET | APERTURE DIA | HOLE CIRCLE | HOLE DIA | | |

| RTI | | | | | | | | | | | | |
|---------|--------------|------|------|------|------|------|------|------|------|----------|------|------|
| PART NO | A inch | E mm | L mm | D mm | W mm | C mm | Z mm | B mm | X mm | N mm | kg | kg |
| RTI-R04 | 1/2 | 63 | 78 | 13 | 51 | 30 | 55 | 66 | 90 | 6,6 x 2 | 0,10 | 0,72 |
| RTI-R06 | 3/4 | 85 | 90 | 13 | 70 | 42 | 75 | 89 | 114 | 8,2 x 2 | 0,16 | 1,42 |
| RTI-R08 | 1 IN 3/4 OUT | 85 | 125 | 13 | 70 | 42 | 75 | 89 | 114 | 8,2 x 2 | 0,22 | 1,70 |
| RTI-R10 | 1.1/4 | 122 | 232 | 19 | 89 | 55 | 99 | 130 | 175 | 10,5 x 4 | 0,57 | 4,20 |

| RFI | | | | | | | | | | | | |
|---------|--------|------|------|------|------|------|------|------|------|---------|------|------|
| PART NO | A inch | E mm | L mm | D mm | W mm | C mm | Z mm | B mm | X mm | N mm | kg | kg |
| RFI-R04 | 1/2 | 75 | 106 | 35 | 49 | 92 | 20 | 81 | 100 | 7,0 x 2 | 0,10 | 0,73 |
| RFI-R06 | 3/4 | 94 | 118 | 50 | 61 | 92 | 24 | 110 | 126 | 9,0 x 2 | 0,16 | 1,10 |
| RFI-R08 | 1 | 94 | 159 | 52 | 61 | 134 | 24 | 110 | 126 | 9,0 x 2 | 0,22 | 1,33 |
| RFI-R10 | 1.1/4 | 125 | 246 | 56 | 83 | 217 | 28 | 150 | 175 | 9,0 x 4 | 0,57 | 3,55 |

| RTI AND RFI TANK TOP FILTERS | | | | | |
|------------------------------|----------|--------------|---------------------------------|--------------------|----------------------------|
| COMPLETE FILTER | PORT BSP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE/VACUUM | NOMINAL FILTRATION | REPLACEMENT FILTER ELEMENT |

| RTI | | | | | | |
|------------|--------------------|-----|-----|-----|--------|-----------|
| PART NO | inch | lpm | bar | psi | micron | PART NO |
| RTI-R0410 | 1/2 | 10 | 10 | 150 | 10 | RTI-E0410 |
| RTI-R0425 | 1/2 | 20 | 10 | 150 | 25 | RTI-E0425 |
| RTI-R0610 | 3/4 | 25 | 10 | 150 | 10 | RTI-E0610 |
| RTI-R0625 | 3/4 | 50 | 10 | 150 | 25 | RTI-E0625 |
| RTI-R0810 | 1 INLET 3/4 OUTLET | 40 | 10 | 150 | 10 | RTI-E0810 |
| RTI-R0825 | 1 INLET 3/4 OUTLET | 65 | 10 | 150 | 25 | RTI-E0825 |
| RTI-R1010* | 1.1/4* | 90 | 10 | 150 | 10 | RTI-E1010 |
| RTI-R1025* | 1.1/4* | 110 | 10 | 150 | 25 | RTI-E1025 |

| RFI | | | | | | |
|-----------|-------|-----|-----|-----|--------|-----------|
| PART NO | inch | lpm | bar | psi | micron | PART NO |
| RFI-R0410 | 1/2 | 10 | 10 | 150 | 10 | RFI-E0410 |
| RFI-R0425 | 1/2 | 20 | 10 | 150 | 25 | RFI-E0425 |
| RFI-R0610 | 3/4 | 25 | 10 | 150 | 10 | RFI-E0610 |
| RFI-R0625 | 3/4 | 50 | 10 | 150 | 25 | RFI-E0625 |
| RFI-R0810 | 1 | 40 | 10 | 150 | 10 | RFI-E0810 |
| RFI-R0825 | 1 | 65 | 10 | 150 | 25 | RFI-E0825 |
| RFI-R1010 | 1.1/4 | 90 | 10 | 150 | 10 | RFI-E1010 |
| RFI-R1025 | 1.1/4 | 110 | 10 | 150 | 25 | RFI-E1025 |

*NOTE: RTI-R10 has two Inlet Ports. Both can be used, otherwise one must be plugged - plug not supplied. RTI-E and RFI-E Filter Elements are interchangeable (except RTI-E1010, RTI-E1025, RFI-E1010 and RFI-E1025). RTI-R08 has 1 inch BSP Inlet Port and 3/4 inch BSP Outlet Port.

RCF COMBINATION FILTERS



RECOMMENDED FOR:

RYCO RCF Series Combination Filters are designed for installation in both stationary and mobile industrial hydraulic equipment, and are suited to large systems. With 20 bar (290 psi) maximum working pressure; high flow rates; optional use of either, or both Inlet Ports; mounting options of either tank top or inline; 10, 25 and 149 Micron Cartridges for Return Line or Suction Line use; RCF Filters combine the advantages of RHF Heavy Duty and RTI Tank Top into a single Filter Range.

FEATURES:

- All Aluminium Cast Construction.
- One-Piece casting for Main Body Housing.
- Cast Top Cover Plate.
- BSPP Ports up to 1.1/2".
- SAE Code 61 Ports for 2.1/2" size (with UNC Bolt Holes).
- Two Inlet Ports at side of Filter housing (both can be used, otherwise one must be plugged - plug not supplied).
- Outlet Port is at bottom of Filter.
- Easy installation of RYCO RD Series Diffuser, see page 464.
- Outlet Port can be extended below the level of the oil, to reduce foaming and aeration.
- Two different Bypass Valve cracking pressures are available to suit Return Line or Suction Lines, except RCF-04 size only available as Return Line Filter.
- Permanent magnet bonded to bottom of Top Cover Plate to catch coarse ferrous particles.
- Gauge Port tapped into Top Cover Plate.
- Clogging Indicators available, see page 461.

TECHNICAL DATA

MAIN BODY HOUSING AND TOP COVER PLATE:

Cast Aluminium.

GASKETS:

1. Nitrile (Buna N) oil resistant rubber O Ring between Main Body Housing and Top Cover Plate.
2. Cork Gasket supplied for seal between Main Body Housing and Tank.

FILTRATION MEDIA: 10 and 25 Micron Nominal are Cellulose, phenolic resin impregnated; 149 Micron is Stainless Steel Mesh. All are extensively pleated to maximise surface area available to trap contaminants and maximise dirt holding capacity.

FILTRATION RATINGS: 10 Micron Nominal, 25 Micron Nominal; and 149 Micron Absolute. 149 Micron not available in RCF-SP04149 size.

MAXIMUM WORKING PRESSURE/VACUUM:

20 bar/290 psi in Return Line applications. 635 mmHg/ 25 inHg Maximum Vacuum in Suction Line applications. Recommended use for Suction Lines is Stainless Steel Mesh Cartridges, Cellulose is not recommended.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

BYPASS VALVE POSITION: attached to Top Cover Plate; except RCF-04 size has Bypass Valve in Cartridge.

BYPASS VALVE DIFFERENTIAL CRACKING PRESSURE:

RHF-R Series for Return Lines 1,0 bar/14.5 psi.
RCF-S Series for Suction Lines 0,2 bar/2.9 psi.

CLOGGING INDICATORS:

RGR Gauge for Return Lines. Colour coded Green & Red sectors for quick visual inspection.

RGS Gauge, calibrated with negative pressures (for Suction Lines) and positive pressures (for Return Lines).

RGS02 Gauge, Stainless Steel, calibrated with negative pressures for Suction Lines.

REIR and **REIS** Electrical Indicators.

See page 461 for more information on Clogging Indicators.

NOMINAL FLOW RATES: As shown, cause a clean element pressure drop of 0,5 bar (7.3 psi) for RCF-R and 0,03 bar (0.5 psi) for RCF-S with 30 centistoke viscosity oil (see page 471 for more detail). The actual flow rate will vary if the oil is of different viscosity. See also page 473 for "Pressure Drop Flow Graphs", page 475 for "Warnings and Filter Selection Guidelines", and page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

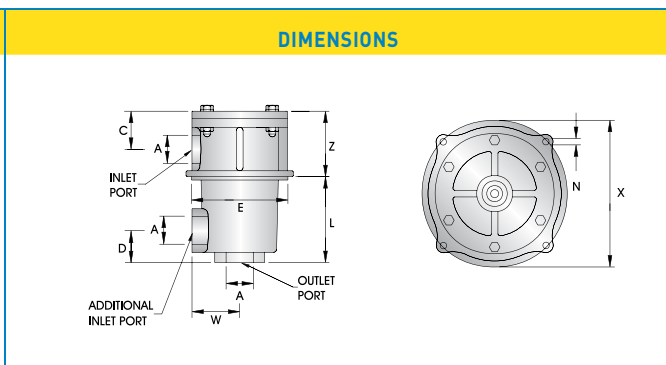
RCF COMBINATION FILTERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

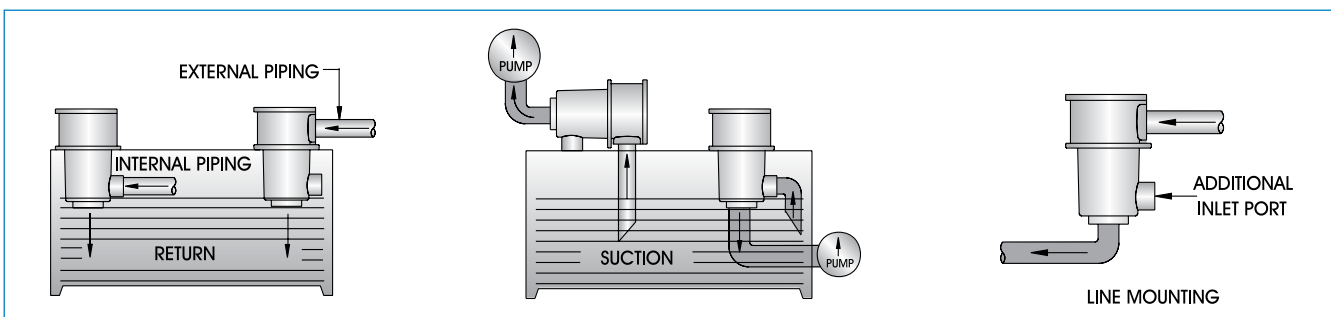
RYCO RCF Series Filters can be mounted in the top of the reservoir. A circular hole is cut in the reservoir. Mounting bolt holes are drilled (and tapped if preferred) and the Filter Housing is bolted in place.

RCF Filters can be mounted inline directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter housing, and the Housing is supported.

See page 482 for instructions on changing Filter Elements.



| RYCO FILTER SERIES | PORT | DIMENSIONS | | | | | MOUNTING DIMENSIONS | | | | WEIGHT ELEMENT | WEIGHT TOTAL |
|--------------------|---------------|------------------|-------------|----------------------|--------------------|--------------------|---------------------|--------------|-------------|--------------|----------------|--------------|
| | | INTO TANK HEIGHT | PORT HEIGHT | WIDTH PORT TO CENTRE | PORT CENTRE TO TOP | HEAD TOP TO GASKET | FLANGE DIA | APERTURE DIA | HOLE CIRCLE | HOLE DIA | | |
| PART NO | A inch | L mm | D mm | W mm | C mm | Z mm | E mm | mm | X mm | N mm | kg | kg |
| RCF-04 | 1/2 BSPP | 73 | 26 | 51 | 34 | 53 | 82 | 84 | 95 | 6,6 x 4 OFF | 0,10 | 0,82 |
| RCF-06 | 3/4 BSPP | 99 | 26 | 57 | 44 | 78 | 121 | 123 | 138 | 6,6 x 4 OFF | 0,16 | 2,06 |
| RCF-08 | 1 BSPP | 143 | 52 | 73 | 65 | 105 | 135 | 137 | 152 | 6,6 x 4 OFF | 0,22 | 3,60 |
| RCF-12 | 1.1/2 BSPP | 212 | 73 | 88 | 72 | 126 | 161 | 163 | 180 | 8,2 x 4 OFF | 0,49 | 6,40 |
| RCF-20 | 2.1/2 CD61 | 222 | 87 | 120 | 93 | 168 | 234 | 237 | 275 | 10,2 x 4 OFF | 0,92 | 14,40 |



| RCF COMBINATION FILTERS | | | | | | | |
|----------------------------------|--------------------|--------------|---------------------------------|----------|--------------------|----------------------------|-------------------|
| COMPLETE FILTER | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE/VACUUM | | NOMINAL FILTRATION | REPLACEMENT FILTER ELEMENT | |
| SERIES | PART NO | inch | lpm | bar | psi | micron | PART NO |
| Return Filter 1,0 bar Bypass | RCF-RP0410 | 1/2 BSPP | 10 | 20 bar | 290 psi | 10 | RCF-E0410 |
| | RCF-RP0425 | 1/2 BSPP | 20 | 20 bar | 290 psi | 25 | RCF-E0425 |
| | RCF-RP0610 | 3/4 BSPP | 25 | 20 bar | 290 psi | 10 | RCF-E0610 |
| | RCF-RP0625 | 3/4 BSPP | 45 | 20 bar | 290 psi | 25 | RCF-E0625 |
| | RCF-RP0810 | 1 BSPP | 45 | 20 bar | 290 psi | 10 | RCF-E0810 |
| | RCF-RP0825 | 1 BSPP | 80 | 20 bar | 290 psi | 25 | RCF-E0825 |
| | RCF-RP1210 | 1.1/2 BSPP | 100 | 20 bar | 290 psi | 10 | RCF-E1210 |
| | RCF-RP1225 | 1.1/2 BSPP | 120 | 20 bar | 290 psi | 25 | RCF-E1225 |
| | RCF-RC2010 | 2.1/2 CD61 | 400 | 20 bar | 290 psi | 10 | RCF-E2010 |
| | RCF-RC2025 | 2.1/2 CD61 | 540 | 20 bar | 290 psi | 25 | RCF-E2025 |
| Suction Filter 0,2 bar Bypass | RCF-SP06149 | 3/4 BSPP | 15 | 635 mmHg | 25 inHg | 149 | RCF-E06149 |
| | RCF-SP08149 | 1 BSPP | 30 | 635 mmHg | 25 inHg | 149 | RCF-E08149 |
| | RCF-SP12149 | 1.1/2 BSPP | 60 | 635 mmHg | 25 inHg | 149 | RCF-E12149 |
| | RCF-SC20149 | 2.1/2 CD61 | 100 | 635 mmHg | 25 inHg | 149 | RCF-E20149 |

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RIF15 INLINE SPIN-ON WATER TRAP FILTER

RIF15 INLINE SPIN-ON WATER TRAP FILTER



RECOMMENDED FOR:

RYCO RIF15 Filters are designed for installation on petrol, kerosene, and diesel fuel storage tanks, with gravity feed or pressure to 7 bar (100 psi), to remove solid particles and water from the fuel. Contact RYCO Hydraulics Technical Department for suitability with Ethanol Blend Fuels.

NOT SUITABLE FOR AVIATION APPLICATIONS.

FEATURES:

- Disposable Spin-On Canister.
- Changing of Filter Element is quick and simple.
- Extremely fine Filter, silicone treated to resist water; removes dirt, rust, grit and water.
- Cartridge has tap at bottom to enable trapped water to be manually drained off at regular intervals.
- Cast Aluminium Head with tapped mounting holes.
- Easy to install.
- 1" BSPT threaded Ports.
- Inlet and Outlet Ports are clearly identified by a flow direction arrow.
- Bypass Valve is not fitted to RIF15 Filters.
- Flow of fluid through the Filter will slow as the Canister traps contaminants. Before the flow becomes too slow, the Canister should be drained of trapped water via the tap (turn off flow to the filter before draining). Slow flow of fuel after draining the trapped water indicates that the Canister has become blocked by contaminants and must be replaced. Spin-On Canister must be replaced at maximum intervals of twelve months, or earlier if it has become blocked.

TECHNICAL DATA

FILTER HEAD: Cast Aluminium.

SPIN-ON CANISTER HOUSING: Painted steel casing. Pressed steel top plate.

GASKET: Nitrile (Buna N) rubber; resistant to petrol, kerosene and diesel fuel.

FILTRATION MEDIA: Cellulose, phenolic resin impregnated, and silicone treated for water resistance; extensively pleated to maximise surface area available to trap contaminants, and maximise dirt holding capacity.

FILTRATION RATING: 15 Micron Nominal.

MAXIMUM WORKING PRESSURE: 7 bar (100 psi). Not suitable for Suction Line applications.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY:

Petrol, kerosene and diesel fuels. Contact RYCO Hydraulics Technical Department for suitability with Ethanol Blend Fuels.

NOMINAL FLOW RATES: At ambient temperature of 20°C (68°F), petrol and kerosene have viscosity of less than 1 centistoke; and diesel fuel has viscosity of less than 4 centistokes. Due to these low viscosities, nominal flow rate is not significantly affected by temperature except at large variance to 20°C (68°F). See page 475 for "Warnings and Filter Selection Guidelines".

RIF15 INLINE SPIN-ON WATER TRAP FILTER - TECHNICAL SPECIFICATIONS

| MOUNTING INSTRUCTIONS | DIMENSIONS (mm) |
|--|-----------------|
| <p>RYCO RIF15 Series Filter Heads can be mounted to equipment by means of two tapped mounting holes in head.</p> <p>Filter Heads can be mounted directly between rigid pipes, provided that the pipes are anchored to ensure that no undue stress is placed on the Filter Head casting.</p> <p>Allow 15 mm clearance below Spin-On Canister to allow Canister to be changed.</p> <p>Instructions for changing Canister are shown on page 482.</p> | |

| DIMENSIONS | | | | | | | | | |
|--------------|----------------|-----------------|--------------------|------------------|-----------------------|-----------------------|-------------|-----------------|--------------|
| CANISTER DIA | OVERALL HEIGHT | CANISTER HEIGHT | WIDTH ACROSS PORTS | PORT THREAD BSPT | MOUNTING HOLE CENTRES | MOUNTING HOLE THREADS | WEIGHT HEAD | WEIGHT CANISTER | WEIGHT TOTAL |
| D mm | H mm | l mm | W mm | A inch | X mm | BSW | kg | kg | kg |
| 94 | 220 | 160 | 116 | 1 | 63,5 | 3/8 - 16 | 0,47 | 0,52 | 0,99 |

| RIF-15 INLINE SPIN-ON WATER TRAP FILTER | | | | | | |
|---|-----------|--------------|--------------------------|-----|--------------------|------------------------------|
| COMPLETE FILTER | PORT BSPP | NOMINAL FLOW | MAXIMUM WORKING PRESSURE | | NOMINAL FILTRATION | REPLACEMENT SPIN-ON CANISTER |
| PART NO | inch | lpm | bar | psi | micron | PART NO |
| RIF15 | 1 | 60 | 7 | 100 | 15 | R15 |

RG & REI COMBINATION FILTERS



From left to right: RGR, RGS02, RGS, REI with rubber weather cover removed.

RECOMMENDED FOR:

RYCO Clogging Indicators are designed for use with **RYCO RIF-10, RIF-12, RIF-06, RHF, RTI, RFI** and **RCF** Series Filters. They indicate the flow restriction across the Filter and allow quick visual inspection of the need to change the Filter Element, before it becomes clogged and the Bypass Valve opens, to avoid the risk of Element damage or collapse.

Without a Clogging Indicator, it is not possible to visually determine if the Bypass Valve is open or closed. If the Bypass Valve is open, the flow of oil bypasses the Filter Element. The oil is not being filtered, and the hydraulic system is not being protected by the Filter.

SPECIFICATIONS: GAUGES

PART NO RGR-40 RETURN LINE GAUGE

Mounted in a Gauge Port on the Inlet Port of Return Line In-line Filter Heads¹, or the Top Cover Plate of **RTI/RFI** Tank Top and **RCF-R** Combination Filters, to indicate the flow restriction.

When the needle is in the GREEN zone, the flow restriction is less than 1,0 bar (14.5 psi) and the Bypass Valve is closed. All flow is filtered through the Element.

When the needle is in the RED zone, the Bypass Valve is open and the flow is not filtered.

Filter Elements require replacing before the needle enters the RED zone.

PART NO RGS-40 SUCTION LINE GAUGE

Mounted in a Gauge Port on the Outlet Port of Suction Line In-line Filter Heads¹ and the Top Cover Plate of **RCF-S** Combination Filters, to indicate the flow restriction.

The Gauge shows negative pressure readings. When the needle indicates -0,2 bar (-5.9 inHg) or beyond, the Bypass Valve is open and the flow is not being filtered.

Filter Elements require replacing before the needle reaches -0,2 bar (-5.9 inHg).

PART NO RGS02-50 - STAINLESS STEEL, GLYCERINE FILLED, 50MM SUCTION LINE GAUGE

Mounted in a Gauge Port on the Outlet Port of Suction Line In-line Filter Heads^{1,2} and the Top Cover Plate of **RCF-S** Combination Filters, to indicate the flow restriction.

The Gauge shows negative pressure readings. When the needle indicates -0,2 bar (-5.9 inHg) or beyond, the Bypass Valve is open and the flow is not being filtered.

Filter Elements require replacing before the needle reaches -0,2 bar (-5.9 inHg).

SPECIFICATIONS: ELECTRICAL INDICATORS

PART NO REIR RETURN LINE ELECTRICAL INDICATOR

REIR Electrical Indicators are mounted in a Gauge Port on the Inlet Port of Return Line In-line Filter Heads¹ and the Top Cover Plate of **RTI/RFI** Tank Top Filters and **RCF-R** Combination Filters. They are designed to operate a warning buzzer or light when the flow restriction reaches 1,0 bar (14.5 psi), or other preset value.

PART NO REIS SUCTION LINE ELECTRICAL INDICATOR

REIS Electrical Indicators are mounted in a Gauge Port on the Outlet Port of Suction Line In-line Filter Heads¹ and the Top Cover Plate of **RCF-S** Combination Filters. They are designed to operate a warning buzzer or light when the flow restriction reaches -0,2 bar (-5.9 inHg), or other preset value.

TECHNICAL DATA

ELECTRICAL MICRO SWITCH:

Maximum 3A-250V AC.

OPERATING TEMPERATURE:

85°C (185°F) maximum continuous working temperature.

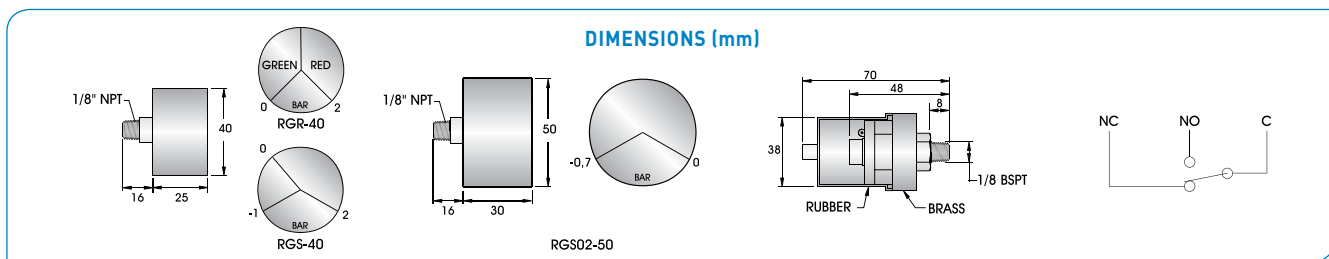
TEST PRESSURE:

10 bar/150 psi.

MAXIMUM WORKING PRESSURE RANGE:

REIR can be adjusted via screw to trigger at pressures from 0,5 to 2,0 bar (7.3 to 29 psi).

REIS can be adjusted via screw to trigger at pressures from -0,15 to -0,4 bar (-2.2 to -5.8 psi).



NOTE:

- 1) Not suitable for use with **RIF14-1, RIF-FA** Series, **RIF15**.
- 2) Requires the use of **S72N-0202** with **RIF-SH10** filter head.

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RLG & RLGT LEVEL AND TEMPERATURE GAUGES

RLG & RLGT LEVEL AND TEMPERATURE GAUGES



RECOMMENDED FOR:

RYCO RLG & RLGT Series Level Gauges are designed for installation on the outside of the oil reservoir. **RLG Series** are Level Gauge, **RLGT Series** are Level Gauge with Thermometer to reading 80°C and 180°F.

Suitable for use on non-pressurised tanks only.

NOTE: Due to aluminium shroud that has potential to spark if struck by steel, RLG and RLGT are not suitable for use in underground coal mines.

FEATURES:

- Three sizes:
76, 127 and 254 mm bolt centres.
(3 inch, 5 inch and 10 inch).
- Aluminium shroud protects the sight glass.
- O Ring type construction.

TECHNICAL DATA

SIGHT GLASS: Shatter resistant clear polycarbonate.

SHROUD:

RLG03, RLGT03, RLG05 & RLGT05: Diecast aluminium.
RLG10 & RLGT10: Anodised aluminium

SEALS: Nitrile (Buna N) O Rings and flat washers.

THERMOMETER: (RLGT Series only) dual scale to 80°C and 180°F. Alcohol filled bulb type.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils.

RECOMMENDED BOLT TORQUE: 3 N.m (2 ft.lbf)

RLG & RLGT LEVEL AND TEMPERATURE GAUGES - TECHNICAL SPECIFICATIONS

| MOUNTING INSTRUCTIONS | DIMENSIONS (mm) |
|--|-----------------|
| <p>RYCO RLG and RLGT Series Level Gauges are supplied with M12 bolts and nuts.</p> <p>They can be bolted through the tank wall using the nuts supplied, or can be mounted on holes tapped in the reservoir wall. If the reservoir wall is not thick enough to allow tapping, the nuts can be welded in position on the inside wall of the reservoir.</p> <p>If bolting through the wall, bolt clearance holes of 13 mm (0.51") diameter should be drilled. Maximum thickness of wall 8 mm (0.31").</p> <p>If tapping, threaded holes must be square to mounting face. Tolerance on bolt hole centres: +0,5 mm, -0,2 mm (+0.02", -0.01").</p> | |

| RLG & RLGT LEVEL AND TEMPERATURE GAUGES | | | | | | |
|---|----------------|-------------|---------------|----------------|--------------------|-----------|
| RLG SERIES | RLGT SERIES | BOLT CENTRE | BOLT CENTRE | LENGTH OVERALL | LENGTH SIGHT GAUGE | WEIGHT |
| PART NO | PART NO | A mm | A inch | F mm | B mm | kg |
| RLG-03 | RLGT-03 | 76 | 3 | 111 | 34 | 0,17 |
| RLG-05 | RLGT-05 | 127 | 5 | 162 | 89 | 0,19 |
| RLG-10 | RLGT-10 | 254 | 10 | 289 | 203 | 0,40 |

RSCN SUCTION STRAINERS



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RECOMMENDED FOR:

RYCO RSCN Series Suction Strainers are designed to be installed on the Suction Line, inside the oil reservoir, below the level of oil; to protect the pump from large particle contamination.

FEATURES:

- Sturdy, all metal construction, continuous epoxy bonded.
- Filtration 149 Micron (100 Mesh Size).
- Stainless steel mesh can be cleaned.
- BSPP threads.
- No Bypass Valve. Flow to pump will stop if Strainer becomes clogged

TECHNICAL DATA

FILTRATION MEDIA: Stainless Steel woven mesh, extensively pleated to maximise surface area thus maximising dirt holding capacity.

FILTRATION RATING: 149 Micron Absolute.

THREADED CAP: Aluminium.

END CAP: Plated steel.

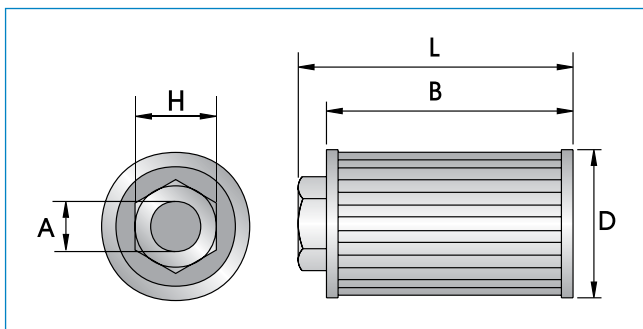
CENTRE TUBE: Plated steel.

OPERATING TEMPERATURE: 80°C (176°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils, may also be used with lubricants and coolants.

NOMINAL FLOW RATES: Nominal flow rates shown below are for 30 centistoke viscosity oil, and include a factor to allow for normal viscosity changes due to temperature changes, and for normal flow restriction due to clogging between service intervals. Normal selection is to match nominal flow rate of strainer with pump flow rate. However, if regular very cold starts at below 0°C (32°F) are expected, or if extended service intervals are required, or if oil of more than 30 centistoke viscosity at normal system operating temperature is used; a larger size RSCN Suction Strainer should be specified. See page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

DIMENSIONS



RSCN SUCTION STRAINERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

RYCO RSCN Series Suction Strainers are installed inside the oil reservoir, below the level of the oil. They should be installed at the opposite end of the reservoir to the oil return line, to allow the oil to cool, settle and de-aerate as much as possible before it returns to the pump.

RSCN SUCTION STRAINERS

| PART NUMBER | NOMINAL FLOW | PORT BSPP | LENGTH | OVERALL LENGTH | DIAMETER | HEX | SCREEN AREA | WEIGHT |
|-------------|--------------|-----------|--------|----------------|----------|-------|-------------|--------|
| PART NO | LPM | A inch | B mm | L mm | D mm | H mm | sq. cm | kg |
| RSCN-01202 | 12 | 1/4 | 78 | 90 | 46 | 23,50 | 187 | 0,10 |
| RSCN-01203 | 12 | 3/8 | 78 | 90 | 46 | 23,55 | 187 | 0,10 |
| RSCN-02004 | 20 | 1/2 | 93 | 105 | 46 | 29,57 | 226 | 0,10 |
| RSCN-02806 | 28 | 3/4 | 97 | 109 | 64 | 36,10 | 406 | 0,20 |
| RSCN-04008 | 40 | 1 | 127 | 139 | 64 | 45,55 | 542 | 0,20 |
| RSCN-06010 | 60 | 1.1/4 | 127 | 139 | 86 | 51,40 | 929 | 0,30 |
| RSCN-08012 | 80 | 1.1/2 | 154 | 168 | 86 | 59,45 | 1161 | 0,35 |
| RSCN-12012 | 120 | 1.1/2 | 188 | 200 | 86 | 59,50 | 1393 | 0,40 |
| RSCN-16016 | 160 | 2 | 223 | 235 | 100 | 69,65 | 1806 | 0,55 |
| RSCN-20016 | 200 | 2 | 248 | 260 | 100 | 68,00 | 2032 | 0,60 |
| RSCN-30020 | 300 | 2.1/2 | 196 | 211 | 150 | 89,92 | 2787 | 0,85 |
| RSCN-40024 | 400 | 3 | 257 | 272 | 150 | 99,60 | 3677 | 1,00 |
| RSCN-60024 | 600 | 3 | 330 | 345 | 150 | 99,70 | 4838 | 1,25 |

FILTERS

RD DIFFUSERS

RD DIFFUSERS



RECOMMENDED FOR:

RYCO RD Series Diffusers are designed to be installed on the return line, inside the oil reservoir, below the level of the oil. They minimise turbulence and foaming of the oil and help to reduce reservoir noise. They can minimise the risk of cavitation caused by flow disturbance at the pump inlet. The discharge velocity is reduced in two stages; as the oil passes through the holes in the inner baffle tube, and then the holes in the outer baffle tube located 180° opposite the inner baffle tube holes.

FEATURES:

- Sturdy, all metal construction, continuous epoxy bonded.
- BSPP threads.

TECHNICAL DATA

THREADED CAP: Diecast aluminium.

END CAP: Plated steel.

BAFFLE TUBES: Plated steel.

OPERATING TEMPERATURE: 85°C (185°F) maximum continuous working temperature.

FLUID COMPATIBILITY: Mineral/petroleum based hydraulic oils, may also be used with lubricants and coolants.

NOMINAL FLOW RATES: Flow rates shown below are for 30 centistoke viscosity oil. If oil of other than 30 centistoke viscosity is used, flow rates will vary. See page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop".

PRESSURE DROP: At Flow rates shown below, for 30 centistoke viscosity oil is 0,03 to 0,04 bar (0.44 to 0.58 psi).

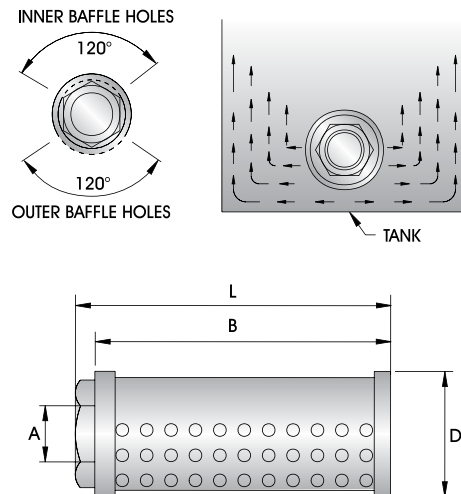
RD DIFFUSERS - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

RYCO RD Series Diffusers are installed inside the oil reservoir, below the level of the oil and preferably in the lower third of the reservoir. They should be installed at the opposite end of the reservoir to the oil suction line, to allow the oil to cool, settle and de-aerate as much as possible before it returns to the pump.

The holes in the outer baffle tube must discharge downwards; or if installed vertically, the discharge holes must face the opposite direction to the suction line.

DIMENSIONS



| RD DIFFUSERS | | | | | | |
|--------------|-----------|--------------|--------|----------------|----------|--------|
| PART NUMBER | PORT BSPP | NOMINAL FLOW | LENGTH | OVERALL LENGTH | DIAMETER | WEIGHT |
| PART NO | A inch | LPM | B mm | L mm | D mm | kg |
| RD-06 | 3/4 | 50 | 105 | 120 | 64 | 0,34 |
| RD-08 | 1 | 100 | 110 | 125 | 86 | 0,38 |
| RD-12 | 1.1/2 | 200 | 160 | 175 | 86 | 0,50 |
| RD-16 | 2 | 400 | 185 | 200 | 100 | 0,70 |

R60 & R300 AIR BREATHER FILTERS



From left to right: R350-02, R350-06, R355-06, R60, R362, R356/R358

RECOMMENDED FOR:

RYCO R60 Series Air Breathers and R300 Series Air Breather Filters are designed for installation on the oil reservoir, to filter contaminants from the air as it leaves and enters the reservoir due to changes in oil level as the system operates.

FEATURES:

- Sturdy, metal construction.
- Nominal air filtration ratings of 10, 27, 40 and 149 Micron depending on model. 10 and 27 Micron elements are cellulose, 40 and 149 Micron elements are foam plastic.
- BSP threads, except R67 which is UNO.

TECHNICAL DATA

Five Series, two with replaceable elements.

1. R350 Standard Air Breather.
2. R355 Pressurised Air Breather, complete with 0,34 bar (5 psi) relief valve. Pressurised reservoirs can reduce the risk of oil contamination and can assist feed of oil to suction side of pump.
3. R60 Domed Air Breather.
4. R362 Standard Pleated Element Air Breather.
5. R356 & R358 High Volume Pleated Element Air Breather.

R60 AND R300 AIR BREATHER FILTERS - TECHNICAL SPECIFICATIONS

| MOUNTING INSTRUCTIONS | DIMENSIONS |
|--|------------|
| <p>RYCO Air Breathers are installed on the top of the oil reservoir. BSPP threaded should be installed with RL21 Bonded Seal.</p> <p>BSPT threaded should be installed with thread tape or thread sealant.</p> | |

| R60 & R300 AIR BREATHER FILTERS | | | | | | | | | |
|---------------------------------|---------------|--------------------|---------------|-------------|----------------|-------------|-----------|-----------|------------------|
| PART NUMBER | THREAD | NOMINAL FILTRATION | DIS-PLACEMENT | DIAMETER | OVERALL HEIGHT | CLEARANCE | A/F HEX | WEIGHT | REPLACE. ELEMENT |
| PART NO | A inch | micron | LPM | D mm | B mm | C mm | mm | kg | PART NO |
| R350-0210 | 1/4 BSPP | 10 | 90 | 46 | 63 | 8 | 25 | 0,11 | |
| R350-0240 | 1/4 BSPP | 40 | 150 | 46 | 63 | 8 | 25 | 0,11 | |
| R350-0610 | 3/4 BSPP | 10 | 400 | 77 | 75 | 10 | 30 | 0,25 | |
| R350-0640 | 3/4 BSPP | 40 | 720 | 77 | 75 | 10 | 30 | 0,25 | |
| R355-0240 | 1/4 BSPP | 40 | 150 | 46 | 63 | 8 | 25 | 0,13 | |
| R355-0610 | 3/4 BSPP | 10 | 400 | 77 | 75 | 10 | 30 | 0,25 | |
| R355-0640 | 3/4 BSPP | 40 | 720 | 77 | 75 | 10 | 30 | 0,25 | |
| R64 | 1/4 BSPT | 149 | 150 | 63 | 56 | 12 | 17,6 | 0,10 | |
| R62 | 3/8 BSPT | 149 | 150 | 63 | 56 | 11 | 17,6 | 0,10 | |
| R61 | 1/2 BSPT | 149 | 150 | 63 | 62 | 13 | 22,3 | 0,13 | |
| R60 | 3/4 BSPT | 149 | 150 | 63 | 62 | 17 | 27 | 0,16 | |
| R67 | 3/4 UNO | 149 | 150 | 63 | 53 | 13 | 22,3 | 0,12 | |
| R362-12 | 3/4 BSPT | 27 | 1000 | 96 | 95 | 13 | 35 | 0,30 | A245-CART |
| R362-16 | 1 BSPT | 27 | 1000 | 96 | 100 | 14 | 35 | 0,33 | A245-CART |
| R356-12 | 3/4 BSPT | 27 | 1500 | 137 | 150 | 13 | 35 | 0,63 | A5-CART |
| R356-16 | 1 BSPT | 27 | 1500 | 137 | 155 | 14 | 35 | 0,64 | A5-CART |
| R356-20 | 1.1/4 BSPT | 27 | 1500 | 137 | 155 | 14 | 44,5 | 0,72 | A5-CART |
| R356-24 | 1.1/2 BSPT | 27 | 1500 | 137 | 160 | 14 | 50,8 | 0,77 | A5-CART |
| R356-32 | 2 BSPT | 27 | 1500 | 137 | 160 | 17 | 63,5 | 0,83 | A5-CART |
| R358-40 | 2.1/2 BSPP | 10 | 4000 | 185 | 190 | 15 | 80 | 1,30 | E358-40 |

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R381 PUSH-ON FILLER CAP/AIR BREATHER

R381 PUSH-ON FILLER CAP/AIR BREATHER



RECOMMENDED FOR:

RYCO R381-40 Push-On Filler Cap/Air Breathers are designed for installation on 1.1/2" Outside Diameter (38,1 mm) steel tubing, on the top of unpressurised oil reservoirs.

The internal spring steel clip grips the inside of the steel tubing, and allows quick access to the reservoir for adding oil. The Breather filters air as it enters and leaves the reservoir.

FEATURES:

- Sturdy, all metal construction.
- Spring steel clip.
- Nominal air filtration rating of 40 micron.
- Positive stop, when tubing end meets raised locating flange inside body of R381-40, ensures correct installation.

TECHNICAL DATA

CAP: Chrome plated steel.

CLIP: Spring steel.

AIR FILTRATION MEDIA: 40 micron nominal foam plastic.

SUITABLE STEEL TUBING SIZE: 1.1/2" OD x maximum 10 Gauge (0.128") wall thickness (38,1 mm OD x 31,6 mm minimum ID).

NOTE: Do not use with smaller Outside Diameter tubing. Smaller tubing may enter past the raised locating flange inside the R381-40, reducing the air flow through the breather, and may cause damage to the spring steel clip. Do not use with 1.1/2" Outside Diameter steel tubing of more than 10 Gauge (0.128") wall thickness, this may cause damage to the spring steel clip.

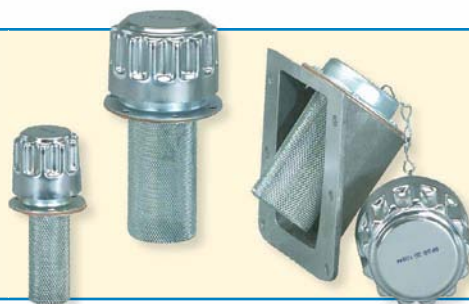
R381 PUSH-ON FILLER CAP/AIR BREATHER - TECHNICAL SPECIFICATIONS

| MOUNTING INSTRUCTIONS | DIMENSIONS |
|---|------------|
| <p>Weld steel tubing to reservoir. Minimum length of tubing is 33 mm (1.3") to allow 10 mm (0.4") Minimum Recommended Clearance for air to enter underneath.</p> <p>Push R381-40 onto the tubing, ensuring that both ends of the spring steel clip are inside the tubing, until the internal raised flange locates against the end of the tubing.</p> | |

| R381 PUSH-ON FILLER CAP/AIR BREATHER | | | | | | |
|--------------------------------------|-----------------|----------------|---------------------|--------------------|----------------------|--------|
| PART NUMBER | DIAMETER OF CAP | OVERALL HEIGHT | TUBING SOCKET DEPTH | MIN REC. CLEARANCE | MIN INSTALLED HEIGHT | WEIGHT |
| PART NO | D mm | B mm | L mm | C mm | H mm | kg |
| R381-40 | 78 | 52 | 17 | 10 | 62 | 0,25 |

RFSB

FILLER CAP/STRAINER/ AIR BREATHERS



From left to right: RFSB-05, RFSB-25, RFSB-25BM

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RECOMMENDED FOR:

RYCO RFSB Series Filler Cap/Strainer/Air Breathers are designed for installation on unpressurised oil reservoirs.

RYCO RFSB-P Series are available for pressurised tanks, complete with 0,34 bar (5 psi) relief valve. Pressurised reservoirs can reduce the risk of oil contamination and can assist feed of oil to suction side of pump.

Filler Cap/Strainer/Air Breathers perform three functions:

1. The Filler Cap, with its quarter turn to release bayonet attachment, allows quick access to add oil to the reservoir.
2. The mesh Strainer basket prevents large particles from entering the reservoir.
3. The Breather filters air as it leaves and enters the reservoir, to compensate for changes in oil level as the system operates.

FEATURES:

- Sturdy, all metal construction.
- Nominal air filtration ratings of 10 and 40 Micron depending on model.
- Two mounting styles:

FEATURES (CONT):

1. Round flange/screws for mounting on top of reservoir
 2. Square flange/bolts & nuts for mounting on side of reservoir.
- Gasket and mounting hardware supplied.
 - Security Chain on Filler Cap. (RFSB-25)
 - Strainer basket can be removed for cleaning by removing the mounting screws.

TECHNICAL DATA

CAP: Chrome plated steel.

BASKET: Plated Steel woven mesh.

FLANGE/BAYONET MOUNT: Plated steel.

AIR FILTRATION MEDIA: 40 Micron: foam plastic.
10 Micron: cellulose, resin impregnated.

GASKET: Cork.

SCREWS: Plated steel.

NUTS AND BOLTS: Black steel.

SECURITY CHAIN: Plated steel.

RFSB FILLER CAP/STRAINER/AIR BREATHERS - TECHNICAL SPECIFICATIONS

| MOUNTING INSTRUCTIONS | DIMENSIONS (MM) |
|--|-----------------|
| <p>RYCO RFSB-05 and RFSB-25 Series Filler Cap/Strainer/Air Breathers are installed on the top of the oil reservoir.</p> <p>RFSB-05 SERIES: Cut hole of 29 mm (1.142") diameter. Drill mounting holes 3 off 3,8 mm (0.15") diameter on 41,3 mm (1.626") P.C.D.</p> <p>RFSB-25 SERIES: Cut hole of 50 mm (1.97") diameter. Drill mounting holes 6 off 3,8 mm (0.15") diameter on 71,5 mm (2.815") P.C.D.</p> <p>RYCO RFSB-25BM SERIES: are installed on the vertical side of the oil reservoir.</p> <p>Cut hole 75 mm wide x 105 mm high (2.95" x 4.13"). Drill mounting holes 6 off 7,0 mm (0.28") diameter as shown in diagram.</p> | |

| RFSB FILLER CAP/STRAINER/ AIR BREATHERS | | | | | | | | |
|---|----------------|--------------------|---------------|-----------------|------------------|----------------|-------------------|-----------|
| PART NUMBER | MOUNTING HOLES | NOMINAL FILTRATION | DIS-PLACEMENT | DIAMETER OF CAP | INSTALLED HEIGHT | STRAINER DEPTH | STRAINER DIAMETER | WEIGHT |
| PART NO | | micron | LPM | A mm | B mm | C mm | D mm | kg |
| RFSB-0510 | 3 x PCD 41,3 | 10 | 90 | 46 | 49 | 65 | 28 | 0,10 |
| RFSB-0540 | 3 x PCD 41,3 | 40 | 150 | 46 | 49 | 65 | 28 | 0,10 |
| RFSB-2510 | 6 x PCD 71,5 | 10 | 400 | 77 | 62 | 91 | 48 | 0,29 |
| RFSB-2540 | 6 x PCD 71,5 | 40 | 720 | 77 | 62 | 91 | 48 | 0,29 |
| RFSB-2510P | 6 x PCD 71,5 | 10 | 400 | 77 | 62 | 91 | 48 | 0,33 |
| RFSB-2540P | 6 x PCD 71,5 | 40 | 720 | 77 | 62 | 91 | 48 | 0,33 |
| RFSB-2510BM | 6 x 101, 6SQ | 10 | 400 | 77 | 175 x 100 | 91 | 48 | 0,76 |
| RFSB-2540BM | 6 x 101, 6SQ | 40 | 720 | 77 | 175 x 100 | 91 | 48 | 0,76 |

FILTERS

R365 FILLER STRAINER

R365 FILLER STRAINER

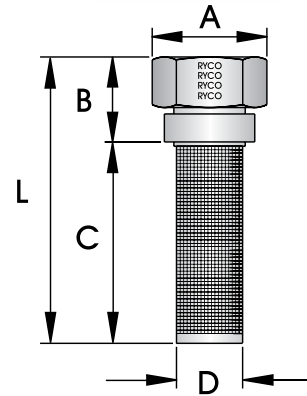


RECOMMENDED FOR:

RYCO R365 Filler Strainer is designed for installation on the top of oil reservoirs. The collar is welded to the reservoir, and the steel mesh basket locates into the collar and is secured by the cap. The basket strains large particles, and can be removed for cleaning.

FEATURES:

- Plated steel mesh basket.
- Heavy hexagon steel cap, threaded 2" BSPP.
- Synthetic rubber O Ring inside cap seals when cap is screwed on to tank collar fitting.
- Weld-on collar fitting for tank.



R365 FILLER STRAINER - TECHNICAL SPECIFICATIONS

MOUNTING INSTRUCTIONS

Cut hole of 55mm [2.16"] diameter. Insert collar into hole, and weld around collar. Then install basket and cap.

| R365 FILLER STRAINER | | | | | | |
|----------------------|-----------------|------------------|----------------|-------------------|----------------|--------|
| PART NUMBER | DIAMETER OF CAP | INSTALLED HEIGHT | STRAINER DEPTH | STRAINER DIAMETER | OVERALL HEIGHT | WEIGHT |
| PART NO | A mm | B mm | C mm | D mm | L mm | kg |
| R365 | 66,5 A/F | 42 | 140 | 50 | 182 | 0,50 |

INTRODUCTION TO FILTRATION

DEFINITION OF FILTRATION

“The process by which solid particles are separated from a fluid by passing the fluid through a permeable material that will not let the solid particles through”.

THE NEED FOR FILTRATION IN HYDRAULIC SYSTEMS

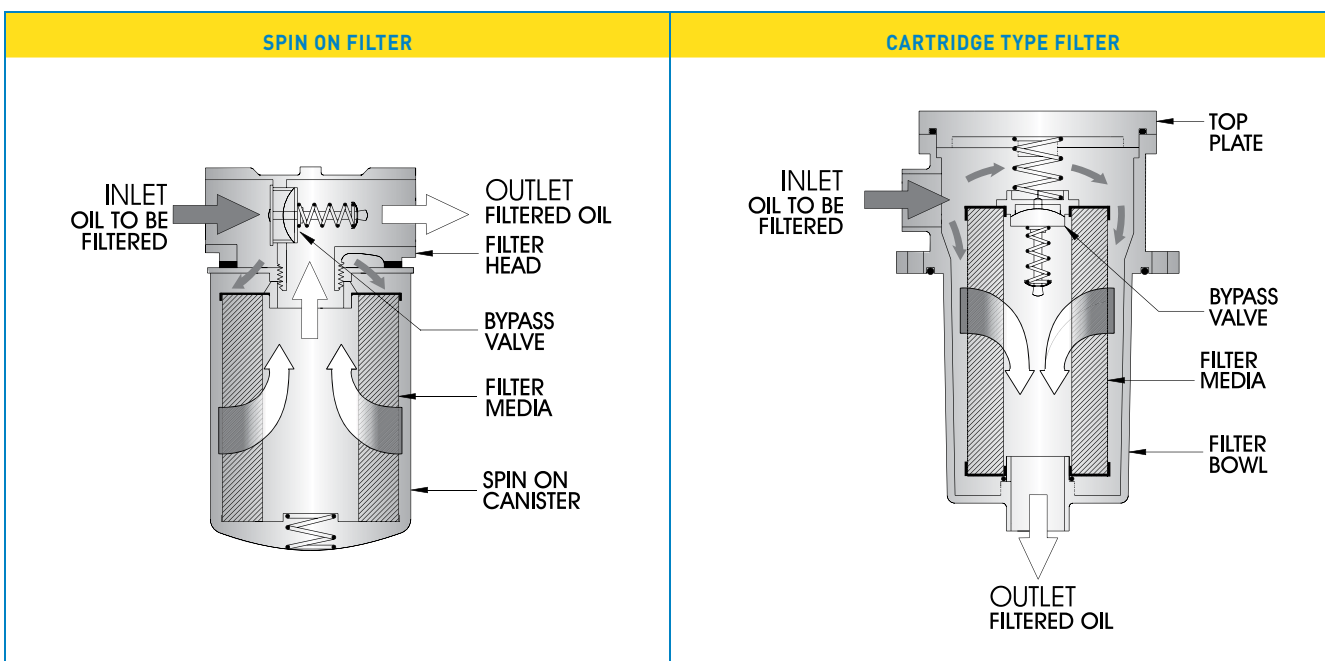
The higher pressures and faster cycle times, and more consistent performance requirements in modern hydraulic circuits, has led to many high precision components being used in pumps, motors, control valves and actuators. Contamination can increase wear on these components, or cause them to jam or malfunction. To keep circuits operating for extended periods and avoid costly down time, it is important to ensure that contamination is removed from the hydraulic fluid as efficiently as possible.

The cleaner the fluid, the longer the life system components will have, and the greater the time between breakdowns.

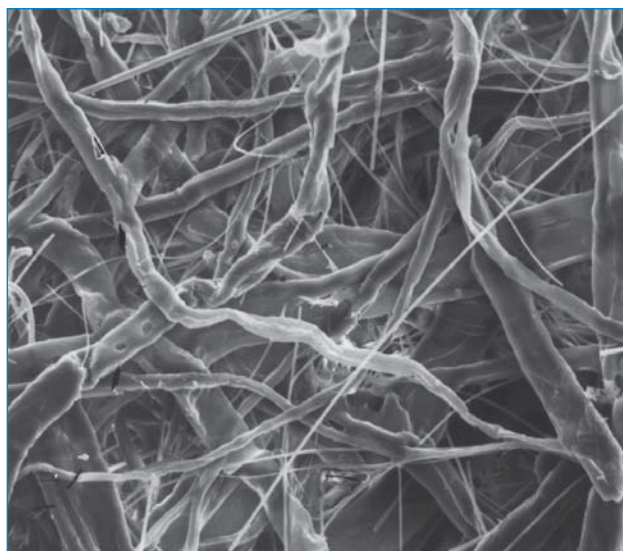
HOW FILTERS WORK

Oil containing contaminants enters via the inlet port, and flows around the outside of the filter element. As the oil passes through the filter element from the outside to the inside, particles of contaminant are trapped in the filter media. The cleaned oil flows through to the centre tube of the filter element and into the outlet port of the filter.

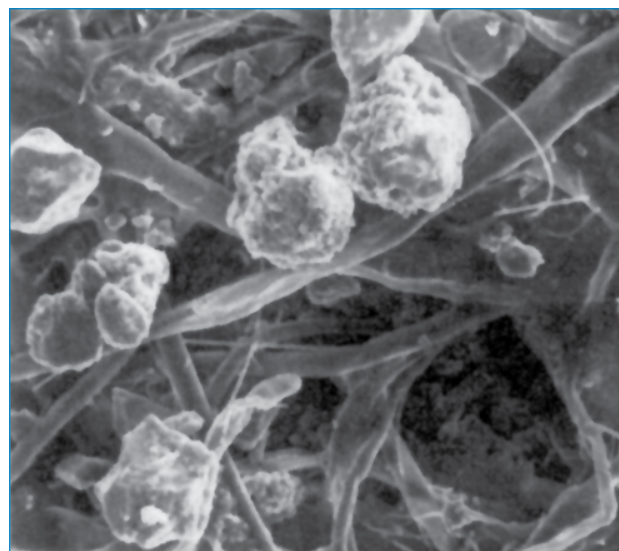
Spin-On Canisters and Cartridge type filter elements both work in the same manner.



The following electron microscope photographs show the trapping of contaminants in the layers of the filter media.



Clean 10 micron filter Filter magnified 250 times



Dirty 10 micron filter Filter magnified 250 times

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FILTRATION TECHNICAL INFORMATION

WHAT IS A MICRON?

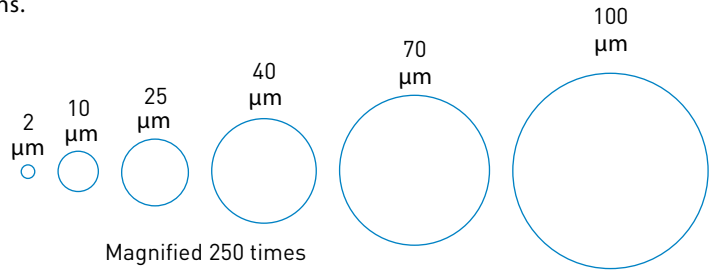
A micron (μm) is one millionth of a metre, or 0.000039 inches. As a comparison, a grain of table salt is about 100 microns, human hair is 70 microns, 40 microns is the smallest object able to be seen by unaided vision, talcum powder is 10 microns, red blood cells are 8 microns and bacteria are 1 to 2 microns.

1 micron = 1 millionth of a metre

1 micron = 1 thousandth of a millimetre

1 micron = 39 millionths of an inch

25.4 microns = 1 thousandth of an inch (.001")



PRESSURE DROP

The understanding of how pressure drop increases as the filter element traps more contaminant influences two important aspects of filter selection. The first is the selection of **BYPASS VALVES**, and the second is the selection of the **SIZE OF FILTER**.

When the filter element is clean, there is a small pressure drop as the oil finds its way through the numerous microscopic passages in the filter element.

As the filter element traps more and more contaminant, more and more of the microscopic passages become blocked, the flow rate through the remaining passages increases, thereby increasing the pressure drop across the filter element.

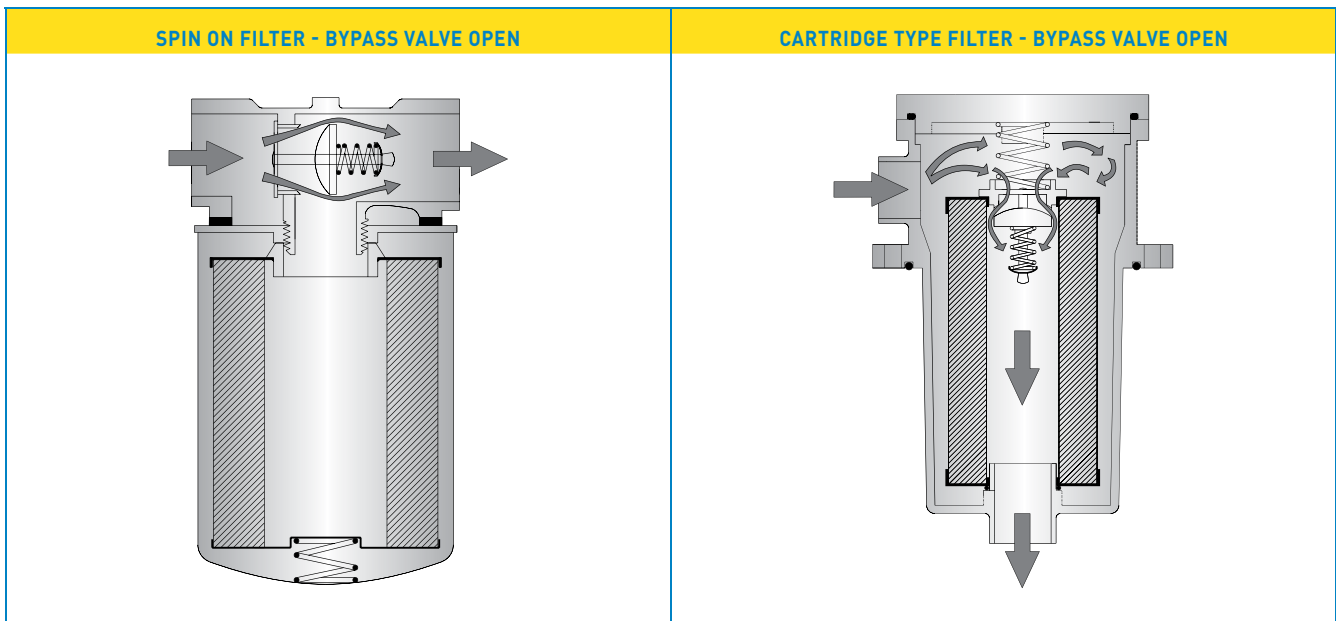
Eventually, if the filter element is not changed, all the passages will become blocked (also known as "plugged" or "clogged"), and very little oil will be able to flow through the filter element. The system may stop working due to oil starvation, or the filter may collapse or rupture.

BYPASS VALVES

In addition to the pressure drop due to contamination loading, other factors can also increase the pressure drop across the filter element. These include; increased viscosity of oil due to contamination, degradation or cold temperatures; and increased flow rates from system components, for example large cylinders retracting quickly, can easily double the normal flow rate of a system.

To keep the system operating, and guard against element collapse or rupture due to any of these factors, many filters incorporate a **BYPASS VALVE**. The Bypass Valve opens when the pressure drop increases past a predetermined value, to allow flow of unfiltered oil to bypass the filter element.

Normally, a Bypass Valve is a spring-loaded poppet set to crack open when the pressure drop reaches the predetermined value. It can be located in the filter head, or in the filter element.



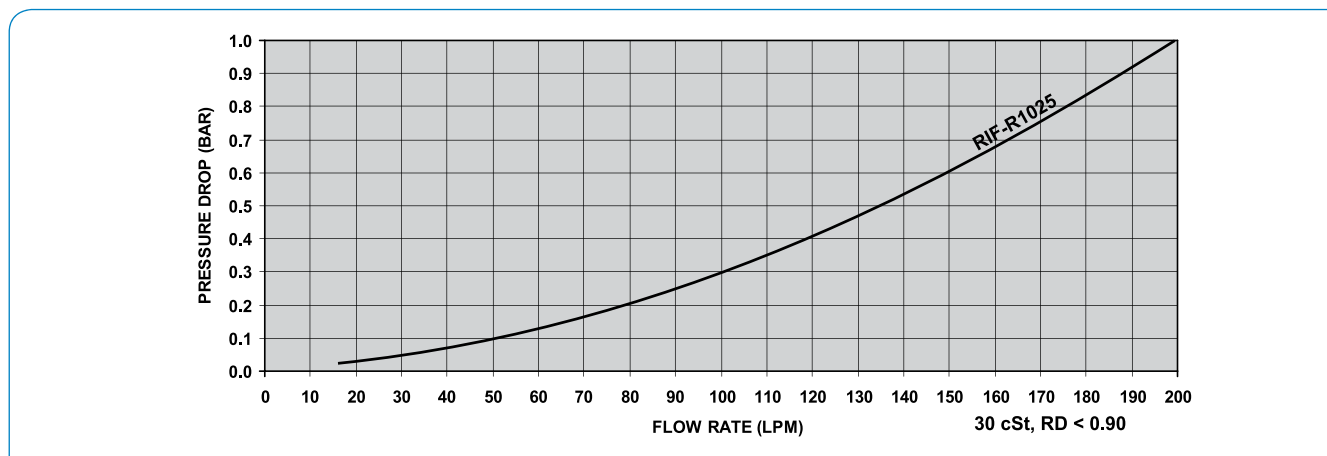
Many Return Line Filters have Bypass Valves with 0,7 or 1,0 bar (10 or 14.5 psi) cracking pressure, and many Suction Line Filters have Bypass Valves with 0,2 bar (2.9 psi) cracking pressure. Suction Line Filters require a lower Bypass Valve cracking pressure than Return Line Filters, to guard against the pump cavitation that may occur with a higher pressure drop.

The flow rate for a filter used in a Suction Line application is lower than a similar filter in a Return Line application.

SELECTION OF THE FILTER SIZE

It is important to select an adequately sized filter; one that will not cause too great a pressure drop with the expected flow rate in a system; and one that will not become blocked quickly and require changing of the filter element too often.

For each filter listed in this Product Technical Manual, a Pressure Drop versus Flow Rate graph is published from page 473.



It can be seen that pressure drop increases with flow rate. “Nominal Flow Rates” are published as a guide to the selection of a filter, based on these graphs, are calculated as follows:

RETURN LINE FILTERS WITH BYPASS VALVE CRACKING PRESSURE OF 1,0 BAR (14.5 PSI):

(includes the following Series: **RIF-R06, RIF-R10, RIF-RV12, RIF-RP12, RIF-RC12, RIF-FA9, RIF-FA10, RHF-R, RTI-R, RFI-R, RCF-R**).

The Nominal Flow Rates specified will cause a pressure drop across a clean filter element of 0,5 bar (7.3 psi) with 30 centistoke viscosity oil.

The filter element life will depend on the amount of contaminant trapped. Nominal Flow Rate conditions give rise to a Bypass Valve Cracking Pressure to Clean Element Pressure Drop ratio of approximately 2:1. 1,0 bar (14.5 psi) pressure drop is effectively the end of the life of the filter element because at that point the Bypass Valve cracks opens and the filter stops filtering.

Filter elements must be changed prior to the pressure drop reaching Bypass Valve cracking pressure.

RETURN LINE FILTERS WITH BYPASS VALVE CRACKING PRESSURE OF 0,7 BAR (10 PSI): (INCLUDES **RIF14-1**).

The Nominal Flow Rate specified will cause a pressure drop across a clean filter element of 0,3 bar (4.4 psi) with 30 centistoke viscosity oil.

The filter element life will depend on the amount of contaminant trapped. Nominal Flow Rate conditions give rise to a Bypass Valve Cracking Pressure to Clean Element Pressure Drop ratio of approximately 2:1. 0,7 bar (10 psi) pressure drop is effectively the end of the life of the filter element because at that point the Bypass Valve cracks opens and the filter stops filtering.

SUCTION LINE FILTERS WITH BYPASS VALVE CRACKING PRESSURE OF 0,2 BAR (2.9 PSI):

(includes the following Series: **RIF-S06, RIF-S10, RIF-SV12, RIF-SP12, RIF-SC12, RHF-S, RCF-S**).

The Nominal Flow Rate specified will cause a pressure drop across a clean filter element of 0,03 bar (0.5 psi) with 30 centistoke viscosity oil. The filter element must be changed before the pressure drop increases to the Bypass Valve cracking pressure of 0,2 bar (2.9 psi) and the filter stops filtering.

FILTERS WITHOUT BYPASS VALVE:

RIF15, RIF-FA8 and RIF-FA39 filters are designed for petrol, kerosene, and diesel fuel filtration. They do not have a Bypass Valve fitted, and flow will stop when the filter element becomes clogged. Filter elements must be changed prior to becoming clogged.

FILTERS WITH BLOCKED BYPASS VALVE:

(includes the following Series: **RIF-B06, RIF-B10, RIF-BV12, RIF-BP12, RIF-BC12, RHF-B**).

Filters with Blocked Bypass are available for special hydraulic oil filtration applications. Actual flow rates for Blocked Bypass Filters are dependent on system design. Filter elements must be changed prior to becoming clogged.

WARNINGS:

- The above information is only an aid for filter selection. Other factors may affect the performance of a filter. The system designer must consider all criteria when designing a system, and ensure that these criteria are satisfied.
- Nominal Flow Rate information for each filter Series in the “Specification” tables, and then in the “Pressure Drop Flow Graphs” starting on page 473, relate to oil of 30 centistoke viscosity. The actual flow rate will vary if the oil is of a different viscosity. See page 477 for information on “Effect of Temperature and Viscosity on Flow Rate”.
- See page 475 for more information on “Warnings and for Filter Selection Guidelines”.

FILTERS

FILTRATION TECHNICAL INFORMATION

IMPROVED FILTRATION AT NO EXTRA COST

RYCO Hydraulics leads the way by providing ABSOLUTE, BETA RATED Spin-On Canisters RIF-E0610, RIF-E0625, RIF-E1010 and RIF-E1025 (as shown on pages 446 to 444). These Spin-On Canisters also comply with the following ISO Hydraulic Fluid Power Filtration Standards:

- ISO 2941 Hydraulic fluid power - Filter elements - Verification of collapse/burst resistance
- ISO 2942 Hydraulic fluid power - Filter elements - Verification of fabrication integrity and determination of the first bubble point
- ISO 2943 Hydraulic fluid power - Filter elements - Verification of material compatibility with fluids
- ISO 4572 Hydraulic fluid power - Filters - Multi-pass method for evaluating filtration performance

The table at the bottom of the page shows ISO 4572 Multi-Pass Test Results for these RYCO Spin-On Canisters.

NOMINAL FILTRATION

Many filters have a "nominal" filtration rating to indicate the size of particles the filter element will trap. For example, a filter with a nominal rating of 25 micron will trap approximately 50% of 25 micron (and larger) size particles.

BETA RATINGS (B)

With the development of improved filtration materials, the performance of filters has increased. Accordingly, new tests of filtering ability have been developed. One of these tests is the ISO 4572 Multi-pass test to determine the BETA ratio (β) of a filter. This test method counts the number of standard test particles per unit volume upstream of the filter, and compares it to the number of particles downstream after the fluid has passed through the filter.

For example, if there are 50,000 particles of size 25 micron and larger upstream and 25,000 particles downstream after passing through the filter, the BETA ratio would be 2.

$$50,000 \div 25,000 = 2$$

This is written as BETA ratio $\beta_{25}=2$.

Since the filter has removed 50% of the 50,000 particles, it has an efficiency of 50%. Therefore a filter with a BETA ratio of 2 for a certain micron size is similar to a filter with a "Nominal" rating for that micron size.

ABSOLUTE FILTRATION

A filter with a BETA ratio of 75 for a particles of size "x microns" ($\beta_x=75$) is 98.7% efficient at removing particles of x micron and larger size. This efficiency level is often considered as removing ABSOLUTELY ALL the particles.

It is generally considered that a filter with a BETA ratio of 75 or higher has an ABSOLUTE rating for that micron size. For example, if a filter has $\beta_{15}=75$ (BETA ratio for 15 micron equal to 75), it will remove 98.7% of particles 15 micron or larger, and is termed to have an ABSOLUTE rating of 15 micron.

THIS TABLE SHOWS SOME BETA RATIOS AND THE EQUIVALENT EFFICIENCY.

| BETA RATIO | EFFICIENCY |
|------------|------------|
| 1.01 | 1% |
| 1.5 | 33.3% |
| 2 | 50% |
| 5 | 80% |
| 10 | 90% |
| 20 | 95% |
| 75 | 98.7% |
| 100 | 99% |
| 200 | 99.5% |
| 1000 | 99.9% |

| PART NO | MICRON RATING ABSOLUTE | MICRON RATING NOMINAL | MULTI-PASS TEST RESULTS TO ISO 4572 | | | | | |
|-----------|------------------------|-----------------------|-------------------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| | | | B3 BETA RATING EFFICIENCY % | B6 BETA RATING EFFICIENCY % | B10 BETA RATING EFFICIENCY % | B15 BETA RATING EFFICIENCY % | B20 BETA RATING EFFICIENCY % | B25 BETA RATING EFFICIENCY % |
| RIF-E0610 | 10 | 3 | ≥ 2 50.00% | ≥ 5 80.00% | 75 98.70% | >8000 99.99% | >9000 99.99% | 9999.99 99.99% |
| RIF-E0625 | 20 | 10 | | | ≥ 2 50.00% | ≥ 10 90.00% | ≥ 75 98.70% | >6000 99.98% |
| RIF-E1010 | 10 | 3 | ≥ 2 50.00% | ≥ 5 80.00% | 75 98.70% | >6000 99.98% | >9000 99.99% | 9999.99 99.99% |
| RIF-E1025 | 25 | 10 | | | 2 50.00% | ≥ 3 66.67% | >150 93.38% | >3000 99.96% |

PRESSURE DROP FLOW GRAPHS FOR FILTERS

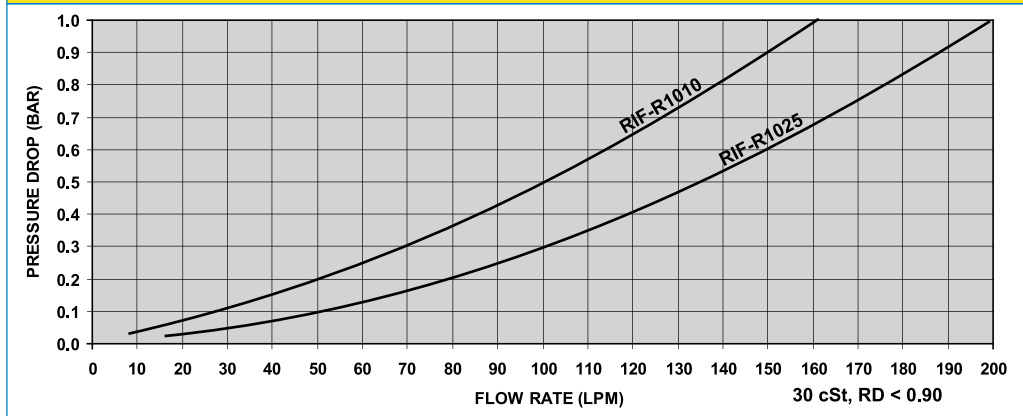
The "Pressure Drop Flow Graphs" for each Filter Series on these two pages relate to oil of 30 centistoke kinematic viscosity, and Relative Density less than 0,9 (except where otherwise noted for RIF-FA and RIF15). The actual pressure drop will vary if the oil is of a different viscosity, or different relative density.

See page 475 for information on "Warnings and Filter Selection Guidelines", page 477 for "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop", and pages 470 and 471 for Bypass Valve options and "Selection of Filter Size".

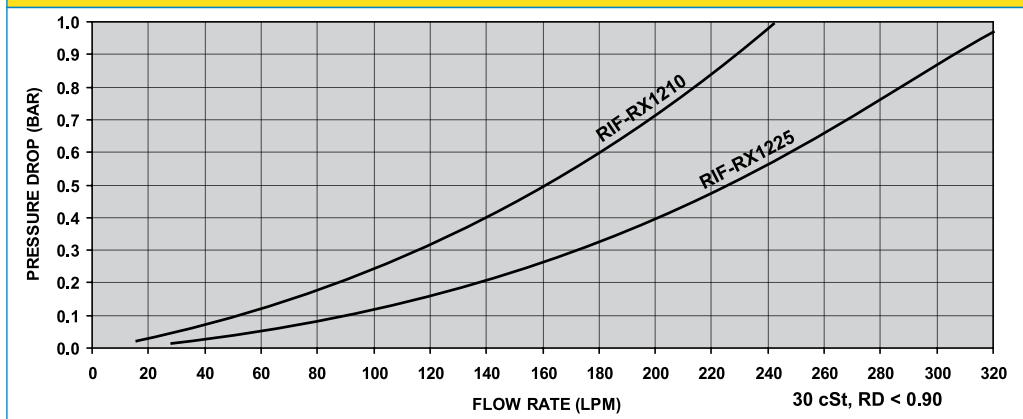
10 and 25 micron curves are labelled with the Return Line filter part number (usually R after dash in part number); the information also applies to Suction Line filters (S after dash) and Blocked Bypass Filters (B after dash) where available. 149 micron curves are labelled with the Suction Line filter part number.

This information is supplied as an aid for filter selection. Other factors may affect the performance of a filter. The system designer must consider all criteria when designing a system, and ensure that these criteria are satisfied.

RIF-10 SERIES 1.1/4" FILTERS

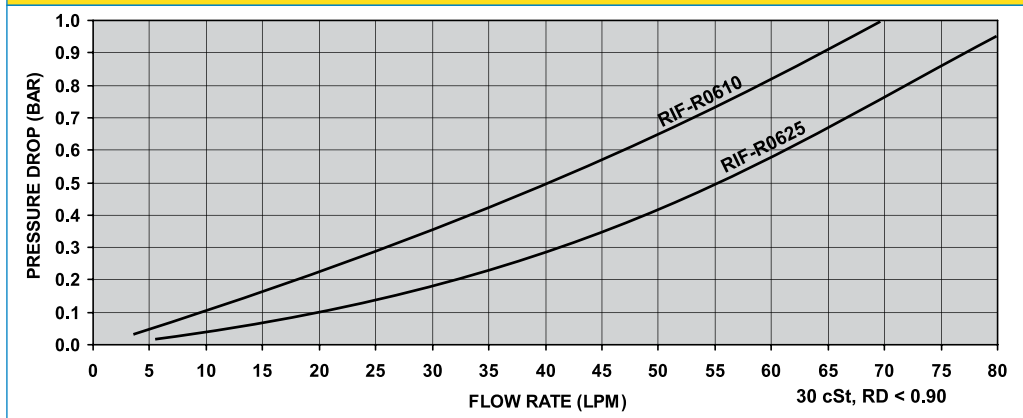


RIF-12 SERIES 1.1/2" FILTERS



Replace **X** in Part No with **V, P or C**.

RIF-06 SERIES 3/4" FILTERS



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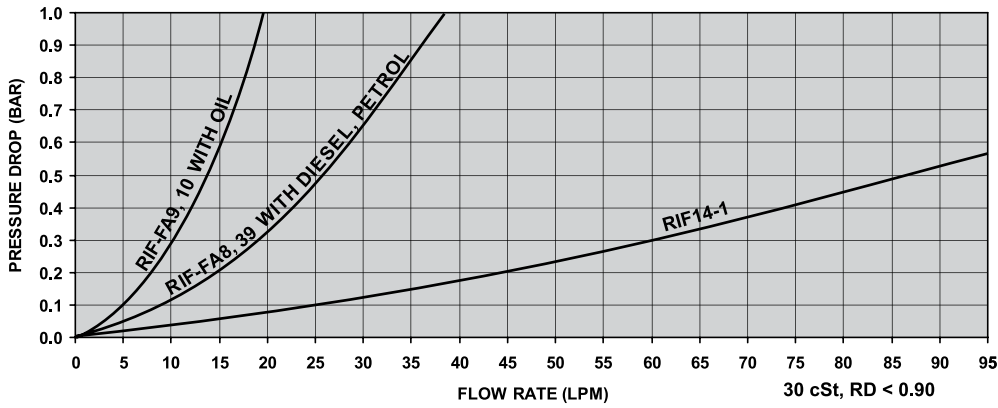
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RIF14-1, RIF-FA SERIES, RIF15



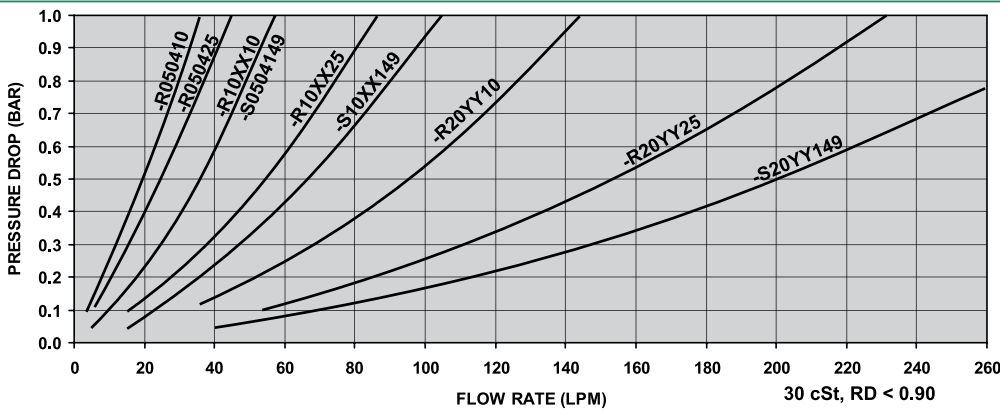
RIF14-1 curve is for 30 cSt oil.

Use **RIF14-1** curve for **RIF15** with petrol and diesel fuel.

RIF-FA9, RIF-FA10, curve is for 30 cSt oil.

RIF-FA8, RIF-FA39 curve is for petrol and diesel fuel.

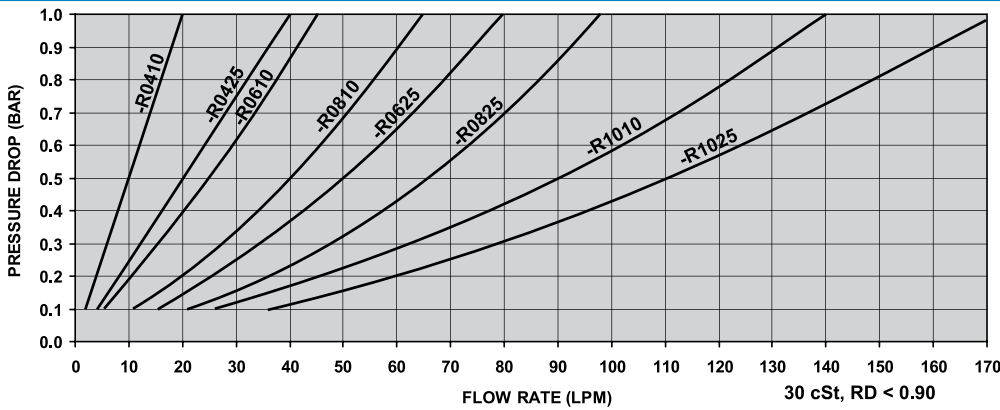
RHF SERIES HEAVY DUTY FILTERS



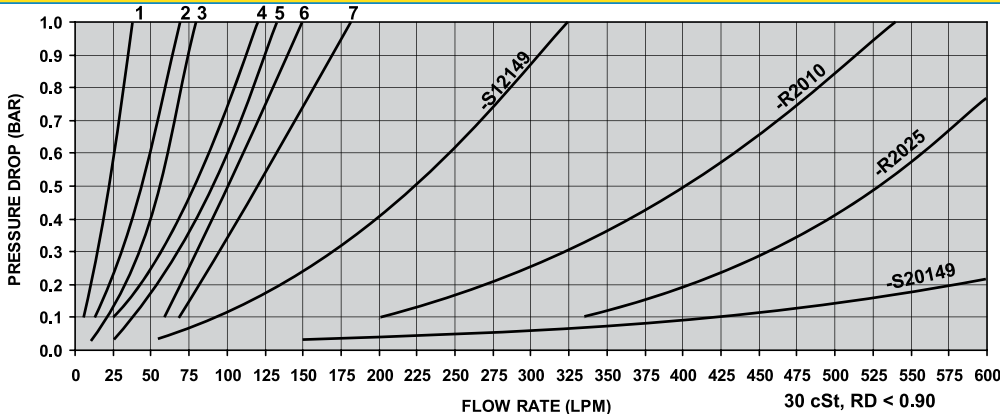
Replace **XX** in Part No with **06** (3/4") or **08** (1").

Replace **YY** in Part No with **10** (1.1/4") or **12** (1.1/2").

RTI AND RFI SERIES TANK TOP FILTERS



RCF SERIES COMBINATION FILTERS



Use **RTI-R0410** graph above for **RCF-R0410**.
 Use **RTI-R0425** graph above for **RCF-R0425**.
 Use Line 1 for **-R0610**.
 Use Line 2 for **-R0810** & **-R0625**.
 Use Line 3 for **-S06149**.
 Use Line 4 for **-R0825**.
 Use Line 5 for **-S08149**.
 Use Line 6 for **-R1210**.
 Use Line 7 for **-R1225**.

WARNINGS:

1. The information and specifications in this Product Technical Manual are only an aid for filter selection. Other factors may affect the performance of a filter. The system designer must consider all criteria when designing a system, and ensure that these criteria are satisfied.
2. Nominal Flow Rate information for each filter Series in the "Specification" tables, and in the "Pressure Drop Flow Graphs" on pages 477 and 478, relate to oil of 30 centistoke viscosity and less than 0,9 Relative Density. The actual flow rate will vary if the oil is of different viscosity and/or Relative Density. See page 477 for information on "Effect of Temperature and Viscosity on Flow Rate".
3. For Return Line Filters fitted with Bypass Valves; Nominal Flow Rates shown in the "Specification" tables for each filter series are based on a factor of the Bypass Valve cracking pressure. The Nominal Flow Rates shown will cause a pressure drop across a clean filter element of a maximum of 50% of the Bypass Valve cracking pressure, with 30 centistokes viscosity oil. In some applications (for example those involving wide operating temperature ranges, and/or large fluctuations in the expected flow rate of the system, and/or heavy contamination levels), the system designer must choose a Flow Rate that will cause a lower clean element pressure drop (for example 25% or 35% of the Bypass Valve cracking pressure). Conversely, it is not recommended to exceed clean element pressure drop of 50% of the Bypass Valve cracking pressure.
4. Cellulose filtration media can be affected by water. It can cause the media to swell and become plugged, especially Suction Line filters. If water from condensation of moist air within a reservoir or other sources is likely, the designer must consider this when selecting the filter. 149 Micron Stainless Steel mesh elements are available for some Series of Suction Line filters.
5. Some systems have wide variations in operating temperature and/or flow rates. Failure to allow for these when selecting filters may result in inadequate filtration or oil starvation. Under some conditions, if pressure within the filter becomes too great due to these wide variations, or other conditions (including restriction due to clogging), it is possible that the system may stop working due to oil starvation, or the filter element may collapse, or rupture, and release oil to the environment and/or allow contaminants to re-enter the oil, or the Bypass Valve may open prematurely.
6. Some systems are designed to allow for oil to Bypass the filter element via the Bypass Valve under cold start, or flow rate surge conditions, etc. Under these conditions, the designer must ensure that flow conditions do not exceed the flow capacity of the open Bypass Valve. This will cause pressure to build up in the filter, which may cause collapse or rupture.
7. For all filters fitted with Bypass Valves; if the designer requires that the Bypass Valve does not open under cold start (increased oil viscosity) conditions, all appropriate criteria must be considered and satisfied.
8. In some filters fitted with Bypass Valves, oil may flow over the surface of the filter element when the Bypass Valve opens. Under these circumstances, it is possible to wash trapped contaminants off the filter element back into the oil flow.
9. Filter elements must be changed prior to becoming blocked or "plugged" or "clogged", otherwise oil flow may be reduced below required limits, or oil may not be adequately filtered. Clogging Indicators should be fitted wherever possible; if not possible the filter element must be changed regularly at predetermined intervals to ensure correct filtration and operation of the circuit. See page 482 for more information; "Instructions for Changing Filter Elements".
10. Change filter elements whenever oil is changed.
11. Minimising oil surge conditions will increase the service life of filter elements.
12. Filters in this Product Technical Manual are unidirectional. Flow through a filter must be in the allowed direction only; from the specified inlet side to the specified outlet side.
13. Incorrect selection, fitment, design, application and/or maintenance of a filter can cause damage to equipment and/or personal injury or death.

SOME OF THE MANY FACTORS TO CONSIDER WHEN CHOOSING FILTERS FOR MINERAL OIL BASED HYDRAULIC FLUIDS ARE:

1. **REQUIRED CLEANLINESS LEVEL:** Manufacturers of the various hydraulic system components can advise the oil cleanliness level required to ensure that the component functions correctly. Appropriate micron rating filters should be chosen. Efficiency and capacity must be balanced. The system designer must select a filter that can remove a given percentage of contaminant particles over a particular size, with sufficient contaminant holding capacity so that it can protect the circuit over a reasonable service life.
2. **FLOW RATE OF THE SYSTEM:** It is important to choose a filter that has a sufficient flow rate. Remember to allow for flow increases due to actuator movement. In some systems the rapid retraction of a cylinder can cause a flow rate from two to five times the normal pump flow rate. If this has not been allowed for, the sudden increase in the flow rate can cause the Bypass Valve to open and allow unfiltered oil through, or may result in filter collapse or rupture.
3. **SYSTEM OPERATING PRESSURE AND TEMPERATURE:** Filters must be able to operate at the design pressure and temperature of the circuit.

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4. **VISCOSITY OF THE OIL:** Pressure Drop charts in this catalogue assume viscosity of 30 centistokes. If the oil is of different viscosity, or if the viscosity of the oil is likely to change due to cold starts, the nominal flow rates should have a correction factor applied to avoid Bypass Valve opening. See page 477.
5. **MOUNTING SPACE AND MAINTENANCE REQUIREMENTS:** The available space may dictate the choice of filter. Spin-On Canisters are generally quicker and easier to service than other designs.
6. **REQUIRED INTERVALS BETWEEN CHANGE OF FILTER ELEMENTS:** The required intervals between maintenance need to be considered. A small filter element will become more rapidly blocked with contaminants and require earlier changeout. If oil is expected to be heavily contaminated, specifying a larger filter extends filter element replacement intervals.
7. **LIKELY PRESENCE OF WATER CONDENSATION:** Water condensation from moist air inside a reservoir can cause cellulose filter elements to swell and become plugged.
8. **CRITICAL DEPENDENCE AND OPERATOR SAFETY:** If the system is of a critical nature, or there are safety issues to consider, it is often better to install extra filtration.
9. **COMPONENT TO BE PROTECTED BY THE FILTER:** Placing a filter immediately upstream of the component helps to protect critical or sensitive components.
10. **BYPASS VALVES:** Selection of Bypass Valves or Blocked Bypass options needs to take the overall circuit design into consideration.

RULES OF THUMB:

The following information is provided to aid in the selection of appropriate filtration and reservoir accessories. The system designer must consider all operating parameters and operating conditions when choosing filters and reservoir accessories, and be sure that the selected system provides for those parameters and conditions.

RETURN LINE FILTERS

- Return Line filters must be located as close to the Reservoir as possible.
- **Maximum line velocity:** 4.5 metres per second (15 feet per second).
- **Maximum pressure drop:** no more than 50% of the filter Bypass Valve setting at normal operating temperature with a clean filter element.
- Maximum pressure drop of 50% of the filter Bypass Valve setting is the normal recommendation. Using a factor lower than 50% of the filter Bypass Valve setting results in lower flow rates than those at 50%. However, the life of the element is increased due to the increased amount of contaminant able to be held before the pressure drop causes the Bypass Valve to open.

SUCTION LINE FILTERS

- **Maximum line velocity:** 1.5 metres per second (5 feet per second).
- **Maximum pressure drop:** no more than 50% of the maximum allowable vacuum recommended by the pump manufacturer.
- Suction Line Filters should not be used if the pump manufacturer recommends against their use.
- Closed loop systems are recommended. If possible, use a sealed reservoir and a pressurised breather.

WARNING: Do not use Suction Line Filters with cellulose filter elements where water contamination is possible.

SUCTION STRAINERS

- **Maximum line velocity:** 1.5 metres per second (5 feet per second).
- **Maximum pressure drop:** 1 inHg (25 mmHg)/0,03 bar (0.44 psi)

DIFFUSERS

- Using tank diffusers helps to prevent air becoming entrapped in hydraulic oil. Air sucked into a pump with the hydraulic fluid can cause cavitation at the pump. Damage to the pump and other components in a system may occur as a result.
- Diffusers and suction strainers perform best when mounted in the bottom third of the reservoir. They should also face in opposite directions, or can be separated from one another by baffle plates to allow the oil to settle, cool and de-aerate.

CLOGGING INDICATORS

- RYCO Hydraulics recommend the fitting of Clogging Indicators (see page 461) to filters wherever possible. Clogging Indicators provide visual indication of the restriction across the filter element.
- Filter elements must be changed before the filter Bypass Valve opens and allows unfiltered oil through the filter. If a Clogging Indicator is not fitted, filter elements must be changed on a regular basis so that they do not become plugged.

AIR BREATHERS

- Breather filtration should match the required hydraulic fluid filtration level.
- Breathers should be replaced regularly, to ensure that they do not become clogged.
- Pressurised filler breather caps can be used in conjunction with a fully sealed reservoir to increase oil supply to the pump inlet. Pressurised filler breather caps function best on reservoirs that have a fairly constant fluid level.
- Generally, the more pressure a pump has at the inlet, the quieter it will operate.

RESERVOIRS

- Oil reservoirs must be fully sealed to prevent contaminants being sucked into the reservoir as the oil level changes. Air should only enter and leave the reservoir via filtered air breathers.

EFFECT OF TEMPERATURE AND VISCOSITY ON FLOW RATE AND PRESSURE DROP

Viscosity is the resistance of a liquid to flow under an applied force. The viscosity of a fluid is low if it flows easily, and high if it flows with difficulty.

Two units are commonly used: **CENTISTOKES (cSt)** and **SAYBOLT SECOND UNIVERSAL (SSU)**.

Both are based on the time required for an amount of oil to flow through a specified orifice at one of two test temperatures. Test temperatures are usually 40°C (104°F) or 100°C (212°F) for centistokes, or 100°F (38°C) or 210°F (99°C) for SSU.

Popular mineral oil based hydraulic fluids now commonly use the ISO Viscosity Classification, which uses the kinematic viscosity in centistokes at 40°C (104°F) test temperature. For example, ISO 46 hydraulic oil has kinematic viscosity of 46 centistokes at 40°C (104°F). Commonly used hydraulic oils have kinematic viscosities from 15 to 150 centistokes at 40°C (104°F) (ISO Viscosity Classifications 15 to 150). The higher the viscosity value is numerically; the thicker, or more viscous, the oil is. 100 centistoke oil is more viscous (greater resistance to flow) than 15 centistoke oil.

It is important to specify the temperature of the test, because oil viscosity changes with temperature. The chart on page 478 shows how ISO grades of hydraulic oil typically change viscosity with temperature, assuming Viscosity Index of 100. (Viscosity Index is a measure of how viscosity changes with temperature). It can be seen that at differing temperatures, each grade can have kinematic viscosity of 30 centistokes. For example, ISO 68 oil (that is 68 centistokes at 40°C/104°F) has 30 centistokes viscosity at approximately 58°C (136°F).

Centistokes and SSU are numerically related to each other, for example 30 centistokes at 40°C (104°F) is the same as 141,7 SSU at the same temperature 40°C (104°F), which in turn is approximately equal to 155 SSU at 37°C (99°F). Another common reference point is that 150 SSU at 37°C (99°F) is approximately equal to 28 centistokes at 40°C (104°F). In this Product Technical Manual, due to increasing acceptance of centistokes and the ISO Viscosity Classification, reference to SSU is not included.

For each RYCO Filter Series, the Nominal Flow Rates in the "Specification" tables, and the "Pressure Drop Flow Graphs" on page 473, assume a kinematic viscosity of 30 centistokes. They can be used for all ISO grades, using appropriate correction factors as discussed below.

FLUID VISCOSITY AND FLOW CAPACITY AND PRESSURE DROP

When selecting hydraulic fluid filters, knowledge of the viscosity of the fluid over the operating temperature range of the hydraulic system is the most critical variable.

The pressure drop of the fluid as it flows through the filter is proportional to the viscosity of the fluid. At any nominated flow rate, a fluid of lower viscosity will have a lower pressure drop than a fluid of higher viscosity. For example, at the same Nominal Flow Ratings, the pressure drop of ISO 30 fluid would be approximately half that of ISO 60. Similarly, for a specified pressure drop, a fluid of lower viscosity will have a higher Nominal Flow Rate than a fluid of higher viscosity.

ESTIMATING PRESSURE DROP AND FLOW CAPACITY

The Pressure Drop Flow Graphs, and the Nominal Flow figures in the Specification tables for each Filter Series in this Product Technical Manual, are based on oil of kinematic viscosity 30 centistokes.

If the fluid to be filtered in your application has kinematic viscosity 30 centistokes at the system's normal operating temperature, the pressure drop values can be taken directly from the graphs, or the Nominal Flow figures from the tables can be used without correction factors.

If the viscosity of the fluid is not kinematic viscosity 30 centistokes, the formulae below can be used to estimate the pressure drop or flow capacity.

$$\text{Estimated pressure drop} = \left(\begin{array}{c} \text{pressure drop value} \\ \text{from graph} \end{array} \right) \times \frac{\text{viscosity of fluid in centistokes at system operating temperature}}{30}$$

$$\text{Estimated flow} = \left(\begin{array}{c} \text{nominal flow value} \\ \text{from table or graph} \end{array} \right) \times \frac{30}{\text{viscosity of fluid in centistokes at system operating temperature}}$$

(These formulae will give an approximate result, but due to the usual conditions of turbulent flow in the housing and laminar flow through the filtration media, the result is not precise. Contact RYCO Hydraulics Technical Department if precise calculations are required. Also, if extremes of temperature are expected, for example extremely cold starts, these should be allowed for in the selection of the filter.)

EXAMPLE

ISO 68 oil is used in a system that normally operates at 65°C. What is the estimated flow capacity of an **RIF-R1025** filter (for maximum 0,5 bar (7.3 psi) pressure drop across clean element)?

From page 478 graph, ISO 68 at 65°C (149°F) will be approximately 24 centistokes.

Nominal flow rate for **RIF-R1025** from Specification table on page 447 or graph on page 473 is 135 litres per minute (for maximum 0,5 bar (7.3 psi) pressure drop across clean element).

Estimated flow capacity for ISO 68 oil at 65°C (149°F) for **RIF-R1025** = 135 X $\frac{30}{24}$ = 169 litres per minute.

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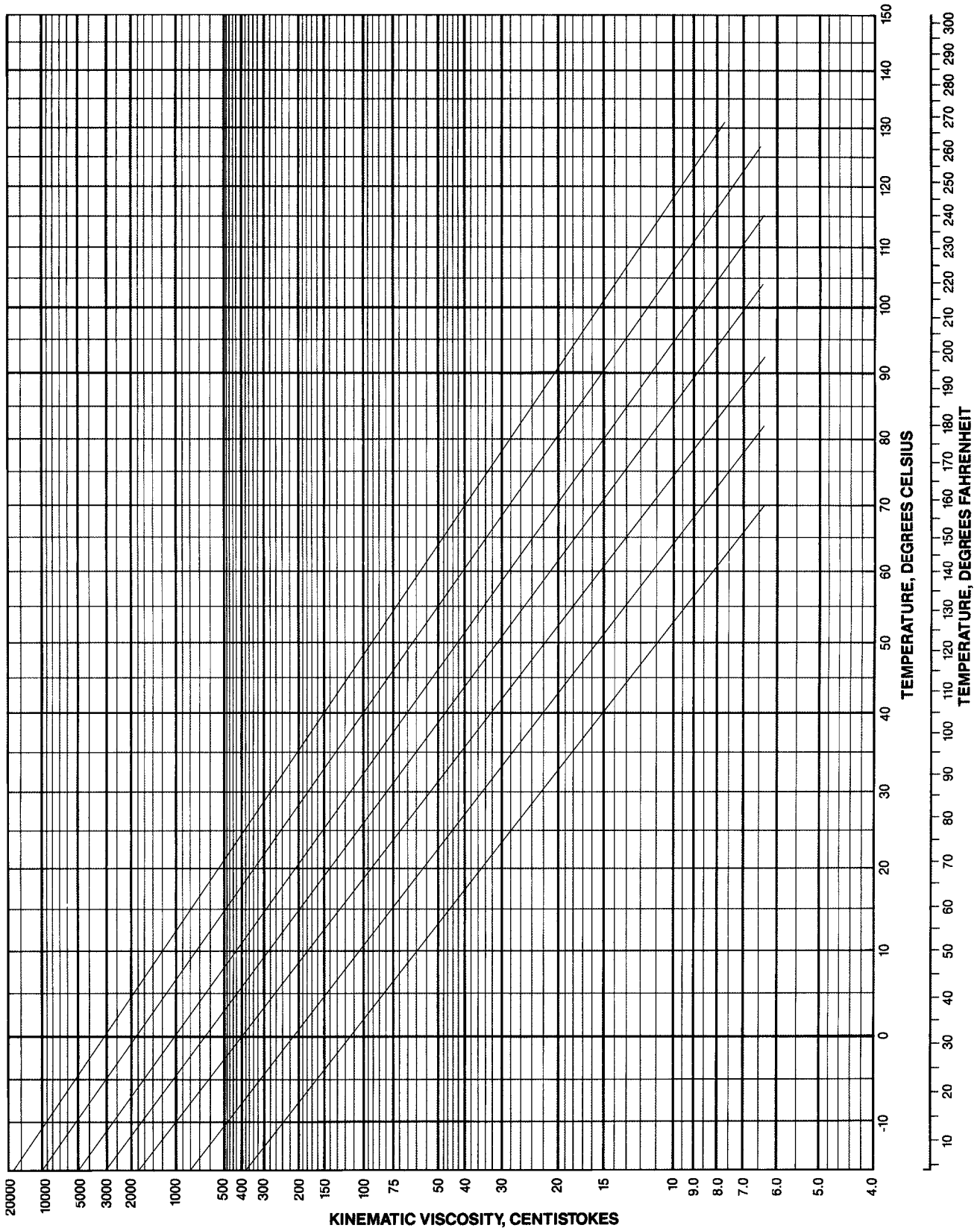
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PRESSURE DROP GRAPH



CROSS REFERENCE FOR RYCO RIF-E AND RIF-EA SPIN-ON FILTERS

If gasket dimensions and gasket sealing surfaces are compatible, the ability to use various Spin-On Filter Canisters on a particular filter head depends on the post thread of the filter head, and the thread of the Canister.

This Cross Reference Information is presented as a general guide to the RYCO Spin-On Filter that can replace another manufacturer's Spin-On Filter when installed on that other manufacturer's filter head, for hydraulic filtration applications; based on:

1. Reasonable matching of filtration ratings
2. General dimensions
3. Threads of the canister and of the post of the filter head.
4. Gasket compatibility.

The listings do not imply identical dimensions and identical performance.

Prior to using products from different manufacturers, users must consider all criteria and satisfy themselves that the products will perform satisfactorily in their particular application.

There are many variables to be considered; including, but not limited to, the following:

Maximum Working Pressure and Vacuum ratings vary between manufacturers.

Nominal Flow Rates and Clean Element Pressure Drops vary between manufacturers.

Filtration ratings and efficiencies vary between manufacturers.

Temperature ratings and fluid compatibilities vary between manufacturers.

Replacing a NOMINAL Rated canister with an alternate NOMINAL Rated canister of the same micron size; and an ABSOLUTE Rated canister with an alternate ABSOLUTE Rated canister of the same micron size; will result in similar but not necessarily identical performance.

Replacing a NOMINAL Rated canister with an ABSOLUTE Rated canister of the same micron size is not recommended, because it may result in a Nominal Flow Rate reduction, or increased Clean Element Pressure Drop.

Replacing an ABSOLUTE Rated canister with a NOMINAL Rated canister of the same micron size is not recommended, because the level of filtration will not be as fine.

Refer to pages 442 to 477 for Technical and other information about Pressure Drop, "Warnings and Filter Selection Guidelines", and "Effect of Temperature and Viscosity on Flow Rate and Pressure Drop" on RYCO Hydraulics products.

Due care has been taken in compiling the Cross Reference Information on page 479 and 480, but no liability of any kind whatsoever is accepted by RYCO Hydraulics Pty Ltd for any loss or damage sustained or incurred by the purchaser, or any other party in consequence of, resulting from the use of this information.

MATCHING OF FILTRATION RATINGS

RYCO Hydraulics Yellow Spin-On Filter Canisters shown on pages 442 to 444 have both ABSOLUTE and NOMINAL filtration ratings.

This means, for example, **RYCO RIF-E1025** is a cross reference for both 25 micron ABSOLUTE and 10 micron NOMINAL. See pages 469 to 472 for more information.

Common filtration ratings are 3, 10 and 25 micron. A Rule of Thumb is:

- 3 Micron Nominal** is approximately equal to **10 Micron Absolute**
- 10 Micron Nominal** is approximately equal to **20 to 27 Micron Absolute**
- 25 Micron Nominal** is approximately equal to **32 to 36 Micron Absolute**

The tables on the page following show the ABSOLUTE and NOMINAL filtration ratings for each RYCO Canister.

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ABSOLUTE AND NOMINAL FILTRATION RATINGS

(Continued from previous page)

| BSPP THREADED CANISTERS LAST 2 DIGITS OF RYCO PART NUMBER ARE THE ABSOLUTE RATING | 3/4" CANISTERS 3/4" BSPP THREADED | | 1.1/4" CANISTERS 1.1/4" BSPP THREADED | |
|---|--------------------------------------|------------------|--|------------------|
| RYCO PART NO | RIF-E0610 | RIF-E0625 | RIF-E1010 | RIF-E1025 |
| FILTRATION RATING | 10 MIC ABS | 20 MIC ABS | 10 MIC ABS | 25 MIC ABS |
| | 3 MIC NOM | 10 MIC NOM | 3 MIC NOM | 10 MIC NOM |

| UNF THREADED CANISTERS LAST 2 DIGITS OF RYCO PART NUMBER ARE THE NOMINAL RATING | 3/4" CANISTERS 1" UNF THREADED | | 1.1/4" CANISTER 1.1/2" UNF THREADED | |
|---|-----------------------------------|------------------|--|-------------------|
| RYCO PART NO | RIF-EA0810 | RIF-E0825 | RIF-EA1210 | RIF-EA1225 |
| FILTRATION RATING | 25 MIC ABS | 32 MIC ABS | 27 MIC ABS | 36 MIC ABS |
| | 10 MIC NOM | 25 MIC NOM | 10 MIC NOM | 25 MIC NOM |

HOW TO USE THE COMPETITOR CROSS-REFERENCE TABLE

1. Locate the competitor part number in the chart on the opposite page.
2. The columns to the right of the part number show the competitor filtration rating and canister thread, as well as which **RYCO** Gasket to use (see note below).
3. Read back across to the **RYCO** details in the left hand columns. These show the **RYCO** Cross Reference part number, and the RYCO Canister's filtration rating and Canister thread.

NOTE: If no part number is listed in the "Gasket" column in the competitor columns, the gasket is supplied already mounted in the RYCO Canister.

For RYCO RIF-EA1210 and RIF-EA1225 Canister cross references only. These Canisters are supplied with two Gaskets, only one is to be used, see page 443 for more information. If there is a part number listed in the "Gasket" column, use only this gasket. If "Check" is listed in the "Gasket" column, the gasket to be used must be determined at time of installation. See page 442 for more information.

COMPETITOR CROSS-REFERENCE TABLE

| RYCO | Abs | Nom | Thread | Baldwin | Rating | Thread | Gasket | Fairey Arlon/ Stauff | Rating | Thread | Gasket |
|------------|-----|-----|--------|----------|---------|--------|------------|-------------------------|---------|--------|------------|
| RIF-E0625 | 20 | 10 | BSPP | BT366-10 | 10 nom. | BSPP | | | | | |
| RIF-E1025 | 25 | 10 | BSPP | BT351 | 10 nom. | BSPP | | SFC5710E | 10 nom. | BSPP | |
| RIF-EA0810 | 25 | 10 | UNF | BT839-10 | 10 nom. | UNF | | FA35-10 | 10 nom. | UNF | |
| RIF-EA0810 | 25 | 10 | UNF | | | | | FA35-CC25 | 25 abs. | UNF | |
| RIF-EA0825 | 32 | 25 | UNF | BT839 | 25 nom. | UNF | | FA35-25 | 25 nom. | UNF | |
| RIF-EA1210 | 27 | 10 | UNF | BT287-10 | 10 nom. | UNF | RIF-EA12GM | FA57-10 | 10 nom. | UNF | RIF-EA12GM |
| RIF-EA1210 | 27 | 10 | UNF | | | | | FA57-CC25 | 25 abs. | UNF | RIF-EA12GM |
| RIF-EA1225 | 36 | 25 | UNF | BT287 | 25 nom. | UNF | RIF-EA12GM | FA57-25 | 25 nom. | UNF | RIF-EA12GM |

| RYCO | Abs | Nom | Thread | Fleetguard | Rating | Thread | Gasket | Filpro | Rating | Thread | Gasket |
|------------|-----|-----|--------|------------|--------|--------|--------|----------|---------|--------|--------|
| RIF-E0625 | 20 | 10 | BSPP | HF6173 | | BSPP | | SOE5-10 | 10 nom. | BSPP | |
| RIF-E0625 | 20 | 10 | BSPP | HF7983 | | BSPP | | | | | |
| RIF-E1025 | 25 | 10 | BSPP | HF6177 | | BSPP | | SOE10-10 | 10 nom. | BSPP | |
| RIF-E1025 | 25 | 10 | BSPP | HF7980 | | BSPP | | | | | |
| RIF-EA0810 | 25 | 10 | UNF | HF6056 | | UNF | | | | | |
| RIF-EA0825 | 32 | 25 | UNF | HF6057 | | UNF | | | | | |
| RIF-EA1210 | 27 | 10 | UNF | HF6710 | | UNF | Check | | | | |
| RIF-EA1225 | 36 | 25 | UNF | LF680 | | UNF | Check | | | | |

| RYCO | Abs | Nom | Thread | Hydac | Rating | Thread | Gasket | LHA | Rating | Thread | Gasket |
|------------|-----|-----|--------|------------|---------|--------|--------|-----------|---------|--------|------------|
| RIF-E0625 | 20 | 10 | BSPP | 0080MG010P | 10 nom. | BSPP | | SPE-16-10 | 10 nom. | BSPP | |
| RIF-E1025 | 25 | 10 | BSPP | 0160MG010P | 10 nom. | BSPP | | SPE-52-10 | 10 nom. | BSPP | |
| RIF-EA0810 | 25 | 10 | UNF | 0080MA010P | 10 nom. | UNF | | SPE-15-10 | 10 nom. | UNF | |
| RIF-EA0825 | 32 | 25 | UNF | 0080MA025P | 25 nom. | UNF | | SPE-15-25 | 25 nom. | UNF | |
| RIF-EA1210 | 27 | 10 | UNF | 0160MA010P | 10 nom. | UNF | Check | SPE-50-10 | 10 nom. | UNF | RIF-EA12GM |
| RIF-EA1225 | 36 | 25 | UNF | 0160MA025P | 25 nom. | UNF | Check | SPE-50-25 | 25 nom. | UNF | RIF-EA12GM |

| RYCO | Abs | Nom | Thread | OMT | Rating | Thread | Gasket | Prince/Cross | Rating | Thread | Gasket |
|------------|-----|-----|--------|--------|---------|--------|--------|--------------|---------|--------|------------|
| RIF-E0610 | 10 | 3 | BSPP | | | | | | | | |
| RIF-E0625 | 20 | 10 | BSPP | CS05AN | 10 nom. | BSPP | | | | | |
| RIF-E1010 | 10 | 3 | BSPP | | | | | | | | |
| RIF-E1025 | 25 | 10 | BSPP | CS10AN | 10 nom. | BSPP | | | | | |
| RIF-EA0810 | 25 | 10 | UNF | | | | | FA10 | 10 nom. | UNF | |
| RIF-EA0825 | 32 | 25 | UNF | | | | | FA25 | 25 nom. | UNF | |
| RIF-EA1210 | 27 | 10 | UNF | | | | | FB10 | 10 nom. | UNF | RIF-EA12GW |
| RIF-EA1225 | 36 | 25 | UNF | | | | | FB25 | 25 nom. | UNF | RIF-EA12GW |

| RYCO | Abs | Nom | Thread | Parker UCC | Rating | Thread | Gasket | Zinga | Rating | Thread | Gasket |
|------------|-----|-----|--------|--------------|---------|--------|--------|-------|---------|--------|--------|
| RIF-E0610 | 10 | 3 | BSPP | MXR.8550 | 10 abs. | BSPP | | | | | |
| RIF-E0625 | 20 | 10 | BSPP | MX.1518.4.10 | 25 abs. | BSPP | | | | | |
| RIF-E1010 | 10 | 3 | BSPP | MXR.9550 | 10 abs. | BSPP | | | | | |
| RIF-E1025 | 25 | 10 | BSPP | MX.1591.4.10 | 25 abs. | BSPP | | | | | |
| RIF-EA0810 | 25 | 10 | UNF | | | | | AE-10 | 10 nom. | UNF | |
| RIF-EA0825 | 32 | 25 | UNF | | | | | AE-25 | 25 nom. | UNF | |
| RIF-EA1210 | 27 | 10 | UNF | | | | | SE-10 | 10 nom. | UNF | Check |
| RIF-EA1225 | 36 | 25 | UNF | | | | | SE-25 | 25 nom. | UNF | Check |

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INSTRUCTIONS FOR CHANGING FILTER ELEMENTS

The Spin-On Canister or Filter Element must be changed before it becomes completely blocked or “plugged” with contaminants. If the Filter Element becomes blocked, the filter will go into bypass and the oil will not be filtered, or the filter may become damaged and release contaminants back into the system.

If a Clogging Indicator is fitted, see page 461, the correct time to change the Filter Element is shown by the reading on the Indicator.

If a Clogging Indicator is not fitted, the correct interval to change the Filter Element is not as easy to determine accurately. The normal recommendation is to change the initial Filter Element after the first 50 hours of operation from new, and then every subsequent 250 hours of operation; or as specified by the equipment manufacturer. More frequent replacement may be required depending on the severity of the operating conditions.

Filter Elements should also be changed whenever the oil is changed.

IMPORTANT FITTING INSTRUCTIONS FOR RYCO RIF SERIES SPIN-ON CANISTERS

1. Turn off the system and relieve pressure to the filter.
2. Clean the outside of the filter head and the spin on canister.
3. Unthread the old canister and remove it. Arrange a suitable catch pan for any oil that may be released.
4. Clean the gasket contact area on the filter head.
5. Remove the new canister from its protective packaging. Apply a film of oil to the face of the gasket of the new spin on canister, where it contacts the filter head. This is to ensure that friction or twisting during installation does not damage the gasket.

IMPORTANT NOTE; RIF-EA1210 AND RIF-EA1225 SPIN-ON CANISTERS.

Two gaskets are supplied, but only one is to be used. See page 443.

The wide (stepped) gasket is used with RYCO and on other filter heads with wide groove.

The narrow gasket is used on filter heads with narrow groove.

The gasket used must be a tight fit in the filter head groove. Use of incorrect gasket prevents seal.

Contact RYCO Hydraulics Technical Department if in doubt. After choosing the correct gasket, apply a film of oil to all surfaces of the gasket and install it in the filter head groove.

6. Line up the threads on the canister and the filter post carefully, and spin on the new canister until the gasket contacts the mounting pad on the filter head. (In some systems it may be desirable to place clean oil in the canister, before it is installed, to reduce air inclusion into the system.)
7. Tighten the canister an additional 1/2 to 3/4 turn by hand - do not over tighten.
8. Operate the system and check to ensure there are no leaks. Check oil level and top up if necessary.

IMPORTANT FITTING INSTRUCTIONS FOR RYCO CARTRIDGE STYLE FILTER ELEMENTS USED IN RYCO SERIES RHF, RTI, RFI, AND RCF FILTERS

1. Turn off the system and relieve pressure to the filter.
2. Clean the outside of the filter housing around the Top Cover Plate (or around the Bowl to Head join of RHF Series).
3. For **RHF-10** and **RHF-20** Series, remove the Drain Plug at the bottom of the bowl. Arrange a suitable catch pan for the oil that will be released. Replace the Drain Plug.
4. For **RTI**, **RFI**, and **RCF** Series, remove the bolts holding the Top Cover Plate. For **RHF** Series, remove the bolts holding the bowl to the head.
5. Remove the old filter element. 149 Micron Stainless Steel mesh filter elements may be cleaned and reused, if there is no damage.
6. Carefully clean inside the filter housing to remove any dirt or sludge. Wipe away from the outlet port. Clean the magnet on the bottom of Top Cover Plates of **RTI**, **RFI** and **RCF** Series filters.
7. Inspect all O Rings, seals and bolts for damage. Replace if necessary.
8. Place the new, or cleaned filter element into the filter housing, taking care to ensure it is centrally located, and the O Ring sealing the filter element to the housing is correctly seated. (In some systems it may be desirable to place clean oil in the filter, before it is reassembled, to reduce air inclusion into the system.)
9. Replace the Top Cover Plate or the Bowl, while maintaining correct spring location and spring pressure on the filter element.
10. Replace the bolts and tighten in a diagonal order. Check that the two components seat uniformly.
11. Operate the system and check to ensure there are no leaks. Check oil level and top up if necessary.

TECHNICAL



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INDICATING FLOW CAPACITY OF HOSE ASSEMBLIES AT RECOMMENDED FLOW VELOCITIES SELECTING THE RIGHT HOSE SIZE

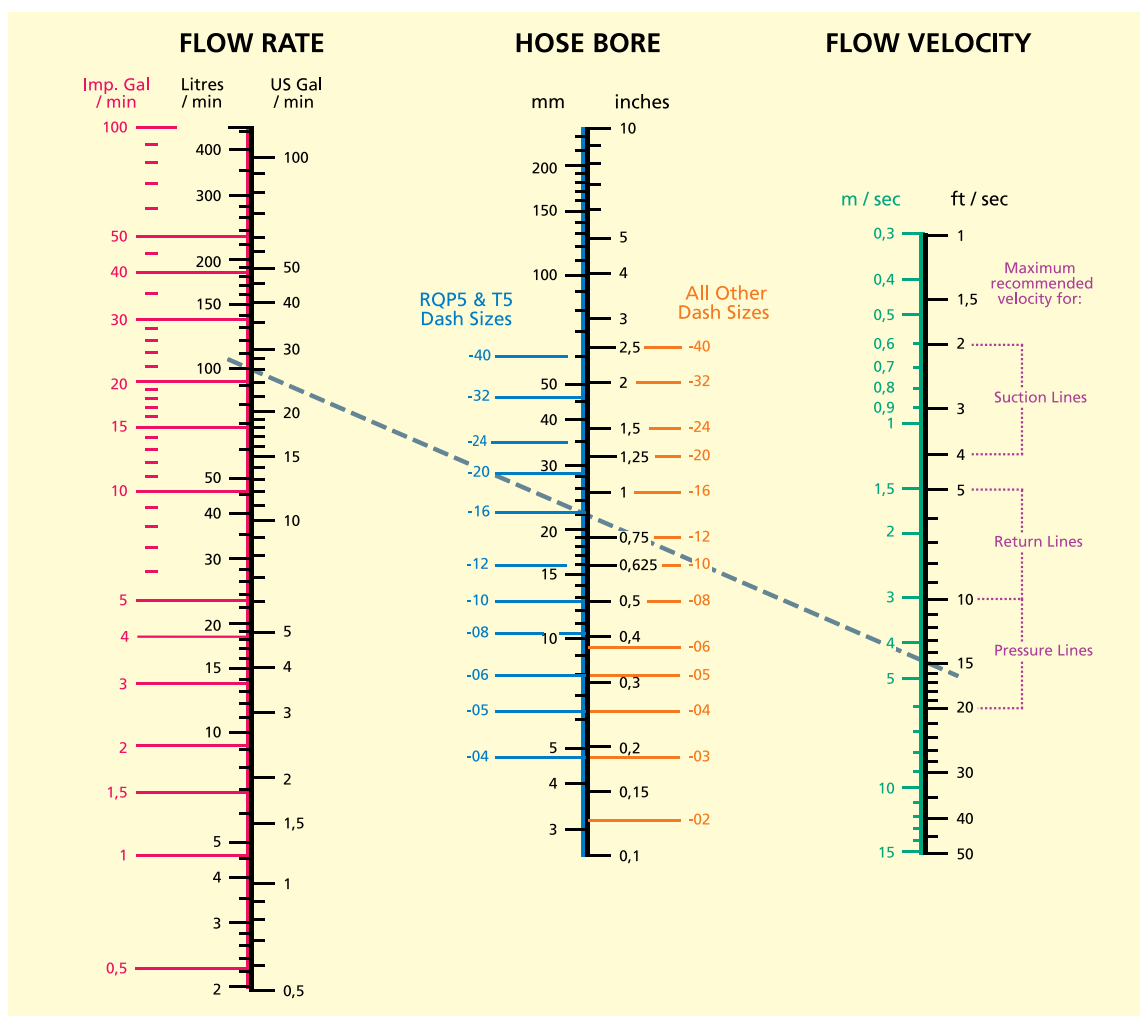
With this nomograph, you can easily select the correct Hose ID size, Desired Flow Rate and Recommended Flow Velocity. If any two of these factors are known, the third can be determined.

TO USE THIS NOMOGRAPH:

1. Pick the two known values.
2. Lay a straightedge to intersect the two values.
3. Intersection on the third vertical line gives the value of that factor.

Example: To find the bore size for a Pressure Line consistent with a Flow Rate of 100 litres per minute (26 US or 22 Imperial gallons per minute), and a Flow Velocity of 4,5 metres per second (14.8 feet per second), connect Flow Rate to Flow Velocity and read Hose Bore on centre scale.

ANSWER: THE LINE CROSSES HOSE BORE BETWEEN -12 AND -16 ON "ALL OTHER DASH SIZES" SIDE OF HOSE BORE AXIS, SO A -16 HOSE IS REQUIRED. IF RQP5 OR T5 HOSE IS TO BE USED, FOR THIS EXAMPLE -16 WOULD ALSO BE REQUIRED.



The velocity of the fluid should not exceed the range shown in the right hand column. When oil velocities are higher than recommended in the chart, turbulent flow occurs, resulting in loss of pressure and excessive heating. For long hoses and/or high viscosity oil, or if the flow of hydraulic fluid is continuous, it is recommended to use figures at the lower end of the Maximum Recommended Velocity range. For short hoses and/or low viscosity oil, or if the flow of hydraulic fluid is intermittent or for only short periods of time, figures at the higher end of the Maximum Recommended Velocity range can be used.

A FURTHER EXAMPLE WILL HELP YOU TO USE THIS CHART:

Determine the hose size required to carry 40 litres of oil per minute and determine the velocity of the oil through the hose assembly. The assembly is to be used as a pressure line and the flow will be continuous.

Locate the flow, 40 litres per minute (left hand column), and velocity, 15 feet per second (right hand column), since 15 is the centre of the Pressure Lines Maximum recommended velocity range. Lay a straight edge across these two points. The straight edge crosses the centre column just above the -08 on "All Other Dash Sizes" side of Hose Bore axis. Keeping the straight edge on 40 litres per minute, cross the centre column at -08 and -10 sizes and read the Flow Velocity in the right hand column. It can be seen that using -08 Hose Size, Flow Velocity will be 18 feet per second, and for -10 Hose Size, Flow Velocity will be 11 feet per second. As the flow is continuous, -10 Hose Size is recommended.

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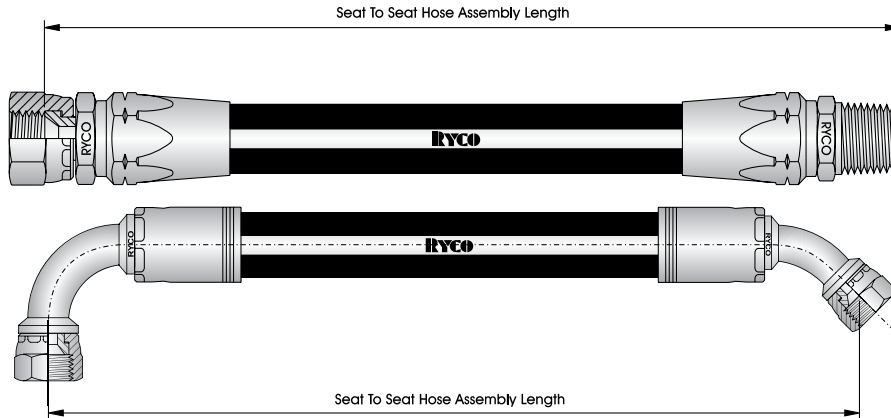
FILTERS

TECHNICAL

HOSE ASSEMBLIES OF SPECIFIC LENGTHS

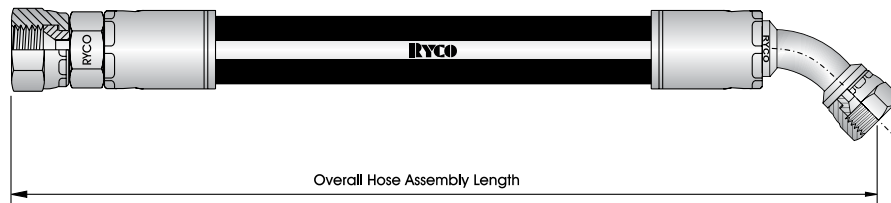
All RYCO hose assemblies are manufactured seat to seat length unless otherwise specified by customer. The length of a Hose Assembly can be measured in three ways:

1. SEAT TO SEAT LENGTH. (RYCO STANDARD, UNLESS OTHERWISE SPECIFIED).



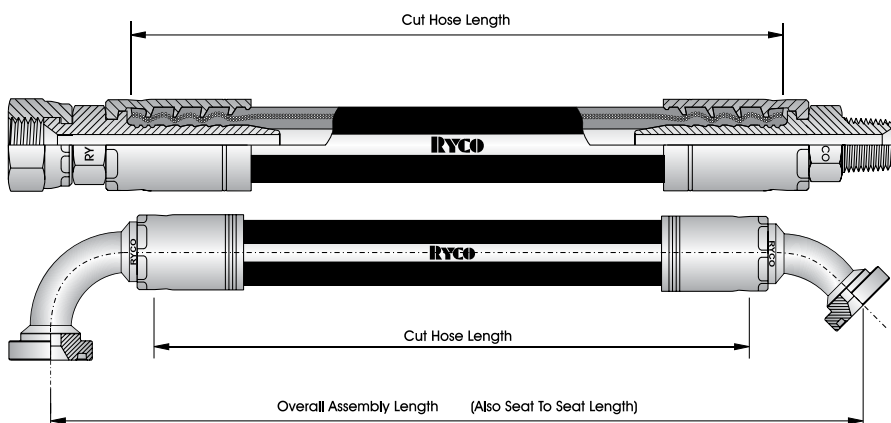
Length is measured from tip of seat to tip of seat.

2. OVERALL LENGTH. (OA)



Length is measured from tip of nut to tip of nut.

3. CUT HOSE LENGTH. (CL)



This is the length that the hose is cut to before couplings are attached. The length of the couplings is extra.

NOTE: For male fittings and flanged fittings, seat and overall length measurement points are the same.

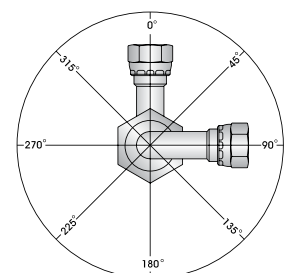
ORIENTATION OF FITTINGS.

Proper positioning of elbow end fittings on a hose is governed by the offset angle, or the amount of angular offset between connecting parts in the installation. If this angle of orientation is not correct in the construction of a hose assembly the performance and life of the assembly will be greatly reduced.

Orientation is determined by the number of degrees between the fitting furthest from the viewer and the fitting nearest to the viewer, measured in a clockwise direction.

ORIENTATION TOLERANCES:

± 3° on lengths up to 600 mm (24").
± 5° on lengths over 600 mm (24").



HOW TO ORDER HOSE ASSEMBLIES

When ordering Hose Assemblies, specifying by the following system will assist; or alternatively supply a clear, concise drawing or sketch.

1. **Hose Type.**
2. **(Hose Protection or extra operations to hose)** - if applicable.
3. **Hose Assembly Length** (expressed in mm), followed by method of measurement:
blank if "Seat to Seat Length"
-OA if "Overall Length"
-CL if "Cut Hose Length"
4. **Fitting End 1.**
5. **Fitting End 2.**
6. **Angle of Orientation** if both fittings are elbows and/or tube bends.

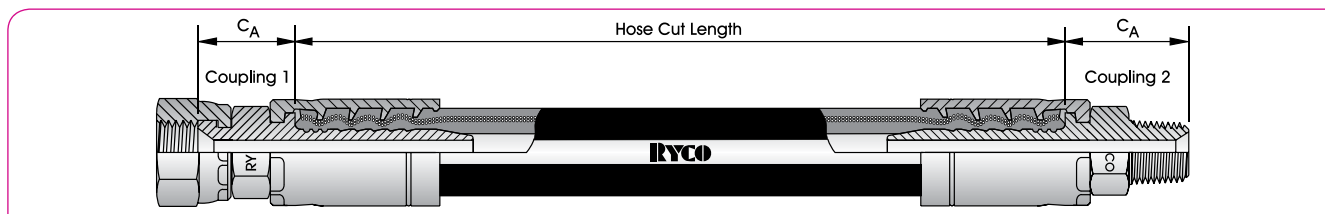
EXAMPLES:

1. **T3008A * 1830 * T2090-0808 * T2040-0814** – Hose will be made 1830 mm Seat to Seat.
2. **T3008A * 1830-OA * T2090-0808 * T2040-0814** – Hose will be made 1830 mm tip of T2090 male to tip of T2040 nut.
3. **T28D * 1830 * T2050-0808 * T2730-0824 @ 135°** – Hose assembly will be manufactured so that when T2050-0808 is furthest away the T2730-0824 will be oriented 135° clockwise.
4. **T5008A * 1640-CL * L010-0812 * L040-0817** – Hose will be cut to 1640 mm and length of fittings will be extra.
5. **H6012D * (RSG-32 * 1000) * 1000-OA * T7630-1236 * T7720-1236** – Hose will be covered with RSG for full length of hose assembly. Length will be overall from T7630 tip to T7720 bend centreline.
6. **RQP212 * (PIERCE * 2200) * 2200 * T2090-1212 * T2040-1217** – Hose cover will be pierced/pin pricked.
7. **T18A * 1830 * T2010-0808 * T2020-0808 + S27-0808** – The length of the S27-0808 is extra, not included in the 1830 mm.

CUT-OFF ALLOWANCE (C_A)

Values for Cut-off Allowance (C_A) dimensions are published in this Product Technical Manual.

C_A dimensions allow calculation of the Hose Cut Length required to make a Hose Assembly of a particular Seat to Seat Length.



EXAMPLE:

For a Hose Assembly using **T2040-0609** coupling one end, and **T2090-0606** coupling other end, with a required Seat to Seat Length of 750 mm, calculate the Hose Cut Length required.

From page 194, C_A dimension for T2040-0609 is 22 mm. This is "coupling 1" for the required hose assembly.

From page 192, C_A dimension for T2090-0606 is 33 mm. This is "coupling 2" for the required hose assembly.

$$\text{Cut Length of Hose} = \text{Seat to Seat Length of Hose Assembly} - C_A (\text{coupling 1}) - C_A (\text{coupling 2}) = 750 \text{ mm} - 22 \text{ mm} - 33 \text{ mm} = 695 \text{ mm}$$

IMPORTANT NOTES:

1. CHECK AND MEASURE COUPLING BEFORE CUTTING HOSE

For all Couplings, before calculating the Cut Length of the hose, measure and check that the C_A dimension of the physical coupling complies with that published. C_A dimensions may vary due to manufacturing method or design refinement.

2. HOSE ASSEMBLY LENGTH GROWTH AFTER COUPLING ATTACHMENT

The C_A dimension is measured from where the hose abuts when fully inserted, to the connection end seat of the coupling. With most Crimp Couplings¹, and Field Attachable Couplings having ferrules²; due to compression of the hose within the coupling after attachment, a growth in length occurs, in addition to the published C_A dimension. Growth varies with different types and sizes of hose and couplings. For longer hoses, and non-critical applications, it is common practice to ignore the growth, as the extra length generated usually does not affect the function of the hose assembly. In applications where the length of the hose assembly is critical, the growth must be allowed for when calculating Cut Length of hose. RYCO recommends measuring the growth when the first coupling is attached by measuring between reference points marked on the coupling and hose before and after coupling attachment, then adjusting the Cut Length of the hose to compensate.

3. See page 276 for extra information about C_A dimensions for K000, L000, M000 and P000 Series Field Attachable couplings.

4. See note on page 175 regarding Drop Length (DL) and Cut-off Allowance (C_A) published dimensions.

5. For Hose Assemblies, the following must be considered: Maximum Working Pressure of the Hose; End Style (Connector Termination), see pages 516 to 520, and Minimum Free Length, see page 492 in the "Safety Guide", pages 490 to 493.

NOTE:

1) For T4000 Series couplings with SR and SRF hose series, growth varies and must be measured each time.

2) For practical purposes, 8000 Series Push-On and 33000 Series couplings do not experience extra growth.

SELECTION, INSTALLATION AND MAINTENANCE OF HOSE AND HOSE ASSEMBLIES

SCOPE:

1. Many factors affect the selection, making, installation and maintenance of hose assemblies. This catalogue, RYCO Hydraulics (RYCO), and The Society of Automotive Engineers recommended practice SAE J1273, have useful information about selecting, making, installing and servicing hydraulic hose assemblies. For further information, please contact your local RYCO representative.

RYCO recommends hose and coupling combinations in the catalogue only after completing extensive testing. Evaluation of a hose and coupling combination requires considerable impulse testing and cannot be determined by a simple burst or pressure hold test. RYCO disclaims all liability for any hose assembly made in violation of RYCO recommendations, procedures and current crimp data. Crimp data is updated from time to time.

The consumer's exclusive remedy with respect to any claim shall be a refund of the purchase price or replacement of the product at the option of RYCO. In no event shall RYCO be liable for any incidental or consequential damages whatsoever.

WARNING: IMPROPER SELECTION, INSTALLATION, OR MAINTENANCE MAY RESULT IN PREMATURE FAILURES, BODILY INJURY, PROPERTY DAMAGE.

SELECTION:

2. The following is a list of factors which must be considered before final hose selection can be made:
 - 2.1 **Internal Pressure** – After determining the system pressure, hose selection must be made so that the recommended maximum operating pressure is equal to or greater than the system pressure. Surge pressures higher than the maximum operating pressure will shorten hose life and must be taken into account by the hydraulic engineer. Hose fitting rated pressures should also be considered, as the maximum working pressure is based on the whole hose assembly and not just the hose alone.
 - 2.2 **External Pressure:** In certain applications the external environmental pressures may exceed the fluid pressure inside the hose, therefore these factors need to be considered.
 - 2.3 **Suction** – Hoses used for suction applications must be selected to ensure that the hose will withstand the vacuum and pressure of the system.
 - 2.4 **Temperature** – Care must be taken to ensure that fluid and ambient temperatures, both static and transient, do not exceed the limitations of the hose. Special care must be taken when routing near hot objects such as manifolds.
 - 2.5 **Fluid Compatibility** – Hose selection must assure compatibility of the hose tube, cover, and fittings with the fluid used. Additional caution must be observed in hose selection for gaseous applications. For full compatibility table please refer to page 495 in the Technical Section of this manual.
 - 2.6 **Size** – Transmission of power by means of pressurised fluid varies with pressure and rate of flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage to the hose due to heat generation or excessive turbulence.
 - 2.7 **Routing** – Attention must be given to optimum routing to minimise inherent problems.
 - 2.8 **Environment** – Care must be taken to ensure that the hose and fittings are either compatible with, or protected from, the environment to which they are exposed. Environmental conditions such as ultraviolet light, ozone, salt water, chemicals and air pollutants can cause degradation and premature failure and, therefore, must be considered.
 - 2.9 **Mechanical Loads** – External forces can significantly reduce hose life. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type fittings or adaptors may be required to ensure no twist is put into the hose. Unusual applications may require special testing prior to hose selection.
 - 2.10 **Abrasion** – While a hose is designed with a reasonable level of abrasion resistance, care must be taken to protect the hose from excessive abrasion which can result in erosion, snagging, and cutting of the hose cover. Exposure of the reinforcement will significantly accelerate hose failure.
 - 2.11 **Proper End Fitting** – Care must be taken to ensure proper compatibility exists between the hose and coupling selected based on the manufacturer's recommendations substantiated by testing to industry standards such as SAE J517.
 - 2.12 **Length** – When establishing proper hose length; motion absorption, hose length changes due to pressure, as well as hose and machine tolerances must be considered.
 - 2.13 **Specifications and Standards** – When selecting hose; government, industry, and manufacturer's specifications and recommendations must be reviewed as applicable.
 - 2.14 **Hose Cleanliness** – Hose components vary in cleanliness levels. Care must be taken to ensure that the assemblies selected have an adequate level of cleanliness for the application.
 - 2.15 **Electrical Conductivity** – Certain applications require that hose be non-conductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Hose and fittings must be chosen with these needs in mind.
 - 2.16 **High Pressure Gas** – Do not use hydraulic hose to transmit high pressure gases.

- 2.17 **Vibration:** Vibration can reduce hose service life. If necessary, conduct tests to evaluate the effects of frequency and amplitude of system vibration on a hose assembly. Clamps of other devices may be used to reduce the effects of vibration.

INSTALLATION:

- 3. After selection of proper hose, the following factors must be considered by the installer:
 - 3.1 **Pre-installation Inspection** – Prior to installation, a careful examination of the hose must be performed. All components must be checked for correct style, size and length. In addition, the hose assembly, and each of the individual components comprising the assembly, must be examined for cleanliness, I.D. obstructions, blisters, loose cover, or any other visible defects.
 - 3.2 **Follow Manufacturer’s Assembly Instructions.**
 - 3.3 **Minimum Bend Radius** – Installation at less than minimum bend radius may significantly reduce hose life. Particular attention must be given to preclude sharp bending at the hose/fittings juncture which may result in leaking, hose rupturing, or the hose assembly blowing apart.
 - 3.4 **Lengths:** Unnecessarily long hose can increase pressure drop and affect system performance. When pressurised, hose that is too short may pull loose from its fittings, or stress the hose fitting connections, causing premature metallic or seal failures.
 - 3.5 **Twist Angle and Orientation** – Hose installations must be such that relative motion of machine components produces bending of the hose rather than twisting.
 - 3.6 **Securement** – In many applications, it may be necessary to restrain, or guide, the hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to ensure such restraints do not introduce additional stress or wear points.
 - 3.7 **Proper Connection of Ports** – Proper physical installation of the hose requires a correctly installed port connection while ensuring that no twist or torque is transferred to the hose.
 - 3.8 **Avoid External Damage** – Proper installation is not complete without ensuring that all tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated.
 - 3.9 **System Check out** – After completing the installation, all entrapped air must be eliminated, then the system must be pressurised to the maximum system pressure and checked for proper function, and for freedom from leaks.

NOTE: AVOID POTENTIAL HAZARDOUS AREAS WHILE TESTING.

MAINTENANCE:

- 4. Even with proper selection and installation, hose life may be significantly reduced without a continuing maintenance program. Maintenance and Inspection frequency should be determined by the severity of the application and risk potential. A maintenance program should include the following as a minimum.
 - 4.1 **Hose Storage** – Hose products in storage can be adversely affected by temperatures, humidity, ozone, sunlight, oils, solvents, corrosive liquids and fumes, insects, rodents, radioactive materials, sharp edges and abrasive surfaces, electric or strong magnetic fields, mould and fungi. Storage areas should be relatively cool and dark and free of dust, dirt, dampness and mildew. Store hose in a manner that facilitates age control and first-in, first-out usage based on manufacturing date on hose or hose assembly.
 - 4.2 **Visual Inspection** – Any of the following conditions require immediate system shut down and replacement of the hose assembly:
 - a) Leaks at fittings or in hose. (Leaking fluid is a fire hazard.)
 - b) Damaged, cut, or abraded cover. (Any reinforcement exposed.)
 - c) Kinked, crushed, flattened, or twisted hose.
 - d) Hard, stiff, heat cracked, or charred hose.
 - e) Blistered, soft, degraded, or loose cover.
 - f) Cracked, damaged, or badly corroded fittings.
 - g) Slippage or movement of fittings on the hose.
 - 4.3 **Visual Inspection** – The following items must be tightened, repaired or replaced as required.
 - a) Leaking port conditions.
 - b) Clamps, guards, shields.
 - c) Remove excessive dirt build-up.
 - d) System fluid level, fluid type, and any air entrapment.
 - 4.4 **Functional Test** – Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks.

NOTE: AVOID POTENTIAL HAZARDOUS AREAS WHILE TESTING.
 - 4.5 **Replacement Intervals** – Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable down time, damage, or injury risk.

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SAFETY GUIDE

FOR THE SELECTION AND USE OF HOSE, FITTINGS AND RELATED ACCESSORIES

Failure or improper selection or improper use of hose, fittings, or related accessories can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of hose, fittings, or related accessories include, but are not limited to:

- Fittings blown off at high speed.
- High velocity fluid discharge.
- Explosion, or burning, of the conveyed fluid.
- Electrocutation from high voltage electric power lines or other sources of electricity.
- Contact with suddenly moving, or falling, objects that are held in position, or moved, by conveyed fluid.
- Injections by high-pressure fluid discharge.
- Dangerously whipping hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion caused by static electricity build-up.
- Sparking, or explosion, while spraying paint or other flammable liquid.

1. GENERAL INSTRUCTIONS:

- 1.1 **Scope:** This safety guide provides instructions for selecting and using (including assembling, installing and maintaining) hose fittings (including all products commonly called “fittings” or “couplings” for attachment to hose), and related accessories (including crimping machines and tooling). This safety guide is to be used in conjunction with the specific publications for the specific hose, fittings and related accessories that are being considered for use.
- 1.2 **Fail-Safe:** Hose and hose assemblies can and do fail. Design all systems in a fail-safe mode, so that failure of the hose or hose assembly or related accessories will not endanger persons or property.
- 1.3 **Distribution:** Provide a copy of this safety guide to each person who is responsible for selecting, or using, hose and fittings and related accessories. Do not select, or use, hose and fittings or related accessories without thoroughly understanding this safety guide.
- 1.4 **User Responsibility:** Due to the wide variety of operating conditions and uses for hose and fittings and related accessories, RYCO do not represent or warrant that any particular hose or fitting or related accessories is suitable for any specific end use. This safety guide does not analyse all technical parameters that must be considered in selecting a product. The product user, through its own analysis and testing, is solely responsible for:
 - The final selection of the hose and fittings and related accessories.
 - Assuming that requirements are met and the use presents no health or safety hazards.
 - Providing all appropriate health and safety warnings where hose and fittings and related accessories are used.
- 1.5 **Additional Questions:** Contact the RYCO Hydraulics Technical Department if you have any questions or require any additional information.

2. HOSE AND FITTING SELECTION INSTRUCTIONS:

- 2.1 **Electrical Conductivity:** Certain applications require that a hose be non-conductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Extreme care must be exercised when selecting hose and fittings for these or any other applications. For applications that require hose to be electrically non-conductive, including but not limited to applications near high voltage electric lines, only special non-conductive hose can be used. The manufacturer of the equipment must be consulted to be certain that the hose and fittings selected are correct for the application. Do not use any RYCO hose or fittings for any such application unless:
 - (i) the application is expressly approved by RYCO
 - (ii) the hose is both orange colour and marked “non-conductive”
 - (iii) the manufacturer of the equipment specifically approves the particular RYCO hose and fittings.

Do not use any RYCO hose or fittings for conveying paint in airless spraying or similar applications without the written approval of RYCO in each case. A special hose and fittings assembly is required for this application. If the correct hose and fitting application is not used for this application, static electricity can build up and cause sparks that may result in an explosion and/or fire.

The electrical conductivity or non-conductivity of hose and fittings is dependent upon many factors and may be susceptible to change.
- 2.2 **Pressure:** Hose selection must be made so that the published maximum recommended working pressure of the hose is equal or greater than the maximum system pressure. Surge pressures in the system higher than the published maximum recommended working pressure will cause failure, or shorten hose life.
- 2.3 **Suction:** Hoses used for suction applications must be selected to ensure that the hose will withstand the vacuum and pressure of the system.
- 2.4 **Temperature:** Be certain that fluid and ambient temperatures, both steady and transient, do not exceed the limitations of the hose. Care must be taken when routing hose near hot objects such as manifolds.
- 2.5 **Fluid Compatibility:** Hose selection must assure compatibility of the hose tube, cover, reinforcement, and fittings with the fluid media used.

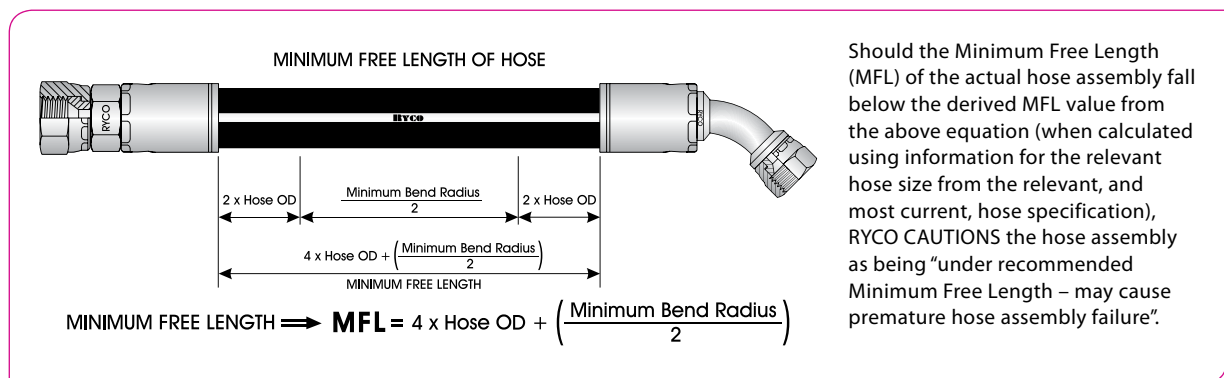
- 2.6 **Permeation:** Permeation (that is, seepage through the hose) will occur from inside the hose to the outside environment when hose is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials such as helium, fuel, oil, natural gas or freon). This permeation may result in high concentrations of vapours which are potentially flammable, explosive, or toxic, and in loss of fluid. You must take into account the fact that permeation will occur and could be hazardous.
- Permeation of moisture from the outside environment to inside the hose will also occur. If this moisture permeation would have detrimental effects (particularly for, but not limited to, refrigeration and air conditioning systems), incorporation of appropriate system safeguards should be selected and used. Rubber hoses should not be painted without consulting RYCO first.
- 2.7 **Size:** Transmission of power by means of pressurised fluid varies with pressure and rate flow. The size of the components must be adequate to keep pressure losses to a minimum and avoid damage due to heat generation of excessive fluid velocity.
- 2.8 **Routing:** Attention must be given to optimum routing to minimise inherent problems.
- 2.9 **Environment:** Care must be taken to ensure that the hose and fittings are either compatible with or protected from the environment to which they are exposed including but not limited to ultraviolet radiation, sunlight, heat, ozone, moisture, water, salt water, chemicals and air pollutants.
- 2.10 **Mechanical Loads:** Consideration must be given to excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type fittings or adaptors may be required.
- 2.11 **Physical Damage:** Care must be taken to protect hose from wear, snagging and cuts.
- 2.12 **Proper End Fittings:** See instructions 3.2 through 3.5. These recommendations may be substantiated by testing to industry standards.
- 2.13 **Length: When** establishing a proper hose length; motion absorption, hose length changes due to pressure, and hose and machine tolerances must be considered.
- 2.14 **Specifications and Standards:** When selecting hose and fittings; government, industry, and RYCO specifications and recommendations must be reviewed and followed as applicable.
- 2.15 **Hose Cleanliness:** Hose components may vary in cleanliness levels. Care must be taken to ensure that the assembly selected has an adequate level of cleanliness for the application.
- 2.16 **Fire Resistant Fluids:** Some fire resistant fluids require the same hose as used with petroleum oil. Some use a special hose, while a few fluids will not work with any hose at all. See General Instructions 1.5 and Hose and Fitting Selection Instructions 2.5.
- 2.17 **Radiant Heat:** Hose can be heated to destruction without contact by nearby items such as hot manifolds or molten metal.
- 2.18 **Welding and Brazing:** Heating of plated parts, including hose fittings and adaptors, above 232°C (450°F) such as during welding, brazing, or soldering may emit deadly gases.
- 2.19 **Atomic Radiation:** Atomic radiation affects all materials used in hose assemblies. Do not expose hose assemblies to atomic radiation.

3. HOSE AND FITTING ASSEMBLY AND INSTALLATION INSTRUCTIONS:

- 3.1 **Pre-Installation Inspection:** Prior to installation, a careful examination of the hose assembly must be performed. All components must be checked for correct style, size, and length. The hose must be examined for cleanliness, obstructions, blisters, cover looseness, or any other visible defects.
- 3.2 **Hose and Fitting Assembly:** Do not assemble a RYCO fitting on a RYCO hose that is not specifically listed for that fitting by RYCO. Do not assemble RYCO fittings on another manufacturer's hose or a RYCO hose on another manufacturer's fitting unless RYCO approves the assembly in writing, and the user verifies the assembly and the application through analysis and testing. See instruction 1.4. The RYCO published instructions must be followed for assembling the fittings on the hose. These instructions are provided in the RYCO catalogue.
- 3.3 **Related Accessories:** Do not crimp or swage any RYCO hose or fitting with anything but the proper RYCO swage machine or crimp machine and in accordance with RYCO published instructions. Do not crimp or swage another manufacturer's hose fitting with a RYCO crimp machine or swage machine unless authorised in writing by RYCO.
- 3.4 **Safety Equipment:** During fabrication, use proper safety equipment, including eye protection, respiratory protection, and adequate ventilation.
- 3.5 **Reuse of Hose and Fittings:** Damaged hoses or hose fittings shall not be used.
- 3.6 **Assembly inspection:** After assembly, hose assemblies shall be inspected for visible defects and interior obstructions, such as tube bulges, etc.
- 3.7 **Marking:** Hose assemblies shall be marked in accordance with any relevant standards.
- 3.8 **Parts:** Do not use any RYCO hose or fitting part unless used with the correct RYCO mating parts, in accordance with published instructions, unless authorised in writing by RYCO.
- 3.9 **Field Attachable/Permanent:** Field Attachable couplings may be reattached once only after their first use, provided that they have not been part of a hose assembly that has failed, and are in a fit condition for reuse. Do not reuse any field attachable hose coupling that has blown or pulled off a hose. Do not reuse any permanent (that is, crimped or swaged) hose fittings or any part thereof.

- 3.10 **Minimum Bend Radius:** Installation of a hose at less than the minimum listed bend radius may significantly reduce hose life.
- 3.11 **Twist Angle and Orientation:** Hose installations must be such that relative motion of machine components does not produce twisting.
- 3.12 **Securement:** In many applications, it may be necessary to restrain, protect, or guide the hose to protect it from damage. Care must be taken to ensure such restraints do not introduce additional stress or wear points.
- 3.13 **Proper Connection of Ports:** Proper physical installation of the hose requires a correctly installed port connection while ensuring that no twist or torque is transferred to the hose.
- 3.14 **Assembly Torque:** The correct torque instructions and specifications must be followed to obtain a proper seal when a hose assembly is attached to a port, an adaptor or another assembly.
- 3.15 **External Damage:** Proper installation is not complete without ensuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated. See instruction 2.10.
- 3.11 **System Check-out:** After completing the installation, all air entrapment must be eliminated and the system pressurised to the maximum system pressure and checked for proper function and freedom from leaks.
NOTE: Avoid potential hazardous areas while testing.
- 3.12 **Minimum Free Length of Hose Assemblies:** Occasionally requests or orders arise for hydraulic hose assemblies where the 'Free Length' of hose between the ferrules of the couplings is not long enough, and could hinder the ability of the hose assembly to function properly. This is particularly the case when utilising very short hose assemblies, where a shortening or shrinkage of the hose under pressure may result in hose and coupling separation. In addition, small misalignments, vibration and other displacements may induce very high stresses upon the hose/coupling juncture, as there is little capacity for the flexible nature of the hose to compensate.

Due to the possible problems associated with using very short hose assemblies, RYCO has adopted the following general rule (equation) for the allowable Minimum Free Length (MFL) of hose to be used as a guide when fabricating or ordering a hydraulic hose assembly.



4. HOSE AND FITTING MAINTENANCE INSTRUCTIONS:

Even with proper selection and installation, hose life may be significantly reduced without a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program must include the following as a minimum.

- 4.1 **Visual Inspection Hose/Fitting:** Any of the following conditions require immediate system shut down and replacement of the hose assembly:
- Slippage or movement of fittings on the hose
 - Damaged, cut or abraded cover
 - Hard, stiff, heat cracked, or charred hose
 - Cracked, damaged, or badly corroded fittings
 - Leaks at fitting or in hose
 - Kinked, crushed, flattened or twisted hose
 - Blistered, soft, degraded or loose cover
 - Unusual noise, odour or heat.
- 4.2 **Visual Inspection All Other:** The following items must be tightened, repaired or replaced as required:
- Leaking port conditions
 - Remove excess dirt build-up
 - Clamps, guards, shields
 - System fluid level, fluid type and any air entrapment
- 4.3 **Functional Test:** Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks.
- 4.4 **Replacement Intervals:** Specific replacement intervals must be considered based on previous service life, government or industry recommendations. See instructions 1.2.

SAFETY GUIDE – MAXIMUM TEMPERATURE LIMITS

The following RYCO Hose Series are not listed on this page: **T1F, TJ2D, RQG1, M2G, M1, FB2, RTH1, TW1, PW2, MP1.**

These hoses are specific purpose hoses, and their temperature limits are specified in the HOSE section of this Product Technical Manual. Refer to RYCO Hydraulics Technical Department for any further queries.

Other RYCO Hose Series are listed below. The Maximum Working Temperatures for these hoses as listed in the HOSE section of this Product Technical Manual; are for use with general purpose, mineral (petroleum) oil based hydraulic fluids, except where otherwise stated.

Temperature limits for other hydraulic fluids, and some other common applications, are listed below.

CAUTION: Life expectancy of hoses is shortened at high temperatures. Detrimental effects increase when temperature is elevated, and when operating pressure, flow velocity, duration and frequency of exposure, and level of impurities in the media are high. Actual service life at temperatures approaching the recommended limits will depend on the particular application and the fluid being used.

Maximum Working Temperatures refer to the temperature of the media in the hose; not the environmental temperature of around the outside of the hose. Please refer to RYCO Hydraulics Technical Department for environmental temperatures in excess of 80°C (176°F), except RQP1 and RQP2 Series where environmental temperature is the same as media temperature.

Maximum Working Temperatures shown are for continuous temperatures. Slightly higher intermittent temperatures (up to 10% of total operating time) may be acceptable with some hoses and some fluids if reduced service life is acceptable. Please refer to RYCO Hydraulics Technical Department for more information.

DO NOT expose hose to maximum temperature and maximum rated working pressure at the same time.

The fluid manufacturer's recommended maximum operating temperature for the fluid must not be exceeded. If different to the below listed temperatures, the lower limit must take precedence. We recommend keeping the hose filled with the pressure medium at all times. Further information available on request.

| HOSE COVER | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------------------|--|--|------------------|--|
| AVENGER | T3000A, T4000A, T5000A, T6000A, T1A, T2A, DF2A | H3000A, H4000A, H5000A, H6000A, H12A, R45PA, R4SHA | | |
| DIEHARD | T3000D, T4000D, T5000D, T6000D, T1D, T2D, TXA2D, TJ2D, PL1D | H3000D, H4000D, H5000D, H6000D, H12D, R45PD, R4SHD | | |
| SLIDER | T3000S, T4000S, T5000S, T6000S, T1S, T2S | H3000S, H4000S, H5000S, H6000S, H12S | | |
| SURVIVOR | RQP6 | | RQP1, RQP2, RQP5 | |
| OTHER SERIES | SR, SRF, M2, T5, BT1, T1F, E2, PL1, DB2, T2C, CS1000, MS1000 | | | TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000, TPGL |

| MEDIA | TEMPERATURE LIMITS | | | |
|--|---|---|--|---|
| GENERAL PURPOSE MINERAL (PETROLEUM) BASED HYDRAULIC OIL¹ | -40°C to +100°C (-40°F to +212°F) RQP6: -40° to +125°C (-40°F to +257°F) | -40°C to +121°C (-40°F to +250°F) | -40°C to +150°C (-40°F to +302°F) | -40°C to +95°C (-40°F to +203°F) |
| WATER | +71°C (+160°F) | 0°C to +71°C (+32°F to +160°F) | 0°C to +121°C (+32°F to +250°F) | 0°C to +70°C (+32°F to +158°F) |
| WATER IN MINERAL OIL (40% to 80% water) | +85°C (+185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +121°C (-40°F to +250°F) | -40°C to +70°C (-40°F to +158°F) |
| MINERAL OIL IN WATER (more than 80% water) | +85°C (+185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +121°C (-40°F to +250°F) | -40°C to +70°C (-40°F to +158°F) |
| WATER/GLYCOL | +85°C (+185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +121°C (-40°F to +250°F) | -40°C to +70°C (-40°F to +158°F) |
| GLYCOL | +85°C (+185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +85°C (-40°F to +185°F) | -40°C to +70°C (-40°F to +158°F) |
| PHOSPHATE ESTERS² | Not suitable | Not suitable | -40°C to +82°C (-40°F to +180°F) (see Note 2) | 40°C to +70°C (-40°F to +158°F) (see Note 2) |
| AIR³ | RQP6: -40°C to +100°C (-40°F to +212°F) ***OTHERS: +71°C (+160°F) | -40°C to +71°C (-40°F to +160°F) (see Note 3) | -40°C to +121°C (-40°F to +250°F) (see Note 3) | -40°C to +71°C (-40°F to +160°F) (see Note 3) |
| PETROL (GASOLINE) | Contact RYCO | Contact RYCO | Contact RYCO | Contact RYCO |
| DIESEL FUEL | PL1: -40°C to +49°C (-40°F to +160°F) T5: -40°C to +71°C (-40°F to +160°F) RQP6: -40°C to +71°C (-40°F to +160°F) OTHERS: +50°C (+122°F) | -40°C to +50°C (-40°F to +122°F) | Not suitable | |
| ENGINE LUBRICATING OIL, GEARBOX OIL | -40°C to +100°C (-40°F to +212°F) | -40°C to +100°C (-40°F to +212°F) | -40°C to +100°C (-40°F to +212°F) | -40°C to +95°C (-40°F to +203°F) |
| AUTOMATIC TRANSMISSION FLUID | -40°C to +100°C (-40°F to +212°F) | -40°C to +100°C (-40°F to +212°F) | -40°C to +100°C (-40°F to +212°F) | -40°C to +95°C (-40°F to +203°F) |

- 1 For highly refined and special purpose mineral based hydraulic oils (for example aviation hydraulic oils, MIL spec oils, etc), contact RYCO Technical Department.
- 2 Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.
- 3 For use with Air at pressures above 17,2 bar (250 psi), cover of hose must be perforated/pin-pricked (except RQP5 and T5), to allow air permeating through hose to escape without blistering the cover. Maximum working pressure of wire braid and spiral reinforced hose must be reduced by 30% (except for RQP1 and RQP2). Observe all State and Federal Safety Regulations.

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CHARACTERISTICS OF HOSE ELASTOMERS

The characteristics shown below are for the normal, or usual, range of these specific Elastomers. Characteristics can be changed somewhat, through different compounding, to meet the requirements of specialised applications. Each elastomer has a unique combination of strengths and weaknesses. Depending on each specific application, the elastomer must possess the correct combination of properties if it is to perform satisfactorily.

Tube and cover elastomers may occasionally be upgraded to take advantage of improved materials and technology.

For detailed information on specific hose tube or cover check the Chemical Compatibility Table on page 495, and also the specific hose specifications page.

| COMMON NAME CHEMICAL NAME | NEOPRENE Poly - Chloroprene | NITRILE Acrylonitrile & Butadiene | HYPALON™ Chlorosulfonated Polyethylene | EPDM Ethylene Propylene Diene | CPE Chlorinated Polyethylene | POLYESTER Polyamide Resin | TEFLON™ Fluorinated Thermoplastic |
|---|--------------------------------|--------------------------------------|---|----------------------------------|---------------------------------|------------------------------|--------------------------------------|
| Common | CR | NBR | CSM | EPDM | CPE | PE-E | PTFE |
| Flame Resistance | Very Good | Poor | Good | Poor | Good | Poor | Good |
| Petroleum Base Oils | Good | Excellent | Very Good | Poor | Very Good | Very Good | Excellent |
| Diesel Fuel | Good to Excellent | Excellent | Good | Poor | Very Good | Very Good | Excellent |
| Resistance to Gas Permeation | Good | Good | Good to Excellent | Fair to Good | Good | Good | Good to Excellent |
| Weather | Good to Excellent | Fair to Good | Very Good | Excellent | Good | Excellent | Excellent |
| Ozone | Good to Excellent | Poor for Tube Good for Cover | Very Good | Excellent | Good | Good | Excellent |
| Heat | Good | Good | Very Good | Excellent | Excellent | Good | Excellent |
| Low Temperature | Fair to Good | Poor to Fair | Poor | Good to Excellent | Good | Good | Excellent |
| Water - Oil Emulsions | Excellent | Excellent | Good | Poor | Excellent | Very Good | Excellent |
| Water/ Glycol Emulsions | Excellent | Excellent | Excellent | Excellent | Excellent | Very Good | Excellent |
| Phosphate Esters to 82°C (180°F) | Fair (For Cover) | Poor | Excellent (not for Aerospace types) | Very Good | Very Good | Good | Excellent |
| Phosphate Ester Base Emulsions | Fair (For Cover) | Poor | Excellent (not for Aerospace types) | Very Good | Very Good | Good | Excellent |

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CHEMICAL COMPATIBILITY FOR HOSE

The following Chemical Compatibility Chart is for guidance only.

In all cases, testing is advised to determine the application suitability.

Material for Couplings and Adaptors must also be compatible - refer to RYCO Technical Department.

Specified resistance applies only at room temperature unless otherwise stated, and within the listed concentration.

| CHEMICAL NAME | TUBE MATERIAL | | | | | | |
|--|-------------------|---------|-------------|-----|----------|-----------|---------|
| | NEOPRENE | NITRILE | NITRILE PVC | CPE | HYPALON™ | POLYESTER | TEFLON™ |
| Acetic Acid (25%) | 2 | X | 2 | 1 | 2 | X | 1 |
| Acetone | X | X | X | 1 | X | X | 1 |
| Acetylene | NO HOSE AVAILABLE | | | | | | |
| Air (71°C, 166°F) | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Air (82°C, 180°F) | 2 | 2 | 2 | 1 | 2 | 2 | 1 |
| Air (93°C, 199°F) | X | X | X | 1 | 2 | X | 1 |
| Amyl Acetate | X | X | X | 2 | X | X | 1 |
| Aniline | X | X | X | 2 | X | - | 1 |
| Benzene (Benzol) | X | X | X | X | X | X | 1 |
| Butyl Acetate | X | X | X | 2 | X | X | 1 |
| Butyl Alcohol (Butanol) | 2 | X | X | 1 | 2 | 2 | 1 |
| Carbon Dioxide (Dry) | 2 | 1 | 1 | 1 | 1 | - | 1 |
| Carbon Dioxide (Wet) | 2 | 1 | 1 | 1 | 1 | - | 1 |
| Carbon Disulfide | X | X | X | 2 | X | - | 1 |
| Chlorine Gas (Dry & Wet) | NO HOSE AVAILABLE | | | | | | |
| Chlorine Water (25%) | X | X | X | - | 2 | X | 1 |
| Chloroform | X | X | X | - | X | X | 1 |
| Cyclohexane | X | 2 | X | 1 | X | 2 | 1 |
| Diesel fuel (under 50°C, 122°F) | X | 1 | X | 2 | X | 1 | 1 |
| Ethers (under 50°C, 122°F) | X | 2 | 2 | 1 | 2 | X | 1 |
| Ethyl Acetate | X | X | X | 2 | X | 2 | 1 |
| Ethyl Alcohol (Ethanol) | 1 | 1 | - | 1 | 1 | 2 | 1 |
| Ethyl Cellulose | - | - | - | 1 | - | - | 1 |
| Ethyl Chloride (Wet) | 2 | X | X | - | X | - | 1 |
| Ethylene Glycol (under 66°C, 151°F) | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Fluorine (Liquid) | NO HOSE AVAILABLE | | | | | | |
| Formaldehyde 37% | 2 | 2 | - | 1 | 2 | 2 | 1 |
| Fuel A (ASTM) | X | 2 | 2 | 1 | 1 | - | - |
| Fuel B (ASTM) | X | 2 | X | 2 | X | - | - |
| Fuel Oil | X | 1 | X | 1 | X | 2 | 1 |
| Glycerine (Glycerol) | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Grease (Petroleum Base) | 2 | 1 | 2 | - | 2 | 1 | 1 |
| Hexane (under 50°C, 122°F) | X | 1 | 2 | 2 | 1 | 2 | 1 |
| Hydraulic Fluid (Phosphate Ester Base) | X | X | X | 1 | 1 | 2 | 1 |
| Hydraulic Fluid (100°C, 212°F) (Std. Petroleum Oils) | 2 | 1 | 2 | 1 | 1 | 1 | 1 |
| Hydrochloric Acid (15%) | X | X | X | 1 | 2 | X | 1 |
| Hydrochloric Acid (37%) | X | - | X | 1 | 2 | X | 1 |
| Hydrogen (Gas) | 1 | 1 | - | 1 | - | 2 | 1 |
| Hydrogen Peroxide (30%) | X | 2 | X | 1 | 2 | X | 1 |

| CHEMICAL NAME | TUBE MATERIAL | | | | | | |
|---|----------------------|---------|-------------|-----|----------|-----------|---------|
| | NEOPRENE | NITRILE | NITRILE PVC | CPE | HYPALON™ | POLYESTER | TEFLON™ |
| Isopropyl Alcohol | 2 | 2 | 2 | 1 | 2 | - | 1 |
| Kerosene | X | 2 | X | 1 | X | 2 | 1 |
| L.P.G. | USE L.P.G. HOSE ONLY | | | | | | |
| Lubricating Oils (under 50°C, 122°F) | 2 | 1 | 2 | 1 | 2 | 1 | 1 |
| Methyl Alcohol (Methanol) 100% | 1 | 1 | 1 | 1 | 1 | 2 | 1 |
| Methyl Chloride | X | X | X | X | X | 2 | 1 |
| Methyl Ethyl Ketone (MEK) | X | X | X | 2 | X | 2 | 1 |
| Naphtha (Low Aromatics) | X | 2 | X | 1 | X | X | 1 |
| Natural Gas | USE L.P.G. HOSE ONLY | | | | | | |
| Nitric Acid (10%) | X | X | X | 1 | 2 | X | 1 |
| Nitric Acid (40%) | X | X | X | X | X | X | 1 |
| Oxalic Acid (10% cold) | X | X | X | 1 | 2 | X | 1 |
| Ozone (Dry) | 2 | X | 2 | 1 | 2 | 2 | 1 |
| Paint Solvents (Oil Base) | X | X | - | - | X | 2 | 1 |
| Perchloroethylene | X | X | X | 2 | X | X | 1 |
| Phenol (Carbolic Acid) | X | X | X | 1 | X | X | 1 |
| Phosphoric Acid (50%) | 2 | 2 | X | 1 | 1 | X | 1 |
| Propane Gas | USE L.P.G. HOSE ONLY | | | | | | |
| Sodium Hydroxide (40%) | 1 | 2 | - | 1 | 1 | X | 1 |
| Sodium Hydroxide (50%, under 45°C, 113°F) | 2 | X | X | 1 | 1 | X | 1 |
| Sodium Hydroxide (50%, under 82°C, 180°F) | - | - | - | 1 | 2 | X | 1 |
| Sulphur Dioxide (Dry) | X | X | X | - | 2 | X | 1 |
| Sulphuric Acid (10%) | 1 | 2 | 2 | 1 | 1 | X | 1 |
| Sulphuric Acid (93%) | X | X | X | - | X | X | 1 |
| Toluene (Toluol) | X | X | X | X | X | 2 | 1 |
| Trichloroethylene | X | X | X | 2 | X | 2 | 1 |
| Vegetable Oils | 2 | 1 | 2 | 1 | 2 | 1 | 1 |
| Xylene | X | X | - | X | - | 2 | 1 |

KEY

1 = Excellent Resistance

2 = Good Resistance

X = Not Recommended

- = No Data Available

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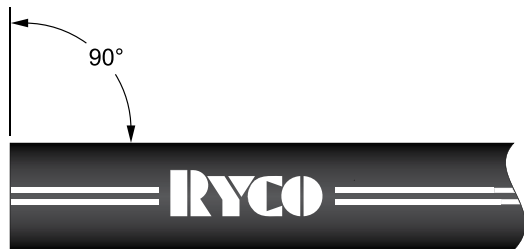
TECHNICAL

ASSEMBLY INSTRUCTIONS FOR:

RYCO FIELD ATTACHABLE COUPLINGS WITH MATCHED SIZES OF RYCO NON-SKIVE HOSE.

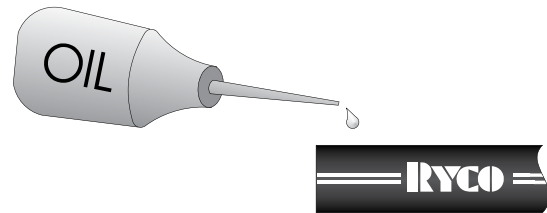
USE ONLY RYCO BT1, E2, M2, M2G, RQP1, RQP2, RQP5, T1A, T1D, T1F, T2A, T2D, TXA2D, T5 and TPGL SERIES HOSE.

STEP ONE



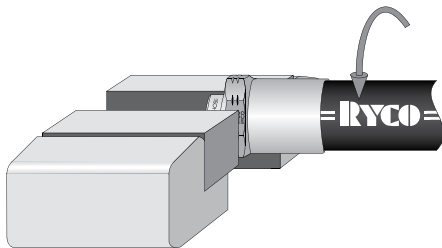
- Cut hose to length required using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



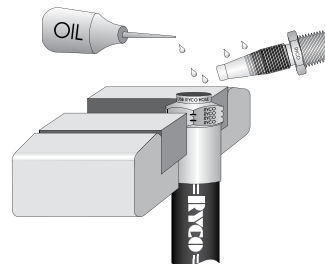
- Lightly lubricate outer cover.

STEP THREE



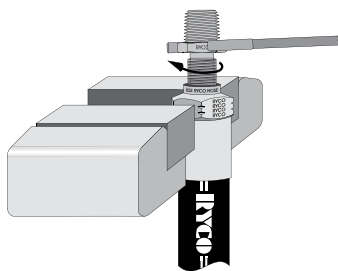
- Screw anti-clockwise until hose bottoms in ferrule.
- Ease back between 1/2 and 3/4 of a turn (Note: This is not required for P000-02 ferrule with TPGL hose).

STEP FOUR



- Lightly lubricate insert and inside of hose.
- **Note: Do not use lubricant for M2G hose, or hose to be used with volatile gases.**

STEP FIVE



- Screw insert clockwise right into ferrule using a continuous motion.
- Do not allow hose to turn during operation.

SPECIAL NOTES

- **FOR T1A AND T1D HOSE IN SIZES -20, -24, -32.** In these sizes, K Series Ferrules are not available and A Series Field Attachable Couplings may be used. The cover of hose must be skived at ends. Refer to page 497 for assembly instructions.
- **FOR T2A, T2D AND RQP2 HOSE IN SIZES -24, -32.** In these sizes, L Series Ferrules are not available and B Series Field Attachable Couplings may be used. The cover of hose must be skived at ends. Refer to page 497 for assembly instructions.
- **FIELD ATTACHABLE COUPLINGS** should not be used at maximum working pressure of hose when temperature exceeds 121°C (250°F). Field Attachable Couplings may be used on suitable hose at over 121°C (250°F) but at reduced working pressure. Contact RYCO Technical Department for more information.

ASSEMBLY INSTRUCTIONS FOR:

RYCO FIELD ATTACHABLE COUPLINGS WITH MATCHED SIZES OF RYCO SKIVE HOSE.
USE ON LARGER SIZES OF RYCO T1A, T1D, T2A, T2D and RQP2 HOSE, SEE NOTE 1 & 2 ON PAGE 496).

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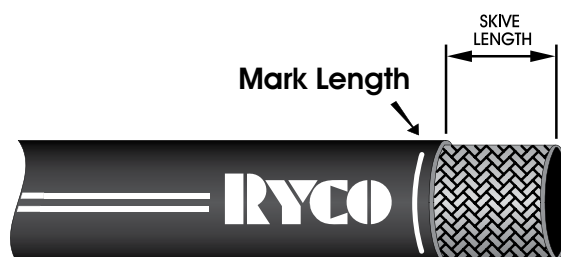
TECHNICAL

STEP ONE



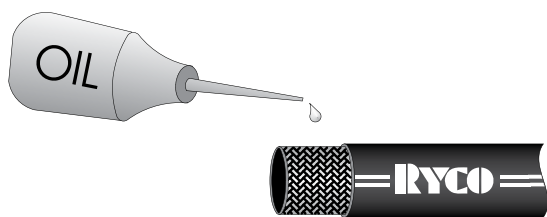
- Cut hose to length required using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



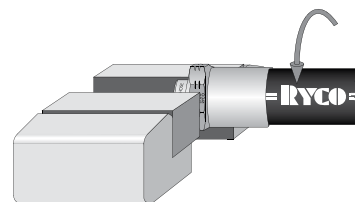
- Mark Skive Length (refer to Hose specification pages).
- Cut rubber cover around and down to wire reinforcement then slit lengthwise.
- Raise flap and pull off with pliers.

STEP THREE



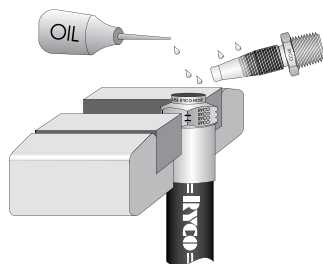
- Lightly lubricate exposed wire reinforcement.

STEP FOUR



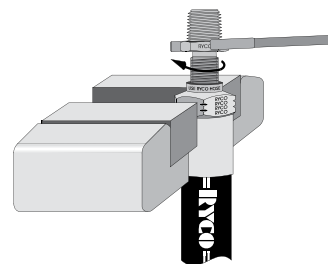
- Screw anti-clockwise until hose bottoms in ferrule.
- Ease back between 1/2 and 3/4 of a turn.

STEP FIVE



- Lightly lubricate insert and inside of hose.
- **Note: Do not use lubricant for hose to be used with volatile gases.**

STEP SIX



- Screw insert clockwise right into ferrule using a continuous motion.
- Do not allow hose to turn during operation.

ASSEMBLY INSTRUCTIONS FOR:

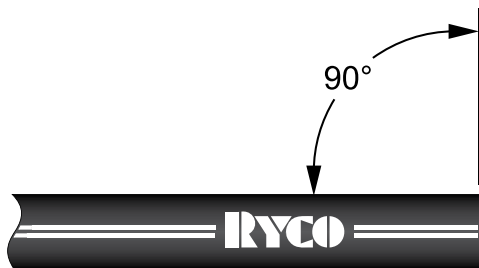
1. RYCO BITELOK T1000, T2000, T7000 and T9000 SERIES COUPLINGS WITH RYCO NON-SKIVE HOSE.

USE ONLY MATCHED SIZES OF RYCO T3000A, T3000D, T3000S, T4000A, T4000D, T4000S, T5000A, T5000D, T5000S, T6000A, T6000D, T6000S, H3000A, H3000D, H3000S, H4000A, H4000D, H4000S, H5000A, H5000D, H5000S, H6000A, H6000D, H6000S, T1A, T2A, T2C, T1D, T2D, TJ2D, TXA2D, T1F, T1S, T2S, BT1, DF2A, D2B, RQP1, RQP2, PW2, TW1, H12A, H12D, H12S, MS1000, CS1000 (SKIVE), R4SH, TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T and TP8TN SERIES HOSE.

2. RYCO BITELOK T4000 and TG000 SERIES COUPLINGS WITH RYCO NON-SKIVE HOSE.

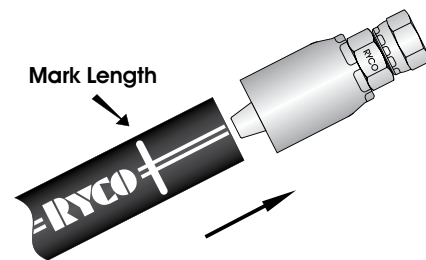
USE ONLY MATCHED SIZES OF RYCO M2, M2G, MP1, PL1, PL1D, RQP5, RQP6, TP7, TP7N, TP7T, TP7TN, TP3000, SR, SRF,T5 and TPGL SERIES HOSE. (See page 505 for instructions for separating of ends of TP7T, TP7TN, TP8T and TP8TN Series.)

STEP ONE



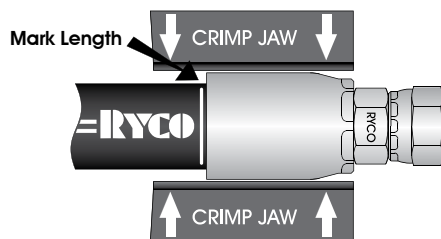
- Cut hose to required length using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



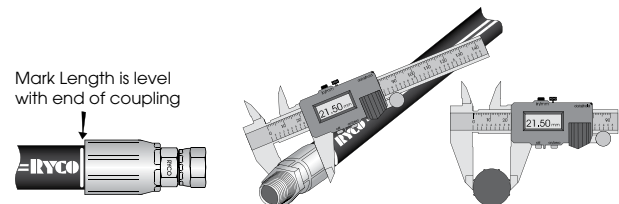
- Mark the Mark Length onto the hose (Mark Length dimension from "RYCO Crimp Chart").
- Push hose into the fitting (lightly lubricate the hose bore only if necessary as excess lubrication may reduce hose assembly impulse life) until the mark on the hose is even with the end of the ferrule*.
- **Note: Push the hose all the way into the fitting.**

STEP THREE



- Place assembled end into the jaws of crimp machine.
- Operate machine to crimp ferrule to predetermined diameter. (Refer to "RYCO Crimp Chart").

STEP FOUR



- Open the crimp machine and remove the assembly.
- Check the crimp diameter with a caliper or micrometer. Crimp diameter should be measured halfway along ferrule. Measure between the ridges, and make sure that the caliper fingers do not touch the ridges.
- Check that the Mark Length mark is still visible and even with the end of the ferrule to ensure coupling has not moved during crimping.

NOTES

- **Extra special care must be exercised in the preparation, assembly and crimping of these fittings due to the very high pressures and end loads encountered.**
 - **RYCO Crimp Chart detailing Mark or Skive Length and Crimp Diameter is available from RYCO Hydraulics.**
 - **Note: Do not use lubricant for M2G hose, or hose to be used with volatile gases.**
- * For TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000 and TPGL Hose Series it is preferable to lightly lubricate using a PTFE or Silicon-based aerosol spray lubricant. Use lubricant only if necessary; use sparingly if required.

HOW TO ORDER BITELOK NON-SKIVE HOSE COUPLINGS

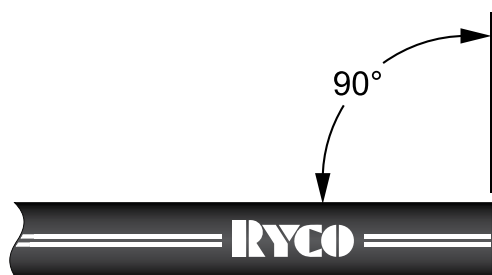
- The RYCO BITELOK Non-Skive Coupling is a one-piece fitting. BITELOK Non-Skive Couplings do not require the hose to be skived externally or internally.
- As the BITELOK Non-Skive Coupling is a complete coupling, simply order by Part Number.

ASSEMBLY INSTRUCTIONS FOR:

RYCO BITELOK T7000 SERIES COUPLINGS WITH RYCO SKIVE HOSE.
USE ONLY MATCHED SIZES OF RYCO R4SP SERIES HOSE.

INTRODUCTION

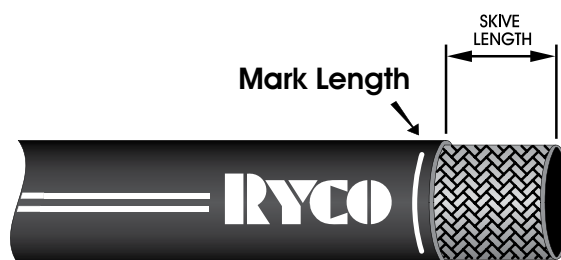
STEP ONE



- Cut hose to length required using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

HOSE

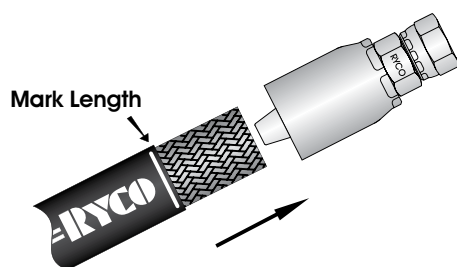
STEP TWO



- Mark the Skive Length onto the hose. (Refer to "RYCO Crimp Chart").
- Cut rubber cover around and down to wire reinforcement then slit lengthwise.
- Raise flap and pull off with pliers.
- Measure coupling insertion depth and add a Mark Length Line on the outer cover as shown.

COUPLINGS

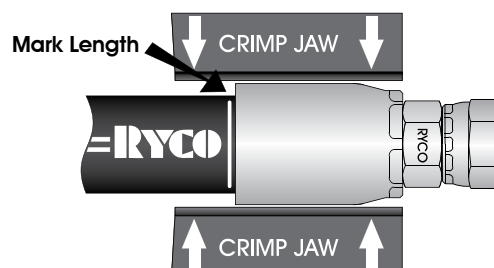
STEP THREE



- Push hose into the fitting (lightly lubricate the hose bore only if necessary as excess lubrication may reduce hose assembly impulse life) until the mark on the hose is even with the end of the ferrule.
- **Note: Push the hose all the way into the fitting.**
- **Note: Do not use lubricant for hose to be used with volatile gases.**

ADAPTORS

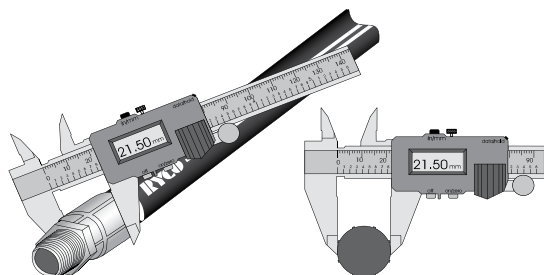
STEP FOUR



- Place assembled end into jaws of crimp machine.
- Operate machine to crimp ferrule to predetermined diameter. (Refer to "RYCO Crimp Chart").

ACCESSORIES

STEP FIVE



- Open crimp machine and remove assembly.
- Check crimp diameter with caliper or micrometer. Crimp diameter should be measured halfway along the ferrule. Measure between the ridges, and make sure that the caliper fingers do not touch the ridges.
- Check that the ferrule still completely covers the skived part of the hose to ensure coupling has not moved during crimping.

FILTERS

NOTE

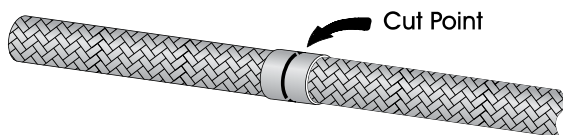
- Extra special care must be exercised in the preparation, assembly and crimping of these fittings due to the very high pressures and end loads encountered.
- The latest RYCO Crimp Chart detailing Mark or Skive Length and Crimp Diameter is available from the RYCO website.

TECHNICAL

ASSEMBLY INSTRUCTIONS FOR:

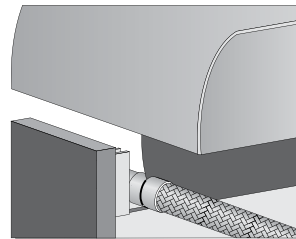
TT000 SERIES ONE-PIECE COUPLINGS. USE ONLY MATCHED SERIES OF RYCO RTH1 SERIES HOSE.

STEP ONE



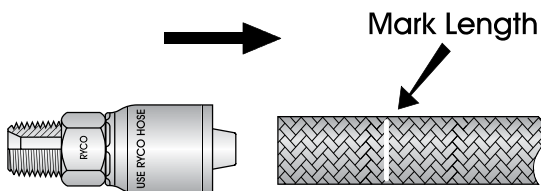
- Tape with masking tape at the cut position to prevent wire braid flaring.

STEP TWO



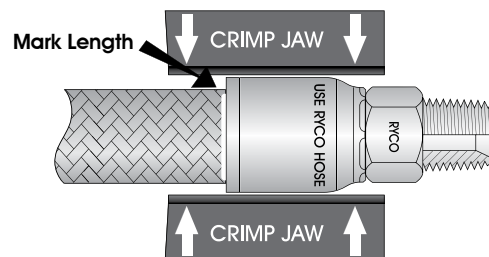
- Cut hose to length. Ensure hose is cut squarely.
- Clean hose bore.
- **WARNING: Do not smoke in the vicinity when cutting RTH1 hoses because fumes created are toxic and may mix with cigarette smoke when inhaled.**

STEP THREE



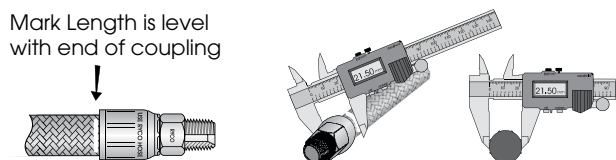
- Refer to "RYCO Crimp Chart" for Mark Length of Coupling.
- Mark outer cover with Mark Length.
- Push hose into the fitting (lightly lubricate the hose bore only if necessary as excess lubrication may reduce hose assembly impulse life) until the mark on the hose is even with the end of the ferrule*.
- **Note: Push the hose all the way into the fitting.**

STEP FOUR



- Place assembled end into the jaws of crimp machine.
- Operate machine to crimp ferrule to predetermined diameter. (Refer to "RYCO Crimp Chart").
- Open the crimp machine.
- Check that the Mark Length mark is still visible and even with the end of the ferrule to ensure coupling has not moved during crimping.

STEP FIVE



- Check that full length of ferrule has been crimped.
- Check the crimp diameter with a caliper or micrometer. Crimp diameter should be measured halfway along ferrule. Measure between the ridges, and make sure that the caliper fingers do not touch ridges.

NOTE

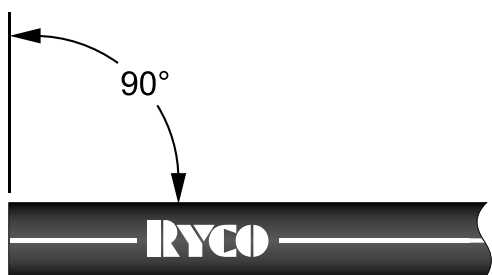
- **Extra special care must be exercised in the preparation, assembly and crimping of these fittings due to the very high pressures and end loads encountered.**
- **The latest RYCO Crimp Chart detailing Mark or Skive Length and Crimp Diameter is available from the RYCO website.**
- **Note: Do not use lubricant for hose to be used with volatile gases.**

ASSEMBLY INSTRUCTIONS FOR:

33000 SERIES SERIES SUCTION HOSE COUPLINGS. USE ONLY MATCHED SERIES OF RYCO SR and SRF SERIES HOSE.

INTRODUCTION

STEP ONE



HOSE

COUPLINGS

ADAPTORS

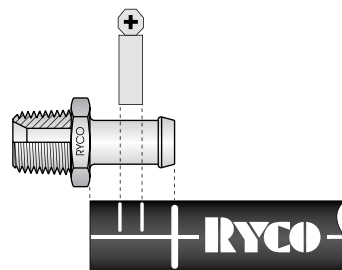
ACCESSORIES

FILTERS

TECHNICAL

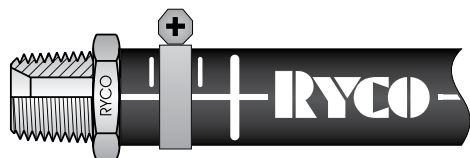
- Cut hose to required length using a cut-off saw.
- Ensure helix wires are not protruding.
- Ensure hose is cut squarely.

STEP TWO



- Mark the cover of the hose to ensure that Clamp will be correctly located.

STEP THREE



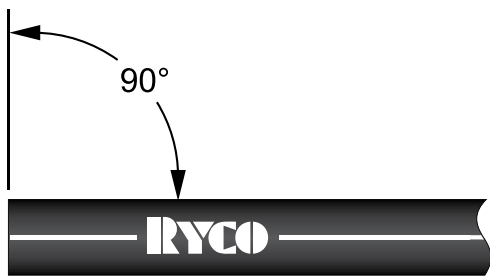
- Slide Clamp over hose.
- Push the coupling into the hose bore until hex or collar abuts end of hose.
- Position Clamp, and tighten bolt to recommended torque.

ASSEMBLY INSTRUCTIONS FOR:

1G000 SERIES TWO-PIECE COUPLINGS. USE ONLY RYCO FB2 SERIES HOSE.

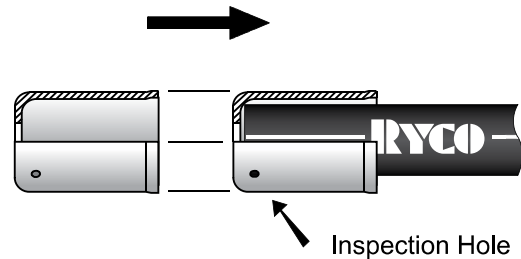
RYCO Crimp Chart detailing Crimp Length and Diameter is available from RYCO.

STEP ONE



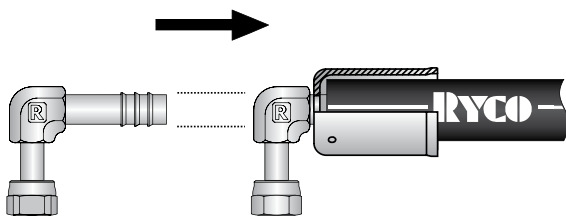
- Cut hose to length required.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



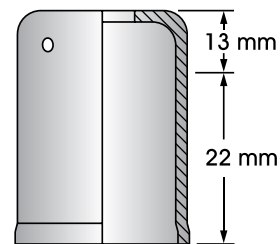
- Push ferrule onto hose until hose end abuts with ferrule end.
- Inspect hose via hole in ferrule to confirm.

STEP THREE



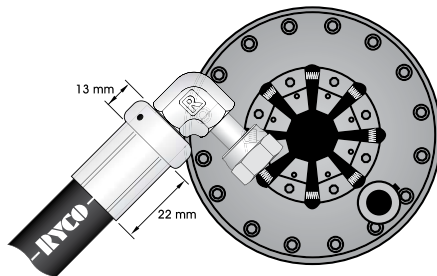
- Push insert into hose bore until the shoulder abuts the ferrule (do not use lubrication).

STEP FOUR



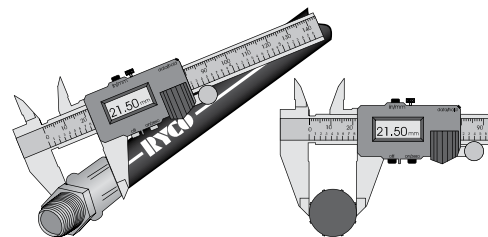
- Place assembled end into the jaws of the crimp machine with 13 mm (0.51") of the ferrule protruding in front of the jaws.
- Crimp only the rear 22 mm (0.87") length of ferrule.

STEP FIVE



- Operate the machine to crimp the ferrule to the predetermined diameter. (Refer to "RYCO Crimp Chart").

STEP SIX

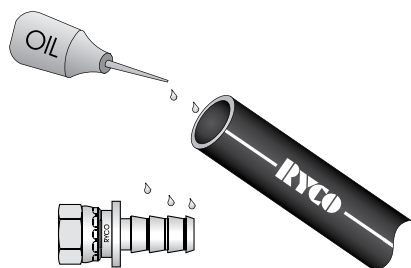


- Open the crimp machine and remove the assembly.
- Check the crimp diameter and crimp length with a caliper or micrometer.
- Check, via inspection hole in ferrule, that the coupling has not moved during crimping.

ASSEMBLY INSTRUCTIONS FOR:

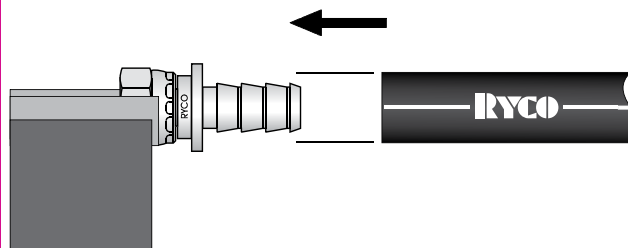
8000 SERIES PUSH-ON COUPLINGS. USE ONLY RYCO PL1, PL1D and RQP6 SERIES HOSE.

STEP ONE



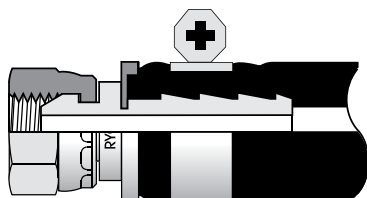
- Cut hose to required length with a sharp knife.
- Lightly lubricate inside of hose and outside of nipple.

STEP TWO



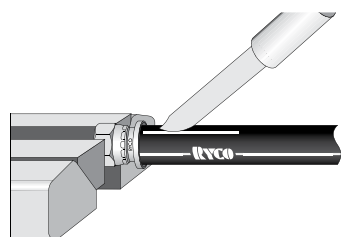
- Push hose onto fitting until hose end bottoms underneath cap as shown.

STEP THREE



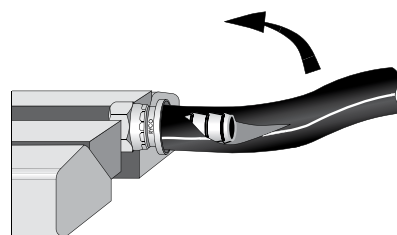
- If hose assembly is to be used at above 50% of Maximum Working Pressure, or in a potentially dangerous or critical application, a clamp must be used.
- Do not overtighten clamp as this may damage hose.

REMOVING COUPLINGS, STEP ONE



- Remove clamp if fitted.
- Slit hose length-wise, from cap to end of hose tail.

REMOVING COUPLINGS, STEP TWO



- Sharply bend hose and remove.

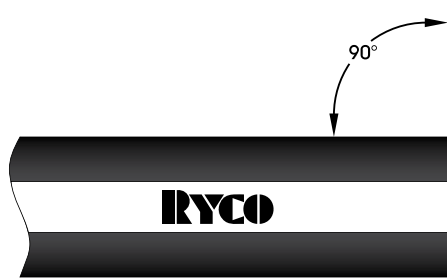
ASSEMBLY INSTRUCTIONS FOR:

69000N SERIES BITELOK INTERLOK TWO-PIECE INTERNAL AND EXTERNAL SKIVE COUPLINGS.
USE ONLY MATCHED SIZES OF RYCO H6000 SERIES HOSE.

NOTE: Extra special care must be exercised in the preparation, assembly and crimping of these couplings due to the very high pressures and end loads encountered.

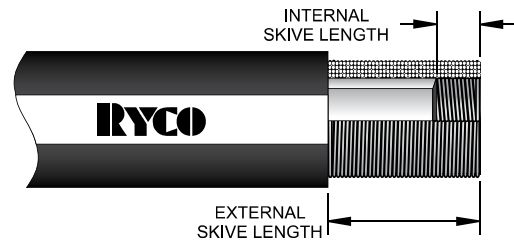
RYCO Crimp Chart detailing Internal and External Skive Length and Crimp Diameter is available from RYCO.

STEP ONE



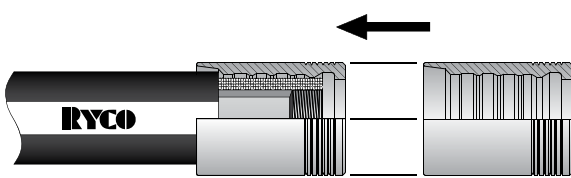
- Cut hose to length required using a cut-off saw.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



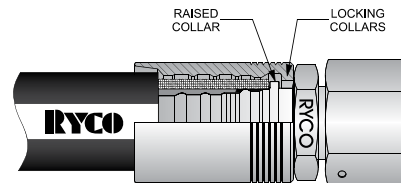
- Use RYCO Internal and External Skive Tool to skive the cover and the tube.
- Check that External Skive length is correct.
- Check that Internal Skive length is correct. (Refer to "RYCO Crimp Chart").
- Clean hose bore, and skived area of cover.

STEP THREE



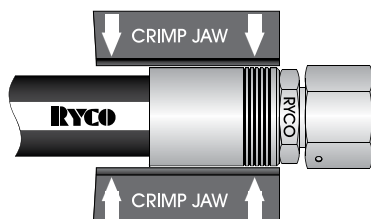
- Slide ferrule onto hose.

STEP FOUR



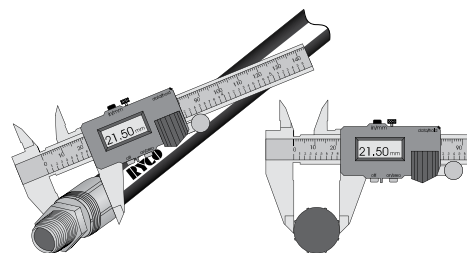
- Push hose tail of fitting into the hose bore until insert fully abuts hoser (lightly lubricate the hose bore only if necessary as excess lubrication may reduce hose assembly impulse life).
- The raised collar on the hose tail must abut the end of the hose.
- Ensure that the locking collar of the ferrule is aligned with, and will lock into, the collar on the hose tail.
- Check that the ferrule completely covers the skived part of the hose cover.

STEP FIVE



- Place assembled end into jaws of crimp machine.
- Operate machine to crimp ferrule to predetermined diameter. (Refer to "RYCO Crimp Chart").
- Open crimp machine and remove assembly.
- Ensure that the locking collar of the ferrule is locked into the collar on the hose tail.

STEP SIX



- Check crimp diameter with caliper or micrometer.
- Crimp diameter should be measured halfway along the ferrule. Measure between the ridges, and make sure that the caliper fingers do not touch the ridges.
- Check that the ferrule still completely covers the skived part of the cover to ensure coupling has not moved during crimping.

ASSEMBLY INSTRUCTIONS – TP7T, TP7TN, TP8T AND TP8TN TWIN HOSE

ASSEMBLY INSTRUCTIONS FOR:

SEPARATION OF THE ENDS OF TP7T, TP7TN, TP8T and TP8TN TWIN HOSE.

Note: RYCO TP7T, TP7TN, TP8T and TP8TN Hose must be separated at the ends to permit the attachment of the couplings. Procedure is as follows.

The latest RYCO Crimp Chart detailing Crimp Diameter and Mark Length is available from the RYCO website.

INTRODUCTION

HOSE

COUPLINGS

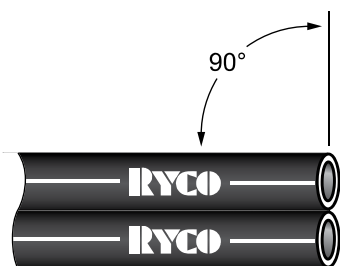
ADAPTORS

ACCESSORIES

FILTERS

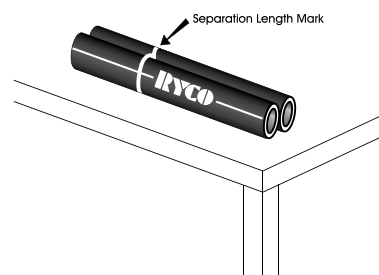
TECHNICAL

STEP ONE



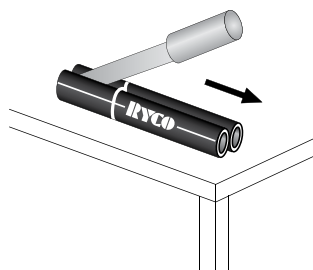
- Cut hose to length required using a sharp knife.
- Ensure hose is cut squarely.
- Clean hose bore.

STEP TWO



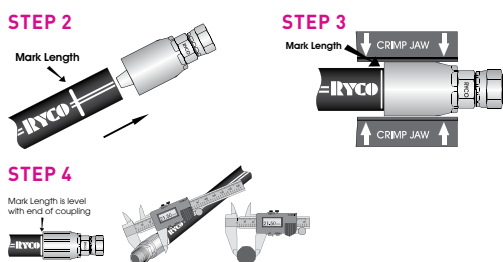
- Arrange the end of the twin line hose so that it is lying straight and flat, resting on the bottom of both hoses, on a horizontal work surface.
- Mark the length to be separated on the cover of the hoses.
- The separation length required may vary depending on the crimper being used.
- Separation length must allow each hose end to be inserted into the crimper without kinking the other hose.

STEP THREE



- Hold the hoses flat on the work bench, and lightly score along the joint between the two hoses with a blunt knife.
- Keep the knife vertical to avoid cover damage. It may be necessary to score along the joint several times.
- Take care not to damage the covers of the hoses.
- Turn the hose over and repeat the above to score the other side of the joint.
- The hoses will now be able to be separated by pulling apart.
- Inspect the covers to ensure there is no damage, if the cover is cut or the reinforcement is exposed, the hoses must not be used.

STEP FOUR, FIVE, SIX



- Follow Step Two, Three and Four of page 498 (*BITELOK Non-Skive Hose Assembly) for each end of the hose.

STEP SEVEN



- After crimping the couplings, the hoses can be tied together at the separation area with tape or a cable tie to prevent the hoses becoming further separated accidentally.

TECHNICAL

TUBE FLARING DIMENSIONS – 37° JIC AND 45° SAE

RYCO S6, S6M, S6S AND SA6 TUBE NUTS AND SLEEVES ARE FOR USE WITH FLARED STEEL HYDRAULIC TUBING.

Dimensions for flares shown below are as specified in SAE J533 "Flares for Tubing".

Tubing must be flared to the correct dimensions. Flares must be free from loose scale, burrs, slivers, and cracks. Seating surfaces must be smooth and free from nicks, pit marks, and any other defects that prevent sealing. The flare seat must be concentric with the tube outside diameter within 0,38 mm (.015") Full Indicator Reading (FIR). Smoothly breaking (radiusing) the outside corner of the tube prior to single flaring, to minimise splitting, is permissible.

For S6, S6S and SA6 for Imperial Outside Diameter Tubing, use only seamless annealed hydraulic tubing to ASTM A179 of wall thickness no greater than that specified in the tables.

For S6M for Metric Outside Diameter Tubing, use only seamless annealed hydraulic tubing of wall thickness no greater than that specified in the tables.

Tubing may be double flared for thin wall thicknesses, or single flared for thicker walled tubing. Dimensions below are for single flared tubing.

Recommended maximum wall thickness of tubing specified in tables is the thickest tubing normally considered suitable for flaring. Optional configurations to provide extended length of seal contact surface for tube wall thickness exceeding the limits in the tables, are also specified in SAE J533.

S6 AND S6S SERIES FOR IMPERIAL OD TUBING WITH JIC 37° FLARE

| RYCO S6 | RYCO S6S | NOMINAL TUBE OD | | MAXIMUM WALL THICKNESS D | | MAXIMUM FLARE DIAMETER A | | MINIMUM FLARE DIAMETER A | | FLARE RADIUS ± 0,25 mm (± 0.01") R | |
|----------------|-----------------|--------------------|------|--------------------------------|------|--------------------------------|------|--------------------------------|------|--|------|
| | | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| S6-0502 | | 3,18 | 0.13 | 0,89 | 0.04 | 5,1 | 0.20 | 4,6 | 0.18 | 0,80 | 0.03 |
| S6-0603 | | 4,76 | 0.19 | 0,89 | 0.04 | 7,1 | 0.28 | 6,6 | 0.26 | 0,80 | 0.03 |
| S6-0704 | | 6,35 | 0.25 | 1,65 | 0.06 | 9,1 | 0.36 | 8,6 | 0.34 | 0,80 | 0.03 |
| S6-0805 | | 7,94 | 0.31 | 1,65 | 0.06 | 10,9 | 0.43 | 10,2 | 0.40 | 0,80 | 0.03 |
| S6-0906 | S6S-0906 | 9,52 | 0.37 | 1,65 | 0.06 | 12,4 | 0.49 | 11,7 | 0.46 | 1,00 | 0.04 |
| S6-1208 | S6S-1208 | 12,70 | 0.50 | 2,11 | 0.08 | 16,8 | 0.66 | 16,0 | 0.63 | 1,50 | 0.06 |
| S6-1410 | S6S-1410 | 15,88 | 0.63 | 2,41 | 0.09 | 20,1 | 0.79 | 19,3 | 0.76 | 1,50 | 0.06 |
| S6-1712 | | 19,05 | 0.75 | 2,77 | 0.11 | 24,1 | 0.95 | 23,4 | 0.92 | 2,00 | 0.08 |
| S6-1914 | | 22,22 | 0.87 | 2,77 | 0.11 | 27,2 | 1.07 | 26,4 | 1.04 | 2,00 | 0.08 |
| S6-2116 | | 25,40 | 1.00 | 3,05 | 0.12 | 30,5 | 1.20 | 29,7 | 1.17 | 2,30 | 0.09 |
| S6-2620 | | 31,75 | 1.25 | 3,05 | 0.12 | 38,4 | 1.51 | 37,6 | 1.48 | 2,30 | 0.09 |
| S6-3024 | | 38,1 | 1.50 | 3,05 | 0.12 | 43,9 | 1.73 | 43,2 | 1.70 | 2,80 | 0.11 |
| S6-4032 | | 50,8 | 2.00 | 3,40 | 0.13 | 59,9 | 2.36 | 59,2 | 2.33 | 2,80 | 0.11 |

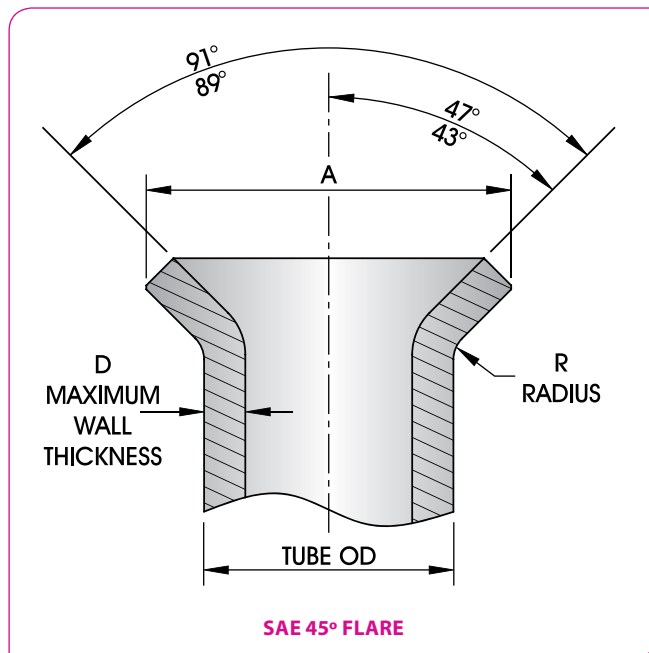
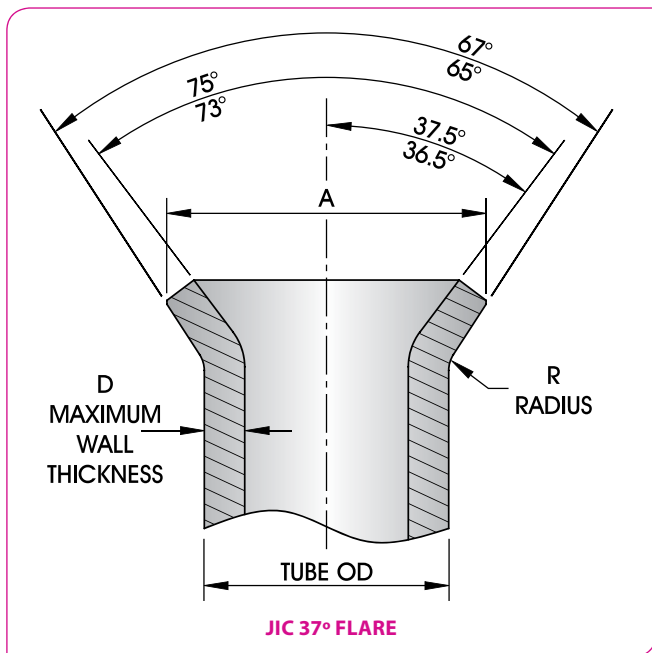
TUBE FLARING DIMENSIONS – 37° JIC AND 45° SAE

S6M SERIES FOR METRIC OD TUBING WITH JIC 37° FLARE

| RYCO S6M | NOMINAL TUBE OD | | MAXIMUM WALL THICKNESS D | | MAXIMUM FLARE DIAMETER A | | MINIMUM FLARE DIAMETER A | | FLARE RADIUS ± 0,25 mm (± 0.01") R | |
|-----------------|--------------------|------|--------------------------------|------|--------------------------------|------|--------------------------------|------|--|------|
| | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| S6M-0503 | 3,00 | 0.12 | 0,89 | 0.04 | 5,1 | 0.20 | 4,6 | 0.18 | 0,80 | 0.03 |
| S6M-0605 | 5,00 | 0.20 | 0,89 | 0.04 | 7,1 | 0.28 | 6,6 | 0.26 | 0,80 | 0.03 |
| S6M-0706 | 6,00 | 0.24 | 1,65 | 0.06 | 9,1 | 0.36 | 8,6 | 0.34 | 0,80 | 0.03 |
| S6M-0808 | 8,00 | 0.31 | 1,65 | 0.06 | 10,9 | 0.43 | 10,2 | 0.40 | 0,80 | 0.03 |
| S6M-0910 | 10,00 | 0.39 | 1,65 | 0.06 | 12,4 | 0.49 | 11,7 | 0.46 | 1,00 | 0.04 |
| S6M-1212 | 12,00 | 0.47 | 2,11 | 0.08 | 16,8 | 0.66 | 16,0 | 0.63 | 1,50 | 0.06 |
| S6M-1416 | 16,00 | 0.63 | 2,41 | 0.09 | 20,1 | 0.79 | 19,3 | 0.76 | 1,50 | 0.06 |
| S6M-1719 | 19,00 | 0.75 | 2,77 | 0.11 | 24,1 | 0.95 | 23,4 | 0.92 | 2,00 | 0.08 |
| S6M-1920 | 20,00 | 0.79 | 2,77 | 0.11 | 27,2 | 1.07 | 26,4 | 1.04 | 2,00 | 0.08 |
| S6M-2125 | 25,00 | 0.98 | 3,05 | 0.12 | 30,5 | 1.20 | 29,7 | 1.17 | 2,30 | 0.09 |
| S6M-2632 | 32,00 | 1.26 | 3,05 | 0.12 | 38,4 | 1.51 | 37,6 | 1.48 | 2,30 | 0.09 |
| S6M-3038 | 38,00 | 1.50 | 3,05 | 0.12 | 43,9 | 1.73 | 43,2 | 1.70 | 2,80 | 0.11 |
| S6M-4051 | 51,00 | 2.01 | 3,40 | 0.13 | 59,9 | 2.36 | 59,2 | 2.33 | 2,80 | 0.11 |

SA6 SERIES FOR IMPERIAL OD TUBING WITH SAE 45° FLARE

| RYCO SA6 | NOMINAL TUBE OD | | MAXIMUM WALL THICKNESS D | | MAXIMUM FLARE DIAMETER A | | MINIMUM FLARE DIAMETER A | | FLARE RADIUS ± 0,25 mm (± 0.01") R | |
|-----------------|--------------------|------|--------------------------------|------|--------------------------------|------|--------------------------------|------|--|------|
| | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| SA6-1006 | 9,52 | 0.38 | 1,65 | 0.06 | 12,4 | 0.49 | 12,0 | 0.47 | 0,50 | 0.02 |
| SA6-1712 | 19,05 | 0.75 | 2,77 | 0.11 | 23,3 | 0.92 | 22,9 | 0.90 | 0,50 | 0.02 |



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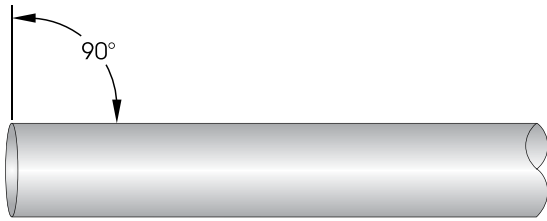
ASSEMBLY INSTRUCTIONS FOR:

TUBE BITE HOSE COUPLINGS (END STYLE 850).

RYCO Hose Couplings Series with Tube Bite End Style 850 (T2850, T4850 and 6850 Series) provide a quick and convenient method of connecting Imperial Outside Diameter seamless steel hydraulic tubing, without the need to flare the tubing.

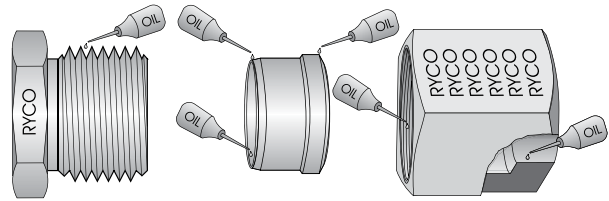
They allow quick and economical repairs to assemblies made of combined hose and Imperial-sized tubing. Often in these assemblies, the tubing is bent to a special shape or includes special mounting brackets, and is difficult or expensive to replace.

STEP ONE



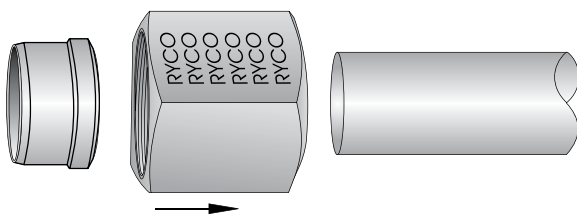
- Ensure that the wall thickness of the tubing is of the approved gauge. See S134 J-Lok & Tubing Selection Table page 511.
- Cut the tube to required length. Ensure that the tube is cut squarely. A tube cutter is preferred, however a hacksaw or abrasive drop saw may be used providing the cut is square and clean.
- Deburr inner and outer edges of tube.

STEP TWO



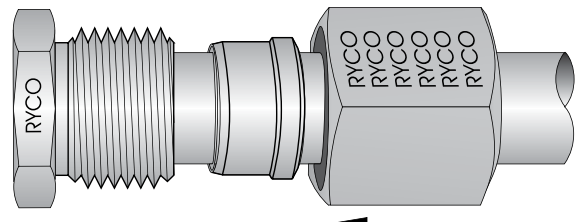
- Remove dirt, grit and cutting debris from the inside and outside of the tube.
- Remove the Nut and Compression Olive from the T2850, T4850 or 6850 coupling.
- Lubricate the threads of the Nut and the Male Thread of the T2850, T4850 or 6850 coupling with assembly oil or hydraulic oil.
- Lubricate internal and external surfaces of the Compression Olive with assembly oil or hydraulic oil.

STEP THREE



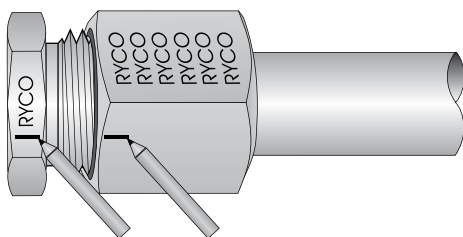
- Slide the Nut onto the tube, so that the threads of the Nut face towards the end of the tube to be assembled to the coupling, then slide the Compression Olive onto the tube.
- The end with the raised collar must be adjacent to the Nut, and the end with the long parallel section must face towards the end of the tube to be assembled to the coupling.

STEP FOUR



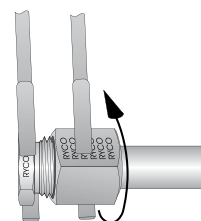
- Insert the tube end into the Male Threaded end of the T2850, T4850 or 6850 coupling, until it bottoms against the shoulder inside the Male Threaded end.
- Slide the Nut and Compression Olive along the tube until the Compression Olive seats inside the coupling body, and thread the Nut onto the Male Threaded end of the coupling.
- Tighten Nut until the Compression Olive just grips the tube. The initial gripping of the tube is complete when the tube can no longer be rotated by hand.

STEP FIVE



- Place a mark on the Nut, and an adjacent mark on the Hex of the T2850, T4850 or 6850 coupling insert.

STEP SIX



- Holding the hex of the T2850, T4850 or 6850 coupling insert stationary with one spanner, with another spanner tighten the Nut down by one full turn, to compress the Olive onto the tube¹.
- Use the marks from Step 5 as a reference. Ensure that the tube end is firmly butted against the shoulder inside the coupling, and that the tube does not rotate².

ASSEMBLY INSTRUCTIONS – TUBE BITE HOSE COUPLINGS (END STYLE 850)

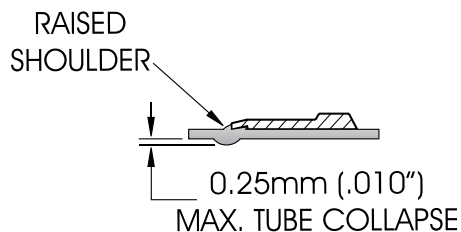
ASSEMBLY INSTRUCTIONS FOR:

TUBE BITE HOSE COUPLINGS (END STYLE 850) CONT.

If safe to do so, the bent tube part can be cut from the old assembly and reused. (NOTE: for combined hose and tubing assemblies with Metric Tubing, Male DKL or DKS Hose Coupling can be used with M6L or M6S Metric Nut and Cutting Ring).

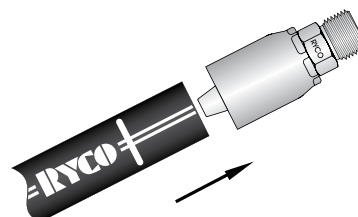
INTRODUCTION

STEP SEVEN



- Disassemble the Nut from the Coupling.
- Inspect the front edge of the Compression Olive. For correct assembly, the cutting edge of the Compression Olive must have formed a shoulder on the tube at least 50% as high as the cutting edge, all the way around the tube³.

STEP EIGHT

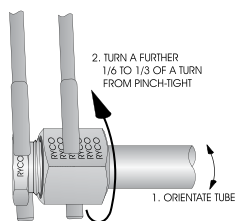


- Attach the T2850, T4850 or 6850 coupling onto the hose, without the tube, Nut and Compression Olive connected to it.
- Refer to the appropriate Assembly Instructions for the Hose Series and Coupling Series being assembled.
- Do not assemble the coupling onto the hose until Steps One to Seven are completed.

HOSE

COUPLINGS

STEP NINE



- Re-assemble the tube, Nut and Compression Olive onto the T2850, T4850 or 6850 end of the hose assembly.
- Nut will turn easily until an increase in force is required. At this point, orient the bent tube assembly pointing to the correct direction if required.
- Holding the Hex of the T285, T485 or 685 coupling insert with one spanner, with another spanner tighten the Nut down a further 1/6 of a turn as a minimum, but no more than 1/3 of a turn, to complete tightening operation.

NOTES

- 1 This is a general rule, and may vary slightly with different tubing materials.
- 2 In some instances (especially when using soft or thin-walled tube), to prevent excessive tube collapse, it may be necessary to support the inside of the tube with a mandrel prior to setting the Compression Olive.
- 3 Note that the maximum allowable radial collapse of the inner tube diameter is 0,25 mm (.010").

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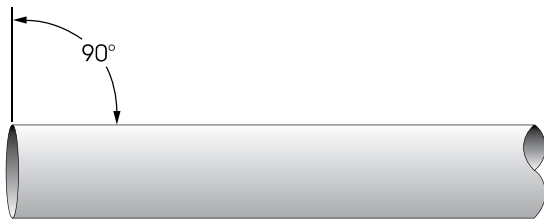
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ASSEMBLY INSTRUCTIONS FOR:

S134 SERIES J-LOK FLARELESS TUBE FITTINGS.

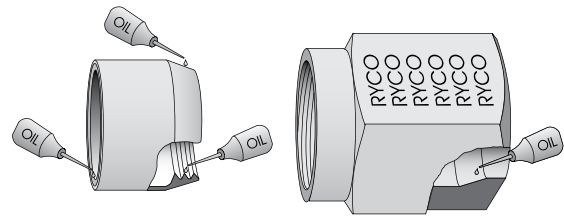
RYCO S134 J-Lok Flareless Tube Fittings provide a quick and convenient method of connecting Imperial Outside Diameter seamless steel hydraulic tubing to RYCO JIC male threads with 37° seat, without the need to flare the tubing. The wall thickness of the tubing must be of the approved gauge (see page 511 for Selection Table).

STEP ONE



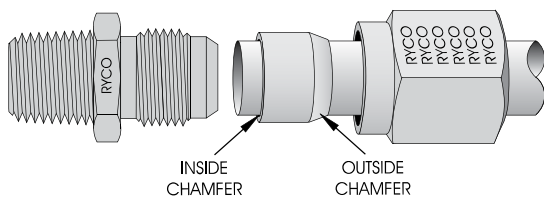
- Ensure that the wall thickness of the tubing is of the approved gauge. See S134 J-Lok & Tubing Selection Table on page 511.
- Cut the tube to required length. Ensure that the tube is cut squarely. A tube cutter is preferred, however a hacksaw or abrasive drop saw may be used providing the cut is square and clean.
- Deburr inner and outer edges of tube.

STEP TWO



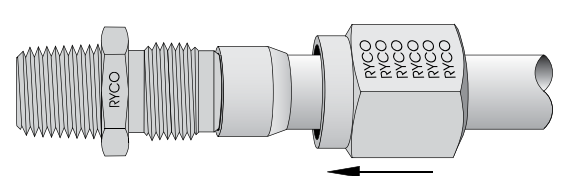
- Remove dirt, grit and cutting debris from the inside and outside of the tube.
- Lubricate the mating surfaces of the S134 J-Lok Flareless Olive and Nut with assembly oil or hydraulic oil.
- Ensure that the teeth inside the Flareless Olive are well lubricated.

STEP THREE



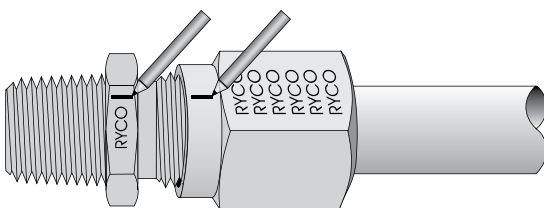
- Slide the S134 Nut on to the tube, so that the thread of the Nut faces towards the end of the tube.
- Then slide the S134 Flareless Olive onto the tube. The outside chamfered end must be adjacent to the S134 Nut, and the inside chamfered end must face towards the end of the tube.

STEP FOUR



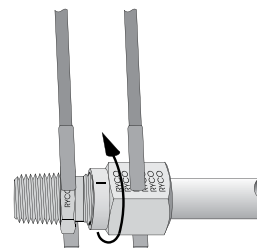
- Butt the tube end against the JIC male seat.
- With the tube held against the JIC male seat, slide the S134 Nut and Flareless Olive along the tube, until the Flareless Olive mates with the JIC male seat, and the S134 Nut mates with the JIC male thread.

STEP FIVE



- Engage the thread of the S134 Nut with the mating JIC male thread, while holding the tube against the JIC male seat. Prevent the tube from rotating.
- When the S134 Nut cannot be further tightened by hand onto the JIC male thread, place a mark on collar of the S134 Nut, and an adjacent mark on the JIC male hex.

STEP SIX



- Hold the JIC male hex stationary and further tighten the S134 Nut by spanner, rotating it 1 1/4 turns.
- Use the marks from STEP 5 as a reference.
- Ensure the tube is always held against the JIC male seat and prevent the tube from rotating.

ASSEMBLY INSTRUCTIONS – S134 J-LOK FLARELESS TUBE FITTINGS

ASSEMBLY INSTRUCTIONS FOR:

S134 SERIES J-LOK FLARELESS TUBE FITTINGS. CONT.

RYCO S134 J-Lok Flareless Tube Fittings provide a quick and convenient method of connecting Imperial Outside Diameter seamless steel hydraulic tubing to RYCO JIC male threads with 37° seat, without the need to flare the tubing. The wall thickness of the tubing must be of the approved gauge (see page 511 for Selection Table).

STEP SEVEN

IF THE CONNECTION IS TO BE UNDONE AND THEN REASSEMBLED:

- First tighten the S134 Nut onto the JIC male thread by hand.
- When the S134 Nut cannot be further hand tightened, tighten it with a spanner one more hex flat (1/6 of a turn).
- RYCO S134 J-Loks may be reassembled in this manner approximately ten times.

SELECTION TABLE FOR S134 J-LOK FITTINGS AND TUBING

TUBING USED MUST BE IMPERIAL OUTSIDE DIAMETER SEAMLESS ANNEALED STEEL HYDRAULIC TUBING TO ASTM A179.

| RYCO S134 J-LOK | TUBE OD X GAUGE | TUBE DIMENSIONS (inch) | | | TUBE DIMENSIONS (mm) | | | MAXIMUM DYNAMIC WORKING PRESSURE | |
|-----------------------|-----------------------|------------------------|-------------------|--------------------|----------------------|-------------------|--------------------|-------------------------------------|------|
| | | OUTSIDE DIAMETER | WALL THICKNESS | INSIDE DIAMETER | OUTSIDE DIAMETER | WALL THICKNESS | INSIDE DIAMETER | bar | psi |
| S134-0704 | 1/4 x 20G | 0.250 | 0.035 | 0.180 | 6,35 | 0,91 | 4,53 | 238 | 3450 |
| S134-0906 | 3/8 x 18G | 0.375 | 0.049 | 0.277 | 9,53 | 1,22 | 7,09 | 252 | 3650 |
| S134-0906 | 3/8 x 16G | 0.375 | 0.065 | 0.245 | 9,53 | 1,63 | 6,27 | 310 | 4500 |
| S134-1208 | 1/2 x 18G | 0.500 | 0.049 | 0.402 | 12,70 | 1,22 | 10,26 | 183 | 2650 |
| S134-1208 | 1/2 x 16G | 0.500 | 0.065 | 0.370 | 12,70 | 1,63 | 9,44 | 252 | 3650 |
| S134-1410 | 5/8 x 16G | 0.625 | 0.065 | 0.495 | 15,88 | 1,63 | 12,62 | 197 | 2850 |
| S134-1410 | 5/8 x 14G | 0.625 | 0.080 | 0.465 | 15,88 | 2,03 | 11,82 | 207 | 3000 |
| S134-1712 | 3/4 x 16G | 0.750 | 0.065 | 0.620 | 19,05 | 1,63 | 15,79 | 162 | 2350 |
| S134-1712 | 3/4 x 14G | 0.750 | 0.080 | 0.590 | 19,05 | 2,03 | 14,99 | 207 | 3000 |
| S134-2116 | 1 x 14G | 1.000 | 0.080 | 0.840 | 25,40 | 2,03 | 21,34 | 152 | 2200 |
| S134-2116 | 1 x 12G | 1.000 | 0.104 | 0.792 | 25,40 | 2,64 | 20,12 | 193 | 2800 |

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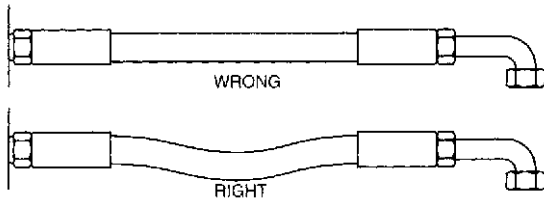
TECHNICAL

INSTALLATION GUIDE - HOSE ASSEMBLY

Proper hose installation is essential for satisfactory performance. If hose length is excessive, the appearance of the installation will be unsatisfactory and unnecessary cost of equipment will be involved. If hose assemblies are too short to permit adequate flexing and changes in length due to expansion or contraction, hose service life will be reduced.

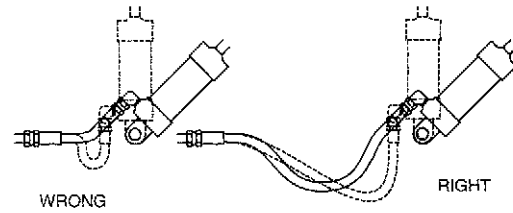
The following diagrams show proper hose installations which provide maximum performance and cost savings. Consider these examples in determining length of a specific assembly.

STRAIGHT HOSE INSTALLATIONS



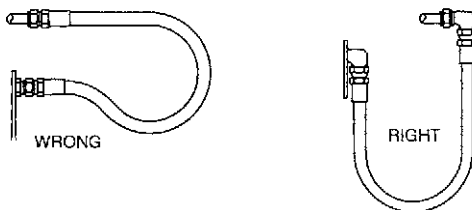
- When hose installation is straight, allow enough slack in hose line to provide for length changes that will occur when pressure is applied.

FLEXING APPLICATIONS



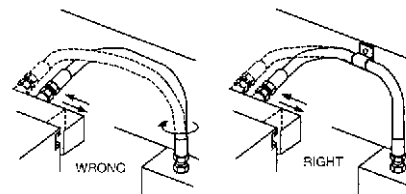
- Adequate hose length is necessary to distribute movement on flexing applications, and to avoid abrasion.

TWISTS AND BENDS, PART ONE



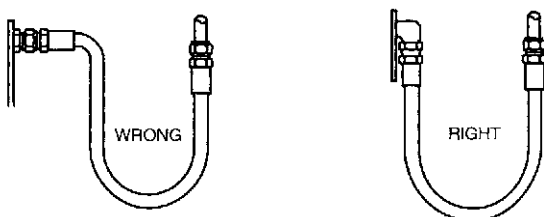
- When radius is below the required minimum, use an angle adaptor to avoid sharp bends.

TWISTS AND BENDS, PART TWO



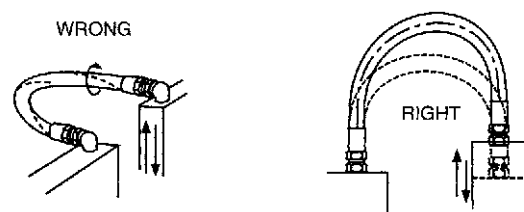
- Avoid twisting of hose lines bent in two planes by clamping hose at change of plane.

TWISTS AND BENDS, PART THREE



- Use proper angle adaptors to avoid sharp twists or bends in the hose.

TWISTS AND BENDS, PART FOUR



- Prevent twisting and distortion by bending hose in same plane as the motion of the boss to which hose is connected.

INSTALLATION GUIDE - HOSE ASSEMBLY (CONT)

Proper hose installation is essential for satisfactory performance. If hose length is excessive, the appearance of the installation will be unsatisfactory and unnecessary cost of equipment will be involved. If hose assemblies are too short to permit adequate flexing and changes in length due to expansion or contraction, hose service life will be reduced.

The following diagrams show proper hose installations which provide maximum performance and cost savings. Consider these examples in determining length of a specific assembly.

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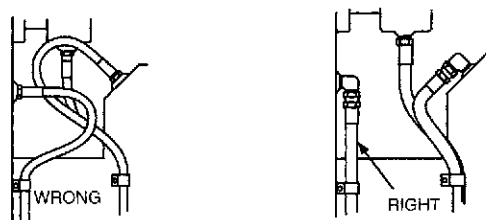
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REDUCE NUMBER OF PIPE FITTINGS



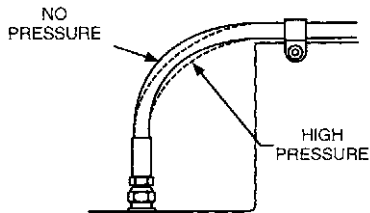
- Reduce number of pipe thread joints by using proper hydraulic adaptors instead of pipe fittings.

USE 45° AND/OR 90° ADAPTORS



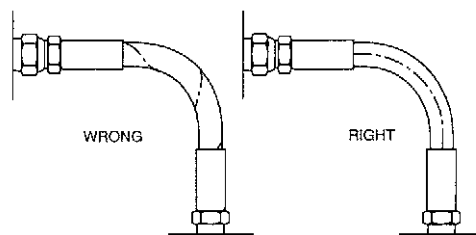
- Route hose directly by using 45° and/or 90° adaptors and fittings.
- Avoid excessive hose length to improve appearance.

ALLOWING FOR LENGTH CHANGE



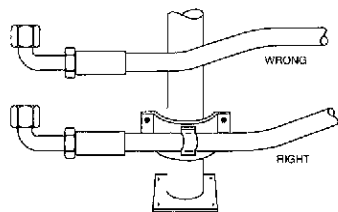
- To allow for length changes when hose is pressurised, do not clamp at bends.
- Curves will absorb changes.
- Do not clamp high and low pressure lines together.

AVOID TWISTING HOSE



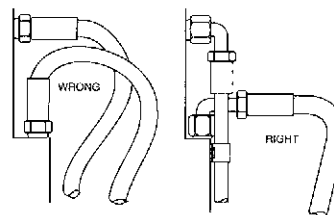
- When installing hose, make sure it is not twisted.
- Pressure applied to a twisted hose can result in hose failure or loosening of connections.

HIGH TEMPERATURE



- High ambient temperatures shorten hose, therefore ensure hose is kept away from hot parts.
- If this is not possible, insulate hose.

RELIEVE STRAIN



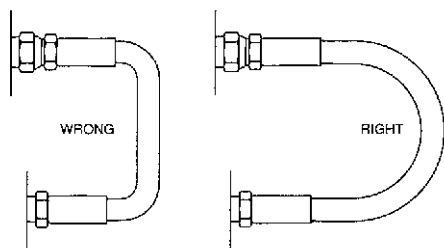
- Elbows and adaptors should be used to relieve strain on the assembly, and to provide neater installations which will be more accessible for inspection and maintenance.

INSTALLATION GUIDE - HOSE ASSEMBLY (CONT)

Proper hose installation is essential for satisfactory performance. If hose length is excessive, the appearance of the installation will be unsatisfactory and unnecessary cost of equipment will be involved. If hose assemblies are too short to permit adequate flexing and changes in length due to expansion or contraction, hose service life will be reduced.

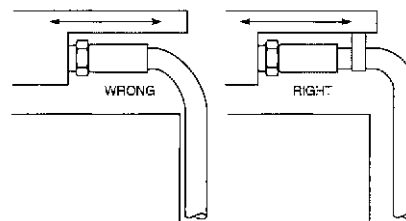
The following diagrams show proper hose installations which provide maximum performance and cost savings. Consider these examples in determining length of a specific assembly.

AVOID COLLAPSE AND RESTRICTION



- To avoid hose collapse and flow restriction, keep hose bend radii as large as possible.
- Refer to hose specification tables for minimum bend radii.

AVOID ABRASION



- Run hose in the installation so that it avoids rubbing and abrasion.
- Often, clamps are required to support long hose runs or to keep hose away from moving parts.
- Use clamps of the correct size. A clamp too large allows hose to move inside the clamp and causes abrasion.

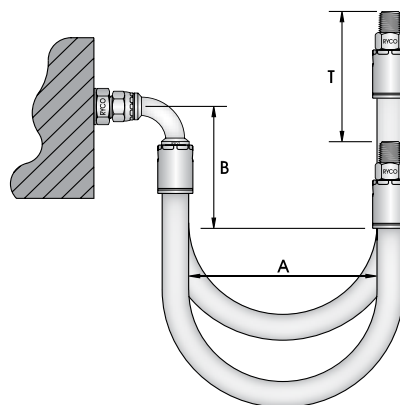
NOTE

- When determining the length of hose assemblies, provide sufficient length to prevent bending strain from localising at the back of the coupling. In the 'TYPICAL DIMENSIONS FOR ONE & TWO WIRE BRAID HOSE' diagram below, measurement "B" allows for a strain section of hose beyond the coupling to prevent concentration of bending strain. "T" designates the amount of travel. "A" indicates the smallest diameter to which hose should be bent.

• **OVERALL LENGTH = B+1.57A+T**

TYPICAL DIMENSIONS FOR ONE & TWO WIRE BRAID HOSE

| HOSE SIZE | | | "B" CONSTANT FOR STRAIGHT PORTION INCLUDING COUPLING |
|-----------|-------|------|--|
| DN | inch | Dash | |
| 6 | 1/4 | -04 | 250 mm (10") |
| 10 | 3/8 | -06 | 250 mm (10") |
| 12 | 1/2 | -08 | 300 mm (12) |
| 19 | 3/4 | -12 | 350 mm (14") |
| 25 | 1 | -16 | 400 mm (16") |
| 31 | 1.1/4 | -20 | 450 mm (28") |
| 38 | 1.1/2 | -24 | 500 mm (20") |
| 51 | 2 | -32 | 500 mm (20") |



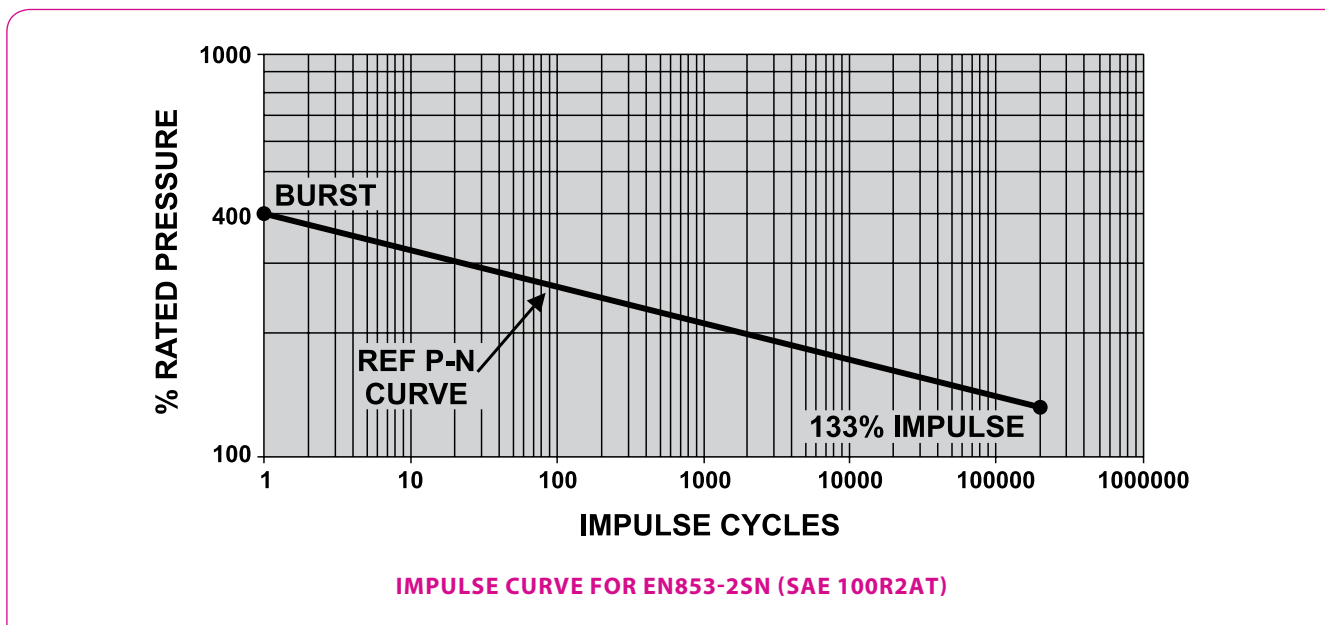
FACTOR OF SAFETY (FOS)

Hydraulic Hose Assemblies have a rated maximum working pressure (MWP) of the lesser of the MWP of the hydraulic hose and the MWP of the connector terminations.

Hydraulic Hose has a finite life. The lifespan of Hydraulic Hose Assemblies is affected by many factors (see 'Hose Selection' and 'Safety Guide' pages 488 to 493, and RYCO HALP® program page 23). Three limiting factors are working pressure, temperature and impulse pressures (pulses). High Impulse Pressures will fatigue hydraulic hose and consume their life.

Fatigue life is specified by a logarithmic **P-N Curve**, where **P** = Pressure and **N** = Impulses.

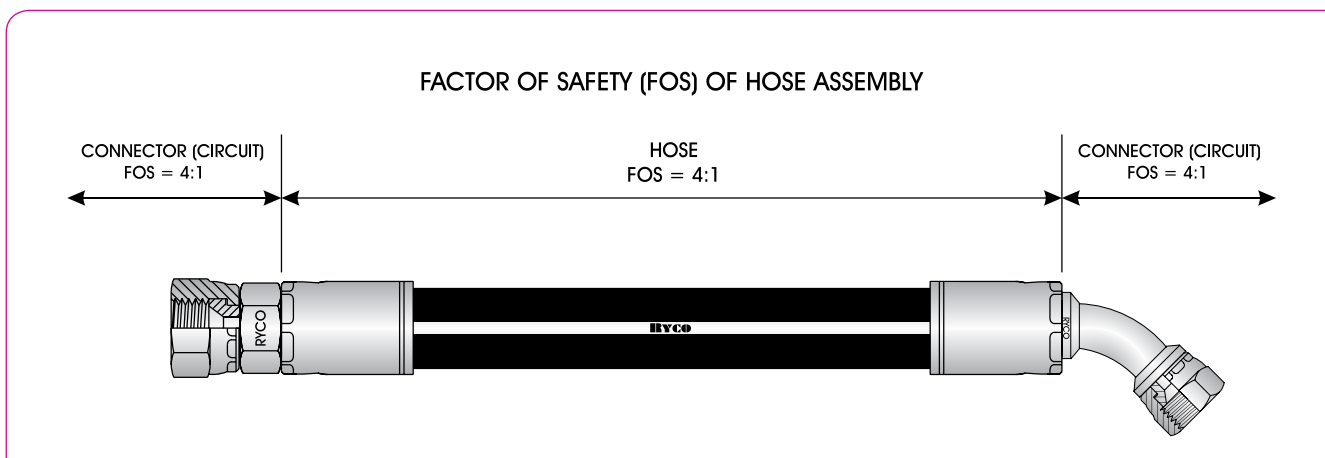
Hydraulic hose assemblies require a FOS (Factor of Safety) of 4:1.



This implies that an unused hydraulic hose assembly has to be able reach four times its MWP (4 x MWP) once only (one pulse).

Depending upon the specification requirements of the hydraulic hose, the Hydraulic Hose Assembly (be sure to use couplings that are **MATCHED** to the hose) must pass an Impulse Test (fatigue life test) at a specified percentage of the hose MWP for a specified number of pressure impulses. In the example above we see that EN853-2SN requires 200,000 impulses at 133% of its MWP (rated pressure). Impulse Tests are generally conducted with fluid heated to the maximum rated operating temperature of the hose.

RYCO Hydraulics Connector Terminations have a FOS of 4:1.



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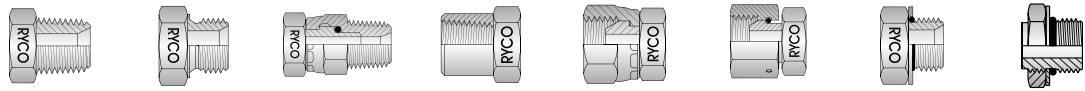
GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

WORKING PRESSURES - ADAPTORS, HOSE COUPLINGS AND HOSE ASSEMBLIES.

Since many factors influence the pressure at which a hydraulic system will, or will not, perform satisfactorily, maximum working pressures listed below should be used as a guide only and not as a "standard" nor "specification", nor construed as a "guaranteed minimum." Within the fluid power industry, many criteria are used for the determination of pressure capability. Various fibre stresses, minimum yields and design factors are applied, commensurate with total system conditions. Thus, it is impractical to lay down specific allowable working pressures that satisfy all design criteria. Unless otherwise specified in this document, and given correct working conditions, including, but not limited to, torque setting, assembly, alignment, support, pressures (internal and external), temperature limits, environmental, installation, vibration free, damage free, chemical, cleanliness and regular maintenance and inspection, the following may be used as a guide to maximum working pressure. For further technical assistance contact RYCO Hydraulics Technical Department or your RYCO Hydraulics distributor.

The Maximum Working Pressure of a Hose Assembly is the lesser rated Working Pressure of the Hose or Tube or End Style (Connector termination). The Maximum Rated Working Pressure of an Adaptor with a combination of Thread / End Styles and sizes, is the Maximum Working Pressure of the least rated end.

| BSP | BSPT MALE | BSPP MALE | BSPT MALE LIVE SWIVEL | BSPT FEMALE FIXED | BSPP FEMALE SWIVEL (CRIMP NUT) | BSPP FEMALE SWIVEL (WIRE NUT) | BSPP MALE NON-ADJUSTABLE (O RING & RETAINING RING) | BSPP MALE ADJUSTABLE (O RING & RETAINING RING) |
|-----|-----------|-----------|-----------------------|-------------------|--------------------------------|-------------------------------|--|--|
|-----|-----------|-----------|-----------------------|-------------------|--------------------------------|-------------------------------|--|--|



| THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | | | | | | | | | | | | | | | |
|-------------|-----------|-----------------------|-------|-----|-------|-----|------|-----|-------|-----|-------|-----|------|-----|------|-----|------|
| | | bar | psi | bar | psi | bar | psi | bar | psi | bar | psi | bar | psi | bar | psi | bar | psi |
| 1/8 | -02 | 690 | 10000 | 690 | 10000 | 420 | 6100 | 690 | 10000 | 690 | 10000 | | | 350 | 5100 | 380 | 5500 |
| 1/4 | -04 | 690 | 10000 | 690 | 10000 | 420 | 6100 | 690 | 10000 | 690 | 10000 | | | 350 | 5100 | 350 | 5100 |
| 3/8 | -06 | 690 | 10000 | 620 | 9000 | 420 | 6100 | 690 | 10000 | 620 | 9000 | | | 350 | 5100 | 350 | 5100 |
| 1/2 | -08 | 690 | 10000 | 480 | 7000 | 350 | 5100 | 690 | 10000 | 480 | 7000 | | | 350 | 5100 | 310 | 4500 |
| 5/8 | -10 | 690 | 10000 | 480 | 7000 | 280 | 4100 | 690 | 10000 | 480 | 7000 | 550 | 8000 | 350 | 5100 | | |
| 3/4 | -12 | 620 | 9000 | 450 | 6500 | 280 | 4100 | 620 | 9000 | 420 | 6100 | 420 | 6100 | 280 | 4100 | 280 | 4100 |
| 1 | -16 | 620 | 9000 | 350 | 5100 | 215 | 3100 | 620 | 9000 | 350 | 5100 | 350 | 5100 | 215 | 3100 | 215 | 3100 |
| 1.1/4 | -20 | 480 | 7000 | 215 | 3100 | | | 480 | 7000 | 215 | 3100 | 215 | 3100 | 215 | 3100 | 170 | 2500 |
| 1.1/2 | -24 | 420 | 6100 | 100 | 1500 | | | 420 | 6100 | | | 100 | 1500 | 215 | 3100 | | |
| 2 | -32 | 350 | 5100 | 100 | 1500 | | | 350 | 5100 | | | 100 | 1500 | 180 | 2600 | | |
| 2.1/2 | -40 | 215 | 3100 | | | | | | | | | | | | | | |

| BSP | BSPP MALE (BONDED SEAL) | BSPP MALE (ENCAPSULATED SEAL) |
|-----|-------------------------|-------------------------------|
|-----|-------------------------|-------------------------------|



| THREAD SIZE | DASH SIZE | MAXIMUM WORKING PRESSURE | | | |
|-------------|-----------|--------------------------|------|-----|------|
| inch | | bar | psi | bar | psi |
| 1/8 | -02 | 420 | 6100 | 620 | 9000 |
| 1/4 | -04 | 420 | 6100 | 620 | 9000 |
| 3/8 | -06 | 420 | 6100 | 480 | 7000 |
| 1/2 | -08 | 350 | 5100 | 480 | 7000 |
| 5/8 | -10 | 350 | 5100 | 480 | 7000 |
| 3/4 | -12 | 280 | 4100 | 480 | 7000 |
| 1 | -16 | 280 | 4100 | 370 | 5300 |
| 1.1/4 | -20 | 280 | 4100 | 280 | 4100 |
| 1.1/2 | -24 | 215 | 3100 | 280 | 4100 |
| 2 | -32 | 150 | 2100 | 230 | 3300 |

GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

| NPT | NPT MALE | NPT MALE LIVE SWIVEL | NPT FEMALE FIXED | NPSM FEMALE SWIVEL (CRIMP NUT) | NPSM FEMALE SWIVEL (WIRE NUT) |
|-----|----------|----------------------|------------------|--------------------------------|-------------------------------|
| | | | | | |

| JIS (KOMATSU) | METRIC FEMALE SWIVEL 60° CONCAVE SEAT |
|---------------|---------------------------------------|
| | |

| THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | | | | | | | | | |
|-------------|-----------|-----------------------|-------|-----|------|-----|-------|-----|-------|-----|------|
| | | bar | psi | bar | psi | bar | psi | bar | psi | bar | psi |
| 1/8 | -02 | 760 | 11000 | 420 | 6100 | 760 | 11000 | 690 | 10000 | | |
| 1/4 | -04 | 760 | 11000 | 420 | 6100 | 760 | 11000 | 690 | 10000 | | |
| 3/8 | -06 | 690 | 10000 | 420 | 6100 | 690 | 10000 | 690 | 10000 | | |
| 1/2 | -08 | 690 | 10000 | 350 | 5100 | 690 | 10000 | 550 | 8000 | | |
| 5/8 | -10 | | | | | | | | | | |
| 3/4 | -12 | 690 | 10000 | 280 | 4100 | 690 | 10000 | 450 | 6500 | 480 | 7000 |
| 1 | -16 | 500 | 7200 | 280 | 4100 | 500 | 7200 | 350 | 5100 | 420 | 6100 |
| 1.1/4 | -20 | 350 | 5100 | | | 350 | 5100 | 280 | 4100 | 420 | 6100 |
| 1.1/2 | -24 | 350 | 5100 | | | 350 | 5100 | 280 | 4100 | 280 | 4100 |
| 2 | -32 | 350 | 5100 | | | 350 | 5100 | 215 | 3100 | 215 | 3100 |
| 2.1/2 | -40 | 215 | 3100 | | | | | | | 215 | 3100 |

| THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | |
|-------------|-----------|-----------------------|------|
| mm | | bar | psi |
| M14 x 1,5 | -14 | 420 | 6100 |
| M16 x 1,5 | -16 | 420 | 6100 |
| M18 x 1,5 | -18 | 420 | 6100 |
| M22 x 1,5 | -22 | 380 | 5500 |
| M24 x 1,5 | -24 | 350 | 5100 |
| M27 x 2,0 | -27 | 280 | 4100 |
| M30 x 1,5 | -30 | 280 | 4100 |
| M33 x 1,5 | -33 | 215 | 3100 |
| M33 x 2,0 | -33 | 215 | 3100 |
| M36 x 1,5 | -36 | 170 | 2500 |
| M42 x 1,5 | -42 | 170 | 2500 |
| M50 x 2,0 | -50 | 100 | 1500 |
| M60 x 2,0 | -60 | 70 | 1000 |

| JIC | JIC MALE | JIC FEMALE SWIVEL (CRIMP NUT) | JIC FEMALE SWIVEL (WIRE NUT) | JIC FEMALE SWIVEL HIGH PRESSURE ("V" SERIES) |
|-----|----------|-------------------------------|------------------------------|--|
| | | | | |

| JIS | BSPP MALE 60° CONVEX SEAT | BSPP FEMALE SWIVEL 60° CONCAVE SEAT |
|-----|---------------------------|-------------------------------------|
| | | |

| TUBE SIZE | THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | | | | | | | |
|-----------|-------------|-----------|-----------------------|-------|-----|-------|-----|------|-----|------|
| inch | inch | | bar | psi | bar | psi | bar | psi | bar | psi |
| 3/16 | 3/8 | -06 | 690 | 10000 | 690 | 10000 | | | | |
| 1/4 | 7/16 | -07 | 690 | 10000 | 690 | 10000 | | | | |
| 5/16 | 1/2 | -08 | 620 | 9000 | 620 | 9000 | | | | |
| 3/8 | 9/16 | -09 | 550 | 8000 | 550 | 8000 | | | | |
| 1/2 | 3/4 | -12 | 690 | 10000 | 690 | 10000 | | | | |
| 5/8 | 7/8 | -14 | 550 | 8000 | 550 | 8000 | 590 | 8500 | | |
| 3/4 | 1.1/16 | -17 | 480 | 7000 | 480 | 7000 | 550 | 8000 | | |
| 7/8 | 1.3/16 | -19 | 420 | 6100 | 380 | 5500 | 420 | 6100 | | |
| 1 | 1.5/16 | -21 | 420 | 6100 | 320 | 4600 | 240 | 3500 | 350 | 5100 |
| 1.1/4 | 1.5/8 | -26 | 350 | 5100 | 215 | 3100 | 240 | 3500 | 350 | 5100 |
| 1.1/2 | 1.7/8 | -30 | 215 | 3100 | | | 215 | 3100 | 350 | 5100 |
| 2 | 2.1/2 | -40 | 150 | 2100 | | | 110 | 1600 | | |
| 2.1/2 | 3 | -48 | | | | | | | | |

| THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | | | |
|-------------|-----------|-----------------------|------|-----|------|
| inch | | bar | psi | bar | psi |
| 1/4 | -04 | 480 | 7000 | 480 | 7000 |
| 3/8 | -06 | 450 | 6500 | 450 | 6500 |
| 1/2 | -08 | 350 | 5100 | 350 | 5100 |
| 5/8 | -10 | | | | |
| 3/4 | -12 | | | | |
| 1 | -16 | | | | |

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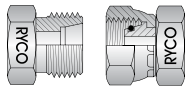
FILTERS

TECHNICAL

TECHNICAL

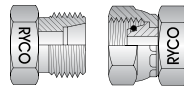
GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

METRIC DKOL (LIGHT SERIES) MALE & FEMALE O RING



| TUBE SIZE | THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | |
|-----------|-------------|-----------|-----------------------|------|
| mm | mm | | bar | psi |
| 6 | M12 x 1,5 | -12 | 430 | 6300 |
| 8 | M14 x 1,5 | -14 | 430 | 6300 |
| 10 | M16 x 1,5 | -16 | 430 | 6300 |
| 12 | M18 x 1,5 | -18 | 350 | 5100 |
| 15 | M22 x 1,5 | -22 | 350 | 5100 |
| 18 | M26 x 1,5 | -26 | 350 | 5100 |
| 22 | M30 x 2,0 | -30 | 280 | 4100 |
| 28 | M36 x 2,0 | -36 | 215 | 3100 |
| 35 | M45 x 2,0 | -45 | 180 | 2600 |
| 42 | M52 x 2,0 | -52 | 180 | 2600 |

METRIC DKOS (HEAVY SERIES) MALE & FEMALE O RING



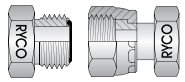
| TUBE SIZE | THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | |
|-----------|-------------|-----------|-----------------------|-------|
| mm | mm | | bar | psi |
| 6 | M14 x 1,5 | -12 | 690 | 10000 |
| 8 | M16 x 1,5 | -14 | 690 | 10000 |
| 10 | M18 x 1,5 | -16 | 690 | 10000 |
| 12 | M20 x 1,5 | -20 | 620 | 9000 |
| 14 | M22 x 1,5 | -22 | 620 | 9000 |
| 16 | M24 x 2,0 | -24 | 420 | 6100 |
| 20 | M30 x 2,0 | -30 | 420 | 6100 |
| 25 | M36 x 2,0 | -36 | 420 | 6100 |
| 30 | M42 x 2,0 | -45 | 420 | 6100 |
| 38 | M52 x 2,0 | -52 | 420 | 6100 |

METRIC BONDED SEAL



| THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | |
|-------------|-----------|-----------------------|------|
| mm | | bar | psi |
| M10 | -10 | 350 | 5100 |
| M12 | -12 | 350 | 5100 |
| M14 | -14 | 350 | 5100 |
| M16 | -16 | 350 | 5100 |
| M18 | -18 | 350 | 5100 |
| M20 | -20 | 280 | 4100 |
| M22 | -22 | 280 | 4100 |
| M24 | -24 | 250 | 3625 |
| M26 | -26 | 250 | 3625 |
| M27 | -27 | 280 | 4100 |
| M30 | -30 | 215 | 3100 |
| M33 | -33 | 215 | 3100 |
| M36 | -36 | 215 | 3100 |
| M42 | -42 | 215 | 3100 |
| M48 | -48 | 215 | 3100 |

ORFS O RING FACE SEAL



| TUBE SIZE | THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | |
|-----------|-------------|-----------|-----------------------|-------|
| inch | inch | | bar | psi |
| 1/4 | 9/16 | -09 | 690 | 10000 |
| 3/8 | 11/16 | -11 | 690 | 10000 |
| 1/2 | 13/16 | -13 | 630 | 9150 |
| 5/8 | 1 | -16 | 630 | 9150 |
| 3/4 | 1.3/16 | -19 | 480 | 7000 |
| 1 | 1.7/16* | -23 | 420 | 6100 |
| 1.1/4 | 1.11/16* | -27 | 280 | 4100 |
| 1.1/2 | 2* | -32 | 280 | 4100 |

* Wire Nut used

SAE

SAE 45° FLARE

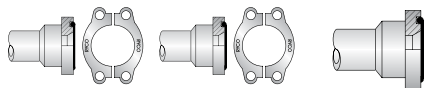
SAE INVERTED FLARE



| TUBE SIZE | THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | | | |
|-----------|-------------|-----------|-----------------------|-------|-----|------|
| inch | inch | | bar | psi | bar | psi |
| 1/4 | 7/16 | -07 | 690 | 10000 | 215 | 3100 |
| 5/16 | 1/2 | -08 | 690 | 10000 | 215 | 3100 |
| 3/8 | 5/8 | -10 | 590 | 8500 | 180 | 2600 |
| 7/16 | 11/16 | -11 | | | 180 | 2600 |
| 1/2 | 3/4 | -12 | 550 | 8000 | | |
| 5/8 | 7/8 | -14 | 520 | 7500 | | |
| 3/4 | 1.1/16 | -17 | 420 | 6100 | | |
| 1 | 1.5/16 | -21 | | | | |
| 1.1/4 | 1.5/8 | -26 | | | | |
| 1.1/2 | 1.7/8 | -30 | | | | |
| 2 | 2.1/2 | -40 | | | | |

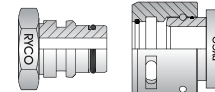
GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

| | | | |
|-------------------|-------------------------------|-------------------------------|---|
| SAE FLANGE | CODE 61 SAE FLANGE | CODE 62 SAE FLANGE | RYCO CODE 62C SPECIAL FLANGE |
|-------------------|-------------------------------|-------------------------------|---|



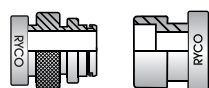
| NOM. FLANGE SIZE | DASH SIZE | MAX. WORKING PRESSURE | | | | | |
|------------------------|--------------|--------------------------|------|-----|------|-----|------|
| | | bar | psi | bar | psi | bar | psi |
| 1/2 | -08 | 350 | 5100 | 420 | 6100 | 420 | 6100 |
| 5/8 | -10 | 350 | 5100 | 420 | 6100 | 420 | 6100 |
| 3/4 | -12 | 350 | 5100 | 420 | 6100 | 420 | 6100 |
| 1 | -16 | 350 | 5100 | 420 | 6100 | 420 | 6100 |
| 1.1/4 | -20 | 280 | 4100 | 420 | 6100 | 420 | 6100 |
| 1.1/2 | -24 | 215 | 3100 | 420 | 6100 | 420 | 6100 |
| 2 | -32 | 215 | 3100 | 420 | 6100 | 420 | 6100 |
| 2.1/2 | -40 | 215 | 3100 | | | | |
| 3 | -48 | 140 | 2050 | | | | |

| | | |
|-----------------|---|---------------------------------|
| CROCBITE | CROCBITE (HIGH PRESSURE) | CROCBITE (HIGH FLOW) |
|-----------------|---|---------------------------------|



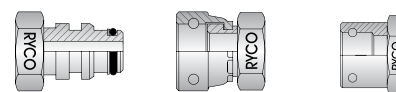
| NOMINAL SIZE | | | MAX. WORKING PRESSURE | | | |
|--------------|--------|------|--------------------------|------|-----|------|
| DN | inch | Dash | bar | psi | bar | psi |
| 10 | 3/8 | -10 | 450 | 6525 | | |
| 12 | 1/2 | -12 | 450 | 6525 | | |
| 19 | 3/4 | -20 | 420 | 6100 | | |
| 25 | 1 | -25 | 420 | 6100 | | |
| 31 | 1.1/4 | -32 | 420 | 6100 | | |
| 38 | 1/1.12 | -40 | 420 | 6100 | | |
| 51 | 2 | -50 | 420 | 6100 | 350 | 5100 |
| 63 | 2.1/2 | -63 | 350 | 5100 | 280 | 4100 |
| 76 | 3 | -75 | | | 215 | 3100 |

| | | |
|-----------------|-------------------------------------|-----------------------------|
| RYCO RKV | RKVP (HIGH PRESSURE) | RKVF (HIGH FLOW) |
|-----------------|-------------------------------------|-----------------------------|



| NOMINAL SIZE | | | MAX. WORKING PRESSURE | | | |
|--------------|--------|------|--------------------------|------|-----|------|
| DN | inch | Dash | bar | psi | bar | psi |
| 10 | 3/8 | -10 | 450 | 6525 | | |
| 12 | 1/2 | -12 | 450 | 6525 | | |
| 19 | 3/4 | -20 | 420 | 6100 | | |
| 25 | 1 | -25 | 420 | 6100 | | |
| 31 | 1.1/4 | -32 | 420 | 6100 | | |
| 38 | 1/1.12 | -40 | 420 | 6100 | | |
| 51 | 2 | -50 | 420 | 6100 | 170 | 2400 |
| 63 | 2.1/2 | -63 | 350 | 5100 | 70 | 1000 |
| 76 | 3 | -75 | | | 70 | 1000 |

| | | | |
|---|--|---|---|
| STAPLELOK SUPERLOK SUPER-D | STAPLELOK MALE & FEMALE | SUPERLOK MALE & FEMALE | RYCO SUPER-D MALE & FEMALE |
|---|--|---|---|



| NOMINAL SIZE | | | MAX. WORKING PRESSURE | | | | | |
|-----------------|-------|------|--------------------------|------|-----|------|-----|------|
| DN | inch | Dash | bar | psi | bar | psi | bar | psi |
| 6 | 1/4 | -06 | 420 | 6100 | | | | |
| 10 | 3/8 | -10 | 420 | 6100 | | | | |
| 12 | 1/2 | -12 | 415 | 6020 | | | | |
| 16 | 5/8 | -16 | | | | | | |
| 19 | 3/4 | -20 | 350 | 5100 | 420 | 6100 | 420 | 6100 |
| 25 | 1 | -25 | 280 | 4100 | 380 | 5500 | 420 | 6100 |
| 31 | 1.1/4 | -32 | 215 | 3100 | 350 | 5100 | 420 | 6100 |
| 38 | 1.1/2 | -40 | 215 | 3100 | 350 | 5100 | 420 | 6100 |
| 51 | 2 | -50 | 170 | 2500 | 350 | 5100 | 420 | 6100 |
| 63 | 2.1/2 | -63 | | | 350 | 5100 | | |

WARNING: Staples must only be used ONCE, they MUST NOT BE RE-USED. This applies to all STAPLELOK, SUPERLOK and RYCO SUPER-D Staples. Failure to observe this warning may result in serious personal injury, or property damage.

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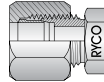
GUIDE TO THREAD AND CONNECTOR WORKING PRESSURES

RYCO WEO



| TUBE SIZE | DASH SIZE | MAX. WORKING PRESSURE | |
|-----------|-----------|-----------------------|------|
| | | bar | psi |
| 1/4 | -04 | 350 | 5100 |
| 3/8 | -06 | 350 | 5100 |
| 1/2 | -08 | 350 | 5100 |
| 5/8 | -10 | 350 | 5100 |
| 3/4 | -12 | 350 | 5100 |
| 1 | -16 | 250 | 3625 |

TUBE BITE



| TUBE SIZE | DASH SIZE | MAX. WORKING PRESSURE | |
|-----------|-----------|-----------------------|------|
| | | bar | psi |
| 1/4 | -04 | 260 | 3750 |
| 5/16 | -05 | 260 | 3750 |
| 3/8 | -06 | 260 | 3750 |
| 1/2 | -08 | 220 | 3200 |
| 5/8 | -10 | 220 | 3200 |
| 3/4 | -12 | 220 | 3200 |
| 1 | -16 | 170 | 2500 |
| 1.1/4 | -20 | 140 | 2000 |
| 1.1/2 | -24 | | |
| 2 | -32 | | |

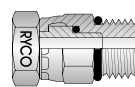
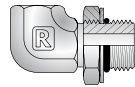
NOTE: Also consider the Maximum Working Pressure of the tubing to be used with TUBE BITE connections.

UN O RING (O RING BOSS)

UN O RING
(O RING BOSS)

UN O RING
(O RING BOSS)
ADJUSTABLE

UN O RING
(O RING BOSS)
LIVE SWIVEL



| TUBE SIZE | THREAD SIZE | DASH SIZE | MAX. WORKING PRESSURE | | | | | |
|-----------|-------------|-----------|-----------------------|------|-----|------|-----|------|
| | | | bar | psi | bar | psi | bar | psi |
| 1/4 | 7/16 | -07 | 480 | 7000 | 420 | 6100 | | |
| 5/16 | 1/2 | -08 | 480 | 7000 | 420 | 6100 | | |
| 3/8 | 9/16 | -09 | 480 | 7000 | 350 | 5100 | 350 | 5100 |
| 1/2 | 3/4 | -12 | 480 | 7000 | 350 | 5100 | 350 | 5100 |
| 5/8 | 7/8 | -14 | 480 | 7000 | 280 | 4100 | 280 | 4100 |
| 3/4 | 1.1/16 | -17 | 480 | 7000 | 280 | 4100 | 280 | 4100 |
| 7/8 | 1.3/16 | -19 | 480 | 7000 | 280 | 4100 | | |
| 1 | 1.5/16 | -21 | 350 | 5100 | 280 | 4100 | | |
| 1.1/4 | 1.5/8 | -26 | 215 | 3100 | 170 | 2500 | | |
| 1.1/2 | 1.7/8 | -30 | 215 | 3100 | | | | |
| 2 | 2.1/2 | -38 | | | | | | |

IMPORTANT NOTE REGARDING THREAD DASH SIZE/TUBE DASH SIZE

TUBE DASH SIZE – THREAD DASH SIZE

The RYCO Dash Size Part Numbering system for Connection Types associated with Inch sized tubing, follows the **THREAD** size rather than the **TUBE** size.

For example, for JIC 37° Flare; 9/16" **THREAD** is used with 3/8" OD **TUBE**.

The RYCO DASH SIZE for a JIC Hose Tail, 3/8" Hose to 3/8" Tube Size is therefore **-0609** (not -0606).

The Connection Types this applies to are as follows:

- JIC 37°**
- UNO (O Ring Boss)**
- ORFS (O Ring Face Seal)**
- SAE 45°**
- SAE Inverted Flare**

BSP, NPT, JIS, Metric DIN, and SAE Flanges are not affected.

The tables below show the relationship between **TUBE Dash Size** and **THREAD Dash Size**.

| JIC 37° AND UNO (O RING BOSS) | | | | |
|-------------------------------|-----------|--------|----------------|-----|
| TUBE OD HOSE ID | DASH SIZE | | THREAD SIZE | |
| | TUBE/HOSE | THREAD | | |
| 1/8 | -02 | -05 | 5/16-24 | UNF |
| 3/16 | -03 | -06 | 3/8-24 | UNF |
| 1/4 | -04 | -07 | 7/16-20 | UNF |
| 5/16 | -05 | -08 | 1/2-20 | UNF |
| 3/8 | -06 | -09 | 9/16-18 | UNF |
| 1/2 | -08 | -12 | 3/4-16 | UNF |
| 5/8 | -10 | -14 | 7/8-14 | UNF |
| 3/4 | -12 | -17 | 1.1/16-12 | UN |
| 7/8 | -14 | -19 | 1.3/16-12 | UN |
| 1 | -16 | -21 | 1.5/16-12 | UN |
| 1.1/4 | -20 | -26 | 1.5/8-12 | UN |
| 1.1/2 | -24 | -30 | 1.7/8-12 | UN |
| 2 | -32 | -40 | 2.1/2-12 | UN |
| 2.1/2 | -40 | -48 | 3-12 | UN |

| SAE 45° | | | | |
|--------------------|-----------|--------|----------------|--|
| TUBE OD HOSE ID | DASH SIZE | | THREAD SIZE | |
| | TUBE/HOSE | THREAD | | |
| 1/8 | -02 | -05 | 5/16-24 | |
| 3/16 | -03 | -06 | 3/8-24 | |
| 1/4 | -04 | -07 | 7/16-20 | |
| 5/16 | -05 | -08 | 1/2-20 | |
| 3/8 | -06 | -10 | 5/8-18 | |
| 1/2 | -08 | -12 | 3/4-16 | |
| 5/8 | -10 | -14 | 7/8-14 | |
| 3/4 | -12 | -17 | 1.1/16-14 | |

| SAE INVERTED FLARE | | | | |
|--------------------|-----------|--------|----------------|--|
| TUBE OD HOSE ID | DASH SIZE | | THREAD SIZE | |
| | TUBE/HOSE | THREAD | | |
| 1/4 | -04 | -07 | 7/16-24 | |
| 5/16 | -05 | -08 | 1/2-20 | |
| 3/8 | -06 | -10 | 5/8-18 | |
| 7/16 | -07 | -11 | 11/16-18 | |

| ORFS (O RING FACE SEAL) | | | | |
|-------------------------|-----------|--------|----------------|-----|
| TUBE OD HOSE ID | DASH SIZE | | THREAD SIZE | |
| | TUBE/HOSE | THREAD | | |
| 1/4 | -04 | -09 | 9/16-18 | UNF |
| 3/8 | -06 | -11 | 11/16-16 | UN |
| 1/2 | -08 | -13 | 13/16-16 | UN |
| 5/8 | -10 | -16 | 1-14 | UNS |
| 3/4 | -12 | -19 | 1.3/16-12 | UN |
| 1 | -16 | -23 | 1.7/16-12 | UN |
| 1.1/4 | -20 | -27 | 1.11/16-12 | UN |
| 1.1/2 | -24 | -32 | 2-12 | UN |

| RYCO CROCBITE, RKV, STAPLELOK & SUPERLOK | | |
|---|-------|--------------|
| NOMINAL SIZE DN | INCH | DASH SIZE |
| | | |
| 10 | 3/8 | -10 |
| 12 | 1/2 | -12 |
| 16 | 5/8 | -16 |
| 19 | 3/4 | -20 |
| 25 | 1 | -25 |
| 31 | 1.1/4 | -32 |
| 38 | 1.1/2 | -40 |
| 51 | 2 | -50 |
| 63 | 2.1/2 | -63 |
| 76 | 3 | -75 |

For RYCO CROCBITE, RKV, STAPLELOK and SUPERLOK, the Dash Size is the Nominal Size in millimetres.

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THREAD AND CONNECTOR IDENTIFICATION

HOW TO USE THIS SECTION

This section is intended as an aid to identifying the most popular threads on hydraulic hose couplings and adaptors, and hydraulic equipment.

BSP, Metric, American and Japanese thread sizes can be very similar. It is important to measure and match every criteria of thread diameter, thread pitch, seating or sealing type (including angle of seats if present) to accurately determine thread type.

PROCEDURE

STEP 1. INVESTIGATION

Check for any markings on fitting or equipment which may be a clue to thread type. Country of origin may provide a clue.

- Europe** Check DIN/BSP
- UK/Australia** Check BSP
- America** Check NPT/JIC/UNO/ORFS
- Japan** Check JIS

All RYCO parts have a unique part number stamped on to aid identification.

STEP 2. VISUAL INSPECTION

Depending on whether the male or female thread or both are available, different features will aid identification.

- Are threads parallel or tapered?
- Is there an O Ring or a washer seal?
- If cone seats are present, are they concave or convex?
- Type and position on fittings.

STEP 3. MEASURE THREADS

With a caliper, measure the thread diameter.

- OD of male threads
- ID of female threads

Using a thread gauge, determine the number of threads per inch.

If thread gauge is not available, measure pitch from crest to crest of adjacent threads, or count the number of threads in 1/4" and multiply by four for threads per inch. Chart at bottom of page may assist.

STEP 4. SEAT ANGLE MEASUREMENT

Using a seat gauge, determine the angle of the seat. Some fittings have dual seats (eg. JIC 37° & SAE 45°), and some have a radiused cone.

STEP 5. CONCLUSION

Match the measurements taken against those in the tables herein that appear to be similar to the coupling under consideration.

A final check can be achieved by mating with an actual coupling of the same thread.



THREAD ID MATE

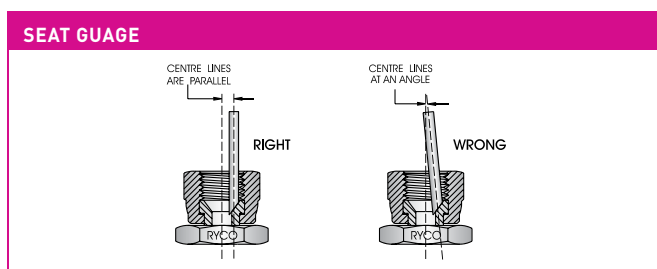
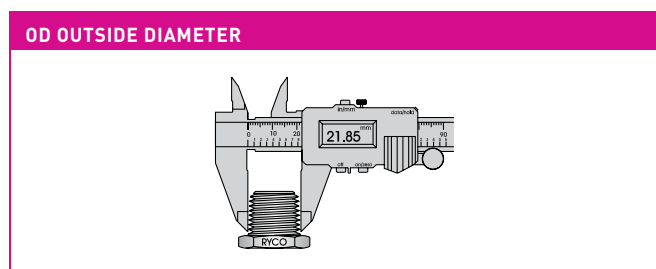
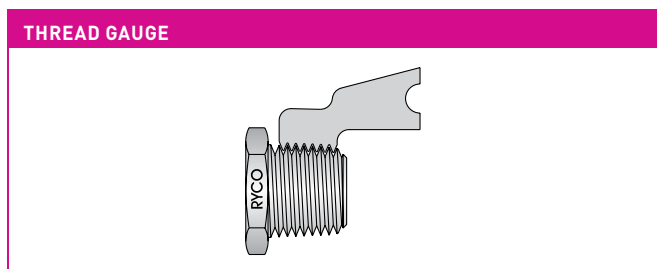
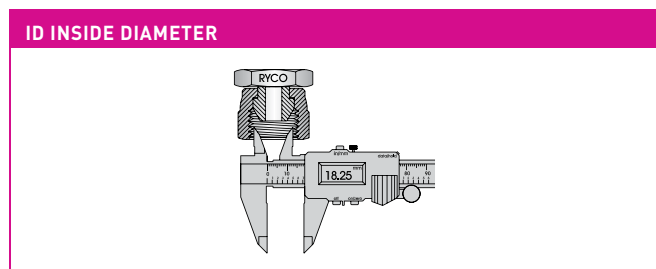
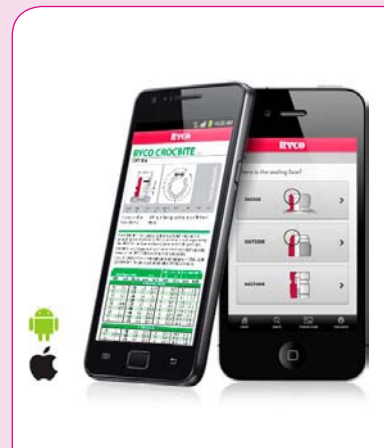
THREAD IDENTIFICATION AT YOUR FINGERTIPS

In 2013, RYCO introduced the Thread ID Mate smartphone app to aid thread identification.

The RYCO Thread ID Mate application enables you to identify hydraulic threads and connectors everywhere you go. The intuitive and simple identification process will help you find detailed information about threads specifications, sizes and more...

The Thread ID Mate app is available for your Android smartphone, iPhone/iPod Touch. Thread identification you can keep in your pocket!

Find out more at www.RYCO.com.au



| | | | | | | | | | | | | | | |
|-------------------------------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|
| TPI (Threads Per Inch) | 28 | 27 | 24 | 20 | 19 | 18 | 16 | 14 | 12 | 11.5 | 11 | 8 | 16.9 | 12.7 |
| Thread PITCH (mm) | 0,91 | 0,94 | 1,06 | 1,27 | 1,34 | 1,4 | 1,59 | 1,81 | 2,12 | 2,21 | 2,31 | 3,18 | 1,5 | 2,0 |

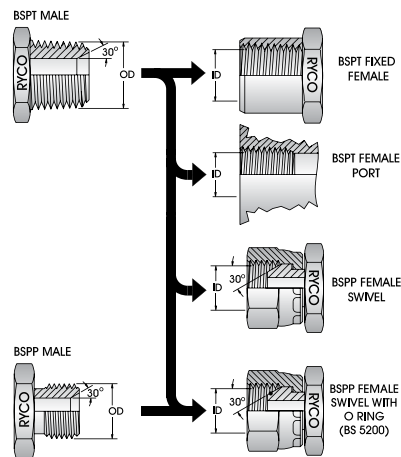
BSPT & BSPP THREADS

| | | | |
|-------------|-----------|---------------------------------------|--|
| BSP | IS | BRITISH STANDARD PIPE | ALSO KNOWN AS WHITWORTH 55° THREAD FORM THREAD FORM PER AS 1722.1, BS 21, ISO 7-1, DIN 3852-2 FORM C (MALE), DIN 3852-2 FORM Z (FEMALE) |
| BSPT | IS | BRITISH STANDARD PIPE TAPER | |
| BSPP | IS | BRITISH STANDARD PIPE PARALLEL | |

BSPT male threads seal against threads of fixed BSPT female. Contact is made on the flanks of the threads. Use of a thread sealant is recommended for BSPT male to BSPT female connections.

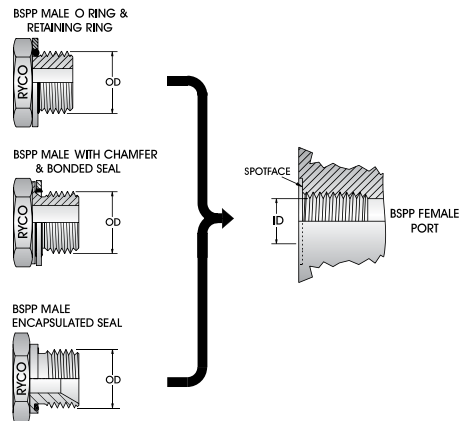
Measure the BSPT male thread OD and female thread ID at the first full thread near the end of the fitting.

BSPT male and BSPP male with conical 30° seat (60° included angle) seal against matching conical 30° seat of BSPP female swivel and BSPP female swivel with O Ring.



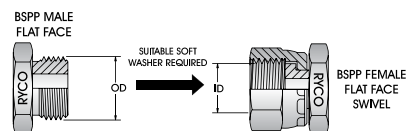
BSPP O Ring male connector has straight threads and O Ring with metal Retaining Ring. It seals against flat external surface of BSPP female port. BSPP male, with chamfer to locate Bonded Seal also seals against flat external surface of BSPP female port.

Surface irregularities require a Spot Face to ensure effective sealing. Elbows and tees have Lock Nut to allow orientation of fitting to required direction.



BSPP male and BSPP female flat face swivel require a suitable soft washer between faces to seal.

For low working pressure.



BSPT & BSPP THREAD DIMENSIONS

| BSPT & BSPP SIZE & PITCH | DASH SIZE | BSPT MALE THREAD OD | | BSPP MALE THREAD OD | | BSPT FEMALE THREAD ID | | BSPP FEMALE THREAD ID | |
|--------------------------|-----------|---------------------|------|---------------------|------|-----------------------|------|-----------------------|------|
| | | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/8 - 28 | -02 | 9,5 | 0.37 | 9,6 | 0.38 | 8,4 | 0.33 | 8,6 | 0.34 |
| 1/4 - 19 | -04 | 12,8 | 0.50 | 13,0 | 0.51 | 11,2 | 0.44 | 11,9 | 0.47 |
| 3/8 - 19 | -06 | 16,3 | 0.64 | 16,5 | 0.65 | 14,7 | 0.59 | 15,2 | 0.60 |
| 1/2 - 14 | -08 | 20,4 | 0.80 | 20,8 | 0.82 | 18,3 | 0.72 | 19,1 | 0.75 |
| 5/8 - 14 | -10 | 22,5 | 0.89 | 22,8 | 0.90 | 20,6 | 0.81 | 20,8 | 0.82 |
| 3/4 - 14 | -12 | 25,9 | 1.02 | 26,3 | 1.04 | 23,9 | 0.94 | 24,6 | 0.97 |
| 1 - 11 | -16 | 32,6 | 1.28 | 33,1 | 1.30 | 29,7 | 1.17 | 30,7 | 1.21 |
| 1.1/4 - 11 | -20 | 41,1 | 1.62 | 41,8 | 1.64 | 38,6 | 1.52 | 39,4 | 1.55 |
| 1.1/2 - 11 | -24 | 47,0 | 1.85 | 47,7 | 1.88 | 44,5 | 1.75 | 45,5 | 1.79 |
| 2 - 11 | -32 | 58,6 | 2.31 | 59,5 | 2.34 | 56,4 | 2.22 | 57,4 | 2.26 |
| 2.1/2 - 11 | -40 | 74,1 | 2.92 | 75,1 | 2.95 | 71,9 | 2.83 | 72,6 | 2.86 |
| 3 - 11 | -48 | 86,6 | 3.41 | 87,9 | 3.46 | 84,6 | 3.33 | 85,4 | 3.36 |

Thread size refers to the nominal bore of the pipe. Subtract approx. 1/4" (6 mm) from thread diameter measurement for nominal pipe size. Pitch is Threads Per Inch (TPI). "Gas", "R" & "G" also refer to BSP. "Male Iron (Pipe)" may be BSP or NPT.

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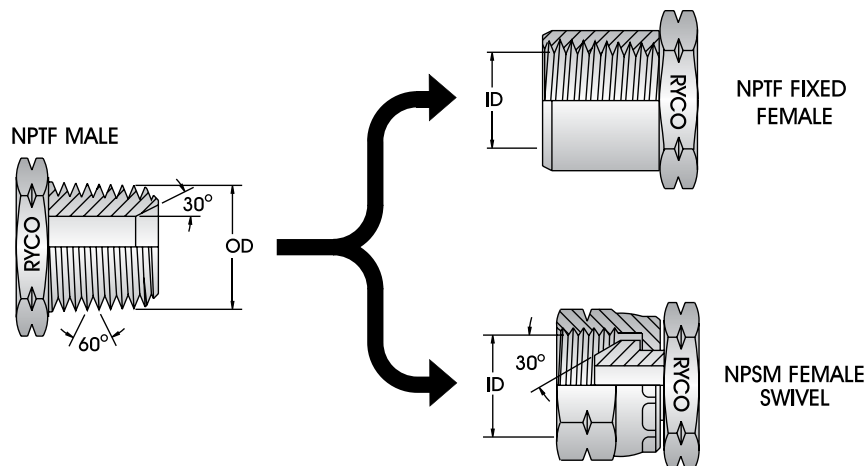
FILTERS

TECHNICAL

NPT & NPS THREADS

| | | | |
|------|----|-----------------------------------|--|
| NPT | IS | NATIONAL PIPE TAPER (AMERICAN) | THREAD FORM PER ANSI/ASME B1.20.1 |
| NPS | IS | NATIONAL PIPE STRAIGHT (PARALLEL) | THREAD FORM PER ANSI/ASME B1.20.1 |
| NPTF | IS | NATIONAL PIPE TAPER FOR FUEL | THREAD FORM PER SAE J476a, ANSI/ASME B1.20.3 |
| NPSM | IS | NATIONAL PIPE STRAIGHT MECHANICAL | THREAD FORM PER ANSI/ASME B1.20.1, SAE J514 |

National Pipe threads are similar in function to BSP threads, but are not generally interchangeable. NPTF threads (also known as Dryseal) are an improvement to NPT. Controlled truncation of threads mean the metal-to-metal thread seal is at root and crest of threads, in addition to flanks of threads. Use of thread sealant is recommended for NPT male and NPT.



Measure NPT male thread OD and NPT female thread ID at first full thread near end of fitting.

NPT THREAD DIMENSIONS

| NPT THREAD SIZE & PITCH | DASH SIZE | MALE THREAD MINOR OD | | FEMALE THREAD ID | |
|-------------------------|-----------|----------------------|------|------------------|------|
| inch - TPI | | mm | inch | mm | inch |
| 1/8 - 27 | -02 | 9,9 | 0.39 | 8,4 | 0.33 |
| 1/4 - 18 | -04 | 13,2 | 0.52 | 11,2 | 0.44 |
| 3/8 - 18 | -06 | 16,6 | 0.65 | 14,7 | 0.58 |
| 1/2 - 14 | -08 | 20,6 | 0.81 | 17,8 | 0.70 |
| 3/4 - 14 | -12 | 26,0 | 1.02 | 23,4 | 0.92 |
| 1 - 11.1/2 | -16 | 32,5 | 1.28 | 29,5 | 1.16 |
| 1.1/4 - 11.1/2 | -20 | 41,2 | 1.62 | 38,1 | 1.50 |
| 1.1/2 - 11.1/2 | -24 | 47,3 | 1.86 | 43,9 | 1.73 |
| 2 - 11.1/2 | -32 | 59,3 | 2.33 | 56,4 | 2.22 |
| 2.1/2 - 8 | -40 | 71,5 | 2.82 | 69,1 | 2.72 |
| 3 - 8 | -48 | 87,3 | 3.44 | 84,8 | 3.34 |

NPSM THREAD DIMENSIONS

| NPSM THREAD SIZE | DASH SIZE | FEMALE THREAD ID | |
|------------------|-----------|------------------|------|
| inch - TPI | | mm | inch |
| 1/8 - 27 | -02 | 8,6 | 0.34 |
| 1/4 - 18 | -04 | 11,9 | 0.47 |
| 3/8 - 18 | -06 | 15,0 | 0.59 |
| 1/2 - 14 | -08 | 19,1 | 0.75 |
| 3/4 - 14 | -12 | 24,6 | 0.97 |
| 1 - 11.1/2 | -16 | 30,5 | 1.20 |
| 1.1/4 - 11.1/2 | -20 | 39,4 | 1.55 |
| 1.1/2 - 11.1/2 | -24 | 45,5 | 1.79 |
| 2 - 11.1/2 | -32 | 57,4 | 2.26 |
| 2.1/2 - 8 | -40 | 68,8 | 2.71 |
| 3 - 8 | -48 | 84,6 | 3.33 |

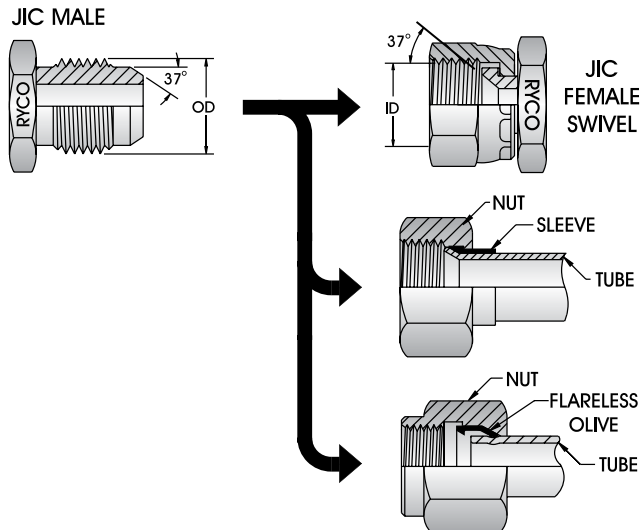
NOTE: Thread size refers to the nominal bore of the pipe.
Subtract approximately 1/4" (6 mm) from thread measurement for nominal pipe size.
Pitch is Threads Per Inch (TPI).

JIC 37° FLARE & UNO (O RING BOSS) THREADS

JIC IS JOINT INDUSTRIES COUNCIL SAE J514, ISO 8434-2
 UN IS UNIFIED NATIONAL SAE J1926, ISO 11926-2

JIC & UNO (O RING BOSS) THREAD FORMS ARE THE SAME (ASME B1.1). METHOD OF SEALING DIFFERS.

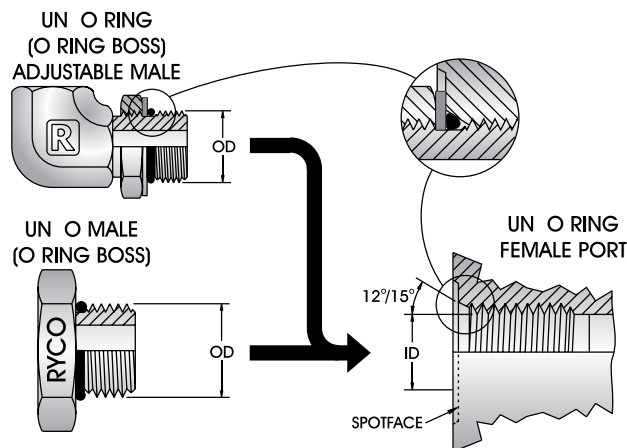
JIC male has 37° flare which seals against 37° seat in female.



JIC male can also seal against 37° flared tubing with JIC nut and sleeve.

JIC male can also be used with RYCO S134 J-Lok Female Nut and Flareless Olive on Imperial OD tubing.

UNO (O Ring Boss) seals with O Ring compressed between hex boss of UN male and 12°/15° tapered bore of UN (O Ring Boss) female port. For elbows and tees, Backup Washer and Lock Nut allow orientation of fitting to required direction.



JIC & UNO THREAD DIMENSIONS

| MALE THREAD OD & PITCH | DASH SIZE | MALE THREAD OD | | FEMALE THREAD ID | | TUBE SIZE |
|------------------------|-----------|----------------|------|------------------|------|-----------|
| inch - TPI | | mm | inch | mm | inch | inch |
| 5/16 - 24 UNF | -05 | 7,9 | 0.31 | 6,9 | 0.27 | 1/8 |
| 3/8 - 24 UNF | -06 | 9,5 | 0.38 | 8,5 | 0.33 | 3/16 |
| 7/16 - 20 UNF | -07 | 11,1 | 0.44 | 9,9 | 0.39 | 1/4 |
| 1/2 - 20 UNF | -08 | 12,7 | 0.50 | 11,4 | 0.45 | 5/16 |
| 9/16 - 18 UNF | -09 | 14,3 | 0.56 | 13,0 | 0.51 | 3/8 |
| 3/4 - 16 UNF | -12 | 19,1 | 0.75 | 17,5 | 0.69 | 1/2 |
| 7/8 - 14 UNF | -14 | 22,2 | 0.88 | 20,3 | 0.80 | 5/8 |
| 1.1/16 - 12 UN | -17 | 27,0 | 1.06 | 24,9 | 0.98 | 3/4 |
| 1.3/16 - 12 UN | -19 | 30,2 | 1.19 | 28,2 | 1.11 | 7/8 |
| 1.5/16 - 12 UN | -21 | 33,3 | 1.31 | 31,2 | 1.23 | 1 |
| 1.5/8 - 12 UN | -26 | 41,3 | 1.63 | 39,1 | 1.54 | 1.1/4 |
| 1.7/8 - 12 UN | -30 | 47,6 | 1.88 | 45,5 | 1.79 | 1.1/2 |
| 2.1/2 - 12 UN | -40 | 63,5 | 2.50 | 61,5 | 2.42 | 2 |

Thread size is actual measurement of male thread and pitch is Threads Per Inch (TPI).

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THREAD AND CONNECTOR IDENTIFICATION

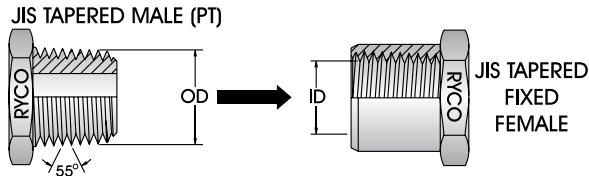
JIS THREADS

JIS IS JAPANESE INDUSTRIAL STANDARDS

There are four popular coupling styles in Japan.

1. JIS TAPERED PIPE THREAD.

Thread form per JIS B 0203 (identical to BSPT)

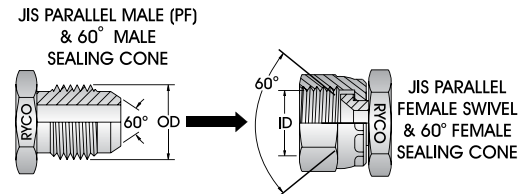


Refer to BSPT section for dimensions of threads.

- The Japanese tapered pipe thread connector is identical to and interchangeable with the BSPT (tapered) connector.
- The Japanese male thread does not have a 30° Flare, and will not mate with the BSPP female swivel with conical seat. The seal on the Japanese tapered pipe thread connector is made on the threads.
- Use of a thread sealant is recommended.

2. JIS 30° FLARE (FEMALE INTERNAL CONE SEAT).

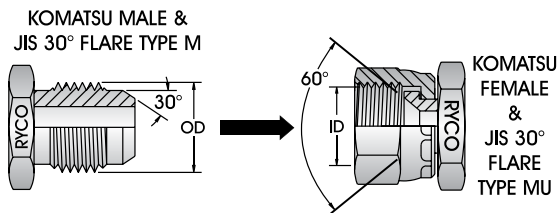
Thread form per JIS B 0202 (identical to BSPP)



Refer to BSPP section for dimensions of threads.

- This connection uses a 60° concave (inverted) seat and British Standard Pipe Parallel threads.
- They are not interchangeable with BSPP conical seat couplings, because the cone seats are opposite.

3. KOMATSU® JIS 30° FLARE (FEMALE INTERNAL CONE SEAT).



Thread form per JIS B 0207

- Threads commonly used on Komatsu equipment (30° cone) have metric thread form. See table opposite.

4. KOMATSU® STYLE FLANGE FITTING JIS B 8363

- The Komatsu® style Flange fitting is nearly identical to, and fully interchangeable with, the SAE Code 61 flange fitting*.
- The O Ring dimensions are different between all sizes.
- When replacing a Komatsu® style flange with an SAE style flange, an SAE style O Ring must always be used.

* 5/8" is not in the SAE Standards.

| MALE THREAD OD & PITCH | DASH SIZE | FEMALE THREAD ID | KOMATSU® | JIS B 8363 |
|------------------------|-----------|------------------|----------|------------|
| mm | | mm | | |
| M14 x 1,5 | -14 | 12,5 | ✓ | ✓ |
| M16 x 1,5 | -16 | 14,5 | ✓ | |
| M18 x 1,5 | -18 | 16,5 | | ✓ |
| M22 x 1,5 | -22 | 20,5 | | ✓ |
| M24 x 1,5 | -24 | 22,5 | ✓ | |
| M27 x 2,0 | -27 | 25,0 | | ✓ |
| M30 x 1,5 | -30 | 28,5 | ✓ | |
| M33 x 1,5 | -33 | 31,5 | ✓ | |
| M33 x 2,0 | -33 | 31,0 | | ✓ |
| M36 x 1,5 | -36 | 34,5 | ✓ | |
| M42 x 1,5 | -42 | 40,5 | ✓ | |
| M50 x 2,0 | -50 | 48,0 | | ✓ |
| M60 x 2,0 | -60 | 58,0 | | ✓ |

BSPT & BSPP THREAD DIMENSIONS

| BSPT & BSPP SIZE & PITCH | DASH SIZE | BSPT MALE THREAD OD | | BSPP MALE THREAD OD | | BSPT FEMALE THREAD ID | | BSPP FEMALE THREAD ID | |
|--------------------------|-----------|---------------------|------|---------------------|------|-----------------------|------|-----------------------|------|
| | | mm | inch | mm | inch | mm | inch | mm | inch |
| 1/8 - 28 | -02 | 9,5 | 0.37 | 9,6 | 0.38 | 8,4 | 0.33 | 8,6 | 0.34 |
| 1/4 - 19 | -04 | 12,8 | 0.50 | 13,0 | 0.51 | 11,2 | 0.44 | 11,9 | 0.47 |
| 3/8 - 19 | -06 | 16,3 | 0.64 | 16,5 | 0.65 | 14,7 | 0.59 | 15,2 | 0.60 |
| 1/2 - 14 | -08 | 20,4 | 0.80 | 20,8 | 0.82 | 18,3 | 0.72 | 19,1 | 0.75 |
| 5/8 - 14 | -10 | 22,5 | 0.89 | 22,8 | 0.90 | 20,6 | 0.81 | 20,8 | 0.82 |
| 3/4 - 14 | -12 | 25,9 | 1.02 | 26,3 | 1.04 | 23,9 | 0.94 | 24,6 | 0.97 |
| 1 - 11 | -16 | 32,6 | 1.28 | 33,1 | 1.30 | 29,7 | 1.17 | 30,7 | 1.21 |
| 1.1/4 - 11 | -20 | 41,1 | 1.62 | 41,8 | 1.64 | 38,6 | 1.52 | 39,4 | 1.55 |
| 1.1/2 - 11 | -24 | 47,0 | 1.85 | 47,7 | 1.88 | 44,5 | 1.75 | 45,5 | 1.79 |
| 2 - 11 | -32 | 58,6 | 2.31 | 59,5 | 2.34 | 56,4 | 2.22 | 57,4 | 2.26 |
| 2.1/2 - 11 | -40 | 74,1 | 2.92 | 75,1 | 2.95 | 71,9 | 2.83 | 72,6 | 2.86 |
| 3 - 11 | -48 | 86,6 | 3.41 | 87,9 | 3.46 | 84,6 | 3.33 | 85,4 | 3.36 |

Thread size refers to the nominal bore of the pipe. Subtract approx. 1/4" (6 mm) from thread diameter measurement for nominal pipe size.

Pitch is Threads Per Inch (TPI).

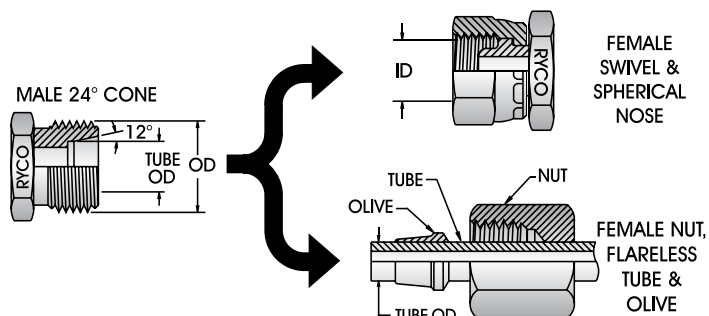
"Gas", "R" & "G" also refer to BSP. "Male Iron (Pipe)" may be BSP or NPT.

METRIC FRENCH GAZ ALSO KNOWN AS METRIC FRENCH GAZ 24°

These seal on a 24° cone seat located internally on the male connector using straight fine metric threads. Metric French GAZ series uses fractional number metric OD tubing, as shown in the table. Metric French Millimetric series uses whole number metric OD tubing. The two series are not interconnectable.

The male will mate with a straight thread female swivel with spherical nose seat.

The same male also mates with flareless tube, Tube Nut and Compression Olive (Cutting Ring). Tightening of the female nut compresses the olive causing it cut into the tube, thereby forming a seal between the tube, olive and 24° male cone.



| MALE THREAD OD & PITCH | DASH SIZE | MALE THREAD OD | | FEMALE THREAD ID | | TUBE SIZE |
|------------------------|-----------|----------------|------|------------------|------|-----------|
| inch - TPI | | mm | inch | mm | inch | mm |
| M20 x 1,5 | -20 | 20,0 | 0.78 | 18,5 | 0.72 | 13,25 |
| M24 x 1,5 | -24 | 24,0 | 0.94 | 22,5 | 0.88 | 16,75 |
| M30 x 1,5 | -30 | 30,0 | 1.18 | 28,5 | 1.12 | 21,25 |
| M36 x 1,5 | -36 | 36,0 | 1.41 | 34,5 | 1.35 | 26,75 |
| M45 x 1,5 | -45 | 45,0 | 1.77 | 43,5 | 1.71 | 33,50 |
| M52 x 1,5 | -52 | 52,0 | 2.04 | 50,5 | 1.98 | 42,25 |

METRIC FRENCH MILLIMETRIC ALSO KNOWN AS METRIC MILLIMETRIC

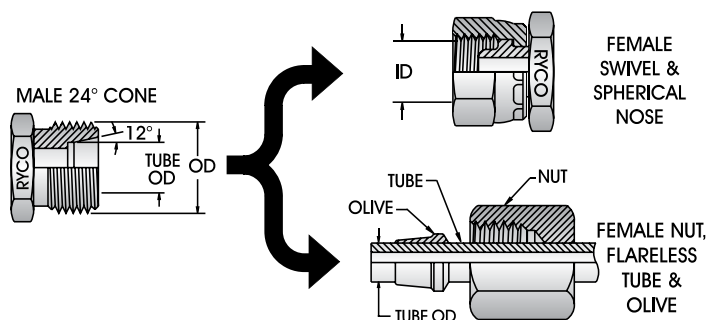
These seal on a 24° cone seat located internally on the male connector using straight fine metric threads.

Metric French GAZ series uses fractional number metric OD tubing, as shown in the table.

Metric French Millimetric series uses whole number metric OD tubing. The two series are not interconnectable.

The male will mate with a straight thread female swivel with spherical nose seat.

The same male also mates with flareless tube, Tube Nut and Compression Olive (Cutting Ring). Tightening of the female nut compresses the olive causing it cut into the tube, thereby forming a seal between the tube, olive and 24° male cone.



| MALE THREAD OD & PITCH | DASH SIZE | MALE THREAD OD | | FEMALE THREAD ID | | TUBE SIZE |
|------------------------|-----------|----------------|------|------------------|------|-----------|
| inch - TPI | | mm | inch | mm | inch | mm |
| M27 x 1,5 | -27 | 27,0 | 1.06 | 25,5 | 1.00 | 20 |
| M30 x 1,5 | -30 | 30,0 | 1.18 | 28,5 | 1.12 | 22 |
| M33 x 1,5 | -33 | 33,0 | 1.30 | 31,5 | 1.24 | 25 |
| M36 x 1,5 | -36 | 36,0 | 1.41 | 34,5 | 1.35 | 28 |
| M39 x 1,5 | -39 | 39,0 | 1.54 | 37,5 | 1.48 | 30 |
| M45 x 1,5 | -45 | 45,0 | 1.77 | 43,5 | 1.71 | 35 |

METRIC DIN THREADS

DIN IS DEUTSCHE INDUSTRIE NORMEN (GERMAN INDUSTRIAL STANDARD) 24° CONE SEAT PER DIN 3861, ISO 8434-1/DIN 2353 O RING SEAL PER DIN 3865, BONDED SEAL AND PORT PER DIN 3852-1

| | | |
|----------------|----------------------------------|--|
| DKL IS | DICHT KEGEL LEICHT | (METRIC LIGHT SERIES 24° CONE) |
| DKS IS | DICHT KEGEL SCHWER | (METRIC HEAVY SERIES 24° CONE) |
| DKOL IS | DICHT KEGEL O RING LEICHT | (METRIC LIGHT O RING SERIES 24° CONE) |
| DKOS IS | DICHT KEGEL O RING SCHWER | (METRIC HEAVY O RING SERIES 24° CONE) |
| DKM IS | DICHT KEGEL METRIC | (METRIC 60° CONE) |

This DIN connection comes in a Light Series (DKL/DKOL) and a Heavy Series (DKS/DKOS). Some thread sizes in each series are the same, but the Tube OD of the Heavy Series is smaller and has a thicker tube wall. Because the tube and sealing cone are different sizes, Light and Heavy Series are NOT interchangeable.

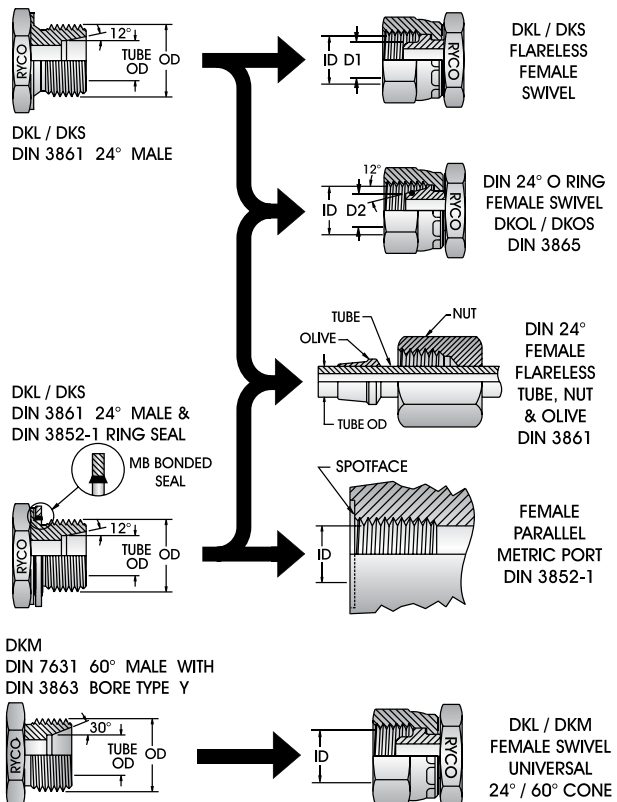
The DIN male 24° internal cone seat will seal with flareless female swivel fittings. These female fittings use either a spherical nose (DKL/DKS) or an O Ring seal (DKOL/DKOS) located on their outward facing 24° cone. Female DKL sizes up to and including M26 have a universal 24°/60° cone and can be used in place of female DKM fittings with 60° cone.

The same male also mates with the DIN system Metric Tube, Tube Nut and Compression Olive (Cutting Ring). Tightening of the female nut compresses the olive causing it to cut into the tube, thereby forming a seal between the tube, olive and 24° male cone.

The same male used with a metal Bonded Seal will mate with a DIN 3852-1 metric threaded port with spotface.

DKM 60° CONE SEAT

The DIN male 60° internal cone seat will mate with DKL/DKM female universal 24°/60° cone fittings up to and including size M26 and DKM female 60° cone fittings from size M30 up.



| MALE THREAD OD & PITCH | FEMALE THREAD ID | LIGHT SERIES - DKL/DKOL | | | | HEAVY SERIES - DKS/DKOS | | | |
|------------------------|------------------|-------------------------|---------|--------|--------|-------------------------|---------|--------|--------|
| | | DASH SIZE | TUBE OD | D1 DIA | D2 DIA | DASH SIZE | TUBE OD | D1 DIA | D2 DIA |
| mm | mm | | mm | mm | mm | | mm | mm | mm |
| M12 x 1,5 | 10,5 | -1215* | 6 | 7,5 | 6,3 | | | | |
| M14 x 1,5 | 12,5 | -1415* | 8 | 9,5 | 8,2 | -1415 | 6 | 7,5 | 6,3 |
| M16 x 1,5 | 14,5 | -1615* | 10 | 11,5 | 10,2 | -1615 | 8 | 9,5 | 7,9 |
| M18 x 1,5 | 16,5 | -1815* | 12 | 14,0 | 12,2 | -1815 | 10 | 12,0 | 10,0 |
| M20 x 1,5 | 18,5 | | | | | -2015 | 12 | 14,0 | 12,0 |
| M22 x 1,5 | 20,5 | -2215* | 15 | 17,0 | 15,2 | -2215 | 14 | 16,0 | 14,2 |
| M24 x 1,5 | 22,5 | | | | | -2415 | 16 | 18,0 | 15,8 |
| M26 x 1,5 | 24,5 | -2615* | 18 | 20,0 | 18,2 | | | | |
| M30 x 2,0 | 28,0 | -3020 | 22 | 24,5 | 22,2 | -3020 | 20 | 22,5 | 19,8 |
| M36 x 2,0 | 34,0 | -3620 | 28 | 30,5 | 28,2 | -3620 | 25 | 27,5 | 24,5 |
| M42 x 2,0 | 40,0 | | | | | -4220 | 30 | 33,0 | 30,0 |
| M45 x 2,0 | 43,0 | -4520 | 35 | 38,0 | 35,4 | | | | |
| M52 x 2,0 | 50,0 | -5220 | 42 | 45,0 | 42,4 | -5220 | 38 | 41,0 | 36,8 |

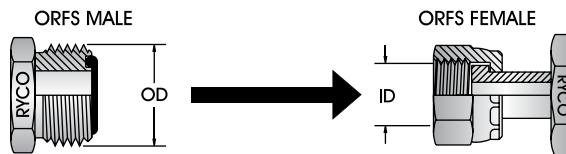
*These DKL Light Series Female Connections can be used in place of DKM Female.
NOTE: in above tables, pitch is included in DASH Size.
 For HOSE COUPLINGS and most ADAPTORS, pitch is not included in the DASH Size.

ORFS THREADS SAE J1453, ISO 8434-3
ORFS IS O RING FACE SEAL

ORFS system consists of ORFS Male with O Ring in Face, which seals against Flat Seated ORFS Female Swivel Nut fitting.

The Swivel Nut can be slipped back to help installation in tight situations.

The prominent position of the O Ring on the Male fitting makes it easy to inspect the condition of the O Ring.



| MALE THREAD OD & PITCH | DASH SIZE | MALE THREAD OD | | FEMALE THREAD ID | | TUBE SIZE |
|---------------------------|--------------|-------------------|------|---------------------|------|--------------|
| inch - TPI | | mm | inch | mm | inch | inch |
| 9/16 - 18 UNF | -09 | 14,3 | 0.56 | 12,9 | 0.51 | 1/4 |
| 11/16 - 16 UN | -11 | 17,3 | 0.68 | 16,0 | 0.63 | 3/8 |
| 13/16 - 16 UN | -13 | 20,6 | 0.81 | 19,1 | 0.75 | 1/2 |
| 1 - 14 UNS | -16 | 25,4 | 1.00 | 23,6 | 0.73 | 5/8 |
| 1.3/16 - 12 UN | -19 | 30,0 | 1.18 | 28,2 | 1.11 | 3/4 |
| 1.7/16 - 12 UN | -23 | 36,3 | 1.43 | 34,3 | 1.35 | 1 |
| 1.11/16 - 12 UN | -27 | 42,7 | 1.68 | 40,6, | 1.60 | 1.1/4 |
| 2 - 12 UN | -32 | 51,8 | 2.00 | 48,8 | 1.92 | 1.1/2 |

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SAE THREADS

SAE IS SOCIETY OF AUTOMOTIVE ENGINEERS

These fittings are commonly used in refrigeration, automotive and low pressure applications.

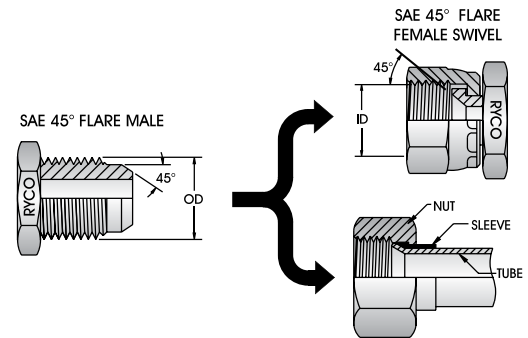
SAE 45° FLARE SAE J512

SAE male has 45° flare which seals against 45° seat in female.

Male can also seal against 45° flared tubing with nut and sleeve.

7/16 - 20, 1/2 - 20, 3/4 - 16 & 7/8 - 14 are the same thread form as JIC 37° flare. Some fittings in these sizes have both JIC 37° & SAE 45° seats.

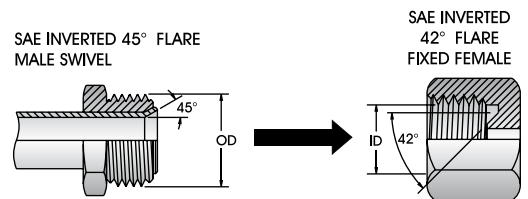
| MALE THREAD OD & PITCH | DASH SIZE | MALE THREAD OD | | FEMALE THREAD ID | | TUBE SIZE |
|------------------------|-----------|----------------|------|------------------|------|-----------|
| inch - TPI | | mm | inch | mm | inch | inch |
| 5/16 - 24 | -05 | 7,9 | 0.31 | 6,8 | 0.27 | 1/8 |
| 3/8 - 24 | -06 | 9,5 | 0.38 | 8,4 | 0.33 | 3/16 |
| 7/16 - 20 | -07 | 11,1 | 0.44 | 9,9 | 0.39 | 1/4 |
| 1/2 - 20 | -08 | 12,7 | 0.50 | 11,4 | 0.44 | 5/16 |
| 5/8 - 18 | -10 | 15,9 | 0.63 | 14,2 | 0.56 | 3/8 |
| 3/4 - 16 | -12 | 19,1 | 0.75 | 17,5 | 0.69 | 1/2 |
| 7/8 - 14 | -14 | 22,2 | 0.88 | 20,6 | 0.81 | 5/8 |
| 1.1/16 - 14 | -17 | 27,0 | 1.06 | 24,9 | 0.98 | 3/4 |



SAE 45° INVERTED FLARE

SAE J512

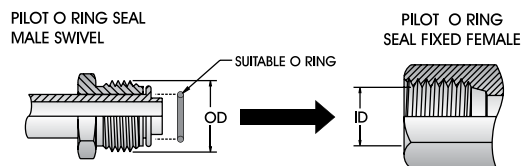
| MALE THREAD OD & PITCH | DASH SIZE | MALE THREAD OD | | FEMALE THREAD ID | | TUBE SIZE |
|------------------------|-----------|----------------|------|------------------|------|-----------|
| inch - TPI | | mm | inch | mm | inch | inch |
| 7/16 - 24 | -07 | 11,1 | 0.44 | 9,9 | 0.39 | 1/4 |
| 1/2 - 20 | -08 | 12,7 | 0.50 | 11,4 | 0.45 | 5/16 |
| 5/8 - 18 | -10 | 15,9 | 0.63 | 14,2 | 0.56 | 3/8 |
| 11/16 - 18 | -11 | 17,5 | 0.69 | 16,0 | 0.63 | 7/16 |



SAE PILOT O RING SEALS

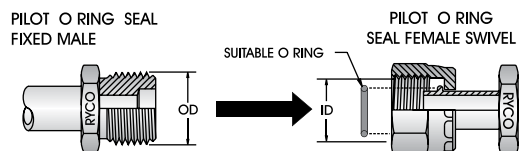
PILOT MALE SWIVEL

| MALE THREAD OD & PITCH | DASH SIZE | MALE THREAD OD | | FEMALE THREAD ID | | TUBE SIZE |
|------------------------|-----------|----------------|------|------------------|------|-----------|
| inch - TPI | | mm | inch | mm | inch | Dash |
| 5/8 - 18 | -10 | 15,9 | 0.63 | 14,2 | 0.56 | -6 |
| 3/4 - 18 | -12 | 19,0 | 0.75 | 17,8 | 0.70 | -8 |
| 7/8 - 18 | -14 | 22,2 | 0.88 | 20,6 | 0.81 | -10 |



PILOT FEMALE SWIVEL

| MALE THREAD OD & PITCH | DASH SIZE | MALE THREAD OD | | FEMALE THREAD ID | | TUBE SIZE |
|------------------------|-----------|----------------|------|------------------|------|-----------|
| inch - TPI | | mm | inch | mm | inch | Dash |
| 5/8 - 18 | -10 | 15,9 | 0.63 | 14,2 | 0.56 | -6 |
| 3/4 - 16 | -12 | 19,0 | 0.75 | 17,5 | 0.69 | -8 |
| 7/8 - 14 | -14 | 22,2 | 0.88 | 20,6 | 0.81 | -10 |



THREAD AND CONNECTOR IDENTIFICATION

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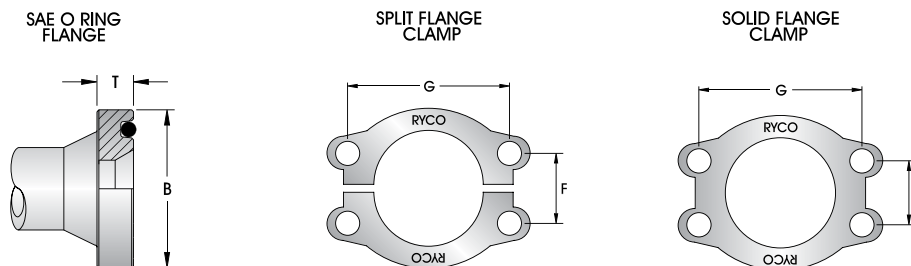
ADAPTORS

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SAE O RING FLANGE - CODE 61 & CODE 62 SAE J518, ISO 6162
RYCO O RING FLANGE - CODE 62C



The male connector has a flange head with an O Ring groove on the face. The female can be a flange block or port with smooth face to accept the O Ring, and four threaded bolt holes in a rectangular pattern. The connection is held together using either a split or solid flange clamp, fitted over the male flange head and drawn up to the female port using the four bolts. This compresses the O Ring forming a seal between the male flange and the flat female port face.

SAE J518, DIN 20066, ISO/DIS 6162 and JIS B 8363 are all interchangeable, except for bolt sizes.

| NOM. FLANGE SIZE | DASH SIZE | BØ | | T | | F | | G | | PORT THREAD & BOLT LENGTH | | | |
|----------------------|-----------|-------|------|-------|-------|------|------|-------|------|---------------------------|-------------|------------|------|
| | | mm | inch | mm | inch | mm | inch | mm | inch | PORT | BOLT LENGTH | PORT | BOLT |
| inch | | mm | inch | mm | inch | mm | inch | mm | inch | UNC | inch | METRIC | mm |
| CODE 61 | | | | | | | | | | | | | |
| 1/2 | -08 | 30,2 | 1.19 | 6,73 | 0.265 | 17,5 | 0.69 | 38,1 | 1.50 | 5/16 - 18 | 1.1/4 | M8 x 1,25 | 35 |
| *5/8 | -10 | 34,0 | 1.34 | 6,73 | 0.265 | 19,8 | 0.78 | 42,9 | 1.69 | 5/16 - 18 | | M8 x 1,25 | |
| 3/4 | -12 | 38,1 | 1.50 | 6,73 | 0.265 | 22,2 | 0.88 | 47,6 | 1.88 | 3/8 - 16 | 1.1/4 | M10 x 1,5 | 35 |
| 1 | -16 | 44,5 | 1.75 | 8,00 | 0.315 | 26,2 | 1.03 | 52,4 | 2.06 | 3/8 - 16 | 1.1/4 | M10 x 1,5 | 35 |
| 1.1/4 | -20 | 50,8 | 2.00 | 8,00 | 0.315 | 30,2 | 1.19 | 58,7 | 2.31 | 7/16 - 14 | 1.1/2 | M10 x 1,5 | 40 |
| 1.1/2 | -24 | 60,3 | 2.38 | 8,00 | 0.315 | 35,7 | 1.41 | 69,8 | 2.75 | 1/2 - 13 | 1.1/2 | M12 x 1,75 | 45 |
| 2 | -32 | 71,4 | 2.81 | 9,53 | 0.375 | 42,9 | 1.69 | 77,8 | 3.06 | 1/2 - 13 | 1.1/2 | M12 x 1,75 | 45 |
| 2.1/2 | -40 | 84,1 | 3.31 | 9,53 | 0.375 | 50,8 | 2.00 | 88,9 | 3.50 | 1/2 - 13 | 1.3/4 | M12 x 1,75 | 45 |
| 3 | -48 | 101,6 | 4.00 | 9,53 | 0.375 | 61,9 | 2.44 | 106,4 | 4.19 | 5/8 - 11 | 1.3/4 | M16 x 2,0 | 45 |
| CODE 62 | | | | | | | | | | | | | |
| 1/2 | -08 | 31,7 | 1.25 | 7,75 | 0.305 | 18,2 | 0.72 | 40,5 | 1.59 | 5/16 - 18 | 1.1/4 | M8 x 1,25 | 35 |
| 3/4 | -12 | 41,3 | 1.63 | 8,76 | 0.345 | 23,8 | 0.94 | 50,8 | 2.00 | 3/8 - 16 | 1.1/2 | M10 x 1,5 | 40 |
| 1 | -16 | 47,6 | 1.88 | 9,53 | 0.375 | 27,8 | 1.09 | 57,2 | 2.25 | 7/16 - 14 | 1.3/4 | M12 x 1,75 | 45 |
| 1.1/4 | -20 | 54,0 | 2.12 | 10,29 | 0.405 | 31,8 | 1.25 | 66,7 | 2.63 | 1/2 - 13 | 1.3/4 | M14 x 2,0 | 45 |
| 1.1/2 | -24 | 63,5 | 2.50 | 12,57 | 0.495 | 36,5 | 1.44 | 79,4 | 3.13 | 5/8 - 11 | 2.1/4 | M16 x 2,0 | 60 |
| 2 | -32 | 79,4 | 3.13 | 12,57 | 0.495 | 44,5 | 1.75 | 96,8 | 3.81 | 3/4 - 10 | 2.3/4 | M20 x 2,5 | 70 |
| RYCO CODE 62C | | | | | | | | | | | | | |
| 3/4 | -12 | 41,3 | 1.63 | 14,20 | 0.559 | 23,8 | 0.94 | 50,8 | 2.00 | 3/8 - 16 | 1.3/4 | M10 x 1,5 | 45 |
| 1 | -16 | 47,6 | 1.88 | 14,20 | 0.599 | 27,8 | 1.09 | 57,2 | 2.25 | 7/16 - 14 | 1.3/4 | M12 x 1,75 | 45 |
| 1.1/4 | -20 | 54,0 | 2.12 | 14,20 | 0.599 | 31,8 | 1.25 | 66,7 | 2.63 | 1/2 - 13 | 2 | M14 x 2,0 | 50 |
| 1.1/2 | -24 | 63,5 | 2.5 | 14,20 | 0.599 | 36,5 | 1.44 | 79,4 | 3.13 | 5/8 - 11 | 2.1/2 | M16 x 2,0 | 60 |
| 2 | -32 | 79,4 | 3.13 | 14,20 | 0.599 | 44,5 | 1.75 | 96,8 | 3.81 | 3/4 - 10 | 2.3/4 | M20 x 2,5 | 70 |

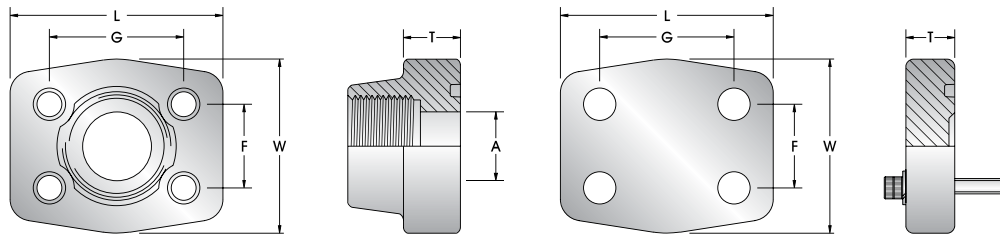
RYCO Code 62C fittings conform to the flange OD and bolt hole patterns of SAE Code 62 but require special flange clamp halves. The RYCO Code 62C flange heads are thicker than SAE Code 62 and measure T = 14,2 mm (0.559") in all sizes. RYCO Code 62C flanges have similar dimensions to the Caterpillar XT-5 and XT-6 range of flanges. Cat™ Caterpillar®, XT-5™, XT-6™ Caterpillar®. *5/8 is used by Komatsu.

TECHNICAL

THREAD AND CONNECTOR IDENTIFICATION

SAE O RING FLANGE BLOCKS - CODE 61 & CODE 62

SAE J518, ISO 6162



| NOM. FLANGE SIZE | DASH SIZE | L | | W | | F | | G | | A | | T EXCEPT BLIND FLANGES | | T T BLIND FLANGES S967/S968 | |
|------------------|-----------|------|------|------|------|------|------|------|------|------|------|------------------------|------|-----------------------------|------|
| | | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch | mm |
| CODE 61 | | | | | | | | | | | | | | | |
| 1/2 | -08 | 56 | 2.20 | 48 | 1.89 | 17,5 | 0.69 | 38,1 | 1.50 | 13 | 0.51 | 16 | 0.63 | 16 | 0.63 |
| 3/4 | -12 | 65 | 2.56 | 50 | 1.97 | 22,2 | 0.88 | 47,6 | 1.88 | 19 | 0.75 | 18 | 0.71 | 16 | 0.63 |
| 1 | -16 | 70 | 2.76 | 60 | 2.36 | 26,2 | 1.03 | 52,4 | 2.06 | 25 | 0.98 | 18 | 0.71 | 19 | 0.75 |
| 1.1/4 | -20 | 79 | 3.11 | 68 | 2.68 | 30,2 | 1.19 | 58,7 | 2.31 | 32 | 1.26 | 21 | 0.83 | 18 | 0.71 |
| 1.1/2 | -24 | 93 | 3.66 | 78 | 3.07 | 35,7 | 1.41 | 69,8 | 3.06 | 38 | 1.50 | 25 | 0.98 | 20 | 0.79 |
| 2 | -32 | 102 | 4.02 | 90 | 3.54 | 42,9 | 1.69 | 77,8 | 3.50 | 51 | 2.01 | 25 | 0.98 | 20 | 0.79 |
| CODE 62 | | | | | | | | | | | | | | | |
| 3/4 | -12 | 71 | 2.80 | 60 | 2.36 | 23,8 | 0.94 | 50,8 | 2.00 | 19 | 0.75 | 21 | 0.83 | 19 | 0.75 |
| 1 | -16 | 81 | 3.19 | 70 | 2.76 | 27,8 | 1.09 | 57,2 | 2.25 | 25 | 0.98 | 25 | 0.98 | 24 | 0.94 |
| 1.1/4 | -20 | 95 | 3.74 | 78 | 3.07 | 31,8 | 1.25 | 66,7 | 2.63 | 32 | 1.26 | 27 | 1.06 | 27 | 1.06 |
| 1.1/2 | -24 | 112 | 4.41 | 94 | 3.70 | 36,5 | 1.44 | 79,4 | 3.13 | 38 | 1.50 | 30 | 1.18 | 30 | 1.18 |
| 2 | -32 | 134 | 5.28 | 114 | 4.49 | 44,5 | 1.75 | 96,8 | 3.81 | 51 | 2.01 | 37 | 1.46 | 28 | 1.10 |

| NOM. FLANGE SIZE | DASH SIZE | SOCKET HEAD CAP SCREW (THREAD X LENGTH) | |
|------------------|-----------|---|---------------|
| | | UNC x inch | METRIC x mm |
| CODE 61 | | | |
| 1/2 | -08 | 5/16 - 18 x 1.1/4 | M8x1,25 X 30 |
| 3/4 | -12 | 3/8 - 16 x 1.1/2 | M10x1,5 X 35 |
| 1 | -16 | 3/8 - 16 x 1.1/2 | M10x1,5 X 35 |
| 1.1/4 | -20 | 7/16 - 14 x 1.3/4 | M10x1,5 X 40 |
| 1.1/2 | -24 | 1/2 - 13 x 1.3/4 | M12x1,75 X 45 |
| 2 | -32 | 1/2 - 13 x 1.3/4 | M12x1,75 X 45 |
| CODE 62 | | | |
| 3/4 | -12 | 3/8 - 16 x 1.1/2 | M10x1,5 X 40 |
| 1 | -16 | 7/16 - 14 x 1.3/4 | M12x1,75 X 45 |
| 1.1/4 | -20 | 1/2 - 13 x 1.3/4 | M14x2,0 X 45 |
| 1.1/2 | -24 | 5/8 - 11 x 2 | M16x2,0 X 50 |
| 2 | -32 | 3/4 - 10 x 2.1/2 | M20x2,5 X 70 |

THREAD AND CONNECTOR IDENTIFICATION

RYCO CROCBITE - MINE SAFE CONNECTION SYSTEM

The CROCBITE male uses a rubber seal which seals on the smooth bore of the female. The connection is held together by the CROCTAIL and cannot be disconnected under pressure.

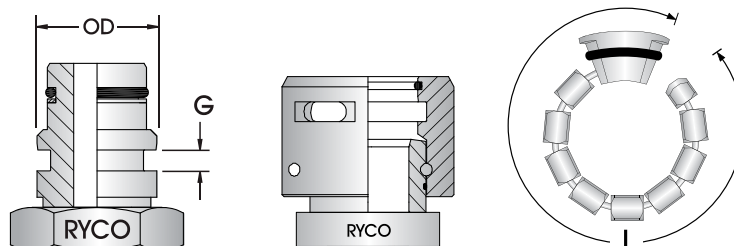
CROCBITE High Pressure and High Flow series' are not interchangeable, however the CROCTAIL is common for both series.

-10 & -12 CROCBITE male & female can interchange with STAPLELOK.

-20 CROCBITE female can connect with STAPLELOK male.

Sealing method: O Ring & Backup washer, or profiled seal

Thread form: None



| NOMINAL SIZE | | | OD | | GROOVE WIDTH | | CROCTAIL LENGTH | |
|----------------------|-------|------|-----|------|--------------|------|-----------------|------|
| DN | inch | Dash | mm | inch | mm | inch | mm | inch |
| HIGH PRESSURE | | | | | | | | |
| 10 | 3/8 | -10 | 20 | 0.79 | 5 | 0.20 | 65 | 2.6 |
| 12 | 1/2 | -12 | 24 | 0.94 | 5 | 0.20 | 75 | 3.0 |
| 19 | 3/4 | -20 | 29 | 1.14 | 5 | 0.20 | 95 | 3.7 |
| 25 | 1 | -25 | 40 | 1.57 | 6 | 0.24 | 130 | 5.1 |
| 31 | 1.1/4 | -32 | 47 | 1.85 | 6 | 0.24 | 160 | 6.3 |
| 38 | 1.1/2 | -40 | 56 | 2.20 | 6 | 0.24 | 190 | 7.5 |
| 51 | 2 | -50 | 68 | 2.68 | 10 | 0.39 | 210 | 8.3 |
| 63 | 2.1/2 | -63 | 88 | 3.46 | 10 | 0.39 | 250 | 9.8 |
| 76 | 3 | -75 | 100 | 3.94 | 10 | 0.39 | 300 | 11.8 |
| HIGH FLOW | | | | | | | | |
| 51 | 2 | -50 | 69 | 2.72 | 10 | 0.39 | 210 | 8.3 |
| 63 | 2.1/2 | -63 | 89 | 3.50 | 10 | 0.39 | 250 | 9.8 |
| 76 | 3 | -75 | 101 | 3.98 | 10 | 0.39 | 300 | 11.8 |

420 BAR

1,000,000+ IMPULSE CYCLES

CONFORMS WITH THE REQUIREMENTS OF MDG 41



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THREAD AND CONNECTOR IDENTIFICATION

RYCO RKV

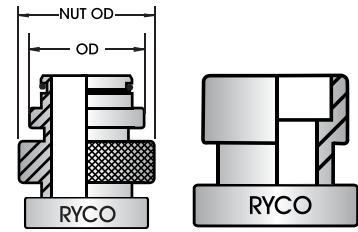
The RKV male uses a O Ring and a backup washer which seals on the smooth bore of the female. The connection is held together by the shell and positively retained by the lock nut.

RKV High Pressure (RKVP) and High Flow (RKVF) series' are not interchangeable (including the shell).

* For various adaptors, the Lock Nut OD may vary from standard (Coupling Lock Nut) OD to the values as listed.

Sealing method: O Ring & Backup washer

Thread form: None



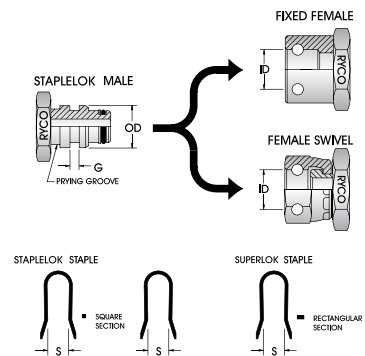
| NOMINAL SIZE | | | OD | | NUT OD | | | |
|-----------------------------|-------|------|------|------|----------|------|----------|------|
| DN | inch | Dash | mm | inch | COUPLING | | ADAPTOR* | |
| DN | inch | Dash | mm | inch | mm | inch | mm | inch |
| HIGH PRESSURE - RKVP | | | | | | | | |
| 10 | 3/8 | -10 | 20 | 0.79 | 25 | 0.98 | 29 | 1.14 |
| 12 | 1/2 | -12 | 24 | 0.94 | 30 | 1.18 | 34 | 1.34 |
| 19 | 3/4 | -20 | 30 | 1.18 | 40 | 1.57 | 40 | 1.57 |
| 25 | 1 | -25 | 36 | 1.42 | 46 | 1.81 | 46 | 1.81 |
| 31 | 1.1/4 | -32 | 44 | 1.73 | 52 | 2.05 | 59 | 2.32 |
| 38 | 1.1/2 | -40 | 54 | 2.13 | 64 | 2.52 | 72 | 2.83 |
| 51 | 2 | -50 | 70 | 2.76 | 78 | 3.07 | 85 | 3.35 |
| 63 | 2.1/2 | -63 | 84 | 3.31 | 98 | 3.86 | 110 | 4.33 |
| HIGH FLOW - RKVF | | | | | | | | |
| 25 | 1 | -25 | 33 | 1.30 | 42 | 1.65 | 42 | 1.65 |
| 31 | 1.1/4 | -32 | 39.8 | 1.57 | 50 | 1.97 | 50 | 1.97 |
| 38 | 1.1/2 | -40 | 53 | 2.09 | 64 | 2.52 | 72 | 2.83 |
| 51 | 2 | -50 | 65 | 2.56 | 75 | 2.95 | 80 | 3.15 |
| 63 | 2.1/2 | -63 | 75 | 2.95 | 85 | 3.35 | 90 | 3.54 |
| 76 | 3 | -75 | 99.3 | 3.91 | 110 | 4.33 | 125 | 4.92 |

STAPLELOK SAE J1467

SUPERLOK

STAPLELOK ARE ALSO CALLED CLIP FASTENER & STAPLE

The STAPLELOK male connector uses an O Ring and backup washer, and seals on the smooth bore of the female. The connection is held together by the staple. The male staple groove (G) aligns with the drilled holes of the female allowing the staple to be inserted. STAPLELOK and SUPERLOK use different width staples and are therefore NOT interchangeable.



| NOMINAL SIZE | | | NOM. MALE OD & FEMALE ID | | STAPLELOK STAPLE SIZE | | | | SUPERLOK STAPLE SIZE | | | |
|--------------|-------|------|--------------------------|------|-----------------------|------|----|------|----------------------|------|----|------|
| DN | inch | Dash | mm | inch | G | G | S | S | G | G | S | S |
| DN | inch | Dash | mm | inch | mm | inch | mm | inch | mm | inch | mm | inch |
| 6 | 1/4 | -06 | 15 | 0.59 | 5,1 | 0.2 | 8 | 0.31 | - | - | - | - |
| 10 | 3/8 | -10 | 20 | 0.79 | 5,1 | 0.2 | 13 | 0.51 | - | - | - | - |
| 12 | 1/2 | -13 | 24 | 0.94 | 5,1 | 0.2 | 17 | 0.67 | - | - | - | - |
| 16 | 5/8 | -16 | 26 | 1.02 | 5,1 | 0.2 | 19 | 0.75 | - | - | - | - |
| 19 | 3/4 | -20 | 29 | 1.14 | 5,1 | 0.2 | 22 | 0.87 | 9 | 0.35 | 22 | 0.87 |
| 25 | 1 | -25 | 39 | 1.53 | 7,1 | 0.28 | 29 | 1.14 | 13 | 0.51 | 29 | 1.14 |
| 31 | 1.1/4 | -32 | 46 | 1.81 | 7,1 | 0.28 | 36 | 1.42 | 13 | 0.51 | 36 | 1.42 |
| 38 | 1.1/2 | -40 | 55 | 2.16 | 7,1 | 0.28 | 45 | 1.77 | 13 | 0.51 | 45 | 1.77 |
| 51 | 2 | -50 | 64 | 2.52 | 7,1 | 0.28 | 54 | 2.13 | 13 | 0.51 | 54 | 2.13 |

RYCO WEO CARTRIDGE & CARTRIDGE PORT SPECIFICATIONS

| PLUG-IN SIZE | | | TO SUIT RYCO WEO CARTRIDGE | A | B | C | D | E | F | G | H | J | K | L | ASSEMBLY TORQUE |
|--------------|------|------|----------------------------|----------------|----------------|----------------|--------------|---------|------------|--------------|---------------|---------------|----------------|-----|-----------------|
| DN | Dash | inch | PART NO | mm | mm | mm | mm | thread | mm | mm | mm | mm | mm | mm | Nm |
| 6 | -04 | 1/4 | RW800-04 | 10.03 +0.08 | 12.75 +0.10 | 16.55 +0.07 | 17.0 +0.1 | M18x1,0 | 8.5 +1 | 1.1 -0.1 | 10.65 +0.1 | 14.15 +0.2 | 19.65 +0.15 | 0.2 | 25-35 |
| 10 | -06 | 3/8 | RW800-06 | 13.03 +0.08 | 16.95 +0.15 | 20.55 +0.07 | 21.0 +0.1 | M22x1,0 | 8.7 +1 | 1.15 -0.1 | 11.1 +0.1 | 15.5 +0.2 | 21.95 +0.15 | 0.2 | 30-40 |
| 12 | -08 | 1/2 | RW800-08 | 16.03 +0.08 | 19.95 +0.15 | 23.55 +0.07 | 24.0 +0.1 | M25x1,0 | 8.7 +1 | 1.25 -0.1 | 11.3 +0.1 | 15.7 +0.2 | 22.15 +0.15 | 0.3 | 40-50 |
| 19 | -12 | 3/4 | RW800-12 | 23.03 +0.08 | 27.95 +0.15 | 31.05 +0.07 | 31.5 +0.1 | M33x1,5 | 11.5 +1 | 1.7 -0.1 | 16.5 +0.1 | 21.4 +0.2 | 31.35 +0.15 | 0.3 | 70-80 |

AVAILABLE RYCO WEO CARTRIDGE SIZES:

| | | |
|------|--------|----------|
| DN6 | (1/4") | RW800-04 |
| DN10 | (3/8") | RW800-06 |
| DN12 | (1/2") | RW800-08 |
| DN19 | (3/4") | RW800-12 |

WORKING PRESSURE:

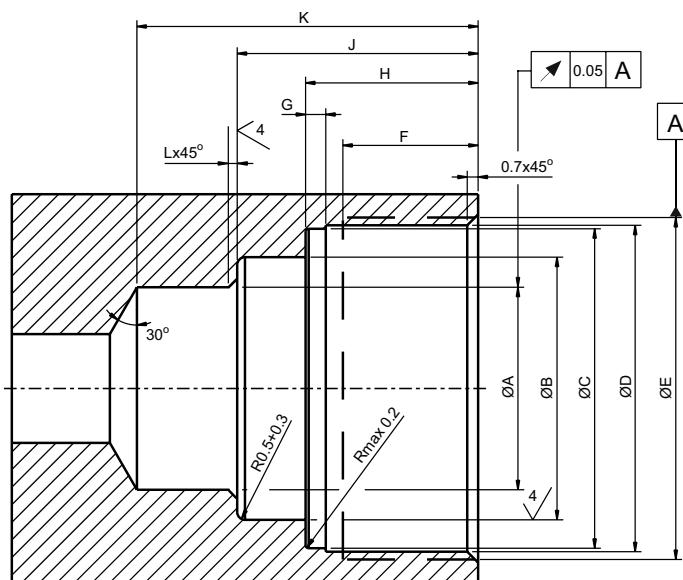
DN6 to DN19 (1/4" to 3/4")
350 bar (5,100 psi)

MINIMUM BURST PRESSURE:

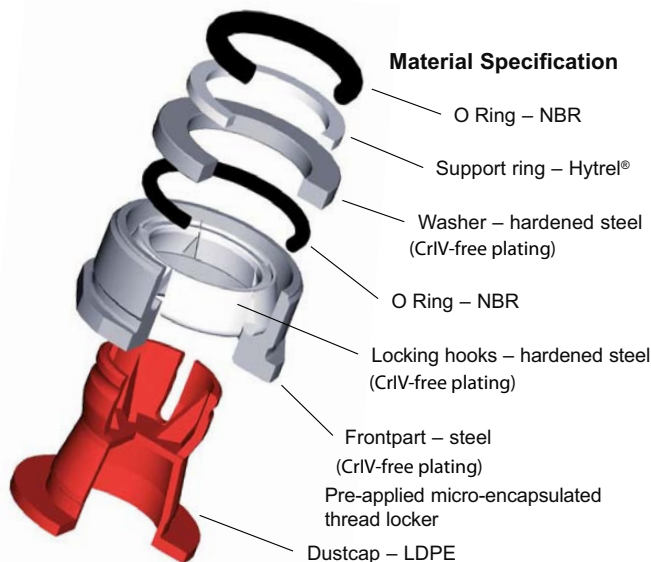
DN6 to DN19 (1/4" to 3/4")
1400 bar (20,400 psi)

TEMPERATURE RANGE:

-30°C to +100°C (-22°F to 212°F)



Sharp edges to be deburred 0.05-0.20 mm
Dimension in millimeters



TECHNICAL

TORQUE ASSEMBLY VALUES

The Torque Values shown are for guidance only and are based on normal industrial applications. The Torque Values shown are for plated carbon steel fittings.

NM = NEWTON METRES

KG.M = KILOGRAM METRES

FT.LBF = FOOT POUNDS FORCE

| TO CONVERT | >>> INTO >>> | MULTIPLY BY |
|---------------|--------------|-------------|
| Nm | ft.lbf | 0.737 |
| Nm | kg.m | 0.102 |
| ft.lbf | Nm | 1.357 |
| ft.lbf | kg.m | 0.138 |
| kg.m | Nm | 9.804 |
| kg.m | ft.lbf | 7.231 |

BSPP

| BSPP SIZE | DASH SIZE | SWIVEL NUT | | BSP ENCAPSULATED SEAL SAE RECOMMENDED TORQUE RANGE | | BSP BONDED SEAL | | | |
|-----------|-----------|--------------|---------|---|---------|-----------------------------|---------|-------------------------------------|---------|
| | | TORQUE RANGE | | TORQUE RANGE | | RECOMMENDED TORQUE (SINGLE) | | RECOMMENDED TORQUE (TANDEM SEALING) | |
| | | Nm | ft.lbf | Nm | ft.lbf | Nm | ft.lbf | Nm | ft.lbf |
| 1/8 | -02 | 11-12 | 8-9 | 35-39 | 26-28 | 25-28 | 18-20 | 40-45 | 29-32 |
| 1/4 | -04 | 25-28 | 18-20 | 60-66 | 44-49 | 51-55 | 37-40 | 67-72 | 49-52 |
| 3/8 | -06 | 41-48 | 30-35 | 95-105 | 70-77 | 80-89 | 59-65 | 104-116 | 77-85 |
| 1/2 | -08 | 72-82 | 55-60 | 130-143 | 96-105 | 99-105 | 73-77 | 119-126 | 88-93 |
| 5/8 | -10 | 96-110 | 70-80 | 180-198 | 133-146 | 136-146 | 100-107 | 150-161 | 110-118 |
| 3/4 | -12 | 124-137 | 90-100 | 200-220 | 147-162 | 220-230 | 162-169 | 242-253 | 179-186 |
| 1 | -16 | 151-165 | 110-120 | 450-495 | 332-365 | 371-407 | 273-300 | 409-448 | 301-330 |
| 1.1/4 | -20 | 192-206 | 140-150 | 500-550 | 369-405 | 501-510 | 369-376 | 527-536 | 388-395 |
| 1.1/2 | -24 | 261-275 | 190-200 | 600-660 | 442-486 | 601-611 | 443-450 | 632-642 | 466-473 |
| 2 | -32 | 343-357 | 250-260 | 700-770 | 516-567 | 746-756 | 550-557 | 784-794 | 578-585 |

*2" (-32) sizes of BSP Encapsulated Seal use an O-Ring seal.

METRIC

| 24°, 60° & UNIVERSAL INVERTED CONE | | | | | BONDED SEAL | | | | | |
|------------------------------------|-------------------------|-------------------------|-------------------------|---------|-------------|-----------|-----------------------------|---------|-------------------------------------|---------|
| THREAD SIZE | TUBE DIA. S-HEAVY mm | TUBE DIA. L-LIGHT mm | SWIVEL NUT TORQUE RANGE | | THREAD SIZE | DASH SIZE | RECOMMENDED TORQUE (SINGLE) | | RECOMMENDED TORQUE (TANDEM SEALING) | |
| | | | Nm | ft.lbf | | | Nm | ft.lbf | Nm | ft.lbf |
| M12 x 1,5 | | 6 | 10-20 | 7-15 | M10 | -10 | 53-59 | 39-43 | 85-95 | 63-69 |
| M14 x 1,5 | 6 | 8 | 20-35 | 15-26 | M12 | -12 | 55-60 | 40-44 | 88-96 | 64-71 |
| M16 x 1,5 | 8 | 10 | 25-40 | 18-30 | M14 | -14 | 72-79 | 53-58 | 101-111 | 75-82 |
| M18 x 1,5 | 10 | 12 | 30-45 | 22-33 | M16 | -16 | 80-89 | 59-65 | 104-116 | 77-85 |
| M20 x 1,5 | 12 | | 35-50 | 26-37 | M18 | -18 | 82-90 | 60-66 | 107-117 | 78-86 |
| M22 x 1,5 | 14 | 15 | 40-70 | 30-52 | M20 | -20 | 99-109 | 73-80 | 119-131 | 88-96 |
| M24 x 1,5 | 16 | | 40-70 | 30-52 | M22 | -22 | 136-150 | 100-110 | 157-173 | 115-127 |
| M26 x 1,5 | | 18 | 60-100 | 44-74 | M24 | -24 | 147-162 | 108-119 | 170-187 | 125-137 |
| M30 x 2,0 | 20 | 22 | 80-120 | 59-89 | M26 | -26 | 171-182 | 126-134 | 189-201 | 139-148 |
| M36 x 2,0 | 25 | 28 | 100-150 | 74-111 | M27 | -27 | 220-235 | 162-173 | 242-259 | 179-191 |
| M42 x 2,0 | 30 | | 150-220 | 111-163 | M30 | -30 | 270-287 | 199-211 | 297-316 | 219-233 |
| M45 x 2,0 | | 35 | 180-250 | 133-184 | M33 | -33 | 371-392 | 273-289 | 409-432 | 301-318 |
| M52 x 2,0 | 38 | 42 | 200-300 | 148-221 | M36 | -36 | 390-398 | 287-293 | 429-438 | 316-323 |
| | | | | | M42 | -42 | 405-413 | 298-304 | 446-455 | 328-335 |
| | | | | | M48 | -48 | 501-510 | 369-376 | 552-561 | 406-414 |

INTRODUCTION

HOSE

COUPLINGS

ADAPTORS

ACCESSORIES

FILTERS

TECHNICAL

JIC 37° & SAE 45° (MACHINED OR FLARED)

| JIC/SAE THREAD SIZE | DASH SIZE | SAE RECOMMENDED SWIVEL NUT TORQUE RANGE | |
|------------------------|--------------|--|---------|
| | | Nm | ft.lbf |
| 5/16 - 24 | -05 | 8-9 | 6-7 |
| 3/8 - 24 | -06 | 11-12 | 8-9 |
| 7/16 - 20 | -07 | 15-16 | 11-12 |
| 1/2 - 20 | -08 | 19-21 | 14-15 |
| 9/16 - 18 | -09 | 24-28 | 18-20 |
| 3/4 - 16 | -12 | 49-53 | 36-39 |
| 7/8 - 14 | -14 | 77-85 | 57-63 |
| 1.1/16 - 12 | -17 | 107-119 | 79-88 |
| 1.3/16 - 12 | -19 | 127-140 | 94-103 |
| 1.5/16 - 12 | -21 | 147-154 | 108-113 |
| 1.5/8 - 12 | -26 | 172-181 | 127-133 |
| 1.7/8 - 12 | -30 | 215-226 | 158-167 |
| 2.1/2 - 12 | -40 | 332-350 | 245-258 |

UNO (O RING BOSS)

| UNO THREAD SIZE | DASH SIZE | SAE RECOMMENDED STRAIGHT FITTING OR LOCK NUT TORQUE RANGE | |
|--------------------|--------------|---|---------|
| | | Nm | ft.lbf |
| 3/8 - 24 | -06 | 11-13 | 8-10 |
| 7/16 - 20 | -07 | 20-22 | 14-16 |
| 1/2 - 20 | -08 | 24-27 | 18-20 |
| 9/16 - 18 | -09 | 33-35 | 24-26 |
| 3/4 - 16 | -12 | 68-78 | 50-60 |
| 7/8 - 14 | -14 | 98-110 | 72-82 |
| 1.1/16 - 12 | -17 | 170-183 | 125-135 |
| 1.3/16 - 12 | -19 | 230-260 | 170-190 |
| 1.5/16 - 12 | -21 | 270-300 | 200-220 |
| 1.5/8 - 12 | -26 | 285-380 | 210-280 |
| 1.7/8 - 12 | -30 | 370-490 | 270-360 |

ORFS

| ORFS THREAD SIZE | DASH SIZE | SAE RECOMMENDED SWIVEL NUT TORQUE RANGE | |
|---------------------|--------------|--|---------|
| | | Nm | ft.lbf |
| 9/16 - 18 | -09 | 14-16 | 10-12 |
| 11/16 - 16 | -11 | 24-27 | 18-20 |
| 13/16 - 16 | -13 | 43-47 | 32-35 |
| 1 - 14 | -16 | 60-68 | 46-50 |
| 1.3/16 - 12 | -19 | 90-95 | 65-70 |
| 1.7/16 - 12 | -23 | 125-135 | 92-100 |
| 1.11/16 - 12 | -27 | 170-190 | 125-140 |
| 2-12 | -32 | 200-225 | 150-165 |

SAE FLANGE CLAMP BOLTS CODE 61 & 62

| BOLT DATA UN CLASS 2A (THREAD X LENGTH) | FLANGE DASH SIZE | SAE RECOMMENDED BOLT TORQUE RANGE | |
|---|------------------------|--------------------------------------|---------|
| | | Nm | ft.lbf |
| CODE 61 | | | |
| 5/16 - 18 X 1.1/4 | -08 | 20-25 | 15-18 |
| 3/8 - 16 X 1.1/4 | -12 | 28-40 | 21-29 |
| 3/8 - 16 X 1.1/4 | -16 | 37-48 | 27-35 |
| 7/16 - 14 X 1.1/2 | -20 | 48-62 | 35-46 |
| 1/2 - 13 X 1.1/2 | -24 | 62-79 | 46-58 |
| 1/2 - 13 X 1.1/2 | -32 | 73-90 | 54-66 |
| 1/2 - 13 X 1.3/4 | -40 | 107-124 | 79-91 |
| 5/8 - 11 x 1.3/4 | -48 | 186-203 | 138-150 |
| CODE 62 | | | |
| 5/16 - 18 X 1.1/4 | -08 | 20-25 | 15-18 |
| 3/8 - 16 X 1.1/2 | -12 | 34-45 | 25-33 |
| 7/16 - 14 X 1.3/4 | -16 | 56-68 | 41-50 |
| 1/2 - 13 X 1.3/4 | -20 | 85-102 | 63-75 |
| 5/8 - 11 X 2.1/4 | -24 | 158-181 | 116-133 |
| 3/4 - 10 X 2.3/4 | -32 | 271-294 | 200-217 |

SAE FLANGE BLOCK BOLTS CODE 61 & 62

| BOLT DATA UN CLASS 2B (THREAD X LENGTH) | FLANGE DASH SIZE | RECOMMENDED BOLT TORQUE RANGE | |
|---|------------------------|----------------------------------|---------|
| | | Nm | ft.lbf |
| CODE 61 | | | |
| 5/16 - 18 X 1.1/4 | -08 | 20-25 | 15-18 |
| 3/8 - 16 X 1.1/2 | -12 | 28-40 | 21-29 |
| 3/8 - 16 X 1.1/2 | -16 | 37-48 | 27-35 |
| 7/16 - 14 X 1.3/4 | -20 | 48-62 | 35-46 |
| 1/2 - 13 X 1.3/4 | -24 | 62-79 | 46-58 |
| 1/2 - 13 X 1.3/4 | -32 | 73-90 | 54-66 |
| CODE 62 | | | |
| 3/8 - 16 X 1.1/2 | -12 | 34-45 | 25-33 |
| 7/16 - 14 X 1.3/4 | -16 | 56-68 | 41-50 |
| 1/2 - 13 X 1.3/4 | -20 | 85-102 | 63-75 |
| 5/8 - 11 X 2 | -24 | 158-187 | 116-138 |
| 3/4 - 10 X 2.1/2 | -32 | 271-294 | 200-217 |

These RTS are the terms and conditions of each of RYCO HYDRAULICS PTY LTD ABN No 96 085 527 724; RYCO 24.7 Pty Ltd ABN 97 054 946 173 and each is referred to, severally, as "RYCO".

1. Unless otherwise expressly agreed in writing, the products and services supplied by RYCO ("RPS") are supplied upon the following RTS to the exclusion of any (written or verbal) terms and conditions of the purchaser and no agent or representative of RYCO has any authority to vary or omit any of these terms in relation to a specific purchaser.
2. Before purchasing any RPS the purchaser:
 - a) agrees that they have read and understood these RTS, the safety information, notes, warnings and instructions contained in RYCO's current relevant catalogues, product technical manuals, manuals and published technical data ("Documents"); and
 - b) holds themselves as a responsible, competent and appropriately skilled user or reseller of RPS and that they comprehend and understand the dangers of incorrect use, installation or assembly of such products. Documents are available on the RYCO website www.ryco.com.au.
3. Each request for RPS (whether in writing or verbally) which sets out the quantity, price and a description of the RPS required, including a date and address for delivery (or, in the case of services, date for performance) ("Order") placed by the purchaser amounts to an offer by it to acquire from RYCO the RPS described in the Order upon these RTS. RYCO may, in its discretion, accept an offer by doing one of the following within 30 days after the date that RYCO receives the Order:
 - a) deliver the RPS (or perform the services) to the address for delivery set out in the Order; or
 - b) provide express written acceptance of the Order to the purchaser giving an estimated date for delivery.Failure of RYCO to accept the order in accordance with this clause 3 will be a rejection of the Order.
4. Each Order that is accepted by RYCO under clause 3 constitutes a separate contract between RYCO and the purchaser which the parties agree is governed by these RTS.
5. RYCO may, in its discretion, refuse to sell or supply RPS to the purchaser, and may, but is not obliged to, give written notice to that effect. RYCO is not required to give reasons for its refusal.
6. Any Order, including any order for special production runs under clause 17, that has been accepted by RYCO may not be reduced or cancelled by the purchaser after acceptance without the agreement of RYCO in writing.
7. The purchaser agrees that all RPS it orders are for the purposes of business and the purpose of re-supply or transforming them in the process of trade or commerce, and not for personal, domestic or household use or consumption, and that the Australian Consumer Law does not apply to the supply of RPS to the purchaser to the extent permitted by that Act. The purchaser acknowledges and agrees that RYCO relies upon this representation in agreeing to deliver or provide the RPS.
8. All products supplied by RYCO must be examined by the purchaser at the time of delivery and any deficiency in quantity or quality of or damage to product delivered ("Defect") must be notified to RYCO within 5 business days of the date of delivery to the purchaser. If the purchaser does not provide such notification to RYCO then this shall be deemed to be an acknowledgment by the purchaser that the:
 - a) quantities as set out by the invoice are correct; and
 - b) products are of an acceptable quality; and
 - c) the products are not damaged and will not be returned.
9. Subject to clauses 11 and 13 below, RYCO warrants to the purchaser that the RPS will be of an acceptable quality on delivery and for twelve months from issue of invoice by RYCO ("Warranty"). The purchaser agrees that it will not provide any express warranty in respect of the RPS to any customer other than the Warranty as provided here, and releases and indemnifies RYCO from any liability for any representation made by the purchaser to a customer that exceeds the Warranty. RYCO will not provide any warranty whatsoever on items manufactured, built or acquired wholly or partially to the purchaser's designs or specifications.
10. If the purchaser provides notification of a Defect to RYCO pursuant to clause 8 and lodges a Warranty claim in relation to RPS, RYCO's liability will be limited as set out in clause 13.
11. To the extent permitted by law, RYCO will not be liable for a breach of the Warranty set out in clause 9 for any of the following:
 - a) the purchaser not providing notification to RYCO pursuant to clause 8;
 - b) the purchaser or the user of the RPS has not used the RPS in accordance with the instructions or specifications set out in the Documents;
 - c) use of the RPS that is contrary to the instructions contained in RYCO's Documents, as this may result in an unsatisfactory or even dangerous product;
 - d) defects caused by normal or accelerated deterioration; physical, chemical, electrochemical or environmental conditions; insufficient maintenance or incorrect repair; failure to follow correct storage, user and operating instructions; use of unsuitable materials;
 - e) products that have been incorrectly assembled in accordance with the assembly operations specified in RYCO's Documents;
 - f) the modification of RPS, other than in accordance with RYCO's written approval;
 - g) the performance of any RPS that are welded (except if the welding is carried out by RYCO, its servants or its agents) by a person who is not suitably qualified including, but not limited to, welders, salvage, life saver or any other components. These welded products should be tested and proved fit for the use intended; and
 - h) the claimant does not extend to RYCO a reasonable opportunity to fully inspect the product, the subject of the claim and the circumstances giving rise to the claim.
12. Subject to clause 9 and except as conferred by law, no express warranty or guarantee is given with respect to any of the characteristics or quality of RPS supplied.
13. Where any law or statute implies in these RTS, any term, condition or warranty and that Act, law or statute avoids or prohibits a contract excluding or modifying the application of or exercise of or liability under such term, condition or warranty, such term, condition or warranty will be deemed to be included in these RTS. The liability of RYCO to the purchaser for any breach of such term, condition or warranty, or any breach of the Warranty will be limited, at the option of RYCO, to:
 - a) if the breach relates to goods:
 - i) the replacement of the goods or the supply of the equivalent goods;
 - ii) repair of the goods
 - iii) the payment of the cost of replacing the goods or of acquiring equivalent goods or having the goods repaired; or
 - b) if the breach relates to services:
 - i) the resupply of the services (or part of them); or
 - ii) the payment of the cost of having the services supplied again.
14. RYCO sets out, in its Documents and other product material, suggestions as to the use, installation and care of its products on the understanding that those suggestions are made solely to assist the purchaser to obtain the best results from their purchase and those suggestions do not constitute warranties or otherwise add to or vary these terms in any way.
15. Unless otherwise stated to the contrary by the purchaser on a written Order, RYCO will supply products on the understanding that they will be used in hydraulic applications with mineral oil within the limits shown in RYCO's current Documents.

Please refer to our website www.RYCO.com.au for current Terms and Conditions

16. RYCO will use its best endeavours to deliver at the time stated in the Order, but all delivery dates shall be regarded as estimates only. The purchaser must accept the actual delivery date and RYCO shall not be liable for any losses, costs, damages or expenses suffered by the purchaser or any other party as a result of any delay in delivery.
17. Where Orders are accepted by RYCO for special production runs, unless otherwise agreed to in writing, RYCO reserves the right to make delivery and charge for plus or minus 20 units or 15% of the order quantity, whichever is greater. RYCO will not accept any restriction of its right to manufacture or sell or offer to any other purchaser products which may have been manufactured specially for a specific purchaser or purchasers.
18. Payment is to be made in cash, cheque or by direct debit within 30 days of invoice date. If:
- the purchaser fails to make any payments that are due to RYCO on or before the due date stipulated in the invoice, under this or any other contract, RYCO may delay, suspend or cancel deliveries in whole or in part at its sole discretion;
 - the payment is not made within these RTS, interest will be calculated and charged at the interest rate fixed from time to time in section 2 of the Penalty Interest Rates Act 1983 (Vic) plus an additional 2% per month, and will be charged monthly and accrue from the date of invoice until all overdue amounts are paid in full; and
 - any amount becomes overdue, all amounts recorded on the purchaser's account will be deemed to be immediately due and payable. The purchaser agrees to pay all costs and expenses incurred by RYCO, its agents and its servants in the recovery of the overdue amounts, including but not limited to all legal costs, debt recovery costs and debt recovery agency costs.
19. The RPS remain the property of RYCO and title in the RPS only passes from RYCO to the purchaser once RYCO has received all amounts due to it from the purchaser for those RPS. Risk in the RPS passes to the purchaser when the RPS leave RYCO's premises for delivery to the purchaser and the purchaser must indemnify RYCO against any loss to the RPS occurring after delivery. The purchaser must store the RPS separately from any other goods of its own or other suppliers and in a way that enables the RPS to be clearly identifiable as RYCO's. While RYCO retains title to the RPS, the purchaser holds the RPS as RYCO's fiduciary and the purchaser is authorised to sell the RPS as RYCO's agent and fiduciary and the proceeds of any sale of RPS or insurance claim regarding RPS must be held on trust for RYCO until title to the RPS passes to the purchaser. The parties acknowledge that under this arrangement, when the purchaser receives the RPS the purchaser is deemed to grant RYCO a security interest (as that term is defined in section 12 of the Personal Property Securities Act 2009) (PPSA) in the RPS securing the purchaser's obligation to return the goods to RYCO or pay the purchase price.
20. At any time after the due date for payment of any account owing from the purchaser to RYCO, or if the purchaser is subject to an insolvency event (ie in relation to a body corporate, a winding up, the appointment of a voluntary administrator, receiver, manager or similar insolvency administrator to a party or any substantial part of its assets, or in relation to an individual, becoming bankrupt or entering into a scheme or arrangement with creditors or, in relation to a body corporate or an individual, the occurrence of any event that has a substantially similar effect to any of the above events) and has not paid any outstanding amount owing to RYCO, and so long as such amounts have not been received by RYCO in full, RYCO at the purchaser's expense, may recover possession of these, or any other RPS that RYCO has previously delivered to the purchaser which are of an equivalent value. If this occurs, the purchaser grants a licence to RYCO to enter any premises where such RPS are situated to search for, inspect and/or repossess such RPS. RYCO has the right to resell any RPS repossessed and is not liable to the purchaser or any person claiming through the purchaser arising from any repossession of RPS (or any other act or omission by RYCO or its agents engaged in by RYCO or them pursuant to the licence granted under this clause).
21. The purchaser acknowledges and agrees that these RTS constitute a Security Agreement which creates a Security Interest (a Purchase Money Security Interest) under the PPSA in favour of RYCO. RYCO holds a Security Interest in all RPS previously supplied by RYCO to the purchaser, and will hold a Security Interest in all after acquired RPS supplied on the terms set out in clauses 19 and 20, notwithstanding anything express or implied to the contrary contained in the purchaser's purchase order.
- The purchaser agrees:
- that RYCO may effect a registration of its Security Interest on the Personal Properties Securities Register (PPSR) at its sole discretion;
 - to provide RYCO with all information (which information the purchaser warrants to be complete, accurate and up to date in all respects) and execute any document or do anything that RYCO may reasonably require to enable perfection of its Security Interest or registration of a Financing Statement or Financing Change Statement on the PPSR;
 - not to register a Financing Change Statement or an amendment demand without the prior written consent of RYCO;
 - to provide to RYCO not less than fourteen days prior written notice of any proposed change in the purchaser's name or any other change in its details (including but not limited to change in the address, facsimile, email, trading name or business practice);
 - if requested by RYCO, and to the extent permissible under the PPSA, pay all reasonable costs incurred by RYCO to register a Financing Statement and to maintain up-to-date registration of its Security Interest on the PPSR;
 - reimburse RYCO the full cost incurred by RYCO (including legal costs and disbursements on an indemnity basis) in obtaining an order pursuant to section 182 of the PPSA;
 - as between the purchaser and RYCO, where RYCO has rights under this Agreement in addition to those in Chapter 4 of the PPSA, those rights will continue to apply and will not be limited by s125 of the PPSA;
 - to the extent permitted by law, to waive any rights that the purchaser may have to:
 - receive notice of removal of an accession under section 95 of the PPSA, and not to have the RPS damaged when RYCO removes the accession;
 - reinstatement of the security agreement pursuant to s143 of the PPSA;
 - receive any notice required under the PPSA, including but not limited to a notice of retention or a notice of disposal or a statement of account on enforcement of the Security Interest in accordance with s115 of the PPSA;
 - receive a Verification Statement in respect of any Financing Statement relating to the Security Interest pursuant to section 157 of the PPSA,
 For the purposes of this clause 21, capitalised terms have the meaning of those terms in the PPSA.
22. RYCO will not be liable for breach of contract arising from or caused by, directly or indirectly, fire, flood, earthquake, storm or tempest; the action of any government or any public authority or corporation; the lack of labour, supplies or equipment, from whatever cause; or any other cause beyond RYCO's control.
23. This contract shall be governed by and construed by the laws of the State of Victoria, Australia.
24. If any of these RTS or any part thereof is held by a court to be void or unenforceable such provision shall be read down to such extent as may be necessary to ensure that it does not so infringe and as may be reasonable in all circumstance so as to give it valid operation of a partial character and in the event that the infringing condition cannot be so read down it will be severed from the other provisions.
25. RYCO may amend these RTS from time to time, but those amendments will not take effect until RYCO has notified the purchaser in writing of those amendments. The applicable version will be those RTS attached to or forming part of the relevant Order and will take precedence over any earlier version contained in the Documents.
26. RYCO may cancel these RTS at any time by giving written notice to the purchaser of the cancellation. RYCO will supply any Order that has been accepted by it (under clause 3) on or before the date of that cancellation notice.
27. RPS are designed for use in static equipment, mobile ground vehicles, mobile ground equipment and marine applications. RPS are not designed for use in flight applications. RYCO does not recommend use of its products on aircraft and has no liability to the purchaser if the purchaser supplies the goods to consumers for use on aircraft.
28. The purchaser may not assign, transfer or otherwise dispose of any of the rights or obligations of this or any other contract with RYCO that is subject to these RTS without the prior written consent of RYCO.

Please refer to our website www.RYCO.com.au for current Terms and Conditions

TECHNICAL

ABBREVIATIONS

| | | | | | |
|--------------------|---|------------------|--|------------------|--|
| A/F | Across Flats | FF | Female Fixed | NFPA | National Fluid Power Association (USA) |
| ABS, Abs. | Absolute | FIX | Fixed | Nm | Newton Metre |
| ABS | American Bureau of Shipping | FLNG | Flange | NOM, Nom. | Nominal |
| AC | Air Conditioning | FOS | Factor Of Safety | NPS | National Pipe Straight Thread |
| AGA | Australian Gas Association | FS | Female Swivel | NPSM | National Pipe Straight Mechanical |
| AS | Australian Standard | ft | Foot | NPSMFS | National Pipe Straight Mechanical Female Swivel |
| AV | Average | ft.lbf | Foot Pound force | NPT | National Pipe Taper Thread |
| BCS | British Coal Standard | g | Gram | NPTF | National Pipe Taper for Fuel |
| BH | Bulkhead | GL | Germanischer Lloyd | NPTFF | National Pipe Taper Female Fixed |
| BP | Burst Pressure | GPM | Gallons Per Minute | NPTM | National Pipe Taper Male |
| BS | British Standard | HP | High Pressure | OA, O/A | Overall |
| BSP | British Standard Pipe | hp | Horse Power | OD | Outside Diameter |
| BSPP | British Standard Pipe Parallel Thread | HTS | High Tensile Steel | ORFS | O Ring Face Seal |
| BSPPFS | British Standard Pipe Parallel Female Swivel | HW | Heavy Wall | ORFSFS | ORFS Female Swivel |
| BSPPMBH | British Standard Pipe Parallel Male Bulkhead | ID | Inside Diameter | ORFSM | ORFS Male |
| BSPPOM | British Standard Pipe Parallel O Ring Male | inHg | Inches of Mercury | PCD | Pitch Circle Diameter |
| BSPPOM EXT | British Standard Pipe Parallel O Ring Male Extended | IMP | Imperial | PCV | Positive Crankcase Ventilation |
| BSPT | British Standard Pipe Taper Thread | INV | Inverted | P/N, P/NO | Part Number |
| BSPTFF | British Standard Pipe Taper Female Fixed | ISO | International Organization for Standardization | PREV | Previous |
| BSPTM | British Standard Pipe Taper Male | JIC | Joint Industries Council (Thread UN) | psi | Pounds per Square Inch |
| BSW | British Standard Whitworth | JICFS | JIC Female Swivel | PTFE | Polytetrafluoroethylene |
| C/W | Complete With | JICM | JIC Male | PW | Pressure Washer |
| CA | Cut-off Allowance | JICMBH | JIC Male Bulkhead | QA | Quality Assurance |
| CAT | Caterpillar, Inc. Registered Trademark | JICMEXT | JIC Male Extended | QC | Quality Control |
| CATERPILLAR | Caterpillar, Inc. Registered Trademark | JIS | Japanese Industrial Standard | QRC | Quick Release Coupling |
| CL, C/L | Cut Length | kg | Kilogram | RED | Reducing |
| CrVI | Chromium 6 | kg.m | Kilogram Metres | RMA | Rubber Manufacturers Association |
| cSt | Centistoke | KOBELCO | Kobe Steel, Ltd. Registered Trademark | RPM | Revolutions Per Minute |
| DIA, DIAM | Diameter | KOMATSU | Komatsu Ltd./Komatsu Industries Corporation Registered Trademark | RQP | RYCO Quality Product |
| DIN | Deutsche Industrie Normen (German Industrial Standard) | kPa | KiloPascal | SAE | Society of Automotive Engineers (USA) |
| DKL | Dicht Kegel Leicht (Metric Light Series 24° Cone) | kW | Kilowatt | SAEFS | SAE Female Swivel |
| DKM | Dicht Kegel Metric (Metric 60° Cone) | LNG | Long | SAEM | SAE Male |
| DKO | Dicht Kegel O Ring (Metric O Ring Seal 24° Cone) | L | Litre | SF | Swivel Female (Union) |
| DKOL | Dicht Kegel O Ring Leicht (Metric Light O Ring Series 24° Cone) | lb | Pound | SS | Stainless Steel |
| DKOS | Dicht Kegel O Ring Schwer (Metric Heavy O Ring Series 24° Cone) | LP | Low Pressure | STD | Standard |
| DKS | Dicht Kegel Schwer (Metric Heavy Series 24° Cone) | LPG | Liquified Petroleum Gas | STPL | Staple |
| DL | Drop Length | LPM | Litres Per Minute | SWIV | Swivel |
| DN | Diameter Nominal (mm) | LR | Lloyd's Register | T/NESS | Thickness |
| DNV | Det Norske Veritas | M | Male | TBA | To Be Advised |
| DoT | Department of Transportation (USA) | m | Metre | TEFLON | DuPont (E. I. du Pont de Nemours and Company) Registered Trademark |
| EEC | Evaporative Emission Control | MAX | Maximum | THRD | Thread |
| ELB | Elbow | MBP | Minimum Burst Pressure | TP | Test Pressure |
| EPDM | Ethylene Propylene Diene Monomer | MED | Marine Equipment Directive | TPI | Threads Per Inch |
| EXT | Extended | MFL | Minimum Free Length | TW | Tube Weld |
| F, FEM | Female | MIC, Mic. | Micron (µm) | UN | Unified National Thread |
| | | MIL | Military Specification (USA) | UNO | UN O Ring (O Ring Boss) |
| | | MIN | Minimum | UNOM | UNO Male (O Ring Boss Male) |
| | | mm | Millimetre | UNOMEXT | UNO Male Extended (O Ring Boss Male Extended) |
| | | mmHg | Millimetres of Mercury | USCG | United States Coast Guard |
| | | MPa | MegaPascal | WEO | Cejn AB Registered Trademark |
| | | MSHA | USA Department of Labor, Mine Safety and Health Administration. | WP | Working Pressure |
| | | MWP | Maximum Working Pressure | °C | Degrees Celcius |
| | | NA, N/A | Not Applicable | °F | Degrees Fahrenheit |
| | | NAHAD | National Association of Hose and Accessories Distributors (USA) | β | Beta (filtration) |
| | | NATA | National Association of Testing Authorities (Aus.) | mm | Micron |
| | | NB | Nominal Bore | | |
| | | NCB | National Coal Board | | |
| | | NCS | NATA Certification Services | | |

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