

Master Catalog 2015 Edition



Quick Couplings
Ball Valves
Hydraulic Clamps



Oil and Gas



Construction



Fluid Power



Transportation

DNP Americas



DNP Americas provides our customers with a complete line of high quality quick couplings, ball valves, clamps, hose and fittings and an ultra high pressure line including specialized O.E.M. products. Our products satisfy a wide range of applications in agricultural, oil and gas, transportation, forestry, construction, utilities, marine, food industry and manufacturing markets.

DNP Italy was founded in 1985 and has been manufacturing quality quick couplings for customers around the world for over 25 years. Direct Purchase Quick Couplings merged with DNP Italy to form DNP Americas in February of 2011. Our premier quality high pressure ball valves are manufactured by Gemels Srl in Italy. DNP America's merger with DNP Italy and our long term marketing and product development agreement with Gemels Srl enable DNP Americas to provide our customers with state of the art products due to our extensive research and development and highly technical manufacturing procedures. DNP Americas maintains an ever increasing inventory of over two million dollars of products to serve the requirements of our full line distributors and O.E.M. customers. Our high volume sales and dedicated efforts to control in house costs allow DNP Americas to provide our customers with the highest quality products at very competitive prices.

DNP Americas employs highly skilled personnel who take pride in their ability to assist our customers in selecting the correct product for their application. Our employees are trained to assist our customers with interchanging our part numbers with competitors part numbers. They can answer technical questions about the application of our products with various fluids and pressure requirements. We normally ship most orders the same day or the next day after the order is received.

Please feel free to contact us regarding any of your quick coupling, ball valve, clamp, hose and fittings, and ultra high pressure purchasing requirements. We look forward to an opportunity to be of service to you and your company.

Sincerely,

Mike Pate

Quick Couplings

<h3>Flat Face Series</h3> <ul style="list-style-type: none"> • FF-GP 6 • FF-HPG 7 • FF-HP-SS 8 • FFK 9 • FF-BH 10 • FF-UHP 11 • FF-UHP7 12 • 71 13 • D 14 • UHP 115 15 • UHP 116 16 	<h3>Poppet/Ball Style</h3> <ul style="list-style-type: none"> • ANV 32 • NS 33 • NV 34 • PPS/PPV/ANVK 35 • HNV 36 • HNV BRASS 37 • HNV STAINLESS STEEL 38 • TNV 39 • PT/PTK 40 • TC 41
<h3>Flat Face Screw Type Series</h3> <ul style="list-style-type: none"> • PVT4 17 • PVT4-SS 18 • PVT4 PIN LOCK 19 • FSI 20 	<h3>Water</h3> <ul style="list-style-type: none"> • HNV-B-SS 42 • ST 43 • CRS 44 • WB 45 • HO 46 • HP 47-48
<h3>Screw Type Series</h3> <ul style="list-style-type: none"> • VFF 21 • VFF-HD 22 • VIV1 23 • PVR 24 • PVV3 25 • PVV3-DIN/BH 26 • VV 27 • VVS 28 • VVS-SS 29 • PVS/PVP 30 • HPI 31 	<h3>BOP Couplings</h3> <ul style="list-style-type: none"> • PVT4-BOP 49 • PVT4-SS-BOP 50 • FSI-BOP 51 • VFF-HD-BOP 52 • HNV-BOP 53 <h3>Quick Coupling Accessories Caps and Plugs</h3> <ul style="list-style-type: none"> • Flat Face and Flat Face Screw Type Caps and Plugs 54 • Screw Type Caps and Plugs 55-56 • Poppet Style Caps and Plugs 57

Ball Valves

High Pressure Ball Valves

• BV2/BV2B Series	58
• BV2-FO	59
• BV2-FL61/BV2-FL62	60
• BV2B-FL61/BV2B-FL62	61
• BV2-4B-FL61/BV2-4B-FL62	62
• BV2B-4B-FL61/BV2B-4B-FL62	63
• BV2-FL/4B-61/BV2-FL/4B-62	64
• BV2B-FL/4B-61/BV2B-FL/4B-62	65
• BV2-MINI	66

Check Valves and Actuator

• CV Series	75
• Air Actuator	76

Specialty High Pressure Ball Valves

• BV2-MM Series	67
• BV2-GRS3/GRS6 Series	68
• BV2-90 Series	69
• BV2-ES Series	70
• BV2-ES-CAT Series	71

Low Pressure Ball Valves

• SBV-1000 Series	77
• BBV-600 Male/Female	78
• BBV-600 Series	79
• SSBV-1000 Series	80
• SSBV-2000 Series	81
• MMBV Series	82

3-Way High Pressure Ball Valves

• BV3/BV3B Series	72
• BV3-FO Series	73
• BV3V Series	74

Ball Valve Accessories Handles, Ball Seats, O-Rings and Kits

• Handles	83-84
• Locking Kits	85
• Ball Seats	86
• O-Rings	87
• Repair Kits	88

DNP Americas Products

Table of Contents

Clamps

Standard Series

- Standard Series Assembly 89
- Standard Rail Nut Assembly 90
- Standard Stacking Assembly 91
- Standard and Heavy Duty Twin 92
- Standard Twin Stacking and Rail Nut Assembly 93

Technical Appendix

- Technical and Material Appendix 105
- Conversion Table 106

Heavy Duty Series

- Heavy Duty Twin Stacking and Rail Nut Assembly 94
- Heavy Duty Assembly 95
- Heavy Duty Rail Nut Assembly 96
- Heavy Duty Stacking Assembly 97
- Standard and Heavy Duty Series with Rubber Bushings 98

Literature Offered

- Other Catalogs Offered 107

Standard and Heavy Duty Series Individual Parts

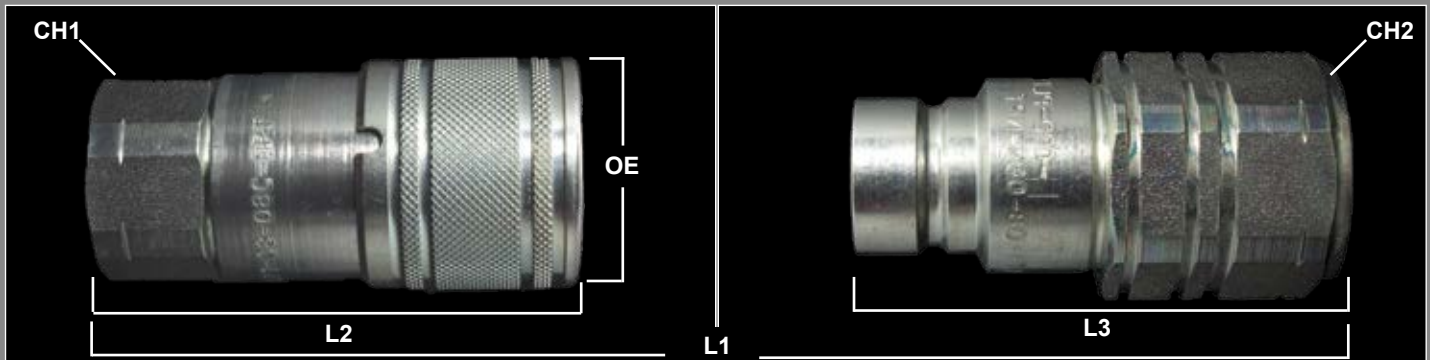
- Standard Series Parts 99-100
- Heavy Duty Series Parts 101-102

Standard and Heavy Duty Series Twin Individual Parts

- Standard Twin Series 103
- Heavy Duty Twin Series 104

FF-GP SERIES QUICK COUPLINGS (PLT1)

ISO 16028 - Flush Face - General Purpose - Push to Connect - Carbon Steel
 Sizes: 1/4" thru 2"



Features and Benefits

- ISO 16028 Standard
- Push to connect
- Sleeve lock device
- Locking radial balls
- Connection under pressure not allowed

Applications

- FF-GP series is ideal for markets where flat face, non-spill couplings are a must.
- Skid steers, skid steer attachments, agricultural, construction, forestry, oil & gas and more.

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe (CR111)
 Seals: NBR standard seals
 Threads: NPT & BSP

MAJOR INTERCHANGES

Parker FE Faster 2FF1
 Tomco FE Aeroquip FD89
 Perfecting HT Snap Tite 74
 Stucchi A & FIRG

DIMENSIONAL & PRESSURE RATING DATA

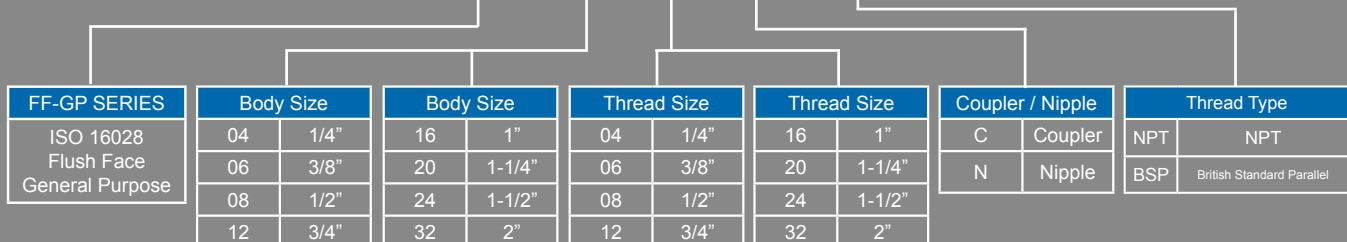
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.87	.87	1.10	4.00	2.30	2.11	3.17	6.34	4,630
06	1.06	1.06	1.26	4.57	2.66	2.50	6.08	12.15	3,675
08	1.26	1.26	1.50	5.39	3.31	2.99	12	23.78	3,675
12	1.81	1.61	1.89	6.20	3.70	3.39	28	52.83	3,675
16	1.97	1.97	2.17	6.97	4.31	3.54	50	73.97	3,675
24	2.76	2.76	3.11	8.27	4.67	4.70	100	184.92	3,675
32	3.15	3.15	4.06	11.42	5.81	6.81	200	264.17	3,675

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

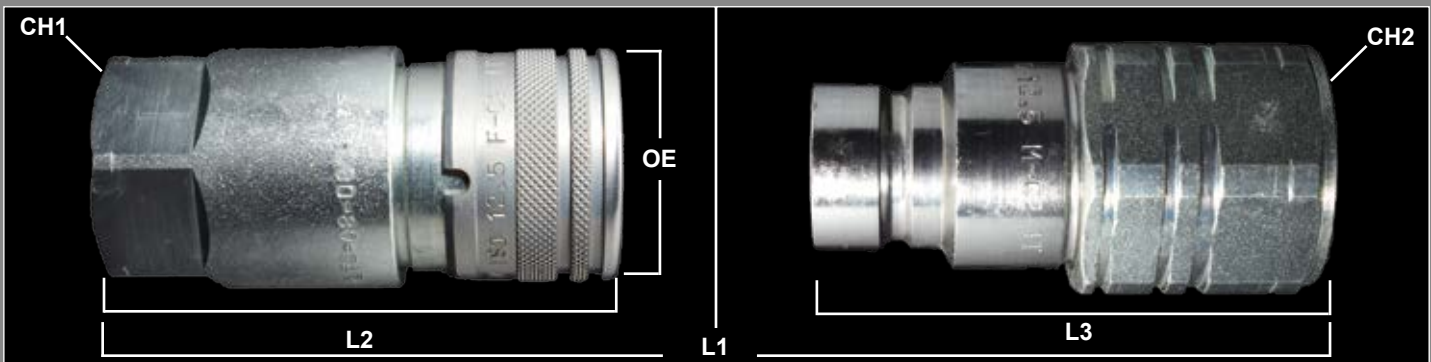
FF-GP - 08 - 08 - C - NPT



FF-HPG SERIES QUICK COUPLINGS (PLT4)

ISO 16028 - Flush Face - High Pressure

Sizes: 1/4" thru 1"



Features and Benefits

- ISO 16028 Standard
- High working pressures to 7,350 PSI
- Sleeve lock device
- Locking radial balls
- Connection under pressure not allowed

Applications

- FF-HPG series is ideal for markets where flat face, non-spill couplings are a must.
- High pressure applications
- High impulse applications

MATERIALS

Body: Carbon Steel
 Coating: Gray Nickel Plating
 Seals: NBR standard seals
 Threads: NPT, SAE, JIC, BSPP

MAJOR INTERCHANGES

Parker FE Faster 2FFI
 Tomco FE Aeroquip FD89
 Perfecting HT Snap Tite 74
 Stucchi A & FIRG

DIMENSIONAL & PRESSURE RATING DATA

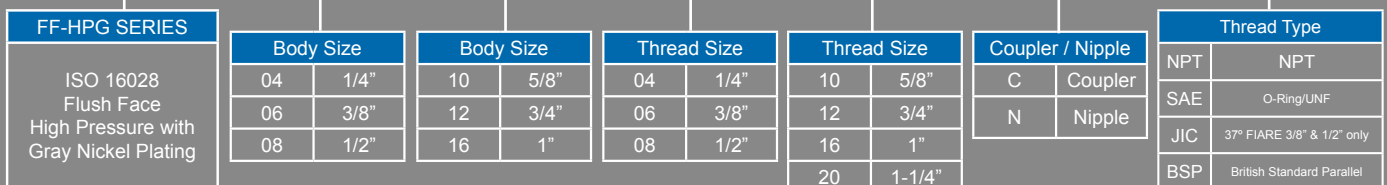
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.87	.87	1.10	3.94	2.30	2.05	3.17	6.34	7,350
06	1.18	1.18	1.26	4.65	2.89	2.38	6.08	12.15	6,600
08	1.42	1.42	1.50	5.61	3.43	2.87	12	23.78	6,600
10	1.42	1.42	1.65	5.57	3.43	2.87	20	39.63	6,600
12	1.61	1.61	1.89	6.06	3.74	3.19	26.42	52.83	6,100
16	2.17	2.17	2.17	6.97	4.31	3.54	50	73.97	6,100

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

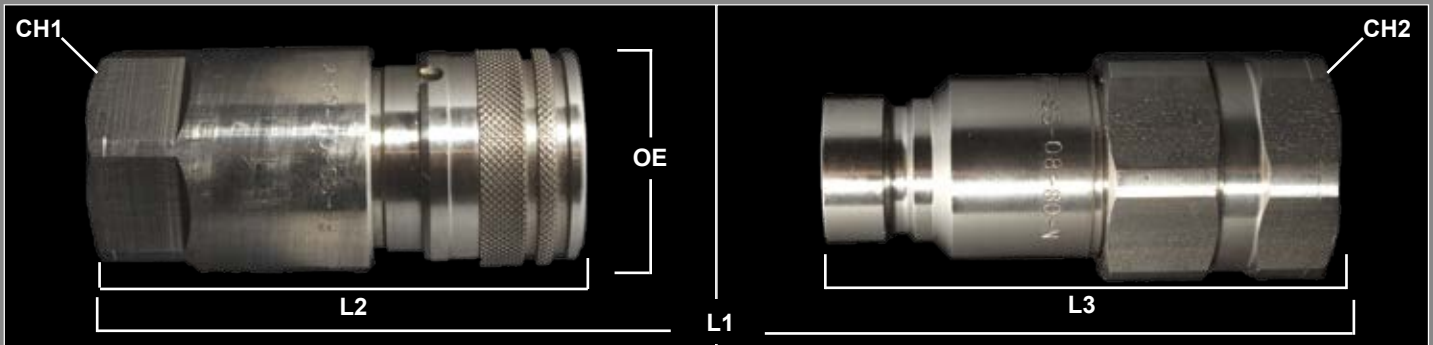
FF-HPG - 08 - 08 - C - NPT



FF-HP-SS SERIES QUICK COUPLINGS (PLTX)

ISO 16028 - Flush Face - 316 Stainless Steel

Sizes: 1/4" thru 1"



Features and Benefits

- ISO 16028 Standard
- High working pressures up to 7,000 PSI
- Sleeve locking device
- Locking radial balls
- Connection under pressure not allowed

Applications

- FF-HP-SS series is ideal for markets where flat face, non-spill couplings are a must.
- Food grade
- Offshore oil & gas
- Petro-chemical
- Harsh environments

MATERIALS

Body: 316 Stainless Steel
 Seals: FKM seals (Viton)
 Threads: NPT, SAE, & BSP

MAJOR INTERCHANGES

Parker FE Faster FF / 2FFI
 Tomco FE Aeroquip FD89
 Perfecting HT Snap Tite 74
 Stucchi FL

DIMENSIONAL & PRESSURE RATING DATA

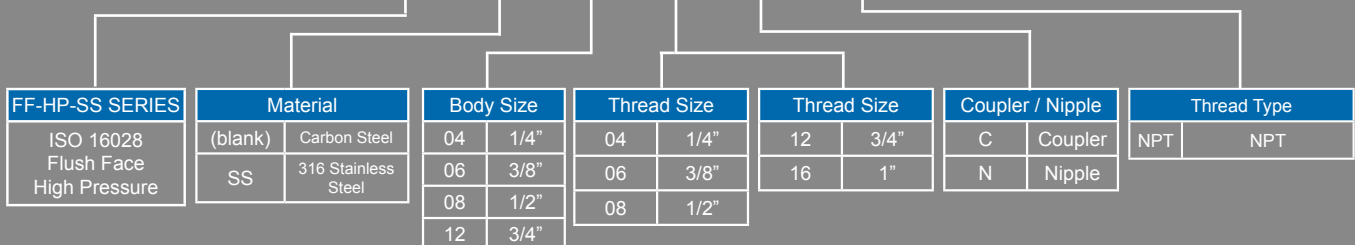
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.87	.87	1.10	4.25	2.32	2.36	3.17	6.34	7,000
06	1.06	1.06	1.26	4.98	2.87	2.74	6.08	12.15	4,400
08	1.42	1.42	1.50	5.94	3.43	3.21	12	23.78	4,200
10	1.42	1.42	1.65	5.96	3.39	3.27	20	39.63	4,200
12	1.61	1.61	1.89	6.54	3.84	3.56	28	52.83	4,200
16	1.97	1.97	2.17	7.15	4.31	3.74	50	73.97	4,200

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

FF-HP - SS - 08 - 08 - C - NPT



FFK SERIES QUICK COUPLING (PLK4)

ISO 16028 - Flush Face - Connect Under Pressure Nipple- Carbon Steel

Sizes: 1/4" thru 1"



Features and Benefits

- ISO 16028 - Interchanges with any ISO 16028 quick disconnect
- Connect under pressure to 3,675 PSI
- High pressure up to 7,350 PSI
- Flat face, non-spill design
- High resistance steel

Applications

- FFK is ideal for systems that need to be connected under residual pressure
- High pressure applications
- Attachments that may have trapped pressure in the system

MATERIALS

Body: Carbon Steel
 Finishing: Corrosion resistant gray ZN-Fe (CR111) plating
 Seals: NBR standard seals
 Threads: NPT, SAE, & BSP

MAJOR INTERCHANGES

Stucchi APM
 Parker FC

DIMENSIONAL & PRESSURE RATING DATA

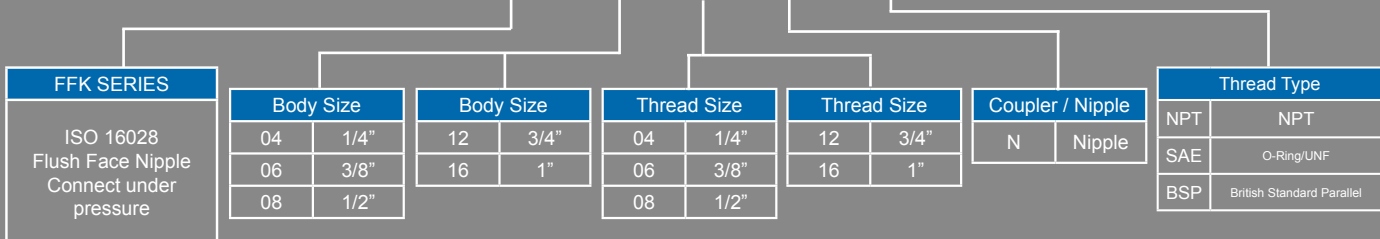
Body Size	CH1	L1	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	1.18	3.07	3.20	6.34	7,350
06	1.42	3.39	6.50	12.15	6,600
08	1.42	3.41	12	23.78	6,600
12	1.42	3.52	28	52.83	6,100
16	1.61	4.13	50	73.97	6,100

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

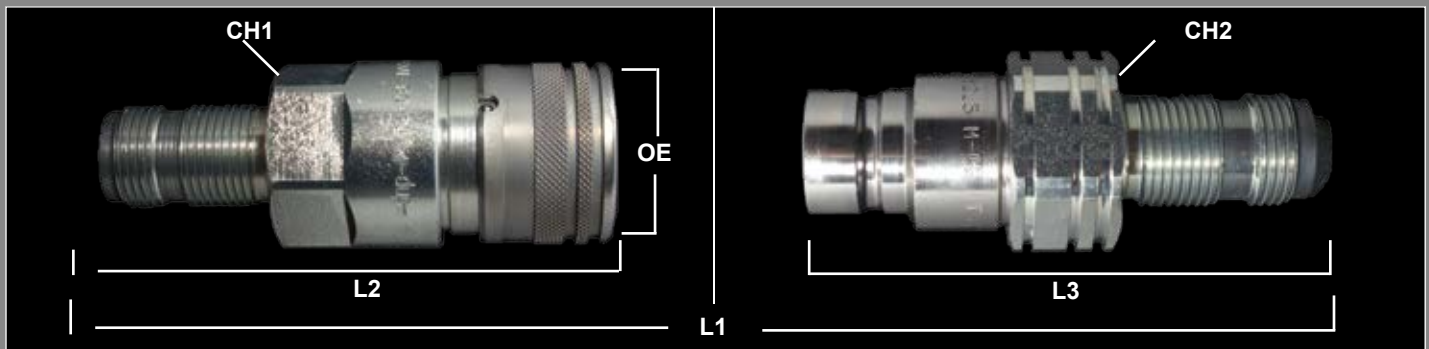
FFK - 08 - 08 - N - NPT



FF-BH SERIES QUICK COUPLINGS (PLT4)

ISO 16028 - Flush Face - Bulkhead

Sizes: 1/2"



Features and Benefits

- ISO 16028 Standard
- High working pressures up to 5,075 PSI
- Sleeve locking device
- Locking radial balls
- Connection under pressure not allowed

Applications

- FF-BH series is ideal for markets where flat face, non-spill couplings are a must.
- Skid steers
- Skid steer attachments
- High pressure applications
- High impulse applications

MATERIALS
 Body: Carbon Steel
 Finishing: Gray nickel plating
 Seals: NBR standard seals
 Threads: Bulkhead JIC and ORFS

MAJOR INTERCHANGES
 Parker FE Faster FF / 2FFI
 AeroquipFD89 Dixon HT
 Snap Tite 74 Stucchi A
 Safeway FF49

DIMENSIONAL & PRESSURE RATING DATA

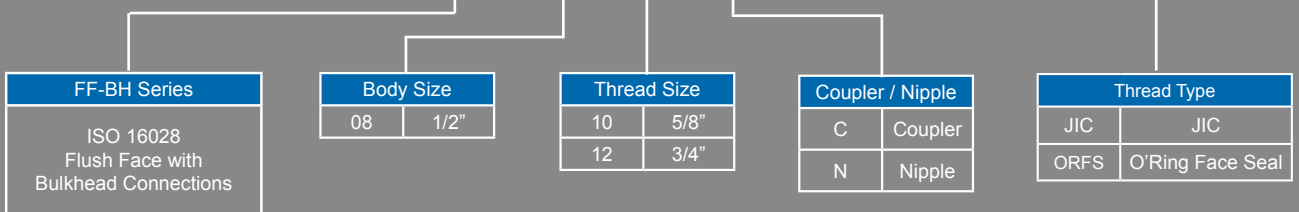
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
08	1.063	1.063	1.496	3.778	2.756	1.890	12	23.78	5,075

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

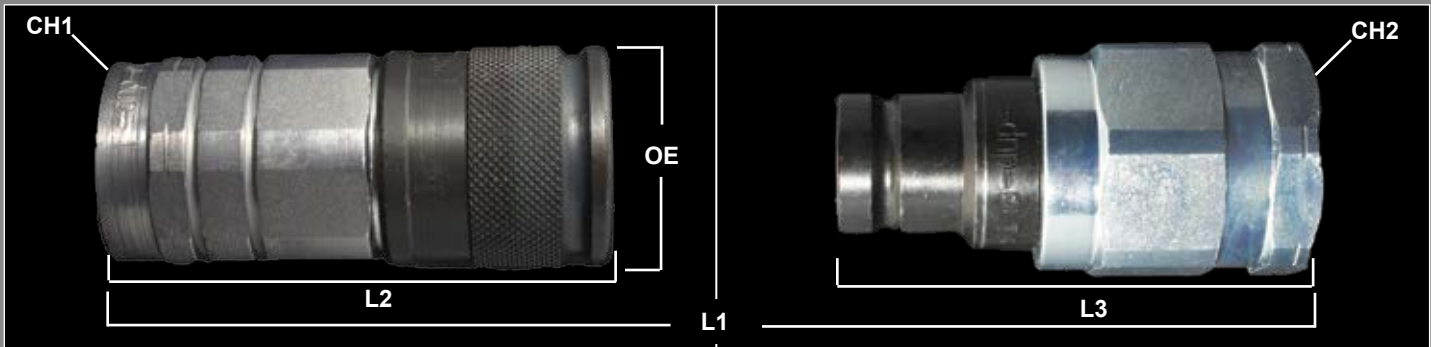
FF-BH - 08 - 10 - N - JIC



FF-UHP SERIES QUICK COUPLINGS (PLT6)

ISO 16028 - Flush Face - Ultra High Pressure

Sizes: 1/4" and 3/8"



Features and Benefits

- ISO 16028 Standard
- 10,000 PSI working pressure
- High resistance steel
- Sleeve locking device
- Locking radial balls
- Connection under pressure not allowed

Applications

- FF-UHP series is ideal for markets where flat face, non-spill couplings are a must
- 10,000 PSI working pressure
- Torque tools
- Emergency systems
- High pressure jacks

MATERIALS

Body: Carbon Steel
 Finishing: Zinc nickel plating
 Seals: NBR standard seals
 Threads: NPT & BSP

MAJOR INTERCHANGES

Parker FH Tomco FF
 AeroquipFD89

DIMENSIONAL & PRESSURE RATING DATA

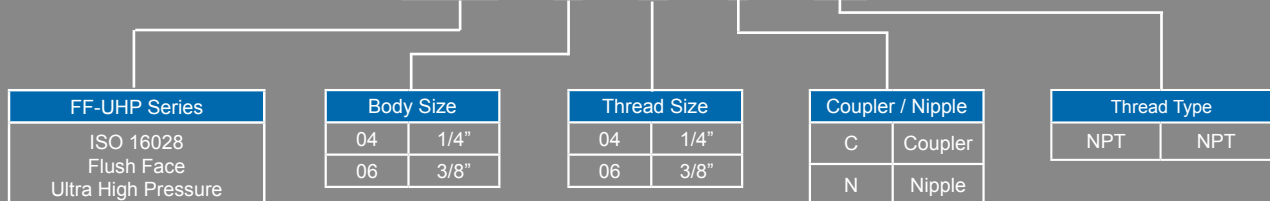
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.866	.866	1.102	3.937	2.323	2.047	3.17	6.34	10,290
06	1.181	1.181	1.260	4.764	2.874	2.520	6.08	12.15	10,290

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

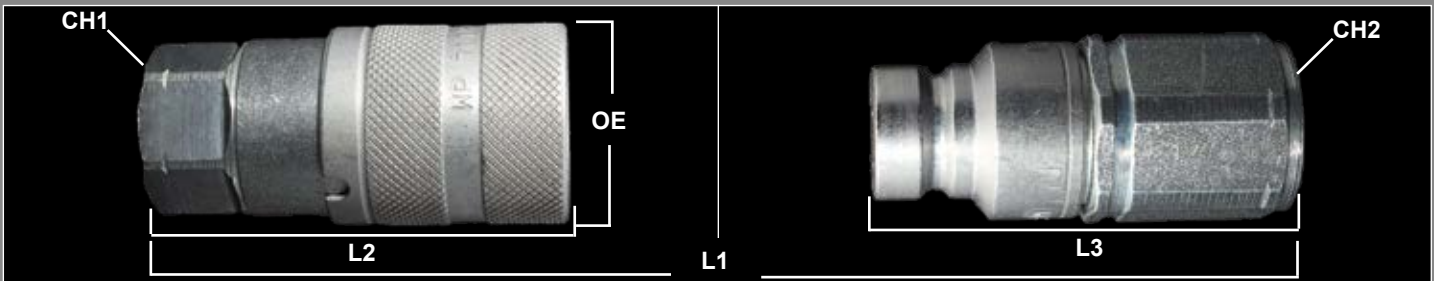
FF-UHP - 04 - 04 - N - NPT



FF-UHP7 SERIES QUICK COUPLINGS (PLT7)

Flush Face - Ultra High Pressure

Sizes: 1/4"



Features and Benefits

- DNP Norm
- 10,000 PSI working pressure
- Will not interchange with ISO 16028 standard
- High resistance steel
- Sleeve locking device
- Locking radial balls
- Connection under pressure not allowed

Applications

- FF-UHP7 series is ideal for markets where flat face, non-spill couplings are a must.
- 10,000 PSI working pressure
- Torque tools
- Emergency systems
- High pressure jacks

MATERIALS

Body: Carbon Steel
 Finishing: Zinc nickel plating
 Seals: NBR standard seals
 Threads: NPT & BSP

MAJOR INTERCHANGES

Stucchi A-HP

DIMENSIONAL & PRESSURE RATING DATA

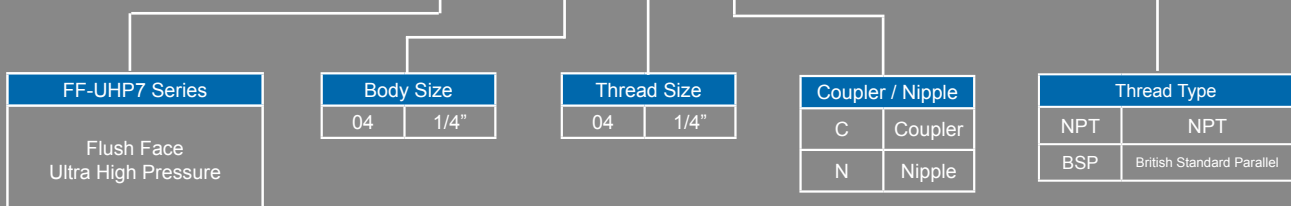
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.87	.87	1.10	4.0	2.30	2.10	6.35	6.34	10,000

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

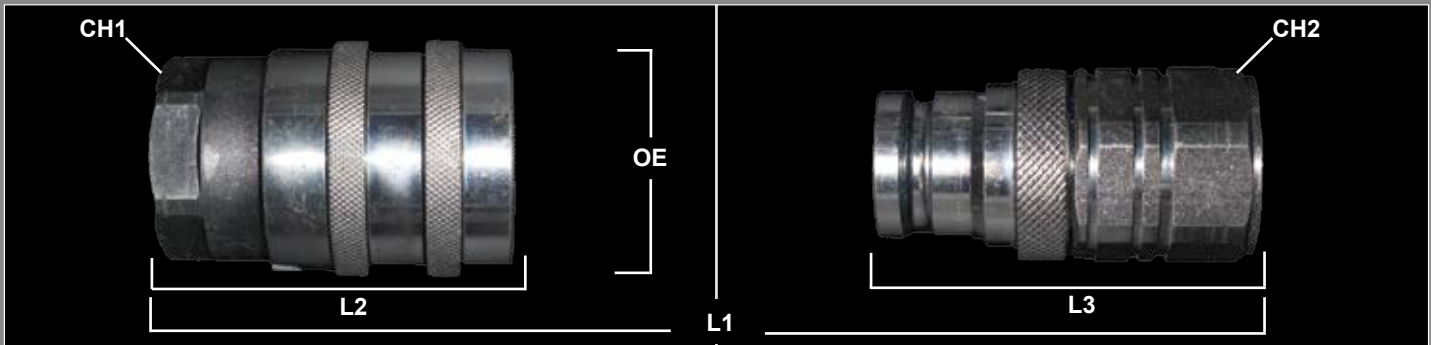
FF-UHP7 - 04 - 04 - N - NPT



71 Series

High Pressure Flat Face

Sizes: 1/4" - 1"



Features and Benefits

- High pressure flat face
- Sleeve lock
- Locking radial balls
- Connection under pressure not allowed

Applications

- High pressure
- High impulses
- Non-spill

MATERIALS

Body: Carbon Steel
 Finishing: Zn-Fe (CR111)
 Seals: NBR Standard Seals
 Threads: NPT

MAJOR INTERCHANGES

Parker/Snap-Tite 71 Series
 Dixon ST Series

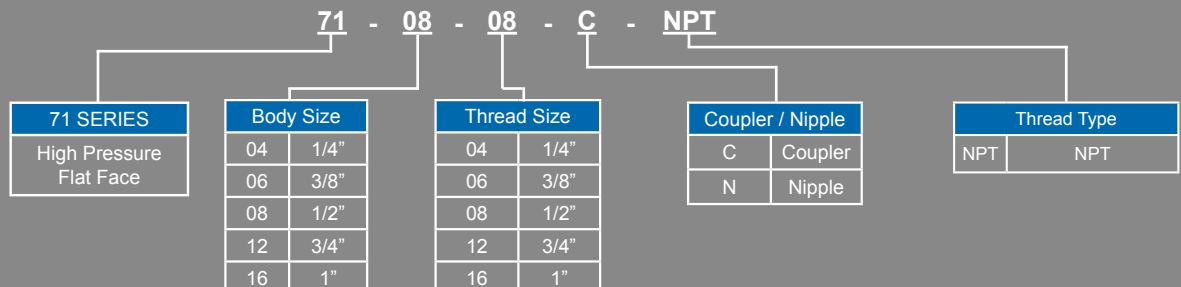
DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.94	.86	1.18	3.64	2.04	2.13	2.50	5.3	5,000
06	1.18	1.18	1.57	4.13	2.43	2.40	6	12	5,000
08	1.49	1.41	1.89	5.04	2.80	2.95	10	16	5,000
12	1.81	1.61	2.28	5.62	3.11	3.43	25	40	5,000
1	1.96	1.96	2.68	6.10	3.46	3.60	47	63	5,000

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:



D - SERIES QUICK COUPLINGS

Flush Face - Diagnostic Test Port

Sizes: 1/4"



Features and Benefits

- Flat Face
- 6,000 PSI working pressure
- Carbon Steel
- Trivalent Chrome Plating
- NBR Standard Seals
- NPT and SAE Threads

Applications

- Diagnostic Testing
- Dynamic Testing
- Mobile Equipment
- Hydraulic Power Units

MATERIALS

Body: Carbon Steel
 Finishing: Trivalent Chrome Plating
 Seals: NBR standard seals
 Threads: NPT & SAE

MAJOR INTERCHANGES

Parker PD Aeroquip FD60
 Faster DF Tomco DK
 Dixon PD

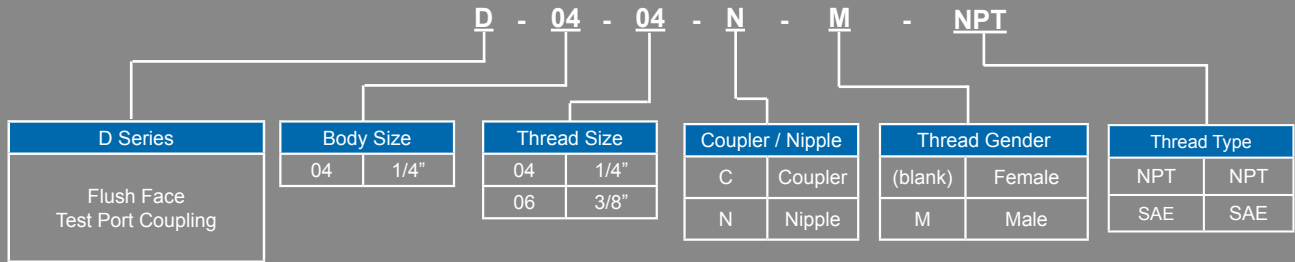
DIMENSIONAL & PRESSURE RATING DATA

Body Size	HEX	Flow Rate @ 14.7 PSI (GPM)	Max Working (PSI)
04	.81	1	6,000

units: inches

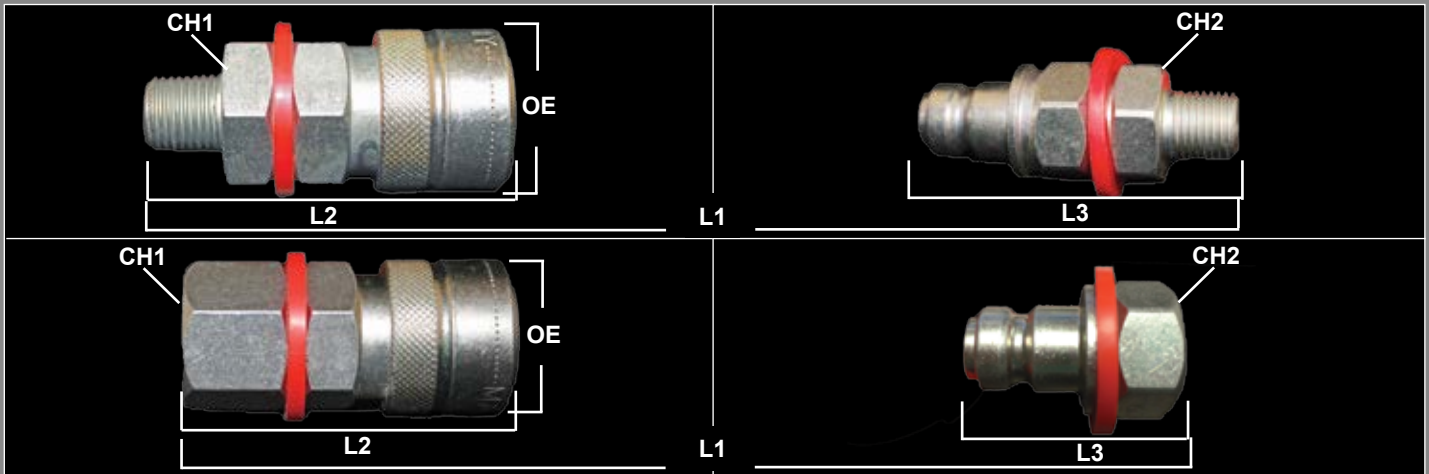
ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:



115 UHP SERIES QUICK COUPLINGS

Ultra High Pressure



Features and Benefits

- 15,000 PSI
- High Pressure
- Flush Face (Non-Drip)
- Standard Cap and Plugs
- NPT Threads
- Tested with Helium @ low and high pressure

Applications

- Torque Equipment
- High Pressure Tools

MATERIALS

Body: High resistance steel
 Finishing: Zn-Fe (Cr111)
 Seals: NBR
 Threads: NPT

DIMENSIONAL & PRESSURE RATING DATA

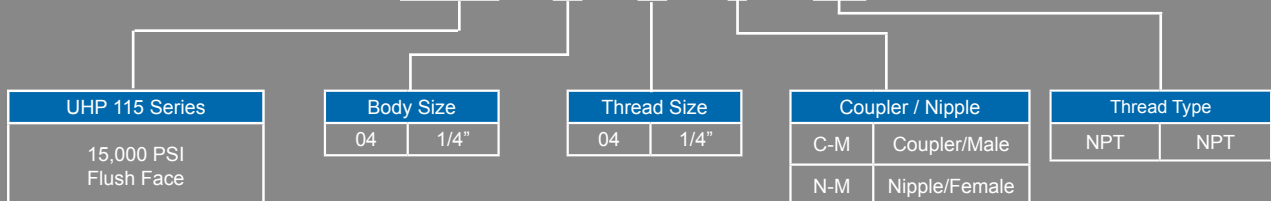
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate (GPM)	Max Working (PSI)	End Type
1/4"	.944	.865	1.10	2.31	1.41	2.98	1.60	15,000 PSI	Female
1/4"	.944	.865	1.10	2.46	2.49	4.24	1.60	15,000PSI	Male

units: inches

ORDERING INFORMATION

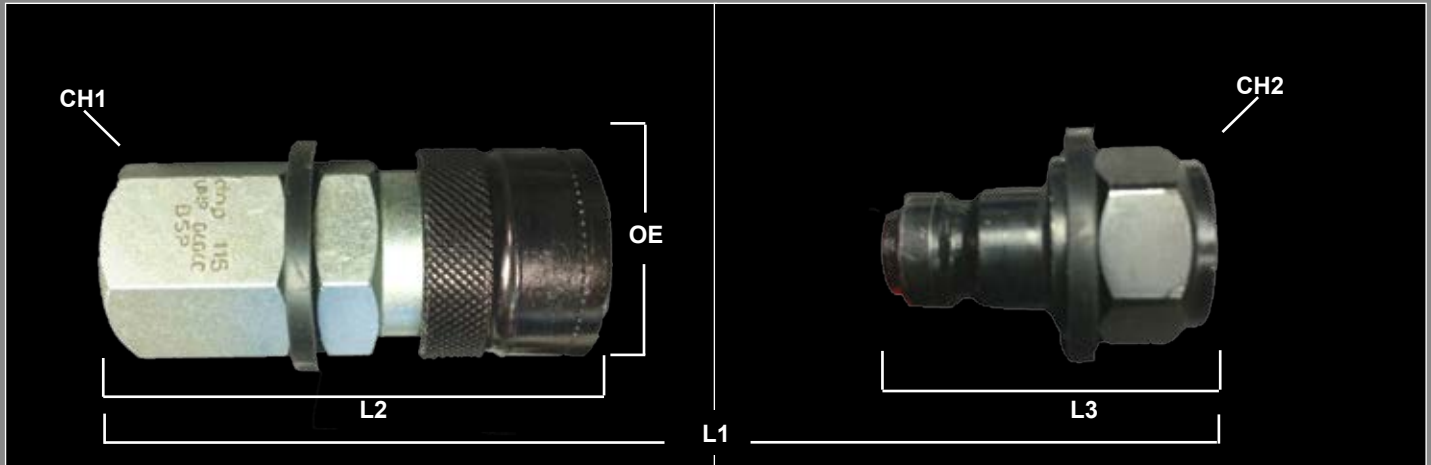
QUICK COUPLING PART NUMBERING SYSTEM:

UHP115 - 04 - 04 - C - NPT



116 UHP SERIES QUICK COUPLINGS

Ultra High Pressure



Features and Benefits

- High Pressure
- 20,000 PSI
- Flush Face (Non-Drip)
- Standard Caps and Plugs
- BSPP Threads
- Tested with Helium @ low and high pressure

Applications

- Torque Equipment
- High Pressure Tools

MATERIALS

Body: High resistance steel
 Finishing: Zn-Fe (Cr111)
 Seals: NBR
 Threads: Female BSPP

DIMENSIONAL & PRESSURE RATING DATA

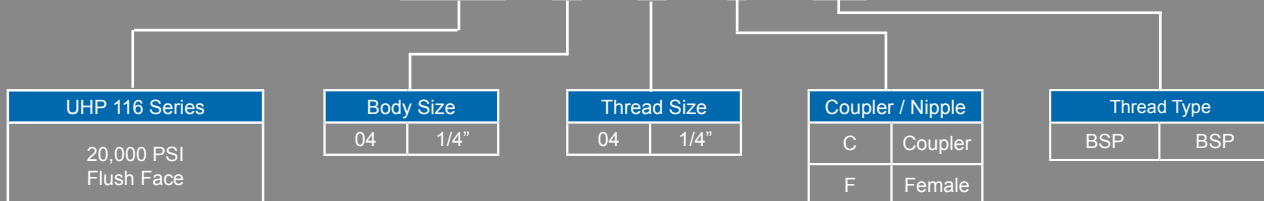
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate (GPM)	Max Working (PSI)	End Type
1/4"	.944	.865	1.10	2.42	1.51	3.19	1.60	20,000	Female

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

UHP 116 - 04 - 04 - C - BSP



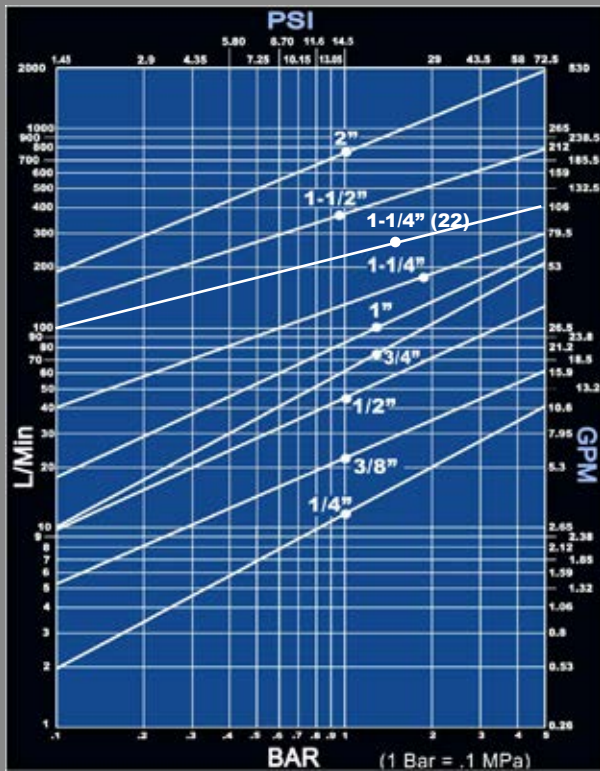
PVT4 SERIES QUICK COUPLINGS

Flat Face Screw Type - Connectable Under Pressure
 Sizes: 1/4" thru 2"



Features and Benefits

- A non-interchangeable upgrade to the FSI Series
- High tech Z-786 anti-corrosion plating salt spray tested for 700 hours before any appearance of surface red rust
- Slimmer design than FSI with no loss in flow rate
- High working pressures
- Seal is blowout resistant to 5,000 PSI when connecting or disconnecting with residual pressure
- Can connect by hand up to 5,000 PSI
- Exceeds 1,000,000 impulse cycles
- Flat face design eliminates spillage upon disconnection
- Thread to connect style coupling eliminates brinelling issues
- Heavy duty hex nut
- Fine threads for smooth makeup
- Standard Threads: NPT, SAE & BSP



DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.5 PSID (GPM)	Max Flow Rate (GPM)	Max Working (PSI)	Fluid Spillage (cc)
04	.86	.86	1.29	4.53	2.66	2.30	3.17	6.34	9,000	.008
06	1.18	1.18	1.417	5.33	3.07	2.90	6.08	12.15	6,500	.010
08	1.42	1.42	1.65	6.14	3.39	3.43	12	24	6,500	.012
12	1.42	1.42	1.65	6.19	3.52	3.39	20	40	6,500	.015
16	1.62	1.62	1.89	7.09	4.13	3.82	26.5	53	6,200	.020
20	2.16	2.16	2.36	8.47	5.03	4.30	50	74	6,200	.030
22	2.16	2.75	2.85	8.44	4.41	5.36	70	120	5,800	.040
24	2.75	2.75	4.13	9.60	6.05	4.67	100	185	5,700	.050
32	3.15	3.15	4.56	11.44	6.81	7.75	200	265	5,700	.100

units: inches

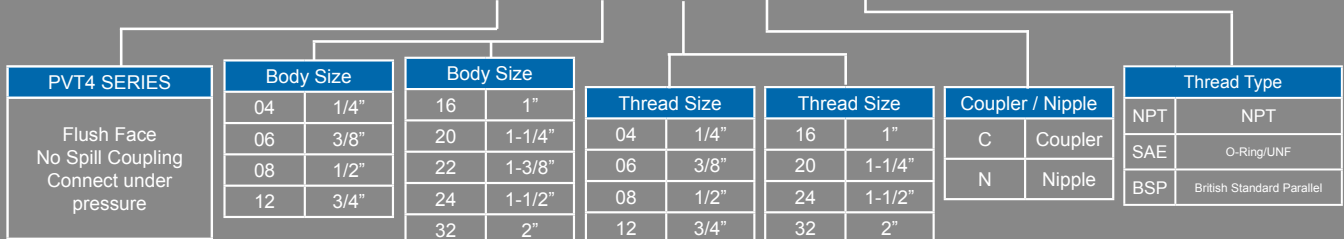
Applications

- Used in a wide range of industrial markets where connecting and disconnecting of hydraulic circuits is needed
- High pressure, low pressure drop and high impulse applications
- Drilling Rigs, Cranes, HPU'S, Heavy Equipment, Hammer attachments and much more

ORDERING INFORMATION

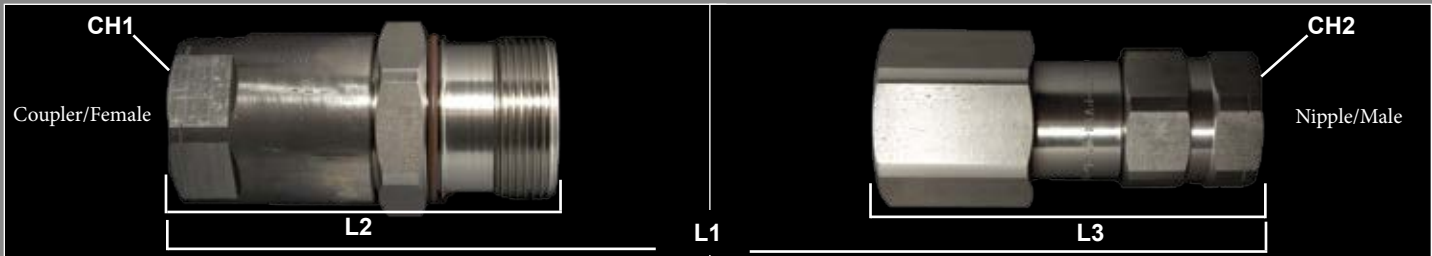
QUICK COUPLING PART NUMBERING SYSTEM:

PVT4 - 08 - 08 - C - NPT



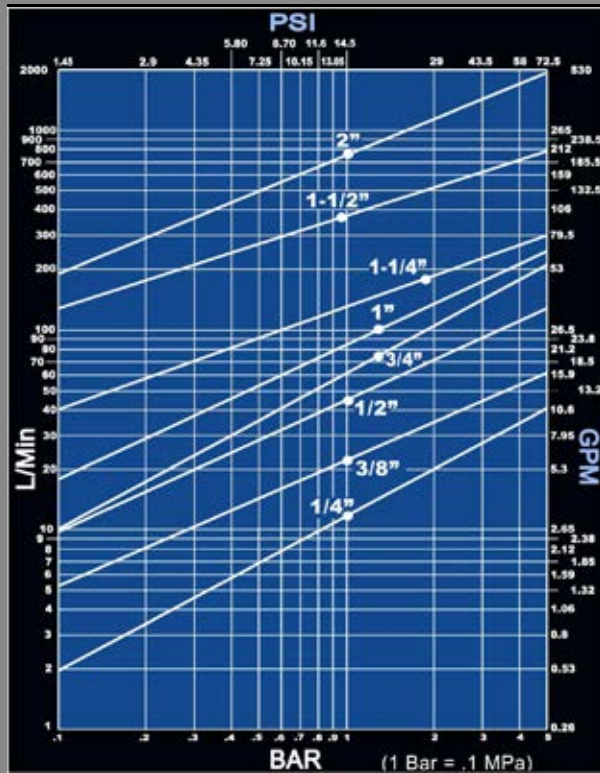
PVT4-SS SERIES QUICK COUPLINGS (PVTX)

Flat Face Screw Type - Connectable Under Pressure - 316 Stainless Steel
 Sizes: 1/4" thru 2"



Features and Benefit

- PVT4-SS is the ultimate coupling for the offshore oil and gas market
- 316 SS material for ultimate corrosion resistance
- Slim design makes for easy plumbing in tight spaces with no loss in flow rate
- High working pressures
- Connects and disconnects by hand up to 4,000 PSI
- Seal is blowout resistant to 4,000 PSI when connecting and disconnecting with residual pressure
- Exceeds 1,000,000 impulse cycles
- Flat face design eliminates spillage upon disconnection
- Thread to connect style coupling eliminates brinelling issues
- Heavy Duty Hex Nut
- Standard Threads: NPT, SAE & BSP



DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.5 PSID (GPM)	Max Flow Rate (GPM)	Max Working (PSI)	Fluid Spillage (cc)
04	.86	.86	1.29	4.53	2.66	2.30	3.17	6.34	5,000	.008
06	1.18	1.18	1.417	5.33	3.07	2.90	6.08	12.15	5,000	.010
08	1.42	1.42	1.65	6.14	3.39	3.43	12	24	5,000	.012
12	1.42	1.42	1.65	6.19	3.52	3.39	20	40	5,000	.015
16	1.62	1.62	1.89	7.09	4.13	3.82	26.5	53	5,000	.020
20	2.16	2.16	2.36	8.47	5.03	4.30	50	74	4,000	.030
24	2.75	2.75	4.13	9.60	6.05	4.67	100	185	3,500	.050
32	3.15	3.15	4.56	11.44	6.81	7.75	200	265	3,000	.100

units: inches

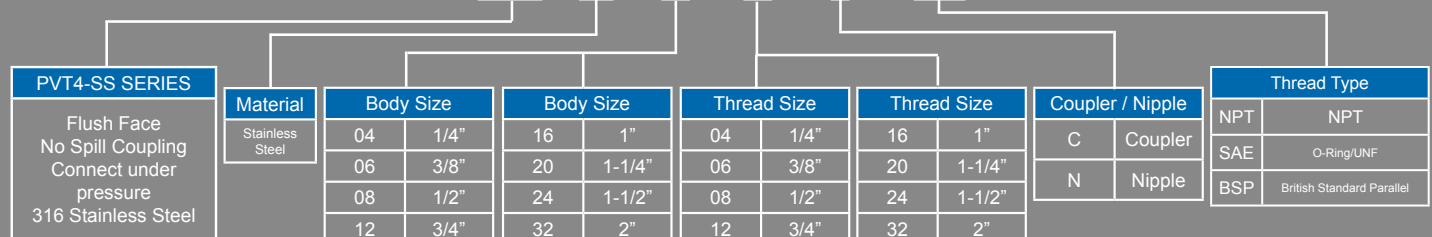
Applications

- Offshore and Marine Industry: Drill Ships, FPSO, Oilfield Service and Drilling Equipment, Rig Cranes, Winches, Platforms, Offshore Salvage and Demolition Equipment
- High pressure, low pressure drop, high impulse applications
- Used in a wide range of industrial markets where connecting and disconnecting of hydraulic circuits is needed

ORDERING INFORMATION

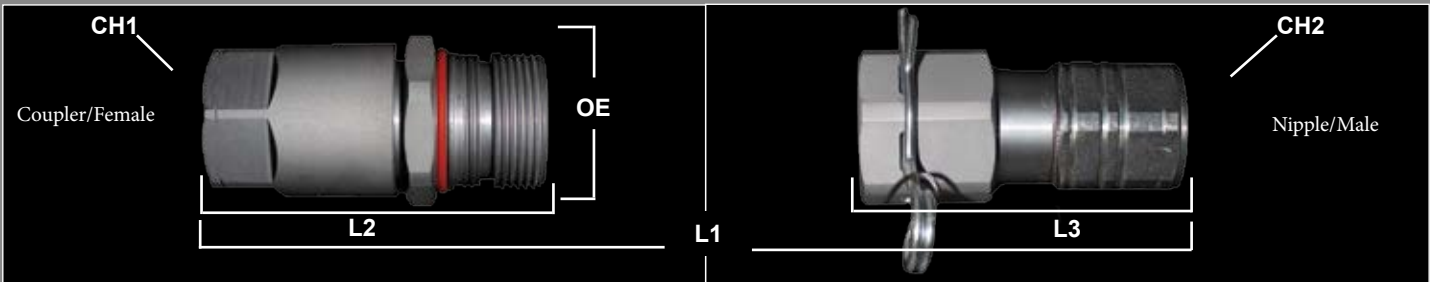
QUICK COUPLING PART NUMBERING SYSTEM:

PVT4 - SS - 08 - 08 - C - NPT



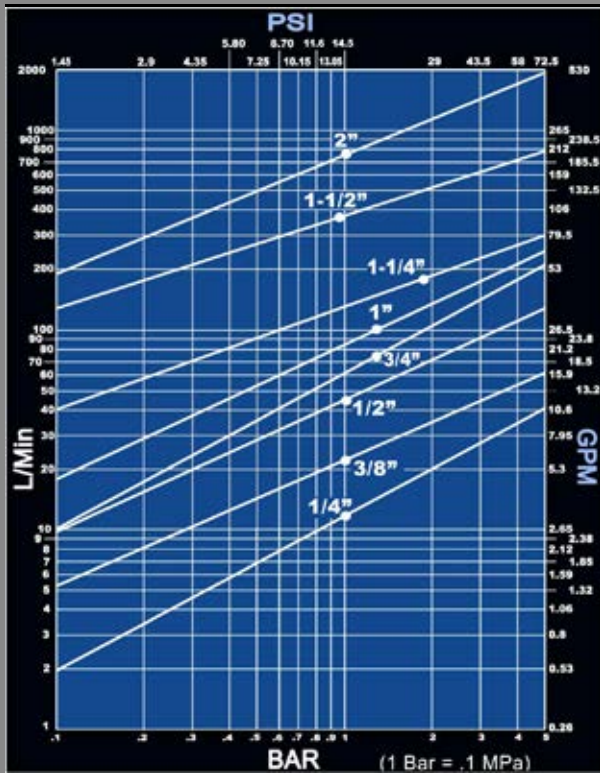
PVT4-PINLOCK SERIES QUICK COUPLINGS

Flat Face Screw Type - Connectable Under Pressure- With Pin Lock
 Sizes: 1/4" thru 2"



Features and Benefits

- A non-interchangeable upgrade to the FSI Series
- High tech Z-786 anti-corrosion plating salt spray tested for 700 hours before any appearance of surface red rust
- Slimmer design than FSI with no loss in flow rate
- High working pressures
- Seal is blowout resistant to 5,000 PSI when connecting or disconnecting with residual pressure
- Can connect by hand up to 5,000 PSI
- Exceeds 1,000,000 impulse cycles
- Flat face design eliminates spillage upon disconnection
- Thread to connect style coupling eliminates brinelling issues
- Heavy duty hex nut
- Fine threads for smooth makeup
- Additional Pin Lock to ensure no accidental disconnection
- Standard Threads: NPT, SAE & BSP



DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.5 PSID (GPM)	Max Flow Rate (GPM)	Max Working (PSI)	Fluid Spillage (cc)
04	.86	.86	1.29	4.53	2.66	2.30	3.17	6.34	9,000	.008
06	1.18	1.18	1.417	5.33	3.07	2.90	6.08	12.15	6,500	.010
08	1.42	1.42	1.65	6.14	3.39	3.43	12	24	6,500	.012
12	1.42	1.42	1.65	6.19	3.52	3.39	20	40	6,500	.015
16	1.62	1.62	1.89	7.09	4.13	3.82	26.5	53	6,200	.020
20	2.16	2.16	2.36	8.47	5.03	4.30	50	74	6,200	.030
22	2.16	2.75	2.85	8.44	4.41	5.36	70	120	5,800	.040
24	2.75	2.75	4.13	9.60	6.05	4.67	100	185	5,700	.050
32	3.15	3.15	4.56	11.44	6.81	7.75	200	265	5,700	.100

units: inches

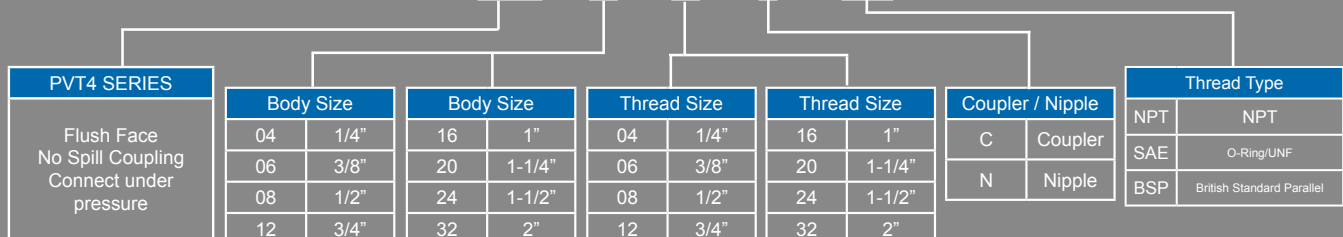
Applications

- Used in a wide range of industrial markets where connecting and disconnecting of hydraulic circuits is needed
- High pressure, low pressure drop and high impulse applications
- Drilling Rigs, Cranes, HPU'S, Heavy Equipment, Hammer attachments and much more

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

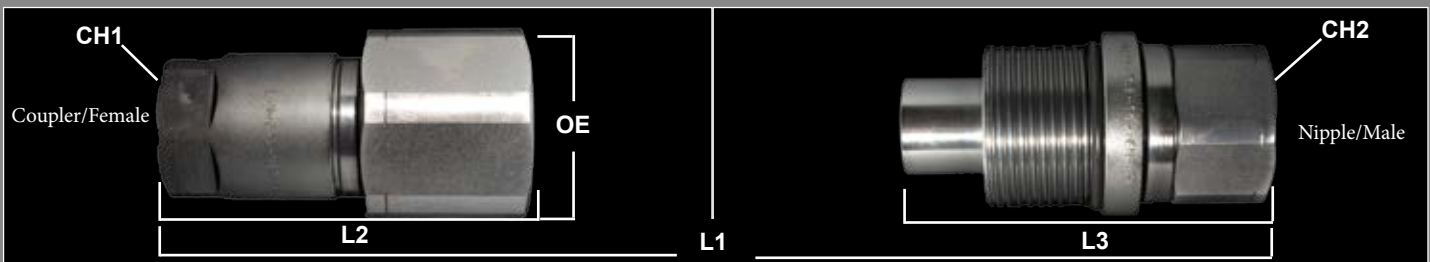
PVT4 - 08 - 08 - C - NPT



FSI SERIES QUICK COUPLINGS

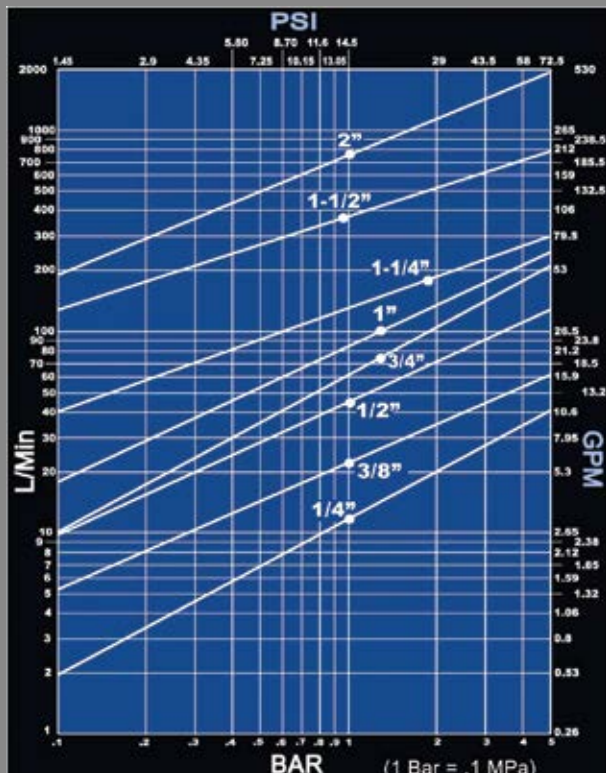
Flush Face - Screw Type - Connectable Under Pressure

Sizes: 1/4" thru 2"



Features and Benefits

- Interchanges with Stucchi VEP
- High tech Z-786 anti-corrosion plating salt spray tested for 700 hours before any appearance of surface red rust
- High working pressures
- Connects and disconnects by hand up to 4,400 PSI
- Seal is blowout resistant to 4,400 PSI when connecting or disconnecting with residual pressure
- Exceeds 1,000,000 impulse cycles
- Flat face design eliminates spillage upon disconnection
- Thread to connect style coupling eliminates brinelling issues
- Heavy duty hex nut
- Standard threads: NPT, SAE, BSPP, DIN, Code 62



DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.5 PSID (GPM)	Max Flow Rate (GPM)	Max Working (PSI)	Fluid Spillage (cc)
04	.86	.86	1.53	4.58	2.34	2.64	3.17	6.34	9,000	.008
06	1.18	1.18	1.64	5.39	2.95	3.05	6.08	12.15	6,500	.010
08	1.41	1.41	1.96	6.00	4.35	3.56	12	24	6,500	.012
12	1.41	1.41	2.17	6.25	4.60	3.54	20	40	6,500	.015
16	1.61	1.61	2.32	7.50	5.26	4.21	26.5	53	6,200	.020
20	2.16	2.16	2.75	8.45	4.37	4.98	50	74	6,200	.030
24	2.75	2.95	3.89	9.68	4.70	6.04	100	185	5,700	.050
32							200	265	5,700	.100

units: inches

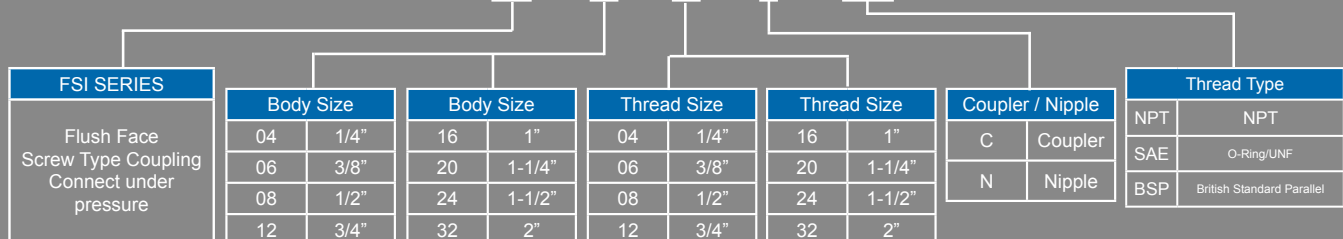
Applications

- FSI series couplings are used in a wide range of industrial markets when connecting and disconnecting is needed
- High pressure, low pressure drop and high impulse applications
- Drilling Rigs, Oilfield Services, Drilling Equipment, Cranes, Heavy Equipment, Hammer Attachments and much more

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

FSI - 08 - 08 - C - NPT



VFF SERIES QUICK COUPLINGS

Brass Wing Style - Screw to Connect

Sizes: 3/4" thru 1-1/2"



Features and Benefits

- Corrosion resistant brass body
- Wing style screw to connect
- Connect and disconnect under residual pressure
- Wing or Hex Nut

Applications

- Universal design for interchangeability
- Used frequently in oilfield applications
- Wet line kits

MATERIALS

Body: Brass
 Wing Nut: Carbon Steel
 Seals: NBR standard seals
 Threads: NPT

MAJOR INTERCHANGES

Parker 6100 Faster FB
 Safeway S51 Aeroquip 5100
 Dixon W SnapTite 78
 Tomco A51

DIMENSIONAL & PRESSURE RATING DATA

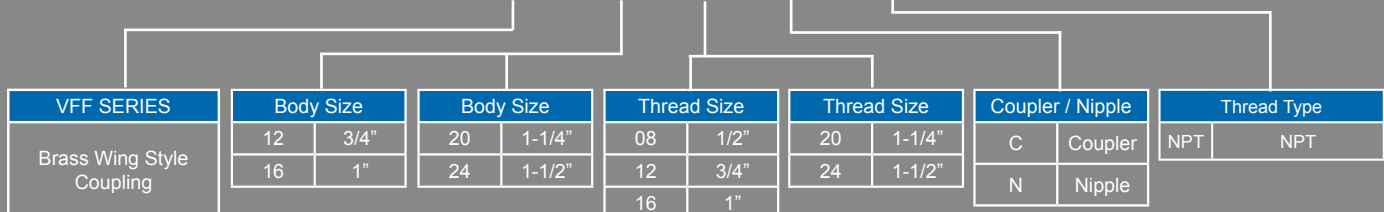
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Working (PSI)
12	1.15	1.32	4.07	5.26	3.09	3.09	35	3,000
16	1.44	1.57	4.41	6.10	3.73	3.55	55	3,000
20	1.78	1.90	5.20	6.50	3.94	3.72	80	2,750
24	2.00	2.26	5.32	8.30	4.10	4.10	110	2,500

units: inches

ORDERING INFORMATION

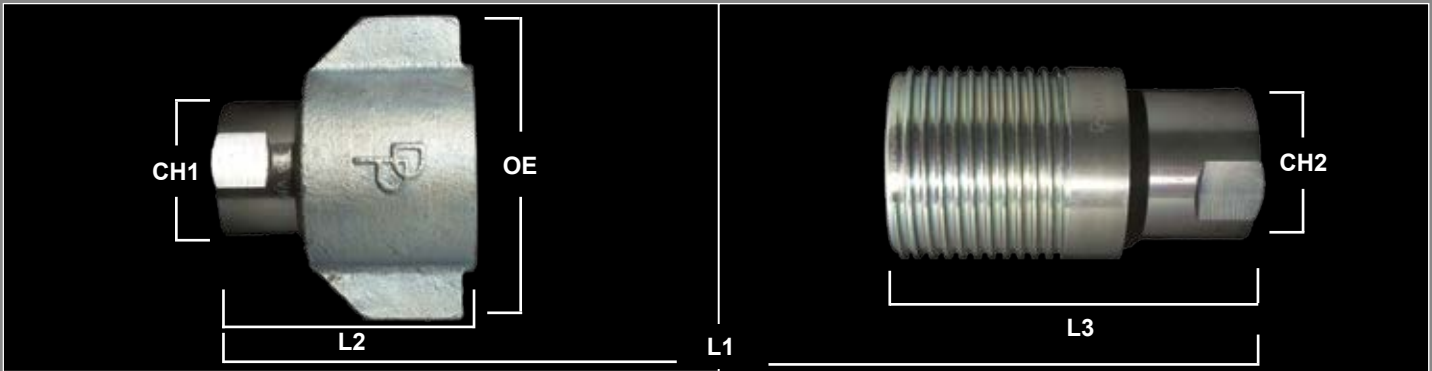
QUICK COUPLING PART NUMBERING SYSTEM:

VFF - 12 - 12 - C - NPT



VFF-HD SERIES QUICK COUPLINGS

Heavy Duty Wing Style - Screw to Connect
 Sizes: 3/4" thru 2"



Features and Benefits

- Wing style screw to connect
- 5,000 PSI working pressure
- Heavy duty design
- High flow rate
- Heavy duty acme threads

Applications

- VFF-HD has a universal design that can be used in any industry
- Used frequently in oilfield applications
- Applications needing high working pressures and high flow rates
- Oilfield services such as coiled tubing units, snubbing units, power swivels and much more

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe
 Seals: NBR standard seals
 Threads: NPT

MAJOR INTERCHANGES

Dixon WS Hydraulics INC 5TV
 SnapTite 75

DIMENSIONAL & PRESSURE RATING DATA

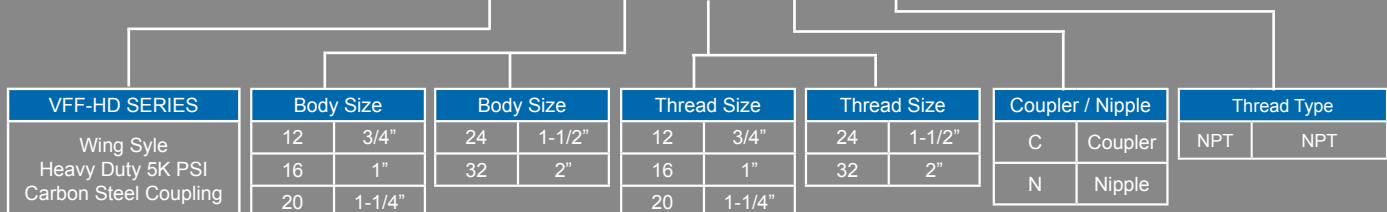
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
12	1.39	1.39	2.24	4.86	2.74	3.28	40	5,000
16	1.78	1.78	2.76	6.90	3.33	4.17	60	5,000
20	2.14	2.14	3.25	7.24	4.29	5.37	82	5,000
24	2.50	2.50	3.80	8.30	5.00	6.00	110	5,000
32	3.25	3.25	4.71	9.33	6.00	7.06	240	5,000

units: inches

ORDERING INFORMATION

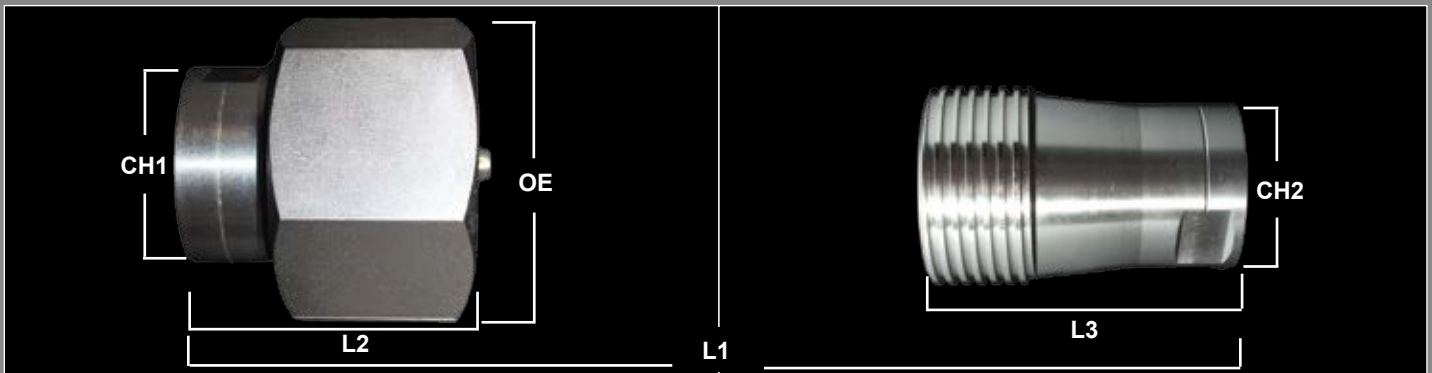
QUICK COUPLING PART NUMBERING SYSTEM:

VFF-HD-S - 12 - 12 - C - NPT



VIV1 SERIES QUICK COUPLINGS

High Flow Screw Type
 Sizes: 1-1/4" thru 3"



Features and Benefits

- Large bore couplings
- High flow rates up to 525 GPM
- Working pressures from 2,200 to 3,000 PSI
- Connectable under residual pressure
- Thread to connect eliminates brinelling issues

Applications

- Hydraulic return lines
- Low pressure diesel supply lines
- Applications needing large bore with high flow rates

MATERIALS

Body: ZN-Fe (CRIII) with Hex Sleeve
 Seals: NBR standard seals
 Threads: NPT & BSPP

DIMENSIONAL & PRESSURE RATING DATA

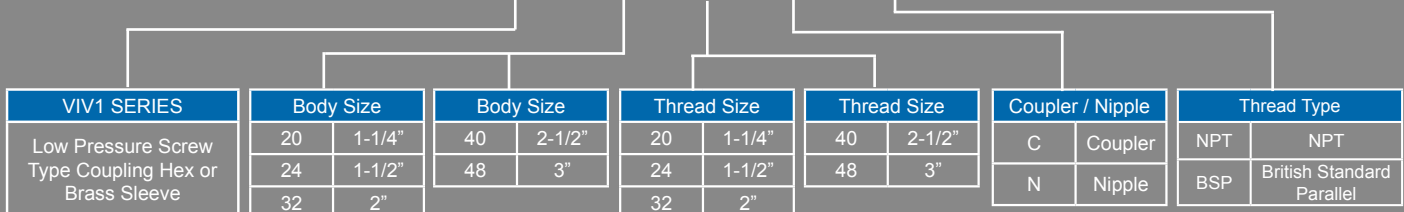
Body Size	CH1	CH2	OE	L1	L2	L3	Hex Size	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
20	1.97	1.97	2.48	5.43	2.76	4.06	2-3/4"	77	127	3,000
24	2.05	2.05	2.76	5.71	2.87	4.25	3"	100	185	3,000
32	3.15	3.15	4.09	7.03	3.50	5.26	4-1/2"	200	265	2,900
40	3.15	3.15	4.09	6.81	3.35	5.12		225	300	2,900
48	3.95	3.95	4.85	9.81	5.25	6.50		300	525	2,200

units: inches

ORDERING INFORMATION

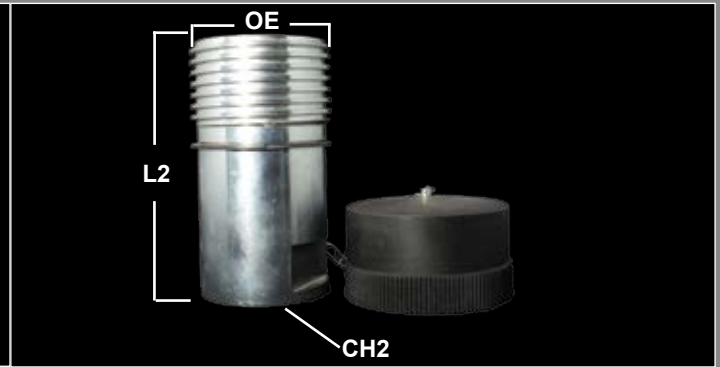
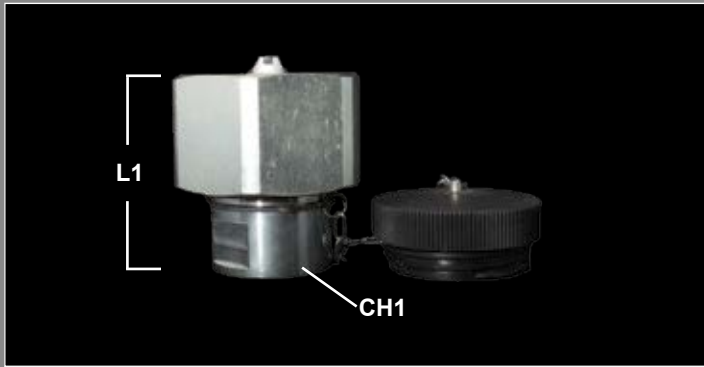
QUICK COUPLING PART NUMBERING SYSTEM:

VIV1 - 20 - 20 - C - NPT



PVR SERIES QUICK COUPLINGS

High Impulse - Screw To Connect
 Sizes: 3/8" thru 1-1/2"



Features and Benefits

- High impulse tested up to 1 million impulse cycles
- High working pressures
- Guided poppets
- High resistant steel
- Connectable under pressure

Applications

- High impulse, high flow & high pressure applications
- High impulse rock hammers, breakers & shears
- Construction market
- Demolition market

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: BSPP
 Accessories: Plastic cap & plug included with chain

MAJOR INTERCHANGES

Roflex / Holmbury Series

DIMENSIONAL & PRESSURE RATING DATA

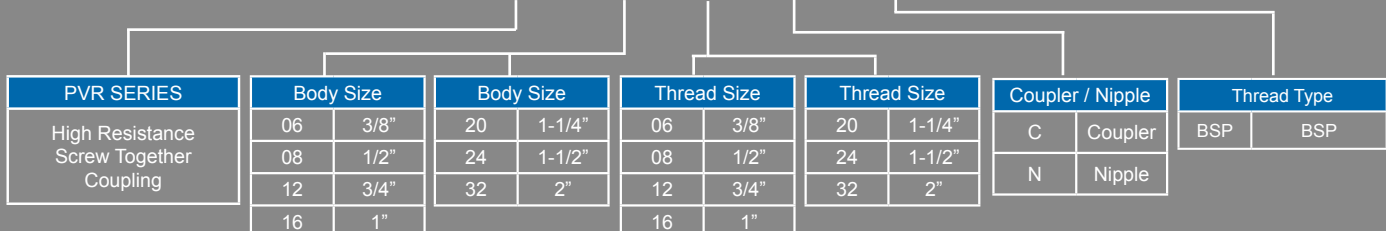
Body Size	CH1	CH2	OE	L1	L2	Flow Rate @ 14.7 PSI (GPM)	Max Flow (GPM)	Max Working (PSI)
06	.87	.87	1.42	2.24	3.03	6	13	8,845
08	.94	.94	1.57	2.76	3.74	12	22	6,815
12	1.18	1.18	1.77	2.87	3.90	28	40	5,000
16	1.57	1.57	2.28	3.19	4.17	50	75	5,000
20	1.81	1.81	2.60	3.46	4.65	75	120	5,000
24	2.17	2.17	2.95	3.54	4.76	100	185	4,000

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

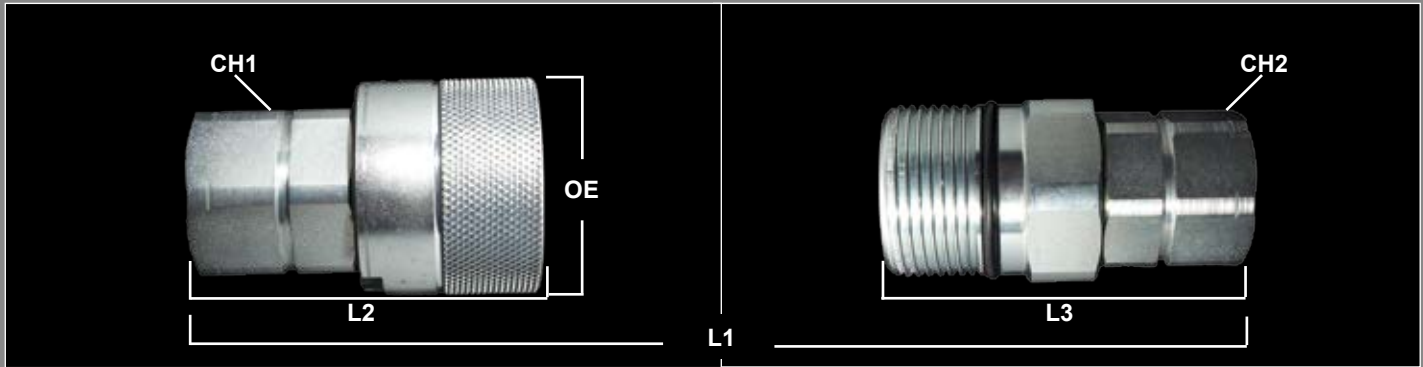
PVR - 12 - 12 - C - BSP



PVV3 SERIES QUICK COUPLINGS

Screw To Connect - Connect Under Pressure

Sizes: 1/4" thru 1-1/4"



Features and Benefits

- Widely used in German market
- Screw type with poppet valve
- Connect under residual pressure
- Low cost

Applications

- PVV3 is ideal for systems with high impulses and systems experiencing trapped pressure in hydraulic lines
- Cranes, Hammers, Rock Crushers, Shears, Micro-tunneling, Mining & Pile Driving

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: NPT, BSPP, DIN

MAJOR INTERCHANGES

Faster CVV Voswinkel HS
 TCH Germany 65 Argus HDK

DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.75	.75	1.35	3.66	2.32	2.28	3.17	4.49	5,075
06	.87	.87	1.34	3.86	2.52	1.93	6.10	12.15	4,788
08	1.42	1.42	1.65	4.29	2.76	2.20	11.89	23.78	4,410
12	1.61	1.61	1.87	5.08	3.31	2.60	28.00	50.19	3,675
16	1.97	1.97	2.17	5.98	3.94	3.07	49.93	73.97	3,675
20	2.17	2.17	3.15	8.27	4.96	5.16	76.00	126.80	2,940

units: inches

ORDERING INFORMATION

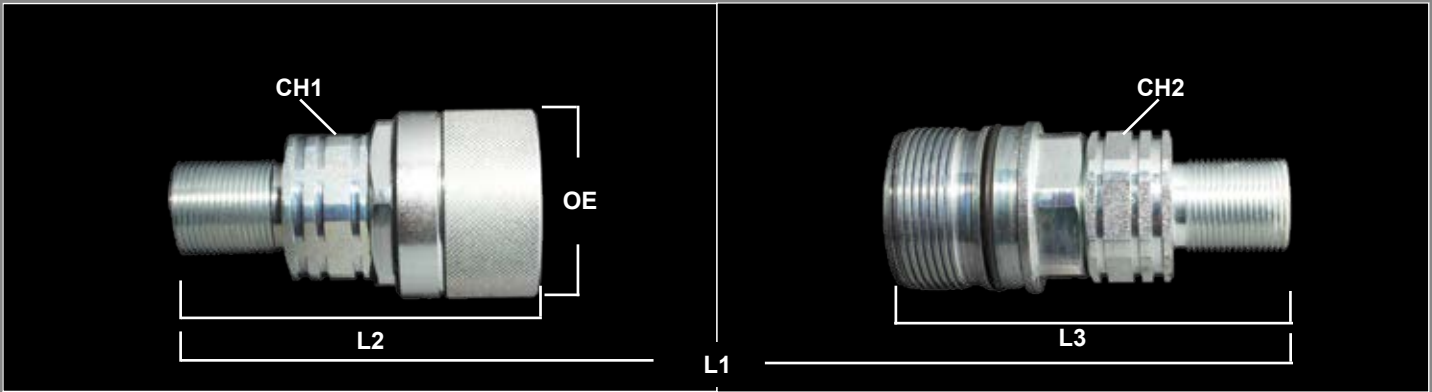
QUICK COUPLING PART NUMBERING SYSTEM:

PVV3 - 12 - 12 - C - NPT

PVV3 SERIES	Body Size		Body Size		Thread Size		Thread Size		Coupler / Nipple		Thread Type	
Connect Under Pressure Screw Together Couplings	04	1/4"	12	3/4"	04	1/4"	12	3/4"	C	Coupler	NPT	NPT
	06	3/8"	16	1"	06	3/8"	16	1"	N	Nipple	BSP	British Standard Parallel
	08	1/2"	20	1-1/4"	08	1/2"	20	1-1/4"			DIN	Metric

PVV3-BH SERIES QUICK COUPLINGS

Bulkhead - Screw To Connect - Connect Under Pressure
 Sizes: 1/4" thru 1-1/4"



Features and Benefits

- Widely used in German Market
- Screw type with poppet valve
- Connect under residual pressure
- Low cost

Applications

- PVV3 is ideal for systems with high impulse and systems experiencing trapped pressures in hydraulic lines
- Cranes, Hammers, Rock Crushers, Sheers, Micro-Tunneling, Mining & Pile Driving

MATERIALS
 Body: Carbon Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: DIN Light / DIN Heavy

MAJOR INTERCHANGES
 Faster CVV Voswinkel HS
 TCH Germany 65 Argus HDK

DIMENSIONAL & PRESSURE RATING DATA

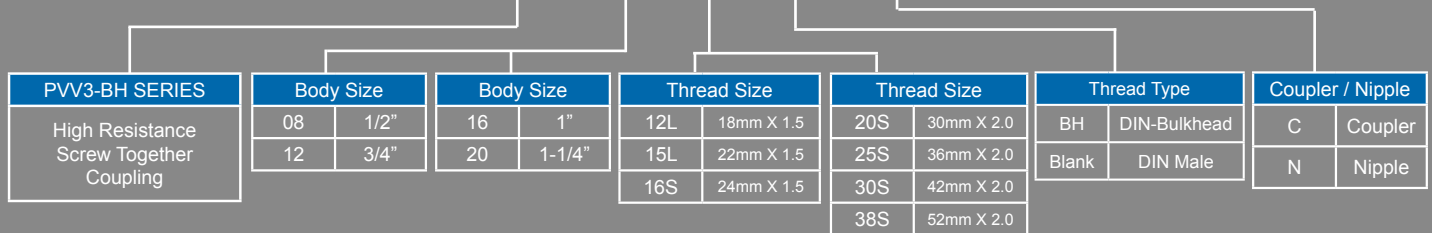
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
08	1.18	1.18	1.65	1.65	2.56	2.00	11.89	23.78	4,410
12	1.42	1.42	1.87	5.08	3.31	2.60	28.00	50.19	3,675
16	1.61	1.61	2.17	5.91	3.90	3.03	49.93	73.97	3,675
20	2.17	2.17	3.15	7.40	4.53	4.72	76.10	126.80	2,940

units: inches

ORDERING INFORMATION

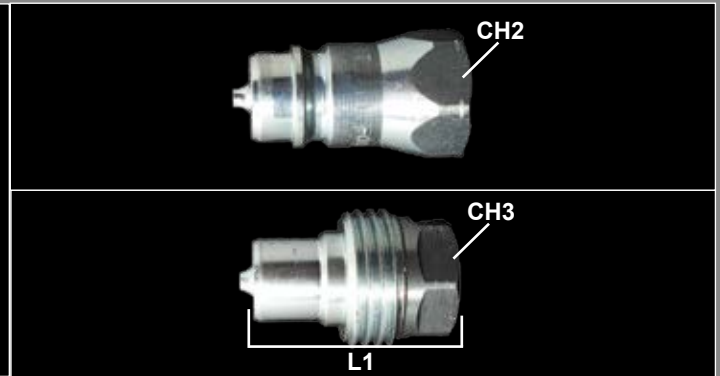
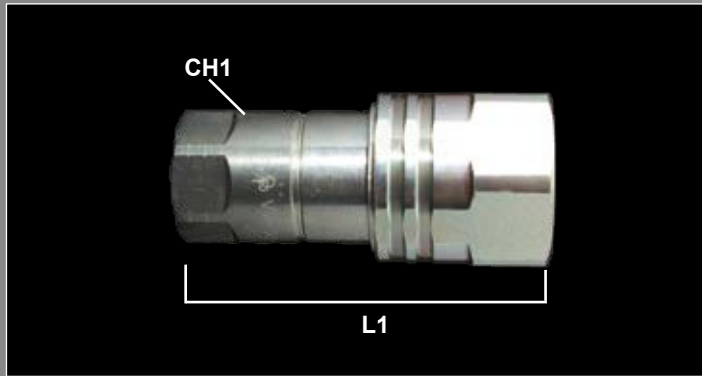
QUICK COUPLING PART NUMBERING SYSTEM:

PVV3 - 08 - 12L - BH - C



VV SERIES QUICK COUPLINGS

All In One - Screw Type - Push / Pull
 Sizes: 1/4" thru 1"



Features and Benefits

- Screw to connect
- Interchangeable to DNP NV poppet style
- Connect under residual pressure
- Screw to connect & push pull combination

Applications

- VV series is ideal for mobile equipment
- High vibration applications
- Snow Plows
- Compact screw type in tight plumbing spaces

MATERIALS
 Body: Carbon Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: NPT & BSP

MAJOR INTERCHANGES
 Faster VV

DIMENSIONAL & PRESSURE RATING DATA

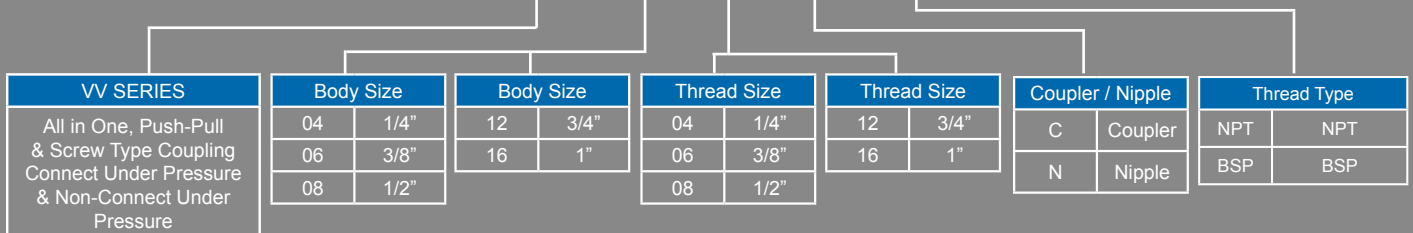
Body Size	CH1	CH2	CH3	L1	L2	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
04	.75	.75	1.38	2.07	1.03	4.8	5,100
06	.94	.94	1.673	2.46	1.59	8.0	4,350
08	1.06	1.06	1.89	2.74	1.93	12	4,350
12	1.34	1.34	2.24	3.47	2.44	24	3,625
16	1.60	1.60	2.58	4.13	2.75	37	3,350

units: inches

ORDERING INFORMATION

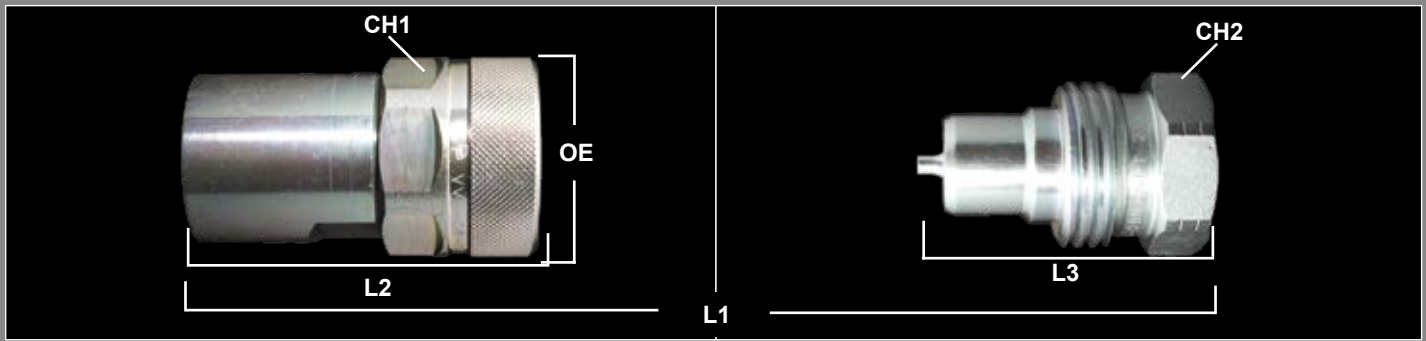
QUICK COUPLING PART NUMBERING SYSTEM:

VV - 12 - 12 - C - NPT



VVS SERIES QUICK COUPLINGS

High Pressure - Screw to Connect
 Sizes: 1/4" thru 1-1/4"



Features and Benefits

- Screw to connect
- Ultra high pressure
- Low pressure drop
- Connect under pressure up to 3,000 PSI
- Thread to connect couplings eliminates brinelling issues

Applications

- Used in a wide range of industrial markets where connecting and disconnecting of hydraulic circuits is needed
- High pressure valved applications
- Wireline applications
- High impulse applications

MATERIALS

Body: High Resistant Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: NPT & BSPP

Interchange:
 Faster VVS

DIMENSIONAL & PRESSURE RATING DATA

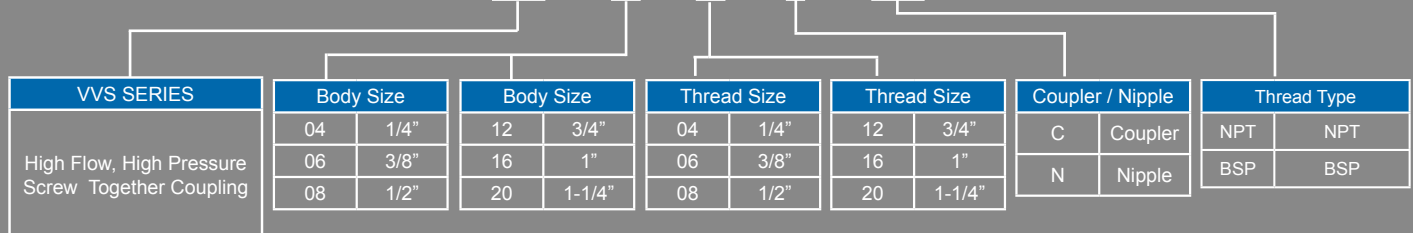
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
04	1.06	.984	1.18	3.30	2.67	1.69	2.1	11,600
06	1.42	1.26	1.57	3.54	2.95	1.89	4.8	11,020
08	1.61	1.34	1.77	4.00	3.40	2.36	7.9	10,585
12	1.96	1.80	2.16	4.77	4.22	2.72	12.0	10,150
16	2.17	1.97	2.34	5.56	5.00	3.12	24.0	7,685
20	2.95	2.56	3.15	6.57	6.02	3.39	37.0	6,000

units: inches

ORDERING INFORMATION

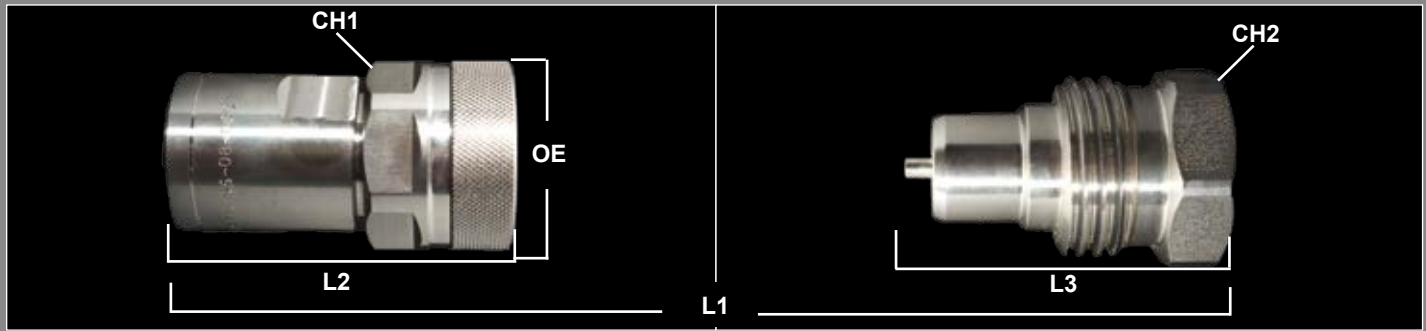
QUICK COUPLING PART NUMBERING SYSTEM:

VVS - 12 - 12 - C - NPT



VVS - SS SERIES QUICK COUPLINGS (VVVX)

316 Stainless Steel - High Pressure - Screw to Connect
 Sizes: 1/4" thru 2"



Features and Benefits

- 316 Stainless Steel for corrosion resistance
- Screw to connect
- Ultra high pressures
- Low pressure drop
- Thread to connect couplings eliminates brinelling issues
- Connect under pressure to 3,000 PSI

Applications

- Used in a wide range of industrial markets where connecting and disconnecting of hydraulic circuits is needed
- High pressure valved applications
- High impulse applications
- Offshore and Marine
- Drill Ships, FPSO, Drilling Equipment, Rig Cranes, Winches, Platforms, Offshore Salvage, Wireline,

MATERIALS

Body: 316 Stainless Steel
 Seals: NBR standard seals
 Threads: NPT & BSPP

DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Flow Rate (GPM)	Max Working (PSI)
04	1.06	.984	1.18	3.30	2.67	1.69	1.59	3.17	15,000
06	1.42	1.26	1.57	3.54	2.95	1.89	6.08	10	12,500
08	1.61	1.34	1.77	4.00	3.40	2.36	12	18.5	12,000
12	1.96	1.80	2.16	4.77	4.22	2.72	28	30	10,000
16	2.17	1.97	2.34	5.56	5.00	3.12	50	50	7,250
20	2.95	2.56	3.15	6.57	6.02	3.39	76	95	5,000
24	2.95	3.15	3.86	7.36	6.77	3.74	100	206	5,000
32	3.94	4.33	5.08	8.94	8.07	4.65	200	265	2,900

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

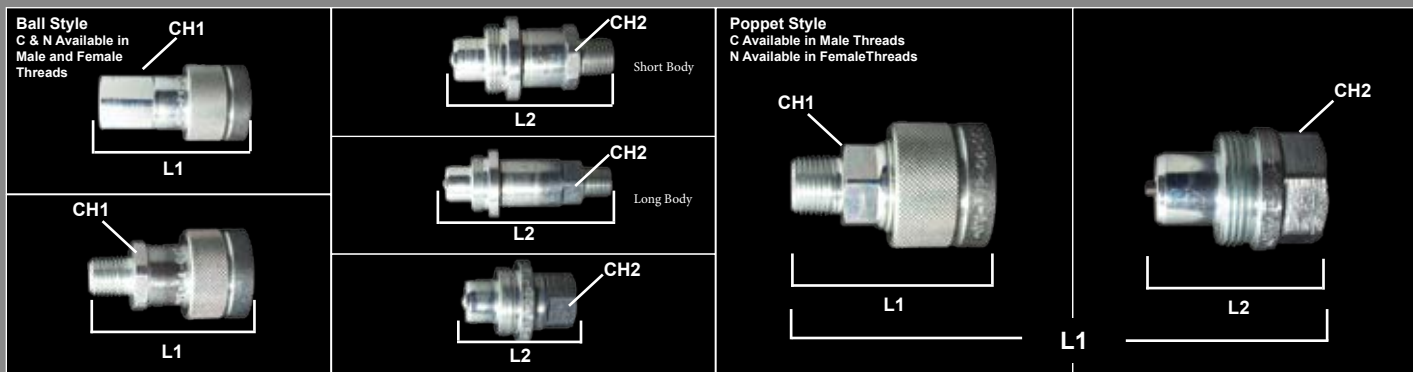
VVS - SS - 12 - 12 - C - NPT

VVS-SS SERIES	Material	Body Size	Body Size	Thread Size	Thread Size	Coupler / Nipple	Thread Type
High Flow, High Pressure Screw Together Coupling	SS 316 Stainless Steel	04	1/4"	16	1"	C Coupler	NPT NPT
		06	3/8"	20	1-1/4"	N Nipple	BSP BSP
		08	1/2"	24	1-1/2"		
		12	3/4"	32	2"		

PVS / PVP SERIES QUICK COUPLINGS

High Pressure - Screw Type

Sizes: 1/4" thru 3/8"



Features and Benefits

- Screw type
- 10,000 PSI
- Ball style / Poppet style

Applications

- High Pressure Jacks
- Torque Equipment

MATERIALS

Body: High Resistant Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: NPT & BSPP

Interchanges:
 Parker 3000 Stucchi IVHP
 Dixon T

DIMENSIONAL & PRESSURE RATING DATA

Male Threads

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04 (ball)	.866	.75	1.181	2.09	1.54	3.30	1.32	2.64	10,290
04 (poppet)	.866	.75	1.181	2.04	1.60	3.18	1.32	2.64	10,290
06 (ball)	.94	1.26	1.38	2.44	1.60	3.58	2.38	5.28	10,290
06 (poppet)	.94	1.26	1.38	2.19	1.67	2.87	2.38	5.28	10,290

Female Threads

04 (ball)	.87	.75	1.181	2.20	1.54	3.30	1.32	2.64	10,290
06 (ball)	.94	1.26	1.38	2.62	1.60	3.76	2.38	5.28	10,290

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

PVS - 04 - 04 - C - F - NPT

PVS/PVP SERIES	
PVS	Porta Power Coupling (Ball Style)
PVP	Porta Power Coupling (Poppet Style)

Body Size	
04	1/4"
06	3/8"

Thread Size	
04	1/4"
06	3/8"

Coupler / Nipple	
C	Coupler
N	Nipple

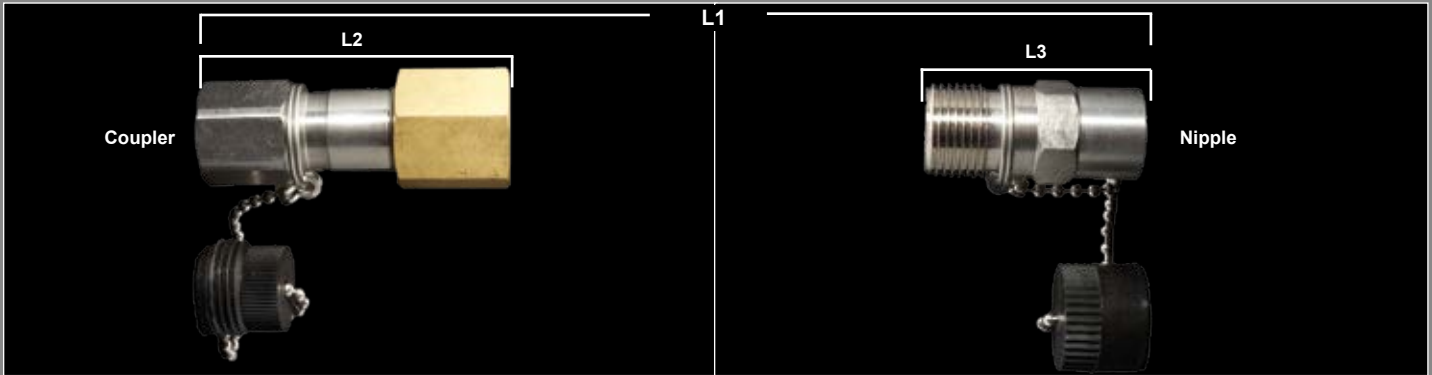
Coupler Thread Gender	
(blank)	Male Thread
F	Female Thread
Nipple Thread Gender	
SM	Short Body
(blank)	Female Thread
M	Long Body

Thread Type	
NPT	NPT

HPI SERIES QUICK COUPLINGS

High Pressure - Screw Type

Size: 1/4"



Features and Benefits

- Screw to connect
- 10,000 PSI

Applications

- Instrumentation
- Torque Gauges
- Dual Scale Gauges
- Hydraulics

MATERIALS

Body: 316 Stainless Steel body with brass hex sleeve

Accessories: Plastic cap and dust plug included

MAJOR INTERCHANGES

Parker 1141

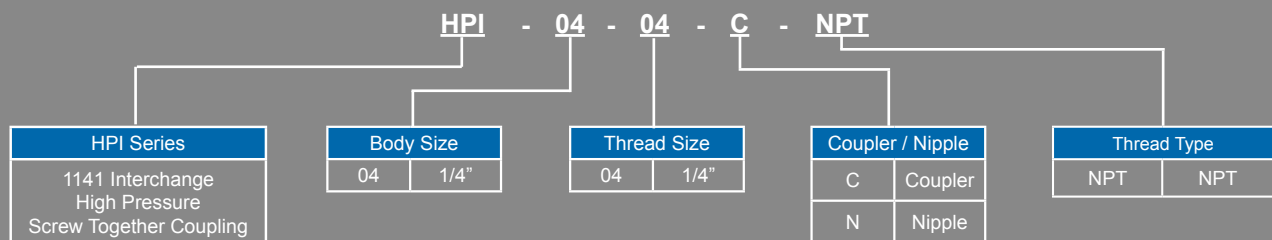
DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
04	.98	.87	4.68	2.70	1.98	3	10,000

units: inches

ORDERING INFORMATION

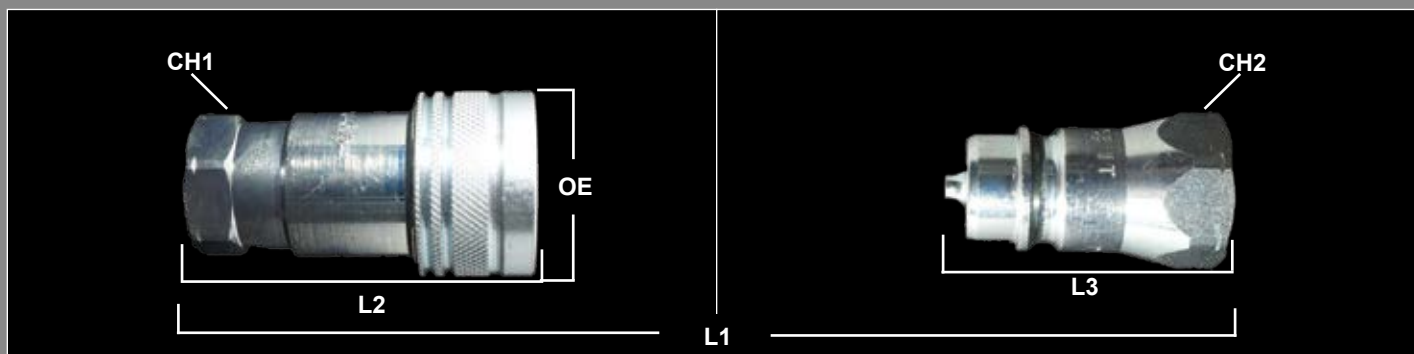
QUICK COUPLING PART NUMBERING SYSTEM:



ANV SERIES QUICK COUPLINGS (PAV1)

ISO 7241 - A - Poppet Style

Sizes: 1/4" thru 2"



Features and Benefits

- General purpose poppet style
- Radial locking balls
- Manual connect and disconnect

Applications

- Ideal for general purpose hydraulics
- Economical applications
- Fast connecting and disconnecting

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: NPT, SAE, BSP

MAJOR INTERCHANGES

Parker 6600 Faster AN
 Tomco A5600 Aeroquip 5600
 Dixon K SnapTite 61
 Stucchi BIR

DIMENSIONAL & PRESSURE RATING DATA

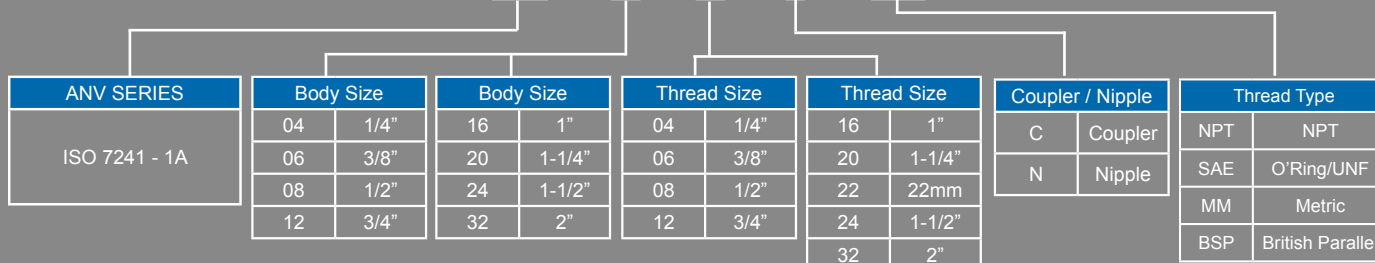
Body Size	CH1	CH2	CH3	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.751	.751	1.026	2.759	1.931	1.380	3.2	6.34	5,145
06	.868	.868	1.184	3.346	2.38	1.673	6.5	12.15	4,410
08	1.063	1.063	1.496	3.778	2.756	1.890	12	23.78	3,675
12	1.341	1.341	1.770	4.888	3.326	2.244	28	58.12	3,675
16	1.617	1.617	2.047	5.160	3.897	2.578	50	68.68	3,675
20	1.917	1.917	2.757	5.905	4.610	2.952	77	125.00	3,675
24	2.36	2.35	3.29	6.62	5.42	3.84	100	200	3,000
32	2.96	2.96	3.92	7.80	6.25	4.57	200	265	3,000

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

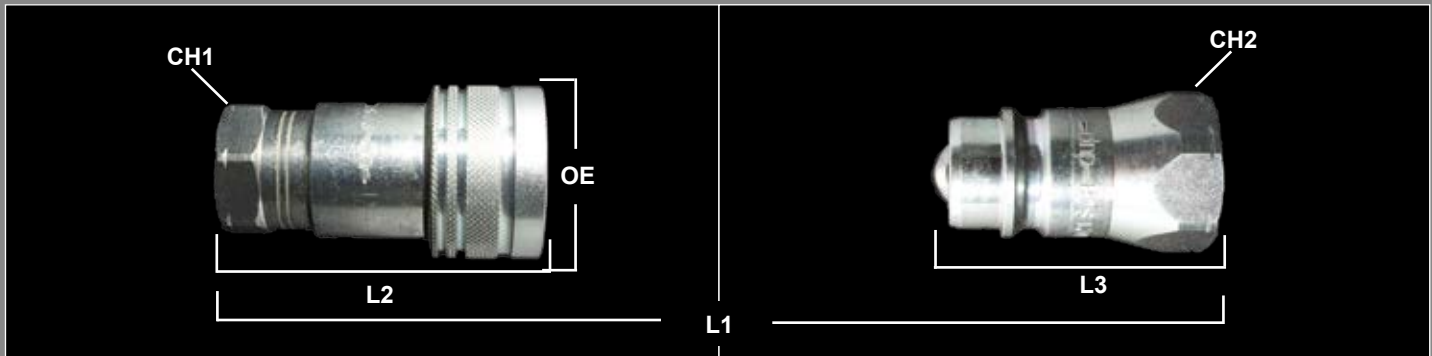
ANV - 12 - 12 - C - BSP



NS SERIES QUICK COUPLINGS (PDS1)

Agriculture Ball Type

Sizes : 1/4" thru 1"



Features and Benefits

- General purpose
- Agriculture ball type
- Radial locking balls
- Manual connect and disconnect

Applications

- Commonly used in the agricultural market
- Economical Applications
- Fast connecting and disconnecting

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe
 Seals: NBR standard seals
 Threads: NPT & SAE

MAJOR INTERCHANGES

Parker 4000 Faster N
 Aeroquip FD42 Dixon AG
 SnapTite 76 Stucchi IR
 Safeway S20

DIMENSIONAL & PRESSURE RATING DATA

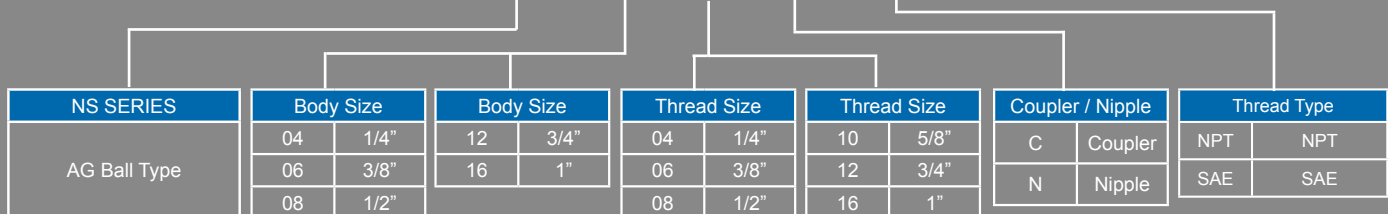
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.748	.748	1.063	2.992	2.185	1.496	2.91	5.28	4,410
06	.945	.945	1.390	3.346	2.480	1.673	5.55	9.25	3,675
08	1.063	1.063	1.496	3.780	2.756	1.890	7.93	14.53	2,940
12	1.339	1.339	1.850	4.488	3.386	2.244	15.85	31.70	2,940
16	1.614	1.614	2.047	5.157	3.898	2.579	21.15	42.27	2,940

units: inches

ORDERING INFORMATION

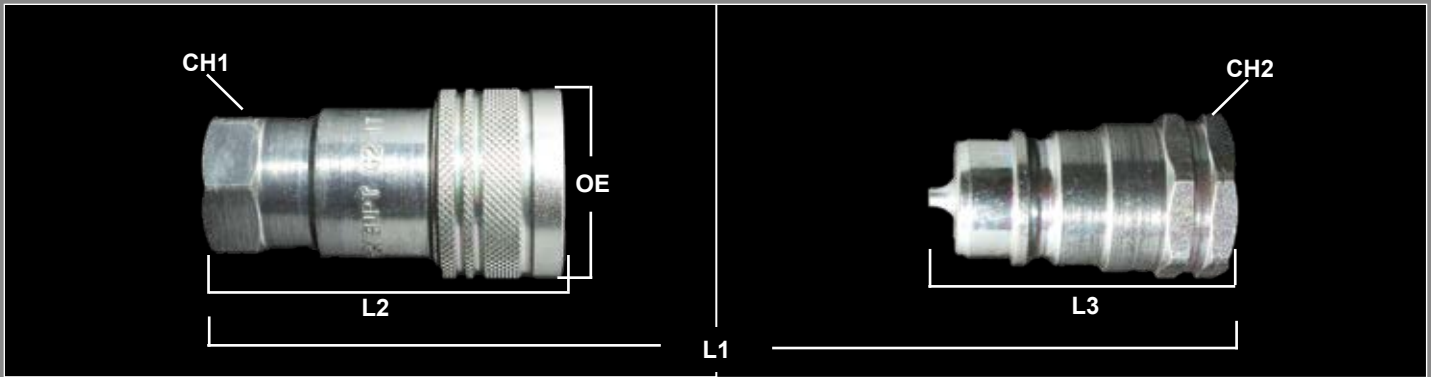
QUICK COUPLING PART NUMBERING SYSTEM:

NS - 12 - 12 - C - NPT



NV SERIES QUICK COUPLINGS (PDV1)

Agriculture Poppet Style
 Sizes: 1/4" thru 1"



- ### Features and Benefits
- General purpose
 - Agriculture poppet type
 - Radial locking balls
 - Manual connect and disconnect

- ### Applications
- Commonly used in the agricultural market
 - Economical Applications
 - Fast connecting and disconnecting

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe
 Seals: NBR standard seals
 Threads: NPT & SAE

* 1/2" size interchanges with 1/2" ANV series
 * 3/4" size only, interchanges with Parker Pioneer

MAJOR INTERCHANGES

Parker 4000	Faster N
Aeroquip FD42	Dixon AG
SnapTite 76	Stucchi IRV
Safeway S20	

DIMENSIONAL & PRESSURE RATING DATA

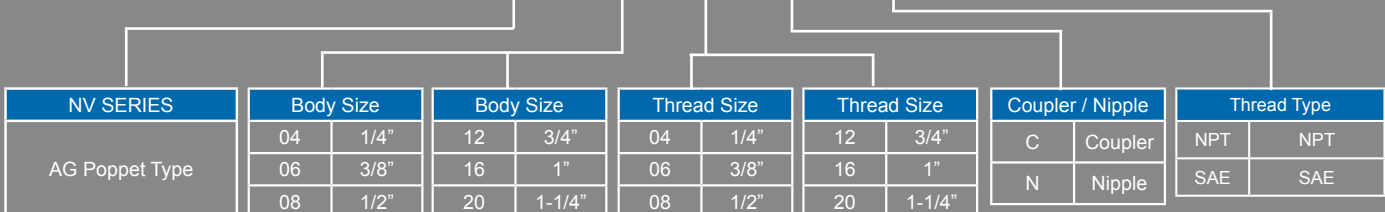
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
04	.751	.751	1.026	2.75	1.931	1.380	3.2	6.34	5,145
06	.868	.868	1.184	3.346	2.38	1.673	6.5	12.15	4,410
08	1.063	1.063	1.496	3.778	2.756	1.890	12	23.78	3,675
12	1.341	1.341	1.770	4.888	3.326	2.244	28	50.19	3,675
16	1.617	1.617	2.047	5.160	3.897	2.578	50	66.04	3,675
20	1.96	1.96	2.75	5.94	4.61	2.96	55	126	3,200

units: inches

ORDERING INFORMATION

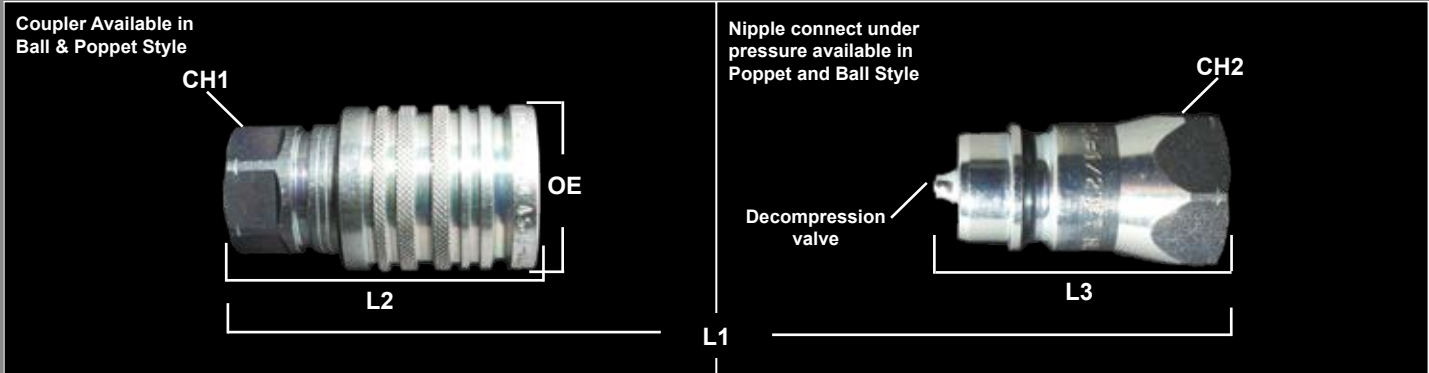
QUICK COUPLING PART NUMBERING SYSTEM:

NV - **12** - **12** - **C** - **NPT**



PPS / PPV/ANV-K SERIES QUICK COUPLINGS

Push Pull
 Sizes: 1/2"



Features and Benefits

- 1/2" body size only
- Push / Pull design

Applications

- Ideal for mobile applications using hydraulic attachments
- PPS / PPV are designed to break away in case of accidental pulls
- One hand to connect and disconnect

* ANV - K can be used with the PPV in cases where the implement has trapped pressures in the hydraulic lines

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: NPT, BSP, & Metric
 * PPV interchanges with 1/2" NV Series

MAJOR INTERCHANGES

Parker 4000	Faster 3CPU
Aeroquip F72	Dixon AG
SnapTite 61	Stucchi IRS
Safeway S40	

DIMENSIONAL & PRESSURE RATING DATA

PPS & ANV-K (Ball Style)

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
08	1.063	1.063	1.496	3.78	2.756	1.890	11.89	14.53	2,490

DIMENSIONAL & PRESSURE RATING DATA

PPV & ANV-K (Poppet Style)

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
08	1.063	1.063	1.496	3.78	2.756	1.890	11.89	23.78	3,675

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

PPS - 08 - 08 - C - NPT

PPS/PPV/ANV-K SERIES	
PPV	Poppet Push-Pull Coupler
PPS	Ball Push-Pull Coupler
ANV-K	Connect under pressure Poppet Style Nipple
NSK	Connect under pressure Ball Style Nipple

Body Size	
08	1/2"

Thread Size	
08	1/2"

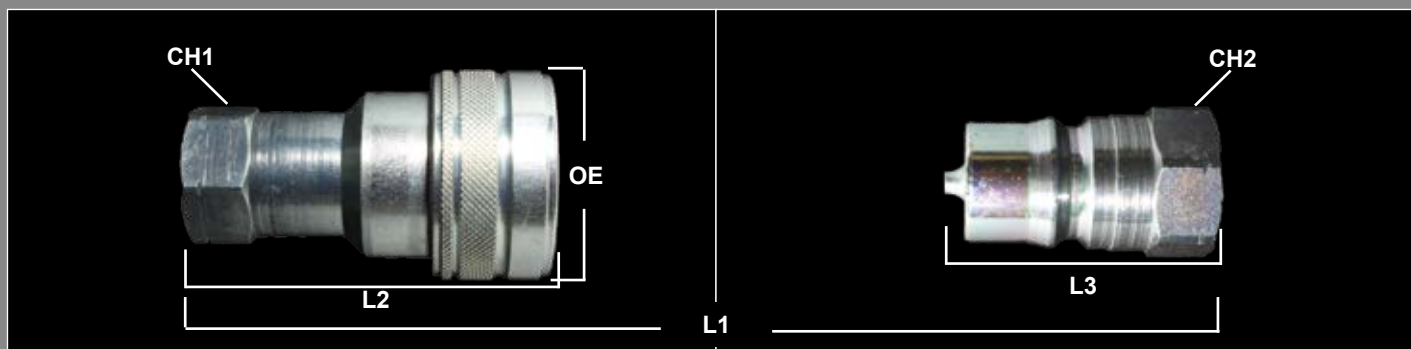
Coupler / Nipple	
C	Coupler
N	Nipple

Thread Type	
NPT	NPT

HNV SERIES QUICK COUPLINGS (PBV1)

ISO 7241 - B - Industrial Poppet Type

Sizes: 1/8" thru 1"



Features and Benefits

- ISO 7241 - B
- Industrial interchange
- Radial locking balls
- Manual connect and disconnect

Applications

- Industrial Markets
- Fast connecting and disconnecting

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: NPT

MAJOR INTERCHANGES

Parker 60 Faster HN
 Tomco THK Aeroquip FD45
 Dixon H SnapTite 72
 Stucchi IRB Safeway S10

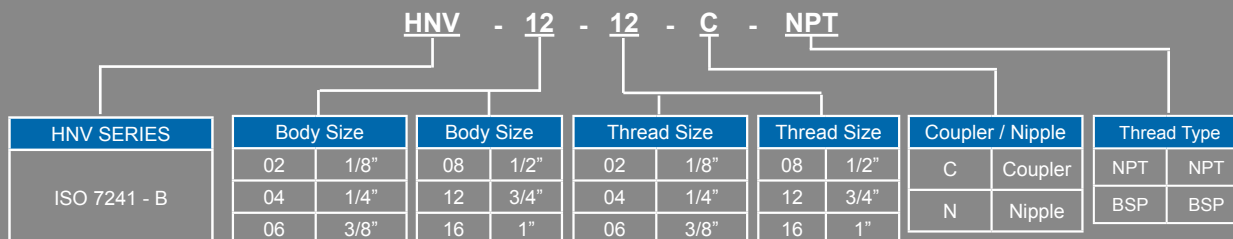
DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Max Flow Rate (GPM)	Max Working (PSI)
02	.67	.67	.91	2.52	2.00	1.26	.80	2.38	7,250
04	.751	.751	1.026	2.759	1.931	1.380	3.2	6.34	5,145
06	.868	.868	1.184	3.346	2.38	1.673	6.5	12.15	4,410
08	1.063	1.063	1.496	3.778	2.756	1.890	12	23.78	3,675
12	1.341	1.341	1.770	4.888	3.326	2.244	28	58.12	3,675
16	1.617	1.617	2.047	5.160	3.897	2.578	50	68.68	3,675

units: inches

ORDERING INFORMATION

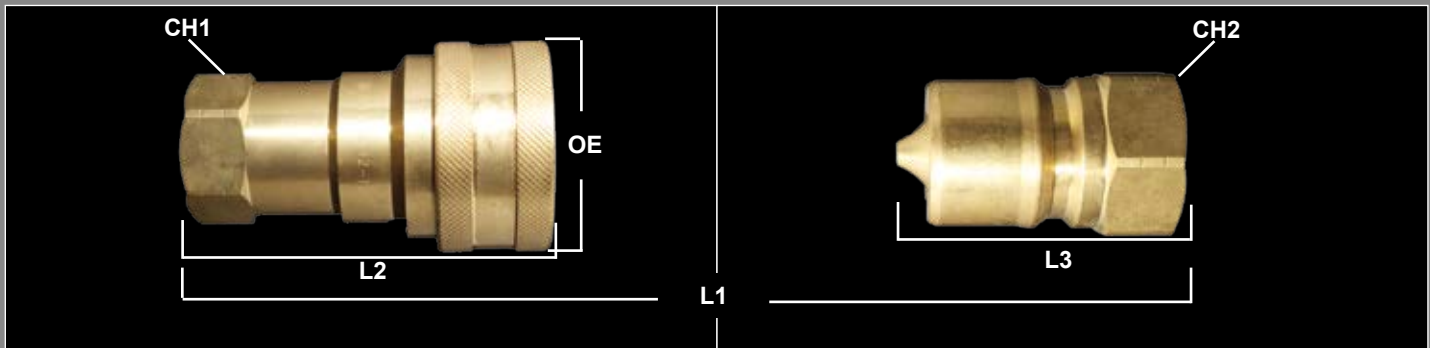
QUICK COUPLING PART NUMBERING SYSTEM:



HNV BRASS SERIES QUICK COUPLINGS (PBV1)

ISO 7241 - B - Industrial Interchange

Sizes: 1/4" thru 1"



Features and Benefits

- ISO 7241 - B Norm
- Brass material for corrosion resistance
- Radial locking balls
- Manual connect and disconnect

Applications

- Hydraulic fluids
- Water
- Diesel / Petroleum

MATERIALS

Body: Brass
 Seals: NBR standard seals
 Threads: NPT

MAJOR INTERCHANGES

Parker 60 Faster HN
 Tomco THK Aeroquip FD45
 Dixon H SnapTite 72
 Stucchi IRB Safeway S10

DIMENSIONAL & PRESSURE RATING DATA

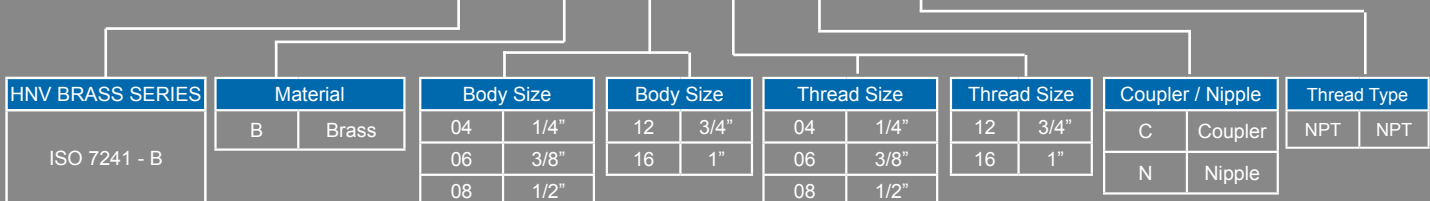
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
04	.75	.75	1.10	3.01	2.36	1.50	3.17	3,000
06	.87	.87	1.38	3.37	2.65	1.67	6.08	3,000
08	1.06	1.06	1.73	3.80	2.98	1.89	12	2,600
12	1.34	1.34	2.05	4.51	3.60	2.24	28	2,000
16	1.61	1.61	2.36	5.20	4.17	2.58	50	2,000

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

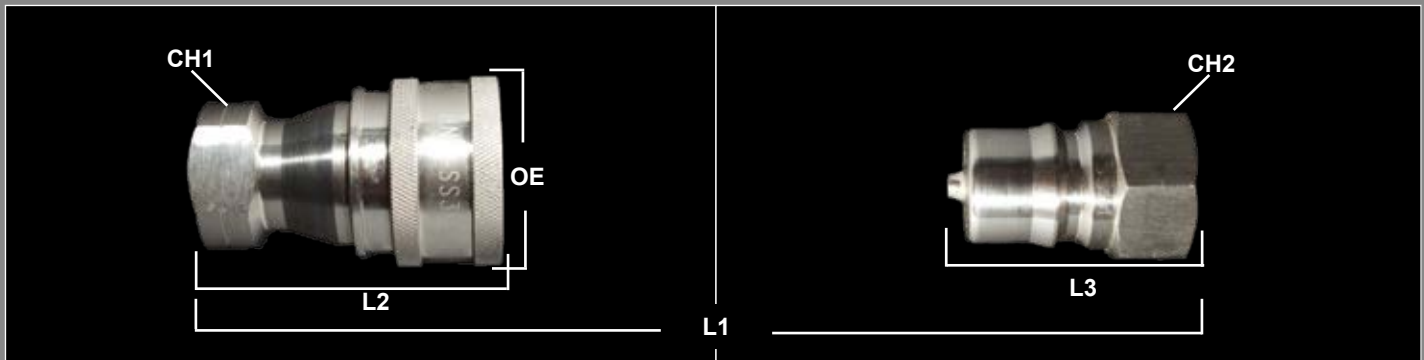
HNV - B - 12 - 12 - C - NPT



HNV 316 SS SERIES QUICK COUPLINGS (PBV1)

ISO 7241 - B

Sizes: 1/4" thru 1"



Features and Benefits

- ISO 7241 - B Norm
- 316 grade stainless steel for ultimate corrosion resistance
- Radial locking balls
- Manual connect and disconnect

Applications

- Ideal for harsh environments such as offshore oil and gas markets
- Water Applications
- Chemical Applications
- Food Grade
- Hydraulic

MATERIALS

Body: Stainless Steel
 Seals: Viton seals
 Threads: NPT

MAJOR INTERCHANGES

Parker 60 Faster HN
 Tomco THK Aeroquip FD45
 Dixon H SnapTite 72
 Stucchi IRB Safeway S10

DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
04	.75	.66	1.10	2.92	2.29	1.60	3.17	5,000
06	.82	.82	1.36	3.23	2.60	1.77	6.08	3,600
08	1.13	1.13	1.76	3.56	2.89	1.90	12	3,600
12	1.37	1.37	2.10	4.15	3.45	2.35	28	3,000
16	1.60	1.65	2.56	4.96	4.07	2.74	50	2,200

units: inches

ORDERING INFORMATION

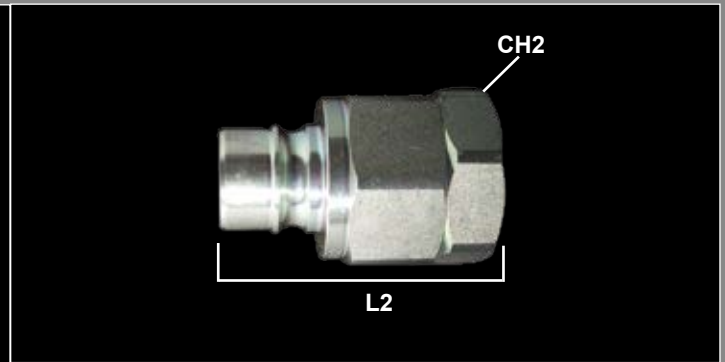
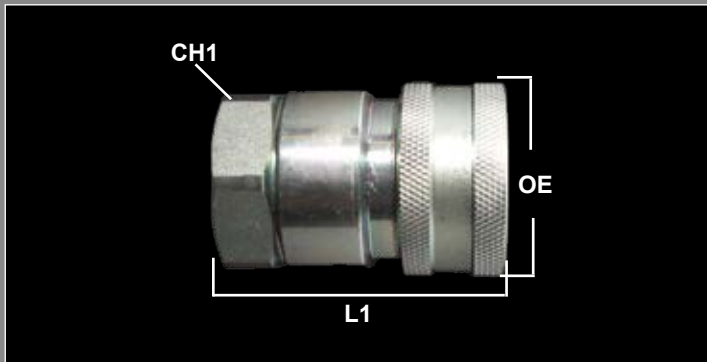
QUICK COUPLING PART NUMBERING SYSTEM:

HNV - SS316 - 12 - 12 - C - BSP

HNV-SS SERIES	Material		Body Size		Body Size		Thread Size		Thread Size		Coupler / Nipple		Thread Type	
	SS316	316 Stainless Steel	04	1/4"	12	3/4"	04	1/4"	12	3/4"	C	Coupler	NPT	NPT
ISO 7241 - B 316 SS	SS316	316 Stainless Steel	06	3/8"	16	1"	06	3/8"	16	1"	N	Nipple		
			08	1/2"			08	1/2"						

TNV SERIES QUICK COUPLINGS

General Purpose
 Sizes: 1/4" thru 2"



Features and Benefits

- General purpose
- Manual connect and disconnect

Applications

- Primary uses are Machine Tools, Test Equipment and Oilfield Service Equipment

MATERIALS

Body: Carbon Steel
 Finishing: ZN-Fe (CRIII)
 Seals: NBR standard seals
 Threads: NPT

MAJOR INTERCHANGES

Faster TNV Dixon V
 SnapTite H

DIMENSIONAL & PRESSURE RATING DATA

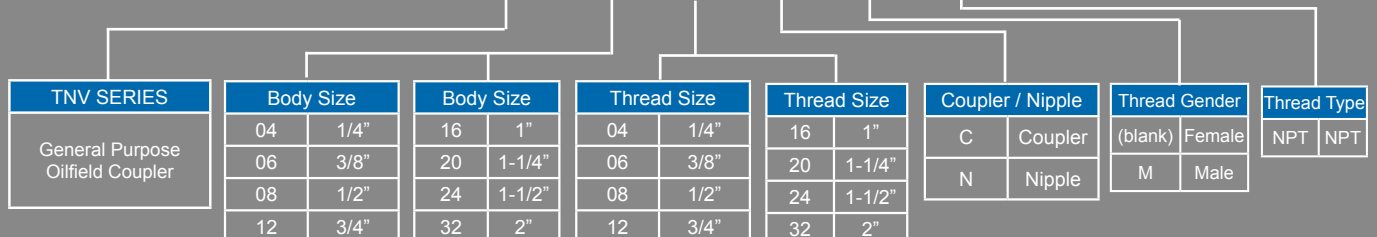
Body Size	CH1	CH2	OE	L1	L2	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
04 (female thread)	.88	.88	.99	1.68	1.62	4.5	6,500
04 (male thread)	.88	.88	.99	2.12	2.06	4.5	6,500
06	1.00	1.00	1.18	1.94	1.87	6.5	4,500
08	1.19	1.19	1.36	2.13	1.99	17	4,000
12	1.50	1.50	1.67	2.47	2.31	35	3,500
16	1.88	1.88	2.06	2.70	2.60	43	2,000
20	2.0	2.0	2.19	3.54	3.41	70	1,750
24	2.5	2.5	2.74	3.27	3.10	107	1,500
32	3.5	3.5	3.83	3.92	3.72	195	1,500

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

TNV - 12 - 12 - C - M - NPT



PT & PTK SERIES QUICK COUPLINGS

Quick Release European Interchange

Sizes: 1/2" thru 1"



Features and Benefits

- Higher working pressure than standard push pull poppet style couplings
- Higher flow rates than standard poppet style couplings
- Lower pressure drop than standard couplings while maintaining high working pressure
- Locking sleeve design to prevent accidental disconnection
- PTK Series is connectable under pressure up to 4,500 PSI

Applications

- Hydraulic Systems
- Chemical Industries
- Industrial Plants
- Mobile Machinery

MATERIALS

Body: Carbon Steel
 Seals: Buna Seals
 Threads: NPT and BSP

MAJOR INTERCHANGES

Dixon TR Stucchi IRH
 TEMA

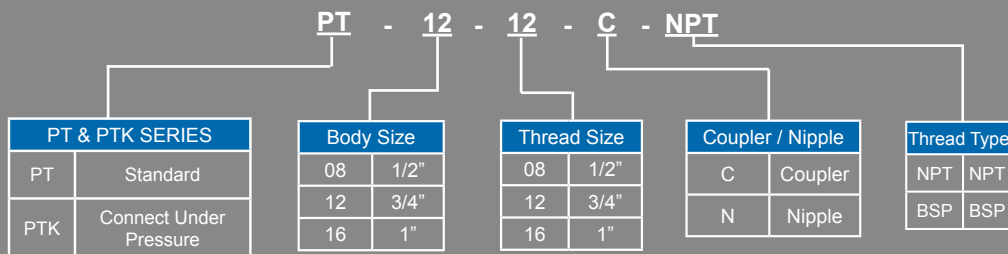
DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM)	Suggested Flow Rate (GPM)	Working Pressure (PSI)
08	1.10	1.00	1.50	3.80	2.90	1.90	13	23	5,000
12	1.40	1.40	2.00	3.90	3.10	1.90	30	56	4,350
16	1.70	1.70	2.40	4.40	3.60	2.20	48	100	4,350

units: inches

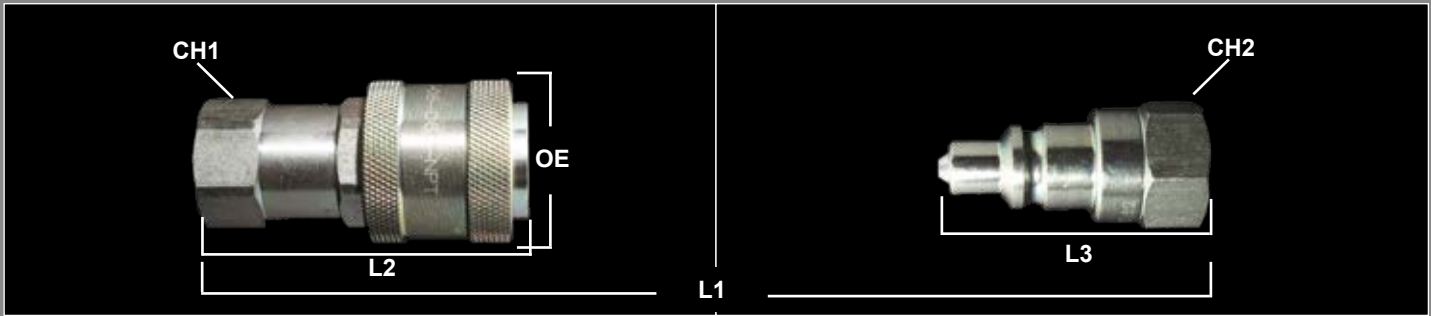
ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:



TC SERIES QUICK COUPLINGS

Ultra High Pressure
 Sizes: 3/8"



Features and Benefits

- 10,000 PSI
- Safety sleeve lock
- Radial locking balls
- Slim profile
- High resistant steel

Applications

- TC couplings are designed to work at 10,000 PSI
- True push pull to connect
- Fast connecting and disconnecting
- High pressure jacks
- Torque equipment
- Rescue Tools

MATERIALS

Body: Carbon steel
 Finishing: ZN-Fe (CRIII) Plating
 Seals: NBR standard seals
 Threads: NPT

MAJOR INTERCHANGES

Parker TC
 Eaton FD35

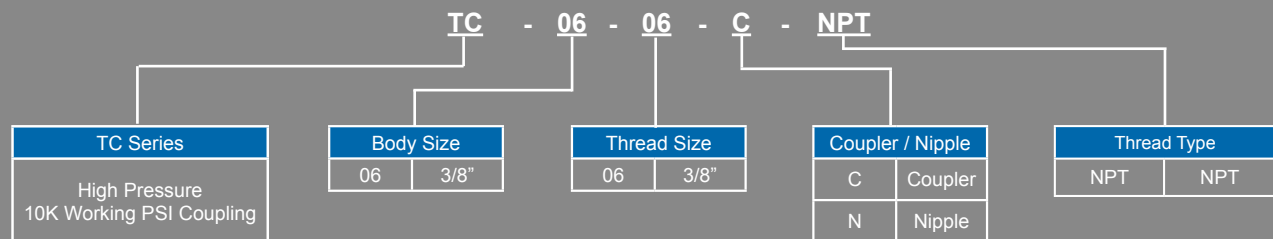
DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
06	.94	.94	1.81	1.26	3.12	5	10,000

units: inches

ORDERING INFORMATION

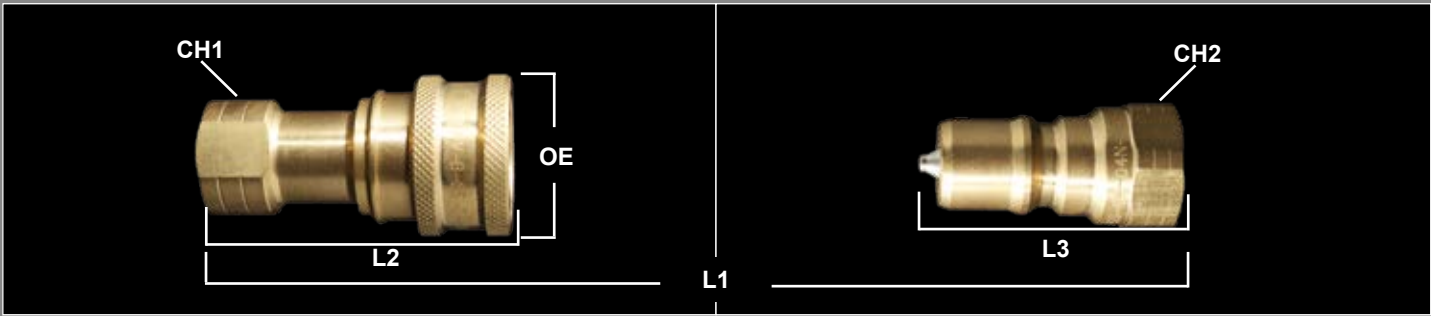
QUICK COUPLING PART NUMBERING SYSTEM:



HNV-B-SS SERIES QUICK COUPLINGS

ISO 7241 - B

Sizes: 1/4"



Features and Benefits

- ISO 7241 - B
- Brass body with stainless steel internals
- Double O'Ring design

Applications

- Designed for carpet cleaners and car wash systems
- EPDM seals withstand soaps, chemicals and high temperatures
- * Not for use with petroleum based fluids!

MATERIALS

Body: Brass with SS internals
 Seals: EPDM seals
 Threads: NPT

DIMENSIONAL & PRESSURE RATING DATA

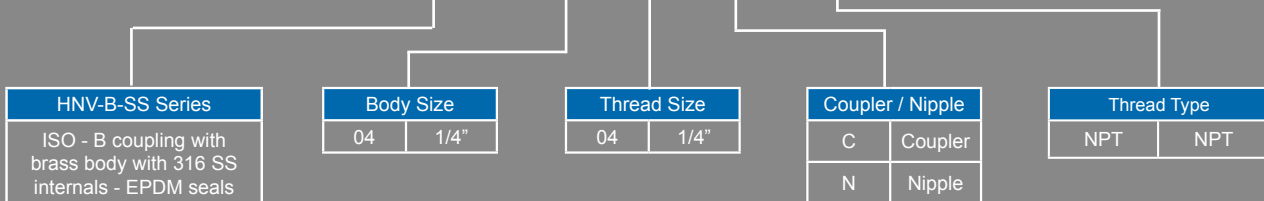
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
04	.742	.754	1.181	2.81	2.226	1.536	3	2,700

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

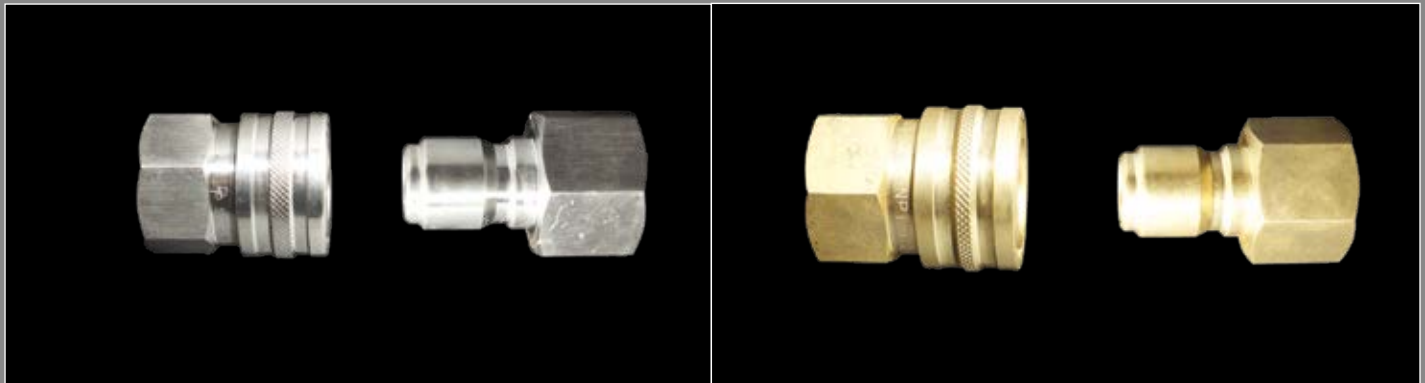
HNV-B-SS - 04 - 04 - C - NPT



ST SERIES QUICK COUPLINGS

Straight Thru - Unvalved

Sizes: 1/4" thru 2"



Features and Benefits

- Brass and Stainless
- Unvalved
- Radial locking balls

Applications

- Commonly used in pressure washer applications
- Low and medium pressure hydraulic applications

MATERIALS

Body: Brass and 316 SS
 Seals: NBR standard seals
 Threads: NPT

DIMENSIONAL & PRESSURE RATING DATA

Body Size	Steel Working PSI	Brass Working PSI	304 SS Working PSI
04	5,500	5,200	6,700
06	3,500	2,700	5,500
08	2,700	2,200	3,000
12	2,000	1,700	3,000
16	2,000	1,200	1,700
20	-	1,700	-
24	-	1,800	-
32	-	1,800	-

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

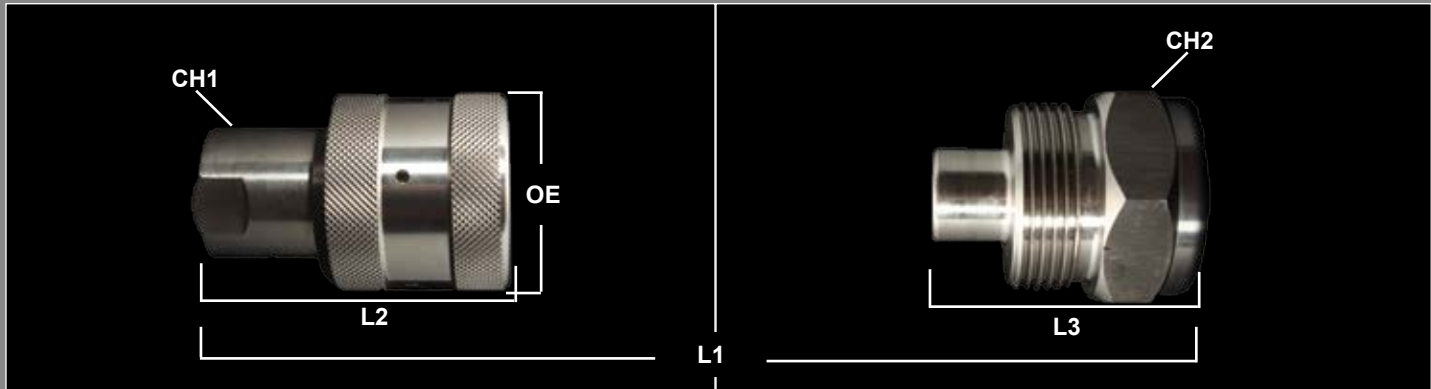
ST - B - 06 - 06 - C - M

ST SERIES	Material		Body Size		Body Size		Thread Size		Thread Size		Coupler / Nipple		Thread Type	
	(blank)	Carbon Steel	04	1/4"	16	1"	04	1/4"	16	1"	C	Coupler	M	Male NPT
Straight Through Pressure Washer Coupling	B	Brass	06	3/8"	20	1-1/4"	06	3/8"	20	1-1/4"	N	Nipple	F	Female NPT
	SS316	316 Stainless Steel	08	1/2"	24	1-1/2"	08	1/2"	24	1-1/2"				
			12	3/4"	32	2"	12	3/4"	32	2"				

CRS SERIES QUICK COUPLINGS

Ultra High Pressure - Unvalved - 316 Stainless Steel

Sizes: 1/2"



Features and Benefits

- Offered in 15,000 PSI or 20,000 PSI
- 316 stainless steel
- Unvalved
- Screw type

Applications

- Waterblast
- Water Jetting
- Wireline - Grease Injection
- High Pressure

MATERIALS

Body: 316 Stainless Steel
 Seals: NBR standard seals
 Threads: NPT

DIMENSIONAL & PRESSURE RATING DATA

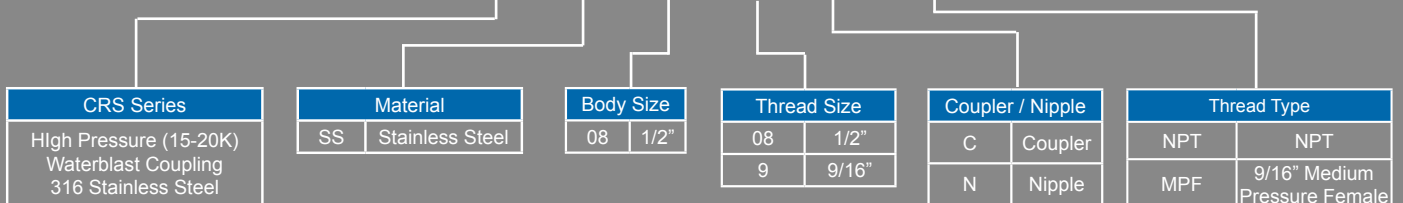
Body Size	CH1	CH2	CH3	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
08	1.130	1.625	1.860	3.773	2.910	2.040	Unvalved	15,000
08	1.130	1.625	1.660	3.773	2.910	2.040	Unvalved	20,000

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

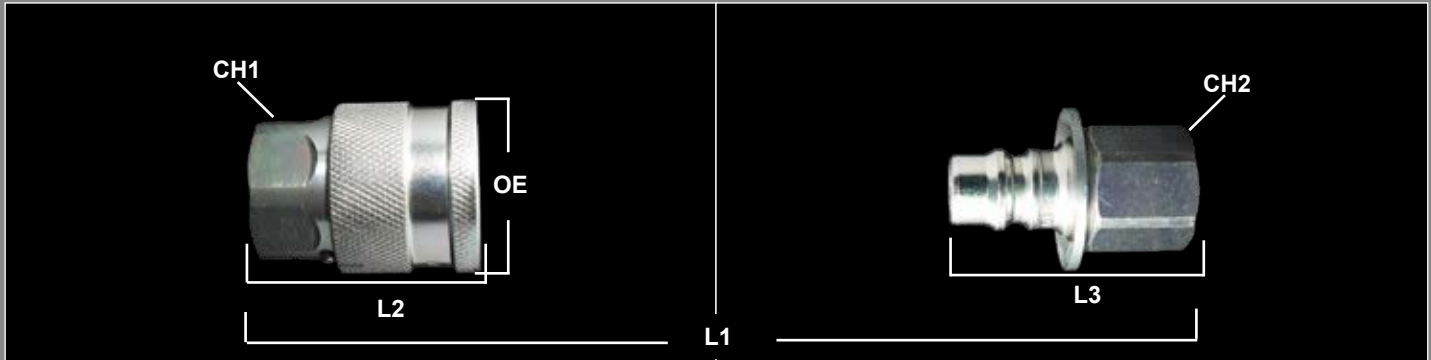
CRS - 15K - 08 - 08 - C - NPT



WB SERIES QUICK COUPLINGS

High Pressure - Unvalved

Sizes: 1/2"



Features and Benefits

- 10,000 PSI
- Unvalved
- High strength steel bar stock
- Stainless steel internals
- Latch technology

Applications

- Waterblast Markets

MATERIALS

Body: Carbon steel and stainless steel
internals

Finishing: Trivalent chrome plating

Seals: NBR standard seals

Threads: NPT

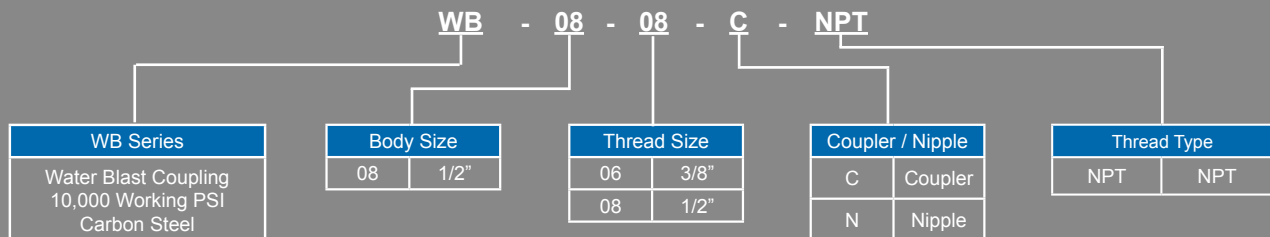
DIMENSIONAL & PRESSURE RATING DATA

Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
08	.75	.75	1.38	2.07	1.03	2.35	Unvalved	10,000

units: inches

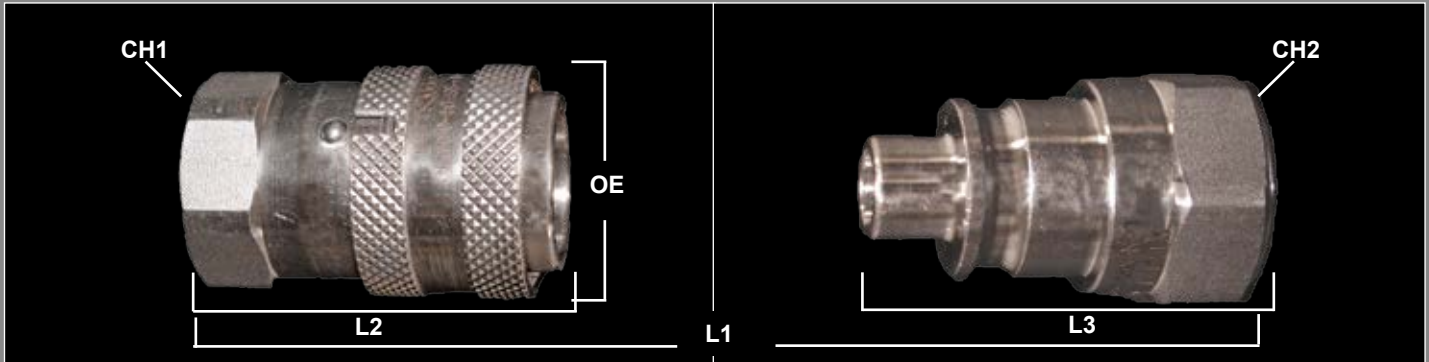
ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:



HO SERIES QUICK COUPLINGS

High Pressure



Features and Benefits

- High Pressure
- Un-Valved Design
- Sleeve-lock to prevent accidental disconnection
- -40° to +250° F
- Unvalved - full flow

Applications

- Hydrostatic Testing
- Test Tools

MATERIALS

Body: 316 Stainless Steel
 Finishing: 316 Stainless Steel
 Seals: Buna with Teflon Ring
 Threads: NPT

DIMENSIONAL & PRESSURE RATING DATA

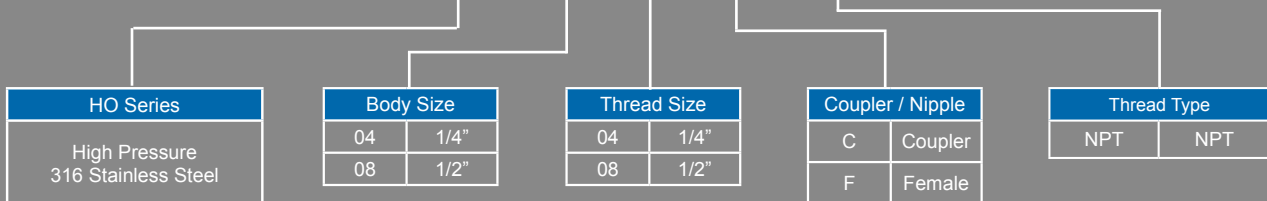
Body Size	CH1	CH2	OE	L1	L2	L3	Flow Rate @ 14.7 PSI (GPM) (Connected)	Max Working (PSI)
04	.937	.802	1.07	1.67	1.41	2.32	unvalved	15,000
08	1.25	1.12	1.55	2.03	2.03	2.87	unvalved	10,000

units: inches

ORDERING INFORMATION

QUICK COUPLING PART NUMBERING SYSTEM:

HO - 04 - 04 - C - NPT



HP SERIES QUICK COUPLINGS

Ultra High Pressure



HP Series Female Coupling with Valve



Part Number	Description	Max Working Pressure
HP-C-MP4	Coupler w/ check valve X 1/4" MP Male	20,000 PSI
HP-C-MP6	Coupler w/ check valve X 3/8" MP Male	20,000 PSI
HP-C-MP9	Coupler w/ check valve X 9/16" MP Male	20,000 PSI
HP Series Female Coupling with Valve (HP Male)		
HP-C-HP4	Coupler w/ check valve X 1/4" HP Male	30,000 PSI
HP-C-HP6	Coupler w/ check valve X 3/8" HP Male	30,000 PSI
HP-C-HP9	Coupler w/ check valve X 9/16" HP Male	30,000 PSI
HP Series Female Coupling with Valve (Type M)		
HP-C-M9	Coupler w/ check valve X 9/16"-18 Type M	30,000 PSI
HP-C-M12	Coupler w/ check valve X 3/4"-16 Type M	30,000 PSI
HP-C-M16	Coupler w/ check valve X 1"-12 Type M	30,000 PSI
HP Series Female Coupling with Valve (NPT Female)		
HP-C-NF4	Coupler w/ check valve X 1/4" NPT Female	15,000 PSI
HP-C-NF6	Coupler w/ check valve X 3/8" NPT Female	15,000 PSI
HP-C-NF8	Coupler w/ check valve X 1/2" NPT Female	15,000 PSI
HP Series Female Coupling with Valve (NPT Male)		
HP-C-NM4	Coupler w/ check valve X 1/4" NPT Male	15,000 PSI
HP-C-NM6	Coupler w/ check valve X 3/8" NPT Male	15,000 PSI
HP-C-NM8	Coupler w/ check valve X 1/2" NPT Male	15,000 PSI
HP Series Female Coupling with Valve (JIC Male)		
HP-C-MJ4	Coupler w/ check valve X 1/4" JIC Male	15,000 PSI
HP-C-MJ6	Coupler w/ check valve X 3/8" JIC Male	15,000 PSI
HP-C-MJ8	Coupler w/ check valve X 1/2" JIC Male	15,000 PSI



HP Series Male Nipple Un-Valved



Part Number	Description	Max Working Pressure
HP-NUV-NF4	Nipple w/out check valve X 1/4" NPT Female	15,000 PSI
HP-NUV-NF6	Nipple w/out check valve X 3/8" NPT Female	15,000 PSI
HP-NUV-NF8	Nipple w/out check valve X 1/2" NPT Female	15,000 PSI
HP-NUV-NM4	Nipple w/out check valve X 1/4" NPT Male	15,000 PSI
HP-NUV-NM6	Nipple w/out check valve X 3/8" NPT Male	15,000 PSI
HP-NUV-NM8	Nipple w/out check valve X 1/2" NPT Male	15,000 PSI
HP-NUV-MJ4	Nipple w/out check valve X 1/4" Male JIC	10,000 PSI
HP-NUV-MJ6	Nipple w/out check valve X 3/8" Male JIC	10,000 PSI
HP-NUV-MJ8	Nipple w/out check valve X 1/2" Male JIC	10,000 PSI

HP SERIES QUICK COUPLINGS

Ultra High Pressure



HP Series Male Nipple Un-Valved Continued...



Part Number	Description	Max Working Pressure
HP-NUV-MJ4	Nipple w/out check valve X 1/4" Male JIC	10,000 PSI
HP-NUV-MJ6	Nipple w/out check valve X 3/8" Male JIC	10,000 PSI
HP-NUV-MJ8	Nipple w/out check valve X 1/2" Male JIC	10,000 PSI
HP-NUV-MP4	Nipple w/out check valve X 1/4" MP Male	20,000 PSI
HP-NUV-MP6	Nipple w/out check valve X 3/8" MP Male	20,000 PSI
HP-NUV-MP9	Nipple w/out check valve X 9/16" MP Male	20,000 PSI
HP-NUV-HP4	Nipple w/out check valve X 1/4" HP Male	30,000 PSI
HP-NUV-HP6	Nipple w/out check valve X 3/8" HP Male	30,000 PSI
HP-NUV-HP9	Nipple w/out check valve X 9/16" HP Male	30,000 PSI
HP-NUV-M9	Nipple w/out check valve X 9/16" Type M	30,000 PSI
HP-NUV-M12	Nipple w/out check valve X 3/4" Type M	30,000 PSI
HP-NUV-M16	Nipple w/out check valve X 1" Type M	30,000 PSI

HP Series Male Nipple Valved



Part Number	Description	Max Working Pressure
HP-NV-NF4	Nipple w/ check valve X 1/4" NPT Female	15,000 PSI
HP-NV-NF6	Nipple w/ check valve X 3/8" NPT Female	15,000 PSI
HP-NV-NF8	Nipple w/ check valve X 1/2" NPT Female	15,000 PSI
HP-NV-NM4	Nipple w/ check valve X 1/4" NPT Male	15,000 PSI
HP-NV-NM6	Nipple w/ check valve X 3/8" NPT Male	15,000 PSI
HP-NV-NM8	Nipple w/ check valve X 1/2" NPT Male	15,000 PSI
HP-NV-MJ4	Nipple w/ check valve X 1/4" Male JIC	10,000 PSI
HP-NV-MJ6	Nipple w/ check valve X 3/8" Male JIC	10,000 PSI
HP-NV-MJ8	Nipple w/ check valve X 1/2" Male JIC	10,000 PSI
HP-NV-MP4	Nipple w/ check valve X 1/4" MP Male	20,000 PSI
HP-NV-MP6	Nipple w/ check valve X 3/8" MP Male	20,000 PSI
HP-NV-MP9	Nipple w/ check valve X 9/16" MP Male	20,000 PSI
HP-NV-HP4	Nipple w/ check valve X 1/4" HP Male	30,000 PSI
HP-NV-HP6	Nipple w/ check valve X 3/8" HP Male	30,000 PSI
HP-NV-HP9	Nipple w/ check valve X 9/16" HP Male	30,000 PSI
HP-NV-M9	Nipple w/ check valve X 9/16" Type M	30,000 PSI
HP-NV-M12	Nipple w/ check valve X 3/4" Type M	30,000 PSI
HP-NV-M16	Nipple w/ check valve X 1" Type M	30,000 PSI

FLAT FACE SCREW TYPE COUPLINGS CONNECTABLE UNDER PRESSURE



PVT4-BOP SERIES



Applications and Markets

- Designed specially for B.O.P. (Blow out Preventers) accumulator systems in the Oil & Gas market
- Red color on coupling and nipple designates that the couplings are B.O.P. fire approved
- API 16D Certificate that states that all couplings must maintain pressure when exposed to 1300° F (700° C) for a 5 minute period.

Notes

Aluminum caps and plugs play a crucial role in extending the life of the coupling set. Caps and plugs are available in red sold separately.

Features and Benefits

- A non-interchangeable upgrade to the FSI series
- High Tech Z - 786 Anti-Corrosion plating salt spray tested for 700 hours before any appearance of surface red rust
- Slimmer design than FSI with no loss in flow rate
- High pressure, low pressure drop and high impulse applications
- Seal is blowout resistant to 5,000 PSI when connecting and disconnecting with residual pressure
- Exceeds 1,000,000 impulse cycles
- Flat face design eliminates spillage upon disconnection
- Thread to connect style coupling eliminates brinelling issues
- Heavy Duty Hex Nut
- Standard Threads: NPT
- * Lloyds Certificate upon request

Body Size	Working Pressure (PSI)	Max Flow (GPM)	Lloyd Test Pressure (PSI)
1/2"	6,500	24	4,000
3/4"	6,500	40	4,000
1"	6,200	53	4,000
1-1/4"	6,200	75	4,000
1-1/2"	5,700	185	4,000

* For Blow out Preventor - add BOP to part number
* See page 16 for dimensional & pressure rating data

Ex: PVT4-BOP-08-08-C-NPT (Coupler)
Ex: PVT4-BOP-08-08-N-NPT (Nipple)

FLAT FACE SCREW TYPE COUPLINGS CONNECTABLE UNDER PRESSURE



PVT4-BOP STAINLESS



Applications and Markets

- Designed specially for B.O.P. (Blow out Preventers) accumulator systems in the Oil & Gas market
- Red color on coupling and nipple designates that the couplings are B.O.P. fire approved
- API 16D Certificate that states that all couplings must maintain pressure when exposed to 1300° F (700° C) for a 5 minute period.

Notes

PVT4 Polypropylene cap and plugs play a crucial role in the life of the coupling sets. Caps and plugs are available in red and sold separately.

Features and Benefits

- PVT4-SS is the ultimate coupling for the offshore Oil & Gas market
 - 316 SS material for ultimate corrosion resistance
 - Slim design makes for easy plumbing in tight spaces with no loss in flow rate
 - High pressure, low pressure drop and high impulse applications
 - Seal is blowout resistant to 5,000 PSI when connecting and disconnecting with residual pressure
 - Exceeds 1,000,000 impulse cycles
 - Flat face design eliminates spillage upon disconnection
 - Thread to connect style coupling eliminates brinelling issues
 - Heavy Duty Hex Nut
 - Standard Threads: NPT
- * Lloyds Certificate upon request

Body Size	Working Pressure (PSI)	Max Flow (GPM)	Lloyd Test Pressure (PSI)
1/2"	5,000	24	4,000
3/4"	5,000	40	4,000
1"	5,000	53	4,000
1-1/4"	4,000	75	3,000
1-1/2"	3,500	185	3,000
2"	3,000	265	3,000

* For Blow out Preventor - add BOP to part number
* See page 17 for dimensional & pressure rating data

Ex: PVT4-SS-BOP-08-08-C-NPT (Coupler)
Ex: PVT4-SS-BOP-08-08-N-NPT (Nipple)

FLAT FACE SCREW TYPE COUPLINGS CONNECTABLE UNDER PRESSURE



FSI - BOP



Applications and Markets

- Designed specially for B.O.P. (Blow out Preventers) accumulator systems in the Oil & Gas market
- Red color on coupling and nipple designates that the couplings are B.O.P. fire approved
- API 16D Certificate that states that all couplings must maintain pressure when exposed to 1300° F (700° C) for a 5 minute period.

* Lloyds Certificate upon request

Features and Benefits

- High tech Z-786 anti-corrosion plating salt spray tested for 700 hours before appearance of surface red rust
- High working pressure
- Connects and disconnects by hand up to 4,400 PSI
- Seal blowout resistant when connecting or disconnecting with residual pressure
- Exceeds 1,000,000 impulse cycles
- Flat face design eliminates spillage upon disconnection
- Thread to connect style coupling eliminates brinelling issues
- Heavy Duty Hex Nut
- Standard Threads: NPT

Body Size	Working Pressure (PSI)	Max Flow (GPM)	Lloyd Test Pressure (PSI)
1"	6,200	53	4,000
1-1/4"	6,200	75	4,000
1-1/2"	5,700	185	4,000

* For Blow out Preventor - add BOP to part number

* See page 18 for dimensional & pressure rating data

Ex: FSI-BOP-16-16-C-NPT (Coupler)
Ex: FSI-BOP-16-16-N-NPT (Nipple)

VFF-HD-BOP



Applications and Markets

- Designed specially for B.O.P. (Blow out Preventers) accumulator systems in the Oil & Gas market
- Red color on coupling and nipple designates that the couplings are B.O.P. fire approved
- API 16D Certificate that states that all couplings must maintain pressure when exposed to 1300° F (700° C) for a 5 minute period.

* Lloyds Certificate upon request

Features and Benefits

- Wing type screw to connect
- High working pressure
- High flow rate
- Heavy duty design
- Heavy duty acme threads
- Standard Threads: NPT
- Double O-Ring Design

Body Size	Working Pressure (PSI)	Max Flow (GPM)	Lloyd Test Pressure (PSI)
3/4"	5,000	45	5,000
1"	5,000	75	5,000
1-1/4"	5,000	150	5,000
1-1/2"	5,000	200	5,000
2"	5,000	240	5,000

* For Blow out Preventor - add BOP to part number

* See page 20 for dimensional & pressure rating data

Ex:VFF-HD-S-BOP-16-16-C-NPT (Coupler)

Ex:VFF-HD-S-BOP-16-16-N-NPT (Nipple)

HNV-BOP



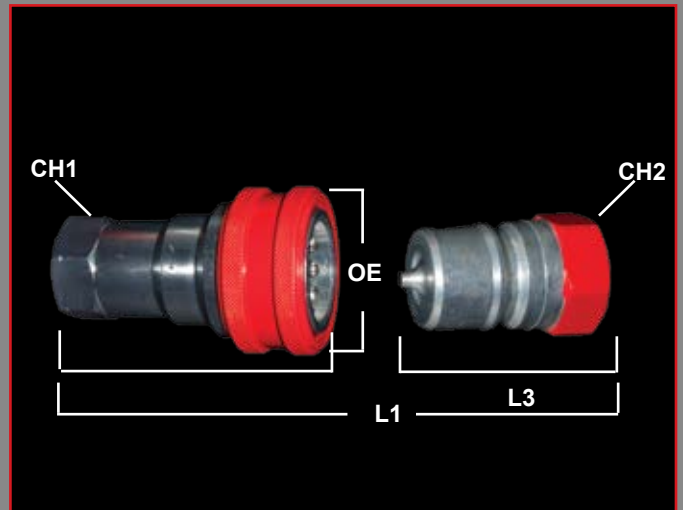
Features and Benefits

- Exceeds 7241-1 ISO “B” norm
- Oversize sleeve
- Poppet design
- Locking sleeve
- Radial ball locking connection
- True quick coupling without threading
- Redundant double O-Ring design
- Standard Threads: NPT

Applications and Markets

- Designed specially for B.O.P. (Blow out Preventers) accumulator systems in the Oil & Gas market
- Red color on coupling and nipple designates that the couplings are B.O.P. fire approved
- API 16D Certificate that states that all couplings must maintain pressure when exposed to 1300° F (700° C) for a 5 minute period.

* Lloyds Certificate upon request



Body Size	CH1	CH2	OE	L1	L2	L3	Working Pressure (PSI)	Max Flow (GPM)	Lloyd Test Pressure (PSI)
1/2"	1.06"	1.06"	1.85"	3.81"	3.00"	2.05"	4,000	20	3,000
3/4"	1.34"	1.34"	2.20"	4.51"	3.60"	2.50"	4,000	40	3,000
1"	1.60"	1.62"	2.60"	5.20"	4.18"	2.85"	4,000	55	3,000

* For Blow out Preventor - add BOP to part number

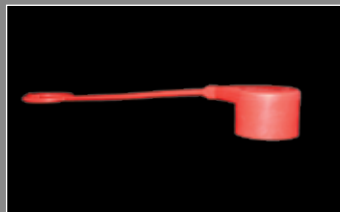
Ex:HNV-BOP-16-16-C-NPT (Coupler)
Ex:HNV-BOP-16-16-N-NPT (Nipple)

Coupling Accessories

Flat Face and Flat Face Screw Type Caps and Plugs



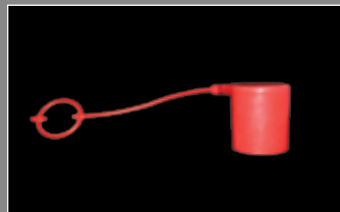
FF-RDC



Rubber Cap for Flat Face Male Nipple

CAP
FF-RDC-04
FF-RDC-06
FF-RDC-08
FF-RDC-12
FF-RDC-16

FF-RDP



Rubber Plug for Flat Face Female Coupler

PLUG
FF-RDP-04
FF-RDP-06
FF-RDP-08
FF-RDP-12
FF-RDP-16

PVT4-PDC



Plastic Cap for Flat Face Screw Type Female Coupler

CAP
PVT4-PDC-04
PVT4-PDC-06
PVT4-PDC-08
PVT4-PDC-12
PVT4-PDC-16
PVT4-PDC-20
PVT4-PDC-24
PVT4-PDC-32

PVT4-PDP



Plastic Plug for Flat Face Screw Type Male Nipple

PLUG
PVT4-PDP-04
PVT4-PDP-06
PVT4-PDP-08
PVT4-PDP-12
PVT4-PDP-16
PVT4-PDP-20
PVT4-PDP-24
PVT4-PDP-32

(Used for PVT4 Stainless Steel Only)

PVT4-ADC



Aluminum Cap for Flat Face Screw Type Female Coupler

CAP
PVT4-ADC-04
PVT4-ADC-06
PVT4-ADC-08
PVT4-ADC-12
PVT4-ADC-16
PVT4-ADC-20
PVT4-ADC-24
PVT4-ADC-32

PVT4-ADP



Aluminum Plug for Flat Face Screw Type Male Nipple

PLUG
PVT4-ADP-04
PVT4-ADP-06
PVT4-ADP-08
PVT4-ADP-12
PVT4-ADP-16
PVT4-ADP-20
PVT4-ADP-24
PVT4-ADP-32

FSI-ADC



Aluminum Cap for Flat Face Screw Type Male Nipple

CAP
FSI-ADC-04
FSI-ADC-06
FSI-ADC-08
FSI-ADC-12
FSI-ADC-16
FSI-ADC-20
FSI-ADC-24
FSI-ADC-32

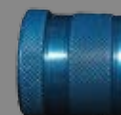
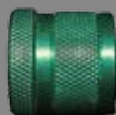
FSI-ADP



Aluminum Plug for Flat Face Screw Type Female Coupler

PLUG
FSI-ADP-04
FSI-ADP-06
FSI-ADP-08
FSI-ADP-12
FSI-ADP-16
FSI-ADP-20
FSI-ADP-24
FSI-ADP-32

PVT4 and FSI are also available in the following colors: Green, Red, and Blue



Coupling Accessories

Screw Type Caps and Plugs



VFF-BDC



Brass Cap for Screw Type Male Nipple

CAP
VFF-BDC-12
VFF-BDC-16
VFF-BDC-20
VFF-BDC-24

VFF-BDP



Brass Plug for Screw Type Female Coupler

PLUG
VFF-BDP-12
VFF-BDP-16
VFF-BDP-20
VFF-BDP-24

VFF-HD-ADC



Aluminum Cap for Screw Type Male Nipple

CAP
VFF-HD-ADC-12
VFF-HD-ADC-16
VFF-HD-ADC-20
VFF-HD-ADC-24
VFF-HD-ADC-32

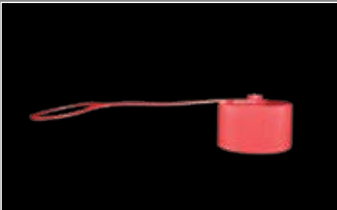
VFF-HD-ADP



Aluminum Plug for Screw Type Female Coupler

PLUG
VFF-HD-ADP-12
VFF-HD-ADP-16
VFF-HD-ADP-20
VFF-HD-ADP-24
VFF-HD-ADP-32

PVV3-PDC



Plastic Cap for Screw Type Female Coupler

CAP
PVV3-PDC-04
PVV3-PDC-06
PVV3-PDC-08
PVV3-PDC-12
PVV3-PDC-16
PVV3-PDC-20

PVV3-PDP



Plastic Plug for Screw Type Male Nipple (Swivel)

PLUG
PVV3-PDP-04
PVV3-PDP-06
PVV3-PDP-08
PVV3-PDP-12
PVV3-PDP-16
PVV3-PDP-20

PVV3-ADC



Aluminum Cap for Screw Type Female Coupler

CAP
PVV3-ADC-04
PVV3-ADC-06
PVV3-ADC-08
PVV3-ADC-12
PVV3-ADC-16
PVV3-ADC-20

PVV3-ADP



Aluminum Plug for Screw Type Male Nipple (Swivel)

PLUG
PVV3-ADP-04
PVV3-ADP-06
PVV3-ADP-08
PVV3-ADP-12
PVV3-ADP-16
PVV3-ADP-20

Coupling Accessories

Screw Type Caps and Plugs



VIV1-ADC



Aluminum Cap for Screw Type Male Nipple

CAP
VIV1-ADC-20
VIV1-ADC-24
VIV1-ADC-32
VIV1-ADC-40
VIV1-ADC-48

VIV1-ADP



Aluminum Plug for Screw Type Female Coupler

PLUG
VIV1-ADP-20
VIV1-ADP-24
VIV1-ADP-32
VIV1-ADP-40
VIV1-ADP-48

VVS-ADC



Aluminum Cap for Screw Type Male Nipple

CAP
VVS-ADC-04
VVS-ADC-06
VVS-ADC-08
VVS-ADC-12
VVS-ADC-16

VVS-ADP



Aluminum Plug for Screw Type Female Coupler

PLUG
VVS-ADP-04
VVS-ADP-06
VVS-ADP-08
VVS-ADP-12
VVS-ADP-16

VVS-IT-ADC



Aluminum Cap for Screw Type Male Nipple

CAP
VVS-IT-ADC-04
VVS-IT-ADC-06
VVS-IT-ADC-08
VVS-IT-ADC-12
VVS-IT-ADC-16
VVS-IT-ADC-20
VVS-IT-ADC-24
VVS-IT-ADC-32

VVS-IT-ADP



Aluminum Plug for Screw Type Female Coupler

PLUG
VVS-IT-ADP-04
VVS-IT-ADP-06
VVS-IT-ADP-08
VVS-IT-ADP-12
VVS-IT-ADP-16
VVS-IT-ADP-20
VVS-IT-ADP-24
VVS-IT-ADP-32

PVS-ADC



Aluminum Cap for Screw Type Male Nipple

CAP
PVS-ADC-04
PVS-ADC-06

PVS-ADP



Aluminum Plug for Screw Type Female Coupler (Swivel)

PLUG
PVS-ADP-04
PVS-ADP-06

Coupling Accessories

Poppet Style Caps and Plugs



ANV-RDC



Rubber Cap for Poppet Style Male Nipple

CAP
ANV-RDC-04
ANV-RDC-06
ANV-RDC-08
ANV-RDC-12
ANV-RDC-16

ANV-RDP



Rubber Plug for Poppet Style Female Coupler

PLUG
ANV-RDP-04
ANV-RDP-06
ANV-RDP-08
ANV-RDP-12
ANV-RDP-16

HNV-ADC



Aluminum Cap for Poppet Style Male Nipple

CAP
HNV-ADC-04
HNV-ADC-06
HNV-ADC-08
HNV-ADC-12
HNV-ADC-16

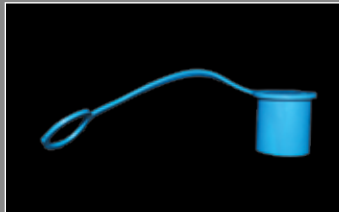
HNV-ADP



Aluminum Plug for Poppet Style Female Coupler

PLUG
HNV-ADP-04
HNV-ADP-06
HNV-ADP-08
HNV-ADP-12
HNV-ADP-16

HNV-RDC



Rubber Cap for Poppet Style Male Nipple

CAP
HNV-RDC-04
HNV-RDC-06
HNV-RDC-08
HNV-RDC-12
HNV-RDC-16

HNV-RDP



Rubber Plug for Poppet Style Female Coupler

PLUG
HNV-RDP-04
HNV-RDP-06
HNV-RDP-08
HNV-RDP-12
HNV-RDP-16

TNV-RDC



Rubber Cap for Poppet Style Male Nipple

CAP
TNV-RDC-04
TNV-RDC-06
TNV-RDC-08
TNV-RDC-12
TNV-RDC-16
TNV-RDC-20
TNV-RDC-24
TNV-RDC-32

TNV-RDP



Aluminum Plug for Poppet Style Female Coupler

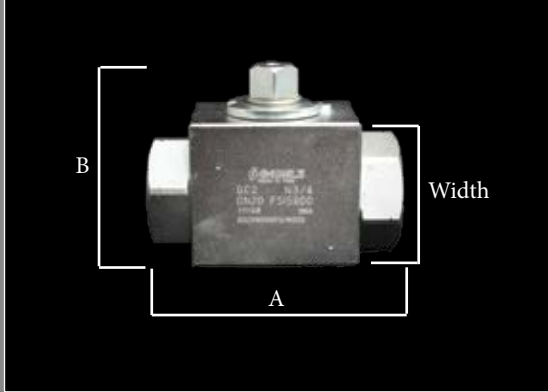
PLUG
TNV-RDP-04
TNV-RDP-06
TNV-RDP-08
TNV-RDP-12
TNV-RDP-16
TNV-RDP-20
TNV-RDP-24
TNV-RDP-32

BV2/BV2B SERIES

2-Way - Block and Round Body Styles - Carbon & Stainless Steel
 Sizes: 1/4" thru 2"



BV2



Dimensional & Pressure Rating Data

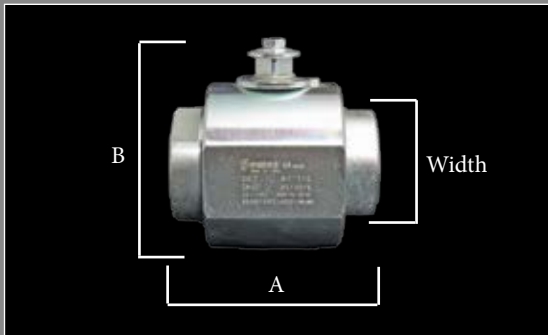
Body Size	A	B	Width	Max Working Pressure (PSI)
04	2.80	1.93	1.18	7,250
06	2.87	2.13	1.38	7,250
08	3.27	2.24	1.46	7,250
12	3.74	2.87	1.77	5,800
16	4.45	3.27	2.17	5,075
20	4.76	3.27	2.17	5,075
24	4.88	3.27	2.17	5,075

units: inches

Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Block style bodies are full port up to 1"
- Standard POM ball seats with buna stem seals
- Threads available include NPT, SAE, BSP, and DIN

BV2B



Dimensional & Pressure Rating Data

Body Size	A	B	Width	Max Working Pressure (PSI)
20	4.53	3.98	3.46	5,075
24	5.16	4.53	4.03	5,075
32	5.51	4.72	4.29	5,075

units: inches

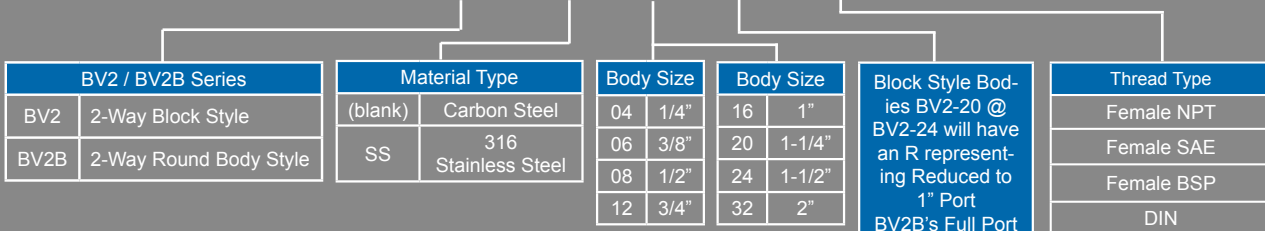
Features and Benefits

- Carbon steel construction with white zinc bichromated finishing
- 316 steel available
- BV2B's Full Port
- Standard POM ball seats with buna stem seals
- Threads available include NPT, SAE, BSP, and DIN

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2 - SS - 08 - R - NPT



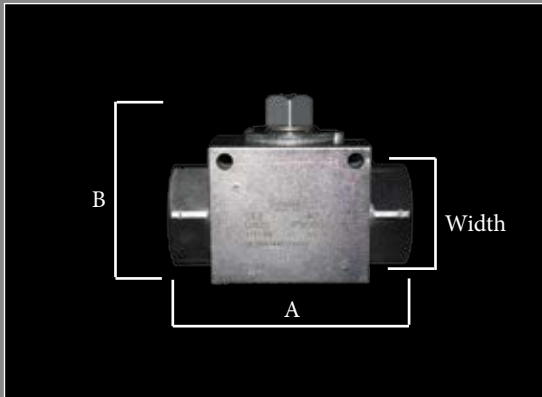
BV2-FO SERIES

2-Way - Block Style Panel Mount - Carbon Steel

Sizes: 1/4" thru 1"



BV2-FO



Dimensional & Pressure Rating Data

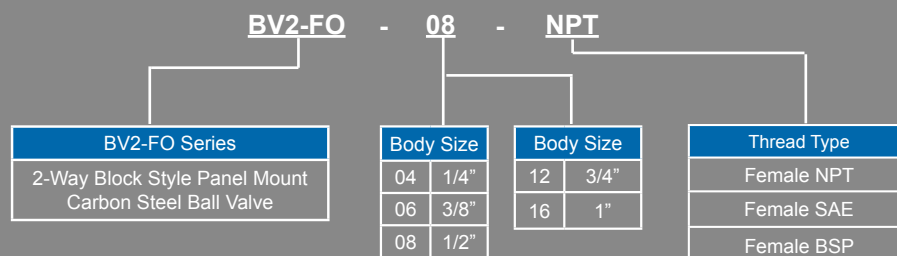
Body Size	A	B	Width	Max Working Pressure (PSI)
04	2.80	1.93	1.18	7,250
06	2.87	2.13	1.38	7,250
08	3.27	2.24	1.46	7,250
12	3.74	2.87	1.77	5,800
16	4.45	3.27	2.17	5,075

Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available upon special request
- Panel mount full port
- Standard POM ball seats with buna stem seals
- Threads available include NPT, SAE, and BSP

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:



BV2-FL61/BV2-FL62 SERIES

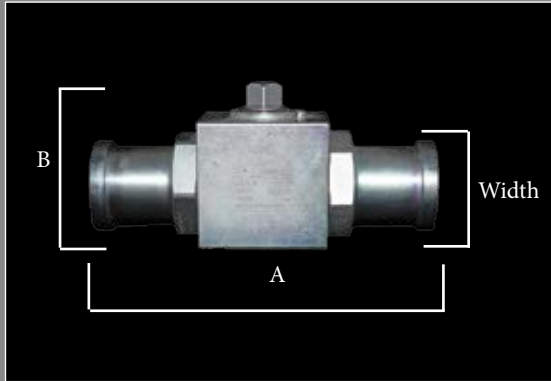
2-Way - Block Style with Code 61 and 62 Flanges - Full Port

Carbon Steel & 316 Stainless Steel

Sizes: 1/2" thru 1"



BV2-FL61



Dimensional & Pressure Rating Data

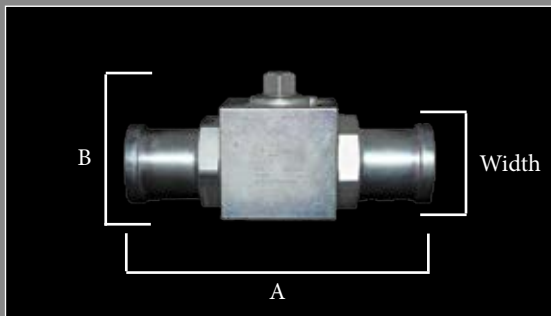
Body Size	A	B	Width	Max Working Pressure (PSI)
08	5.96	2.24	1.18	3,000
12	6.38	2.87	1.50	3,000
16	7.00	3.27	1.748	3,000

units: inches

Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Block style bodies are full port
- Code 61 flange head
- Standard POM ball seats with buna stem seals

BV2-FL62



Dimensional & Pressure Rating Data

Body Size	A	B	Width	Max Working Pressure (PSI)
08	5.96	2.24	1.24	6,000
12	6.38	2.87	1.50	6,000
16	7.00	3.27	1.748	6,000

units: inches

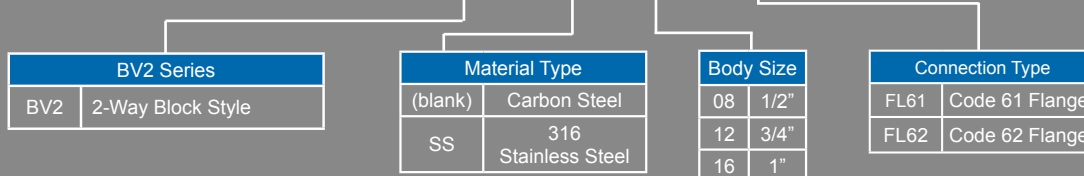
Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Block style bodies are full port
- Code 62 flange head
- Standard POM ball seats with buna stem seals

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2 - SS - 08 - FL61



BV2B-FL61/BV2B-FL62 SERIES

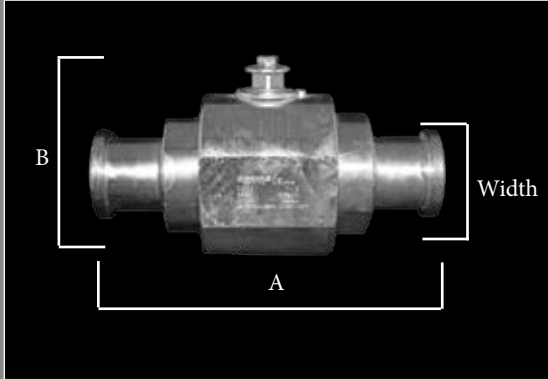
2-Way - Round Body Style with Code 61 and 62 Flanges - Full Port

Carbon Steel & 316 Stainless Steel

Sizes: 1-1/4" thru 2"



BV2B-FL61



Dimensional & Pressure Rating Data

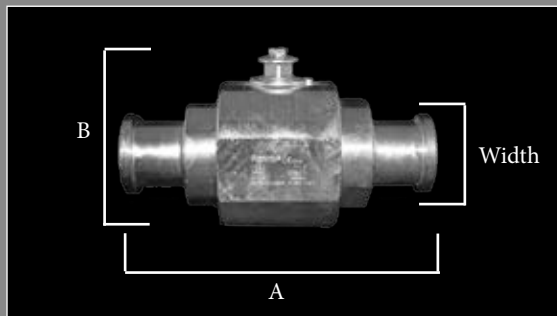
Body Size	A	B	Width	Max Working Pressure (PSI)
20	7.520	3.84	2.00	3,000
24	9.09	4.39	2.37	3,000
32	12.44	4.59	3.126	3,000

units: inches

Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Round body styles are full port
- Code 61 flange head
- Standard POM ball seats with buna stem seals

BV2B-FL62



Dimensional & Pressure Rating Data

Body Size	A	B	Width	Max Working Pressure (PSI)
20	7.520	3.84	2.00	6,000
24	9.09	4.39	2.37	6,000
32	12.44	4.59	3.126	6,000

units: inches

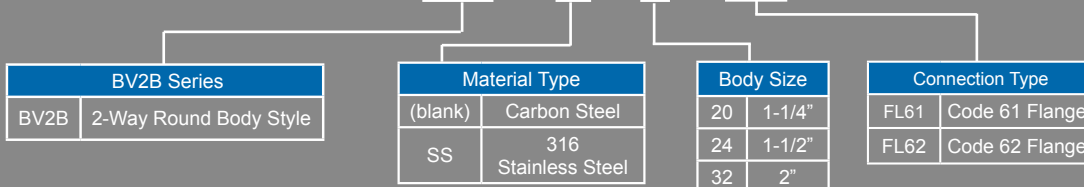
Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Round body styles are full port
- Code 62 flange head
- Standard POM ball seats with buna stem seals

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2B - SS - 20 - FL61



BV2-4B-FL61/BV2-4B-FL62 SERIES

2-Way - Block Style - 4 Bolt with Code 61 and 62 Flanges - Full Port

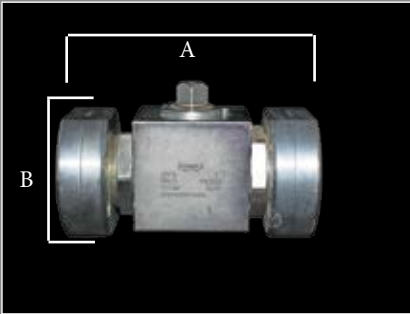
Carbon Steel & 316 Stainless Steel

Sizes: 1/2" thru 1"



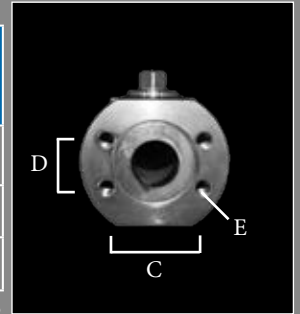
BV2-4B-FL61

Dimensional & Pressure Rating Data



Body Size	A	B	C	D	E (UNC)	Max Working Pressure (PSI)
08	4.72	2.24	1.50	.69	5/16" - 18	3,000
12	5.35	2.89	1.87	.87	3/8" - 16	3,000
16	5.83	3.29	2.06	1.03	3/8" - 16	3,000

units: inches

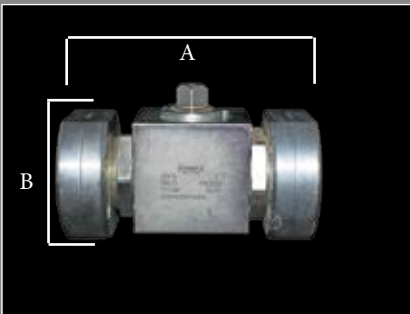


Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- Block style bodies are full port
- 4-Bolt code 61 connection
- Standard POM ball seats with buna stem seals

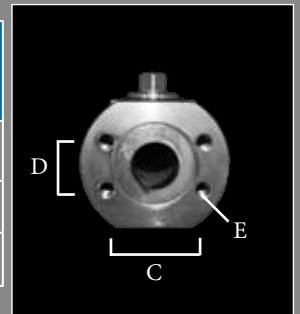
BV2-4B-FL62

Dimensional & Pressure Rating Data



Body Size	A	B	C	D	E (UNC)	Max Working Pressure (PSI)
08	4.72	2.24	1.59	.72	5/16" - 18	6,000
12	5.35	2.89	2.00	.94	3/8" - 16	6,000
16	5.83	3.29	2.25	1.09	7/16" - 14	6,000

units: inches



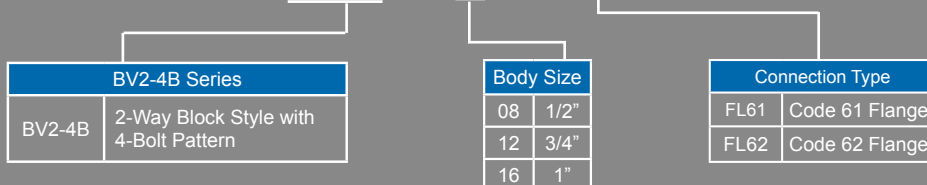
Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- Block style bodies are full port
- 4-Bolt code 62 connection
- Standard POM ball seats with buna stem seals

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2-4B - **08** - **FL61**



BV2B-4B-FL61/BV2B-4B-FL62 SERIES

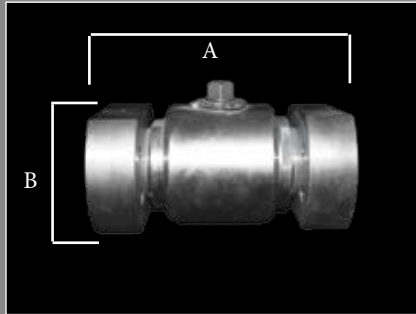
2-Way - Round Body Style - 4 Bolt with Code 61 and 62 Flanges - Full Port

Carbon Steel & 316 Stainless Steel

Sizes: 1-1/4" thru 2"



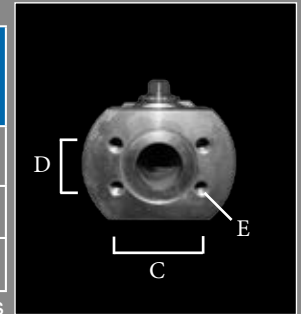
BV2B-4B-FL61



Dimensional & Pressure Rating Data

Body Size	A	B	C	D	E (UNC)	Max Working Pressure (PSI)
20	6.77	4.39	2.31	1.19	7/16" - 14	3,000
24	6.95	4.94	2.75	1.41	1/2" - 13	3,000
32	7.72	5.22	3.06	1.69	1/2" - 13	3,000

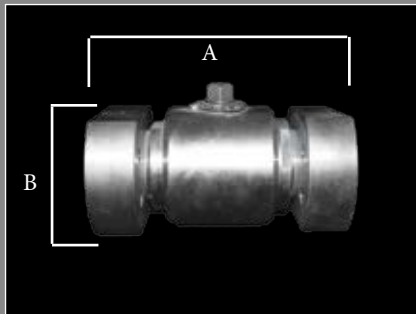
units: inches



Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- Round style bodies are full port
- 4-Bolt code 61 connection
- Standard POM ball seats with buna stem seals

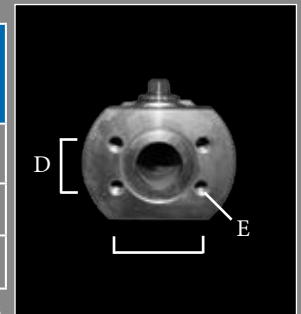
BV2B-4B-FL62



Dimensional & Pressure Rating Data

Body Size	A	B	C	D	E (UNC)	Max Working Pressure (PSI)
20	6.77	4.39	2.63	1.25	1/2" - 13	6,000
24	6.95	4.94	3.13	1.44	5/8" - 11	6,000
32	7.72	5.22	3.81	1.75	3/4" - 10	6,000

units: inches

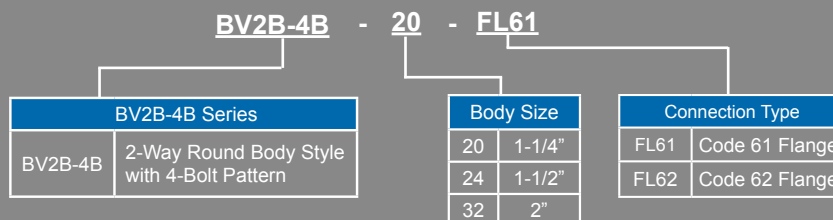


Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- Round style bodies are full port
- 4-Bolt code 62 connection
- Standard POM ball seats with buna stem seals

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:



BV2-FL/4B-61/BV2-FL/4B-62 SERIES

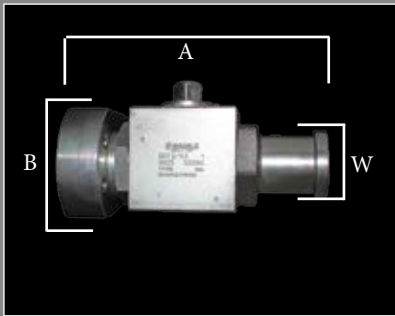
2-Way - Block Style - 4 Bolt with Code 61 and 62 Flanges - Full Port

Carbon Steel & 316 Stainless Steel

Sizes: 1/2" thru 1"



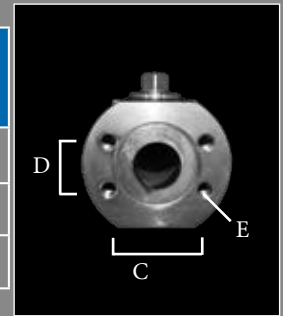
BV2-FL/4B-61



Dimensional & Pressure Rating Data

Body Size	A	B	C	D	E (UNC)	W	Max Working Pressure (PSI)
08	5.34	1.69	1.59	.72	5/16" - 18	1.26	3,000
12	5.87	2.24	1.87	.87	3/8" - 16	1.54	3,000
16	6.42	2.56	2.06	1.03	3/8" - 16	1.77	3,000

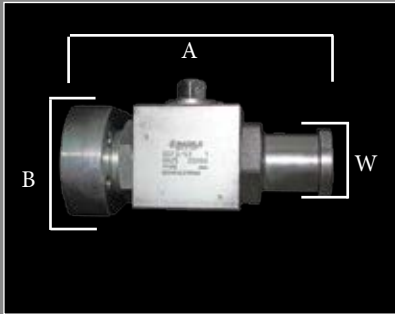
units: inches



Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Block style bodies are full port
- Code 61 flange head and 4-Bolt connection
- Standard POM ball seats with buna stem seals

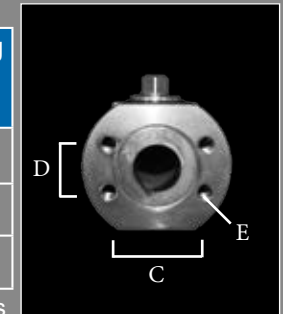
BV2-FL/4B-62



Dimensional & Pressure Rating Data

Body Size	A	B	C	D	E (UNC)	W	Max Working Pressure (PSI)
08	5.34	1.69	1.50	.69	5/16" - 18	1.22	6,000
12	5.96	2.36	1.87	.874	3/8" - 16	1.45	6,000
16	6.81	2.56	2.25	1.09	7/16" - 14	1.89	6,000

units: inches



Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Block style bodies are full port
- Code 62 flange head and 4-Bolt connection
- Standard POM ball seats with buna stem seals

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2 - SS - FL/4B - 08 - 61

BV2 Series		Material Type		Series		Body Size		Connection Type	
BV2	2-Way Block Style with 4-Bolt Pattern and flange head	(blank)	Carbon Steel	FL/4B	Flange and 4-Bolt Connection	08	1/2"	61	Code 61 Flange
		SS	316 Stainless Steel			12	3/4"	62	Code 62 Flange
						16	1"		

BV2B-FL/4B-61/BV2B-FL/4B-62 SERIES

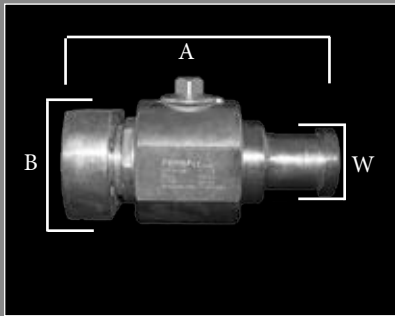
2-Way - Round Body Style - 4 Bolt with Code 61 and 62 Flanges - Full Port

Carbon Steel & 316 Stainless Steel

Sizes: 1-1/4" thru 2"



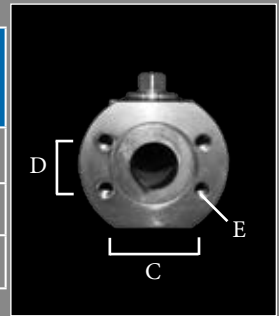
BV2B-FL/4B-61



Dimensional & Pressure Rating Data

Body Size	A	B	C	D	E (UNC)	W	Max Working Pressure (PSI)
20	7.25	3.06	2.31	1.19	7/16" - 14	2.00	3,000
24	8.13	3.79	2.75	1.41	1/2" - 13	2.37	3,000
32	8.50	4.50	3.06	1.69	1/2" - 13	2.81	3,000

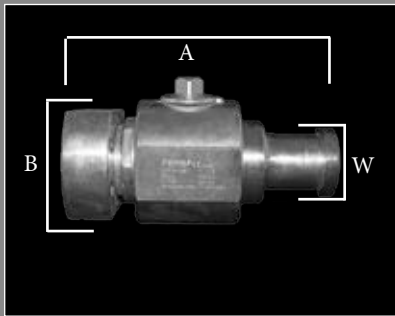
units: inches



Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Round style bodies are full port
- Code 61 flange head and 4-Bolt connection
- Standard POM ball seats with buna stem seals

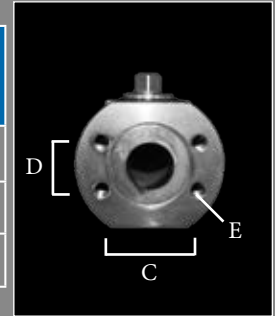
BV2B-FL/4B-62



Dimensional & Pressure Rating Data

Body Size	A	B	C	D	E (UNC)	W	Max Working Pressure (PSI)
20	7.78	4.74	2.63	1.25	1/2" - 18	2.13	6,000
24	9.00	5.30	3.13	1.44	5/8" - 11	2.50	6,000
32	10.07	5.57	3.81	1.75	3/4" - 10	3.13	6,000

units: inches



Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Round style bodies are full port
- Code 62 flange head and 4-Bolt connection
- Standard POM ball seats with buna stem seals

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2B - SS - FL/4B - 20 - 61

BV2 Series		Material Type		Series		Body Size		Connection Type	
BV2B	2-Way Round Body Style with 4-Bolt Pattern and Flange head	(blank)	Carbon Steel	FL/4B	Flange and 4-Bolt Connection	20	1-1/4"	61	Code 61 Flange
		SS	316 Stainless Steel			24	1-1/2"	62	Code 62 Flange
						32	2"		

BV2-MINI SERIES

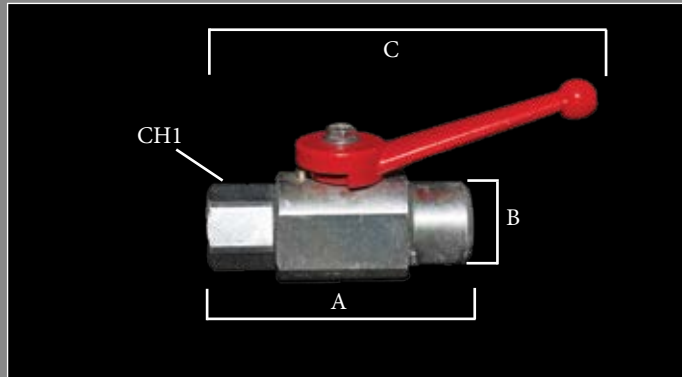
2-Way - Round Body Mini Design

Carbon Steel

Sizes: 1/4" Only



BV2-MINI



Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- Round body mini design
- Threads: NPT, SAE, and BSP
- Standard POM ball seats with buna stem seals

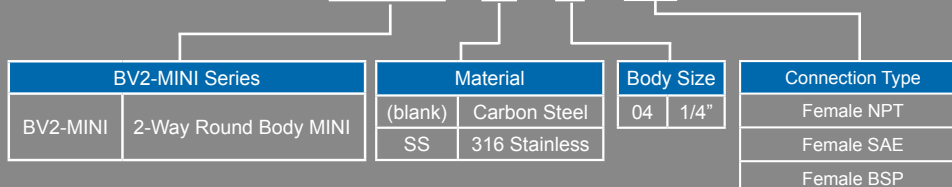
Body Size	A	B	C	CH1	Max Working Connected (PSI)
04	2.48	.99	3.75	.75	7,250

units: inches

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2-MINI - SS - 04 - NPT



BV2-MM SERIES

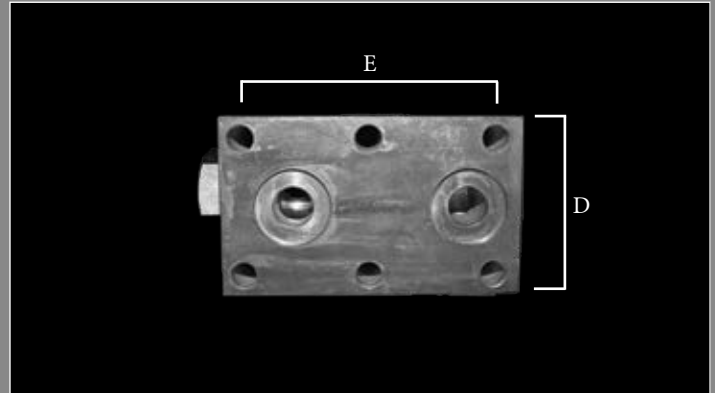
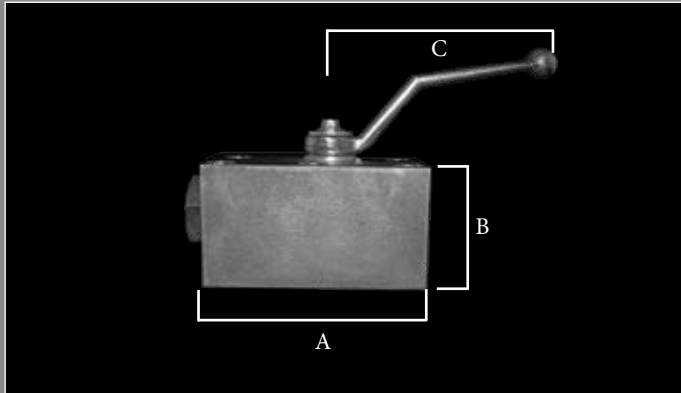
2-Way - Manifold Mount - Block Style Body - Full Port

Carbon Steel & 316 Stainless Steel

Sizes: 1/4" thru 1"



BV2-MM



Features and Benefits

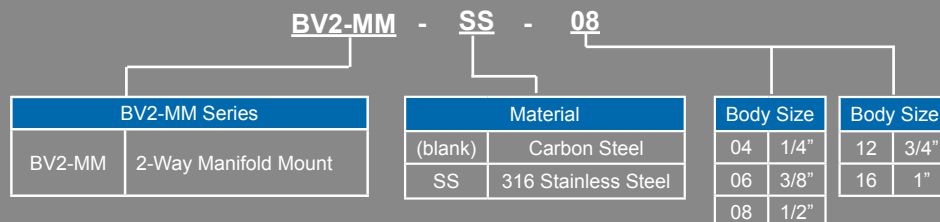
- Carbon steel construction with Zinc Bichromated plating
- 316 Stainless Steel available
- Manifold mount
- Standard POM ball seats with buna stem seals

Body Size	A	B	C	D	E	Pattern Max Working Pressure (PSI)
04	2.28	1.38	4.33	1.57	1.38	7,250
06	2.76	1.77	4.33	2.17	1.73	7,250
08	3.94	2.17	4.33	2.36	2.28	7,250
12	4.65	2.76	7.09	2.76	2.72	5,800
16	5.32	3.15	11.81	3.15	3.17	5,075

units: inches

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:



BV2-GRS3/GRS6 SERIES

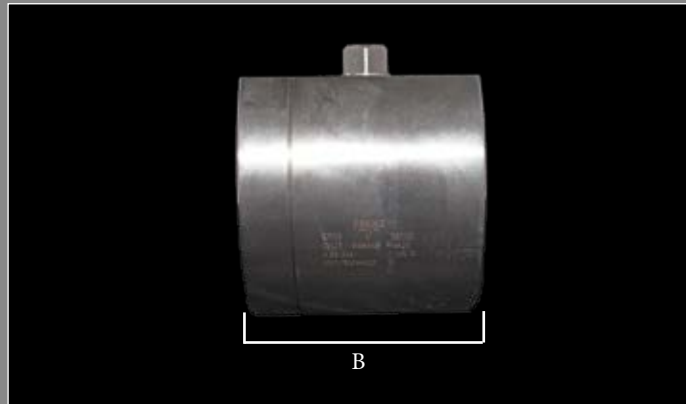
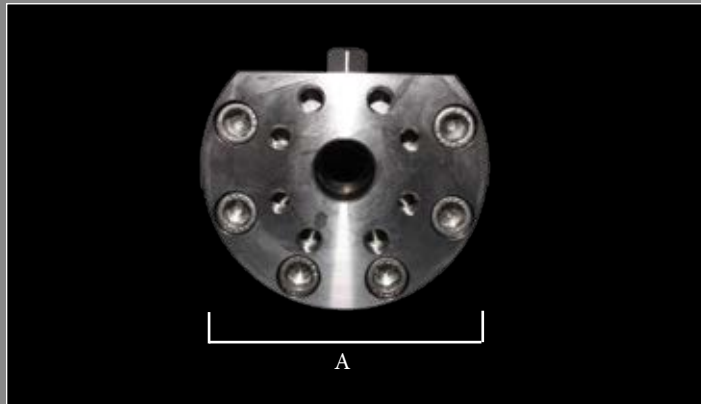
2-Way - Pancake Body Style - Direct Mount - Dual Pattern - Full Port

Carbon Steel & 316 Stainless Steel

Sizes: 1/2" thru 5"



BV2-GRS3/GRS6



Features and Benefits

- Carbon steel and 316 Stainless Steel available
- 2 - Way direct mount high pressure ball valve
- Both Code 61 and Code 62 connections on the same side
- Code 61 can be used on one side of the valve and code 62 on the opposite side
- Sizes: Code 61- 1/2" thru 5" Code 62- 1/2" thru 2"
- Standard POM ball seats with buna stem seals

Body Size	A	B	Code 61 Max Working (PSI)	Code 62 Max Working (PSI)
08	2.95	3.07	3,000	6,000
12	3.15	3.86	3,000	6,000
16	3.47	4.65	3,000	6,000
20	3.94	5.71	3,000	6,000
24	4.33	6.50	3,000	6,000
32	4.57	7.80	3,000	6,000
40	5.91	7.80	3,000	N/A
48	5.91	8.27	3,000	N/A
64	6.70	10.16	3,000	N/A
80	8.27	11.61	3,000	N/A

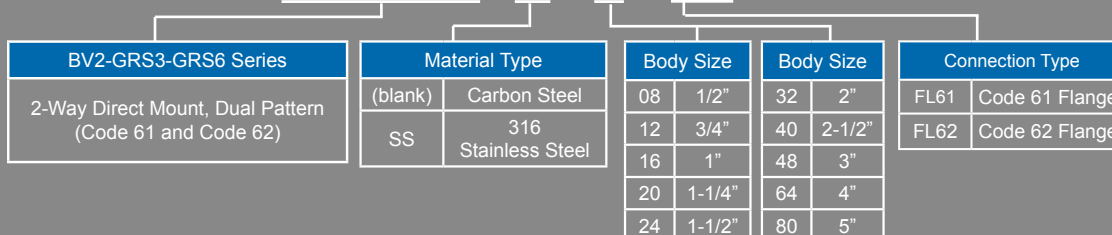


units: inches

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV-GRS3-GRS6 - SS - 08 - FL61



BV2-90 SERIES

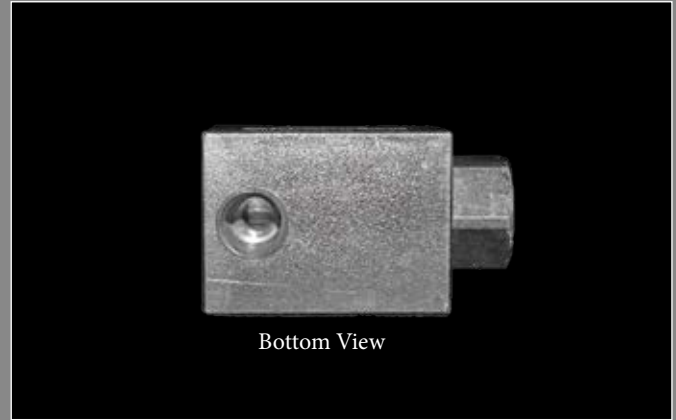
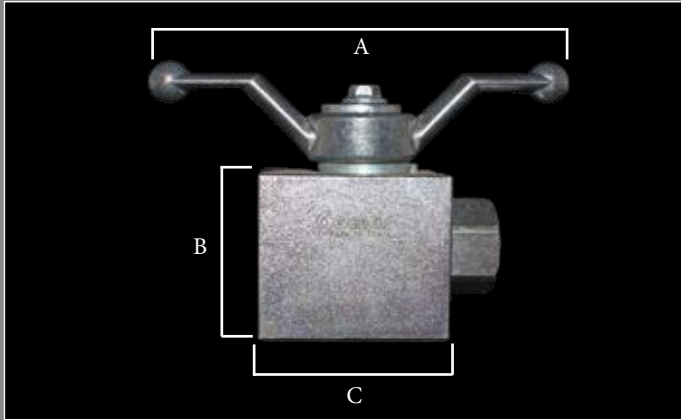
2-Way - 90° Block Style With T Handle

Carbon Steel

Sizes: 1/4" Only



BV2-90



Features and Benefits

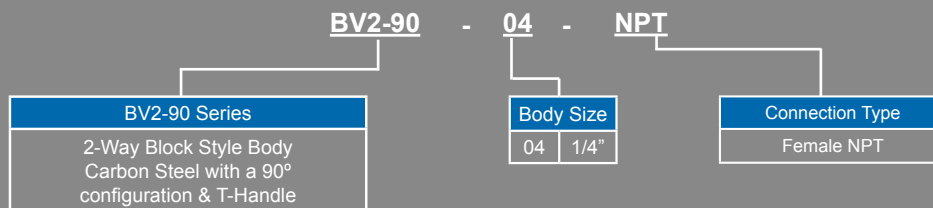
- Carbon steel
- Medium to high pressure applications
- T-handle for use in tight spaces
- Port on bottom of valve to enable mounting to applications such as power units
- Sizes: 1/4" only
- Standard POM ball seats with buna stem seals

Body Size	A	B	C	CH1	Max Working Connected (PSI)
04	4.54	1.69	1.97	.94	7,250

units: inches

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:



BV2-ES/BV3-ES SERIES

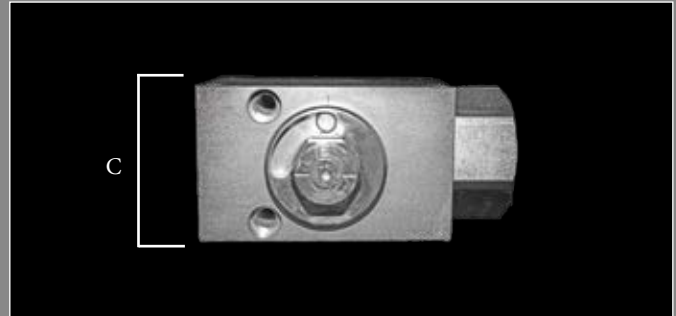
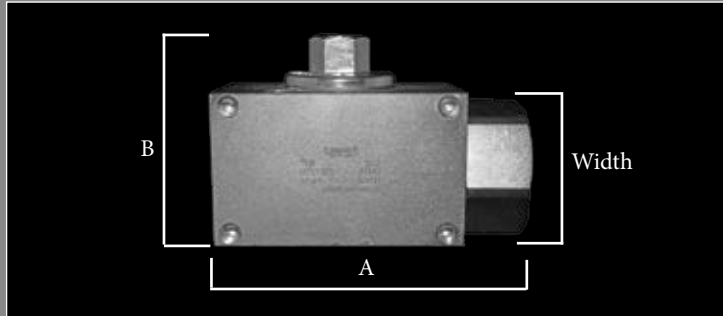
2-Way and 3-Way - Excavator Series - Block Style Body - Full Port

Carbon Steel and 316 Stainless Steel

Sizes: 1/4" thru 1-1/4"



BV2-ES



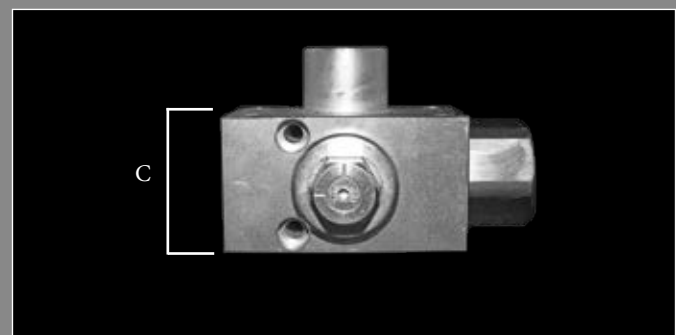
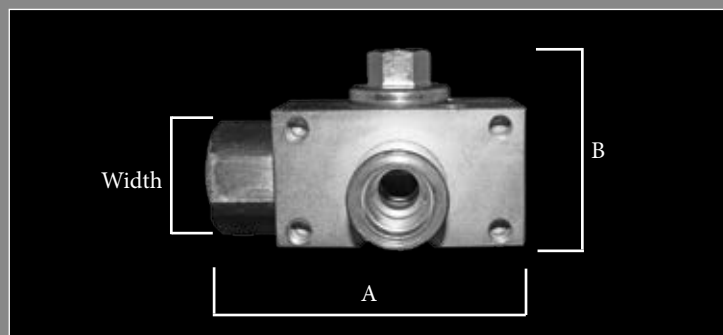
Features and Benefits

- Carbon steel and 316 Stainless Steel available
- Manufactured with two mounting holes
- Special design for high impulse applications
- Threads available: NPT and SAE
- Sizes: 1/4" thru 1-1/4" (Full Port)
- Standard POM ball seats with buna stem seals

Body Size	A	B	C	Width	Max Working Pressure (PSI)
04	3.37	2.26	1.46	1.06	7,250
06	3.48	2.26	1.46	1.26	7,250
08	4.07	2.46	2.46	1.42	7,250
12	5.10	3.05	3.05	1.77	7,250
16	5.26	3.44	3.44	2.17	7,250
20	5.26	4.07	4.07	2.36	7,250

units: inches

BV3-ES



Features and Benefits

- Carbon steel and 316 Stainless Steel available
- Manufactured with two mounting holes
- Special design for high impulse applications
- Threads available: NPT and SAE
- Sizes: 3/8" thru 1-1/4" (1-1/4" reduced port)
- Standard POM ball seats with buna stem seals

Body Size	A	B	C	Width	Max Working Pressure (PSI)
06	3.48	2.26	1.46	1.26	7,250
08	4.07	2.46	2.46	1.42	7,250
12	5.10	3.05	3.05	1.77	7,250
16	5.26	3.44	3.44	2.17	7,250
20	5.26	3.44	3.44	2.17	7,250

units: inches

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2-ES - SS - 08 - NPT

BV2-ES/BV3-ES Series		Material		Body Size		Thread Type	
BV2-ES	2-Way	(blank)	Carbon Steel	08	1/2"	Female NPT	
BV3-ES	3-Way	SS	316 Stainless	12	3/4"	Female SAE	
				16	1"		
				20	1-1/4"		

BV2-ES-CAT SERIES

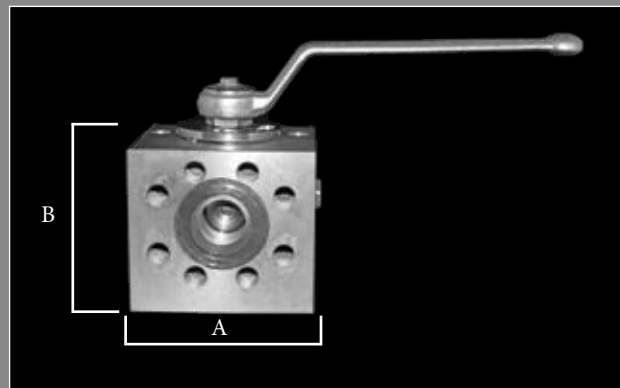
2-Way - Caterpillar Excavator Series - Full Port

Carbon Steel

Sizes: 1-1/4" Only



BV2-ES-CAT



Features and Benefits

- Carbon steel and 316 Stainless Steel available
- Manufactured with two mounting holes
- Special design for high impulse applications
- Threads available: Code 61 / Code 62 dual pattern connections
- Sizes: 1-1/4"
- Standard POM ball seats with buna stem seals

Body Size	A	B	Max Working Pressure (PSI)
20	3.54	3.94	6,000

units: inches

ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV2-ES-CAT - SS - 08 - CAT

BV2-ES-CAT Series	Material	Body Size	Connection Type
2-Way Excavator Series, Block Style Body, Carbon Steel and Stainless	(blank) Carbon Steel SS 316 Stainless	20 1-1/4"	CAT dual design accepts Code 61/62

BV3/BV3B SERIES

3-Way - Dual Port (T) - Block Style Body

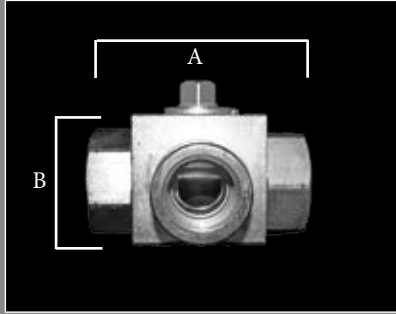
Carbon Steel & 316 Stainless Steel

Sizes: 1/4" thru 2"

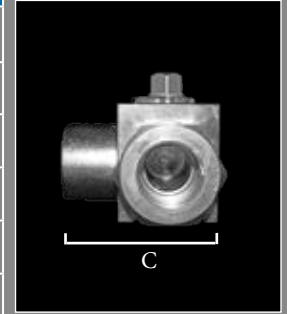


Dimensional & Pressure Rating Data

BV3



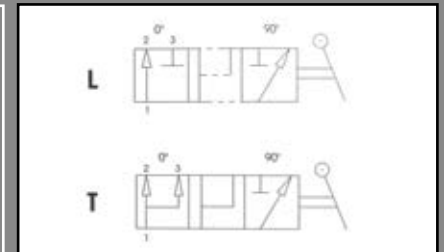
Body Size	A	B	C	Max Working Pressure (PSI)
04	2.80	1.38	1.91	7,250
06	2.87	1.57	2.15	7,250
08	3.27	1.69	2.30	7,250
12	3.74	2.17	2.95	5,800
16	4.45	2.56	3.44	5,075
20	4.72	2.56	3.44	5,075
24	4.88	2.56	3.44	5,075



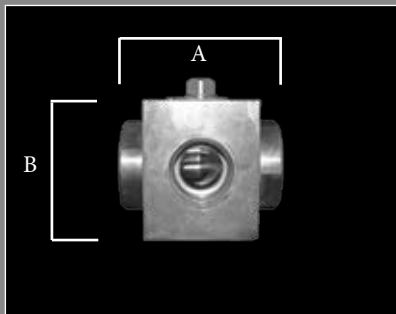
units: inches

Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- 3-Way dual port
- Standard POM ball seats with buna stem seals

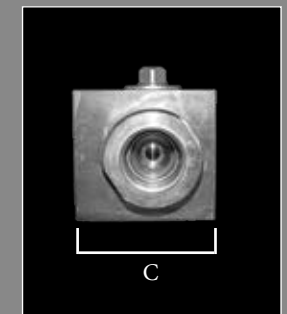


BV3B



Dimensional & Pressure Rating Data

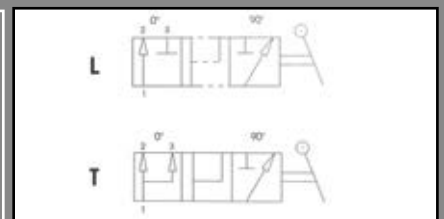
Body Size	A	B	C	Max Working Pressure (PSI)
20	4.52	3.66	3.90	5,075
24	5.16	4.21	4.53	5,075
32	5.51	4.49	5.04	5,075



units: inches

Features and Benefits

- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- 3-Way dual port
- Standard POM ball seats with buna stem seals



ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV3 - SS - L - 08 - NPT

BV3 Series		Material Type		Pattern		Body Size		Threads			
BV3	3-Way Block Style Dual Port	(blank)	Carbon Steel	(Blank)	L-Pattern (Selector)	04	1/4"	16	1"	NPT	NPT
BV3B	3-Way Round Body Dual Port	SS	316 Stainless Steel	T	T-Pattern (Twin)	06	3/8"	20	1-1/4"	BSP	BSP
						08	1/2"	24	1-1/2"	SAE	SAE
						12	3/4"	32	2"		

BV3-FO SERIES

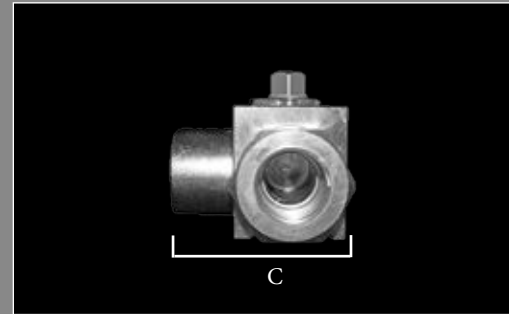
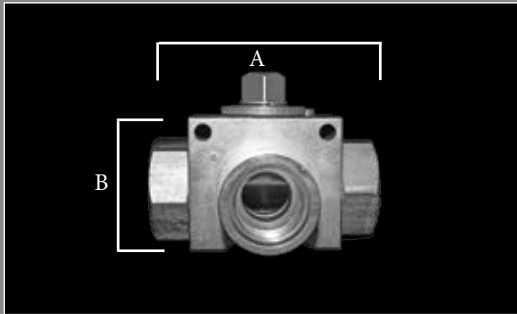
3-Way - Block Style Body with Mounting Holes - Standard (L) Port

Carbon Steel & 316 Stainless Steel

Sizes: 1/4" thru 1"



BV3-FO



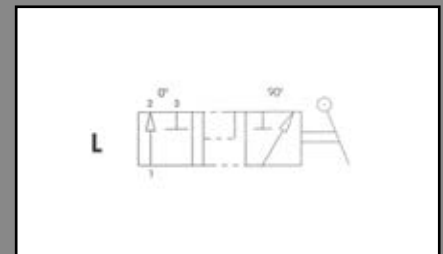
Dimensional & Pressure Rating Data

Body Size	A	B	C	Max Working Pressure (PSI)
04	2.80	1.38	1.91	7,250
06	2.87	1.57	2.15	7,250
08	3.27	1.69	2.30	7,250
12	3.74	2.17	2.95	5,800
16	4.45	2.56	3.44	5,075

units: inches

Features and Benefits

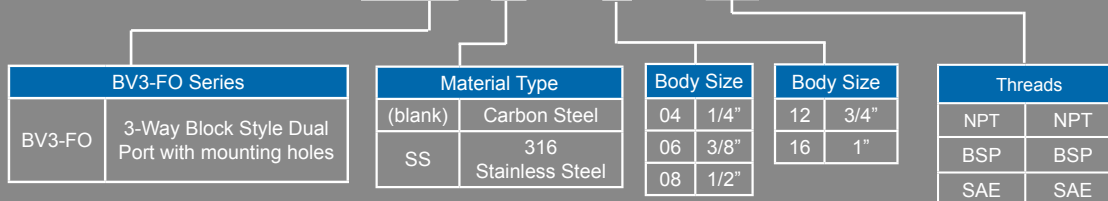
- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- 3-Way dual port with mounting holes
- Standard POM ball seats with buna stem seals



ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV3-FO - SS - 08 - NPT



BV3V SERIES

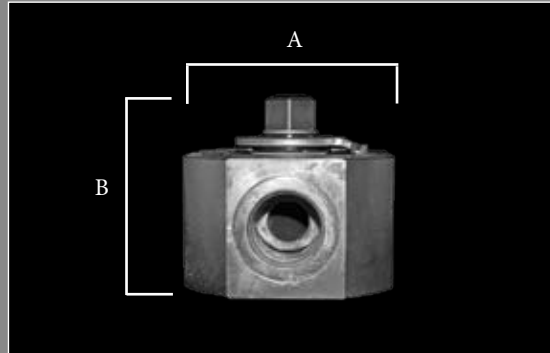
3-Way - X-Over High Pressure Ball Valve

Carbon Steel & 316 Stainless Steel

Sizes: 1/4" thru 1"



BV3V



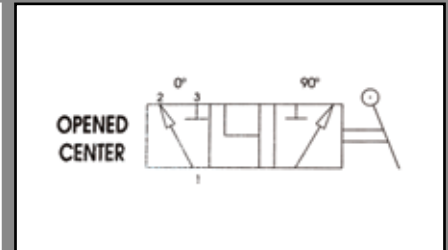
Dimensional & Pressure Rating Data

Body Size	A	B	Max Working Pressure (PSI)
04	2.17	1.93	7,250
06	2.17	2.13	7,250
08	2.36	2.32	7,250
12	2.95	2.70	5,800
16	3.35	2.89	5,075

units: inches

Features and Benefits

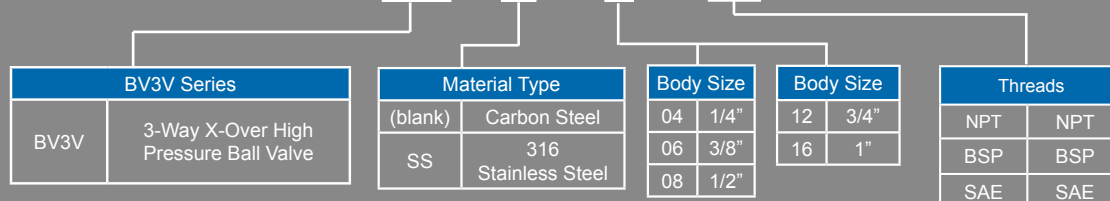
- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- 3-Way X-Over high pressure ball valve
- Standard POM ball seats with buna stem seals



ORDERING INFORMATION

High Pressure Ball Valve Part Numbering System:

BV3V - SS - 08 - NPT



CV SERIES

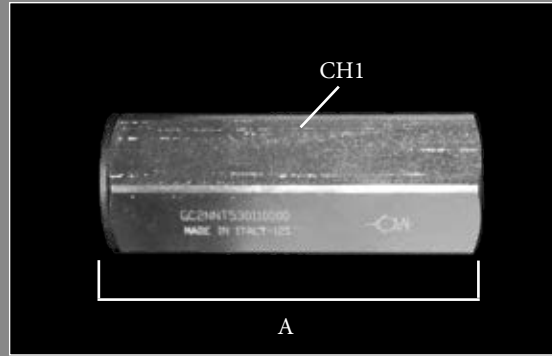
Check Valve - Cracking Pressure: 7 PSI

Carbon Steel & 316 Stainless Steel

Sizes: 1/4" thru 2"



CV



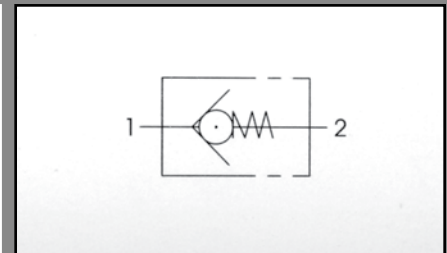
Dimensional & Pressure Rating Data

Body Size	A	CH1	Max Working Pressure (PSI)	Cracking Pressure
04	2.44	.75	7,250	7
06	2.76	.95	7,250	7
08	3.15	1.18	7,250	7
12	3.86	1.42	5,800	7
16	4.33	1.60	5,075	7
20	5.12	2.17	5,075	7
24	5.43	2.56	5,075	7
32	6.30	3.15	3,625	7

units: inches

Features and Benefits

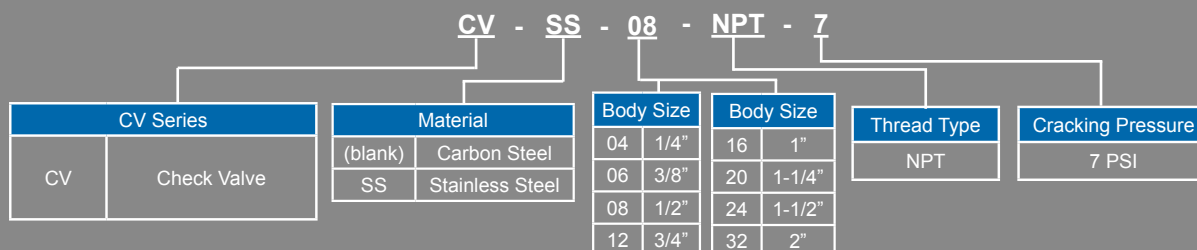
- Carbon steel construction with Silver Trivalent plating
- 316 steel available
- Threads Available: NPT, SAE, and BSP
- Cracking Pressure 7 PSI



* Different cracking pressures available upon request

ORDERING INFORMATION

Low Pressure Inline Ball Valve Part Numbering System:



AA SERIES

Air Actuator Pneumatic - Spring Return or Double Acting



Air Actuator



Variables To Consider:

- Size of Valve
- Medium
- Pressure
- Torque
- Pneumatic Direct
- Pneumatic with AC/DC electric valve

* Please call for ordering information

SBV-2000 SERIES

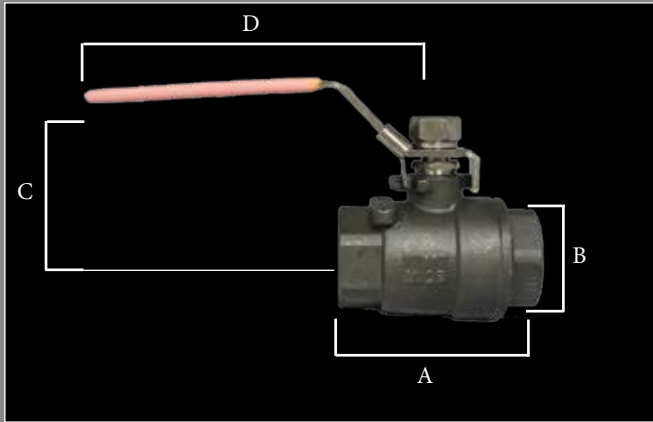
2,000 PSI - Ball Valve - Full Port

Carbon Steel Body with 316 Stainless Steel Ball and Stem

Sizes: 1/4" thru 2"



SBV-2000



Features and Benefits

- Carbon Steel body with 316 Stainless Steel Ball and Stem
- 2,000 PSI maximum
- Teflon Seals

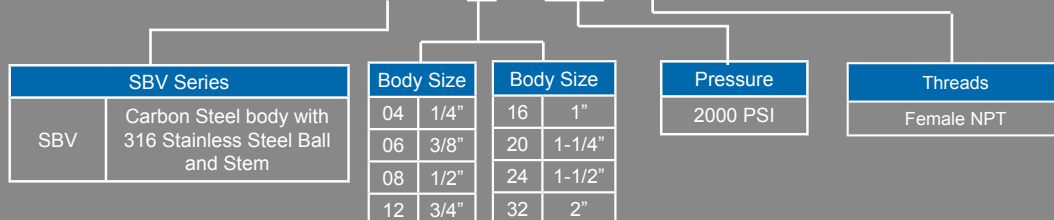
Body Size	A	B	C	D
04	2.08	.93	1.99	4.64
06	2.07	.93	2.05	4.52
08	2.43	1.10	2.39	4.59
12	2.73	1.38	2.50	4.71
16	3.23	1.69	2.77	5.78
20	3.70	2.09	3.12	5.78
24	4.22	2.40	3.47	7.00
32	4.71	2.93	4.03	7.00

units: inches

ORDERING INFORMATION

Low Pressure Inline Ball Valve Part Numbering System:

SBV - 08 - 2000 - NPT



BBV-600 MALE/FEMALE SERIES

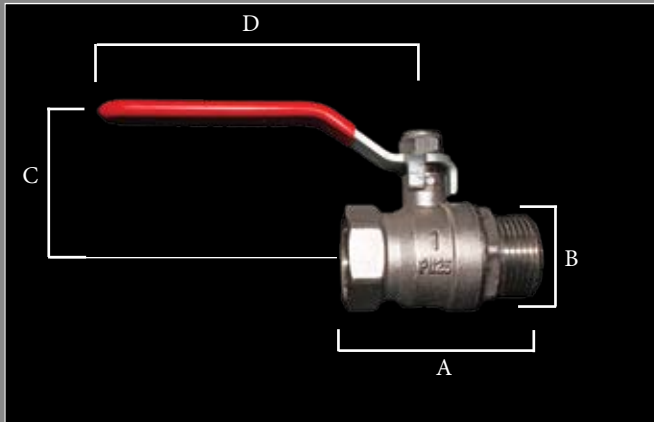
600 PSI - Ball Valve - Full Port Male/Female

Brass Valve with Nickel Plating Finish

Sizes: 1/4" thru 2"



BBV-600 Male/Female



Features and Benefits

- Brass Body with Nickel Plating
- Pressure rating 600 PSI @ 100° F
- NBR Standard Seals

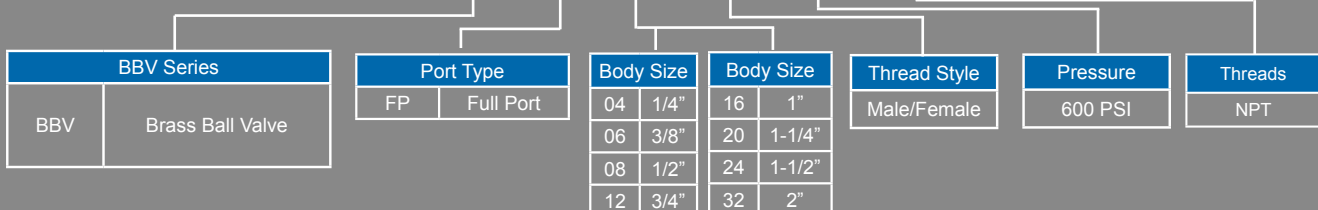
Body Size	A	B	C	D
04	1.91	.91	1.54	3.43
06	1.97	.91	1.57	3.43
08	2.27	1.16	2.13	3.74
12	2.51	1.38	2.27	3.74
16	2.93	1.68	2.39	4.96
20	3.37	2.09	2.98	5.51
24	3.86	2.48	3.20	5.51
32	4.47	3.11	3.48	6.50

units: inches

ORDERING INFORMATION

Low Pressure Inline Ball Valve Part Numbering System:

BBV - FP - 08 - MF - 600 - NPT

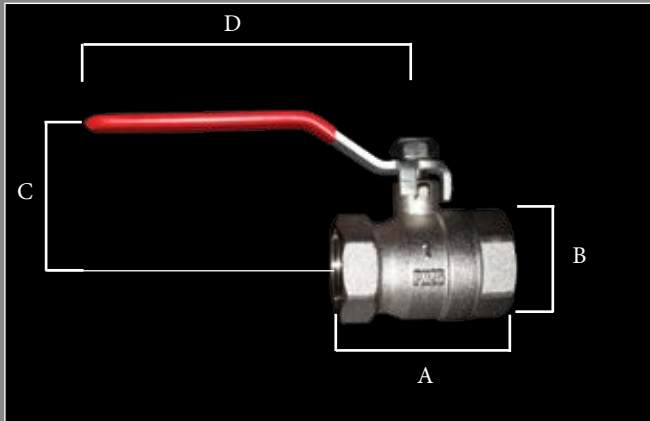


BBV-600 SERIES

600 PSI - Ball Valve - Full Port
 Brass Valve with Nickel Plating Finish
 Sizes: 1/4" thru 4"



BBV-600



Features and Benefits

- Brass Body with Nickel Plating
- Pressure rating 600 PSI @ 100° F
- NBR Standard Seals

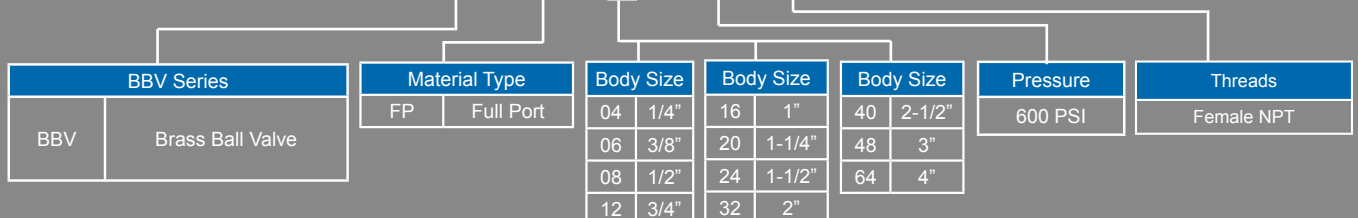
Body Size	A	B	C	D
04	1.58	.90	1.55	3.35
06	1.58	.90	1.55	3.35
08	1.91	1.16	1.87	3.86
12	2.15	1.40	2.00	3.86
16	2.52	1.68	2.40	4.84
20	2.99	2.08	2.85	5.59
24	3.42	2.48	3.05	5.59
32	3.82	3.11	3.38	6.49
40	5.19	4.05	4.55	8.86
48	6.00	4.76	4.88	8.86
64	7.04	5.71	5.33	9.84

units: inches

ORDERING INFORMATION

Low Pressure Inline Ball Valve Part Numbering System:

BBV - FP - 08 - 600 - NPT



SSBV-1000 SERIES

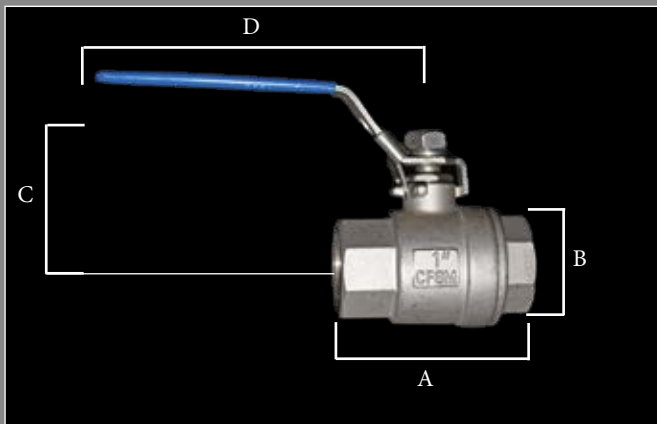
1,000 PSI - Ball Valve - Full Port

316 Stainless Steel

Sizes: 1/4" thru 4"



SSBV-1000



Features and Benefits

- 316 Stainless Steel body
- 1,000 PSI maximum
- Teflon Seals

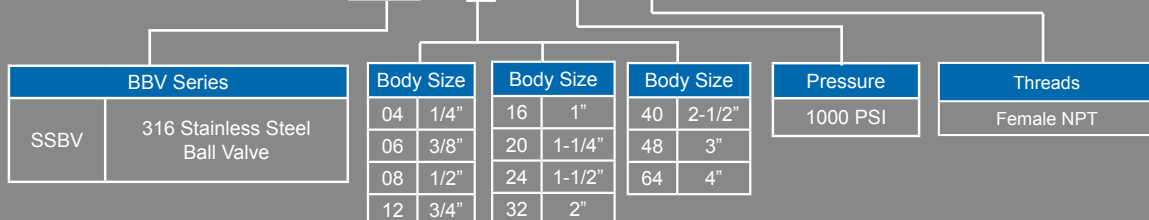
Body Size	A	B	C	D
04	2.17	.85	2.20	3.86
06	2.17	.87	2.20	3.86
08	2.40	1.01	2.36	3.90
12	2.76	1.30	2.66	4.25
16	3.25	1.60	2.87	5.35
20	3.74	2.00	3.11	5.39
24	4.23	2.23	3.54	6.75
32	4.72	2.80	3.86	6.75
40	6.34	3.45	5.08	8.46
48	7.01	4.36	5.51	9.45
64	8.66	5.69	6.04	12.48

units: inches

ORDERING INFORMATION

Low Pressure Inline Ball Valve Part Numbering System:

SSBV - 08 - 1000 - NPT



SSBV-2000 SERIES

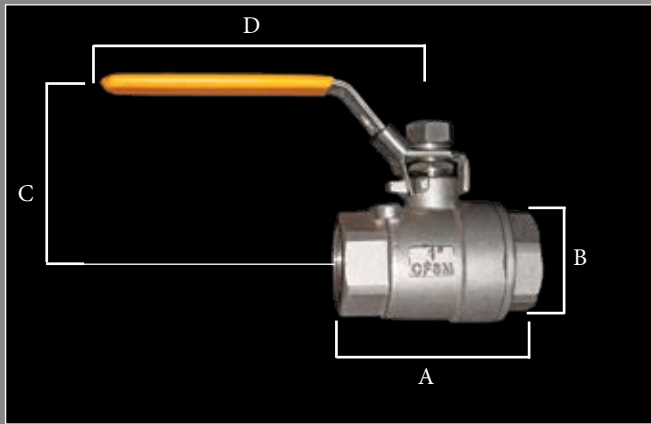
2,000 PSI - Ball Valve - Full Port

316 Stainless Steel

Sizes: 1/4" thru 2"



SSBV-2000



Features and Benefits

- 316 Stainless Steel body
- 2,000 PSI maximum
- Teflon Seals

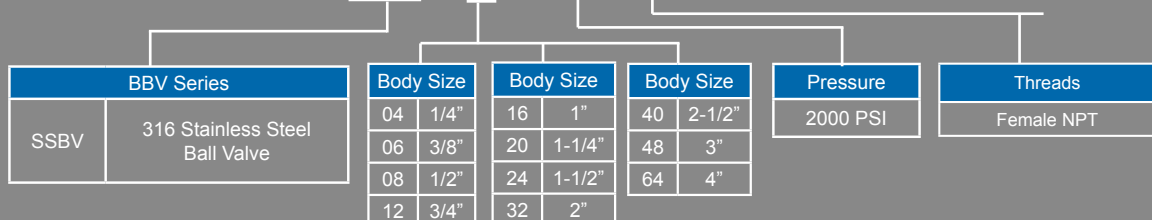
Body Size	A	B	C	D
04	2.09	.93	2.20	3.90
06	2.09	.95	2.20	3.90
08	2.42	1.10	2.44	3.90
12	2.76	1.39	2.72	4.29
16	3.25	1.70	2.95	5.41
20	3.74	2.09	3.17	5.41
24	4.23	2.41	3.68	6.75
32	4.76	2.92	4.11	6.75
40	6.30	3.55	5.04	8.11
48	7.01	4.43	5.51	9.49
64	8.54	5.79	6.54	12.05

units: inches

ORDERING INFORMATION

Low Pressure Inline Ball Valve Part Numbering System:

SSBV - 08 - 2000 - NPT

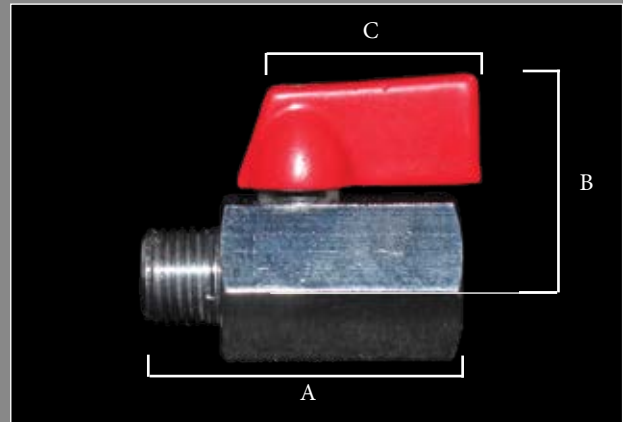
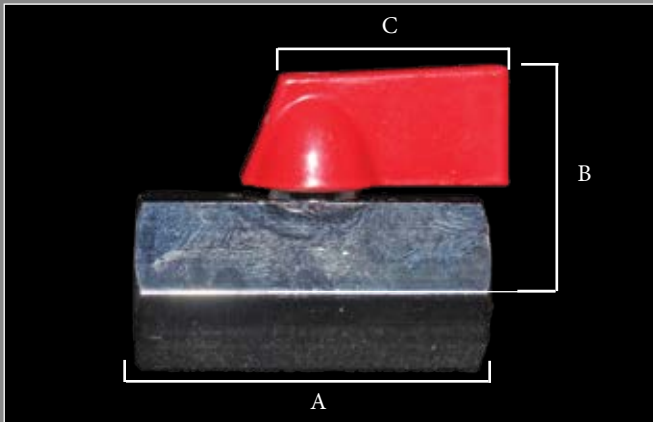


MBBV SERIES

450 PSI
 Brass Ball Valve
 Sizes: 1/4"



MBBV



Features and Benefits

- Brass Body with Nickel Plating
- Pressure rating
- Suitable for water services, heating and air conditioning plants and compressed air systems

MBBV Female/Female

Body Size	A	B	C
04	1.63	1.04	.87

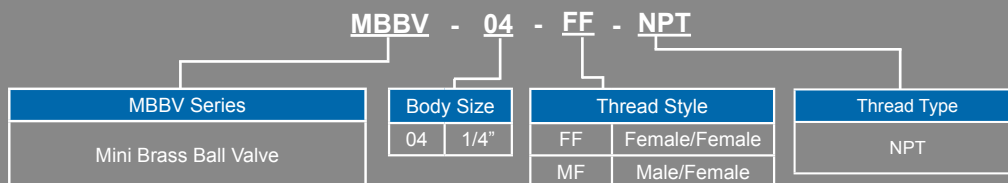
MBBV Male/Female

Body Size	A	B	C
04	1.63	1.04	.87

units: inches

ORDERING INFORMATION

Low Pressure Inline Ball Valve Part Numbering System:

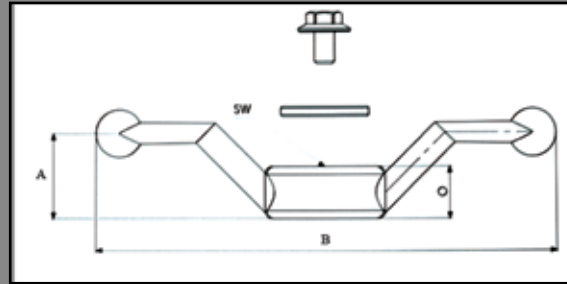


Ball Valve Accessories

Butterfly Handles, Bent Handles, and Cut Bent Handles



Butterfly Handles

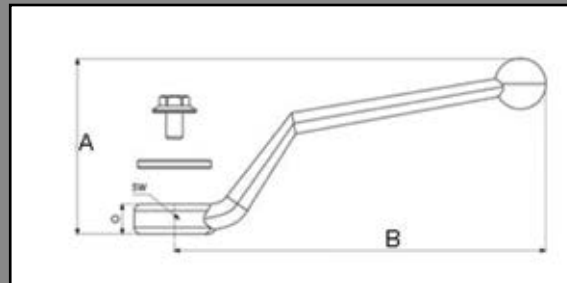
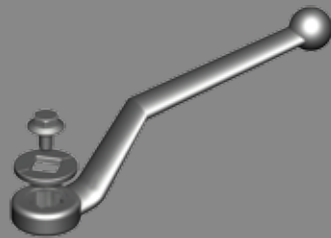


Applications & Characteristics:

This handle is considered a T-style handle typically used in tight tolerance applications. Comes with bolt, washer & nut for securing handle. It is ideal for high pressure ball valves.

DNP Part #	Fits Sizes (in)	Dimensions	
		A	B
H-050-T	1/4" thru 1/2" (Zinc Plated Carbon Steel)	1.08"	4.57"
H-075-T	3/4" and 1" (Zinc Plated Carbon Steel)	1.08"	4.57"

Bent Handles

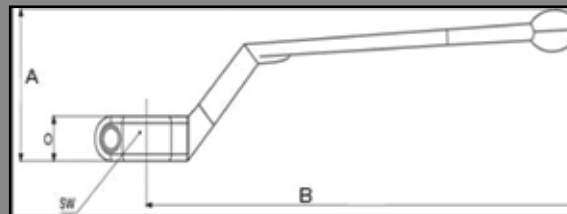


Applications & Characteristics:

This handle is an offset (bent) galvanized handle. Comes with bolt, washer & nut for securing handle. It is ideal for high pressure ball valves.

DNP Part #	Fits Sizes (in)	Dimensions	
		A	B
H-OGH-101	1/4" thru 1/2"	2.09"	4.33"
H-OGH-8550	3/4" and 1" 1-1/4" and 1-1/2" (Reduced Bore)	1.89"	7.09"
H-LOGH-925	1-1/4" thru 2"	2.80"	11.81"

Cut Bent Handles



Applications & Characteristics:

This handle is an offset (bent) galvanized handle. It is adjustable and is secured by tightening bolt built onto handle. It is ideal for high pressure ball valves.

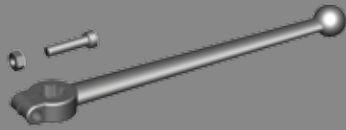
DNP Part #	Fits Sizes (in)	Dimensions	
		A	B
H-OGH-1200	3/4" and 1" Block Style 1-1/4" and 1-1/2" (Zinc Plated Carbon Steel)	2.09"	7.09"
H-LORH-360	3/4" and 1" (Aluminum Red Painted) 1-1/4" and 1-1/2" (Reduced Bore)	2.80"	12.09"

Ball Valve Accessories

Cut Straight Handles, Pipe Handles, and Straight Handles



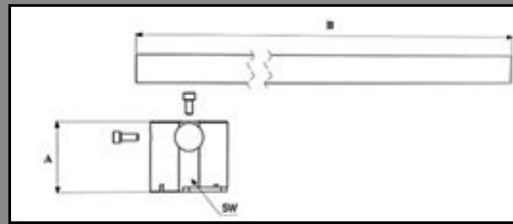
Cut Straight Handles



Applications & Characteristics:
This handle comes in short straight galvanized handle or a short straight aluminum red handle. It is adjustable and is secured by tightening bolt built onto handle.

DNP Part #	Fits Sizes (in)	Dimensions	
		A	B
H-SSGH-145	1/4" thru 1/2" (Zinc Plated Carbon Steel)	.39"	5.71"
H-LSRH-289	3/4" and 1" (Aluminum Red Painted) 1-1/4" and 1-1/2" (Reduced Bore)	.55"	11.81"

Pipe Handles

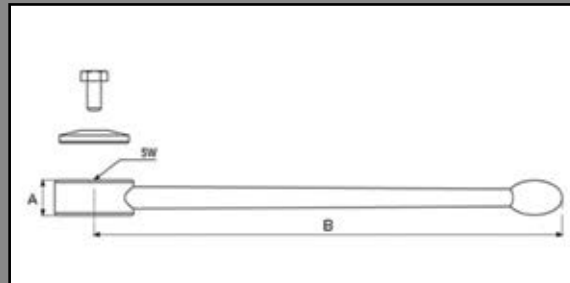
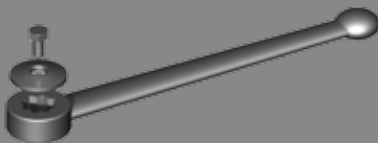


Applications & Characteristics:
This handle zinc plated carbon steel. It is adjustable and secured by set screw to set pipe as needed.

DNP Part #	Fits Sizes (in)	Dimensions	
		A	B
H-GRSPH-20	2-1/2" and 3" (Zinc Plated Carbon Steel)	2.89"	25.59"
H-GRSPH-21	4" (Zinc Plated Carbon Steel)	3.07"	25.59"

- Offered also in Stainless Steel upon request

Straight Handles



Applications & Characteristics:
This handle can come in both a straight short red handle or straight long galvanized handle ideal for high pressure ball valves. Comes with bolt, washer & nut for securing handle.

DNP Part #	Fits Sizes (in)	Dimensions	
		A	B
H-SRH-295	3/4" and 1" (Aluminum Red Painted)	.55"	7.87"
H-LSGH-925	1-1/4" and 2" (Zinc Plated Carbon Steel)	.51"	11.81"

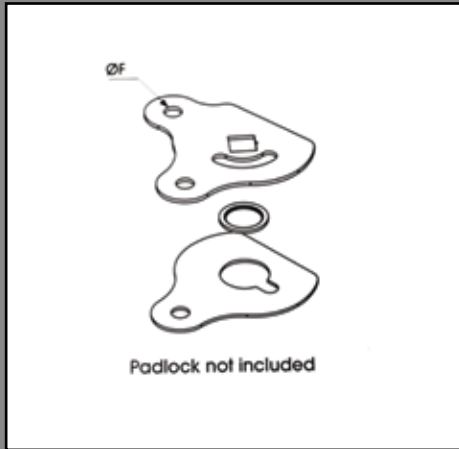
- H-LSGH-925 offered also in Stainless Steel upon request

Ball Valve Accessories

Locking Kits for use with high pressure ball valves



LK-F Locking Kits



Material Available: Carbon Steel or Stainless Steel

Mount Location: Side of valve

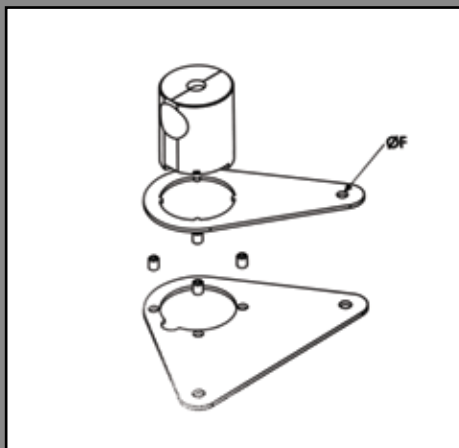
Valve Styles: BV2, BV2B, BV3 and BV3B

Applications & Characteristics:

This is a standard locking kit that can be installed on the valve to restrict opening or closing of the valve.

DNP Part #	Fits Sizes (in)
LK6-F	1/4" thru 1/2"
LK20-F	3/4" and 1" 1-1/4" and 1-1/2" (Reduced Bore)
LK32-F	1-1/4" thru 2"

LK for GR Series Locking Kits



Material Available: Carbon Steel or Stainless Steel

Mount Location: Side of valve

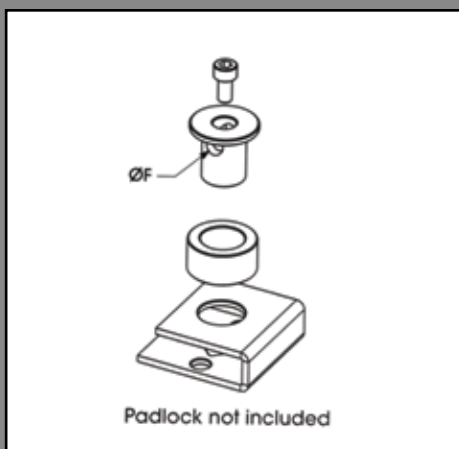
Valve Styles: BV2-GRS Series (pancake style)

Applications & Characteristics:

This is a standard locking kit that can be installed on the valve to restrict opening or closing of the valve.

DNP Part #	Fits Sizes (in)
LK-R132Z	1/2" (pancake style GRS)
LK-R202Z	3/4" and 1" (pancake style GRS)
LK-R322Z	1-1/4" thru 2" (pancake style GRS)
LK65-P	2-1/2" thru 3" (pancake style GRS)

LK-T Locking Kits



Material Available: Carbon Steel

Mount Location: Top of valve

Valve Styles: BV2, BV2B, BV3 and BV3B

Applications & Characteristics:

This is a standard locking kit that can be installed on the valve to restrict opening or closing of the valve.

DNP Part #	Fits Sizes (in)
LK6-T	1/4" - 1/2" (BV2 tall locking kit)
LK20-T	3/4" and 1" Block Style 1-1/4" and 1-1/2" (Reduced Bore)
LK32-T	1-1/4" thru 2"

Ball Valve Accessories

Ball Seats for High Pressure Ball Valves



Ball Seat Options for HP Ball Valves



POM - (Polyoxymethylene) AKA: DELRIN, Polyacetal or Polyformaldehyde
 A highly crystalline thermoplastic with special importance as a technical plastic. POM combines a high level of hardness and form stability with a high resistance to impact. It is highly suitable and used in precision parts requiring high stiffness and low friction for the construction of precision machinery and apparatus. It provides excellent stability and has remarkable sliding properties. Resistant to most solvents and hydrous alkalis.
 Unsuitable for acids.

Temperature Rating: Celsius: -30° to +100° Fahrenheit: -22° to 212°
Chemical Resistant: Call with Chemical Type for Recommendation

PA612 - (Polyamide) AKA: NYLON - common trade names include Ultramid & Zytel. (PA612 is a standard ball seat)

Polyamides are well proven engineering polymers with very interesting properties at a favorable price. They are characterized by high mechanical stability values combined with excellent impact strength. They have an above average wear rate. The different types of polyamides are distinguished by an international identification system based on the number of carbon atoms per monomer.

Temperature Rating: Celsius: -45° to +145° Fahrenheit: -49° to +293°
Chemical Resistant: Call with Chemical Type for Recommendation

PEEK - (Polyether etherketone) colorless organic polymer thermoplastic
 PEEK is a semicrystalline thermoplastic with excellent mechanical and chemical resistance properties that are retained to high temperatures. Thermoplastic is a polymer that turns to a liquid when heated and freezes to a very glassy state when cooled sufficiently. PEEK has a glass transition temperature at around 289°F and melts around 650°F. It is highly resistant to thermal degradation as well as attack by both organic and aqueous environments. Semi-finished products are based on polyether etherketone as the raw material, a linear, aromatic polymer. It is an ideal material for applications where high performance is demanded under extreme conditions with regard to temperature, chemicals, high powered radiation and nonflammable, etc..

Temperature Rating: Celsius: -50° to +250° Fahrenheit: -58° to +482°
Chemical Resistant: Call with Chemical Type for Recommendation

RPTFE - (Polytetrafluoroethylene) AKA: TEFLON
 Above the melting point of 620°F, RPTFE changes into a gel-like state. Its high viscosity excludes the possibility of thermal methods, such as injection moulding and screw extrusion. RPTFE is cold extruded and subsequently sintered. Due to its unique combination of outstanding characteristics, RPTFE can be called an engineered polymer of outstanding quality. RPTFE is used as a non-stick coating for pans and other cookware. It is very non-reactive, partly because of the strength of carbon-fluorine bonds, and so it is often used in containers and pipe-work for reactive and corrosive chemicals. Where used as a lubricant, RPTFE reduces friction, wear, and energy consumption of machinery.

Temperature Rating: Celsius: -220° to 230° Fahrenheit: -364° to 446°
Chemical Resistant: Call with Chemical Type for Recommendation

GEMPTFE - Gemels Manufactured Metal Seal with Teflon Cover
 The GEMPTFE is a metal ring covered in RPTFE. GEMPTFE keeps the same outstanding fore-mentioned characteristics of the RPTFE. Furthermore, it has better resistance to deformation under load and pressure due to the metal ring inside the seal. Resistant to all chemicals the seals above withstand and possibility for use with high pressure applications.

Temperature Rating: Celsius: -220° to 230° Fahrenheit: -364° to 446°
Chemical Resistant: Call with Chemical Type for Recommendation

Size	Max PSI
1/4" (DN6)	7,250
3/8" (DN10)	7,250
1/2" (DN13)	7,250
3/4" (DN20)	5,800
1" - 2" (DN25-DN50)	5,075

Size	Max PSI
1/4" (DN6)	7,250
3/8" (DN10)	7,250
1/2" (DN13)	7,250
3/4" (DN20)	5,800
1" - 2" (DN25-DN50)	5,075

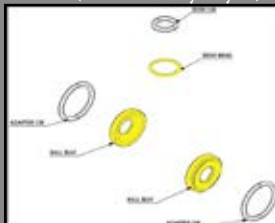
Size	Max PSI
1/4" (DN6)	7,250
3/8" (DN10)	7,250
1/2" (DN13)	7,250
3/4" (DN20)	5,800
1" - 2" (DN25-DN50)	5,075

Size	Max PSI
1/4" (DN6)	5,075
3/8" (DN10)	5,075
1/2" (DN13)	5,075
3/4" (DN20)	2,537
1" (DN25)	2,175
1-1/4" - 2" (DN32 - DN50)	1,450

Size	Max PSI
1/4" (DN6)	7,250
3/8" (DN10)	7,250
1/2" (DN13)	7,250
3/4" (DN20)	5,800
1" - 2" (DN25-DN50)	1,450

Ball Seats

BV2 (block body style)

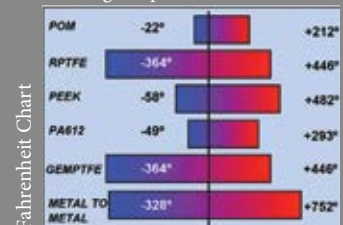


Ball Seats

BV2B (round body style)



Maximum & Minimum admissible working temperature for Ball Seats



O-Ring / Seal Options for HP Ball Valves

NBR - (Acrylonitrile butadiene elastomer) AKA: Nitrile Buna Rubber (NBR is a standard seal)

This material is the most often used in sealing technology because of its good resistance to the majority of mineral oil-based oils and greases. Its normal temperature range is between -22°F and 212°F, with short periods at 266°F. Special NBR compounds can be used as low as -67°F. The acrylonitrile content may be between 18% and 50%. The most common proportion is 28% to 38%. As the proportion rises the resistance to minerals oils and greases increases, but at the same time the flexibility and low temperature resistance reduces. The compressions sets rises as the acrylonitrile content increases. Good resistance to oil and petrol. Unsuitable for materials subject to oxidation.

Temperature Rating: Celsius: -30° to +100° Fahrenheit: -22° to 212°

Chemical Resistant: Call with Chemical Type for Recommendation

FPM - (Fluoroelastomer) AKA: VITON

FPM has an outstanding resistance to high temperatures, ozone, chemical weathering. The operating range is up to 392°F and 482°F for brief periods. FPM is highly resistant to almost all sythetic hydraulic fluids and those based on mineral oils. FPM is less suitable for use in hot water, steam and at low temperatures. Their low-temperature flexibility is only slight and their resistance to hot water and steam is moderate. Special materials should be selected for these applications. It has best chemical resistance to solvents of all elastomers with extreme working conditions, thermo-stability, bears low temperature and it is anti-corrosive.

Temperature Rating: Celsius: -25° to +200° Fahrenheit: -13° to 392°

MVQ - (Silicone Elastomer) AKA: HNBR

The principle feature of MVQ is its wide temperature range. It's very good low temperature flexibility, good ozone resistance and good electrical properties are other advantages. It's gas permeability is not as good as that of other elastomers. Operating temperatures are between -76°F and 392°F and up to 492°F for short periods.

Temperature Rating: Celsius: -40° to +150° Fahrenheit: -58° to 302°

Chemical Resistant: Call with Chemical Type for Recommendation

EPDM - (Ethylene-propylene diene elastomer)

EPDM elastomers have a good resistance to ozone, aging and weathering, and also to water, hot water and steam. They are not resistant to mineral oils and greases. Their combatibility with chemicals is good. Operating temperatures are between -40°F and 320°F, and up to 356°F for short periods. Good resistance to ozone and weather. Especially suitable for aggressive chemicals. Unsuitable for oils and fats.

Temperature Rating: Celsius: -50° to +150° Fahrenheit: -58° to 302°

Chemical Resistant: Call with Chemical Type for Recommendation

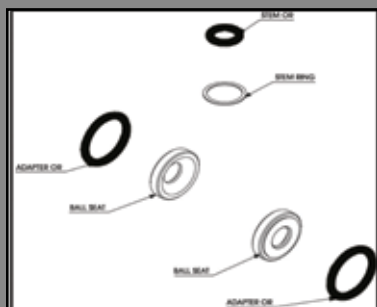
FFKM - (Perfluoreslastomer) AKA: KALREZ

FFKM has almost the same chemical resistance as RPTFE, plus elastic properties of the fluoroelastomer FPM, and it also has outstanding resistance to high temperatures, ozone, weathering and aging. The range of service temperatures goes up to 599°F and 662°F for short periods. In the temperature range above 428°F FFKM has a very low and constant compression set.

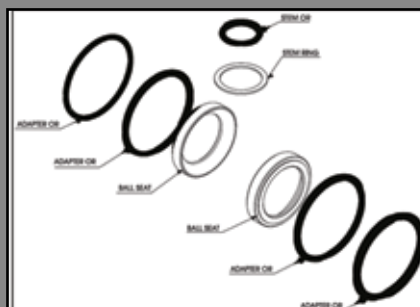
Temperature Rating: Celsius: -30° to 400° Fahrenheit: -22° to 752°

Chemical Resistant: Call with Chemical Type for Recommendation

O-Rings
BV2 (block body Style)



O-Rings
BV2B (round body Style)



Maxium and Minimum admissible
working temperature for O-Rings



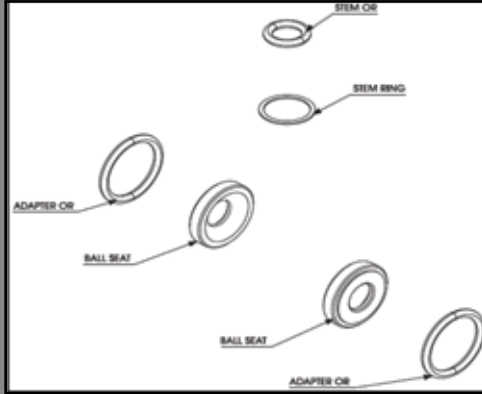
Ball Valve Accessories

Repair Kits for High Pressure
Ball Valves BV2, BV2B & BV3



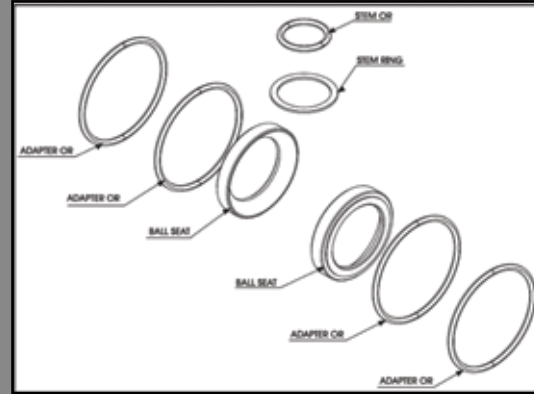
Repair Kits

Repair kits for use with high pressure ball valves (BV2, BV2B & BV3)



BV2 & BV3 (Block Style) Standard Repair Kit

- 2 POM Ball Seats
- 2 NBR Adapter O-Ring
- 1 Stem O-Ring
- 1 POM Stem Seal Ring



BV2B (Round Body) Standard Repair Kit

- 2 POM Ball Seats
- 2 NBR Adapter O-Ring
- 1 Stem O-Ring
- 1 POM Stem Seal Ring

O-Ring General Principles

The simple geometry is the main characteristic of an O-Ring which in conjunction with proper elastomer selection results in a low cost, easy to use and efficient sealing system. Elastomeric materials, when compressed, react like a high viscosity fluid which transmits applied stress in every direction; consequently, the O-Ring serves as a barrier, blocking the leak paths between the sealing surfaces. Technical sealing has been defined by DIN standards as follows:

- **“Static Seal”** - The sealing action created between two mating surfaces with no leakage of liquid or minimal diffusion of gas.
- **“Dynamic Seal”** - The mating surfaces have relative movement with minimal leakage of liquid (useful to protect the sealing efficiency, acting as a lubricant).

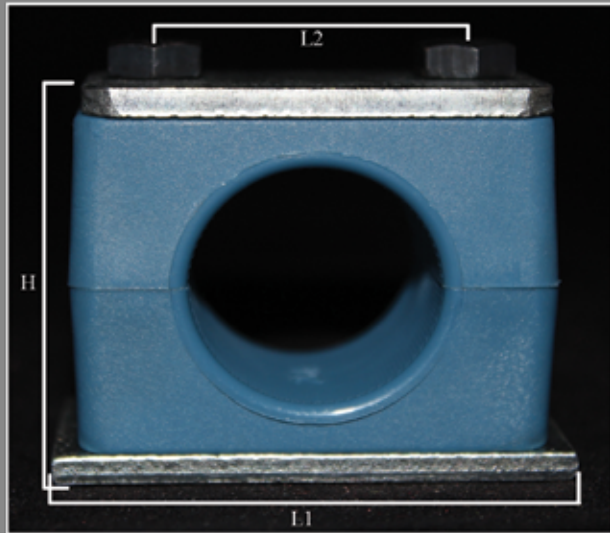
O-Rings offer several advantages over the sealing systems: simplicity of construction, standardized seal dimensions, wide selection of materials, suitability for both static and dynamic applications, standard dimensioning of glands, low cost due to high volume manufacturing. Sealing is always achieved through a positive compression of squeezing action, resulting in a deformation of the O-Ring cross section. The most important sealing characteristic of an O-Ring is its resistance to compression set or residual deformation.

Standard Series

Tube/Pipe/Hose Clamp Assemblies



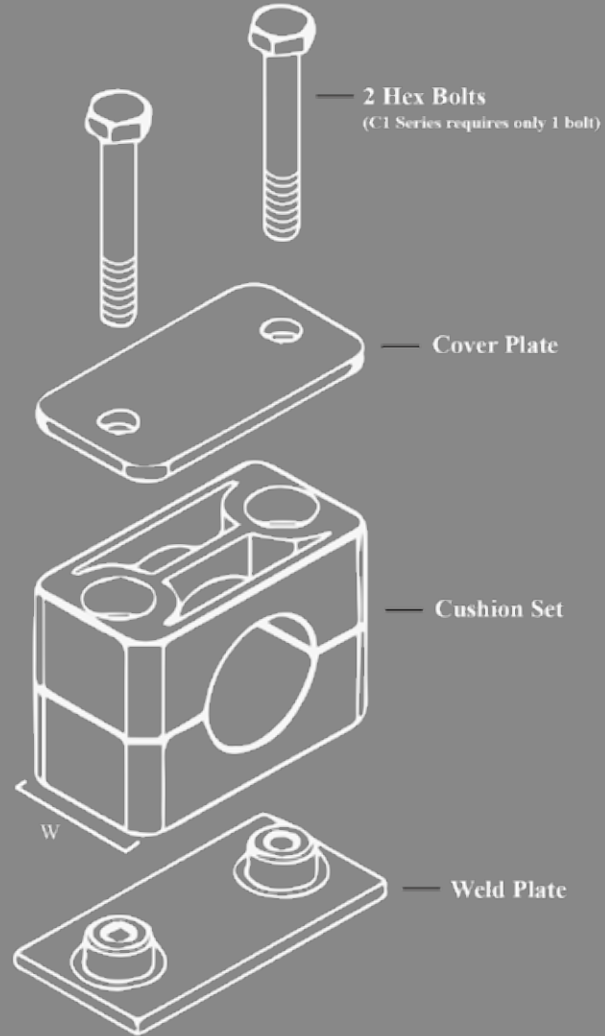
Standard Series



Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
C1	C1-6-CS-A	6mm	32	7.6	33	30
	C1-6.4-CS-A	1/4" Tube				
	C1-8-CS-A	5/16" Tube				
	C1-9.5-CS-A	3/8" Tube				
C2	C2-10-CS-A	1/8" Pipe	41	20	33	30
	C2-12-CS-A	12mm				
	C2-12.7-CS-A	1/2" Tube				
C3	C3-13.5-CS-A	1/4" Pipe	47	26	39	30
	C3-14-CS-A	14mm				
	C3-15-CS-A	15mm				
	C3-16-CS-A	5/8" Tube				
	C3-17.2-CS-A	3/8" Pipe				
C4	C4-19-CS-A	3/4" Tube	54	33	42	30
	C4-20-CS-A	20mm				
	C4-21.3-CS-A	1/2" Pipe				
	C4-22-CS-A	7/8" Tube				
	C4-25-CS-A	25mm				
	C4-25.4-CS-A	1" Tube				
C5	C5-26.7-CS-A	3/4" Pipe	61	40	48	30
	C5-28-CS-A	28mm				
	C5-29-CS-A	29mm				
	C5-30-CS-A	30mm				
	C5-32-CS-A	1-1/4" Tube				
C6	C6-33.7-CS-A	1" Pipe	73	52	64	30
	C6-35-CS-A	35mm				
	C6-38-CS-A	1-1/2" Tube				
	C6-42-CS-A	1-1/4" Pipe				
C7	C7-44.5-CS-A	1-3/4" Tube	88	66	72	30
	C7-48.3-CS-A	1-1/2" Pipe				
	C7-50.8-CS-A	2" Tube				

- * C1 assembly requires only 1 bolt
- Other size polypropylene cushion sets available upon request.
- Stainless steel hardware available upon request
- Internal surface of clamp body knurled from C1-C7 and profiled from C8-C9.

Assembly Includes

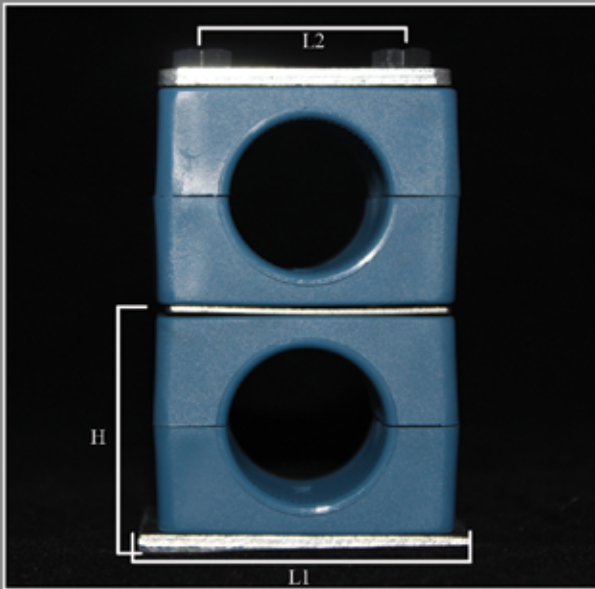


Standard Series Stacking Assembly

Tube/Pipe/Hose Clamp Assemblies



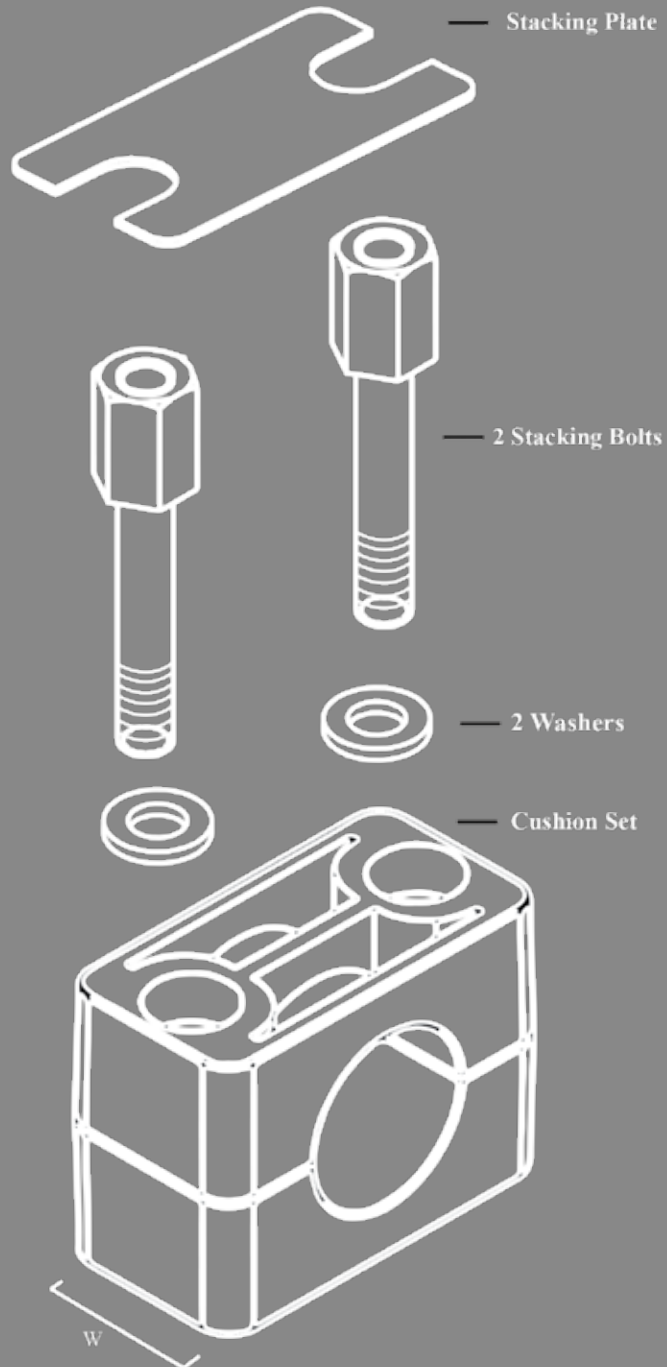
Standard Series Stacking Assembly



Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
C1	C1-6-CS-SA	6mm	32	7.6	33	30
	C1-6.4-CS-SA	1/4" Tube				
	C1-8-CS-SA	5/16" Tube				
	C1-9.5-CS-SA	3/8" Tube				
C2	C2-10-CS-SA	1/8" Pipe	41	20	33	30
	C2-12-CS-SA	12mm				
	C2-12.7-CS-SA	1/2" Tube				
C3	C3-13.5-CS-SA	1/4" Pipe	47	26	39	30
	C3-14-CS-SA	14mm				
	C3-15-CS-SA	15mm				
	C3-16-CS-SA	5/8" Tube				
	C3-17.2-CS-SA	3/8" Pipe				
C4	C4-19-CS-SA	3/4" Tube	54	33	42	30
	C4-20-CS-SA	20mm				
	C4-21.3-CS-SA	1/2" Pipe				
	C4-22-CS-SA	7/8" Tube				
	C4-25-CS-SA	25mm				
C4-25.4-CS-SA	1" Tube					
C5	C5-26.7-CS-SA	3/4" Pipe	61	40	48	30
	C5-28-CS-SA	28mm				
	C5-29-CS-SA	29mm				
	C5-30-CS-SA	30mm				
	C5-32-CS-SA	1-1/4" Tube				
C6	C6-33.7-CS-SA	1" Pipe	73	52	64	30
	C6-35-CS-SA	35mm				
	C6-38-CS-SA	1-1/2" Tube				
	C6-42-CS-SA	1-1/4" Pipe				
C7	C7-44.5-CS-SA	1-3/4" Tube	88	66	72	30
	C7-48.3-CS-SA	1-1/2" Pipe				
	C7-50.8-CS-SA	2" Tube				

- * C1 assembly requires only 1 bolt
- Other size polypropylene cushion sets available upon request.
- Stainless steel hardware available upon request.
- Internal surface of clamp body knurled from C1-C7 and profiled from C8-C9

Assembly Includes

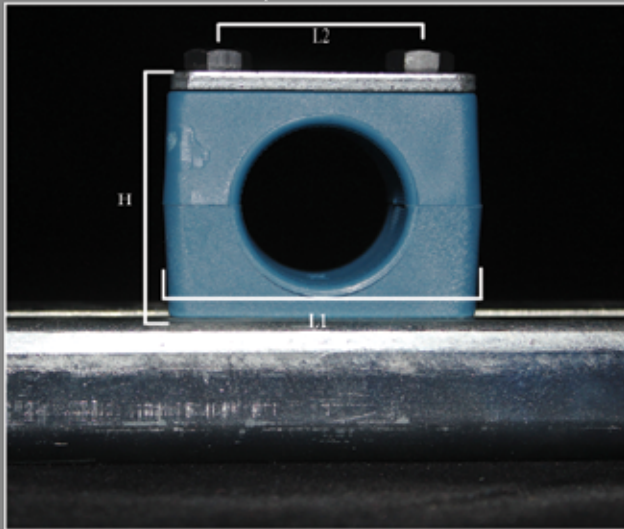


Standard Series Rail Nut Assembly

Tube/Pipe/Hose Clamp Assemblies

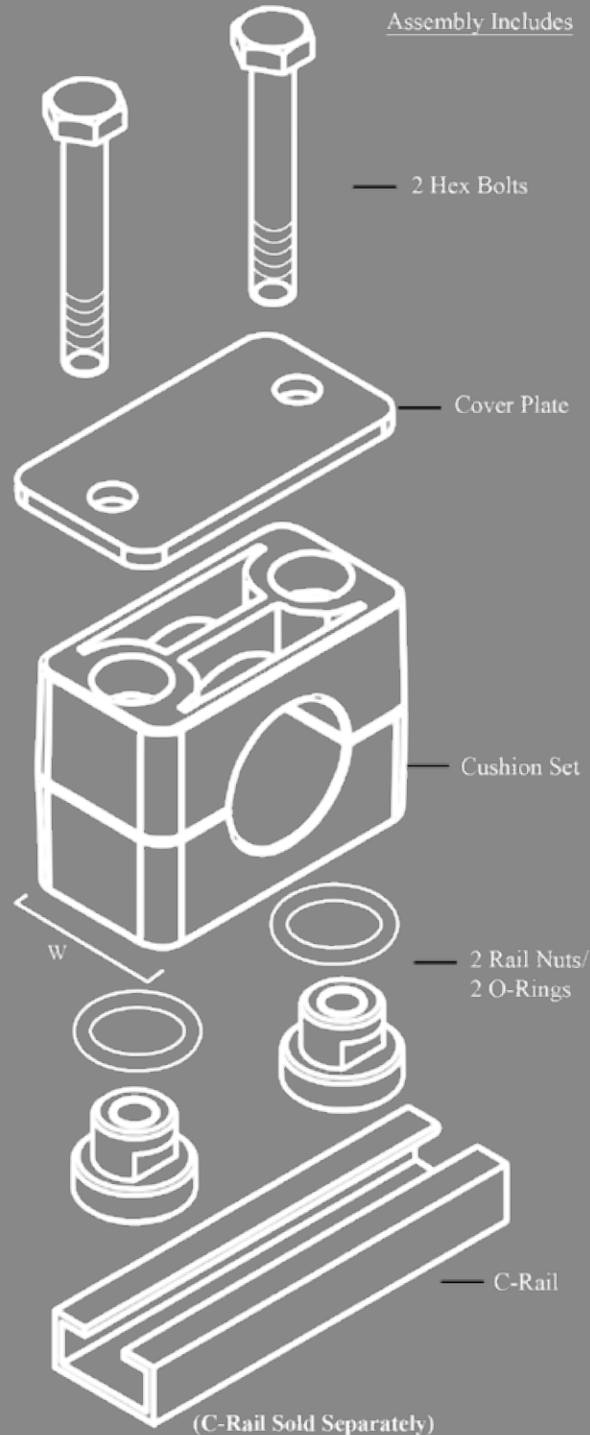


Standard Series Rail Nut Assembly



Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
C1	C1-6-CS-RNA	6mm	32	7.6	33	30
	C1-6.4-CS-RNA	1/4" Tube				
	C1-8-CS-RNA	5/16" Tube				
	C1-9.5-CS-RNA	3/8" Tube				
C2	C2-10-CS-RNA	1/8" Pipe	41	20	33	30
	C2-12-CS-RNA	12mm				
	C2-12.7-CS-RNA	1/2" Tube				
C3	C3-13.5-CS-RNA	1/4" Pipe	47	26	39	30
	C3-14-CS-RNA	14mm				
	C3-15-CS-RNA	15mm				
	C3-16-CS-RNA	5/8" Tube				
	C3-17.2-CS-RNA	3/8" Pipe				
C4	C4-19-CS-RNA	3/4" Tube	54	33	42	30
	C4-20-CS-RNA	20mm				
	C4-21.3-CS-RNA	1/2" Pipe				
	C4-22-CS-RNA	7/8" Tube				
	C4-25-CS-RNA	25mm				
	C4-25.4-CS-RNA	1" Tube				
C5	C5-26.7-CS-RNA	3/4" Pipe	61	40	48	30
	C5-28-CS-RNA	28mm				
	C5-29-CS-RNA	29mm				
	C5-30-CS-RNA	30mm				
	C5-32-CS-RNA	1-1/4" Tube				
C6	C6-33.7-CS-RNA	1" Pipe	73	52	64	30
	C6-35-CS-RNA	35mm				
	C6-38-CS-RNA	1-1/2" Tube				
	C6-42-CS-RNA	1-1/4" Pipe				
C7	C7-44.5-CS-RNA	1-3/4" Tube	88	66	72	30
	C7-48.3-CS-RNA	1-1/2" Pipe				
	C7-50.8-CS-RNA	2" Tube				

- * C1 assembly requires only 1 bolt
- Other size polypropylene cushion sets available upon request.
- Stainless steel hardware available upon request.
- Internal surface of clamp body knurled from C1-C7 and profiled from C8-C9



Standard and Heavy Duty Twin Assemblies

Tube/Pipe/Hose Clamp Assemblies



Standard and Heavy Duty Twin Assembly

Standard Twin Assembly



Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
CF1	CF1-6.4-CS-A	1/4" Tube	37	20	33	30
	CF1-8-CS-A	5/16" Tube				
	CF1-9.5-CS-A	3/8" Tube				
	CF1-10-CS-A	1/8" Pipe				
	CF1-12-CS-A	12mm				
CF2	CF2-12.7-CS-A	1/2" Tube	55	29	35	30
	CF2-13.5-CS-A	1/4" Pipe				
	CF2-14-CS-A	14mm				
	CF2-15-CS-A	15mm				
	CF2-16-CS-A	5/8" Tube				
CF3	CF3-19-CS-A	3/4" Tube	70	36	45	30
	CF3-20-CS-A	20mm				
	CF3-21.3-CS-A	1/2" Pipe				
	CF3-22-CS-A	7/8" Tube				
	CF3-25-CS-A	25mm				
CF4	CF4-26.9-CS-A	3/4" Pipe	85	45	50	30
	CF4-28-CS-A	28mm				
	CF4-30-CS-A	30mm				
CF5	CF5-32-CS-A	1-1/4" Tube	110	56	61	30
	CF5-33.7-CS-A	1" Pipe				
	CF5-35-CS-A	35mm				
	CF5-38-CS-A	1-1/2" Tube				

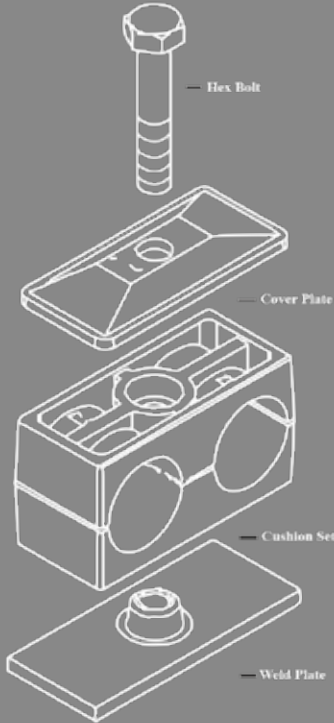
- Other sizes available upon request
- Stainless Steel add SS to part #
- Internal surface of clamp body knurled from C1-C7 and profiled from CS-C9.

Heavy Duty Twin Assembly

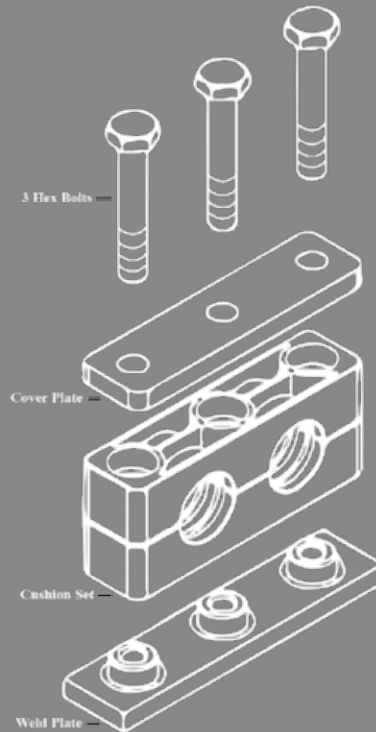


- Other sizes available upon request
- Stainless Steel add SS to part #

Standard Assembly Includes



Heavy Duty Assembly Includes



Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
CPT2	CPT2-19-CS-A	3/4" Tube	130	90	64	30
	CPT2-21.3-CS-A	1/2" Pipe				
	CPT2-25.4-CS-A	1" Tube				
	CPT2-26.9-CS-A	3/4" Pipe				
CPT3	CPT3-32-CS-A	1-1/4" Tube	160	120	76	30
	CPT3-33.7-CS-A	1" Pipe				
	CPT3-38-CS-A	1-1/2" Tube				
	CPT3-42-CS-A	1-1/4" Pipe				

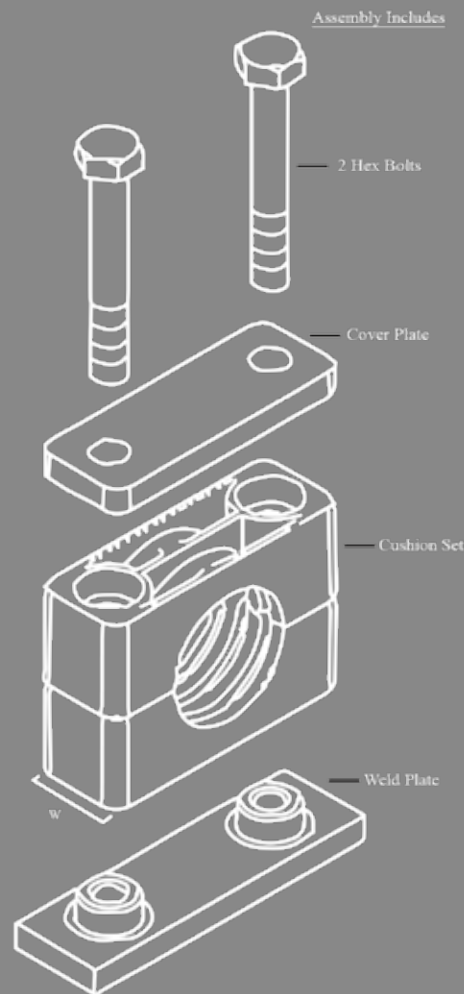
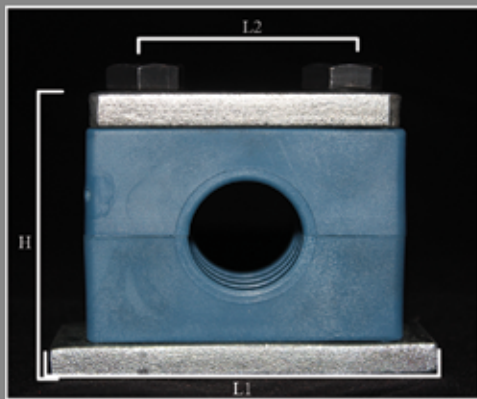
- Internal surface clamp body profiled

Heavy Duty Series

Tube/Pipe/Hose Clamp Assemblies



Heavy Duty series polypropylene clamps with carbon steel zinc plated hardware.



Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
CP1	CP1-6.4-CS-A	1/4" Tube	74	33	49	30
	CP1-8-CS-A	5/16" Tube				
	CP1-9.5-CS-A	3/8" Tube				
	CP1-10-CS-A	1/8" Pipe				
	CP1-12-CS-A	12mm				
	CP1-12.7-CS-A	1/2" Tube				
	CP1-13.5-CS-A	1/4" Pipe				
	CP1-15-CS-A	15mm				
	CP1-16-CS-A	5/8" Tube				
	CP1-17.2-CS-A	3/8" Pipe				
	CP1-18-CS-A	18mm				
CP1-19-CS-A	3/4" Tube					
CP2	CP2-20-CS-A	20mm	86	45	65	30
	CP2-21.3-CS-A	1/2" Pipe				
	CP2-22-CS-A	7/8" Tube				
	CP2-25-CS-A	25mm				
	CP2-25.4-CS-A	1" Tube				
	CP2-26.9-CS-A	3/4" Pipe				
	CP2-28-CS-A	28mm				
CP2-30-CS-A	30mm					
CP3	CP3-32-CS-A	1-1/4" Tube	100	60	76	30
	CP3-33.7-CS-A	1" Pipe				
	CP3-35-CS-A	35mm				
	CP3-38-CS-A	1-1/2" Tube				
CP3-42-CS-A	1-1/4" Pipe					
CP4	CP4-38-CS-A	1-1/2" Tube	140	90	106	45
	CP4-44.5-CS-A	1-3/4" Tube				
	CP4-48.3-CS-A	1-1/2" Pipe				
	CP4-50-CS-A	50mm				
	CP4-50.8-CS-A	2" Tube				
	CP4-54-CS-A	1-3/4" Pipe				
	CP4-60.3-CS-A	2" Pipe				
CP4-63.5-CS-A	2-1/2" Tube					
CP5	CP5-66-CS-A	2-1/4" Pipe	180	122	138	60
	CP5-70-CS-A	2-3/4" Tube				
	CP5-76.1-CS-A	2-1/2" Pipe or 3" Tube				
	CP5-88.9-CS-A	3" Pipe or 3-1/2" Tube				
CP6	CP6-102-CS-A	3-1/2" Pipe	226	168	195	80
	CP6-114-CS-A	4" Pipe or 4-1/2" Tube				
	CP6-126.5-CS-A	4-1/2" Pipe				
CP7	CP7-140-CS-A	5" Pipe	270	205	230	90
	CP7-168-CS-A	6" Pipe				
CP8	CP8-219-CS-A	8" Pipe	340	265	320	120
CP9	CP9-273-CS-A	10" Pipe	520	395	478	160
	CP9-324-CS-A	12" Pipe				

- Stainless steel hardware add SS to part #
- Other sizes available upon request
- Internal surface of clamp body profiled

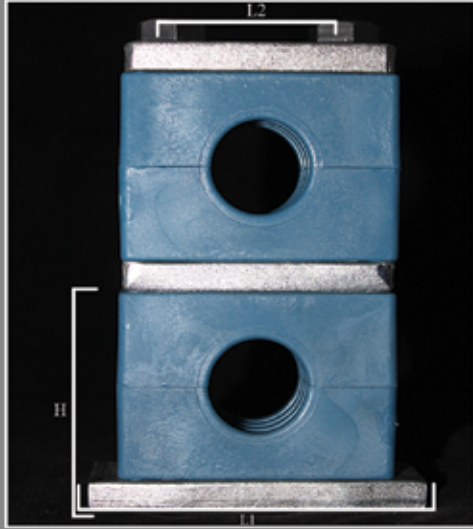
ex: CP1-6.4-SS-A

Heavy Duty Series Stacking Assembly

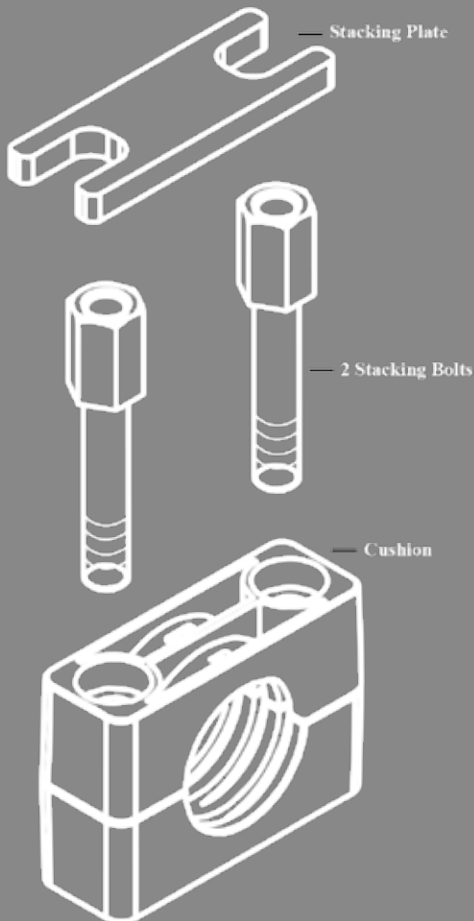
Tube/Pipe/Hose Clamp Assemblies



Heavy Duty Series Stacking Assembly



Assembly Includes



Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
CP1	CP1-6.4-CS-SA	1/4" Tube	74	33	49	30
	CP1-8-CS-SA	5/16" Tube				
	CP1-9.5-CS-SA	3/8" Tube				
	CP1-10-CS-SA	1/8" Pipe				
	CP1-12-CS-SA	12mm				
	CP1-12.7-CS-SA	1/2" Tube				
	CP1-13.5-CS-SA	1/4" Pipe				
	CP1-15-CS-SA	15mm				
	CP1-16-CS-SA	5/8" Tube				
	CP1-17.2-CS-SA	3/8" Pipe				
	CP1-18-CS-SA	18mm				
CP1-19-CS-SA	3/4" Tube					
CP2	CP2-20-CS-SA	20mm	86	45	65	30
	CP2-21.3-CS-SA	1/2" Pipe				
	CP2-22-CS-SA	7/8" Tube				
	CP2-25-CS-SA	25mm				
	CP2-25.4-CS-SA	1" Tube				
	CP2-26.9-CS-SA	3/4" Pipe				
	CP2-28-CS-SA	28mm				
CP2-30-CS-SA	30mm					
CP3	CP3-32-CS-SA	1-1/4" Tube	100	60	76	30
	CP3-33.7-CS-SA	1" Pipe				
	CP3-35-CS-SA	35mm				
	CP3-38-CS-SA	1-1/2" Tube				
	CP3-42-CS-SA	1-1/4" Pipe				
CP4	CP4-38-CS-SA	1-1/2" Tube	140	90	106	45
	CP4-44.5-CS-SA	1-3/4" Tube				
	CP4-48.3-CS-SA	1-1/2" Pipe				
	CP4-50-CS-SA	50mm				
	CP4-50.8-CS-SA	2" Tube				
	CP4-54-CS-SA	1-3/4" Pipe				
	CP4-60.3-CS-SA	2" Pipe				
CP4-63.5-CS-SA	2-1/2" Tube					
CP5	CP5-66-CS-SA	2-1/4" Pipe	180	122	138	60
	CP5-70-CS-SA	2-3/4" Tube				
	CP5-76.1-CS-SA	2-1/2" Pipe or 3" Tube				
	CP5-88.9-CS-SA	3" Pipe or 3-1/2" Tube				
CP6	CP6-102-CS-SA	3-1/2" Pipe	226	168	195	80
	CP6-114-CS-SA	4" Pipe or 4-1/2" Tube				
	CP6-126.5-CS-SA	4-1/2" Pipe				
CP7	CP7-140-CS-SA	5" Pipe	270	205	230	90
	CP7-168-CS-SA	6" Pipe				
CP8	CP8-219-CS-SA	8" Pipe	340	265	320	120

- Stainless steel hardware add SS to part #
 - Other sizes available upon request

ex: CP1-6.4-SS-SA

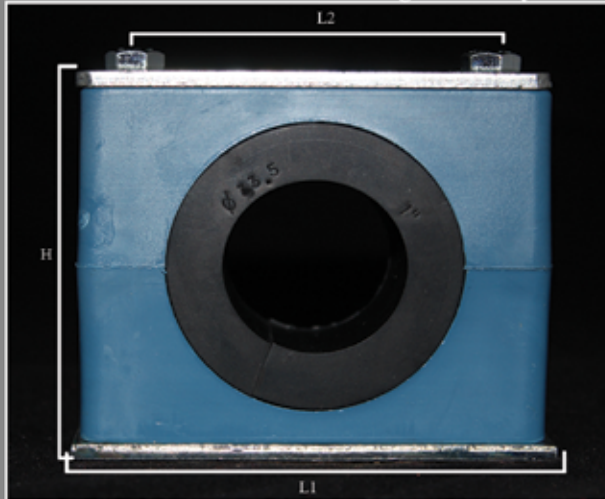
Standard and Heavy Duty w/Rubber Bushing Series

Tube/Pipe/Hose Clamp Assemblies



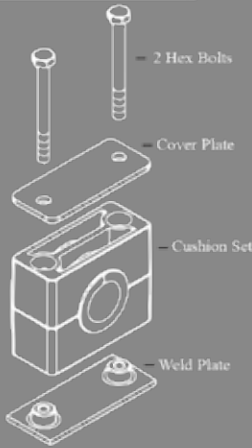
Standard and Heavy Duty Series with Rubber Bushing

Standard Series Rubber Bushing Assembly

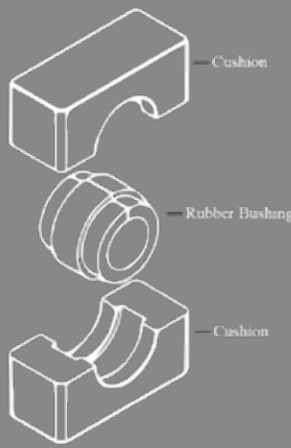


Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
CB6	CB6-8-CS-A	5/16" Tube	73	52	64	30
	CB6-15-CS-A	15mm				
	CB6-16-CS-A	5/8" Tube				
	CB6-20-CS-A	20mm				
	CB6-21.3-CS-A	1/2" Pipe				
	CB6-22-CS-A	7/8" Tube				
	CB6-25-CS-A	25mm				
CB6-26.9-CS-A	3/4" Pipe					
CB7	CB7-28-CS-A	28mm	88	66	72	30
	CB7-30-CS-A	30mm				
	CB7-33.7-CS-A	1" Pipe				
	CB7-35-CS-A	35mm				
	CB7-38-CS-A	1-1/2" Tube				
	CB7-42.4-CS-A	1-1/4" Pipe				
	CB7-48.3-CS-A	1-1/2" Pipe				

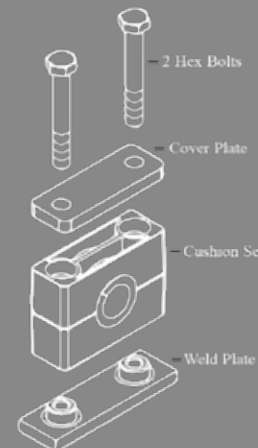
Standard Series w/ Rubber Bushing



Standard or Heavy Duty w/ Rubber Bushing



Heavy Duty Series w/ Rubber Bushing



Heavy Duty Series Rubber Bushing Assembly

Group	DNP Assembly Part#	Pipe/Tube Size	Assembly Dimensions (mm)			
			L1	L2	H	W
CP3B	CP3B-8-CS-A	5/16" Tube	100	60	76	30
	CP3B-10-CS-A	1/8" Pipe				
	CP3B-12-CS-A	12mm				
	CP3B-15-CS-A	15mm				
	CP3B-16-CS-A	5/8" Tube				
	CP3B-18-CS-A	18mm				
	CP3B-21.3-CS-A	1/2" Pipe				
	CP3B-22-CS-A	7/8" Tube				
	CP3B-25-CS-A	25mm				
	CP3B-26.9-CS-A	3/4" Pipe				
CP4B	CP4B-28-CS-A	28mm	140	90	108	30
	CP4B-30-CS-A	30mm				
	CP4B-33.7-CS-A	1" Pipe				
	CP4B-35-CS-A	35mm				
	CP4B-38-CS-A	1-1/2" Tube				
	CP4B-42.4-CS-A	1-1/4" Pipe				
CP4B-48.3-CS-A	1-1/2" Pipe					
CP5B	CP5B-60.3-CS-A	2" Pipe	180	122	138	60
	CP5B-70-CS-A	2-3/4" Tube				
CP6B	CP6B-102-CS-A	3-1/2" Pipe	226	168	195	80



- Stainless Steel add SS to part #

Standard Series Individual Parts

Tube/Pipe/Hose Clamp Assemblies



Standard Series Individual Parts

Standard Series Cushion



Group	DNP Part Number	Description (Tube/Pipe/mm)
C1	C1-6-PP	6mm
	C1-6.4-PP	1/4" Tube
	C1-8-PP	5/16" Tube
	C1-9.5PP	3/8" Tube
C2	C2-10-PP	1/8" Pipe
	C2-12-PP	12mm
	C2-12.7-PP	1/2" Tube
C3	C3-13.5-PP	1/4" Pipe
	C3-14-PP	14mm
	C3-15-PP	15mm
	C3-16-PP	5/8" Tube
	C3-17.2-PP	3/8" Pipe
C4	C4-19-PP	3/4" Tube
	C4-20-PP	20mm
	C4-21.3-PP	1/2" Pipe
	C4-22-PP	7/8" Tube
	C4-25-PP	25mm
C5	C4-25.4-PP	1" Tube
	C5-26.7-PP	3/4" Pipe
	C5-28-PP	28mm
	C5-29-PP	29mm
	C5-30-PP	30mm
C6	C5-32-PP	1-1/4" Tube
	C6-33.7-PP	1" Pipe
	C6-35-PP	35mm
	C6-38-PP	1-1/2" Tube
	C6-42-PP	1-1/4" Pipe
C7	C7-44.5-PP	1-3/4" Tube
	C7-48.3-PP	1-1/2" Pipe
	C7-50.8-PP	2" Tube

* Internal surface of clamp body knurled from C1-C7 and profiled from C8-C9.

Standard Series Hex Bolt



Group	DNP Part Number*	Size (mm)
C1	C1-2-MB-CS/SS	M 6 x 30
C2	C1-2-MB-CS/SS	M 6 x 30
C3	C3-CF1-MB-CS/SS	M 6 x 35
C4	C4-MB-CS/SS	M 6 x 40
C5	C5-MB-CS/SS	M 6 x 45
C6	C6-MB-CS/SS	M 6 x 60
C7	C7-MB-CS/SS	M 6 x 70

* Stainless Steel hex bolts upon request

Standard Series Cover Plate



* Cover plate Standard C1

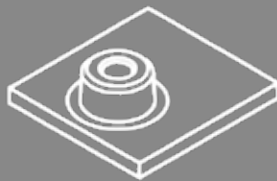


* Cover plate Standard C1-C7

Group	DNP Part Number*
C1	C1-CP-CS/SS
C2	C2-CP-CS/SS
C3	C3-CP-CS/SS
C4	C4-CP-CS/SS
C5	C5-CP-CS/SS
C6	C6-CP-CS/SS
C7	C7-CP-CS/SS

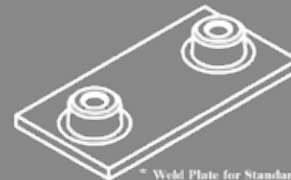
* Stainless Steel cover plate upon request

Standard Series Weld Plate



* Weld Plate for Standard C1

Group	DNP Part Number*	Thread Size (mm)
C1	C1-WP-CS/SS	M 6
C2	C2-WP-CS/SS	M 6
C3	C3-WP-CS/SS	M 6
C4	C4-WP-CS/SS	M 6
C5	C5-WP-CS/SS	M 6
C6	C6-WP-CS/SS	M 6
C7	C7-WP-CS/SS	M 6



* Weld Plate for Standard C1-C7

* Stainless Steel weld plate upon request

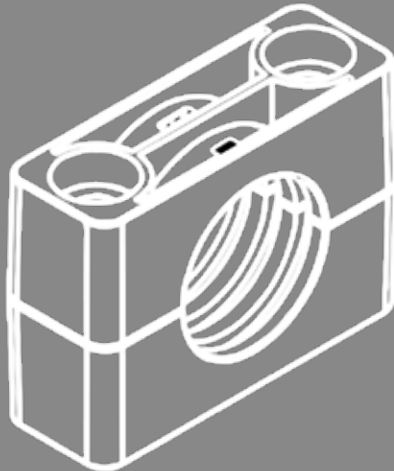
Heavy Duty Series Individual Parts

Tube/Pipe/Hose Clamp Assemblies



Heavy Duty Series Individual Parts

Heavy Duty Cushion



*Internal surface of clamp body profiled

Group	DNP Assembly Part#	Pipe/Tube Size
CP1	CP1-6.4-PP	1/4" Tube
	CP1-8-PP	5/16" Tube
	CP1-9.5-PP	3/8" Tube
	CP1-10-PP	1/8" Pipe
	CP1-12-PP	12mm
	CP1-12.7-PP	1/2" Tube
	CP1-13.5-PP	1/4" Pipe
	CP1-15-PP	15mm
	CP1-16-PP	5/8" Tube
	CP1-17.2-PP	3/8" Pipe
CP2	CP1-18-PP	18mm
	CP1-19-PP	3/4" Tube
	CP2-20-PP	20mm
	CP2-21.3-PP	1/2" Pipe
	CP2-22-PP	7/8" Tube
	CP2-25-PP	25mm
	CP2-25.4-PP	1" Tube
CP3	CP2-26.9-PP	3/4" Pipe
	CP2-28-PP	28mm
	CP2-30-PP	30mm
	CP3-32-PP	1-1/4" Tube
CP4	CP3-33.7-PP	1" Pipe
	CP3-35-PP	35mm
	CP3-38-PP	1-1/2" Tube
	CP3-42-PP	1-1/4" Pipe
CP5	CP4-38-PP	1-1/2" Tube
	CP4-44.5-PP	1-3/4" Tube
	CP4-48.3-PP	1-1/2" Pipe
	CP4-50-PP	50mm
	CP4-50.8-PP	2" Tube
	CP4-54-PP	1-3/4" Pipe
	CP4-60.3-PP	2" Pipe
CP6	CP4-63.5-PP	2-1/2" Tube
	CP5-66-PP	2-1/4" Pipe
	CP5-70-PP	2-3/4" Tube
	CP5-76.1-PP	2-1/2" Pipe or 3" Tube
CP7	CP5-88.9-PP	3" Pipe or 3-1/2" Tube
	CP6-102-PP	3-1/2" Pipe
	CP6-114-PP	4" Pipe or 4-1/2" Tube
CP8	CP6-126.5-PP	4-1/2" Pipe
	CP7-140-PP	5" Pipe
CP9	CP7-168-PP	6" Pipe
	CP8-219-PP	8" Pipe
CP9	CP9-273-PP	10" Pipe
	CP9-324-PP	12" Pipe

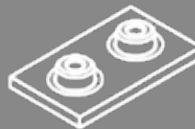
Heavy Duty Hex Bolt



Group	DNP Part Number*	Size (mm)
CP1	CP1-MB-CS/SS	M 10 x 45
CP2	CP2-MB-CS/SS	M 10 x 60
CP3	CP3-MB-CS/SS	M 10 x 70
CP4	CP4-MB-CS/SS	M 12 x 100
CP5	CP5-MB-CS/SS	M 16 x 130
CP6	CP6-MB-CS/SS	M 20 x 190
CP7	CP7-MB-CS/SS	M 24 x 220
CP8	CP8-MB-CS/SS	M 30 x 300
CP9	CP9-MB-CB/SS	M 30 x 450

*Stainless Steel available upon request

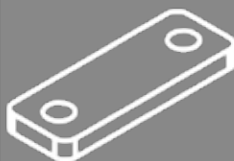
Heavy Duty Weld Plate



Group	DNP Part Number*	Thread Size (mm)
CP1	CP1-WP-CS/SS	M 10
CP2	CP2-WP-CS/SS	M 10
CP3	CP3-WP-CS/SS	M 10
CP4	CP4-WP-CS/SS	M 12
CP5	CP5-WP-CS/SS	M 16
CP6	CP6-WP-CS/SS	M 20
CP7	CP7-WP-CS/SS	M 24
CP8	CP8-WP-CS/SS	M 30
CP9	CP9-WP-CS/SS	M 30

*Stainless Steel available upon request

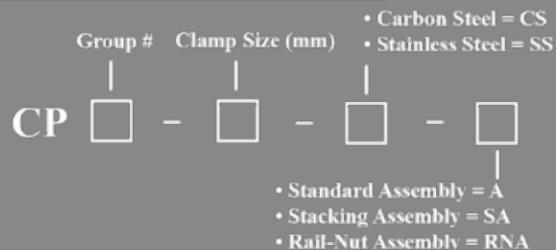
Heavy Duty Cover Plate



Group	DNP Part Number*
CP1	CP1-CP-CS/SS
CP2	CP2-CP-CS/SS
CP3	CP3-CP-CS/SS
CP4	CP4-CP-CS/SS
CP5	CP5-CP-CS/SS
CP6	CP6-CP-CS/SS
CP7	CP7-CP-CS/SS
CP8	CP8-CP-CS/SS
CP9	CP9-CP-CS/SS

*Stainless Steel available upon request

Heavy Duty Assembly Ordering Example



Heavy Duty Series Individual Parts

Tube/Pipe/Hose Clamp Assemblies



Heavy Duty Series Individual Parts

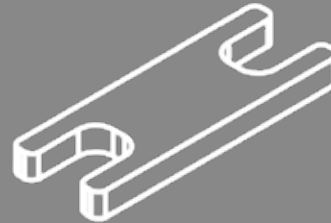
Heavy Duty Stacking Bolt



Group	DNP Part Number*	Size (mm)
CP1	CP1-SB-CS/SS	M 10 x 25
CP2	CP2-SB-CS/SS	M 10 x 40
CP3	CP3-SB-CS/SS	M 10 x 51
CP4	CP4-SB-CS/SS	M 12 x 82
CP5	CP5-SB-CS/SS	M 16 x 110
CP6	CP6-SB-CS/SS	M 20 x 150
CP7	CP7-SB-CS/SS	M 24 x 180
CP8	CP8-SB-CS/SS	M 30 x 256

* Stainless Steel available upon request

Heavy Duty Stacking Plate



Group	DNP Part Number*
CP1	CP1-SP-CS/SS
CP2	CP2-SP-CS/SS
CP3	CP3-SP-CS/SS
CP4	CP4-SP-CS/SS
CP5	CP5-SP-CS/SS
CP6	CP6-SP-CS/SS
CP7	CP7-SP-CS/SS
CP8	CP8-SP-CS/SS

* Stainless Steel available upon request

Heavy Duty Rail-Nut



Group	DNP Part Number	Thread Size (mm)
CP1-CP2-CP3	CP1-CP2-CP3-RN-CS/SS*	M10
CP4	CP4-RN-CS/SS*	M12

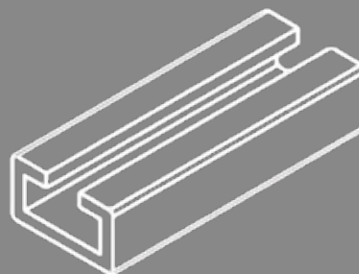
* Stainless Steel available upon request

Heavy Duty O-Ring



Group	DNP Part Number
CP1-CP2-CP3-CP4	CP1-CP2-CP3-CP4-RN-OR

Heavy Duty C-Rail



Group	DNP Part Number	Size (mm)
CP1-CP4	CP1-CP2-CP3-CP4-CR-CS/SS*	40 x 22 mm

* Stainless Steel available upon request

* Sold in 2 meter lengths only

Standard Twin Series Individual Parts

Tube/Pipe/Hose Clamp Assemblies



Standard Twin Series Individual Parts

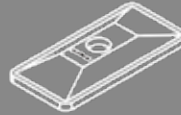
Standard Twin Cushion



Group	DNP Part Number	Description (Tube/Pipe/mm)
CF1	CF1-6.4-PP	1/4" Tube
	CF1-8-PP	5/16" Tube
	CF1-9.5-PP	3/8" Tube
	CF1-10-PP	1/8" Pipe
	CF1-12-PP	12mm
CF2	CF2-12.7-PP	1/2" Tube
	CF2-13.5-PP	1/4" Pipe
	CF2-14-PP	14mm
	CF2-15-PP	15mm
	CF2-16-PP	5/8" Tube
	CF2-18-PP	18mm
CF3	CF3-19-PP	3/4" Tube
	CF3-20-PP	20mm
	CF3-21.3-PP	1/2" Pipe
	CF3-22-PP	7/8" Tube
	CF3-25-PP	25mm
CF4	CF3-25.4-PP	1" Tube
	CF4-26.9-PP	3/4" Pipe
	CF4-28-PP	28mm
CF5	CF4-30-PP	30mm
	CF5-32-PP	1-1/4" Tube
	CF5-33.7-PP	1" Pipe
	CF5-35-PP	35mm
	CF5-38-PP	1-1/2" Tube

* Internal surface of clamp body knurled from C1-C7 and profiled from C8-C9.

Standard Twin Cover Plate



Group	DNP Part Number*
CF1	CF1-CP-CS/SS
CF2	CF2-CP-CS/SS
CF3	CF3-CP-CS/SS
CF4	CF4-CP-CS/SS
CF5	CF5-CP-CS/SS

*Stainless Steel available upon request

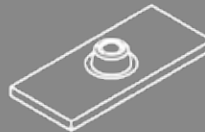
Standard Twin Hex Bolt



Group	DNP Part Number*	Size (mm)
CF1	C3-CF1-MB-CS/SS	M 6 x 35
CF2	CF2-MB-CS/SS	M 8 x 35
CF3	CF3-MB-CS/SS	M 8 x 45
CF4	CF4-MB-CS/SS	M 8 x 50
CF5	CF5-MB-CS/SS	M 8 x 60

*Stainless Steel available upon request

Standard Twin Weld Plate



Group	DNP Part Number*	Thread Size (mm)
CF1	CF1-WP-CS/SS	M 6
CF2	CF2-WP-CS/SS	M 8
CF3	CF3-WP-CS/SS	M 8
CF4	CF4-WP-CS/SS	M 8
CF5	CF5-WP-CS/SS	M 8

*Stainless Steel available upon request

Standard Twin Stacking Bolt



Group	DNP Part Number*	Size (mm)
CF1	C1-2-CF1-SB-CS/SS	M 6 x 20
CF2	CF2-SB-CS/SS	M 8 x 20
CF3	CF3-SB-CS/SS	M 8 x 29
CF4	CF4-SB-CS/SS	M 8 x 34
CF5	CF5-SB-CS/SS	M 8 x 46

*Stainless Steel available upon request

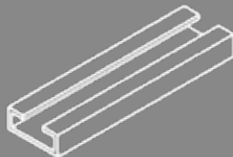
Standard Twin Stacking Plate



Group	DNP Part Number*
CF1	CF1-SP-CS/SS
CF2	CF2-SP-CS/SS
CF3	CF3-SP-CS/SS
CF4	CF4-SP-CS/SS
CF5	CF5-SP-CS/SS

*Stainless Steel available upon request

Standard Twin C-Rail



Group	DNP Part Number	Size (mm)
CF1-CF5	CP1-CP2-CP3-CP4-CR-CS/SS*	40 x 22 mm

*Stainless Steel available upon request

*Sold in 2 meter lengths only

Standard Twin Rail Nut and O-Ring



Group	DNP Part Number	Thread Size (mm)
CF1	C1-9-CF1-RN-CS/SS	M6
CF2-CF5	CF2-CF5-RN-CS/SS	M8
CF1-CF5	C1-9-CF1-CF5-RN-OR	N/A

*Stainless Steel available upon request

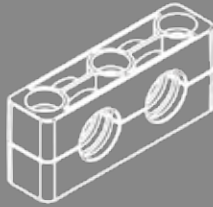
Heavy Duty Twin Series Individual Parts

Tube/Pipe/Hose Clamp Assemblies



Heavy Duty Twin Individual Parts

Heavy Duty Twin Cushion



Group	DNP Part Number	Description (Tube/Pipe/mm)
CPT2	CFT2-19-PP	3/4" Tube
	CFT2-21.3-PP	1/2" Pipe
	CFT2-25.4-PP	1" Tube
	CFT2-26.9-PP	3/4" Pipe
CPT3	CPT3-32-PP	1-1/4" Tube
	CPT3-33.7-PP	1" Pipe
	CPT3-38-PP	1-1/2" Tube
	CPT3-42-PP	1-1/4" Pipe

* Internal surface of clamp body profiled.

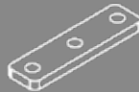
Heavy Duty Twin Hex Bolt



Group	DNP Part Number*	Size (mm)
CPT2	CP2-MB-CS/SS	M 10 x 60
CPT3	CP3-MB-CS/SS	M 10 x 70

* Stainless steel available upon request

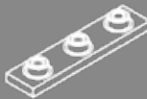
Heavy Duty Twin Cover Plate



Group	DNP Part Number*
CPT2	CPT2-CP-CS/SS
CPT3	CPT3-CP-CS/SS

* Stainless steel available upon request

Heavy Duty Twin Weld Plate



Group	DNP Part Number*	Thread Size (mm)
CPT2	CPT2-WP-CS/SS	M 10
CPT3	CPT3-WP-CS/SS	M 10

* Stainless steel available upon request

Heavy Duty Twin Stacking Bolt



Group	DNP Part Number*	Size (mm)
CPT2	CP2-SB-CS/SS	M 10 x 40
CPT3	CP3-SB-CS/SS	M 10 x 51

* Stainless steel available upon request

Heavy Duty Twin O-Ring



Group	DNP Part Number
CPT2-CPT3	CP1-CP2-CP3-CP4-RN-OR

Heavy Duty Twin Stacking Plate



Group	DNP Part Number*
CPT2	CPT2-SP-CS/SS
CPT3	CPT3-SP-CS/SS

* Stainless steel available upon request

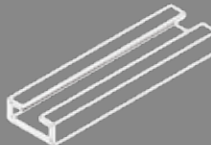
Heavy Duty Twin Rail Nut



Group	DNP Part Number	Thread Size (mm)
CPT2-CPT3	CP1-CP2-CP3-RN-CS/SS*	M10

* Stainless steel available upon request

Heavy Duty Twin C-Rail

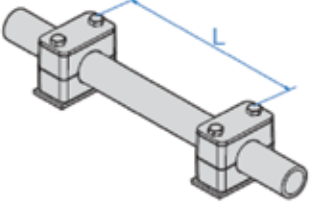
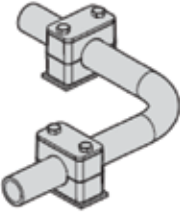


Group	DNP Part Number	Size (mm)
CPT2-CPT3	CP1-CP2-CP3-CP4-CR-CS/SS*	40 x 22 mm

* Stainless steel available upon request

* Sold in 2 meter lengths only

Technical and Material Characteristics Appendix

RECOMMENDED DISTANCE BETWEEN CLAMPS				CLAMP INSTALLATION IN CASE OF BEND PIPE	
 <p>The values of the distances of the clamps shown in the table are indicative values, reported to static loads.</p>					
Pipe outside diameter (mm)	Distance L (m)	Pipe outside diameter (mm)	Distance L (m)	Bend pipes should be fixed by clamps immediately before and after the bend. Moreover it is recommended to design these clamps as fixed pivot clamps. Joints is recommended for applications with the use of clamps before and after the junction.	
6,0 - 13,5	1,0	114,0 - 168,0	5,0		
13,5 - 18	1,2	168,0 - 219,0	6,0		
18 - 32	1,5	219,0 - 324,0	6,7		
32 - 38	2,0	324,0 - 356,0	7,0		
38 - 57,2	2,7	356,0 - 406,0	7,5		
57,2 - 75	3,0	406,0 - 480,0	8,0		
75 - 76,1	3,5	481,0 - 550,0	8,5		
76,1 - 88,9	3,7	551,0 - 630,0	9,0		
88,9 - 102,0	4,0	631,0 - 716,0	10,0		
102,0 - 114,0	4,5	716,0 - 800,0	12,0		

THREAD CHART								
Conversion table and Metric thread / UNC thread								
STANDARD SERIES			HEAVY SERIES			TWIN SERIES		
Code PLEFFE.CI.	Metric thread	UNC thread	Code PLEFFE.CI.	Metric thread	UNC thread	Code PLEFFE.CI.	Metric thread	UNC thread
C1	M6	1/4 - 20 UNC	CP1	M10	3/8 - 16 UNC	CF1	M8	1/4 - 20 UNC
C2			CP2			CF2		
C3			CP3			CF3		
C4			CP4	M12	7/16 - 14 UNC	CF4	5/16 - 18 UNC	
C5			CP5	M16	5/8 - 11 UNC	CF5		
C6			CP6	M20	3/4 - 10 UNC			
C7			CP7	M24	7/8 - 9 UNC			
C8			CP8	M30	11/8 - 7 UNC			
C9			CP9					
					CP10	M30	11/4 - 7 UNC	

Material Components and Accessories

Steels

Plates: non-alloy steel for structural applications St360 (235JR) and St430 (275JR).

Accessories: in St360 (for stacking bolts and bushing), in Carbon Steel C20 9nut for fixing clamps to the rail) and in steel sheets for deep drawing DX 51D (standard series rail)

Stainless Steel

Metal parts: in stainless steel 316L (X2CrNiMo17-12-2)

U-Bolts in stainless 304L with good corrosion resistance and stainless steel 316L (stainless marine) with excellent resistance to corrosion.

Surface Finishings

Components and accessories: all our parts and metal accessories are treated with advanced surface treatments.

Sendzimir method: this process consists of immersing products in a bath of molten zinc (used to rail the Standard series) for zinc-plating protection;

Crapal: consists of a steel wire, coated with an alloy of 95% of zinc and 5% of aluminum, dull gray color and excellent corrosion resistance (used for U-Bolts); **White Zinc plating Fe Zn c8 II:** used for all other metal products.

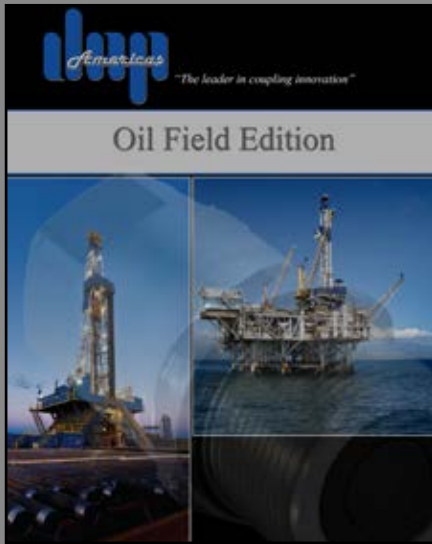
All protection surfaces are according to the RoHS directive.

Decimal/Metric Conversion Table

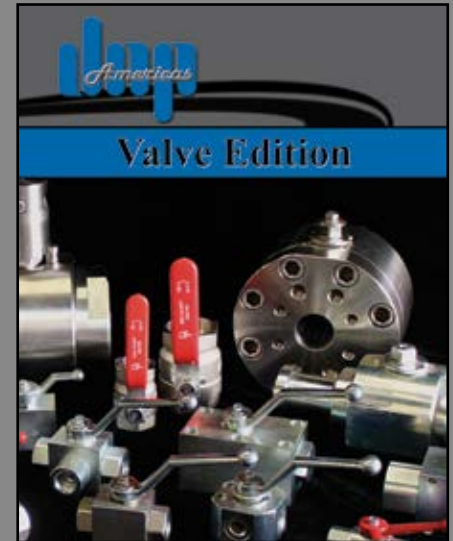
Metric (mm)	Decimal (in)	Metric (mm)	Decimal (in)	Metric (mm)	Decimal (in)
6	.236	28	1.10	126.5	4.98
6.4	.25	29	1.14	140	5.51
8	.315	30	1.18	168	6.61
9.5	.374	32	1.25	219	8.62
10	.394	33.7	1.33	273	10.74
12	.472	35	1.38	324	12.75
12.7	.50	38	1.50		
13.5	.531	42	1.65		
14	.551	44.5	1.75		
15	.59	48.3	1.90		
16	.63	50	1.96		
17.2	.677	50.8	2.00		
18	.708	54	2.12		
19	.748	60.3	2.37		
20	.787	63.5	2.50		
21.3	.838	66	2.59		
22	.866	70	2.75		
25	.984	76.1	3.00		
25.4	1.00	88.9	3.50		
26.7	1.05	102	4.01		
26.9	1.06	114	4.50		

* To convert mm to inches multiply mm by 0.03937

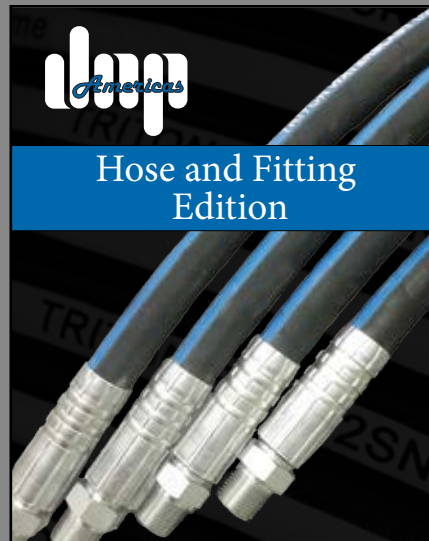
Oil Field Edition



Valve Edition



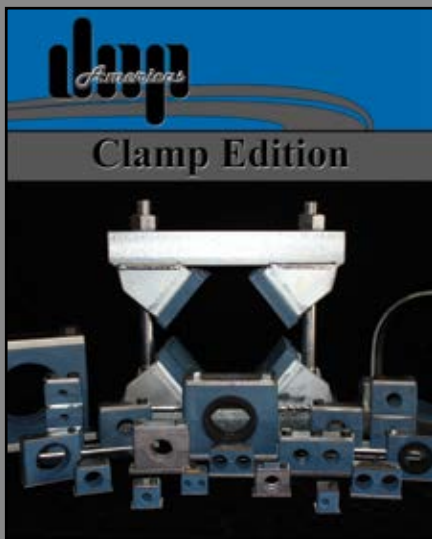
Hose Edition



UHP Edition



Clamp Edition



BOP Edition

