

# MR. HOSE INC.

AMERICAN - METRIC

HYDRAULIC - INDUSTRIAL - AUTOMOTIVE

## CUSTOM HOSE ASSEMBLIES MADE WHILE-U-WAIT!



WE FEATURE  
**RYCO**  
HYDRAULIC HOSE & FITTINGS



## ***METRICS ARE OUR SPECIALTY!***

- HYDRAULIC HOSE ASSEMBLIES
- HYDRAULIC ADAPTERS
- POWER STEERING HOSES
- AIR CONDITIONING HOSES
- AUTOMOTIVE BRAKE LINES
- TRUCK AIR BRAKE LINES
- STEEL TUBE ASSEMBLIES
- PETROLEUM & STEAM HOSE
- CHEMICAL & FOOD GRADE HOSE
- AIR & PAINT HOSE
- BRASS FITTINGS
- HYDRAULIC OIL
- PUMPS, VALVES & CYLINDERS
- GAUGES: HYDRAULIC, AIR & TEMPERATURE
- QUICK DISCONNECTS
- PRESSURE WASHER EQUIP
- HOSE REELS
- FIRE HOSE & ACCESSORIES
- STAINLESS BRAIDED HOSE & FITTINGS
- FILTERS - REGULATORS - LUBRICATORS

COURTEOUS &  
PROFESSIONAL HELP

2 CUSTOMER SERVICE CENTERS  
TO SERVE YOU!

SE HABLA ESPANOL!

## COMMERCE - CARSON

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BUTTON HEAD  PG 122	WHIP HOSE  PG 122	4 JAW GG COU  PG 122	ADAPTER  PG 123	ADAPTER  PG 123	EXTENSION  PG 123	45° ELBOW  PG 123	90° ELBOW  PG 123	COUPLING  PG 123
BULKHEAD CONN  PG 123	<b>DOT PUSH-IN PGS 124-130</b>	PLUG  PG 125	UNION  PG 125	UNION TEE  PG 125	UNION ELBOW  PG 125	FEMALE CONN  PG 126	MALE CONNecTOR  PG 126	MALE ELBOW  PG 127
MALE SWL ELBOW  PG 127	FEMALE ELBOW  PG 128	FEMALE SWL EL  PG 128	MALE RUN TEE  PG 128	MALE SWL RUN T  PG 129	MALE 45° ELBOW  PG 129	45° SWL ELBOW  PG 129	MALE BRANCH T  PG 129	SWL BRANCH TEE  PG 130
FEM BRANCH T  PG 130	BULK CONNECT  PG 130	BULKHEAD UNION  PG 130	FEM BULK UNION  PG 130	<b>COMPOSITE DOT PUSH IN PGS 131-135</b>	STRAIGHT UNION  PG 132	UNION TEE  PG 132	UNION 90° EL  PG 132	FEM CONNecTOR  PG 132
MALE CONNecTOR  PG 133	90° MALE ELBOW  PG 133	90° FEMALE EL  PG 133	MALE RUN TEE  PG 134	MALE BRANCH T  PG 134	FEM BRANCH T  PG 134	45° MALE ELBOW  PG 134	UNION "Y"  PG 135	MALE BRANCH "Y"  PG 135
BULKHEAD UNION  PG 135	FEM BULK CONN  PG 135	<b>DOT FOR NYLON TUBING PGS 136-140</b>	SLEEVE  PG 137	NUT  PG 137	UNION  PG 137	BULKHEAD UNION  PG 137	SS INSERT  PG 137	BRASS INSERT  PG 138








































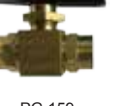
























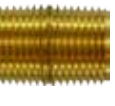



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**BRASS**

<p>TEE</p>  <p>PG 138</p>	<p>RED BRANCH</p>  <p>PG 138</p>	<p>ELBOW</p>  <p>PG 138</p>	<p>FEMALE</p>  <p>PG 138</p>	<p>MALE ADAPTER</p>  <p>PG 139</p>	<p>SWL MALE <span style="background-color: black; color: white; border-radius: 50%; padding: 2px;">NEW</span></p>  <p>PG 139</p>	<p>MALE ELBOW</p>  <p>PG 139</p>	<p>SWL MALE <span style="background-color: black; color: white; border-radius: 50%; padding: 2px;">NEW</span></p>  <p>PG 139</p>	<p>FEMALE</p>  <p>PG 139</p>	
<p>MALE RUN TEE</p>  <p>PG 140</p>	<p>MALE BRANCH</p>  <p>PG 140</p>	<p>FEM BRANCH T</p>  <p>PG 140</p>	<p>45° ELBOW</p>  <p>PG 140</p>	<p>SWL 45° ELBOW <span style="background-color: black; color: white; border-radius: 50%; padding: 2px;">NEW</span></p>  <p>PG 140</p>	<p><b>DOT FOR COPPER TUBING PGS 141-143</b></p>		<p>SLEEVE</p>  <p>PG 141</p>	<p>NUT</p>  <p>PG 141</p>	<p>UNION</p>  <p>PG 141</p>
<p>TEE</p>  <p>PG 141</p>	<p>ELBOW</p>  <p>PG 141</p>	<p>FEMALE ADAPTER</p>  <p>PG 142</p>	<p>MALE ADAPTER</p>  <p>PG 142</p>	<p>90° MALE ELBOW</p>  <p>PG 142</p>	<p>90° FEMAL EL</p>  <p>PG 143</p>	<p>MALE RUN TEE</p>  <p>PG 143</p>	<p>MALE BRANCH T</p>  <p>PG 143</p>	<p>45° MALE ELBOW</p>  <p>PG 143</p>	
<p><b>DOT FOR HOSE PGS 144-</b></p>		<p>SLEEVE</p>  <p>PG 144</p>	<p>NUT</p>  <p>PG 144</p>	<p>NUT-USE SPRING</p>  <p>PG 144</p>	<p>SPRING</p>  <p>PG 145</p>	<p>NUT/SPRING</p>  <p>PG 145</p>	<p>UNION</p>  <p>PG 145</p>	<p>UNION BODY ONLY</p>  <p>PG 145</p>	<p>CONNECTOR HOSE</p>  <p>PG 145</p>
<p>BODY ONLY <span style="background-color: black; color: white; border-radius: 50%; padding: 2px;">NEW</span></p>  <p>PG 145</p>	<p>MALE CONNECTOR</p>  <p>PG 145</p>	<p>ADAPTER FOR SWL</p>  <p>PG 146</p>	<p>MALE ADAPTER</p>  <p>PG 146</p>	<p>ADAPTER BODY</p>  <p>PG 146</p>	<p>MALE ADAPTER</p>  <p>PG 146</p>	<p><b>DRAIN COCKS PGS 148-149</b></p>		<p>GAS SHUT OFF</p>  <p>PG 148</p>	<p>DRAIN COCK</p>  <p>PG 148</p>
<p>TRUCK DRAIN</p>  <p>PG 148</p>	<p>SHUT OFF</p>  <p>PG 148</p>	<p>LEVER HANDLE</p>  <p>PG 148</p>	<p>AIRTKDRAIN-PULL</p>  <p>PG 148</p>	<p>INTERNAL SEAT</p>  <p>PG 149</p>	<p>INTERNAL SEAT</p>  <p>PG 149</p>	<p>LG INTERNAL SEAT</p>  <p>PG 149</p>	<p>TEE HANDLE</p>  <p>PG 149</p>	<p>EXT W/ SPOUT</p>  <p>PG 149</p>	
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<p>MIP X BIBB</p>  <p>PG 151</p>	<p>MIP X BIBB</p>  <p>PG 151</p>	<p>MIP X BIBB</p>  <p>PG 151</p>	<p>MIP X MIP</p>  <p>PG 152</p>	<p>MIP X MIP</p>  <p>PG 152</p>	<p>MIPXBIBB NOSE</p>  <p>PG 152</p>	<p>FIP X FIP</p>  <p>PG 152</p>	<p>FIP X FIP</p>  <p>PG 152</p>	<p>FIP X FIP</p>  <p>PG 153</p>	

































































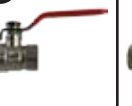


**BRASS**

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 HEX BUSHING PG 246	 HEX LOCKNUT PG 247	 CAP-CAST PG 247	 HEX CAP-BRSTCK PG 247	 HEX SOCKET PLG PG 247	 CORED PLUG PG 248	 SOLID PLUG PG 248	 SOLID HEX PLUG PG 248	 CORED HEX PLUG PG 248
 HOSE NIPPLE PG 249	 HOSE NIPPLE PG 249	 REDUCE HS NIP PG 249	<p><b>1000# BARSTOCK SS FITTINGS PGS 250-252</b></p> PG	 BARSTOCK COUP PG 250	 BS RDC. COUP. PG 250	 HALF COU-PLING PG 251	 HEX BUSHING PG 251	 BARSTOCK CAP PG 252





























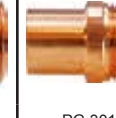


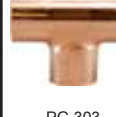
# NIPPLES AND FITTINGS








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45° ST FTG X C  PG 299	COUPLING  PG 299	COUPLING  PG 299	COUPLING  PG 300	REDUCER W/ STOP  PG 300	FITTING RE-DUCER  PG 300	FLUSH BUSH-ING  PG 301	MALE ADAPTER  PG 301	FTGXM ADAPTER  PG 301
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HEX BUSHING  PG 311	HEX BUSHING  PG 311	HEX NIPPLE  PG 311	HEX NIPPLE  PG 311	RED NIPPLE  PG 311	RED NIPPLE  PG 311	COUPLING  PG 312	COUPLING  PG 312	RED COUPLING  PG 312
RED COUPLING  PG 312	PIPE CAP  PG 312	PLASTIC BULK-HEAD  PG 312	<b>BARB</b> • NYLON • POLYETHYLENE • POLYPROPYLENE PGS 312-316	MALE ADAPTER  PG 312	MALE ADAPTER  PG 313	HOSE X MALE 90°  PG 313	HOSE X MALE 90°  PG 313	BARB X F ADPTER  PG 314
BARB X F ADPTER  PG 314	HOSE X F 90°  PG 314	HOSE X F 90°  314	UNION ELBOW  PG 314	UNION ELBOW  PG 314	SPLICER  PG 314	SPLICER  PG 315	RED SPLICER  PG 315	RED SPLICER  PG 315
BARBED TEE  PG 315	BARBED TEE  PG 315	BARBED Y  PG 315	BARBED Y  PG 315	REDUCING TEE  PG 315	REDUCING TEE  PG 315	M BRANCH TEE  PG 316	<b>GARDEN HOSE • NYLON PG 316</b>	GH CAP  PG 316

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<p>MALE CONNec-TOR</p>  <p>PG 443</p>	<p>F CONNECTOR</p>  <p>PG 443</p>	<p>UNION ELBOW</p>  <p>PG 443</p>	<p>MALE ELBOW</p>  <p>PG 444</p>	<p>FEMALE ELBOW</p>  <p>PG 444</p>	<p>MALE BRANCH</p>  <p>PG 444</p>	<p>UNION TEE</p>  <p>PG 444</p>	<p>O-RING ELBOW</p>  <p>PG 444</p>	<p><b>QUICK DISCONNECTS</b> PGS 445-447</p>
<p>NO SPILL</p>  <p>PG 445</p>	<p>DRYBREAK</p>  <p>PG 445</p>	<p>ISO-A COUPLER</p>  <p>PG 445</p>	<p>ISO-A PLUG</p>  <p>PG 445</p>	<p>ISO-B COUPLER</p>  <p>PG 445</p>	<p>ISO-B PLUG</p>  <p>PG 445</p>	<p>FLUSH FACE</p>  <p>PG 446</p>	<p>FLUSH FACE</p>  <p>PG 446</p>	<p>LSQ SERIES</p>  <p>PG 446</p>
<p>LSQ SERIES</p>  <p>PG 446</p>	<p>AG SERIES</p>  <p>PG 447</p>	<p>AG SERIES</p>  <p>PG 447</p>	<p>KZE SERIES</p>  <p>PG 447</p>	<p>KZE SERIES</p>  <p>PG 447</p>	<p>TUBE PLUG</p>  <p>PG 448</p>	<p><b>DIN</b> PGS 448-450</p>	<p>TUBE CAP</p>  <p>PG 448</p>	<p>MALE COU-PLING</p>  <p>PG 448</p>
<p>MALESTUD BSPP</p>  <p>PG 448</p>	<p>UNION COU-PLING</p>  <p>PG 449</p>	<p>BULKHEAD STRT</p>  <p>PG 449</p>	<p>UNION ELBOW</p>  <p>PG 449</p>	<p>SWIVEL NUT EL</p>  <p>PG 449</p>	<p>UNION TEE</p>  <p>PG 450</p>	<p>SWL NUT BRANCH</p>  <p>PG 450</p>	<p>SWL NUT RUN</p>  <p>PG 450</p>	<p>HYDRAULIC MOTOR</p>  <p>PG 451</p>
<p>HYDRAULIC MOTOR</p>  <p>PG 451</p>	<p>HYDRAULIC PUMP</p>  <p>PG 452</p>	<p>GEAR PUMP</p>  <p>PG 453</p>	<p>FLOW VALVE</p>  <p>PG 454</p>	<p>NEEDLE VALVE</p>  <p>PG 454</p>	<p>PRESSURE VALVE</p>  <p>PG 455</p>	<p>AIR BREATHER</p>  <p>PG 455</p>	<p><b>LP GAS</b> PGS 456-497</p>	<p><b>POL &amp; ACME FITTINGS</b> PGS 457-465</p>
<p>TEE CONNec-TION</p>  <p>PG 458</p>	<p>TAILPIECE W/ FLAT</p>  <p>PG 458</p>	<p>STANDARD NUT</p>  <p>PG 458</p>	<p>TAIL &amp; NUT ASMB</p>  <p>PG 458</p>	<p>POL CAP</p>  <p>PG 458</p>	<p>POL PLUG</p>  <p>PG 458</p>	<p>POLPLUGW/ CHAIN</p>  <p>PG 458</p>	<p>POL ADAPTER</p>  <p>PG 458</p>	<p>ADPATER</p>  <p>PG 458</p>

TAILPIECE  PG 459	TAILPIECE  PG 459	TAILPIECE  PG 459	TAILPIECE  PG 459	POL ADAPTER  PG 459	POL ADAPTER  PG 459	POL ADAPTER  PG 459	POL ADAPTER  PG 459	FILL ADAPTER  PG 460	
ADAPTER  PG 460	ADAPTER  PG 460	POL O-RING  PG 460	DUST PLUG  PG 460	APPLIANCE TEE  PG 460	APPLIANCE TEE  PG 460	APPLIANCE TEE  PG 460	DUAL TEE  PG 460	ANGLE  PG 461	
F POL ADAPTER  PG 461	CYLINDER PRIMUS  PG 461	MANIFOLD BLOCKT  PG 461	TEE BLOCK MANI  PG 461	TEE CHECK MANI  PG 461	TEE CHECK MANI  PG 461	MANIFOLD TEE  PG 461	PLASTIC BLK CAP  PG 462	CAP W/ CHAIN  PG 462	
PLUG W/ CHAIN  PG 462	ACME GASGET  PG 462	FIP ADAPTER  PG 462	MALE ADAPTER  PG 463	MALE ADAPTER  PG 463	MALE ADAPTER  PG 463	FILLER COU-PLING  PG 463	VAPOR COU-PLING  PG 463	WINGNUT CAP  PG 463	
WINGNUT  PG 464	WINGNUT  PG 464	WINGNUT CAP  PG 464	ACME CAP  PG 464	CAP W/ CHAIN  PG 464	CHECK CON-NECT  PG 464	CHECK CON-NECT  PG 464	FILLER VALVE  PG 464	STEEL WING-NUT  PG 465	
ADPATER  PG 465	CAP W/ CHAIN  PG 465	ADAPTER  PG 465	CAP W/ CABLE  PG 465	<b>REGULATORS PGS 466</b>		984HP  PG 467	988HP  PG 467	988LP  PG 468	998LP  PG 468
998LP  PG 469	998TP  PG 469	988TP  PG 470	998TP  PG 470	998TW  PG 471	998TW  PG 471	524AC  PG 472	528B  PG 472	924N  PG 472	
524AS  PG 473	49HP  PG 474	49HP  PG 474	756HP FIXED  PG 475	755HP ADJUST  PG 475	ACME NUT PIGTAIL  PG 476	ACME NUT PIGTAIL  PG 477	COPPER PIGTAIL  PG 477	MULTI SERVICE  PG 478	

**PICTORIAL INDEX**

**LP GAS**

<p>420 MULTI VALVE</p>  <p>PG 479</p>	<p>UNDER-GROUND</p>  <p>PG 480</p>	<p>UNDER-GROUND</p>  <p>PG 481</p>	<p>MULTISERVICE</p>  <p>PG 482</p>	<p>FILLER VALVE</p>  <p>PG 482</p>	<p>FILLER VALVE</p>  <p>PG 482</p>	<p>SNAP FILL</p>  <p>PG 483</p>	<p>FILLER VALVE</p>  <p>PG 483</p>	<p>VAPOREQUAL- IZA.</p>  <p>PG 483</p>
<p>FILLER VALVE W/OPD</p>  <p>PG 484</p>	<p>INTERNAL RELIEF</p>  <p>PG 485</p>	<p>CAP</p>  <p>PG 485</p>	<p>EXTERNAL RELIEF</p>  <p>PG 485</p>	<p>FORKLIFT CON- NECT</p>  <p>PG 486</p>	<p>FORKLIFT CON- NECT</p>  <p>PG 486</p>	<p>DOT VALVES</p>  <p>PG 487</p>	<p>GAUGE</p>  <p>PG 487</p>	<p>WITHDRAWL</p>  <p>PG 488</p>
<p>SERVICEVALVE</p>  <p>PG 489</p>	<p>TYPE 1 ACME W/OPD</p>  <p>PG 490</p>	<p>INTERNAL THREAD</p>  <p>PG 491</p>	<p>FLANGED INTERNAL</p>  <p>PG 492</p>	<p>BACK PRES- SURE VALVES</p>  <p>PG 493</p>	<p>FILLER VALVE</p>  <p>PG 494</p>	<p>SERVICEVALVE</p>  <p>PG 494</p>	<p>EURO FILLER</p>  <p>PG 496</p>	<p>ACME/EURO ADAPTERS</p>  <p>PG 496</p>
<p>T-CONNECTOR</p>  <p>PG 497</p>								

**PIPE**



<b>Pipe Size</b>	<b>1/16</b>	<b>1/8</b>	<b>1/4</b>	<b>3/8</b>	<b>1/2</b>	<b>3/4</b>	<b>1</b>
<b>Thread Size</b>	<b>1/16-27</b>	<b>1/8-27</b>	<b>1/4-18</b>	<b>3/8-18</b>	<b>1/2-14</b>	<b>3/4-14</b>	<b>1-11<sup>1/2</sup></b>
<b>Working Pressure</b>	<b>1200</b>	<b>1200</b>	<b>1200</b>	<b>1200</b>	<b>1200</b>	<b>1000</b>	<b>1000</b>
<b>Thread OD</b>	<b>1/4</b>	<b>3/8</b>	<b>1/2</b>	<b>5/8</b>	<b>3/4</b>	<b>1</b>	<b>1-1/4</b>

**•Typical Application**

Grease, fuels, LP and Natural gas (available on special order), refrigeration, instrumentation and hydraulic systems.

**•Pressure**

Operating pressure up to 1200 PSI.

**•Vibration**

Fair resistance.

**•Temperature Range**

-65°F to +250°F (-53°C to +121°C).

**•Used With**

Brass, bronze, copper, steel, aluminum and iron pipe.

**• Tolerance**

+/- .02 on all dimensions. Dimension Data can change without notice. Please call us when dimensions are critical.

**• Conformance**

Meets specifications and standards of ASA, ASME and SAE

• Not lead free

**• “L” at the end of a Part# means Light Pattern**

- these fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

**•Assembly Instructions**

- 1- Tighten approximately 2-1/2 turns past hand tight.
- 2- Fittings with Everseal tighten two turns past hand tight. Brittle materials require special cautions.



• see page 310-312 for plastic pipe fittings.



• Lead Free Fittings  
see pages 162-164

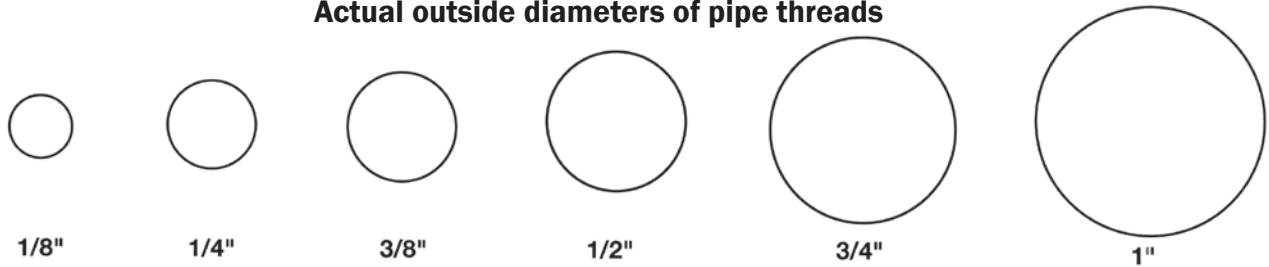


• For Bronze & Larger Sizes  
see pages 224-232

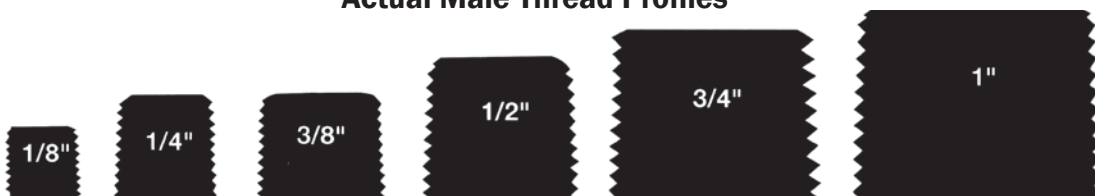


• For BSPT/ BSPP  
see pages 117-118

**Actual outside diameters of pipe threads**



**Actual Male Thread Profiles**



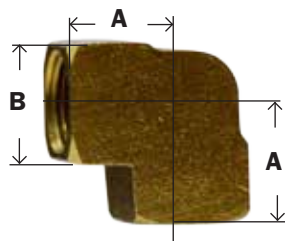


## PIPE

## BRASS FITTINGS

## 90° FEMALE ELBOW

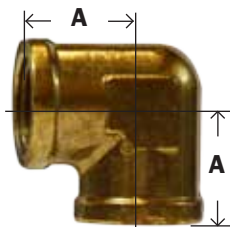
SAE# 130238



Part #	Thread Size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-001	1/8"	0.55	0.56	0.09	----
28-002	1/4"	0.78	0.68	0.13	----
28-003	3/8"	0.84	0.81	0.16	----
28-004	1/2"	1.09	1.00	0.34	----
28-005	3/4"	1.16	1.25	0.60	----

100 2200P 3500 302 200

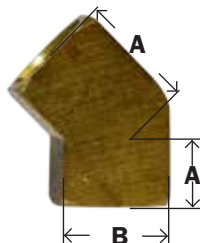
## 90° FORGED FEMALE ELBOW



Part #	Thread size NPTF	A	Body Width	Approx. Wt. Lbs.	List Price
28-009	1/8"	0.57	0.50	0.04	----
28-010	1/4"	0.70	0.68	0.10	----
28-011	3/8"	0.81	0.81	0.12	----
28-012	1/2"	1.00	1.00	0.23	----
28-013	3/4"	1.13	1.25	0.42	----
28-014	1/4" x 1/8"	0.72	0.69	0.12	----
28-015	3/8" x 1/4"	0.81	0.81	0.15	----
28-016	1/2" x 3/8"	1.00	1.00	0.28	----
28-017	1"	1.42	1.50	0.75	----

1200P E7 100AF 100B

## 45° FEMALE ELBOW

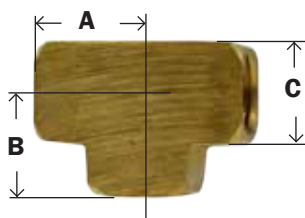


Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-018	1/8"	0.45	0.56	0.06	----
28-019	1/4"	0.66	0.68	0.12	----
28-020	3/8"	0.69	0.81	0.16	----

129 2201P 205 23355 45EZ 105 100-45A

## UNION TEE

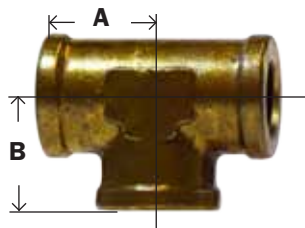
SAE# 130438



Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-024	1/8"	0.55	0.55	0.56	0.08	----
28-025	1/4"	0.78	0.78	0.68	0.17	----
28-026	3/8"	0.84	0.84	0.81	0.22	----
28-027	1/2"	1.09	1.09	1.00	0.43	----
28-028	3/4"	1.16	1.16	1.25	0.64	----

311 101A 322 2203P 3700 203

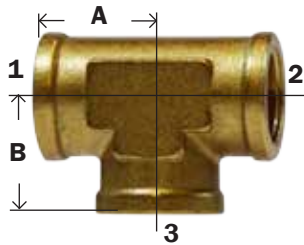
## UNION FORGED TEE



Part #	Thread size NPTF	A & B	Body Width	Approx. Wt. Lbs.	List Price
28-032	1/8"	0.56	0.50	0.06	----
28-033	1/4"	0.71	0.68	0.13	----
28-034	3/8"	0.81	0.81	0.16	----
28-035	1/2"	1.00	1.00	0.27	----
28-036	3/4"	1.16	1.25	0.53	----
28-023	1"	1.42	1.50	.924	----

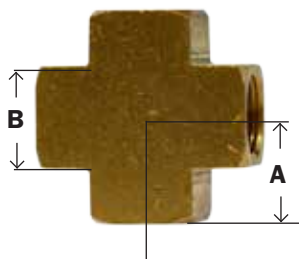
1203P LT7 101AF 101B

**REDUCING FORGED TEES**



Part #	1 NPT	2 NPT	3 NPT	A & B	Body Width	Approx. Wt. Lbs.	List Price
28-029	1/8"	1/8"	1/4"	0.72	0.69	0.16	----
28-030	1/4"	1/4"	1/8"	0.72	0.69	0.14	----
28-031	1/4"	1/4"	3/8"	0.81	0.81	0.21	----
28-038	3/8"	1/4"	3/8"	0.81	0.81	0.18	----
28-039	3/8"	3/8"	1/4"	0.81	0.81	0.18	----
28-046	1/2"	1/2"	3/8"	1.00	1.00	0.30	----
28-048	3/4"	3/4"	1/2"	1.16	1.25	0.59	----

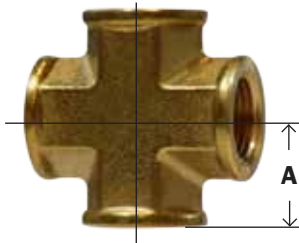
**CROSS**



Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-041	1/8"	0.55	0.56	0.10	----
28-042	1/4"	0.78	0.68	0.21	----
28-043	3/8"	0.84	0.81	0.25	----
28-044	1/2"	1.09	1.00	0.51	----
28-045	3/4"	1.16	1.25	0.75	----

2205P 3950 228 102A 102BE

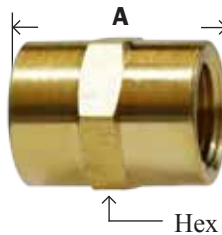
**FORGED CROSS**



Part #	Thread size NPTF	A	Body Width	Approx. Wt. Lbs.	List Price
28-049	1/8"	0.56	0.50	0.06	----
28-050	1/4"	0.72	0.69	0.15	----
28-051	3/8"	0.81	0.81	0.18	----
28-052	1/2"	1.00	1.00	0.34	----

C7 105 102AF 102B

**COUPLING**



**SAE# 130138**

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-058L	1/8"	0.75	0.50	0.02	----
28-058	1/8"	0.75	0.56	0.03	----
28-059L	1/4"	0.88	0.63	0.03	----
28-059	1/4"	1.12	0.75	0.09	----
28-060L	3/8"	1.00	0.81	0.06	----
28-060	3/8"	1.12	0.87	0.10	----
28-061L	1/2"	1.19	0.93	0.09	----
28-061	1/2"	1.50	1.06	0.19	----
28-062L	3/4"	1.19	1.25	0.18	----
28-062	3/4"	1.53	1.25	0.24	----
28-063	1"	1.89	1.50	.357	----

207P 371 3300 103AH 103B



\* For larger sizes, see bronze fittings on pg. 224-232



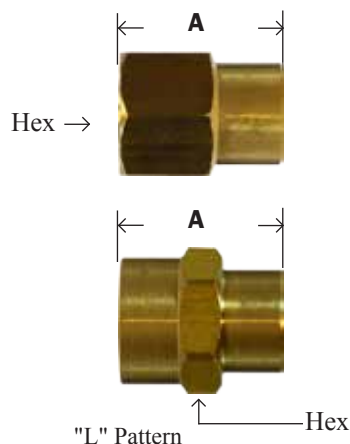
See hydraulic pipe fittings pg 420

## PIPE

## BRASS FITTINGS

## REDUCING COUPLING

SAE# 130138

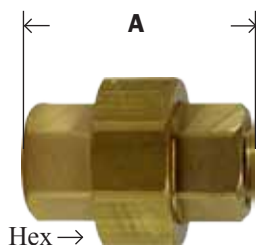


Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-181L	1/4" x 1/8"	0.94	0.62	0.04	----
28-181	1/4" x 1/8"	0.97	0.75	0.08	----
28-182	3/8" x 1/8"	0.94	0.87	0.10	----
28-183L	3/8" x 1/4"	1.00	0.81	0.06	----
28-183	3/8" x 1/4"	1.16	0.87	0.12	----
28-180*	1/2" x 1/8"	1.19	0.93	0.15	----
28-184L	1/2" x 1/4"	1.11	1.00	0.10	----
28-184	1/2" x 1/4"	1.28	1.06	0.20	----
28-185L	1/2" x 3/8"	1.19	0.93	0.10	----
28-185	1/2" x 3/8"	1.38	1.06	0.20	----
28-188*	3/4" x 3/8"	1.32	1.37	0.20	----
28-189*	3/4" x 1/2"	1.19	1.18	0.14	----

\*Not to SAE specs

377 3300 208P 108 119B 119AH

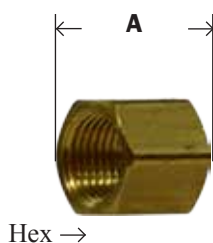
## UNION



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-067	1/8"	1.25	0.94	0.13	----
28-068	1/4"	1.31	1.06	0.18	----
28-069	3/8"	1.75	1.25	0.33	----
28-070	1/2"	1.79	1.56	0.50	----

3250 212P 104A 104B

## CAP

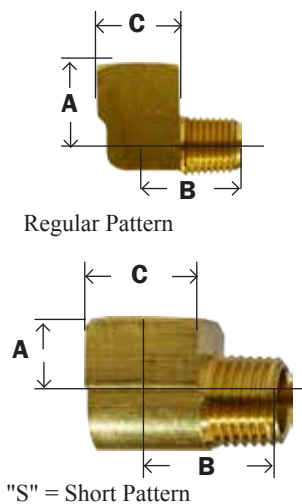


Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-075	1/8"	0.47	0.56	0.03	----
28-076	1/4"	0.60	0.68	0.04	----
28-077	3/8"	0.69	0.81	0.06	----
28-078	1/2"	0.78	0.93	0.08	----
28-079	3/4"	0.94	1.25	0.16	----
28-080	1"	1.13	1.50	0.23	----

3129 213P 23129 108A 108B

## 90° STREET ELBOW

SAE# 130239



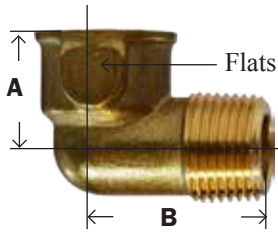
Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-156	1/8"	0.48	0.66	0.56	0.05	----
28-156S	1/8" short	0.34	0.57	0.50	0.03	----
28-157	1/4"	0.72	0.91	0.68	0.09	----
28-157S	1/4" short	0.45	0.78	0.68	0.07	----
28-158	3/8"	0.78	0.97	0.81	0.16	----
28-159	1/2"	1.03	1.25	1.00	0.33	----
28-160	3/4"	1.12	1.38	1.25	0.52	----

2202P 304 115 202 3400 116A



See hydraulic pipe fittings pg 420

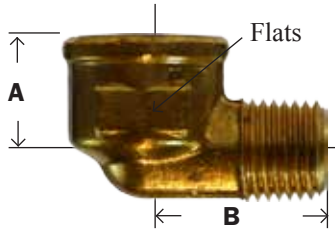
**FORGED 90° STREET ELBOW**



Part #	Thread size NPTF	A	B	Wrench Flats	Approx. Wt. Lbs.	List Price
28-165	1/8"	0.61	0.85	0.62	0.06	----
28-166	1/4"	0.50	0.86	0.72	0.08	----
28-167	3/8"	0.70	1.00	0.88	0.10	----
28-168	1/2"	0.96	1.43	1.00	0.20	----
28-169	3/4"	0.90	1.40	1.25	0.25	----

5E8 1202P 116AF 116B

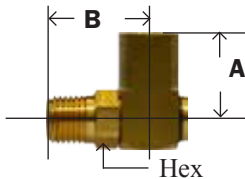
**FORGED REDUCING 90° STREET ELBOW**



Part #	Thread size NPTF FxM	A	B	Wrench flats	Approx. Wt. Lbs.	List Price
28-260	1/8" x 1/4"	0.50	0.87	0.71	0.08	----
28-261B*	1/4" x 1/8"	0.53	0.72	0.69	0.07	----
28-261	1/4" x 1/8"	0.50	0.81	0.72	0.06	----
28-262	1/4" x 3/8"	0.93	1.06	0.59	0.12	----
28-263	3/8" x 1/4"	0.58	0.94	0.81	0.07	----
28-264	3/8" x 1/2"	0.97	1.36	1.00	0.28	----
28-265	1/2" x 3/8"	0.96	1.37	1.00	0.22	----

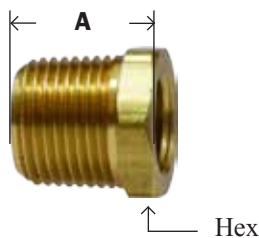
\*Barstock

**PIPE SWIVEL 90° STREET ELBOW**



Part #	Thread size NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
28-430	1/4"	1.18	1.25	.625	0.22	----

**HEX BUSHING**



**SAE# 130140**

Part #	Thread size NPTF MxF	A	Hex	Approx. Wt. Lbs.	List Price
28-102L	1/4" x 1/8"	0.62	0.56	0.02	----
28-102	1/4" x 1/8"	0.75	0.56	0.04	----
28-103	3/8" x 1/8"	0.75	0.68	0.05	----
28-104L	3/8" x 1/4"	0.69	0.68	0.03	----
28-104	3/8" x 1/4"	0.75	0.75	0.05	----
28-105L	1/2" x 1/8"	0.81	0.81	0.08	----
28-105	1/2" x 1/8"	1.00	0.87	0.10	----
28-106L	1/2" x 1/4"	0.81	0.81	0.08	----
28-106	1/2" x 1/4"	1.00	0.87	0.11	----
28-107L	1/2" x 3/8"	0.81	0.81	0.05	----
28-107	1/2" x 3/8"	1.00	0.87	0.10	----
28-108	3/4" x 1/8"	0.94	1.06	0.20	----
28-109L	3/4" x 1/4"	0.94	1.06	0.18	----
28-110L	3/4" x 3/8"	0.94	1.06	0.15	----
28-111L	3/4" x 1/2"	0.94	1.06	0.11	----
28-111	3/4" x 1/2"	1.00	1.12	0.14	----
28-112	1" x 1/4"	1.15	1.37	0.32	----
28-113	1" x 3/8"	1.12	1.37	0.30	----
28-114	1" x 1/2"	1.31	1.44	0.29	----
28-115	1" x 3/4"	1.31	1.37	0.20	----

373 3220 209P 110A 110B

## PIPE

## BRASS FITTINGS

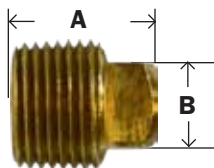
## FACE BUSHING



Part #	Thread size NPTF MxF	A	Approx. Wt. Lbs.	List Price
28-121	1/4" x 1/8"	0.45	0.01	----
28-122	3/8" x 1/8"	0.50	0.03	----
28-116	3/8" x 1/4"	0.50	0.02	----
28-090	1/2" x 1/8"	0.56	0.06	----
28-128	1/2" x 1/4"	0.56	0.05	----
28-117	1/2" x 3/8"	0.56	0.03	----
28-129	3/4" x 1/4"	0.62	0.11	----
28-130	3/4" x 3/8"	0.62	0.08	----
28-118	3/4" x 1/2"	0.64	0.03	----
28-119	1" x 3/4"	0.77	0.10	----

## SQUARE HEAD PLUG

1/8 - 1/2 Solid



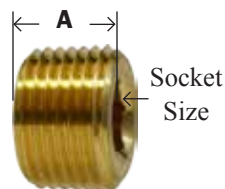
Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-084	1/8"	0.58	0.27	0.02	----
28-085	1/4"	0.80	0.37	0.03	----
28-086	3/8"	0.80	0.43	0.06	----
28-087	1/2"	1.07	0.55	0.13	----
28-088**	3/4"	1.11	0.61	0.20	----
28-089**	1"	1.24	0.81	0.35	----

\*\* Cored

3151 211P 109A 109B

## COUNTERSUNK HEX PLUG

3/4" taper thread



Part #	Thread size NPTF	A	Socket size	Approx. Wt. Lbs.	List Price
28-092	1/16"	0.30	0.12	0.01	----
28-093	1/8"	0.30	0.18	0.01	----
28-094	1/4"	0.45	0.26	0.02	----
28-095	3/8"	0.45	0.31	0.03	----
28-096	1/2"	0.61	0.39	0.05	----
28-097	3/4"	0.62	0.56	0.10	----

3153 219P 109CS 118

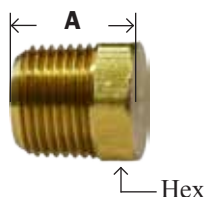
## SLOTTED-HEAD PLUG



Part #	Thread size NPTF	A	Approx. Wt. Lbs.	List Price
28-174	1/8"	0.31	0.01	----
28-175	1/4"	0.42	0.02	----
28-176	3/8"	0.45	0.05	----

220P 3150 117A 117B

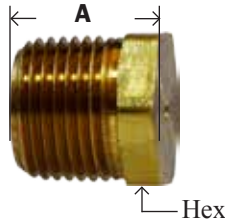
## CORED HEX PLUGS



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-201	1/8"	0.55	0.43	0.01	----
28-202	1/4"	0.62	0.56	0.02	----
28-203	3/8"	0.72	0.68	0.06	----
28-204	1/2"	0.81	0.87	0.09	----
28-205	3/4"	0.94	1.06	0.16	----
28-206	1"	1.16	1.37	0.28	----

218P 3152 121A 103 121B PPH 218P

**SOLID HEX HEAD PLUGS**



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-201S	1/8"	0.55	0.43	0.02	----
28-202S	1/4"	0.75	0.56	0.05	----
28-203S	3/8"	0.66	0.68	0.07	----
28-204S	1/2"	0.81	0.87	0.12	----
28-205S	3/4"	0.92	1.06	0.24	----
28-206S	1"	1.00	1.31	0.38	----

121AS

**LOCKNUT**

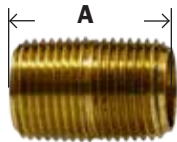
- Jam Nuts
- Straight pipe thread



Part #	Thread size NPSL	Hex	Thickness	Approx. Wt. Lbs.	List Price
28-123	1/8"	0.68	0.19	0.02	----
28-124	1/4"	0.87	0.25	0.04	----
28-125	3/8"	1.00	0.31	0.04	----
28-126	1/2"	1.125	0.25	0.04	----

210P 21102 111A 111B

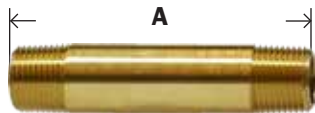
**CLOSE NIPPLE**



Part #	Thread size NPTF	A	Approx. Wt. Lbs.	List Price
28-131	1/8"	0.75	0.01	----
28-132	1/4"	0.88	0.02	----
28-133	3/8"	1.00	0.05	----
28-134	1/2"	1.12	0.06	----
28-135	3/4"	1.31	0.11	----

165 215PN 3326 112A 112B

**LONG NIPPLE**



Part #	Thread size NPTF	A Length	Approx. Wt. Lbs.	List Price
28-140	1/8"	1.50	0.03	----
28-141	1/8"	2.00	0.04	----
28-142	1/8"	2.50	0.06	----
28-143	1/8"	3.00	0.06	----
28-475	1/8"	3.50	0.07	----
28-144	1/4"	1.50	0.03	----
28-145	1/4"	2.00	0.05	----
28-146	1/4"	2.50	0.08	----
28-147	1/4"	3.00	0.10	----
28-481	1/4"	3.50	0.12	----
28-148	3/8"	1.50	0.06	----
28-149	3/8"	2.00	0.10	----
28-150	3/8"	2.50	0.10	----
28-151	3/8"	3.00	0.13	----
28-487	3/8"	3.50	0.17	----
28-152	1/2"	1.50	0.08	----
28-153	1/2"	2.00	0.12	----
28-154	1/2"	2.50	0.16	----
28-155	1/2"	3.00	0.20	----
28-493	1/2"	3.50	0.24	----
28-136	3/4"	1.50	0.12	----
28-497	3/4"	2.00	0.18	----
28-498	3/4"	2.50	0.23	----
28-499	3/4"	3.00	0.28	----

• NOTE: For longer lengths and larger diameters, see our red brass nipples section, pg. 216-222



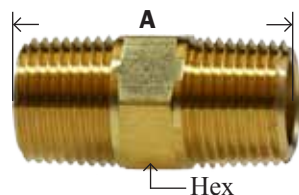
113B 113A 166 3327, 3328, 3329, 3330 3331 215PNL

## PIPE

## BRASS FITTINGS

## HEX NIPPLE

SAE# 130137

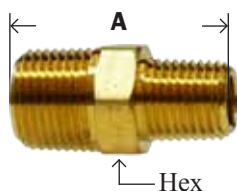


Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-211L	1/8"	0.91	0.43	0.02	----
28-211	1/8"	0.97	0.43	0.03	----
28-212L	1/4"	1.12	0.56	0.04	----
28-212	1/4"	1.38	0.56	0.06	----
28-213L	3/8"	1.25	0.68	0.07	----
28-213	3/8"	1.41	0.68	0.07	----
28-214L	1/2"	1.50	0.87	0.11	----
28-214	1/2"	1.81	0.87	0.17	----
28-215	3/4"	1.96	1.13	0.23	----
28-216	1"	2.30	1.37	0.43	----

216P 3325 379 122AH 122B

## REDUCING HEX NIPPLE

SAE# 130137



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-220L	1/4" x 1/8"	1.00	0.56	0.04	----
28-220	1/4" x 1/8"	1.19	0.56	0.04	----
28-221L	3/8" x 1/8"	1.11	0.68	0.06	----
28-221	3/8" x 1/8"	1.22	0.68	0.07	----
28-222L	3/8" x 1/4"	1.19	0.68	0.06	----
28-222	3/8" x 1/4"	1.41	0.68	0.07	----
28-223L	1/2" x 1/4"	1.34	0.87	0.09	----
28-223	1/2" x 1/4"	1.62	0.87	0.12	----
28-224L	1/2" x 3/8"	1.41	0.87	0.11	----
28-224	1/2" x 3/8"	1.62	0.87	0.12	----
28-225	3/4" x 1/2"	1.50	1.06	0.15	----

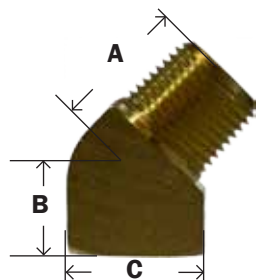
216P 3325 379 122AH 122B



See page 420 for steel hydraulic pipe adapters

## 45° STREET ELBOW

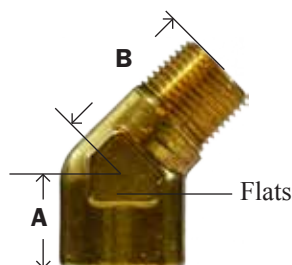
SAE# 130339



Part #	Thread size NPTF	B	A	C	Approx. Wt. Lbs.	List Price
28-230	1/8"	0.38	0.50	0.56	0.03	----
28-231	1/4"	0.56	0.72	0.68	0.09	----
28-232	3/8"	0.56	0.78	0.81	0.12	----
28-233	1/2"	0.75	1.00	1.00	0.20	----
28-234	3/4"	0.75	1.06	1.25	0.34	----

306 3350 2214P 224

## 45° FORGED STREET ELBOW

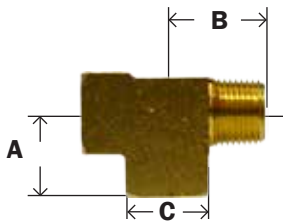


Part #	Thread size NPTF	A	B	Wrench flats	Approx. Wt. Lbs.	List Price
28-238	1/8"	0.63	0.81	0.56	0.05	----
28-239	1/4"	0.63	1.06	0.81	0.11	----
28-240	3/8"	0.72	1.06	0.93	0.17	----

45E8 124B

**STREET TEE/ SERVICE TEE/ MALE RUN TEE**

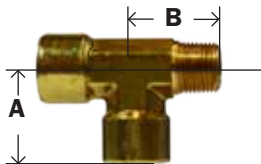
SAE# 130424



Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-245	1/8"	0.55	0.66	0.56	0.08	----
28-246	1/4"	0.78	0.91	0.68	0.17	----
28-247	3/8"	0.84	0.97	0.81	0.22	----
28-248	1/2"	1.09	1.25	1.00	0.40	----
28-249	3/4"	1.16	1.39	1.25	0.60	----

225 2225P 3750 326 225 127A

**FORGED STREET TEE**

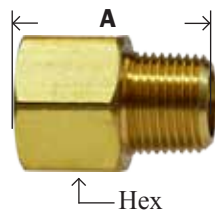


Part #	Thread size NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
28-253	1/8"	0.56	0.75	0.50	0.05	----
28-254	1/4"	1.03	1.00	0.46	0.13	----
28-255	3/8"	1.19	1.09	0.68	0.24	----
28-256	1/2"	1.52	1.40	0.88	0.45	----
28-257	3/4"	1.34	1.73	1.25	0.65	----

107 T8 127B

**EXTENDER ADAPTER**

SAE# 130139

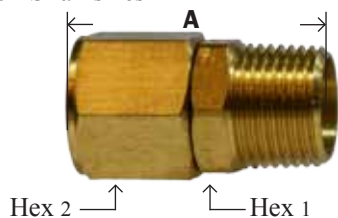


Part #	Thread size NPTF FxM	A	Hex	Approx. Wt. Lbs.	List Price
28-190L	1/8" x 1/8"	0.83	0.50	0.03	----
28-190	1/8" x 1/8"	0.88	0.56	0.04	----
28-191L	1/4" x 1/8"	0.94	0.62	0.04	----
28-191	1/4" x 1/8"	1.06	0.75	0.07	----
28-192L	1/4" x 1/4"	1.00	0.62	0.04	----
28-192	1/4" x 1/4"	1.25	0.75	0.07	----
28-198	3/8" x 1/8"	1.00	0.81	0.06	----
28-193L	3/8" x 1/4"	1.12	0.81	0.08	----
28-193	3/8" x 1/4"	1.25	0.87	0.09	----
28-194L	3/8" x 3/8"	1.24	0.81	0.10	----
28-194	3/8" x 3/8"	1.25	0.87	0.11	----
28-199	1/2" x 1/4"	1.46	1.06	0.08	----
28-195L	1/2" x 3/8"	1.19	0.93	0.09	----
28-195	1/2" x 3/8"	1.47	1.06	0.18	----
28-196	1/2" x 1/2"	1.66	1.06	0.12	----
28-207	3/4" x 3/8"	1.59	1.25	0.26	----
28-208	3/4" x 1/2"	1.69	1.37	0.14	----
28-208L	3/4" x 1/2"	1.22	1.25	0.13	----
28-209	3/4" x 3/4"	1.69	1.37	0.34	----

375 222P 3200 R1 120AH 120B

**PIPE SWIVEL ADAPTER**

\*300 PSI all sizes



Part #	Thread size NPTF FxM	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
28-424	1/8"	1.10	0.43	0.50	0.05	----
28-425	1/4"	1.34	0.56	0.62	0.06	----
28-426	3/8"	1.36	0.68	0.75	0.08	----
28-427	1/2"	1.87	0.87	0.95	0.10	----

**Male NPT x Female NPT**

- 360° Turning
- Swivels



Part #	Size	List Price
320-061	1/4	----

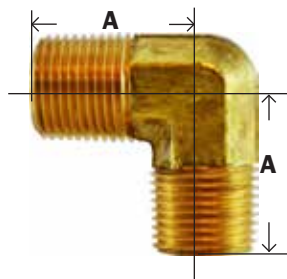
344R 3183



## PIPE

## BRASS FITTINGS

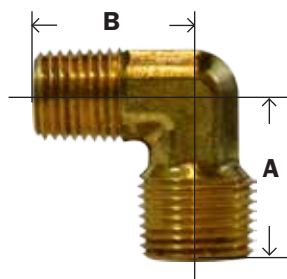
## FORGED 90° MALE ELBOW



Part #	Thread size NPTF	A	Body Width	Approx. Wt. Lbs.	List Price
28-266	1/8"	0.79	0.38	0.04	----
28-267	1/4"	0.87	0.45	0.06	----
28-268	3/8"	1.00	0.59	0.12	----
28-269	1/2"	1.38	0.78	0.21	----

LE5 3455 116AMF

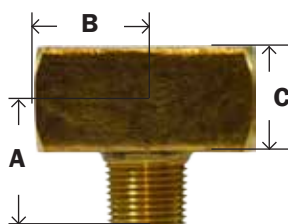
## FORGED 90° MALE REDUCING ELBOW



Part #	Thread size NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
28-274	1/4" x 1/8"	0.88	0.78	0.47	0.06	----
28-275	3/8" x 1/4"	0.90	0.90	0.46	0.06	----
28-276	1/2" x 3/8"	1.12	1.00	0.59	0.12	----

## MALE BRANCH TEE

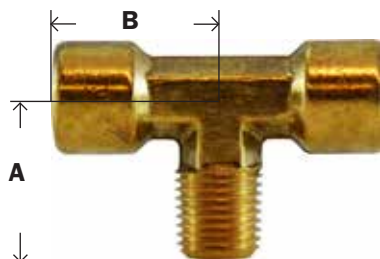
SAE# 130425



Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-281	1/8"	0.66	0.55	0.56	0.08	----
28-282	1/4"	0.91	0.78	0.68	0.15	----
28-283	3/8"	0.97	0.84	0.81	0.22	----
28-284	1/2"	1.25	1.09	1.00	0.40	----
28-285	3/4"	1.38	1.16	1.25	0.62	----

T9 X106 23601 3600 2224P 226 329 128

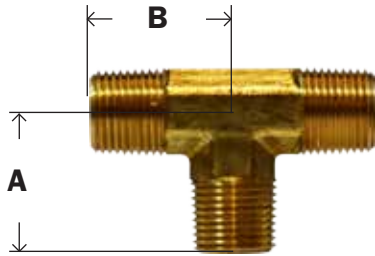
## FORGED MALE BRANCH TEE



Part #	Thread size NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
28-281F	1/8"	0.75	0.56	0.50	0.06	----
28-282F	1/4"	1.00	1.03	0.46	0.12	----

T9

**FORGED ALL MALE TEE**

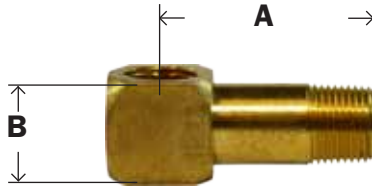


Part #	Thread size NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
28-290	1/8"	0.75	0.75	0.43	0.06	----
28-291	1/4"	0.86	0.86	0.43	0.08	----
28-292	3/8"	1.09	1.09	0.60	0.16	----
28-293	1/2"	1.22	1.22	0.68	0.22	----
28-294	3/4"	1.43	1.43	0.87	0.38	----

T12 M101

**LONG STREET ELLS**

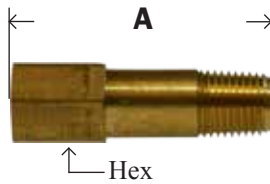
D.O.T. Approved



Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-440	1/8"	1-3/16"	0.50	0.06	----
28-441	1/8"	1-7/16"	0.50	0.06	----
28-442	1/8"	1-11/16"	0.50	0.06	----
28-443	1/8"	1-7/8"	0.50	0.16	----
28-328	1/4"	1-3/16"	0.75	0.12	----
28-329	1/4"	1-7/16"	0.75	0.14	----
28-330	1/4"	1-11/16"	0.75	0.15	----
28-331	1/4"	1-7/8"	0.62	0.09	----
28-332	1/4"	2-1/4"	0.75	0.17	----
28-333	3/8"	1-3/4"	0.87	0.22	----

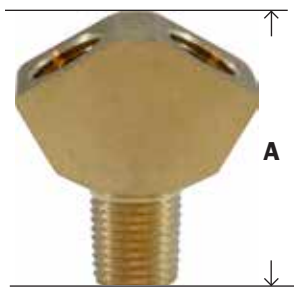
**LONG EXTENSION ADAPTERS**

D.O.T. Approved



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-335	1/8"	1-1/4"	0.50	0.04	----
28-336	1/8"	1-3/4"	0.50	0.05	----
28-337	1/8"	3"	0.50	0.09	----
28-338	1/4"	1-9/16"	0.62	0.07	----
28-339	1/4"	1-13/16"	0.62	0.08	----
28-340	1/4"	2-1/16"	0.62	0.10	----

**PIPE WYE FIP x MIP**



Part #	Thread Size NPT	A	Approx. Wt. Lbs.	List Price
28-295	1/4"	1.56	.15	----

**PIPE WYE FIP x FIP - NICKEL PLATED**

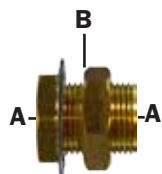


Part #	Thread Size NPT	A	Approx. Wt. Lbs.	List Price
28-298	1/4	1.4	.12	----

## BULKHEAD/ ANCHOR FRAME COUPLINGS

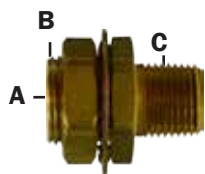
## BRASS FITTINGS

## BULKHEAD / ANCHOR / FRAME COUPLINGS

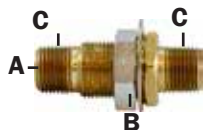
FEMALE PIPE X  
FEMALE PIPE

	Part #	Terminal Bolts/ Frame			Length (in.)	List Price
		A	B	C		
<b>NEW</b>	28-299	1/8-27 NPTF	5/8-18 UNS	----	0.96	----
	28-300	1/8-27 NPTF	5/8-18 UNS	----	1-1/2	----
	28-301	1/4-18 NPTF	3/4-16 UNS	----	15/16	----
	28-302	1/4-18 NPTF	3/4-16 UNS	----	1-1/2	----
	28-315*	1/4-18 NPTF	3/4-16 UNS	----	1-1/2	----
	28-303	3/8-18 NPTF	1-14 UNS	----	1-5/16	----
	28-304	1/2-14 NPTF	1-1/8-14 UNS	----	1-1/2	----
	28-311	3/4-14 NPTF	1-5/16-12	----	1-1/2	----
<b>NEW</b>	28-316**	1-11/1/2	1-5/8-14		1.68	----

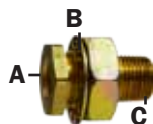
\* Same as 28-302 except with a larger mounting nut. \*\*Without washer



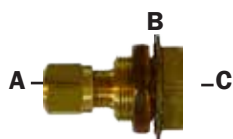
	FEMALE PIPE	X	MALE PIPE		
	28-317	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2-1/8
	28-318	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-11/16
	28-319	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-29/32



	FEMALE PIPE	X	MALE PIPE		
	28-313	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2-7/8



	FEMALE PIPE	X	MALE PIPE		
	28-346	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-7/8
	28-347	1/2-14 NPTF	1-14 UNS	1/2-14 NPTF	2-3/8



	TUBE	X	FEMALE PIPE		
	28-321	1/2-O.D. Tube	7/8-20 UNCF	3/8-18 NPTF	1-5/16
	28-322	3/8-O.D. Tube	7/8-20 UNCF	3/8-18 NPTF	1-3/8



	FEMALE PIPE	X	CLAMPING STUD ELBOW		
	28-348	3/8-18 NPTF	7/8-20 UNEF	3/8-18 NPTF	2-5/16

## CROSSOVER NUMBERS

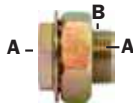
28-300	207x2	129A-A	50004	55207							1495B-A	ACBH207-2	207ACBH-2				
28-301	207X4	129AS-B		55611	S611	114-44	1345	382-44S	392C-94			ACBHS207-4					
28-302	207X4	129A-B	50005	55661		114B-44	1344	382-44L		035081		ACBH207-4	207ACBH-4		11306		90648
28-303	207X6	129A-C	50006	55607	S661/S607	114-66	1346	382-66		035087		ACBH207-6	207ACBH-6		11307	17709	
28-304	207X8	129A-D	50007	55807	S807	114-88	1351					ACBH207-8	207ACBH-8				
28-317				55615	S615	117-84											
28-318				55620	S620			381-86S							11304		
28-319			50001			115-86				035079	1496-DC						
28-313			50010	55600	S664	115-88	1342	380-84	5730	035021					11300	55X6	
28-346			50013	55613	S613												
28-347			50012	55629	S629					035039							
28-321						391-86/1347	S608										
28-322						391-66	S609										
28-348				55616													

## BRASS FITTINGS

## BULKHEAD/ ANCHOR/ FRAME COUPLINGS

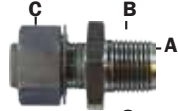
Part #	Terminal Bolts/ Frame			Length (in.)	List
	A	B	C		

### STEEL BULKHEAD FITTINGS

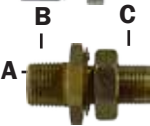


28-306	1/4-18 NPTF	3/4 - 16 UNS		0.94	----
28-307	1/4-18 NPTF	3/4 - 16 UNS		1.50	----
28-308	3/8-18 NPTF	1 - 14 UNS		1.31	----

### FEMALE PIPE X MALE PIPE



28-309	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	2.16	----
28-310	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	2.53	----

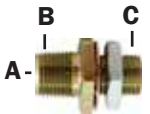


28-345*	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	2-5/32	----
28-324	3/8-18NPTF	1-14 UNS	1/2-14 NPTF	1-11/16	----

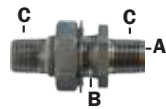
**NEW**

\* Steel

### FEMALE PIPE X MALE PIPE



28-325	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	1-11/16	----
--------	-------------	--------------	-------------	---------	------



28-312	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2.94	----
28-320	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	3-15/16	----

**NEW**

### BRASS MARINE BULKHEAD FITTINGS



46-540	5/16 Hose ID	----	----	2.37	----
46-541	3/8 Hose ID	----	----	2.37	----



### BULKHEAD JAM NUTS

Part #	Size	Weight	List Price
28-301J	3/4-16UNEF	0.05 ea.	----
28-321J*	7/8-20UNEF	0.0244 ea.	----
28-317J	1-14UNS	0.07 ea.	----
28-304J	1-1/8-14UNS	0.07 ea.	----

\* Zinc Dichromate



### BULKHEAD LOCK WASHERS

Part #	Size	Material	QTY	Weight	List Price
28-301W	3/4"	Steel	25	0.70 per 100	----
28-321W	7/8"	Steel	25	0.90 per 100	----
28-317W	1"	Steel	25	1.4 per 100	----
28-304W	1-1/8"	Steel	25	1.7 per 100	----

### CROSSOVER NUMBERS

28-306	55611STL	W21204	114-44		
28-307	55661STL	W05465	114B44		
28-308	55607STL	017709	114-66		
28-309	55689	V05498	1340	381-84S	390FC5
28-310		W05499			
28-345	55689STL	W05498	1340	381-84S	390FC5
28-324	55620STL				
28-325	55612STL		S612	392-84	
28-312	55600STL	W05730	115-88	005760	1342
28-320	55664	W23464		380-84L	391FC3

# HOSE BARB FITTINGS



### • Temperature and Working Pressure Ranges

From -40°F to + 160°F at 150 PSI maximum.

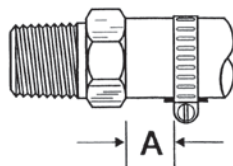
### • Tolerance

+/- .02 on all dimensions. Dimension Data can change without notice. Please call us when dimensions are critical.

**Note:** These fittings are intended for use with hose clamp, similar type clamp or a crimped ferrule.

### • Assembly Instructions

- 1- Cut hose cleanly and squarely to length.
- 2- Slide clamp on hose.
- 3- Lubricate hose. Push hose on fitting until hose bottoms against stop ring or hex.
- 4- Position hose clamp as shown below and secure with a screwdriver or wrench. Maintain "A" dimension noted below for proper clamp positioning.



• For Lead Free AB1953 Compliant Fittings  
see pages 164-165



Other Barbs available

See page 312-316 for plastic hose barb fittings



See page 26-27 for stainless steel hose barbs



See page 327 for King Nipples

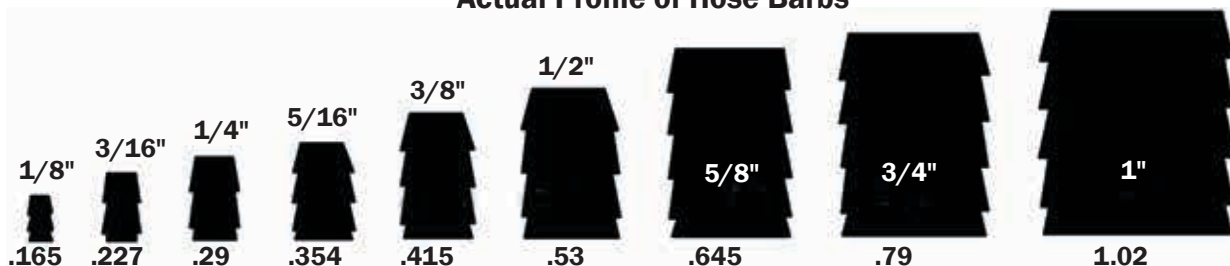


Stainless Steel hose barbs for beverage service available -

See beverage fitting section, pg. 27

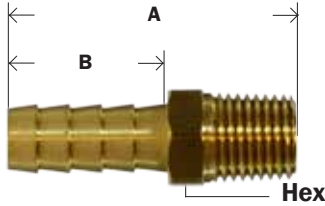
Hose Size	A
3/16"	1/4"
1/4"	1/4"
5/16"	1/4"
3/8"	1/8"
1/2"	1/8"
5/8"	1/8"
3/4"	1/8"

### Actual Profile of Hose Barbs



**RIGID MALE ADAPTER**

• These are not Lead Free



Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-001 *	1/8" x 1/8"	1.19	0.69	0.43	0.02	----
32-027	1/8" x 1/4"	1.16	0.46	0.56	0.02	----
32-002 *	3/16" x 1/8"	1.19	0.75	0.43	0.02	----
32-003 *	3/16" x 1/4"	1.37	0.69	0.56	0.04	----
32-301	1/4" x 1/16"	1.44	0.88	0.43	0.02	----
32-004 *	1/4" x 1/8"	1.47	0.97	0.43	0.02	----
32-005 *	1/4" x 1/4"	1.72	0.97	0.56	0.04	----
32-006 *	1/4" x 3/8"	1.72	0.97	0.68	0.05	----
32-007	1/4" x 1/2"	1.72	0.81	0.87	0.10	----
32-008 *	5/16" x 1/8"	1.47	0.97	0.43	0.02	----
32-009 *	5/16" x 1/4"	1.72	0.97	0.56	0.04	----
32-010 *	5/16" x 3/8"	1.76	0.97	0.68	0.06	----
32-390	5/16" x 1/2"	1.88	0.95	0.87	0.10	----
32-011 *	3/8" x 1/8"	1.53	0.97	0.56	0.03	----
32-012 *	3/8" x 1/4"	1.75	0.97	0.56	0.05	----
32-013 *	3/8" x 3/8"	1.72	0.96	0.68	0.06	----
32-014 *	3/8" x 1/2"	1.97	0.97	0.87	0.09	----
32-026 *	3/8" x 3/4"	1.97	0.97	1.06	0.16	----
32-302	1/2" x 1/8"	1.57	0.95	0.56	0.06	----
32-015 *	1/2" x 1/4"	1.72	0.97	0.56	0.04	----
32-016 *	1/2" x 3/8"	1.76	0.97	0.68	0.07	----
32-017 *	1/2" x 1/2"	1.87	0.96	0.87	0.11	----
32-018 *	1/2" x 3/4"	1.94	0.97	1.06	0.16	----
32-303	1/2" x 1"	2.31	0.99	1.37	0.33	----
32-304	5/8" x 1/4"	1.67	0.92	0.68	0.06	----
32-019 *	5/8" x 3/8"	1.76	0.97	0.68	0.08	----
32-020 *	5/8" x 1/2"	1.87	0.96	0.87	0.11	----
32-021 *	5/8" x 3/4"	1.87	0.96	1.06	0.14	----
32-305	5/8" x 1"	2.31	0.96	1.37	0.36	----
32-306	3/4" x 3/8"	1.65	0.87	0.81	0.12	----
32-022 *	3/4" x 1/2"	1.87	0.96	0.87	0.14	----
32-023 *	3/4" x 3/4"	1.87	0.96	1.06	0.15	----
32-316	3/4" x 1"	2.55	1.15	1.37	0.38	----
32-307	1" x 1/2"	1.80	0.87	1.06	0.18	----
32-024 *	1" x 3/4"	2.19	1.19	1.06	0.32	----
32-025 *	1" x 1"	2.48	1.19	1.37	0.39	----
32-029	1-1/4" x 3/4"	2.37	1.19	1.37	0.35	----
32-028	1-1/4" x 1"	2.55	1.19	1.37	0.46	----

4244 PGH 101 102 201A 125HBL 105B-1 KF-PS MPB



\* See page 26 for stainless steel.



See page 27 for beverage #303 stainless fittings

## HOSE BARB

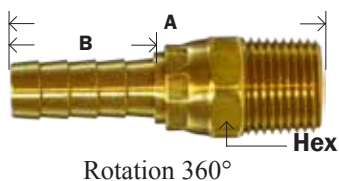
## BRASS FITTINGS

## BRASS RIGID MALE BSPT BARB ADAPTER



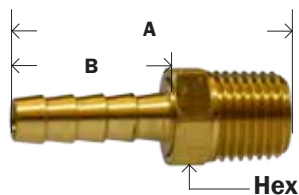
Part #	Hose I.D. x MALE BSPT	List Price
32-450	1/4" x 1/8"	----
32-451	1/4" x 1/4"	----
32-452	3/8" x 1/4"	----
32-453	3/8" x 3/8"	----
32-454	3/8" x 1/2"	----
32-455	1/2" x 3/8"	----
32-456	1/2" x 1/2"	----
32-457	3/4" x 3/4"	----
32-458	1" x 1"	----

## SWIVEL MALE ADAPTER



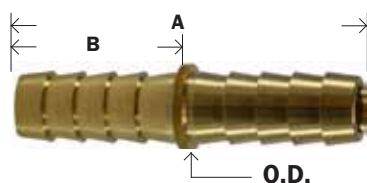
Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-329	3/16" x 1/8"	1.95	0.78	0.56	0.06	----
32-331	3/16" x 1/4"	1.90	0.78	0.56	0.06	----
32-332	1/4" x 1/8"	2.19	0.97	0.56	0.06	----
32-349	1/4" x 1/4"	2.12	0.97	0.56	0.06	----
32-351	3/8" x 1/8"	2.12	0.97	0.56	0.07	----
32-201	3/8" x 1/4"	2.12	0.97	0.56	0.07	----
32-360	3/8" x 3/8"	2.12	0.97	0.69	0.08	----
32-355	1/2" x 3/8"	2.12	0.97	0.68	0.10	----
32-356	1/2" x 1/2"	2.33	0.97	0.87	0.14	----
32-357	3/4" x 3/4"	2.33	0.97	1.06	0.20	----
32-386	1" x 1"	3.43	1.19	1.38	0.40	----

SMS 103



Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-200	1/4" x 1/4"	1.65	.89	0.56	0.04	----
32-202	3/8" x 3/8"	1.75	1.00	0.68	0.08	----

## MENDER/ SPLICER



Part #	Hose I.D. x Hose I.D.	A	B	O.D.	Approx. Wt. Lbs.	List Price
32-091 *	1/8"	0.98	0.45	0.31	0.01	----
32-092	3/16"	1.62	0.77	0.36	0.02	----
32-093 *	1/4"	2.00	0.96	0.37	0.02	----
32-079 *	1/4" x 1/8"	1.50	0.97	0.37	0.02	----
32-094 *	5/16"	2.00	0.96	0.39	0.02	----
32-090 *	5/16" x 1/4"	2.00	0.97	0.39	0.03	----
32-095 *	3/8"	2.00	0.94	0.51	0.04	----
32-080 **	3/8" x 1/4"	2.06	0.97	0.56	0.03	----
32-375 *	3/8" x 5/16"	2.00	0.97	0.56	0.03	----
32-096 *	1/2"	2.00	0.96	0.62	0.06	----
32-087 *	1/2" x 3/8"	2.06	0.97	0.71	0.06	----
32-097	5/8"	2.05	0.96	0.75	0.08	----
32-088	5/8" x 3/8"	2.06	0.97	0.75	0.06	----
32-376	5/8" x 1/2"	2.06	0.97	0.75	0.07	----
32-098 *	3/4"	2.50	1.15	0.87	0.10	----
32-089	3/4" x 1/2"	2.28	1.19	0.87	0.10	----
32-379	3/4" x 5/8"	2.50	1.19	0.87	0.10	----
32-380	1" x 3/4"	2.58	1.19	1.12	0.18	----
32-099	1"	3.00	1.44	1.02	0.23	----



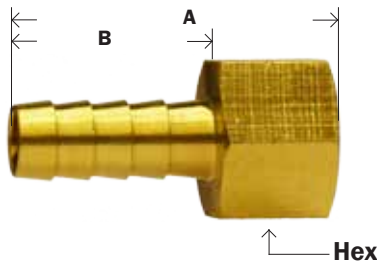
\* Add SS to the end of the part number for Stainless.

MSB 122HBL HM 129 178 73 108



\*\* See hose splicers on page 27 for Stainless.

**RIGID FEMALE ADAPTER**



Part #	Hose I.D. x Female NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-050	1/8" x 1/8"	0.96	0.46	0.50	0.02	----
32-317	1/8" x 1/4"	1.15	0.46	0.62	0.04	----
32-051	3/16" x 1/8"	1.10	0.68	0.50	0.02	----
32-062	3/16" x 1/4"	1.44	0.75	0.62	0.04	----
32-052	1/4" x 1/8"	1.35	0.93	0.50	0.02	----
32-053	1/4" x 1/4"	1.60	0.97	0.62	0.06	----
32-054	1/4" x 3/8"	1.65	1.03	0.75	0.04	----
32-441	1/4" x 1/2"	1.66	0.97	0.93	0.08	----
32-055	5/16" x 1/8"	1.47	0.97	0.56	0.04	----
32-056	5/16" x 1/4"	1.66	0.97	0.62	0.04	----
32-318	5/16" x 3/8"	1.66	0.97	0.75	0.06	----
32-320	5/16" x 1/2"	1.67	0.96	0.93	0.08	----
32-057	3/8" x 1/8"	1.47	0.97	0.56	0.04	----
32-058	3/8" x 1/4"	1.61	0.97	0.62	0.06	----
32-059	3/8" x 3/8"	1.63	1.00	0.81	0.08	----
32-063	3/8" x 1/2"	1.72	0.94	0.93	0.12	----
32-442	3/8" x 3/4"	1.97	0.97	1.18	0.20	----
32-064	1/2" x 1/4"	1.66	0.96	0.62	0.08	----
32-060	1/2" x 3/8"	1.66	0.97	0.75	0.08	----
32-061	1/2" x 1/2"	1.76	0.96	0.93	0.12	----
32-443	1/2" x 3/4"	1.97	0.97	1.18	0.26	----
32-444	5/8" x 3/8"	1.66	0.97	0.75	0.08	----
32-445	5/8" x 1/2"	1.66	0.97	0.93	0.10	----
32-446	5/8" x 3/4"	1.97	0.97	1.18	0.21	----
32-447	3/4" x 1/2"	1.88	1.19	0.93	0.13	----
32-065	3/4" x 3/4"	2.19	1.21	1.18	0.22	----
32-049	1" x 3/4"	2.19	1.19	1.18	0.26	----
32-321	1" x 1"	2.32	1.19	1.44	0.35	----
32-448	1-1/4" x 1"	2.32	1.19	1.43	0.44	----

209A 128 29A 29F 126HB 126 FPB 105B-2 KF-RS 104 144

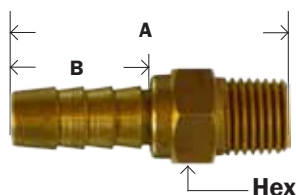
**SWIVEL FEMALE ADAPTER NPTF**



Part #	Hose I.D. x Female NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-470	1/4" x 1/4"	1.80	0.97	0.62	0.06	----
32-472	3/8" x 1/4"	1.80	0.97	0.62	0.06	----
32-473	3/8" x 3/8"	1.82	0.97	0.75	0.09	----
32-475	1/2" x 3/8"	1.82	0.97	0.75	0.09	----
32-476	1/2" x 1/2"	1.86	0.97	0.93	0.14	----

**HIGH VOLUME MALE SWIVEL**

- 300 PSI
- Nitrile Buna (NBR) O-Ring



Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-781	3/8" x 1/4"	1.83	0.87	0.62	0.07	----

4065



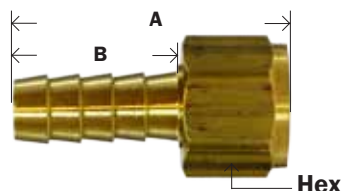
## HOSE BARB

## BRASS FITTINGS

## SWIVEL FEMALE ADAPTER - With Gasket

• NPSM Thread

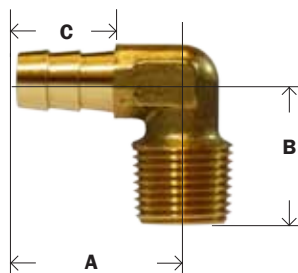
National Pipe Straight Gasket Seal Swivel



Part #	Hose I.D. x Female NPSM	A	B	Hex	Approx. Wt. Lbs.	List Price
32-131	1/8" x 1/8"	0.90	0.46	0.50	0.02	----
32-132	3/16" x 1/8"	1.19	0.75	0.50	0.03	----
32-133	3/16" x 1/4"	1.28	0.75	0.62	0.04	----
32-120	1/4" x 1/8"	1.41	0.97	0.50	0.02	----
32-121	1/4" x 1/4"	1.50	0.97	0.62	0.02	----
32-129	1/4" x 3/8"	1.63	0.97	0.75	0.04	----
32-130	5/16" x 1/4"	1.50	0.97	0.62	0.04	----
32-122	3/8" x 1/4"	1.54	1.00	0.62	0.06	----
32-123	3/8" x 3/8"	1.60	0.97	0.75	0.06	----
32-354	3/8" x 1/2"	1.66	0.97	0.93	0.10	----
32-124	1/2" x 3/8"	1.60	0.97	0.75	0.08	----
32-125	1/2" x 1/2"	1.66	0.97	0.93	0.12	----
32-117	1/2" x 3/4"	1.82	1.19	1.18	0.16	----
32-118	5/8" x 3/4"	1.82	1.19	1.18	0.18	----
32-119	3/4" x 3/4"	1.82	1.19	1.18	0.14	----

130 126 29F5G KF-RN NPSM Gasket Seat

## FORGED HOSE BARB 90° ELBOW



32-045

Grooved End Barb



32-330

Square Body

Part #	Hose I.D. x Male NPTF	A	B	C	Body Size	Approx. Wt. Lbs.	List Price
32-308	3/16" x 1/8"	0.95	0.70	0.66	0.37	0.02	----
32-391	3/16" x 1/4"	1.00	0.84	0.63	0.46	0.10	----
32-038 *	1/4" x 1/8"	1.01	0.81	0.71	0.47	0.06	----
32-039 *	1/4" x 1/4"	1.01	0.87	0.63	0.47	0.06	----
32-309 ***	1/4" x 3/8"	1.08	0.97	0.73	0.69	0.12	----
32-036	5/16" x 1/8"	1.01	0.81	0.63	0.47	0.04	----
32-040	5/16" x 1/4"	1.01	0.87	0.63	0.47	0.06	----
32-310	5/16" x 3/8"	1.06	0.94	0.63	0.50	0.06	----
32-046 *	3/8" x 1/8"	1.01	0.81	0.63	0.47	0.06	----
32-041 *	3/8" x 1/4"	1.02	0.88	0.65	0.47	0.06	----
32-042 *	3/8" x 3/8"	1.09	0.93	0.68	0.50	0.08	----
32-047 *	3/8" x 1/2"	1.11	1.09	0.63	0.59	0.10	----
32-048	1/2" x 1/4"	1.06	1.00	0.68	0.59	0.10	----
32-043 *	1/2" x 3/8"	1.06	1.09	0.69	0.59	0.10	----
32-311 *	1/2" x 1/2"	1.31	1.19	0.87	0.56	0.12	----
32-044	5/8" x 3/8"	1.12	1.06	0.61	0.56	0.12	----
32-045**	5/8" x 1/2"	1.12	1.12	0.66	0.59	0.14	----
32-312	5/8" x 3/4"	1.46	1.26	0.93	1.06	0.32	----
32-313	3/4" x 1/2"	1.31	1.28	0.87	0.85	0.22	----
32-314 *	3/4" x 3/4"	1.46	1.26	0.91	1.06	0.32	----
32-330***	3/4" x 1"	1.57	1.64	0.90	1.34	0.64	----
32-315	1" x 3/4"	1.60	1.40	0.95	1.06	0.32	----
32-319	1" x 1"	1.69	1.64	0.98	1.34	0.43	----

129 HBE1 KF-PS90 HE-1 29E 146

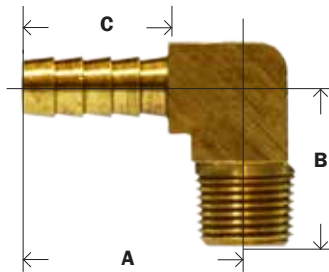


\* Add SS to the end of the part number for Stainless. See page 26.

\*\* Grooved End Barbs

\*\*\* Square Body

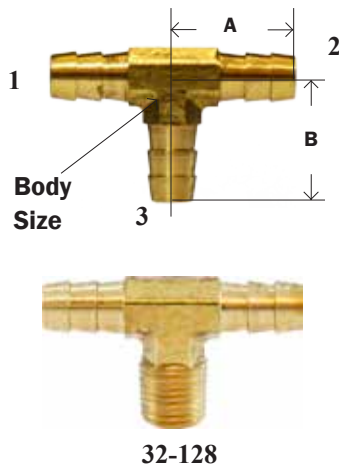
**BARSTOCK HOSE BARB 90° ELBOW**



Part #	Hose I.D. x Male NPTF	A	B	C	Body Size	Approx. Wt. Lbs.	List Price
32-038B	1/4" X 1/8"	1.00	0.75	0.75	0.50	0.02	----
32-039B	1/4" X 1/4"	1.02	0.91	0.74	0.56	0.04	----
32-041B	3/8" X 1/4"	1.32	0.89	0.97	0.58	0.08	----
32-042B	3/8" X 3/8"	1.50	1.06	0.97	0.75	0.14	----
32-043B	1/2" X 3/8"	1.53	1.07	0.97	0.72	0.16	----

129HB

**HOSE BARB TEES**



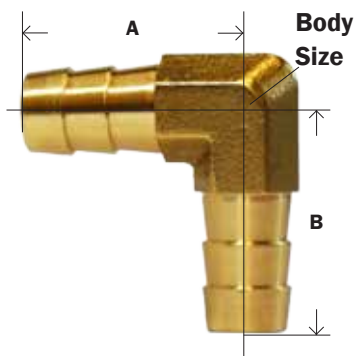
Part #	Hose Barb Size 1 x 2 x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-367 *	1/8"	0.84	0.83	0.25	0.02	----
32-368	3/16"	1.02	1.02	0.37	0.03	----
32-365 **	1/4"	1.00	1.00	0.44	0.06	----
32-350 *	1/4" x 1/8"	0.94	0.94	0.44	0.04	----
32-366	5/16"	1.00	1.00	0.44	0.06	----
32-126 **	3/8"	1.01	1.01	0.43	0.06	----
32-400 *	1/2"	1.02	1.00	0.43	0.08	----
32-352 *	1/2" x 3/8"	1.26	1.26	0.43	0.10	----
32-361	5/8"	1.26	1.26	0.75	0.16	----
32-363	3/4"	1.26	1.26	0.88	0.18	----
32-353	3/4" x 1/2"	1.41	1.41	0.88	0.23	----
32-128 *	3/8"HB x 1/4" MIP	1.00	0.94	0.43	0.06	----

**T**

\* Add SS to the end of the part number for Stainless.

\*\* See page 27 for stainless steel.

**90° HOSE BARB ELBOW**



Part #	Hose I.D. x Hose I.D.	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-429	1/8" x 1/8"	0.55	0.55	0.37	0.03	----
32-433	3/16" x 3/16"	0.90	0.90	0.37	0.03	----
32-412	1/4" x 1/8"	1.02	1.02	0.44	0.04	----
32-413 *	1/4" x 1/4"	1.01	1.01	0.44	0.04	----
32-425	5/16" x 5/16"	1.15	1.15	0.48	0.05	----
32-414	3/8" x 1/8"	1.01	1.01	0.44	0.04	----
32-415	3/8" x 1/4"	1.00	1.00	0.44	0.04	----
32-416 *	3/8" x 3/8"	1.02	1.02	0.44	0.04	----
32-417	3/8" x 1/2"	1.24	1.10	0.50	0.06	----
32-418	1/2" x 1/4"	1.24	1.08	0.50	0.06	----
32-419	1/2" x 3/8"	1.22	1.09	0.50	0.06	----
32-420 *	1/2" x 1/2"	1.24	1.24	0.50	0.06	----
32-434	5/8" x 5/8"	1.20	1.20	0.75	0.16	----
32-435	3/4" x 1/2"	1.41	1.41	0.88	0.21	----
32-436	3/4" x 3/4"	1.41	1.41	0.88	0.21	----



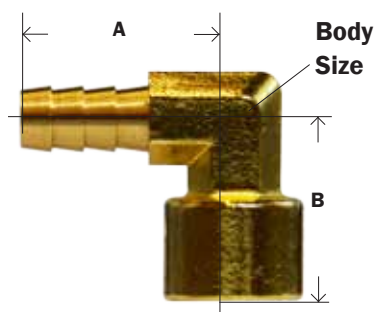
\* Add SS to the end of the part number for Stainless.

See beverage fittings on page 27

## HOSE BARB

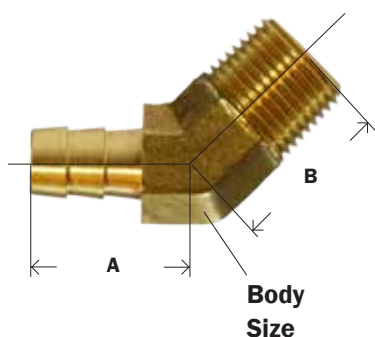
## BRASS FITTINGS

## 90° FEMALE HOSE BARB ELBOW



Part #	Hose I.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-401	1/4" x 1/8"	1.01	0.82	0.47	0.06	----
32-402	1/4" x 1/4"	1.13	0.91	0.56	0.10	----
32-403	3/8" x 1/8"	1.01	0.82	0.47	0.06	----
32-404	3/8" x 1/4"	1.15	0.91	0.56	0.10	----
32-405	3/8" x 3/8"	1.15	1.11	0.68	0.14	----
32-406	3/8" x 1/2"	1.26	1.39	0.75	0.20	----
32-407	1/2" x 1/4"	1.26	0.91	0.56	0.10	----
32-410	1/2" x 3/8"	1.24	1.11	0.68	0.14	----
32-411	1/2" x 1/2"	1.37	1.39	0.75	0.20	----
32-409	3/4" x 3/4"	1.52	1.75	0.81	0.50	----

## 45° ELBOW



Part #	Hose I.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-110	1/4" x 1/8"	0.91	0.62	0.53	0.04	----
32-109*	1/4" x 1/4"	1.00	0.62	0.57	0.06	----
32-111	3/8" x 1/8"	0.83	0.66	0.53	0.04	----
32-112	3/8" x 1/4"	0.82	0.84	0.53	0.06	----
32-113	3/8" x 3/8"	0.93	0.87	0.59	0.08	----
32-346	1/2" x 1/4"	1.00	0.84	0.59	0.08	----
32-114	1/2" x 3/8"	1.00	0.88	0.59	0.08	----
32-116	1/2" x 1/2"	1.15	0.94	0.59	0.12	----
32-115	5/8" x 3/8"	0.97	0.88	0.59	0.10	----
32-345	3/4" x 1/2"	1.15	0.94	0.81	0.13	----

\* Barstock

140 HE145 139HB KF-PS45 13945

## CROSSES



Part #	Hose ID	List Price
32-608	1/4	----
32-609	5/16	----
32-610	3/8	----

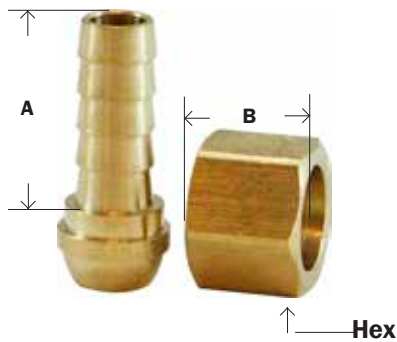
HOSE WYES AVAILABLE WITH EXTENDED LEAD TIME.

## BRASS FITTINGS

## HOSE BARB

### BALL END SWIVEL

NPSM - Ball seat type

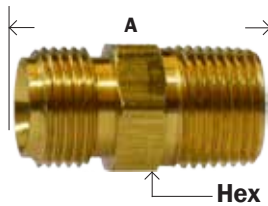


Part #	Hose I.D. x NPSM	A	B	Hex	Approx. Wt. Lbs.	List Price
32-066	1/8" x 1/8"	0.46	0.44	0.50	0.03	----
32-067	3/16" x 1/8"	0.75	0.44	0.50	0.03	----
32-068	3/16" x 1/4"	0.75	0.52	0.62	0.04	----
32-069	1/4" x 1/8"	0.97	0.44	0.50	0.04	----
32-070	1/4" x 1/4"	0.97	0.53	0.62	0.06	----
32-078	1/4" x 3/8"	0.97	0.63	0.75	0.06	----
32-071	5/16" x 1/4"	0.97	0.52	0.62	0.05	----
32-389	5/16" x 3/8"	0.97	0.63	0.75	0.07	----
32-072	3/8" x 1/4"	0.97	0.53	0.62	0.06	----
32-073	3/8" x 3/8"	0.97	0.59	0.75	0.08	----
32-074	3/8" x 1/2"	0.97	0.69	0.94	0.14	----
32-075	1/2" x 3/8"	0.97	0.59	0.75	0.08	----
32-076	1/2" x 1/2"	0.97	0.69	0.94	0.10	----
32-077	3/4" x 3/4"	0.97	0.70	1.12	0.14	----

128HBLSV 29FS 209AS 124 131

### BALLSEAT MALE ADAPTER

Beveled seat

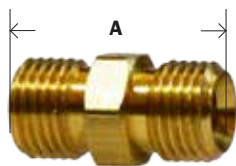


30° Seat

Part #	NPSM x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
32-359	1/8" x 1/8"	0.94	0.43	0.03	----
32-034	1/4" x 1/8"	1.06	0.56	0.04	----
32-030	1/4" x 1/4"	1.25	0.56	0.06	----
32-362	3/8" x 1/4"	1.28	0.68	0.08	----
32-031	3/8" x 3/8"	1.30	0.68	0.08	----
32-392	3/8" x 1/2"	1.47	0.88	0.13	----
32-364	1/2" x 3/8"	1.35	0.87	0.10	----
32-032	1/2" x 1/2"	1.53	0.87	0.14	----
32-033	3/4" x 3/4"	1.53	1.06	0.20	----

172 134 127HB 122AS

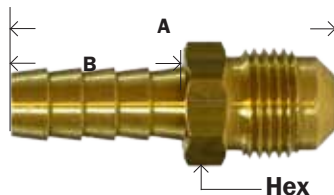
### BALLSEAT UNION



30° Seat

Part #	NPSM x NPSM	A	Hex	Approx. Wt. Lbs.	List Price
32-460	1/8"	0.79	0.43	0.02	----
32-461	1/4"	1.09	0.56	0.04	----
32-462	3/8"	1.19	0.68	0.07	----
32-463	1/2"	1.31	0.87	0.10	----

### 45° FLARE ADAPTER



Part #	Hose I.D. x 45° Flare	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-322	3/16" x 1/4"	7/16-20	1.5	0.75	0.43	0.03	----
32-081 *	1/4" x 1/4"	7/16-20	1.72	0.97	0.43	0.03	----
32-082 *	1/4" x 3/8"	5/8-18	1.82	0.97	0.62	0.07	----
32-083	5/16" x 5/16"	1/2-20	1.75	0.97	0.50	0.08	----
32-084 *	3/8" x 3/8"	5/8-18	1.82	0.97	0.62	0.08	----
32-085	3/8" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	----
32-086	1/2" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	----

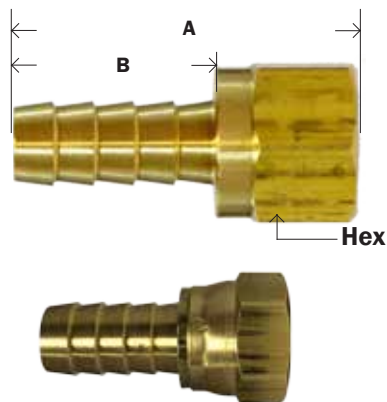
\* Add SS to the end of the part number for Stainless.

142 201BF KF-MS KDS

## HOSE BARB

## BRASS FITTINGS

## DUAL 45° / 37° FLARE SWIVEL



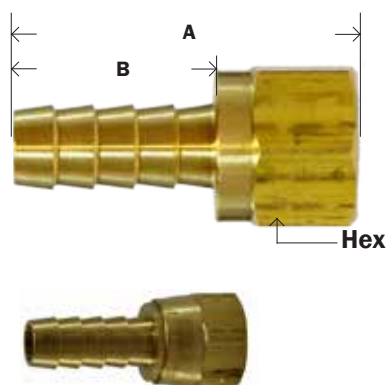
CRIMP STYLE

Part #	Hose ID x Dual Seat	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-107	3/16" x 1/4"	7/16-20	1.34	0.75	0.56	0.04	----
32-107C**	3/16 X 1/4	7/16-20	1.42	0.78	0.56	0.04	----
32-337	1/4" x 1/4"	7/16-20	1.56	0.97	0.56	0.04	----
32-337C**	1/4" X 1/4"	7/16-20	1.60	0.97	0.56	0.04	----
32-102	1/4" x 5/16"	1/2-20	1.53	0.97	0.62	0.06	----
32-339	5/16" x 5/16"	1/2-20	1.60	0.97	0.62	0.06	----
32-340	3/8" x 1/2"	3/4-16	1.68	0.97	0.87	0.10	----
32-341	1/2" x 1/2"	3/4-16	1.68	0.97	0.87	0.10	----
32-341C**	1/2" X 1/2"	3/4-16	1.75	0.97	0.87	0.09	----
32-342	1/2" x 5/8"	7/8-14	1.76	0.97	1.00	0.12	----
32-394	5/8" x 5/8"	7/8-14	1.76	0.97	1.00	0.14	----

\*\* Swivel crimp style

KDS

## FEMALE 45° FLARE SWIVEL



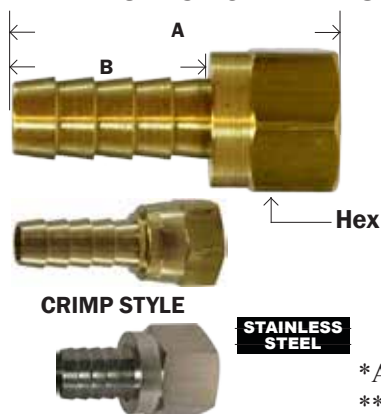
CRIMP STYLE

Part #	Hose I.D. x Female 45° Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-326	3/16" x 3/16"	3/8-24	1.19	0.75	0.43	0.04	----
30-295**	3/16" x 3/8"	5/8-18	1.82	0.90	0.75	0.04	----
32-101	1/4" x 1/4"	7/16-20	1.57	0.97	0.56	0.04	----
32-103	1/4" x 3/8"	5/8-18	1.64	0.97	0.75	0.08	----
32-104	5/16" x 5/16"	1/2-20	1.58	0.97	0.62	0.05	----
32-327	5/16" x 3/8"	5/8-18	1.64	0.97	0.75	0.08	----
32-105	3/8" x 3/8"	5/8-18	1.64	0.97	0.75	0.08	----
32-105C**	3/8" x 3/8"	5/8-18	1.71	0.97	0.75	0.07	----
32-106	3/8" x 1/2"	3/4-16	1.81	0.97	0.87	0.10	----
32-100	1/2" x 1/2"	3/4-16	1.68	0.97	0.87	0.12	----
32-328	3/4" x 3/4"	1-1/16-14	2.00	0.97	1.25	0.20	----

29SAE 209ASF 146HBLFSV KF-NS 128 FSS 146 144

\*\* Swivel crimp style (crimped on the outside of fitting )

## FEMALE 37° J.I.C. FLARE SWIVEL



CRIMP STYLE

STAINLESS STEEL

32338SS

Part #	Hose ID x Female 37° Flare	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-334	1/4" x 3/8"	9/16-18	1.60	0.97	0.68	0.06	----
32-335	5/16" x 3/8"	9/16-18	1.60	0.97	0.68	0.06	----
32-336	3/8" x 3/8"	9/16-18	1.60	0.97	0.68	0.10	----
32-336C**	3/8" X 3/8"	9/16-18	1.66	0.97	0.68	0.06	----
32-338*	3/4" x 3/4"	1-1/16-12	2.00	0.97	1.25	0.20	----
32-338SS	3/4" x 3/4"	1-1/16-12	2.00	0.97	1.25	0.24	----
32-397*	1" x 1"	1-5/16-12	2.54	1.19	1.50	0.33	----

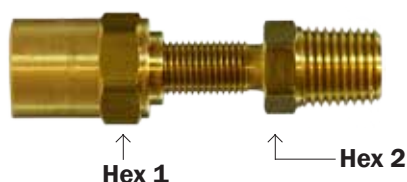
KJS

\* Available in swivel crimp style - add a "C" at the end of the part # ( 100 piece minimum )

\*\* Swivel crimp style

## 1/4" MALE THREAD ID x OD

## Reusable Hose Couplings



Hex 1

Hex 2

Part #	1/4" Male Thread ID x OD	Length	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
32-725	3/8" x 3/4"(23/32)	1.97	0.87	0.56	0.14	----
32-726	1/4" x 5/8"	1.86	0.81	0.56	0.13	----
32-727	1/4" x 1/2"	1.86	0.69	0.56	0.11	----
32-728	1/4" x 9/16"	1.86	0.75	0.56	0.12	----
32-741	5/16" x 5/8"	1.97	0.81	0.56	0.13	----
32-742	3/8" x 5/8"	1.97	0.81	0.56	0.14	----

Many more sizes and shapes available...just ask!

183

## BRASS FUEL HOSE BARBS

**Typical Application:** Low pressure air, fuel and oil applications. Generally used for automotive, light truck, and small engine fuel lines. Use with fuel hose SAE 30R7 & SAE 30R9.

**Advantages:** Easy to assemble, just push the fitting into the hose & clamp. Good selection of configurations at reasonable cost.

**MALE CONNECTOR  
HOSE BARB X MALE PIPE**


Part #	Hose ID	Size	Ind #	List Price
38-800	3/16	1/8	1541	----
38-802	1/4	1/8	1537	----
32-377	1/4	1/4	1581	----
38-806	5/16	1/8	1551	----
38-808	5/16	1/4	1555	----
38-810	3/8	1/8	1565	----
32-381	3/8	1/4	1564	----
32-382	3/8	3/8	1566	----
32-383	1/2	3/8		----
32-384	1/2	1/2		----
32-182*	5/8	3/8	1411	----
32-385	5/8	1/2	1431	----
32-387	3/4	1/2	1430	----
32-388	3/4	3/4		----
32-185*	1	3/4		----

\* Bubble Barb

68HB

**INVERTED FLARE MALE CONNECTOR  
HOSE BARB X INVERTED FLARE**


Part #	Hose ID	Inv. Flare	Ind #	List Price
38-828	5/16	1/4	1598	----
38-830	5/16	5/16	1560	----
38-832	5/16	3/8	1561	----
38-834	3/8	5/16	1568	----
38-836	3/8	3/8	1570	----

**90° MALE ELBOW  
HOSE BARB X MALE PIPE**


Part #	Hose ID	Size	Ind #	List Price
38-860	1/4	1/8	1582	----
38-862	5/16	1/8	1556	----
38-864	5/16	1/4	1557	----
38-866	3/8	1/8	1572	----
38-868	3/8	1/4	1571	----

269HB

**BUBBLE BARB**


Part #	Hose ID	Size	List Price
32-186	3/8	3/8	----
32-187	1/2	3/8	----
32-191	1/2	1/2	----
32-188	5/8	3/8	----
32-189	5/8	1/2	----
32-190	3/4	1/2	----

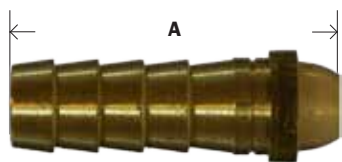
**INVERTED FLARE MALE SWIVEL 90° ELBOW  
HOSE BARB X TUBE O.D.**


Part #	Hose ID	Inv. Flare	Ind #	List Price
38-873	5/16	5/16	1405	----
38-874	3/8	3/8	1407	----

## WELDING HOSE FITTINGS

## BRASS FITTINGS

## STEM ONLY - WELDING HOSE CONNECTOR

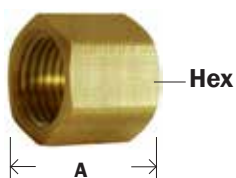


Part #	Hose I.D.	A	Approx. Wt. Lbs.	List Price
30-410	3/16"	1.43	0.02	----
30-411	1/4"	1.43	0.02	----
30-413	3/8"	1.43	0.04	----

Assemble with nuts below.

201RWA WRS WLS

## RIGHT HAND 9/16 - 18 FOR OXYGEN LINE - WELDING HOSE NUT

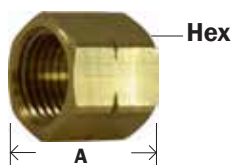


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-420	R.H. Nut only	0.63	0.68	0.04	----

Assemble with stem above.

201RWA WRS KF-PE 152

## LEFT HAND 9/16 - 18 FOR ACETYLENE LINE - WELDING HOSE NUT



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-421	L.H. Nut only	0.63	0.68	0.04	----

Assemble with stem above.

209LWA WLS 154 KF-RE

## RIGHT HAND 9/16 - 18 #122RWA - WELDING HOSE CONNECTOR

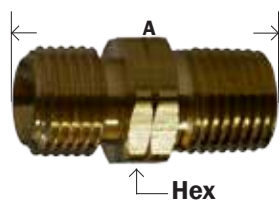


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-401	1/4"-18	1.30	0.62	0.06	----
32-437	3/8"-18	1.30	0.68	0.09	----
32-438*	9/16"-18	1.25	0.68	0.07	----

\* Right UNF thread

156

## LEFT HAND 9/16 - 18 #122LWA - WELDING HOSE CONNECTOR



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-406	1/4"-18	1.30	0.62	0.06	----
32-439	3/8"-18	1.30	0.68	0.09	----
32-440*	9/16"-18	1.25	0.68	0.07	----

\* Left UNF thread




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## BRASS FITTINGS

## BARBED FOR PLASTIC TUBING

### BRASS BARBS FOR POLYETHYLENE TUBING

- Quick connecting fittings that do not require tube preparations for hand assembly. Inexpensive with excellent resistance to vibration.
- All sizes are tube O.D. (I.D.)

	.25	.375	.50
<b>OD</b>	<b>1/4</b>	<b>3/8</b>	<b>1/2</b>
			
<b>ID</b>	<b>1/8</b>	<b>1/4</b>	<b>3/8</b>
	.125	.25	.375

### UNION



TUBE O.D. (TUBE I.D.) X TUBE O.D. (TUBE I.D.)

Part #	Size	List Price
21-003	1/4(1/8) x 1/4(1/8)	----
21-007	3/8(1/4) x 1/4(1/8)	----
21-009	3/8(1/4) x 3/8(1/4)	----

1062 962

### MALE ADAPTER



TUBE O.D. (TUBE I.D.) X MALE PIPE

Part #	Size	List Price
21-021	1/4(1/8) x 1/16	----
21-023	1/4(1/8) x 1/8	----
21-025	1/4(1/8) x 1/4	----
21-027	3/8(1/4) x 1/8	----

1068 968 688

### FEMALE ADAPTER



TUBE O.D. (TUBE I.D.) X FEMALE PIPE

Part #	Size	List Price
21-043	1/4(1/8) x 1/8	----

1066 966 26 668

### BULKHEAD UNION



TUBE O.D. (TUBE I.D.)

Part #	Size	List Price
21-082	1/4(1/8)	----
21-083	3/8(1/4)	----

1074

### UNION ELBOW



1065  
965

TUBE O.D. (I.D.)

Part #	Size	List Price
21-095	1/4(1/8)	----
21-097	3/8(1/4)	----
21-099	1/2(3/8)	----

### MALE 90° ELBOW



TUBE O.D. (I.D.) X MALE PIPE

Part #	Size	List Price
21-111	1/4(1/8) x 1/16	----
21-113	1/4(1/8) x 1/8	----
21-115	1/4(1/8) x 1/4	----
21-117	3/8(1/4) x 1/8	----
21-119	3/8(1/4) x 1/4	----
21-121	1/2(3/8) x 3/8	----

1069 969 229

### FEMALE 90° ELBOW



TUBE O.D. (I.D.) X FEMALE PIPE

Part #	Size	List Price
21-133	1/4(1/8) x 1/8	----

1070 970 230

### UNION TEE



O.D. (I.D.) X O.D. (I.D.) X O.D. (I.D.)

Part #	Size	List Price
21-151	1/4(1/8)	----
21-153	3/8(1/4)X 3/8(1/4)X1/4(1/8)	----
21-155	3/8(1/4)	----
21-159	1/2(3/8)X1/2(3/8)X3/8(1/4)	----
21-161	1/2(3/8)	----

1064 964 224

### MALE BRANCH TEE

3



O.D. (I.D.) X O.D. (I.D.) X MALE PIPE

Part #	Size	List Price
21-193	1/4(1/8) x 1/4(1/8) x 1/8	----
21-195	3/8(1/4) x 3/8(1/4) x 1/8	----
21-197	3/8(1/4) x 3/8(1/4) x 1/4	----

1072 972 232

### FEMALE BRANCH TEE

3






O.D. (I.D.) X O.D. (I.D.) X FEMALE PIPE

Part #	Size	List Price
21-207	1/4(1/8) x 1/4(1/8) x 1/8	----

1077 978

### TWO BARB FITTINGS

More Sizes Available - Please Ask!

	.25	.375	.50
<b>OD</b>	<b>1/4</b>	<b>3/8</b>	<b>1/2</b>
			
<b>ID</b>	<b>1/8</b>	<b>1/4</b>	<b>3/8</b>
	.17	.25	.375

### MALE ADAPTER PIPE



TUBE O.D. (I.D.) X MALE PIPE

Part #	Size	List Price
32-150	1/4(1/8) x 1/8	----
32-151	1/4(1/8) x 1/4	----
32-153	3/8(1/4) x 1/4	----

28

### UNION TEE



Part #	Tube O.D. (I.D.)	List Price
32-159	1/4(1/8 ID)	----
32-160	3/8(1/4 ID)	----

### 90° ELBOW



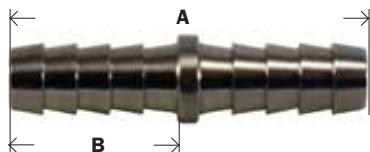
Part #	Tube O.D. (I.D.)	List Price
32-170	1/4(1/8 ID)	----
32-171	3/8(1/4 ID)	----

225



**HOSE BARB****316 STAINLESS STEEL MACHINED RIGID MALE ADAPTER**

Part #	Hose I.D. x NPT	List Price
32-001SS	1/8" x 1/8"	----
32-002SS	3/16" x 1/8"	----
32-003SS	3/16" x 1/4"	----
32-004SS	1/4" x 1/8"	----
32-005SS	1/4" x 1/4"	----
32-006SS	1/4" x 3/8"	----
32-008SS	5/16" x 1/8"	----
32-009SS	5/16" x 1/4"	----
32-010SS	5/16" x 3/8"	----
32-011SS	3/8" x 1/8"	----
32-012SS	3/8" x 1/4"	----
32-013SS	3/8" x 3/8"	----
32-014SS	3/8" x 1/2"	----
32-015SS	1/2" x 1/4"	----
32-016SS	1/2" x 3/8"	----
32-017SS	1/2" x 1/2"	----
32-018SS	1/2" x 3/4"	----
32-019SS	5/8" x 3/8"	----
32-020SS	5/8" x 1/2"	----
32-021SS	5/8" x 3/4"	----
32-022SS	3/4" x 1/2"	----
32-023SS	3/4" x 3/4"	----
32-024SS	1" x 3/4"	----

**316 STAINLESS STEEL SPLICER**

Part #	Hose I.D. x Hose I.D.	A	B	List Price
32-093SS	1/4"	2.03	0.97	----
32-095SS	3/8"	2.06	0.97	----
32-096SS	1/2"	2.06	0.97	----
32-098SS	3/4"	2.50	1.19	----

**316 STAINLESS STEEL BARB ELBOW**

Part #	Hose I.D. x NPT	List Price
32-038SS	1/4 x 1/8	----
32-039SS	1/4 x 1/4	----
32-041SS	3/8 x 1/4	----
32-042SS	3/8 x 3/8	----
32-043SS	1/2" x 3/8"	----
32-311SS	1/2 x 1/2	----
32-314SS	3/4" x 3/4"	----

**BARSTOCK STAINLESS STEEL****304 STAINLESS STEEL HOSE NIPPLES**

• Cast

Part #	Hose I.D. x Male Pipe	List Price
73-951	1/4"	----
73-952	3/8"	----
73-953	1/2"	----
73-954	3/4"	----
73-955	1"	----
73-956	1-1/4"	----
73-957	1-1/2"	----
73-958	2"	----
73-959	2-1/2"	----
73-960	3"	----

**304 STAINLESS STEEL REDUCING HOSE NIPPLES**

• Cast

Part #	Hose I.D. x Male Pipe	List Price
73-970	1/4" X 1/8"	----
73-971	3/8" X 1/4"	----
73-972	1/2" X 3/8"	----
73-973	1/2" X 1/4"	----
73-974	3/4" X 1/2"	----
73-975	1" X 3/4"	----
73-976	1" X 1/2"	----
73-977	1-1/4" X 1"	----
73-979	1-1/2" X 1-1/4"	----
73-980	1-1/2" X 1"	----
73-981	2" X 1-1/2"	----
73-982	2" X 1-1/4"	----

**316 STAINLESS STEEL HOSE NIPPLES**

• Cast

Part #	Hose I.D. x Male Pipe	List Price
973-951	1/4"	----
973-952	3/8"	----
973-953	1/2"	----
973-954	3/4"	----
973-955	1"	----
973-956	1-1/4"	----
973-957	1-1/2"	----
973-958	2"	----
973-959	2-1/2"	----
973-990	3"	----
973-991	4"	----



• See King nipples on page 327

## BEVERAGE FITTINGS

### SPECIFICATIONS

• Our stainless steel fittings are made from a combination of 303 and 304 materials. Type 303 is certified to either ASTM A581/A582 or AMS 5640. Type 304 is certified to AMS 5639 or ASTM A479. In cases where tubing is used, it is 304 stainless steel certified to ASTM A269.

• All stainless steel fittings are passivated to meet the standards of major food and beverage companies.

• All fittings are made of stainless steel except the swivel nuts which are nickel plated brass.

• All male threads are rolled rather than cut. No exceptions.

### SWIVEL NUT (NICKEL PLATED BRASS)



Part #	Size	List Price
34-500	1/4"	----
34-512	3/8"	----
34-513	1/2"	----

### SWIVEL HOSE STEM



Part #	Size	List Price
34-503	1/4"	----
34-515	3/8"	----
34-516	1/2"	----

1/4 stem for 1/4 nut

3/8 stem for 3/8 nut

1/2 stem for 1/2 nut

### SWIVEL ELBOWS

#### 90° SWIVEL ELBOW



#### HOSE ID x FEMALE 45° FLARE

Part #	Size	List Price
34-525	1/4" x 1/4"	----
34-529	3/8" x 3/8"	----

### BARB SPLICERS

#### HOSE SPLICER (STRAIGHT)



#### ID HOSE

Part #	Size	List Price
34-533	1/4"	----
34-535	3/8"	----
34-543	3/8" x 1/4"	----

#### 90° BARB SPLICER



#### ID HOSE

Part #	Size	List Price
34-551	1/4"	----
34-552	3/8"	----

### TEES

#### BARB HOSE TEES



#### ID HOSE

Part #	Size	List Price
34-562	1/4"	----
34-563	3/8"	----

### ADAPTERS

#### BARB TO MALE FLARE ADAPTER



#### HOSE ID x 45° FLARE

Part #	Size	List Price
34-579	1/4" x 1/4"	----
34-583	3/8" x 1/4"	----
34-584	1/4" x 3/8"	----
34-585	3/8" x 3/8"	----

## HOSE BARB

### BARB TO MALE PIPE ADAPTER



#### HOSE ID x MALE NPT

Part #	Size	List Price
34-587	1/4" x 1/8"	----
34-588	1/4" x 1/4"	----
34-589	1/4" x 3/8"	----
34-590	3/8" x 1/8"	----
34-591	3/8" x 1/4"	----
34-592	3/8" x 3/8"	----
34-595	3/8" x 1/2"	----
34-597	1/2" x 3/4"	----

### SWIVEL ELBOWS

#### BARB TO SWIVEL ELBOW



#### HOSE ID x FEMALE 45° FLARE

Part #	Size	List Price
34-600	1/4" x 1/4"	----

### ADAPTERS

#### NPT ELBOWS



#### HOSE ID x MALE NPTF

Part #	Size	List Price
34-610	1/4" x 1/8"	----
34-611	3/8" x 1/4"	----
34-612	3/8" x 3/8"	----
34-613	1/2" x 1/2"	----

# PUSH ON BARB FITTINGS



**Typical Application:** Low Pressure Air, Fuel, Lube, and Oil Lines

• Pressure determined by tube material and hardness. Parts have been tested to max 150 PSI.

**Advantages:** Easy assembly. No clamps needed!!

• **Assembly Instructions**

- 1- Lubricate insert.
- 2- Hold hose at angle as shown & push on and up over first barb.
- 3- Continue to push straight on until hose is seated under protective plastic cap. Keep hands back from hose end area so that hose can expand.

• **Disassembling Instructions**

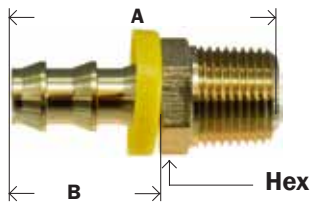
- 1- Split hose. Do not cut completely through hose. Sealing edge of barb could be damaged.
- 2- Bend hose and remove with a quick pull.

See lead free section for lead free push-on barb fittings.  
**Stainless steel available at the end of this section.**

### Actual Profile of Push On Barbs



**MALE ADAPTER**

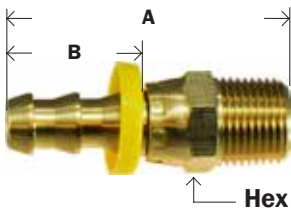


Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
30-200 *	1/4" x 1/8"	1.43	0.87	0.50	0.04	----
30-201 *	1/4" x 1/4"	1.66	0.87	0.56	0.06	----
30-211	1/4" x 3/8"	1.66	0.87	0.68	0.06	----
30-212	5/16" x 1/8"	1.42	0.77	0.43	0.04	----
30-213	5/16" x 1/4"	1.66	0.87	0.56	0.06	----
30-202	3/8" x 1/8"	1.53	0.97	0.50	0.04	----
30-203 *	3/8" x 1/4"	1.69	0.89	0.56	0.07	----
30-204 *	3/8" x 3/8"	1.76	0.97	0.68	0.08	----
30-205	3/8" x 1/2"	1.97	0.97	0.87	0.10	----
30-392	3/8" x 3/4"	1.97	0.92	1.06	0.16	----
30-216	1/2" x 1/4"	1.76	0.97	0.68	0.08	----
30-206 *	1/2" x 3/8"	1.76	0.97	0.68	0.09	----
30-207 *	1/2" x 1/2"	1.97	0.97	0.87	0.14	----
30-217	1/2" x 3/4"	1.97	0.97	1.06	0.16	----
30-219	5/8" x 3/8"	2.34	1.50	0.75	0.12	----
30-209	5/8" x 1/2"	2.45	1.45	0.87	0.16	----
30-214	5/8" x 3/4"	2.45	1.45	1.06	0.18	----
30-215 *	3/4" x 1/2"	2.45	1.45	0.87	0.21	----
30-210 *	3/4" x 3/4"	2.45	1.45	1.06	0.20	----
30-238	1" x 3/4"	2.93	1.50	1.25	0.43	----
30-239	1" x 1"	3.11	1.50	1.37	0.49	----

• See page 34 for Stainless

301 P990A HLM 100B-1 KA-MB 272 29PO 725 625 BPN 941 30182

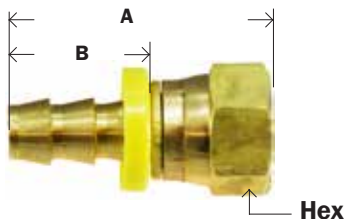
**MALE SWIVEL**



Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
30-422	1/4" x 1/8"	2.07	0.87	0.56	0.06	----
30-385	1/4" x 1/4"	2.02	0.87	0.56	0.06	----
30-423	3/8" x 1/8"	2.12	0.97	0.56	0.07	----
30-386	3/8" x 1/4"	2.12	0.97	0.56	0.08	----
30-387	3/8" x 3/8"	2.12	0.97	0.68	0.08	----
30-388	1/2" x 3/8"	2.12	0.97	0.68	0.10	----
30-389	1/2" x 1/2"	2.33	0.97	0.87	0.14	----
30-424	5/8" x 1/2"	2.80	1.45	0.88	0.18	----
30-390	3/4" x 3/4"	2.80	1.45	1.06	0.24	----

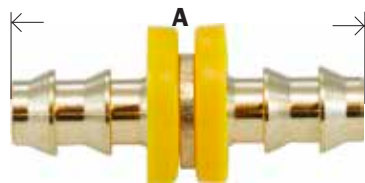
921 HMS 285 31382

**FEMALE GASKET SEAL SWIVEL - NPSM**



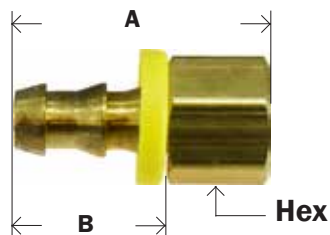
Part #	Hose I.D. x Gasket Swivel (NPSM)	A	B	Hex	Approx. Wt. Lbs.	List Price
30-359	1/4" x 1/8"	1.39	0.77	0.50	0.03	----
30-358	1/4" x 1/4"	1.47	0.82	0.68	0.06	----
30-360	3/8" x 1/4"	1.61	1.00	0.68	0.06	----
30-361	3/8" x 3/8"	1.77	0.97	0.81	0.08	----
30-362	3/8" x 1/2"	1.80	0.92	0.93	0.09	----
30-363	1/2" x 1/2"	1.88	1.02	0.93	0.11	----
30-366	3/4" x 3/4"	2.36	1.55	1.18	0.32	----

280

**PUSH ON HOSE BARB****BRASS FITTINGS****HOSE SPLICER**

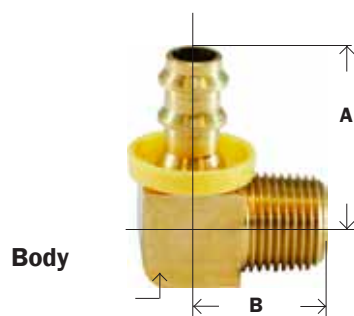
Part #	Hose I.D.	A	Approx. Wt. Lbs.	List Price
30-300	1/4"	1.87	0.04	----
30-305	5/16"	1.80	0.04	----
30-301	3/8"	2.00	0.06	----
30-302	1/2"	2.01	0.08	----
30-303	5/8"	3.03	0.14	----
30-304	3/4"	3.03	0.14	----
30-306	1"	3.21	0.28	----

BPM 696 29SPO 296 915 729 100B-Y KA-RM MHL 296 38282

**RIGID FEMALE ADAPTER**

Part #	Hose I.D. x Female NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
30-220	1/4" x 1/8"	1.35	0.87	0.50	0.02	----
30-221	1/4" x 1/4"	1.51	0.87	0.62	0.06	----
30-384	1/4" x 3/8"	1.51	0.77	0.75	0.06	----
30-391	5/16" x 1/8"	1.32	0.77	0.50	0.03	----
30-222	5/16" x 1/4"	1.51	0.87	0.62	0.06	----
30-393	3/8" x 1/8"	1.47	0.92	0.56	0.06	----
30-224	3/8" x 1/4"	1.61	0.97	0.62	0.06	----
30-225	3/8" x 3/8"	1.63	0.97	0.75	0.06	----
30-394	3/8" x 1/2"	1.66	0.92	0.93	0.12	----
30-397	3/8" x 3/4"	1.97	0.97	1.18	0.20	----
30-223	1/2" x 1/4"	1.76	1.02	0.68	0.08	----
30-226	1/2" x 3/8"	1.63	0.97	0.75	0.08	----
30-227	1/2" x 1/2"	1.77	0.97	0.93	0.14	----
30-396	1/2" x 3/4"	2.07	1.02	1.18	0.20	----
30-398	5/8" x 3/8"	2.24	1.55	0.75	0.10	----
30-229	5/8" x 1/2"	2.24	1.48	0.93	0.11	----
30-399	3/4" x 1/2"	2.24	1.50	0.93	0.14	----
30-395	3/4" x 3/4"	2.55	1.50	1.18	0.24	----
30-400	1" x 3/4"	2.55	1.55	1.18	0.25	----
30-402	1" x 1"	2.68	1.55	1.43	0.37	----

30282 29FPO HLF 626 274 726 940

**MALE ELBOW**

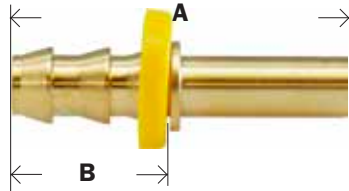
Part #	Hose I.D. x Male NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
30-372	1/4" x 1/8"	0.98	0.75	0.50	0.04	----
30-373	1/4" x 1/4"	1.04	0.95	0.56	0.06	----
30-374	5/16" x 1/8"	1.02	0.94	0.50	0.06	----
30-375	5/16" x 1/4"	1.09	0.94	0.56	0.08	----
30-370	3/8" x 1/8"	1.11	0.75	0.50	0.10	----
30-371	3/8" x 1/4"	1.13	0.90	0.56	0.10	----
30-376	3/8" x 3/8"	1.21	0.92	0.70	0.12	----
30-377	3/8" x 1/2"	1.30	1.19	0.87	0.22	----
30-382	1/2" x 3/8"	1.32	1.02		0.13	----
30-378	1/2" x 1/2"	1.50	1.19	0.87	0.22	----
30-379	5/8" x 1/2"	1.98	1.19	0.87	0.26	----
30-383	3/4" x 1/2"	2.15			0.25	----
30-381	3/4" x 3/4"	2.07	1.28	1.06	0.34	----

100-C 29EPO 273

## BRASS FITTINGS

## PUSH ON HOSE BARB

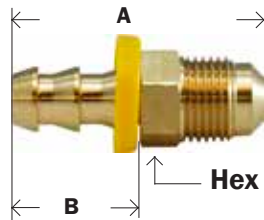
### RIGID TUBE ADAPTER



Part #	Hose I.D. x O.D Tube	A	B	Approx. Wt. Lbs.	List Price
30-290	1/4" x 3/16"	1.68	0.77	0.04	----
30-291	1/4" x 1/4"	1.88	0.77	0.04	----
30-292	1/4" x 5/16"	1.88	0.77	0.04	----
30-293	5/16" x 5/16"	1.91	0.79	0.04	----
30-294	3/8" x 3/8"	2.03	0.92	0.06	----
30-426	3/8" x 1/2"	1.81	0.97	0.04	----
30-297	1/2" x 1/2"	2.13	1.02	0.06	----
30-298	5/8" x 5/8"	2.61	1.50	0.10	----
30-299	3/4" x 3/4"	2.61	1.50	0.25	----

294 100B-X KA-RL 303 732 694

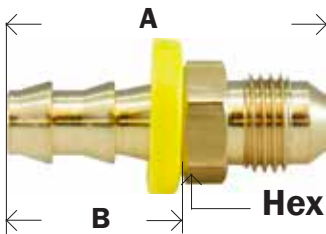
### MALE SAE FLARE ADAPTER



Part #	Hose I.D. x 45° Male Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-240	1/4" x 1/4"	7/16-20	1.45	0.75	0.43	0.04	----
30-241	1/4" x 5/16"	1/2-20	1.59	0.84	0.50	0.04	----
30-249	5/16" x 5/16"	1/2-20	1.60	0.80	0.50	0.06	----
30-271	3/8" x 5/16"	1/2-20	1.64	0.86	0.50	0.08	----
30-243	3/8" x 3/8"	5/8-18	1.83	0.92	0.62	0.08	----
30-245	1/2" x 1/2"	3/4-16	1.98	1.02	0.875	0.10	----
30-246	5/8" x 5/8"	7/8-14	2.73	1.50	0.87	0.19	----
30-247	3/4" x 3/4"	1-1/16-14	2.98	1.50	1.06	0.32	----

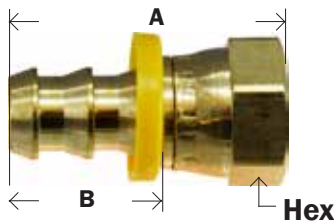
100B-3 KA-MS 727 945 682 302 282

### 37° MALE JIC FLARE ADAPTER



Part #	Hose I.D. x Male JIC	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-900	1/4" x 1/4"	7/16-20	1.57	0.84	0.50	0.04	----
32-901	1/4" x 5/16"	1/2-20	1.60	0.83	0.56	0.04	----
32-906	1/4" x 3/8"	9/16-18	1.63	0.77	0.62	0.05	----
32-902	3/8" x 3/8"	9/16-18	1.78	0.97	0.62	0.06	----
32-903	1/2" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	----
32-907	5/8" x 5/8"	7/8-14	2.62	1.50	0.93	0.19	----
32-905	3/4" x 3/4"	1-1/16-12	2.79	1.50	1.12	0.29	----

### SAE/JIC DUAL 45°/37° FEMALE SWIVEL



Part #	Hose I.D. x Dual Seat	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-230 *	1/4" x 1/4"	7/16-20	1.53	0.87	0.56	0.06	----
30-231	1/4" x 5/16"	1/2-20	1.57	0.87	0.62	0.04	----
30-232	5/16" x 5/16"	1/2-20	1.56	0.87	0.62	0.04	----
30-427	3/8" x 5/16"	1/2-20		0.87	0.62	0.06	----
30-233	3/8" x 1/2"	3/4-16	1.79	0.97	0.87	0.10	----
30-234 *	1/2" x 1/2"	3/4-16	1.77	0.97	0.87	0.10	----
30-235	1/2" x 5/8"	7/8-14	1.84	0.97	1.00	0.12	----
30-236	5/8" x 1/2"	3/4-16	2.27	1.45	0.87	0.18	----
30-237	5/8" x 5/8"	7/8-14	2.33	1.45	1.00	0.14	----
30-428	3/4" x 5/8"	7/8-14		1.45	1.00	0.20	----

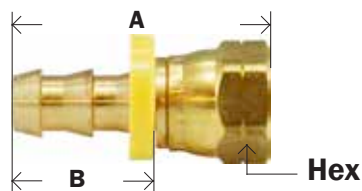
\* See page 34 for stainless

29FDS 287 HDF 309 735 690 P990-K 305 935/934

## PUSH ON HOSE BARB

## BRASS FITTINGS

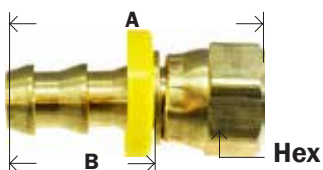
## 45° SAE FLARE FEMALE SWIVEL



Part #	Hose I.D. x 45° Female Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-250	1/4" x 1/4"	7/16-20	1.54	0.87	0.56	0.04	----
30-251	1/4" x 5/16"	1/2-20	1.57	0.87	0.62	0.04	----
30-253	1/4" x 3/8"	5/8-18	1.63	0.87	0.75	0.06	----
30-254	5/16" x 5/16"	1/2-20	1.58	0.87	0.68	0.06	----
30-260	5/16" x 3/8"	5/8-18	1.63	0.87	0.75	0.08	----
30-252	3/8" x 3/8"	5/8-18	1.73	0.97	0.75	0.10	----
30-257	3/8" x 1/2"	3/4-16	1.85	0.87	0.87	0.10	----
30-261	1/2" x 3/8"	5/8-18	1.92	1.05	0.75	0.10	----
30-255	1/2" x 1/2"	3/4-16	1.77	0.97	0.87	0.12	----
30-258	5/8" x 5/8"	7/8-14	2.35	1.45	1.00	0.14	----
30-259	3/4" x 3/4"	1-1/16-14	2.42	1.45	1.25	0.22	----

30882 728 P990-H 29AEP0 307 284 100S-4 KA-NS HSF 684 934

## FEMALE 37° JIC FLARE SWIVEL

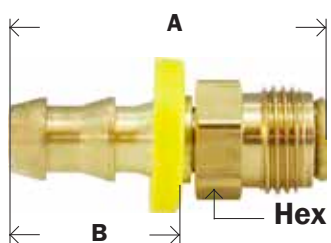


Part #	Hose I.D. x Female JIC	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-265	1/4" x 1/4"	7/16-20	1.54	0.87	0.56	0.04	----
30-264	1/4" x 3/8"	9/16-18	1.60	0.87	0.68	0.06	----
30-270	5/16" x 3/8"	9/16-18	1.60	0.82	0.68	0.06	----
30-266 *	3/8" x 3/8"	9/16-18	1.70	0.97	0.68	0.08	----
30-267	1/2" x 1/2"	3/4-16	1.78	0.97	0.87	0.10	----
30-268	5/8" x 5/8"	7/8-14	2.33	1.45	1.00	0.14	----
30-269 *	3/4" x 3/4"	1-1/16-12	2.40	1.45	1.25	0.22	----
30-429	1" x 1"	1-5/16-12		1.45	1.50	0.39	----

\* See page 34 for stainless

JF 944/934 29J1CPO HJF 688 738 288 100B-6 308 P990-F 30682 KA-NJ

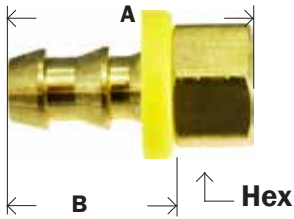
## INVERTED FLARE MALE SWIVEL



Part #	Hose I.D. x Male INV Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-275	1/4" x 3/16"	3/8-24	1.52	0.87	0.37	0.04	----
30-276	1/4" x 1/4"	7/16-24	1.56	0.87	0.43	0.04	----
30-277	1/4" x 5/16"	1/2-20	1.62	0.87	0.50	0.04	----
30-278	5/16" x 1/4"	7/16-24	1.56	0.87	0.43	0.06	----
30-280	5/16" x 5/16"	1/2-20	1.62	0.87	0.50	0.06	----
30-283	5/16" x 3/8"	5/8-18	1.63	0.87	0.62	0.06	----
30-284	3/8" x 5/16"	1/2-20	1.72	0.97	0.50	0.06	----
30-279	3/8" x 3/8"	5/8-18	1.76	0.97	0.62	0.06	----
30-282	1/2" x 1/2"	3/4-18	1.84	0.97	0.75	0.10	----
30-286	5/8" x 5/8"	7/8-18	2.50	1.57	0.87	0.14	----

290 100B-B KA-MF 1MS 947

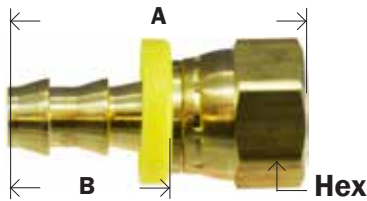
**INVERTED FLARE FEMALE ADAPTER**



Part #	Hose I.D. x Female INV Flare	A	B	Hex	Approx. Wt. Lbs.	List Price
30-310	1/4" x 3/16"	1.12	0.84	0.50	0.02	----
30-311	1/4" x 1/4"	1.14	0.84	0.56	0.02	----
30-312	1/4" x 5/16"	1.18	0.82	0.62	0.02	----
30-316	5/16" x 5/16"	1.25	0.81	0.62	0.04	----
30-313	3/8" x 5/16"	1.32	0.87	0.62	0.04	----
30-314	3/8" x 3/8"	1.35	0.95	0.75	0.06	----
30-315	1/2" x 1/2"	1.73	1.04	0.87	0.12	----

306 100B-A KA-NG 292 P990-J 736 692 946

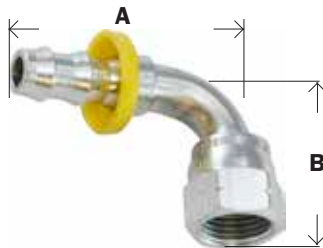
**FEMALE BALLSEAT SWIVEL**



Part #	Hose I.D. x Female NPSM	A	B	Hex	Approx. Wt. Lbs.	List Price
30-340	1/4" X 1/8"	1.39	0.85	0.50	0.06	----
30-341	1/4" X 1/4"	1.47	0.80	0.68	0.06	----
30-342	1/4" x 3/8"	1.40	0.77	0.68	0.09	----
30-343	3/8" X 1/4"	1.61	0.97	0.68	0.08	----
30-344	3/8" X 3/8"	1.75	0.95	0.81	0.10	----
30-430	3/8" x 1/2"	1.79	0.97	0.93	0.11	----
30-346	1/2" X 1/2"	1.88	1.09	0.93	0.12	----
30-345	1/2" x 3/4"	2.36	1.02	1.18	0.18	----
30-349	3/4" X 3/4"	2.36	1.55	1.18	0.22	----

628 278 295PO 731 NPSM

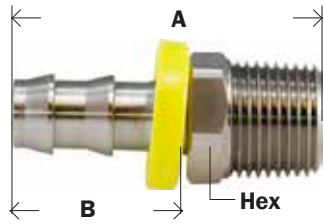
**SAE/ JIC 37° / 45° FEMALE SWIVEL 90° ZINC PLATED STEEL**



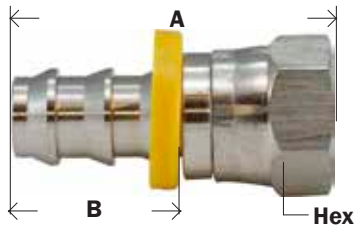
Part #	Hose I.D. x Female 37°/45°	UNF Thread	A	B	Approx. Wt. Lbs.	List Price
30-480	1/4"	7/16-20	1.55	0.83	.064	----
30-482	3/8"	9/16-18	1.85	0.91	.095	----
30-483*	3/8"	5/8-18	1.98	0.85	.095	----
30-484	1/2"	3/4-16	2.33	1.09	.171	----
30-486	3/4"	1-1/16-12	3.26	1.81	.281	----

\* SAE

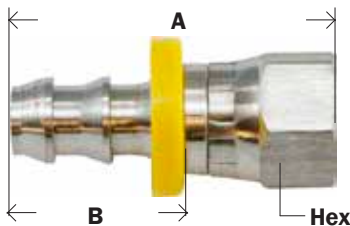


**STAINLESS STEEL PUSH ON 316 HOSE BARB****STAINLESS STEEL****316 STAINLESS STEEL MALE ADAPTERS**

Part #	Hose I.D. x NPT	A	B	Hex	Approx. Wt. Lbs.	List Price
30-200SS	1/4" x 1/8"	1.42	0.77	0.44	0.027	----
30-201SS	1/4" x 1/4"	1.61	0.77	0.56	0.043	----
30-203SS	3/8" x 1/4"	1.76	0.92	0.56	0.053	----
30-204SS	3/8" x 3/8"	1.76	0.92	0.69	0.067	----
30-206SS	1/2" x 3/8"	1.86	1.02	0.69	0.071	----
30-207SS	1/2" x 1/2"	2.07	1.02	0.88	0.119	----
30-215SS	3/4" x 1/2"	2.55	1.50	0.88	0.20	----
30-210SS	3/4" x 3/4"	2.55	1.50	1.06	0.194	----

**316 STAINLESS STEEL SAE/ JIC 45° / 37° FEMALE SWIVEL**

Part #	Hose I.D. x Female 45°/37°	A	B	Hex	Approx. Wt. Lbs.	List Price
30-230SS	1/4" x 1/4"	1.48	0.74	0.56	0.023	----
30-234SS	1/2" x 1/2"	1.93	1.03	0.88	0.04	----

**316 STAINLESS STEEL FEMALE 37° JIC FLARE SWIVEL**

Part #	Hose I.D. x Female 37°	A	B	Hex	Approx. Wt. Lbs.	List Price
30-266SS	3/8" x 3/8"	1.75	.92	0.68	0.065	----
30-269SS	3/4" x 3/4"	2.53	1.50	1.25	0.259	----

# GARDEN HOSE FITTINGS



## • Temperature and Working Pressure Ranges

From +35°F to +100°F at 75 PSI maximum or the recommended working pressure of the garden hose. (Not to exceed 150 PSI.)

**Note:** All female connector ends should have a rubber washer inserted prior to usage.

**FGH** = Female Garden Hose threads

**MGH** = Male Garden Hose threads

Male garden hose threads are all 3/4" with an outside diameter of 1.0625 and 11-1/2" threads per inch.



## Male Garden Hose Profile

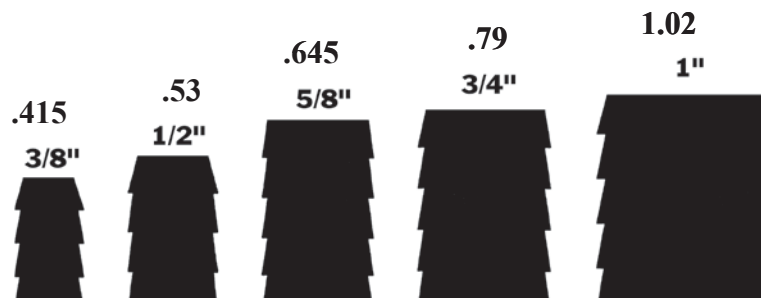


See Plastic section for Plastic Garden Hose Fittings



See page 165 for lead free Garden Hose

## Actual Profile of Garden Hose Barbs



## GARDEN HOSE

## BRASS FITTINGS

## SWIVEL - MGH X FGH

•WASHER INCLUDED

Internal Hex ↘

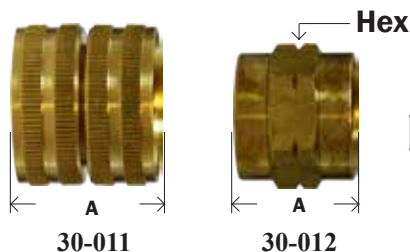


Part #	MGH X FGH	A	Hex	Approx. Wt. Lbs.	List Price
30-000**	3/4" x 3/4"	1.03	0.50*	0.26	----

\* Internal Hex  
 \* Not a live swivel  
 \*\* available in swivel crimp style

## SWIVEL - FGH X FGH

•WASHER INCLUDED



Part #	FGH X FGH	A	Hex	Approx. Wt. Lbs.	List Price
30-011	3/4" x 3/4"	1.03	1.18 O.D.	0.24	----
30-012	No Swivel	1.08	1.19	0.24	----

HUS 91 203W GSU 101GHSV 22AS 506 FS66

## SWIVEL - FGH X FEMALE PIPE

•WASHER INCLUDED



Part #	FGH x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-001	3/4" x 1/2"	1.20	1.00	0.11	----
30-006	3/4" x 3/4"	1.11	1.12	0.11	----

S1 HSU11 91Z 197S 98GHSV 5AS 21517 502 FS65

## RIGID - FGH X FEMALE PIPE

•WASHER INCLUDED



Part #	FGH x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-016	3/4" x 1/8"	1.02	1.18	0.08	----
30-017	3/4" x 1/4"	0.65	1.12	0.07	----
30-018	3/4" x 3/8"	1.19	1.18	0.11	----

95GH 501



30-017

**RIGID - FGH X FEMALE PIPE**

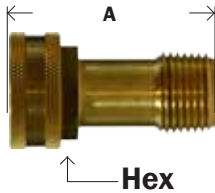


Part #	FGH x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-078	3/4" x 1/2"	1.06	1.18	0.10	----
30-083	3/4" x 3/4"	1.06	1.18	0.12	----

FS67 198 HU11 21507 501 99GH 5A H15PP

**SWIVEL - FGH X MALE PIPE**

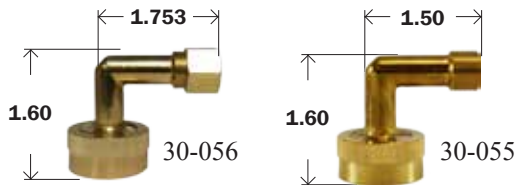
•WASHER INCLUDED



Part #	FGH x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-047	3/4" x 1/4"	2.04	0.75	0.13	----
30-048	3/4" x 3/8"	2.06	0.75	0.14	----
30-049	3/4" x 1/2"	2.06	0.87	0.18	----

504 89GH W1 62H4 88GH W1

**3/8" Comp 3/4" FGH DISHWASHER 90° ELBOW**



Part #	3/4 Female Garden Hose Thread x 3/8 Compression	List Price
30-055	3/4" x 3/8" Body Only	----
30-056	3/4" x 3/8" w/ nut & sleeve	----

**SWIVEL - FGH X MALE PIPE**

•WASHER INCLUDED



\* Crimp style

Part #	FGH x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-181*	3/4" x 1/4"	1.43	1.18	0.13	----
30-184*	3/4" x 3/8"	1.43	1.18	0.15	----
30-183	3/4" x 1/2"	1.32	0.81	0.11	----
30-182*	3/4" x 3/4"	1.43	1.18	0.14	----

**RIGID - FGH X MALE PIPE**



Part #	FGH x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-087	3/4" x 3/8"	1.37	1.18	0.11	----
30-088	3/4" x 1/2"(1/2"SWT)**	1.06	1.18	0.09	----
30-093	3/4" x 3/4"	1.06	1.18	0.11	----
30-094	3/4" x 3/4"(1/2" FIP)	1.17	1.18	0.11	----
30-093L*	3/4" x 3/4"	1.22	1.18	0.14	----

\* Long pattern

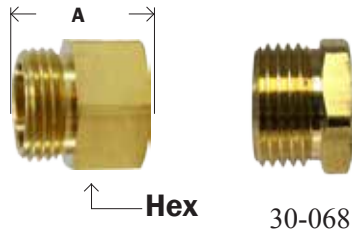
\*\* 1/2 Swt = 5/8 O.D.

21505 503 83GH 20A HU21 199 H7

## GARDEN HOSE

## BRASS FITTINGS

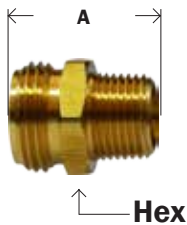
## RIGID - MGH X FEMALE PIPE



Part #	MGH X Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-066	3/4" x 1/4"	1.10	1.06	0.09	----
30-067	3/4" x 3/8"	1.09	1.06	0.12	----
30-068	3/4" x 1/2"	0.81	1.06	0.10	----
30-073	3/4" x 3/4"	1.12	1.18	0.10	----

197 18R HU12 H11PP 18A 507 18H 81GH 21503 MF67

## RIGID - MGH X MALE PIPE



Part #	MGH X Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-053	3/4" x 3/8"	1.25	1.06	0.10	----
30-058*	3/4" x 1/2"	1.31	1.06	0.12	----
30-063**	3/4" x 3/4" x 1/2"	1.31	1.06	0.13	----
30-063BE***	3/4" x 3/4"	1.31	1.06	0.15	----
30-063S	3/4" x 3/4" Short	1.10	1.06	0.10	----
30-064	3/4" x 1"	1.62	1.37	0.35	----

No Tap

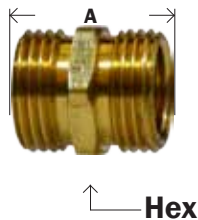
19R 196 H530 21501 508 HU22 514 71GH 19A

\* (1/2 Swt = 5/8 O.D.)

\*\* (Tapped 1/2 FIP)

\*\*\* (Tapped 1/2 FIP Both ends)

## RIGID - MGH X MGH

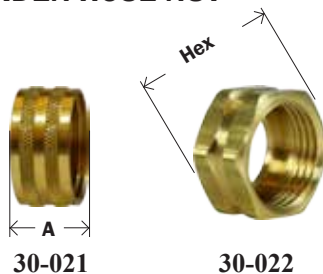


Part #	MGH X MGH	A	Hex	Approx. Wt. Lbs.	List Price
30-098	3/4" x 3/4" (1/2" FIP)	1.22	1.06	0.13	----
30-099	3/4" x 3/4"	1.22	1.06		----
30-100*	1" x 3/4"	1.31	1.37	0.21	----

\* 1-11-1/2

21500 509 75GH 23A H8 19R

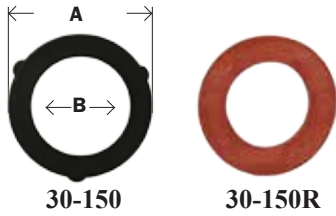
## GARDEN HOSE NUT



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-021	Knurled	0.61	1.37 O.D.	0.08	----
30-022	Hex Nut	0.51	1.12	0.08	----

94GH GHN1 HNR 21514

**GARDEN HOSE WASHERS**

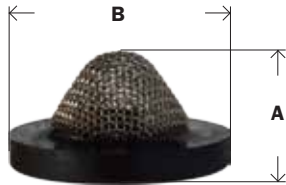


Part #	Size	A	B	Thickness	Approx. Wt. Lbs.	List Price
30-149	recessed washer	1.02	0.49	0.18	0.01	----
30-150	black*	0.98	0.68	0.13	0.01	----
30-150R	red	1.00	0.68	0.13	0.01	----
30-150B	black rubber	1.00	0.68	0.13	0.01	----
30-151	1"	1.27	0.86	0.16	0.01	----

GHW 901GH

\* plasticized rubber

**GARDEN HOSE FILTER WASHER**

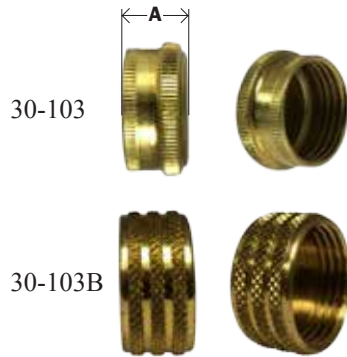


• 300 Series Stainless Steel Screen

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-180	30 Mesh	0.52	1.00	0.02	----
30-180F	60 Mesh	0.52	1.00	0.02	----

LA662

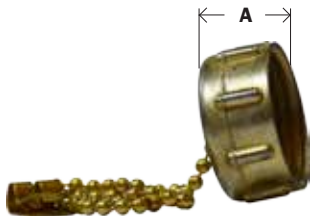
**GARDEN HOSE CAP**



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-103	3/4" Die Cast	0.58	0.04	----
30-103B	3/4" Barstock	0.60	0.048	----

513 96GH GHN5 HC1 LA215 21518 200-W

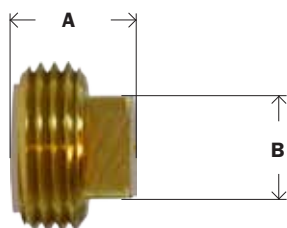
**GARDEN HOSE CAP WITH CHAIN**



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-142	3/4" w/ 12" Chain	0.58	0.06	----

\* Zinc die cast

**GARDEN HOSE PLUG**



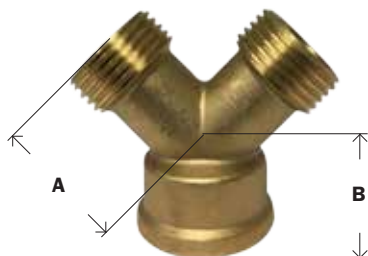
Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-026	3/4"	0.69	0.61	0.12	----

## GARDEN HOSE

## BRASS FITTINGS

## CAST BRASS HOSE - "Y" CONNECTOR

•WASHER INCLUDED



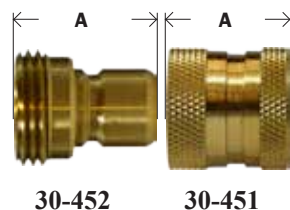
Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-140	3/4"	1.40	0.67	0.22	----

• See more Garden Hose "Y"s on page 45

86Y 21A

## QUICK DISCONNECT GARDEN HOSE COUPLERS

•WASHER INCLUDED

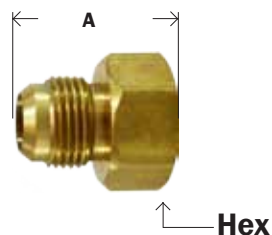


- Unvalved construction allows maximum Flow
- 150 PSI
- NBR Seals

Part #	Size	A	Approx. Wt. Lbs.	List Price
30-450	Complete	-----	0.24	----
30-451	Female end	1.14	0.12	----
30-452	Male end	1.26	0.12	----

LA73C

## MALE FLARE X FGH RIGID

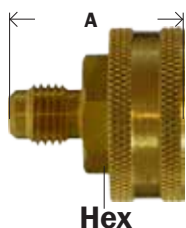


Part #	Male Flare x FGH	A	Hex	Approx. Wt. Lbs.	List Price
30-123	3/8" x 3/4"	1.31	1.18	0.10	----
30-128	1/2" x 3/4"	1.38	1.18	0.12	----
30-133	5/8" x 3/4"	1.53	1.18	0.14	----

190 46WH HFU21

## MALE FLARE x FGH SWIVEL

•WASHER INCLUDED



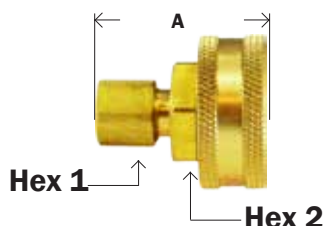
Part #	Male Flare x FGH	A	Hex	Approx. Wt. Lbs.	List Price
30-052	1/4" x 3/4"	1.24	0.75	0.10	----
30-138	3/8" x 3/4"	1.25	0.25*	0.12	----
30-139	1/2" x 3/4"	1.49	0.81	0.14	----

\* Internal Hex

50GHSV 51GHSV W1 68H 191

## COMPRESSION X FGH

•WASHER INCLUDED

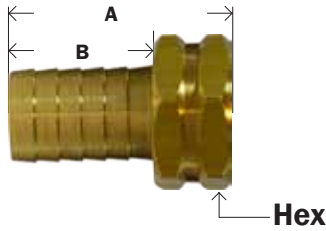


Part #	Compression x FGH	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
30-050	1/4" x 3/4"	1.02	0.50	0.75	0.09	----
30-051	3/8" x 3/4"	1.04	0.62	0.75	0.12	----

**BARSTOCK BRASS GARDEN HOSE COUPLINGS**

**FEMALE SWIVEL ONLY**

•WASHER INCLUDED



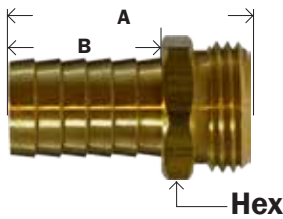
**BRASS**

Part #	Hose Barb x FGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-031	3/8" x 3/4"	1.82	1.19	1.18	0.11	----
30-032	1/2" x 3/4"	1.82	1.19	1.18	0.12	----
30-033	5/8" x 3/4"	1.82	1.19	1.18	0.13	----
30-034	3/4" x 3/4"	1.82	1.19	1.18	0.15	----
30-044	1" x 3/4"	2.10	1.19	1.18	0.18	----
30-035	1" x 1"	2.28	1.47	1.50	0.18	----

**STAINLESS STEEL 316**

30-032SS	1/2" x 3/4"	1.82	1.19	1.18	0.12	----
30-033SS	5/8" x 3/4"	1.82	1.19	1.18	0.13	----
30-034SS	3/4" x 3/4"	1.82	1.19	1.18	0.15	----

**MALE END ONLY**



**BRASS**

Part #	Hose Barb x MGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-039	3/8" x 3/4"	1.88	1.19	1.06	0.12	----
30-040	1/2" x 3/4"	1.88	1.19	1.06	0.12	----
30-041	5/8" x 3/4"	1.88	1.19	1.06	0.12	----
30-042	3/4" x 3/4"	1.88	1.19	1.06	0.13	----
30-045	1" x 3/4"	1.94	1.19	1.06	0.21	----
30-043	1" x 1"	2.34	1.47	1.37	0.26	----

**STAINLESS STEEL 316**

30-040SS	1/2" x 3/4"	1.88	1.19	1.06	0.12	----
30-041SS	5/8" x 3/4"	1.88	1.19	1.06	0.12	----
30-042SS	3/4" x 3/4"	1.88	1.19	1.06	0.13	----

**GARDEN HOSE COUPLING**

•WASHER INCLUDED



**BRASS**

Part #	Hose Barb	List Price
30-025	3/8"	----
30-027	1/2"	----
30-028	5/8"	----
30-029	3/4"	----
30-046	1"(3/4" threads)	----
30-030	1"	----

**STAINLESS STEEL 316**

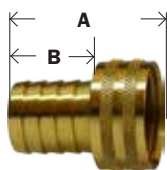
30-027SS	1/2"	----
30-028SS	5/8"	----
30-029SS	3/4"	----



## GARDEN HOSE

## BRASS FITTINGS

## FEMALE SWIVEL ONLY - Short Shank Knurled Nut



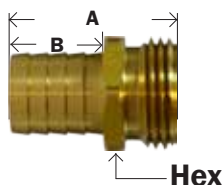
Part #	Hose Barb x FGH	A	B	Approx. Wt. Lbs.	List Price
30-466	1/2" x 3/4"	1.50	0.88	0.08	----
30-467	5/8" x 3/4"	1.50	0.88	0.09	----
30-468	3/4" x 3/4"	1.47	0.88	0.10	----

## FEMALE END ONLY - Short Shank w/ hex



Part #	Hose x FGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-453	1/2" x 3/4"	1.63	1.00	1.18	0.11	----
30-454	5/8" x 3/4"	1.63	1.00	1.18	0.11	----
30-455	3/4" x 3/4"	1.63	1.00	1.18	0.13	----

## MALE END ONLY - Short Shank



Part #	Hose Barb x MGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-471	1/2" x 3/4"	1.55	0.88	1.06	0.11	----
30-472	5/8" x 3/4"	1.56	0.88	1.06	0.12	----
30-473	3/4" x 3/4"	1.56	0.88	1.06	0.13	----

## GARDEN HOSE COUPLING SETS - Short Shank with Knurled Nut



Part #	Hose Barb	List Price
30-461	1/2"	----
30-462	5/8"	----
30-463	3/4"	----

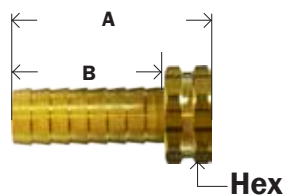
## GARDEN HOSE COUPLING SETS - Short Shank w/ hex nut



Part #	Hose Barb	List Price
30-457	1/2"	----
30-458	5/8"	----
30-459	3/4"	----

## FEMALE SWIVEL ONLY - 2" SHANK

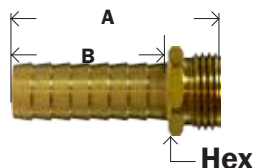
•WASHER INCLUDED



Part #	Hose Barb x FGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-505	1/2" x 3/4"	2.55	2.04	1.18	0.13	----
30-506	5/8" x 3/4"	2.56	2.04	1.18	0.16	----
30-507	3/4" x 3/4"	2.67	2.04	1.18	0.17	----
30-508	1" x 1"	2.84	2.03	1.43	0.29	----

GHFL 594

## MALE END ONLY - 2" SHANK



Part #	Hose Barb x MGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-510	1/2" x 3/4"	2.72	2.04	1.06	0.16	----
30-511	5/8" x 3/4"	2.72	2.04	1.06	0.17	----
30-512	3/4" x 3/4"	2.72	2.04	1.06	0.20	----
30-513	1" x 1"	2.90	2.03	1.37	0.28	----

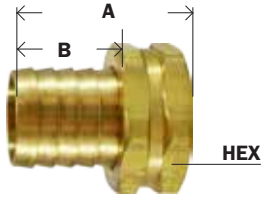
GHML 593

## GARDEN HOSE COUPLING SETS - 2" SHANK



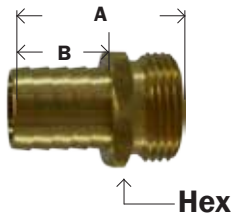
Part #	Hose x FGH	List Price
30-516	1/2"	----
30-517	5/8"	----
30-518	3/4"	----
30-519	1"	----

**NPSM FEMALE SHORT SHANK**



Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-545	1/2	3/4"	1.45	0.88	1.18	----
30-546	5/8	3/4"	1.47	0.88	1.18	----
30-547	3/4	3/4"	1.47	0.88	1.18	----
30-548	1	1"	1.50	1.00	1.50	----

**NPSM MALE SHORT SHANK**



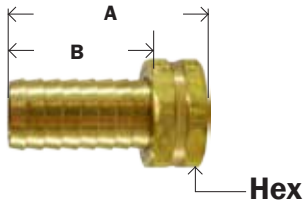
Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-550	1/2	3/4"	1.56	0.88	1.06	----
30-551	5/8	3/4"	1.56	0.88	1.06	----
30-552	3/4	3/4"	1.56	0.88	1.06	----
30-553	1	1"	1.77	0.98	1.30	----

**NPSM SHORT SHANK SETS**



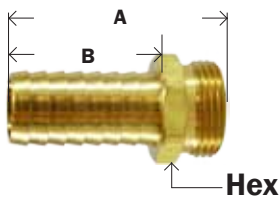
Part #	Size	List Price
30-540	1/2"	----
30-541	5/8"	----
30-542	3/4"	----
30-543	1"	----

**NPSM FEMALE LONG SHANK**



Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-565	1/2	1/2"	2.09	1.50	0.94	----
30-566	5/8	3/4"	2.09	1.50	1.18	----
30-567	3/4	3/4"	2.09	1.50	1.18	----
30-568	1	1"	2.12	1.53	1.50	----

**NPSM MALE LONG SHANK**



Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-570	1/2	1/2"	2.18	1.50	0.87	----
30-571	5/8	3/4"	2.18	1.50	1.06	----
30-572	3/4	3/4"	2.18	1.50	1.06	----
30-573	1	1"	2.32	1.53	1.30	----

**NPSM LONG SHANK SETS**



Part #	Size	List Price
30-560	1/2"	----
30-561	5/8"	----
30-562	3/4"	----
30-563	1"	----

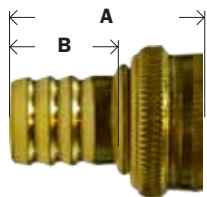
## GARDEN HOSE VALVES/ FITTINGS

## BRASS FITTINGS

## WROUGHT BRASS

## WROUGHT BRASS - Female end only

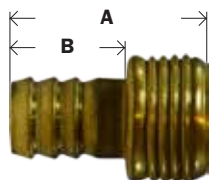
•WASHER INCLUDED



Part #	Hose Barb x FGH	A	B	Approx. Wt. Lbs.	List Price
30-526	5/8" x 3/4"	1.58	0.91	0.05	----
30-527	3/4" x 3/4"	1.50	0.84	0.06	----

85L

## WROUGHT BRASS COUPLINGS - Male end only

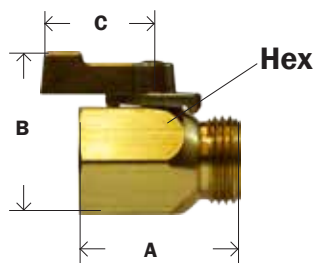


Part #	Hose Barb x MGH	A	B	Approx. Wt. Lbs.	List Price
30-530	1/2" x 3/4"	1.50	0.88	0.02	----

85M

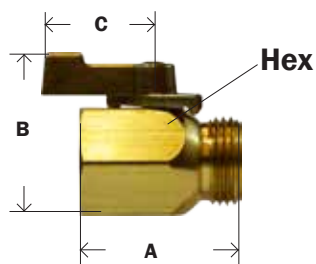
## GARDEN HOSE VALVES

## ONE WAY BRASS BALL VALVE - FGH x MGH



Part #	FGH x MGH	A	B	C	Hex	Approx. Wt. Lbs.	List Price
30-161	3/4" x 3/4"	1.55	1.89	1.31	1.06	0.42	----

## ONE WAY BRASS BALL VALVE - Female Pipe x MGH



Part #	Female NPTF x MGH	A	B	C	Hex	Approx. Wt. Lbs.	List Price
30-162	3/4" x 3/4"	1.55	1.89	1.31	1.06	0.42	----

## ZINC ALLOY HOSE SHUT-OFF W/ ONE LEVER



Part #	FGH x MGH	A	Approx. Wt. Lbs.	List Price
30-631	3/4" x 3/4"	1.67	0.08	----

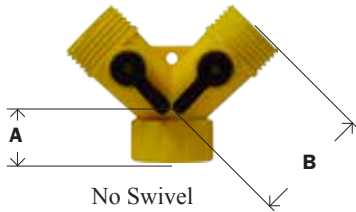
**PLASTIC GARDEN HOSE VALVE • CYCOLAC BODY & BALL**



Part #	FGH x MGH	A	Hex	Approx. Wt. Lbs.	List Price
30-163	3/4" x 3/4"	1.75	1.25	0.04	----

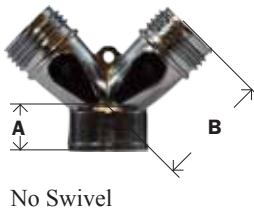
LA450C

**PLASTIC, NON-CORROSIVE, 2-WAY HOSE SHUT-OFF "Y"**



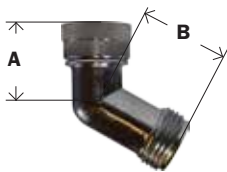
Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-160	3/4"	0.74	1.87	0.08	----

**"Y" SHAPE ZINC ALLOY CONNECTOR W/ TWO LEVERS**



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-626	3/4"	0.60	1.66	0.10	----

**ZINC ALLOY SWIVEL HOSE CONNECTOR**



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-629	3/4"	1.31	1.50	0.08	----

**"Y" SHAPE BRASS CONNECTOR W/ 2-WAY SHUT OFF**



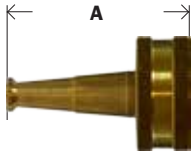
• Brass Levers

Part #	Size	Description	Approx. Wt. Lbs.	List Price
30-627	3/4"	3/4 Double Y valve, swivel inlet	0.56	----

## GARDEN HOSE NOZZLES

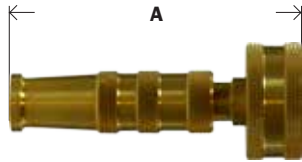
## BRASS FITTINGS

## 2-1/2" BRASS NOZZLE



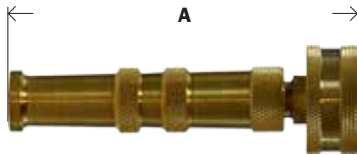
Part #	Size	A	Approx. Wt. Lbs.	List Price
30-637	3/4"	2.50	0.14	----

## 3" CROSSED PATTERN BRASS NOZZLE



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-640	3/4"	2.89	0.25	----

## 4" CROSSED PATTERN BRASS NOZZLE



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-638	3/4"	3.80	0.50	----



5-1/2

Adjustable Spray

Part #	Size	Zinc Alloy spray nozzle with insulated handle soft grip and front thread protector	List Price
30-600	5-1/2"		----



4-1/4

Lead Free

Part #	Size	Zinc Alloy spray nozzle	List Price
30-620	4-1/4"		----



5-1/4

Lead Free  
Adjustable Spray

Part #	Size	Zinc Alloy spray nozzle with easily adjustable brass head and plastic grip	List Price
30-609	5-1/4"		----



4-1/2

Plastic spray nozzle

Part #	Size	List Price
30-630	4-1/2"	----

## SAE 45° FLARE



Tube O.D.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Thread Size-B	5/16-24	3/8-24	7/16-20	1/2-20	5/8-18	11/16-16	3/4-16	7/8-14	1-1/16-14

#### •Typical Application

LP and natural gas, flammable liquids, instrumentation, refrigeration, power steering, hydraulic and pneumatic systems.

#### •Working Pressure Ranges

Temperature and type of tubing used are important factors. However, the following table is a good guide for proper selection. Temperature 73°F with copper tubing:

PSI	Tube O.D. (in.)	Tube Wall (in.)
2800	1/8	.030
1900	3/16	.030
1400	1/4	.030
1200	5/16	.032
1000	3/8	.032
750	1/2	.032
650	5/8	.035
550	3/4	.035
450	7/8	.035

#### •Vibration

Good resistance - use long nut when greater vibration resistance is required.

#### •Temperature Range

-65°F to +250°F (-53°C to +121°C) range at maximum operating pressures.

#### •Used With

Copper, brass, aluminum and steel hydraulic tubing that can be flared.

#### •Tolerance

+/- .03 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

#### •Conformance

Meets specifications and standards of ASA, ASME, SAE and MS (Military standards).

#### Assembly Instructions

- 1- Cut tubing to desired length. Make sure all burrs are removed and ends are cut square.
- 2- Slide nut on tube. Threaded end "A" of nut must face out.
- 3- Flare end of tube with a 45° flaring tool.
  - a- Measure flare diameter.
  - b- Examine flare for excessive thin out.
- 4- Lubricate threads and assemble to fitting body. Nut should be turned hand tight.
- 5- Tighten assembly with wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.

**Note:** Do not over-torque as it may damage the fitting or split the tubing at the flare.



• See Lead Free Flare Fittings page 166

#### Actual O.D. of Flare Fittings

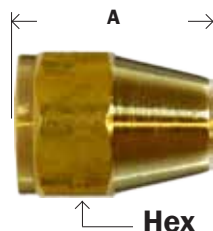


## SAE 45° FLARE

## BRASS FITTINGS

## SHORT ROD NUT

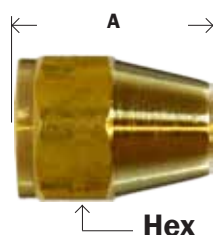
SAE# 010110



Part #	Thread Size UNF	Thread	A	Hex	Approx. Wt. Lbs.	List Price
10-013	1/8"	5/16-24	0.50	0.37	0.01	----
10-014	3/16"	3/8-24	0.62	0.43	0.02	----
10-015	1/4"	7/16-20	0.75	0.56	0.03	----
10-015L	1/4"	7/16-20	0.75	0.50	0.03	----
10-016	5/16"	1/2-20	0.88	0.62	0.04	----
10-017L	3/8"	5/8-18	0.77	0.75	0.05	----
10-017	3/8"	5/8-18	1.00	0.75	0.04	----
10-018	7/16"	11/16-16	1.06	0.81	0.06	----
10-019L	1/2"	3/4-16	0.93	0.87	0.06	----
10-019	1/2"	3/4-16	1.12	0.87	0.09	----
10-020L	5/8"	7/8-14	1.08	1.00	0.10	----
10-020	5/8"	7/8-14	1.31	1.06	0.15	----
10-021	3/4"	1-1/16-14	1.50	1.25	0.24	----
10-022	7/8"	1-1/4-12	1.62	1.50	0.36	----
10-026	1"	1-3/8-12	1.81	1.62	0.44	----

20910 41FS 1110 N1 41FX 441S 'L'

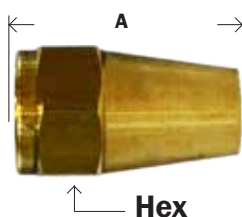
## REDUCING SHORT ROD NUT



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-023	3/8" x 1/4"	0.74	0.81	0.06	----
10-024	1/2" x 3/8"	0.86	0.94	0.10	----
10-025	5/8" x 1/2"	0.99	1.06	0.12	----

## LONG ROD NUT

SAE# 010111



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-001	1/8"	0.75	0.37	0.01	----
10-002	3/16"	0.81	0.43	0.02	----
10-003	1/4"	0.94	0.56	0.03	----
10-004	5/16"	1.12	0.62	0.04	----
10-005	3/8"	1.31	0.75	0.06	----
10-006	1/2"	1.62	0.87	0.12	----
10-007	5/8"	1.88	1.06	0.20	----
10-008	3/4"	2.19	1.25	0.34	----

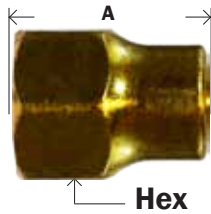
41FL N2 241 441 41

 "L" means light pattern.

-These fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

**LONG FORGED NUT**

SAE# 010167

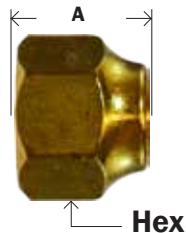


Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-028	1/4"	0.94	0.62	0.05	----
10-030	3/8"	1.06	0.81	0.08	----
10-031	1/2"	1.19	0.94	0.12	----
10-032	5/8"	1.44	1.06	0.26	----
10-033	3/4"	1.75	1.31	0.35	----

41FF 39 N4 14FL 641

**SHORT FORGED NUT**

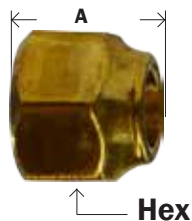
SAE# 010166



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-038	3/16"	0.56	0.50	0.02	----
10-039	1/4"	0.60	0.62	0.04	----
10-040	5/16"	0.66	0.69	0.04	----
10-041	3/8"	0.70	0.81	0.06	----
10-042	1/2"	0.82	0.94	0.08	----
10-043	5/8"	0.95	1.06	0.12	----
10-044	3/4"	1.16	1.31	0.22	----
10-045	7/8"	1.18	1.38	0.30	----

14FS 41FFS 40 641-S 1116 NS4

**EXTRA HEAVY SHORT FORGED NUT**



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-046	1/4"	0.63	0.75	0.04	----
10-047	3/8"	0.72	0.88	0.06	----
10-048	1/2"	0.88	1.00	0.08	----
10-049	5/8"	0.98	1.12	0.12	----

NSA

**FORGED REDUCING NUT**



Part #	Female Flare x OD	A	Hex	Approx. Wt. Lbs.	List Price
10-051	5/16" x 1/4"	0.66	0.75	0.06	----
10-052	3/8" x 1/4"	0.72	0.81	0.06	----
10-053	3/8" x 5/16"	0.72	0.81	0.08	----
10-054	1/2" x 3/8"	0.81	0.94	0.08	----
10-055	5/8" x 3/8"	0.96	1.12	0.15	----
10-056	5/8" x 1/2"	0.97	1.06	0.12	----
10-058	3/4" x 5/8"	1.17	1.31	0.30	----

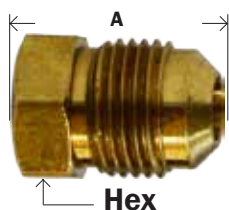
NSR4 14FS 41FRS 40R 662-S



## SAE 45° FLARE

## BRASS FITTINGS

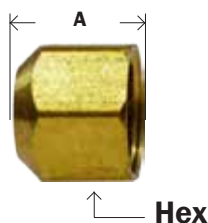
## FLARED PLUG



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-063	3/16"	0.59	0.50	0.02	----
10-064 *	1/4"	0.69	0.43	0.02	----
10-065 *	5/16"	0.78	0.50	0.04	----
10-066 *	3/8"	0.88	0.62	0.06	----
10-067	1/2"	1.06	0.75	0.10	----
10-068	5/8"	1.19	0.87	0.14	----
10-069	3/4"	1.32	1.06		----

\* Available in Stainless Steel. Add SS to the part# 58 639F PF 57 P2 2229 439

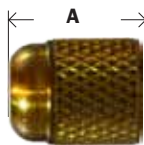
## FLARED CAP



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-074	3/16"	0.47	0.50	0.02	----
10-075 *	1/4"	0.48	0.50	0.02	----
10-076	5/16"	0.62	0.62	0.04	----
10-077 *	3/8"	0.58	0.75	0.03	----
10-078	1/2"	0.69	0.81	0.14	----
10-079	5/8"	0.81	0.94	0.20	----
10-080	3/4"	1.17	1.37	0.30	----

\* Available in Stainless Steel. Add SS to the part# 640F 41FC 56 N5 2129 54 440

## FINGER TIGHTENING CAP



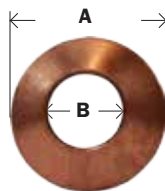
Part #	Thread Size UNF	A	Approx. Wt. Lbs.	List Price
10-081	1/4"	0.62	0.02	----

- Neoprene
- O-Ring Included

NFT5

## COPPER GASKET

## SAE# 010113

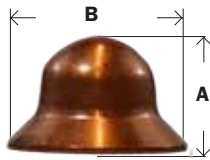


Part #	Size	A	B	Approx. Wt. Lbs.	List Price
10-084	3/16"	0.31	0.12	0.01	----
10-085	1/4"	0.36	0.19	0.01	----
10-086	5/16"	0.42	0.22	0.01	----
10-087	3/8"	0.55	0.28	0.01	----
10-088	1/2"	0.66	0.41	0.01	----
10-089	5/8"	0.77	0.50	0.01	----
10-090	3/4"	0.95	0.62	0.01	----

B2 2GF 6251 FG 157 59 46

**COPPER BONNET**

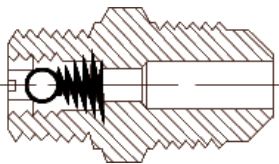
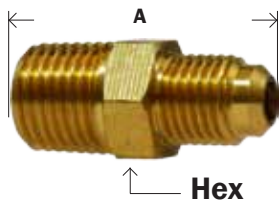
**SAE# 010114**



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
10-094	3/16"	0.16	0.31	0.01	----
10-095	1/4"	0.22	0.36	0.01	----
10-097	3/8"	0.34	0.55	0.01	----
10-098	1/2"	0.41	0.66	0.01	----
10-099	5/8"	0.44	0.77	0.01	----
10-100	3/4"	0.56	0.95	0.01	----

B1 3GF 64C 57 156 FB 695 464

**MALE BALL CHECK CONNECTOR**



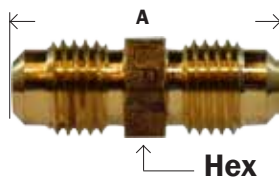
Part #	Male UNF x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-131*	1/4" x 1/8"	1.06	0.43	---	----
10256WC	1/4" x 1/4"	1.24	0.6	0.04	----
10-133*	3/8" x 1/4"	1.31	0.62	0.08	----

43A

\* Note: Ball & Spring position may be reversed to change flow/check position. Min working pressure 3 PSI.

**UNION**

**SAE# 010101**



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-104	1/8"	0.91	0.31	0.02	----
10-105	3/16"	1.06	0.37	0.02	----
10-106L	1/4"	1.19	0.43	0.03	----
10-106 *	1/4"	1.19	0.43	0.03	----
10-107	5/16"	1.34	0.50	0.05	----
10-108L	3/8"	1.50	0.62	0.09	----
10-108 *	3/8"	1.50	0.62	0.09	----
10-109L	1/2"	1.67	0.75	0.12	----
10-109	1/2"	1.81	0.75	0.14	----
10-110L	5/8"	2.00	0.87	0.20	----
10-110	5/8"	2.12	0.87	0.20	----
10-111	3/4"	2.44	1.06	0.35	----
10-112	7/8"	2.72	1.25	0.52	----

\* Available in Stainless Steel. Add SS to the part#

42F U2



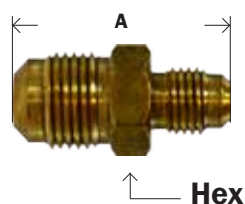
*"L" means light pattern.*

-These fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

## SAE 45° FLARE

## BRASS FITTINGS

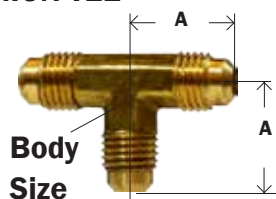
## REDUCING UNION



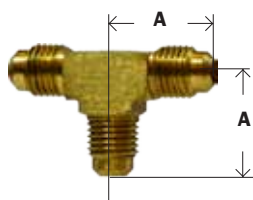
Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-117	5/16" x 1/4"	1.28	0.50	0.04	----
10-118	3/8" x 1/4"	1.38	0.62	0.06	----
10-119	3/8" x 5/16"	1.44	0.62	0.08	----
10-120	1/2" x 1/4"	1.53	0.75	0.10	----
10-121	1/2" x 3/8"	1.69	0.75	0.10	----
10-122	5/8" x 3/8"	1.88	0.87	0.17	----
10-123	5/8" x 1/2"	1.87	0.87	0.14	----

656F UR2 42-R

## UNION TEE



Forged Tee



Barstock Tee

## SAE# 010401

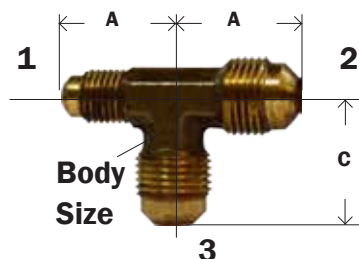
Part #	Thread Size UNF	A	Body Size	Approx. Wt. Lbs.	List Price
10-157	1/8"	0.67	0.36	0.04	----
10-158	3/16"	0.75	0.36	0.06	----
10-159 **	1/4"	0.78	0.36	0.06	----
10-159B*	1/4"	0.88	0.50	0.08	----
10-160 **	5/16"	0.91	0.44	0.10	----
10-161 **	3/8"	1.00	0.44	0.12	----
10-162	1/2"	1.16	0.59	0.19	----
10-163	5/8"	1.41	0.69	0.30	----
10-164	3/4"	1.64	0.88	0.53	----
10-165	7/8"	1.75	1.25	0.93	----

\* Barstock

244F T2 144F

\*\* Available in Stainless Steel. Add SS to the part#

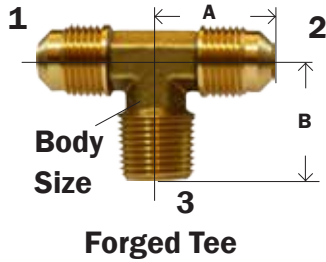
## REDUCING TEE 1 x 2 x 3



Part #	Thread Size UNF 1x2x3	A	C	Body Size	Approx. Wt. Lbs.	List Price
10-170	1/4" x 1/4" x 3/8"	0.91	1.00	0.44	0.10	----
10-171	5/16" x 5/16" x 1/4"	0.94	0.94	0.44	0.12	----
10-172	3/8" x 1/4" x 1/4"	0.91	1.00	0.44	0.10	----
10-173	3/8" x 1/4" x 3/8"	1.00	0.91	0.44	0.12	----
10-174	3/8" x 3/8" x 1/4"	1.00	0.88	0.44	0.11	----
10-175	3/8" x 3/8" x 1/2"	1.00	1.19	0.59	0.14	----
10-176	3/8" x 3/8" x 5/8"	1.16	1.44	0.69	0.16	----
10-178	1/2" x 3/8" x 3/8"	1.16	1.12	0.59	0.18	----
10-179	1/2" x 3/8" x 1/2"	1.16	1.09	0.59	0.18	----
10-180	1/2" x 1/2" x 1/4"	1.16	0.97	0.59	0.18	----
10-181	1/2" x 1/2" x 3/8"	1.16	1.12	0.59	0.19	----
10-182	1/2" x 1/2" x 5/8"	1.28	1.41	0.69	0.28	----
10-187	5/8" x 1/2" x 5/8"	1.44	1.33	0.69	0.27	----
10-188	5/8" x 5/8" x 3/8"	1.38	1.16	0.69	0.30	----
10-189	5/8" x 5/8" x 1/2"	1.38	1.28	0.69	0.28	----
10-197	3/4" x 3/4" x 5/8"	1.66	1.50	0.88	0.36	----

144F TR2 659F 684F 44R

**MALE BRANCH TEE**



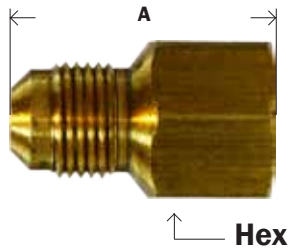
**SAE# 010425**

Part #	Male Flare x Male NPT (1&2)x3	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-203	3/16" x 1/8"	0.75	0.75	0.36	0.10	----
10-204	1/4" x 1/8"	0.78	0.75	0.36	0.05	----
10-205	1/4" x 1/4"	0.88	0.88	0.44	0.08	----
10-206	1/4" x 3/8"	0.92	1.00	0.47	0.10	----
10-207	5/16" x 1/8"	0.89	0.78	0.44	0.08	----
10-208	5/16" x 1/4"	0.94	0.94	0.44	0.08	----
10-209	3/8" x 1/8"	1.00	0.91	0.44	0.14	----
10-210	3/8" x 1/4"	1.00	0.94	0.44	0.12	----
10-211 **	3/8" x 3/8"	1.00	1.00	0.47	0.13	----
10-212 **	3/8" x 1/2"	1.12	1.22	0.69	0.22	----
10-213	1/2" x 1/4"	1.16	1.00	0.59	0.20	----
10-214	1/2" x 3/8"	1.16	1.14	0.59	0.19	----
10-215	1/2" x 1/2"	1.22	1.22	0.69	0.24	----
10-216	1/2" x 3/4"	1.38	1.41	0.88	0.22	----
10-217	5/8" x 3/8"	1.38	1.25	0.69	0.24	----
10-218	5/8" x 1/2"	1.41	1.31	0.69	0.29	----
10-219	5/8" x 3/4"	1.41	1.41	0.88	0.36	----
10-220	3/4" x 1/2"	1.63	1.59	0.88	0.49	----
10-221	3/4" x 3/4"	1.63	1.44	0.88	0.48	----

\*\* Available in Stainless Steel. Add SS to the part#

T1 145F 45

**FEMALE ADAPTER**



**SAE# 010103**

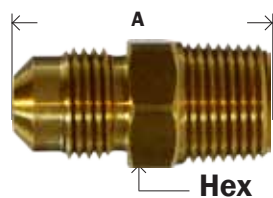
Part #	Male Flare x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-227	3/16" x 1/8"	0.97	0.56	0.03	----
10-228L	1/4" x 1/8"	1.03	0.56	0.03	----
10-228	1/4" x 1/8"	1.03	0.56	0.04	----
10-229L	1/4" x 1/4"	1.06	0.68	0.06	----
10-229	1/4" x 1/4"	1.23	0.68	0.07	----
10-230	1/4" x 3/8"	1.18	0.81	0.08	----
10-231	1/4" x 1/2"	1.31	0.94	0.06	----
10-232	5/16" x 1/8"	1.06	0.56	0.05	----
10-233	5/16" x 1/4"	1.28	0.68	0.08	----
10-234	3/8" x 1/8"	1.09	0.62	0.08	----
10-235L	3/8" x 1/4"	1.25	0.68	0.08	----
10-235	3/8" x 1/4"	1.31	0.81	0.08	----
10-236L	3/8" x 3/8"	1.25	0.81	0.08	----
10-236	3/8" x 3/8"	1.25	0.81	0.10	----
10-237L	3/8" x 1/2"	1.31	0.94	0.08	----
10-237	3/8" x 1/2"	1.60	1.00	0.16	----
10-238	3/8" x 3/4"	1.41	1.18	0.11	----
10-239	1/2" x 1/4"	1.37	0.75	0.10	----
10-240L	1/2" x 3/8"	1.38	0.81	0.12	----
10-240	1/2" x 3/8"	1.50	0.81	0.14	----
10-241L	1/2" x 1/2"	1.42	0.94	0.10	----
10-241	1/2" x 1/2"	1.75	1.00	0.12	----
10-242	1/2" x 3/4"	1.60	1.12	0.16	----
10-243	5/8" x 3/8"	1.24	0.87	0.12	----
10-244	5/8" x 1/2"	1.62	0.94	0.12	----
10-245	5/8" x 3/4"	1.65	1.12	0.17	----
10-246	3/4" x 1/2"	1.74	1.18	0.32	----
10-247	3/4" x 3/4"	1.75	1.18	0.22	----
10-248	7/8" x 3/4"	1.94	1.31	0.26	----

**Key** "L" means light pattern.  
 -These fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

## SAE 45° FLARE

## BRASS FITTINGS

## MALE ADAPTER



## SAE# 010102

Part #	Male Flare x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-253	1/8" x 1/8"	0.92	0.43	0.02	----
10-254	3/16" x 1/8"	1.00	0.43	0.03	----
10-255L	1/4" x 1/8"	1.06	0.43	0.03	----
10-255 *	1/4" x 1/8"	1.06	0.43	0.04	----
10-256L	1/4" x 1/4"	1.15	0.56	0.03	----
10-256 *	1/4" x 1/4"	1.25	0.56	0.04	----
10-257 *	1/4" x 3/8"	1.31	0.68	0.06	----
10-258	1/4" x 1/2"	1.44	0.87	0.11	----
10-259L	5/16" x 1/8"	1.15	0.50	0.04	----
10-259	5/16" x 1/8"	1.16	0.50	0.04	----
10-260L	5/16" x 1/4"	1.31	0.56	0.06	----
10-260	5/16" x 1/4"	1.34	0.56	0.06	----
10-261 *	5/16" x 3/8"	1.38	0.68	0.08	----
10-262	3/8" x 1/8"	1.25	0.62	0.07	----
10-263L	3/8" x 1/4"	1.31	0.62	0.06	----
10-263 *	3/8" x 1/4"	1.44	0.62	0.08	----
10-264L	3/8" x 3/8"	1.37	0.68	0.09	----
10-264 *	3/8" x 3/8"	1.44	0.68	0.09	----
10-265L	3/8" x 1/2"	1.44	0.89	0.12	----
10-265 *	3/8" x 1/2"	1.69	0.87	0.14	----
10-266	3/8" x 3/4"	1.81	1.06	0.18	----
10-267	1/2" x 1/4"	1.60	0.75	0.11	----
10-268L	1/2" x 3/8"	1.46	0.75	0.10	----
10-268	1/2" x 3/8"	1.62	0.75	0.12	----
10-269L	1/2" x 1/2"	1.62	0.87	0.13	----
10-269	1/2" x 1/2"	1.79	0.87	0.15	----
10-270	1/2" x 3/4"	1.75	1.06	0.22	----
10-271	5/8" x 1/4"	1.81	0.87	0.14	----
10-272L	5/8" x 3/8"	1.67	0.87	0.14	----
10-272	5/8" x 3/8"	1.81	0.87	0.18	----
10-273L	5/8" x 1/2"	1.80	0.87	0.11	----
10-273	5/8" x 1/2"	2.00	0.87	0.20	----
10-274	5/8" x 3/4"	1.85	1.06	0.21	----
10-275	3/4" x 1/2"	2.19	1.06	0.28	----
10-276	3/4" x 3/4"	2.08	1.06	0.28	----
10-277	7/8" x 1/2"	2.22	1.25	0.52	----
10-278	7/8" x 3/4"	2.35	1.25	0.41	----
10-279	1" x 3/4"	2.44	1.43	0.53	----
10-280	1" x 1"	2.44	1.43	0.53	----

\* Available in Stainless Steel. Add SS to the part#

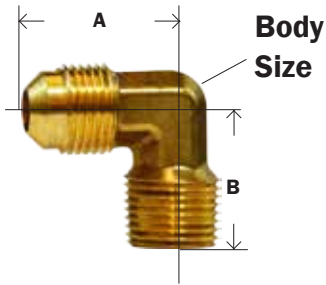
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 **"L" means light pattern.**

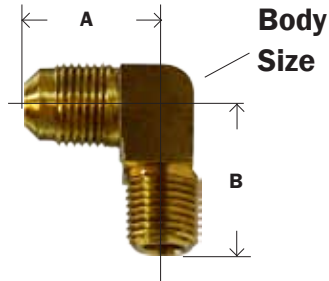
-These fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

**90° MALE ELBOW**

SAE# 010202



**Forged Elbow**



**Barstock Elbow**

Part #	Male Flare x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-283	1/8" x 1/8"	0.63	0.73	0.37	0.04	----
10-283B*	1/8" x 1/8"	0.62	0.69	0.43	0.04	----
10-284	3/16" x 1/8"	0.75	0.75	0.44	0.04	----
10-284B*	3/16" x 1/8"	0.75	0.75	0.43	0.06	----
10-285	3/16" x 1/4"	0.81	0.88	0.44	0.08	----
10-286	1/4" x 1/8"	0.84	0.78	0.38	0.04	----
10-286B*	1/4" x 1/8"	0.81	0.78	0.47	0.05	----
10-287 **	1/4" x 1/4"	0.81	0.88	0.44	0.05	----
10-287B*	1/4" x 1/4"	0.91	0.93	0.59	0.08	----
10-288 **	1/4" x 3/8"	0.91	0.91	0.47	0.08	----
10-289	1/4" x 1/2"	1.03	1.09	0.59	0.10	----
10-290	5/16" x 1/8"	0.91	0.88	0.44	0.06	----
10-290B*	5/16" x 1/8"	0.91	0.78	0.52	0.06	----
10-291	5/16" x 1/4"	0.98	0.96	0.44	0.08	----
10-291B*	5/16" x 1/4"	0.95	0.92	0.62	0.08	----
10-292	5/16" x 3/8"	1.06	1.09	0.59	0.08	----
10-293	3/8" x 1/8"	1.00	0.91	0.53	0.08	----
10-293B*	3/8" x 1/8"	1.03	0.91	0.65	0.08	----
10-294	3/8" x 1/4"	1.01	0.89	0.48	0.08	----
10-294B*	3/8" x 1/4"	0.97	1.04	0.68	0.11	----
10-295 **	3/8" x 3/8"	1.00	0.88	0.47	0.10	----
10-295B*	3/8" x 3/8"	1.06	1.09	0.69	0.12	----
10-296 **	3/8" x 1/2"	1.10	1.09	0.59	0.12	----
10-297	3/8" x 3/4"	1.25	1.31	0.81	0.12	----
10-298	1/2" x 1/4"	1.19	1.00	0.59	0.12	----
10-298B*	1/2" x 1/4"	1.22	1.19	0.81	0.12	----
10-299	1/2" x 3/8"	1.10	1.00	0.59	0.13	----
10-299B*	1/2" x 3/8"	1.22	1.12	0.77	0.18	----
10-300	1/2" x 1/2"	1.16	1.13	0.59	0.14	----
10-300B*	1/2" x 1/2"	1.26	1.36	0.94	0.26	----
10-301	1/2" x 3/4"	1.42	1.25	0.81	0.24	----
10-311	5/8" x 1/4"	1.34	1.13	0.72	0.28	----
10-302	5/8" x 3/8"	1.35	1.22	0.72	0.20	----
10-302B*	5/8" x 3/8"	1.41	1.25	0.94	0.20	----
10-303	5/8" x 1/2"	1.35	1.22	0.72	0.20	----
10-303B*	5/8" x 1/2"	1.41	1.38	0.94	0.20	----
10-304	5/8" x 3/4"	1.44	1.31	0.81	0.25	----
10-305	3/4" x 1/2"	1.67	1.50	0.88	0.34	----
10-306	3/4" x 3/4"	1.67	1.63	0.88	0.30	----
10-306B*	3/4" x 3/4"	1.60	1.62	0.91	0.32	----
10-307	7/8" x 3/4"	1.75	1.68	1.00	0.44	----
10-308	1" x 3/4"	1.94	1.69	1.31	0.75	----
10-309	1" x 1"	1.94	1.75	1.25	0.78	----

\* Barstock

249F 49 E1 149F

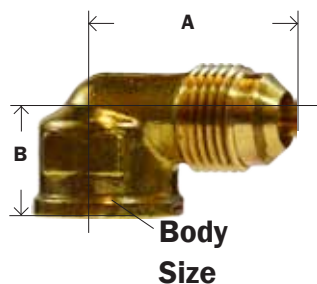
\*\* Available in Stainless Steel. Add SS to the part#

## SAE 45° FLARE

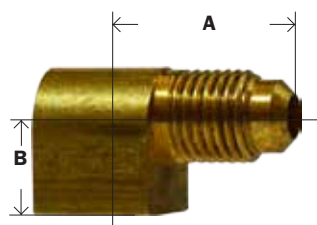
## BRASS FITTINGS

## 90° FEMALE ELBOW

SAE# 010203



Forged Elbow



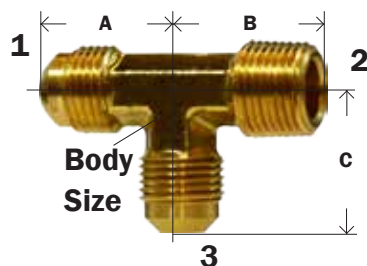
Barstock Elbow

Part #	Male Flare x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-312	3/16" x 1/8"	0.81	0.44	0.56	0.05	----
10-313	1/4" x 1/8"	0.90	0.46	0.56	0.06	----
10-313B*	1/4" x 1/8"	0.88	0.47	0.56	0.06	----
10-314	1/4" x 1/4"	0.97	0.59	0.75	0.08	----
10-315	1/4" x 3/8"	1.03	0.57	0.81	0.09	----
10-333	1/4" x 1/2"	1.08	0.66	1.00	0.12	----
10-316	5/16" x 1/8"	0.94	0.88	0.45	0.08	----
10-317	5/16" x 1/4"	1.03	0.58	0.75	0.06	----
10-318	3/8" x 1/8"	1.00	0.88	0.47	0.10	----
10-319	3/8" x 1/4"	1.06	0.59	0.75	0.09	----
10-319B*	3/8" x 1/4"	1.09	0.69	0.75	0.10	----
10-320	3/8" x 3/8"	1.06	0.57	0.81	0.10	----
10-321	3/8" x 1/2"	1.16	0.66	1.00	0.14	----
10-322	3/8" x 3/4"	1.28	0.72	1.25	0.12	----
10-323	1/2" x 1/4"	1.25	0.70	0.88	0.13	----
10-324	1/2" x 3/8"	1.25	0.70	0.88	0.12	----
10-325	1/2" x 1/2"	1.29	0.72	1.00	0.18	----
10-326	1/2" x 3/4"	1.41	0.72	1.25	0.20	----
10-327	5/8" x 3/8"	1.35	1.22	0.72	0.22	----
10-328	5/8" x 1/2"	1.38	0.75	1.00	0.20	----
10-329	5/8" x 3/4"	1.50	0.76	1.25	0.28	----
10-330	3/4" x 1/2"	1.63	1.06	1.06	0.42	----
10-331	3/4" x 3/4"	1.88	1.06	1.31	0.40	----

\* Barstock

E3 50 150F

## FORGED MALE RUN TEE

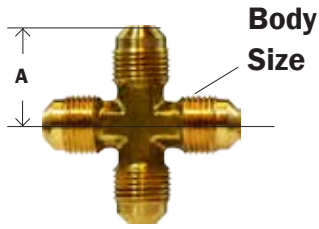


Part #	Male Flare x Male NPTF (1&3) x 2	A	B	C	Body Size	Approx. Wt. Lbs.	List Price
10-361	3/16" x 5/16" x 1/8"	0.87	0.78	0.97	0.44	0.08	----
10-343	3/16" x 1/8"	0.75	0.75	0.75	0.37	0.05	----
10-344	1/4" x 1/8"	0.78	0.75	0.78	0.37	0.06	----
10-345	1/4" x 1/4"	0.88	0.88	0.88	0.44	0.08	----
10-347	5/16" x 1/8"	0.88	0.80	0.88	0.44	0.08	----
10-348	5/16" x 1/4"	0.94	0.94	0.94	0.44	0.08	----
10-350	3/8" x 1/4"	1.00	0.94	1.00	0.44	0.12	----
10-351	3/8" x 3/8"	1.00	1.00	1.00	0.47	0.10	----
10-340	3/8" x 1/2" x 3/8"	1.09	1.09	1.16	0.59	0.18	----
10-352	3/8" x 1/2"	1.12	1.22	1.12	0.69	0.12	----
10-353	1/2" x 3/8" x 1/2"	1.22	1.22	1.15	0.69	0.22	----
10-354	1/2" x 3/8"	1.16	1.09	1.16	0.59	0.18	----
10-355	1/2" x 1/2"	1.22	1.22	1.22	0.69	0.22	----
10-357	5/8" x 1/2"	1.41	1.31	1.41	0.69	0.28	----
10-359	3/4" x 1/2"	1.63	1.59	1.63	0.88	0.48	----
10-360	3/4" x 3/4"	1.62	1.44	1.62	0.88	0.48	----

T3 151F 51

**FORGED FLARE CROSS**

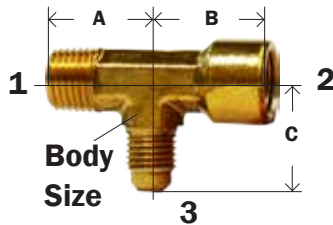
SAE# 010501



Part #	Thread Size UNF	A	Body Size	Approx. Wt. Lbs.	List Price
10-373	1/4"	0.88	0.44	0.10	----
10-374	5/16"	0.92	0.44	0.10	----
10-375	3/8"	1.00	0.44	0.16	----
10-376	1/2"	1.16	0.59	0.24	----

455 C1 147F 52

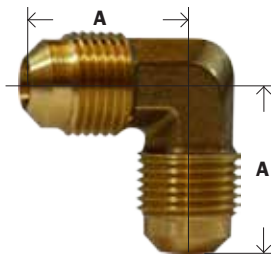
**FORGED ADAPTER TEE / SERVICE TEE**



Part #	Size 1 x 2 x 3	A	B	C	Body Size	Approx. Wt. Lbs.	List Price
10-382	1/8" x 1/8" x 1/4"	0.72	0.53	0.80	0.47	0.08	----
10-383	1/4" x 1/4" x 1/4"	0.88	1.00	0.91	0.47	0.11	----

T17 53

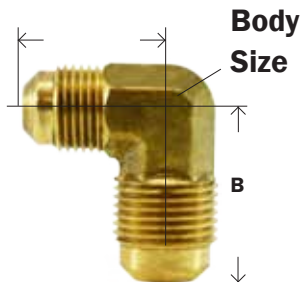
**FORGED 90° FLARE ELBOW**



Part #	Thread Size UNF	A	Approx. Wt. Lbs.	List Price
10-404	1/8"	0.64	0.04	----
10-405	3/16"	0.75	0.06	----
10-406	1/4"	0.81	0.08	----
10-407	5/16"	0.91	0.10	----
10-408	3/8"	1.00	0.10	----
10-409	1/2"	1.16	0.14	----
10-410	5/8"	1.41	0.22	----
10-411	3/4"	1.66	0.68	----
10-412	7/8"	1.81	0.82	----

E2 155F

**FORGED REDUCING ELBOW**



Part #	Male Flare x Male Flare	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-416	3/8" x 1/4"	1.00	0.88	0.47	0.08	----
10-419	1/2" x 3/8"	1.19	1.02	0.59	0.14	----
10-421	5/8" x 1/2"	1.34	1.23	0.72	0.21	----

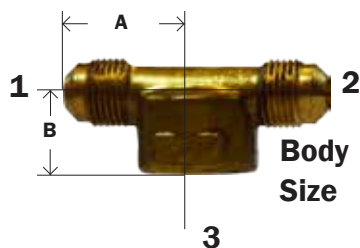
ER2 657F 55R



## SAE 45° FLARE/ GAS RANGE FITTINGS

## BRASS FITTINGS

## FORGED FEMALE BRANCH TEE

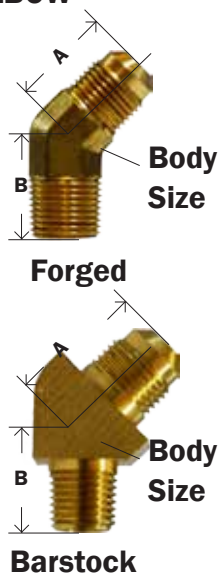


Part #	Male Flare x Female NPTF (1&2) x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-429	1/4" x 1/4"	0.97	0.75	0.69	0.12	----
10-430	3/8" x 1/4"	1.00	1.03	0.47	0.14	----
10-431	3/8" x 3/8"	1.17	0.69	1.05	0.22	----
10-432	3/8" x 1/2"	1.16	0.69	1.05	0.19	----
10-434	1/2" x 1/2"	1.31	0.69	1.06	0.22	----

TF1 136 T4 36 58FP

## 45° ELBOW

## SAE# 010302



Part #	Male Flare x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-448	1/4" x 1/8"	0.67	0.64	0.41	0.04	----
10-448B*	1/4" x 1/8"	0.67	0.64	0.44	0.04	----
10-449	1/4" x 1/4"	0.75	0.86	0.53	0.07	----
10-450	5/16" x 1/8"	0.78	0.64	0.53	0.06	----
10-451	5/16" x 1/4"	0.81	0.86	0.53	0.07	----
10-452	3/8" x 1/4"	0.91	0.86	0.53	0.09	----
10-452B*	3/8" x 1/4"	0.89	0.86	0.64	0.12	----
10-453	3/8" x 3/8"	0.93	0.94	0.59	0.11	----
10-454	3/8" x 1/2"	0.99	1.17	0.75	0.19	----
10-455	1/2" x 3/8"	1.07	0.88	0.59	0.12	----
10-455B*	1/2" x 3/8"	1.06	0.94	0.76	0.18	----
10-456	1/2" x 1/2"	1.12	1.18	0.75	0.20	----
10-460	5/8" x 3/8"	1.13	0.95	0.81	0.22	----
10-457	5/8" x 1/2"	1.12	1.17	0.78	0.18	----
10-458	3/4" x 1/2"	1.28	1.16	0.88	0.26	----
10-459	3/4" x 3/4"	1.41	1.20	0.88	0.31	----

\* Barstock

E145 54 159F 654F 59FF 254 47 4945

## BRASS GAS RANGE FITTINGS

## BRASS MALE ADAPTERS



## 15/16-16 FLARE THREAD

Part #	Male Flare x Male NPTF	List Price
35-132	1/2" x 1/2" (3/8" FIP TAP)	----
35-134	15/16" x 1/2"	----
35-135	15/16" x 3/4" (1/2" FIP TAP)	----

## BRASS FEMALE ADAPTERS



Part #	Flare x FIP	List Price
35-136	15/16" x 1/2"	----
35-142	15/16" x 3/4"	----

## DRUM ADAPTERS



- Straight Thread

## SAE# 010165

Part #	Male Flare x FIP	List Price
50-011	1/4" x 1/2"	----
50-001	1/4" x 3/4"	----

## CAP



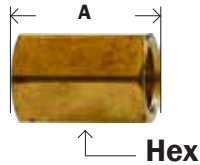
Part #	Size	List Price
35-186	15/16"	----

RD IF K1

**FEMALE 45° FLARE FITTINGS**

**UNION**

• Use with Copper Gasket



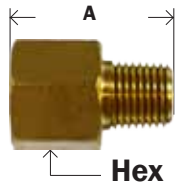
**SAE# 010107**

Part #	Female Flare x Female Flare	A	Hex	Approx. Wt. Lbs.	List Price
10-135	1/4"	1.00	0.62	0.06	----
10-136	3/8"	1.25	0.81	0.14	----
10-137	1/2"	1.43	0.94	0.18	----

2310 U4 660HD 32

**FEMALE FLARE ADAPTER**

**SAE# 010106**

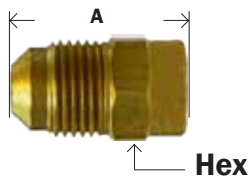


Part #	Female Flare x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-440	1/4" x 1/8"	0.91	0.62	0.05	----
10-441	1/4" x 1/4"	1.01	0.62	0.06	----
10-442	3/8" x 1/4"	1.28	0.81	0.10	----
10-443	1/2" x 3/8"	1.36	0.94	0.14	----
10-444	1/2" x 1/2"	1.46	0.94	0.14	----

U5 664FHD 33 48-FF

**FLARE REDUCER**

**SAE# 010105**



Part #	Male Flare x Female Flare	A	Hex	Approx. Wt. Lbs.	List Price
10-462	1/4" x 3/8"	1.22	0.81	0.10	----
10-461	1/4" x 1/2"	1.36	0.94	0.14	----
10-463 *	3/8" x 1/4"	1.12	0.62	0.06	----
10-464	3/8" x 1/2"	1.44	0.94	0.14	----
10-473	3/8" x 5/8"	1.63	1.12	0.16	----
10-467	1/2" x 3/8"	1.41	0.81	0.13	----
10-468	1/2" x 5/8"	1.68	1.06	0.20	----
10-469	5/8" x 1/2"	1.63	1.00	0.17	----
10-470	5/8" x 3/4"	1.97	1.31	0.31	----
10-471	3/4" x 5/8"	1.75	1.18	0.32	----

\* Available in Stainless Steel. Add SS to the part#

UR3 661FHD 227 46-FF

**SPACE HEATER FITTINGS**

**NUT**

**9/16-24 FINE THREAD FLARE**

**MALE ADAPTER**

**#M-82SH**



**#M-83SH**



Part #	Size	List Price
14-001	3/8	----

Part #	Size	List Price
14-016	3/8 x 3/8	----
14-017	3/8 x 1/2	----

**UNION**

**#M-80SH**



**FEMALE ADAPTER**



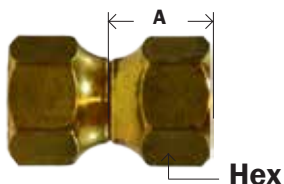
Part #	Size	List Price
14-018	3/8 x 3/8	----
14-025	3/8 x 1/2	----

Part #	Size	List Price
14-011	3/8	----

## BRASS FLARE SWIVEL FITTINGS

## FORGED SWIVEL

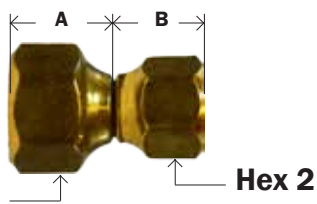
SAE# 010108



Part #	Female Flare UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-481	1/4"	0.59	0.62	0.04	----
10-482	5/16"	0.62	0.68	0.06	----
10-483	3/8"	0.69	0.81	0.10	----
10-484	1/2"	0.81	0.94	0.16	----
10-485	5/8"	0.94	1.06	0.24	----
10-486	3/4"	1.12	1.31	0.34	----

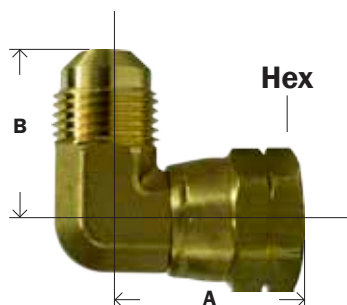
1350 US4 14FSV 34

## REDUCING SWIVELS



Part #	Female Flare UNF	A	B	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
10-487	3/8" x 1/4"	0.72	0.60	0.81	0.62	0.08	----
10-488	1/2" x 3/8"	0.84	0.70	0.94	0.81	0.12	----
10-489	5/8" x 1/2"	0.98	0.82	1.03	0.94	0.22	----

## FORGED SWIVEL ELBOWS



Part #	Male Flare x Female Flare	A	B	Hex	Approx. Wt. Lbs.	List Price
10-493	1/4"	0.93	0.86	.563	0.12	----
10-494	3/8"	1.12	1.0	.75	0.20	----
10-495	1/2"	1.29	1.20	.88	0.25	----
10-496	5/8"	1.50	1.30	1.00	0.37	----
10-497	3/4"	1.83	1.60	1.25	0.54	----

ES4

**STRAIGHT**



Part #	JIC Thread	Pipe Size	List Price
28-701	7/16-20	1/8	----
28-702	7/16-20	1/4	----
28-703	7/16-20	3/8	----
28-704	1/2-20	1/8	----
28-705	1/2-20	1/4	----
28-706	9/16-18	1/8	----
28-707	9/16-18	1/4	----
28-708	9/16-18	3/8	----
28-709	9/16-18	1/2	----
28-710	3/4-16	1/4	----
28-711	3/4-16	3/8	----
28-712	3/4-16	1/2	----
28-713	3/4-16	3/4	----
28-714	7/8-14	3/8	----
28-715	7/8-14	1/2	----
28-716	7/8-14	3/4	----
28-717	1-1/16-12	3/4	----
28-748	1-1/16-1/2	1/2	----
28-749	1-1/16-1	1	----
28-718	1-5/16-12	1	----

FTXB

**45° FORGED ELBOW**



Part #	JIC Thread	Pipe Size	List Price
28-722F	7/16-20	1/8	----
28-724F	7/16-20	1/4	----
28-728F	1/2-20	1/4	----
28-729F	9/16-18	1/8	----
28-731F	9/16-18	1/4	----
28-733F	9/16-18	3/8	----
28-734F	9/16-18	1/2	----
28-736F	3/4-16	3/8	----
28-738F	3/4-16	1/2	----
28-740F	7/8-14	1/2	----
28-742F	1-1/16-12	3/4	----

VTXB

**90° FORGED ELBOW**



Part #	JIC Thread	Pipe Size	List Price
28-760F	7/16-20	1/8	----
28-762F	7/16-20	1/4	----
28-766F	1/2-20	1/4	----
28-768F	9/16-18	1/8	----
28-770F	9/16-18	1/4	----
28-772F	9/16-18	3/8	----
28-773F	9/16-18	1/2	----
28-774F	3/4-16	3/8	----
28-777F	3/4-16	1/2	----
28-778F	3/4-16	3/4	----
28-780F	7/8-14	1/2	----
28-781F	1-1/16-12	1/2	----
28-783F	1-1/16-12	3/4	----
28-784F	1-5/16-12	3/4	----
28-786F	1-5/16-12	1	----

CTXB

**STRAIGHT SWIVEL ADAPTER**



Part #	JIC Thread	Pipe Size	List Price
28-753	9/16-18	1/4	----
28-754	9/16-18	3/8	----
28-756	3/4-16	1/2	----

**Thread Chart**

Size	JIC Thread
1/8	5/16-24
3/16	3/8-24
1/4	7/16-20
5/16	1/2-20
3/8	9/16-18
1/2	3/4-16
5/8	7/8-14
3/4	1-1/16-12
1	1-5/16-12

**FEMALE STRAIGHT ADAPTER**



Part #	JIC Thread	Pipe Size	List Price
28-957	7/16-20	1/8	----
28-958	7/16-20	1/4	----
28-959	9/16-18	1/4	----
28-960	9/16-18	3/8	----
28-961	3/4-16	3/8	----
28-962	3/4-16	1/2	----
28-963	7/8-14	1/2	----
28-964	1-1/16-12	3/4	----

GTXB

**STRAIGHT TUBE UNION**



Part #	Tube (JIC Thread)	List Price
28-966	1/4(7/16-20)	----
28-969	3/8(9/16-18)	----
28-970	1/2(3/4-16)	----
28-971	3/4(1-1/16-12)	----
28-972	1(1-5/16-12)	----


HTXB

**FEMALE ELBOW (FORGED BODY)**



Part #	JIC Thread	Pipe Size	List Price
28-973	7/16-20	1/8	----
28-974	7/16-20	1/4	----
28-975	9/16-18	1/4	----

DTXB

 See page 414 for steel 37° JIC straights

 See page 416 for steel 37° JIC shapes

# INVERTED FLARE



Tube O.D.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
Thread O.D. threads per inch	5/16-28	3/8-24	7/16-24	1/2-20	5/8-18	11/16-18	3/4-18	7/8-18	1-1/16-16	1-3/16-16	1-5/16-16

### •Typical Application

Hydraulic brake, power steering, fuel lines and transmission cooler lines, LP and natural gas.

### •Working Pressure Ranges

Temperature and type of tubing used are important factors. However, the following table is a good guide for proper selection. Temperature 73°F with copper tubing:

PSI	Tube O.D. (in.)	Tube Wall (in.)
2800	1/8	.030
1900	3/16	.030
1400	1/4	.030
1200	5/16	.032
1000	3/8	.032
750	1/2	.032
650	5/8	.035
550	3/4	.035

### •Vibration

Excellent resistance.

### •Temperature Range

-65°F to +250°F (-53°C to +121°C) range at maximum operating pressures.

### •Used With

Copper, brass, aluminum and steel hydraulic tubing that can be flared.

### •Advantages

Very low cost and reusable. Seats and threads are internal and protected. Compact, excellent vibration life. Short nut affords very close tube bends. Steel or brass tube nut.

### •Tolerance

+/- .03 on all dimensions.

### •Conformance

Meets specifications and standards of ASA, ASME, SAE and MS (Military Standards).

### •Assembly Instructions

- 1-Cut tubing to desired length. Make sure all burrs are removed and the ends are cut square.
- 2- Slide nut on tube. Threaded end "A" of nut must face out.
- 3- Flare end of tube with a 45° flaring tool.
  - a- Measure flare diameter.
  - b- Examine flare for excessive thin out.
  - c- On thin wall, welded or brazed tubing, use double flare to prevent pinch-off and cracked flares.
- 4- Lubricate threads and assemble to fitting body. Nut should be turned hand tight.
- 5- Tighten assembly with wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.

**Note:** Do not over-torque as it may damage the fitting or split the tubing at the flare.

### STANDARD METRIC THREADS

Description Tube Size	Thread O.D.	Crest (Pitch)	Thread Description
Japanese 3/16"	10mm	1.0mm	M10 x 1.0
European 3/16"	10mm	1.0mm	M10 x 1.0
GM 6mm	12mm	1.0mm	M12 x 1.0
Fuel 5/16"	14mm	1.5mm	M14 x 1.5
Fuel 3/8"	16mm	1.5mm	M16 x 1.5

**Measuring Metric Threads:** Measure the O.D. of the threads and the crest to crest distance (pitch) in millimeters between threads.

### Actual O.D. of male inverted flare threads

5/16"-28 2800 PSI	3/8"-24 1900 PSI	7/16"-24 1400 PSI	1/2"-20 1200 PSI	5/8"-18 1000 PSI	3/4"-18 750 PSI	7/8"-18 650 PSI	1-1/16"-16 550 PSI
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1/8"

3/16"

1/4"

5/16"

3/8"

1/2"

5/8"

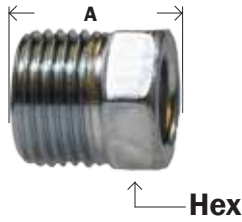
3/4"

# BRASS FITTINGS

# INVERTED FLARE

## ZINC CHROMATE STEEL NUT

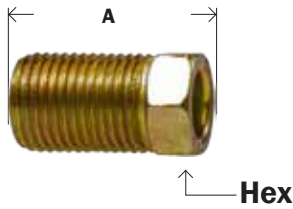
SAE# 040110



Part #	Size	Thread	A	Hex	Approx. Wt. Lbs.	List Price
12-001	1/8"	5/16-28	0.52	0.31	0.01	----
12-002	3/16"	3/8-24	0.56	0.37	0.02	----
12-018	3/16"	7/16-24				----
12-003	1/4"	7/16-24	0.56	0.43	0.02	----
12-004	5/16"	1/2-20	0.62	0.50	0.02	----
12-005	3/8"	5/8-18	0.66	0.62	0.03	----
12-000	7/16"	11/16-18	0.68	0.68	0.04	----
12-011	3/8"	11/16-18	0.66	0.68	0.05	----
12-006	1/2"	3/4-18	0.74	0.75	0.08	----
12-007	5/8"	7/8-18	0.80	0.87	0.10	----
12-008	3/4"	1-1/16-16	0.88	1.06	0.10	----

121XXX 2105 411FS 105 41W

## LONG STEEL NUT



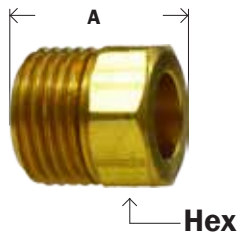
for Domestic lines

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-009	3/16"	0.84	0.37	0.02	----
12-010	1/4"	0.81	0.43	0.02	----

7896

## INVERTED FLARE BRASS NUT

SAE# 040110



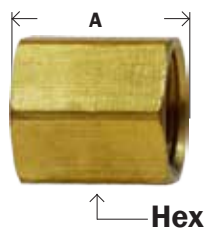
Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-012	1/8"	0.52	0.31	0.01	----
12-013	3/16"	0.56	0.37	0.01	----
12-014	1/4"	0.56	0.43	0.02	----
12-015	5/16"	0.62	0.50	0.03	----
12-016	3/8"	0.66	0.62	0.04	----
12-017	1/2"	0.74	0.75	0.05	----

2100 411F 100 411B

## ZINC STEEL METRIC TUBE NUTS



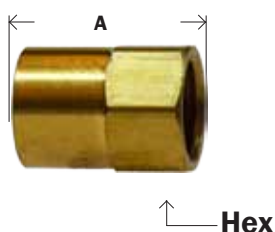
Part #	Tube size	Thread	Ref#	List Price
12-260	3/16 British	3/8-24 Bubble	---	----
12-261	3/16 European	M10 x 1.0 Bubble	276110	----
12-262	3/16 Japanese	M10 x 1.0 Inv.	121050	----
12-263	3/16 Domestic	1/2 x 20 Inv.	---	----
12-264	3/16 Domestic	9/16 - 18 Inv.	121039	----
12-265	3/16 Imported	M11 x 1.5 Bubble	276011	----
12-266	3/16 Imported	M12 x 1.0 Bubble	276012	----
12-267	3/16 Imported	M13 x 1.5 Bubble	276013	----
12-268	1/4 Domestic	9/16 x 18 Inv.	121049	----
12-269	1/4 Domestic	1/2 x 20 Inv.	121045	----
12-270	6mm Imported	M12 x 1.0 Bubble		----
12-271	6mm GM	M12 x 1.0 Bubble		----
12-272	6mm GM	M12 x 1.5 Bubble		----
12-273	6mm GM	M14 x 1.5 Bubble		----
12-274	5/16 Domestic	M14 x 1.5 Surface Seal	121069	----
12-275	3/8 Domestic	M16 x 1.5 Surface Seal	121070	----

**INVERTED FLARE****BRASS FITTINGS****UNION INTERNAL****SAE# 040101**

Part #	Inv. Flare X Inv. Flare	A	Hex	Approx. Wt. Lbs.	List Price
12-022	1/8"	0.59	0.40	0.02	----
12-023	3/16"	0.62	0.47	0.02	----
12-024	1/4"	0.62	0.50	0.03	----
12-025	5/16"	0.70	0.56	0.04	----
12-026	3/8"	0.80	0.75	0.08	----
12-027	1/2"	0.91	0.90	0.10	----

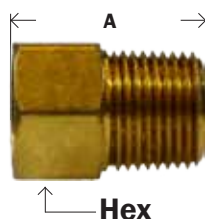
see page 69 for metric unions

302 2300 42IFHD

**FEMALE ADAPTER****SAE# 040103**

Part #	Inv. Flare X Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
12-032	3/16" x 1/8"	0.75	0.50	0.02	----
12-033	1/4" x 1/8"	0.75	0.53	0.02	----
12-034	5/16" x 1/8"	0.78	0.59	0.04	----
12-035	3/8" x 1/4"	1.03	0.75	0.08	----
12-036	1/2" x 3/8"	1.10	0.90	0.12	----

46IFHD 252 46W

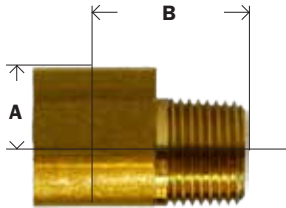
**MALE ADAPTER****SAE# 040102**

Part #	Inv. Flare X Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
12-041	1/8" x 1/8"	0.63	0.40	0.02	----
12-042	3/16" x 1/8"	0.70	0.43	0.02	----
12-043	1/4" x 1/8"	0.74	0.50	0.03	----
12-044	1/4" x 1/4"	0.89	0.56	0.04	----
12-045	5/16" x 1/8"	0.79	0.56	0.03	----
12-046	5/16" x 1/4"	0.98	0.56	0.05	----
12-047	3/8" x 1/8"	0.88	0.72	0.05	----
12-048	3/8" x 1/4"	1.02	0.75	0.06	----
12-049	3/8" x 3/8"	1.02	0.75	0.08	----
12-038	1/2" x 1/4"	0.97	0.87	0.10	----
12-050	1/2" x 3/8"	1.06	0.87	0.08	----
12-051	1/2" x 1/2"	1.06	0.87	0.11	----
12-052	5/8" x 1/2"	1.32	1.06	0.15	----
12-040	3/4" x 3/4"	1.39	1.25	0.24	----

2200 48IFHD 202 48W 200

**ELBOW**

**SAE# 040202**



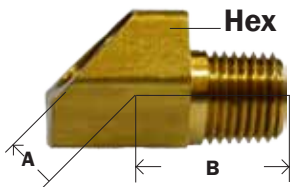
Part #	Inv. Flare X Male NPTF	A	B	Approx. Wt. Lbs.	List Price
12-057	1/8" x 1/8"	0.26	0.59	0.03	----
12-058	3/16" x 1/8"	0.26	0.61	0.03	----
12-059	1/4" x 1/8"	0.33	0.65	0.04	----
12-054*	1/4" x 1/8"	0.33	0.65	0.04	----
12-060	1/4" x 1/4"	0.28	0.82	0.06	----
12-061	5/16" x 1/8"	0.47	0.68	0.05	----
12-062	5/16" x 1/4"	0.45	0.85	0.08	----
12-063	3/8" x 1/8"	0.54	0.76	0.14	----
12-064	3/8" x 1/4"	0.53	0.92	0.14	----
12-065	3/8" x 3/8"	0.50	0.94	0.12	----
12-066	1/2" x 3/8"	0.59	1.03	0.16	----
12-067	1/2" x 1/2"	0.66	1.22	0.25	----
12-056	5/8" x 3/8"	0.67	1.09	0.20	----
12-068	5/8" x 1/2"	0.67	1.29	0.18	----
12-069	3/4" x 1/2"	0.80	1.39	0.42	----
12-080	7/8" x 3/4"	0.94	1.43	0.48	----
12-081	1" x 1"	1.02	1.69	0.60	----

\* Restricted pipe end .062

400 2400 249IFHD 402 249IF 49W

**45° ELBOW**

**SAE# 040302**

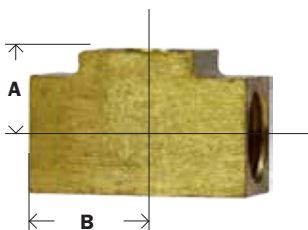


Part #	Inv. Flare X Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
12-072	3/16" x 1/8"	0.25	0.55	0.53	0.02	----
12-073	1/4" x 1/8"	0.27	0.58	0.56	0.04	----
12-074	5/16" x 1/8"	0.36	0.56	0.62	0.06	----
12-075	5/16" x 1/4"	0.23	0.83	0.62	0.06	----
12-076	3/8" x 1/4"	0.51	0.84	0.78	0.09	----
12-077	1/2" x 3/8"	0.38	0.91	0.84	0.11	----
12-079	5/8" x 1/2"	0.44	1.00	1.06	0.21	----

154 2352 259IFHD 352 94W

**UNION TEE**

**SAE# 040401**



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
12-085	1/8"	0.33	0.47	0.04	----
12-086	3/16"	0.39	0.55	0.04	----
12-087	1/4"	0.42	0.56	0.08	----
12-088	5/16"	0.45	0.63	0.09	----
12-089	3/8"	0.56	0.74	0.17	----
12-090	1/2"	0.67	0.88	0.24	----

244IFHD 702 44I



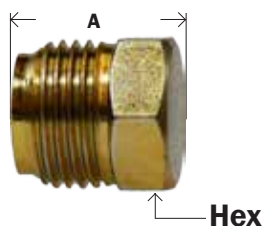
## INVERTED FLARE

## BRASS FITTINGS

## STEEL PLUG

• cored

SAE# 040109

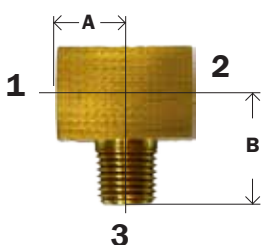


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-091	3/16"	0.53	0.37	0.01	----
12-092	1/4"	0.54	0.43	0.02	----
12-093	5/16"	0.59	0.50	0.03	----
12-094	3/8"	0.66	0.62	0.04	----

106 41IP 131 2131

## MALE BRANCH TEE

SAE# 040425

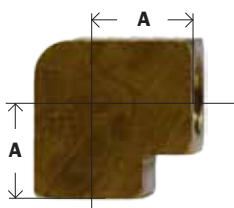


Part #	Inv. Flare x Male NPTF (1&2)x3	A	B	Approx. Wt. Lbs.	List Price
12-100	3/16" x 1/8"	0.41	0.60	0.04	----
12-101	1/4" x 1/8"	0.42	0.64	0.06	----
12-102	5/16" x 1/8"	0.47	0.68	0.07	----
12-103	3/8" x 1/4"	0.58	0.93	0.15	----

145 245IFHD 602 2600 600

## FEMALE ELBOW

SAE# 040203

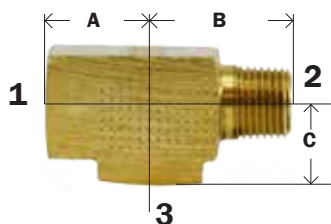


Part #	Inv. Flare x Female NPTF	A	Approx. Wt. Lbs.	List Price
12-110	1/4" x 1/8"	0.55	0.07	----
12-111	5/16" x 1/8"	0.51	0.08	----
12-112	3/8" x 1/4"	0.68	0.10	----

450

## MALE RUN TEE

SAE# 040424

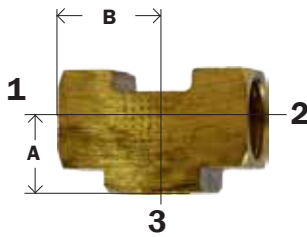


Part #	Inv. Flare x Male NPTF (1&3)x2	A	B	C	Approx. Wt. Lbs.	List Price
12-118	3/16" x 1/8"	0.53	0.72	0.39	0.06	----
12-119	1/4" x 1/8"	0.56	0.75	0.42	0.08	----
12-120	5/16" x 1/8"	0.62	0.85	0.45	0.10	----
12-121	3/8" x 1/4"	0.75	1.08	0.56	0.14	----

251IFHD 752 550 151

**FEMALE BRANCH TEE**

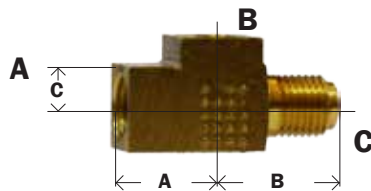
SAE# 040427



Part #	Inv. Flare x Female NPTF (1&2)x3	A	B	Approx. Wt. Lbs.	List Price
12-127	3/16" x 1/8"	0.39	0.55	0.06	----
12-129	5/16" x 1/8"	0.45	0.63	0.12	----
12-130	3/8" x 1/4"	0.56	0.74	0.17	----

252IFHD 652 136

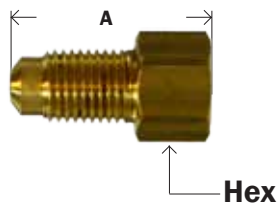
**TOWED TRAILER BRAKE TEE**



Part #	A	B	C	Reference #	Approx. Wt. Lbs.	List Price
12-147	3/16" 0.57	3/16" 0.76	3/16" 0.42	7900	0.08	----
12-145	3/16" (1/2-20) 0.68	3/16" (3/8-24) 0.94	3/16" (1/2-20) 0.47	7906	0.17	----
12-148	3/16" (9/16-18)	3/16" (3/8-24)	3/16" (9/16-18)	7933	0.10	----
12-144	3/16" (9/16-20) 0.82	3/16" (3/8-24) 0.94	3/16" (9/16-20) 0.47	7905	0.18	----
12-146	3/16" (7/16-24) 0.54	3/16" (3/8-24) 0.78	1/4" (7/16-24) 0.42	7914	0.08	----
12-150	1/4" 0.56	3/16" 0.77	1/4" 0.43	7901	0.10	----
12-149	1/4" (9/16-18) 0.81	3/16" (3/8-24) 0.93	1/4" (9/16-18) 0.50	7904	0.10	----
12-151	1/4" 0.56	1/4" 0.77	1/4" 0.43	7898	0.12	----

**INVERTED FLARE AUTO FITTINGS**

**DUAL MASTER CYLINDER ADAPTER**

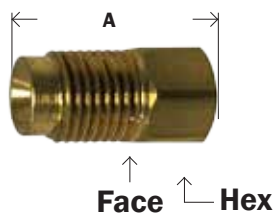


Part #	Male Flare x Female Inv.	A	Hex	Reference #	Approx. Wt. Lbs.	List Price
12-200	3/16" x 3/16"	1.00	0.50	1441	0.03	----
12-202	5/16" x 3/16"	0.96	0.68	7897	0.07	----

## INVERTED FLARE

## BRASS FITTINGS

## DUAL MASTER CYLINDER ADAPTER



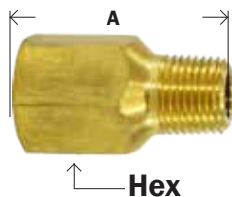
\* Seals on hex face



Part #	Male Inverted Thread	Female Inverted Thread	Ref#	List Price
12-206	3/16(9/16-18)	3/16	7911	----
12-209	3/16(9/16-18)	3/16(1/2-20)	7913	----
12-207	3/16(9/16-20)	3/16	7910	6.02
12-210	3/16	1/4	7828	----
12-212	1/4	3/16	7818	----
12-214*	7/16-20	1/4	7732	----
12-211	1/4(9/16-18)	1/4	7908	----
12-217	1/4	5/16	7917	----
12-213*	5/16	3/16	7817	19.32
12-216	5/16	3/16	7909	----
12-208	5/16	3/16(9/16-18)	7912	----
12-218*	5/16	1/4	7727	----
12-220	5/16	1/4	7829	----
12-222*	5/16	5/16	1074	----
12-221	5/16	3/8	7915	7.63
12-224	3/8" NPTF	5/16	7771	----
12-217	3/8	5/16	7916	----

47W

## CARBURETOR TO FUEL LINE ADAPTER - FORD

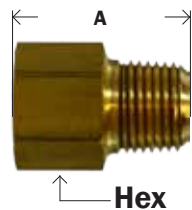


Part #	Female Tube OD x Male NPTF	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-230	1/4"(1/2-20) x 1/8"	1.06	0.56	1513	0.04	----

1513

## RESTRICTION PIPE ADAPTER

(.0625 ORIFICE)



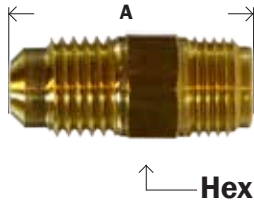
Part #	Size FIP x MIP	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-310	1/8"	0.75	0.50	1512	0.02	----

1510

## BRASS FITTINGS

## INVERTED FLARE

### SAE FLARE X INVERTED FLARE

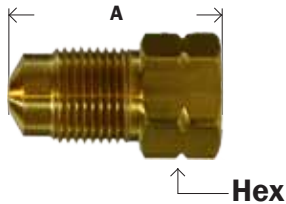


Part #	SAE Flare x Inv. Flare	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-250	1/4" x 3/16"	1.03	0.43	1518	0.02	----
12-252	1/4" x 1/4"	1.03	0.43	1522	0.03	----
12-254	3/8" x 5/16"	1.34	0.63	1553	0.08	----
12-256	3/8" x 3/8"	1.37	0.63	1563	0.09	----
12-257	3/8" x 7/16"	1.40	0.68	1554	0.10	----

4205

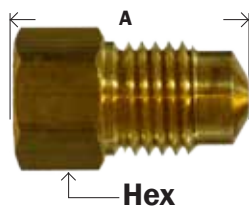
### METRIC HYDRAULIC BRAKE FITTINGS

#### METRIC ADAPTER



Part #	Bubble Male Thread	Tube O.D./ Female Thread	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-335	M10x1.0	3/16"(3/8-24)	1.02	0.50	1442	0.02	----
12-326	M11x1.5	3/16"(M10x1.0)	1.06	0.50	7935	0.02	----
12-327	M12x1.0	3/16"(M10x1.0)	1.02	0.53	7936	0.04	----
12-328	M16x1.5	3/16"(M10x1.0)	1.02	0.56	7937	0.06	----

#### ADAPTER STANDARD TO METRIC BUBBLE



Part #	Female Inv. Flare Seat	Male Metric Bubble Flare	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-336	3/16" (3/8-24)	11x1.5			7973		----
12-337	3/16" (3/8-24)	(3/16") (10x1.25)	1.00	0.50	7970	0.02	----
12-339	3/16" (3/8-24)	13x1.5	1.03	0.56	7972	0.04	----
12-341	3/16" (3/8-24)	12x1.0	1.02	0.53	7974	0.04	----

#### FEMALE X MALE ADAPTERS



Part #	Female Standard Flare Seat	Male Bubble Flare	Material	List Price
12-330	3/8-24 (3/16)	7/16-20	Steel	----

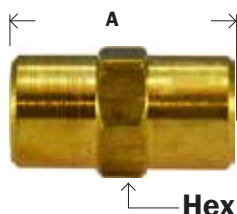


Part #	Tube OD/ Female Thread	Inverted Male Thread	Ref #	List Price
12-205	3/16 (3/8-24)	M10 x 1.0	1443	----



Part #	Female Standard Flare	Inverted Male Thread	Material	List Price
12-329	3/8-24 (3/16)	M9 x 1.0	Steel	----

#### METRIC UNION



Part #	Size	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-342	British Brake Lines 3/16 (3/8-24 Bubble)	0.87	0.50	1594	0.03	----
12-343	European Brake Lines 3/16"(10.0MM)	1.04	0.56	7975	0.04	----
12-344	Japanese Brake Lines 3/16 (M10 x 1.0) Inverted	1.00	0.50	7934A	0.04	----
12-345	GM Brake Lines 6mm M12 x 1.0 Bubble	1.11	0.63		0.06	----

# HEAVY DUTY TRUCK & TRAILER

ENTIRELY NEW TRUCK AND TRAILER SECTION PGS.380-401



## HOSE SUPPORT ACCESSORIES

HOLDER, SEPARATORS, POGO STICKS & MORE! - pgs 381-383



## AIR COMPONENTS

AIR COILS, VALVES, AIR CYLINDERS, GLAD HANDS & MORE! - pgs 384-391



## ELECTRICAL COMPONENTS

ELECTRICAL COIL ASSEMBLIES, SOCKETS, PLUGS & MORE! - pgs 392-397

# LP GAS PRODUCTS



## POL & ACME FITTINGS

p.459-467

## REGULATORS

p.468-477



## TANK EQUIPMENT

p.478-490

## BULK STORAGE & TRUCK EQUIPMENT

p.492-499



# COMPRESSION FITTINGS



## These are NOT Lead Free

See pages 161-169 for Lead Free products



• Steel and SS Compression Fittings on pages 441-443

<b>Tube O.D.</b>	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8
<b>Thread Size-B</b>	5/16-24	3/8-24	7/16-24	1/2-24	9/16-24	5/8-24	11/16-20	13/16-18	1-18	1-1/8-18
<b>Working Pressure</b>	400	400	300	300	200	200	200	150	100	75

### • Typical Application

Use with copper, aluminum and thermoplastic tubing. Not recommended for steel tubing. Manufactured for low and medium pressure tubing connection work where excessive vibration or tube movement is not involved. Not recommended for application using gaseous media.

### • Pressure

See table above for working pressures at 73°F.

### • Vibration

Fair resistance - use long nut when greater vibration resistance is needed.

### • Temperature Range

-65°F to +250°F (-53°C to +121°C) range at maximum operating pressures. (Refer to tubing temperature range.)

### • Used With

Aluminum, copper, brass and plastic tubing. Plastic tubing requires insert. Not recommended for steel tubing.

### • Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

### • Conformance

Meets specifications and standards of ASA, ASME and SAE.

### • Assembly Instructions

- 1- Cut tubing to desired length.
- 2- Slide nut and then sleeve on tube. Threaded end "A" of nut must face toward fitting.
- 3- Insert tubing into fitting body. Be sure tubing is bottomed on fitting shoulder.
- 4- Lubricate threads and assemble nut to fitting body.
- 5- Tighten nut hand tight. From that point, tighten with a wrench the number of turns indicated in the chart below.

Tube Size	Additional Turns from Hand Tight
1/8" thru 1/4"	1-1/4"
5/16"	1-3/4"
3/8" thru 1"	2-1/4"

• **"L" at the end of a Part# means Light Pattern** - These fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

### Actual Profile of Compression Threads



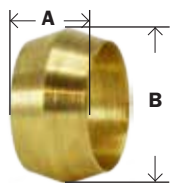
## COMPRESSION

## BRASS FITTINGS

## BRASS SLEEVE

• FERRULES

## SAE# 060115



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-001	1/8"	0.19	0.19	0.01	----
18-002	3/16"	0.22	0.27	0.01	----
18-003	1/4"	0.25	0.34	0.01	----
18-004	5/16"	0.25	0.41	0.01	----
18-005	3/8"	0.25	0.47	0.02	----
18-006	7/16"	0.31	0.53	0.02	----
18-007	1/2"	0.38	0.59	0.02	----
18-008	5/8"	0.38	0.71	0.03	----
18-009	3/4"	0.44	0.87	0.03	----
18-010	7/8"	0.41	0.99	0.03	----

60 260

## BRASS NUT

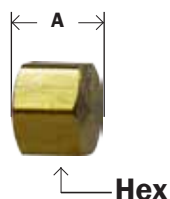
## SAE# 060110



Part #	Size	Thread	A	Hex	Approx. Wt. Lbs.	List Price
18-033	1/8"	5/16-24	0.38	0.37	0.01	----
18-034	3/16"	3/8-24	0.41	0.43	0.01	----
18-035L	1/4"	7/16-24	0.44	0.50	0.02	----
18-035	1/4"	7/16-24	0.44	0.50	0.02	----
18-036	5/16"	1/2-24	0.44	0.56	0.02	----
18-037L	3/8"	9/16-24	0.47	0.62	0.04	----
18-037	3/8"	9/16-24	0.47	0.62	0.04	----
18-038	7/16"	5/8-24	0.50	0.68	0.04	----
18-039L	1/2"	11/16-20	0.56	0.75	0.04	----
18-039	1/2"	11/16-20	0.62	0.81	0.04	----
18-040L	5/8"	13/16-18	0.56	0.87	0.06	----
18-040	5/8"	13/16-18	0.62	0.94	0.06	----
18-041	3/4"	1-18	0.68	1.12	0.08	----
18-042	7/8"	1-1/8 - 18	0.62	1.25	0.10	----

61 261

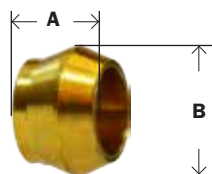
## CAP



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-047	1/4"	0.44	0.50	0.02	----
18-048	3/8"	0.40	0.62	0.04	----
18-049	1/2"	0.48	0.75	0.06	----
18-050	5/8"	0.56	0.94	0.10	----

61-CC N5CT

## COMPRESSION PLUG

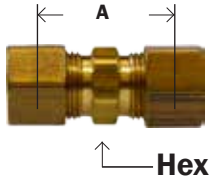


Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-029	3/8"	0.31	0.47	0.04	----
18-030	1/2"	0.34	0.59	0.06	----

CSP

**UNION**

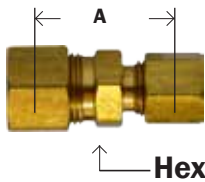
**SAE# 060101BA**



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-062	1/8"	0.64	0.31	0.03	----
18-063	3/16"	0.75	0.37	0.04	----
18-064L	1/4"	0.79	0.43	0.06	----
18-064	1/4"	0.81	0.43	0.06	----
18-065	5/16"	0.88	0.50	0.06	----
18-066L	3/8"	0.96	0.56	0.09	----
18-066	3/8"	0.98	0.56	0.10	----
18-067	7/16"	1.02	0.62	0.12	----
18-068L	1/2"	1.06	0.68	0.16	----
18-068	1/2"	1.25	0.68	0.16	----
18-069L	5/8"	1.43	0.81	0.24	----
18-069	5/8"	1.25	0.81	0.26	----
18-070	3/4"	1.41	1.00	0.35	----
18-071L	7/8"	1.03	1.12	0.34	----
18-071	7/8"	1.00	1.12	0.36	----

M-62

**REDUCING UNION**

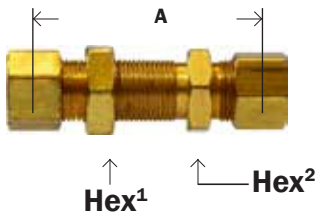


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-076	1/4" x 1/8"	0.73	0.44	0.04	----
18-077	1/4" x 3/16"	0.78	0.44	0.06	----
18-078	5/16" x 1/4"	0.81	0.50	0.06	----
18-079	3/8" x 1/4"	0.90	0.56	0.10	----
18-080	3/8" x 5/16"	0.94	0.56	0.10	----
18-081	1/2" x 3/8"	1.03	0.68	0.12	----
18-082	5/8" x 3/8"	1.03	0.81	0.15	----
18-083	5/8" x 1/2"	1.10	0.81	0.15	----
18-084	7/8" x 5/8"	1.23	1.18	0.20	----

62-R

**BULKHEAD UNIONS**

**SAE# 060101**



Part #	Size	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
18-088	1/4"	1.58	0.56	0.56	0.10	----
18-090	3/8"	1.76	0.68	0.68	0.14	----

62BH 75 274

**BULKHEAD NUTS**



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-097	1/4"	0.25	0.56	0.02	----
18-099	3/8"	0.25	0.68	0.04	----
18-100	1/2"	0.38	0.94	0.06	----

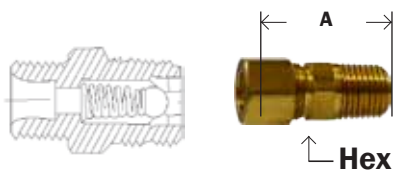
20102



## COMPRESSION

## BRASS FITTINGS

## BALL CHECK VALVE - Min. Working pressure 3 psi.

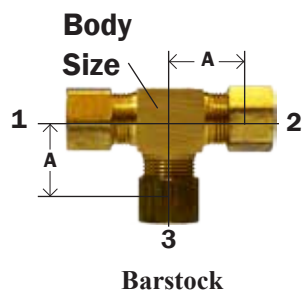
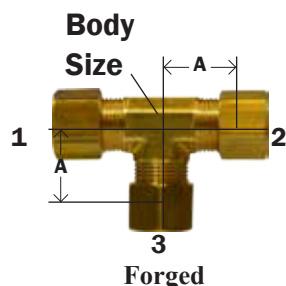


Part #	Tube OD x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
18-092	1/8" x 1/8"	0.78	0.44	0.04	----
18-094	1/4" x 1/8"	0.88	0.44	0.04	----
18-096	3/8" x 1/4"	1.16	0.56	0.08	----

63 263 63A

## TEE

## SAE# 060401

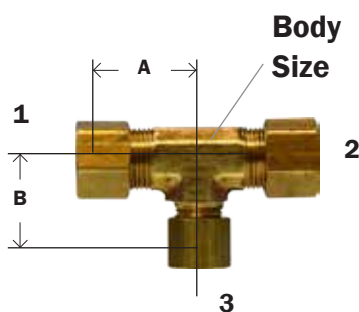


Part #	Size	A	Body Size	Approx. Wt. Lbs.	List Price
18-101	1/8"	0.61	0.37	0.04	----
18-101B*	1/8"	0.62	0.33	0.04	----
18-102	3/16"	0.59	0.36	0.08	----
18-102B*	3/16"	0.60	0.38	0.08	----
18-103	1/4"	0.63	0.36	0.10	----
18-103B*	1/4"	0.62	0.49	0.10	----
18-104	5/16"	0.72	0.50	0.13	----
18-104B*	5/16"	0.60	0.50	0.14	----
18-105	3/8"	0.75	0.50	0.16	----
18-105B*	3/8"	0.73	0.59	0.16	----
18-106	1/2"	0.94	0.59	0.22	----
18-106B*	1/2"	0.94	0.69	0.24	----
18-107	5/8"	1.06	0.69	0.28	----
18-108	3/4"	1.22	0.88	0.32	----
18-109	7/8"	1.25	0.94	0.34	----

\* Barstock

64 264C

## FORGED REDUCING TEE

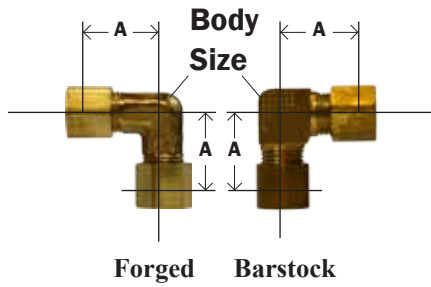


Part #	Size 1 x 2 x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-114	1/4" x 1/4" x 1/8"	0.62	0.59	0.38	0.09	----
18-110	1/4" x 1/4" x 3/8"	0.69	0.75	0.50	0.14	----
18-111	3/8" x 1/4" x 1/4"	0.75	0.69	0.50	0.12	----
18-115	3/8" x 3/8" x 1/4"	0.75	0.69	0.50	0.14	----
18-116	1/2" x 1/2" x 1/4"	0.94	0.81	0.59	0.16	----
18-117	1/2" x 1/2" x 3/8"	0.94	0.81	0.59	0.24	----
18-118	5/8" x 5/8" x 3/8"	1.06	0.94	0.69	0.28	----
18-119	5/8" x 5/8" x 1/2"	1.06	1.06	0.69	0.30	----

64-R

**UNION ELBOW**

**SAE# 060201**



Forged Barstock

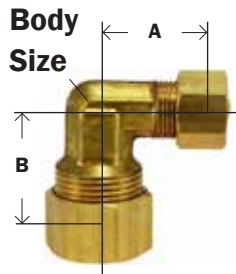
Forged  
Barstock

Part #	Size	A	Body Size	Approx. Wt. Lbs.	List Price
18-122B*	1/8"	0.62	0.35	0.04	----
18-123	3/16"	0.61	0.37	0.06	----
18-123B*	3/16"	0.62	0.41	0.06	----
18-124	1/4"	0.66	0.38	0.08	----
18-124B*	1/4"	0.60	0.48	0.08	----
18-125	5/16"	0.69	0.47	0.09	----
18-125B*	5/16"	0.62	0.52	0.09	----
18-126	3/8"	0.72	0.43	0.12	----
18-127	1/2"	0.94	0.59	0.19	----
18-127B*	1/2"	0.94	0.71	0.19	----
18-128	5/8"	1.06	0.72	0.26	----
18-129	3/4"	1.19	0.94	0.48	----
18-130	7/8"	1.25	0.94	0.44	----

\* Barstock

65 BSE2 165C 265C

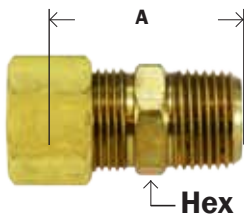
**REDUCING ELBOW - Forged**



Part #	Size	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-135	3/8" x 1/4"	0.69	0.75	0.47	0.12	----
18-136	1/2" x 3/8"	0.88	0.94	0.59	0.15	----
18-137	5/8" x 3/8"	0.88	0.97	0.56	0.18	----
31-137	3/8" OD x 5/8" OD	Chrome Plated				----

65-R

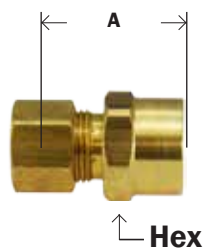
**TANK ADAPTER DRILLED THRU (NO STOP)**



Part #	Comp. X Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
18-208	1/4" x 1/8"	0.88	0.43	0.04	----
18-209	1/4" x 1/4"	0.99	0.56	0.05	----
18-210	3/8" x 1/4"	1.16	0.56	0.05	----
18-211	3/8" x 3/8"	1.09	0.68	0.08	----
18-212	3/8" x 1/2"	1.19	0.87	0.10	----
18-213	1/2" x 3/8"	1.22	0.68	0.12	----
18-214	1/2" x 1/2"	1.09	0.81	0.14	----
18-215	5/8" x 1/2"	1.12	0.81	0.18	----

68-T 682C 80F

**COMP X SWEAT ADAPTER**



Part #	Comp. X Sweat Adapter	A	Hex	Approx. Wt. Lbs.	List Price
18-171	3/8" x 1/2" nom.swt.	0.98	0.75	0.08	----
31-171	3/8" OD x 1/2" SWT	Chrome Plated			----

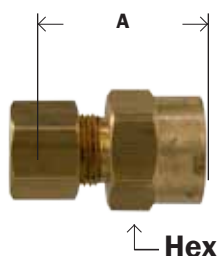
66-S

## COMPRESSION

## BRASS FITTINGS

## FEMALE ADAPTER

SAE# 060103



Part #	Comp. X Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
18-142	1/8" x 1/8"	0.75	0.56	0.02	----
18-143	3/16" x 1/8"	0.78	0.56	0.04	----
18-144	3/16" x 1/4"	0.96	0.68	0.04	----
18-145L	1/4" x 1/8"	0.84	0.50	0.05	----
18-145	1/4" x 1/8"	0.78	0.56	0.05	----
18-146L	1/4" x 1/4"	0.88	0.62	0.09	----
18-146	1/4" x 1/4"	1.03	0.68	0.09	----
18-148	1/4" x 1/2"	1.02	0.87	0.12	----
18-149	5/16" x 1/8"	0.81	0.56	0.05	----
18-150	5/16" x 1/4"	0.91	0.62	0.06	----
18-152	3/8" x 1/8"	0.88	0.56	0.06	----
18-153L	3/8" x 1/4"	0.97	0.62	0.08	----
18-153	3/8" x 1/4"	1.06	0.68	0.08	----
18-154L	3/8" x 3/8"	1.03	0.75	0.08	----
18-154	3/8" x 3/8"	1.06	0.81	0.10	----
18-155	3/8" x 1/2"	1.12	1.00	0.08	----
18-156	3/8" x 3/4"	1.19	1.16	0.14	----
18-157	1/2" x 1/4"	1.09	0.68	0.10	----
18-158L	1/2" x 3/8"	0.94	0.81	0.12	----
18-158	1/2" x 3/8"	1.12	0.81	0.12	----
18-159L	1/2" x 1/2"	1.19	1.00	0.12	----
18-159	1/2" x 1/2"	1.31	1.00	0.12	----
18-160	1/2" x 3/4"	1.25	1.16	0.18	----
18-162L	5/8" x 1/2"	1.20	0.94	0.18	----
18-162	5/8" x 1/2"	1.38	1.00	0.18	----
18-163	5/8" x 3/4"	1.20	1.12	0.22	----
18-164	3/4" x 1/2"	1.25	1.06	0.26	----
18-165	3/4" x 3/4"	1.28	1.19	0.28	----
18-167	7/8" x 1/2"	1.28	1.19	0.32	----
18-166	7/8" x 3/4"	1.31	1.12	0.34	----

66

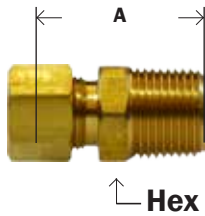
## DRILLED THRU UNION - NO STOP



Part #	Size	List Price
18-066D	3/8"	----
18-069D	5/8"	----
18-071D	7/8"	----

## MALE ADAPTER

SAE# 060102



Part #	Comp. X Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
18-175	1/8" x 1/16"	0.78	0.37	0.02	----
18-176	1/8" x 1/8"	0.78	0.43	0.04	----
18-177	3/16" x 1/8"	0.84	0.43	0.04	----
18-178	3/16" x 1/4"	0.94	0.56	0.06	----
18-179L	1/4" x 1/8"	0.88	0.56	0.04	----
18-179	1/4" x 1/8"	0.88	0.43	0.04	----
18-180L	1/4" x 1/4"	0.94	0.56	0.05	----
18-180	1/4" x 1/4"	1.06	0.56	0.06	----
18-181	1/4" x 3/8"	1.03	0.68	0.08	----
18-182	1/4" x 1/2"	1.09	0.81	0.10	----
18-183	5/16" x 1/8"	0.91	0.50	0.05	----
18-184L	5/16" x 1/4"	1.01	0.56	0.06	----
18-184	5/16" x 1/4"	1.09	0.56	0.06	----
18-185	5/16" x 3/8"	1.06	0.68	0.07	----
18-186	5/16" x 1/2"	1.14	0.87	0.10	----
18-187L	3/8" x 1/8"	0.94	0.56	0.06	----
18-187	3/8" x 1/8"	0.97	0.56	0.06	----
18-188L	3/8" x 1/4"	1.03	0.56	0.06	----
18-188	3/8" x 1/4"	1.16	0.56	0.07	----
18-189L	3/8" x 3/8"	1.09	0.68	0.08	----
18-189	3/8" x 3/8"	1.14	0.69	0.08	----
18-190L	3/8" x 1/2"	1.19	0.88	0.12	----
18-190	3/8" x 1/2"	1.34	0.87	0.13	----
18-191	3/8" x 3/4"	1.29	1.06	0.16	----
18-192	7/16" x 1/4"	1.06	0.62	0.10	----
18-204	7/16" x 3/8"	1.10	0.68	0.12	----
18-193L	1/2" x 1/4"	1.09	0.69	0.11	----
18-193	1/2" x 1/4"	1.22	0.68	0.11	----
18-194L	1/2" x 3/8"	1.16	0.68	0.12	----
18-194	1/2" x 3/8"	1.16	0.69	0.12	----
18-195L	1/2" x 1/2"	1.09	0.81	0.12	----
18-195	1/2" x 1/2"	1.41	0.87	0.19	----
18-196	1/2" x 3/4"	1.38	1.06	0.22	----
18-197	5/8" x 3/8"	1.22	0.87	0.24	----
18-198	5/8" x 1/2"	1.12	0.81	0.24	----
18-199	5/8" x 3/4"	1.31	1.06	0.26	----
18-200	3/4" x 1/2"	1.44	1.00	0.26	----
18-201	3/4" x 3/4"	1.50	1.06	0.26	----
18-202	7/8" x 1/2"	1.18	1.12	0.26	----
18-203	7/8" x 3/4"	1.22	1.12	0.28	----
18-205	7/8" x 1"	1.67	1.37	0.32	----

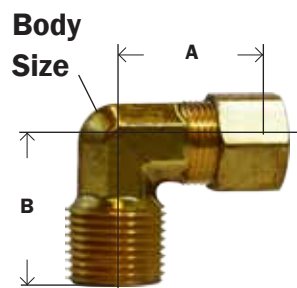
68

## COMPRESSION

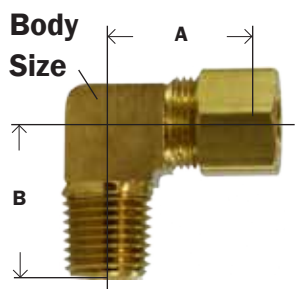
## BRASS FITTINGS

## MALE ELBOW

SAE# 060202



Forged



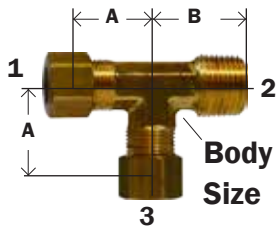
Barstock

Part #	Comp. X Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-220	1/8" x 1/8"	0.59	0.75	0.34	0.02	----
18-220B*	1/8" x 1/8"	0.60	0.67	0.43	0.04	----
18-221	3/16" x 1/8"	0.63	0.72	0.34	0.04	----
18-221B*	3/16" x 1/8"	0.62	0.69	0.43	0.06	----
18-223	3/16" x 1/4"	0.60	0.81	0.39	0.05	----
18-224	1/4" x 1/8"	0.60	0.75	0.37	0.06	----
18-224B*	1/4" x 1/8"	0.62	0.75	0.43	0.06	----
18-225	1/4" x 1/4"	0.65	0.94	0.36	0.08	----
18-225B*	1/4" x 1/4"	0.61	0.81	0.56	0.08	----
18-226	1/4" x 3/8"	0.75	0.91	0.47	0.08	----
18-227	1/4" x 1/2"	0.81	1.13	0.56	0.12	----
18-228	5/16" x 1/8"	0.66	0.75	0.47	0.06	----
18-228B*	5/16" x 1/8"	0.62	0.75	0.42	0.06	----
18-229	5/16" x 1/4"	0.66	0.81	0.47	0.07	----
18-229B*	5/16" x 1/4"	0.69	0.84	0.57	0.08	----
18-230	5/16" x 3/8"	0.75	0.91	0.47	0.10	----
18-231	5/16" x 1/2"	0.84	1.12	0.56	0.12	----
18-232	3/8" x 1/8"	0.72	0.66	0.39	0.06	----
18-232B*	3/8" x 1/8"	0.69	0.69	0.57	0.06	----
18-233	3/8" x 1/4"	0.75	0.82	0.46	0.08	----
18-233B*	3/8" x 1/4"	0.75	0.94	0.57	0.08	----
18-234	3/8" x 3/8"	0.81	0.94	0.46	0.10	----
18-234B*	3/8" x 3/8"	0.71	0.83	0.69	0.10	----
18-235	3/8" x 1/2"	0.87	1.12	0.56	0.14	----
18-235B*	3/8" x 1/2"	0.88	1.16	0.94	0.14	----
18-248	3/8" x 3/4"	1.03	1.19	0.81	0.18	----
18-247	7/16" x 1/4"	0.84	1.00	0.56	0.14	----
18-236	1/2" x 1/4"	0.88	0.97	0.56	0.14	----
18-237	1/2" x 3/8"	0.88	1.03	0.56	0.19	----
18-237B*	1/2" x 3/8"	0.94	1.12	0.70	0.19	----
18-238	1/2" x 1/2"	0.94	1.13	0.59	0.17	----
18-238B*	1/2" x 1/2"	0.94	1.31	0.86	0.17	----
18-239	1/2" x 3/4"	1.16	1.25	0.81	0.18	----
18-240	5/8" x 3/8"	1.06	1.12	0.68	0.18	----
18-241	5/8" x 1/2"	1.06	1.16	0.68	0.20	----
18-241B*	5/8" x 1/2"	1.06	1.31	0.86	0.20	----
18-242	5/8" x 3/4"	1.16	1.31	0.81	0.24	----
18-243	3/4" x 1/2"	1.19	1.31	0.94	0.26	----
18-245	3/4" x 3/4"	1.19	1.38	0.94	0.30	----
18-246	7/8" x 3/4"	1.25	1.38	0.94	0.35	----

\* Barstock

69 269C BSE1 169C

**FORGED MALE RUN TEE**

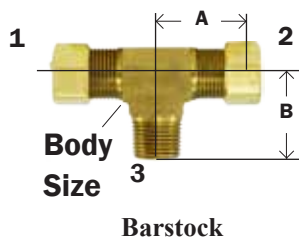
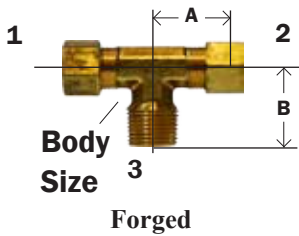


Part #	Comp. X Male NPTF (1&3) X 2	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-272	1/8" x 1/8"	0.63	0.69	0.36	0.06	----
18-273	3/16" x 1/8"	0.63	0.69	0.36	0.07	----
18-274	1/4" x 1/8"	0.63	0.75	0.36	0.08	----
18-275	1/4" x 1/4"	0.69	0.88	0.44	0.10	----
18-276	5/16" x 1/8"	0.72	0.75	0.50	0.10	----
18-277	5/16" x 1/4"	0.75	0.88	0.44	0.10	----
18-278	3/8" x 1/8"	0.75	0.75	0.50	0.14	----
18-279	3/8" x 1/4"	0.79	0.87	0.44	0.18	----
18-280	3/8" x 3/8"	0.88	1.00	0.47	0.20	----
18-281	1/2" x 3/8"	0.94	1.09	0.59	0.24	----
18-282	1/2" x 1/2"	0.97	1.19	0.69	0.26	----
18-283	5/8" x 1/2"	1.06	1.31	0.69	0.28	----
18-284	3/4" x 1/2"	1.22	1.34	0.88	0.30	----

71 171C BST3

**MALE BRANCH TEE**

**SAE# 060203**



Part #	Comp. X Male NPTF (1&2) X 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-290	3/16" x 1/8"	0.63	0.69	0.36	0.08	----
18-291	1/4" x 1/8"	0.62	0.75	0.36	0.10	----
18-291B*	1/4" x 1/8"	0.64	0.73	0.45	0.10	----
18-292	1/4" x 1/4"	0.69	0.86	0.44	0.10	----
18-293	5/16" x 1/8"	0.72	0.75	0.50	0.11	----
18-294	5/16" x 1/4"	0.75	0.88	0.44	0.12	----
18-295	3/8" x 1/8"	0.75	0.75	0.50	0.14	----
18-296	3/8" x 1/4"	0.78	0.88	0.44	0.16	----
18-297	3/8" x 3/8"	0.78	0.97	0.47	0.18	----
18-298	3/8" x 1/2"	0.88	1.22	0.69	0.20	----
18-304	1/2" x 1/4"	0.94	0.97	0.59	0.22	----
18-299B*	1/2" x 3/8"	0.96	1.09	0.70	0.24	----
18-299	1/2" x 3/8"	0.94	1.12	0.59	0.24	----
18-300	1/2" x 1/2"	0.97	1.19	0.69	0.30	----
18-301	5/8" x 1/2"	1.06	1.31	0.69	0.32	----
18-302	3/4" x 1/2"	1.22	1.34	0.88	0.50	----
18-303	3/4" x 3/4"	1.25	1.50	0.88	0.54	----

\* Barstock

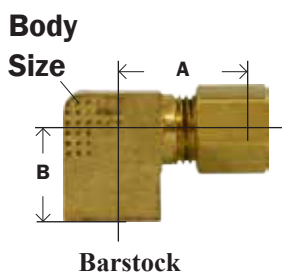
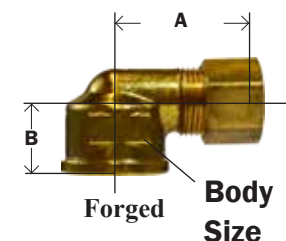
72 BST1 172C

## COMPRESSION

## BRASS FITTINGS

## FEMALE ELBOW

SAE# 060203

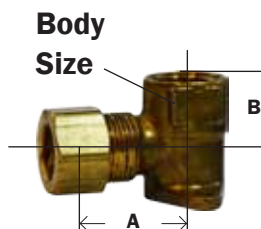


Part #	Comp. X Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-251	1/8" x 1/8"	0.69	0.56	0.56	0.04	----
18-252	3/16" x 1/8"	0.69	0.47	0.56	0.04	----
18-253	1/4" x 1/8"	0.69	0.47	0.56	0.06	----
18-253B*	1/4" x 1/8"	0.69	0.56	0.56	0.06	----
18-254	1/4" x 1/4"	0.75	0.50	0.72	0.08	----
18-267	1/4" x 3/8"	0.81	0.58	0.81	0.08	----
18-268	1/4" x 1/2"	0.89	0.66	1.00	0.10	----
18-255	5/16" x 1/8"	0.72	0.84	0.47	0.08	----
18-256	5/16" x 1/4"	0.78	0.50	0.72	0.09	----
18-257	3/8" x 1/8"	0.75	0.84	0.47	0.10	----
18-258	3/8" x 1/4"	0.84	0.59	0.75	0.10	----
18-259	3/8" x 3/8"	0.88	0.58	0.81	0.12	----
18-260	3/8" x 1/2"	0.97	0.66	1.00	0.14	----
18-250	3/8" x 3/4"	1.09	0.72	1.25	0.18	----
18-261	1/2" x 1/4"	1.06	0.70	0.88	0.18	----
18-262	1/2" x 3/8"	1.00	0.70	0.88	0.16	----
18-263	1/2" x 1/2"	1.03	0.72	1.00	0.20	----
18-270	1/2" x 3/4"	1.16	0.72	1.25	0.23	----
18-269	5/8" x 3/8"	1.09	0.77	1.00	0.20	----
18-264	5/8" x 1/2"	1.09	0.77	1.00	0.22	----
18-265	5/8" x 3/4"	1.22	0.77	1.25	0.24	----
18-266	3/4" x 1/2"	1.25	1.25	0.94	0.28	----

\* Barstock

70 270C BSE3 170C

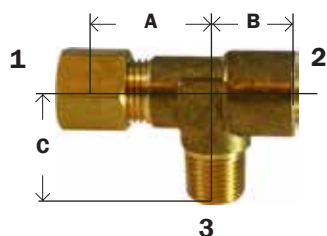
## FORGED DROP-EAR ELBOW



Part #	Comp. X Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-271	5/8" x 1/2"	1.18	0.72	1.00	0.18	----

BSE3-DE

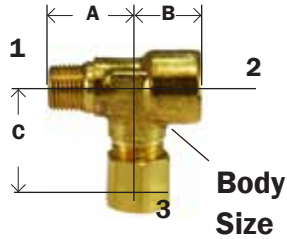
## FORGED TEE



Part #	Comp. X Female NPTF x Male NPTF 1x(2&3)	A	B	C	Approx. Wt. Lbs.	List Price
18-307	1/4" x 1/8"	0.72	0.53	0.72	0.20	----

71 171C BST3

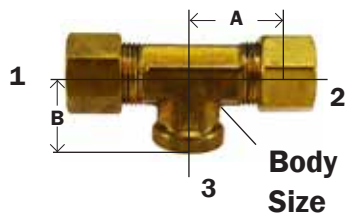
**ADAPTER TEE**



Part #	Male NPTF x Female NPTF x Comp. 3x (1&2)	A	B	C	Body Size	Approx. Wt. Lbs.	List Price
18-314	1/8" x 1/4"	0.72	0.53	0.72	0.47	0.08	----
18-316	3/8" x 1/4"	0.84	0.97	0.81	0.47	0.10	----

76 176C

**FEMALE BRANCH FORGED TEE**

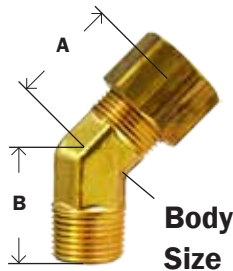


Part #	Comp. X Female NPTF (1&2)x3	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-321	1/4" x 1/8"	0.78	0.75	0.45	0.10	----
18-328	1/4" x 1/4"	0.78	0.75	0.44	0.12	----
18-325	3/8" x 1/8"	0.75	0.63	0.50	0.12	----
18-322	3/8" x 1/4"	0.81	0.97	0.47	0.14	----
18-323	3/8" x 3/8"	0.97	0.69	1.05	0.16	----
18-326	1/2" x 1/8"	0.94	0.75	0.59	0.20	----
18-324	1/2" x 3/8"	1.00	0.72	0.88	0.22	----
18-327	5/8" x 1/8"	1.06	0.81	0.69	0.26	----

78 BST4 77 177C 2908

**45° ELBOW**

SAE# 060302

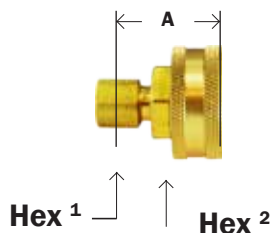


Part #	Comp. X Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-329	3/16" x 1/8"	0.40	0.63	0.41	0.04	----
18-330	1/4" x 1/8"	0.40	0.61	0.41	0.04	----
18-336	1/4" x 1/4"	0.59	0.84	0.53	0.06	----
18-331	5/16" x 1/8"	0.59	0.65	0.53	0.06	----
18-332	5/16" x 1/4"	0.59	0.83	0.53	0.08	----
18-333	3/8" x 1/4"	0.62	0.83	0.53	0.08	----
18-338	3/8" x 3/8"	0.75	0.95	0.59	0.10	----
18-334	1/2" x 3/8"	0.75	0.88	0.59	0.14	----
18-339	1/2" x 1/2"	0.94	1.14	0.75	0.14	----
18-335	5/8" x 1/2"	0.78	1.14	0.78	0.14	----

6945 45BSE1 74 179C 273 77

**GARDEN HOSE SWIVEL**

•WASHER INCLUDED



Part #	Compression x FGH	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
30-050	1/4" x 3/4"	1.02	0.50	0.75	0.09	----
30-051	3/8" x 3/4"	1.04	0.62	0.75	0.12	----



## COMPRESSION

## BRASS FITTINGS

## DOUBLE COMPRESSION THREADED SLEEVE FITTINGS

- Use with aluminum and copper tubing or plastic tubing with internal tube support. Not recommended for steel tubing.
- Easy to assemble, no flaring, two piece construction.
- For use on oil, air, water and grease lubrication systems.
- When design makes a dimension critical, contact us for information.

Tube OD	1/8	3/16	1/4	5/16	3/8
Thread	5/16-24	3/8-24	7/16-24	1/2-20	9/16-20
Working Pressure	500	500	500	250	250

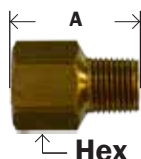
## NUT



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
16-001	1/8"	0.50	0.37	0.02	----
16-002	3/16"	0.53	0.43	0.02	----
16-003	1/4"	0.56	0.50	0.04	----
16-004	5/16"	0.61	0.56	0.04	----
16-005	3/8"	0.61	0.62	0.04	----

181 6100 11

## MALE ADAPTER

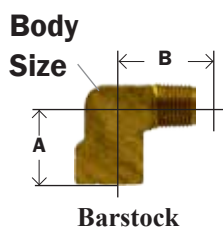


Part #	THRD Sleeve x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
16-117	1/8" x *	0.62	0.43	0.02	----
16-118	1/8" x 1/8"	0.62	0.43	0.02	----
16-119	3/16" x 1/8"	0.69	0.43	0.02	----
16-121	1/4" x 1/8"	0.75	0.50	0.04	----
16-122	5/16" x 1/8"	0.89	0.56	0.04	----
16-123	3/8" x 1/4"	0.84	0.62	0.06	----

\* 1/4 - 28 Male Thread Tapered.

188 6200 12

## 90° ELBOW



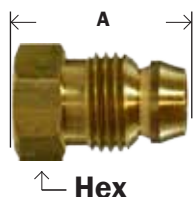
Barstock

Part #	THRD Sleeve x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
16-127	1/8" x *	0.50	0.52	0.41	0.02	----
16-128	1/8" x 1/8"	0.50	0.66	0.43	0.02	----
16-129	3/16" x 1/8"	0.56	0.62	0.44	0.02	----
16-130	1/4" x 1/8"	0.52	0.62	0.50	0.04	----

\* 1/4 - 28 Male Thread Tapered

189 6400 15

## BREAK-AWAY NUT



- 1-Piece Fiting

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
16-090	3/16"	0.57	0.37	0.02	----
16-010	1/4"	0.62	0.43	0.02	----

\* Threaded sleeve fittings on page 85.

181-BA 21604 99LB 81LB

## BRASS SPLIT SLEEVE D.O.T. FITTINGS (5/32 O.D.)

## TRANSMISSION BRASS FITTINGS

APPLICATIONS: Used with SAE J844 Type A nylon tube in pressure protected air transmission applications.

TECHNICAL DATA: Maximum working pressure up to 150 PSI. Fittings will withstand variations from -40°F to +220°F (-40°C to + 104°C)

Ideally suited for use in passive protected air transmission applications. A specially designed slotted sleeve helps eliminate notch stress related to over torque.

## COLLET



Part #	Tube O.D.	List Price
38-711	5/32"	----
25-001	1/8"	----

1460 90791 280 90946

## NUT



Part #	Tube O.D.	List Price
38-732	5/32"	----
25-033	1/8"	----

1461 90790 281 90885

## DOUBLE END UNION



Part #	Tube O.D.	List Price
38-761	5/32"	----
25-062	1/8"	----

1462 90792 283 90891

## CONNECTOR WITH NUT AND SLEEVE



Part #	Tube O.D.	Pipe Thread	List Price
38-769	5/32"	1/16"	----
38-770	5/32"	1/8"	----
25-175	1/8"	1/16"	----
25-176	1/8"	1/8"	----

• Shipped with nut and split sleeve, picture shows insert 1468 90794 282 90985

## ELBOW



Part #	Tube O.D.	Pipe Thread	List Price
38-718	5/32"	1/8"	----
25-220	1/8"	1/8"	----

## SPECIAL COMPRESSION ASSEMBLIES

## BRASS FITTINGS

To purchase special compression assemblies, delete the 18 prefix on part# and add the prefix of the type of special assembly you desire. Pricing and availability upon request.

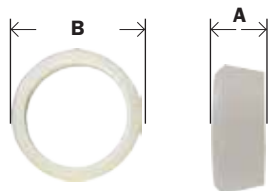
22 - Plastic sleeve (inserts should be ordered separately)

24 - Long nut compression

26 - Captive sleeve (parts listed on following pages)

27 - Self align sleeve (parts listed on following pages)

## DELTRIN SLEEVE

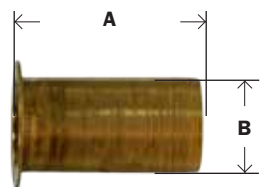


Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-015	1/4"	0.19	0.37	0.01	----
18-016	5/16"	0.19	0.43	0.01	----
18-017	3/8"	0.19	0.50	0.02	----
18-018	1/2"	0.25	0.63	0.02	----
18-019	5/8"	0.22	0.74	0.02	----

60-P

## BRASS INSERT

• SLEEVE

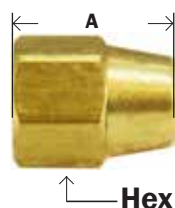


Part #	Size	A	B	Approx. Wt. Lbs.	Wall	List Price
22-008	1/8"	0.46	0.080	0.01	.016	----
22-009	3/16"	0.45	0.135	0.01	.025	----
22-009A	3/16"	0.52	0.095	0.01	.040	----
22-010	1/4"	0.50	0.163	0.02	.04	----
22-010A	1/4"	0.59	0.125	0.02	.04	----
22-010B	1/4"	0.53	0.172	0.02	.03	----
22-011A	5/16"	0.50	0.232	0.02	.04	----
22-011	5/16"	0.53	0.187	0.02	.062	----
22-012	3/8"	0.56	0.250	0.03	.062	----
22-013	1/2"	0.72	0.370	0.03	.062	----
22-014	5/8"	0.72	0.483	0.03	.062	----
22-015	3/4"	1.03	0.563	0.03		----

See lead free insert on page 167

63-BI 60AE 2030 63PT

## LONG NUT COMPRESSION - Can be assembled on any compression fitting



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
10-013	1/8"	0.50	0.37	0.01	----
<b>NEW</b> 24-002	3/16"	0.62	0.43	0.01	----
24-003	1/4"	0.75	0.50	0.02	----
24-004	5/16"	0.84	0.56	0.02	----
24-005	3/8"	0.97	0.62	0.04	----
24-006	1/2"	1.06	0.81	0.06	----
24-007	5/8"	1.19	0.94	0.11	----
<b>NEW</b> 24-008	3/4"	1.50	1.25	0.14	----

161

## BRASS FITTINGS

## CAPTIVE SLEEVE COMPRESSION

### CAPTIVE SLEEVE NUT



Part #	Size	List Price
26-001	1/8"	----
26-002	3/16"	----
26-003	1/4"	----
26-004	5/16"	----
26-005	3/8"	----
26-007	1/2"	----
26-008	5/8"	----
<b>NEW</b> 26-015	3/4"	----
<b>NEW</b> 26-016	7/8"	----
<b>NEW</b> 26-009	1"	----

CS61 61CA

### UNION



Part #	Size	List Price
26-062	1/8"	----
26-063	3/16"	----
26-064	1/4"	----
26-077	1/4" x 3/16"	----
26-065	5/16"	----
26-066	3/8"	----
26-079	3/8" x 1/4"	----
26-068	1/2"	----
26-069	5/8"	----
26-082	5/8" x 3/8"	----

CS62 62CA

### BULKHEAD UNIONS



Part #	Size	List Price
26-088	1/4"	----
26-090	3/8"	----

C262L 62CABA

### BALL CHECK VALVE



Part #	Tube OD x Male NPTF	List Price
26-092	1/8" x 1/8"	----

CS863

### TEE



Part #	Size	List Price
26-101	1/8"	----
26-102	3/16"	----
26-103	1/4"	----
26-104	5/16"	----
26-105	3/8"	----
26-115	3/8"x3/8"x1/4"	----
26-106	1/2"	----
26-107	5/8"	----

CS64 164CA

### UNION ELBOW



Part #	Size	List Price
26-123	3/16"	----
26-124	1/4"	----
26-125	5/16"	----
26-126	3/8"	----
26-127	1/2"	----
26-128	5/8"	----

CS65 165CA

**Interchangeable with compress-align fittings.**

These are NOT Lead Free  
Lead Free products  
available upon request

### FEMALE ADAPTER



Part #	Comp. X Female NPTF	List Price
26-142	1/8" x 1/8"	----
26-143	3/16" x 1/8"	----
26-144	3/16" x 1/4"	----
26-145	1/4" x 1/8"	----
26-146	1/4" x 1/4"	----
26-149	5/16" x 1/8"	----
26-150	5/16" x 1/4"	----
26-152	3/8" x 1/8"	----
26-153	3/8" x 1/4"	----
26-154	3/8" x 3/8"	----
26-155	3/8" x 1/2"	----
26-156	3/8" x 3/4"	----
26-157	1/2" x 1/4"	----
26-158	1/2" x 3/8"	----
26-159	1/2" x 1/2"	----

CS66 66CA

### MALE ADAPTER



Part #	Comp. X Male NPTF	List Price
26-175	1/8" x 1/16"	----
26-176	1/8" x 1/8"	----
26-177	3/16" x 1/8"	----
26-178	3/16" x 1/4"	----
26-179	1/4" x 1/8"	----
26-180	1/4" x 1/4"	----
26-180L	1/4" x 1/4"	----
26-181	1/4" x 3/8"	----
26-182	1/4" x 1/2"	----
26-183	5/16" x 1/8"	----
26-184	5/16" x 1/4"	----
26-187	3/8" x 1/8"	----
26-188	3/8" x 1/4"	----
26-189	3/8" x 3/8"	----
26-190	3/8" x 1/2"	----
26-193	1/2" x 1/4"	----
26-194	1/2" x 3/8"	----
26-195	1/2" x 1/2"	----
26-196	1/2" x 3/4"	----
26-197	5/8" x 3/8"	----
26-198	5/8" x 1/2"	----

CS68 68CA

## CAPTIVE SLEEVE COMPRESSION

## BRASS FITTINGS

### MALE ELBOW



Part #	Comp. X Male NPTF	List Price
26-220	1/8" x 1/8"	----
26-220B	1/8" x 1/8"	----
26-221	3/16" x 1/8"	----
26-221B	3/16" x 1/8"	----
26-223	3/16" x 1/4"	----
26-224B	1/4" x 1/8"	----
26-224	1/4" x 1/8"	----
26-225	1/4" x 1/4"	----
26-225B	1/4" x 1/4"	----
26-226	1/4" x 3/8"	----
26-228	5/16" x 1/8"	----
26-229	5/16" x 1/4"	----
26-230	5/16" x 3/8"	----
26-232	3/8" x 1/8"	----
26-233	3/8" x 1/4"	----
26-233B	3/8" x 1/4"	----
26-234	3/8" x 3/8"	----
26-235	3/8" x 1/2"	----
26-236	1/2" x 1/4"	----
26-237	1/2" x 3/8"	----
26-238	1/2" x 1/2"	----
26-240	5/8" x 3/8"	----
26-241	5/8" x 1/2"	----

CS69 169CA

### FEMALE ELBOW



Part #	Comp. X Female NPTF	List Price
26-251	1/8" x 1/8"	----
26-252	3/16" x 1/8"	----
26-253	1/4" x 1/8"	----
26-254	1/4" x 1/4"	----
26-258	3/8" x 1/4"	----
26-262	1/2" x 3/8"	----
26-270	1/2" x 3/4"	----
26-269	5/8" x 3/8"	----

CS70 170CA

### MALE BRANCH TEE



Part #	Comp. X Male NPTF (1&2) X 3	List Price
26-291	1/4" x 1/8"	----
26-292	1/4" x 1/4"	----
26-293	5/16" x 1/8"	----
26-294	5/16" x 1/4"	----
26-295	3/8" x 1/8"	----
26-296	3/8" x 1/4"	----
26-297	3/8" x 3/8"	----
26-299	1/2" x 3/8"	----

CS72 172CA

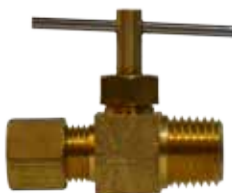
### FORGED MALE RUN TEE



Part #	Comp. X Male NPTF (1&3) X 2	List Price
26-272	1/8" x 1/8"	----
26-274	1/4" x 1/8"	----
26-275	1/4" x 1/4"	----
26-279	3/8" x 1/4"	----
26-280	3/8" x 3/8"	----
26-281	1/2" x 3/8"	----

CS71 171CA

### CAPTIVE SLEEVE x MALE PIPE NEEDLE VALVE



Part #	Comp X Male Pipe	List Price
26-031	3/16" x 1/8"	----
26-032X*	1/4" x 1/8"	----

\* Heavy Pattern

### CAPTIVE SLEEVE x MALE PIPE ANGLE NEEDLE VALVE



Part #	Comp X Male Pipe	List Price
26-010	3/16" x 1/8"	----
26-011	1/4" x 1/8"	----
26-011X	Heavy Pattern	----
26-012	1/4" x 1/4"	----
26-013	5/16" x 1/8"	----
26-014	5/16" x 1/4"	----

### CAPTIVE SLEEVE x CAPTIVE SLEEVE NEEDLE VALVE



Part #	Comp X Comp	List Price
26-020	3/16"	----
26-021	1/4"	----
26-022	5/16"	----
26-023	3/8"	----

- More sizes available
- Lead Free - add LF to part #
- Tube inserts - page 96 & 167

## BRASS FITTINGS

• Use with copper, brass, aluminum and plastic tubing. Soft plastic tubing. Soft plastic tubing requires support inside. Not recommended for steel tubing.

• Application: water, air and lubrication system

### SELF-ALIGN SLEEVE



Part #	Size	List Price
27-001	1/8"	----
27-002	3/16"	----
27-003	1/4"	----

860 601



Part #	Size	List Price
27-005	3/8"	----
27-006	1/2"	----

860

### UNION



Part #	Size	List Price
27-062	1/8"	----
27-063	3/16"	----
27-064	1/4"	----
27-066	3/8"	----
27-068	1/2"	----
27-081	1/2" x 3/8"	----

862 621

### BALL CHECK VALVE



Part #	Tube OD x Male NPTF	List Price
27-092	1/8" x 1/8"	----
27-094	1/4" x 1/8"	----
27-096	3/8" x 1/4"	----

863 631

### TEE



Part #	Size	List Price
27-102	3/16"	----
27-103	1/4"	----
27-105	3/8"	----
27-115	3/8"x3/8"x1/4"	----
27-116	1/2"x1/2"x1/4"	----
27-117	1/2"x1/2"x3/8"	----

864 641

### UNION ELBOW



Part #	Size	List Price
27-126	3/8"	----
27-127	1/2"	----

865 651

### TANK ADAPTER DRILLER THRU (NO STOP)



Part #	Size	List Price
27-208	1/4"x1/8"	----
27-209	1/4"x1/4"	----
27-211	3/8"x3/8"	----
27-213	1/2"x3/8"	----

863 631

### FEMALE ADAPTER



Part #	Comp. X Female NPTF	List Price
27-142	1/8" x 1/8"	----
27-145	1/4" x 1/8"	----
27-147	1/4" x 3/8"	----
27-148	1/4" x 1/2"	----
27-153	3/8" x 1/4"	----
27-158	1/2" x 3/8"	----

866 661

## SELF-ALIGN COMPRESSION

### MALE ADAPTER



Part #	Comp. X Male NPTF	List Price
27-175	1/8" x 1/16"	----
27-176	1/8" x 1/8"	----
27-177	3/16" x 1/8"	----
27-179	1/4" x 1/8"	----
27-180	1/4" x 1/4"	----
27-187	3/8" x 1/8"	----
27-188	3/8" x 1/4"	----
27-189	3/8" x 3/8"	----
27-190	3/8" x 1/2"	----
27-193	1/2" x 1/4"	----
27-194	1/2" x 3/8"	----
27-195	1/2" x 1/2"	----
27-196	1/2" x 3/4"	----

868 681

### FEMALE ELBOW



Part #	Comp. X Female NPTF	List Price
27-253	1/4" x 1/8"	----
27-254	1/4" x 1/4"	----
27-258	3/8" x 1/4"	----
27-262	1/2" x 3/8"	----
27-263	1/2" x 1/2"	----

870 201

### MALE ELBOW



Part #	Comp. X Male NPTF	List Price
27-220	1/8" x 1/8"	----
27-221	3/16" x 1/8"	----
27-224	1/4" x 1/8"	----
27-225	1/4" x 1/4"	----
27-226	1/4" x 3/8"	----
27-232	3/8" x 1/8"	----
27-233	3/8" x 1/4"	----
27-234	3/8" x 3/8"	----
27-235	3/8" x 1/2"	----
27-236	1/2" x 1/4"	----
27-237	1/2" x 3/8"	----
27-238	1/2" x 1/2"	----
27-239	1/2" x 3/4"	----

869 691

# Flareless

Flareless Brass Tube Fittings are Interchangeable with Poly-Flo®, Poly-Tite® and Poly-Line® and Poly-Fit®



Built-in SS  
Tube Support

Tube O.D.	1/8	3/16	1/4	5/16	3/8	1/2
Thread Size-B	5/16-24	3/8-24	3/8-24	7/16-24	1/2-24	1 1/16-20

#### •Typical Application

Pneumatic instrumentation circuits, lubricant and cooling lines.

#### •Working Pressure and Temperature Ranges

Up to 150 PSI from 0°F to + 150°F with thermoplastic tubing. Up to 300 PSI from 0°F to + 175°F with soft metal tubing.

#### •Maximum allowable metal tube wall thickness for use with Poly-Tite fittings:

1/8", 3/16" O.D. --no limitation,  
1/4" O.D.--.035 5/16", 3/8", 1/2" O.D.--.049

#### •Vibration

Excellent Resistance.

#### •Temperature Range

Depends on tubing used. -65°F to +250°F (-53°C to +121°C) with brass sleeve, -40°F to +150°F (-40°C to +66°C) with plastic sleeve. (Refer to tubing temperature range.)

#### •Material

CA360 Brass body, plastic or brass sleeve.  
Stainless Steel Tube Support

#### •Used With

Aluminum & copper tubing. Hard plastic tubing requires brass sleeve. Not recommended for steel tubing.

#### • Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

#### •Advantages

No flaring of tubing required. Easy installation, captive sleeve, pre-assembled for installation and can be reassembled. Nuts rotate around the sleeve during tightening, preventing twisting of tubing.

#### •Assembly Instructions

- 1- Cut tubing to desired length.
- 2- Slide nut/sleeve assembly on tube. Threaded end "A" of nut must face toward fitting.
- 3- Bottom tubing into fitting.
- 4- Plastic sleeve - Tighten nut hand tight.  
Brass Sleeve - Tighten nut hand tight, then an additional 3/4 turn.

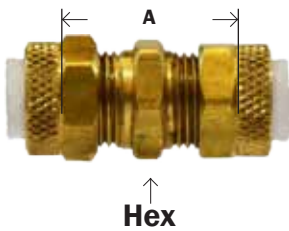
**NUT AND PLASTIC SLEEVE ASSEMBLY**



Part #	Tube O.D.	Thread	A	Hex (Dia.)	Approx. Wt. Lbs.	List Price
20-211	1/4"	3/8-24	0.34	0.43	0.02	----
20-212	5/16"	7/16-24	0.45	0.50	0.02	----
20-213	3/8"	1/2-24	0.38	0.56	0.04	----
20-214	1/2"	11/16-20	0.42	0.81	0.04	----

261PF 1261 61PN

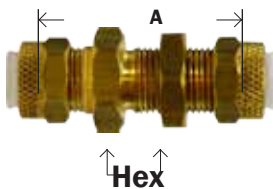
**UNION**



Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-240	1/8"	0.66	0.31	0.02	----
20-241	3/16"	0.75	0.37	0.04	----
20-242	1/4"	0.69	0.37	0.04	----
20-243	5/16"	0.69	0.44	0.04	----
20-244	3/8"	0.72	0.50	0.10	----
20-200	3/8" x 1/4"	0.72	0.50	0.08	----
20-245	1/2"	0.84	0.69	0.14	----

262PF 1262 62P 262P

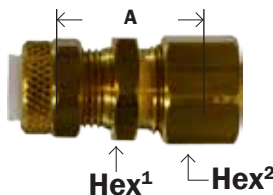
**BULKHEAD UNION**



Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-337	1/4"	1.25	0.56	0.06	----
20-338	5/16"	1.25	0.62	0.08	----
20-339	3/8"	1.31	0.69	0.10	----

62PBH 329P 282P

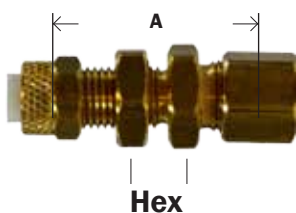
**UNION TUBE #M62C - FLARELESS X STANDARD COMPRESSION**



Part #	Tube O.D.	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
20-235	1/4"	0.75	0.44	0.50	0.04	----
20-237	3/8"	0.84	0.62	0.62	0.08	----

262S 62PCA 262PC

**BULKHEAD UNION - FLARELESS X COMPRESSION**



Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-333	1/4"	1.31	0.56	0.07	----
20-334	3/8"	1.44	0.69	0.12	----

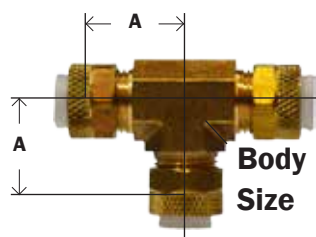
1274



## FLARELESS

## BRASS FITTINGS

## UNION TEE

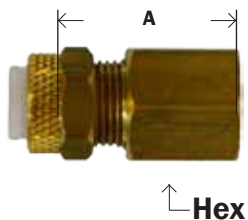


Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-248	1/8"	0.62	0.31	0.02	----
20-249	3/16"	0.62	0.31	0.04	----
20-250	1/4"	0.73	0.44	0.06	----
20-251	5/16"	0.62	0.37	0.08	----
20-252	3/8"	0.86	0.56	0.08	----
20-330*	3/8" x 1/4"	0.72	0.44	0.08	----
20-253	1/2"	0.81	0.62	0.24	----

\* Reducing Branch

1264 164P 264P

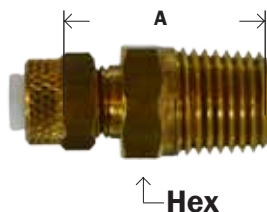
## FEMALE CONNECTOR



Part #	Tube O.D. x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-256	1/8" x 1/8"	0.75	0.56	0.03	----
20-257	3/16" x 1/8"	0.78	0.56	0.05	----
20-258	3/16" x 1/4"	0.97	0.69	0.05	----
20-259	1/4" x 1/8"	0.76	0.50	0.04	----
20-260	1/4" x 1/4"	1.08	0.62	0.05	----
20-261	5/16" x 1/8"	0.75	0.50	0.03	----
20-265	3/8" x 1/8"	0.77	0.56	0.05	----
20-262	3/8" x 1/4"	0.94	0.62	0.05	----
20-263	1/2" x 3/8"	1.00	0.81	0.12	----

1266 66P 266P

## MALE CONNECTOR

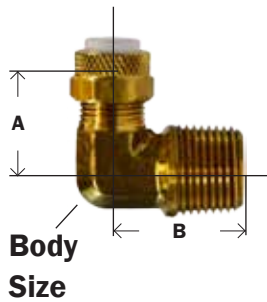


Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-267	1/8" x 10-32*	0.59	0.37	0.02	----
20-268	1/8" x 1/8"	0.80	0.34	0.04	----
20-269	3/16" x 1/8"	0.86	0.44	0.04	----
20-280	1/4" x 1/16"	0.81	0.43	0.03	----
20-270	1/4" x 10-32*	0.75	0.37	0.02	----
20-271	1/4" x 1/8"	0.82	0.44	0.03	----
20-272	1/4" x 1/4"	1.00	0.56	0.05	----
20-273	1/4" x 3/8"	1.03	0.69	0.08	----
20-274	5/16" x 1/8"	0.81	0.44	0.04	----
20-275	5/16" x 1/4"	1.00	0.56	0.05	----
20-276	3/8" x 1/8"	0.84	0.50	0.06	----
20-277	3/8" x 1/4"	1.03	0.56	0.08	----
20-278	3/8" x 3/8"	1.03	0.69	0.10	----
20-279	1/2" x 3/8"	1.09	0.69	0.16	----
20-282	1/2" x 1/2"	1.33	0.88	0.18	----

\* Furnished with gasket.

1268 68P 268P

**MALE ELBOW**

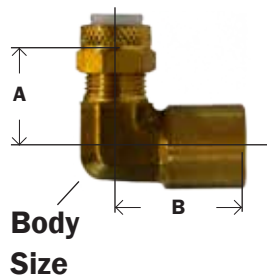


Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-287	1/8" x 1/8"	0.62	0.69	0.31	0.02	----
20-288	3/16" x 1/8"	0.62	0.69	0.37	0.04	----
20-289*	1/4" x 1/8"	0.53	0.73	0.50	0.04	----
20-290	1/4" x 1/4"	0.66	0.94	0.37	0.06	----
20-291	1/4" x 3/8"	0.75	1.03	0.50	0.10	----
20-292	5/16" x 1/8"	0.62	0.75	0.41	0.04	----
20-293	3/8" x 1/8"	0.91	0.81	0.56	0.08	----
20-294	3/8" x 1/4"	0.72	0.94	0.44	0.10	----
20-295	3/8" x 3/8"	0.78	1.03	0.50	0.14	----
20-296	1/2" x 3/8"	1.09	1.10	0.73	0.16	----

\* Barstock

1269 169P  
269P

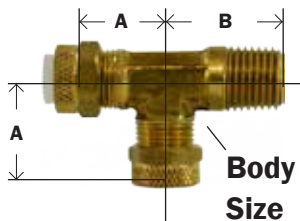
**FEMALE ELBOW**



Part #	Tube O.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-300	1/8" x 1/8"	0.69	0.55	0.56	0.02	----
20-301	3/16" x 1/8"	0.72	0.55	0.56	0.02	----
20-302	1/4" x 1/8"	0.62	0.75	0.37	0.08	----
20-303	1/4" x 1/4"	0.72	0.88	0.50	0.10	----
20-304	3/8" x 1/4"	0.72	0.88	0.50	0.12	----
20-305	1/2" x 3/8"	0.91	0.94	0.63	0.16	----

1270 170P

**MALE RUN TEE**



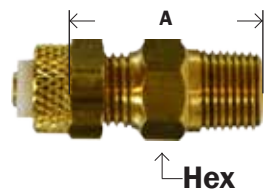
Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-308	1/8" x 1/8"	0.62	0.69	0.31	0.04	----
20-309	3/16" x 1/8"	0.62	0.69	0.31	0.04	----
20-310	1/4" x 1/8"	0.62	0.75	0.37	0.08	----
20-311	1/4" x 1/4"	0.66	0.94	0.37	0.10	----
20-312	5/16" x 1/8"	0.62	0.75	0.37	0.08	----
20-313	3/8" x 1/4"	0.66	0.94	0.44	0.10	----
20-314	1/2" x 3/8"	0.81	1.06	0.63	0.16	----

1271 171P

## FLARELESS

## BRASS FITTINGS

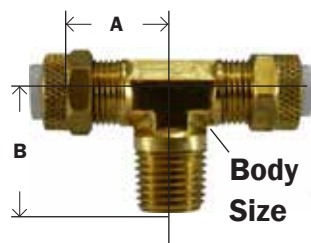
## QUICK DISCONNECT FITTING



Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-344	1/4" x 1/8"	0.87	0.44	0.06	----

292P

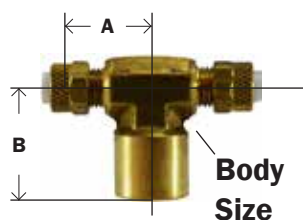
## MALE BRANCH TEE



Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-317	1/8" x 1/8"	0.63	0.69	0.31	0.04	----
20-318	3/16" x 1/8"	0.63	0.69	0.31	0.04	----
20-319	1/4" x 1/8"	0.63	0.75	0.37	0.07	----
20-320	1/4" x 1/4"	0.66	0.94	0.37	0.09	----
20-321	5/16" x 1/8"	0.63	0.75	0.37	0.10	----
20-322	3/8" x 1/8"	0.63	0.75	0.44	0.08	----
20-323	3/8" x 1/4"	0.66	0.94	0.44	0.11	----
20-324	1/2" x 3/8"	0.81	1.06	0.63	0.21	----

1272 172P 272P

## FEMALE BRANCH TEE



Part #	Tube O.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-327	1/4" x 1/8"	0.66	0.94	0.37	0.12	----
20-328	1/4" x 1/4"	0.84	1.16	0.56	0.16	----

1277 177P 277P

**UNIVERSAL NUT AND BRASS SLEEVE ASSEMBLY**



Part #	Tube O.D.	Thread	A	Hex	Approx. Wt. Lbs.	List Price
20-227	1/8"	5/16-24	0.37	0.37	0.02	----
20-228	3/16"	3/8-24	0.41	0.44	0.02	----
20-229	1/4"	3/8-24	0.34	0.43	0.02	----
20-230	5/16"	7/16-24	0.34	0.50	0.02	----
20-231	3/8"	1/2-24	0.37	0.56	0.04	----
20-232	1/2"	11/16-20	0.42	0.81	0.04	----

261PFB 1261B 61PB 261UB

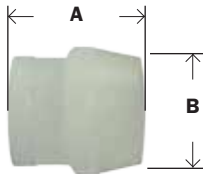
**NUT**



Part #	Tube O.D.	Thread	A	Hex (Dia.)	Approx. Wt. Lbs.	List Price
20-218	1/8"	5/16-24	0.37	0.37	0.01	----
20-219	3/16"	3/8-24	0.41	0.44	0.01	----
20-220	1/4"	3/8-24	0.34	0.44	0.02	----
20-221	5/16"	7/16-24	0.34	0.50	0.02	----
20-222	3/8"	1/2-24	0.38	0.56	0.04	----
20-223	1/2"	11/16-20	0.42	0.81	0.06	----

61PN 1261 261FPN

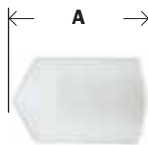
**PLASTIC SLEEVE**



Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-205	1/4"	0.34	0.26	0.01	----
20-206	5/16"	0.39	0.32	0.01	----
20-207	3/8"	0.41	0.38	0.01	----
20-208	1/2"	0.44	0.51	0.01	----

260FF 1260 60P 260P

**PLASTIC CAP**



Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-201	1/4"	0.50	0.01	----
20-203	3/8"	0.56	0.01	----
20-204	1/2"	0.59	0.01	----

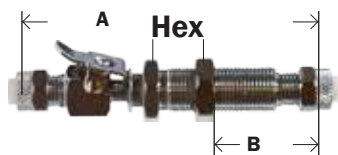
1229 59P 259P

## FLARELESS

## BRASS FITTINGS

## QUICK DISCONNECT COUPLERS

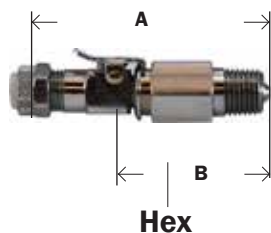
## TUBE X TUBE - Single end Shut-Off



Part #	Tube O.D.	A	B	Hex	Approx. Wt. Lbs.	List Price
20-401	1/4"	3.00	1.72	0.62	0.06	----
20-403	3/8"	3.56	1.92	0.81	0.10	----

349P

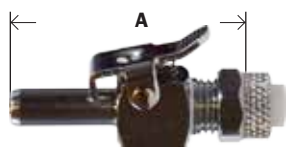
## TUBE TO MALE THREAD - Single end Shut-Off, Connector, Quick Coupler.



Part #	Tube O.D. x Male Pipe	A	B	Hex	Approx. Wt. Lbs.	List Price
20-409	1/4" x 1/8"	2.31	1.28	0.50	0.12	----
20-411	1/4" x 1/4"	2.31	1.28	0.56	0.14	----
20-413	3/8" x 1/4"	2.63	1.42	0.62	0.18	----

398P 391P + 393P

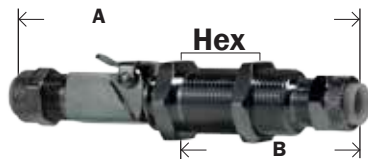
## INSERT ONLY - Thru type insert. No Shut-Off.



Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-417	1/4"	1.69	0.04	----
20-419	3/8"	1.93	0.06	----

393P

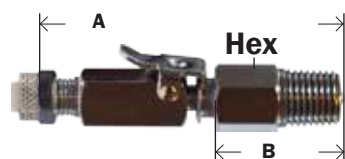
## TUBE TO TUBE - Double end Shut-Off Type.



Part #	Tube O.D.	A	B	Hex	Approx. Wt. Lbs.	List Price
20-425	1/4"	3.67	1.79	0.62	0.18	----
20-427	3/8"	3.82	1.97	0.81	0.26	----

394P 392P + 393PD

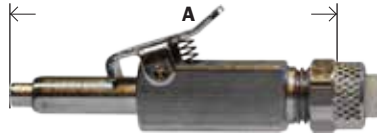
## TUBE X MALE PIPE - Double End Shut-Off, Connector, Quick coupler.



Part #	Tube O.D. x Male Pipe	A	B	Hex	Approx. Wt. Lbs.	List Price
20-435	1/4" x 1/8"	2.89	1.28	0.50	0.14	----
20-437	1/4" x 1/4"	2.91	1.27	0.56	0.18	----
20-439	3/8" x 1/4"	3.02	1.40	0.62	0.24	----

398PD 393PD + 391P

**INSERT ONLY - Double End Shut-Off**



Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-445	1/4"	2.40	0.08	----

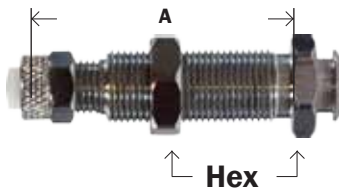
393PD

**CHROME PLATED NUT AND PLASTIC SLEEVE**



Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-451	1/4"	0.34	0.43	0.01	----
20-453	3/8"	0.38	0.56	0.01	----

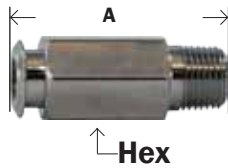
**TUBE CONNECTION - Single end or Double end Shut-Off Type body only.**



Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-455	1/4"	1.79	0.62	0.10	----
20-457	3/8"	1.97	0.81	0.16	----

392P

**MALE PIPE CONNECTION - Internal Shut-Off**



Part #	Tube O.D. x Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
20-461	1/4" x 1/8"	1.28	0.50	0.06	----
20-463	1/4" x 1/4"	1.27	0.56	0.08	----
20-465	3/8" x 1/4"	1.40	0.62	0.08	----

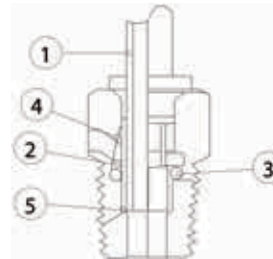
391P

# BRASS PUSH-IN FITTINGS



## ENGINEERING AND DESIGN

- **QUICK CONNECT**, simply push tubing in, no tools. Saves up to 75% of assembly time of standard compression fittings.
- **QUICK DISCONNECT**, hold two fingers on insert and pull tubing out, no tools required.
- **REUSEABLE**, connect and disconnect numerous times.
- **FULL FLOW DESIGN**, provides up to 60% more flow area than conventional fittings with internal tube supports.
- **POSITIVE SEAL**, no leaks. After tubing is inserted, seal is made.
- **VERSATILE**, BunaN "O" rings standard. Other materials of "O" rings available.
- **SECURE TUBE RETENTION**, pulling on tubing only serves to tighten the connection.
- **SELF CONTAINED ASSEMBLY**, no loose parts, brass body and insert.
- **BRASS CONSTRUCTION**, elbows and tees are forged brass.
- **CHOICE** of convenient swivel or economical stationary elbows and tees.
- **STRAIGHT CONNECTORS** have interior hex for Allen key tightening where space is limited...no need to use a wrench.
- **PRE-APPLIED TEFLON®** based pipe sealant on all male pipe threads, saving customer additional labor.
- **METRIC SIZES AVAILABLE**: Metric tube sizes from 2mm through 12mm in both standard NPT and metric pipe sizes are available on a special order basis.
- **WORKING PRESSURE**:  
The fitting is suitable for use up to the maximum working pressure of the plastic tubing used.
- **WORKING TEMPERATURE**:  
-10°F to 200°F (other ranges available on request).
- **PIPE THREAD**: NPTF with Teflon® based sealant pre-applied.



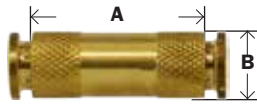
When tubing (1) is inserted into the fitting, it first passes through the gripping teeth (2). Just beyond the gripping teeth is the o-ring (3) which provides the leak proof seal against the OD of the tube. The gripping teeth grab the tube, which

expands the insert. Pulling back on the tube only tightens the grip as the insert moves onto the camming surface (4). Pressure through the tube also serves to tighten the grip. The tube bottoms against a positive tube stop (5) in a cavity providing tube support to prevent leakage.

### • Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical

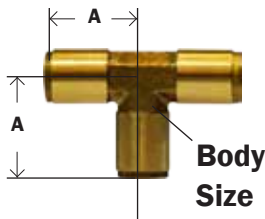
**UNION CONNECTOR**



Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-017	1/8"	1.07	0.38	0.03	----
20-018	5/32"	1.07	0.38	0.03	----
20-019	1/4"	1.50	0.44	0.05	----
20-022	3/8" x 1/4"	1.46	0.56	0.05	----
20-020	3/8"	1.44	0.56	0.06	----
20-021	1/2"	1.63	0.81	0.18	----

AQ62 6580 3106 62PL KQH 12-020 50-562 262-OF 1162 262PP

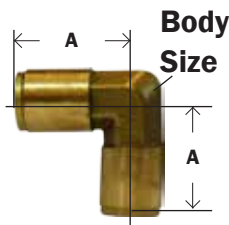
**UNION TEE**



Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-025	1/8"	0.65	0.31	0.04	----
20-026	5/32"	0.67	0.31	0.04	----
20-027	3/16"	0.75	0.37	0.06	----
20-028	1/4"	0.92	0.37	0.09	----
20-031	5/16"	0.89	0.49	0.10	----
20-029	3/8"	0.98	0.50	0.13	----
20-030	1/2"	1.16	0.62	0.24	----

KQT 12-060 50-564 264OF 264PP 1164 AQ64 6540 3140

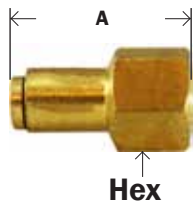
**UNION ELBOW**



Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-150	1/8"	0.65	0.31	0.02	----
20-151	5/32"	0.67	0.31	0.04	----
20-152	1/4"	0.87	0.37	0.06	----
20-155	5/16"	0.91	0.47	0.08	----
20-153	3/8"	0.97	0.50	0.09	----
20-154	1/2"	1.15	0.62	0.18	----

AQ65 6550 3102 165PL KQL 12-040 50-565 265-OF

**FEMALE CONNECTOR**



Part #	Tube O.D. x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-032	1/8" x 1/8"	0.96	0.56	0.04	----
20-038	1/8" x 1/4"	1.04	0.67	0.04	----
20-012	5/32" x 1/8"	1.09	0.56	0.05	----
20-034	1/4" x 1/8"	1.23	0.56	0.06	----
20-035	1/4" x 1/4"	1.42	0.75	0.09	----
20-036	3/8" x 1/4"	1.32	0.75	0.09	----
20-037	3/8" x 3/8"	1.31	0.87	0.12	----

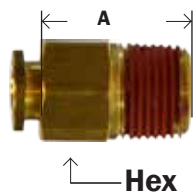
266PP AQ66 6463 3114 66PL 12-426 50-566 266-OF 1166



## BRASS PUSH-IN FITTINGS

## BRASS FITTINGS

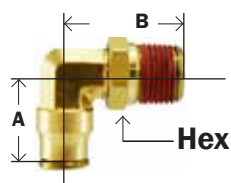
## MALE CONNECTOR



Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-047	1/8" x 10-32**	0.69	0.37	0.02	----
20-045	1/8" x 1/16"	0.68	0.37	0.02	----
20-048	1/8" x 1/8"	0.61	0.43	0.02	----
20-023	1/8" x 1/4"	0.98	0.56	0.04	----
20-049	5/32" x 10-32**	0.67	0.37	0.02	----
20-050	5/32" x 1/8"	0.67	0.43	0.03	----
20-046	5/32" x 1/4"	0.85	0.56	0.05	----
20-051	3/16" x 10-32**	0.80	0.37	0.02	----
20-052	3/16" x 1/8"	0.93	0.43	0.03	----
20-053	1/4" x 10-32**	0.70	0.43	0.03	----
20-039	1/4" x 1/16"	0.92	0.43	0.06	----
20-054	1/4" x 1/8"	0.93	0.43	0.06	----
20-055	1/4" x 1/4"	0.93	0.56	0.10	----
20-056	1/4" x 3/8"	0.94	0.68	0.08	----
20-530	5/16" x 1/8"	1.07	0.56	0.05	----
20-531	5/16" x 1/4"	0.98	0.56	0.10	----
20-532	5/16" x 3/8"	1.06	0.75	0.08	----
20-057	3/8" x 1/8"	1.10	0.56	0.06	----
20-058	3/8" x 1/4"	1.11	0.56	0.05	----
20-059	3/8" x 3/8"	1.02	0.68	0.08	----
20-062	3/8" x 1/2"	1.02	0.87	0.08	----
20-060	1/2" x 1/4"	1.36	0.81	0.11	----
20-061	1/2" x 3/8"	1.30	0.81	0.12	----
20-063	1/2" x 1/2"	1.23	0.87	0.14	----

\* Furnished with gaskets 268PP AQ68 6510 3115 68PL KQH 12-425 50-568 268-OF 1168

## SWIVEL MALE ELBOW



Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
20-079	1/8" x 1/8"	0.69	0.98	0.43	0.07	----
20-535*	1/8" x 1/4"	0.76	0.87	0.56	0.06	----
20-076**	5/32" x 10-32"	0.67	0.71	0.37	0.04	----
20-080	5/32" x 1/8"	0.68	0.89	0.43	0.05	----
20-077	5/32" x 1/4"	0.68	1.08	0.56	0.07	----
20-078**	1/4" x 10-32"	0.86	0.79	0.31	0.05	----
20-081	1/4" x 1/8"	0.90	0.93	0.37	0.08	----
20-082	1/4" x 1/4"	0.90	0.99	0.56	0.10	----
20-086	1/4" x 3/8"	0.98	1.14	0.68	0.09	----
20-538*	5/16" x 1/4"	0.91	0.85	0.56	0.07	----
20-539*	5/16" x 3/8"	0.91	0.87	0.75	0.08	----
20-087	3/8" x 1/8"	0.94	1.08	0.50	0.09	----
20-083	3/8" x 1/4"	0.99	1.15	0.56	0.10	----
20-084	3/8" x 3/8"	1.00	1.24	0.68	0.20	----
20-088	3/8" x 1/2"	1.00	1.54	0.87	0.19	----
20-085	1/2" x 3/8"	1.16	1.34	0.68	0.18	----
20-092	1/2" x 1/2"	1.16	1.61	0.62	0.24	----

\* Nickel Plated

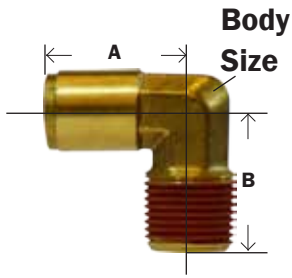
aq69-ps 56520 3109 169pl kql 12-447 50-579 269-OFs 11695

\*\* Furnished with gaskets

## BRASS FITTINGS

## BRASS PUSH-IN FITTINGS

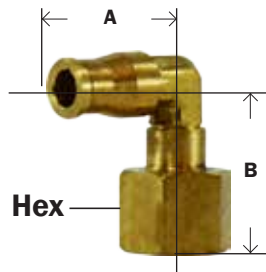
### FIXED MALE ELBOW



Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-065	1/8" x 1/8"	0.69	0.69	0.31	0.03	----
20-066	5/32" x 1/8"	0.68	0.68	0.31	0.03	----
20-067	3/16" x 1/8"	0.75	0.71	0.37	0.04	----
20-068	1/4" x 1/8"	0.89	0.75	0.37	0.06	----
20-069	1/4" x 1/4"	0.95	0.96	0.37	0.08	----
20-070	1/4" x 3/8"	1.00	0.98	0.50	0.10	----
20-071	3/8" x 1/8"	0.99	0.80	0.50	0.06	----
20-072	3/8" x 1/4"	0.98	0.98	0.50	0.09	----
20-073	3/8" x 3/8"	0.97	0.98	0.50	0.12	----
20-074	1/2" x 1/4"	1.15	1.05	0.62	0.15	----
20-075	1/2" x 3/8"	1.18	1.05	0.62	0.22	----
20-064	1/2" x 1/2"	1.16	1.66	0.62	0.20	----

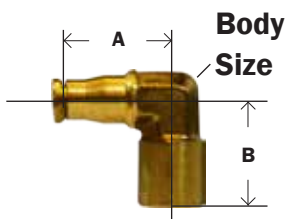
269PP AQ69-P 6500 169PLNS 12-445 1169

### FEMALE SWIVEL ELBOW



Part #	Tube O.D. x Female NPTF	A	B	Hex	List Price
20-094S	5/32" x 1/8"	0.76	1.06	0.56	----
20-089S	1/4" x 1/8"	0.98	1.08	0.56	----
20-090S	1/4" x 1/4"	0.98	1.26	0.75	----
20-091S	3/8" x 1/4"	1.07	1.48	0.75	----

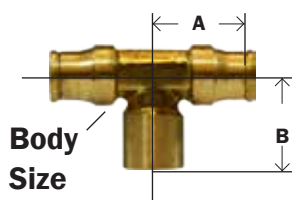
### FEMALE ELBOW



Part #	Tube O.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-192	1/8" x 1/8"	0.78	0.82	0.31	0.02	----
20-094	5/32" x 1/8"	0.68	0.82	0.37	0.02	----
20-089	1/4" x 1/8"	0.91	0.75	0.37	0.06	----
20-090	1/4" x 1/4"	1.03	1.03	0.50	0.11	----
20-091	3/8" x 1/4"	0.98	0.95	0.50	0.16	----

AQ70-P 3009

### FEMALE BRANCH TEE



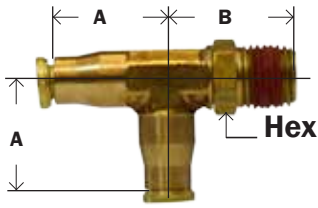
Part #	Tube O.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-130	1/4" x 1/8"	0.89	0.75	0.43	0.06	----
20-132	3/8" x 1/4"	0.96	0.98	0.50	0.12	----

AQ77-P 3008 177PL

## BRASS PUSH-IN FITTINGS

## BRASS FITTINGS

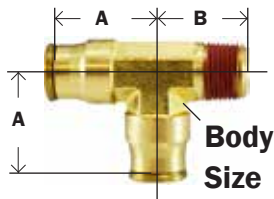
## SWIVEL MALE RUN TEE



Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
20-160	1/8" x 1/8"	0.65	0.86	0.43	0.08	----
20-161	5/32" x 1/8"	0.67	1.04	0.43	0.09	----
20-162	1/4" x 1/8"	0.92	1.04	0.44	0.09	----
20-163	1/4" x 1/4"	0.92	1.13	0.56	0.11	----
20-164	3/8" x 1/4"	0.94	1.19	0.56	0.11	----
20-165	3/8" x 3/8"	0.96	1.24	0.50	0.12	----
20-174	1/2" x 1/4"	1.12	1.18	0.51	0.16	----
20-166	1/2" x 3/8"	1.14	1.31	0.68	0.14	----
20-167	1/2" x 1/2"	1.14	1.61	0.87	0.16	----

AQ71-PS 56440 3103 171PL KQY 12-468 50-571 271-OFS 11715

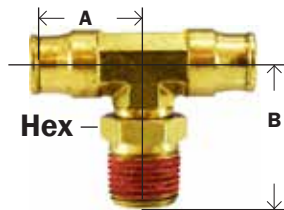
## FIXED MALE RUN TEE



Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-095	1/8" x 1/8"	0.65	0.72	0.31	0.04	----
20-097	3/16" x 1/8"	0.75	0.73	0.37	0.06	----
20-098	1/4" x 1/8"	0.92	0.74	0.37	0.08	----
20-093	1/4" x 1/4"	0.92	0.92	0.43	0.10	----
20-099	3/8" x 1/8"	0.94	0.82	0.50	0.14	----
20-100	3/8" x 1/4"	0.98	0.98	0.50	0.12	----
20-101	3/8" x 3/8"	1.05	1.05	0.62	0.10	----
20-102	1/2" x 3/8"	1.14	1.05	0.62	0.18	----

AQ71-P

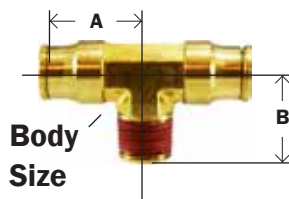
## SWIVEL MALE BRANCH TEE



Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
20-103	1/8" x 1/8"	0.65	0.81	0.31	0.04	----
20-104	5/32" x 10-32"*	0.65	0.71	0.31	0.04	----
20-109	5/32" x 1/8"	0.67	0.94	0.37	0.06	----
20-105	1/4" x 1/8"	0.92	0.97	0.37	0.08	----
20-106	1/4" x 1/4"	0.92	1.09	0.55	0.10	----
20-107	3/8" x 1/4"	0.96	1.14	0.56	0.18	----
20-108	3/8" x 3/8"	0.96	1.23	0.69	0.16	----
20-110	1/2" x 3/8"	1.16	1.34	0.69	0.24	----
20-111	1/2" x 1/2"	1.16	1.64	0.87	0.28	----

\* Furnished with gaskets

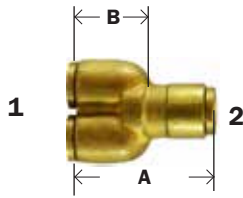
## FIXED MALE BRANCH TEE



Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-112	1/8" x 1/8"	0.69	0.72	0.31	0.04	----
20-113	5/32" x 1/8"	0.69	0.65	0.31	0.04	----
20-115	1/4" x 1/8"	0.92	0.74	0.37	0.12	----
20-116	1/4" x 1/4"	0.91	0.93	0.37	0.10	----
20-117	3/8" x 1/8"	0.98	0.80	0.50	0.08	----
20-118	3/8" x 1/4"	0.98	0.97	0.50	0.12	----
20-119	3/8" x 3/8"	0.98	0.97	0.50	0.14	----
20-120	1/2" x 3/8"	1.16	1.05	0.62	0.18	----

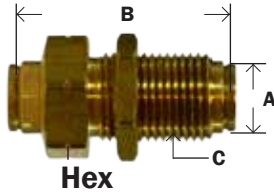
AQ72-P

**UNION "Y"**



Part #	Tube O.D. 1 X 2	A	B	Approx. Wt. Lbs.	List Price
20-551	5/32" x 5/32"	1.36	0.81	0.11	----
20-552	1/4" x 1/8"	1.61	1.06	0.12	----
20-553	1/4" x 1/4"	1.81	1.16	0.14	----

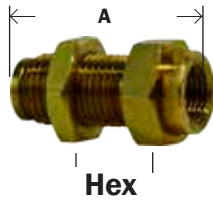
**BULKHEAD UNION**



Part #	Tube O.D. A	B	C	Hex	Approx. Wt. Lbs.	List Price
20-124	1/8"	1.12	7/16-20	0.62	0.03	----
20-125	5/32"	1.12	7/16-20	0.62	0.03	----
20-126	3/16"	1.27	1/2-20	0.68	0.04	----
20-127	1/4"	1.69	1/2-20	0.68	0.06	----
20-128	3/8"	1.69	3/4-16	0.81	0.13	----
20-129	1/2"	1.85	15/16-20	1.12	0.16	----

AQ82-P 6590 62PLBH KQE 12-029 50-582 282-OF 1174

**FEMALE BULKHEAD UNION**

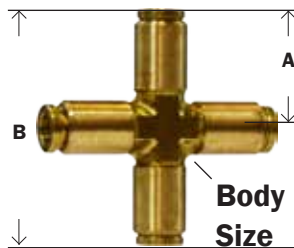


Part #	Tube O.D. x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-170	1/4" x 1/8"	1.19	0.68	0.08	----
20-171	1/4" x 1/4"	1.36	0.75	0.10	----
20-172	3/8" x 1/4"	1.71	0.75	0.14	----

AQ86-P 1166BH

Dimension data can change without notice. Please call us when dimensions are critical.

**CROSS**

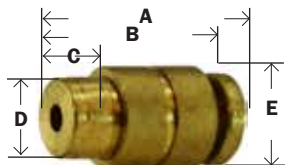


Size	Size	A	B	Body Size	List Price
20-142	1/4"	1.03	2.06	0.37	----
20-143	3/8"	1.06	2.12	0.50	----

## BRASS PUSH-IN FITTINGS

## BRASS FITTINGS

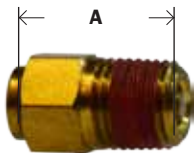
## PRESS-IN CARTRIDGE



Part #	Tube O.D.	A	B	C	D	E	List Price
20-040	1/8"	0.67	0.59	0.20	0.30	0.38	----
20-041	5/32"	0.67	0.59	0.20	0.30	0.38	----
20-043	1/4"	0.93	0.85	0.26	0.38	0.50	----
20-044	3/8"	1.21	1.13	0.26	0.38	0.63	----

## QUICK DISCONNECT

When tube is disconnected, flow shuts off automatically.



Hex ↗

Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-133	1/4" x 1/8"	0.92	0.43	0.10	----
20-134	1/4" x 1/4"	0.92	0.56	0.12	----

AQ92-P 6500 169PLNS

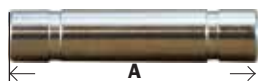
## REDUCER - NICKEL PLATED - TUBE OD X STUD



Part #	Tube O.D. 1 X 2	A	B	Approx. Wt. Lbs.	List Price
20-510	1/8" x 1/4"	1.38	0.39	0.02	----
20-511	5/32" x 1/4"	1.33	0.35	0.02	----
20-512	1/4" x 3/8"	1.50	0.51	0.04	----

67PPL 286PP

## DOUBLE MALE UNION - NICKEL PLATED

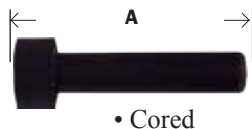


Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-004	1/8"	1.28	0.01	----
20-005	5/32"	1.28	0.01	----
20-006	1/4"	1.40	0.02	----
20-007	5/16"	1.59	0.02	----
20-008	3/8"	1.81	0.02	----
20-000	1/2"	1.89	0.03	----

( For polyurethane or other soft plastic tubing )

AQ34

## PLASTIC PLUG



Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-009	5/32"	1.16	0.01	----
20-010	1/4"	1.40	0.01	----
20-011	3/8"	1.40	0.02	----
20-013	1/2"	1.50	0.02	----

284PP AQ59 209-OF 1129 6900 639PL 12-004 50-526

# NICKEL PLATED PUSH-IN FITTINGS

## with GLOBAL THREAD

• NPTF • BSPP • BSPT • ISO 7 • ISO 228 • G THREAD • J THREAD



- Saves time and money
- No stripped threads
- No stripped parts
- Reduce inventory

- Completely reusable
- Quick installation
- No pitch identification

Component Parts and Materials	
Body	Brass - Nickel Plated
Thrust Ring	Acetalic Resin/ Glass filled Nylon
Sleeve	Brass - Nickel Plated
Gripper Collet	Stainless Steel
Safety Ring	PA66
Lip Seal ( 1/8 O-Ring Seal)	NBR 70
Thread Seal	NBR 70

**Max Operating Pressure:** 0-250 psi (17 bar ) Vacuum service.

**Min Temperature:** 0°F (-18°C)

**Max Temperature:** 160°F (+70°C)

**Tubing:** Nylon, Polyethylene, Polyurethane.

- For best results use 95 Durometer

**Media:** Compressed air, water.

### • Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

## GLOBAL THREAD

**Works With Inch or Metric Threads**



“Global Thread” fittings can be assembled with female threads produced to the following standards:

Tapered NPTF

Parallel (BSPP, BSP, ISO 7)

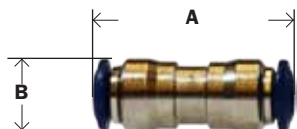
Tapered (BSPT, PT, ISO 7, ISO 228)

## NICKEL PLATED PUSH-IN FITTINGS

## BRASS FITTINGS

## NICKEL PLATED PUSH-IN FITTINGS

## UNION CONNECTOR



Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-017N	1/8"	1.06	0.34	0.03	----
20-018N	5/32"	1.20	0.41	0.03	----
20-016N	5/32" x 1/4"	1.20	0.40	0.04	----
20-019N	1/4"	1.38	0.49	0.05	----
20-015N	5/16"	1.46	0.57	0.06	----
20-020N	3/8"	1.69	0.69	0.06	----
20-022N	3/8" x 1/4"	1.69	0.68	0.06	----
20-021N	1/2"	1.93	0.81	0.18	----
20-024N	1/2" x 3/8"	1.84	0.80	0.17	----

62PL 88040

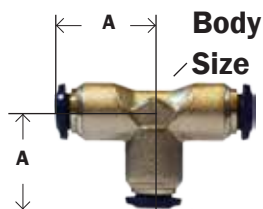
## REDUCER



Part #	Tube O.D. 2	Tube O.D. 1	A	List Price
20-510N	1/4"	1/8"	1.142	----
20-511N	1/4"	5/32"	1.181	----
20-512N	3/8"	1/4"	1.496	----
20-513N	1/2"	1/4"	1.693	----
20-514N	1/2"	3/8"	1.693	----

67PPL 88700

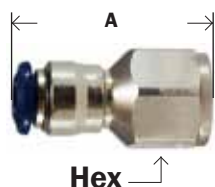
## UNION TEE



Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-025N	1/8"	0.67	0.35	0.04	----
20-026N	5/32"	0.67	0.35	0.04	----
20-028N	1/4"	0.83	0.43	0.09	----
20-031N	5/16"	0.87	0.51	0.10	----
20-029N	3/8"	1.04	0.63	0.13	----
20-030N	1/2"	1.20	0.74	0.24	----

164PL 88230

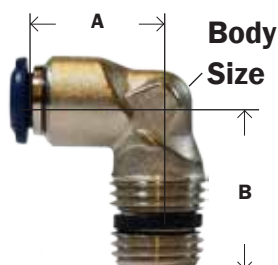
## FEMALE CONNECTOR



Part #	Tube O.D. x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-032N	1/8" x 1/8"	0.93	0.51	0.04	----
20-038N	1/8" x 1/4"	1.14	0.63	0.04	----
20-034N	1/4" x 1/8"	1.06	0.51	0.06	----
20-035N	1/4" x 1/4"	1.26	0.63	0.09	----
20-036N	3/8" x 1/4"	1.38	0.71	0.09	----
20-037N	3/8" x 3/8"	1.38	0.79	0.12	----

66PL 88030

## FIXED MALE ELBOW



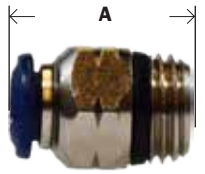
Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-068N	1/4" x 1/8"	0.83	0.73	0.43	0.06	----
20-069N	1/4" x 1/4"	0.83	0.91	0.43	0.08	----
20-072N	3/8" x 1/4"	1.04	1.04	0.63	0.09	----
20-073N	3/8" x 3/8"	1.04	1.00	0.63	0.12	----

W169PLNS 8100

## BRASS FITTINGS

## NICKEL PLATED PUSH-IN FITTINGS

### MALE CONNECTOR



Hex

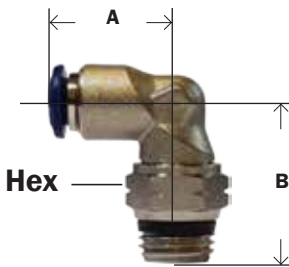


internal hex

Part #	Tube O.D. x Male Global Thread	A	Hex	Approx. Wt. Lbs.	List Price
20-047N	1/8" x 10-32"	0.75	0.31	0.02	----
20-048N	1/8" x 1/8"	0.77	0.43	0.02	----
20-023N	1/8" x 1/4"	0.97	0.55	0.04	----
20-049N	5/32" x 10-32"	0.83	0.39	0.02	----
20-050N	5/32" x 1/8"	0.83	0.43	0.03	----
20-046N	5/32" x 1/4"	0.98	0.55	0.05	----
20-053N	1/4" x 10-32"	0.97	0.51	0.03	----
20-054N	1/4" x 1/8"	0.98	0.51	0.06	----
20-055N	1/4" x 1/4"	0.98	0.55	0.10	----
20-056N	1/4" x 3/8"	0.98	0.71	0.08	----
20-530N	5/16" x 1/8"	0.98	0.55	0.05	----
20-531N	5/16" x 1/4"	1.08	0.55	0.10	----
20-532N	5/16" x 3/8"	1.08	0.71	0.08	----
20-057N	3/8" x 1/8"	1.38	0.67	0.06	----
20-058N	3/8" x 1/4"	1.32	0.67	0.05	----
20-059N	3/8" x 3/8"	1.32	0.71	0.08	----
20-062N	3/8" x 1/2"	1.32	0.87	0.08	----
20-060N	1/2" x 1/4"	1.54	0.79	0.11	----
20-061N	1/2" x 3/8"	1.42	0.79	0.12	----
20-063N	1/2" x 1/2"	1.58	0.87	0.14	----

68PL 87000

### SWIVEL MALE ELBOW



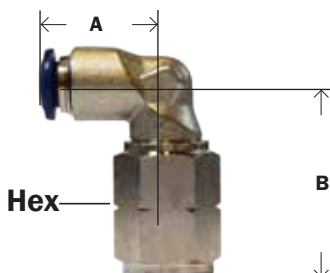
Hex



Part #	Tube O.D. x Male Global Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
20-079N	1/8" x 1/8"	0.67	0.78	0.51	0.07	----
20-535N	1/8" x 1/4"	0.67	0.95	0.59	0.06	----
20-076N	5/32" x 10-32"	0.67	0.95	0.59	0.04	----
20-080N	5/32" x 1/8"	0.67	0.79	0.51	0.05	----
20-081N	1/4" x 1/8"	0.83	0.87	0.51	0.08	----
20-082N	1/4" x 1/4"	0.83	0.98	0.59	0.10	----
20-086N	1/4" x 3/8"	0.83	1.10	0.67	0.09	----
20-538N	5/16" x 1/4"	0.89	1.02	0.59	0.07	----
20-539N	5/16" x 3/8"	0.87	1.10	0.67	0.08	----
20-087N	3/8" x 1/8"	1.04	1.02	0.51	0.09	----
20-083N	3/8" x 1/4"	1.04	1.10	0.59	0.10	----
20-084N	3/8" x 3/8"	1.04	1.18	0.67	0.20	----
20-088N	3/8" x 1/2"	1.04	1.30	0.83	0.19	----
20-085N	1/2" x 3/8"	1.20	1.24	0.59	0.18	----
20-092N	1/2" x 1/2"	1.20	1.42	0.83	0.24	----

W169PL 87110

### FEMALE SWIVEL ELBOW



Hex

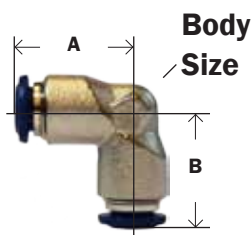
Part #	Tube O.D. x Female NPTF	A	B	Hex	List Price
20-094N	5/32" x 1/8"	0.669	0.994	0.354	----
20-089N	1/4" x 1/8"	0.826	1.023	0.433	----
20-090N	1/4" x 1/4"	0.826	1.200	0.433	----
20-762N	3/8" x 1/8"	0.885	1.082	0.511	----
20-091N	3/8" x 1/4"	0.885	1.240	0.511	----



## NICKEL PLATED PUSH-IN FITTINGS

## BRASS FITTINGS

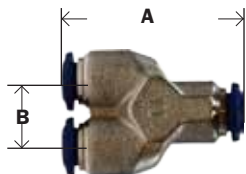
## UNION ELBOW



Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-150N	1/8"	0.67	0.35	0.02	----
20-151N	5/32"	0.67	0.35	0.04	----
20-152N	1/4"	0.83	0.43	0.06	----
20-155N	5/16"	0.87	0.51	0.08	----
20-153N	3/8"	1.04	0.63	0.09	----
20-154N	1/2"	1.20	0.75	0.18	----

165PL 88310

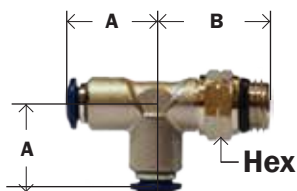
## UNION "Y"



Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-553N	1/4" x 1/4"	1.44	0.53	0.14	----

662PL 88310

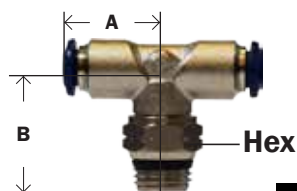
## SWIVEL MALE RUN TEE



Part #	Tube O.D. x Male Global Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
20-162N	1/4" x 1/8"	0.83	0.87	0.51	0.09	----
20-163N	1/4" x 1/4"	0.83	0.98	0.59	0.11	----
20-168N	3/8" x 1/4"	1.04	1.10	0.59		----
20-164N	1/4" x 3/8"	0.83	1.10	0.59	0.11	----
20-165N	3/8" x 3/8"	1.04	1.18	0.67	0.12	----
20-174N	1/2" x 1/4"	1.20	1.24	0.59	0.16	----
20-166N	1/2" x 3/8"	1.20	1.30	0.67	0.14	----

W171PL 87222

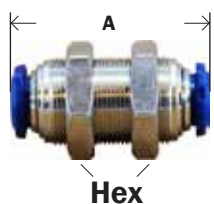
## SWIVEL MALE BRANCH TEE



Part #	Tube O.D. x Male Global Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
20-103N	1/8" x 1/8"	0.67	0.78	0.51	0.04	----
20-104N	5/32" x 10-32"	0.67	0.79	0.31	0.04	----
20-105N	1/4" x 1/8"	0.83	0.87	0.51	0.08	----
20-106N	1/4" x 1/4"	0.83	0.98	0.59	0.10	----
20-156N	1/4" x 3/8"	1.043	1.10	0.59	0.18	----
20-107N	3/8" x 1/4"	1.04	1.10	0.59	0.18	----
20-108N	3/8" x 3/8"	1.04	1.18	0.67	0.16	----
20-158N	3/8" x 1/2"	1.04	1.30	0.82		----
20-110N	1/2" x 3/8"	1.20	1.30	0.67	0.24	----
20-111N	1/2" x 1/2"	1.20	1.42	0.82	0.28	----

W172PL 87210

## BULKHEAD UNION

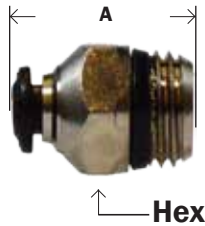


Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-127N	1/4"	1.38	0.67	0.06	----
20-123N	5/16"	1.45	0.74	0.08	----
20-128N	3/8"	1.69	0.94	0.13	----

62PLBH 88050

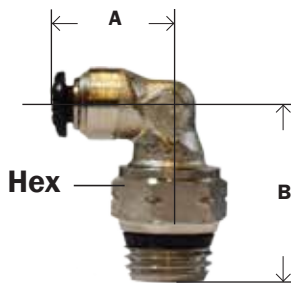
## NICKEL PLATED METRIC PUSH-IN FITTINGS

## METRIC TUBE STRAIGHT MALE



Part #	Tube O.D. (mm)	Global Thread	A	Hex	List Price
20-630N	4	1/8"	0.702	0.429	----
20-631N	4	1/4"	0.760	0.546	----
20-700N	5	1/8"	0.78	0.429	----
20-701N	5	1/4"	0.78	0.546	----
20-632N	6	1/8"	0.78	0.546	----
20-633N	6	1/4"	0.819	0.546	----
20-702N	8	1/8"	0.955	0.546	----
20-634N	8	1/4"	0.858	0.546	----
20-635N	8	3/8"	0.897	0.663	----
20-703N	8	1/2"	0.897	0.663	----
20-636N	10	1/4"	1.092	0.663	----
20-637N	10	3/8"	1.092	0.663	----
20-704N	10	1/2"	1.014	0.663	----
20-801N	12	1/4"	1.267	0.78	----
20-638N	12	3/8"	1.267	0.78	----
20-705N	12	1/2"	1.209	0.78	----
20-706N	14	3/8"	1.287	0.858	----
20-707N	14	1/2"	1.248	0.858	----

## METRIC TUBE SWIVEL MALE ELBOW

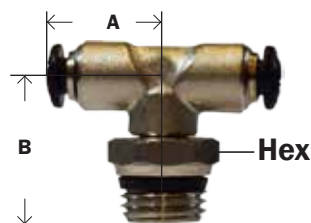


Part #	Tube O.D. (mm)	Global Thread	A	B	Hex	List Price
20-708N	4	1/8"	0.663	0.780	0.507	----
20-709N	4	1/4"	0.663	0.936	0.585	----
20-710N	5	1/8"	0.780	0.858	0.507	----
20-642N	6	1/8"	0.819	0.858	0.507	----
20-803N	6	1/4"	0.819	0.975	0.585	----
20-711N	8	1/8"	0.878	0.917	0.507	----
20-805N	8	1/4"	0.878	1.014	0.585	----
20-655N	8	3/8"	0.878	1.092	0.663	----
20-712N	8	1/2"	0.878	1.404	0.819	----
20-656N	10	1/4"	1.034	1.092	0.585	----
20-657N	10	3/8"	1.034	1.170	0.663	----
20-713N	10	1/2"	1.034	1.287	0.819	----
20-658N	12	3/8"	1.190	1.287	0.663	----
20-659N	12	1/2"	1.190	1.404	0.819	----
20-714N	14	3/8"	1.268	1.404	0.663	----
20-715N	14	1/2"	1.268	1.443	0.819	----

## NICKEL PLATED METRIC PUSH-IN FITTINGS

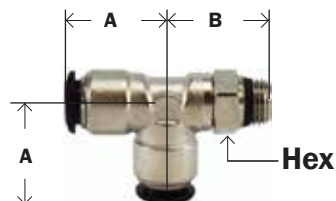
## BRASS FITTINGS

## METRIC TUBE SWIVEL MALE BRANCH TEE



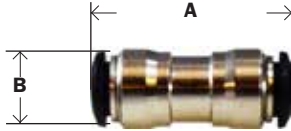
Part #	Tube O.D. (mm)	Global Thread	A	B	Hex	List Price
20-680N	4	1/8"	0.663	0.780	0.507	----
20-716N	4	1/4"	0.663	0.936	0.585	----
20-717N	5	1/8"	0.78	0.858	0.507	----
20-682N	6	1/8"	0.819	0.858	0.507	----
20-683N	6	1/4"	0.819	0.975	0.585	----
20-809N	8	1/8"	0.877	0.917	0.507	----
20-684N	8	1/4"	0.877	1.014	0.585	----
20-686N	10	1/4"	1.033	1.092	0.585	----
20-687N	10	3/8"	1.033	1.170	0.663	----
20-810N	10	1/2"	1.033	1.287	0.819	----
20-688N	12	3/8"	1.189	1.287	0.663	----
20-689N	12	1/2"	1.189	1.404	0.819	----
20-718N	14	3/8"	1.267	1.404	0.663	----
20-719N	14	1/2"	1.267	1.443	0.819	----

## METRIC TUBE SWIVEL MALE RUN TEE



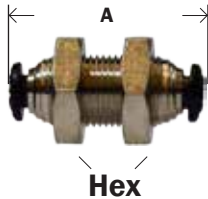
Part #	Tube O.D. (mm)	Global Thread	A	B	Hex	List Price
20-670N	4	1/8"	0.663	0.780	0.507	----
20-720N	4	1/4"	0.663	0.936	0.585	----
20-721N	5	1/8"	0.780	0.858	0.507	----
20-672N	6	1/8"	0.819	0.858	0.507	----
20-673N	6	1/4"	0.819	0.975	0.585	----
20-811N	8	1/8"	0.819	0.917	0.507	----
20-674N	8	1/4"	0.878	1.014	0.585	----
20-676N	10	1/4"	0.878	1.092	0.585	----
20-677N	10	3/8"	1.034	1.170	0.663	----
20-722N	10	1/2"	1.034	1.287	0.819	----
20-678N	12	3/8"	1.190	1.287	0.663	----
20-679N	12	1/2"	1.190	1.404	0.819	----

**BULKHEAD UNION**



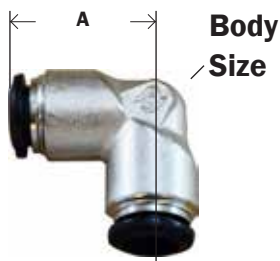
Part #	Tube O.D. (mm)	Tube O.D. (mm)	A	B	List Price
20-723N	3		1.014	0.332	----
20-600N	4		1.190	0.410	----
20-724N	5		1.287	0.449	----
20-725N	6	4	1.248	0.488	----
20-601N	6		1.326	0.488	----
20-726N	8	6	1.365	0.566	----
20-727N	8		1.404	0.566	----
20-728N	10	8	1.638	0.683	----
20-603N	10		1.638	0.683	----
20-729N	12	10	1.833	0.800	----
20-604N	12		1.833	0.800	----
20-730N	14		1.911	0.839	----

**BULKHEAD**



Part #	Tube O.D. (mm)	M	A	Hex	List Price
20-731N	3	M10x1	1.014	0.546	----
20-732N	4	M12x1	1.229	0.663	----
20-733N	5	M14x1	1.287	0.663	----
20-734N	6	M14x1	1.365	0.663	----
20-735N	8	M16x1	1.443	0.741	----
20-736N	10	M20x1	1.677	0.936	----
20-737N	12	M22x1	1.872	1.014	----

**UNION ELBOW**

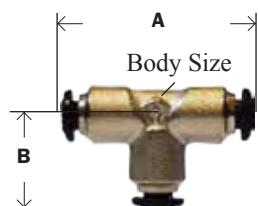


Part #	Tube O.D. (mm)	A	Body Size	List Price
20-738N	3	0.663	0.51	----
20-206N	4	0.663	0.351	----
20-739N	5	0.780	0.429	----
20-660N	6	0.780	0.429	----
20-661N	8	0.878	0.507	----
20-807N	10	1.034	0.624	----
20-808N	12	1.190	0.741	----
20-740N	14	1.268	0.741	----

## NICKEL PLATED METRIC PUSH-IN FITTINGS

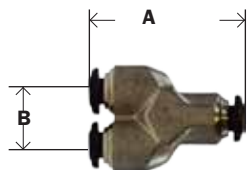
## BRASS FITTINGS

## UNION TEE



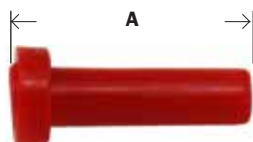
Part #	Tube O.D. (mm)	A	B	Body Size	List Price
20-741N	3	1.326	0.663	0.351	----
20-610N	4	1.326	0.663	0.351	----
20-742N	5	1.560	0.780	0.429	----
20-611N	6	1.638	0.819	0.429	----
20-612N	8	1.755	0.878	0.507	----
20-613N	10	2.067	1.034	0.624	----
20-614N	12	2.379	1.190	0.741	----
20-743N	14	2.379	2.535	0.741	----

## UNION Y



Part #	Tube O.D. (mm)	B	A	List Price
20-744N	3	0.390	1.131	----
20-813N	4	0.429	1.248	----
20-745N	5	0.527	1.365	----
20-814N	6	0.527	1.424	----
20-815N	8	0.605	1.599	----
20-746N	10	0.728	1.890	----

## PLUG



Part #	Tube O.D. (mm)	A	List Price
20-748N	4	0.917	----
20-749N	5	0.956	----
20-750N	6	0.956	----
20-751N	8	1.014	----
20-752N	10	1.112	----
20-753N	12	1.190	----

## REDUCER



Part #	Stud (mm)	Tube O.D. 2 (mm)	A	List Price
20-754N	4	3	1.053	----
20-755N	5	4	1.131	----
20-756N	6	4	1.170	----
20-757N	6	5	1.248	----
20-758N	8	6	1.326	----
20-759N	10	8	1.482	----
20-760N	12	8	1.521	----

# Composite Body Push-In Fittings



• For Food Grade,  
see page 318

## Specifications

Fluid admitted	Air
Working pressure range	0-150 PSI (10BAR)
Min. Burst pressure	340PSI (23BAR)
Working Temperature range	-104°F ~180°F

## Materials of Construction:

1	Body	Composite Polyacetal (hemopolymer, copolymer)
2	Body	Brass
3	Tube Release	Acetal Resin
4	Retainer	Brass
5	Gripper Ring	Stainless Steel
6	Spacer	Brass
7	O-Ring	NBR 70
8	Threads	Brass w/ white sealant

The latest generation of composite material is used in the body construction in addition to brass on threaded components and stainless steel on the tube gripper.

## • Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

## COMPOSITE BODY PUSH-IN FITTINGS

## BRASS FITTINGS

## UNION



	Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
<b>NEW</b>	20-017C	1/8"	0.01	----
	20-018C	5/32"	0.01	----
<b>NEW</b>	20-001C	3/16"	0.01	----
	20-019C	1/4"	0.01	----
<b>NEW</b>	20-015C	5/16"	0.01	----
	20-020C	3/8"	0.02	----
	20-021C	1/2"	0.03	----
<b>NEW</b>	20-022C	3/8" x 1/4"	0.01	----
<b>NEW</b>	20-024C	1/2" x 3/8"	0.03	----

PQ62P

## UNION TEE



	Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
<b>NEW</b>	20-025C	1/8"	0.01	----
<b>NEW</b>	20-026C	5/32"	0.01	----
	20-028C	1/4"	0.02	----
<b>NEW</b>	20-031C	5/16"	0.02	----
	20-029C	3/8"	0.02	----
	20-030C	1/2"	0.08	----

PQ64P

## FEMALE CONNECTOR

• Brass



	Part #	Tube O.D. x Female NPT	Approx. Wt. Lbs.	List Price
	20-034C	1/4" x 1/8"	0.02	----
	20-035C	1/4" x 1/4"	0.04	----
	20-036C	3/8" x 1/4"	0.04	----
	20-037C	3/8" x 3/8"	0.06	----

PQ66P

## MALE CONNECTOR

• Nickel Plated



	Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
<b>NEW</b>	20-050C	5/32" x 1/8"	0.02	----
<b>NEW</b>	20-053C	1/4" x 10-32"	0.02	----
	20-054C	1/4" x 1/8"	0.02	----
	20-055C	1/4" x 1/4"	0.02	----
	20-056C	1/4" x 3/8"	0.04	----
<b>NEW</b>	20-530C	5/16" x 1/8"	0.05	----
<b>NEW</b>	20-531C	5/16" x 1/4"	0.05	----
<b>NEW</b>	20-057C	3/8" x 1/8"	0.05	----
	20-058C	3/8" x 1/4"	0.06	----
	20-059C	3/8" x 3/8"	0.06	----
	20-062C	3/8" x 1/2"	0.08	----
	20-060C	1/2" x 1/4"	0.06	----
	20-061C	1/2" x 3/8"	0.08	----
	20-063C	1/2" x 1/2"	0.10	----

PQ68P

## BRASS FITTINGS

## COMPOSITE BODY PUSH-IN FITTINGS

### SWIVEL MALE ELBOW

- Swivels for installation only.
- Not a live swivel



	Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
<b>NEW</b>	20-079C	1/8" x 1/8"	0.01	----
<b>NEW</b>	20-078C	1/4" x 10-32	0.01	----
	20-081C	1/4" x 1/8"	0.02	----
	20-082C	1/4" x 1/4"	0.04	----
	20-086C	1/4" x 3/8"	0.06	----
<b>NEW</b>	20-537C	5/16" x 1/8"	0.04	----
<b>NEW</b>	20-538C	5/16" x 1/4"	0.04	----
	20-087C	3/8" x 1/8"	0.04	----
	20-083C	3/8" x 1/4"	0.08	----
	20-084C	3/8" x 3/8"	0.10	----
	20-088C	3/8" x 1/2"	0.12	----
<b>NEW</b>	20-184C	1/2" x 1/4"	0.14	----
	20-085C	1/2" x 3/8"	0.16	----
	20-092C	1/2" x 1/2"	0.18	----

PQ69PS

### LONG PATTERN MALE ELBOWS



**NEW**

	Part #	Tube O.D. x Thread	Approx. Wt. Lbs.	List Price
	20-572C	1/4 X 1/8	0.03	----
	20-573C	1/4 X 1/4	0.05	----
	20-574C	1/4 X 3/8	0.06	----
	20-579C	3/8 X 1/4	0.09	----
	20-580C	3/8 X 3/8	0.12	----
	20-581C	3/8 X 1/2	0.14	----
	20-582C	1/2 X 1/4	0.16	----
	20-583C	1/2 X 3/8	0.18	----
	20-584C	1/2 X 1/2	0.20	----

### FEMALE SWIVEL ELBOWS



**NEW**

	Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
	20-089C	1/4 X 1/8	0.05	----
	20-090C	1/4 X 1/4	0.06	----
	20-591C	1/4 X 3/8	0.07	----
	20-091C	3/8 X 1/4	0.10	----
	20-595C	3/8 X 3/8	0.14	----
	20-596C	3/8 X 1/2	0.15	----
	20-597C	1/2 X 3/8	0.20	----
	20-092C	1/2 X 1/2	0.23	----

### 45° SWIVELS



**NEW**

	Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
	20-139C	1/4 X 1/8	0.04	----
	20-140C	1/4 X 1/4	0.05	----



## COMPOSITE BODY PUSH-IN FITTINGS

## BRASS FITTINGS

## 90° UNION ELBOW



NEW

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-150C	1/8	0.01	----
20-151C	5/32	0.01	----
20-152C	1/4"	0.02	----
20-155C	5/16	0.02	----
20-153C	3/8"	0.02	----
20-154C	1/2	0.02	----

PQ65P

## SWIVEL MALE RUN TEE

- Swivels for installation only.
- Not a live swivel



NEW

NEW

NEW

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-162C	1/4" x 1/8"	0.04	----
20-163C	1/4" x 1/4"	0.04	----
20-099C	3/8" x 1/8"	0.06	----
20-100C	3/8" x 1/4"	0.08	----
20-165C	3/8" x 3/8"	0.10	----
20-181C	3/8 x 1/2	0.12	----
20-174C	1/2 x 1/4	0.12	----
20-166C	1/2 x 3/8	0.14	----
20-167C	1/2 x 1/2	0.16	----

PQ71PS

## SWIVEL MALE BRANCH TEE

- Swivels for installation only.
- Not a live swivel



NEW

NEW

NEW

NEW

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-105C	1/4" x 1/8"	0.04	----
20-106C	1/4" x 1/4"	0.06	----
20-121C	1/4" x 3/8"	0.08	----
20-107C	3/8" x 1/4"	0.10	----
20-108C	3/8" x 3/8"	0.12	----
20-158C	3/8 X 1/2	0.14	----
20-138C	1/2 X 1/4	0.14	----
20-110C	1/2 X 3/8	0.16	----
20-111C	1/2 X 1/2	0.21	----

PQ72PS

## BULKHEAD FEMALES



NEW

Part #	Tube O.D. x Thread	Approx. Wt. Lbs.	List Price
20-170C	1/4 X 1/8	0.04	----
20-171C	1/4 X 1/4	0.04	----
20-172C	3/8 X 1/4	0.06	----
20-173C	3/8 X 3/8	0.07	----
20-175C	1/2 X 1/4	0.07	----
20-176C	1/2 X 3/8	0.09	----
20-179C	1/2 X 1/2	0.10	----

## BRASS FITTINGS

## COMPOSITE BODY PUSH-IN FITTINGS

### BULKHEAD UNION



**NEW**

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-127C	1/4"	0.04	----
20-128C	3/8"	0.06	----
20-129C	1/2"	0.10	----

PQ82P

### UNION "Y" CONNECTOR



**NEW**

**NEW**

**NEW**

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-551C	5/32"	0.01	----
20-553C	1/4"	0.02	----
20-182C	5/16"	0.02	----
20-555C	3/8"	0.02	----
20-185C	1/2"	0.07	----

PQ89P

### SWIVEL "Y" CONNECTOR

• Swivels for installation only. • Not a live swivel



**NEW**

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-187C	1/4 X 1/8	0.02	----
20-557C	1/4" x 1/4"	0.02	----
20-188C	3/8 X 1/4	0.04	----
20-189C	3/8 X 3/8	0.04	----
20-193C	3/8 X 1/2	0.07	----
20-194C	1/2 X 3/8	0.06	----
20-195C	1/2 X 1/2	0.09	----

PQ88PS

### IN-LINE NEEDLE VALVE



**NEW**

**NEW**

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-487C	1/4"	0.04	----
20-488C	5/16"	0.05	----
20-489C	3/8"	0.06	----

PQ310C

### RIGHT ANGLE FLOW CONTROL METER IN



**NEW**

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-727C	1/4 X 1/8	0.04	----
20-728C	1/4" x 1/4"	0.04	----
20-780C	3/8 X 1/4	0.06	----
20-781C	3/8 X 3/8	0.06	----
20-782C	1/2 X 1/2	0.10	----

JPQ

### RIGHT ANGLE FLOW CONTROL METER OUT



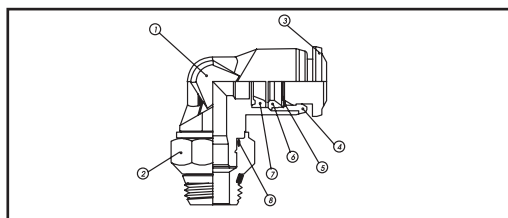
**NEW**

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-785C	1/4 x 1/8	0.04	----
20-786C	1/4 x 1/4	0.04	----
20-787C	3/8 x 1/4	0.06	----
20-788C	3/8 x 3/8	0.06	----
20-789C	1/2 x 1/2	0.10	----

## METRIC COMPOSITE BODY PUSH-IN FITTINGS

## BRASS FITTINGS

## Technical Characteristics



PART 1	BODY	COMPOSITE
PART 2	BODY	NICKEL PLATED BRASS
PART 3	TUBE RELEASE	ACETAL RESIN
PART 4	RETAINER	NICKEL PLATED BRASS
PART 5	GRIPPER RING	STAINLESS STEEL
PART 6	SPACER	COMPOSITE
PART 7	THREAD PACKING	NBR 70
PART 8	O-RING	NBR 70
PART 9	THREAD SEAL	NBR70

## Operating Range

Pressure: 0 to 220 PSI (15 bar)

Vacuum: 0 to 29hg (-.99 bar)

## Temperature

-5° F to + 175° F (-20° C to + 80° C)

## Media

Compressed air.

Non-toxic fluids (water)

## Materials

The latest generation of composite material is used in the body construction in addition to nickel-plated brass on threaded components and stainless steel on the tube gripper.



Part #	Tube OD (mm)	BSPT Thread	List Price
20-630	4	1/8"	----
20-631	4	1/4"	----
20-632	6	1/8"	----
20-633	6	1/4"	----
20-634	8	1/4"	----
20-635	8	3/8"	----
20-636	10	1/4"	----
20-637	10	3/8"	----
20-801	12	1/4"	----
20-638	12	3/8"	----

3175



Part #	Tube O.D. (mm)	List Price
20-600	4	----
20-601	6	----
20-602	8	----
20-603	10	----
20-604	12	----



Part #	Tube OD (mm)	BSPT Thread	List Price
20-642	6	1/8"	----
20-803	6	1/4"	----
20-805	8	1/4"	----
20-655	8	3/8"	----
20-656	10	1/4"	----
20-657	10	3/8"	----
20-658	12	3/8"	----
20-659	12	1/2"	----



Part #	Tube O.D. (mm)	List Price
20-806	4	----
20-660	6	----
20-661	8	----
20-807	10	----
20-808	12	----

3102



Part #	Tube OD (mm)	BSPT Thread	List Price
20-680	4	1/8"	----
20-682	6	1/8"	----
20-683	6	1/4"	----
20-809	8	1/8"	----
20-684	8	1/4"	----
20-685	8	3/8"	----
20-686	10	1/4"	----
20-687	10	3/8"	----
20-810	10	1/2"	----
20-688	12	3/8"	----
20-689	12	1/2"	----



Part #	Tube O.D. (mm)	List Price
20-610	4	----
20-611	6	----
20-612	8	----
20-613	10	----
20-614	12	----

3104



Part #	Tube OD (mm)	BSPT Thread	List Price
20-670	4	1/8"	----
20-672	6	1/8"	----
20-673	6	1/4"	----
20-811	8	1/8"	----
20-674	8	1/4"	----
20-675	8	3/8"	----
20-676	10	1/4"	----
20-677	10	3/8"	----
20-678	12	3/8"	----
20-679	12	1/2"	----



Part #	Tube OD (mm)	List Price
20-813	4	----
20-814	6	----
20-815	8	----

## BRASS FITTINGS

## BSPT/ BSPP FITTINGS

### MALE BSPP NIPPLE



Part #	Size	List Price
28-800	1/8 X 1/8	----
28-801	1/4 X 1/8	----
28-802	1/4 X 1/4	----
28-803	3/8 X 1/8	----
28-804	3/8 X 1/4	----
28-805	3/8 X 3/8	----
28-806	1/2 X 1/4	----
28-807	1/2 X 3/8	----
28-808	1/2 X 1/2	----
28-810	3/4 X 1/2	----
28-811	3/4 X 3/4	----
28-812	1 X 3/4	----
28-813	1 X 1	----
28-814	1-1/2 X 1-1/4	----

### MALE NIPPLE



### BSPT X MALE NPT

Part #	Size	List Price
28-815	1/8 X 1/8	----
28-816	1/4 X 1/4	----
28-817	3/8 X 3/8	----
28-818	1/2 X 1/2	----
28-819	3/4 X 3/4	----
28-839	1 X 1	----

### MALE BSPT NIPPLE



Part #	Size	List Price
28-820	1/8 X 1/8	----
28-821	1/4 X 1/8	----
28-822	1/4 X 1/4	----
28-823	3/8 X 1/8	----
28-824	3/8 X 1/4	----
28-825	3/8 X 3/8	----
28-826	1/2 X 1/8	----
28-827	1/2 X 1/4	----
28-828	1/2 X 3/8	----
28-829	1/2 X 1/2	----
28-832	3/4 X 1/2	----
28-833	3/4 X 3/4	----
28-945	1 X 3/4	----
28-910	1 X 1	----

### MALE BSPP X MALE NPT



Part #	Size	List Price
28-976	1/4 X 1/4	----
28-977	3/8 X 1/4	----
28-978	3/8 X 3/8	----
28-979	1/2 X 1/2	----

### BSPP COUNTERSUNK SEALED PLUG



Part #	Size	List Price
28-835	1/8	----
28-836	1/4	----
28-837	3/8	----
28-838	1/2	----

### BSPT HEX COUNTERSUNK PLUG



Part #	Size	List Price
28-840	1/8	----
28-841	1/4	----
28-842	3/8	----
28-843	1/2	----
28-844	3/4	----

### FEMALE BSP CAP



### BSP seals w/ both BSPT & BSPP

Part #	Size	List Price
28-855	1/8	----
28-856	1/4	----
28-857	3/8	----
28-858	1/2	----
28-859	3/4	----

### BARB X FE BSPP SWIVEL



Part #	Size	List Price
28-851	1/4 X 1/4	----
28-852	3/8 X 3/8	----
28-853	1/2 X 1/2	----
28-854	3/4 X 3/4	----

### BSPT MALE X FEMALE NPT



Part #	Size	List Price
28-860	1/8 X 1/8	----
28-861	1/4 X 1/4	----
28-862	3/8 X 3/8	----
28-863	1/2 X 1/2	----
28-864	3/4 X 3/4	----
28-866	1 X 1	----

### NPT MALE X FEMALE BSP



Part #	Size	List Price
28-867	1/8 X 1/8	----
28-868	1/4 X 1/4	----
28-869	3/8 X 3/8	----
28-870	1/2 X 1/2	----
28-871	3/4 X 3/4	----

### BUSHING BSPT MALE X BSP FEMALE



Part #	Size	List Price
28-872	1/8 X 1/8	----
28-845	1/8 X 3/8	----
28-873	1/4 X 1/8	----
28-846	1/4 X 3/8	----
28-847	1/4 X 1/2	----
28-874	3/8 X 1/8	----
28-875	3/8 X 1/4	----
28-848	3/8 X 3/8	----
28-876	1/2 X 1/4	----
28-877	1/2 X 3/8	----
28-878	3/4 X 1/2	----
28-879	1 X 3/4	----

### BARB X BSPP



Part #	Size	List Price
29-122	3/8 X 1/4	----
29-123	1/2 X 1/4	----

## BSPT/ BSPP FITTINGS

## BRASS RIGID MALE BARB ADAPTER



Part #	Hose I.D. x BSPT	List Price
32-450	1/4" x 1/8"	----
32-451	1/4" x 1/4"	----
32-452	3/8" x 1/4"	----
32-453	3/8" x 3/8"	----
32-454	3/8" x 1/2"	----
32-455	1/2" x 3/8"	----
32-456	1/2" x 1/2"	----
32-457	3/4" x 3/4"	----
32-458	1" x 1"	----
28-968	1/2 X 3/4	----

## MALE BSPP X FEMALE BSP ADAPTER



Part #	Size	List Price
28-880	1/8 X 1/8	----
28-881	1/8 X 1/4	----
28-882	1/4 X 1/8	----
28-883	1/4 X 1/4	----
28-884	1/4 X 3/8	----
28-885	3/8 X 1/8	----
28-886	3/8 X 1/4	----
28-887	3/8 X 3/8	----
28-888	3/8 X 1/2	----
28-889	1/2 X 1/4	----
28-890	1/2 X 3/8	----
28-891	1/2 X 1/2	----
28-951	1/2 X 1/8	----
28-892	3/4 X 1/4	----
28-893	3/4 X 1/2	----

## FE BSPP X FE NPT



Part #	Size	List Price
29-111	1/8 X 1/8	----
29-112	1/4 X 1/4	----
29-113	3/8 X 1/4	----
29-114	3/8 X 3/8	----
29-115	1/2 X 1/4	----
29-116	1/2 X 1/2	----
29-119	1-1/2 X 1-1/2	----
29-120	2 X 2	----

## FEMALE BSP COUPLING



Part #	Size	List Price
28-894	1/8 X 1/8	----
28-895	1/4 X 1/8	----
28-896	1/4 X 1/4	----
28-897	3/8 X 1/8	----
28-898	3/8 X 1/4	----
28-899	3/8 X 3/8	----
28-900	1/2 X 1/4	----
28-901	1/2 X 3/8	----
28-902	1/2 X 1/2	----
28-903	3/4 X 3/4	----

## MALE NPT X FE BSPT



Part #	Size	List Price
29-104	1/8 X 1/8	----
29-105	1/4 X 1/4	----
29-106	3/8 X 3/8	----
29-107	1/2 X 1/2	----
29-108	3/4 X 3/4	----
29-109	1 X 1	----
29-110	1-1/4 X 1-1/4	----

## 90° BSPT MALE ELBOW



Part #	Size	List Price
28-905	1/8 X 1/8	----
28-906	1/4 X 1/4	----
28-907	3/8 X 3/8	----
28-908	1/2 X 1/2	----
28-909	3/4 X 3/4	----

## MALE BSPT X FEMALE BSP 90° ELBOW



Part #	Size	List Price
28-911	1/8 X 1/8	----
28-912	1/4 X 1/4	----
28-944	3/8 X 3/8	----
28-915	3/4 X 3/4	----

## BRASS FITTINGS

## BSP FEMALE 90° ELBOW



Part #	Size	List Price
28-917	1/8 X 1/8	----
28-918	1/4 X 1/4	----
28-919	3/8 X 3/8	----
28-920	1/2 X 1/2	----
28-921	3/4 X 3/4	----

## BSPT TEE



Part #	Size	List Price
28-927	1/2	----
28-928	3/4	----

## BSP FEMALE TEE



Part #	Size	List Price
28-930	1/8	----
28-931	1/4	----
28-932	3/8	----
28-933	1/2	----
28-934	3/4	----

## BSP MALE RUN TEE



Part #	Size	List Price
28-947	1/8	----
28-948	1/4	----
28-949	3/8	----
28-950	1/2	----

## 45° MALE BSPT X FE BSPT



Part #	Size	List Price
28-965	1/8 X 1/8	----

## FE BSP BRANCH TEE



Part #	Size	List Price
29-129	1/4	----

## BRASS FITTINGS

## STEEL GREASE FITTINGS

- 8000 PSI max. pressure
- Exceeds 12hr salt spray

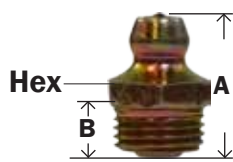
Meets SAE #J-534C

- Assortments also available

Many types available on special order.

### PIPE THREAD

### BALL CHECK

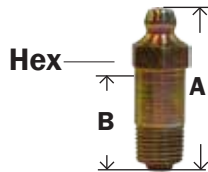


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-110	1/8" -27 NPTF	0.66	0.28	0.437	0.01	----
36-110SS	303 SS	0.68	0.29	0.437	0.01	----
36-111	Thread Forming	0.62	0.23	0.437	0.01	----

#610 1610 2800 1720 5000

### PIPE THREAD

### BALL CHECK

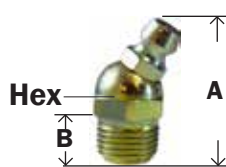


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-112	1/8" -27 NPTF	1.25	0.22	0.437	0.02	----
36-113	1/8" -27 NPTF	1.75	1.26	0.437	0.02	----

#607 1607 2800 1669 5003

### PIPE THREAD

### 30° ANGLE BALL CHECK



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-114	1/8" -27 NPTF	0.90	0.30	0.437	0.01	----

#611 1611 2830 5100

### PIPE THREAD

### 45° ANGLE BALL CHECK

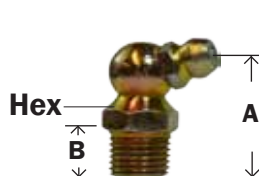


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-116	1/8" -27 NPTF	0.88	0.22	0.437	0.01	----
36-116SS	303 SS	0.95	0.29	0.437	0.01	----

#688 1688 2845 5200

### PIPE THREAD

### 65° ANGLE BALL CHECK

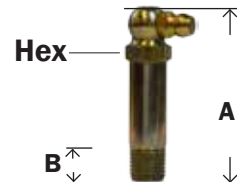


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-118	1/8" -27 NPTF	0.86	0.30	0.437	0.01	----

#612 1612 2865 5300

### PIPE THREAD

### 90° ANGLE BALL CHECK



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-120	1/8" -27 NPTF	0.84	0.30	0.437	0.01	----
36-120SS	303 SS	0.84	0.29	0.437	0.01	----
36-121	1/8" -27 NPTF	1.81	1.25	0.437	0.01	----

#613 1613 2890 5400 5407

### PIPE THREAD

### BALL CHECK



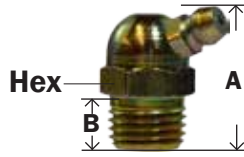
Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-130	1/4" -18 NPTF	0.84	0.30	0.437	0.02	----
36-130SS	303 SS	0.87	0.42	0.437	0.02	----

#627 1627 2900K 5050

## STEEL GREASE FITTINGS

## BRASS FITTINGS

## PIPE THREAD

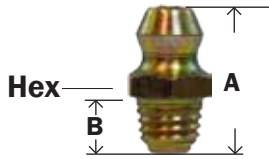


## 65° ANGLE BALL CHECK

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-132	1/4"-18 NPTF	0.97	0.34	0.56	0.02	----

#629 1629 2965 5350

## 1/4-28 TAPER THREAD

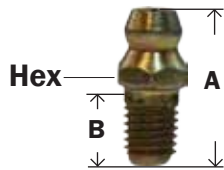


## SHORT BALL CHECK

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-140	1/4"-28 NPTF	0.54	0.18	0.31	0.01	----
36-140SS	303 SS	0.54	0.18	0.31	0.01	----
36-141	Thread Forming	0.55	0.10	0.31	0.01	----

#641 1641 2400 3038 5010

## 1/4-28 TAPER THREAD

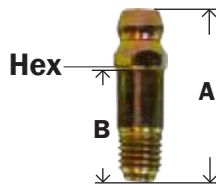


## LONG BALL CHECK

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-142	1/4"-28 Taper Thread	0.69	0.34	0.312	0.01	----

#652 1652 2400 5013

## 1/4-28 TAPER THREAD

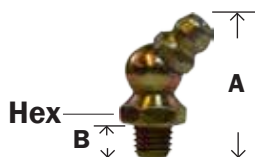


## EXTRA LONG BALL CHECK

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-144	1/4"-28 Taper Thread	0.92	1.63	0.312	0.02	----

#680 1680 2400 5014

## 1/4-28 TAPER THREAD

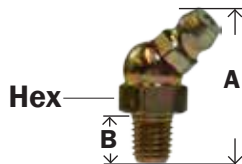


## SHORT 45° BALL CHECK

Part #	Size	Angle	A	B	Hex	Approx. Wt. Lbs.	List Price
36-146	1/4"-28 Taper Thread	45°	0.82	0.20	0.375	0.02	----
36-146SS	303 SS	45°	0.81	0.20	0.375	0.02	----
36-147	1/4"-28 Taper Thread	65°	0.78	0.20	0.375	0.02	----

#637 1637 2445 1665 2465 3010 5210

## 1/4-28 TAPER THREAD

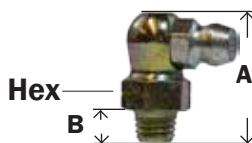


## LONG 45° BALL CHECK

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-148	1/4"-28 Taper Thread	0.94	0.30	0.375	0.02	----

#636 1630 2445

## 1/4-28 TAPER THREAD



## 90° ANGLE BALL CHECK

SAE# A515002

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-150	1/4"-28 Taper Thread	0.75	0.10	0.375	0.02	----
36-150SS	303 SS	0.75	0.20	0.375	0.02	----
36-152	Thread Forming	0.75	0.16	0.375	0.02	----

#911 1911 2490 3054 5410

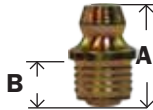
# BRASS FITTINGS

# STEEL GREASE FITTINGS

BRASS

## DRIVE TYPE

## BALL CHECK

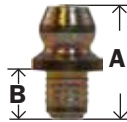


Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-160	5/16"	0.55	0.25	0.01	----

#608 1608 5021

## DRIVE TYPE

## BALL CHECK



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-164	3/16"	0.52	0.25	0.01	----
36-164SS	303 SS	0.51	0.25	0.01	----

#728 1728 2316 5033

## DRIVE TYPE

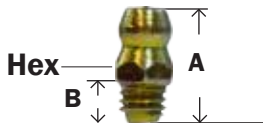
## BALL CHECK



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-166	1/4"	0.55	0.23	0.01	----
36-166SS	303 SS	0.55	0.23	0.01	----

#743 1743 214 5029

## METRIC



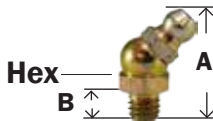
Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-168	6MM x 1	16	3.7	7	0.01	----

( Diameter x Pitch )

#711 6000 2106 2M6 5175

## METRIC

## 45° ANGLE

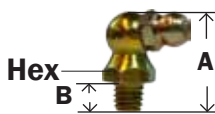


Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-170	6MM x 1	21	3.7	9	0.02	----

#712 6045 2107 5176

## METRIC

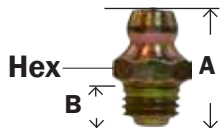
## 90° ANGLE



Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-172	6MM x 1	18	3.7	9	0.02	----

#713 6090 2108 ZM906 5177

## METRIC

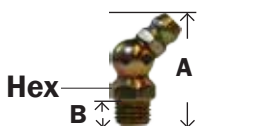


Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-174	8MM x 1	16	3.7	9	0.02	----

#811 8000 2103 ZM58 5178

## METRIC

## 45° ANGLE



Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-176	8MM x 1	21	3.7	9	0.02	----

#812 8045 2104 ZM458 5179

## METRIC

## 90° ANGLE



Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-178	8MM x 1	18	3.7	9	0.02	----

#813 8090 2105 ZM908 5180

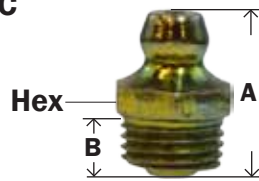




## STEEL GREASE FITTINGS

## BRASS FITTINGS

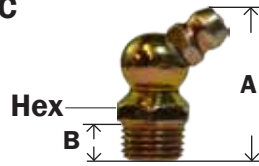
## METRIC



Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-180	10MM x 1	16	3.7	11	0.02	----

• Diameter x pitch (extra fine) #911 9000 2109 ZM510 5181

## METRIC

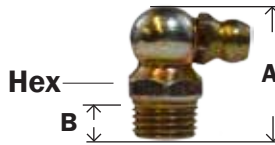


## 45° ANGLE

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-182	10MM x 1	21	3.7	11	0.02	----

#912 9045 2110 ZM4510

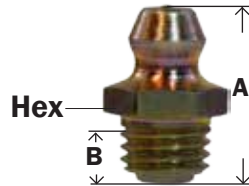
## METRIC



## 90° ANGLE

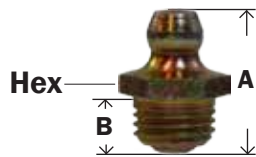
Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-184	10MM x 1	18	3.7	11	0.02	----

#913 9090 2111 ZM9010 5183



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-186	5/16"-24	0.65	0.12	0.375	0.02	----

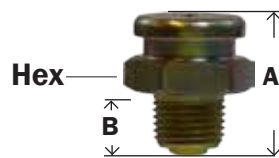
#711-B 1711 2500



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-188	3/8"-24	0.65	0.14	0.437	0.01	----

#710-B 1710 2600

## BUTTON HEAD



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-200	1/8"-27 PTF	0.75	0.34	0.625	0.03	----
36-205	1/4"-18 NPT	0.83	0.44	0.625	0.03	----

1184 1186

## WHIP HOSE - EXCEEDS SAE 100R1-AT - use with hand grease guns only

10,000 PSI Burst Pressure Rubber Hose



1/8" NPT Solid Base

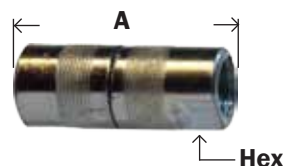
3/16" ID

3,000 PSI Working pressure

Part #	Length	List Price
36-210	12" RUBBER	----
36-212	18" RUBBER	----
36-214	24" RUBBER	----
36-216	36" RUBBER	----

## 4 JAW GREASE GUN COUPLER

Provides quick, positive, leakproof connection w/ grease fittings.



1/8" NPTF

Part #	A	Hex	Approx. Wt. Lbs.	List Price
36-220	1.50	0.56	0.05	----

## ADAPTERS FOR GREASE FITTINGS

## ADAPTERS

• CARBON STEEL, ZINC COATED

NEW



Part #	Female	Male	L	H	Weight	List Price
36300	1/8"-27 NPTF	1/4"-28 SAE-LT	.75	1/2	0.02	----
36301	1/8"-27 NPTF	1/4"-28 SAE-LT	.87	1/2	0.02	----

Part #	Female English to Male English	L	H	Weight	List Price
36304	1/4"-28 UNF M6 x 1.0	.43	9mm	0.01	----
36305	1/4"-28 UNF M8 x 1.0	.45	3/8	0.01	----
36306	1/4"-28 UNF M10 x 1.0	.32	7/16	0.01	----

## EXTENSIONS



Part #	Female English to Male English	L	H	Weight	List Price
36307	1/4"-28 UNF 1/4"-28 SAE-LT	1.34	-	0.01	----
36308	1/8"-27 NPTF 1/8"-27 NPTF	.75	1/2	0.02	----
36309*	1/8"-27 NPTF 1/8"-27 NPTF	.82	1/2	0.02	----
36310	1/8"-27 NPTF 1/8"-27 NPTF	.94	9/16	0.04	----
36311	1/8"-27 NPTF 1/8"-27 NPTF	1.25	1/2	0.04	----

\*BRASS PLATED

## 45° ANGLE ELBOWS



Part #	Female	Male	L	H	Weight	List Price
36360	1/8"-27 NPTF	1/4"-28 SAE-LT	.81	1/2	0.02	----
36362	1/8"-27 NPTF	1/8"-27 PTF SAE Short	1.00	1/2	0.03	----

## 90° ANGLE ELBOWS



Part #	Female	Male	L	H	Weight	List Price
36370	1/8"-27 NPTF	1/4"-28 SAE-LT	.81	1/2	0.03	----
36371	1/8"-27 NPTF	1/4"-28 SAE-LT	1.04	1/2	0.03	----
36372	1/8"-27 NPTF	1/4"-18 PTF SAE Short	1.19	9/16	0.06	----
36374	1/8"-27 NPTF	1/8"-27 PTF SAE Short	1.00	1/2	0.03	----
36375	1/8"-27 NPTF	1/8"-27 NPTF	1.13	1/2	0.03	----
36377	1/4"-18 NPTF	1/4"-18 NPTF	1.34	11/16	0.08	----
36376	1/8"-27 NPTF	1/8"-27 NPTF	1.50	5/8	0.07	----
36373	1/8"-27 PTF SPL Extra Short	1/8"-27 PTF SPL Extra Short	.82	1/2	0.03	----

## COUPLING



Part #	Female	Female	L	H	Weight	List Price
36340	1/4"-28 UNF	1/8"-27 NPTF	.65	1/2	0.02	----

## BULKHEAD CONNECTOR



Part #	Female	Male (Female)	L	H	Weight	List Price
36350	1/8"-27 NPTF	1/8"-27 NPSM (1/4"-28 UNF)	.88	1/2	0.03	----

# D.O.T. PUSH-IN TUBE FITTINGS



Meets D.O.T. FMVSS 571.106 SAE J1131 Air Brake System Requirements

### Benefits for Cost Savings & Engineering Project

- **Fast assembly:** No tools required. Simply push tubing in. Saves up to 75% of assembly time compared to standard air compression fittings. No loose parts to handle.
- **Fast disconnect:** Hold the collet collar with two fingers and pull out tube. No tools required.
- **Reusable:** Can be connected and disconnected several times.
- **Reliable sealing:** Using recommended tubing, full sealing is guaranteed.
- **Versatility:** Buna N O'ring standard. Viton and others available per request. Secure tube retention. Pulling on tubing only serves to tighten the connection.
- **Pre-Applied Teflon®** based pipe sealant on all male pipe threads, saving customer additional labor.
- **Full Flow Design,** provides more flow area than conventional fittings with internal tube supports even in the swivels.

DOT Fittings are constructed with an all brass captive eyelet which allows for maximum flow. The brass captive eyelet with extended length is floating and has a machined top end radius for easy installation of tubing. All male threads have a pre-applied Teflon® based pipe sealant to provide for easy assembly and leak proof seal.

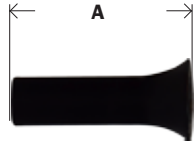
### • Materials:

Brass  
"O" Ring: Buna - Nitrile (90 Durometer)  
EP (Ethylene Propylene)

### • Working Pressures & Temperature Ranges

Vacuum to 150 PSI  
-40°F to 200° F ( -40°C to +93°C )

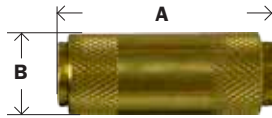
**PLUG**



Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
595320	5/32"	1.16	0.01	----
590400	1/4"	0.81	0.02	----
590600	3/8"	1.34	0.02	----
590800	1/2"	0.99	0.04	----

1829 DQ59DOT 639PMT

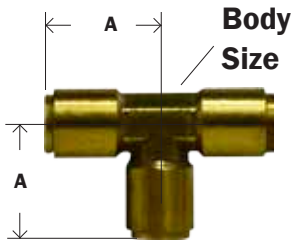
**UNION**



Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
620532	5/32"	1.18	0.39	0.06	----
620400	1/4"	1.22	0.47	0.06	----
620600	3/8"	1.77	0.67	0.13	----
620604	3/8" x 1/4"	1.85	0.67	0.15	----
620800	1/2"	2.01	0.81	0.19	----
621000	5/8"	2.42	1.00	0.30	----
621200	3/4"	2.48	1.18	0.44	----

AQ62DOT 62PMT 1862 DQ62DOT

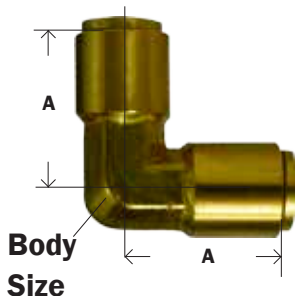
**UNION TEE**



Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
640400	1/4"	1.01	0.37	0.09	----
640600	3/8"	1.07	0.50	0.16	----
640800	1/2"	1.26	0.62	0.25	----
641000	5/8"	1.32	0.69	0.32	----
641200	3/4"	1.46	0.71	0.36	----

AQ64DOT 164 PMT 1864 DQ64DOT

**UNION ELBOW**



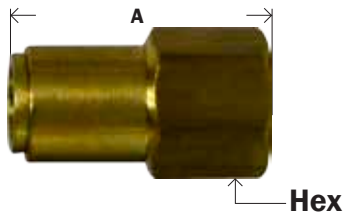
Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
655320	5/32"	0.66	0.29	0.03	----
650400	1/4"	1.05	0.50	0.06	----
650600	3/8"	1.10	0.50	0.12	----
650800	1/2"	1.26	0.62	0.18	----

AQ65DOT 165 PMT 1865 DQ65DOT

## D.O.T. PUSH-IN

## BRASS FITTINGS

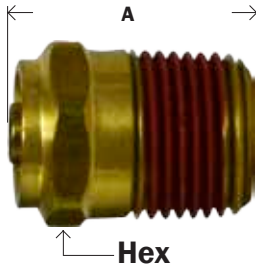
## FEMALE CONNECTOR



Part #	Tube O.D. x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
660402	1/4" x 1/8"	1.31	0.56	0.06	----
660404	1/4" x 1/4"	1.59	0.68	0.10	----
660602	3/8" x 1/8"	1.40	0.68	0.11	----
660604	3/8" x 1/4"	1.40	0.68	0.11	----
660606	3/8" x 3/8"	1.66	0.87	0.17	----
660804	1/2" x 1/4"	1.66	0.87	0.14	----
660806	1/2" x 3/8"	1.59	0.87	0.16	----
660808	1/2" x 1/2"	2.11	0.68	0.25	----

AQ66DOT 66PMT 1866 DQ66DOT

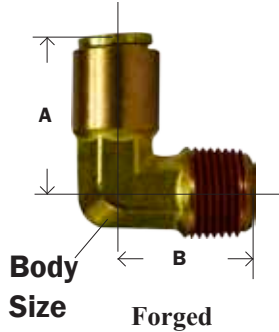
## MALE CONNECTOR



Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
685320	5/32" x 10/32"	0.90	0.37	0.02	----
685321	5/32" x 1/16"	0.78	0.37	0.02	----
685322	5/32" x 1/8"	0.79	0.43	0.02	----
680302	3/16" x 1/8"	1.02	0.50	0.02	----
680421	1/4" x 1/16"	1.17	0.44	0.02	----
680402	1/4" x 1/8"	0.96	0.44	0.03	----
680404	1/4" x 1/4"	0.88	0.56	0.04	----
680406	1/4" x 3/8"	1.20	0.68	0.07	----
680602	3/8" x 1/8"	1.16	0.68	0.06	----
680604	3/8" x 1/4"	1.19	0.68	0.07	----
680606	3/8" x 3/8"	1.00	0.68	0.06	----
680608	3/8" x 1/2"	1.10	0.87	0.13	----
680804	1/2" x 1/4"	1.68	0.87	0.11	----
680806	1/2" x 3/8"	1.64	0.87	0.12	----
680808	1/2" x 1/2"	1.72	0.87	0.14	----
681006	5/8" x 3/8"	1.87	1.06	0.18	----
681008	5/8" x 1/2"	2.12	1.06	0.18	----
681208	3/4" x 1/2"	2.11	1.18	0.20	----
681212	3/4" x 3/4"	2.03	1.18	0.20	----

AQ68DOT 68PM 1868 DQ68DOT 68PMT

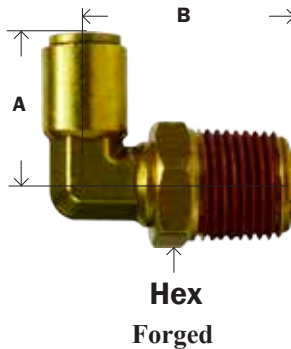
**MALE ELBOW**



Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
695302	5/32" x 1/16"	0.75	0.59	0.32	0.03	----
695322	5/32" x 1/8"	0.78	0.69	0.32	0.03	----
690302	3/16" x 1/8"	0.81	0.75	0.47	0.03	----
690402	1/4" x 1/8"	1.02	1.02	0.55	0.08	----
690404	1/4" x 1/4"	0.87	1.02	0.71	0.06	----
690406	1/4" x 3/8"	0.94	1.10	0.87	0.11	----
690602	3/8" x 1/8"	1.08	0.87	0.90	0.08	----
690604	3/8" x 1/4"	1.01	1.02	0.90	0.09	----
690606	3/8" x 3/8"	1.14	1.10	0.90	0.11	----
690608	3/8" x 1/2"	1.14	1.38	0.94	0.20	----
690804	1/2" x 1/4"	1.22	1.14	0.87	0.22	----
690806	1/2" x 3/8"	1.26	1.14	0.87	0.22	----
690808	1/2" x 1/2"	1.28	1.38	0.94	0.24	----
691006	5/8" x 3/8"	1.44	1.22	0.87	0.30	----
691008	5/8" x 1/2"	1.54	1.42	1.18	0.32	----
691208	3/4" x 1/2"	1.52	1.48	0.94	0.32	----
691212	3/4" x 3/4"	1.59	1.50	1.18	0.34	----

AQ69DOT 169PMTNS 1869 DQ69DOT

**MALE SWIVEL ELBOW**



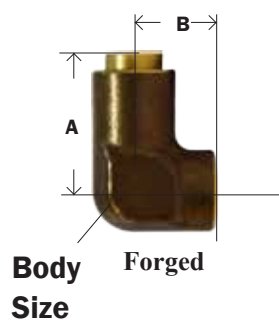
Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
695322S	5/32" x 1/8"	0.79	0.88	0.44	0.07	----
690402S	1/4" x 1/8"	0.98	0.91	0.43	0.06	----
690404S	1/4" x 1/4"	1.02	0.88	0.56	0.10	----
690406S	1/4" x 3/8"	1.02	1.13	0.68	0.10	----
690602S	3/8" x 1/8"	1.21	1.05	0.43	0.10	----
690604S	3/8" x 1/4"	1.15	1.05	0.65	0.11	----
690606S	3/8" x 3/8"	1.10	1.23	0.59	0.12	----
690608S	3/8" x 1/2"	1.07	1.52	0.87	0.20	----
690804S	1/2" x 1/4"	1.27	1.27	0.87	0.16	----
690806S	1/2" x 3/8"	1.27	1.42	0.87	0.18	----
690808S	1/2" x 1/2"	1.27	1.62	0.87	0.26	----
691006S	5/8" x 3/8"	1.54	1.41	0.68	0.28	----
691008S	5/8" x 1/2"	1.54	1.71	0.87	0.30	----
691208S	3/4" x 1/2"	1.40	2.04	1.06	0.50	----
691212S	3/4" x 3/4"	1.40	1.60	1.06	0.56	----

AQ69DOTS 169PMT 1869 DQ69DOTS

## D.O.T. PUSH-IN

## BRASS FITTINGS

## FEMALE ELBOW



Part #	Tube O.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
700402	1/4" x 1/8"	0.94	0.71	0.55	0.06	----
700404	1/4" x 1/4"	1.13	1.03	0.50	0.10	----
700406	1/4" x 3/8"	1.27	0.98	0.62	0.16	----
700602	3/8" x 1/8"	1.11	0.96	0.71	0.15	----
700604	3/8" x 1/4"	1.08	0.98	0.50	0.12	----
700606	3/8" x 3/8"	1.08	1.05	0.62	0.17	----
700806	1/2" x 3/8"	1.22	1.11	0.82	0.26	----
700808	1/2" x 1/2"	1.37	1.31	0.62	0.30	----

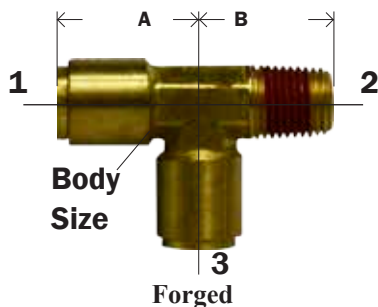
AQ70DOTS 1870 DQ70DOTS 170PMTNS

## FEMALE SWIVEL ELBOW



Part #	Tube O.D. x Female NPTF	List Price
700404S	1/4" x 1/4"	----

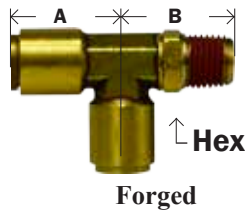
## MALE RUN TEE



Part #	Tube O.D. x Male NPTF (1 x 3) x 2	A	B	Body Size	Approx. Wt. Lbs.	List Price
710402	1/4" x 1/8"	0.88	0.79	0.55	0.06	----
71040604	(1/4" x 3/8") x 1/4"	0.89	0.96	0.71	0.20	----
710404	1/4" x 1/4"	0.25	0.96	0.43	0.08	----
710604	3/8" x 1/4"	1.09	0.96	0.71	0.20	----
71060404	(3/8" x 1/4") x 1/4"	1.09	0.96	0.71	0.20	----
710606	3/8" x 3/8"	1.06	1.10	0.50	0.17	----
71060406	(3/8" x 1/4") x 3/8"	1.14	1.10	0.87	0.20	----
710608	3/8" x 1/2"	1.09	1.11	0.94	0.14	----
710806	1/2" x 3/8"	1.30	1.14	0.87	0.28	----

AQ71DOT 171PMTNS 1871 DQ71DOT

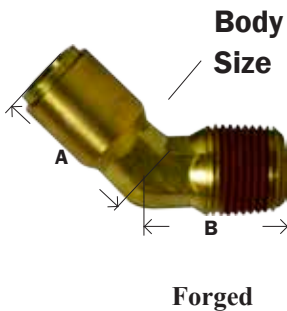
**MALE SWIVEL RUN TEE**



Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
710402S	1/4" x 1/8"	1.01	1.01	0.43	0.09	----
710404S	1/4" x 1/4"	0.88	1.23	0.56	0.11	----
710604S	3/8" x 1/4"	1.07	1.07	0.56	0.15	----
710606S	3/8" x 3/8"	1.06	1.17	0.50	0.14	----
710804S	1/2" x 1/4"	1.21	1.22	0.56	0.24	----
710806S	1/2" x 3/8"	1.24	1.28	0.62	0.24	----
710808S	1/2" x 1/2"	1.24	1.58	0.62	0.30	----

AQ71DOTS 171PMT 1871 DQ71DOTS

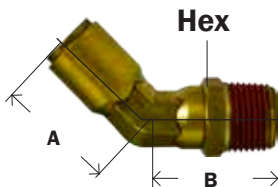
**MALE 45° ELBOW**



Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
540402	1/4" x 1/8"	0.87	0.81	0.56	0.06	----
540404	1/4" x 1/4"	0.89	0.98	0.56	0.06	----
540602	3/8" x 1/8"	1.02	0.93	0.75	0.08	----
540604	3/8" x 1/4"	1.06	1.10	0.50	0.09	----
540606	3/8" x 3/8"	1.10	1.12	0.50	0.11	----
540608	3/8" x 1/2"	1.14	1.30	0.87	0.15	----
540804	1/2" x 1/4"	1.22	1.10	0.87	0.13	----
540806	1/2" x 3/8"	1.26	1.12	0.87	0.16	----
540808	1/2" x 1/2"	1.30	1.30	0.87	0.18	----
541006	5/8" x 3/8"	1.46	1.02	1.06	0.22	----
541008	5/8" x 1/2"	1.46	1.22	1.06	0.21	----
541208	3/4" x 1/2"	1.52	1.30	1.00	0.28	----
541212	3/4" x 3/4"	1.36	1.18	0.94	0.32	----

AQ54DOT 179MNTS 1880 DQ54DOT

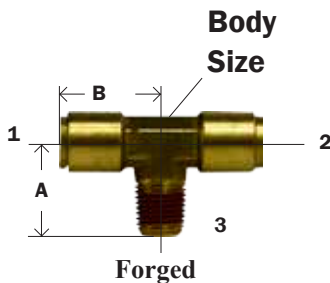
**MALE 45° SWIVEL ELBOW**



Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
540402S	1/4" x 1/8"	0.99	0.98	0.43	0.06	----
540404S	1/4" x 1/4"	0.77	0.94	0.55	0.09	----
540602S	3/8" x 1/8"	1.07	1.08	0.43	0.10	----
540604S	3/8" x 1/4"	1.07	1.13	0.56	0.11	----
540606S	3/8" x 3/8"	1.08	1.23	0.68	0.13	----
540804S	1/2" x 1/4"	1.22	1.22	0.56	0.14	----
540806S	1/2" x 3/8"	1.20	1.31	0.68	0.16	----
540808S	1/2" x 1/2"	1.20	1.61	0.88	0.18	----
541008S	5/8" x 1/2"	1.39	1.68	0.87	0.24	----

AQ54DOTS 179PMT 1880 DQ54DOTS

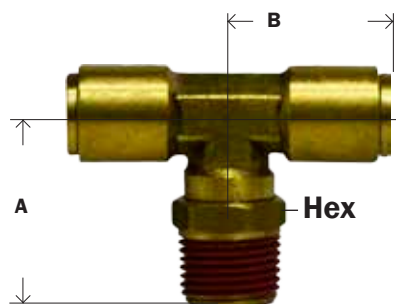
**MALE BRANCH TEE**



Part #	Tube O.D. x Male NPTF (1 x 2) x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
720302	3/16" x 1/8"	0.64	0.75	0.41	0.07	----
720402	1/4" x 1/8"	0.79	0.85	0.55	0.10	----
720404	1/4" x 1/4"	0.96	0.89	0.43	0.10	----
720604	3/8" x 1/4"	0.96	1.08	0.71	0.14	----
72060404	(3/8" x 1/4") x 1/4"	0.96	0.89	0.71	0.20	----
720606	3/8" x 3/8"	1.10	1.14	0.77	0.15	----
720804	1/2" x 1/4"	1.14	1.22	0.87	0.20	----
720806	1/2" x 3/8"	1.07	1.26	0.62	0.24	----
720808	1/2" x 1/2"	1.42	1.34	0.94	0.32	----
72100808	(5/8" x 1/2") x 1/2"	1.46	1.30	1.18	0.20	----

AQ72DOT 172PMTNS 1872 DQ72DOT



**D.O.T. PUSH-IN****BRASS FITTINGS****MALE SWIVEL BRANCH TEE**

Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
720402S	1/4" x 1/8"	0.91	0.83	0.43	0.12	----
720404S	1/4" x 1/4"	1.04	1.01	0.56	0.14	----
720602S	3/8" x 1/8"	1.07	1.08	0.43	0.19	----
720604S	3/8" x 1/4"	1.10	1.10	0.55	0.15	----
720606S	3/8" x 3/8"	1.25	1.06	0.68	0.17	----
720804S	1/2" x 1/4"	1.39	1.28	0.87	0.30	----
720806S	1/2" x 3/8"	1.26	1.31	0.68	0.34	----
720808S	1/2" x 1/2"	1.26	1.61	0.87	0.22	----

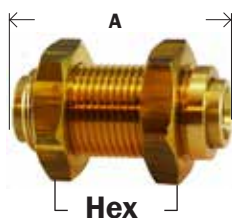
AQ72DOTS 172PMT 1872 DQ72DOTS

**FEMALE BRANCH TEE****(RUN) BRANCH**

Part #	(1 & 2) x 3	List Price
770402	1/4" x 1/8"	----
770404	1/4" x 1/4"	----
770604	3/8" x 1/4"	----

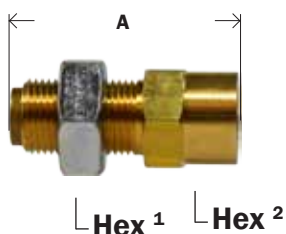
**GLADHAND BULKHEAD CONNECTOR****TUBE OD x MALE NPTF**

Part #	Size	List Price
830808	1/2" x 1/2"	----

**BULKHEAD UNION**

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
820400	1/4"	1.90	0.68	0.16	----
820600	3/8"	1.55	1.06	0.21	----
820800	1/2"	1.82	1.18	0.14	----
821000	5/8"	2.42	1.25	0.30	----

AQ82DOT 62PMTBH 1874 DQ82DOT

**FEMALE BULKHEAD UNION**

Part #	Tube O.D. x Female NPTF	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
860402	1/4" x 1/8"	1.31	0.87	0.79	0.08	----
860404	1/4" x 1/4"	1.59	0.94	0.87	0.10	----
860604	3/8" x 1/4"	1.87	0.94	0.94	0.14	----
860606	3/8" x 3/8"	2.16	1.12	0.94	0.31	----
860808	1/2" x 1/2"	2.64	1.31	1.06	0.32	----

• Jam nuts not available seperately

AQ86DOT 1873 DQ86DOT 66PMTBH

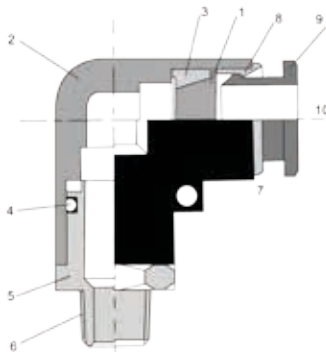
COMPOSITE BODY DOT AIRBRAKE FITTINGS



- One touch connection reduces installation time and cost.
- Rugged ultraviolet and vibration resistant composite body.
- Various shapes and configurations to meet vehicle applications and make installations easier.

Specifications for FMVSS (D.O.T.) and SAE Compliant Fittings

Operating Fluid	Air						
Max. Operating Pressure	145psi (1.0MPa)						
Proof Pressure	Size	5/32"	1/4"	3/8"	1/2"	5/8"	3/4"
	At 75°F (24°C)	1200psi	1200psi	1400psi	950psi	900psi	800psi
	At 200 °F (93°C)	450psi (3.1MPa)					
Recommended Fluid and Ambient Temperature*	-40°F to 140°F (-40°C to 60°C)						
Leak Rate at -40°F (-40°C)	7 Ncm <sup>3</sup> /min. or less						
Thread	Thread Portion	ANSI/ASME B1.20.1, 1983 R1992					
	Nut	JIS B 0208 (Unified fine thread) ISO 263					
Thread Sealant	Fluorine/ Acrylic						
Applicable Standards	D.O.T. FMVSS 49 CFR 571.106, SAE J2494-3						
Applicable Tubing	Tubing conforming to both SAE J844 and D.O.T. FMVSS 49 CFR 571.106. Material: Nylon12						
Tube O.D.	5/32", 1/4", 3/8", 1/2", 5/8", 3/4"						
Fitting Dimensions	All dimensions reference only and subject to change without notification						



1. Chuck	Stainless steel or Brass
2. Body	Polybutylene Terephthalate (PBT), Brass
3/4. Tube seal, O-Ring	Buna-N, Nitrile Rubber
5. Stud	Brass
6. Sealant	Flourine/ Acrylic
7. Guide	Stainless Steel or Polyacetal (Acetal)
8. Stabilization Ring	Stainless Steel
9. Release Button	Polyacetal, POM (Acetal)
10. Tube support	Stainless Steel/ Brass

**COMPOSITE BODY****NEW DOT PUSH-IN****STRAIGHT UNION**

Part #	Tube OD (inch)	D1	L	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
620532C	5/32	0.41	1.28	0.06	0.01	----
620400C	1/4	0.52	1.36	0.14	0.01	----
620600C	3/8	0.70	1.68	0.21	0.03	----
620800C	1/2	0.85	1.76	0.33	0.05	----
621000C	5/8	1.04	2.10	0.39	0.08	----

**UNION TEE**

Part #	Tube OD (inch)	D1	L1	L2	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
640400C	1/4	0.52	0.81	1.62	0.14	0.02	----
640600C	3/8	0.70	1.03	2.06	0.21	0.05	----
640800C	1/2	0.85	1.13	2.27	0.33	0.07	----
641000C	5/8	1.04	1.31	2.63	0.39	0.13	----

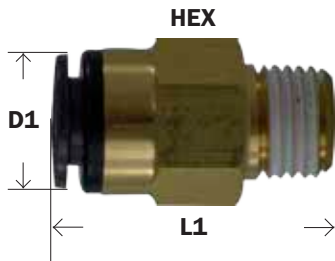
**UNION 90° ELBOW**

Part #	Tube OD (inch)	D1	L	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
655320C	5/32	0.41	0.72	0.06	0.01	----
650400C	1/4	0.52	0.81	0.14	0.02	----
650600C	3/8	0.70	1.03	0.21	0.04	----
650800C	1/2	0.85	1.14	0.33	0.05	----

**FEMALE CONNECTOR**

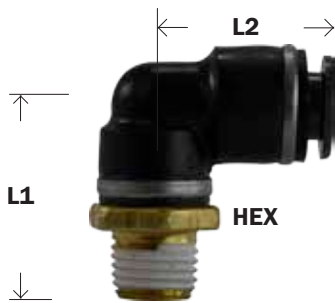
Part #	Tube OD (inch)	Thread NPT	Hex	D1	L1	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
660402C	1/4	1/8-27	0.56	0.49	1.08	0.14	0.04	----
660404C	1/4	1/4-18	0.69	0.49	1.23	0.14	0.06	----
660406C	1/4	3/8-18	0.88	0.49	1.31	0.14	0.10	----
660602C	3/8	1/8-27	0.69	0.69	1.21	0.21	0.07	----
660604C	3/8	1/4-18	0.69	0.69	1.36	0.21	0.07	----
660606C	3/8	3/8-18	0.88	0.69	1.44	0.21	0.11	----
660608C	3/8	1/2-14	0.94	0.69	1.60	0.21	0.12	----
660802C	1/2	1/8-27	0.88	0.83	1.24	0.33	0.11	----
660804C	1/2	1/4-18	0.88	0.83	1.39	0.33	0.13	----
660806C	1/2	3/8-18	0.88	0.83	1.43	0.33	0.12	----
660808C	1/2	1/2-14	0.94	0.83	1.61	0.33	0.13	----

**STRAIGHT MALE CONNECTOR**



Part #	App. Tube OD (inch)	Thread NPT	Hex	L	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
680402C	1/4	1/8-27	0.5	0.87	0.14	0.02	----
680404C	1/4	1/4-18	0.56	0.89	0.14	0.03	----
680406C	1/4	3/8-18	0.69	0.85	0.14	0.05	----
680602C	3/8	1/8-27	0.69	1.21	0.21	0.05	----
680604C	3/8	1/4-18	0.69	1.31	0.21	0.06	----
680606C	3/8	3/8-18	0.69	1.13	0.21	0.06	----
680608C	3/8	1/2-14	0.88	1.03	0.21	0.09	----
680804C	1/2	1/4-18	0.88	1.35	0.33	0.09	----
680806C	1/2	3/8-18	0.88	1.29	0.33	0.09	----
680808C	1/2	1/2-14	0.88	1.17	0.33	0.09	----
681006C	5/8	3/8-18	1	1.52	0.39	0.15	----
681008C	5/8	1/2-14	1	1.49	0.39	0.13	----

**90° MALE ELBOW**



Part #	Tube OD (inch)	Thread NPT	Hex	L1	L2	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
695322SC	5/32	1/8-27	0.56	0.8	0.92	0.06	0.03	----
690402SC	1/4	1/8-27	0.56	0.8	0.92	0.14	0.03	----
690404SC	1/4	1/4-18	0.56	0.8	1.08	0.14	0.04	----
690406SC	1/4	3/8-18	0.69	0.8	1.16	0.14	0.07	----
690602SC	3/8	1/8-27	0.75	1.03	1.05	0.21	0.07	----
690604SC	3/8	1/4-18	0.75	1.03	1.17	0.21	0.06	----
690606SC	3/8	3/8-18	0.75	1.03	1.24	0.21	0.08	----
690608SC	3/8	1/2-14	0.88	1.03	1.40	0.21	0.14	----
690804SC	1/2	1/4-18	0.75	1.13	1.24	0.33	0.07	----
690806SC	1/2	3/8-18	0.75	1.13	1.24	0.33	0.09	----
690808SC	1/2	1/2-14	0.88	1.13	1.48	0.33	0.14	----
691006SC	5/8	3/8-18	0.94	1.31	1.49	0.39	0.14	----
691008SC	5/8	1/2-14	0.94	1.31	1.61	0.39	0.18	----
691208SC	3/4	1/2-14	1.12	1.74	1.79	0.50	0.26	----

**90° FEMALE ELBOW**



Part #	Tube OD (inch)	Thread NPT	Hex	D1	L1	L2	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
700402SC	1/4	1/8-27	0.56	0.52	0.8	0.87	0.14	0.03	----
700404SC	1/4	1/4-18	0.69	0.52	0.8	1.00	0.14	0.05	----
700406SC	1/4	3/8-18	0.88	0.52	0.8	1.02	0.14	0.08	----
700604SC	3/8	1/4-18	0.69	0.70	1.03	1.09	0.21	0.07	----
700606SC	3/8	3/8-18	0.88	0.70	1.03	1.11	0.21	0.09	----
700608SC	3/8	1/2-14	0.94	0.70	1.03	1.27	0.21	0.10	----
700806SC	1/2	3/8-18	0.88	0.85	1.13	1.19	0.33	0.10	----
700808SC	1/2	1/2-14	0.94	0.85	1.13	1.34	0.33	0.11	----

## COMPOSITE BODY

## NEW DOT PUSH-IN

## MALE RUN TEE



Part #	Tube OD (inch)	Thread NPT	Hex	L1	L2	L3	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
710402SC	1/4	1/8-27	0.56	0.8	0.92	0.8	0.14	0.04	----
710404SC	1/4	1/4-18	0.56	0.8	1.08	0.8	0.14	0.05	----
710604SC	3/8	1/4-18	0.75	1.03	1.17	1.03	0.21	0.08	----
710606SC	3/8	3/8-18	0.75	1.03	1.24	1.03	0.21	0.10	----
710608SC	3/8	1/2-14	0.83	1.03	1.24	1.03	0.21	0.15	----
710806SC	1/2	3/8-18	0.75	1.13	1.24	1.13	0.33	0.11	----

## MALE BRANCH TEE



Part #	Tube OD (inch)	Thread NPT	Hex	L1	L2	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
720402SC	1/4	1/8-27	0.56	0.8	0.92	0.14	0.04	----
720404SC	1/4	1/4-18	0.56	0.8	1.08	0.14	0.05	----
720406SC	1/4	3/8-18	0.69	0.8	1.16	0.14	0.08	----
720604SC	3/8	1/4-18	0.75	1.03	1.17	0.21	0.08	----
720606SC	3/8	3/8-18	0.75	1.03	1.24	0.21	0.10	----
720806SC	1/2	3/8-18	0.75	1.13	1.32	0.33	0.11	----
720808SC	1/2	1/2-14	0.88	1.13	1.48	0.33	0.17	----

## FEMALE BRANCH TEE



Part #	Tube OD (inch)	Thread NPT	Hex	L1	L2	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
770402C	1/4	1/8-27	0.56	0.8	0.87	0.14	0.06	----
770404C	1/4	1/4-18	0.69	0.8	1.00	0.14	0.08	----
770604C	3/8	1/4-18	0.69	1.03	1.09	0.23	0.08	----

## 45° MALE ELBOW



Part #	Tube OD (inch)	Thread NPT	Hex	L1	L2	A*	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
540402SC	1/4	1/8-27	0.56	0.75	0.8	1.33	0.14	0.03	----
540404SC	1/4	1/4-18	0.56	0.75	0.96	1.43	0.14	0.04	----
540602SC	3/8	1/8-27	0.75	0.8	1.05	1.84	0.21	0.06	----
540604SC	3/8	1/4-18	0.75	0.8	1.17	1.89	0.21	0.06	----
540606SC	3/8	3/8-18	0.75	0.8	1.24	1.96	0.21	0.08	----
540608SC	3/8	1/2-14	0.88	0.8	1.4	2.04	0.21	0.13	----
540804SC	1/2	1/4-18	0.94	1.13	1.28	2.13	0.33	0.08	----
540806SC	1/2	3/8-18	0.94	1.13	1.24	2.17	0.33	0.10	----
540808SC	1/2	1/2-14	0.94	1.13	1.48	2.24	0.33	0.15	----
541006SC	5/8	3/8-18	0.94	1.17	1.26	2.20	0.39	0.14	----
541008SC	5/8	1/2-14	0.94	1.17	1.38	2.24	0.39	0.17	----
541208SC	3/4	1/2-14	1.12	1.54	1.65	2.82	0.50	0.26	----

**UNION "Y"**



Part #	A&B Tube OD (inch)	C Tube OD (inch)	L1	P	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
620553C	1/4	1/4	1.61	0.60	0.14	0.03	----
620409C	1/4	3/8	1.83	0.60	0.14	0.03	----
620555C	3/8	3/8	2.09	0.79	0.21	0.05	----
620559C	3/8	1/4	2.19	0.79	0.14	0.07	----
620557C	1/2	1/2	2.20	0.94	0.33	0.08	----

**MALE BRANCH "Y"**



Part #	Tube OD (inch)	Thread NPT	Hex	L1	P	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
620604C	3/8	1/4-18	0.75	0.71	0.79	0.21	0.09	----
620606C	3/8	3/8-18	0.75	0.71	0.79	0.21	0.12	----
620806C	1/2	3/8-18	0.94	0.87	0.94	0.33	0.13	----
620808C	1/2	1/2-14	0.94	0.87	0.94	0.33	0.15	----

**BULKHEAD UNION**



Part #	Tube OD (inch)	Thread (UNF)	Hex	L	Mtg. Hole	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
820400C	1/4	9/16-18	0.69	1.34	0.59	0.14	0.07	----
820600C	3/8	7/8-14	1	1.66	0.91	0.21	0.19	----
820800C	1/2	1-12	1.12	1.74	1.02	0.33	0.26	----
821000C	5/8	1 1/8-12	1.31	1.97	1.14	0.39	0.42	----

**FEMALE BULKHEAD CONNECTOR**



Part #	App. Tube OD (inch)	Thread NPT	T (UNF)	H1 (Hex)	L1	Min. Flow Dia.	Approx. Wt. Lbs.	List Price
860402C	1/4	1/8-27	9/16-18	0.69	1.18	0.14	0.01	----
860404C	1/4	1/4-18	9/16-18	0.69	1.28	0.14	0.08	----
860604C	3/8	1/4-18	7/8-14	1	1.36	0.21	0.20	----
860606C	3/8	3/8-18	7/8-14	1	1.45	0.21	0.20	----
860806C	1/2	3/8-18	1-12	1.12	1.46	0.33	0.26	----
860808C	1/2	1/2-14	1-12	1.12	1.62	0.33	0.27	----

## D.O.T. AIR BRAKE - NYLON TUBING



Tube O.D	1/4	3/8	1/2	5/8	3/4
Thread Size-B	7/16-24	17/32-24	11/16-20	13/16-18	1-18

•**Typical Application**

Air brake systems except where temperatures exceed +200°F or where battery acid can drip on tubing.

•**Pressure**

Maximum operating pressure of 150 PSI.

•**Vibration**

Fair resistance.

•**Temperature Range**

-40°F to +200°F (-40°C to +93°C).

•**Material**

Brass

•**Used With**

NT Nylon Tubing - SAE J844 Type A and B.

•**Tolerance**

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical

•**Advantages**

Easy to assemble (no tube preparation or flaring required.) Built in tube support. Fittings utilize a ribbed sleeve for compression and positive grip. May be used with copper tubing by replacing nut, sleeve and insert with long nut and spherical sleeve. Insert should be removed for copper tubing use.

•**Conformance**

Meets specifications and standards of SAE and DOT FMVSS 571,106.

•**Assembly Instructions**

- 1- Cut tubing to desired length.
- 2- Slide nut and then sleeve on tubing. Threaded end of nut "A" must face toward fitting body.
- 3- Insert tubing into the preassembled fitting. Be sure tubing is bottomed in fitting.
- 4- Tighten nut to required torque as indicated on chart.

**Disassembling:** Remove nut and pull tubing out of fitting body. Insert will remain in tubing.

**Reassembly:** Push tubing and insert into fitting body until it bottoms. Thread nut onto fitting body and torque as in step 4.

Tube Size	Additional Number of Turns from Hand-Tight
1/4	3
3/8, 1/2	4
5/8, 3/4	3-1/2

**SLEEVE**

**SAE# 100115**

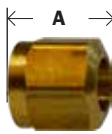


Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-001	1/4"	0.30	0.01	----
38-002	3/8"	0.39	0.01	----
38-003	1/2"	0.43	0.01	----
38-004	5/8"	0.48	0.01	----
38-005	3/4"	0.53	0.01	----

60NAB 60NTA 1460

**NUT**

**SAE# 100110**



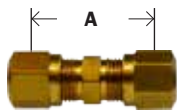
Hex

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-010	1/4"	0.45	0.56	0.02	----
38-011	3/8"	0.63	0.62	0.03	----
38-012	1/2"	0.72	0.81	0.05	----
38-013	5/8"	0.77	0.94	0.06	----
38-014	3/4"	0.81	1.12	0.09	----

61NAB 61NTA 1461

**UNION**

**SAE# 100101BA**

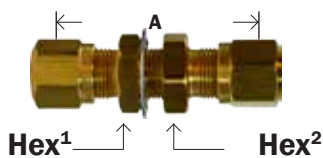


Hex

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-019	1/4"	0.85	0.43	0.07	----
38-020	3/8"	1.10	0.56	0.11	----
38-021	1/2"	1.31	0.68	0.20	----
38-022	5/8"	1.43	0.81	0.25	----
38-023	3/4"	1.60	1.00	0.40	----

62NAB 62NTA 1462

**BULKHEAD UNION**



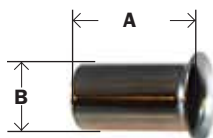
Part #	Tube O.D.	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
38-028	1/4"	1.38	0.56	0.56	0.11	----
38-029	3/8"	1.61	0.69	0.75	0.16	----
38-030	1/2"	1.88	0.81	0.87	0.26	----

62NBH 1474 475

**STAINLESS STEEL INSERT**

• 300 series stainless

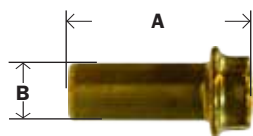
• For SAE# J844 TUBING



Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
38-035	1/4"	0.66	0.16	0.01	----
38-036	3/8"	0.64	0.24	0.01	----
38-037	1/2"	0.81	0.37	0.01	----
38-038	5/8"	0.86	0.43	0.01	----
38-039	3/4"	1.04	0.56	0.01	----

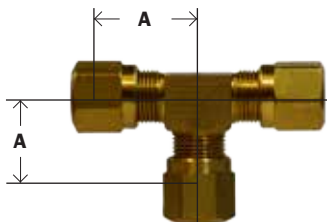
59A 63NTA



**D.O.T. AIR BRAKE - NYLON TUBING****BRASS FITTINGS****BRASS INSERT**

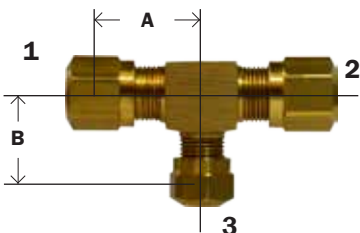
Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
38-040	1/4"	0.66	0.15	0.01	----
38-041	3/8"	0.84	0.24	0.01	----
38-042	1/2"	1.00	0.37	0.01	----
38-043	5/8"	1.06	0.43	0.01	----
38-048	3/4"	1.27	0.56	0.02	----

1484 463

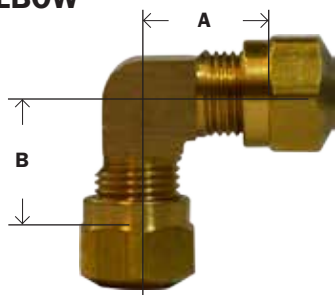
**TEE****SAE# 100401BA**

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-044	1/4"	0.61	0.12	----
38-045	3/8"	0.78	0.19	----
38-046	1/2"	0.92	0.36	----
38-047	5/8"	1.09	0.48	----

64NAB 264NTA 1464

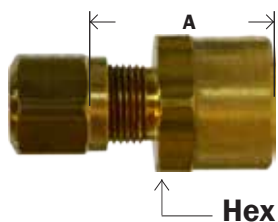
**REDUCING BRANCH TEE**

Part #	Tube O.D. (1&2) x 3	A	B	Approx. Wt. Lbs.	List Price
38-049	3/8" x 1/4"	0.72	0.69	0.24	----
38-057	1/2" x 3/8"	0.92	0.85	0.30	----

**ELBOW****SAE# 100201BA**

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-052	1/4"	0.61	0.09	----
38-053	3/8"	0.78	0.13	----
38-054	1/2"	0.92	0.15	----
38-055	5/8"	1.09	0.36	----

65NAB 265NTA 1465

**FEMALE ADAPTER****SAE# 100103BA**

Part #	Tube O.D. x Female NPT	A	Hex	Approx. Wt. Lbs.	List Price
38-060	1/4" x 1/8"	0.85	0.55	0.06	----
38-061	1/4" x 1/4"	1.08	0.68	0.08	----
38-062	3/8" x 1/8"	1.00	0.56	0.07	----
38-063	3/8" x 1/4"	1.18	0.68	0.10	----
38-064	3/8" x 3/8"	1.18	0.87	0.14	----
38-065	1/2" x 3/8"	1.27	0.87	0.16	----
38-066	1/2" x 1/2"	1.43	1.06	0.20	----
38-067	5/8" x 3/8"	1.31	0.87	0.28	----
38-068	5/8" x 1/2"	1.50	1.06	0.28	----

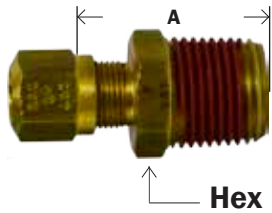
66NAB 66NTA 1466 66NBH

## BRASS FITTINGS

## D.O.T. AIR BRAKE - NYLON TUBING

### MALE ADAPTER

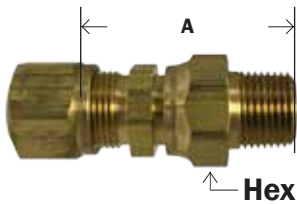
SAE# 100102BA



Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
38-072	1/4" x 1/16"	0.90	0.43	0.05	----
38-073	1/4" x 1/8"	0.88	0.43	0.05	----
38-074	1/4" x 1/4"	1.09	0.56	0.06	----
38-075	1/4" x 3/8"	1.07	0.68	0.08	----
38-076	3/8" x 1/8"		0.56	0.07	----
38-077	3/8" x 1/4"	1.20	0.56	0.08	----
38-078	3/8" x 3/8"	1.24	0.68	0.10	----
38-079	3/8" x 1/2"	1.43	0.87	0.14	----
38-080	1/2" x 1/4"		0.68	0.13	----
38-081	1/2" x 3/8"	1.32	0.68	0.14	----
38-082	1/2" x 1/2"	1.51	0.87	0.18	----
38-087	1/2" x 3/4"	1.57	1.06	0.23	----
38-083	5/8" x 3/8"	1.39	0.81	0.17	----
38-084	5/8" x 1/2"		0.87	0.21	----
38-088	5/8" x 3/4"		1.06	0.25	----
38-085	3/4" x 1/2"	1.68	1.00	0.28	----
38-086	3/4" x 3/4"	1.71	1.06	0.30	----

### SWIVEL MALE ADAPTER

NEW

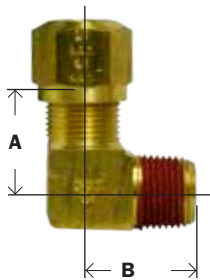


Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
38-078S	3/8" x 3/8"	1.83	0.87	0.18	----
38-081S	1/2" x 3/8"	1.94	0.87	0.22	----

68NAB 68NTA 1468

### MALE ELBOW

SAE# 100202BA



Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-091	1/4" x 1/8"	0.61	0.65	0.06	----
38-092	1/4" x 1/4"	0.67	0.86	0.08	----
38-093	1/4" x 3/8"	0.72	0.85	0.13	----
38-094	3/8" x 1/8"	0.72	0.73	0.09	----
38-095	3/8" x 1/4"	0.80	0.93	0.11	----
38-090	3/8" x 1/4" LONG	0.80	1.44	0.14	----
38-101	3/8" x 3/8"	0.83	0.90	0.14	----
38-102	3/8" x 1/2"	0.93	1.09	0.20	----
38-103	1/2" x 1/4"	0.85	0.98	0.16	----
38-104	1/2" x 3/8"	0.92	0.98	0.20	----
38-109	1/2" x 3/8" LONG	0.94	1.38	0.26	----
38-105	1/2" x 1/2"	1.02	1.17	0.29	----
38-106	5/8" x 3/8"	1.00	1.05	0.26	----
38-107	5/8" x 1/2"	1.10	1.25	0.32	----
38-110	5/8" x 3/4"	1.09	1.24	0.40	----
38-108	3/4" x 1/2"	1.19	1.33	0.43	----

269NTA 1469

### SWIVEL MALE ELBOW

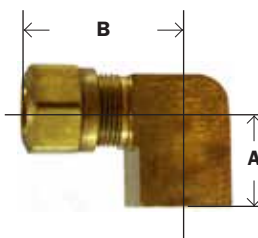
NEW



Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-101S	3/8" x 3/8"	1.06	1.80	0.28	----
38-104S	1/2" x 3/8"	1.14	1.86	0.32	----

### FEMALE ELBOW

SAE# 100203BA



Part #	Tube O.D. x Female NPTF	A	B	Approx. Wt. Lbs.	List Price
38-113	1/4" x 1/8"	0.68	0.52	0.08	----
38-114	1/4" x 1/4"	0.77	0.70	0.12	----
38-115	3/8" x 1/8"	0.82	0.58	0.14	----
38-116	3/8" x 1/4"	0.88	0.76	0.10	----
38-117	3/8" x 3/8"	0.93	0.76	0.12	----
38-118	1/2" x 3/8"	1.02	0.81	0.23	----
38-119	1/2" x 1/2"	1.13	1.01	0.36	----
38-120	5/8" x 1/2"	1.19	1.07	0.38	----

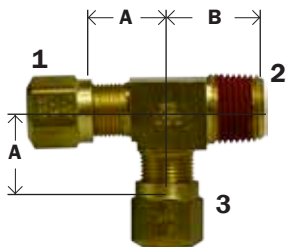
70NAB 1470 270NTA

## D.O.T. AIR BRAKE - NYLON TUBING

## BRASS FITTINGS

## MALE RUN TEE

## SAE# 100424BA

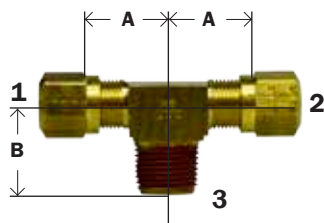


Part #	Tube O.D. x Male NPTF x Tube O.D. 1x2x3	A	B	Approx. Wt. Lbs.	List Price
38-125	1/4" x 1/8" x 1/4"	0.61	0.65	0.10	----
38-126	1/4" x 1/4" x 1/4"	0.68	0.86	0.13	----
38-124	3/8" x 1/4" x 1/4"	0.72	0.69	0.14	----
38-127	3/8" x 1/4" x 3/8"	0.78	0.91	0.17	----
38-128	3/8" x 3/8" x 3/8"	0.83	0.90	0.20	----
38-129	1/2" x 3/8" x 1/2"	0.92	0.98	0.30	----

71NAB 271NTA 1471

## MALE BRANCH TEE

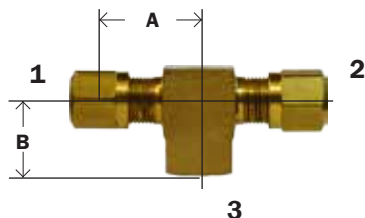
## SAE# 100425BA



Part #	Tube O.D. x Tube O.D. x Male NPTF 1x2x3	A	B	Approx. Wt. Lbs.	List Price
38-136	1/4" x 1/4" x 1/8"	0.61	0.65	0.10	----
38-137	1/4" x 1/4" x 1/4"	0.67	0.86	0.13	----
38-138	3/8" x 3/8" x 1/8"	0.71	0.73	0.14	----
38-132	3/8" x 1/4" x 1/4"	0.80	0.93	0.15	----
38-139	3/8" x 3/8" x 1/4"	0.78	0.91	0.17	----
38-133	1/2" x 1/2" x 1/4"	0.87	1.00	0.26	----
38-140	3/8" x 3/8" x 3/8"	0.83	0.90	0.21	----
38-134	1/2" x 3/8" x 3/8"	0.94	1.00	0.26	----
38-141	1/2" x 1/2" x 3/8"	0.92	0.98	0.30	----
38-142	1/2" x 1/2" x 1/2"	1.02	1.17	0.37	----
38-143	5/8" x 5/8" x 1/2"	1.09	1.24	0.44	----

72NAB 272NTA 1472

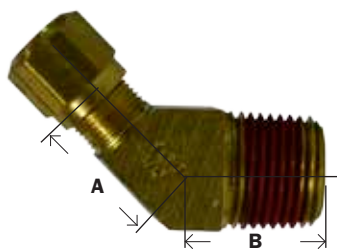
## FEMALE BRANCH TEE



Part #	Tube O.D. x Tube O.D. x Female NPTF 1x2x3	A	B	Approx. Wt. Lbs.	List Price
38-144	3/8" x 3/8" x 1/4"	0.90	0.78	0.21	----
38-146	5/8" x 5/8" x 1/4"	1.04	0.89	0.48	----

## 45° ELBOW

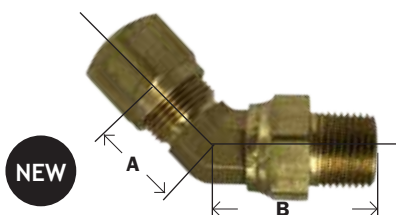
## SAE# 100302BA



Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-148	1/4" x 1/8"	0.49	0.63	0.06	----
38-149	1/4" x 1/4"	0.60	0.85	0.08	----
38-150	3/8" x 1/8"	0.71	0.67	0.09	----
38-151	3/8" x 1/4"	0.72	0.86	0.11	----
38-152	3/8" x 3/8"	0.76	0.95	0.14	----
38-153	3/8" x 1/2"	0.78	1.20	0.24	----
38-157	1/2" x 1/4"	0.85	0.95	0.18	----
38-154	1/2" x 3/8"	0.84	0.94	0.19	----
38-155	1/2" x 1/2"	0.87	1.16	0.25	----
38-156	5/8" x 1/2"	1.00	1.20	0.30	----
38-158	3/4" x 1/2"	1.10	1.18	0.38	----

6945NAB 279NTA 1480

## SWIVEL 45° ELBOW



Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-152S	3/8" x 3/8"	0.77	1.37	0.20	----
38-154S	1/2" x 3/8"	0.82	1.44	0.24	----

**SLEEVE**

**SAE# 120115BA**

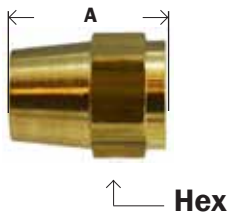


Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-161	1/4"	0.25	0.01	----
38-162	3/8"	0.31	0.02	----
38-163	1/2"	0.38	0.02	----
38-164	5/8"	0.44	0.02	----
38-165	3/4"	0.50	0.04	----

60AB 1360

**NUT**

**SAE# 120111BA**

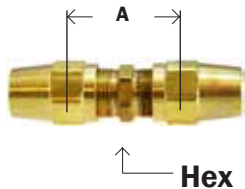


Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-170	1/4"	0.75	0.56	0.02	----
38-171	3/8"	1.13	0.62	0.04	----
38-172	1/2"	1.25	0.81	0.08	----
38-173	5/8"	1.38	0.94	0.12	----
38-174	3/4"	1.56	1.12	0.18	----

20961 61AB 1361

**UNION**

**SAE# 120101BA**

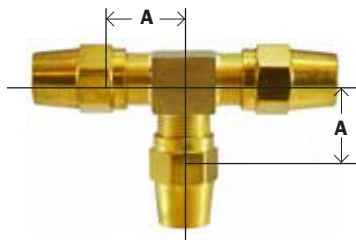


Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-179	1/4"	0.81	0.44	0.08	----
38-180	3/8"	1.10	0.56	0.14	----
38-181	1/2"	1.07	0.69	0.24	----
38-182	5/8"	1.41	0.81	0.34	----

62AB 1362

**TEE**

**SAE# 120401BA**

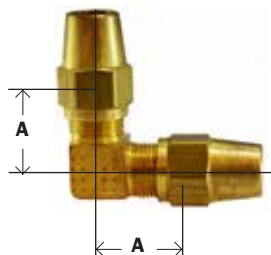


Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-188	1/4"	0.62	0.16	----
38-189	3/8"	0.82	0.24	----
38-190	1/2"	0.94	0.48	----

264AB 1364

**ELBOW**

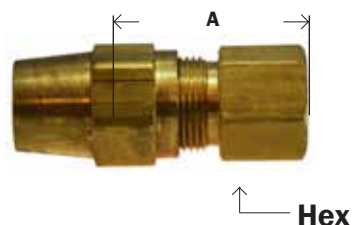
**SAE# 120201BA**



Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-196	1/4"	0.62	0.10	----
38-197*	3/8"	0.78	0.16	----
38-198	1/2"	0.92	0.28	----
38-199	5/8"	1.10	0.42	----

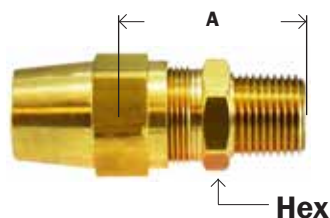
\* Forged

265AB 1365

**D.O.T. AIR BRAKE - COPPER TUBING****BRASS FITTINGS****FEMALE ADAPTER****SAE# 120103BA**

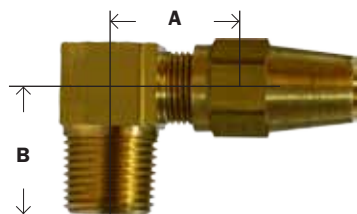
Part #	Tube O.D. x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
38-204	1/4" x 1/8"	0.84	0.56	0.08	----
38-205	1/4" x 1/4"	1.07	0.68	0.10	----
38-206	3/8" x 1/8"	1.00	0.56	0.10	----
38-207	3/8" x 1/4"	1.19	0.68	0.12	----
38-208	3/8" x 3/8"	1.18	0.87	0.16	----
38-209	1/2" x 3/8"	1.27	0.87	0.18	----
38-210	1/2" x 1/2"	1.44	1.06	0.20	----
38-212	5/8" x 1/2"	1.50	1.06	0.26	----

66AB 1366

**MALE ADAPTER****SAE# 120102BA**

Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
38-217	1/4" x 1/8"	0.88	0.43	0.06	----
38-218	1/4" x 1/4"	0.97	0.56	0.08	----
38-220	3/8" x 1/8"	1.02	0.56	0.08	----
38-221	3/8" x 1/4"	1.09	0.56	0.10	----
38-222	3/8" x 3/8"	1.19	0.69	0.12	----
38-223	3/8" x 1/2"	1.45	0.87	0.18	----
38-224	1/2" x 1/4"	1.32	0.69	0.16	----
38-225	1/2" x 3/8"	1.35	0.69	0.18	----
38-226	1/2" x 1/2"	1.51	0.87	0.24	----
38-227	5/8" x 3/8"	1.39	0.81	0.22	----
38-228	5/8" x 1/2"	1.57	0.87	0.24	----
38-229	3/4" x 1/2"	1.67	1.00	0.34	----

68AB 368

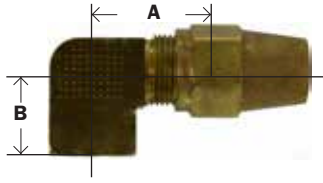
**90° MALE ELBOW****SAE# 120202BA**

Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-235	1/4" x 1/8"	0.64	0.76	0.08	----
38-236	1/4" x 1/4"	0.69	0.88	0.10	----
38-237	1/4" x 3/8"	0.73	0.86	0.14	----
38-238	3/8" x 1/8"	0.73	0.75	0.12	----
38-239	3/8" x 1/4"	0.80	0.93	0.12	----
38-240	3/8" x 3/8"	0.83	0.90	0.16	----
38-242	1/2" x 1/4"	0.85	0.98	0.24	----
38-243	1/2" x 3/8"	0.92	0.98	0.22	----
38-244	1/2" x 1/2"	1.04	1.19	0.30	----
38-245	5/8" x 3/8"	1.01	1.06	0.34	----
38-246	5/8" x 1/2"	1.10	1.25	0.36	----
38-247	3/4" x 1/2"	1.19	1.32	0.44	----

269AB 1369

**90° FEMALE ELBOW**

SAE# 120203BA

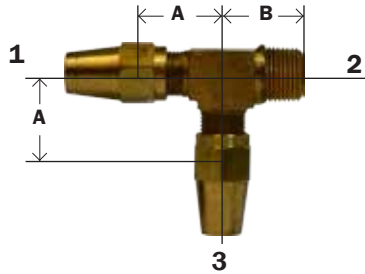


Part #	Tube O.D. x Female NPTF	A	B	Approx. Wt. Lbs.	List Price
38-256	3/8" x 3/8"	0.93	0.77	0.18	----
38-257	1/2" x 3/8"	1.03	0.82	0.26	----

270AB 1370

**MALE RUN TEE**

SAE# 120424BA

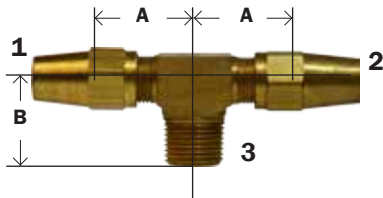


Part #	Tube O.D. x Male NPTF (1&3)x2	A	B	Approx. Wt. Lbs.	List Price
38-264	1/4" x 1/8"	0.62	0.66	0.12	----
38-266	3/8" x 1/4"	0.79	0.92	0.20	----

271AB 1371

**MALE BRANCH TEE**

SAE# 120425BA

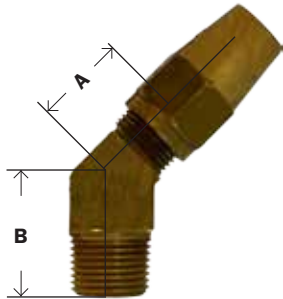


Part #	Tube O.D. x Male NPTF (1&2)x3	A	B	Approx. Wt. Lbs.	List Price
38-278	3/8" x 1/4"	0.78	0.91	0.18	----
38-279	3/8" x 3/8"	0.85	0.92	0.24	----

272AB 1372

**45° MALE ELBOW**

SAE# 120302BA



Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-287	1/4" x 1/8"	0.49	0.63	0.08	----
38-288	1/4" x 1/4"	0.60	0.85	0.10	----
38-290	3/8" x 1/4"	0.72	0.86	0.18	----
38-291	3/8" x 3/8"	0.75	0.94	0.20	----
38-293*	1/2" x 3/8"	0.82	0.94	0.18	----
38-294	1/2" x 1/2"	0.87	1.16	0.24	----

\* Forged

279AB 1380

# D.O.T. AIR BRAKE REUSABLE HOSE/ FITTINGS



### •Typical Application

Air Brake hose connections.  
Meets SAE & DOT specifications  
(FMVCS 10 GAL)

### •Pressure

Determined by maximum working pressure for hose size.  
Up to 125 psi

### •Material

Brass.  
Temperature: -40°F to + 120° F ( -40°C to +48°C )

### •Advantages

Can be used for nearly any brake line. Easy to assemble with a good selection of hose end configurations. Brass material offers excellent resistance against corrosion.

### • Tolerance

+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

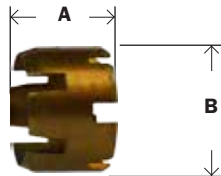
### •Assembly Instructions

- 1- Slide nut and sleeve onto hose. Make sure bevel edge of sleeve faces out toward fitting.
- 2- Push hose into fitting until it bottoms.
- 3- Screw nut until contact is made with body hex.

NOTE: When reassembling fitting, body and nut should be inspected. Only reuse if in proper condition. Sleeves should never be reused.

### SLEEVE

#### FERRULE



Part #	Hose I.D. Size	A	B	Approx. Wt. Lbs.	List Price
38-300	3/8"	0.69	0.90	0.02	----
38-301	1/2"	0.64	1.03	0.02	----

#60HC 3380-A 0903610 367 60RB

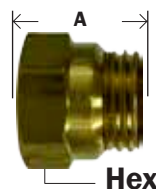
### NUT



Part #	Hose I.D. Size	A	Hex	Approx. Wt. Lbs.	List Price
38-306	3/8"	1.26	1.03	0.04	----
38-307	1/2"	1.20	1.25	0.06	----

61RB #61HC 369 3380-B 0903624

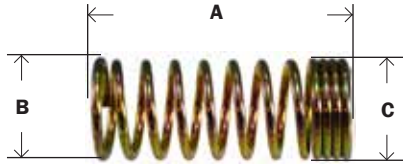
### NUT FOR USE WITH SPRING



Part #	Hose I.D. Size	Thread	A	Hex	Approx. Wt. Lbs.	List Price
38-312	3/8"	31/32-20	1.25	1.03	0.04	----
38-313	1/2"	1-3/32-20	1.20	1.25	0.06	----

#61HCS 0903613 3380-D 61RB5G

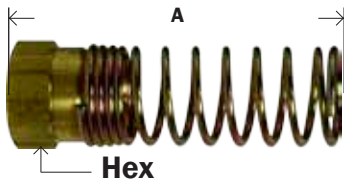
**SPRING**



Part #	Hose I.D.	A	B	C	Approx. Wt. Lbs.	List Price
38-351	3/8"	2.75	0.84	0.78	0.20	----
38-352	1/2"	2.75	1.10	1.10	0.22	----

#60SG 0901045 3380-C 377

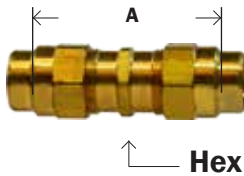
**NUT AND SPRING ASSEMBLY**



Part #	Hose I.D. Size	A	Hex	Approx. Wt. Lbs.	List Price
38-015	3/8"	3.55	1.03	0.18	----
38-016	1/2"	3.50	1.25	0.24	----

379 67RBSG 0999999

**UNION**



Part #	Hose I.D.	Thread	A	Hex	Approx. Wt. Lbs.	List Price
38-318	3/8"	31/32-30	2.55	0.97	0.32	----
38-319	1/2"	1-1/8-20	2.55	1.12	0.48	----

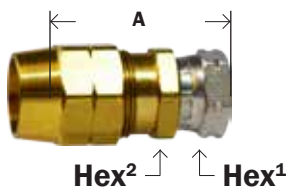
#62HC 3380B-Y0 362



Part #	Hose I.D.	Thread	A	Hex	Approx. Wt. Lbs.	List Price
39-318	3/8"	31/32-30	2.55	0.97	0.32	----
39-319	1/2"	1-1/8-20	2.55	1.12	0.48	----

BODY ONLY

**FEMALE CONNECTOR HOSE**



Part #	Hose I.D. x Female ABS	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
38-357	3/8" x 3/4-20	1.96	0.87	0.97	0.24	----
38-358	1/2" x 7/8-20	2.1	1.00	1.12	0.39	----

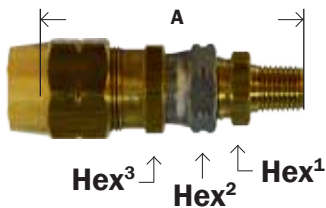
#66ABS 66RBSV 3380B-Y7 386



Part #	Hose I.D. x Female ABS	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
39-357	3/8" x 3/4-20	1.96	0.87	0.97	0.24	----
39-358	1/2" x 7/8-20	2.1	1.06	1.12	0.38	----

BODY ONLY

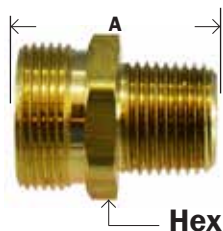
**MALE CONNECTOR**



Part #	Hose I.D. x Male Pipe	A	Hex 1	Hex 2	Hex 3	Approx. Wt. Lbs.	List Price
38-363	3/8" x 1/4"	2.90	0.75	0.87	0.97	0.38	----
38-364	1/2" x 3/8"	2.96	0.87	1.06	1.12	0.46	----

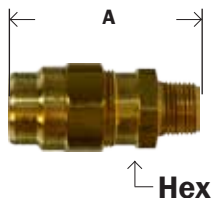
#68ABS 09155 3380B-Y8 387



**D.O.T. AIR BRAKE - HOSE/ ENDS****BRASS FITTINGS****ADAPTER FOR SWIVEL TYPE REUSABLE AND CRIMPED ON**

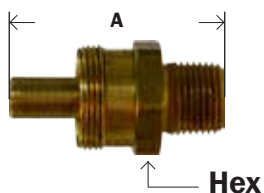
Part #	Male ABS x Male Pipe	ABS Thread	A	Hex	Approx. Wt. Lbs.	List Price
38-369	3/8" x 1/4"	3/4-20	1.06	0.75	0.05	----
38-368	3/8" x 3/8"	3/4-20	1.14	0.75	0.08	----
38-372	3/8" x 1/2"	3/4-20	1.37	0.87	0.12	----
38-370	1/2" x 3/8"	7/8-20	1.18	0.87	0.10	----
38-371	1/2" x 1/2"	7/8-20	1.38	0.87	0.12	----

#68ABS 1390 76RB 388

**MALE ADAPTER**

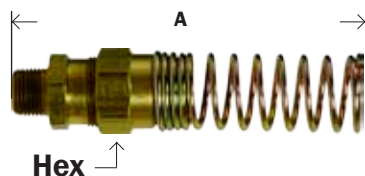
Part #	Hose I.D. x Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
38-333	3/8" x 1/4"	1.91	0.97	0.22	----
38-334	3/8" x 3/8"	1.94	0.97	0.24	----
38-335	3/8" x 1/2"	2.12	0.97	0.26	----
38-336	1/2" x 3/8"	2.07	1.12	0.33	----
38-337	1/2" x 1/2"	2.07	1.12	0.36	----

#68HC 368 3380B-Y2 68RB

**ADAPTER BODY**

Part #	Hose I.D. x Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
38-324	3/8" x 1/4"	1.93	0.97	0.12	----
38-325	3/8" x 3/8"	1.92	0.97	0.14	----
38-326	3/8" x 1/2"	2.02	1.00	0.20	----
38-327	1/2" x 3/8"	2.07	1.12	0.18	----
38-328	1/2" x 1/2"	2.06	1.12	0.20	----

#68B W1391Z

**MALE ADAPTER**

Part #	Hose I.D. x Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
38-342	3/8" x 1/4"	4.91	1.00	0.32	----
38-343	3/8" x 3/8"	4.96	1.00	0.34	----
38-344	3/8" x 1/2"	5.53	1.00	0.38	----
38-345	1/2" x 3/8"	4.75	1.12	0.48	----
38-346	1/2" x 1/2"	4.88	1.12	0.52	----

#68HCS 3380B-Y3 68RBSG 378

# SPECIALTY VALVES AND COCKS



**DRAIN COCKS**  
PAGE 148-149



**AIR COCKS**  
PAGE 151-153



**3, 4 AND 6 WAY**  
PAGE 157-158



**NEEDLE**  
PAGE 154-155



**ANTI-SIPHON**  
PAGE 158



**PANEL MOUNT BALL VALVES**  
PAGE 159



**TRUCK**  
PAGE 156



**USA MINI**  
PAGE 159



**SOLID BOTTOM SHUT-OFF**  
PAGE 156



**CHECK**  
PAGE 160



**SPRING BOTTOM SHUT-OFF**  
PAGE 150

See our valve section for much, much more!

## DRAIN COCKS

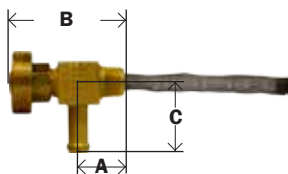
## BRASS FITTINGS

## DRAIN COCKS

- For use with low pressure air, water and fluids.
- Designed for a working pressure of 150 psi @ 250°.
- Hand-tightening provides a metal-to-metal seal.
- Not intended for natural gas, LPG, nuclear or aircraft applications.

Install on your tank for easy draining

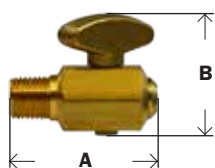
## GASOLINE SHUT OFF w/ SCREEN FILTER



Part #	Barb X Male Pipe	A	B	C	Approx. Wt. Lbs.	List Price
46-064	1/4" x 1/8"	0.55	1.34	0.66	0.06	----

827

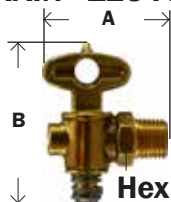
## DRAIN COCK 150 PSI - Trunk Air Tank



Part #	Male Pipe	A	B	Approx. Wt. Lbs.	List Price
46-066	1/4"	1.73	1.41	0.22	----

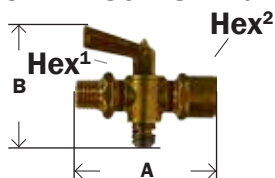
DCR601-4

## TRUCK DRAIN - 125 P.S.I.G



Part #	Male Pipe	Industry Number	A	B	Hex	Approx. Wt. Lbs.	List Price
46-067	1/8"		1.53	1.95	0.62	0.14	----
46-068	1/4"	W15310	1.53	1.95	0.62	0.18	----

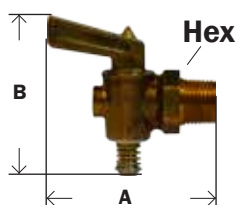
## SHUT OFF - 150 P.S.I max.



Part #	Male Pipe x Female Pipe	Industry Number	A	B	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
46-069	1/4"	W20332	1.96	1.96	0.75	0.62	0.20	----

#60HC 3380-A 0903610 367

## LEVER HANDLE



Part #	Male Pipe	Industry Number	A	B	Hex	Approx. Wt. Lbs.	List Price
46-070	1/8"	M-41-P	1.99	1.80	0.62	0.04	----
46-071	1/4"	M-42-P	2.06	1.81	0.62	0.06	----
46-072	3/8"	M-43-P	2.30	2.29	0.81	0.08	----
46-073	1/2"	M-44-P	3.00	2.50	0.87	0.16	----

840 41D DC601

- 30 psi

\*Valve is closed when handle is in the position of the picture

## AIR TANK DRAIN PULL VALVE

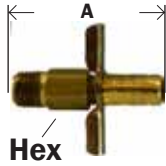


Part #	Size	Description	List Price
39595	1/4" male	5ft nylon coated pull cable	----
39596	1/4" male	4ft nylon coated pull cable	----
39597	1/4" male	3ft nylon coated pull cable	----
39600	1/4" male	Air valve only	----

## BRASS FITTINGS

## DRAIN COCKS

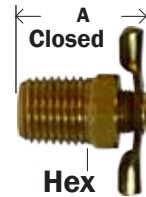
### INTERNAL SEAT



Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-079	1/8"	6783	1.63	0.40	0.02	----

DC602 808 400A 1800A

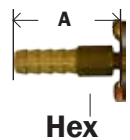
### INTERNAL SEAT



Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-074	1/8"	130	0.92	0.40	0.04	----
46-075	1/4"	140	0.94	0.56	0.06	----
46-077	3/8"	230	1.34	0.68	0.08	----

HB - 5/16 803 305A

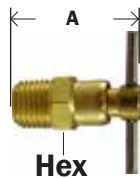
### LONG INTERNAL SEAT



Part #	Size	Ind #	A	Hex	Approx. Wt. Lbs.	List Price
46-076	3/8" Hose I.D.		1.65	0.43	0.02	----

809

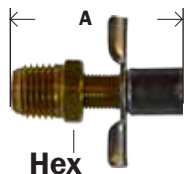
### TEE HANDLE - Internal Seat



Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-080	1/8"	M-200-P	1.22	0.50	0.04	----
46-081	1/4"	M-201-P	1.31	0.56	0.06	----
46-082	3/8"	M-202-P	1.69	0.68	0.12	----

DC603 802

### EXTERNAL SEAT w/ SPOUT

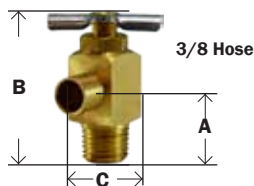


Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-084*	1/4"	6788	1.56	0.56	0.02	----

\* Replaces GM # 511771 & Chrysler #836015

200A 239 DC606 807

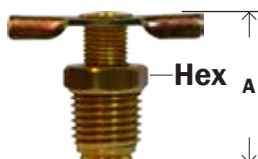
### BIBB NEEDLE VALVE



Part #	Male Pipe	Industry Number	A	B	C	Approx. Wt. Lbs.	List Price
46-088	1/8"	150	0.55	1.19	0.38	0.04	----
46-089	1/4"	120	0.82	1.76	0.66	0.06	----
46-089A	1/4"	6660	0.55	1.34	0.66	0.06	----

804 DC607 2019 201DH

### RADIATOR TYPE - External Seat



Part #	Male Pipe	Industry Number	Ind #	A	Hex	Approx. Wt. Lbs.	List Price
46-085	1/8"	M-320-P	135	0.90	0.43	0.02	----
46-086	1/4"	M-321-P	145	1.00	0.56	0.04	----
46-087	3/8"	M-322-P	270	1.25	0.68	0.08	----
46-083	1/2"	108	108	1.52	0.87	0.12	----

320D 240 DC604 801

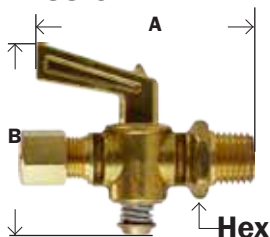
**SHUT-OFF COCKS****BRASS FITTINGS**

- Designed for working pressure of 30 PSI.
- Forged brass bodies and brass handles.

- Instantaneous off-on operation with 360° rotation.
- Not good for gasoline.

**COMPRESSION X MALE PIPE**

\* See pg. 73-74 to order nut and sleeve separately.

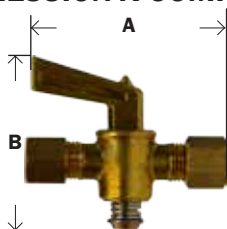


Part #	Comp X Male Pipe	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-130	1/4" x 1/8"	27-C	1.87	1.81	0.51	0.14	----
46-131	1/4" x 1/4"	227-C	2.05	1.86	0.62	0.15	----
46-132	5/16" x 1/8"	29-C	2.05	1.90	0.50	0.16	----
46-134	3/8" x 1/4"	57-C	2.05	1.83	0.62	0.15	----

868 V304C 2068 133C VC206

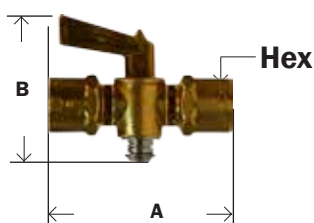
**COMPRESSION X COMPRESSION**

\* See pg. 73-74 to order nut and sleeve separately.



Part #	Comp X Comp	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-140	1/4"	28-C	1.82	1.84	0.12	----
46-141	5/16"	30-C	1.84	1.88	0.14	----
46-142	3/8"	58-C	1.87	1.80	0.14	----
46-143	1/2"	68-C	2.21	2.32	0.22	----

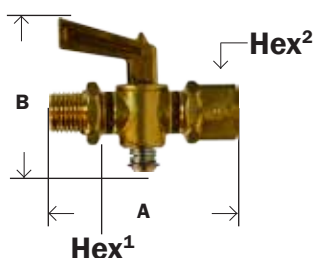
V3030F 2062 134C

**FEMALE X FEMALE PIPE**

Part #	Female Pipe X Female Pipe	A	B	Hex	Approx. Wt. Lbs.	List Price
46-151	1/8"	1.77	1.79	0.56	0.12	----
46-152	1/4"	2.28	1.82	0.69	0.20	----
46-152T*	1/4"	2.28	2.00	0.68	0.20	----
46-153	3/8"	2.44	2.28	0.81	0.30	----

\* 150 PSI

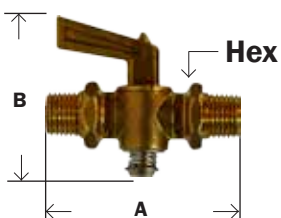
V403P 132C 875

**MALE PIPE X FEMALE**

Part #	Male Pipe X Female Pipe	Ind. #	A	B	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
46-160	1/8"	48-P	2.03	1.84	0.50	0.56	0.14	----
46-161	1/4"	49-P	2.26	1.84	0.69	0.69	0.18	----
46-161T*	1/4"		2.26	1.98	0.69	0.69	0.20	----
46-162	3/8"	50-P	2.33	2.28	0.82	0.82	0.28	----

\* 150 PSI

880 V402P 130C

**MALE PIPE X MALE PIPE**

Part #	Male Pipe X Male Pipe	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-165	1/8"	76-P	2.09	1.77	0.50	0.12	----
46-166	1/4"	77-P	2.22	1.84	0.70	0.17	----
46-166T*	1/4"		2.23	2.00	0.68	0.18	----
46-167	3/8"	78-P	2.43	2.24	0.82	0.22	----

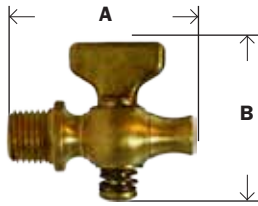
\* 150 PSI

1V401P 890

- For use on low pressure air systems.
- Designed for working pressure of 80 PSI at moderate temperatures.
- Spring-key type cocks of all brass construction with stainless steel springs.
- Machine finish is standard. Polished or plated finish available at extra cost.

**MIP X BIBB**

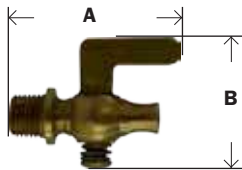
- tee handle
- no hex



Part #	MIP x BIBB	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-300	1/8"	6	1.53	1.55	0.12	----
46-301	1/4"	7	1.61	1.54	0.14	----

**MIP X BIBB**

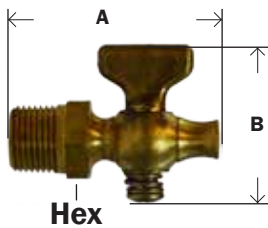
- lever handle
- no hex



Part #	MIP x BIBB	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-305	1/8"	12	2.01	1.71	0.14	----
46-306	1/4"	13	2.09	1.66	0.14	----

**MIP X BIBB**

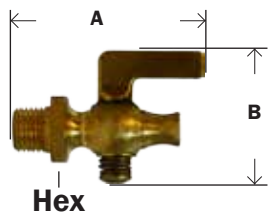
- tee handle
- hex



Part #	MIP x BIBB	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-310	1/8"	63	1.64	1.51	0.56	0.14	----
46-311	1/4"	64	1.69	1.54	0.62	0.14	----

**MIP X BIBB**

- lever handle
- hex



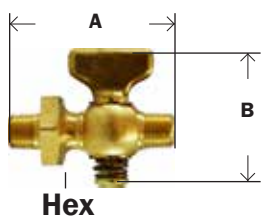
Part #	MIP x BIBB	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-315	1/8"	65	2.11	1.71	0.62	0.14	----
46-316	1/4"	66	2.16	1.71	0.62	0.16	----

## BRASS AIR COCKS

## BRASS FITTINGS

## MIP X MIP

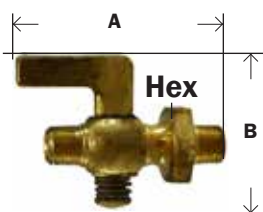
- tee handle
- hex



Part #	MIP X MIP	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-320	1/8"	18	1.81	1.51	0.75	0.14	----
46-321	1/4"	19	1.92	1.55	0.62	0.16	----

## MIP X MIP

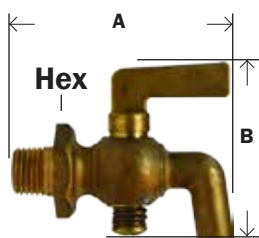
- lever handle
- hex



Part #	MIP X MIP	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-324	1/8"	22	2.09	1.69	0.56	0.14	----
46-325	1/4"	23	2.18	1.69	0.62	0.16	----
46-326	3/8"	24	2.26	1.72	0.75	0.20	----

## MIP X BIBB NOSE

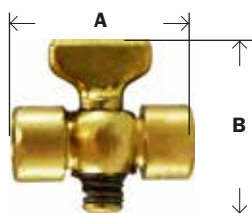
- lever handle
- hex



Part #	MIP X BIBB NOSE	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-335	1/8"	29	2.25	1.68	0.56	0.14	----
46-336	1/4"	30	2.20	1.67	0.56	0.17	----
46-337	3/8"	31	2.25	1.72	0.87	0.20	----
46-338	1/2"	32	2.31	1.71	0.87	0.22	----

## FIP X FIP

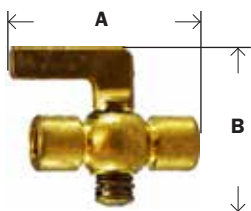
- tee handle
- no hex



Part #	FIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-340	1/8"	37	1.62	1.50	0.14	----
46-341	1/4"	38	1.93	1.56	0.16	----
46-342	3/8"	39	2.00	1.55	0.20	----

## FIP X FIP

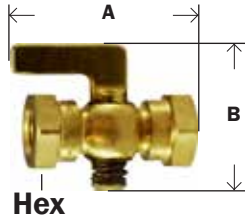
- lever handle
- no hex



Part #	FIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-345	1/8"	43	1.94	1.68	0.14	----
46-346	1/4"	44	2.10	1.71	0.16	----
46-347	3/8"	45	2.14	1.69	0.20	----

**FIP X FIP**

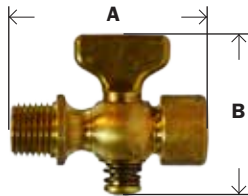
- lever handle
- hex



Part #	FIP X FIP	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-355	1/8"	58	1.97	1.70	0.56	0.15	----
46-356	1/4"	59	2.10	1.71	0.75	0.18	----
46-357	3/8"	60	2.10	1.69	0.81	0.20	----

**MIP X FIP**

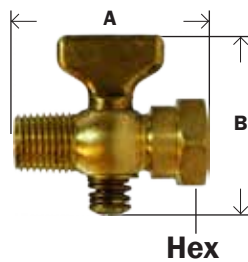
- tee handle
- no hex



Part #	MIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-360	1/8"	40	1.70	1.55	0.14	----
46-361	1/4"	41	1.94	1.55	0.16	----
46-362	3/8"	42	2.06	1.50	0.20	----

**MIP X FIP**

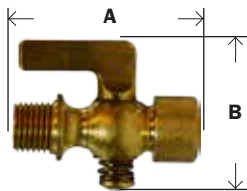
- tee handle
- hex



Part #	MIP X FIP	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-370	1/8"	49	1.81	1.55	0.56	0.14	----
46-371	1/4"	50	2.06	1.55	0.75	0.20	----

**MIP X FIP**

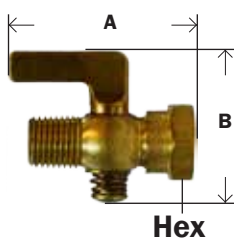
- lever handle
- no hex



Part #	MIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-365	1/8"	46	1.94	1.72	0.14	----
46-366	1/4"	47	2.10	1.65	0.16	----

**MIP X FIP**

- lever handle
- hex



Part #	MIP X FIP	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-375	1/8"	52	1.93	1.69	0.56	0.16	----
46-376	1/4"	53	2.06	1.76	0.75	0.20	----
46-377	3/8"	54	2.13	1.71	0.81	0.22	----
46-378	1/2"	54A	2.65	1.96	1.00	0.28	----



## NEEDLE VALVES

## BRASS FITTINGS

## NEEDLE VALVES

THESE ARE NOT LEAD FREE SEE PAGES 169-182 FOR LEAD FREE PRODUCTS

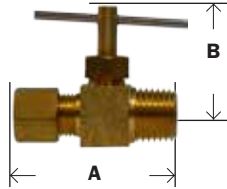
Made with either pin handle or pressed on handle.

Please specify if you have a preference.

- Used on instrumentation, hydraulic, and pneumatic systems.
- Designed for a maximum working pressure of 150 PSI.

- Provided with steel handles and metal-to-metal seats with fine-thread screwdown.
- Not designed for natural gas, LPG, nuclear or aircraft applications.
- Always install with pressure against the seat.

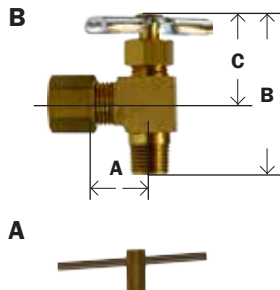
## COMP X MALE PIPE



Part #	Comp X Male Pipe	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-002	1/4" x 1/8"	M-101-C	1.29	1.12	0.07	----
46-003	1/4" x 1/4"	M-101-C	1.27	1.14	0.10	----

NV106C 2205 820 3068

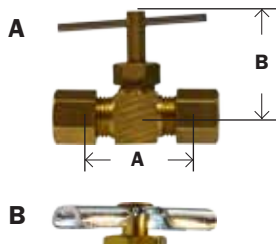
## COMP X MALE PIPE-ANGLE



Part #	Comp X Male Pipe	Handle	Ind. #	A	B	C	Approx. Wt. Lbs.	List Price
46-011	1/4" x 1/8"	A	M-103-C	0.56	1.48	0.93	0.08	----
46-011X	Heavy Pattern	B	M-103-C	0.53	1.53	0.83	0.08	----
46-012	1/4" x 1/4"	B	M-104-C	0.62	1.67	0.90	0.13	----
46-013	5/16" x 1/8"	B	M-104-C	0.63	1.63	0.95	0.10	----
46-016	3/8" x 1/4"	A	M-303-C	0.65	1.71	0.92	0.16	----

NV104C 2203 821 3069

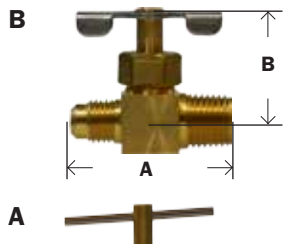
## COMP X COMP



Part #	Comp X Comp	Handle	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-020	3/16"	B	M-105-C	1.06	0.88	0.08	----
46-021	1/4"	A	M-106-C	1.17	1.12	0.10	----
46-022	5/16"	A	M-107-C	1.22	1.08	0.12	----
46-023	3/8"	B	M-113-C	1.31	1.15	0.13	----

NV105C 3062 2201 822

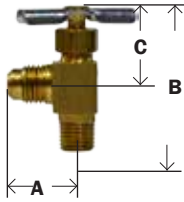
## FLARE X MALE PIPE



Part #	Male Flare X Male Pipe	Handle	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-028	1/4" x 1/8"	A	M-104-SAE	1.35	1.12	0.07	----
46-029	1/4" x 1/4"	B	M-1040-SAE	1.38	0.88	0.09	----
46-031	3/8" x 1/4"	B	M-108-SAE	1.73	1.22	0.18	----

NV103F 2405 823 3048

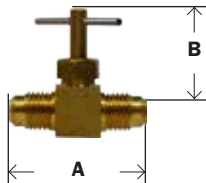
**FLARE X MALE PIPE**



Part #	Male Flare X Male Pipe	Ind. #	A	B	C	Approx. Wt. Lbs.	List Price
46-036	1/4" x 1/8"	M-103-SAE	0.68	1.54	0.86	0.08	----
46-038	5/16" x 1/8"	M-203-SAE	0.88	1.59	0.94	0.11	----
46-039	5/16" x 1/4"	M-204-SAE	0.90	1.94	1.00	0.14	----
46-040	3/8" x 1/4"	M-303-SAE	0.97	1.84	0.90	0.17	----

NV101F 2403 824 3049

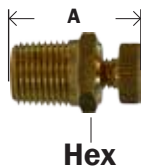
**FLARE X FLARE**



Part #	Male Flare X Male Flare	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-045	1/4"	M-110-SAE	1.48	1.20	0.18	----
46-046	3/8"	M-115-SAE	1.79	1.19	0.20	----

NV102F 3042 825 2401

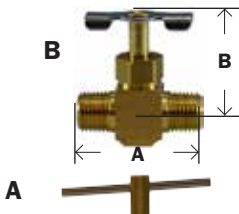
**MULTI-PURPOSE AIR VENT**



Part #	Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
46-048	1/8"	0.78	0.43	0.02	----

705

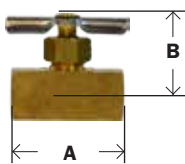
**MALE PIPE TO MALE PIPE**



Part #	Male Pipe X Male Pipe	Handle	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-050	1/8"	A	M-108-P	1.25	1.09	0.08	----
46-051	1/4"	B	M-110-P	1.69	1.00	0.16	----

NV107P 2301 826 3122

**FEMALE PIPE X FEMALE PIPE**

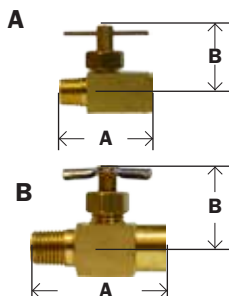


Part #	Female Pipe X Female Pipe	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-055*	1/8"	M-304-P	1.18	0.84	0.18	----
46-056	1/4"	M-3044-P	1.60	1.24	0.21	----
46-056P*	1/4" Heavy	M-3044-P	1.62	2.53	0.20	----

\* Pressed on handle

6800 NV109P 2304 817 3103

**MALE X FEMALE PIPE**



NBR seals -30°C to 120°C

Part #	Male Pipe X Female Pipe	Handle	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-060	1/8"	A	M-305-P	1.18	1.09	0.10	----
46-061	1/4"	A	M-3055-P	1.60	1.14	0.18	----
46-061L	1/4" Light Pattern	B	M-3055-P	1.88	1.09	0.21	----

NV108P 2305 818 3120

## SPECIALTY VALVES

### BRASS TRUCK VALVES

- Used in heavy duty truck, trailer and mobile markets.
- Used on water, oil and coolant lines.
- Forged brass construction with steel handle.
- Temperature range -40° - 250°
- Max pressure 250 psi
- Metal to metal seats for high heat/fluid compatibility
- Fine thread screw down to afford flow control ability and a positive seal.
- Not intended for natural gas, LPG, Nuclear or aircraft applications

200 PSI



#### HOSE TO MALE PIPE

Part #	Size	List Price
46-450	3/8 x 3/8	----
46-451	5/8 x 3/8	----

404V



#### HOSE TO MALE PIPE

Part #	Size	List Price
46-455	5/8 x 1/2	----
46-457	3/4 x 3/8	----
46-456	3/4 x 1/2	----

404V



#### FEMALE TO MALE PIPE

Part #	Size	List Price
46-465	3/8 x 3/8	----
46-466	3/8 x 1/2	----
46-467	1/2 x 1/2	----

405V



#### FLARE TO MALE PIPE

Part #	Size	List Price
46-475	1/2 x 1/2	----
46-476	5/8 x 1/2	----

409V

### SOLID BOTTOM VALVES

- Designed for instantaneous on-off operation.
- 360° rotation standard.
- 30 PSI
- Packed with grease.



8875

#### O-RING SEALED MIP X FIP

Part #	Size	List Price
46-400	1/8	----
46-401	1/4	----
46-402	3/8	----

1035D M-70-SBV

- Good for Propane



#### #M-72-SBV

#### FIP x FIP

Part #	Size	List Price
46-411	1/4	----

## BRASS FITTINGS

### SOLID BOTTOM FUEL VALVES

- Approved for use on Motorcraft fuel lines.
- Pointer lever.
- 90° turn stop mechanism to assure positive location of the on and off positions.
- Corrosion proofed internal construction assures maximum salt atmosphere protection.
- Port hole is 1/4 (.250) diameter.
- UL listed for use in fuel oils no. 1 & no. 2, LP gas and utility gas.



#### PIPE MALE X FEMALE

Part #	Size	List Price
46-400M	1/8 x 1/8	----
46-401M	1/4 x 1/4	----
46-402M	3/8 x 3/8	----

8980



#### PIPE

#### MALE x MALE

Part #	Size	List Price
46-406M	1/4 x 1/4	----

8990

- Good for Propane



#### FEMALE X FEMALE

Part #	Size	List Price
46-411M	1/4 x 1/4	----

8975



#### MALE PIPE X FLARE

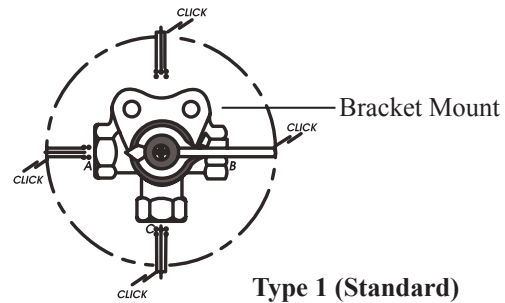
Part #	Size	List Price
46-429M	1/4 x 3/8	----
46-430M	3/8 x 3/8	----

8948

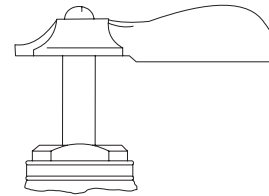
**GROUND PLUG SHUT-OFF COCKS**

NON-LUBRICATED PLUG VALVES are designed to operate in systems where INSTANTANEOUS PORT SELECTION is desired. Since LUBRICANTS ARE NOT USED, relubrication is not required. There is no lubricant to freeze and lock the valve or to contaminate fine fluids. The O-RING SEALED CAP and STEM eliminate leakage to atmosphere. The mating BRASS BODY and CELCON PLUG produce a fine seal that WILL NOT SEIZE OR GALL.

Designed for PANEL or BRACKET MOUNTING. They are generally recommended for operation in GASOLINE, OIL, AIR, WATER and DETERGENT systems from minus 40° to 180°F, at a maximum operating pressure of 30 p.s.i.g. The fluid port size is 9/32 (.281) diameter for 1/8 and 1/4 sizes, 5/16 (.312) diameter for the 3/8 size. (Consult factory for applications requiring a higher pressure).

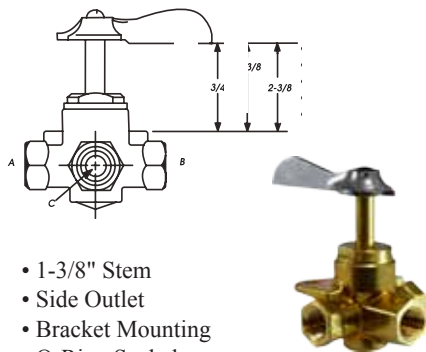


**Type 1 (Standard)**  
A pronounced "click" may be felt at each position. Handle travel is not restricted.



PANEL MOUNTING AVAILABLE

**THREE-WAY VALVES (Side Outlet)**



- 1-3/8" Stem
- Side Outlet
- Bracket Mounting
- O-Ring Sealed
- 4-way celcon roter standard

**LESS CLICK**

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-247	1/4	1-3/8"	----
46-248	3/8	1-3/8"	----

**M-108-MID WITH CLICK 360°**

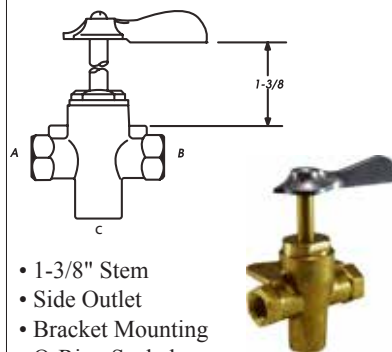
Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-250	1/8	1-3/8"	----
46-251	1/4	1-3/8"	----
46-252	3/8	1-3/8"	----

V406P 6749

Openings:

- Handle Pointer over A..... Valve Open A-C
- Handle Pointer over C..... Valve Open B-C
- Handle Pointer over B..... Valve "OFF"
- Handle Pointer over Bracket..... Valve "OFF"

**THREE-WAY VALVES (Bottom Outlet)**



- 1-3/8" Stem
- Side Outlet
- Bracket Mounting
- O-Ring Sealed
- 4-way celcon roter standard

**LESS CLICK**

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-241	1/4	1-3/8"	----

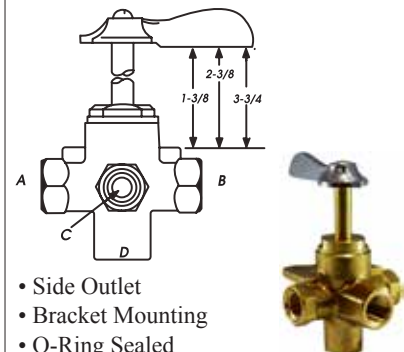
**WITH CLICK 360°**

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-243	1/8	1-3/8"	----
46-244	1/4	1-3/8"	----

Openings:

- Handle Pointer over A..... Valve Open A-C
- Handle Pointer over B..... Valve Open B-C
- Handle Pointer over Bracket..... Valve "OFF"

**FOUR-WAY VALVES**



- Side Outlet
- Bracket Mounting
- O-Ring Sealed
- 4-way celcon roter standard

**LESS CLICK**

Part #	A-B-C-D Female Pipe Thread	Length of Stem	List Price
46-257	1/4	1-3/8"	----

**M-114-MID WITH CLICK (360°)**

Part #	A-B-C-D Female Pipe Thread	Length of Stem	List Price
46-255	1/4	1-3/8"	----
46-256	3/8	1-3/8"	----

**WITH 2-3/8" LONG STEM M-115-MID**

Part #	A-B-C-D Female Pipe Thread	Length of Stem	List Price
46-260	1/4	2-3/8"	----

V407P

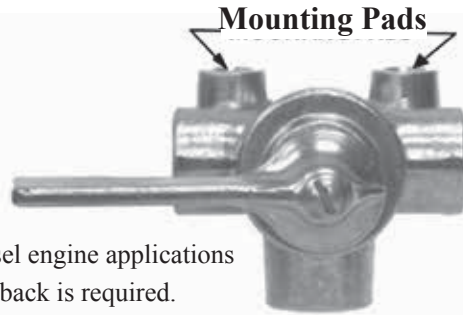
Openings:

- Handle Pointer over A..... Valve Open A-D
- Handle Pointer over C..... Valve Open C-D
- Handle Pointer over B..... Valve Open B-D
- Handle Pointer over Bracket..... Valve "OFF"

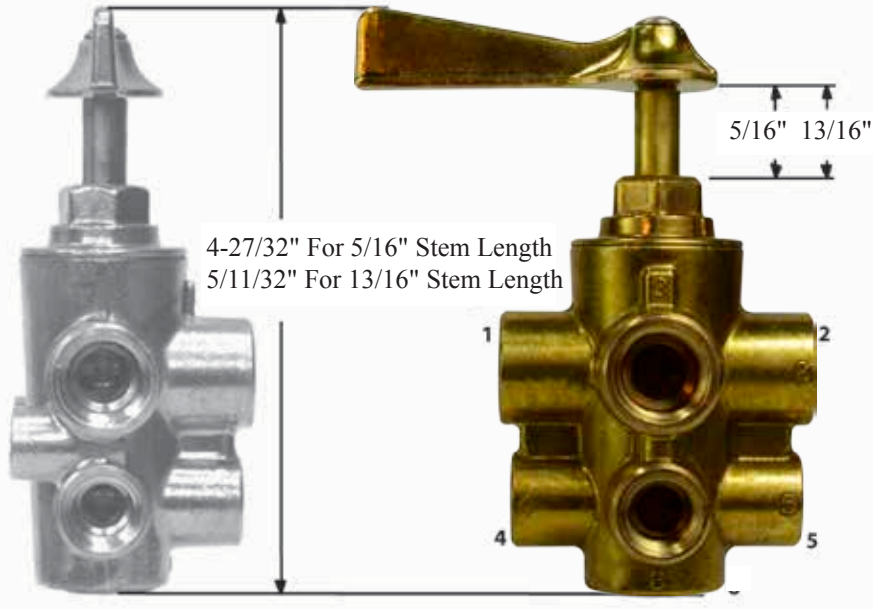
## SPECIALTY VALVES

## BRASS FITTINGS

## SIX PORT VALVES



- Designed primarily for diesel engine applications where a fuel return or spill back is required.



Maximum Handle Travel 180° Mounting Pads for Bolt Mounting Openings

With Handle Lever over 1:  
(All Ports Closed)

With Handle Lever over 2:

(Open: 2-3 and 5-6, Closed: 1 and 4)

With Handle Lever over 3:

(Open: 1-3 and 4-6, Closed: 2 and 5)

Part #	Ind. #	Female Pipe Thread of 1-2-3 4-5-6	Stem	Length Type	List Price
46-238	SK-1036	1/2 x 3/8	13/16	1	----

## MARINE FITTINGS

- Calibrated to support 30" column of gasoline.

- Flo direction <-



## BRASS ANTI-SIPHON VALVES

NPT X NPT

Part #	Size	List Price
46-520	1/4 x 1/4	----
46-521	3/8 x 3/8	----



## BRASS ANTI-SIPHON VALVES

BARB X NPT

Part #	Size	List Price
46-530	5/16 x 1/4	----
46-531	3/8 x 1/4	----
46-532	3/8 x 3/8	----
46-533	1/2 x 3/8	----

Aluminum Valves  
available upon request

## BRASS FITTINGS

## MINIATURE BALL VALVES

### BRASS DOMESTIC MINIATURE BALL VALVES

- Working Pressure up to 1000 P.S.I.G.
- ASTM B-16 Corrosion Resistant Brass Body.
- Non-Adjusting Viton O-Ring Stem Seal Design Never Needs Tightening.
- Highly Inert Teflon Seats.
- Long Life Nickel Plated Brass Ball.
- Blow-Out Proof Stem for Safety.
- Temperature: -40°F to 300°F
- 1/4 Turn Instantaneous On-Off Operation.
- Quarter Turn Handle Design.
- Water, Oil, and Air Pressure Systems.
- Ideal for tight, confined areas, or when routing aesthetics are desired. Applications include instrumentation, gas sampling systems, high pressure gauges, test stands, hydraulic and pneumatic service lines on capital equipment.
- Not good for steam.
- Good for propane, gas and diesel.



#### MALE X FEMALE

Part #	Size	List Price
46-900	1/8 x 1/8	----
46-903	1/4 x 1/4	----



#### MALE X MALE

Part #	Size	List Price
46-910	1/8 x 1/8	----
46-912	1/4 x 1/4	----



#### MALE PIPE X HOSE BARB

Part #	Size	List Price
47-042	1/8 x 1/4	----
46-980	1/4 x 1/4	----
46-981	1/4 x 3/8	----

### FEMALE X FEMALE



Part #	Size	List Price
46-920	1/8 x 1/8	----
46-921	1/8 x 1/4	----
46-922	1/4 x 1/4	----



Part #	Size	List Price
46-922A	1/4 x 1/4	----
46-923	3/8 x 3/8	----



Part #	Size	List Price
46-924	1/2 x 1/2	----
46-925	3/4 x 3/4	----

### U.L. TWO WAY VALVES

- Buna-N Seal, Teflon Seat Plated metal handle, plated brass ball.
- 250 PSI Working Pressure



#### U.L. TWO WAY VALVES FNPT X FNPT

Part #	Size	List Price
46-440	1/4 x 1/4	----



#### U.L. TWO WAY VALVES MNPT X FNPT

Part #	Size	List Price
46-443	1/4 x 1/4	----

### PANEL MOUNT BRASS BALL VALVES

- Working pressure: 1500 psi wog for 1/8" to 1/4", 1000 psi wog for 3/8" to 1/2"
- Vacuum rating: 29.92" Hg
- Working temp: -40°F to +300°F
- Panel mount hole is 9/16" Dia.
- Brass body cap, PTFE ball seats, Viton stem sealing, Brass chrome plated ball

#### FEMALE X FEMALE



Part #	Size	List Price
46-830	1/8 x 1/8	----
46-832	1/4 x 1/4	----
46-833	3/8 x 3/8	----
46-834	1/2 x 1/2	----

#### FEMALE X FEMALE



Part #	Size	List Price
46-875	1/8 x 1/8	----
46-878	1/4 x 1/4	----



Part #	Size	List Price
46-951	1/8 FPT	----
46-956	1/4 FPT	----

## CHECK VALVES

## BRASS CHECK VALVES

- 500 PSI
- 180° temp rating
- 1 PSI Cracking Pressure
- Buna-N Seal for water, air and inert gas
- Viton Seal for oil, gas and diesel fuel



## FIP X FIP BUNA-N

Part #	Size	List
46-560	1/8"	----
46-561	1/4"	----
46-562	3/8"	----
46-563	1/2"	----
46-564	3/4"	----

## FIP X FIP VITON

Part #	Size	List
46-560V	1/8"	----
46-561V	1/4"	----
46-562V	3/8"	----
46-563V	1/2"	----
46-564V	3/4"	----



## FEMALE X MALE BUNA-N

Part #	Size	List Price
46-565	1/8"	----
46-566	1/4"	----
46-567	3/8"	----
46-568	1/2"	----
46-569	3/4"	----

## FEMALE X MALE VITON

Part #	Size	List Price
46-565V	1/8"	----
46-566V	1/4"	----
46-567V	3/8"	----
46-568V	1/2"	----
46-569V	3/4"	----



## MALE X MALE

Part #	Size	Buna-N List
46-570	1/8"	----
46-571	1/4"	----
46-572	3/8"	----
46-573	1/2"	----

## MALE X MALE

Part #	Size	Viton Price
46-570V	1/8"	----
46-571V	1/4"	----
46-572V	3/8"	----
46-573V	1/2"	----



## MALE X FEMALE

Part #	Size	Buna-N Price
46-575	1/8"	----
46-576	1/4"	----
46-577	3/8"	----
46-578	1/2"	----

Part #	Size	Viton Price
46-575V	1/8"	----
46-576V	1/4"	----
46-577V	3/8"	----
46-578V	1/2"	----

## HIGH PRESSURE CHECK VALVES

MAX. 2500 PSI  
Cracking Pressure 1 PSI

- Opening diameter .187
- 180° max operating temp.
- SS ball and spring



## MNPT X MNPT

Part #	Size	Opening Dia.	List Price
46-500	1/4 x 1/4	0.187	----

MAX. 2500 PSI

- Flo direction ->
- Opening diameter .187
- 180° max operating temp.
- Buna Seal
- SS ball and spring



## MNPT X FNPT

Part #	Size	Opening Dia.	List Price
46-505	1/4 x 1/4	0.187	----

MAX. 1200 PSI

- O-Ring poppet seal Bubble tight operation
- 180°F max operating temp.



## FNPT X FNPT

Part #	Size	Opening Dia.	List Price
46-510	1/4 x 1/4	0.25	----
46-511	3/8 x 3/8	0.375	----
46-512	1/2 x 1/2	0.437	----

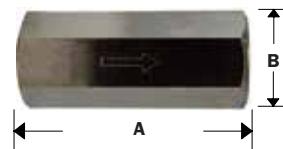
## BRASS FITTINGS

## PNEUMATIC CHECK VALVES

- Max Operating Pressure: 220 psi
- Working Pressure: 14.5-145 psi
- Cracking Pressure: 2.8 psi
- Maximum Temperatures: 140° F

## Materials

Body	Chrome plated Brass
Spring	Steel
O-Ring	NBR Rubber



NPT- Inlet NPSM - Outlet

Part #	Size	Dimensions (In.)		List Price
		A	B	
46-200	1/4	1.97	0.67	----
46-201	3/8	1.97	0.83	----
46-202	1/2	2.48	0.98	----

## HIGH PRESSURE CHECK VALVES

- Operates in any position, and is available in mixed or matched end combinations.
- Standard cracking pressure 1 p.s.i. with a maximum operating pressure of 3000 p.s.i. and a maximum operating temperature of 180°F using Buna-N seals.
- Buna-N seals standard, other seals available.
- Guided 316 stainless steel ball + spring.
- Fixed ringed seat prevents extrusion of seal.
- Opening diameter .28
- Approximate CV 1.2
- Brass
- Water G.P.M. @ 10 p.s.i. is 4.0
- Good for air



## FEMALE X FEMALE

Part #	Size	List Price
46-513	1/4	----
46-517	3/8	----

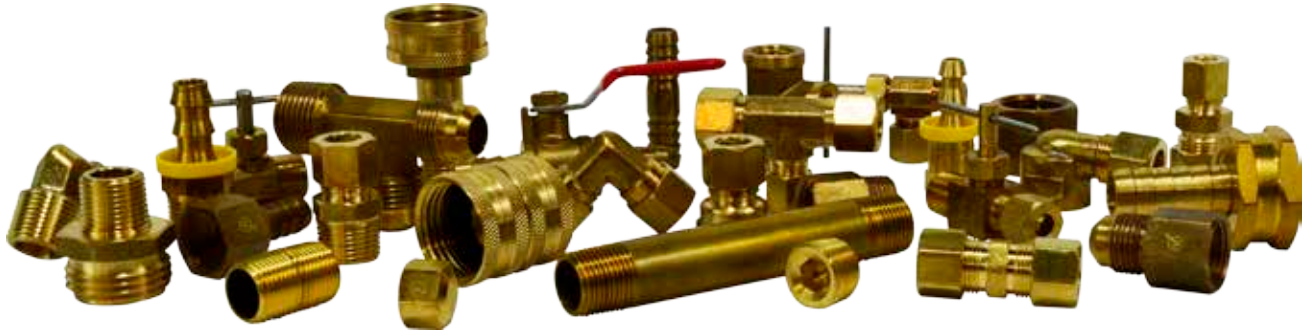
- Flo direction ->



## FEMALE X MALE

Part #	Size	List Price
46-514	1/4	----
46-518	3/8	----

# LEAD FREE



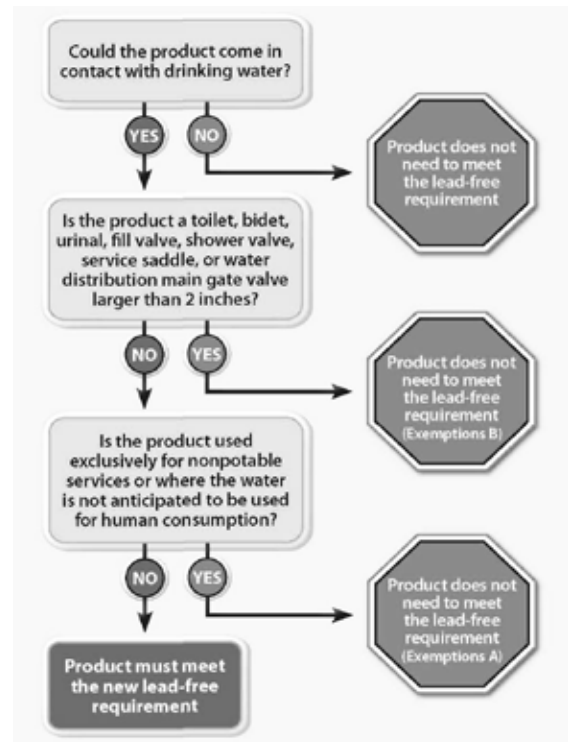
## What is the new lead-free requirement?

In 2011, the Reduction of Lead in Drinking Water Act was signed into law. The Act has reduced the lead content allowed in drinking water system and plumbing materials by changing the definition of "lead-free" in Section 1417 of the Safe Drinking Water Act.

*The term "lead-free" has been updated from not more than 8% lead content to mean "not more than a weighted average of 0.25% lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings and fixtures."*

## How do I know which products must meet the new lead-free requirement?

The prohibitions on use and introduction into commerce apply to all pipe, pipe fittings, plumbing fittings, and fixtures (henceforth referred to as "products"), including stocked inventories that have not been installed. This includes coated or uncoated brass or bronze materials. By using the flow-chart below as a guide, you can determine if a product must meet the new lead-free requirement:



## Lead-Free Requirement Exemptions

(A) The new requirement does not apply to pipes, pipe fittings, plumbing fittings, or fixtures, including backflow preventers, that are used exclusively for nonpotable service such as manufacturing, industrial processing, irrigation, outdoor watering or any other uses where the water is not anticipated to be used for human consumption.

(B) The new requirement does not apply to toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles or water distribution main gate valves 2 inches in diameter or larger.



**PIPE**

**LEAD FREE BRASS FITTINGS**

**90° FORGED FEMALE ELBOW**



Part #	Thread size NPTF	List Price
28-010LF	1/4"	----
28-011LF	3/8"	----
28-012LF	1/2"	----
28-013LF	3/4"	----

**UNION FORGED TEE**



Part #	Thread size NPTF	List Price
28-032LF	1/8"	----
28-033LF	1/4"	----
28-034LF	3/8"	----
28-035LF	1/2"	----
28-036LF	3/4"	----

**90° STREET ELBOW**



Part #	Thread size NPTF	List Price
28-165LF	1/8"	----
28-166LF	1/4"	----
28-167LF	3/8"	----
28-168LF	1/2"	----
28-169LF	3/4"	----

**COUPLING**



Part #	Thread size NPTF	List Price
28-058LF	1/8"	----
28-059LF	1/4"	----
<b>NEW</b> 28-060LF	3/8"	----
28-061LF	1/2"	----

**REDUCING COUPLING**



Part #	Thread size NPTF	List Price
28-183LF	3/8" x 1/4"	----
28-185LF	1/2" x 3/8"	----
28-189LF	3/4" x 1/2"	----

**NEW**

**HEX BUSHING**



Part #	Thread size NPTF MxF	List Price
28-102LF	1/4" x 1/8"	----
28-103LF	3/8" x 1/8"	----
28-104LF	3/8" x 1/4"	----
28-105LF	1/2" x 1/8"	----
28-106LF	1/2" x 1/4"	----
28-107LF	1/2" x 3/8"	----
28-108LF	3/4" x 1/8"	----
28-109LF	3/4" x 1/4"	----
28-110LF	3/4" x 3/8"	----
28-111LF	3/4" x 1/2"	----
28-115LF	1" x 3/4"	----

**FACE BUSHING**



Part #	Thread size NPTF MxF	List Price
28-121LF	1/4" x 1/8"	----
28-122LF	3/8" x 1/8"	----
28-116LF	3/8" x 1/4"	----
28-128LF	1/2" x 1/4"	----
28-117LF	1/2" x 3/8"	----
28-129LF	3/4" x 1/4"	----
28-130LF	3/4" x 3/8"	----
28-118LF	3/4" x 1/2"	----

**HEX CAP**



Part #	Thread size NPTF	List Price
28-076LF	1/4"	----
28-077LF	3/8"	----
28-078LF	1/2"	----
28-079LF	3/4"	----

**SOLID SQUARE HEAD PLUG**



Part #	Thread size NPTF	List Price
28-084LF	1/8"	----
28-085LF	1/4"	----
28-086LF	3/8"	----
28-087LF	1/2"	----
28-088LF	3/4"	----

**COUNTERSUNK HEX PLUG**



Part #	Thread size NPTF	List Price
28-093LF	1/8"	----
28-094LF	1/4"	----
28-095LF	3/8"	----
28-096LF	1/2"	----
28-097LF	3/4"	----
28-098LF	1"	----

**CORED HEX PLUGS**



Part #	Thread size NPTF	List Price
28-201LF	1/8"	----
28-202LF	1/4"	----
28-204LF	1/2"	----

**NEW**

**HEX HEAD PLUGS (SOLID)**



Part #	Pipe Size inches	List Price
28-201SLF	1/8"	----
28-202SLF	1/4"	----
28-203SLF	3/8"	----
28-204SLF	1/2"	----
28-205SLF	3/4"	----
28-206SLF	1"	----

**CLOSE NIPPLE**



Part #	Thread size NPTF	List Price
28-131LF	1/8"	----
28-132LF	1/4"	----
28-133LF	3/8"	----
28-134LF	1/2"	----
28-135LF	3/4"	----

**LONG NIPPLE**



Part #	Thread size NPTF	List Price
28-144LF	1/4" x 1-1/2"	----
28-145LF	1/4" x 2"	----
28-147LF	1/4" x 3"	----
28-482LF	1/4" x 4"	----
28-148LF	3/8" x 1-1/2"	----
28-149LF	3/8" x 2"	----

**HEX NIPPLE**



Part #	Thread size NPTF	List Price
28-211LF	1/8"	----
28-212LF	1/4"	----
28-213LF	3/8"	----
28-222LF	3/8" x 1/4"	----
28-214LF	1/2"	----
28-224LF	1/2" x 3/8"	----
28-215LF	3/4"	----
28-225LF	3/4" x 1/2"	----

**NEW**

**NEW**

**NEW**

**NEW**

**MALE BRANCH TEE**



Part #	Thread size NPTF	List Price
28-283LF	3/8"	----

**PIPE/ HOSE BARB**

**LEAD FREE BRASS FITTINGS**

**EXTENDER ADAPTER**



Part #	Thread size NPTF FxM	List Price
28-191LF	1/4" X 1/8"	----
28-192LF	1/4" x 1/4"	----
28-193LF	3/8" x 1/4"	----
28-195LF	1/2" x 3/8"	----
28-196LF	1/2" X 1/2"	----
28-208LF	3/4" x 1/2"	----

**STREET TEE/ SERVICE TEE**



Part #	Thread size NPTF	List Price
28-246LF	1/4"	----

**HOSE BARBS**

**RIGID MALE ADAPTER**



Part #	Hose I.D. x Male NPTF	List Price
32-027LF	1/8" x 1/4"	----
32-002LF	3/16" x 1/8"	----
32-004LF	1/4" x 1/8"	----
32-005LF	1/4" x 1/4"	----
32-006LF	1/4" x 3/8"	----
32-007LF	1/4" x 1/2"	----
32-008LF	5/16" x 1/8"	----
32-009LF	5/16" x 1/4"	----
32-011LF	3/8" x 1/8"	----
32-012LF	3/8" x 1/4"	----
32-013LF	3/8" x 3/8"	----
32-014LF	3/8" x 1/2"	----
32-026LF	3/8" x 3/4"	----
32-015LF	1/2" x 1/4"	----
32-016LF	1/2" x 3/8"	----
32-017LF	1/2" x 1/2"	----
32-018LF	1/2" x 3/4"	----
32-020LF	5/8" x 1/2"	----
32-021LF	5/8" x 3/4"	----
32-022LF	3/4" x 1/2"	----
32-023LF	3/4" x 3/4"	----
32-024LF	1" x 3/4"	----
32-025LF	1" x 1"	----

**MENDER/ SPLICER**



Part #	Hose I.D. x Hose I.D.	List Price
32-092LF	3/16"	----
32-093LF	1/4"	----
32-094LF	5/16"	----
32-095LF	3/8"	----
32-096LF	1/2"	----
32-097LF	5/8"	----
32-098LF	3/4"	----

**RIGID FEMALE ADAPTER**



Part #	Hose I.D. x Female NPTF	List Price
32-050LF	1/8" x 1/8"	----
32-317LF	1/8" x 1/4"	----
32-052LF	1/4" x 1/8"	----
32-053LF	1/4" x 1/4"	----
32-056LF	5/16" x 1/4"	----
32-058LF	3/8" x 1/4"	----
32-059LF	3/8" x 3/8"	----
32-063LF	3/8" x 1/2"	----
32-064LF	1/2" x 1/4"	----
32-060LF	1/2" x 3/8"	----
32-061LF	1/2" x 1/2"	----
32-065LF	3/4" x 3/4"	----

**FORGED HOSE BARB 90° ELBOW**



Part #	Hose I.D. x Male NPTF	List Price
32-038LF	1/4" x 1/8"	----
32-039LF	1/4" x 1/4"	----
32-036LF	5/16" x 1/8"	----
32-040LF	5/16" x 1/4"	----
32-046LF	3/8" x 1/8"	----
32-041LF	3/8" x 1/4"	----
32-042LF	3/8" x 3/8"	----
32-047LF	3/8" x 1/2"	----
32-048LF	1/2" x 1/4"	----
32-043LF	1/2" x 3/8"	----
32-311LF	1/2" x 1/2"	----
32-313LF	3/4" x 1/2"	----

NEW

NEW  
NEW

**HOSE BARB TEES**



Part #	Hose Barb Size	List Price
32-365LF	1/4"	----
32-126LF	3/8"	----

**LEAD FREE MINI BALL VALVES  
BARB x BARB**



Part #	H.B. x H.B.	List Price
944-142LF	1/4"	----
944-134LF	3/8"	----

**PUSH-ON**

**MALE ADAPTER**



Part #	Hose I.D. x Male NPTF	List Price
30-200LF	1/4" x 1/8"	----
30-201LF	1/4" x 1/4"	----
30-203LF	3/8" x 1/4"	----
30-204LF	3/8" x 3/8"	----
30-206LF	1/2" x 3/8"	----
30-207LF	1/2" x 1/2"	----

**SAE/JIC DUAL 45°/37° FEMALE SWIVEL**



Part #	Hose I.D. x Female 45°/37°	List Price
30-230LF	1/4" x 1/4"	----

**GARDEN HOSE**

**SWIVEL - FGH X FGH**

•WASHER INCLUDED

NEW



Part #	FGH X FGH	List Price
30-011LF	3/4" x 3/4"	----

**RIGID - MGH X FEMALE PIPE**

NEW



Part #	MGH x Female NPTF	List Price
30-073LF	3/4" x 3/4"	----

**RIGID - MGH X MALE PIPE**

NEW



Part #	MGH x Male NPTF	List Price
30-052LF	3/4" x 1/4"	----
30-053LF	3/4" x 3/8"	----
30-063LF	3/4" x 3/4" x 1/2"	----

**FEMALE SWIVEL ONLY**

NEW



Part #	Hose Barb x FGH	List Price
30-031LF	3/8" x 3/4"	----
30-032LF	1/2" x 3/4"	----

**SWIVEL FGH X MIP**

NEW



Part #	MIP x FGH	List Price
30-047LF	3/4" x 1/4"	----
30-049LF	3/4" x 1/2"	----

**FLARE**

**LEAD FREE BRASS FITTINGS**



**SAE 45° FLARE**

**SHORT ROD NUT**



Part #	Thread Size UNF	List Price
10-015LF	1/4"	----
10-017LF	3/8"	----
10-019LF	1/2"	----

**SHORT FORGED NUT**



Part #	Thread Size UNF	List Price
10-041LF	3/8"	----
10-042LF	1/2"	----

**FLARED CAP**



Part #	Thread Size UNF	List Price
10-075LF	1/4"	----
10-077LF	3/8"	----
10-078LF	1/2"	----
10-079LF	5/8"	----

**UNION**



Part #	Thread Size UNF	List Price
10-106LF	1/4"	----
10-108LF	3/8"	----
<b>NEW</b> 10-118LF	3/8" x 1/4"	----
10-109LF	1/2"	----
10-110LF	5/8"	----

**FEMALE ADAPTER**



Part #	Male Flare x Female NPTF	List Price
10-236LF	3/8" x 3/8"	----
10-237LF	3/8" x 1/2"	----
10-240LF	1/2" x 3/8"	----
10-241LF	1/2" x 1/2"	----
10-242LF	1/2" x 3/4"	----

**MALE ADAPTER**



Part #	Male Flare x Male NPTF	List Price
10-255LF	1/4" x 1/8"	----
10-256LF	1/4" x 1/4"	----
<b>NEW</b> 10-257LF	1/4" x 3/8"	----
10-258LF	1/4" x 1/2"	----
10-262LF	3/8" x 1/8"	----
10-263LF	3/8" x 1/4"	----
10-264LF	3/8" x 3/8"	----
10-265LF	3/8" x 1/2"	----
10-268LF	1/2" x 3/8"	----
10-269LF	1/2" x 1/2"	----
10-270LF	1/2" x 3/4"	----
<b>NEW</b> 10-273LF	5/8" x 1/2"	----
10-276LF	3/4" x 3/4"	----

**90° MALE ELBOW**



**Forged Elbow**

Part #	Male Flare x Male NPTF	List Price
10-286LF	1/4" x 1/8"	----
10-287LF	1/4" x 1/4"	----
10-288LF	1/4" x 3/8"	----
<b>NEW</b> 10-293LF	3/8" x 1/8"	----
10-294LF	3/8" x 1/4"	----
10-295LF	3/8" x 3/8"	----
10-296LF	3/8" x 1/2"	----
10-299LF	1/2" x 3/8"	----
10-300LF	1/2" x 1/2"	----
10-301LF	1/2" x 3/4"	----

**FORGED MALE RUN TEE**



Part #	Male Flare x Male NPTF (1&3) x 2	List Price
10-355LF	1/2" x 1/2"	----

**FORGED SWIVEL**



Part #	Female Flare UNF	List Price
10-483LF	3/8"	----
10-484LF	1/2"	----
10-485LF	5/8"	----
<b>NEW</b> 10-487LF	3/8" x 1/4"	----

**BRASS SLEEVE**



• FERRULES

Part #	Size	List Price
18-002LF	3/16"	----
18-003LF	1/4"	----
18-004LF	5/16"	----
18-005LF	3/8"	----
18-007LF	1/2"	----
18-008LF	5/8"	----
18-010LF	7/8"	----

60 260

**DELTRIN SLEEVE**



Part #	Size	List Price
18-015	1/4"	----
18-016	5/16"	----
18-017	3/8"	----
18-018	1/2"	----
18-019	5/8"	----

60-P

**BRASS INSERT**



• SLEEVE

Part #	Size	List Price
22-010LF	1/4"	----
22-011LF	5/16"	----
22-012LF	3/8"	----
22-013LF	1/2"	----
22-014LF	5/8"	----

63-BI 60AE 2030 63PT

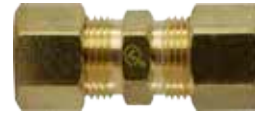
**CAP**



Part #	Size	List Price
18-047LF	1/4"	----
18-048LF	3/8"	----
18-049LF	1/2"	----
18-050LF	5/8"	----

61-CC N5CT

**UNION**



Part #	Size	List Price
18-062LF	1/8"	----
18-063LF	3/16"	----
18-064LF	1/4"	----
18-065LF	5/16"	----
18-066LF	3/8"	----
18-068LF	1/2"	----
18-069LF	5/8"	----
18-070LF	3/4"	----
18-071LF	7/8"	----

M-62

**REDUCING UNION**



Part #	Size	List Price
18-076LF	1/4" x 1/8"	----
18-077LF	1/4" x 3/16"	----
18-078LF	5/16" x 1/4"	----
18-079LF	3/8" x 1/4"	----
18-081LF	3/8" x 1/2"	----
18-082LF	3/8" x 5/8"	----
18-083LF	1/2" x 5/8"	----

62-R

**TEE**



Part #	Size	List Price
18-101LF	1/8"	----
18-103LF	1/4"	----
18-105LF	3/8"	----
18-106LF	1/2"	----
18-107LF	5/8"	----
18-109LF	7/8"	----

64 264C

**FORGED REDUCING TEE**



Part #	Size	List Price
18-115LF	3/8" x 3/8" x 1/4"	----
18-117LF	1/2" x 1/2" x 3/8"	----

64-R

**COMPRESSION LEAD FREE**

**LEAD FREE BRASS FITTINGS**



**UNION ELBOW**



Part #	Size	List Price
18-124LF	1/4"	----
18-125LF	5/16"	----
18-126LF	3/8"	----
18-127LF	1/2"	----
18-128LF	5/8"	----
18-129LF	3/4"	----
18-130LF	7/8"	----

65 BSE2 165C 265C

**REDUCING ELBOW - Forged**



Part #	Size	List Price
18-135LF	3/8" x 1/4"	----
18-137LF	3/8" x 5/8"	----

65-R

**COMP X SWEAT ADAPTER**



Part #	Comp. X Sweat Adapter	List Price
18-171LF	3/8" x 1/2" nom.swt.	----

66-S

**FEMALE ADAPTER**



Part #	Comp. X Female NPTF	List Price
18-142LF	1/8" x 1/8"	----
18-143LF	3/16" x 1/8"	----
18-145LF	1/4" x 1/8"	----
18-146LF	1/4" x 1/4"	----
18-147LF	1/4" x 3/8"	----
18-148LF	1/4" x 1/2"	----
18-150LF	5/16" x 1/4"	----
18-151LF	5/16" x 3/8"	----
18-152LF	3/8" x 1/8"	----
18-153LF	3/8" x 1/4"	----
18-154LF	3/8" x 3/8"	----
18-155LF	3/8" x 1/2"	----
18-156LF	3/8" x 3/4"	----
18-158LF	1/2" x 3/8"	----
18-159LF	1/2" x 1/2"	----
18-160LF	1/2" x 3/4"	----
18-162LF	5/8" x 1/2"	----
18-163LF	5/8" x 3/4"	----
18-166LF	7/8" x 3/4"	----

66

**MALE ADAPTER**



Part #	Comp. X Male NPTF	List Price
18-176LF	1/8" x 1/8"	----
18-177LF	3/16" x 1/8"	----
18-178LF	3/16" x 1/4"	----
18-179LF	1/4" x 1/8"	----
18-180LF	1/4" x 1/4"	----
18-181LF	1/4" x 3/8"	----
18-182LF	1/4" x 1/2"	----
18-183LF	5/16" x 1/8"	----
18-184LF	5/16" x 1/4"	----
18-187LF	3/8" x 1/8"	----
18-188LF	3/8" x 1/4"	----
18-189LF	3/8" x 3/8"	----
18-190LF	3/8" x 1/2"	----
18-191LF	3/8" x 3/4"	----
18-192LF	7/16" x 1/4"	----
18-193LF	1/2" x 1/4"	----
18-194LF	1/2" x 3/8"	----
18-195LF	1/2" x 1/2"	----
18-196LF	1/2" x 3/4"	----
18-197LF	5/8" x 3/8"	----
18-198LF	5/8" x 1/2"	----
18-199LF	5/8" x 3/4"	----
18-201LF	3/4" x 3/4"	----
18-202LF	7/8" x 1/2"	----
18-203LF	7/8" x 3/4"	----

**MALE ELBOW**



Part #	Comp. X Male NPTF	List Price
18-221LF	3/16" x 1/8"	----
18-224LF	1/4" x 1/8"	----
18-225LF	1/4" x 1/4"	----
18-226LF	1/4" X 3/8"	----
18-227LF	1/4" x 1/2"	----
18-228LF	5/16" x 1/8"	----
18-229LF	5/16" x 1/4"	----
18-232LF	3/8" x 1/8"	----
18-233LF	3/8" x 1/4"	----
18-234LF	3/8" x 3/8"	----
18-235LF	3/8" x 1/2"	----
18-236LF	1/2" x 1/4"	----
18-237LF	1/2" x 3/8"	----
18-238LF	1/2" x 1/2"	----
18-239LF	1/2" x 3/4"	----
18-240LF	5/8" x 3/8"	----
18-241LF	5/8" x 1/2"	----
18-242LF	5/8" x 3/4"	----
18-246LF	7/8" x 3/4"	----

Forged

69 269C BSE1 169C

**LEAD FREE BRASS FITTINGS**

**MISCELLANEOUS LEAD FREE**

**FEMALE ELBOW**

Forged



Part #	Comp. X Female NPTF	List Price
18-253LF	1/4" x 1/8"	----
18-254LF	1/4" x 1/4"	----
18-267LF	1/4" x 3/8"	----
18-259LF	3/8" x 3/8"	----
18-260LF	3/8" x 1/2"	----
18-262LF	1/2" x 3/8"	----
18-263LF	1/2" x 1/2"	----
18-264LF	5/8" x 1/2"	----

70 270C BSE3 170C

**NEEDLE VALVES**

**COMP X MALE PIPE**



Part #	Comp x Male Pipe	List Price
46-002LF	1/4" x 1/8"	----
46-003LF	1/4" x 1/4"	----
46-005LF	3/8" x 1/4"	----

**FEMALE PIPE X FEMALE PIPE**



Part #	Female x Female	List Price
46-055LF	1/8" x 1/8"	----
46-056LF	1/4" FIP x 1/4" FIP	----

**MALE X FEMALE PIPE**



Part #	Male x Female	List Price
46-061LF	1/4" x 1/4" MIP	----

**COMP X MALE PIPE-ANGLE**



**NEW**

Part #	Comp x Male Pipe	List Price
46-011LF	1/4" x 1/8"	----
46-012LF	1/4" x 1/4"	----

**LEAD FREE DISHWASHER TEES**

COMP X COMP X SWIVEL FE COMPRESSION

- For adding a water line
- Ice makers, Coffe makers and instant hot water systems

**NEW**



Part #	Comp x Male Pipe	List Price
935044LF	1/4 x 3/8	----
935045LF	3/8 x 3/8	----

**COMP X COMP**



Part #	Comp x Comp	List Price
46-021LF	1/4"	----
46-023LF	3/8"	----

**Ice Maker Kits**

**ICE MAKER WATER SUPPLY KIT with Poly Tubing**



- Lead free fittings
- Bag with Header Card
- 25' 1/4" O.D. Polyethylene Tubing
- Self Piercing Saddle Valve
- 1/4" O.D. Compression x 1/8" MIP Elbow & Adapter
- 1/4" O.D. Compression Union
- 1/4" Inserts & Sleeves

Part #	Description	List Price
43-265LF	Kit	----

**ICE-MAKER WATER SUPPLY KIT**

- Economy
- 25' Polyethylene Tubing
- Self Piercing Saddle Valve
- 1/4" Compression Union
- 1/4" Inserts & Sleeves



Part #	List Price
43-266LF	----

**SELF PIERCING SADDLE VALVES**

FITS 3/8" OD THRU 3/4" OD

**SELF PIERCING NEEDLE VALVE KIT #M-104-VSP**

- INDIVIDUALLY BAGGED WITH NEEDLE VALVE
- SADDLE CLAMP
- 2 NUTS
- 2 BOLTS & WASHERS

Has brass sleeve for copper tube installation & delrin sleeve & brass insert for plastic tube installation.

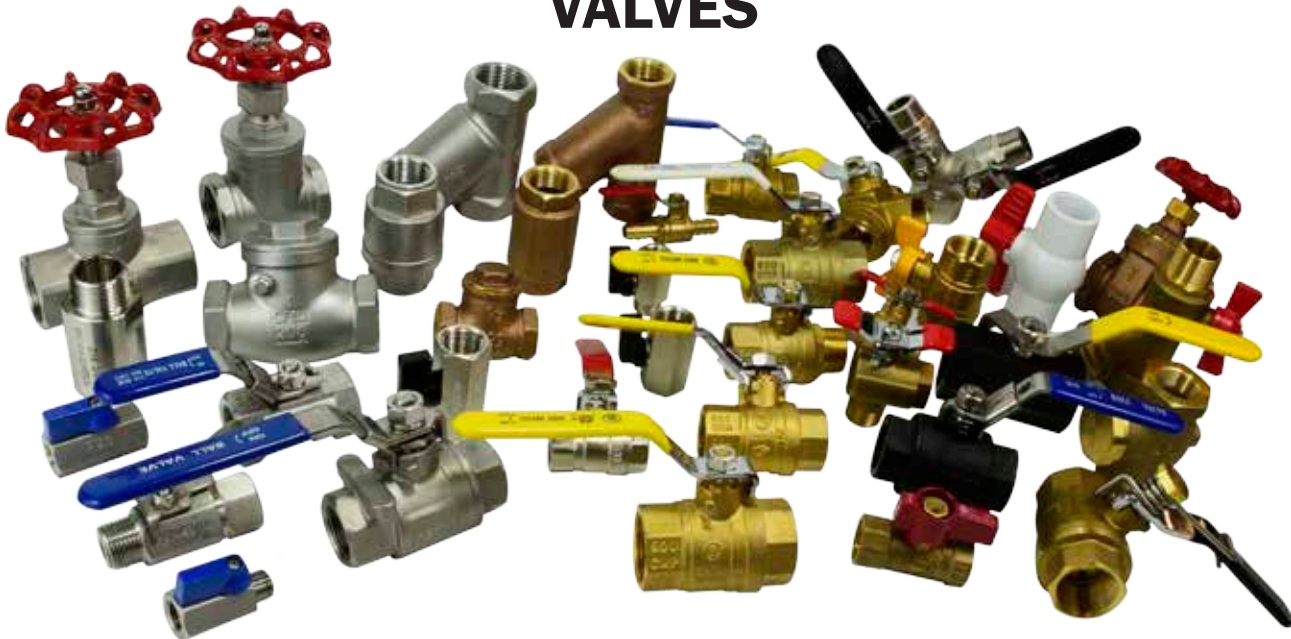
Part #	Tube O.D.	Min Pkg Qty	List Price
46-090ALF	1/4	1	----

#M-302-BSV1.60





# VALVES



VALVES.....	170-214
LEAD FREE VALVES.....	171-174
LEAD FREE BALL VALVES .....	171-173
BRASS VALVES.....	175-197

LF Gate and Check valves.....	174
Full Port Ball.....	175
Locking Handle.....	176
Butterfly Handle.....	177
MIP x FIP.....	188-189
N/P Ball Valve-- <b>NEW</b> .....	178
N/P Ball w/SS Trim- <b>NEW</b> .....	179
Italian Ball Valve.....	180
M X F Ball Valve.....	181-182
Tee Handle M X F Ball- <b>NEW</b> .....	183
M X F Ball Locking handle- <b>NEW</b> .....	184
Spring Handle Ball Vlv-- <b>NEW</b> .....	185
Right Angle Ball valve-- <b>NEW</b> .....	185
Wye, 3-Way Ball Valve- <b>NEW</b> .....	186
Safety Exhaust Ball Valve.....	186
Gas Valves.....	187
Mini Ball Valves.....	188-191
3-Way Valves.....	192
Strainer Ball Valve- <b>NEW</b> .....	193
Vacuum Breaker/Hose Bibb.....	193

Gate Valves.....	194
Y Strainer.....	195
Swing Check Valves.....	196
Check Valves-In-Line.....	197-198
In-Line Check- <b>NEW</b> .....	197

## STAINLESS STEEL VALVES 199-209

2000# Full Port.....	199
Standard Port.....	200
1,000 PSI Full Port.....	201
SS Mini Ball Valve.....	202
1,000 PSI Mini Ball Valve- <b>NEW</b> .....	203
Check Valves.....	204-208
Y-strainer, Globe,Gate.....	208

## Carbon Steel valves..... 209-212

2,000# Standard Port.....	209
2,000 # FP 2-Piece- <b>NEW</b> .....	210
Hi Pressure 2-Way Valves.....	211
Hi Pressure 3-Way Balves.....	211
Check valves-5,000#.....	212

## PVC Valves..... 213-214



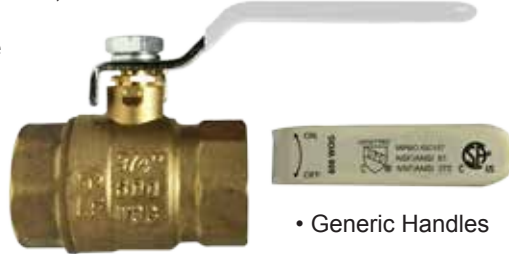
• BRASS • 600PSI • STAINLESS STEEL BALL • FULL PORT



**LEAD FREE BALL VALVE**

IAMPO IGC 157 - 2004b

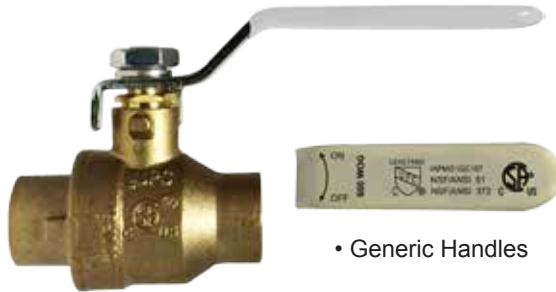
Lead Free Brass Ball Valve NPT,Female\*Female  
 Lead Free and dezincification resistant (DZR) material  
 IAPMO listed to NSF/ANSI-61, NSF/ANSI-372 ,IGC-157  
 CSA listed to NSF/ANSI-61, NSF/ANSI-372 ,IGC-157  
 Vacuum Services 29.92 inches Hg  
 600 psi (WOG) 150 psi (WSP) Service  
 Thread conform ANSI B1.20.1  
 Temperature Range : -40° F to 365° F  
 Construction:Forging Brass Body  
 PTFE Ball Seats  
 Blow Out Proof Brass Stem  
 Stainless Steel Ball  
 Steel Handle w/Vinyl Grip  
 Made in China



• Generic Handles

**FIP X FIP LEAD FREE BALL VALVE**

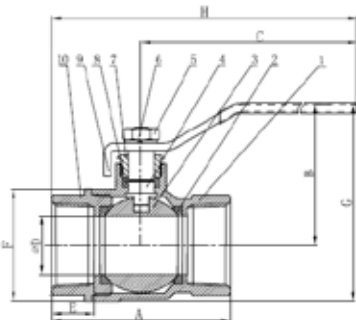
Part #	Size	OD	A	B	C	E	F	G	H	Weight	Box/Case	List Price
941151LF	1/4"	0.394	1.73	1.69	3.35	0.453	0.945	2.154	4.331	0.32	10/120	----
941152LF	3/8"	0.394	1.73	1.69	3.35	0.473	0.945	2.154	4.331	0.32	10/120	----
941153LF	1/2"	0.524	1.89	1.73	3.35	0.472	1.083	2.276	4.291	0.36	10/100	----
941154LF	3/4"	0.748	2.28	1.89	3.35	0.563	1.378	2.579	4.488	0.57	10/80	----
941155LF	1"	0.984	2.80	2.14	4.29	0.650	1.772	3.031	5.689	0.65	8/48	----
941156LF	1-1/4"	1.240	3.15	2.32	4.29	0.669	2.165	3.398	5.866	1.75	4/36	----
941157LF	1-1/2"	1.476	3.44	2.66	5.63	0.701	2.50	3.909	7.343	2.10	2/24	----
941158LF	2"	1.949	4.06	3.01	5.63	0.708	3.244	4.638	7.638	3.35	2/12	----



• Generic Handles

**SWT X SWT LEAD FREE BALL VALVE**

Part #	Size	OD	A	B	C	E	G	H	Weight	WTG	Box/Case	List Price
941163LF	1/2"	0.524	1.945	1.73	3.35	0.504	1.083	2.276	4.319	0.38	10/100	----
941164LF	3/4"	0.748	2.654	1.89	3.35	0.748	1.378	2.579	4.665	0.65	10/80	----
941165LF	1"	0.984	3.315	2.14	4.29	0.909	1.772	3.031	5.949	1.18	8/48	----
941166LF	1-1/4"	1.240	3.741	2.32	4.29	0.968	2.165	3.398	6.165	1.35	4/36	----
941167LF	1-1/2"	1.476	4.252	2.66	5.63	1.091	2.50	3.909	7.756	2.18	2/24	----
941168LF	2"	1.949	5.276	3.01	5.63	1.343	3.244	4.638	8.268	3.62	2/12	----



No	Item	Qty	Material
1	Body	1	Lead Free Brass
2	Seat	2	PTFE
3	Ball	1	Stainless Steel
4	Stem	1	Brass
5	Handle Nut	1	Plated Steel
6	Lock Washer	1	Plated Steel
7	Packing Nut	1	Brass
8	Packing	1	PTFE
9	Handle	1	Plated Steel
10	Cap	1	Lead Free Brass

**LEAD FREE BALL VALVE**

**VALVES**

1/2" - 2" Sizes Gas Approved



**LEAD FREE BALL VALVE W/APPROVALS**

• **BRASS** • **600PSI** • **FULL PORT**  
 CSA, UL, FM(1/4"-2"), cUPC, NSF/ ANSI 61 & 372

**FEATURES**

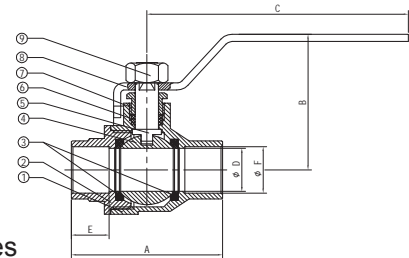
- Leadfree Brass Ball valve NPT, Female \* Female
- Lead free and dezincification resistant (DZR) material
- 1/4"-1" Lead Free Brass Ball
- Size 1-1/4" thru 4" with Stainless steel ball
- IAMPO listed to cUPC, NSF/ ANSI 61 & 372, IGC 157
- CSA - 1/4" thru 2": ANSI Z21.15/ CSA 9.1 for 1/2 psig valves ASME B16.44, CGA CR91-002 for 2 & 5 psig valves; CAN/ CGA-3.16, ASME B16.33 (1/2"-2") for 125 psig valves
- UL 125, UL 1477, UL 842 - for size 1/4" thru 4", 250 psig
- UL 258 - for size 1/4" thru 2", 175 psig
- FM - for size 1/4" thru 2"
- ISO 9002 Manufacture
- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-2" at 600psi (42 bars) and 2-1/2"-4" at 400 psi WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- White vinyl insulator on heavy duty plated carbon steel handles
- Fast 1/4 turn open or close operation
- Low operating torque

- **Adjustable stem packing gland**
- Maximum operating temperature: 302°F (150° C)
- Minimum operating temperature: -22°F (-30°C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections
- Made in China

POS	Components	Materials
1	Body	Lead Free Brass
2	End Cap	Lead Free Brass
3	Ball Seat	PTFE
4	Ball	1/4-1-Lead Free Brass 1 1/4-4-SS316 Hollowball
5	Stem	Brass
6	Stem Padding	PTFE
7	Padding Nut	Brass
8	Lever Handle	Nickel plating steel
9	Stem Nut	Brass plating steel
10	Seal	PTFE



• Generic Handles



Part#	Size	DIMENSIONS								Weight	Box/Case	List Price
		A	B	C	D	E	F	G	H			
940-171LF	1/4"	1.756	1.732	3.543	0.394	0.457	1.012	2.238	4.421	0.34	70/140	----
940-172LF	3/8"	1.756	1.732	3.543	0.394	0.457	1.012	2.238	4.421	0.34	70/140	----
940-173LF	1/2"	2.047	2.040	3.543	0.583	0.520	1.240	2.559	4.567	0.45	50/100	----
940-174LF	3/4"	2.362	2.260	3.780	0.748	0.563	1.492	2.854	4.961	0.69	30/60	----
940-175LF	1"	2.756	2.579	4.528	0.945	0.630	1.791	3.476	5.906	1.11	20/40	----
940-176LF	1-1/4"	3.307	3.050	4.528	1.260	0.709	2.343	4.134	6.181	1.85	12/24	----
940-177LF	1-1/2"	3.661	3.366	5.420	1.575	0.717	2.835	4.783	7.343	2.60	9/18	----
940-178LF	2"	4.181	3.701	6.160	1.969	0.748	3.425	5.413	7.602	3.62	6/12	----
940-179LF	2-1/2"	4.181	4.650	8.870	2.520	1.024	4.331	6.969	11.350	7.93	3/6	----
940-180LF	3"	6.039	4.970	8.870	2.913	1.102	4.921	7.579	11.681	10.40	1/4	----
940-181LF	4"	7.386	6.130	10.85	3.898	1.220	6.430	9.055	13.299	20.99	1/2	----

**SWT X SWT LEAD FREE BALL VALVE** FM, cUPC, NSF/ ANSI 61 & 372

Part #	SWT	A	B	C	D	E	F	Weight	Box/Case	List Price
943-612LF	1/2"	2.047	1.839	3.543	0.583	0.512	0.630	0.45	50/100	----
943-613LF	3/4"	2.748	2.14	3.780	0.748	0.748	0.878	0.68	30/60	----
943-614LF	1"	3.228	2.449	4.528	0.945	0.906	1.130	1.08	20/40	----
943-615LF	1-1/4"	3.819	3.04	4.36	1.260	0.972	1.378	1.80	12/24	----
943-616LF	1-1/2"	4.425	3.169	5.39	1.575	1.088	1.630	2.51	9/18	----
943-617LF	2"	5.377	3.488	6.307	1.989	1.346	2.130	3.57	6/12	----

**ITALIAN LEAD FREE BRASS BALL VALVE**



**ISO 9002 Manufacturer FEATURES**

600 PSI non-shock cold water, gas, oil  
- 150 PSI saturated steam

CSA AGA 3.88 5 PSIG IAMPO IGC 157 - 2004b

- **SOLID CHROME PLATED BRASS BALL**
- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated at 600psi (42 bars) WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin TFE stem packing seal, thrust washer and seats.
- Blue vinyl insulator on heavy duty plated carbon steel handles.
- Fast 1/4 turn open or close operation
- Low operating torque
- Flow can go both directions
- Adjustable stem packing gland
- Maximum operating temperature: 248°F (120° C) at 600 PSI
- Minimum operating temperature: -20°F (-40°C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections

**MADE IN ITALY**



**FIP X FIP**



**SWT X SWT**

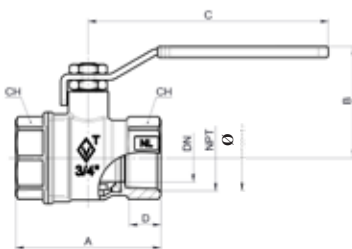
ANSI/INSP 61-8  
• Generic Handles

**FIP X FIP LEAD FREE FORGED BRASS BALL VALVE**

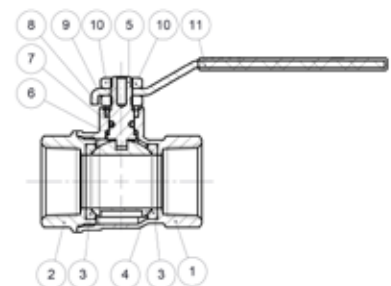
Part #	NPT	DN	A	B	C	D	CH	Weight (lbs)	Box/Case	List Price
943-233LF	1/2"	0.57	2.09	1.57	3.35	0.46	0.98	0.39	20/80	----
943-234LF	3/4"	0.75	2.28	1.77	3.80	0.49	1.22	0.56	14/56	----
943-235LF	1"	0.94	2.80	2.03	3.80	0.59	1.50	0.89	6/24	----
943-236LF	1-1/4"	1.24	3.23	2.32	4.72	0.62	1.85	1.44	4/16	----
943-237LF	1-1/2"	1.49	3.70	2.60	4.72	0.64	2.13	2.19	2/8	----
943-238LF	2"	1.96	4.13	3.27	6.38	0.65	2.64	3.62	1/4	----

**SWT X SWT LEAD FREE FORGED BRASS BALL VALVE**

Part #	SWT	Ø	DN	A	B	C	D	CH	Weight (lbs)	Box/Case	List Price
940-212LF	1/2"	0.63	0.57	2.25	1.57	3.35	0.42	0.79	0.35	20/80	----
940-213LF	3/4"	0.866	0.75	3.05	1.77	3.80	0.61	1.06	0.55	10/40	----
940-214LF	1"	1.102	0.94	3.68	2.03	3.80	0.73	1.34	0.87	6/24	----
940-215LF	1-1/4"	1.377	1.24	4.18	2.32	4.72	0.91	1.61	1.41	6/24	----
940-216LF	1-1/2"	1.61	1.49	4.96	2.60	4.72	1.06	1.89	2.08	2/8	----
940-217LF	2"	2.125	1.96	5.87	3.27	6.38	1.26	2.40	3.62	1/4	----



POS	Components	Materials
1	Body	CW510L
2	End Connection	CW510L
3	Ball Seal	PTFE
4	Seal	CW510L
5	Stem	CW614N
6	Lower Stem	PTFE
7	O-Ring	NBR70sh
8	Upper Seal	PTFE
9	Brass Ring	CW614N
10	Nut	Steel
11	Handle	Steel P10



**LEAD FREE GATE/ CHECK/ Y VALVES**

**VALVES**

**BRASS GATE VALVE IPS**

- **200 WOG (Cold water, oil, gas)**
- **125 WSP (Saturated Steam)**
- Brass Forged body/bonList- stronger than sand castings.
- Superior quality and finish.
- Each valve individually tested.
- Threaded ends to ANSI B1.20.1, Solder ends to ANSI B16.18
- Non rising stem.
- Cast iron handle.



**BRASS GATE VALVE IPS**

Part#	Size	List Price
940-130LF	1/4	----
940-131LF	3/8	----
940-132LF	1/2	----
940-133LF	3/4	----
940-134LF	1	----
940-135LF	1-1/4	----
940-136LF	1-1/2	----
940-137LF	2	----

**BRASS GATE VALVE C X C**



Part#	Size	List Price
940-142LF	1/2"	----
940-143LF	3/4"	----
940-144LF	1"	----
940-145LF	1-1/4"	----
940-146LF	1-1/2"	----
940-147LF	2"	----

**BRASS CHECK VALVE**

NO	Part	Material
1	Cap	C37700
2	Gasket	NBR
3	Spring	Stainless Steel
4	Positioning Seat	BRASS
5	Screw	BRASS
6	Body	C37700



**LEAD-FREE**

Part #	Size	List Price
944-430LF	1/2	----
944-431LF	3/4	----
944-432LF	1	----
944-433LF	1-1/4	----
944-434LF	1-1/2	----
944-435LF	2	----

**CAST BRASS SWING CHECK VALVE IPS**

**SCREWED ENDS**

- Working pressure non-shock: 200 psi W.O.G. (cold water, oil, gas) 125 psi WSP (saturated steam)
- Swing type disc.
- Screwed Cap.
- Hard Seat.
- 90° Straight Pattern.
- Used to prevent reverse flow in commercial and industrial applications.
- Threaded ends to ANSI B1.20.1
- Integral seat.



Part #	Size	List Price
940-352LF	1/2"	----
940-353LF	3/4"	----
940-354LF	1"	----
940-355LF	1-1/4"	----
940-356LF	1-1/2"	----
940-357LF	2"	----

**C X C SWING CHECK VALVE**



Part #	Size	List Price
940-362LF	1/2	----
940-363LF	3/4	----
940-364LF	1	----
940-365LF	1-1/4	----
940-366LF	1-1/2	----
940-367LF	2	----

**CLASS 150 BRASS Y-PATTERN STRAINER**



**LEAD-FREE**

Part#	Size	List Price
940-523LF	1/2"	----

**FORGED BRASS BALL VALVE**

• BRASS • 600WOG • FULL PORT

1/2" - 2" Sizes Gas Approved



**ISO 9002 Manufacturer FEATURES**

1/4-2" 600 PSI non-shock cold water, gas, oil - 150 PSI saturated steam

2-1/2" - 4" 400 PSI non-shock cold water, gas, oil

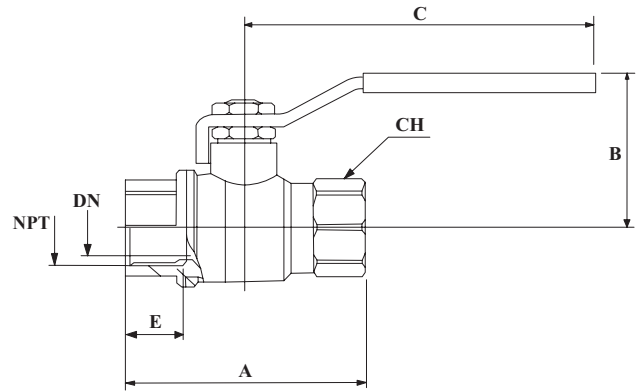
Made in China

- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-2" at 600psi (42 bars) and 2-1/2"-4" at 400 psi WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- Yellow vinyl insulator on heavy duty plated carbon steel handles
- Fast 1/4 turn open or close operation
- Not Lead Free
- Good for gasoline

- Low operating torque
- Adjustable stem packing gland
- Maximum operating temperature: 302°F (150° C)
- Minimum operating temperature: -22°F (-30°C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections

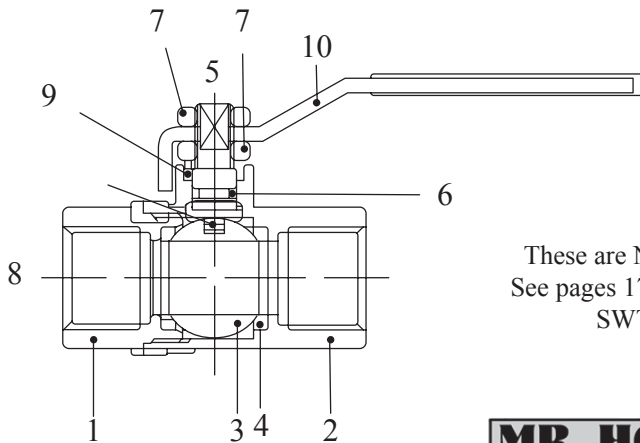


• Generic Handles



Part#	Size NPT	DN	Dimension Inches				CH	Weight	Box/Case	List Price
			A	B	C	E				
940-171	1/4"	0.39	1.75	1.27	3.54	0.46	0.78	0.34	70/140	----
940-172	3/8"	0.41	1.75	1.27	3.54	0.46	0.78	0.30	70/140	----
940-173	1/2"	0.58	2.05	1.92	3.54	0.52	0.98	0.44	50/100	----
940-174	3/4"	0.75	2.36	2.08	3.78	0.56	1.20	0.67	30/60	----
940-175	1"	0.94	2.75	2.56	4.52	0.66	1.50	1.05	20/40	----
940-176	1-1/4"	1.26	3.30	2.95	4.52	0.70	1.82	1.50	12/24	----
940-177	1-1/2"	1.57	3.66	3.34	5.51	0.72	2.09	2.30	9/18	----
940-178	2"	1.97	4.18	3.68	5.51	0.74	2.62	3.38	6/12	----
940-179*	2-1/2"	2.52	5.38	4.76	8.66	1.01	3.36	7.61	4/8	----
940-180*	3"	2.95	6.04	5.08	8.66	1.11	3.86	11.10	2/4	----
940-181*	4"	3.89	7.38	5.86	9.00	1.22	4.89	12.12	1/2	----

\* 400 PSI



These are NOT Lead Free  
See pages 178 for Lead Free  
SWT Valves

POS	Components	Materials	N
1	Body	Forged Brass	1
2	End Connection	Forged Brass	1
3	Ball	CP Brass	1
4	Ball Seat	P.T.F.E.	2
5	Stem	Brass	1
6	Gland	Brass	1
7	Nut	Steel	1
8	Spring Inseat	Steel	1
9	Stem Seal	P.T.F.E.	1
10	Handle	Steel	1

Some product stocked in Houston and Atlanta.

• Not Lead Free AB1953 Compliant

## LOCKING HANDLE BALL VALVE

• BRASS • 600WOG • FULL PORT

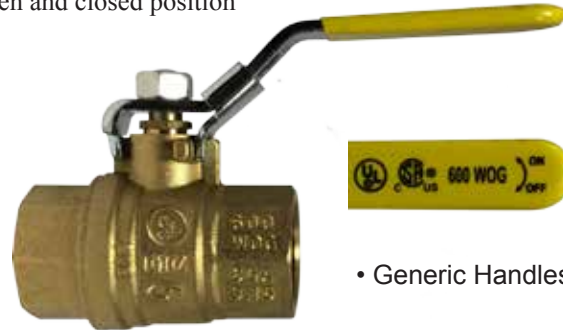
1/2" - 2" Sizes Gas Approved


**ISO 9002 Manufacturer  
FEATURES**

 1/4-2" 600 PSI non-shock cold water, gas, oil -  
150 PSI saturated steam

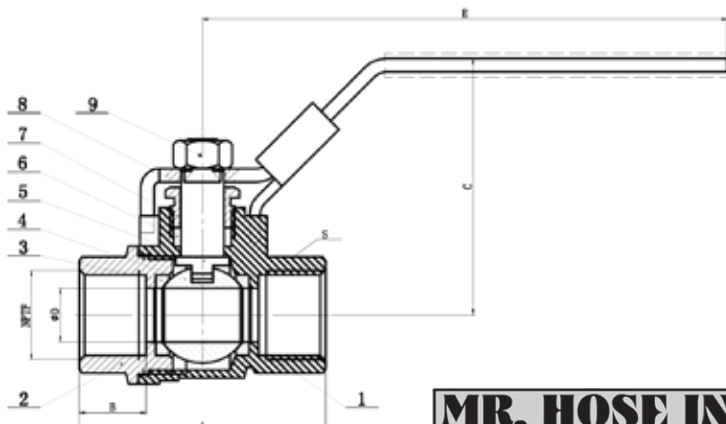
Made in China

- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-2" at 600psi (42 bars) and 2-1/2"-4" at 400 psi WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- Yellow vinyl insulator on heavy duty plated carbon steel handles
- Fast 1/4 turn open or close operation
- Not Lead Free
- Locking mechanism works in open and closed position
- Low operating torque
- Adjustable stem packing gland
- Maximum operating temperature: 302°F (150° C)
- Minimum operating temperature: -22°F (-30°C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections



• Generic Handles

Part#	Size		Dimension Inches						Weight	Box/Case	List Price
	NPT	DN	A	B	C	E	CH				
940-171L	1/4"	0.31	1.73	1.84	3.15	0.49	0.71	0.39	70/140	----	
940-172L	3/8"	0.39	1.81	1.88	3.86	0.49	0.79	0.35	70/140	----	
940-173L	1/2"	0.58	2.23	2.09	3.86	0.61	0.98	0.49	50/100	----	
940-174L	3/4"	0.75	2.48	2.24	4.06	0.62	1.20	0.78	30/60	----	
940-175L	1"	0.94	2.95	2.67	4.73	0.73	1.50	1.18	20/40	----	
940-176L	1-1/4"	1.26	3.42	3.05	4.73	0.77	1.81	1.76	12/24	----	
940-177L	1-1/2"	1.57	3.78	3.51	5.71	0.78	2.09	2.53	9/18	----	
940-178L	2"	1.97	4.18	3.84	5.71	0.75	2.60	3.53	6/12	----	



POS	Components	Materials	N
1	Body	Forged Brass	1
2	End Connection	Forged Brass	1
3	Ball	CP Brass	1
4	Ball Seat	P.T.F.E.	2
5	Stem	Brass	1
6	Gland	Brass	1
7	Nut	Steel	1
8	Spring Inseat	Steel	1
9	Stem Seal	P.T.F.E.	1
10	Handle	Steel	1

• Not Lead Free AB1953 Compliant

# BUTTERFLY HANDLE BALL VALVE

• BRASS • 600WOG • FULL PORT

1/2" - 3/4" Sizes Gas Approved



ISO 9002 Manufacturer  
FEATURES

1/4-3/4" 600 PSI non-shock cold water, gas, oil  
- 150 PSI saturated steam

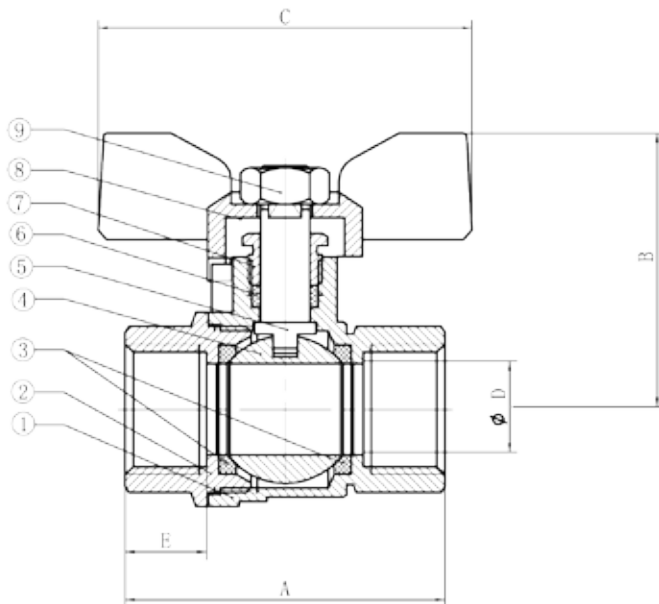
Made in China

- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-3/4" at 600psi (42 bars) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- Fast 1/4 turn open or close operation
- Low operating torque
  - Adjustable stem packing gland
  - Maximum operating temperature: 302°F (150° C)

- Minimum operating temperature: -22°F (-30°C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections
- Not Lead Free



Part#	Size	A	B	C	D	E	Weight	Box/Case	List Price
	NPT								
940-171T	1/4"	1.677	1.488	1.831	0.315	0.457	0.342	70/140	----
940-172T	3/8"	1.756	1.488	1.831	0.394	0.457	0.31	70/140	----
940-173T	1/2"	2.047	1.756	2.394	0.583	0.520	0.44	50/100	----
940-174T	3/4"	2.362	1.921	2.394	0.748	0.563	0.68	30/60	----



POS	Components	Materials
1	Body	C37700
2	End Cap	C37700
3	Ball Seat	PTFE
4	Ball	C37700
5	Stem	C37700
6	Stem Packing	PTFE
7	Packing Nut	C37700
8	Lever Handle	ZL102
9	Stem Nut	A570



Steel Tee handle option available with extended delivery (1/4" - 4")

• Not Lead Free AB1953 Compliant



## NICKEL PLATED BALL VALVE

## VALVES

## NICKEL PLATED BALL VALVE

- BRASS
- 600WOG
- FULL PORT
- NO APPROVALS

## Vacuum service to 29 inches Hg

600 psi (WOG) 150 psi (WSP) Service

Thread conform ANSI B1.20.1

Temperature Range : -40° F to 365° F

Construction: Forging Brass Body, Nickel plated

PTFE Ball Seats

Blow Out Proof Brass Stem

Steel Handle w/Vinyl Grip

Made in China

NEW

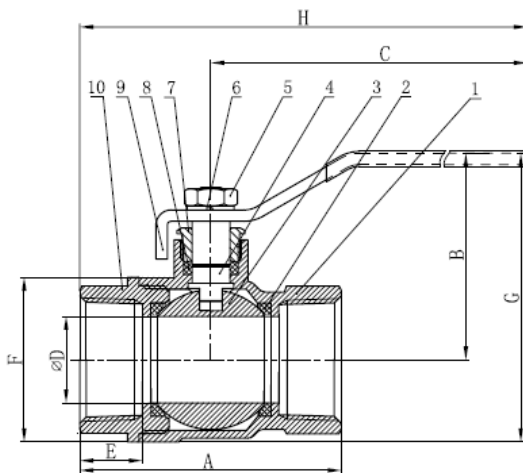


- Not Lead Free

- Generic Handles

## FIP X FIP NICKEL PLATED BALL VALVE

Part #	Size	OD	A	B	C	E	F	G	H	Weight	Box/Case	List Price
941151NP	1/4"	0.394	1.73	1.69	3.35	0.453	0.945	2.154	4.331	0.32	10/120	----
941152NP	3/8"	0.394	1.73	1.69	3.35	0.473	0.945	2.154	4.331	0.32	10/120	----
941153NP	1/2"	0.524	1.89	1.73	3.35	0.472	1.083	2.276	4.291	0.36	10/100	----
941154NP	3/4"	0.748	2.28	1.89	3.35	0.563	1.378	2.579	4.488	0.57	10/80	----
941155NP	1"	0.984	2.80	2.14	4.29	0.650	1.772	3.031	5.689	0.65	8/48	----
941156NP	1-1/4"	1.240	3.15	2.32	4.29	0.669	2.165	3.398	5.866	1.75	4/36	----
941157NP	1-1/2"	1.476	3.44	2.66	5.63	0.701	2.50	3.909	7.343	2.10	2/24	----
941158NP	2"	1.949	4.06	3.01	5.63	0.708	3.244	4.638	7.638	3.35	2/12	----



No	Item	Qty	Material
1	Body	1	NP Brass
2	Seat	2	PTFE
3	Ball	1	Brass CP
4	Stem	1	Brass/ NP
5	Handle Nut	1	Plated Steel
6	Lock Washer	1	Plated Steel
7	Packing Nut	1	Brass/ NP
8	Packing	1	PTFE
9	Handle	1	Plated Steel
10	Cap	1	Brass/ NP

Gas Approved



UL842, UL258, UL125,FM

CSA AGA 3.88 5 PSIG

**N/P BALL VALVE W/SS TRIM**

- NICKEL PLATED
- SS BALL, HANDLE, NUT & STEM
- LOCKING HANDLE
- W/APPROVALS

**Features**

- Vacuum service to 29 inches Hg
- Thread Conform ANSI B1.20.1
- Forged Brass Body
- Blow Out Proof Stem Design
- Packing Nut, O-RING & Packing On The Stem Seal
- Stainless Steel Ball, Handle, Nut&Stem
- Handle With Vinyl Grip

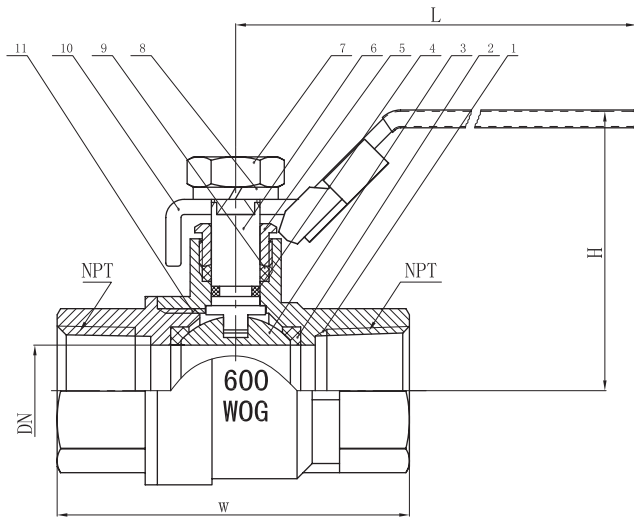
**Performance rating**

- 600 PSI (WOG) 150 PSI (WSP) Service
- Temperature range: -20° F to 300° F
- Made in China
- Not lead free
- No more rusty handles



• Generic Handles

Part#	Size	D	L	H	W	Cv	Wt.(lbs.)	Box/Case	List Price
941-121NP	1/4	0.394	4.48	2.11	1.73	8.23	0.326	10/120	----
941-122NP	3/8	0.394	4.48	2.11	1.73	8.23	0.320	10/120	----
941-123NP	1/2	0.591	4.48	2.60	2.24	18.55	0.474	10/100	----
941-124NP	3/4	0.748	4.48	2.84	2.52	29.76	0.785	10/80	----
941-125NP	1	0.984	4.48	3.01	2.97	51.55	1.155	8/48	----
941-126NP	1-1/4	1.259	5.59	3.35	3.44	84.42	1.797	4/36	----
941-127NP	1 1/2	1.574	5.59	3.61	3.88	131.93	2.447	2/24	----
941-128NP	2	1.941	5.59	3.91	4.29	200.35	3.477	2/12	----



Part Name	Material
Body	Brass/ Nickel Plated
Seat	PTFE
Ball	Stainless Steel
O-ring	Viton
Packing Nut	Brass/ Nickel Plated
Stem	Stainless Steel
Handle Nut	Stainless Steel
Lock Washer	Stainless Steel
Packing	PTFE
Handle	Stainless Steel
Cap	Brass/ Nickel Plated

**NO MORE RUSTY HANDLES!**

## ITALIAN BALL VALVE

• BRASS • 600WOG • FULL PORT



CSA AGA 3.88 5 PSIG IAMPO IGC 157 - 2004b

ISO 9002 Manufacturer  
FEATURES

- **SOLID CHROME PLATED BRASS BALL**
- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated at 600psi (42 bars) WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin TFE stem packing seal, thrust washer and seats.
- Yellow vinyl insulator on heavy duty plated carbon steel handles.
- Fast 1/4 turn open or close operation
- Low operating torque
- Flow can go both directions
- Generic Handles

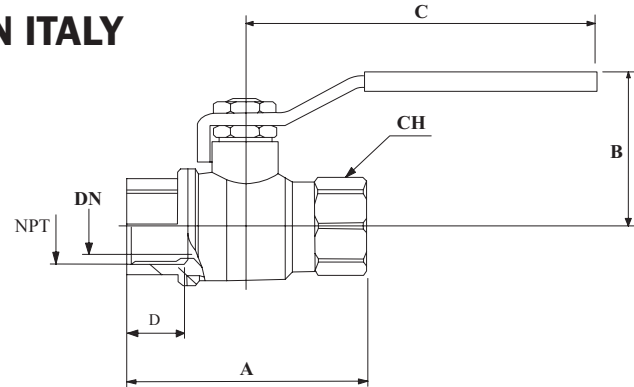
- **Adjustable stem packing gland**
- Maximum operating temperature: 248°F (120° C) at 600 PSI
- Minimum operating temperature: -20°F (-40°C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections

## • REVERSIBLE HANDLES

MADE IN ITALY



Female x Female



Part#	Size		Dimension Inches						Weight	Box/Case	List Price
	NPT	DN	A	B	C	D	CH				
943-200	1/4"	.39	1.96	1.53	3.34	.43	.75	0.36	24/96	----	
943-201	3/8"	.39	1.96	1.53	3.31	.43	.86	0.40	20/80	----	
943-202	1/2"	.57	2.09	1.57	3.35	.46	.98	0.44	20/80	----	
943-203	3/4"	.75	2.28	1.77	3.80	.49	1.22	0.61	14/56	----	
943-204	1"	.94	2.80	2.03	3.80	.59	1.50	1.14	6/24	----	
943-205	1-1/4"	1.24	3.23	2.32	4.72	.62	1.85	1.64	4/16	----	
943-206	1-1/2"	1.49	3.70	2.60	4.72	.64	2.13	2.60	2/8	----	
943-207	2"	1.96	4.13	3.27	6.38	.65	2.64	3.89	2/8	----	
942-208	2-1/2"	2.48	5.94	4.30	7.54	1.06	3.31	7.87	5	----	
942-209	3"	2.99	6.85	5.63	8.86	1.14	3.89		3	----	
942-210	4"	3.54	7.67	6.04	8.86	1.22	4.80		1	----	

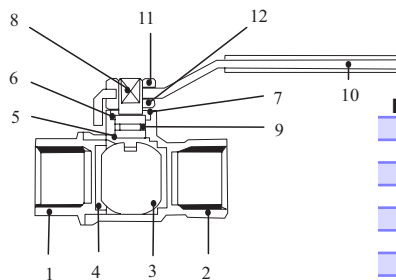
## HANDLE OPTIONS

## TEE HANDLES

Part #	Valve Size	List Price
43-200T	1/4" - 3/4"	----
43-204T	1"	----

## LOCKING HANDLES

Part #	Valve Size	List Price
43-200L	1/4" - 3/4"	----
43-204L	1"	----
43-206L	1-1/4" - 1-1/2"	----
43-207L	2"	----



POS	Components	Materials	N
1	Body	Forged Brass	1
2	End Connection	Forged Brass	1
3	Ball	CP Brass	1
4	Ball Stems	P.T.F.E.	2
5	Stem Antif. Seat	P.T.F.E.	1
6	Stem Seat	P.T.F.E.	1
7	Brass Ring	Brass	1
8	Stem	Brass	1
9	O-Ring	NBR 80	1
10	Handle	Steel	1
11	Nut	Steel	1
12	Nut	Brass	1

• Not Lead Free AB1953 Compliant

www.mrhose.com



Phone: 800-481-HOSE

MALE X FEMALE BRASS BALL VALVE

• 600WOG • FULL PORT



UL842, UL258

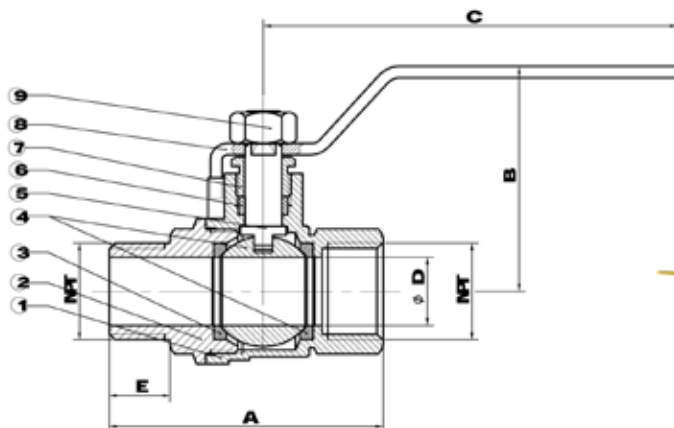
- Solid chrome plated brass ball
- Suitable for full range of liquids and gases.
- Minimal pressure drop due to large full size ports.
- Bottom loaded, pressure retaining stem.
- Pressure rated at 600psi (42 bars) WOG ( non-shock) and 150psi (10.34 bars) saturated steam. Virgin TFE stem packing seal, thrust washer and seats.
- Yellow vinyl insulator on heavy duty plated carbon steel handles.
- Fast 1/4 turn open or close operation.
- Flow both directions.
- Low operating torque.
- Adjustable stem packing gland.
- Generic Handles

- Maximum operating temperature: 248°F (120°C)
- Minimum operating temperature: -20°F (-40°C)
- Each valve individually tested.
- Forged Brass - for more strength.
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem.
- Made in China



• Not Lead Free

Part#	Size	NPT	A	B	C	D	E	Weight	Box/Case	List Price
948-170	1/4	1/4 - 18	2.016	1.689	2.756	0.315	0.457	0.29	70/140	----
948-171	3/8	3/8 - 18	2.094	1.732	3.543	0.394	0.457	0.33	70/140	----
948-172	1/2	1/2 - 14	2.343	1.941	3.543	0.583	0.520	0.47	50/100	----
948-173	3/4	3/4 - 14	2.618	2.106	3.780	0.748	0.563	0.68	30/60	----
948-174	1	1 - 11.5	3.000	2.579	4.528	0.945	0.630	1.47	20/40	----
948-175	1-1/4	1-1/4 - 11.5	3.563	2.953	4.528	1.260	0.709	1.61	12/24	----
948-176	1-1/2	1-1/2 - 11.5	3.965	3.346	5.512	1.575	0.717	2.50	9/18	----
948-177	2	2 - 11.5	4.496	3.681	5.512	1.969	0.748	3.48	6/12	----



POS	Components	Materials
1	Body	C37700
2	End Cap	CS7700
3	Ball Seat	PTFE
4	Ball	CS7700
5	Stem	CS7700
6	Stem Reducing	PTFE
7	Reducing Nut	CS7700
8	Lever Handle	1008
9	Stem Nut	A570 Gr.A



Locking Handle option  
see pg. 184



Tee handle option  
see pg. 183

## ITALIAN MALE X FEMALE BALL VALVE

• BRASS • 600WOG • FULL PORT

Gas Approved



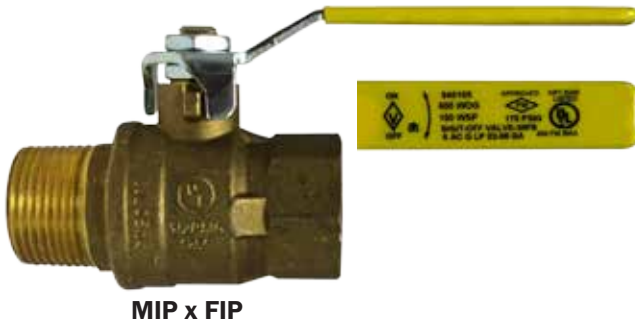
CSA AGA 3.88 5 PSIG Made in Italy

ISO 9002 Manufacturer  
FEATURES

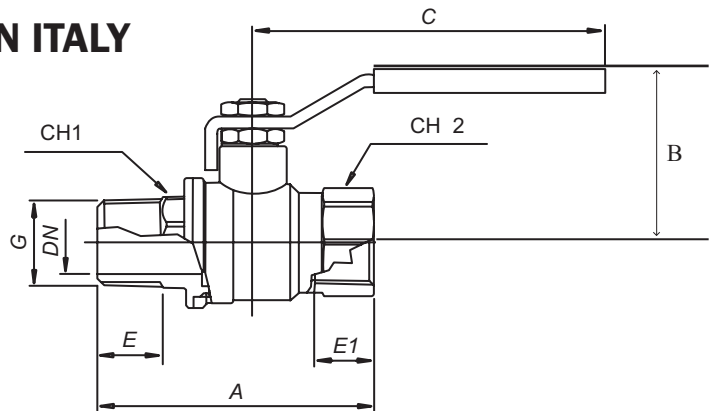
- Solid chrome plated brass ball
- Suitable for full range of liquids and gases.
- Minimal pressure drop due to large full size ports.
- Bottom loaded, pressure retaining stem.
- Pressure rated at 600psi (42 bars) WOG ( non-shock) and 150psi (10.34 bars) saturated steam. Virgin TFE stem packing seal, thrust washer and seats.
- Yellow vinyl insulator on heavy duty plated carbon steel handles.
- Fast 1/4 turn open or close operation.
- Generic Handles

- Low operating torque.
- Adjustable stem packing gland.
- Maximum operating temperature: 248°F (120°C) at 600 p.s.i
- Minimum operating temperature: -20°F (-40°C)
- KV: Pressure drop  $m^3/h$ .
- Each valve individually tested.
- Forged Brass - for more strength.
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem.
- Deeper threads - for better connections.

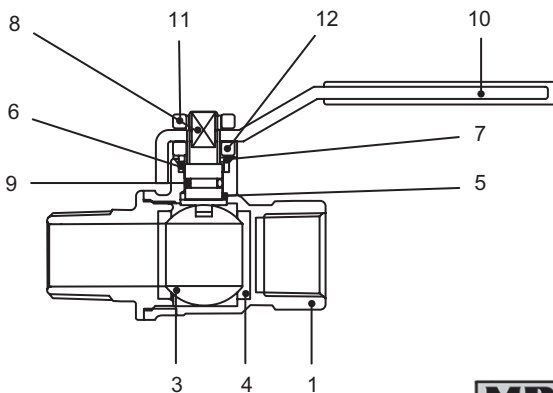
## MADE IN ITALY



MIP x FIP



Part#	Size	DN	A	B	C	E	E1	CH1	CH2	Weight	Box/Case	List Price
948-101	1/4	.39	2.18	1.53	3.34	.39	.43	.55	.75	0.35	24/96	----
948-102	3/8	.39	2.20	1.53	3.34	.43	.43	.71	.86	0.40	24/96	----
948-103	1/2	.57	2.54	1.57	3.35	.53	.46	.87	.98	0.50	14/56	----
948-104	3/4	.75	2.75	1.77	3.80	.55	.49	1.12	1.22	0.68	12/48	----
948-105	1	.94	3.23	2.03	3.80	.69	.59	1.34	1.50	1.18	6 /24	----
948-106	1-1/4	1.24	3.76	2.32	4.72	.71	.62	1.69	1.85	1.70	4/16	----
948-107	1-1/2	1.49	4.11	2.60	4.72	.73	.64	2.20	2.13	2.72	2/8	----
948-108	2	1.96	4.72	3.27	6.38	.85	.65	2.40	2.64	3.84	1/4	----



POS	Components	Materials	N
1	Body	CW617N Forged Brass	1
2	End Connection	CW617N Forged Brass	1
3	Ball	CW617N CP Brass	1
4	Ball Stems	P.T.F.E.	2
5	Stem Antif. Seat	P.T.F.E.	1
6	Stem Seat	P.T.F.E.	1
7	Brass Ring	CW617N Brass	1
8	Stem	CW617N Brass	1
9	O-Ring	NBR 80	1
10	Handle	UNI EN 10025 Steel	1
11	Nut	UN 5771 Steel	1
12	Nut	CW617N Brass	1

• Not Lead Free

## TEE HANDLE BALL VALVE - MALE X FEMALE



UL842, UL258

NEW

## Features

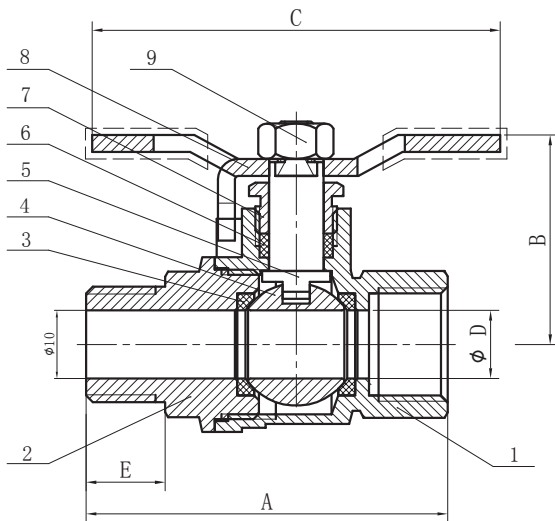
- Thread conform ANSI B1.20.1
- Forged brass body
- Blow out proof stem design
- Packing nut, O-Ring and packing on the stem seal
- Chrome Plated Brass Ball
- Handle with vinyl grip

## Performance rating

- 600 PSI (WOG) 150 PSI (WSP) Service
- Temperature range: -20° F to 300° F
- Made in China
- Not lead free



Part#	Size NPT	Dimension Inches					Weight	Box/Case	List Price
		A	B	C	D	E			
948-170T	1/4"	2.016	1.169	2.362	0.315	0.457	0.30	70/140	----
948-171T	3/8"	2.094	1.213	2.362	0.394	0.457	0.33	70/140	----
948-172T	1/2"	2.343	1.461	2.953	0.583	0.520	0.49	50/100	----
948-173T	3/4"	2.618	1.606	2.953	0.748	0.563	0.73	30/60	----
948-174T	1"	3.000	1.921	3.701	0.945	0.630	1.16	20/40	----
948-175T	1-1/4"	3.563	2.303	3.701	1.260	0.709	1.70	12/24	----
948-176T	1-1/2"	3.965	2.717	4.331	1.575	0.717	2.46	9/18	----
948-177T	2"	4.496	3.051	4.331	1.969	0.748	3.61	6/12	----



Item	Part	Materials
1	Body	Brass
2	End Cap	Brass
3	Ball Seat	PTFE
4	Ball	C/P Brass
5	Stem	Brass
6	Stem Packing	PTFE
7	Packing Nut	Brass
8	T-Handle	Nickel plating steel
9	Stem Nut	Brass plating steel

## LOCKING HANDLE BALL VALVES - FEMALE X MALE



UL842, UL258

NEW

**Features**

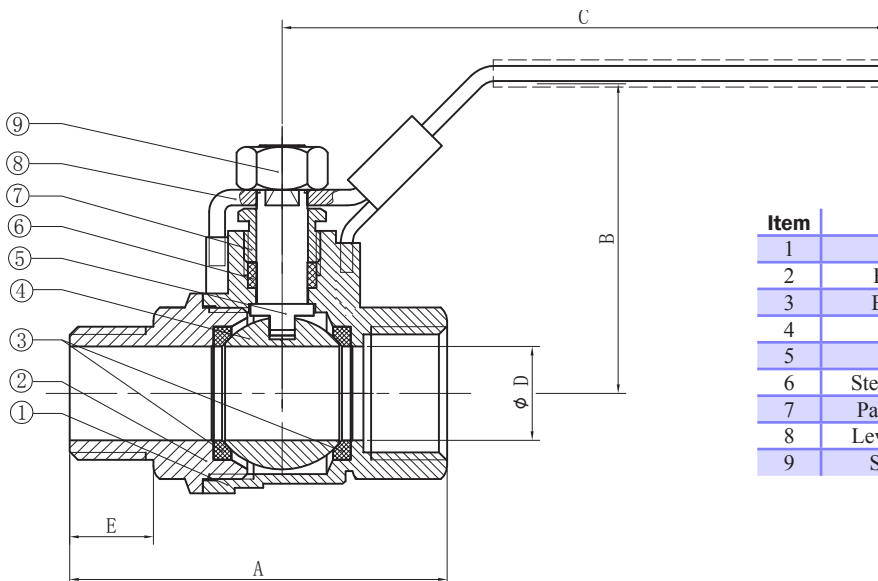
- Thread conform ANSI B1.20.1
- Forged brass body
- Blow out proof stem design
- Packing nut, O-Ring and packing on the stem seal
- Chrome Plated Brass ball
- Handle with vinyl grip

**Performance rating**

- 600 PSI (WOG) 150 PSI (WSP) Service
- Temperature range: -20° F to 300° F
- Made in China
- Not lead free



Part#	Size NPT	Dimension Inches					Weight	Box/Case	List Price
		A	B	C	D	E			
948-170L	1/4"	2.016	1.732	3.543	0.315	0.457	0.32	70/140	----
948-171L	3/8"	2.094	1.732	3.543	0.394	0.457	0.37	70/140	----
948-172L	1/2"	2.343	1.941	3.543	0.583	0.520	0.50	50/100	----
948-173L	3/4"	2.618	2.106	3.78	0.748	0.563	0.77	30/60	----
948-174L	1"	3.000	2.579	4.528	0.945	0.630	1.21	20/40	----
948-175L	1-1/4"	3.563	2.961	4.528	1.260	0.709	1.74	12/24	----
948-176L	1-1/2"	3.965	3.366	5.512	1.575	0.717	2.58	9/8	----
948-177L	2"	4.496	3.701	5.512	1.969	0.748	3.73	6/12	----

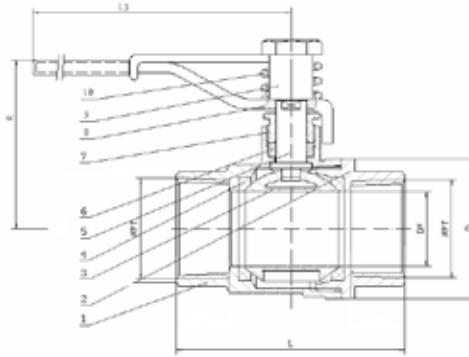


Item	Part	Materials
1	Body	Brass
2	End Cap	Brass
3	Ball Seat	PTFE
4	Ball	C/P Brass
5	Stem	Brass
6	Stem Packing	PTFE
7	Packing Nut	Brass
8	Lever Handle	Nickel plating steel
9	Stem Nut	Brass plating steel

**BRASS SPRING HANDLE BALL VALVE**

Working pressure:600 PSI for brass  
 Temperature Range:-40°F to 365°F( -40°C to +185°C)  
 Material:Brass  
 Spring Lever Handle w/Vinyl Grip  
 Made in China  
 Not lead free

**NEW**



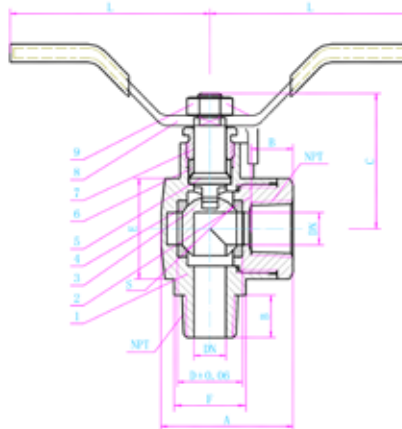
Part #	Part Name	Material
1	Body	Brass
2	Bonnet	Brass
3	Ball	Brass
4	Sealing Seat	PTFE
5	Stem	Stainless Steel
6	Packing Ring	PTFE
7	Gland	Brass
8	Handle	Stainless Steel
9	Bolt	Brass
10	Spring	Stainless Steel

Item#	Size	L	D	DN	H	L3	WTG	Box/Case	List Price
947-103	1/2"	2.19	1.24	0.59	2.24	3.92	0.54	10/80	----
947-104	3/4"	2.38	1.5	0.75	2.36	3.92	0.72	6/48	----
947-105	1"	3.23	1.91	0.98	2.71	4.49	1.11	6/36	----

**RIGHT ANGLE BRASS BALL VALVE**

Working pressure: 250PSI  
 Temperature Range -40° to 400°F( -40 °C to +205 °C)  
 With lever Handle Teflon seats 2-pc,full port Heavy Duty forged Body Steel Handle w/Vinyl Grip-  
 Made in China  
 Not lead free

**NEW**



Part #	Part Name	Material
1	Body	Brass
2	Cap	Brass
3	Ball	Brass
4	Seat	PTFE
5	Stem	Brass
6	Stuffing	PTFE
7	Packing Nut	Brass
8	Handle	Steel
9	Nut	Brass

Part #	Size	A	B	C	D	S	DN	L	E	F	WTG	Box/Case	List Price
947-111	1/4	1.59	0.41	1.40	0.64	0.63	0.32	3.15	0.98	0.65	0.34	10/120	----
947-112	3/8	1.59	0.41	1.40	0.73	0.71	0.39	3.15	0.98	0.65	0.36	10/120	----
947-113	1/2	1.73	0.55	1.40	0.79	0.87	0.55	3.15	1.08	0.83	0.55	10/120	----



# 3-WAY AND SAFETY EXHAUST BALL VALVES

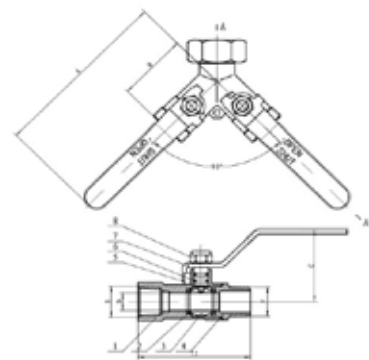
# VALVES

## 3-WAY WYE BRASS BALL VALVE, VENTED AND UNVENTED

- Max. pressure: W.O.G. (water, oil, inert gas)  
Unvented Valve: 600psi@70°F  
Vented Valve: 250psi@70°F  
W.S.P. (working steam pressure)  
Unvented Valve: 150psi@365°F  
Vented Valve: Not related
- Vacuum Rating: 29"Hg
- Temperature Range: -40° to 365°F
- Ports: Full

**NEW**

Part#	Part Name	Material
1	Body	Brass Nickel Plated
2	Seat	PTFE
3	Ball	Brass, Cr. Plated
4	Cap	Brass Nickel Plated
5	Stem	Brass
6	O-Ring	Viton
7	Handle	Steel
8	Nut	Steel



Designed for the portable air compressor industry, these valves control the flow of water, oil, and inert gases in two direction and are great for mixing and diverting. They have a single female inlet and two male outlets with two ball valves. Valves are Brass Nickel Plated and have chrome-plated brass balls, brass blow-out proof stems, PTFE seats and seals, and steel lever handles with vinyl grips. Vented valves has a drilled hole on the two valve balls and body that vents compressed air in the line when valve is closed. Connections: 1"NPT female inlet and 3/4"NPT male outlet. • Made in China • Not lead free



**NON-VENTED**



**VENTED**

Part #	Ball	E	F	A	B	C	D	G	WTG	Box/Case	List Price
947-125	Non-vented	1" Female	3/4" Male	5.18"	2.5"	2.05"	0.59"	90°	1.53	2/24	----
947-126	Vented								1.48	2/24	----

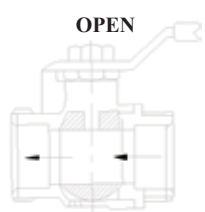
## EXHAUST VALVES

### AUTOMATIC DRAIN & LATCH LOCK HANDLE

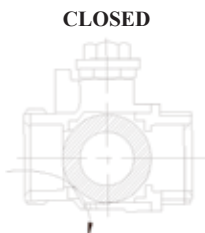
- Full port hot forged brass ball valve, blow-out proof stem, downstream automatic vent with lockable handle in compliance with OSHA requirements.
- Maximum working pressure: 200 PSI (CWP).
  - Temperature rating: -4°F through +350°F.
  - Made in Italy
  - Not lead free



• w/ NPT tap for drain.



Valve - open position. Drain vent shut off.



**CLOSED**

Part#	Size	List Price
948-131	1/4"	----
948-132	3/8"	----
948-133	1/2"	----
948-134	3/4"	----
948-135	1"	----

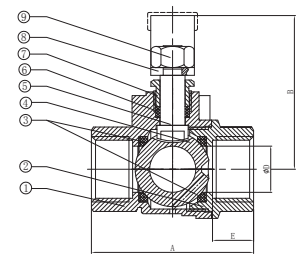
Valve - closed and draining occurs. Upstream seat prevents air flow. Downstream system is vented to atmosphere.

## SAFETY EXHAUST BALL VALVE

- Threaded - Two Piece Body - Full Port
- Blow-out Proof Stem - PTFE Seats
- To Exhaust and Downstream Air in the Closed Position w/ locking lever handle.
- Made in China
- Vented
- 400 PSI WOG
- Not lead free



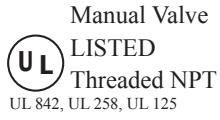
Part #	Size	A	B	D	E	List Price
948-141	1/4"	1.756	1.732	0.394	0.457	----
948-142	3/8"	1.756	1.732	0.394	0.457	----
948-143	1/2"	2.047	1.941	0.583	0.520	----
948-144	3/4"	2.362	2.126	0.748	0.563	----



MATERIAL LIST

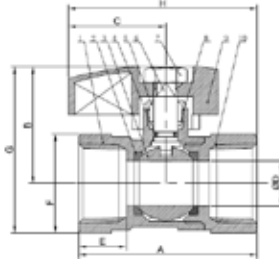
Item	Part	Material
1	Body	Brass
2	End Cap	Brass
3	Ball Seat	PTFE
4	Ball	Brass
5	Stem	Brass
6	Stem Packing	PTFE
7	Packing Nut	Brass
8	Lever Handle	Nickel plating steel
9	Stem Nut	Nickel plating steel

GAS BALL VALVES



ISO 9002 Manufacturer FEATURES

- Material: C37700
- Forged brass, Regular port, Thread\*Flare Thread
- Thread ends in ANSI B1.20.1
- Working temperature: 0-65°(32-149°)
- Pressure :1/2PSI;5PSI;
- ASEM B16.44/CR91; ANSI Z21.15/CSA9.1
- UL 125 For LP-Gas 125psig
- Made in China



10	BALL VALVE CAP	1	BRASS
9	HANDLE	1	AL-alloy
8	PACKING	1	PTFE
7	HANDLE NUT	1	PLATED STEEL
6	STEM	1	BRASS
5	PACKING NUT	1	BRASS
4	O-RING	1	NBR
3	BALL	1	BRASS
2	SEALING WASHER	2	PTFE
1	BALL VALVE BODY	1	BRASS
NO.	ITEM	TOTAL	MATERIAL

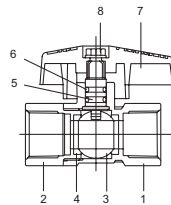
GAS BALL VALVE (2-Piece)  
FEMALE x FEMALE

Part#	Size	WTG	Box/Case	List Price
943-311	3/8"	0.35	10/100	----
943-312	1/2"	0.44	10/100	----
943-313	3/4"	0.62	10/100	----

SIZE	∅D	A	B	C	E	F	G	H
3/8"	0.394	1.752	1.437	1.28	0.472	0.945	1.909	2.146
1/2"	0.394	2.204	1.437	1.28	0.606	1.043	1.961	2.461
3/4"	0.591	2.362	1.535	1.28	0.626	1.299	2.815	2.476

- For use with natural, manufactured, mixed liquified. petroleum and LP gas-air mixtures.
- Deeper thread connections. Smooth quarter-turn.
- Manufactured to ANSI Z21.15, C.G.A. 9.1-M81, 9.2-M88, 1/2 psig. 372 also to A.G.A.3-8, C.G.A. CR91-002, 2 psig.
- Solid chrome plated brass ball
- Bottom entry
- Blow out proof design.
- Double viton o-rings stem seals
- Teflon seats for durability.
- Forged construction for greater strength.
- Larger ports for increased flow capacity.
- Red Reversible handle.
- May be used with water 400 WOG.

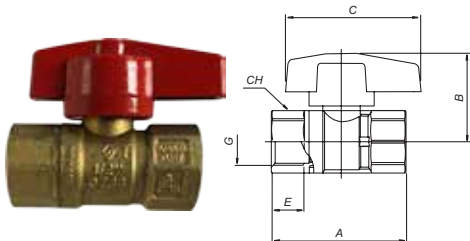
MADE IN ITALY



Components	Materials	
1	Body	Forged Brass
2	End Connection	Forged Brass
3	Ball	Forged Brass
4	Ball Seats	P.T.F.E.
5	Stem	Brass
6	O-Ring	NBR
7	Butterfly	Steel
8	Screw	UNI 5771 Steel



GAS BALL VALVES  
FEMALE x FEMALE



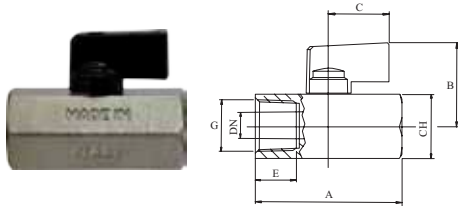
Part#	Size	Dimension Inches							WTG	Box/Case	List Price
		G	DN	A	B	C	E	CH			
943-212	1/2"	.47	2.26	1.45	2.28	.55	.98	600	0.33	20/80	----
943-213	3/4"	.59	2.48	1.57	2.28	.57	1.22	600	0.45	14/56	----

**CHROME PLATED BRASS MINI BALL VALVE****VALVES****ITALIAN CHROME PLATED BRASS MINI BALL VALVE**

ISO 9002 Manufacturer

**FEATURES**

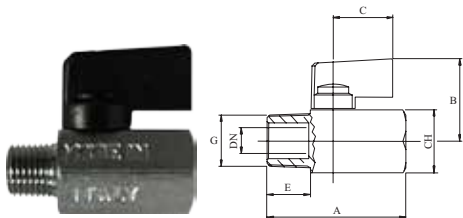
- Solid chrome plated brass ball
- Max working pressure 235 psi will handle 300psi@75° F
- Longer body style for longer, deeper thread connections
- One piece drawn sand blasted chrome plated body.
- Each valve is seal tested for maximum safety.
- Double seal system allows valve to be operated in both directions making installation easier.
- Blowout-proof brass stem.
- NPT taper ANSI B1.20.1 threads.
- 32°F to +176°F temperature.
- 1/4 Turn Aluminium handle with mechanical stop.
- NSF Approved valves available upon request!
- Not lead free



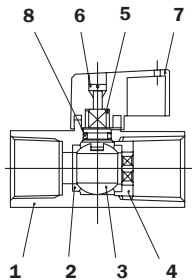
Made in Italy

**Female x Female**

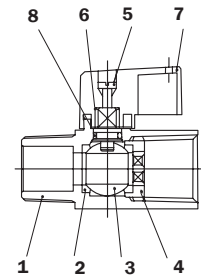
Part#	Size		Dimension Inches							
	G	DN	A	B	C	E	CH	WTG	Box/Case	List Price
46-922 I	1/4"	0.31	1.81	1.17	0.9	0.51	0.83	0.24	50/200	----
46-923 I	3/8"	0.31	1.85	1.17	0.9	0.51	0.83	0.22	50/200	----
46-924 I	1/2"	0.39	2.18	1.26	0.9	0.61	0.98	0.32	30/120	----

**Male x Female**

Part#	Size		Dimension Inches							
	G	DN	A	B	C	E	CH	WTG	Box/Case	List Price
46-903 I	1/4"	0.31	1.75	1.17	0.9	.40	0.83	0.20	50/200	----
46-904 I	3/8"	0.31	1.81	1.17	0.9	.41	0.83	0.20	50/200	----
46-905 I	1/2"	0.39	2.14	1.26	0.9	.52	0.98	0.30	40/160	----



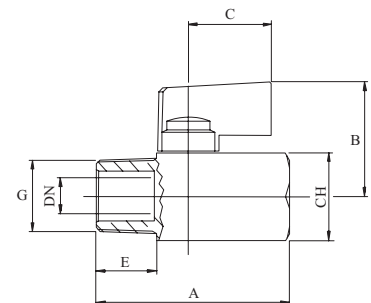
POS	Components	Materials	N
1	Body	CW517N Forged Brass	1
2	Ball Seats	P.T.F.E	2
3	Ball	CW517N CP Brass	1
4	Ring Unit	CW614N Brass	1
5	Stem	CW614N Brass	1
6	Screw	UNI 5771 Steel	1
7	Handle	Aluminum	1
8	O-Ring	NBR 80	1

**YELLOW BRASS 1/4" MINI MALE X FEMALE VALVE**

- Proprietary seal design extreme for low & high temperature applications
- -76° to +248°F temperature.
- Nominal working pressure 235 psi will handle 300psi@75° F
- One piece drawn sand blasted brass plated body. Solid chrome plate brass ball
- Double seal system allows valve to be operated in both directions making installation easier.
- Blowout-proof brass stem.
- NPT taper ANSI B1.20.1 threads.
- 1/4 TURN BLACK METAL HANDLE WITH MECHANICAL STOP.

**MALE x FEMALE**

MADE IN ITALY



Part#	Size		Dimension Inches							
	NPT	DN	A	B	C	E	CH	CASE	List Price	
46-903ISB	1/4"	0.315	1.75	1.18	1.24	0.48	0.83	200	----	

**MINI BALL VALVES**

- Chrome plated forged brass body
- Chrome plated brass ball
- NPT taper ANSI B1.20.1 threads\*
- 450 PSI working pressure
- At 212°F - 355 PSI
- At 356°F - 142 PSI
- 1/4 Turn Alumzinc handle
- Not lead free
- Made in China



**FEMALE X FEMALE - FLAG HANDLE**

Part #	Size	Dimensions (In)				Wt lbs	Box/Case	List Price
		A	D(FLOW)	F	G			
46-934	1/8	1.57	0.24	0.93	1.46	0.21	20/300	----
46-935	1/4	1.57	0.31	0.93	1.46	0.20	20/300	----
46-936	3/8	1.57	0.28	0.93	1.46	0.22	20/300	----
46-937	1/2	1.77	0.35	0.93	1.56	0.24	20/200	----

**MINI BALL VALVES W/VITON SEALS**



**FEMALE X FEMALE - LEVER HANDLE**

Part #	Size	Dimensions (In)				Wt lbs	Box/Case	List Price
		A	D(FLOW)	F	G			
46-934L	1/8	1.57	0.24	1.99	1.50	0.21	20/300	----
46-935L	1/4	1.57	0.31	1.99	1.50	0.20	20/300	----
46-936L	3/8	1.57	0.28	1.99	1.50	0.22	20/300	----
46-937L	1/2	1.77	0.35	1.99	1.59	0.24	20/200	----



**FEMALE X FEMALE - TEE HANDLE**

Part #	Size	Dimensions (In)				Wt lbs	Box/Case	List Price
		A	D(FLOW)	F	G			
46-934LT	1/8	1.57	0.24	1.34	1.43	0.21	20/300	----
46-935LT	1/4	1.57	0.31	1.34	1.43	0.20	20/300	----
46-936LT	3/8	1.57	0.28	1.34	1.43	0.22	20/300	----
46-937LT	1/2	1.77	0.35	1.34	1.52	0.24	20/200	----

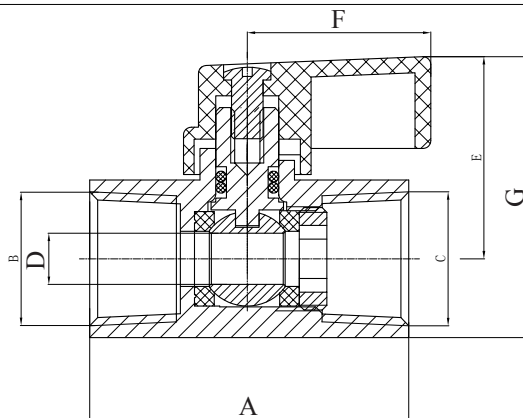
**NEW**

**FEMALE X FEMALE - SCREWDRIVER**

Part #	Size	Dimensions (In)		Wt lbs	Box/Case	List Price
		A	D(FLOW)			
46-934LS	1/8	1.57	0.24	0.21	20/300	----
46-935LS	1/4	1.57	0.31	0.20	20/300	----
46-936LS	3/8	1.57	0.28	0.22	20/300	----
46-937LS	1/2	1.77	0.35	0.24	20/200	----

\* BSPP Threads available with extended delivery, same cost.

• Not lead free



Pos	Components	Materials	N
1	Body	CP Forged Brass	1
2	Ball Seats	P.T.F.E.	2
3	Ball	CP Brass	1
4	Ring Unit	Brass	1
5	Stern	Brass	1
6	O-Ring - flag handle	NBR 80	1
6	O-Ring - all others	Viton	1
7	Handle	Alumzinc	1
8	Screw	Steel	1

## MINI BALL VALVE

## VALVES

## MINI BALL VALVES

- Chrome plated forged brass body
- Chrome plated brass ball
- NPT taper ANSI B1.20.1 threads\*
- 450 PSI working pressure
- At 212°F - 355 PSI
- At 356°F - 142 PSI
- 1/4 Turn Alumzinc handle
- Not lead free
- Made in China



## MALE X FEMALE - FLAG HANDLE

Part #	Size	Dimensions (In)				Wt lbs	Box/ Case	List Price
		A	D(FLOW)	F	G			
46-930	1/8	1.57	0.24	0.93	1.46	0.17	20/300	----
46-931	1/4	1.57	0.31	0.93	1.46	0.15	20/300	----
46-932	3/8	1.57	0.28	0.93	1.46	0.21	20/300	----
46-933	1/2	1.77	0.35	0.93	1.56	0.24	20/200	----

## MINI BALL VALVES W/VITON SEALS

NEW



## MALE X FEMALE - LEVER HANDLE

Part #	Size	Dimensions (In)				Wt lbs	Box/ Case	List Price
		A	D(FLOW)	F	G			
46-930L	1/8	1.57	0.24	1.99	1.50	0.17	20/300	----
46-931L	1/4	1.57	0.31	1.99	1.50	0.15	20/300	----
46-932L	3/8	1.57	0.28	1.99	1.50	0.21	20/300	----
46-933L	1/2	1.77	0.35	1.99	1.59	0.24	20/200	----

NEW



## MALE X FEMALE - TEE HANDLE

Part #	Size	Dimensions (In)				Wt lbs	Box/ Case	List Price
		A	D(FLOW)	F	G			
46-930T	1/8	1.57	0.24	1.34	1.46	0.17	20/300	----
46-931T	1/4	1.57	0.31	1.34	1.46	0.15	20/300	----
46-932T	3/8	1.57	0.28	1.34	1.46	0.21	20/300	----
46-933T	1/2	1.77	0.35	1.34	1.56	0.24	20/200	----

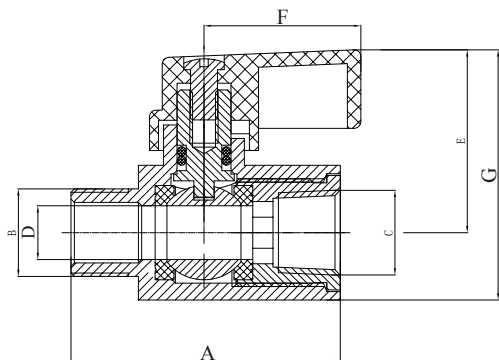
NEW

## MALE X FEMALE - SCREWDRIVER

Part #	Size	Dimensions (In)		Wt lbs	Box/ Case	List Price
		A	D(FLOW)			
46-930S	1/8	1.57	0.24	0.17	20/300	----
46-931S	1/4	1.57	0.31	0.15	20/300	----
46-932S	3/8	1.57	0.28	0.21	20/300	----
46-933S	1/2	1.77	0.35	0.24	20/200	----

\* BSPP Threads available with extended delivery, same cost.

- Not lead free

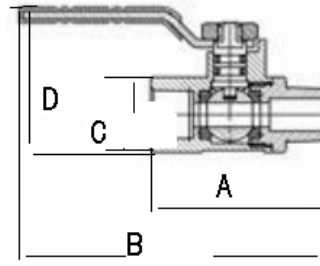


Pos	Components	Materials	N
1	Body	CP Forged Brass	1
2	Ball Seats	P.T.F.E.	2
3	Ball	CP Brass	1
4	Ring Unit	Brass	1
5	Stern	Brass	1
6	O-Ring - flag handle	NBR 80	1
6	O-Ring - all others	Viton	1
7	Handle	Alumzinc	1
8	Screw	Steel	1

**FORGED BRASS MINI-BALL VALVES**

- 180° operational handle, blow out proof stem. Stem with double “O” Rings
- 200 WOG
- Temp rating -20°F - 250°F
- Generic Handles
- Not lead free

NO	Part Name	Material	QTY
1	Nut	Steel	1
2	Handle	Steel	1
3	Cover	PVC	1
4	O-Ring	NBR	2
5	Stem	Brass	1
6	Body	Brass	1
7	Seat	Teflon	2
8	Ball Disc	Brass	1
9	End Plug	Brass	1



**FEMALE x FEMALE**

	Part #	Size	A	B	C	D	List Price
<b>NEW</b>	944-113	1/8	1.53	2.80	0.73	1.42	----
	944-116	1/4	1.53	2.80	0.73	1.42	----
<b>NEW</b>	944-117	3/8	1.73	2.90	0.87	1.50	----
<b>NEW</b>	944-140	1/2	2.07	3.08	0.98	1.45	----



**HOSE BARB x MALE**

	Part #	Size	A	B	C	D	List Price
	944-132	1/4X1/8	2.05	2.91	0.73	1.51	----
	944-138	1/4X1/4	2.05	2.98	0.73	1.51	----
	944-128	3/8X1/4	2.08	3.04	0.73	1.51	----
	944-130	3/8X3/8	2.12	3.06	0.73	1.51	----
<b>NEW</b>	944-139	1/2X1/2	2.15	3.19	0.73	1.51	----



**FEMALE x MALE**

	Part #	Size	A	B	C	D	List Price
	944-106	1/8	1.69	3.02	0.73	1.46	----
	944-100	1/4X1/8	1.70	3.00	0.73	1.44	----
	944-101	1/4	1.70	3.00	0.73	1.46	----
<b>NEW</b>	944-103	3/8	1.78	3.02	0.87	1.50	----
	944-102	3/8X1/4	1.72	2.90	0.89	1.66	----
<b>NEW</b>	944-104	1/2	2.34	3.35	0.98	1.45	----



**HOSE BARB x FEMALE**

	Part #	Size	A	B	C	D	List Price
	944-135	1/8X1/8	1.78	2.34	0.62	1.38	----
	944-136	1/4X1/4	1.97	2.87	0.73	1.55	----



**MALE x MALE**

	Part #	Size	A	B	C	D	List Price
<b>NEW</b>	944-107	1/8	1.82	2.94	0.65	1.42	----
<b>NEW</b>	944-109	1/4	1.82	2.94	0.65	1.42	----
<b>NEW</b>	944-110	3/8	1.90	2.98	0.73	1.42	----
	944-112	1/2	2.17	4.62	0.89	2.05	----



**HOSE BARB x HOSE BARB**

	Part #	Size	A	B	C	D	List Price
	944-142	1/4X1/4	2.49	3.19	0.73	1.55	----
	944-134	3/8X3/8	2.49	3.18	0.73	1.55	----

**LEAD FREE**

	Part #	Size	A	B	C	D	List Price
	944-142LF	1/4	2.49	3.19	0.73	1.55	----
	944-134LF	3/8	2.49	3.18	0.73	1.55	----

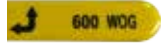
## 3-WAY BALL VALVE

## VALVES

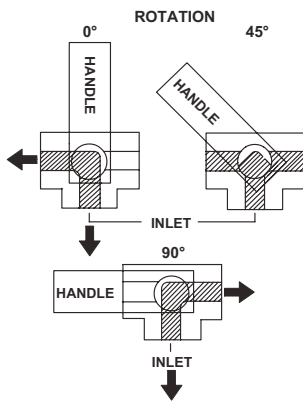
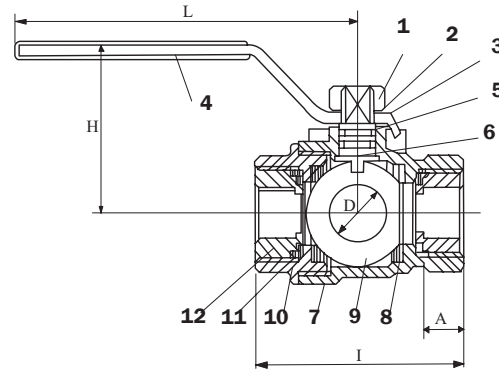
## SIDE OUTLET 3-WAY BALL VALVE

- BRASS
- 600WOG
- FULL PORT

- Forged Brass
- 600 WOG
- Temp Rating 0-230°F



- Side outlet



- Full Port
- Blow-out proof stem
- double o-ring stem packing
- PTFE Seal
- Made in China
- Not lead free

## Nomenclature &amp; Materials

NO	Part Name	Material	Qty
1	Nut	Steel	1
2	Spring Washer	Steel	1
3	Handle	Steel	1
4	Cover	PVC	1
5	O-Ring	NBR	2
6	Stem	Brass	1
7	Body	Forged Brass	1
8	Seat	Teflon	2
9	Ball Disc	Brass	1
10	End Plug	Brass	1
11	O-Ring	NBR	3
12	Socket	Brass	3

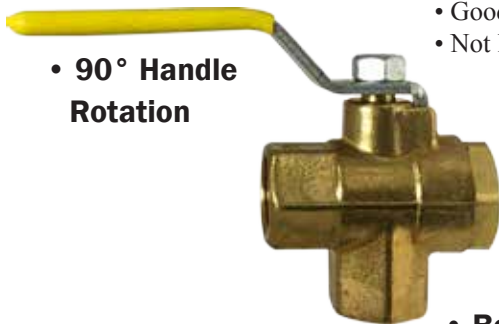
Part#	Size	I	H	D	L	A	WTG	Box/Case	List Price
940-464	1/4"	1.89	1.73	0.39	3.35	0.47	0.61	50/100	----
940-465	3/8"	1.89	1.73	0.39	3.35	0.47	0.57	50/100	----
940-461	1/2"	2.11	1.80	0.50	3.35	0.51	0.65	30/60	----
940-462	3/4"	2.56	2.16	0.74	4.41	0.55	0.78	20/40	----

## BOTTOM OUTLET 3 WAY BALL VALVE

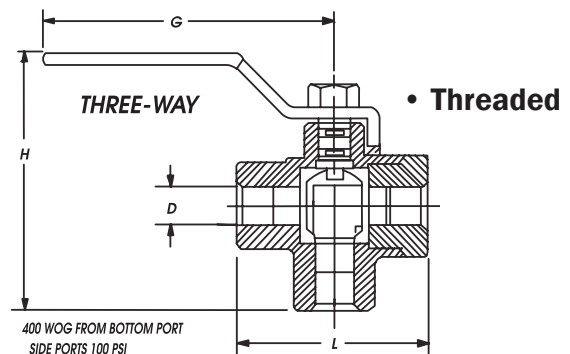
- Forged Brass
- Bottom Port is inlet 400 psi
- Side Ports are inlet 100 psi

- Double O-Ring Seal
- Blow out proof stem
- Made in USA
- Threaded ports
- Good for propane
- Not lead free

- 90° Handle Rotation



- Bottom outlet



Part#	Size	D	G	H	L	Cv	WTG	List Price
940-121	1/4"	.44	3.50	3.12	2.25	5.2	0.76	----
940-122	3/8"	.50	3.50	3.12	2.25	5.5	0.69	----
940-123	1/2"	.50	3.50	3.12	2.25	5.5	1.00	----

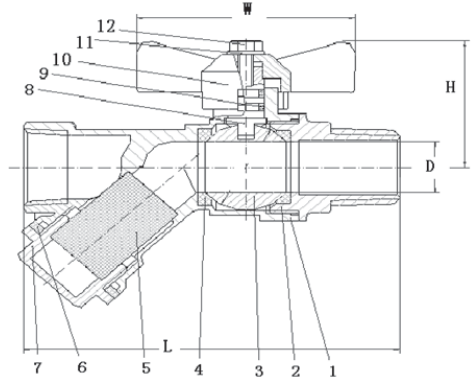
**BRASS BALL VALVE WITH STRAINER**



All-in-One design for economical ,compact and convenient .With stamped stainless Steel Screen . 600PSI WOG Forged brass body,Crome plated ball ,PTFE ball seats and cap seal , and rubber o-ring stem seals. Not lead free



Part #	Part Name	Material
1	Body	Brass
2	Caps	Brass
3	Ball	Brass,Cr.Plated
4	Seat	PTFE
5	Filter	SS
6	Gasket	PTFE
7	Caps	Brass
8	Stem	Brass
9	O-Ring	Viton
10	Handle	Zinc
11	Spring Washer	S.S
12	Nut	Steel



Item#	Size	L	D	B	H	WTG	Box/Case	List Price
947-133	1/2"x1/2"(MxF)	3.39"	0.59"	2.00"	1.50"	0.60	8/64	----
947-134	3/4"x3/4"(MxF)	3.89"	0.75"	2.40"	1.85"	0.86	8/64	----

**VACUUM BREAKER**

- Male hose and female hose threads can be broken off for permanent attachment
- Set screw
- Vandal proof
- Rough brass construction
- Prevents back-siphonage on hoses to prevent potable water from getting contaminated
- Certified under ASSE Std. 1011
- UPC
- IAMPO



Part #	Size	List Price
947-055	3/4" x 3/4"	----

**HOSE BIBBS**  
**3/4" Hose Thread Outlet**



**IPS**

Part #	Size	WTG	Box/Case	List Price
942-170	1/2 (1/2"C)	0.33	10/100	----
942-171	3/4	0.35	10/100	----

**RADIATOR AIR VALVE**  
**COIN SLOT OR LOSSE KEY**



Part #	Size	List Price
943-284	1/8" MIP	----
943-287	Key only	----

**ANGLE SILLCOCKS**  
**3/4" Hose Thread Outlet**

- Notched flange for convenient installation.
- Heavy brass construction.
- Cast Iron handle.
- Not lead free



**FEMALE IPS**

Part #	Size	Box	List Price
942-142	1/2	12	----

MORE PLUMBING VALVES  
COMING SOON!



## BRASS GATE VALVE

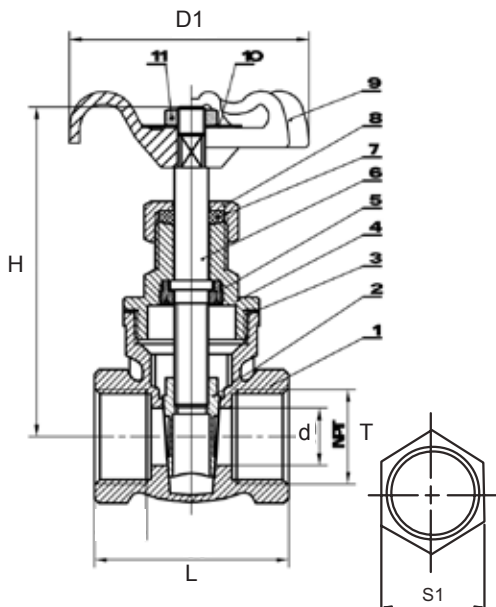
• BRASS • 200WOG • FULL PORT

- 200 WOG (cold water, oil, gas).
- 125 WSP (Saturated Steam).
- Full-port design for a better water flow.
- Screw-in Bonnet - Non-Rising Stem - Solid Wedge
- NPT Threaded ends to ANSI B1.20.1
- Cast iron handle.
- Each valve individually air tested under water.
- Good for diesel fuel.
- Made in Indonesia
- Not lead free



## BRASS GATE VALVES IPS

Part#	Size	L	H	D1	d	T	S1	Weight	Box/Case	List Price
940-130	1/4	1.71	2.91	2.09	.24	1/4-18 NPT	.85	0.65	10/120	----
940-131	3/8	1.71	2.91	2.09	.39	3/8-18 NPT	.85	0.59	10/120	----
940-132	1/2	1.71	2.91	2.09	0.50	1/2-14 NPT	1.03	0.61	10/120	----
940-133	3/4	1.81	3.31	2.13	0.74	3/4-14 NPT	1.26	0.83	10/80	----
940-134	1	2.13	3.90	2.48	0.97	1-11.5 NPT	1.51	1.24	5/60	----
940-135	1-1/4	2.24	4.61	2.72	1.22	1-1/4-11.5 NPT	1.89	1.69	5/40	----
940-136	1-1/2	2.44	5.08	3.15	2.45	1-1/2-11.5 NPT	2.17	2.17	5/30	----
940-137	2	2.70	5.94	3.52	1.85	2-11.5 NPT	2.60	3.33	2/24	----
940-138	2-1/2	3.70	7.87	3.98	2.48	2-1/2-8 NPT	3.27	6.26	1/10	----
940-139	3	4.02	8.82	4.37	2.80	3-8 NPT	3.86	8.34	1/6	----
940-140	4	4.53	9.88	4.84	3.60	4-8 NPT	4.88	13.09	1/4	----



See Lead Free section page 174 for lead free Gate Valves.

See page 208 for SS Gate Valve

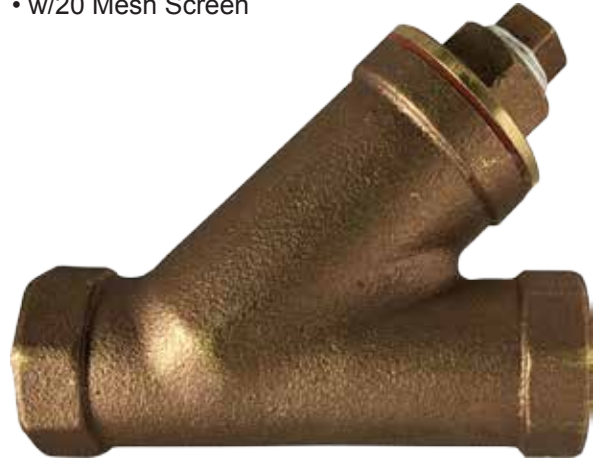


NO	Description	Material
1	Body	C85700
2	Disk	C85700
3	Seat	PTFE
4	Cap	C85700
5	Packing	C85700
6	Stem	C85700
7	Rubber Seat	NBR
8	Packing Nut	C85700
9	Handle	Cast Iron
10	Nameplate	AL
11	Stem Nut	SAE 1010R

**CLASS 150 BRASS Y-PATTERN STRAINER**

- Forged Brass body, size 1/4"-3".
- Pressure rating: 150 WOG (water, oil, gas)/PN25  
150 WSP (Saturated Stem)
- NPT Threaded ends to ANSI B1.20.1
- Protects regulators, pumps, meters and other controls from damage due to sediment scale, metal chips or other foreign materials.
- Screwed cap is threaded & gasketed.
- Tapped drain plug opening in cap.
- 304 stainless steel screen #20 mesh.
- Self cleaning.
- Self cleaning can be accomplished by opening the valve or plug connected to the blow-off outlet.
- Made in Indonesia
- NOT LEAD FREE

- w/20 Mesh Screen



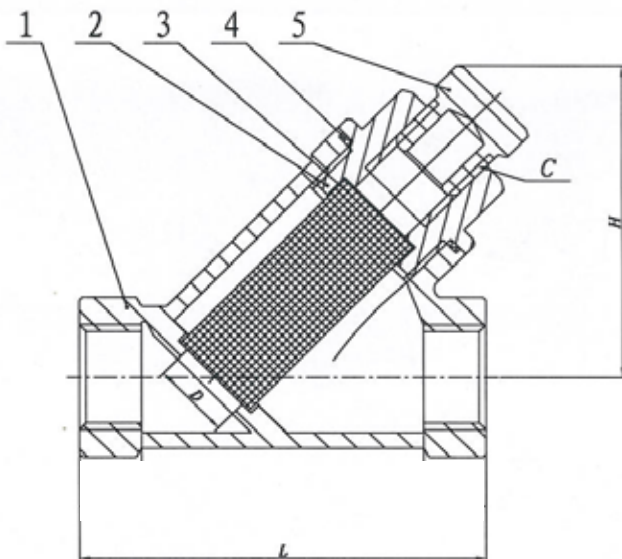
Part#	Size	L	H	C (Plug)	Weight	Box/Case	List Price
940-521	1/4"	3.21	2.44	NPT 3/8	.64	12/48	----
940-522	3/8"	3.23	2.44	NPT 3/8	.71	12/48	----
940-523	1/2"	3.23	2.44	NPT 3/8	.84	12/48	----
940-524	3/4"	3.94	2.78	NPT 3/8	1.10	8/48	----
940-525	1"	4.53	3.19	NPT 1/2	1.71	8/32	----
940-526	1-1/4"	5.33	3.66	NPT 1/2	2.49	6/24	----
940-527	1-1/2"	6.20	3.82	NPT 1/2	3.19	2/16	----
940-528	2"	7.44	4.65	NPT 1/2	5.39	2/8	----
940-529	2-1/2"	8.94	5.39	NPT 3/4	9.56	1/6	----
940-530	3"	10.00	5.67	NPT 3/4	13.49	1/4	----



See page 174 for 1/2" Lead Free



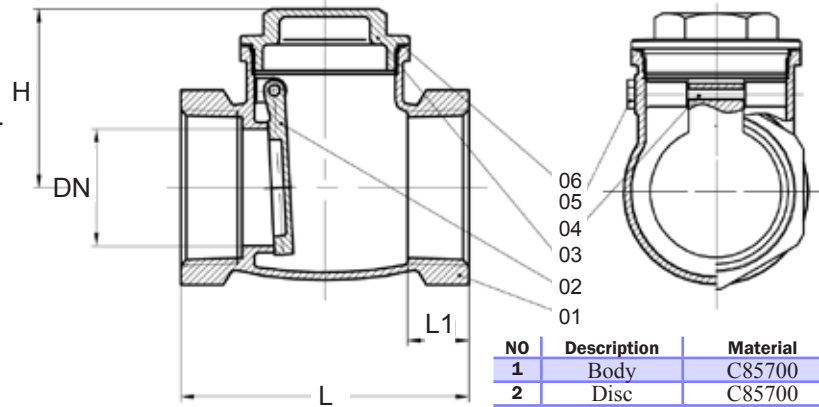
See page 208 for SS Y Strainer



NO	Name	Material
1	BODY	C85700
2	BONNET	C85700
3	STRAINER	304 S.S.
4	SPRING SEAL	PTFE
5	END CAP	C85700

**BRASS SWING CHECK VALVES****VALVES****BRASS SWING CHECK VALVES**

- Working pressure non-shock: 200 psi W.O.G. (cold water, oil, gas) 125 psi WSP (saturated steam)
- Swing type disc.
- Screwed Cap.
- Hard Seat.
- 90° Straight Pattern.
- Used to prevent reverse flow in commercial and industrial applications.
- Threaded ends to ANSI B1.20.1
- Integral seat.
- Temp range -5° - 150F°
- NOT LEAD FREE
- Cracking pressure 3-5 psi
- Made in Indonesia



NO	Description	Material
1	Body	C85700
2	Disc	C85700
3	Cap	C85700
4	Brass Bar	C85700
5	Screw	C85700
6	Gasket	Fibre H

**CAST BRASS SWING CHECK VALVES IPS SCREWED ENDS**

Part #	Size	L	H	L1	DN	Weight	Box/Case	List Price
940-352	1/2	2.09	1.42	0.531	0.512	.41	10/100	----
940-353	3/4	2.36	1.56	0.579	0.728	.56	10/80	----
940-354	1	2.62	1.77	0.748	0.925	.73	5/60	----
940-355	1-1/4	3.19	2.07	0.748	1.201	1.36	5/40	----
940-356	1-1/2	3.54	2.16	0.846	1.417	1.56	5/30	----
940-357	2	4.21	2.74	0.886	1.772	2.58	2/20	----
940-358	2-1/2	5.14	3.09	1.063	2.224	4.55	1/15	----
940-359	3	5.77	3.80	1.102	2.579	6.53	1/6	----
940-360	4	6.84	4.25	1.102	3.602	10.18	1/4	----



• See page 174 for Lead Free Brass Swing Check Valves

• See page 208 for SS Swing Check Valves

**Y PATTERN BRASS SWING CHECK VALVE SCREWED ENDS**

Part #	Size	List Price
940-351B	3/8"	----
940-352B	1/2"	----
940-353B	3/4"	----
940-354B	1"	----
940-355B	1-1/4"	----
940-356B	1-1/2"	----
940-357B	2"	----
940-358B	2-1/2"	----
940-359B	3"	----

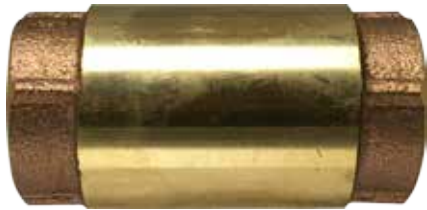
**Y PATTERN BRASS SWING CHECK VALVE COPPER x COPPER**

Part #	Size	List Price
940-362B	1/2"	----
940-363B	3/4"	----
940-364B	1"	----
940-365B	1-1/4"	----
940-366B	1-1/2"	----
940-367B	2"	----

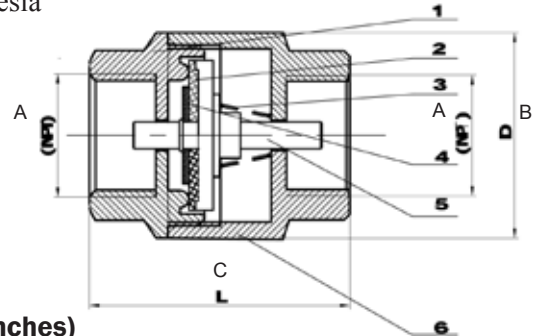
**BRASS CHECK VALVES**

S.S. SPRING LOADED BRONZE POPPET - For positive sealing & self-cleaning. Insures against leakage.

- Inline Lift Type - Resilient Discs - Spring Actuated - Threaded.
- Pressure rating: 200 WOG (water, oil, gas) / 125 WSP (Saturated Steam)
- Spring in stainless steel AISI 304. • Resilient washer hold/ disc in brass. • Forged Brass Body for 1/2"-2"
- Corrosion resistant material. • Can be used vertically or horizontally. • Opens & Closes with flow of media.
- No cracking pressure. • NOT LEAD FREE • Made in Indonesia



**Temp Range**  
-10°C - 110°C  
14°F - 248°F



**Brass Check Valve (Inches)**

Part#	Size	Enters Pipe Size	A NPT	B	C	Weight	Box/Case	List Price
944-428	1/4"	-	1/4"	1.00	2.01	.24	24/192	----
944-429	3/8"	-	3/8"	1.00	2.07	.28	10/100	----
944-430	1/2"	1-1/4"	1/2"	1.26	2.40	.42	10/100	----
944-431	3/4"	1-1/4"	3/4"	1.50	2.74	.53	10/80	----
944-432	1"	2"	1"	1.77	3.23	.80	6/60	----
944-433	1-1/4"	2-1/2"	1-1/4"	2.13	3.62	1.32	4/40	----
944-434	1-1/2"	3"	1-1/2"	2.36	4.04	1.54	5/30	----
944-435	2"	3-1/2"	2"	3.03	5.04	3.07	5/20	----



• See page 181 for Lead Free Brass Check Valves

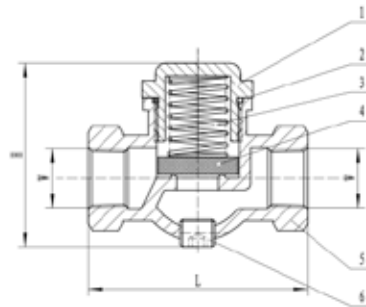


• See page 208 for SS Check Valves

**IN LINE CHECK VALVES VERTICAL OR HORIZONTAL**



- Working Pressure: 250 PSI • Temperature Range: -40° to 450°F(-40°to 230°C)
- Cracking Pressure: 3 PSI • Made in China • Not lead free
- Applications: Air Compressor Discharge Lines, may also used on water or oil lines
- Construction: Cast Bronze Body, Corrosion Resistant Stainless Steel Spring to Ensure Long Life, 15% Glass Filled • Teflon Poppet, C360 Machined Brass Cap, 1/8 NPT Unloader Port is Standard • Repairable



Part#	Part Name	Material
6	Plug	Brass
5	Body	Bronze
4	Gasket	PTPF
3	Spring	S.Steel
2	O-ring	HNBR
1	Cap	Brass

Part #	Size	W	L	H	WTG	Box/Case	List Price
947-140	1/8"	1/8	1.75	1.63	0.28	10/100	----
947-141	1/4"	1/4	1.75	1.63	0.29	10/100	----
947-142	3/8"	3/8	2.19	1.88	0.62	5/50	----
947-143	1/2"	1/2	2.50	2.13	0.63	5/50	----
947-144	3/4"	3/4	2.88	2.50	1.17	4/40	----
947-145	1"	1	3.50	2.88		1/20	----

## BRASS IN-LINE CHECK VALVES

## High Capacity, Size 1/4"-2" 400 WOG, 2 1/2"-4" 175 WOG

- Soft Seat for Bubble Tight Shutoff, Spring Loaded for Fast Seating Action.
- Compact design.
- Low Cracking Pressure 1/2 psi.
- Flow Profile Designed to Minimize Head Loss.
- Perfect Seating both at High and Low Pressure, Wide Temperature Range: +10° to 210°F.
- Polyetherimide Disc to ensure the Best Resistance For Corrosion and Abrasion.
- Patented Disc Guide to Prevent Any Side Loading.
- Connection: FNPT x FNPT.
- Made in Italy • Not lead free

NBR for water, oils and general purpose.

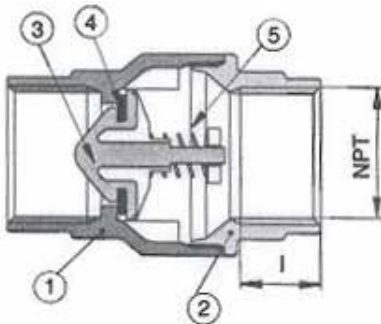
With VITON® Seal for fuels and hydrocarbons. Max working TEMPERATURE 325°F/125 psi steam

Add V to part# for Viton®



Brass In-Line Check

Part#	NBR List	Size	I	psi	Lbs	Case	Viton Part#	Viton List
944-401	----	1/4"	0.39	400	0.22	144		
944-402	----	3/8"	0.40	400	0.37	144	944-402V	----
944-403	----	1/2"	0.53	400	0.32	144	944-403V	----
944-404	----	3/4"	0.55	400	0.49	90	944-404V	----
944-405	----	1"	0.66	400	0.68	90	944-405V	----
944-406	----	1-1/4"	0.68	400	1.13	30	944-406V	----
944-407	----	1-1/2"	0.68	400	1.61	30	944-407V	----
944-408	----	2"	0.69	400	2.28	12	944-408V	----
944-409	----	2-1/2"	0.93	175	4.83	4	944-409V	----
944-410	----	3"	1.01	175	6.70	4	944-410V	----
944-411	----	4"	1.09	175	12.43	2	944-411V	----



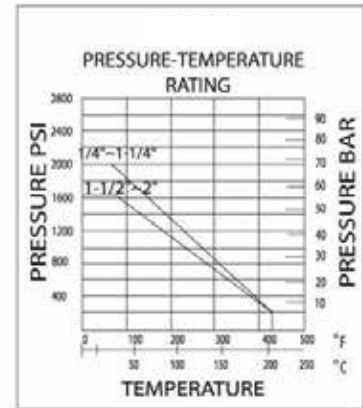
NO	Part	Material	PCS
1	BODY	BRASS	1
2	END CONNECTION	BRASS	1
3	DISC	POLYETHERIMIDE	1
4	SEAT	100002 NBR	1
		100003 Viton	1
5	SPRING	STAINLESS STEEL	1

**316 SS 2-PC BALL VALVE, FULL PORT, THREADED END, 2000 PSI**

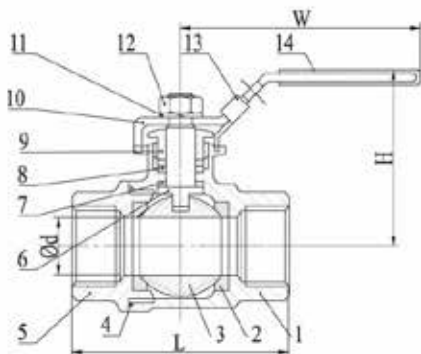
- Investment Castings for body and cap.
- Internal Entry blow-out proof stem.
- Pressure rating: 2000PSI.
- Threaded Ends: ANSI B2,1
- Material: CF8M (316SS)
- Pressure test: API 598
- Generic Handles



**LOCKING HANDLE**



Part#	Size	D	L	H	W	N.M	lbs/ pc	Case	List Price
949-171	1/4"	0.36	2.13	2.13	4.33	.157	0.64	80	----
949-172	3/8"	0.50	2.13	2.16	4.33	.157	0.58	80	----
949-173	1/2"	0.59	2.24	2.28	4.53	.197	0.71	70	----
949-174	3/4"	0.79	2.76	2.40	4.53	.315	1.18	50	----
949-175	1"	0.98	3.25	3.03	5.04	.394	1.88	30	----
949-176	1-1/4"	1.25	3.58	3.19	5.04	.551	2.45	20	----
949-177	1-1/2"	1.50	4.05	3.54	6.10	.709	4.03	14	----
949-178	2"	1.96	4.90	4.25	6.10	.984	7.50	7	----



NO	Part	Material	QTY
1	BODY	316SS	1
2	BALL SEAT	PTFE	2
3	BALL	316SS	1
4	BODY SEAL	PTFE	1
5	CAP	316SS	1
6	STEM	SS316	1
7	THRUST WASHER	PTFE	1
8	PACKING	PTFE	1
9	GLAND NUT	SS304	1
10	HANDLE	SS304	1
11	WASHER	SS304	1
12	NUT	SS304	1
13	LOCK DEVICE	SS304	1
14	HANDLE COVER	PLASTIC	1

**316 SS STANDARD PORT BALL VALVES****VALVES****ONE PIECE STANDARD PORT BALL VALVE**

316 Stainless Steel

**1000 PSI**

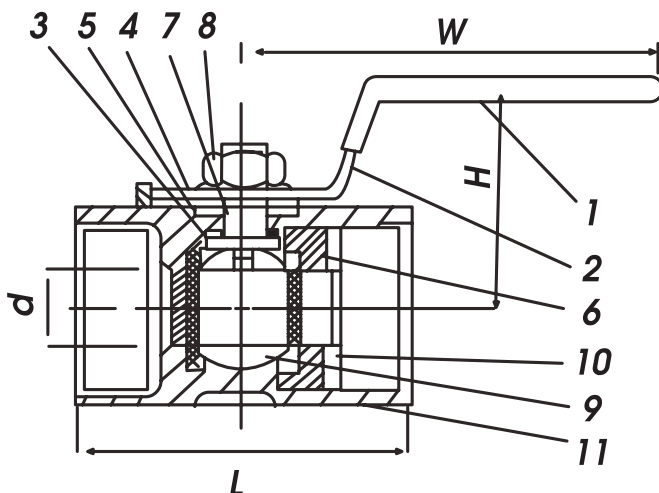
- Manufactured for harsh environments with female NPT threads.
- Locking handle for greater security.
- Standard port has restricted flow.
- Made with corrosion resistant stainless steel materials.
- PTFE seat and seals.
- Investment Castings for Body and Cap.
- Internal Entry Blow-out proof stem.
- Pressure rating: 1000PSI (PN63)
- Threaded Ends: ANSI B2.1
- Material: CF8M
- Pressure Test: API 598
- Generic handles

**LOCKING HANDLE**

Valves will accept a pad-lock on the handle.

Part#	Size	D	L	H	W	dimensions (inches)		
						Weight	Case	List Price
949-101	1/4"	0.20	1.53	1.53	3.03	0.19	150	----
949-102	3/8"	0.27	1.74	1.53	3.03	0.23	150	----
949-103	1/2"	0.36	2.24	1.73	3.46	0.41	100	----
949-104	3/4"	0.50	2.32	1.89	3.46	0.63	70	----
949-105	1"	0.59	2.80	2.24	4.29	0.86	50	----
949-106	1-1/4"	0.79	3.07	2.32	4.29	1.34	30	----
949-107	1-1/2"	0.98	3.26	2.76	5.31	2.00	25	----
949-108	2"	1.25	3.94	2.92	5.95	2.93	15	----

Larger sizes available on special order basis



Item	Parts	Material
1	Plastic Cover	Plastic
2	Handle	AISI 304 SS
3	Thrust Washer	PTFE
4	Packing Ring	AISI 304 SS
5	Stem Packing	PTFE
6	Seat	PTFE
7	Seat	AISI 316 SS
8	Stem Nut	AISI 304 SS
9	Ball	316SS ASTM-A351 CF8M
10	Cap	316SS ASTM-A351 CF8M
11	Body	316SS ASTM-A351 CF8M

SS = Stainless Steel

**TWO PIECE FULL PORT BALL VALVE**

316 Stainless Steel

**1000 PSI**

Materials: CFM8M (SS316)

**Features:**

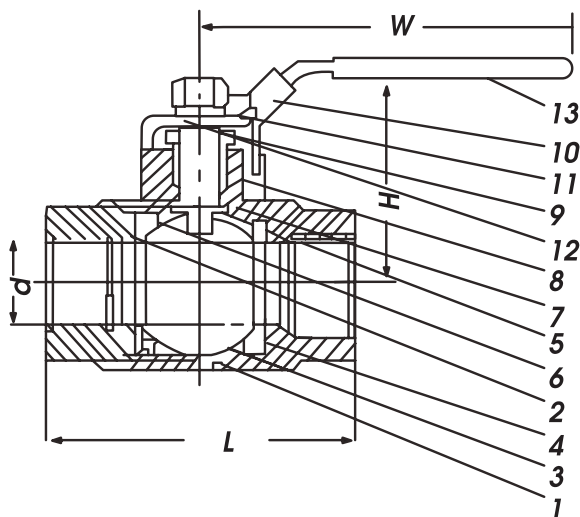
- Quality manufactured for harsh environments.
- Corrosion resistant.
- Investment Casting body
- Working pressure 1000 psi for W.O.G.
- Adjustable stem packing
- Pure teflon seals and seats
- Temperature range: -60 to 450°F
- Blow-out proof stem and safe pressure-reducing hole
- 100% leakage tested at 100 psi air under water
- Hydrostatic test pressure: 1500 psi
- Locking handle w/ blue generic sleeve
- 125 Steam rated
- Generic Handles



Valves will accept a pad-lock on the handle.

dimensions (inches)

Part#	Size	D	L	H	W	Weight	Case	List Price
949-161	1/4"	0.36	2.13	2.13	4.33	0.51	80	----
949-162	3/8"	0.50	2.13	2.16	4.33	0.49	80	----
949-163	1/2"	0.59	2.24	2.28	4.53	0.69	70	----
949-164	3/4"	0.79	2.68	2.40	4.53	0.97	50	----
949-165	1"	0.98	3.15	3.03	5.04	1.69	30	----
949-166	1-1/4"	1.26	3.58	3.19	5.04	2.17	20	----
949-167	1-1/2"	1.49	4.05	3.54	6.10	3.33	12	----
949-168	2"	1.97	4.88	4.25	6.10	6.02	7	----
949-169	2-1/2"	2.56	6.30	5.20	9.06	7.61	2	----
949-170	3"	3.15	7.28	5.71	9.06	21.01	2	----
949-180	4"	3.94	8.84	7.28	13.19	36.18	1	----



Item	Parts	Material
1	Body	316SS ASTM-A351 CF8M
2	Body Cap	316SS ASTM-A351 CF8M
3	Ball	316SS ASTM-A351 CF8M
4	Seat	Reinforced PTFE
5	Stem	AISI 316 SS
6	Seal	Reinforced PTFE
7	Thrust Washer	Reinforced PTFE
8	Packing	Reinforced PTFE
9	Gland Nut	AISI 304SS
10/11	Nut & Washer	AISI 304SS
12	Handle	AISI 304SS
13	Plastic Cover	Plastic

SS = Stainless Steel



**316 SS MINI BALL VALVES****VALVES****STAINLESS STEEL MIN BALL VALVES**

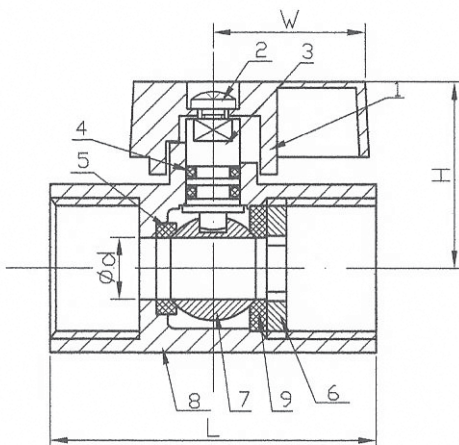
- 316 Stainless Steel
- Working pressure 400PSI
- Working Temperature -10°C to 150°C

**FEMALE PIPE x FEMALE PIPE**

Part#	Size	W	D	H	L	Weight	Case	List Price
46934SS	1/8"	.898	.197	.985	1.693	.18	150	----
46935SS	1/4"	.898	.276	.984	1.693	.21	150	----
46936SS	3/8"	.898	.276	.984	1.693	.19	150	----
46937SS	1/2"	.898	.362	1.114	1.811	.26	100	----

**MALE PIPE x FEMALE PIPE**

Part#	Size	W	D	H	L	Weight	Case	List Price
46930SS	1/8"	.898	.197	.985	1.693	.18	150	----
46931SS	1/4"	.898	.276	.984	1.693	.18	150	----
46932SS	3/8"	.898	.276	.984	1.693	.19	150	----
46933SS	1/2"	.898	.362	1.114	1.811	.26	100	----



NO	Part	Material	QTY
1	LEVER	ALUMINIUM ALLOY	1
2	BOLT	304	1
3	STEM	304/ 316	1
4	"O" RING	NBR	1~2
5	BALL SEAT (A)	PTFE	1
6	CAP	CF8/ CF8M	1
7	BALL	CF8/ CF8M	1
8	BODY	CF8/ CF8M	1
9	BALL SEAT (B)	PTFE	1

**MINI STAINLESS STEEL BALL VALVE ,WITH BUTTERFLY HANDLE**

1000PSI WOG , 150PSI WSP

Temperature Range: -36°F to + 368°F

Full Port for 1/4" , Standard port for 3/8" and 1/2"

316 Stainless Steel body and Ball

Teflon seats and sealing

- Viton O-Ring
- #316 Stainless Steel
- Made in China

**NEW**

**FEMALE PIPE X FEMALE PIPE**



Part #	Size FIP x FIP	Dimensions in				WTG	Box	List Price
		d	L	B (Hex)	H			
46-922SS	1/4"×1/4"	0.314"	2.15"	22.1/0.87"	1.5"	0.33	36	----
46-923SS	3/8"×3/8"	0.314"	2.27"	22.1/0.87"	1.5"	0.39	36	----
46-924SS	1/2"×1/2"	0.314"	2.63"	24.9/0.98"	1.5"	0.56	36	----

**MALE PIPE X FEMALE PIPE**

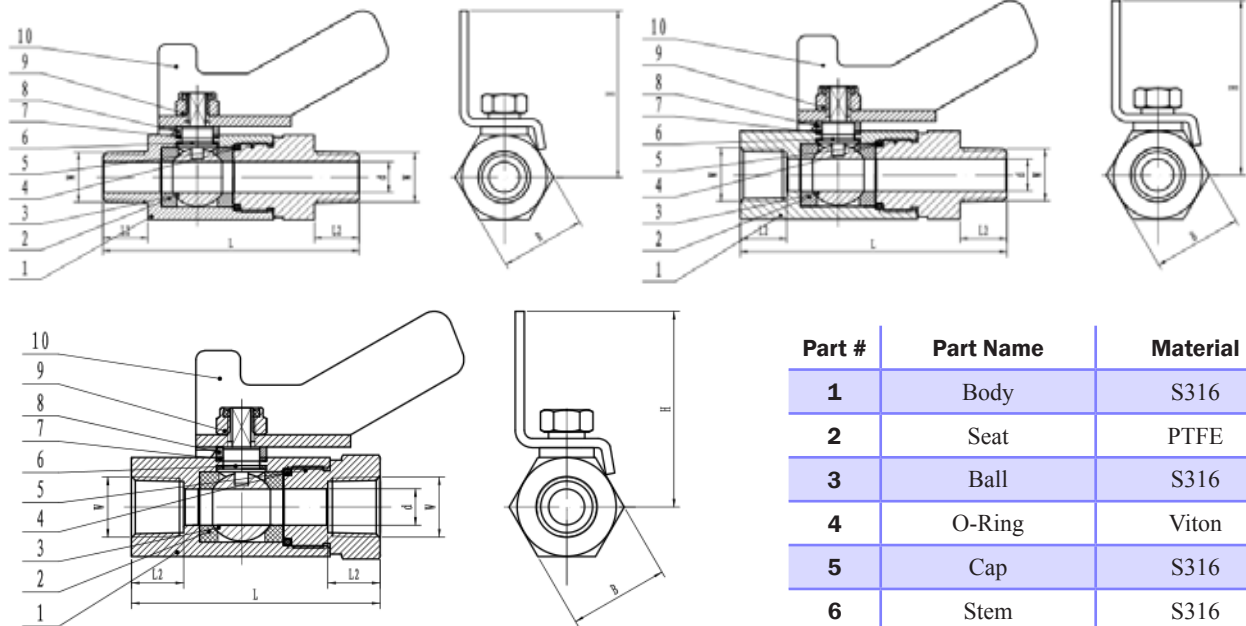


Part #	Size MIP x FIP	Dimensions in				WTG	Box	List Price
		d	L	B (Hex)	H			
46-903SS	1/4"×1/4"	0.314"	2.59"	0.87"	1.5"	0.39	36	----
46-904SS	3/8"×3/8"	0.314"	2.59"	0.87"	1.5"	0.36	36	----
46-905SS	1/2"×1/2"	0.314"	2.93"	0.98"	1.5"	0.56	36	----

**MALE PIPE X MALE PIPE**



Part #	Size MIP x MIP	Dimensions in				WTG	Box	List Price
		d	L	B (Hex)	H			
46-912SS	1/4"×1/4"	0.314"	2.59"	0.87"	1.5"	0.33	36	----
46-913SS	3/8"×3/8"	0.314"	2.59"	0.87"	1.5"	0.34	36	----
46-914SS	1/2"×1/2"	0.314"	3.07"	0.98"	1.5"	0.63	36	----



Part #	Part Name	Material
1	Body	S316
2	Seat	PTFE
3	Ball	S316
4	O-Ring	Viton
5	Cap	S316
6	Stem	S316
7	Stem Bottom Seal	PTFE
8	Stem Up Seal	PTFE
9	Nut	Steel
10	Handle	Steel

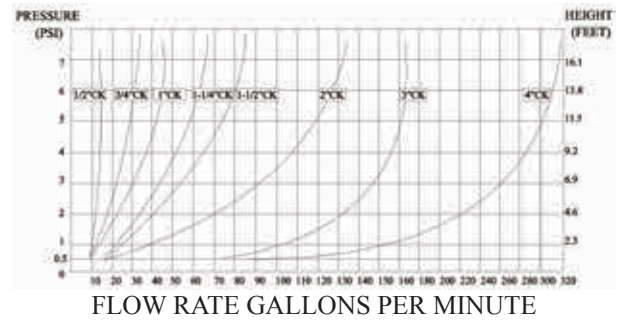
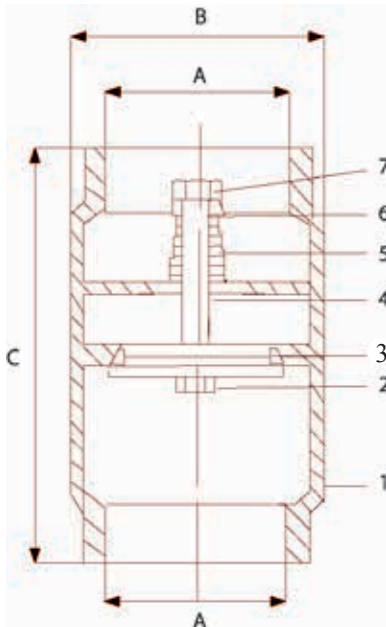
**CHECK VALVES****VALVES****#304 STAINLESS STEEL****CHECK VALVE**

- No Lead.
- Water wells need a check valve installed above the pumps between lengths of drop pipes.
- Opens & Closes with flow of media.
- No cracking pressure.
- Working pressure unavailable.
- Made in Taiwan

**Dimensions (Inches)**

Part#	Size	A NPT	B	C	Box/Case	List Price
949-430	1/2"	1/2"	1.26	2.43	10/100	----
949-431	3/4"	3/4"	1.50	2.72	10/80	----
949-432	1"	1"	1.77	3.23	10/60	----

More sizes available on a special order basis.



NO	Part	Material
1	Body	S.S 304
2	Stopper	S.S 304
3	O-Ring	Viton
4	Washer	PE
5	Spring	S.S 304
6	Cap	S.S 304
7	Nut	S.S 304

## STAINLESS STEEL IN-LINE CHECK VALVE

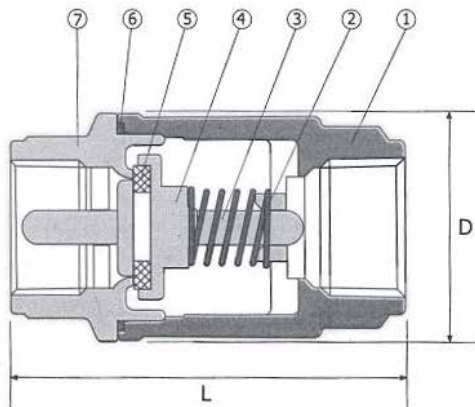
## High Capacity, Size 1/4"-2" 800 WOG

- Soft PTFE Seat for Bubble Tight Shutoff, Spring Loaded for Fast Seating Action
- Low Cracking Pressure 1/2 psi.
- Flow Profile Designed to Minimize Head Loss.
- Perfect Seating both at High and Low Pressure, Wide Temperature Range: +10° to 450°F.
- Corrosion Resistant-Excellent for use on Chemicals.
- ASTM A351-CF8M Investment Casting.
- Connection: FNPT x FNPT.
- 125WSP Saturated Steam.
- ANSI B1.20.1 Threads.
- Dual Guided Stem & Disc.
- Made in Italy



Stainless Steel In-Line Check

Part#	Size	D	L	psi	Lbs	List
949-401	1/4"	1.35	2.31	800	0.42	----
949-402	3/8"	1.35	2.31	800	0.42	----
949-403	1/2"	1.35	2.31	800	0.40	----
949-404	3/4"	1.81	2.87	800	0.85	----
949-405	1"	2.13	3.50	800	1.30	----
949-406	1-1/4"	2.46	4.18	800	2.50	----
949-407	1-1/2"	2.88	4.93	800	3.40	----
949-408	2"	3.56	6.00	800	6.0	----



NO	Part	Material	PCS
1	BODY	ASTM A351-CF8M	1
2	SPRING	SS316	1
3	CENTER GUIDE	ASTM A351-CF8M	1
4	DISC	ASTM A351-CF8M	1
5	SEAT	PTFE	1
6	GASKET	PTFE	1
7	END CAP	ASTM A351-CF8M	1

**316 SS SPRING CHECK VALVES****VALVES****SPRING CHECK VALVE**

- Working Pressure: 1500PSI (PN100)
- Working Temperature: -10 -150°C
- Opening Pressure: 2~3PSI
- Suitable Medium: W.O.G.
- Threaded End: NPT
- Made in China

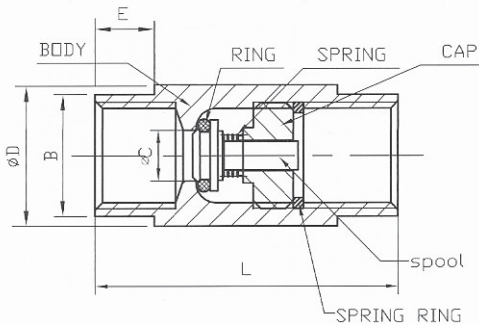
**FEMALE PIPE x FEMALE PIPE**

Part#	Size	L	C	D	B	E	lbs/ pc	Case	List Price
949-451	1/4"	2.165	.217	.748	.699	.394	.19	200	----
949-452	3/8"	2.165	.295	.866	.787	.394	.21	160	----
949-453	1/2"	2.165	.413	1.063	.945	.472	.31	100	----
949-454	3/4"	2.677	.591	1.417	1.26	.472	.71	60	----
949-455	1"	3.268	.787	1.693	1.496	.591	1.14	36	----

**MALE PIPE x FEMALE PIPE**

Part#	Size	L	C	D	B	E	lbs/ pc	Case	List Price
949-471	1/4"	2.165	.217	.748	.699	.394	.176	200	----
949-472	3/8"	2.165	.295	.866	.787	.394	.22	160	----
949-473	1/2"	2.165	.413	1.063	.945	.472	.27	100	----
949-474	3/4"	2.677	.591	1.417	1.26	.472	.62	65	----
949-475	1"	3.268	.787	1.693	1.496	.591	1.05	40	----

FLOWS MALE -> FEMALE



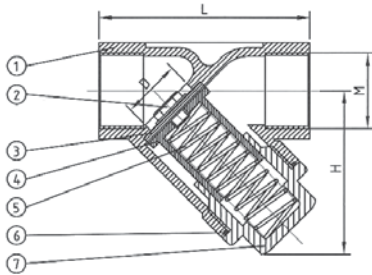
NO	Part	Material	QTY
1	BODY	316	1
2	RING	Rubber	1
3	SPRING	304	1
4	CAP	CF8M	1
5	SPOOL	304/316	1
6	SPRING RING	304	1

**Y-SPRING CHECK VALVE**

- Working Pressure: 800PSI (PN55)
- Working Temperature: -10 -150°C
- Opening Pressure: 1.5PSI
- Suitable Medium: W.O.G.
- Made in China



Part#	Size	L	H	D	lbs/ pc	Case	List Price
949-481	1/4"	2.559	1.661	.472	.44	70	----
949-482	3/8"	2.559	1.661	.472	.51	70	----
949-483	1/2"	2.559	1.634	.591	.51	100	----
949-484	3/4"	3.15	2.067	.787	.93	80	----
949-485	1"	3.543	2.657	.984	1.25	40	----
949-486	1-1/4"	4.134	2.795	1.26	2.20	30	----
949-487	1-1/2"	4.724	3.169	1.575	3.24	24	----
949-488	2"	5.512	3.74	1.969	5.21	10	----



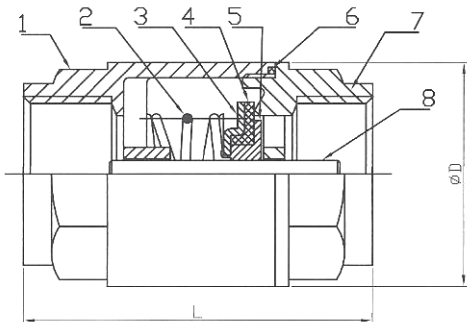
NO	Part	Material	QTY
1	BODY	CF8M/ CF8	1
2	BOLT	304	1
3	SEAT	Teflon	1
4	DISC	304	1
5	SPRING	304	1
6	GASKET	Teflon	1
7	CAP	CF8M/ CF8	1

**2PC BARREL TYPE SPRING CHECK VALVE**

- Working Pressure: 300PSI (PN20)
- Working Temperature: -10 -120°C
- Opening Pressure: 2PSI
- Suitable Medium: W.O.G.
- Threaded end: NPT
- Made in China



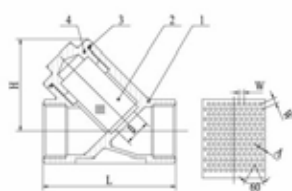
Part#	Size	L	D	lbs/pc	Case	List Price
949-441	1/4"	2.00	1.142	.27	100	----
949-442	3/8"	2.00	1.142	.24	100	----
949-443	1/2"	2.24	1.28	.36	100	----
949-444	3/4"	2.44	1.594	.54	60	----
949-445	1"	2.95	1.89	.88	30	----
949-446	1-1/4"	3.23	2.362	1.39	18	----
949-447	1-1/2"	3.46	2.756	1.81	25	----
949-448	2"	3.94	3.425	2.86	14	----



NO	Part	Material	QTY
1	BODY	CF8M/ CF8	1
2	BOLT	304	1
3	SEAT	PTFE	1
4	DISC	304	1
5	SPRING	316/ 304	1
6	GASKET	PTFE	1
7	CAP	CF8M/ CF8	1

**316 SS MISCELLANEOUS VALVES****VALVES****#316 SS Y STRAINER**

- Investment Castings for Body
- Pressure Rating: 800PSI (PN40)
- Threaded Ends: ANSI B2.1
- Material: CF8M (#316 SS)
- Pressure Test: API 598
- Made in China



- 40 Mesh screen

Part	Material	QTY
1 BODY	CF8M	1
2 SCREEN	SS316	1
3 JOINT GASKET	PTFE	1
4 BONNET	CF8M	1

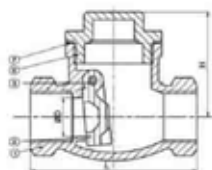
Part #	Size	d	L	H	W	ØA	Kgs	List Price
949-521	1/4"	10	50	51	2	1	0.20	----
949-522	3/8"	12	50	51	2	1	0.17	----
949-523	1/2"	15	58	51	2	1	0.20	----
949-524	3/4"	20	65	60	2	1	0.33	----
949-525	1"	25	80	72	2	1	0.58	----
949-526	1-1/4"	32	92	77	2	1	0.75	----
949-527	1-1/2"	40	105	87	2	1	1.05	----
949-528	2"	50	125	102	2	1	1.57	----

**316 SS SWING CHECK VALVE**

- 200PSI(PN16)
- Threaded Ends: ANSI B2.1
- Material: CF8M (#316 SS)
- Pressure Test: API 598
- Made in China



Part	Material	QTY
1 BODY	CF8M	1
2 DISC	CF8M	1
3 PIPE PLUG	CF8	1
4 SCREW	CF8	1
5 SCREW GASKET	PTFE	1
6 CAP	CF8M	1
7 CAP GASKET	PTFE	1



Part #	Size	D	L	H	Kgs	List Price
949-353	1/2"	15	63	40	0.21	----
949-354	3/4"	20	78	45	0.35	----
949-355	1"	25	85	50	0.46	----
949-356	1-1/4"	32	100	56	0.73	----
949-357	1-1/2"	40	112	61	0.95	----
949-358	2"	50	132	70	1.32	----

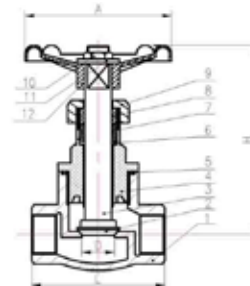
CF8 = 304SS  
CF8M = 316SS

**316 SS GLOBE VALVES**

- 200PSI(PN16)
- Threaded Ends: ANSI B2.1
- Material: CF8M (#316 SS)
- Pressure Test: API 598
- Made in China



Part	Material	QTY
1 BODY	CF8M	1
2 DISC	CF8M	1
3 STEM	304SS	1
4 CAP	CF8M	1
5 SEAL	PTFE	1
6 GASKET	304SS	1
7 PACKING	PTFE	1
8 GASKET	CF8	1
9 GLAND	304SS	1
10 NUT	304SS	1
11 SPRING WASHER	CF8	1
12 HANDLE WHEEL	Steel	1



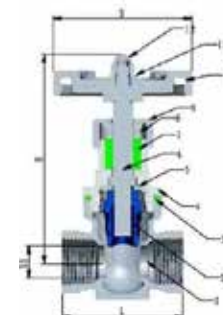
Part #	Size	L	Kgs	List Price
949-303	1/2	58	0.31	----
949-304	3/4	68	0.45	----
949-305	1	78	0.61	----
949-306	1-1/4	88	0.95	----
949-307	1-1/2	102	1.32	----
949-308	2	115	1.93	----

**316 SS GATE VALVES**

- 200PSI(PN16)
- Threaded Ends: ANSI B2.1
- Material: CF8M (#316 SS)
- Pressure Test: API 598
- Made in China



Part	Material	QTY
1 BODY	CF8M	1
2 DISC	CF8M	1
3 SEAL	CF8M	1
4 CAP	CF8M	1
5 SEAL	PTFE	1
6 STEM	304SS	1
7 SEAL	PTFE	1
8 GLAND	304SS	1
9 NUT	304SS	1
10 HANDLE WHEEL	Steel	1
11 GASKET	PTFE	1
12 CAP NUT	CF8	1



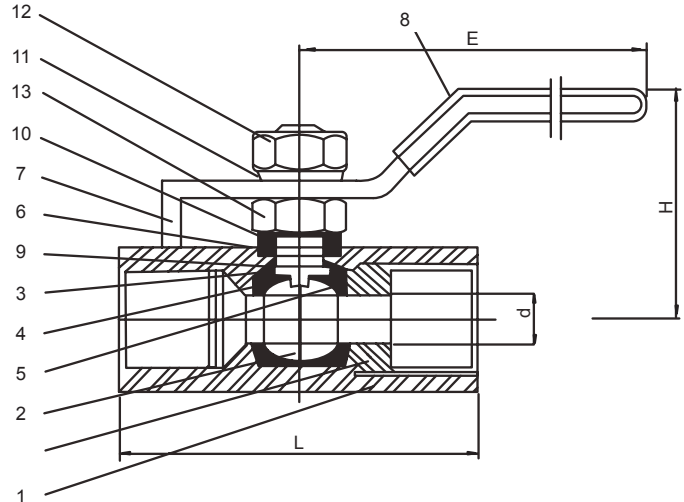
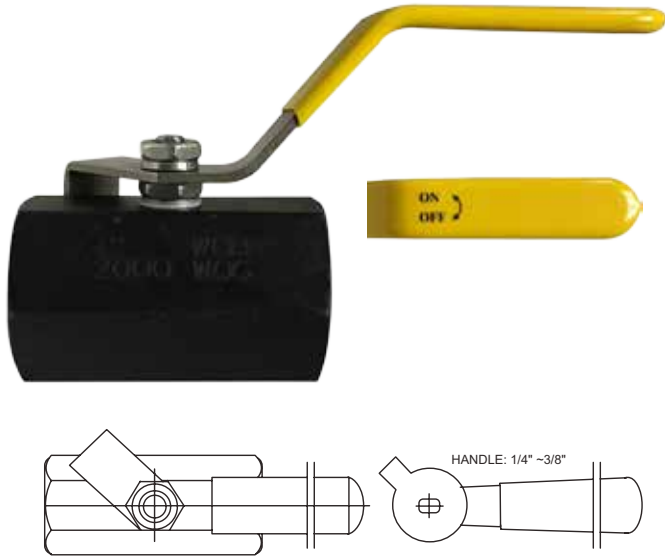
Part #	Size	L	D	D1	H	Kgs	List Price
949-253	1/2	42	58	14	85	0.265	----
949-254	3/4	47	58	19	95	0.335	----
949-255	1	54	72	24	105	0.510	----
949-256	1-1/4	62	72	30	110	0.686	----
949-257	1-1/2	64	98	38	135	1.055	----
949-258	2	75	98	47	150	1.45	----

**STANDARD PORT CARBON STEEL BALL VALVE**

- For chemical and industrial applications.
- Blow-out proof stem design.
- 100% air tested under water, at 100 psi, open and closed positions.
- Made in China
- Generic handles

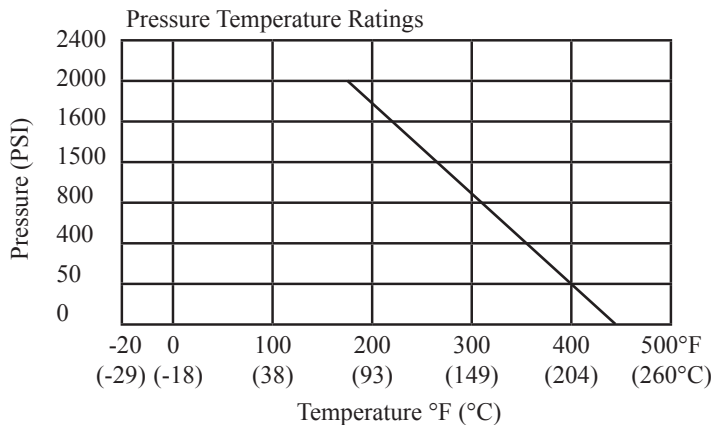
**SPECIFICATIONS**

- Working Pressure: 1/4" ~ 1" 2000 psi WOG,  
1-1/4" ~ 2" 1500 psi WOG,
- Temperature Range: -60° to 450°F
- End types: Threaded
- 1 piece ball valve
- Reinforced PTFE seat



**2000 PSI STANDARD PORT**

Part #	Size	d	H	E	L	WTG	Box/ Case	List Price
949-121	1/4	.20	1.38	2.95	1.71	0.25	24/96	----
949-122	3/8	.28	1.46	2.95	1.87	0.40	100/200	----
949-123	1/2	.36	2.36	4.53	2.20	0.75	50/100	----
949-124	3/4	.49	2.72	4.53	2.58	1.06	50/100	----
949-125	1	.59	2.95	5.12	3.19	2.09	25/50	----
949-126	1-1/4	.78	3.07	5.12	3.62	2.99	15/30	----
949-127	1-1/2	0.98	3.39	5.91	3.78	4.11	15/30	----
949-128	2	1.26	3.86	5.91	4.49	6.50	10/20	----



Item	Parts	Material
1	Body	ASTM A216 WCB
2	Ball	ASTM A351 CF8
3	Stem	304
4	Ball Seat	PTFE
5	Cap Seal	PTFE
6	Packing	PTFE
7	Handle	SS304
8	Handle Sleeve	Vinyl Grip
9	Thrust Washer	PTFE
10	Gland	SS304
11	Washer	SS304
12	Handle Nut	SS304
13	Stem Nut	SS304

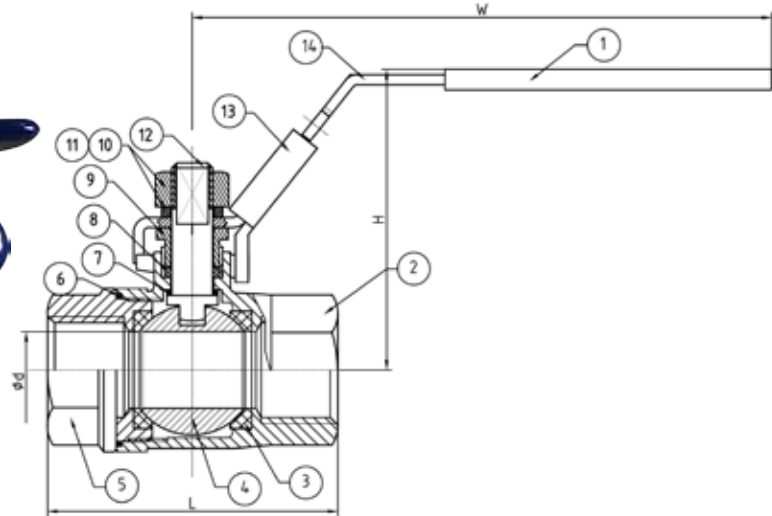


**CARBON STEEL FULL PORT BALL VALVES****VALVES****2000 PSI CARBON STEEL 2PC FULL PORT BALL VALVE**

• 2 PIECE

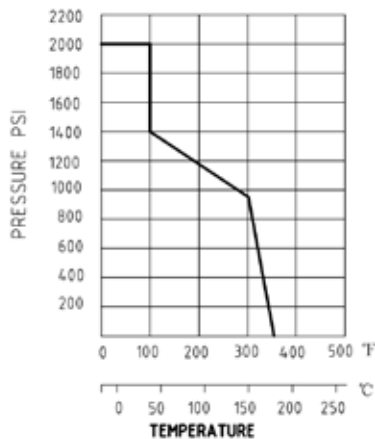
**SPECIFICATIONS**

- Working Pressure: 2000 PSI (138 Bar)
- Temperature Range: -10° C-150° C
- Suitable medium: WOG
- Threaded End conforms to ANSI B1.20.1
- Made in China
- Generic handle

**NEW****2000 PSI FULL PORT**

Part #	Size	d	L	H	W	WTG	Box/ Case	List Price
949-111	1/4	0.36	2.13	2.13	4.33	0.59	24/96	----
949-112	3/8	0.50	2.13	2.17	4.33	0.59	100/200	----
949-113	1/2	0.59	2.24	2.28	4.53	0.75	50/100	----
949-114	3/4	0.79	2.76	2.40	4.53	1.17	50/100	----
949-115	1	0.98	3.25	3.03	5.04	1.88	25/50	----
949-116	1-1/4	1.26	3.58	3.19	5.04	2.45	15/30	----
949-117	1-1/2	1.50	4.06	3.54	6.10	4.06	15/30	----
949-118	2	1.97	4.90	4.25	6.10	7.10	10/20	----

PRESSURE-TEMPERATURE RATING



Item	Parts	Material
1	Handle cover	Plastic
2	Body	CF8M
3	Ball seat	PTFE
4	Ball	CF8M
5	Cap	CF8M
6	Joint gasket	PTFE
7	Thrust washer	PTFE
8	Stem packing	PTFE
9	Gland nut	304
10	Spring washer	304
11	Stem nut	304
12	Stem	316
13	Lock device	304
14	Handle	304

**FULL PORT  
Two-Way**



BKH

Part Number	Thread	Working Pressure	List Price
GE2-14-NPT	1/4" NPT	7250 PSI	----
GE2-38-NPT	3/8" NPT	7250 PSI	----
GE2-12-NPT	1/2" NPT	7250 PSI	----
GE2-34-NPT	3/4" NPT	5800 PSI	----
GE2-1-NPT	1" NPT	5075 PSI	----
GE2-114T-NPT*	1-1/4" NPT	5000 PSI	----
GE2-112T-NPT*	1-1/2" NPT	5000 PSI	----
GE2-2T-NPT	2" NPT	5000 PSI	----

Part Number	Thread	Working Pressure	List Price
GE2-04-SAE	7/16-20 UNF	7250 PSI	----
GE2-06-SAE	9/16-18 UNF	7250 PSI	----
GE2-08-SAE	3/4-16 UNF	7250 PSI	----
GE2-12-SAE	1-1/16-12 UNF	5800 PSI	----
GE2-16-SAE	1-5/16-12 UNF	5000 PSI	----
GB2-20T-SAE	1-5/8-12 UNF	5000 PSI	----
GB2-24T-SAE	1-7/8-12 UNF	5000 PSI	----
GB2-32T-SAE	2-1/2-12 UNF	5000 PSI	----

\* **Reduced Port**

**Temp Rating = -22° - 212°F**

**Construction:** Steel Body, Ball, Stem  
Zinc Chromate Plate  
Buna "O" Rings (Viton on request)  
Delrin Ball Seats

**FULL PORT  
Three-Way**



BK3

Part Number	Thread	Working Pressure	List Price
GE3L-14-NPT	1/4" NPT	5880 PSI	----
GE3L-38-NPT	3/8" NPT	5880 PSI	----
GE3L-12-NPT	1/2" NPT	5145 PSI	----
GE3L-34-NPT	3/4" NPT	5145 PSI	----
GE3L-1-NPT	1" NPT	5145 PSI	----
GE3L-114T-NPT	1 1/4" NPT	4500 PSI	----
GE3L-112T-NPT	1 1/2" NPT	4500 PSI	----
GE3L-2T-NPT	2" NPT	4500 PSI	----

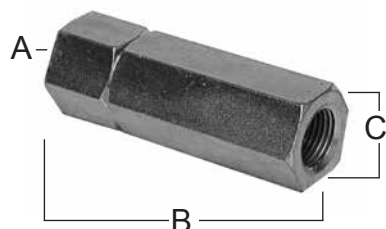
Part Number	Thread	Working Pressure	List Price
GE3L-04-SAE	7/16-20 UNF	5880 PSI	----
GE3L-06-SAE	9/16-18 UNF	5880 PSI	----
GE3L-08-SAE	3/4-16 UNF	5145 PSI	----
GE3L-12-SAE	1-1/16-12 UNF	5145 PSI	----
GE3L-16-SAE	1-5/16-12 UNF	5145 PSI	----
GB3L-20T-SAE	1-5/8-12 UNF	4500 PSI	----
GB3L-24T-SAE	1-7/8-12 UNF	4500 PSI	----
GB3L-32T-SAE	2-1/2-12 UNF	4500 PSI	----

**Temp Rating = -22° - 212°F**

**Construction:** Steel Body, Ball, Stem  
Zinc Chromate Plate  
Buna "O" Rings (Viton on request)  
Delrin Ball Seats

**CHECK VALVES****VALVES****CHECK VALVES - HARD SEAT CARBON STEEL CONSTRUCTION - 5lb Cracking Pressure**

• w/ NPT threads



Part #	A Size	B Inches	C Inches	Rated Flow gpm	PSI	List Price
100025	1/4 NPT	2.44	.87	6	5,000	----
100035	3/8 NPT	2.87	1.00	10	5,000	----
100045	1/2 NPT	3.76	1.26	18	5,000	----
100065	3/4 NPT	4.30	1.50	30	5,000	----
100085	1 NPT	5.12	1.69	36	5,000	----
1000105	1-1/4 NPT	5.56	2.40	50	3,000	----
1000125	1-1/2 NPT	5.56	2.56	60	3,000	----

A ( NPT Female both ends )

**CHECK VALVES - HARD SEAT CARBON STEEL CONSTRUCTION - 65lb Cracking Pressure**

Part #	A Size	B Inches	C Inches	Rated Flow gpm	PSI	List Price
1000265	1/4	2.56	.87	6	5,000	----
1000365	3/8	2.91	.94	10	5,000	----
1000465	1/2	3.74	1.18	18	5,000	----
1000665	3/4	4.29	1.50	30	5,000	----
1000865	1	5.00	1.81	36	5,000	----
10001065	1-1/4	5.20	2.41	50	3,000	----
10001265	1-1/2	5.20	2.56	60	3,000	----

**CHECK VALVES - 5lb Cracking Pressure**

• w/ SAE threads



Part #	A Size	B Inches	C Inches	Rated Flow gpm	PSI	List Price
100145	7/16-20 SAE	2.56	.87	6	5,000	----
100165	9/16-18 SAE	2.91	.94	10	5,000	----
100185	3/4-16 SAE	3.74	1.18	18	5,000	----
1001125	1-1/6-12 SAE	4.29	1.50	30	3,000	----
1001165	1-5/16-12 SAE	5.00	1.81	36	3,000	----
1001205	1-5/8-12 SAE	5.20	2.41	50	3,000	----
1001245	1-7/8-12 SAE	5.20	2.56	60	3,000	----

**CHECK VALVES - 65lb Cracking Pressure**

• w/ SAE threads



Part #	A Size	B Inches	C Inches	Rated Flow gpm	PSI	List Price
1001465	7/16-20 SAE	2.56	.87	6	5,000	----
1001665	9/16-18 SAE	2.91	.94	10	5,000	----
1001865	3/4-16 SAE	3.74	1.18	18	5,000	----
10011265	1-1/6-12 SAE	4.29	1.50	30	3,000	----
10011665	1-5/16-12 SAE	5.00	1.81	36	3,000	----
10012065	1-5/8-12 SAE	5.20	2.41	50	3,000	----
10012465	1-7/8-12 SAE	5.20	2.56	60	3,000	----

**Rated Pressure: Sizes 2 thru 8 - 5000 psi / Sizes 10 thru 24 - 3000 psi**

• Soft Seat available by special quote

- WHITE PVC BALL VALVES**
- Quarter turn
  - Solvent ends comply with ASTM D2466
  - Designed for use in residential, commercial & industrial system as well as waste water, chemical, agricultural applications, marine, food processing, swimming pools.
  - Corrosion resistant
  - EPDM seal
  - Fits both Sch. 40 & 80 pipe
  - Rated for 150 PSI at 73°F
  - FULL PORT
  - EPDM O-ring
  - NSF approved
  - Threaded ends comply with ANSI B1.20.1



**MOLDED IN PLACE - WHITE PIPE THREADS**

Part#	Size	Case	List Price
940-284	1/2"	100	----
940-285	3/4"	100	----
940-286	1"	100	----
940-287	1-1/4"	100	----
940-288	1-1/2"	48	----
940-289	2"	24	----
940-291	3"	12	----
940-292	4"	6	----



**WHITE SOCKET - SLIP X SLIP**

Part #	Size	Case	List Price
940-294	1/2"	100	----
940-295	3/4"	100	----
940-296	1"	100	----
940-297	1-1/4"	100	----
940-298	1-1/2"	48	----
940-299	2"	24	----
940-300	2-1/2"	12	----
940-301	3"	12	----
940-302	4"	6	----

**GREY PVC BALL VALVES**

**FEATURES**

- Sizes range from 1/2" to 4"
- Excellent flow characteristics
- Leak-tight shut-off
- EPPM O-Ring
- Test pressure: 225 psi @ 73°F
- Working Pressure: 150 psi @ 73°F



**FIP X FIP THREADED BALL VALVE**

Part #	Size	Case	List Price
899000	1/2"	100	----
899001	3/4"	100	----
899002	1"	100	----
899003	1-1/4"	100	----
899004	1-1/2"	48	----
899005	2"	24	----



**SLIP X SLIP BALL VALVE**

Part #	Size	Case	List Price
899050	1/2"	100	----
899051	3/4"	100	----
899052	1"	100	----
899053	1-1/4"	100	----
899054	1-1/2"	48	----
899055	2"	24	----

**PLASTIC VALVES****VALVES****INLINE PLASTIC  
SPRING CHECK VALVE**

Socket x Socket

- 200 PSI working pressure @ 77°F .5 PSI to open.



Part#	Size	List Price
940-325	1/2"	----
940-326	3/4"	----
940-327	1"	----
940-328	1-1/4"	----
940-329	1-1/2"	----
940-330	2"	----

**INLINE PLASTIC SPRING CHECK  
VALVE FEMALE THREADED ENDS**

- 200 PSI working pressure @ 77°F .5 PSI to open.



Part#	Size	List Price
940-331	1/2"	----
940-332	3/4"	----
940-333	1"	----
940-334	1-1/4"	----
940-335	1-1/2"	----
940-336	2"	----

**PLASTIC DRUM FAUCETS**

- Pipe threads to ANSI B1.20.1 • Hose threads to ANSI B 1.20.7

The FLO-RITE faucet has been engineered to meet the demand for greater chemical resistance, using linear polyethylene for the stem.

**"FLO-RITE" DRUM FAUCET**

Part #	Size	List Price
46-277	3/4"	----

**DRUM & BARREL FAUCET VALVE**

- Die cast body w/ nylon seat and steel spring.
- For use with all petroleum products except trichlorethylene.

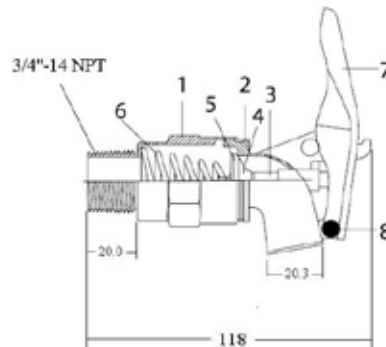


G261N

Not suitable for potable water

**SELF-CLOSING DRUM & BARREL FAUCET**

Part #	Size	List Price
46-270	3/4"	----



Part #	Part Name	Material
1	Body	Zinc
2	Bonnet	Zinc
3	Stem	Steel
4	Disc	Plastic
5	Seal	Rubber
6	Spring	Zinc plated steel
7	Handle	Aluminum
8	Rivet	Aluminum

# FITTINGS AND NIPPLES



## BRASS & BRONZE.....216-232

Brass Nipples.....	216-222
C/P Brass Nipples.....	223
Bronze Fittings.....	224-232
Lead Free Bronze Fittings .....	224-232
C/P Fittings.....	232

## STAINLESS STEEL 233-255

Stainless Nipples.....	234-238
Sch 80 SS Nipples .....	239-241
150# Cast SS Fittings .....	242-249
1,000# Barstock SS fittings NEW .....	250-252
3000# SS Fittings .....	253-255

## BLACK & GALVANIZED .....256-296

Sch. 40 Welded Steel Nipples.....	257-264
Sch. 80 Seamless Steel nipple .....	265-270
Sch. XXS Seamless Steel Nipple .....	271
Merchant Couplings.....	272
API Line Couplings.....	273
Malleable Fittings.....	274-282
Steel Fittings.....	283-284
300# Malleable .....	285-286
Forged Steel Fittings .....	287-292
Bull Plugs and Swages.....	293-294
Forged Steel Fanges .....	295-296
Copper Fittings.....	297-303



We hereby certify that to the best of our knowledge and belief the CDA 230 alloy seamless Red Brass Pipe from which our nipples are produced meet the requirements of ASTM Specifications B43 and is free of mercury contamination. The chemical analysis is 85% copper, 15% Zinc and conforms to federal Specifications WWN-351. Our brass nipples meet ANSI/ASTM B687-96 and MS51846 for standard brass nipples, and MS51872 for extra heavy brass nipples.

Threads: Nipples are threaded with American Standard taper pipe threads (NPT) in accordance with screw-thread standard for Federal Services Handbook H-58. ANSI B1.20.1

This product is certified by NSF to NSF/ANSI 61 for use in drinking water supplies of pH 6.5 and above.

- ASTM B43
- ANSI B1.20.1, WW-N-351
- ANSI/ ASTM B687-96
- NSF-61 Approved
- MS51846 STD Brass Nipples
- RoHS compliant

**STANDARD RED BRASS 85% PIPE WITH THREADED ENDS SPECIFICATIONS:**

Pipe Size in Inches	Dimension in Inches			Allowable Pressure POUNDS PER SQUARE INCH				
	O.D.	I.D.	Wall Thickness	Standard Size (Inches)	@ 100° F	@ 200° F	@ 300° F	@ 400° F
1/8"	.405	.281	.062	1/8"	370	370	320	140
1/4"	.540	.376	.082	1/4"	870	870	760	330
3/8"	.675	.495	.090	3/8"	890	890	780	340
1/2"	.840	.626	.107	1/2"	900	900	790	340
3/4"	1.050	.822	.114	3/4"	810	810	710	310
1"	1.315	1.063	.126	1"	630	630	560	240
1-1/4"	1.660	1.368	.146	1-1/4"	690	690	610	260
1-1/2"	1.900	1.600	.150	1-1/2"	630	630	560	240
2"	2.375	2.063	.156	2"	540	540	480	210
2-1/2"	2.875	2.501	.187	2-1/2"	450	450	390	170
3"	3.500	3.062	.219	3"	510	510	450	190
3-1/2"	4.000	3.500	.250	3-1/2"	570	570	500	220
4"	4.500	4.000	.250	4"	510	510	440	190
4-1/2"	5.000	4.500	.250	5"	410	410	360	160
5"	5.563	5.063	.250	6"	340	340	300	130
6"	6.625	6.125	.250					

No-Lead 125LB seamless Threaded Red Brass Nipples - 2200

**LEAD FREE**





1/8" - 27



## 1/8" DIAMETER SCH 40 SEAMLESS

Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
40-001	Close ( 3/4" )	25/400	0.02	----
40-002	x 1-1/2"	25/400	0.03	----
40-003	x 2"	25/400	0.04	----
40-004	x 2-1/2"	25/400	0.05	----
40-005	x 3"	25/400	0.06	----
40-006	x 3-1/2"	25/400	0.07	----
40-007	x 4"	25/400	0.08	----
40-008	x 4-1/2"	25/400	0.10	----
40-009	x 5"	25/400	0.11	----
40-010	x 5-1/2"	25/400	0.12	----
40-011	x 6"	25/400	0.13	----
40-012	x 7"	25/400	0.15	----
40-013	x 8"	25/400	0.17	----
40-014	x 9"	25/400	0.19	----
40-015	x 10"	25/400	0.21	----
40-016	x 11"	25/400	0.23	----
40-017	x 12"	25/400	0.25	----
40-218	x 12ft	1/1	3.11	----



1/4"-18



## 1/4" DIAMETER SCH 40 SEAMLESS

Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
40-020	Close ( 7/8" )	25/400	0.03	----
40-021	x 1-1/2"	25/400	0.05	----
40-022	x 2"	25/400	0.07	----
40-023	x 2-1/2"	25/400	0.09	----
40-024	x 3"	25/400	0.11	----
40-025	x 3-1/2"	25/400	0.13	----
40-026	x 4"	25/400	0.14	----
40-027	x 4-1/2"	25/400	0.16	----
40-028	x 5"	25/400	0.18	----
40-029	x 5-1/2"	25/400	0.20	----
40-030	x 6"	25/400	0.22	----
40-031	x 7"	25/200	0.25	----
40-032	x 8"	25/200	0.29	----
40-033	x 9"	25/200	0.33	----
40-034	x 10"	25/200	0.36	----
40-035	x 11"	25/200	0.40	----
40-036	x 12"	25/200	0.43	----
40-227	x 6 ft	1/1	2.58	----
40-228	x 12 ft	1/1	5.16	----

See page 7 for Yellow Brass Nipples



**BRASS NIPPLES**

**SCH 40 SEAMLESS**



**LEAD FREE**

**3/8"-18**

**3/8" DIAMETER SCH 40 SEAMLESS**

Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
40-040	Close ( 1" )	25/400	0.05	----
40-041	x 1-1/2"	25/400	0.08	----
40-042	x 2"	25/400	0.10	----
40-043	x 2-1/2"	25/400	0.13	----
40-044	x 3"	25/400	0.16	----
40-045	x 3-1/2"	25/400	0.18	----
40-046	x 4"	25/400	0.21	----
40-047	x 4-1/2"	25/300	0.23	----
40-048	x 5"	25/300	0.26	----
40-049	x 5-1/2"	25/300	0.29	----
40-050	x 6"	25/300	0.31	----
40-051	x 7"	25/200	0.36	----
40-052	x 8"	25/150	0.42	----
40-053	x 9"	25/150	0.47	----
40-054	x 10"	25/100	0.52	----
40-055	x 11"	25/100	0.57	----
40-056	x 12"	25/100	0.62	----
40-237	x 6 ft	1/1	3.72	----
40-238	x 12 ft	1/1	7.44	----



**LEAD FREE**

**1/2" - 14**

**1/2" DIAMETER SCH 40 SEAMLESS**

Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
40-060	Close ( 1-1/8" )	25/400	0.09	----
40-061	x 1-1/2"	25/400	0.12	----
40-062	x 2"	25/400	0.16	----
40-063	x 2-1/2"	25/300	0.20	----
40-064	x 3"	25/300	0.23	----
40-065	x 3-1/2"	25/300	0.27	----
40-066	x 4"	25/200	0.31	----
40-067	x 4-1/2"	25/200	0.35	----
40-068	x 5"	25/200	0.39	----
40-069	x 5-1/2"	25/200	0.43	----
40-070	x 6"	25/200	0.47	----
40-071	x 7"	25/100	0.55	----
40-072	x 8"	25/100	0.62	----
40-073	x 9"	25/100	0.70	----
40-074	x 10"	25/75	0.78	----
40-075	x 11"	25/75	0.86	----
40-076	x 12"	25/75	0.94	----
40-078	x 18"	1/1	1.41	----
40-079	x 24"	1/1	1.88	----
40-245	x 36"	1/1	2.82	----
40-246	x 48"	1/1	3.76	----
40-250	x 60"	1/1	4.70	----
40-247	x 6 ft	1/1	5.64	----
40-248	x 12 ft	1/1	11.28	----



**LEAD  
FREE**

3/4" - 14

### 3/4" DIAMETER SCH 40 SEAMLESS

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
40-080	Close (1- 3/8" )	25/400	0.15	----
40-081	x 1-1/2"	25/400	0.16	----
40-082	x 2"	25/300	0.21	----
40-083	x 2-1/2"	25/300	0.27	----
40-084	x 3"	25/200	0.32	----
40-085	x 3-1/2"	25/200	0.37	----
40-086	x 4"	25/150	0.43	----
40-087	x 4-1/2"	25/150	0.48	----
40-088	x 5"	25/100	0.53	----
40-089	x 5-1/2"	25/100	0.59	----
40-090	x 6"	25/100	0.64	----
40-091	x 7"	25/75	0.75	----
40-092	x 8"	25/75	0.85	----
40-093	x 9"	25/75	0.96	----
40-094	x 10"	25/50	1.06	----
40-095	x 11"	25/50	1.17	----
40-096	x 12"	25/50	1.28	----
40-097	x 18"	1/1	1.92	----
40-098	x 24"	1/1	2.56	----
40-099	x 36"	1/1	3.84	----
40-257	x 6 ft	1/1	7.68	----
40-258	x 12 ft	1/1	15.36	----



**LEAD  
FREE**

1" - 11 1/2

### 1" DIAMETER SCH 40 SEAMLESS

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
40-100	Close ( 1-1/2" )	25/200	0.23	----
40-101	x 2"	25/200	0.30	----
40-102	x 2-1/2"	25/150	0.38	----
40-103	x 3"	25/150	0.45	----
40-104	x 3-1/2"	25/100	0.53	----
40-105	x 4"	25/100	0.60	----
40-106	x 4-1/2"	25/100	0.68	----
40-107	x 5"	25/75	0.75	----
40-108	x 5-1/2"	25/75	0.83	----
40-109	x 6"	25/50	0.94	----
40-110	x 7"	25/50	1.05	----
40-111	x 8"	25/50	1.20	----
40-112	x 9"	25/50	1.35	----
40-113	x 10"	25/50	1.50	----
40-114	x 11"	25/50	1.65	----
40-115	x 12"	20/40	1.80	----
40-118	x 18"	1/1	2.50	----
40-119	x 24"	1/1	3.60	----
40-262	x 36"	1/1	5.40	----
40-267	x 6 ft	1/1	10.80	----
40-268	x 12 ft	1/1	21.60	----

**BRASS NIPPLES**

**SCH 40 SEAMLESS**



1 1/4" - 11 1/2"

**1-1/4" DIAMETER SCH 40 SEAMLESS**

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
40-120	Close ( 1-5/8" )	25/100	0.36	----
40-121	x 2"	25/100	0.44	----
40-122	x 2-1/2"	25/100	0.56	----
40-123	x 3"	25/100	0.67	----
40-124	x 3-1/2"	25/100	0.78	----
40-125	x 4"	25/50	0.89	----
40-126	x 4-1/2"	25/50	1.00	----
40-127	x 5"	25/50	1.11	----
40-128	x 5-1/2"	25/50	1.22	----
40-129	x 6"	25/50	1.33	----
40-130	x 7"	25/50	1.56	----
40-131	x 8"	25/50	1.78	----
40-132	x 9"	25/50	2.00	----
40-133	x 10"	25/50	2.22	----
40-134	x 11"	25/50	2.45	----
40-135	x 12"	25/50	2.67	----
40-136	x 18"	1/1	4.00	----
40-137	x 24"	1/1	5.34	----
40-139	x 36"	1/1	8.01	----
40-277	x 6 ft	1/1	16.02	----



1-1/2" - 11 1/2"

**1-1/2" DIAMETER SCH 40 SEAMLESS**

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
40-140	Close ( 1-3/4" )	25/100	0.46	----
40-141	x 2"	25/100	0.53	----
40-142	x 2-1/2"	25/50	0.66	----
40-143	x 3"	25/50	0.79	----
40-144	x 3-1/2"	25/50	0.93	----
40-145	x 4"	25/50	1.06	----
40-146	x 4-1/2"	25/50	1.19	----
40-147	x 5"	20/40	1.32	----
40-148	x 5-1/2"	20/40	1.46	----
40-149	x 6"	20/40	1.59	----
40-150	x 7"	20/40	1.85	----
40-151	x 8"	20/40	2.12	----
40-152	x 9"	20/40	2.38	----
40-153	x 10"	20/40	2.65	----
40-154	x 11"	1/40	2.91	----
40-155	x 12"	1/15	3.18	----
40-156	x 18"	1/1	4.77	----
40-158	x 24"	1/1	6.36	----
40-159	x 36"	1/1	9.54	----
40-287	x 6 ft	1/1	19.08	----


**LEAD  
FREE**

2" - 11 1/2

**2" DIAMETER SCH 40 SEAMLESS**

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
40-160	Close ( 2" )	25/50	0.69	----
40-161	x 2-1/2"	25/50	0.86	----
40-162	x 3"	25/50	1.03	----
40-163	x 3-1/2"	25/50	1.20	----
40-164	x 4"	1/25	1.37	----
40-165	x 4-1/2"	1/25	1.54	----
40-166	x 5"	1/25	1.72	----
40-167	x 5-1/2"	1/25	1.89	----
40-168	x 6"	1/25	2.06	----
40-169	x 7"	1/20	2.40	----
40-170	x 8"	1/18	2.74	----
40-171	x 9"	1/18	3.09	----
40-172	x 10"	1/18	3.43	----
40-173	x 11"	1/18	3.77	----
40-174	x 12"	1/14	4.12	----
40-175	x 18"	1/1	6.18	----
40-176	x 24"	1/1	8.24	----
40-177	x 30"	1/1	10.30	----
40-178	x 36"	1/1	12.36	----
40-179	x 48"	1/1	16.48	----
40-298	x 12ft	1/1	49.44	----


**LEAD  
FREE**

2 1/2" - 8

**2-1/2" DIAMETER SCH 40 SEAMLESS**

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
40-180	Close ( 2-1/2" )	1/36	1.26	----
40-181	x 3"	1/36	1.51	----
40-182	x 3-1/2"	1/30	1.76	----
40-183	x 4"	1/30	2.02	----
40-184	x 4-1/2"	1/30	2.27	----
40-185	x 5"	1/20	2.52	----
40-186	x 5-1/2"	1/20	2.77	----
40-187	x 6"	1/20	3.03	----
40-188	x 7"	1/20	3.53	----
40-189	x 8"	1/1	4.03	----
40-190	x 9"	1/1	4.54	----
40-191	x 10"	1/1	5.04	----
40-192	x 11"	1/1	5.55	----
40-193	x 12"	1/1	6.05	----
40-197	x 24"	1/1	12.10	----

See our Valve section for 2-1/2, 3 and 4" Valves

**BRASS NIPPLES**

**SCH 40 SEAMLESS**



**LEAD FREE**

**3" DIAMETER SCH 40 SEAMLESS**

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
40-200	Close ( 2-5/8" )	1/24	1.89	----
40-201	x 3"	1/20	2.16	----
40-202	x 3-1/2"	1/18	2.52	----
40-203	x 4"	1/18	2.88	----
40-204	x 4-1/2"	1/18	3.24	----
40-205	x 5"	1/18	3.60	----
40-206	x 5-1/2"	1/18	3.96	----
40-207	x 6"	1/12	4.32	----
40-208	x 7"	1/1	5.04	----
40-209	x 8"	1/1	5.76	----
40-210	x 9"	1/1	6.48	----
40-211	x 10"	1/1	7.20	----
40-212	x 11"	1/1	7.92	----
40-213	x 12"	1/1	8.64	----
40-216	x 18"	1/1	12.96	----



**LEAD FREE**

**4" DIAMETER SCH 40 SEAMLESS**

Part #	Size	Box/Case	Approx. WT. Lbs.	List Price
40-220	Close ( 2-7/8 )	1/20		----
40-221	x 3"	1/10	2.72	----
40-222	x 3-1/2"	1/10	3.18	----
40-223	x 4"	1/10	3.71	----
40-224	x 4-1/2"	1/5	4.24	----
40-225	x 5"	1/5	4.77	----
40-226	x 5-1/2"	1/5	5.30	----
40-234	x 6"	1/5	6.36	----
40-229	x 8"	1/1	8.48	----
40-233	x 12"	1	12.71	----



**LEAD FREE**

**6" DIAMETER SCH 40 SEAMLESS**

Part #	Size	Box/Case	Approx. WT. Lbs.	List Price
40-254	Close	1/1	4.94	----
40-256	x 4"	1/1	6.54	----
40-259	x 4-1/2"	1/1	7.12	----
40-260	x 5"	1/1	7.91	----
40-261	x 6"	1/1	9.49	----
40-263	x 8"	1/1	12.65	----
40-264	x 10"	1/1	15.82	----
40-265	x 12"	1/1	18.99	----



**3/8" DIAMETER CHROME PLATED**

Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
41-040	X Close	5/25	0.05	----
41-041	x 1-1/2"	5/25	0.08	----
41-042	x 2"	5/25	0.10	----
41-043	x 2-1/2"	5/25	0.13	----
41-044	x 3"	5/25	0.16	----
41-045	x 3-1/2"	5/25	0.18	----
41-046	x 4"	5/25	0.21	----
41-047	x 4-1/2"	5/25	0.23	----
41-048	x 5"	5/25	0.26	----
41-049	x 5-1/2"	5/25	0.29	----
41-050	x 6"	5/25	0.31	----



**1/2" DIAMETER CHROME PLATED**

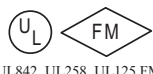
Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
41-060	X Close	5/25	0.09	----
41-061	x 1-1/2"	5/25	0.12	----
41-062	x 2"	5/25	0.16	----
41-063	x 2-1/2"	5/25	0.20	----
41-064	x 3"	5/25	0.23	----
41-065	x 3-1/2"	5/25	0.27	----
41-066	x 4"	5/25	0.31	----
41-067	x 4-1/2"	5/25	0.35	----
41-068	x 5"	5/25	0.39	----
41-069	x 5-1/2"	5/25	0.43	----
41-070	x 6"	5/25	0.47	----



New Nickel Plated Brass Ball Valve with SS trim see page 179

See page 325 for Brass Cam & Groove Fittings

## BRONZE FITTINGS



UL842, UL258, UL125,FM

**Class 125 (150) For steam, water, gas, oil and air service**  
Standard specifications

Materials - ASTM B62-93 (85,5,5,5) C83600

Dimensions - ANSI B 16.15

Threads - ANSI B2.1 or BA 21 and Fed. WW-P-460C, MSS-SP-106, ANSI/ASME B1.20.1

- UL/ FM Approved
- ISO 9001:2000
- Not Lead Free
- RoHS Compliant

Bronze threaded fittings are manufactured from smooth-cored castings, designed to provide full flow with minimum restriction. All threads are accurately machined and gauged to ensure a perfect fit with the pipe. All fittings are individually tested under water to ensure quality. Bronze provides a tighter seal and is easier to install than other metals. Can be used for water, plumbing, heating, pneumatic and marine applications, able to resist the harmful effects of corrosion when coming into contact with salt water or fresh water polluted with mineral acids or peaty soils.

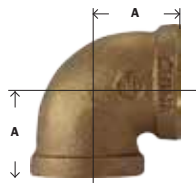
## LEAD FREE BRASS FITTINGS

**LEAD  
FREE**



- Approved to ANSI/NSF 61-4 California AB 1953
- Meets Federal State Drinking Water Act, Lead Free Requirement
- Brass fittings conform to AWWA C800
- Brass castings conform to ASTM B584, UNS Alloy C8933

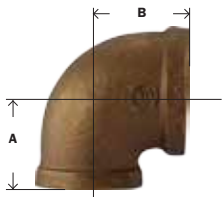
- Brass fittings dimensions conform to ASME B16.15
- NPT threads on all fittings conform to ASME B1.20.1
- Brass unions conform to specification A-A-59617
- Manufacturing facilities are ISO 9001:2008



**90° ELBOWS**



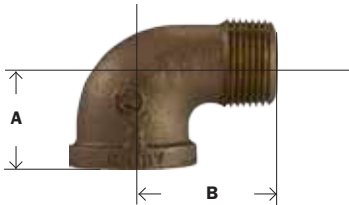
Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Approx. Wt. Lbs.	Part #	List Price
44-100	----	0.08	50/600	1/8"	0.55	0.06	44-100LF	----
44-101	----	0.12	35/420	1/4"	0.72	0.10	44-101LF	----
44-102	----	0.17	90/360	3/8"	0.83	0.15	44-102LF	----
44-103	----	0.24	50/200	1/2"	1.03	0.25	44-103LF	----
44-104	----	0.34	35/105	3/4"	1.19	0.41	44-104LF	----
44-105	----	0.61	20/60	1"	1.43	0.69	44-105LF	----
44-106	----	0.95	20/40	1-1/4"	1.71	1.02	44-106LF	----
44-107	----	1.30	15/30	1-1/2"	1.87	1.36	44-107LF	----
44-108	----	2.07	8/16	2"	2.14	2.14	44-108LF	----
44-109	----	3.80	1/12	2-1/2"	2.74			
44-110	----	4.76	1/4	3"	3.10			
44-112	----	9.71	1/2	4"	3.80			



**90° REDUCING ELBOWS**



Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	B	Approx. Wt. Lbs.	Part #	List Price
44-120	----	0.10	60/720	1/4" x 1/8"	0.67	0.60			
44-122	----	0.24	60/240	3/8" x 1/4"	0.75	0.78			
44-123	----	0.44	60/240	1/2" x 1/4"	0.93	0.90			
44-124	----	0.58	60/240	1/2" x 3/8"	0.93	0.90	0.22	44-124LF	----
44-127	----	0.80	40/160	3/4" x 1/2"	1.08	1.11	0.31	44-127LF	----
44-131	----	1.07	50/100	1" x 3/4"	1.30	1.31	0.56	44-131LF	----
44-134	----	0.80	25/50	1-1/4" x 1"	1.52	1.60			
44-137	----	1.07	10/40	1-1/2" x 1"	1.56	1.72			



**90° STREET ELLS**

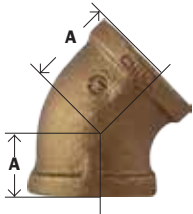


Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	B	Approx. Wt. Lbs.	Part #	List Price
44-160	----	0.07	60/720	1/8"	0.55	0.92	0.06	44-160LF	----
44-161	----	0.11	35/420	1/4"	0.72	1.11	0.11	44-161LF	----
44-162	----	0.18	60/240	3/8"	0.83	1.24	0.16	44-162LF	----
44-163	----	0.24	60/180	1/2"	1.03	1.51	0.24	44-163LF	----
44-164	----	0.37	35/105	3/4"	1.19	1.66	0.38	44-164LF	----
44-165	----	0.67	45/90	1"	1.43	1.98	0.66	44-165LF	----
44-166	----	1.00	25/50	1-1/4"	1.71	2.26	0.99	44-166LF	----
44-167	----	1.37	9/27	1-1/2"	1.87	2.46	1.15	44-167LF	----
44-168	----	1.93	8/16	2"	2.14	2.98	2.07	44-168LF	----
44-169	----	4.05	5/10	2-1/2"	2.74	3.92			
44-170	----	6.16	1/8	3"	3.10	4.45			



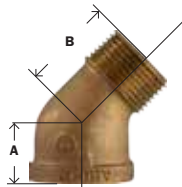
**LEAD FREE BRONZE**

**BRONZE FITTINGS**



**45° ELBOWS**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Approx. Wt. Lbs.	Part #	List Price
44-180	----	0.08	50/600	1/8"	0.43			
44-181	----	0.13	30/360	1/4"	0.55	0.09	44-181LF	----
44-182	----	0.17	75/300	3/8"	0.63	0.14	44-182LF	----
44-183	----	0.21	50/200	1/2"	0.79	0.19	44-183LF	----
44-184	----	0.32	40/120	3/4"	0.91	0.36	44-184LF	----
44-185	----	0.52	20/60	1"	1.07	0.59	44-185LF	----
44-186	----	0.86	20/40	1-1/4"	1.23	0.87	44-186LF	----
44-187	----	1.10	10/30	1-1/2"	1.31	1.13	44-187LF	----
44-188	----	1.71	12/24	2"	1.47	1.65	44-188LF	----
44-189	----	3.24	1/12	2-1/2"	1.95			
44-190	----	4.12	1/10	3"	2.17			



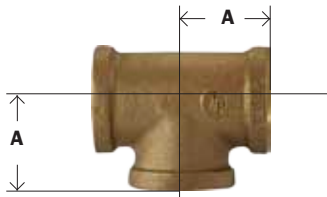
**90° REDUCING ELBOWS**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	B	Approx. Wt. Lbs.	Part #	List Price
44-200	----	0.06	70/840	1/8"	0.26	0.43			
44-201	----	0.11	100/400	1/4"	0.35	0.56	0.09	44-201LF	----
44-202	----	0.13	100/400	3/8"	0.37	0.63	0.12	44-202LF	----
44-203	----	0.18	75/225	1/2"	0.45	0.79	0.22	44-203LF	----
44-204	----	0.28	40/120	3/4"	0.52	0.91	0.31	44-204LF	----
44-205	----	0.52	25/75	1"	0.60	1.07	0.52	44-205LF	----
44-206	----	0.77	10/40	1-1/4"	0.67	1.23	0.72	44-206LF	----
44-207	----	0.97	10/30	1-1/2"	0.70	1.31	1.05	44-207LF	----
44-208	----	2.04	12/24	2"	0.76	1.47			



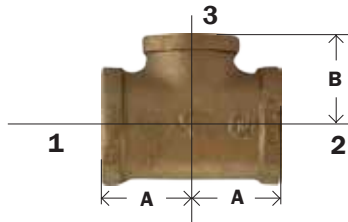
**CROSSES**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Approx. Wt. Lbs.	Part #	List Price
44-391	----	0.20	60/240	1/4"	0.72	0.15	44-391LF	----
44-392	----	0.15	50/150	3/8"	0.83	0.25	44-392LF	----
44-393	----	0.45	30/90	1/2"	1.03	0.38	44-393LF	----
44-394	----	0.76	20/60	3/4"	1.19	0.59	44-394LF	----
44-395	----	1.04	15/30	1"	1.19	0.94	44-395LF	----
44-396	----	1.63	10/20	1-1/4"	1.71	1.43	44-396LF	----
44-397	----	2.10	8/16	1-1/2"	1.87	1.89	44-397LF	----
44-398	----	3.28	5/10	2"	2.14	2.95	44-398LF	----



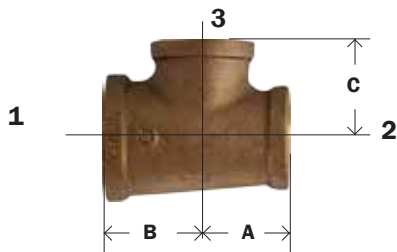
**TEES**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Approx. Wt. Lbs.	Part #	List Price
44-250	----	0.11	120/480	1/8"	0.55			
44-251	----	0.17	75/300	1/4"	0.72	0.13	44-251LF	----
44-252	----	0.25	45/180	3/8"	0.83	0.21	44-252LF	----
44-253	----	0.31	40/120	1/2"	1.03	0.35	44-253LF	----
44-254	----	0.50	35/70	3/4"	1.19	0.55	44-254LF	----
44-255	----	0.85	20/40	1"	1.43	0.92	44-255LF	----
44-256	----	1.29	14/28	1-1/4"	1.71	1.34	44-256LF	----
44-257	----	1.68	12/24	1-1/2"	1.87	1.82	44-257LF	----
44-258	----	2.70	8/16	2"	2.14	2.80	44-258LF	----
44-259	----	5.14	1/6	2-1/2"	2.74			
44-260	----	7.59	1/6	3"	3.10			



**REDUCING TEES  
REDUCING ON THE BRANCH**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size (1 & 2) x 3	A	B	Approx. Wt. Lbs.	Part #	List Price
44-276	----	0.24	40/160	1/2" x 1/4"	0.87	0.87	0.28	44-276LF	----
44-279	----	0.35	40/160	1/2" x 3/8"	0.93	0.90			
44-280	----	0.46	40/160	1/2" x 3/4"	2.42	1.155	0.48	44-280LF	----
44-282	----	0.43	25/100	3/4" x 1/4"	1.05	1.08	0.38	44-282LF	----
44-283	----	0.45	25/100	3/4" x 3/8"	1.00	1.00			
44-286	----	0.53	20/80	3/4" x 1/2"	1.08	1.11	0.40	44-286LF	----
44-291	----	0.60	15/60	1" x 1/2"	1.20	1.24	0.73	44-291LF	----
44-298	----	0.80	12/48	1" x 3/4"	1.30	1.31	0.71	44-298LF	----
44-301	----	0.85	20/40	1-1/4" x 1/2"	1.34	1.53	1.18	44-301LF	----
44-303	----	0.90	20/40	1-1/4" x 3/4"	1.30	1.31			
44-306	----	1.21	20/40	1-1/4" x 1"	1.58	1.67			



**REDUCING TEES  
REDUCING ON THE RUN**

Part #	Size 1x2x3	A	B	C	Box/Case	Approx. Wt. Lbs.	List Price
44-287	3/4" x 1/2" x 1/2"	25/100	1.20	1.22	25/100	0.37	----
44-296	1" x 3/4" x 3/4"	15/60	1.37	1.45	10/40	0.71	----

**LEAD FREE BRONZE**

**BRONZE FITTINGS**



**COUPLINGS**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Approx. Wt. Lbs.	Part #	List Price
44-410	----	0.12	70/840	1/8"	0.80			
44-411	----	0.11	40/480	1/4"	0.80	0.09	44-411LF	----
44-412	----	0.15	40/480	3/8"	1.05	0.13	44-412LF	----
44-413	----	0.18	60/240	1/2"	1.29	0.21	44-413LF	----
44-414	----	0.28	50/150	3/4"	1.43	0.32	44-414LF	----
44-415	----	0.45	25/100	1"	1.68	0.53	44-415LF	----
44-416	----	0.63	16/64	1-1/4"	1.86	0.73	44-416LF	----
44-417	----	0.82	18/36	1-1/2"	1.92	0.97	44-417LF	----
44-418	----	1.38	12/24	2"	2.20	1.51	44-418LF	----
44-419	----	2.63	1	2-1/2"	2.88			
44-420	----	3.80	1	3"	3.18			



**REDUCING COUPLINGS**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Approx. Wt. Lbs.	Part #	List Price
44-430	----	0.08	70/840	1/4" x 1/8"	0.88			
44-431	----	0.11	35/420	3/8" x 1/8"	0.92			
44-432	----	0.13	30/360	3/8" x 1/4"	0.92	0.11	44-432LF	----
44-433	----	0.16	75/300	1/2" x 1/8"	1.17			
44-434	----	0.16	75/300	1/2" x 1/4"	1.17	0.16	44-434LF	----
44-435	----	0.18	60/240	1/2" x 3/8"	1.17	0.17	44-435LF	----
44-436	----	0.23	45/180	3/4" x 1/4"	1.35	0.20	44-436LF	----
44-437	----	0.24	45/180	3/4" x 3/8"	1.35	0.23	44-437LF	----
44-438	----	0.23	60/180	3/4" x 1/2"	1.35	0.26	44-438LF	----
44-440	----	0.40	30/120	1" x 3/8"	1.56			
44-441	----	0.33	30/120	1" x 1/2"	1.56	0.38	44-441LF	----
44-442	----	0.44	25/100	1" x 3/4"	1.56	0.43	44-442LF	----
44-444	----	0.62	25/75	1-1/4" x 1/2"	1.77			
44-445	----	0.64	25/75	1-1/4" x 3/4"	1.77	0.57	44-445LF	----
44-446	----	0.54	15/60	1-1/4" x 1"	1.77	0.65	44-446LF	----
44-447	----	0.80	20/60	1-1/2" x 1/2"	1.80			
44-448	----	0.83	15/60	1-1/2" x 3/4"	1.80	0.74	44-448LF	----
44-449	----	0.68	25/50	1-1/2" x 1"	1.80	0.83	44-449LF	----
44-450	----	0.99	12/48	1-1/2" x 1-1/4"	1.80	0.87	44-450LF	----
44-458	----	1.28	12/36	2" x 1/2"	2.03			
44-451	----	0.97	12/36	2" x 3/4"	2.03			
44-452	----	1.40	12/36	2" x 1"	2.03	1.19	44-452LF	----
44-453	----	1.09	9/27	2" x 1-1/4"	2.03	1.22	44-453LF	----
44-454	----	3.60	9/27	2" x 1-1/2"	2.03	1.28	44-454LF	----
44-461	----	1.26	1	2-1/2" x 1-1/2"	3.15			
44-462	----	2.29	1	2-1/2" x 2"	3.15			
44-456	----	2.49	1	3" x 2"	3.69			
44-463	----	3.92	1	3" x 2-1/2"	3.69			

**BRONZE FITTINGS**

**LEAD FREE BRONZE**



**CAPS**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Approx. Wt. Lbs.	Part #	List Price
44-470	----	0.04	80/160	1/8"	0.53			
44-471	----	0.06	80/960	1/4"	0.58	0.06	44-471LF	----
44-472	----	0.10	60/720	3/8"	0.66			
44-473	----	0.13	75/300	1/2"	0.75	0.13	44-473LF	----
44-474	----	0.19	40/160	3/4"	0.87	0.21	44-474LF	----
44-475	----	0.30	25/100	1"	1.03	0.35	44-475LF	----
44-476	----	0.51	20/80	1-1/4"	1.10	0.52	44-476LF	----
44-477	----	0.66	18/54	1-1/2"	1.12	0.65	44-477LF	----
44-478	----	1.00	12/36	2"	1.35	1.14	44-478LF	----
44-480	----	2.74	1	3"	1.83			



**UNIONS**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Approx. Wt. Lbs.	Part #	List Price
44-600	----	0.17	40/160	1/8"	1.18			
44-601	----	0.25	40/160	1/4"	1.26	0.27	44-601LF	----
44-602	----	0.37	40/160	3/8"	1.50	0.39	44-602LF	----
44-603	----	0.52	50/100	1/2"	1.57	0.44	44-603LF	----
44-604	----	0.78	35/70	3/4"	1.89	0.59	44-604LF	----
44-605	----	1.18	20/40	1"	2.13	0.90	44-605LF	----
44-606	----	1.64	15/30	1-1/4"	2.36	1.33	44-606LF	----
44-607	----	2.08	10/20	1-1/2"	2.68	1.80	44-607LF	----
44-608	----	3.24	6/12	2"	2.99	2.66	44-608LF	----
44-609	----	5.31	4/8	2-1/2"	3.35			
44-610	----	6.94	4/8	3"	3.74			



• Straight Thread

**HEX LOCKNUTS**

Part #	Box/Case	Size	A	Thickness	Approx. Wt. Lbs.	List Price
44-700	180/720	1/8"	0.50	0.19	0.01	----
44-701	90/540	1/4"	0.66	0.25	0.03	----
44-702	90/540	3/8"	0.77	0.28	0.04	----
44-703	90/360	1/2"	0.97	0.31	0.09	----
44-704	90/360	3/4"	1.23	0.34	0.10	----
44-705	50/150	1"	1.50	0.38	0.17	----
44-706	45/180	1-1/4"	1.86	0.42	0.22	----
44-707	45/135	1-1/2"	2.12	0.47	0.29	----
44-708	25/75	2"	2.63	0.53	0.45	----

**LEAD FREE BRONZE**

**BRONZE FITTINGS**



Hex



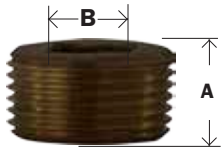
**HEX BUSHINGS**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	Hex	Approx. Wt. Lbs.	Part #	List Price
44-500	----	0.02	120/1440	1/4" x 1/8"	0.58	0.66	0.03	44-500LF	----
44-501	----	0.06	75/900	3/8" x 1/8"	0.64	0.72			
44-502	----	0.04	75/900	3/8" x 1/4"	0.64	0.75	0.04	44-502LF	----
44-503	----	0.10	150/600	1/2" x 1/8"	0.75	0.92	0.09	44-503LF	----
44-504	----	0.09	150/600	1/2" x 1/4"	0.75	0.93	0.10	44-504LF	----
44-505	----	0.08	150/600	1/2" x 3/8"	0.75	0.92	0.08	44-505LF	----
44-506	----	0.17	75/300	3/4" x 1/8"	0.87	1.15			
44-507	----	0.15	75/300	3/4" x 1/4"	0.85	1.14	0.18	44-507LF	----
44-508	----	0.14	75/300	3/4" x 3/8"	0.85	1.14	0.17	44-508LF	----
44-509	----	0.14	75/300	3/4" x 1/2"	0.85	1.15	0.14	44-509LF	----
44-510*	----	0.23	50/200	1" x 1/4"	1.05	1.43	0.28	44-510LF*	----
44-511*	----	0.22	50/200	1" x 3/8"	1.05	1.50			
44-512	----	0.25	50/200	1" x 1/2"	1.00	1.40	0.30	44-512LF	----
44-513	----	0.21	50/200	1" x 3/4"	1.00	1.43	0.21	44-513LF	----
44-514	----	0.34	30/120	1-1/4" x 1/4"	1.22	1.10			
44-515	----	0.35	30/120	1-1/4" x 3/8"	1.19	1.84			
44-516*	----	0.34	30/120	1-1/4" x 1/2"	1.14	1.33	0.39	44-516LF*	----
44-517	----	0.40	30/120	1-1/4" x 3/4"	1.08	1.75	0.43	44-517LF	----
44-518	----	0.33	30/120	1-1/4" x 1"	1.08	1.76	0.42	44-518LF	----
44-519*	----	0.47	25/75	1-1/2" x 1/4"	1.09	2.12			
44-520*	----	0.45	25/75	1-1/2" x 3/8"	1.35	2.16			
44-521*	----	0.44	25/75	1-1/2" x 1/2"	1.20	2.10	0.51	44-521LF*	----
44-522*	----	0.48	25/75	1-1/2" x 3/4"	1.20	2.12	0.54	44-522LF*	----
44-523	----	0.53	25/75	1-1/2" x 1"	1.14	2.08	0.57	44-523LF	----
44-524	----	0.45	25/75	1-1/2" x 1-1/4"	1.14	2.12	0.46	44-524LF	----
44-527*	----	0.67	20/60	2" x 1/2"	1.27	1.32			
44-528*	----	0.74	20/60	2" x 3/4"	1.27	1.62			
44-529*	----	0.76	20/60	2" x 1"	1.29	1.95	0.77	44-529LF*	----
44-530	----	0.86	20/60	2" x 1-1/4"	1.22	2.47	0.88	44-530LF	----
44-531	----	0.83	20/60	2" x 1-1/2"	1.22	2.50	0.71	44-531LF	----
44-532	----	1.16	15/30	2-1/2" x 1"	1.53	1.94			
44-534	----	1.36	15/30	2-1/2" x 1-1/2"	1.50	2.38			
44-535	----	1.13	15/30	2-1/2" x 2"	1.43	2.97			
44-537	----	1.82	12/24	3" x 1-1/2"	1.61	2.68			
44-538	----	2.33	12/24	3" x 2"	1.61	3.70			
44-539	----	2.19	12/24	3" x 2-1/2"	1.53	3.70			
44-541	----	3.51	12/24	4" x 2"					
44-543	----	4.22	12/24	4" x 3"	2.01	4.62			



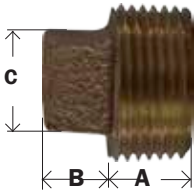
\* INSIDE HEX





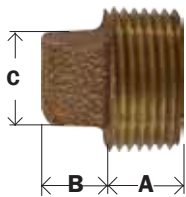
**BRONZE COUNTERSUNK PLUGS**

Part #	Size	A	Socket Size	Box/Case	Approx. Wt. Lbs.	List Price
44-633	1/2"	0.57	0.43	120/1440	0.06	----
44-634	3/4"	0.58	0.47	70/840	0.11	----
44-635	1"	0.75	0.59	20/240	0.22	----
44-636	1-1/4"	0.74	0.72	40/120	0.33	----
44-637	1-1/2"	0.79	0.72	30/90	0.50	----
44-638	2"	0.80	0.85	20/60	0.88	----



**CORED SQUARE HEAD PLUGS**

Part #	List Price	Approx. Wt. Lbs.	Box/Case	Size	A	B	C	Approx. Wt. Lbs.	Part #	List Price
44-650	----	0.02	300/3600	1/8"	0.27	0.24	0.28	0.02	44-670LF	----
44-651	----	0.04	150/1800	1/4"	0.41	0.28	0.37	0.04	44-671LF	----
44-652	----	0.06	100/1200	3/8"	0.41	0.31	0.43	0.06	44-672LF	----
44-653	----	0.10	50/600	1/2"	0.54	0.38	0.56	0.10	44-653LF	----
44-654	----	0.13	30/360	3/4"	0.55	0.44	0.62	0.13	44-654LF	----
44-655	----	0.25	20/240	1"	0.69	0.50	0.81	0.22	44-655LF	----
44-656	----	0.39	40/120	1-1/4"	0.71	0.56	0.93	0.32	44-656LF	----
44-657	----	0.57	30/90	1-1/2"	0.73	0.62	1.12	0.47	44-657LF	----
44-658	----	0.77	20/60	2"	0.76	0.68	1.31	0.68	44-658LF	----
44-659	----	1.25	16/32	2-1/2"	1.07	0.74	1.50			
44-660	----	2.02	16/32	3"	1.13	0.80	1.68			
44-662	----	3.20	6/12	4"	1.22	0.92	2.25			



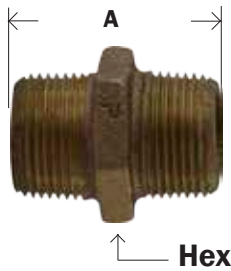
**SOLID SQUARE HEAD PLUGS**

Part #	Size	A	B	C	Box/Case	Approx. Wt. Lbs.	List Price
44-670	1/8"	0.27	0.24	0.28	400/4800	0.02	----
44-671	1/4"	0.41	0.28	0.37	150/1800	0.04	----
44-672	3/8"	0.41	0.31	0.43	120/1440	0.06	----
44-673	1/2"	0.54	0.38	0.56	50/600	0.12	----
44-674	3/4"	0.55	0.44	0.62	35/420	0.18	----
44-675	1"	0.69	0.50	0.81	20/240	0.36	----
44-676	1-1/4"	0.71	0.56	0.93	30/120	0.63	----
44-677	1-1/2"	0.73	0.62	1.12	30/90	0.84	----
44-678	2"	0.76	0.68	1.31	10/60	1.27	----

**BRONZE FITTINGS**

**LEAD FREE C/P FITTINGS**

**HEX NIPPLES**



Part #	Size	A	Hex	Box/Case	Approx. Wt. Lbs.	List Price
44-720	1/8"	1.25	0.50	400/4800	0.05	----
44-721	1/4"	1.25	0.61	150/1800	0.06	----
44-722	3/8"	1.55	0.68	120/1440	0.11	----
44-723	1/2"	1.65	1.03	240/480	0.18	----
44-724	3/4"	1.77	1.21	80/320	0.24	----
44-725	1"	2.06	1.46	50/150	0.36	----
44-726	1-1/4"	2.12	1.81	50/100	0.47	----
44-727	1-1/2"	2.25	2.07	35/70	0.76	----
44-728	2"	2.50	2.41	20/40	1.50	----
44-729	2-1/2"	2.80	3.10	1	2.10	----

**REDUCING HEX NIPPLES**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
44-740	1/4" x 1/8"	1/1	0.06	----
44-742	1/2" x 3/8"	1/1	0.16	----
44-744	1" x 1/2"	1/1	0.31	----
44-750	1-1/2" x 1"	1/1	0.64	----
44-753	1-1/2" x 1-1/4"	1/1	0.68	----

See page 244 for Stainless Steel Reducing Hex Nipples

**CHROME PLATED 90° ELBOW**



**LEAD FREE**

Part #	Size	List Price
45-102LF	3/8"	----
45-103LF	1/2"	----

**CHROME PLATED TEE**



**LEAD FREE**

Part #	Size	List Price
45-252LF	3/8"	----
45-253LF	1/2"	----

**CHROME PLATED 90° ELBOW**



**LEAD FREE**

Part #	Size	List Price
45-163LF	1/2"	45.98

**CHROME PLATED COUPLING**



**LEAD FREE**

Part #	Size	List Price
45-412LF	3/8"	----
45-413LF	1/2"	----

## STAINLESS STEEL NIPPLES

**SCHEDULE 40 WELDED**

Stainless steel pipe nipples are manufactured from stainless steel pipe that conforms to specification ASTM A312/SA312.

All stainless steel nipples conform to specification ASTM A733. Threads conform to the requirements of ANSI B1.20.1.

**304**

The basic alloy. Type 304 (18-8) is an austenitic steel possessing a minimum of 18% chromium and 8% nickel, combined with a maximum of 0.08% carbon. It is a nonmagnetic steel which cannot be hardened by heat treatment, but instead, must be cold worked to obtain higher tensile strengths.

Because of its ability to withstand the corrosive action of various acids found in fruits, meats, milk, and vegetables, Type 304 is especially suited for all types of dairy equipment piping and valves, the brewing industry, the citrus and fruit juice industry, and in food processing applications. Also used for the dye tanks, pipelines buckets, dippers, etc. that come in contact with the lormic, acetic, and other organic acids used in the dyeing industry.

In the marine environment, because of its slightly higher strength and wear resistance than type 316 it is also used for nuts, bolts, screws, and other fasteners. It is also used for springs, cogs, and other components where both wear and corrosion resistance is needed.

Both #304 and #316 nipples are NSF/ANSI 372 and NSF/ANSI 61 compliant.

**SCHEDULE 80 SEAMLESS**

- SEAMLESS FOR UNRESTRICTED FLOW
- USE WITH AIR, WATER, OIL, NATURAL GAS, STEAM
- FITTINGS: USE THREADED CLASS 3000 HIGH-PRESSURE STAINLESS STEEL.
- ASTM A733 • ASTM A312 • ANSI/ ASME B1.20.1
- PSI 3000

**316**

For severe environments. Of course, there are many industrial processes that require a higher level of resistance to corrosion than Type 304 can offer. For these applications, Type 316 is the answer.

In type 316, the nickel content is increased slightly. What distinguishes Type 316 from Type 304 is the addition of molybdenum up to a maximum of 3%.

Molybdenum increases the corrosion resistance of this chromium-nickel alloy to withstand attack by many industrial chemicals and solvents, and, in particular, inhibits pitting caused by chlorides. As such, molybdenum is one of the single most useful alloying additives in the fight against corrosion.

Type 316 can withstand corrosive attack by sodium and calcium brines, hypochlorite solutions, phosphoric acid; and the sulfite liquors and sulfurous acids used in the paper pulp industry. This alloy, therefore, is specified for industrial equipment that handles the corrosive process chemicals used to produce inks, rayons, photographic chemicals, paper, textiles, bleaches, and rubber. Type 316 is also used extensively for surgical implants within the hostile environment of the body.

Type 316 is the main stainless used in the marine environment, with the exception of fasteners and other items where strength and wear resistance are needed, then Type 304 (18-8) is typically used.



**SCH 40 STAINLESS STEEL NIPPLES**

**STAINLESS STEEL**

**#304**

1/8" - 27

**#316**



**1/8" DIAMETER  
SCH 40 WELDED**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-001	----	X Close (3/4")	25	0.01	49-001	----
48-002	----	x 1-1/2"	25	0.03	49-002	----
48-003	----	x 2"	25	0.04	49-003	----
48-004	----	x 2-1/2"	25	0.05	49-004	----
48-005	----	x 3"	25	0.06	49-005	----
48-006	----	x 3-1/2"	25	0.07	49-006	----
48-007	----	x 4"	25	0.07	49-007	----
48-008	----	x 4-1/2"	25	0.09	49-008	----
48-009	----	x 5"	25	0.10	49-009	----
48-010	----	x 5-1/2"	25	0.11	49-010	----
48-011	----	x 6"	25	0.12	49-011	----
48-015	----	x 10"	1	0.19		

1/4"-18



**1/4" DIAMETER  
SCH 40 WELDED**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-020	----	X Close (7/8")	25	0.02	49-020	----
48-021	----	x 1-1/2"	25	0.04	49-021	----
48-022	----	x 2"	25	0.06	49-022	----
48-023	----	x 2-1/2"	25	0.07	49-023	----
48-024	----	x 3"	25	0.09	49-024	----
48-025	----	x 3-1/2"	25	0.11	49-025	----
48-026	----	x 4"	25	0.13	49-026	----
48-027	----	x 4-1/2"	25	0.14	49-027	----
48-028	----	x 5"	25	0.16	49-028	----
48-029	----	x 5-1/2"	25	0.18	49-029	----
48-030	----	x 6"	25	0.19	49-030	----
48-032	----	x 8"	1	0.25		
48-034	----	x 10"	1	0.35		
48-036	----	x 12"	1	0.44		



New 1,000# Barstock SS fittings on pages 250

**STAINLESS STEEL**

**SCH 40 STAINLESS STEEL NIPPLES**

**#304**

**3/8"-18**

**#316**



**3/8" DIAMETER  
SCH 40 WELDED**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-040	----	X Close (1")	25	0.03	49-040	----
48-041	----	x 1-1/2"	25	0.06	49-041	----
48-042	----	x 2"	25	0.07	49-042	----
48-043	----	x 2-1/2"	25	0.10	49-043	----
48-044	----	x 3"	25	0.12	49-044	----
48-045	----	x 3-1/2"	25	0.15	49-045	----
48-046	----	x 4"	25	0.17	49-046	----
48-047	----	x 4-1/2"	25	0.19	49-047	----
48-048	----	x 5"	25	0.22	49-048	----
48-049	----	x 5-1/2"	25	0.23	49-049	----
48-050	----	x 6"	25	0.26	49-050	----
48-052	----	x 8"	1	0.34		
48-054	----	x 10"	1			



**1/2" - 14**



**1/2" DIAMETER  
SCH 40 WELDED**

Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-060	----	X Close 1-1/8"	25	0.05	49-060	----
48-061	----	x 1-1/2"	25	0.07	49-061	----
48-062	----	x 2"	25	0.10	49-062	----
48-063	----	x 2-1/2"	25	0.14	49-063	----
48-064	----	x 3"	25	0.18	49-064	----
48-065	----	x 3-1/2"	25	0.20	49-065	----
48-066	----	x 4"	25	0.25	49-066	----
48-067	----	x 4-1/2"	25	0.28	49-067	----
48-068	----	x 5"	25	0.31	49-068	----
48-069	----	x 5-1/2"	25	0.34	49-069	----
48-070	----	x 6"	25	0.39	49-070	----
48-071	----	x 7"	1	0.41		
48-072	----	x 8"	1	0.52		
48-073	----	x 9"	1	0.54		
48-074	----	10"	1	0.58		
48-075	----	x 11"	1	0.64		
48-076	----	x 12"	1	0.69		

Sch 80 Stainless Steel Nipples on pages 239-241

**SCH 40 STAINLESS STEEL NIPPLES**

**STAINLESS STEEL**

**#304**



**3/4" - 14**

**3/4" DIAMETER  
SCH 40 WELDED**

**#316**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-080	----	X Close (1-3/8")	25	0.08	49-080	----
48-081	----	x 1-1/2"	25	0.13	49-081	----
48-082	----	x 2"	25	0.14	49-082	----
48-083	----	x 2-1/2"	25	0.17	49-083	----
48-084	----	x 3"	25	0.22	49-084	----
48-085	----	x 3-1/2"	25	0.27	49-085	----
48-086	----	x 4"	25	0.32	49-086	----
48-087	----	x 4-1/2"	25	0.38	49-087	----
48-088	----	x 5"	25	0.40	49-088	----
48-089	----	x 5-1/2"	25	0.42	49-089	----
48-090	----	x 6"	25	0.48	49-090	----
48-091	----	x 7"	1	0.45		
48-092	----	x 8"	1	0.67		
48-094	----	x 10"	1	0.94	49-094	----
48-096	----	x 12"	1	1.03		



**1" - 11 1/2**

**1" DIAMETER  
SCH 40 WELDED**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-100	----	X Close (1-1/2")	25	0.13	49-100	----
48-101	----	x 2"	25	0.20	49-101	----
48-102	----	x 2-1/2"	25	0.25	49-102	----
48-103	----	x 3"	25	0.33	49-103	----
48-104	----	x 3-1/2"	25	0.40	49-104	----
48-105	----	x 4"	25	0.47	49-105	----
48-106	----	x 4-1/2"	25	0.53	49-106	----
48-107	----	x 5"	25	0.55	49-107	----
48-108	----	x 5-1/2"	25	0.60	49-108	----
48-109	----	x 6"	25	0.71	49-109	----
48-110	----	x 7"	1	0.57		
48-111	----	x 8"	1	1.02		
48-113	----	x 10"	1	1.16		
48-115	----	x 12"	1			



1,000# 2 Piece FP #316 Stainless Steel Ball Valve on page 201

**STAINLESS STEEL**

**SCH 40 STAINLESS STEEL NIPPLES**



**1 1/4" - 11 1/2**



**1-1/4" DIAMETER  
SCH 40 WELDED**

Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-120	----	X Close (1-5/8")	10	0.17	49-120	----
48-121	----	x 2"	10	0.23	49-121	----
48-122	----	x 2-1/2"	10	0.35	49-122	----
48-123	----	x 3"	10	0.46	49-123	----
48-124	----	x 3-1/2"	10	0.52	49-124	----
48-125	----	x 4"	10	0.65	49-125	----
48-126	----	x 4-1/2"	10	0.53	49-126	----
48-127	----	x 5"	10	0.60	49-127	----
48-128	----	x 5-1/2"	10	0.61	49-128	----
48-129	----	x 6"	10	0.71	49-129	----
48-131	----	x 8"	1	1.34		
48-135	----	x 12"	1	1.54		




**1-1/2" - 11 1/2**



**1-1/2" DIAMETER  
SCH 40 WELDED**

Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-140	----	X Close x 1-3/4"	10	0.25	49-140	----
48-141	----	x 2"	10	0.32	49-141	----
48-142	----	x 2-1/2"	10	0.41	49-142	----
48-143	----	x 3"	10	0.52	49-143	----
48-144	----	x 3-1/2"	10	0.62	49-144	----
48-145	----	x 4"	10	0.73	49-145	----
48-146	----	x 4-1/2"	10	0.86	49-146	----
48-147	----	x 5"	10	0.95	49-147	----
48-148	----	x 5-1/2"	10	1.01	49-148	----
48-149	----	x 6"	10	1.19	49-149	----
48-151	----	x 8"	1	1.63		
48-152	----	x 9"	1	1.88		
48-153	----	x 10"	1			

 New SS Mini Ball Valves w/Viton O-Ring on page 203

**SCH 40 STAINLESS STEEL NIPPLES**

**STAINLESS STEEL**



**2" DIAMETER  
SCH 40 WELDED**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
48-160	----	X Close (2")	10	0.37	49-160	----
48-161	----	x 2-1/2"	10	0.54	49-161	----
48-162	----	x 3"	10	0.65	49-162	----
48-163	----	x 3-1/2"	10	0.88	49-163	----
48-164	----	x 4"	10	1.02	49-164	----
48-165	----	x 4-1/2"	10	1.16	49-165	----
48-166	----	x 5"	10	1.29	49-166	----
48-167	----	x 5-1/2"	10	1.46	49-167	----
48-168	----	x 6"	10	1.57	49-168	----
48-169	----	x 7"	1	1.92	49-169	----
48-170	----	x 8"	1	2.01		
48-171	----	x 9"	1	2.55		
48-172	----	x 10"	1	2.69		
48-174	----	x 12"	1	2.89		

**2-1/2" DIAMETER  
SCH 40 WELDED**

Part # 304 S.S.	Length	Box	Approx. Wt. Lbs.	List Price
48-180	X Close (2-1/2")	10	0.64	----



**3" DIAMETER  
SCH 40 WELDED**

Part # 304 S.S.	Length	Box	Approx. Wt. Lbs.	List Price
48-200	X Close (2-5/8")	10	0.95	----
48-201	x 3"	10	1.32	----
48-203	x 4"	10	1.66	----
48-205	x 5"	5	1.72	----
48-207	x 6"	5	1.88	----
48-209	x 8"	1	1.91	----
48-213	x 12"	1	2.12	----



**4" DIAMETER  
SCH 40 WELDED**

Part # 304 S.S.	Length	Box	Approx. Wt. Lbs.	List Price
48-220	X Close (2-7/8")	8	1.15	----
48-227	x 6"	1	2.31	----

**STAINLESS STEEL**

**SCH 80 STAINLESS STEEL NIPPLES**

**#304**

1/8" - 27

**#316**



**1/8" DIAMETER  
SCH 80 SEAMLESS**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-001	----	X Close (3/4")	25	0.01	52-001	----
51-002	----	X 1-1/2"	25	0.03	52-002	----
51-003	----	X 2"	25	0.04	52-003	----
51-004	----	X 2-1/2"	25	0.05	52-004	----
51-005	----	X 3"	25	0.07	52-005	----
51-006	----	X 3-1/2"	25	0.09	52-006	----
51-007	----	X 4"	25	0.15	52-007	----
51-008	----	X 4-1/2"	25	0.19	52-008	----
51-009	----	X 5"	25	0.22	52-009	----
51-010	----	X 5-1/2"	25	0.26	52-010	----
51-011	----	X 6"	25	0.30	52-011	----

1/4"-18



**1/4" DIAMETER  
SCH 80 SEAMLESS**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-020	----	X Close (7/8")	25	0.03	52-020	----
51-021	----	X 1-1/2"	25	0.06	52-021	----
51-022	----	X 2"	25	0.07	52-022	----
51-023	----	X 2-1/2"	25	0.10	52-023	----
51-024	----	X 3"	25	0.12	52-024	----
51-025	----	X 3-1/2"	25	0.15	52-025	----
51-026	----	X 4"	25	0.17	52-026	----
51-027	----	X 4-1/2"	25	0.20	52-027	----
51-028	----	X 5"	25	0.22	52-028	----
51-029	----	X 5-1/2"	25	0.24	52-029	----
51-030	----	X 6"	25	0.25	52-030	----

3/8"-18



**3/8" DIAMETER  
SCH 80 SEAMLESS**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-040	----	X CLOSE (1")	25	0.04	52-040	----
51-041	----	X 1-1/2"	25	0.50	52-041	----
51-042	----	X 2"	25	0.06	52-042	----
51-043	----	X 2-1/2"	25	0.08	52-043	----
51-044	----	X 3"	25	0.11	52-044	----
51-045	----	X 3-1/2"	25	0.13	52-045	----
51-046	----	X 4"	25	0.15	52-046	----
51-047	----	X 4-1/2"	25	0.18	52-047	----
51-048	----	X 5"	25	0.21	52-048	----
51-049	----	X 5-1/2"	25	0.23	52-049	----
51-050	----	X 6"	25	0.25	52-050	----

**SCH 80 STAINLESS STEEL NIPPLES**

**STAINLESS STEEL**

**#304**



**1/2" - 14**

**1/2" DIAMETER  
SCH 80 SEAMLESS**

**#316**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-060	----	X Close (1-1/8)	25	0.10	52-060	----
51-061	----	X 1-1/2"	25	0.14	52-061	----
51-062	----	X 2"	25	0.14	52-062	----
51-063	----	X 2-1/2"	25	0.19	52-063	----
51-064	----	X 3"	25	0.24	52-064	----
51-065	----	X 3-1/2"	25	0.28	52-065	----
51-066	----	X 4"	25	0.32	52-066	----
51-067	----	X 4-1/2"	25	0.34	52-067	----
51-068	----	X 5"	25	0.37	52-068	----
51-069	----	X 5-1/2"	25	0.42	52-069	----
51-070	----	X 6"	25	0.48	52-070	----



**3/4" - 14**

**3/4" DIAMETER  
SCH 80 SEAMLESS**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-080	----	X Close (1-3/8")	25	0.12	52-080	----
51-081	----	X 1-1/2"	25	0.16	52-081	----
51-082	----	X 2"	25	0.22	52-082	----
51-083	----	X 2-1/2"	25	0.32	52-083	----
51-084	----	X 3"	25	0.33	52-084	----
51-085	----	X 3-1/2"	25	0.38	52-085	----
51-086	----	X 4"	25	0.43	52-086	----
51-087	----	X 4-1/2"	25	0.47	52-087	----
51-088	----	X 5"	25	0.49	52-088	----
51-089	----	X 5-1/2"	25	0.57	52-089	----
51-090	----	X 6"	25	0.57	52-090	----



**1" - 11 1/2**

**1" DIAMETER  
SCH 80 SEAMLESS**



Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-100	----	X Close (1-1/2")	25	0.20	52-100	----
51-101	----	X 2"	25	0.32	52-101	----
51-102	----	X 2-1/2"	25	0.44	52-102	----
51-103	----	X 3"	25	0.47	52-103	----
51-104	----	X 3-1/2"	25	0.52	52-104	----
51-105	----	X 4"	25	0.56	52-105	----
51-106	----	X 4-1/2"	25	0.60	52-106	----
51-107	----	X 5"	25	0.63	52-107	----
51-108	----	X 5-1/2"	25	0.68	52-108	----
51-109	----	X 6"	25	0.82	52-109	----

**STAINLESS STEEL**

**SCH 80 STAINLESS STEEL NIPPLES**



1 1/4" - 11 1/2



**1-1/4" DIAMETER  
SCH 80 SEAMLESS**

Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-120	----	X Close (1-5/8")	10	0.26	52-120	----
51-121	----	X 2"	10	1.03	52-121	----
51-122	----	X 2-1/2"	10	0.44	52-122	----
51-123	----	X 3"	10	0.48	52-123	----
51-124	----	X 3-1/2"	10	0.52	52-124	----
51-125	----	X 4"	10	0.65	52-125	----
51-126	----	X 4-1/2"	10	0.72	52-126	----
51-127	----	X 5"	10	0.78	52-127	----
51-128	----	X 5-1/2"	10	0.88	52-128	----
51-129	----	X 6"	10	1.10	52-129	----



1-1/2" - 11 1/2



**1-1/2" DIAMETER  
SCH 80 SEAMLESS**

Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-140	----	X Close (1-3/4")	10	0.45	52-140	----
51-141	----	X 2"	10	0.50	52-141	----
51-142	----	X 2-1/2"	10	0.64	52-142	----
51-143	----	X 3"	10	0.77	52-143	----
51-144	----	X 3-1/2"	10	0.82	52-144	----
51-145	----	X 4"	10	0.87	52-145	----
51-146	----	X 4-1/2"	10	1.03	52-146	----
51-147	----	X 5"	10	1.40	52-147	----
51-148	----	X 5-1/2"	10	1.55	52-148	----
51-149	----	X 6"	10	1.64	52-150	----



2" - 11 1/2



**2" DIAMETER  
SCH 80 SEAMLESS**

Part # 304 S.S.	List Price	Length	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
51-160	----	X Close (2")	10	0.60	52-160	----
51-161	----	X 2-1/2"	10	0.82	52-161	----
51-162	----	X 3"	10	1.08	52-162	----
51-163	----	X 3-1/2"	10	1.26	52-163	----
51-164	----	X 4"	10	1.45	52-164	----
51-165	----	X 4-1/2"	10	1.68	52-165	----
51-166	----	X 5"	10	1.82	52-166	----
51-167	----	X 5-1/2"	10	1.97	52-167	----
51-168	----	X 6"	10	2.29	52-168	----





**150# 304 & 316 Stainless Steel Fittings**

Our high quality standard pattern 150lb rated stainless steel threaded fittings are manufactured to the highest standards. All stainless steel fittings are monitored by our quality control personnel for strict compliance with applicable standards and specifications.

These stainless steel pipe fittings are excellent for uses that involve chemicals or liquids that may be corrosive. Along with fighting corrosion, a stainless steel pipe fitting will prevent contamination making it useful to many professionals.

- Use with air, water, oil, natural gas, steam
- NPT and FNPT threads conform to ASME B1.20.1
- Maximum Pressure: 150 psi @ 72 F; 150 psi @ 366 F for steam
- Maximum Steam Pressure: 150 psi
- Material Conforms to ASTM A-351. Class 150 Pressure Ratings
- Manufacturing facility is ISO 9001:2008
- 304 Stainless Steel is economically priced, chromium-nickel material that offers very good corrosion resistance. 316 Stainless Steel has higher nickel content and contains molybdenum for even better corrosion resistance.

**HIGH PRESSURE 1000# BARSTOCK**



**1000#**

- Stainless bar stock dimensions conform to MSS SP-114
- NPT threads conform to ASME B1.20.1
- Manufacturing facility is ISO 9001:2008
- Fittings meet applicable chemical & physical properties

**HIGH PRESSURE 3000# FORGED**

A182 and ANSI/ASME B16.11.



**3000#**

- Use with air, water, oil, natural gas, steam
- Maximum Pressure:
  - Type 304 SS: 2,570 psi @ 72°F;  
1,965 psi @ 350°F for steam
  - Type 316 SS: 3,000 psi @ 72°F  
2810 psi @ 350°F for steam
- Pipe Nipples and Pipe: Use threaded Schedule 80 thickwall stainless steel

**STAINLESS STEEL**

**304 & 316 150# SS FITTINGS**

**90° ELBOW  
304 & 316 150#**



Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-100	----	1/8"	25	0.06	63-100	----
62-101	----	1/4"	25	0.06	63-101	----
62-102	----	3/8"	25	0.11	63-102	----
62-103	----	1/2"	25	0.13	63-103	----
62-104	----	3/4"	25	0.20	63-104	----
62-105	----	1"	10	0.33	63-105	----
62-106	----	1-1/4"	10	0.55	63-106	----
62-107	----	1-1/2"	5	0.77	63-107	----
62-108	----	2"	5	1.10	63-108	----
62-109	----	2-1/2"	1	2.09	63-109	----
62-110	----	3"	1	2.84	63-110	----
62-112	----	4"	1	5.00	63-112	----

**90° STREET ELBOW  
304 & 316 150#**



Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-160	----	1/8"	25	0.04	63-160	----
62-161	----	1/4"	25	0.07	63-161	----
62-162	----	3/8"	25	0.09	63-162	----
62-163	----	1/2"	25	0.15	63-163	----
62-164	----	3/4"	25	0.24	63-164	----
62-165	----	1"	10	0.31	63-165	----
62-166	----	1-1/4"	10	0.51	63-166	----
62-167	----	1-1/2"	5	0.84	63-167	----
62-168	----	2"	5	1.26	63-168	----

**45° STREET ELBOW  
304 & 316 150#**



Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-180	----	1/8"	25	0.04	63-180	----
62-181	----	1/4"	25	0.07	63-181	----
62-182	----	3/8"	25	0.09	63-182	----
62-183	----	1/2"	25	0.13	63-183	----
62-184	----	3/4"	25	0.20	63-184	----
62-185	----	1"	10	0.33	63-185	----
62-186	----	1-1/4"	10	0.49	63-186	----
62-187	----	1-1/2"	5	0.66	63-187	----
62-188	----	2"	5	0.93	63-188	----

## 304 & 316 150# SS FITTINGS

## STAINLESS STEEL

### TEE 304 & 316 150#



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-250	----	1/8"	25	0.07	63-250	----
62-251	----	1/4"	25	0.07	63-251	----
62-252	----	3/8"	25	0.11	63-252	----
62-253	----	1/2"	25	0.20	63-253	----
62-254	----	3/4"	25	0.29	63-254	----
62-255	----	1"	10	0.42	63-255	----
62-256	----	1-1/4"	5	0.66	63-256	----
62-257	----	1-1/2"	5	0.99	63-257	----
62-258	----	2"	3	1.43	63-258	----
62-259	----	2-1/2"	1	1.43		
62-260	----	3"	1	3.66		

### CROSS 304 & 316 150#



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-391	----	1/8"	25	0.06	63-390	----
62-392	----	1/4"	25	0.09	63-391	----
62-393	----	3/8"	25	0.13	63-392	----
62-394	----	1/2"	25	0.29	63-393	----
62-395	----	3/4"	10	0.37	63-394	----
62-396	----	1"	10	0.64	63-395	----
62-397	----	1-1/4"	5	0.97	63-396	----
62-398	----	1-1/2"	5	1.26	63-397	----
62-399	----	2"	1	1.54	63-398	----

### HEX NIPPLE 304 & 316 150#



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-720	----	1/8"	1	0.02	63-720	----
62-721	----	1/4"	1	0.04	63-721	----
62-722	----	3/8"	1	0.07	63-722	----
62-723	----	1/2"	1	0.11	63-723	----
62-724	----	3/4"	1	0.18	63-724	----
62-725	----	1"	1	0.22	63-725	----
62-726	----	1-1/4"	1	0.37	63-726	----
62-727	----	1-1/2"	1	0.46	63-727	----
62-728	----	2"	1	0.61	63-728	----

### REDUCING HEX NIPPLE 304 & 316 150#



**NEW**

Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-740	----	1/4" x 1/8"	1	0.04	63-740	----
62-741	----	3/8" x 1/8"	1	0.07	63-741	----
62-742	----	3/8" x 1/4"	1	0.07	63-742	----
62-744	----	1/2" x 1/4"	1	0.09	63-744	----
62-745	----	1/2" x 3/8"	1	0.11	63-745	----
62-747	----	3/4" x 1/4"	1	0.15	63-747	----
62-748	----	3/4" x 3/8"	1	0.15	63-748	----
62-749	----	3/4" x 1/2"	1	0.15	63-749	----

**STAINLESS STEEL**

**304 & 316 150# SS FITTINGS**

**COUPLING  
304 & 316 150#**



Part # 304 S.S.	List Price	Size*	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-413	----	1/2"	25	0.13	63-413	----
62-414	----	3/4"	25	0.18	63-414	----
62-415	----	1"	25	0.24	63-415	----
62-416	----	1-1/4"	10	0.44	63-416	----
62-417	----	1-1/2"	10	0.51	63-417	----
62-418	----	2"	5	0.79	63-418	----
62-419	----	2-1/2"	1	1.28	63-419	----
62-420	----	3"	1	1.87	63-420	----
62-421	----	4"	1	2.80	63-421	----

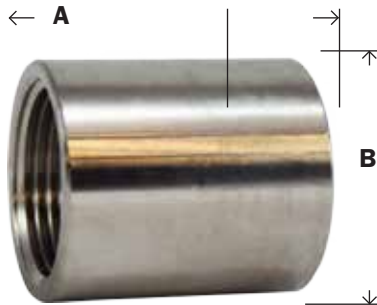
\* For 1/8, 1/4 and 3/8 see OD Machined Couplings below

**REDUCING COUPLING  
304 & 316 150#**



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-430	----	1/4" x 1/8"	25	0.04	63-430	----
62-431	----	3/8" x 1/8"	25	0.04	63-431	----
62-432	----	3/8" x 1/4"	25	0.04	63-432	----
62-433	----	1/2" x 1/8"	25	0.09	63-433	----
62-434	----	1/2" x 1/4"	25	0.09	63-434	----
62-435	----	1/2" x 3/8"	25	0.09	63-435	----
62-455	----	3/4" x 1/8"	25	0.13	63-455	----
62-436	----	3/4" x 1/4"	25	0.11	63-436	----
62-437	----	3/4" x 3/8"	25	0.13	63-437	----
62-438	----	3/4" x 1/2"	25	0.15	63-438	----
62-440	----	1" x 3/8"	25	0.22	63-440	----
62-441	----	1" x 1/2"	25	0.24	63-441	----
62-442	----	1" x 3/4"	25	0.24	63-442	----
62-445	----	1-1/4" x 3/4"	10	0.33	63-445	----
62-446	----	1-1/4" x 1"	10	0.35	63-446	----
62-447	----	1-1/2" x 1/2"	10	0.40	63-447	----
62-448	----	1-1/2" x 3/4"	10	0.42	63-448	----
62-449	----	1-1/2" x 1"	10	0.44	63-449	----
62-450	----	1-1/2" x 1-1/4"	10	0.46	63-450	----
62-452	----	2" x 1"	5	0.57	63-452	----
62-453	----	2" x 1-1/4"	5	0.62	63-453	----
62-454	----	2" x 1-1/2"	5	0.62	63-454	----

**OD MACHINED COUPLING  
304 & 316 150#**

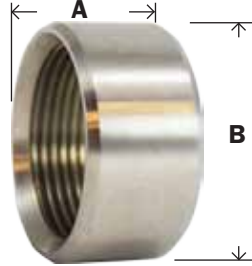


Part # 304 S.S.	List Price	Size	A	B	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-410B	----	1/8"	0.67	0.56	25	0.04	63-410B	----
62-411B	----	1/4"	0.94	0.71	25	0.04	63-411B	----
62-412B	----	3/8"	1.01	0.84	25	0.07	63-412B	----
62-413B	----	1/2"	1.33	1.01	25	0.09	63-413B	----
62-414B	----	3/4"	1.41	1.27	25	0.16	63-414B	----
62-415B	----	1"	1.69	1.54	10	0.21	63-415B	----
62-416B	----	1-1/4"	1.93	1.90	10	0.31	63-416B	----
62-417B	----	1-1/2"	1.93	2.16	5	0.41	63-417B	----
62-418B	----	2"	2.06	2.66	5	0.68	63-418B	----

## 304 & 316 150# SS FITTINGS

## STAINLESS STEEL

### HALF COUPLING 304 & 316 150#



Part # 304 S.S	List Price	Size	A	B	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-771	----	1/4"	0.43	0.69	25	0.02	63-771	----
62-772	----	3/8"	0.41	0.81	25	0.02	63-772	----
62-773	----	1/2"	0.59	0.98	25	0.09	63-773	----
62-774	----	3/4"	0.67	1.22	25	0.11	63-774	----
62-775	----	1"	0.79	1.47	25	0.13	63-775	----
62-776	----	1-1/4"	0.95	1.83	10	0.24	63-776	----
62-777	----	1-1/2"	0.94	2.10	10	0.26	63-777	----
62-778	----	2"	1.06	2.60	5	0.44	63-778	----

### UNION 304 & 316 150#

• Stainless Steel Seat



Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-600	----	1/8"	25	0.09	63-600	----
62-601	----	1/4"	25	0.13	63-601	----
62-602	----	3/8"	25	0.22	63-602	----
62-603	----	1/2"	25	0.26	63-603	----
62-604	----	3/4"	25	0.46	63-604	----
62-605	----	1"	10	0.60	63-605	----
62-606	----	1-1/4"	5	0.90	63-606	----
62-607	----	1-1/2"	5	1.10	63-607	----
62-608	----	2"	1	1.81	63-608	----
62-610	----	3"	1	3.40	63-610	----

### HEX BUSHING 304 & 316 150#



Part # 304 S.S	List Price	Size M x F	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-500	----	1/4" x 1/8"	25	0.04	63-500	----
62-501	----	3/8" x 1/8"	25	0.04	63-501	----
62-502	----	3/8" x 1/4"	25	0.04	63-502	----
62-503	----	1/2" x 1/8"	25	0.09		
62-504	----	1/2" x 1/4"	25	0.09	63-504	----
62-505	----	1/2" x 3/8"	25	0.11	63-505	----
62-506	----	3/4" x 1/8"	25	0.13	63-506	----
62-507	----	3/4" x 1/4"	25	0.15	63-507	----
62-508	----	3/4" x 3/8"	25	0.15	63-508	----
62-509	----	3/4" x 1/2"	25	0.15	63-509	----
62-510	----	1" x 1/4"	25	0.22	63-510	----
62-511	----	1" x 3/8"	25	0.24	63-511	----
62-512	----	1" x 1/2"	25	0.24	63-512	----
62-513	----	1" x 3/4"	25	0.24	63-513	----
62-516	----	1-1/4" x 1/2"	25	0.37	63-516	----
62-517	----	1-1/4" x 3/4"	25	0.37	63-517	----
62-518	----	1-1/4" x 1"	25	0.37	63-518	----
62-521	----	1-1/2" x 1/2"	25	0.44	63-521	----
62-522	----	1-1/2" x 3/4"	25	0.46	63-522	----
62-532	----	1-1/2" x 1"	25	0.49	63-523	----
62-524	----	1-1/2" x 1-1/4"	25	0.46	63-524	----
62-527	----	2" x 1/2"	10	0.66		
62-528	----	2" x 3/4"	10	0.66	63-528	----
62-529	----	2" x 1"	10	0.66	63-529	----
62-530	----	2" x 1-1/4"	10	0.68	63-530	----
62-531	----	2" x 1-1/2"	10	0.68	63-531	----
62-534	----	2-1/2" x 1-1/2"	5	1.23	63-534	----
62-535	----	2-1/2" x 2"	5	1.21	63-535	----
62-538	----	3" x 2"	5	1.72	63-538	----
62-539	----	3" x 2-1/2"	5	1.81		
62-543	----	4" x 3"	1	2.43		

**HEX LOCKNUT  
304 & 316 150#**

• Straight Thread



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-700	----	1/8"	25	0.02		
62-701	----	1/4"	25	0.05	63-701	----
62-702	----	3/8"	25	0.06	63-702	----
62-703	----	1/2"	25	0.07	63-703	----
62-704	----	3/4"	25	0.11	63-704	----
62-705	----	1"	25	0.15	63-705	----
62-706	----	1-1/4"	25	0.22	63-706	----
62-707	----	1-1/2"	25	0.29	63-707	----
62-708	----	2"	10	0.35	63-708	----

**CAP - CAST  
304 & 316 150#**



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-470	----	1/8"	25	0.02	63-470	----
62-471	----	1/4"	25	0.02	63-471	----
62-472	----	3/8"	25	0.04	63-472	----
62-473	----	1/2"	25	0.07	63-473	----
62-474	----	3/4"	25	0.11	63-474	----
62-475	----	1"	10	0.18	63-475	----
62-476	----	1-1/4"	10	0.29	63-476	----
62-477	----	1-1/2"	10	0.40	63-477	----
62-478	----	2"	10	0.60	63-478	----
62-480	----	3"	1	1.28	63-480	----
62-481	----	4"	1	1.54		

**HEX CAP - BARSTOCK  
304 & 316 150#**



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-075	----	1/8"	25	0.04	63-075	----
62-076	----	1/4"	25	0.09	63-076	----
62-077	----	3/8"	25	0.11	63-077	----
62-078	----	1/2"	25	0.13	63-078	----
62-079	----	3/4"	25	0.22	63-079	----
62-080	----	1"	10	0.22	63-080	----
62-081	----	1-1/4"	10	0.29	63-081	----
62-082	----	1-1/2"	5	0.40	63-082	----
62-083	----	2"	5	0.49	63-083	----

**HEX SOCKET PLUG - BARSTOCK  
304 & 316 150#**



Part # 316 S.S.	Size	Box	Approx. Wt. Lbs.	List Price
63-759	1/16"	1	0.03	----
63-760	1/8 "	1	0.05	----
63-761	1/4 "	1	0.07	----
63-762	3/8 "	1	0.10	----
63-763	1/2 "	1	0.14	----
63-764	3/4 "	1	0.21	----



Cam and Groove Fittings pages 321-326

**304 & 316 150# SS FITTINGS**

**STAINLESS STEEL**

**CORED SQUARE HEAD PLUG  
304 & 316 150#**



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-670	----	1/8"	25	0.02	63-670	----
62-671	----	1/4"	25	0.03	63-671	----
62-672	----	3/8"	25	0.04	63-672	----
62-653	----	1/2"	25	0.06	63-653	----
62-654	----	3/4"	25	0.09	63-654	----
62-655	----	1"	25	0.13	63-655	----
62-656	----	1-1/4"	25	0.22	63-656	----
62-657	----	1-1/2"	10	0.29	63-657	----
62-658	----	2"	10	0.46	63-658	----
62-660	----	3"	1	0.88		

**SOLID SQUARE HEAD PLUG  
316 150#**



Part # 316 S.S.	Size	Box	Approx. Wt. Lbs.	List Price
63-680	1/8"	25	0.04	----
63-681	1/4"	25	0.04	----
63-682	3/8"	25	0.05	----
63-683	1/2"	25	0.06	----
63-684	3/4"	25	0.12	----

**SOLID HEX HEAD PLUG  
316 150#**



Part # 316 S.S.	Size	Box	Approx. Wt. Lbs.	List Price
63-660	1/8"	25	0.04	----
63-661	1/4"	25	0.06	----
63-662	3/8"	25	0.08	----
63-663	1/2"	25	0.12	----
63-664	3/4"	25	0.15	----
63-665	1"	25	0.24	----

**CORED HEX HEAD PLUG  
304 & 316 150#**



Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-630	----	1/8"	25	0.02	63-630	----
62-631	----	1/4"	25	0.02	63-631	----
62-632	----	3/8"	25	0.04	63-632	----
62-633	----	1/2"	25	0.07	63-633	----
62-634	----	3/4"	25	0.11	63-634	----
62-635	----	1"	25	0.18	63-635	----
62-636	----	1-1/4"	25	0.26	63-636	----
62-637	----	1-1/2"	10	0.33	63-637	----
62-638	----	2"	10	0.55	63-638	----

**HOSE NIPPLE  
304 & 316 150#**



HOSE BARB X MALE PIPE

Part # 304 S.S	List Price	Hose I.D. x Male Pipe	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
73-951	----	1/4"	1	0.04	973-951	----
73-952	----	3/8"	1	0.07	973-952	----
73-953	----	1/2"	1	0.13	973-953	----
73-954	----	3/4"	1	0.20	973-954	----
73-955	----	1"	1	0.33	973-955	----
73-956	----	1-1/4"	1	0.47	973-956	----
73-957	----	1-1/2"	1	0.67	973-957	----
73-958	----	2"	1	0.88	973-958	----
73-959	----	2-1/2"	1	1.45	973-959	----
73-960	----	3"	1	1.94	973-990	----
73-961	----	4"	1	3.57	973-991	----

**REDUCING HOSE NIPPLE  
304 & 316 150#**



HOSE BARB X MALE PIPE

Part # 304 S.S	Hose I.D. x Male Pipe	Box	Approx. Wt. Lbs.	List Price
73-970	1/4" x 1/8"	1	0.04	----
73-971	3/8" x 1/4"	1	0.07	----
73-972	1/2" x 3/8"	1	0.13	----
73-973	1/2" x 1/4"	1	0.13	----
73-974	3/4" x 1/2"	1	0.20	----
73-975	1" x 3/4"	1	0.33	----
73-976	1" x 1/2"	1	0.33	----
73-977	1-1/4" x 1"	1	0.46	----
73-979	1-1/2" x 1-1/4"	1	0.66	----
73-980	1-1/2" x 1"	1	0.66	----
73-981	2" x 1-1/2"	1	0.88	----
73-982	2" x 1-1/4"	1	0.88	----



SEE HOSE BARB SECTION FOR BARSTOCK SS HOSE NIPPLES

SS Bulkhead Fittings available with extended delivery



**304 & 316 1000# SS FITTINGS**

**STAINLESS STEEL**

**BARSTOCK COUPLING  
304 & 316 1000#**



**NEW**

Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-410B1	----	1/8"	25	0.06	63-410B1	----
62-411B1	----	1/4"	25	0.09	63-411B1	----
62-412B1	----	3/8"	25	0.10	63-412B1	----
62-413B1	----	1/2"	25	0.21	63-413B1	----
62-414B1	----	3/4"	25	0.32	63-414B1	----
62-415B1	----	1"	10	0.42	63-415B1	----
62-416B1	----	1-1/4"	10	0.64	63-416B1	----
62-417B1	----	1-1/2"	1	0.80	63-417B1	----
62-418B1	----	2"	1	1.46	63-418B1	----
		2-1/2"	1	2.76	63-419B1	----

**BARSTOCK REDUCING COUPLING  
304 & 316 1000#**



**NEW**

Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-430B1	----	1/4" x 1/8"	25	0.10	63-430B1	----
62-431B1	----	3/8" x 1/8"	25	0.13	63-431B1	----
62-432B1	----	3/8" x 1/4"	25	0.12	63-432B1	----
62-433B1	----	1/2" x 1/8"	25	0.26	63-433B1	----
62-434B1	----	1/2" x 1/4"	25	0.25	63-434B1	----
62-435B1	----	1/2" x 3/8"	25	0.23	63-435B1	----
62-455B1	----	3/4" x 1/8"	25	0.40	63-455B1	----
62-436B1	----	3/4" x 1/4"	25	0.40	63-436B1	----
62-437B1	----	3/4" x 3/8"	25	0.38	63-437B1	----
62-438B1	----	3/4" x 1/2"	25	0.32	63-438B1	----
62-459B1	----	1" x 1/4"	10	0.60	63-459B1	----
62-440B1	----	1" x 3/8"	10	0.62	63-440B1	----
62-441B1	----	1" x 1/2"	10	0.58	63-441B1	----
62-442B1	----	1" x 3/4"	10	0.53	63-442B1	----
62-460B1	----	1-1/4" x 3/8"	10	0.85	63-460B1	----
62-444B1	----	1-1/4" x 1/2"	10	1.05	63-444B1	----
62-445B1	----	1-1/4" x 3/4"	10	1.01	63-445B1	----
62-446B1	----	1-1/4" x 1"	10	0.85	63-446B1	----
62-443B1	----	1-1/2" x 3/8"	1	1.33	63-443B1	----
62-447B1	----	1-1/2" x 1/2"	1	1.33	63-447B1	----
62-448B1	----	1-1/2" x 3/4"	1	1.25	63-448B1	----
62-449B1	----	1-1/2" x 1"	1	1.11	63-449B1	----
62-450B1	----	1-1/2" x 1-1/4"	1	0.92	63-450B1	----
62-458B1	----	2" x 1/2"	1	2.74	63-458B1	----
62-451B1	----	2" x 3/4"	1	2.64	63-451B1	----
62-452B1	----	2" x 1"	1	2.41	63-452B1	----
62-453B1	----	2" x 1-1/4"	1	2.22	63-453B1	----
62-454B1	----	2" x 1-1/2"	1	1.96	63-454B1	----
		2-1/2" x 2"	1	4.59	63-462B1	----
		3" x 2"	1	2.75	63-456B1	----
		3" x 2-1/2"	1	7.05	63-463B1	----
		4" x 2"	1	18.30	63-464B1	----
		4" x 3"	1	16.47	63-457B1	----

**BARSTOCK HALF COUPLING  
304 & 316 1000#**



**NEW**

Part # 304 S.S.	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-770B1	----	1/8"	25	0.04	63-770B1	----
62-771B1	----	1/4"	25	0.05	63-771B1	----
62-772B1	----	3/8"	25	0.05	63-772B1	----
62-773B1	----	1/2"	25	0.11	63-773B1	----
62-774B1	----	3/4"	25	0.15	63-774B1	----
62-775B1	----	1"	10	0.22	63-775B1	----
62-776B1	----	1-1/4"	10	0.34	63-776B1	----
62-777B1	----	1-1/2"	1	0.36	63-777B1	----
62-778B1	----	2"	1	0.71		

**BARSTOCK HEX BUSHING  
304 & 316 1000#**



**NEW**

Part # 304 S.S.	List Price	Size M x F	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-500B1	----	1/4" x 1/8"	25	0.02	63-500B1	----
62-501B1	----	3/8" x 1/8"	25	0.05	63-501B1	----
62-502B1	----	3/8" x 1/4"	25	0.03	63-502B1	----
62-503B1	----	1/2" x 1/8"	25	0.09		
62-504B1	----	1/2" x 1/4"	25	0.08	63-504B1	----
62-505B1	----	1/2" x 3/8"	25	0.06	63-505B1	----
62-506B1	----	3/4" x 1/8"	25	0.25	63-506B1	----
62-507B1	----	3/4" x 1/4"	25	0.19	63-507B1	----
62-508B1	----	3/4" x 3/8"	25	0.15	63-508B1	----
62-509B1	----	3/4" x 1/2"	25	0.10	63-509B1	----
62-510B1	----	1" x 1/4"	10	0.35	63-510B1	----
62-511B1	----	1" x 3/8"	10	0.30	63-511B1	----
62-512B1	----	1" x 1/2"	10	0.25	63-512B1	----
62-513B1	----	1" x 3/4"	10	0.19	63-513B1	----
62-514B1	----	1-1/4" x 1/4"	10	0.67	63-514B1	----
62-515B1	----	1-1/4" x 3/8"	10	0.63	63-515B1	----
62-516B1	----	1-1/4" x 1/2"	10	0.62	63-516B1	----
62-517B1	----	1-1/4" x 3/4"	10	0.50	63-517B1	----
62-518B1	----	1-1/4" x 1"	10	0.35	63-518B1	----
62-519B1	----	1-1/2" x 1/4"	1	0.95	63-519B1	----
62-520B1	----	1-1/2" x 3/8"	1	0.90	63-520B1	----
62-521B1	----	1-1/2" x 1/2"	1	0.89	63-521B1	----
62-522B1	----	1-1/2" x 3/4"	1	0.81	63-522B1	----
62-523B1	----	1-1/2" x 1"	1	0.63	63-523B1	----
62-524B1	----	1-1/2" x 1-1/4"	1	0.37	63-524B1	----
62-527B1	----	2" x 1/2"	1	1.65	63-527B1	----
62-528B1	----	2" x 3/4"	1	1.53	63-528B1	----
62-529B1	----	2" x 1"	1	1.35	63-529B1	----
62-530B1	----	2" x 1-1/4"	1	1.06	63-530B1	----
62-531B1	----	2" x 1-1/2"	1	0.81	63-531B1	----
62-532B1	----	2-1/2" x 1"	1	2.90	63-532B1	----
62-533B1	----	2-1/2" x 1-1/4"	1	3.80	63-533B1	----
62-534B1	----	2-1/2" x 1-1/2"	1	2.13	63-534B1	----
62-535B1	----	2-1/2" x 2"	1	1.32	63-535B1	----
62-550B1	----	3" x 1"	1	4.50	63-550B1	----
62-549B1	----	3" x 1-1/4"	1	4.16	63-549B1	----
62-537B1	----	3" x 1-1/2"	1	3.82	63-537B1	----
62-538B1	----	3" x 2"	1	5.29	63-538B1	----
62-539B1	----	3" x 2-1/2"	1	1.95	63-539B1	----

### 304 & 316 1000# SS FITTINGS

### STAINLESS STEEL

#### BARSTOCK CAP 304 & 316 1000#

**NEW**



Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-470B1	----	1/8"	25	0.07	63-470B1	----
62-471B1	----	1/4"	25	0.06	63-471B1	----
62-472B1	----	3/8"	25	0.09	63-472B1	----
62-473B1	----	1/2"	25	0.15	63-473B1	----
62-474B1	----	3/4"	25	0.21	63-474B1	----
62-475B1	----	1"	10	0.44	63-475B1	----
62-476B1	----	1-1/4"	10	0.64	63-476B1	----
62-477B1	----	1-1/2"	1	0.92	63-477B1	----
62-478B1	----	2"	1	1.33	63-478B1	----
		2-1/2"	1		63-479B1	----

#### BARSTOCK SQUARE HEAD PLUG 304 & 316 1000#

**NEW**



Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-670B1	----	1/8"	25	0.02	63-670B1	----
62-671B1	----	1/4"	25	0.04	63-671B1	----
62-672B1	----	3/8"	25	0.06	63-672B1	----
62-653B1	----	1/2"	25	0.11	63-653B1	----
62-654B1	----	3/4"	25	0.18	63-654B1	----
62-655B1	----	1"	10	0.39	63-655B1	----
62-656B1	----	1-1/4"	10	0.63	63-656B1	----
62-657B1	----	1-1/2"	1	0.91	63-657B1	----
62-658B1	----	2"	1	1.46	63-658B1	----

#### BARSTOCK HEX HEAD PLUG 304 & 316 1000#

**NEW**



Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-630B1	----	1/8"	25	0.03	63-630B1	----
62-631B1	----	1/4"	25	0.05	63-631B1	----
62-632B1	----	3/8"	25	0.08	63-632B1	----
62-633B1	----	1/2"	25	0.14	63-633B1	----
62-634B1	----	3/4"	25	0.25	63-634B1	----
62-635B1	----	1"	10	0.45	63-635B1	----
62-636B1	----	1-1/4"	10	0.97	63-636B1	----
62-637B1	----	1-1/2"	1	1.31	63-637B1	----
62-638B1	----	2"	1	2.20	63-638B1	----
62-639B1	----	2-1/2"	1	3.93	63-639B1	----
62-640B1	----	3"	1	5.90	63-640B1	----

#### BARSTOCK UNIONS 304 & 316 1000#

• Stainless Steel Seat

**NEW**



Part # 304 S.S	List Price	Size	Box	Approx. Wt. Lbs.	Part # 316 S.S.	List Price
62-600B1	----	1/8"	25	0.28	63-600B1	----
62-601B1	----	1/4"	25	0.25	63-601B1	----
62-602B1	----	3/8"	25	0.32	63-602B1	----
62-603B1	----	1/2"	25	0.38	63-603B1	----
62-604B1	----	3/4"	25	0.64	63-604B1	----
62-605B1	----	1"	10	0.92	63-605B1	----
62-606B1	----	1-1/4"	10	1.33	63-606B1	----
62-607B1	----	1-1/2"	1	2.15	63-607B1	----
62-608B1	----	2"	1	2.90	63-608B1	----
		2-1/2"	1	8.50	63-609B1	----

**STAINLESS STEEL**

**304 & 316 3000# SS FITTINGS**

**90° ELBOW  
304 & 316 3000# FORGED**



Part # 304	List Price	Size	Approx. Wt. Lbs.	Part # 316	List Price
103-100	----	1/8"	0.12	105-100	----
103-101	----	1/4"	0.18	105-101	----
103-102	----	3/8"	0.29	105-102	----
103-103	----	1/2"	0.55	105-103	----
103-104	----	3/4"	0.77	105-104	----
103-105	----	1"	1.17	105-105	----
103-106	----	1-1/4"	1.81	105-106	----
103-107	----	1-1/2"	2.27	105-107	----
103-108	----	2"	3.75	105-108	----

**45° ELBOW  
304 & 316 3000# FORGED**



Part # 304	List Price	Size	Approx. Wt. Lbs.	Part # 316	List Price
103-180	----	1/8"	0.11	105-180	----
103-181	----	1/4"	0.18	105-181	----
103-182	----	3/8"	0.22	105-182	----
103-183	----	1/2"	0.44	105-183	----
103-184	----	3/4"	0.60	105-184	----
103-185	----	1"	0.90	105-185	----
103-186	----	1-1/4"	1.50	105-186	----
103-187	----	1-1/2"	1.81	105-187	----
103-188	----	2"	3.11	105-188	----

**TEE  
304 & 316 3000# FORGED**



Part # 304	List Price	Size	Approx. Wt. Lbs.	Part # 316	List Price
103-250	----	1/8"	0.18	105-250	----
103-251	----	1/4"	0.26	105-251	----
103-252	----	3/8"	0.37	105-252	----
103-253	----	1/2"	0.68	105-253	----
103-254	----	3/4"	0.95	105-254	----
103-255	----	1"	1.52	105-255	----
103-256	----	1-1/4"	2.36	105-256	----
103-257	----	1-1/2"	3.06	105-257	----
103-258	----	2"	4.76	105-258	----

**STREET ELBOW  
304 3000# FORGED**



Part # 304	Size	Approx. Wt. Lbs.	List Price
103-160	1/8"	0.18	----
103-161	1/4"	0.24	----
103-162	3/8"	0.49	----
103-163	1/2"	0.68	----
103-164	3/4"	1.17	----
103-165	1"	2.25	----
103-166	1-1/4"	2.49	----
103-167	1-1/2"	4.43	----

- for Socket Weld 304 fittings replace the 103 prefix with 104 prefix.
- for Socket Weld 316 fittings replace the 105 prefix with 106 prefix.

**304 & 316 3000# SS FITTINGS**

**STAINLESS STEEL**

**COUPLING  
304 & 316 3000# BARSTOCK**



Part # 304	List Price	Size	Approx. Wt. Lbs.	Part # 316	List Price
103-410	----	1/8"	0.11	105-410	----
103-411	----	1/4"	0.09	105-411	----
103-412	----	3/8"	0.13	105-412	----
103-413	----	1/2"	0.29	105-413	----
103-414	----	3/4"	0.42	105-414	----
103-415	----	1"	0.99	105-415	----
103-416	----	1-1/4"	1.79	105-416	----
103-417	----	1-1/2"	2.38	105-417	----
103-418	----	2"	3.09	105-418	----
103-419	----	2-1/2"	5.05	105-419	----
103-420	----	3"	7.45	105-420	----
103-421	----	4"	13.85		

**REDUCING COUPLING  
304 & 316 3000# BARSTOCK**



Part # 304	List Price	Size	Approx. Wt. Lbs.	Part # 316	List Price
103-434	----	1/2" x 1/4"	0.29	105-434	----
103-435	----	1/2" x 3/8"	0.29	105-435	----
103-437	----	3/4" x 3/8"	0.42	105-437	----
103-438	----	3/4" x 1/2"	0.42	105-438	----
103-441	----	1" x 1/2"	0.99	105-441	----
103-442	----	1" x 3/4"	0.99	105-442	----
103-445	----	1-1/4" x 3/4"	1.79	105-445	----
103-446	----	1-1/4" x 1"	1.79	105-446	----
103-449	----	1-1/2" x 1"	2.36	105-449	----
103-450	----	1-1/2" x 1-1/4"	3.09	105-450	----
103-452	----	2" x 1"	3.09	105-452	----
103-453	----	2" x 1-1/4"	3.09	105-453	----
103-454	----	2" x 1-1/2"		105-454	----

**HALF COUPLING  
304 & 316 3000# BARSTOCK**



Part # 304	List Price	Size	Approx. Wt. Lbs.	Part # 316	List Price
103-770	----	1/8"	0.04	105-770	----
103-771	----	1/4"	0.05	105-771	----
103-772	----	3/8"	0.07	105-772	----
103-773	----	1/2"	0.13	105-773	----
103-774	----	3/4"	0.22	105-774	----
103-775	----	1"	0.51	105-775	----
103-776	----	1-1/4"	0.75	105-776	----
103-777	----	1-1/2"	1.19	105-777	----
103-778	----	2"	1.54	105-778	----

**UNION  
304 & 316 3000# BARSTOCK**



Part # 304	List Price	Size	Approx. Wt. Lbs.	Part # 316	List Price
103-600	----	1/8"	0.62	105-600	----
103-601	----	1/4"	0.62	105-601	----
103-602	----	3/8"	0.53	105-602	----
103-603	----	1/2"	0.75	105-603	----
103-604	----	3/4"	1.06	105-604	----
103-605	----	1"	1.70	105-605	----
103-606	----	1-1/4"	2.27	105-606	----
103-607	----	1-1/2"	3.59	105-607	----
103-608	----	2"	5.36	105-608	----

**STAINLESS STEEL**

**304 & 316 3000# SS FITTINGS**

**CAPS  
304 & 316 3000# BARSTOCK**



Part # 304	List Price	Size	Approx. Wt. Lbs.	Part # 316	List Price
103-470	----	1/8"	0.04	105-470	----
103-471	----	1/4"	0.09	105-471	----
103-472	----	3/8"	0.11	105-472	----
103-473	----	1/2"	0.24	105-473	----
103-474	----	3/4"	0.40	105-474	----
103-475	----	1"	0.82	105-475	----
		1-1/4"	1.37	105-476	----
103-477	----	1-1/2"	1.59	105-477	----
103-478	----	2"	2.40	105-478	----

**HEX BUSHING  
304 & 316 3000# BARSTOCK**



Part # 304	List Price	Size M x F	Approx. Wt. Lbs.	Part # 316	List Price
		1/4" x 1/8"	0.02	105-500	----
		3/8" x 1/4"	0.02	105-502	----
103-504	----	1/2" x 1/4"	0.07	105-504	----
103-505	----	1/2" x 3/8"	0.07	105-505	----
103-508	----	3/4" x 3/8"	0.11	105-508	----
103-509	----	3/4" x 1/2"	0.11	105-509	----
103-512	----	1" x 1/2"	0.20	105-512	----
103-513	----	1" x 3/4"	0.20	105-513	----
103-517	----	1-1/4" x 3/4"	0.55	105-517	----
103-518	----	1-1/4" x 1"	0.55	105-518	----
103-522	----	1-1/2" x 3/4"	0.75	105-522	----
103-523	----	1-1/2" x 1"	0.75	105-523	----
103-524	----	1-1/2" x 1-1/4"	0.75	105-524	----
103-529	----	2" x 1"	0.99	105-529	----
103-530	----	2" x 1-1/4"	0.99	105-530	----
103-531	----	2" x 1-1/2"	0.99	105-531	----

**HIGH PRESSURE HEX NIPPLES  
316 3000-5000# BARSTOCK**



Part # 316	Size	Approx. Wt. Lbs.	PSI	List Price
SS54044	1/4 x 1-1/2	0.61	5000	----
SS540442.0	1/4 x 2	0.66	5000	----
SS540443.0	1/4 x 3	0.72	5000	----
SS54046	3/8 x 1-1/2	1.35	4000	----
SS54048	1/2 x 1-7/8	1.52	3000	----
SS540482.0	1/2 x 2	1.57	3000	----
SS540483.0	1/2 x 3	1.64	3000	----

**SQUARE PLUG  
316 3000# BARSTOCK**



Part # 316	Size	Approx. Wt. Lbs.	List Price
105-650	1/8"	0.04	----
105-651	1/4"	0.11	----
105-652	3/8"	0.15	----
105-653	1/2"	0.26	----
105-654	3/4"	0.44	----
105-655	1"	0.75	----
105-656	1-1/4"	1.21	----
105-657	1-1/2"	1.74	----
105-658	2"	3.24	----



### BLACK AND GALVANIZED STEEL NIPPLES

#### Product Specifications

Welded steel pipe nipples both galvanized and black in diameters ranging from 1/8" up to 4" in lengths from close to 12" and cut-pipe up to 120". -200°-150° Temp Rating.

#### Technical Specifications

**Standards:** Product complies with ASTM A-53, A-733 and ANSI B1.20.1 for threading, dimensions and pipe specifications.

**Pipe:** Complies with ASTM A-53 mill tested schedule 40 and 80 for both Welded & Seamless Meets ANSI B36.1. All pipe is hydrostatic tested.

**Galvanized:** Zinc coating applied by hot dipped. Galvanized complying with ASTM A-123, NSF approved, RoHS compliant.

**Black:** Protected against oxidation with varnish coating.

**Cutting Procedure:** All pipe is roller cut. A visual inspection of seams, excessive galvanizing, mid-welds, poor galvanizing, bends, roundness, under and over weight of the pipe is made at the time it is cut. This is done for every length of pipe. Pipe lengths are cut to a tolerance of + or - 1/16" of the actual length.

#### Threading Procedure:

All pipe is chaser thread cut to American Standard Tapered Pipe Thread standards. This is 3/4" taper per foot. Pipe is visually inspected for roundness of threads and other visual faults as it is removed from the threading machine.

#### SCHEDULE 80 SEAMLESS



- ASTM A106 Grade B Seamless Pipe
- ASTM A 53
- WWN 351
- Standard NPT Tapered Pipe Threads as per ANSI B 1.20.1 Specification

#### XXS SEAMLESS



# STEEL NIPPLES

# BLACK & GALVANIZED SCH 40

1/8" - 27

Wall Thickness 0.068 - GradeB - Test Pressure  
700 PSI - Thread Length 0.39



**1/8" DIAMETER  
SCH 40 WELDED**



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-001	----	X Close (3/4")	50/600	0.02	57-001	----
56-002	----	x 1-1/2"	50/600	0.03	57-002	----
56-003	----	x 2"	50/500	0.04	57-003	----
56-004	----	x 2-1/2"	100/400	0.06	57-004	----
56-005	----	x 3"	50/300	0.07	57-005	----
56-006	----	x 3-1/2"	50/300	0.08	57-006	----
56-007	----	x 4"	50/300	0.09	57-007	----
56-008	----	x 4-1/2"	50/300	0.10	57-008	----
56-009	----	x 5"	50/300	0.11	57-009	----
56-010	----	x 5-1/2"	50/300	0.12	57-010	----
56-011	----	x 6"	50/300	0.13	57-011	----
56-012	----	x 7"	50/300	0.15	57-012	----
56-013	----	x 8"	50/300	0.18	57-013	----
56-014	----	x 9"	50/300	0.21	57-014	----
56-015	----	x 10"	50/300	0.25	57-015	----
56-017	----	x 12"	50/300	0.29	57-017	----

1/4"-18

Wall Thickness 0.068 - GradeB - Test Pressure  
700 PSI - Thread Length 0.39



**1/4" DIAMETER  
SCH 40 WELDED**



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-020	----	X Close (7/8")	50/600	0.04	57-020	----
56-021	----	x 1-1/2"	125/500	0.06	57-021	----
56-022	----	x 2"	125/500	0.06	57-022	----
56-023	----	x 2-1/2"	100/400	0.08	57-023	----
56-024	----	x 3"	50/300	0.10	57-024	----
56-025	----	x 3-1/2"	50/300	0.12	57-025	----
56-026	----	x 4"	50/300	0.14	57-026	----
56-027	----	x 4-1/2"	50/300	0.17	57-027	----
56-028	----	x 5"	50/300	0.19	57-028	----
56-029	----	x 5-1/2"	50/300	0.21	57-029	----
56-030	----	x 6"	50/300	0.23	57-030	----
56-031	----	x 7"	50/100	0.27	57-031	----
56-032	----	x 8"	50/100	0.31	57-032	----
56-033	----	x 9"	50/100	0.35	57-033	----
56-034	----	x 10"	50/100	0.40	57-034	----
56-035	----	x 11"	50/100	0.44	57-035	----
56-036	----	x 12"	50/100	0.48	57-036	----
56-038	----	x 18"	50/100	0.54		
56-037	----	x 24"	5/10	0.96		



See page 209 for Standard port 2,000 Carbon Steel Ball Valve



**BLACK & GALVANIZED SCH 40**

**STEEL NIPPLES**



**3/8" DIAMETER  
SCH 40 WELDED**

Wall Thickness 0.091 - Grade B  
- Test Pressure 700 PSI - Thread



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-040	----	X Close (1")	50/600	0.05	57-040	----
56-041	----	x 1-1/2"	125/500	0.07	57-041	----
56-042	----	x 2"	125/500	0.08	57-042	----
56-043	----	x 2-1/2"	100/400	0.11	57-043	----
56-044	----	x 3"	50/300	0.13	57-044	----
56-045	----	x 3-1/2"	50/300	0.16	57-045	----
56-046	----	x 4"	50/300	0.19	57-046	----
56-047	----	x 4-1/2"	50/200	0.21	57-047	----
56-048	----	x 5"	50/150	0.24	57-048	----
56-049	----	x 5-1/2"	50/150	0.27	57-049	----
56-050	----	x 6"	50/100	0.29	57-050	----
56-051	----	x 7"	50/100	0.35	57-051	----
56-052	----	x 8"	50/100	0.40	57-052	----
56-053	----	x 9"	50/100	0.45	57-053	----
56-054	----	x 10"	50/100	0.51	57-054	----
56-055	----	x 11"	50/100	0.56	57-055	----
56-056	----	x 12"	50/100	0.62	57-056	----
56-430	----	x 18"	5/10	0.71	57-430	----
		x 24"			57-431	----
		x 36"			57-433	----



**1/2" DIAMETER  
SCH 40 WELDED**

Wall Thickness 0.109 -  
Grade B - Test Pressure 700  
PSI - Thread Length 0.78



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-060	----	X Close (1-1/8")	50/600	0.08	57-060	----
56-061	----	x 1-1/2"	125/500	0.08	57-061	----
56-062	----	x 2"	125/500	0.12	57-062	----
56-063	----	x 2-1/2"	100/400	0.15	57-063	----
56-064	----	x 3"	50/300	0.19	57-064	----
56-065	----	x 3-1/2"	50/300	0.23	57-065	----
56-066	----	x 4"	50/300	0.27	57-066	----
56-067	----	x 4-1/2"	50/200	0.30	57-067	----
56-068	----	x 5"	50/150	0.34	57-068	----
56-069	----	x 5-1/2"	50/150	0.38	57-069	----
56-070	----	x 6"	50/100	0.42	57-070	----
56-071	----	x 7"	50/100	0.49	57-071	----
56-072	----	x 8"	50/100	0.57	57-072	----
56-073	----	x 9"	50/100	0.65	57-073	----
56-074	----	x 10"	50/100	0.72	57-074	----
56-075	----	x 11"	50/100	0.80	57-075	----
56-076	----	x 12"	40/80	0.87	57-076	----
56-240	----	x 18"	1/3	1.29	57-240	----
56-241	----	x 24"	1/3	1.74	57-241	----
56-242	----	x 30"	1/3	2.16	57-242	----
56-243	----	x 36"	1/3	2.61	57-243	----
56-244	----	x 42"	1/3	3.03	57-244	----
56-245	----	x 48"	1/3	3.48	57-245	----
56-246	----	x 60"	1/3	4.35	57-246	----
56-247	----	x 72"	1/3	5.22	57-247	----

**3/4" DIAMETER  
SCH 40 WELDED**



Wall Thickness 0.113 -  
Grade B - Test Pressure  
700 PSI - Thread Length  
0.79



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-080	----	X Close (1-3/8")	50/300	0.13	57-080	----
56-081	----	x 1-1/2"	125/250	0.10	57-081	----
56-082	----	x 2"	125/250	0.15	57-082	----
56-083	----	x 2-1/2"	50/250	0.20	57-083	----
56-084	----	x 3"	50/200	0.24	57-084	----
56-085	----	x 3-1/2"	50/150	0.29	57-085	----
56-086	----	x 4"	50/150	0.34	57-086	----
56-087	----	x 4-1/2"	50/150	0.39	57-087	----
56-088	----	x 5"	50/150	0.43	57-088	----
56-089	----	x 5-1/2"	60/120	0.48	57-089	----
56-090	----	x 6"	50/100	0.53	57-090	----
56-091	----	x 7"	50/100	0.63	57-091	----
56-092	----	x 8"	50/100	0.72	57-092	----
56-093	----	x 9"	40/80	0.82	57-093	----
56-094	----	x 10"	40/80	0.91	57-094	----
56-095	----	x 11"	30/60	1.01	57-095	----
56-096	----	x 12"	30/60	1.10	57-096	----
56-250	----	x 18"	1/3	1.63	57-250	----
56-251	----	x 24"	1/3	2.20	57-251	----
56-252	----	x 30"	1/3	2.73	57-252	----
56-253	----	x 36"	1/3	3.30	57-253	----
56-254	----	x 42"	1/3	3.83	57-254	----
56-255	----	x 48"	1/3	4.40	57-255	----
56-256	----	x 60"	1/3	5.50	57-256	----
56-257	----	x 72"	1/3	6.60	57-257	----



See page 210 for Full port 2,000# Carbon Steel Ball Valve

**BLACK & GALVANIZED SCH 40**

**STEEL NIPPLES**



**1" DIAMETER  
SCH 40 WELDED**

Wall Thickness 0.133 - Grade  
B - Test Pressure 700 PSI -  
Thread Length 0.98



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-100	----	X Close (1-1/2")	50/200	0.16	57-100	----
56-101	----	x 2"	50/150	0.23	57-101	----
56-102	----	x 2-1/2"	50/150	0.29	57-102	----
56-103	----	x 3"	50/100	0.36	57-103	----
56-104	----	x 3-1/2"	50/100	0.43	57-104	----
56-105	----	x 4"	50/100	0.50	57-105	----
56-106	----	x 4-1/2"	50/100	0.56	57-106	----
56-107	----	x 5"	50/100	0.63	57-107	----
56-108	----	x 5-1/2"	50/100	0.70	57-108	----
56-109	----	x 6"	40/80	0.77	57-109	----
56-110	----	x 7"	25/50	0.90	57-110	----
56-111	----	x 8"	25/50	1.03	57-111	----
56-112	----	x 9"	15/30	1.17	57-112	----
56-113	----	x 10"	15/30	1.30	57-113	----
56-114	----	x 11"	15/30	1.44	57-114	----
56-115	----	x 12"	15/30	1.57	57-115	----
56-260	----	x 18"	1/3	2.34	57-260	----
56-261	----	x 24"	1/3	3.14	57-261	----
56-262	----	x 30"	1/3	3.91	57-262	----
56-263	----	x 36"	1/3	4.71	57-263	----
56-264	----	x 42"	1/3	5.48	57-264	----
56-265	----	x 48"	1/3	6.28	57-265	----
56-266	----	x 60"	1/3	7.85	57-266	----
56-267	----	x 72"	1/3	9.42	57-267	----



High Pressure 7,250 psi Full Port Ball Valves - see page 211

# STEEL NIPPLES

# BLACK & GALVANIZED SCH 40



## 1-1/4" DIAMETER SCH 40 WELDED

Wall Thickness 0.14 - Grade  
B - Test Pressure 1300 PSI -  
Thread Length 1.01



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-120	----	X Close (1-5/8")	50/100	0.25	57-120	----
56-121	----	x 2"	50/100	0.32	57-121	----
56-122	----	x 2-1/2"	50/100	0.41	57-122	----
56-123	----	x 3"	50/100	0.50	57-123	----
56-124	----	x 3-1/2"	30/60	0.60	57-124	----
56-125	----	x 4"	30/60	0.69	57-125	----
56-126	----	x 4-1/2"	30/60	0.78	57-126	----
56-127	----	x 5"	25/50	0.87	57-127	----
56-128	----	x 5-1/2"	25/50	0.96	57-128	----
56-129	----	x 6"	25/50	1.06	57-129	----
56-130	----	x 7"	15/30	1.24	57-130	----
56-131	----	x 8"	15/30	1.42	57-131	----
56-132	----	x 9"	15/30	1.61	57-132	----
56-133	----	x 10"	15/30	1.79	57-133	----
56-134	----	x 11"	10/20	1.97	57-134	----
56-135	----	x 12"	10/20	2.16	57-135	----
56-270	----	x 18"	1/3	3.22	57-270	----
56-271	----	x 24"	1/3	4.32	57-271	----
56-272	----	x 30"	1/3	3.22	57-272	----



## 1-1/2" DIAMETER SCH 40 WELDED

Wall Thickness 0.145 - Grade  
B - Test Pressure 1300 PSI -  
Thread Length 1.03



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-140	----	X Close (1-3/4")	50/100	0.31	57-140	----
56-141	----	x 2"	40/80	0.37	57-141	----
56-142	----	x 2-1/2"	40/80	0.47	57-142	----
56-143	----	x 3"	40/80	0.58	57-143	----
56-144	----	x 3-1/2"	25/50	0.68	57-144	----
56-145	----	x 4"	25/50	0.78	57-145	----
56-146	----	x 4-1/2"	25/50	0.89	57-146	----
56-147	----	x 5"	25/50	1.10	57-147	----
56-148	----	x 5-1/2"	20/40	1.10	57-148	----
56-149	----	x 6"	15/30	1.20	57-149	----
56-150	----	x 7"	15/30	1.41	57-150	----
56-151	----	x 8"	15/30	1.62	57-151	----
56-152	----	x 9"	15/30	1.83	57-152	----
56-153	----	x 10"	1/20	2.04	57-153	----
56-154	----	x 11"	1/20	2.25	57-154	----
56-155	----	x 12"	1/20	2.46	57-155	----
56-280	----	x 18"	1/3	3.66	57-280	----
56-281	----	x 24"	1/3	4.92	57-281	----
56-282	----	x 30"	1/3	6.12	57-282	----
		x 36"	1/3	7.38	57-283	----
56-285	----	x 48"	1/3	9.84	57-285	----

**BLACK & GALVANIZED SCH 40**

**STEEL NIPPLES**



**2" DIAMETER  
SCH 40 WELDED**

Wall Thickness 0.154 - Grade  
B - Test Pressure 2500 PSI -  
Thread Length 1.06



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-160	----	X Close (2")	40/80	0.55	57-160	----
56-161	----	x 2-1/2"	25/50	0.70	57-161	----
56-162	----	x 3"	25/50	0.86	57-162	----
56-163	----	x 3-1/2"	1/30	1.01	57-163	----
56-164	----	x 4"	1/30	1.16	57-164	----
56-165	----	x 4-1/2"	1/25	1.31	57-165	----
56-166	----	x 5"	1/30	1.47	57-166	----
56-167	----	x 5-1/2"	1/30	1.62	57-167	----
56-168	----	x 6"	1/20	1.77	57-168	----
56-169	----	x 7"	1/20	2.08	57-169	----
56-170	----	x 8"	1/20	2.39	57-170	----
56-171	----	x 9"	1/10	2.70	57-171	----
56-172	----	x 10"	1/10	3.00	57-172	----
56-173	----	x 11"	1/10	3.31	57-173	----
56-174	----	x 12"	1/10	3.62	57-174	----
56-290	----	x 18"	1/3	5.39	57-290	----
56-291	----	x 24"	1/3	5.26	57-291	----
56-292	----	x 30"	1/3	7.03	57-292	----
56-293	----	x 36"	1/3	10.86	57-293	----
56-294	----	x 42"	1/3	12.63	57-294	----
56-295	----	x 48"	1/3	14.48	57-295	----
56-296	----	x 60"	1/3	18.10	57-296	----
56-297	----	x 72"	1/3	18.10	57-297	----



**2-1/2" DIAMETER  
SCH 40 WELDED**

Wall Thickness 0.203 - Grade  
B - Test Pressure 2500 PSI -  
Thread Length 1.57



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-180	----	X Close (2-1/2")	1/20	1.09	57-180	----
56-181	----	x 3"	1/20	1.33	57-181	----
56-182	----	x 3-1/2"	1/20	1.57	57-182	----
56-183	----	x 4"	1/20	1.82	57-183	----
56-184	----	x 4-1/2"	1/20	2.06	57-184	----
56-185	----	x 5"	1/20	2.30	57-185	----
56-186	----	x 5-1/2"	1/10	2.54	57-186	----
56-187	----	x 6"	1/10	2.78	57-187	----
56-188	----	x 7"	1/10	3.27	57-188	----
56-189	----	x 8"	1/10	3.75	57-189	----
56-190	----	x 9"	1/10	4.24	57-190	----
56-191	----	x 10"	1/8	4.72	57-191	----
56-192	----	x 11"	1/8	5.21	57-192	----
56-193	----	x 12"	1/8	5.69	57-193	----



# STEEL NIPPLES

# BLACK & GALVANIZED SCH 40



## 3" DIAMETER SCH 40 WELDED

Wall Thickness 0.216 - Grade  
B - Test Pressure 2500 PSI -  
Thread Length 1.64



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-200	----	X Close (2-5/8")	1/20	1.52	57-200	----
56-201	----	x 3"	1/20	1.76	57-201	----
56-202	----	x 3-1/2"	1/10	2.08	57-202	----
56-203	----	x 4"	1/10	2.39	57-203	----
56-204	----	x 4-1/2"	1/10	2.71	57-204	----
56-205	----	x 5"	1/10	3.03	57-205	----
56-206	----	x 5-1/2"	1/10	3.35	57-206	----
56-207	----	x 6"	1/10	3.66	57-207	----
56-208	----	x 7"	1/8	4.30	57-208	----
56-209	----	x 8"	1/8	4.93	57-209	----
56-210	----	x 9"	1/8	5.57	57-210	----
56-211	----	x 10"	1/5	6.20	57-211	----
56-212	----	x 11"	1/5	7.20	57-212	----
56-213	----	x 12"	1/5	7.47	57-213	----
		x 24"	1	14.94	57-311	----



## 4" DIAMETER SCH 40 WELDED

Wall Thickness 0.237 - Grade  
B - Test Pressure 2210 PSI -  
Thread Length 1.74



Part # Galv	List Price	Length	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-220	----	X Close (2-7/8")	1/10	2.40	57-220	----
56-221	----	3-1/2"	1/8			
56-223	----	x 4"	1/8	3.41	57-223	----
56-224	----	x 4-1/2"	1/6	3.86	57-224	----
56-225	----	x 5"	1/6	4.31	57-225	----
56-226	----	x 5-1/2"	1/6	4.76	57-226	----
56-227	----	x 6"	1/6	5.21	57-227	----
56-330	----	x 7"	1/5	6.48	57-330	----
56-229	----	x 8"	1/5	7.01	57-229	----
56-331	----	x 9"	1/5	7.54	57-331	----
56-332	----	x 10"	1/5	8.14	57-332	----
56-228	----	x 12"	1/4	8.54	57-228	----



## 6" DIAMETER SCH 40 WELDED

Wall Thickness 0.28 - Grade  
B - Test Pressure 1780 PSI -  
Thread Length 1.95



Part # Galv	List Price	6" Dia.	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
56-300	----	Close (3-1/8")	1/5	4.94	57-300	----
		x 6"	1/5	16.45	57-301	----

## TOE NIPPLES AND ASSORTMENTS

## STEEL NIPPLES

### BLACK STEEL TOE NIPPLE

Toe nipples are only threaded on one end to allow for easy connections, unthreaded end allows for welding a permanent leak-resistance bond.

- Roller cut • Minimum Quantity may apply
- Reamed and Chamfer or Saw Cut available upon request.

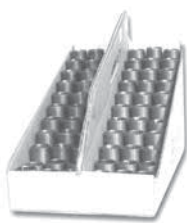


Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
57-021T	1/4" x 1-1/2"	1/1	0.06	----
57-022T	1/4" x 2"	1/1	0.06	----
57-041T	3/8" x 1-1/2"	1/1	0.07	----
57-042T	3/8" x 2"	1/1	0.08	----
57-061T	1/2" x 1-1/2"	1/1	0.08	----
57-062T	1/2" x 2"	1/1	0.12	----
57-081T	3/4" x 1-1/2"	1/1	0.10	----
57-082T	3/4" x 2"	1/1	0.15	----
57-101T	1" x 2"	1/1	0.23	----
57-102T	1" x 2-1/2"	1/1	0.29	----
57-121T	1-1/4" x 2"	1/1	0.32	----
57-122T	1-1/4" x 2-1/2"	1/1	0.41	----
57-141T	1-1/2" x 2"	1/1	0.37	----
57-142T	1-1/2" x 2-1/2"	1/1	0.47	----
57-160T	2" x 2"	1/1	0.55	----
57-161T	2" x 2-1/2"	1/1	0.70	----
57-181T*	2-1/2" x 3"	1/1	1.33	----
57-201T*	3" x 3"	1/1	1.76	----
57-223T*	4" x 4"	1/1	3.41	----

\* Saw Cut

### STEEL NIPPLE ASSORTMENTS

#### B "6" ASSORTMENTS



Black		LENGTH										Wt. Lbs.	Total Pieces	List Prices
		Close	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"			
973-567	1/2"	6	6	6	6	6	6	6	6	6	6	20	66	----
973-568	3/4"	6	6	6	6	6	6	6	6	6	6	27	66	----
973-569	1"	6	6	6	6	6	6	6	6	6	6	34	60	----

Galv.		LENGTH										Wt. Lbs.	Total Pieces	List Prices
		Close	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"			
973-667	1/2"	6	6	6	6	6	6	6	6	6	6	20	66	----
973-668	3/4"	6	6	6	6	6	6	6	6	6	6	27	66	----
973-669	1"	6	6	6	6	6	6	6	6	6	6	34	60	----

#### STEEL TOTE TRAYS



Part #	Size	Capacity	List Price
990-781	1/2"	77pcs	----
990-782	3/4"	66pcs	----
990-783	1"	50pcs	----
990-786	1-1/4"	40pcs	----
990-784	1-1/2"	30pcs	----
990-785	2"	27pcs	----

**EXTRA HEAVY SEAMLESS STEEL PIPE NIPPLES**

1/8" - 27



**1/8" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.094 - GradeB - Test Pressure 850 PSI - Thread Length 0.39

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-001SMLS	1/8" x Close	40/480	0.02	----
59-002SMLS	1/8 x 1-1/2"	40/480		----
59-003SMLS	1/8" x 2"	100/400	0.05	----
59-005SMLS	1/8" x 3"	40/240	0.08	----
59-007SMLS	1/8" x 4"	40/240	0.11	----
59-011SMLS	1/8" x 6"	40/80	0.16	----

1/4"-18



**1/4" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.119 - Grade B - Test Pressure 850 PSI - Thread Length 0.59

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-020SMLS	x Close (7/8")	40 / 480	0.03	----
59-021SMLS	x 1-1/2"	100 / 400	0.06	----
59-022SMLS	x 2"	100 / 400	0.08	----
59-023SMLS	x 2-1/2"	80 / 320	0.10	----
59-024SMLS	x 3"	40 / 240	0.12	----
59-025SMLS	x 3-1/2"	40 / 240	0.15	----
59-026SMLS	x 4"	40 / 240	0.17	----
59-027SMLS	x 4-1/2"	40 / 120	0.19	----
59-028SMLS	x 5"	40 / 120	0.21	----
59-029SMLS	x 5-1/2"	40 / 80	0.24	----
59-030SMLS	x 6"	40 / 80	0.26	----
59-031SMLS	x 7"	40 / 80	0.30	----
59-032SMLS	x 8"	40 / 80	0.35	----
59-033SMLS	x 9"	40 / 80	0.39	----
59-034SMLS	x 10"	40 / 80	0.44	----
59-036SMLS	x 12"	40 / 80	0.53	----



5,000# Carbon Steel Check Valves on page 212



## BLACK SCH 80 SEAMLESS

## STEEL NIPPLES

3/8" - 18

**3/8" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.126 - Grade B - Test Pressure 850 PSI - Thread Length 0.6

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-040SMLS	X Close (3/8")	40 / 480	0.05	----
59-041SMLS	x 1-1/2"	100 / 400	0.08	----
59-042SMLS	x 2"	100 / 400	0.11	----
59-043SMLS	x 2-1/2"	80 / 320	0.14	----
59-044SMLS	x 3"	40 / 240	0.17	----
59-045SMLS	x 3-1/2"	40 / 240	0.20	----
59-046SMLS	x 4"	40 / 240	0.23	----
59-047SMLS	x 4-1/2"	40 / 160	0.26	----
59-048SMLS	x 5"	40 / 120	0.29	----
59-049SMLS	x 5-1/2"	40 / 120	0.32	----
59-050SMLS	x 6"	40 / 80	0.35	----
59-054SMLS	x 10"	40/80	0.53	----
59-056SMLS	x 12"	40/80	0.65	----

1/2" - 14

**1/2" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.147 - Grade B - Test Pressure 850 PSI - Thread Length 0.78

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-060SMLS	X Close (1-1/8")	40 / 480	0.07	----
59-061SMLS	x 1-1/2"	100 / 400	0.11	----
59-062SMLS	x 2"	100 / 400	0.15	----
59-063SMLS	x 2-1/2"	80 / 320	0.20	----
59-064SMLS	x 3"	40 / 240	0.24	----
59-065SMLS	x 3-1/2"	40 / 240	0.29	----
59-066SMLS	x 4"	40 / 240	0.33	----
59-067SMLS	x 4-1/2"	40 / 160	0.38	----
59-068SMLS	x 5"	40 / 120	0.42	----
59-069SMLS	x 5-1/2"	40 / 120	0.47	----
59-070SMLS	x 6"	40 / 80	0.51	----
59-071SMLS	x 7"	40 / 80	0.60	----
59-072SMLS	x 8"	40 / 80	0.69	----
59-073SMLS	x 9"	40/80	0.73	----
59-074SMLS	x 10"	40 / 80	0.88	----
59-075SMLS	x 11"	32/64	0.96	----
59-076SMLS	x 12"	32 / 64	1.06	----



3/4" - 14

**3/4" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.154 - Grade B - Test Pressure 850 PSI - Thread Length 0.79

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-080SMLS	X Close (1-3/8")	40/240	0.13	----
59-081SMLS	x 1-1/2"	100/200	0.15	----
59-082SMLS	x 2"	100/200	0.21	----
59-083SMLS	x 2-1/2"	40/160	0.27	----
59-084SMLS	x 3"	40/160	0.33	----
59-085SMLS	x 3-1/2"	40/120	0.39	----
59-086SMLS	x 4"	40/120	0.45	----
59-087SMLS	x 4-1/2"	40/120	0.51	----
59-088SMLS	x 5"	40/120	0.57	----
59-089SMLS	x 5-1/2"	48/96	0.64	----
59-090SMLS	x 6"	40/80	0.69	----
59-091SMLS	x 7"	40/80	0.82	----
59-092SMLS	x 8"	40/80	0.94	----
59-094SMLS	x 10"	32/64	1.19	----
59-096SMLS	x 12"	24/48	1.44	----



1" - 11 1/2

**1" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.179 - Grade B - Test Pressure 850 PSI - Thread Length 0.98

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-100SMLS	X Close (1-1/2")	40 / 160	0.21	----
59-101SMLS	x 2"	40 / 120	0.30	----
59-102SMLS	x 2-1/2"	40 / 120	0.37	----
59-103SMLS	x 3"	40 / 80	0.47	----
59-104SMLS	x 3-1/2"	40 / 80	0.56	----
59-105SMLS	x 4"	40 / 80	0.65	----
59-106SMLS	x 4-1/2"	40 / 80	0.74	----
59-107SMLS	x 5"	40 / 80	0.83	----
59-108SMLS	x 5-1/2"	40 / 80	0.92	----
59-109SMLS	x 6"	32 / 64	1.01	----
59-110SMLS	x 7"	20 / 40	1.19	----
59-111SMLS	x 8"	20 / 40	1.37	----
59-112SMLS	x 9"	20 / 40	1.55	----
59-113SMLS	x 10"	12 / 24	1.74	----
59-114SMLS	x 11"	12 / 24	1.92	----
59-115SMLS	x 12"	12 / 24	2.10	----

## BLACK SCH 80 SEAMLESS

## STEEL NIPPLES

**1-1/4" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.191 - Grade B - Test Pressure 1900 PSI - Thread Length 1.01

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-120SMLS	X Close (1-5/8")	40 / 80	0.31	----
59-121SMLS	x 2"	40 / 80	0.42	----
59-122SMLS	x 2-1/2"	40 / 80	0.52	----
59-123SMLS	x 3"	40 / 80	0.64	----
59-124SMLS	x 3-1/2"	24 / 48	0.77	----
59-125SMLS	x 4"	24 / 48	0.90	----
59-126SMLS	x 4-1/2"	24 / 48	1.02	----
59-127SMLS	x 5"	20 / 40	1.15	----
59-128SMLS	x 5-1/2"	20 / 40	1.27	----
59-129SMLS	x 6"	20 / 40	1.40	----
59-130SMLS	x 7"	20 / 40	1.65	----
59-131SMLS	x 8"	12 / 24	1.90	----
59-132SMLS	x 9"	12 / 24	2.15	----
59-133SMLS	x 10"	12 / 24	2.40	----
59-134SMLS	x 11"	8 / 16	2.65	----
59-135SMLS	x 12"	8 / 16	2.90	----

**1-1/2" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.2 - Grade B - Test Pressure 1900 PSI - Thread Length 1.03

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-140SMLS	X Close (1-3/4")	40 / 80	0.41	----
59-141SMLS	x 2"	32 / 64	0.51	----
59-142SMLS	x 2-1/2"	32 / 64	0.64	----
59-143SMLS	x 3"	32 / 64	0.78	----
59-144SMLS	x 3-1/2"	20 / 40	0.94	----
59-145SMLS	x 4"	20 / 40	1.09	----
59-146SMLS	x 4-1/2"	20 / 40	1.23	----
59-147SMLS	x 5"	20 / 40	1.39	----
59-148SMLS	x 5-1/2"	16 / 32	1.54	----
59-149SMLS	x 6"	12 / 24	1.69	----
59-150SMLS	x 7"	12 / 24	2.00	----
59-151SMLS	x 8"	12 / 24	2.30	----
59-152SMLS	x 9"	12 / 24	2.61	----
59-153SMLS	x 10"	8 / 16	2.90	----
59-154SMLS	x 11"	8 / 16	3.20	----
59-155SMLS	x 12"	8 / 16	3.51	----



**2" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.218 - Grade B - Test Pressure 2500 PSI - Thread Length 1.06

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-160SMLS	X Close (2")	32/64	0.30	----
59-161SMLS	x 2-1/2"	20 / 40	0.80	----
59-162SMLS	x 3"	20 / 40	1.10	----
59-163SMLS	x 3-1/2"	12 / 24	1.31	----
59-164SMLS	x 4"	12 / 24	1.52	----
59-165SMLS	x 4-1/2"	12 / 24	1.72	----
59-166SMLS	x 5"	12 / 24	1.94	----
59-167SMLS	x 5-1/2"	12 / 24	2.15	----
59-168SMLS	x 6"	8 / 16	2.35	----
59-169SMLS	x 7"	8 / 16	2.78	----
59-170SMLS	x 8"	8 / 16	3.19	----
59-171SMLS	x 9"	1 / 8	3.62	----
59-172SMLS	x 10"	1 / 8	4.03	----
59-173SMLS	x 11"	1 / 8	4.44	----
59-174SMLS	x 12"	1 / 8	4.87	----



**2-1/2" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.276 - Grade B - Test Pressure 2500 PSI - Thread Length 1.57

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-180SMLS	x Close ( 2-1/2" )	1 / 16	1.25	----
59-181SMLS	x 3"	1 / 16	1.57	----
59-182SMLS	x 3-1/2"	1 / 16	1.82	----
59-183SMLS	x 4"	1 / 16	2.15	----
59-184SMLS	x 4-1/2"	1 / 16	1.75	----
59-185SMLS	x 5"	1 / 16	2.78	----
59-186SMLS	x 5-1/2"	1 / 8	2.25	----
59-187SMLS	x 6"	1 / 8	3.41	----
59-188SMLS	x 7"	1 / 8	3.89	----
59-189SMLS	x 8"	1 / 8	4.69	----
59-190SMLS	x 9"	1 / 8	5.34	----
59-191SMLS	x 10"	1 / 6	5.97	----
59-192SMLS	x 11"	1 / 6	4.89	----
59-193SMLS	x 12"	1 / 5	7.26	----

**BLACK SCH 80 SEAMLESS****STEEL NIPPLES****3" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.3 - Grade B - Test Pressure 2500 PSI - Thread Length 1.64

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-200SMLS	X Close (2-5/8")	1 / 16	1.79	----
59-201SMLS	x 3"	1 / 16	2.11	----
59-202SMLS	x 3-1/2"	1 / 16	2.55	----
59-203SMLS	x 4"	1 / 8	2.89	----
59-204SMLS	x 4-1/2"	1 / 8	3.30	----
59-205SMLS	x 5"	1 / 8	3.73	----
59-206SMLS	x 5-1/2"	1 / 8	4.17	----
59-207SMLS	x 6"	1 / 8	4.57	----
59-208SMLS	x 7"	1 / 6	5.45	----
59-209SMLS	x 8"	1 / 6	6.29	----
59-210SMLS	x 9"	1 / 6	7.17	----
59-211SMLS	x 10"	1 / 4	8.01	----
59-212SMLS	x 11"	1 / 4	8.85	----
59-213SMLS	x 12"	1 / 4	9.72	----

**4" DIAMETER SCHEDULE 80 SEAMLESS**

Wall Thickness 0.337 - Grade B - Test Pressure 2800 PSI - Thread Length 1.74

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-220SMLS	X Close (2-7/8")	1 / 8	2.91	----
59-221SMLS	x 4"	1 / 6	4.26	----
59-223SMLS	x 5"	1 / 5	5.49	----
59-225SMLS	x 6"	1 / 5	6.72	----
59-226SMLS	x 7"	1/3	7.33	----
59-227SMLS	x 8"	1 / 3	9.23	----
59-229SMLS	x 10"	1 / 3	11.73	----
59-231SMLS	x 12"	1 / 3	14.24	----



**1/2" DIAMETER BLACK EXTRA HEAVY XXS SEAMLESS**

Wall Thickness 0.294 - Grade B - Test Pressure 1000 PSI - Thread Length 0.79

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-060SMLSXX	x Close	100 / 200	0.31	----
59-062SMLSXX	x 2"	100 / 200	0.58	----
59-064SMLSXX	x 3"	50 / 100	0.62	----
59-066SMLSXX	x 4"	50 / 100	0.66	----
59-070SMLSXX	x 6"	25 / 50	0.75	----



**3/4" DIAMETER DIAMETER BLACK EXTRA HEAVY XXS SEAMLESS**

Wall Thickness 0.308 - Grade B - Test Pressure 1000 PSI - Thread Length 0.79

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-080SMLSXX	x Close	40/240	0.55	----
59-082SMLSXX	x 2"	50 / 100	0.62	----
59-086SMLSXX	x 4"	25 / 50	0.68	----
59-090SMLSXX	x 6"	25 / 50	0.71	----



**1" DIAMETER DIAMETER BLACK EXTRA HEAVY XXS SEAMLESS**

Wall Thickness 0.358 - Grade B - Test Pressure 1000 PSI - Thread Length 0.98

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-100SMLSXX	x close	50 / 100	0.88	----
59-101SMLSXX	x 2"	50 / 100	1.07	----
59-103SMLSXX	x 3"	20/40	1.10	----
59-105SMLSXX	x 4"	20 / 40	1.14	----
59-109SMLSXX	x 6"	20 / 40	1.75	----
59-111SMLSXX	x 8"	1 / 25	1.88	----
59-115SMLSXX	x 12"	1 / 15	2.15	----



**2" DIAMETER DIAMETER BLACK EXTRA HEAVY XXS SEAMLESS**

Wall Thickness 0.436 - Grade B - Test Pressure 2500 PSI - Thread Length 1.06

Part #	Length	Box/Case	Approx. Wt. Lbs.	List Price
59-160SMLSXX	x close	1 / 25	1.36	----
59-161SMLSXX	x 2-1/2"	1 / 20	1.67	----
59-162SMLSXX	x 3"	1 / 20	2.09	----
59-163SMLSXX	x 3-1/2"	1 / 12	2.51	----
59-164SMLSXX	x 4"	1 / 12	2.86	----
59-166SMLSXX	x 5"	1/12	3.04	----
59-168SMLSXX	x 6"	1 / 11	3.20	----
59-169SMLSXX	x 7"	1 / 8	4.35	----
59-170SMLSXX	x 8"	1 / 8	5.86	----
59-171SMLSXX	x 9"	1 / 8	6.58	----
59-172SMLSXX	x 10"	1 / 8	7.31	----

## MERCHANT COUPLINGS

## STEEL NIPPLES

### Product Specifications

Welded steel couplings both galvanized and black in diameters from 1/8" up to 4".

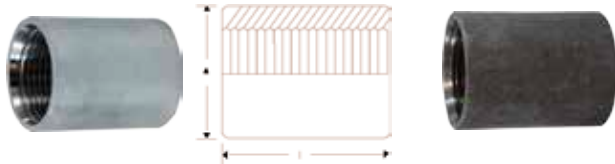
### Technical Specifications

**Standards:** Product complies with ASTM A865 and ANSI B1.20.1 for threading, dimensions and pipe specifications. Federal Spec WW-P-404

**Pipe:** Complies with ASTM A-53 milltested schedule 40 and 80. Meets ANSI B36.1. All pipe is hydrostatic tested.

**Galvanized:** Zinc coating applied by hot dipping. Galvanized complying with ASTM-A-123.

### MERCHANT COUPLINGS



• Straight threads thru 2"

Part # Galv	List Price	Size	Part # Black	List Price
64-770	----	1/8"	65-770	----
64-771	----	1/4"	65-771	----
64-772	----	3/8"	65-772	----
64-773	----	1/2"	65-773	----
64-774	----	3/4"	65-774	----
64-775	----	1"	65-775	----
64-776	----	1-1/4"	65-776	----
64-777	----	1-1/2"	65-777	----
64-778	----	2"	65-778	----
64-779	----	2-1/2"	65-779	----
64-780	----	3"	65-780	----
64-781	----	4"	65-781	----
		5"	65-782	----
		6"	65-783	----

### HALF MERCHANT COUPLINGS



• Straight threads thru 2"

Part # Galv	List Price	Size	Part # Black	List Price
		1/4"	65-771H	----
		3/8"	65-772H	----
64-773H	----	1/2"	65-773H	----
64-774H	----	3/4"	65-774H	----
64-775H	----	1"	65-775H	----
64-776H	----	1-1/4"	65-776H	----
64-777H	----	1-1/2"	65-777H	----
64-778H	----	2"	65-778H	----
		2-1/2"	65-779H	----
64-780H	----	3"	65-780H	----
64-781H	----	4"	65-781H	----

Also available:  
Extra Heavy Merchant Couplings

### MERCHANT COUPLINGS SPECIFICATIONS

Size	Outside Diam.	Length Inches	Weight 100 pcs approx.	Quantity per box	Threads per Inch	Threads
			Pounds			Type
1/8"	.59"	.78	3.5	1000	27	Straight
1/4"	.73"	1.18	7.5	500	18	Straight
3/8"	.86"	1.18"	9	600	18	Straight
1/2"	1.063"	1-9/16"	13.0	100	14	Straight
3/4"	1.313"	1-5/8"	28.3	50	14	Straight
1"	1.576"	2"	40.1	30	11-1/2	Straight
1-1/4"	1.900"	2-1/16"	49.5	25	11-1/2	Straight
1-1/2"	2.200"	2-1/16"	71.48	25	11-1/2	Straight
2"	2.750"	2-1/8"	112.0	20	11-1/2	Straight
2-1/2"	3.250"	3-1/8"	231.2	8	8	Taper Tapped
3"	4.000"	3-1/4"	353.8	5	8	Taper Tapped
4"	5.000"	3-1/2"	471.8	4	8	Taper Tapped
6"	7.32	4"	1000.05	4	8	Taper Tapped

**A105 BLACK STEEL TAPER TAPPED COUPLINGS**

**Product Specifications**

These couplings are manufactured in accordance with American Petroleum Institute specifications 5L & 5B.

All couplings are phosphated.

All sizes are taper tapped 3/4" per foot on the diameter.

\*Certified by the American Petroleum Institute



**A105**

- Black Steel
- API line API SL

- Each end has a short, unthreaded recess before the threads start.
- Use with sch 80 & sch. 160 nipples & pipe.
- Max. pressure: 300PSI

**API LINE PIPE COUPLINGS**

Part #	NPT Size	Threads per Inch	Outside Diameter	Length	Unit Weight	List Price
65770API	1/8"	27	0.563	1-1/16	0.04	----
65771API	1/4"	18	0.719	1-5/8	0.10	----
65772API	3/8"	18	0.875	1-5/8	0.13	----
65773API	1/2"	14	1.063	2-1/8	0.24	----
65774API	3/4"	14	1.313	2-1/8	0.35	----
65775API	1"	11.5	1.576	2-5/8	0.52	----
65776API	1-1/4"	11.5	2.054	2-3/4	1.00	----
65777API	1-1/2"	11.5	2.200	2-3/4	0.88	----
65778API	2"	11.5	2.875	2-7/8	1.83	----
65779API	2-1/2"	8	3.375	4-1/8	3.28	----
65780API	3"	8	4.000	4-1/4	4.09	----
65781API	4"	8	5.200	4-1/2	7.59	----
65783API	6"		7.390	4-5/8	12.92	----



# MALLEABLE FITTINGS



## ISO 9002 - CERTIFICATE OF QUALITY - UL/FM LISTED AND APPROVED AT 300 PSI

Our quality fittings are made with care and attention to detail. With better molds we can reduce parting lines and rough edges resulting in better fluid flow. By using a low temperature galvanizing process the coating is more durable which means a longer lasting fitting. All Fittings are 100% Pressure Tested to 300# Class.

*(Every fitting is subjected to an underwater fitness test to ensure the highest quality)*

### SPECIFICATIONS

- MATERIAL: ASTM A 197 - Cuppla Malleable Iron, ASTM A 153 - Hot dipped galvanizing • Coating ASTM A164 LS
- DIMENSIONS: ANSI B 16.3 - Malleable Iron threaded fittings, ANSI B 16.14 - Ferrous Pipe Plugs, Bushings etc..., ANSI B 16.39 - Malleable Iron threaded pipe unions.
- THREADS: ANSI B 2.1 or BS 21 ASME B1.20.1 • RoHS Compliant • Tapered Threads

### STEEL FITTINGS



- 1010 Carbon Steel, 3/4 taper threads ( see hydraulic section for 7/8 taper threads.)
- Finish or coating • Black Dipped in rust resistant
- Galvanized, Zinc Plated (Inside and Out)

### 300lb MALLEABLE FITTINGS



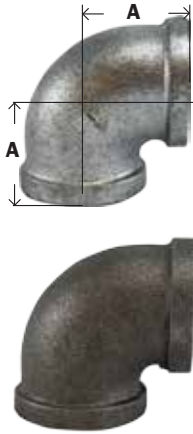
**Max. pressure: 300 psi WOG @ 72°F; 150 psi WOG saturated steam**

- Meet ANSI/ ASME B1.20.1 standards
- Black meet ASTM 197 standards

## MALLEABLE FITTINGS

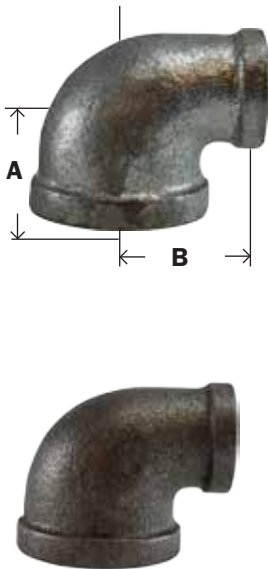
## MALLEABLE FITTINGS

### ELBOWS 90°



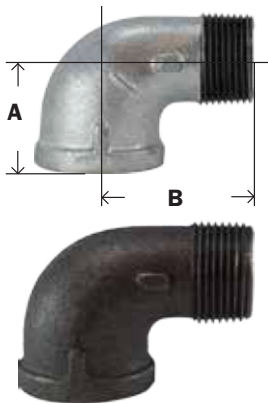
Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-100	----	1/8"	0.69	50/600	0.07	65-100	----
64-101	----	1/4"	0.81	35/420	0.10	65-101	----
64-102	----	3/8"	0.95	90/360	0.16	65-102	----
64-103	----	1/2"	1.12	50/200	0.23	65-103	----
64-104	----	3/4"	1.31	35/105	0.35	65-104	----
64-105	----	1"	1.50	20/60	0.57	65-105	----
64-106	----	1-1/4"	1.75	20/40	0.86	65-106	----
64-107	----	1-1/2"	1.94	15/30	1.31	65-107	----
64-108	----	2"	2.25	8/16	1.79	65-108	----
64-109	----	2-1/2"	2.70	6/12	3.35	65-109	----
64-110	----	3"	3.08	4/8	5	65-110	----
64-112	----	4"	3.79	1/2	9.02	65-112	----
64-114	----	6"	5.13	1/1	23.68	65-114	----

### REDUCING ELBOWS 90°



Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-121	----	3/8" x 1/8"	0.81	0.85	105/420	0.11	65-121	----
64-122	----	3/8" x 1/4"	0.88	0.90	90/360	0.16	65-122	----
64-123	----	1/2" x 1/4"	0.97	0.98	60/240	0.21	65-123	----
64-124	----	1/2" x 3/8"	1.04	1.03	60/240	0.24	65-124	----
64-126	----	3/4" x 3/8"	1.12	1.13	40/160	0.31	65-126	----
64-127	----	3/4" x 1/2"	1.20	1.22	40/160	0.44	65-127	----
64-130	----	1" x 1/2"	1.26	1.40	25/100	0.52	65-130	----
64-131	----	1" x 3/4"	1.37	1.45	50/100	0.58	65-131	----
64-133	----	1-1/4" x 3/4"	1.45	1.62	15/120	0.79	65-133	----
64-134	----	1-1/4" x 1"	1.58	1.67	10/40	0.80	65-134	----
64-136	----	1-1/2" x 3/4"	1.52	1.75	10/40	0.88	65-136	----
64-137	----	1-1/2" x 1"	1.65	1.80	10/40	1.07	65-137	----
64-138	----	1-1/2" x 1-1/4"	1.82	1.88	15/30	1.12	65-138	----
64-139	----	2" x 3/4"	1.60	1.97	9/36	1.20	65-139	----
64-140	----	2" x 1"	1.73	2.02	14/28	1.41	65-140	----
64-141	----	2" x 1-1/4"	1.90	2.10	10/20	1.53	65-141	----
64-142	----	2" x 1-1/2"	2.02	2.16	10/20	1.65	65-142	----
64-145	----	2-1/2" x 1-1/2"	2.16	2.51	6/12	2.97	65-145	----
64-146	----	2-1/2" x 2"	2.39	2.60	6/12	3.18	65-146	----
64-148	----	3" x 1-1/2"	2.28	2.83	6/18	4.54	65-148	----
		3" x 2-1/2"	2.83	2.99	4/8	4.39	65-151	----
		3" x 2"	2.52	3.60	4/8	4.22	65-150	----

### 90° STREET ELBOWS

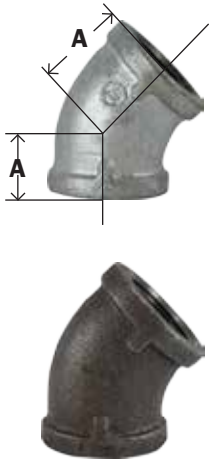


Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-160	----	1/8"	0.69	1.00	60/720	.06	65-160	----
64-161	----	1/4"	0.80	1.17	35/420	.10	65-161	----
64-162	----	3/8"	0.95	1.48	40/240	.15	65-162	----
64-163	----	1/2"	1.10	1.59	60/180	.22	65-163	----
64-164	----	3/4"	1.28	1.85	35/105	.39	65-164	----
64-165	----	1"	1.47	2.10	35/105	.60	65-165	----
64-166	----	1-1/4"	1.75	2.57	25/50	.95	65-166	----
64-167	----	1-1/2"	1.90	2.63	9/27	1.37	65-167	----
64-168	----	2"	2.21	3.19	8/16	2.25	65-168	----
64-169	----	2-1/2"	2.65	3.78	5/10	3.32	65-169	----
64-170	----	3"	3.02	4.42	4/8	5.27	65-170	----
64-171	----	4"	3.72	5.57	2/4	8.94	65-171	----

**BLACK & GALVANIZED MALLEABLE IRON 150#**

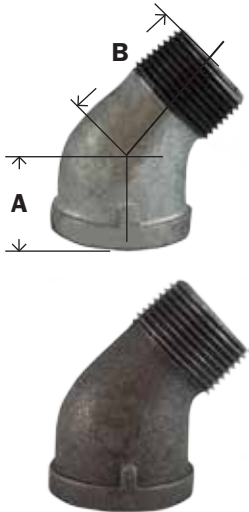
**MALLEABLE FITTINGS**

**ELBOWS 45°**



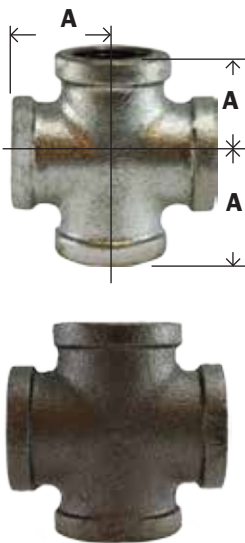
Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-180	----	1/8"	0.63	50/600	.07	65-180	----
64-181	----	1/4"	0.73	30/360	.10	65-181	----
64-182	----	3/8"	0.80	75/300	.14	65-182	----
64-183	----	1/2"	0.88	50/200	.21	65-183	----
64-184	----	3/4"	0.98	40/120	.33	65-184	----
64-185	----	1"	1.12	20/60	.50	65-185	----
64-186	----	1-1/4"	1.29	20/40	.74	65-186	----
64-187	----	1-1/2"	1.43	10/30	1.01	65-187	----
64-188	----	2"	1.68	12/24	1.53	65-188	----
64-189	----	2-1/2"	1.95	9/18	2.78	65-189	----
64-190	----	3"	2.17	1/10	4.49	65-190	----
64-191	----	4"	2.61	2/4	7.44	65-191	----
64-192	----	6"	3.46	1/1	18.63	65-192	----

**45° STREET ELBOWS**



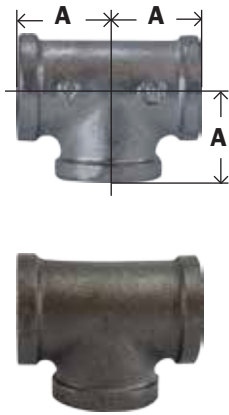
Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-200	----	1/8"	0.63	0.83	70/840	.05	65-200	----
64-201	----	1/4"	0.73	0.94	40/480	.09	65-201	----
64-202	----	3/8"	0.80	1.03	100/400	.14	65-202	----
64-203	----	1/2"	0.86	1.30	75/225	.19	65-203	----
64-204	----	3/4"	0.96	1.48	40/120	.28	65-204	----
64-205	----	1"	1.10	1.69	25/75	.48	65-205	----
64-206	----	1-1/4"	1.26	1.87	10/40	.71	65-206	----
64-207	----	1-1/2"	1.40	2.05	10/30	1.02	65-207	----
64-208	----	2"	1.65	2.38	12/24	1.68	65-208	----
64-209	----	2-1/2"	1.95	2.72	6/12	2.69	65-209	----
64-210	----	3"	2.17	3.16	3/6	4.61	65-210	----
64-211	----	4"	2.61	3.90	2/4	7.74	65-211	----

**CROSSES**



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-390	----	1/8"	0.65	50/600	.14	65-390	----
64-391	----	1/4"	0.80	60/240	.17	65-391	----
64-392	----	3/8"	0.95	50/150	.26	65-392	----
64-393	----	1/2"	1.12	30/90	.42	65-393	----
64-394	----	3/4"	1.31	20/60	.64	65-394	----
64-395	----	1"	1.50	15/30	.98	65-395	----
64-396	----	1-1/4"	1.75	10/20	1.45	65-396	----
64-397	----	1-1/2"	1.94	8/16	1.90	65-397	----
64-398	----	2"	2.25	5/10	2.96	65-398	----
64-399	----	2-1/2"	2.71	4/8	5.49	65-399	----
64-400	----	3"	3.06	2/4	7.71	65-400	----
		4"		1/1	14.77	65-401	----

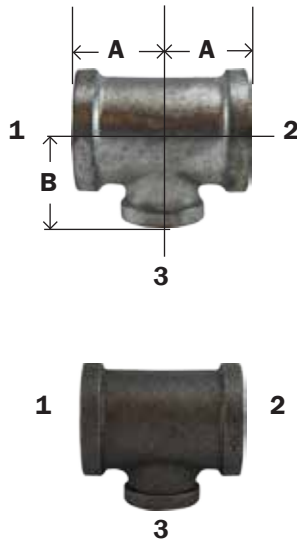
**TEES**



Part # Galvanized	List Price	Size	A	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
64-250	----	1/8"	0.69	120/480	.11	65-250	----
64-251	----	1/4"	0.81	75/300	.15	65-251	----
64-252	----	3/8"	0.95	45/180	.22	65-252	----
64-253	----	1/2"	1.12	40/120	.36	65-253	----
64-254	----	3/4"	1.31	35/70	.48	65-254	----
64-255	----	1"	1.50	20/40	.83	65-255	----
64-256	----	1-1/4"	1.75	14/28	1.29	65-256	----
64-257	----	1-1/2"	1.94	12/24	1.66	65-257	----
64-258	----	2"	2.26	8/16	2.50	65-258	----
64-259	----	2-1/2"	2.70	4/8	4.45	65-259	----
64-260	----	3"	3.08	1/6	6.72	65-260	----
64-261	----	4"	3.79	1/2	11.31	65-261	----
64-262	----	6"	5.13	1/1	30.75	65-262	----

**REDUCING TEES**

**(SAME SIZE ON RUN, REDUCING ON BRANCH)**



Part # Galvanized	List Price	Size (1&2) x 3	A	B	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
64-273	----	3/8" x 1/4"	0.81	0.90	25/300	.18	65-273	----
64-276	----	1/2" x 1/4"	0.97	0.98	40/160	.24	65-276	----
64-279	----	1/2" x 3/8"	1.04	1.03	40/160	.35	65-279	----
64-282	----	3/4" x 1/4"	1.05	1.08	25/100	.43	65-282	----
64-283	----	3/4" x 3/8"	1.12	1.13	25/100	.39	65-283	----
64-286	----	3/4" x 1/2"	1.20	1.18	20/80	.49	65-286	----
64-268	----	1" x 1/4"	1.11	1.22	20/80	.51	65-268	----
64-269	----	1" x 3/8"	1.18	1.27	15/60	.55	65-269	----
64-291	----	1" x 1/2"	1.26	1.40	15/60	.63	65-291	----
64-298	----	1" x 3/4"	1.37	1.45	12/48	.71	65-298	----
64-301	----	1-1/4" x 1/2"	1.34	1.45	20/40	.91	65-301	----
64-303	----	1-1/4" x 3/4"	1.45	1.62	20/40	.99	65-303	----
64-306	----	1-1/4" x 1"	1.58	1.66	20/40	1.07	65-306	----
64-316	----	1-1/2" x 3/4"	1.41	1.75	15/30	1.23	65-316	----
64-318	----	1-1/2" x 1"	1.65	1.88	10/30	1.33	65-318	----
64-322	----	1-1/2" x 1-1/4"	1.65	1.88	12/24	1.52	65-322	----
64-327	----	2" x 1/2"	1.49	1.88	10/20	1.64	65-327	----
64-328	----	2" x 3/4"	1.60	1.97	10/20	1.71	65-328	----
64-330	----	2" x 1"	1.73	2.02	10/20	1.88	65-330	----
64-334	----	2" x 1-1/4"	1.86	2.06	8/16	2.03	65-334	----
64-336	----	2" x 1-1/2"	1.98	2.12	8/16	2.22	65-336	----
64-343	----	2-1/2" x 1-1/2"	2.16	2.51	5/10	2.97	65-343	----
64-729	----	3" x 1"	2.00	2.00	3/6	4.15		
64-351	----	3" x 2"	2.52	2.89	3/6	5.35	65-351	----

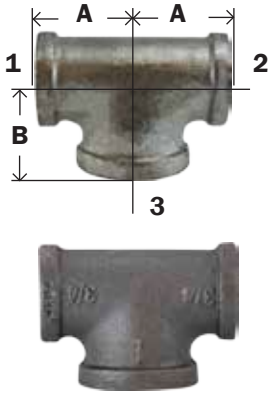


Quick Disconnects - see pages 358-365

**BLACK & GALVANIZED MALLEABLE IRON 150#**

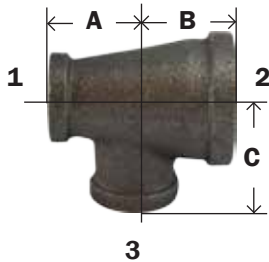
**MALLEABLE FITTINGS**

**BULLHEAD TEES**



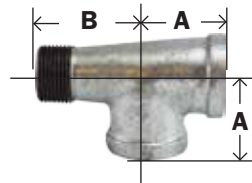
Part #	List Price	Size (1&2) x 3	A	B	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
64-280	----	1/2" x 3/4"	1.22	1.20	30/120	.4	65-280	----
64-733	----	1/2" x 1"	1.36	1.26	25/100	.50	65-733	----
64-289	----	3/4" x 1"	1.45	1.37	20/120	.60	65-289	----
64-299	----	1" x 1-1/4"	1.67	1.58	15/30	.96	65-299	----
64-300	----	1" x 1-1/2"	1.80	1.65	9/36	1.11	65-300	----
64-317	----	1-1/4" x 1-1/2"	1.88	1.82	12/24	1.07	65-317	----
64-319	----	1-1/2" x 2"	2.12	1.98	8/32	2.10	65-319	----

**REDUCING TEES  
REDUCING ON RUN**



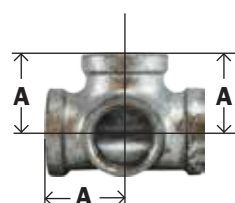
Part # Black	Size 1 x 2 x 3	A	B	C	Box/Case	Approx. Wt. Lbs.	List Price
65-287	3/4" x 1/2" x 1/2"	1.18	1.18	1.20	25/100	0.39	----
65-288	3/4" x 1/2" x 3/4"	1.28	1.20	1.28	20/80	0.49	----
65-292	1" x 1/2" x 1/2"	1.31	1.22	1.31	20/80	0.51	----
65-293	1" x 1/2" x 3/4"	1.22	1.37	1.45	20/80	0.53	----
65-294	1" x 1/2" x 1"	1.40	1.50	1.50	15/60	0.54	----
65-295	1" x 3/4" x 1/2"	1.20	1.26	1.40	20/80	0.58	----
65-296	1" x 3/4" x 3/4"	1.34	1.28	1.42	15/60	0.63	----
65-297	1" x 3/4" x 1"	1.45	1.50	1.50	15/60	0.62	----
65-347	1-1/4" x 3/4" x 3/4"	1.31	1.45	1.64	10/40	0.66	----
65-305	1-1/4" x 3/4" x 1-1/4"	1.62	1.75	1.75	10/40	1.14	----
65-309	1-1/4" x 1" x 1"	1.55	1.47	1.63	20/40	1.00	----
65-346	1-1/4" x 3/4" x 1/2"	1.31	1.45	1.64	20/40	1.05	----
65-349	1-1/4" x 1" x 1/2"	1.26	1.34	1.53	20/40	1.10	----
65-310	1-1/4" x 1" x 1-1/4"	1.30	1.36	1.44	15/30	1.21	----
65-372	1-1/2" x 1" x 1"	1.50	1.65	1.78	15/30	1.28	----
65-375	1-1/2" x 1-1/4" x 3/4"	1.43	1.52	1.25	15/30	1.30	----
65-377	1-1/2" x 1-1/4" x 1-1/4"	1.75	1.82	1.88	15/30	1.35	----
65-312	2" x 1-1/2" x 1-1/4"	1.82	1.90	2.10	10/30	1.21	----
65-313	2" x 1-1/2" x 1-1/2"	1.94	2.02	2.16	10/30	1.79	----

**MALLEABLE SERVICE TEE (STREET TEE)**



Part # Galvanized	List Price	Size	A	B	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
64-363	----	1/2"	1.12	1.62	40/12	0.31	65-363	----
64-364	----	3/4"	1.31	1.89	25/75	0.49	65-364	----

**SIDE OUTLET TEES**



Part # Galvanized	List Price	Size	A	Box/Case	Approx. Wt. Lbs.	Part # Black	List Price
64-383	----	1/2"	1.12	25/100	.39	65-383	----
64-384	----	3/4"	1.31	15/60	.58	65-384	----
64-385	----	1"	1.50	20/40	.88	65-385	----
64-386	----	1-1/4"	1.75	12/24	1.32	65-386	----

# MALLEABLE FITTINGS

# BLACK & GALVANIZED MALLEABLE IRON 150#

## COUPLINGS



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-410	----	1/8"	0.96	70/840	.07	65-410	----
64-411	----	1/4"	1.06	40/480	.09	65-411	----
64-412	----	3/8"	1.16	40/480	.13	65-412	----
64-413	----	1/2"	1.34	60/240	.19	65-413	----
64-414	----	3/4"	1.52	50/150	.28	65-414	----
64-415	----	1"	1.67	25/100	.45	65-415	----
64-416	----	1-1/4"	1.93	16/64	.66	65-416	----
64-417	----	1-1/2"	2.15	18/36	.84	65-417	----
64-418	----	2"	2.54	12/24	1.39	65-418	----
64-419	----	2-1/2"	2.88	8/16	2.42	65-419	----
64-420	----	3"	3.18	1/12	3.49	65-420	----
64-421	----	4"	3.69	3/6	5.81	65-421	----
64-422	----	6"	4.23	1/2	28.62	65-422	----

## REDUCING COUPLINGS



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-430	----	1/4" x 1/8"	1.00	50/600	.07	65-430	----
64-431	----	3/8" x 1/8"	1.13	35/420	.09	65-431	----
64-432	----	3/8" x 1/4"	1.13	30/360	.11	65-432	----
64-433	----	1/2" x 1/8"	1.25	75/300	.13	65-433	----
64-434	----	1/2" x 1/4"	1.25	75/300	.11	65-434	----
64-435	----	1/2" x 3/8"	1.25	60/240	.15	65-435	----
64-439	----	3/4" x 1/8"	1.44	60/240	.18	65-439	----
64-436	----	3/4" x 1/4"	1.44	45/18	.19	65-436	----
64-437	----	3/4" x 3/8"	1.44	45/18	.21	65-437	----
64-438	----	3/4" x 1/2"	1.44	60/180	.25	65-438	----
64-459	----	1" x 1/4"	1.69	45/135	.34	65-459	----
64-440	----	1" x 3/8"	1.69	30/120	.35	65-440	----
64-441	----	1" x 1/2"	1.69	30/120	.36	65-441	----
64-442	----	1" x 3/4"	1.69	25/100	.39	65-442	----
64-460	----	1-1/4" x 3/8"	2.06	25/75	.55	65-460	----
64-444	----	1-1/4" x 1/2"	2.06	25/75	.53	65-444	----
64-445	----	1-1/4" x 3/4"	2.06	25/75	.57	65-445	----
64-446	----	1-1/4" x 1"	2.06	15/60	.61	65-446	----
64-443	----	1-1/2" x 3/8"	2.31	20/60	.71	65-443	----
64-447	----	1-1/2" x 1/2"	2.31	20/60	.69	65-447	----
64-448	----	1-1/2" x 3/4"	2.31	15/60	.71	65-448	----
64-449	----	1-1/2" x 1"	2.31	25/50	.78	65-449	----
64-450	----	1-1/2" x 1-1/4"	2.31	12/48	.87	65-450	----
64-458	----	2" x 1/2"	2.81	12/36	1.14	65-458	----
64-451	----	2" x 3/4"	2.81	12/36	1.14	65-451	----
64-452	----	2" x 1"	2.81	12/36	1.21	65-452	----
64-453	----	2" x 1-1/4"	2.81	9/27	1.19	65-453	----
64-454	----	2" x 1-1/2"	2.81	9/27	1.38	65-454	----
64-461	----	2-1/2" x 1-1/2"	3.25	20/40	2.07	65-461	----
64-462	----	2-1/2" x 2"	3.25	7/14	2.23	65-462	----
64-486	----	3" x 1-1/2"	3.69	6/12	3.23	65-486	----
64-456	----	3" x 2"	3.69	6/12	3.30	65-456	----
64-463	----	3" x 2-1/2"	3.69	5/10	3.55	65-463	----
64-464	----	4" x 2"	4.38	3/6	5.55	65-464	----
64-465	----	4" x 2-1/2"	4.38	3/6	5.90	65-465	----
64-457	----	4" x 3"	4.38	3/6	6.05	65-457	----
	----	6" x 4"	4.24	1/2	10.86	65-491	----

**BLACK & GALVANIZED MALLEABLE IRON 150#**

**MALLEABLE FITTINGS**

**HEX BUSHING**



Hex



\* INSIDE HEX

Part # Galvanized	List Price	Size M x F	A	Hex	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
		*1/4" x 1/8"	}	Use steel fittings for smaller sizes ( page 283 )				
		*3/8" x 1/8"						
		*3/8" x 1/4"						
64-503	----	1/2" x 1/8"	0.84	1.03	150/600	.09	65-503	----
		1/2" x 1/4"	See Steel Bushings pg 283					
64-505	----	1/2" x 3/8"	0.75	1.03	150/600	.07	65-505	----
64-506	----	3/4" x 1/8"	0.85	1.15	75/300	.14	65-506	----
64-507	----	3/4" x 1/4"	0.85	1.15	75/300	.13	65-507	----
64-508	----	3/4" x 3/8"	0.85	1.15	75/300	.12	65-508	----
64-509	----	3/4" x 1/2"	0.93	1.15	75/300	.10	65-509	----
64-510*	----	1" x 1/4"	1.13	1.12	50/200	.20	65-510*	----
64-511*	----	1" x 3/8"	1.13	1.12	50/200	.18	65-511*	----
64-512	----	1" x 1/2"	1.10	1.42	50/200	.21	65-512	----
64-513	----	1" x 3/4"	1.10	1.42	50/200	.17	65-513	----
64-514*	----	1-1/4" x 1/4"	1.24	1.12	30/120	.29	65-514*	----
64-515*	----	1-1/4" x 3/8"	1.24	1.12	30/120	.29	65-515*	----
64-516*	----	1-1/4" x 1/2"	1.24	1.24	30/120	.31	65-516*	----
64-517	----	1-1/4" x 3/4"	1.08	1.76	30/120	.35	65-517	----
64-518	----	1-1/4" x 1"	1.08	1.76	30/120	.29	65-518	----
64-519*	----	1-1/2" x 1/4"	1.30	1.12	25/75	.40	65-519*	----
64-520*	----	1-1/2" x 3/8"	1.30	1.12	25/75	.38	65-520*	----
64-521*	----	1-1/2" x 1/2"	1.30	1.34	25/75	.38	65-521*	----
64-522*	----	1-1/2" x 3/4"	1.30	1.44	25/75	.40	65-522*	----
64-523	----	1-1/2" x 1"	1.23	2.00	25/75	.45	65-523	----
64-524	----	1-1/2" x 1-1/4"	1.23	2.00	25/75	.34	65-524	----
64-526	----	2" x 1/4"	1.29	1.12	20/60	.57	65-526	----
64-525*	----	2" x 3/8"	1.28	1.12	20/60	.57	65-525*	----
64-527*	----	2" x 1/2"	1.39	1.34	20/60	.57	65-527*	----
64-528*	----	2" x 3/4"	1.39	1.63	20/60	.63	65-528*	----
64-529*	----	2" x 1"	1.39	1.77	20/60	.66	65-529*	----
64-530	----	2" x 1-1/4"	1.50	2.48	20/60	.74	65-530	----
64-531	----	2" x 1-1/2"	1.50	2.48	20/60	.61	65-531	----
64-546*	----	2-1/2" x 1/2"	1.51	1.34	15/30	.97	65-546*	----
64-547*	----	2-1/2" x 3/4"	1.51	1.63	15/30	.91	65-547*	----
64-532*	----	2-1/2" x 1"	1.51	1.95	15/30	.97	65-532*	----
64-533*	----	2-1/2" x 1-1/4"	1.51	2.39	15/30	1.03	65-533*	----
64-534	----	2-1/2" x 1-1/2"	1.51	2.98	15/30	1.16	65-534	----
64-535	----	2-1/2" x 2"	1.54	2.98	15/30	1.01	65-535	----
64-550	----	3" x 1"	1.61	1.95	12/24	1.41	65-550	----
64-549*	----	3" x 1-1/4"	1.61	2.39	12/24	1.42	65-549*	----
64-537*	----	3" x 1-1/2"	1.61	2.68	12/24	1.51	65-537*	----
64-538	----	3" x 2"	1.61	3.86	12/24	1.71	65-538	----
64-539	----	3" x 2-1/2"	1.61	3.86	12/24	1.68	65-539	----
		3-1/2" x 3"	1.86	4.20	5/10		65-555	----
64-551	----	4" x 3/4"	2.15	4.90	5/10	3.88	65-551	----
64-553*	----	4" x 1"	2.00	4.75	5/10	3.79	65-553*	----
64-552	----	4" x 1-1/4"	1.82	2.39	5/10	2.39	65-552	----
64-540	----	4" x 1-1/2"	1.82	2.68	5/10	2.39	65-540	----
64-541*	----	4" x 2"	1.82	3.31	5/10	2.52	65-541*	----
64-542*	----	4" x 2-1/2"	2.06	3.87	5/10	2.87	65-542*	----
64-543	----	4" x 3"	2.17	4.96	5/10	2.95	65-543	----
		5" x 4"	2.16	5.34	2/4	6.80	65-544	----
64-545*	----	6" x 4"	2.33	5.79	2/4	7.11	65-545*	----

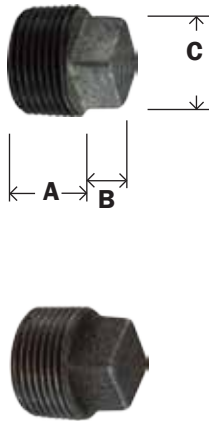
**UNIONS**



• Brass Seat

Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-600	----	1/8"	1.26	60/240	.17	65-600	----
64-601	----	1/4"	1.44	20/240	.25	65-601	----
64-602	----	3/8"	1.61	40/160	.37	65-602	----
64-603	----	1/2"	1.72	50/100	.52	65-603	----
64-604	----	3/4"	1.94	35/70	.78	65-604	----
64-605	----	1"	2.06	20/40	1.18	65-605	----
64-606	----	1-1/4"	2.26	15/30	1.64	65-606	----
64-607	----	1-1/2"	2.41	10/20	2.08	65-607	----
64-608	----	2"	2.75	6/12	3.24	65-608	----
64-609	----	2-1/2"	3.22	4/8	5.31	65-609	----
64-610	----	3"	3.50	4/8	6.94	65-610	----
64-611	----	4"	3.85	2/4	12.02	65-611	----

**SQUARE HEAD PLUGS**



• Cored

Part # Galvanized	List Price	Size	A	B	C	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price	
		*1/8"	}	Use steel fittings for smaller sizes						
		*1/4"								
		*3/8"								
64-653	----	1/2"	0.58	0.38	0.56	50/600	.08	65-653	----	
64-654	----	3/4"	0.65	0.44	0.63	30/360	.13	65-654	----	
64-655	----	1"	0.75	0.50	0.82	20/240	.22	65-655	----	
64-656	----	1-1/4"	0.82	0.56	0.94	40/120	.33	65-656	----	
64-657	----	1-1/2"	0.85	0.62	1.13	30/90	.41	65-657	----	
64-658	----	2"	0.91	0.68	1.31	20/60	.68	65-658	----	
64-659	----	2-1/2"	1.26	0.74	1.50	16/64	.89	65-659	----	
64-660	----	3"	1.16	0.80	1.69	16/32	1.68	65-660	----	
64-661	----	4"	1.22	1.00	2.28	6/12	3.02	65-661	----	
		6"	1.85	1.13	5.97	5/10	11.41	65-662	----	

**CAPS**



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
		1/4"	0.62	80/960	.07	65-471	----
64-472	----	3/8"	0.74	60/720	.08	65-472	----
64-473	----	1/2"	0.87	75/300	.13	65-473	----
64-474	----	3/4"	0.97	40/160	.18	65-474	----
64-475	----	1"	1.16	25/100	.30	65-475	----
64-476	----	1-1/4"	1.28	20/80	.47	65-476	----
64-477	----	1-1/2"	1.33	18/54	.66	65-477	----
64-478	----	2"	1.45	12/36	.99	65-478	----
64-479	----	2-1/2"	1.70	20/40	1.58	65-479	----
64-480	----	3"	1.80	12/24	2.51	65-480	----
64-481	----	4"	2.08	6/12	4.09	65-481	----
64-482	----	6"	2.55	2/4	5.18	65-482	----

\* Use steel fittings for smaller sizes. See page 282 for Galvanized and Black Steel Fittings.



**BLACK & GALVANIZED MALLEABLE IRON 150#**

**MALLEABLE FITTINGS**

**FLOOR FLANGES**



Part # Galvanized	List Price	Size	A	Thickness	Hole Size	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-692	----	1/2"	3.50	0.50	0.25	25/100	.63	65-692	----
64-693	----	3/4"	3.50	0.63	0.25	15/45	.73	65-693	----
64-694	----	1"	4.00	0.69	0.25	15/45	1.02	65-694	----
64-695	----	1-1/4"	4.00	0.75	0.25	15/30	1.00	65-695	----
64-696	----	1-1/2"	4.50	0.87	0.31	8/24	1.37	65-696	----
64-697	----	2"	5.50	1.00	0.31	8/16	2.11	65-697	----

**EXTENSION FIP X MIP**



Part #	Size	Approx. WT. Lbs.	Box/Case	List Price
65-621	1/2"	0.12	75 / 300	----
65-622	3/4"	0.23	40 / 160	----
65-623	1"	0.32	30 / 90	----

**MUSHROOM VENT CAP**

Cast Iron Galvanized Threaded Cap. 30 Mesh screen. Protects against driving rain, snow, sleet and insects.



Part #	Size	Approx. WT. Lbs.	Box/Case	List Price
21-178	2"	1.36	1/48	----

Other sizes available with extended delivery



See page 328 for Barbed for Plastic Pipe Fittings



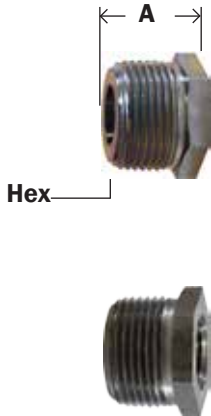
See page 376 for Gauges

# STEEL FITTINGS

# BLACK & GALVANIZED STEEL FITTINGS

ROHS, WEE, REACH COMPLIANT - MADE IN THE USA

## HEX BUSHINGS



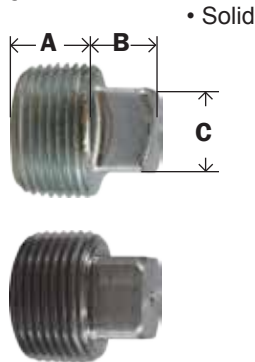
Part # Galvanized	List Price	Size M x F	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-500	----	1/4" x 1/8"	0.63	0.62	0.02	67-500	----
66-501	----	3/8" x 1/8"	0.66	0.68	0.04	67-501	----
66-502	----	3/8" x 1/4"	0.66	0.68	0.02	67-502	----
66-503	----	1/2" x 1/8"	0.80	0.87	0.10	67-503	----
66-504	----	1/2" x 1/4"	0.80	0.87	0.08	67-504	----
66-505	----	1/2" x 3/8"	0.80	0.87	0.06	67-505	----
66-506	----	3/4" x 1/8"	0.94	1.06	0.18	67-506	----
66-507	----	3/4" x 1/4"	0.94	1.06	0.14	67-507	----
66-508	----	3/4" x 3/8"	0.94	1.06	0.14	67-508	----
66-509	----	3/4" x 1/2"	0.94	1.06	0.10	67-509	----
66-510	----	1" x 1/4"	1.00	1.31	0.16	67-510	----
66-511	----	1" x 3/8"	1.00	1.31	0.26	67-511	----
66-512	----	1" x 1/2"	1.00	1.31	0.22	67-512	----
66-513	----	1" x 3/4"	1.00	1.31	0.14	67-513	----
		1-1/4" x 1/8"				67-514	----

## CAPS



Part # Galvanized	List Price	Size NPTF	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-470	----	1/8"	0.53	0.56	0.02	67-470	----
66-471	----	1/4"	0.63	0.62	0.04	67-471	----
66-472	----	3/8"	0.69	0.81	0.06	67-472	----
66-473	----	1/2"	0.87	1.00	0.12	67-473	----
66-474	----	3/4"	0.97	1.18	0.16	67-474	----
66-475	----	1"	1.16	1.50	0.30	67-475	----
66-476	----	1-1/4"	1.28	2.00	0.68	67-476	----
66-477	----	1-1/2"	1.35	2.25	0.83	67-477	----
66-478	----	2"	1.45	2.625	1.36		

## SQUARE HEAD PLUGS



Part # Galvanized	List Price	Size NPTF	A	B	C	Approx. Wt. Lbs.	Part # Black	List Price
		1/16"	0.33	0.18	0.22	0.01	67-669	----
66-670	----	1/8"	0.33	0.24	0.28	0.01	67-670	----
66-671	----	1/4"	0.45	0.28	0.37	0.02	67-671	----
66-672	----	3/8"	0.50	0.31	0.43	0.04	67-672	----
66-653	----	1/2"	0.59	0.38	0.55	0.12	67-653	----
66-654	----	3/4"	0.63	0.44	0.62	0.18	67-654	----
66-655	----	1"	0.75	0.5	0.81	0.34	67-655	----
66-656	----	1-1/4"	0.80	0.56	0.93	0.62	67-656	----
66-657	----	1-1/2"	0.83	0.62	1.12	0.82	67-657	----
66-658	----	2"	0.88	0.68	1.31	1.36	67-658	----

## HEX HEAD PLUGS



Part # Galvanized	List Price	Size NPTF	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-770	----	1/8"	0.55	0.43	0.01	67-770	----
66-771	----	1/4"	0.74	0.56	0.04	67-771	----
66-772	----	3/8"	0.67	0.68	0.06	67-772	----
66-773	----	1/2"	0.80	0.70	0.12	67-773	----
66-774	----	3/4"	0.94	1.06	0.18	67-774	----
66-775	----	1"	1.00	1.31	0.22	67-775	----
66-776	----	1-1/4"	1.17	1.75	0.7	67-776	----
66-777	----	1-1/2"	1.51	2.00	1.2	67-777	----
66-778	----	2"	1.65	2.50	2.06	67-778	----

**COUNTERSUNK PLUG - Square Socket**



Part # Galv	List Price	Size NPTF	A	Socket Size	Approx. Wt. Lbs.	Part # Black	List Price
66-630	----	1/8"	0.29	0.19	0.01	67-630	----
66-631	----	1/4"	0.45	0.25	0.02	67-631	----
66-632	----	3/8"	0.45	0.31	0.04	67-632	----
66-633	----	1/2"	0.59	0.38	0.08	67-633	----
66-634	----	3/4"	0.60	0.50	0.12	67-634	----
66-635	----	1"	0.75	0.50	0.16	67-635	----
66-636	----	1-1/4"	0.80	0.75	0.32	67-636	----
66-637	----	1-1/2"	0.83	0.75	0.45	67-637	----
66-638	----	2"	0.88	0.875	2.06	67-638	----

**COUNTERSUNK PLUG - Hex Socket**



Part # Galv	List Price	Size NPTF	A	Socket Size	Approx. Wt. Lbs.	Part # Black	List Price
66-760	----	1/16"	0.29	0.15	0.01	67-760	----
66-761	----	1/8"	0.29	0.18	0.01	67-761	----
66-762	----	1/4"	0.44	0.25	0.02	67-762	----
66-763	----	3/8"	0.44	0.31	0.04	67-763	----
66-764	----	1/2"	0.59	0.37	0.08	67-764	----
66-765	----	3/4"	0.60	0.56	0.14	67-765	----
66-766	----	1"	0.75	0.625	0.22	67-766	----
66-767	----	1-1/4"	0.80	0.75	0.37	67-767	----
66-768	----	1-1/2"	0.83	1.0	0.45	67-768	----
66-769	----	2"	0.88	1.0	0.86	67-769	----

• Flush plugs available upon request

**FACE BUSHING**



Part # Galv	List Price	Size M x F	A	Approx. Wt. Lbs.	Part # Black	List Price
66-700	----	1/4" x 1/8"	0.44	0.01	67-700	----
66-701	----	3/8" x 1/8"	0.48	0.02	67-701	----
66-702	----	3/8" x 1/4"	0.48	0.02	67-702	----
		1/2" x 1/8"	0.56	0.04	67-703	----
66-704	----	1/2" x 1/4"	0.56	0.04	67-704	----
66-705	----	1/2" x 3/8"	0.56	0.04	67-705	----
		3/4" x 1/4"	0.62	0.12	67-707	----
66-708	----	3/4" x 3/8"	0.62	0.10	67-708	----
66-709	----	3/4" x 1/2"	0.62	0.10	67-709	----
		1" x 3/8"	0.75	0.18	67-711	----
66-712	----	1" x 1/2"	0.75	0.16	67-712	----
66-713	----	1" x 3/4"	0.75	0.16	67-713	----



See Hydraulic Pipe Fittings pg 420

**MALLEABLE FITTINGS****BLACK EXTRA HEAVY 300# MALLEABLE IRON****90° ELBOW**

Part #	Size	List Price
69-101	1/4"	----
69-102	3/8"	----
69-103	1/2"	----
69-104	3/4"	----
69-105	1"	----
69-106	1-1/4"	----
69-107	1-1/2"	----
69-108	2"	----

**45° ELBOW**

Part #	Size	List Price
69-181	1/4"	----
69-182	3/8"	----
69-183	1/2"	----
69-184	3/4"	----
69-185	1"	----
69-186	1-1/4"	----
69-187	1-1/2"	----
69-188	2"	----

**90° STREET ELBOW**

Part #	Size	List Price
69-161	1/4"	----
69-162	3/8"	----
69-163	1/2"	----
69-164	3/4"	----
69-165	1"	----
69-166	1-1/4"	----
69-167	1-1/2"	----
69-168	2"	----

**TEE**

Part #	Size	List Price
69-252	3/8"	----
69-253	1/2"	----
69-254	3/4"	----
69-255	1"	----
69-256	1-1/4"	----
69-257	1-1/2"	----
69-258	2"	----

**COUPLING**

Part #	Size	List Price
69-411	1/4"	----
69-412	3/8"	----
69-413	1/2"	----
69-414	3/4"	----
69-415	1"	----
69-416	1-1/4"	----
69-417	1-1/2"	----
69-418	2"	----

Coming Soon - Pipe Hangers and Accessories

**BLACK & GALVANIZED MALLEABLE IRON 300#**

**MALLEABLE FITTINGS**

**REDUCING COUPLING**



Part #	Size	List Price
69-432	3/8 x 1/4"	----
69-434	1/2 x 1/4"	----
69-435	1/2 x 3/8"	----
69-438	3/4 x 1/2"	----
69-441	1 x 1/2"	----
69-442	1 x 3/4"	----

**CAP**



Part #	Size	List Price
69-471	1/4"	----
69-472	3/8"	----
69-473	1/2"	----
69-474	3/4"	----
69-475	1"	----
69-476	1-1/4"	----
69-477	1-1/2"	----
69-478	2"	----

**UNION**

• Brass Seat



Part #	Size	List Price
69-600	1/8"	----
69-601	1/4"	----
69-602	3/8"	----
69-603	1/2"	----
69-604	3/4"	----
69-605	1"	----
69-606	1-1/4"	----
69-607	1-1/2"	----
69-608	2"	----

**STEEL MAGNETIC PLUGS**

**Steel Magnetic Drain Plugs - NPT Threaded**

**Magnetic Drain Plugs** are similar to standard pipe or straight thread drain plugs with one important difference - a permanent magnet is fastened to the plug body. This magnet attracts and holds abrasive, ferrous metal particles preventing their circulation through the lubrication or hydraulic system.

These abrasive, ferrous metal particles appear in lubricating or hydraulic systems as a result of the following conditions:

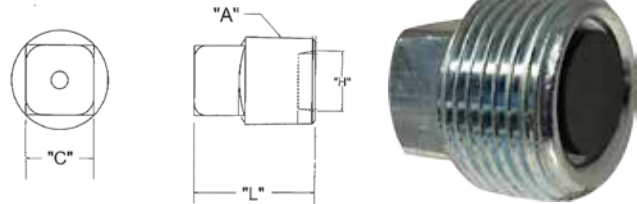
- The constant flaking effect of normal wear of moving parts.
- Particles not removed by flushing operations after boring or machining.
- Chipping due to sub-surface casting flaws.
- Minute component breakdown caused by stress usage.

**Magnetic Drain Plugs** prevent excessive wear to the system's components.

**Magnetic Plugs** are used by numerous manufacturers of gear boxes, transmissions, engines, and hydraulic systems for the automotive, aircraft, agricultural and machinery industries.

Typical applications include:

- Outbound Engines
- Earthmoving Equipment
- Combines
- Balers
- Crawler Tractors
- Lift Trucks
- Mining Equipment
- Military Vehicles
- Turbine Engines
- Truck Axles
- Heavy-Duty Transmissions



Part	Size "A"	Head Width "C"	Recess Dia. "H"	O/L Length "L"	List Price
28-996	3/8 - 18	.428 - .440	.435 - .445	.805 - .860	----
28-997	1/2 - 14	.553 - .565	.560 - .570	.970 - 1.04	----
28-998	3/4 - 14	.615 - .627	.725 - .735	1.120 - 1.170	----
28-999	1-11 1/2	.803 - 815	.895 - .905	1.25 - 1.33	----

# HIGH PRESSURE FORGED STEEL FITTINGS



We believe in quality first. Our products are manufactured with a quality management system that has been certified with ISO 9001:2008. We will continue to do our best to exceed our customers expectations by providing top quality products.

These heavy duty fittings are classified 2000# and 3000# because they have extra-strong forged construction that stands up to high-pressure applications.

## 2000#, 3000# High-Pressure Forged Steel Threaded Pipe Fittings

- Use with air, water, oil, natural gas, steam
- Maximum Pressure: 3,000 psi @ 72°F, except plugs are rated 6,000 psi @ 72°F
- Pipe Nipples and Pipe: Use threaded Schedule 160 extra-thick-wall black steel
- Flanges: Use threaded extreme-pressure steel
- The thick walls on these Class 2000 and 3000 forged steel fittings stand up to high pressures
- Meet ASTM A105 and ANSI/ASME B1.20.1; also meet ANSI/ ASME B16.11 (revision of ASME B16.11-2009)

### BULL PLUGS AND SWAGES



### FLANGES



**2000#**

**FORGED STEEL FITTINGS**

**2000 LB FORGED STEEL THREADED FITTINGS - ASTM: A105 ANSI: B16.11**

**90° ELBOW**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
100-100	1/8"	200	0.22	----
100-101	1/4"	150	0.18	----
100-102	3/8"	100	0.29	----
100-103	1/2"	80	0.55	----
100-104	3/4"	50	0.77	----
100-105	1"	30	1.17	----
100-106	1-1/4"	20	1.81	----
100-107	1-1/2"	15	2.34	----
100-108	2"	8	3.75	----
100-109	2-1/2"	4	7.89	----
100-110	3"	2	10.60	----
100-111	4"	1	22.51	----

**2000# 45° ELBOW**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
100-181	1/4"	150	0.18	----
100-182	3/8"	100	0.22	----
100-183	1/2"	80	0.44	----
100-184	3/4"	50	0.60	----
100-179	1"	30	0.90	----
100-186	1-1/4"	20	1.50	----
100-187	1-1/2"	15	1.81	----
100-188	2"	10	3.11	----
100-189	2-1/2"	5	5.73	----
100-190	3"	2	9.33	----
100-191	4"	1	19.75	----

**2000# TEE**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
100-251	1/4"	100	0.26	----
100-252	3/8"	80	0.37	----
100-253	1/2"	50	0.68	----
100-254	3/4"	35	0.95	----
100-255	1"	20	1.52	----
100-256	1-1/4"	15	2.36	----
100-257	1-1/2"	10	3.06	----
100-258	2"	6	4.76	----
100-259	2-1/2"	3	9.06	----
100-260	3"	2	13.49	----
100-261	4"	1	32.50	----

**2000# CROSS**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
100-392	3/8"	40	0.46	----
100-393	1/2"	40	0.86	----
100-394	3/4"	30	1.19	----
100-395	1"	20	1.83	----
100-396	1-1/4"	10	2.78	----
100-397	1-1/2"	6	3.86	----
100-398	2"	4	5.84	----

**FORGED STEEL 3000# FITTINGS**

**90° ELBOW**

• Threaded



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-100	1/8"	150	0.22	----
101-101	1/4"	100	0.31	----
101-102	3/8"	80	0.64	----
101-103	1/2"	50	0.95	----
101-104	3/4"	25	1.52	----
101-105	1"	20	2.51	----
101-106	1-1/4"	15	3.13	----
101-107	1-1/2"	6	5.80	----
101-108	2"	5	6.44	----
101-109	2-1/2"	2	13.21	----
101-110	3"	2	19.58	----
101-111	4"	1	32.74	----

**3000# STREET ELBOW**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-161	1/4"	150	0.24	----
101-162	3/8"	80	0.49	----
101-163	1/2"	50	0.68	----
101-164	3/4"	30	1.17	----
101-165	1"	20	2.25	----
101-166	1-1/4"	15	2.49	----
101-167	1-1/2"	8	4.43	----
101-168	2"	5	6.42	----

**3000# 45° ELBOW**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-180	1/8"	200	0.17	----
101-181	1/4"	100	0.26	----
101-182	3/8"	80	0.53	----
101-183	1/2"	50	0.75	----
101-184	3/4"	30	1.23	----
101-185	1"	20	2.07	----
101-186	1-1/4"	15	2.27	----
101-187	1-1/2"	8	4.52	----
101-188	2"	6	4.92	----
101-189	2-1/2"	2	8.18	----
101-190	3"	2	13.16	----

**3000# TEE**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-250	1/8"	100	0.29	----
101-251	1/4"	80	0.44	----
101-252	3/8"	50	0.84	----
101-253	1/2"	35	1.23	----
101-254	3/4"	20	2.03	----
101-255	1"	15	3.28	----
101-256	1-1/4"	10	3.88	----
101-257	1-1/2"	5	7.21	----
101-258	2"	4	7.78	----
101-259	2-1/2"	2	15.41	----
101-260	3"	1	22.47	----
101-261	4"	1	42.17	----



**3000# THREADED**

**FORGED STEEL FITTINGS**

**3000 LB FORGED STEEL THREADED FITTINGS - ASTM A105/ASME SA105 & ANSI B16.11**

**CROSS**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-390	1/8"	100	0.37	----
101-391	1/4"	40	0.57	----
101-392	3/8"	40	0.97	----
101-393	1/2"	30	1.59	----
101-394	3/4"	20	2.34	----
101-395	1"	12	3.95	----
101-396	1-1/4"	6	4.70	----
101-397	1-1/2"	4	8.66	----
101-398	2"	4	9.41	----
101-399	2-1/2"	1	18.76	----
101-400	3"	1	27.45	----
101-401	4"	1	48.35	----

**3000# HALF COUPLINGS**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-770	1/8"		0.04	----
101-771	1/4"	800	0.04	----
101-772	3/8"	500	0.07	----
101-773	1/2"	250	0.13	----
101-774	3/4"	150	0.22	----
101-775	1"	80	0.51	----
101-776	1-1/4"	35	0.75	----
101-777	1-1/2"	30	1.19	----
101-778	2"	20	1.54	----
101-779	2-1/2"	12	2.49	----
101-780	3"	6	3.70	----
101-781	4"	4	6.86	----

**3000# CAP**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-470	1/8"	400	0.04	----
101-471	1/4"	300	0.09	----
101-472	3/8"	250	0.11	----
101-473	1/2"	130	0.24	----
101-474	3/4"	80	0.40	----
101-475	1"	50	0.82	----
101-476	1-1/4"	30	1.37	----
101-477	1-1/2"	25	1.59	----
101-478	2"	15	2.40	----
101-479	2-1/2"	10	4.89	----
101-480	3"	4	7.72	----
101-481	4"	3	10.67	----

**3000# COUPLING**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-410	1/8"	300	0.11	----
101-411	1/4"	250	0.09	----
101-412	3/8"	200	0.13	----
101-413	1/2"	100	0.29	----
101-414	3/4"	70	0.42	----
101-415	1"	35	0.99	----
101-416	1-1/4"	20	1.79	----
101-417	1-1/2"	15	2.38	----
101-418	2"	10	3.09	----
101-419	2-1/2"	5	5.05	----
101-420	3"	3	7.45	----
101-421	4"	2	13.85	----

**REDUCING COUPLING**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-431	1/4" x 1/8"	250	0.09	----
101-432	3/8" x 1/8"	200	0.13	----
101-433	3/8" x 1/4"	200	0.13	----
101-434	1/2" x 1/4"	100	0.29	----
101-435	1/2" x 3/8"	100	0.29	----
101-437	3/4" x 3/8"	70	0.42	----
101-438	3/4" x 1/2"	70	0.42	----
101-440	1" x 3/8"	35	0.99	----
101-441	1" x 1/2"	35	0.99	----
101-442	1" x 3/4"	35	0.99	----
101-443	1-1/4" x 3/8"	20	1.79	----
101-444	1-1/4" x 1/2"	20	1.79	----
101-445	1-1/4" x 3/4"	20	1.79	----
101-446	1-1/4" x 1"	20	1.79	----
101-449	1-1/2" x 1"	15	2.36	----
101-450	1-1/2" x 1-1/4"	15	2.36	----
101-458	2" x 1/2"	10	3.09	----
101-451	2" x 3/4"	10	3.09	----
101-452	2" x 1"	10	3.09	----
101-453	2" x 1-1/4"	10	3.09	----
101-454	2" x 1-1/2"	10	3.09	----
101-461	3" x 1-1/2"	3	7.45	----
101-462	3" x 2"	3	7.45	----

**3000# UNION**



Part #	Size	Box/Case	Approx. Wt. Lbs.	List Price
101-600	1/8"	100	0.62	----
101-601	1/4"	70	0.62	----
101-602	3/8"	70	0.53	----
101-603	1/2"	50	0.75	----
101-604	3/4"	30	1.06	----
101-605	1"	20	1.70	----
101-606	1-1/4"	14	2.27	----
101-607	1-1/2"	10	3.59	----
101-608	2"	6	5.36	----
101-609	2-1/2"	2	8.00	----
101-610	3"	2	11.62	----
101-611	4"	1	26.46	----

**SQUARE HEAD FORGED PLUG**

- Solid
- Max pressure determined by the fittings threaded into.
- 6,000 PSI use with sch 160 pipe.
- ASME



Part #	Size	Approx. Wt. Lbs.	List Price
107-670	1/8"	0.02	----
107-671	1/4"	0.02	----
107-672	3/8"	0.07	----
107-673	1/2"	0.11	----
107-674	3/4"	0.20	----
107-675	1"	0.35	----
107-676	1-1/4"	0.60	----
107-677	1-1/2"	0.85	----
107-678	2"	1.39	----
107-679	2-1/2"	2.12	----
107-680	3"	3.37	----

**BUSHINGS AND PLUGS**

**FORGED STEEL FITTINGS**

- Water, oil and steam in the chemical, petrochemical, pulp, paper, shipbuilding, waste incineration and semiconductor industries.
- Max pressure determined by the fittings threaded into.
- 6,000 PSI use with sch 160 pipe.
- ASME

**6000# FORGED BUSHING**



Part #	M x F	Approx. Wt. Lbs.	List Price
107-500	1/4" x 1/8"	0.08	----
107-501	3/8" x 1/8"	0.11	----
107-502	3/8" x 1/4"	0.10	----
107-503	1/2" x 1/8"	0.13	----
107-504	1/2" x 1/4"	0.13	----
107-505	1/2" x 3/8"	0.15	----
107-508	3/4" x 3/8"	0.27	----
107-509	3/4" x 1/2"	0.24	----
107-510	1" x 1/4"	0.40	----
107-511	1" x 3/8"	0.41	----
107-512	1" x 1/2"	0.39	----
107-513	1" x 3/4"	0.37	----
107-515	1-1/4" x 3/8"	0.52	----
107-516	1-1/4" x 1/2"	0.63	----
107-517	1-1/4" x 3/4"	0.55	----
107-518	1-1/4" x 1"	0.57	----
107-519	1-1/2" x 1/4"	1.01	----
107-521	1-1/2" x 1/2"	0.94	----
107-522	1-1/2" x 3/4"	0.82	----
107-523	1-1/2" x 1"	0.66	----
107-524	1-1/2" x 1-1/4"	0.74	----
107-526	2" x 1/4"	1.83	----
107-527	2" x 1/2"	1.74	----
107-528	2" x 3/4"	1.61	----
107-529	2" x 1"	1.43	----
107-530	2" x 1-1/4"	1.12	----
107-531	2" x 1-1/2"	1.23	----
107-532	2-1/2" x 1"	3.33	----
107-533	2-1/2" x 1-1/4"	2.91	----
107-534	2-1/2" x 1-1/2"	2.53	----
107-535	2-1/2" x 2"	2.24	----
107-550	3" x 1"	4.65	----
107-537	3" x 1-1/2"	3.92	----
107-538	3" x 2"	3.09	----
107-539	3" x 2-1/2"	3.04	----

**6000# HEX HEAD FORGED PLUG**



Part #	Size	Approx. Wt. Lbs.	List Price
107-630	1/8"	0.02	----
107-631	1/4"	0.07	----
107-632	3/8"	0.11	----
107-633	1/2"	0.15	----
107-634	3/4"	0.31	----
107-635	1"	0.48	----
107-636	1-1/4"	0.97	----
107-637	1-1/2"	1.30	----
107-638	2"	2.27	----
107-639	2-1/2"	3.97	----
107-640	3"	5.73	----
107-641	4"	11.46	----

**STANDARD BULL PLUG**

- Sch 40 150#
- Zinc plated



Part #	Description	List Price
91-008	2"	----
91-007	2" w/ 1/2" TAP	----
91-009	2-1/2"	----
91-010	3"	----
91-011	4"	----

**XH BULL PLUG**

- Made from sch. 80 pipe.
- Zinc plated
- Hollow



Part #	Description	List Price
90-001	1/4"	----
90-002	3/8"	----
90-003	1/2"	----
90-004	3/4"	----
90-005	1"	----
90-006	1-1/4"	----
90-007	1-1/2"	----
90-008	2"	----
90-213	2" w/ 1/4" TAP	----
90-212	2" w/ 1/2" TAP	----
93-212*	2"XXH w/1/2" TAP	----
90-009	2-1/2"	----
90-010	3"	----
90-215	3" w/ 1/2" TAP	----
90-011	4"	----

\* XXH

**STANDARD SCH. 40 SWAGE**

**MIP X MIP**

- Zinc plated



Part #	Description	List Price
93-113	1-1/4" x 1"	----
93-121	2" x 1"	----
93-122	2" x 1-1/4"	----
93-123	2" x 1-1/2"	----
93-124	2-1/2" x 2"	----
93-125	3" x 1"	----
93-127	3" x 1-1/2"	----
93-128	3" x 2"	----
93-129	3" x 2-1/2"	----
93-130	4" x 2"	----
93-131	4" x 3"	----
93-139	6" x 3"	----

See Stainless Steel Flareless Fittings on page 437

**SWAGES**

**SWAGES AND BULL PLUGS**

**SCH 80 XH SWAGES  
MIP X MIP**



Part #	Description	List Price
90-100	1/4" x 1/8"	----
90-102	1/2" x 1/4"	----
90-103	1/2" x 3/8"	----
90-104	3/8" x 1/4"	----
90-105	3/4" x 1/4"	----
90-106	3/4" x 3/8"	----
90-107	3/4" x 1/2"	----
90-108	1" x 1/4"	----
90-109	1" x 3/8"	----
90-110	1" x 1/2"	----
90-111	1" x 3/4"	----
90-140	1-1/4" x 3/4"	----
90-141	1-1/4" x 1"	----
90-114	1-1/2" x 1/2"	----
90-115	1-1/2" x 3/4"	----
90-116	1-1/2" x 1"	----
90-117	1-1/2" x 1-1/4"	----
90-118	2" x 1/4"	----
90-119	2" x 1/2"	----
90-120	2" x 3/4"	----
90-121	2" x 1"	----
90-122	2" x 1-1/4"	----
90-123	2" x 1-1/2"	----
90-124	2-1/2" x 2"	----
90-125	3" x 1"	----
90-126	3" x 1-1/4"	----
90-127	3" x 1-1/2"	----
90-128	3" x 2"	----
90-129	3" x 2-1/2"	----
90-133	4" x 1"	----
90-130	4" x 2"	----
90-131	4" x 3"	----
90-132	6" x 4"	----
90-150	6" x 2"	----
90-152	6" x 3"	----

**XXH SWAGE**



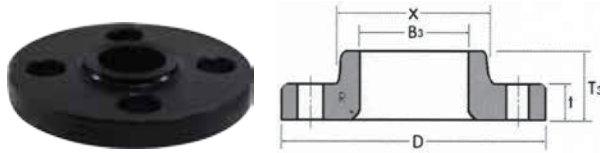
Part #	Description	List Price
92-102	1/2" x 1/4"	----
92-107	3/4" x 1/2"	----
92-108	1" x 1/4"	----
92-109	1" x 3/8"	----
92-110	1" x 1/2"	----
92-111	1" x 3/4"	----
92-114	1-1/2" x 1/2"	----
92-115	1-1/2" x 3/4"	----
92-116	1-1/2" x 1"	----
92-119	2" x 1/2"	----
92-120	2" x 3/4"	----
92-121	2" x 1"	----
92-122	2" x 1-1/4"	----
92-123	2" x 1-1/2"	----
92-128	3" x 2"	----

ASTMA105  
ASME SA105  
ANSI B16.5

# Forged Steel Flanges

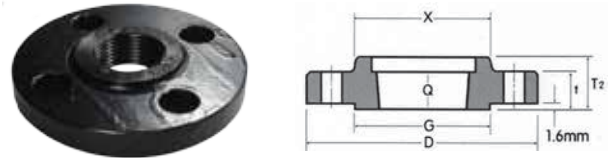
• A105 Forged Steel • 300 LBS GASKETS  
• CLASS 150

( 1-1/2 thru 6" available in #316 Stainless Steel add SS to part# )



**SLIP-ON 1/16" RAISED FACE FORGED STEEL FLANGE**

Part #	Size	List Price
107-020	1/2"	----
107-021	3/4"	----
107-022	1"	----
107-023	1-1/4"	----
107-024	1-1/2"	----
107-025	2"	----
107-026	2-1/2"	----
107-027	3"	----
107-029	4"	----
107-031	6"	----
107-032	8"	----
107-033	10"	----
107-034	12"	----



**THREADED 1/16" RAISED FACE FORGED STEEL FLANGE**

Part #	Size	List Price
107-060	1/2"	----
107-061	3/4"	----
107-062	1"	----
107-063	1-1/4"	----
107-064	1-1/2"	----
107-065	2"	----
107-066	2-1/2"	----
107-067	3"	----
107-069	4"	----
107-071	6"	----
107-072	8"	----
107-073	10"	----
107-074	12"	----

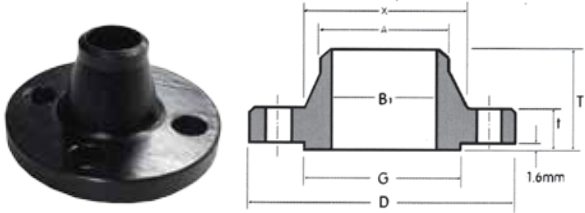
Nominal Pipe Size	Depth of Socket in.	DRILLING				BOLTING			APPROXIMATE WEIGHT		
		Bolt Circle Diameter	Number of Holes	Diameter of Holes	Diameter of Bolts (inch)	Machine Bolt Length	Stud Bolt Length		Welding Neck	Slip-on and Threaded	Blind
							Raised Face	Ring Joint			
1/2	.382	2.382	4	.618	1/2	2.00	2.252	-	1.146	1.036	1.036
3/4	.441	2.752	4	.618	1/2	2.00	2.50	-	2.028	1.653	1.389
1	.500	3.118	4	.618	1/2	2.252	2.50	3.00	2.425	1.893	2.094
1-1/4	.559	3.50	4	.618	1/2	2.252	2.752	3.252	3.086	3.086	3.086
1-1/2	.618	3.882	4	.618	1/2	2.50	2.752	3.252	3.99	3.109	3.571
2	.689	4.752	4	.752	5/8	2.752	3.252	3.752	6.173	4.982	5.82
2-1/2	.752	5.5	4	.752	5/8	3.00	3.50	4.00	9.436	7.562	8.951
3	.811	6.0	4	.752	5/8	3.00	3.50	4.00	11.42	8.818	11.023
4	.941	7.50	8	.752	5/8	3.00	3.50	4.00	16.138	12.677	16.535
6	1.059	9.50	8	.882	3/4	3.252	4.00	4.50	24.824	17.196	26.455
8	1.252	11.752	8	.882	3/4	3.50	4.252	4.752	39.683	28.66	44.092
10	1.311	14.252	12	1.00	7/8	4.00	4.50	5.00	55.116	37.699	66.139
12	1.559	17	12	1.00	7/8	4.00	4.752	5.252	85.936	61.024	97.003

ASTMA105  
ASME SA105  
ANSI B16.5

# Forged Steel Flanges

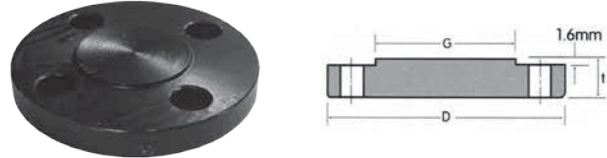
- A105 Forged Steel
- CLASS 150

( 1-1/2 thru 6" available in #316 Stainless Steel add SS to part# )



**WELD NECK FORGED STEEL FLANGE**

Part #	Size	List Price
107-000	1/2"	----
107-001	3/4"	----
107-002	1"	----
107-003	1-1/4"	----
107-004	1-1/2"	----
107-005	2"	----
107-006	2-1/2"	----
107-007	3"	----
107-009	4"	----
107-011	6"	----
107-012	8"	----
107-013	10"	----
107-014	12"	----



**BLIND 1/16" RAISED FACE FORGED STEEL FLANGE**

Part #	Size	List Price
107-040	1/2"	----
107-041	3/4"	----
107-042	1"	----
107-043	1-1/4"	----
107-044	1-1/2"	----
107-045	2"	----
107-046	2-1/2"	----
107-047	3"	----
107-049	4"	----
107-051	6"	----
107-052	8"	----
107-053	10"	----
107-054	12"	----

Nominal Pipe Size	Outside Diameter	O.D of Raised Face	Diameter at Base of Hub	Thickness	BORE		LENGTH THRU HUB	
					Welding Neck Socket Welding	Welding Neck	Slip-on Threaded Socket Welding	
					B1	T1	T2	
D	G	X	T	B1	T1	T2		
1/2	3.504	1.382	1.189	.441	.618	1.882	.618	
3/4	3.898	1.689	1.50	.50	.819	2.059	.618	
1	4.252	2.00	1.941	.559	1.051	2.189	.689	
1-1/4	4.606	2.50	2.311	.618	1.382	2.252	.811	
1-1/2	5.00	2.882	2.559	.689	1.610	2.441	.882	
2	5.984	3.618	3.059	.752	2.071	2.50	1.00	
2-1/2	7.008	4.118	3.559	.882	2.469	2.752	1.118	
3	7.52	5.00	4.252	.941	3.071	2.752	1.189	
4	9.016	6.189	5.311	.941	4.031	3.00	1.311	
6	10.984	8.50	7.559	1.00	6.071	3.50	1.559	
8	13.504	10.618	9.689	1.118	7.980	4.00	1.752	
10	15.984	12.752	12.00	1.189	10.02	4.00	1.941	
12	19.016	15.00	14.382	1.252	12.00	4.50	2.189	

# COPPER FITTINGS



**SYMBOL OF JOINT ENDS**

- C** Solder joint fitting end made to receive copper tube diameter
- Ftg.** Solder joint fitting end made to copper tube diameter
- F** Internal ANSI Standard Taper Pipe Thread-Female
- M** External ANSI Standard Taper Pipe Thread-Male  
Threaded ends ANSI/ ASME B1. Solder ends ASTM B88

- Temp range 32° to 200°F
- Pressure @100° - 1/8-1 : 500 PSI  
- 1-1/4-2 : 400 PSI  
- 2-1/2 - 3: 300 PSI

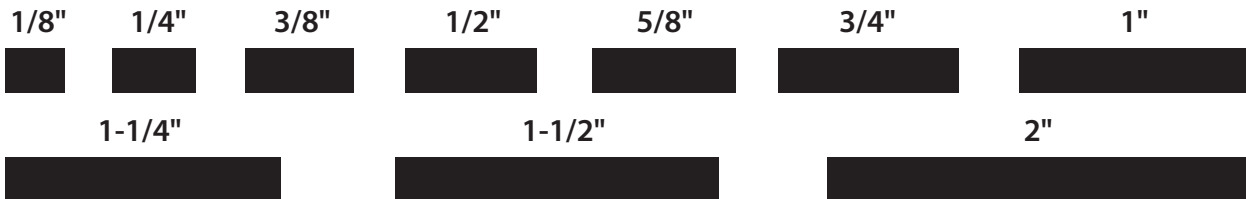
**NSF - 61 CERTIFIED  
ALLOY C12200**

**THE ABOVE CONFORMS TO ASTM B 88 & ASTM B 306, A 306**

**MALE (FITTING)**

**FEMALE (COPPER)**

Nominal Size	Joint Ends										Metal Thickness T (in)	Inside Diameter O (in)	
	Male End					Female End							
	Outside Diameter (A) in	Average Tolerance (mm)	Actual MIN in	O.D. MAX in	Length (Min) H (in)	Inside Diameter F (in)	Average Tolerance (mm)	Actual MIN in	O.D. MAX in	Length (Min) G (in)			
<b>1/8</b>	2/8	0.03	2/8	2/8	3/8	2/8	0.03	2/8	2/8	3/8	0	2/8	
<b>1/4</b>	3/8		3/8	3/8	3/8	3/8		3/8	3/8	3/8	3/8	0	2/8
<b>3/8</b>	4/8		4/8	4/8	3/8	4/8		4/8	4/8	4/8	3/8	0	3/8
<b>1/2</b>	5/8		5/8	5/8	4/8	5/8		5/8	5/8	5/8	3/8	0	4/8
<b>5/8</b>	6/8		6/8	6/8	5/8	6/8		6/8	6/8	6/8	5/8	0	4/8
<b>3/4</b>	7/8		7/8	7/8	6/8	7/8		7/8	7/8	7/8	5/8	0	5/8
<b>1</b>	1-1/8	0.04	1-1/8	1-1/8	7/8	1-1/8	0.04	1-1/8	1-1/8	7/8	0	7/8	
<b>1-1/4</b>	1-3/8		1-3/8	1-3/8	1	1-3/8		1-3/8	1-3/8	1	0	1-1/8	
<b>1-1/2</b>	1-5/8		1-5/8	1-5/8	1-1/8	1-5/8		1-5/8	1-5/8	1-1/8	0	1-3/8	
<b>2</b>	2-1/8	0.05	2-1/8	2-1/8	1-3/8	2-1/8	0.05	2-1/8	2-1/8	1-2/8	0	1-6/8	
<b>2-1/2</b>	2-5/8		2-5/8	2-5/8	1-4/8	2-5/8		2-5/8	2-5/8	1-4/8	1/8	2-1/8	
<b>3</b>	3-1/8		3-1/8	2-1/8	1-6/8	3-1/8		3-1/8	3-1/8	1-5/8	1/8	2-5/8	
<b>4</b>	4-1/8		4-1/8	4-1/8	2-1/8	4-1/8		4-1/8	4-1/8	2-1/8	1/8	3-4/8	





**WROT SOLDER JOINT**

**COPPER FITTINGS**

**90° ELL C X C**



Part#	Nominal (ID)	OD	Approx Net Wt.	Ind #	List Price
77-100	1/8"	1/4"	0.01	W 02003	----
77-101	1/4"	3/8"	0.01	W 02009	----
77-102	3/8"	1/2"	0.03	W 02017	----
77-104	1/2"	5/8"	0.04	W 02022	----
77-107	5/8"	3/4"	0.07	W 02028	----
77-108	3/4"	7/8"	0.09	W 02034	----
77-110	1"	1-1/8"	0.17	W 02047	----
77-113	1-1/4"	1-3/8"	0.27	W 02077	----
77-114	1-1/2"	1-5/8"	0.41	W 02085	----
77-116	2"	2-1/8"	0.73	W 02086	----
77-118	2-1/2"	2-5/8"	1.16	W 02087	----
77-119	3"	3-1/8"	1.87	W 02088	----
77-120	4"	4-1/8"	3.79	W 02090	----
77-103	3/8" x 1/4"		0.03	W 02019	----
77-105	1/2"x3/8"		-	W 02023	----
77-109	3/4" x 1/2"		0.12	W 02036	----
77-112	1"x1/2"		0.23	W 02051	----
77-111	1"x3/4"		0.23	W 02049	----
77-117	2"x1 -1/2"		0.73	W 02078	----

WE-500-R 607-R 107-C

**90° STREET ELL  
FTG. X C**



77-124	1/4"		0.01	W 02312	----
77-125	3/8"		0.03	W 02321	----
77-126	1/2"		0.05	W 01652	----
77-127	5/8"		0.07	W 02330	----
77-128	3/4"		0.12	W 01654	----
77-129	1"		0.22	W 02344	----
77-130	1-1/4"		0.33	W 02384	----
77-131	1-1/2"		0.45	W 02385	----
77-132	2"		0.87	W 02386	----
77-134	3"		1.93	W 02388	----

**90° LONG TURN ELL  
C X C**



77-139	1/8"		0.01	W 02715	----
77-140	1/4"		0.02	W 02716	----
77-141	5/16"		0.03		----
77-142	3/8"		0.04	W 02717	----
77-143	1/2"		0.06	W 02722	----
77-144	5/8"		0.10	W 02728	----
77-145	3/4"		0.15	W 02734	----
77-146	1"		0.32		----
77-147	1-1/4"		0.53		----
77-148	1-1/2"		0.61		----
77-149	2"		1.19		----

WE-500-L 607-LT 107-L

**90° LONG TURN ST. ELL  
FTG. X C**



77-152	1/8"		0.01		----
77-153	1/4"		0.22	W 02809	----
77-154	3/8"		0.04	W 02817	----
77-155	1/2"		0.06	W 02822	----
77-156	5/8"		0.11		----
77-157	3/4"		0.15		----
77-158	1"		0.33		----
77-159	1-1/4"		0.46	W 02828	----
77-160	1-1/2"		0.64	W 02834	----

WE-503-L 607-2LT

**COPPER FITTINGS**

**WROT SOLDER JOINT**

**45° ELL  
C X C**



Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-161	1/8"	0.01	W 03005	----
77-162	1/4"	0.01	W 03012	----
77-163	3/8"	0.02	W 03021	----
77-164	1/2"	0.04	W 03026	----
77-165	5/8"	0.06	W 03030	----
77-166	3/4"	0.10	W 03034	----
77-167	1"	0.19	W 03044	----
77-168	1-1/4"	0.27	W 03050	----
77-169	1-1/2"	0.39	W 03055	----
77-170	2"	0.75	W 03059	----
77-171	2-1/2"	1.23	W 03063	----

WE-504 606 106

**STREET 45°  
FTG. X C**



77-177	1/4"	0.01	W 03312	----
77-178	3/8"	0.02	W 03321	----
77-179	1/2"	0.06	W 03326	----
77-180	5/8"	0.06	W 03330	----
77-181	3/4"	0.10	W 03334	----
77-182	1"	0.18	W 03344	----
77-183	1-1/4"	0.27	W 03350	----
77-184	1-1/2"	0.38	W 03355	----
77-185	2"	0.75	W 03359	----

WE-505 606-2

**COUPLING (SOCKET)  
W/ ROLLED UP TUBE  
STOP C X C**



77-201	1/8"	0.01	W 01003	----
77-202	1/4"	0.01	W 01009	----
77-203	3/8"	0.02	W 01017	----
77-204	1/2"	0.03	W 01022	----
77-205	5/8"	0.04	W 01028	----
77-206	3/4"	0.06	W 01034	----
77-207	1"	0.10	W 01047	----
77-208	1-1/4"	0.15	W 01055	----
77-209	1-1/2"	0.22	W 01063	----
77-210	2"	0.39	W 01072	----
77-211	2-1/2"	0.71	W 01082	----
77-212	3"	0.98	W 01092	----
77-214	4"	2.01	W 10107	----

WC-400 100

**COUPLING (SOCKET)  
LESS TUBE STOP  
C X C**



77-219	1/8"	0.01	W 01900	----
77-220	1/4"	0.01	W 01901	----
77-222	1/2"	0.03	W 01903	----
77-223	3/4"	0.06	W 01905	----
77-224	1"	0.10	W 01906	----
77-225	1-1/4"	0.15	W 01907	----
77-226	1-1/2"	0.22	W 01908	----
77-227	2"	0.39	W 01909	----

WC-400NS 601



See page 171 for SWT x SWT LF Ball Valves

**WROT SOLDER JOINT**

**COPPER FITTINGS**

**COUPLING (SOCKET)  
W/ DIMPLED TUBE  
STOP C X C**



Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-238	1/2"	0.03		----
77-240	3/4"	0.06		----
77-241	1"	0.10		----
77-242	1-1/4"	0.15		----
77-244	2"	0.39		----
77-247	4"	2.01		----

WC-400S

**REDUCER COUPLING  
W/ STOP C X C**



77-252	1/4" x 1/8"	0.01	W 01011	----
77-254	3/8" x 1/8"			----
77-253	3/8" x 1/4"	0.02	W 01019	----
77-256	1/2" x 1/4"	0.03	W 01023	----
77-255	1/2" x 3/8"	0.03	W 01021	----
77-258	5/8" x 1/2"	0.04	W 01025	----
77-264	3/4" x 1/4"			----
77-263	3/4" x 3/8"	0.06	W 01036	----
77-262	3/4" x 1/2"	0.06	W 01029	----
77-267	1"x1/2"	0.10	W 01049	----
77-265	1"x3/4"	0.12	W 01038	----
77-270	1 -1/4" x 1/2"	0.14	W 01058	----
77-269	1 -1/4" x 3/4"	0.17	W 01056	----
77-268	1-1/4" x 1"	0.17	W 01051	----
77-274	1-1/2" x 1/2"	0.19	W 01067	----
77-273	1 -1/2" x 3/4"	0.25	W 01065	----
77-272	1-1/2" x1"	0.24	W 01064	----
77-271	1-1/2" x 1-1/4"	0.24	W 01060	----
77-277	2" x 1"	0.48	W 01074	----
77-276	2 x 1-1/4"	0.46	W 01073	----
77-275	2" x 1-1/2"	0.42	W 01069	----
77-280	2-1/2"x2"	0.79	W 01075	----
77-284	3" x 2-1/2"	1.15	W 01093	----

WC-400R 600-R

**FITTING REDUCER  
FTG. C X C**



77-292	3/8" x 1/8"	0.01	W 01314	----
77-291	3/8" x 1/4"	0.02	W 01312	----
77-294	1/2" x 1/4"	0.03	W 01317	----
77-293	1/2" x 3/8"	0.03	W01315	----
77-295	5/8" X 1/2"	0.03	W 01320	----
77-299	3/4" x 1/4"			----
77-298	3/4" x 3/8"	0.05	W 01327	----
77-297	3/4" x 1/2"	0.06	W 01326	----
77-296	3/4" x 5/8"	0.08	W 01325	----
77-352	1" x 1/2"	0.10	W 01265	----
77-300	1"x3/4"	0.11	W 01337	----
77-356	1 -1/4" x 1/2"	0.14	W 01347	----
77-355	1 -1/4" x 3/4"	0.15	W 01345	----
77-354	1-1/4" x1"	0.17	W 01343	----
77-360	1 -1/2" x 1/2"	0.21	W 01355	----
77-359	1 -1/2" x 3/4"	0.21	W 01353	----
77-358	1-1/2"x1"	0.22	W 01351	----
77-357	1 -1/2" X 1-1/4"	0.21	W 01350	----
77-365	2" x 1/2"	0.44	W 01364	----
77-364	2" x 3/4"	0.39	W 01362	----
77-363	2" x 1"	0.40	W 01360	----
77-362	2" x 1 -1/4"	0.38	W 01359	----
77-361	2" x 1-1/2"	0.39	W 01358	----
77-370	3" x 2-1/2"	0.93	W 01376	----

WC-403 600-2

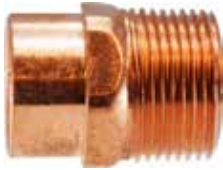
**FLUSH BUSHING  
FTG. X C**



Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-382	3/4" x 1/2"	0.08	W 01726	----
77-383	3/4" x 5/8"	0.04	W 01725	----
77-387	1" x 1/2"	0.22	W 01739	----
77-385	1" x 3/4"	0.13	W 01737	----

WC-106 618

**MALE ADAPTER  
C X M**



77-393	1/8"			----
77-394	1/4"			----
77-398	3/8"	0.06	W 01125	----
77-401	1/2"	0.08	WB01131	----
77-306	3/4"	0.14	WB01146	----
77-309	1"	0.24	WB01163	----
77-314	1-1/4"	0.41	W 01171	----
77-318	1-1/2"	0.50	W 01179	----
77-322	2"	0.87	W 01187	----
77-323	2-1/2"	0.87	W 01187	----
77-395	1/4" x 1/2"	0.09	W 01113	----
77-311	1/2" x 3/8"			----
77-303	1/2" x 3/4"	0.16	W 01130	----
77-304	1/2" x 1"	0.16	W 01130	----
77-308	3/4" x 1/2"			----
77-307	3/4" x 1"	0.29	W 01145	----
77-312	1" x 3/4"	0.18	W 01164	----
77-320	1-1/2" x 1-1/4"	0.44	W 01180	----

• 14 more reducing sizes available

WC-401 604

**FTG. MALE ADAPTER  
FTG. X M**



77-331	1/2"	0.09	W 01431	----
77-332	1/2" x 3/4"	0.15		----
77-333	3/4"	0.15	W 01446	----
77-334	1"	0.15	W 01463	----
77-335	1-1/4"	0.41	W 01471	----
77-336	1-1/2"	0.41	W 0147X9	----
77-337	2"	0.86	W 01487	----

WC-404 604-2

**COPPER TUBING**

SEE COPPER TUBING FOR REFRIGERATION AND DRINKING WATER ON PAGE 356



**WROT SOLDER JOINT**

**COPPER FITTINGS**

**FEMALE ADAPTERS  
C X F**



Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-339	1/4"			----
77-340	3/8"	0.06	W 01225	----
77-343	1/2"	0.10	WB01231	----
77-349	3/4"	0.14	WB01246	----
77-402	1"	0.24	WB01263	----
77-406	1-1/4"	0.43	W 01271	----
77-410	1-1/2"	0.58	W 01279	----
77-413	2"	0.74	W 01287	----
77-416	3"	1.83	W 01297	----
77-341	3/8" x 1/2"	0.10	W 01224	----
77-347	1/2" x 1/4"	0.05	W 01233	----
77-346	1/2"x3/8"	0,70	W 01232	----
77-345	1/2" x 3/4"	0.15	WB01230	----
77-351	3/4" x 1/2"	0.11	W 01247	----
77-405	1"x 1/2"	0.29	W 01265	----
77-404	1"x3/4"	0.22	W 01264	----
77-411	1-1/4" x 1"	0.47	W01297	----
77-407	1-1/4" x 1-1/2"	0.52	W 01270	----

• More sizes available

WC402 603 WC402R 603R

**FEMALE FTG.  
ADAPT. FTG. X F**



77-419	3/8"	0.05	W 01525	----
77-420	1/2"	0.11	W 01531	----
77-423	3/4"	0.19	W 01546	----
77-424	1			----
77-425	1/4"	0.25	W 01563	----
77-426	1-1/2"	0.55	W 01579	----
77-427	2"	0.68	W 01587	----

WC405 603-2 WC405R 603R

**CAP**



77-429	1/4"	0.01	W 07004	----
77-430	3/8"	0.01	W 07006	----
77-431	1/2"	0.02	WB07007	----
77-432	5/8"	0.03	W 07008	----
77-433	3/4"	0.04	WB07009	----
77-434	1"	0.08	WB07011	----
77-435	1-1/4"	0.11	W 07012	----
77-436	1-1/2"	0.18	W 07013	----
77-437	2"	0.30	W 07014	----
77-438	2-1/2"	0.78	W07015	----

WC-415 617

**UNIONS C X C**



77-453	1/4"	0.11	W 08001	----
77-454	3/8"	0.11	W 08002	----
77-455LF	1/2"	0.17	W 08003	----
77-456LF	3/4"	0.37	W 08004	----
77-457LF	1"	0.51	W 08005	----
77-606LF	1-1/4"	0.98	W08006	----
77-607LF	1-1/2"	1.21	W08007	----
77-608LF	2"		W08008	----

• LF = Lead Free

WC-407

**U-TYPE STRAP**



77-461	1/2"	0.03	A 02529	----
77-462	3/4"	0.03	A 02574	----
77-463	1"	0.04	A 02614	----
77-464	1-1/4"	0.04	A 02650	----
77-465	1-1/2"	0.05	A 02675	----
77-466	2	0.06	A 02708	----

WS-1100

**COPPER FITTINGS**

**WROT SOLDER JOINT**

**TEE  
C X C X C**



Part#	Nominal 1 x 2 x 3	Approx Net Wt.	Ind #	List Price
77-467	1/8"	0.02	W 40306	----
77-468	1/4"	0.03	W 04000	----
77-470	3/8"	0.05	W 04001	----
77-473	1/2"	0.08	WB04006	----
77-481	5/8"	0.12	W 04017	----
77-483	3/4"	0.18	WB04031	----
77-490	1"	0.35	WB04048	----
77-504	1-1/4"	0.58	W 04068	----
77-519	1-1/2"	0.72	W 04084	----
77-543	2"	1.35	W 40102	----
77-563	2-1/2"	2.21	W 40123	----
77-589	3"	2.75	W 40152	----
77-475	1/2" x 1/2" x 1/4"	0.11		----
77-474	1/2"x1/2"x1"	0.13	W 04067	----
77-489	3/4"x1/2"x1/2"	0.15	WB04043	----
77-488	3/4" x 1/2" x 3/4"	0.19	WB04041	----
77-486	3/4" x 3/4" x 1/2"	0.15	WB04033	----
77-485	3/4"x3/4"x1"	0.25	W 04065	----
77-502	1"x1/2"x3/4"	0.34	W 04062	----
77-501	1"x1/2"x1"	0.34	W 04061	----
77-500	1"x3/4"x1/2"	0.27	W 04058	----
77-499	1"x3/4"x3/4"	0.31	W 04056	----
77-498	1"x3/4"x1"	0.38	W 04055	----
77-496	1"x1"x1/2"	0.24	WB04051	----
77-493	1"x1"x3/4"	0.29	WB04049	----
77-492	1"x1"x 1-1/4"	0.64	W 04082	----
77-518	1 -1/4"x 1/2" x 1-1/4"	0.58	W 04083	----
77-516	1-1/4"x3/4"x3/4"	0.60	W 04080	----
77-514	1 -1/4" x 3/4" x 1-1/4"	0.63	W 04078	----
77-511	1-1/4" x 1"x1"	0.50	W 04074	----
77-510	1-1/4" x 1"x 1-1/4"	0.62	W 04073	----
77-509	1-1/4"x1-1/4"x1/2"	0.33	W 04071	----
77-508	1-1/4" x 1-1/4" x 3/4"	0.39	W 04070	----
77-507	1-1/4"x1-1/4"x1"	0.47	W 04069	----
77-506	1 -1/4" x1 -1/4" x 1-1/2"	0.79	W 40100	----
77-524	1 -1/2" x 1 -1/2" x 1/2"	0.46	W 04088	----
77-523	1 -1/2" x 1-1/2" x 3/4"	0.51	W 04087	----
77-522	1-1/2" x 1-1/2" x1"	0.60	W 04086	----
77-521	1-1/2"x1-1/2"x 1-1/4"	0.72	W 04085	----
77-560	2"x1"x1"	0.98	W 40247	----
77-559	2"x1"x2"	1.34	W 40245	----
77-556	2" x 1-1/4" x 1-1/4"	1.14	W 40117	----
77-554	2" x 1 -1/2" x 3/4"	1.40	W 40113	----
77-549	2"x2"x1/2"	0.77	W 40107	----
77-548	2" x 2" x 3/4"	0.90	W 40106	----
77-547	2"x2"x1"	0.99	W 40105	----
77-546	2" x 2" x 1-1/4"	1.01	W 40104	----
77-545	2" x 2" x 1-1/2"	1.17	W 40103	----
77-588	3"x3"x1"	2.14	W 04075	----
77-587	3" x 3" x 1-1/4"	2.18	W 04074	----
77-585	3"x 3" x 2"	2.53	W 40150	----

WT-600 611

**PLASTIC FITTINGS**



**SCH 80 PVC NIPPLES**



Machined Schedule 80 PVC nipples comply fully with ASTM D2464, threads conform to ASTM F1498, and the pipe is extruded from PVC 1120-1220 meeting ASTM D1784 and meets ASTM D1785, products standard 21-70

**SCH 40 PVC FITTINGS**



- NSF 61 certified for use with drinking (potable) water
- Max Temperature: 140°F
- Max Pressure: Not Rated

Resistant to corrosion, strong and rigid - commonly used in low pressure plumbing applications. ASTM D1784 and D2466.

**SCH 80 PVC FITTINGS**



PVC Material is Type 1 according to the American Society for Testing Materials (ASTM) D-1784. Fittings conform to ASTM D-2464 & ASTM D-2467. Temperature rating is 140°F. PSI is based on water at 73°F. Derate 50% at 110°F and 78% at 140°F. Not recommended for use in compressed air or gas systems.

**PIPE FITTINGS**



- Nylon
- Polyethylene
- Polypropylene

**HOSE BARB FITTINGS**



- Nylon
- Polyethylene
- Polypropylene

**GARDEN HOSE FITTINGS**



- Nylon

**NYLON & POLYPROPYLENE COMPRESSION FITTINGS**



Machined Schedule 80 PVC nipples comply fully with ASTM D2464,

**POLYPROPYLENE PUSH-IN TUBE FITTINGS AND VALVES**



- NSF 61 certified for use with drinking (potable) water
- Max Temperature: 140°F
- Max Pressure: Not Rated

**SCHEDULE 80 PVC NIPPLES**

Machined Schedule 80 PVC nipples comply fully with ASTM D2464, threads conform to ASTM F1498, and the pipe is extruded from PVC 1120-1220 meeting ASTM D1784 and meets ASTM D1785, products standard 21-70



- Dark Grey
- NSF-61 Cert.

**1/2" DIAMETER**

Part #	Length	List Price
55-060	X Close (1-1/8")	----
55-061	1-1/2"	----
55-062	2"	----
55-063	2-1/2"	----
55-064	3"	----
55-065	3-1/2"	----
55-066	4"	----
55-067	4-1/2"	----
55-068	5"	----
55-069	5-1/2"	----
55-070	6"	----
55-076	12"	----

**1-1/4" DIAMETER**

Part #	Length	List Price
55-120	X Close (1-5/8")	----
55-121	2"	----
55-122	2-1/2"	----
55-123	3"	----
55-124	3-1/2"	----
55-125	4"	----
55-126	4-1/2"	----
55-127	5"	----
55-128	5-1/2"	----
55-129	6"	----
55-132	12"	----

**3/4" DIAMETER**

Part #	Length	List Price
55-080	x Close (1-3/8")	----
55-081	1-1/2"	----
55-082	2"	----
55-083	2-1/2"	----
55-084	3"	----
55-085	3-1/2"	----
55-086	4"	----
55-087	4-1/2"	----
55-088	5"	----
55-089	5-1/2"	----
55-090	6"	----
55-096	12"	----

**1-1/2" DIAMETER**

Part #	Length	List Price
55-140	X Close (1-5/8")	----
55-141	2"	----
55-142	2-1/2"	----
55-143	3"	----
55-144	3-1/2"	----
55-145	4"	----
55-146	4-1/2"	----
55-147	5"	----
55-148	5-1/2"	----
55-149	6"	----

**1" DIAMETER**

Part #	Length	List Price
55-100	X Close (1-1/2")	----
55-101	2"	----
55-102	2-1/2"	----
55-103	3"	----
55-104	3-1/2"	----
55-105	4"	----
55-106	4-1/2"	----
55-107	5"	----
55-108	5-1/2"	----
55-109	6"	----
55-111	8"	----
55-115	12"	----

**2" DIAMETER**

Part #	Length	List Price
55-160	X Close (2")	----
55-161	2-1/2"	----
55-162	3"	----
55-163	3-1/2"	----
55-164	4"	----
55-165	4-1/2"	----
55-166	5"	----
55-167	5-1/2"	----
55-168	6"	----
55-174	12"	----



**PVC SCHEDULE 40 FITTINGS**

**PLASTIC FITTINGS**

• NSF 61 certified for use with drinking (potable) water • Max Temperature: 140°F • Max Pressure: Not Rated  
Resistant to corrosion, strong and rigid - commonly used in low pressure plumbing applications. ASTM D1784 and D2466.

**90° SLIP ELBOW**



Part #	Size	List Price
55-720	1/2"	----
55-721	3/4"	----
55-722	1"	----
55-723	1-1/4"	----
55-724	1-1/2"	----
55-725	2"	----

**90° STREET ELBOW**



Part #	Size	Box Qty	List Price
55-850	1/2"	50	----
55-851	3/4"	50	----
55-852	1"	50	----
55-853	1-1/4"	25	----
55-854	1-1/2"	25	----
55-855	2"	10	----

**45° SLIP ELBOW**



Part #	Size	Box Qty	List Price
55-728	1/2"	50	----
55-729	3/4"	50	----
55-730	1"	50	----
55-731	1-1/4"	25	----
55-732	1-1/2"	25	----
55-733	2"	25	----

**SLIP TEES**



Part #	Size	List Price
55-710	1/2"	----
55-711	3/4"	----
55-712	3/4" x 3/4" x 1/2"	----
55-713	1"	----
55-714	1" x 1" x 1/2"	----
55-715	1" x 1" x 3/4"	----
55-716	1-1/4"	----
55-717	1-1/2"	----
55-718	2"	----

**SLIP COUPLING**



Part #	Size	List Price
55-736	1/2"	----
55-737	3/4"	----
55-738	1"	----
55-739	1-1/4"	----
55-740	1-1/2"	----
55-741	2"	----

**THREADED COUPLING**



Part #	Size	List Price
55-950	1/2"	----
55-951	3/4"	----

**SLIP X FEMALE ADAPTER**



Part #	Size	List Price
55-744	1/2"	----
55-812	1/2" x 1/4"	----
55-813	1/2" x 3/8"	----
55-745	3/4"	----
55-746	1"	----
55-747	1-1/4"	----
55-748	1-1/2"	----
55-749	2"	----

**MIP X SLIP ADAPTER**



Part #	Size	List Price
55-750	1/2"	----
55-751	3/4"	----
55-752	1"	----
55-753	1-1/4"	----
55-754	1-1/2"	----
55-755	2"	----

**SLIP X FIP BUSHING**



Part #	Size	List Price
55-805	1/2" x 1/4"	----
55-806	1/2" x 3/8"	----
55-781	3/4" x 1/2"	----
55-782	1" x 1/2"	----
55-783	1" x 3/4"	----
55-786	1-1/4" x 1"	----

**SLIP BUSHING**



Part #	Size	List Price
55-765	3/4" x 1/2"	----
55-766	1" x 1/2"	----
55-767	1" x 3/4"	----
55-770	1-1/4" x 1"	----
55-815	1-1/2" x 1/2"	----
55-771	1-1/2" x 3/4"	----
55-772	1-1/2" x 1"	----
55-773	1-1/2" x 1-1/4"	----
55-776	2" x 1"	----
55-778	2" x 1-1/2"	----

**SLIP x SLIP UNION**



Part #	Size	Box Qty	List Price
55-491	1/2"	10	----
55-492	3/4"	10	----
55-493	1"	10	----
55-494	1-1/4"	5	----
55-495	1-1/2"	5	----
55-496	2"	5	----

**SLIP CAP**



Part #	Size	List Price
55-756	1/2"	----
55-757	3/4"	----
55-758	1"	----
55-759	1-1/4"	----
55-760	1-1/2"	----
55-761	2"	----
55-762	2-1/2"	----
55-801	3"	----

**THREADED PLUG**



Part #	Size	Box Qty	List Price
55-510	1-1/2"	25	----
55-511	2"	10	----
55-512	3"	10	----
55-513	4"	10	----

**PVC SCHEDULE 80 FITTINGS**

**PLASTIC FITTINGS**

PVC Material is Type 1 according to the American Society for Testing Materials (ASTM) D-1784. Fittings conform to ASTM D-2464 & ASTM D-2467. Temperature rating is 140°F. PSI is based on water at 73°F. Derate 50% at 110°F and 78% at 140°F. Not recommended for use in compressed air or gas systems.

**SLIP X SLIP 90° ELBOW**



Part #	Size	List Price
806-005	1/2"	----
806-007	3/4"	----
806-010	1"	----
806-012	1-1/4"	----
806-015	1-1/2"	----
806-020	2"	----

**FIP X FIP 90° ELBOW**



Part #	Size	List Price
808-002	1/4"	----
808-003	3/8"	----
808-005	1/2"	----
808-007	3/4"	----
808-010	1"	----
808-012	1-1/4"	----
808-015	1-1/2"	----
808-020	2"	----

**SLIP X SLIP 45° ELBOW**



Part #	Size	List Price
817-005	1/2"	----
817-007	3/4"	----
817-010	1"	----
817-012	1-1/4"	----
817-015	1-1/2"	----
817-020	2"	----

**SLIP X SLIP TEE**



Part #	Size	List Price
801-005	1/2"	----
801-007	3/4"	----
801-010	1"	----
801-012	1-1/4"	----
801-015	1-1/2"	----
801-020	2"	----

**FIP X FIP TEE**



Part #	Size	List Price
805-005	1/2"	----
805-007	3/4"	----
805-010	1"	----
805-012	1-1/4"	----
805-015	1-1/2"	----
805-020	2"	----

**SLIP X SLIP COUPLING**



Part #	Size	List Price
829-005	1/2"	----
829-007	3/4"	----
829-010	1"	----
829-012	1-1/4"	----
829-015	1-1/2"	----
829-020	2"	----

**FIP X FIP COUPLING**



Part #	Size	List Price
830-005	1/2"	----
830-007	3/4"	----
830-010	1"	----
830-012	1-1/4"	----
830-015	1-1/2"	----
830-020	2"	----

**SLIP X SLIP REDUCING COUPLING**



Part #	Size	List Price
829-101	3/4" x 1/2"	----
829-130	1" x 1/2"	----
829-131	1" x 3/4"	----
829-168	1-1/4" x 1"	----
829-211	1-1/2" x 1"	----
829-212	1-1/2" x 1-1/4"	----
829-251	2 x 1-1/2"	----

**PLASTIC FITTINGS**

**PVC SCHEDULE 80 FITTINGS**

**MIP X SLIP ADAPTER**



Part #	Size	List Price
836005	1/2"	----
836007	3/4"	----
836010	1"	----
836012	1-1/4"	----
836015	1-1/2"	----
836020	2"	----

**MIP X FIP BUSHING**



Part #	Size	List Price
839072	1/2" x 1/4"	----
839073	1/2" x 3/8"	----
839099	3/4" x 3/8"	----
839101	3/4" x 1/2"	----
839130	1" x 1/2"	----
839131	1" x 3/4"	----
839166	1-1/4" x 1/2"	----
839167	1-1/4" x 3/4"	----
839168	1-1/4" x 1"	----
839209	1-1/2" x 1/2"	----
839210	1-1/2" x 3/4"	----
839211	1-1/2" x 1"	----
839212	1-1/2" x 1-1/4"	----
839247	2" x 1/2"	----
839248	2" x 3/4"	----
839249	2" x 1"	----
839250	2" x 1-1/4"	----
839251	2" x 1-1/2"	----

**SLIP X SLIP UNION**



Part #	Size	List Price
897005	1/2"	----
897007	3/4"	----
897010	1"	----
897012	1-1/4"	----
897015	1-1/2"	----
897020	2"	----

**FIP X FIP THREADED UNION**



Part #	Size	List Price
898005	1/2"	----
898007	3/4"	----
898010	1"	----
898012	1-1/4"	----
898015	1-1/2"	----
898020	2"	----

**MIP THREADED PLUG**



Part #	Size	List Price
850003	3/8"	----
850005	1/2"	----
850007	3/4"	----
850010	1"	----
850012	1-1/4"	----
850015	1-1/2"	----
850020	2"	----

**SLIP CAP**



Part #	Size	List Price
847005	1/2"	----
847007	3/4"	----
847010	1"	----
847012	1-1/4"	----
847015	1-1/2"	----
847020	2"	----

**FIP THREADED CAP**



Part #	Size	List Price
848005	1/2"	----
848007	3/4"	----
848010	1"	----
848012	1-1/4"	----
848015	1-1/2"	----
848020	2"	----

**PLASTIC PIPE**

**PLASTIC FITTINGS**

**AVAILABLE IN THREE TYPES OF PLASTIC**

**(W) White Nylon**

Made from virgin grade formulated to resist physical stress and abrasion. This material meets F.D.A. requirements of Code of Federal Regulation part 177.1500 and is therefore suitable for food contact surfaces.

**Temperature Range:** -40°F to 200°F

**Working Pressure:** 125 PSI maximum.

**(B) Black Polyethylene**

Made from a high molecular weight linear polyethylene formulated for chemical compatibility and high impact resistance at lower temperatures. Polyethylene is NSF approved for potable water.

**Temperature Range:** -65°F to 190°F

**Working Pressure:** 125 PSI maximum.

**(P) Polypropylene**

Made from the finest polypropylene resins. Polypropylene is used for its resistance to a wide range of chemicals. Working pressures decrease as temperatures increase.

•NSF-approved materials

•FDA-approved materials

**Note: Do not use with compressed air or gas.**

• 10% Fiberglass fill for extra strength

**ELBOW**



**P**

Part #	Size	List Price
28-702P	3/8"	----
28-704P	3/4"	----
28-708P	2"	----



**W**

Part #	Size	List Price
28-701W	1/4"	----
28-703W	1/2"	----
28-704W	3/4"	----
28-705W	1"	----
28-706W	1-1/4"	----
28-707W	1-1/2"	----
28-708W	2"	----

**TEE**



**P**

Part #	Size	List Price
28-741P	1/4"	----
28-742P	3/8"	----
28-743P	1/2"	----
28-744P	3/4"	----



**W**

Part #	Size	List Price
28-741W	1/4"	----
28-743W	1/2"	----
28-744W	3/4"	----
28-745W	1"	----
28-746W	1-1/4"	----
28-747W	1-1/2"	----
28-748W	2"	----

**STREET ELBOW**



**P**

Part #	Size	List Price
28-819P	1/8"	----
28-723P	1/2"	----
28-820P	2"	----
28-821P	3"	----



**W**

Part #	Size	List Price
28-819W	1/8"	----
28-720W	1/4"	----
28-721W	3/8"	----
28-723W	1/2"	----
28-724W	3/4"	----
28-725W	1"	----
28-726W	1-1/4"	----
28-820W	2"	----

**HEX HEAD PLUGS**

• Cored



**B**

Part #	Size	List Price
28-601B	1/8"	----
28-602B	1/4"	----
28-603B	3/8"	----
28-604B	1/2"	----
28-605B	3/4"	----



**P**

Part #	Size	List Price
28-601P	1/8"	----
28-602P	1/4"	----
28-603P	3/8"	----



**W**

Part #	Size	List Price
28-601W	1/8"	----
28-602W	1/4"	----
28-603W	3/8"	----
28-604W	1/2"	----
28-605W	3/4"	----
28-606W	1"	----
28-607W	1-1/4"	----
28-608W	1-1/2"	----
28-609W	2"	----

## PLASTIC FITTINGS

## PLASTIC PIPE

### HEX BUSHING



**P**

Part #	Size	List Price
28-659P	1/4 x 1/8"	----
28-660P	3/8 x 1/8"	----
28-661P	3/8 x 1/4"	----
28-811P	1/2" x 1/8"	----
28-663P	1/2 x 1/4"	----
28-664P	1/2 x 3/8"	----
28-666P	3/4 x 1/4"	----
28-668P	3/4 x 1/2"	----
28-812P	1" x 3/8"	----
28-671P	1 x 1/2"	----
28-672P	1 x 3/4"	----
28-813P	1-1/4" x 1/2"	----
28-814P	1-1/2" x 1/2"	----
28-678P	1-1/2 x 3/4"	----
28-680P	1-1/2 x 1-1/4"	----
28-815P	2" x 1/2"	----
28-816P	2" x 1-1/4"	----
28-817P	3" x 1-1/2"	----
28-818P	3" x 2"	----



**W**

Part #	Size	List Price
28-659W	1/4 x 1/8"	----
28-660W	3/8 x 1/8"	----
28-661W	3/8 x 1/4"	----
28-663W	1/2 x 1/4"	----
28-664W	1/2 x 3/8"	----
28-665W	3/4 x 1/8"	----
28-666W	3/4 x 1/4"	----
28-667W	3/4 x 3/8"	----
28-668W	3/4 x 1/2"	----
28-812W	1" x 3/8"	----
28-671W	1 x 1/2"	----
28-672W	1 x 3/4"	----
28-813W	1-1/4" x 1/2"	----
28-674W	1-1/4 x 3/4"	----
28-675W	1-1/4 x 1"	----
28-814W	1-1/2" x 1/2"	----
28-678W	1-1/2 x 3/4"	----
28-679W	1-1/2 x 1"	----
28-680W	1-1/2 x 1-1/4"	----
28-815W	2" x 1/2"	----
28-682W	2 x 3/4"	----
28-683W	2 x 1"	----
28-816W	2" x 1-1/4"	----
28-685W	2 x 1-1/2"	----
28-818W	3" x 2"	----

### REDUCER NIPPLES



**B**

Part #	Size	List Price
28-623B	1/2 x 1/4"	----
28-624B	1/2 x 3/8"	----
28-628B	3/4 x 3/8"	----
28-625B	3/4 x 1/2"	----



**P**

Part #	Size	List Price
28-626P	1" x 1/2"	----
28-629P	1 x 3/4"	----
28-631P	1-1/4 x 3/4"	----
28-633P	1-1/4" x 1"	----
28-802P	1-1/2" x 1"	----
28-632P	1-1/2" x 1-1/4"	----
28-634P	2 x 1-1/4"	----
28-630P	2" x 1-1/2"	----
28-635P	3 x 2"	----



**W**

Part #	Size	List Price
28-620W	1/4 x 1/8"	----
28-621W	3/8 x 1/8"	----
28-622W	3/8 x 1/4"	----
28-623W	1/2 x 1/4"	----
28-624W	1/2 x 3/8"	----
28-628W	3/4 x 3/8"	----
28-625W	3/4 x 1/2"	----
28-633W	1-1/4" x 1"	----

### HEX NIPPLES



**B**

Part #	Size	List Price
28-611B	1/8"	----
28-612B	1/4"	----
28-613B	3/8"	----
28-614B	1/2"	----



**P**

Part #	Size	List Price
28-612P	1/4"	----
28-613P	3/8"	----
28-614P	1/2"	----
28-615P	3/4"	----



**W**

Part #	Size	List Price
28-611W	1/8"	----
28-612W	1/4"	----
28-613W	3/8"	----
28-614W	1/2"	----
28-615W	3/4"	----
28-616W	1"	----
28-617W	1 1/4"	----
28-618W	1 1/2"	----
28-619W	2"	----

**P** = Polypropylene

**W** = White Nylon

**B** = Black Polyethylene

**PLASTIC PIPE/ HOSE BARB**

**PLASTIC FITTINGS**

**COUPLING**



**P**

Part #	Size	List Price
28-761P	1/4"	----
28-762P	3/8"	----
28-763P	1/2"	----
28-764P	3/4"	----
28-803P	1-1/4"	----
28-804P	3"	----



**W**

Part #	Size	List Price
28-761W	1/4"	----
28-762W	3/8"	----
28-763W	1/2"	----
28-764W	3/4"	----
28-765W	1"	----
28-803W	1-1/4"	----
28-767W	1-1/2"	----
28-768W	2"	----

**REDUCING COUPLING**



**P**

Part #	Size	List Price
28-774P	1/4" x 1/8"	----
28-775P	3/8" x 1/4"	----
28-776P	1/2" x 3/8"	----
28-777P	3/4" x 3/8"	----
28-778P	3/4" x 1/2"	----
28-779P	1" x 3/4"	----
28-805P	1-1/2" x 1"	----
28-806P	1-1/2" x 1-1/4"	----
28-807P	2" x 1"	----
28-808P	2" x 1-1/4"	----
28-809P	2" x 1-1/2"	----
28-810P	3" x 2"	----



**W**

Part #	Size	List Price
28-774W	1/4" x 1/8"	----
28-775W	3/8" x 1/4"	----
28-776W	1/2" x 3/8"	----
28-777W	3/4" x 3/8"	----
28-778W	3/4" x 1/2"	----

**PIPE CAP**



**W**

Part #	Size	List Price
28-640W	1/4"	----
28-641W	3/8"	----
28-642W	1/2"	----
28-643W	3/4"	----

**PLASTIC BULKHEAD FITTINGS**



**P**

20% Glass Filled Polypropylene w/ Santropene Gasket

Part #	Fpt	Hole	List Price
28-693P	1/2"	1-3/8"	----
28-694P	3/4"	1-3/8"	----
28-695P	1"	1-3/4"	----
28-696P	1-1/4"	2"	----
28-697P	1-1/2"	3"	----
28-698P	2"	3"	----
28-699P	3"	4-1/2"	----

**P** = Polypropylene

**W** = White Nylon

**B** = Black Polyethylene

**MALE ADAPTERS**



**B**

Part #	Size	List Price
33-002B	3/16 x 1/8"	----
33-003B	3/16 x 1/4"	----
33-004B	1/4 x 1/8"	----
33-005B	1/4 x 1/4"	----
33-006B	1/4 x 3/8"	----
33-007B	1/4 x 1/2"	----
33-008B	5/16 x 1/8"	----
33-009B	5/16 x 1/4"	----
33-012B	3/8 x 1/4"	----
33-013B	3/8 x 3/8"	----
33-014B	3/8 x 1/2"	----
33-026B	3/8 x 3/4"	----
33-015B	1/2 x 1/4"	----
33-016B	1/2 x 3/8"	----
33-017B	1/2 x 1/2"	----
33-018B	1/2 x 3/4"	----
33-019B	5/8 x 3/8"	----
33-020B	5/8 x 1/2"	----
33-021B	5/8 x 3/4"	----
33-022B	3/4 x 1/2"	----
33-023B	3/4 x 3/4"	----
33-024B	1 x 3/4"	----
33-025B	1 x 1"	----



**P**

Hose ID x MIP

Part #	Size	List Price
33-012P	3/8 x 1/4"	----
33-014P	3/8 x 1/2"	----
33-015P	1/2 x 1/4"	----
33-016P	1/2 x 3/8"	----
33-017P	1/2 x 1/2"	----
33-018P	1/2 x 3/4"	----
33-303P	1/2" x 1"	----
33-020P	5/8 x 1/2"	----
33-306P	3/4" x 3/8"	----
33-022P	3/4 x 1/2"	----
33-023P	3/4 x 3/4"	----
33-024P	1 x 3/4"	----
33-025P	1 x 1"	----
33-321P	1-1/2" x 1-1/4"	----
33-322P	2" x 1-1/2"	----
33-323P	3" x 3"	----
33-324P	4" x 4"	----

## PLASTIC FITTINGS



Hose ID x MIP

Part #	Size	List Price
33-002W	3/16 x 1/8"	----
33-003W	3/16 x 1/4"	----
33-004W	1/4 x 1/8"	----
33-005W	1/4 x 1/4"	----
33-006W	1/4 x 3/8"	----
33-007W	1/4 x 1/2"	----
33-380W	1/4 x 3/4"	----
33-008W	5/16 x 1/8"	----
33-009W	5/16 x 1/4"	----
33-010W	5/16 x 3/8"	----
33-011W	3/8 X 1/8"	----
33-012W	3/8 x 1/4"	----
33-013W	3/8 x 3/8"	----
33-014W	3/8 x 1/2"	----
33-026W	3/8 x 3/4"	----
33-015W	1/2 x 1/4"	----
33-016W	1/2 x 3/8"	----
33-017W	1/2 x 1/2"	----
33-018W	1/2 x 3/4"	----
33-303W	1/2" x 1"	----
33-019W	5/8 x 3/8"	----
33-020W	5/8 x 1/2"	----
33-021W	5/8 x 3/4"	----
33-306W	3/4" x 3/8"	----
33-022W	3/4 x 1/2"	----
33-023W	3/4 x 3/4"	----
33-000W	3/4 x 1"	----
33-318W	3/4" x 1-1/4"	----
33-319W	3/4" x 1-1/2"	----
33-307W	1" x 1/2"	----
33-024W	1 x 3/4"	----
33-025W	1 x 1"	----
33-029W	1 x 1-1/4"	----
33-320W	1" x 1-1/2"	----
33-349W	1-1/4" x 3/4"	----
33-028W	1-1/4 x 1"	----
33-030W	1-1/4 x 1-1/4"	----
33-032W	1-1/4 x 1-1/2"	----
33-321W	1-1/2" x 1-1/4"	----
33-033W	1-1/2 x 1-1/2"	----
33-322W	2" x 1-1/2"	----
33-035W	2 x 2"	----

## ELBOWS



Hose ID x MALE PIPE

Part #	Size	List Price
33-308B	3/16 x 1/8	----
33-038B	1/4 x 1/8	----
33-039B	1/4 x 1/4	----
33-309B	1/4 x 3/8	----
33-046B	3/8 x 1/8	----
33-041B	3/8 x 1/4	----
33-042B	3/8 x 3/8	----
33-047B	3/8 x 1/2	----
33-043B	1/2 x 3/8	----
33-311B	1/2 x 1/2	----
33-385B	1/2 x 3/4	----
33-044B	5/8 x 3/8	----
33-045B	5/8 x 1/2	----
33-312B	5/8 x 3/4	----
33-313B	3/4 x 1/2	----
33-314B	3/4 x 3/4	----
33-316B	1 x 1	----



Part #	Size	List Price
33-048P	1/2 x 1/4	----
33-311P	1/2 x 1/2	----
33-385P	1/2 x 3/4	----
33-313P	3/4 x 1/2	----
33-314P	3/4 x 3/4	----
33-316P	1 x 1	----
33-334P	1-1/4 x 1	----
33-461P	1-1/4 x 1-1/4	----
33-335P	1-1/4 x 1-1/2	----
33-462P	1-1/2 x 1-1/4	----
33-463P	1-1/2 x 1-1/2	----
33-336P	1-1/2 x 2	----
33-337P	3 x 3	----

## PLASTIC BARBS



Part #	Size	List Price
33-381W	3/16 x 1/4	----
33-038W	1/4 x 1/8	----
33-039W	1/4 x 1/4	----
33-309W	1/4 x 3/8	----
33-351W	1/4 x 1/2	----
33-352W	1/4 x 3/4	----
33-036W	5/16 x 1/8	----
33-040W	5/16 x 1/4	----
33-310W	5/16 x 3/8	----
33-046W	3/8 x 1/8	----
33-041W	3/8 x 1/4	----
33-042W	3/8 x 3/8	----
33-047W	3/8 x 1/2	----
33-384W	3/8 x 3/4	----
33-048W	1/2 x 1/4	----
33-043W	1/2 x 3/8	----
33-311W	1/2 x 1/2	----
33-385W	1/2 x 3/4	----
33-044W	5/8 x 3/8	----
33-045W	5/8 x 1/2	----
33-312W	5/8 x 3/4	----
33-313W	3/4 x 1/2	----
33-314W	3/4 x 3/4	----
33-315W	3/4 x 1	----
33-386W	1x3/4	----
33-316W	1 x 1	----
33-460W	1 x 1-1/4	----
33-461W	1-1/4 x 1-1/4	----
33-335W	1-1/4 x 1-1/2	----
33-462W	1-1/2 x 1-1/4	----
33-463W	1-1/2 x 1-1/2	----
33-464W	2 x 2	----

**P** = Polypropylene  
**W** = White Nylon  
**B** = Black Polyethylene



**PLASTIC BARBS**

**HOSE BARB X FE ADAPTERS**



**B**

Hose ID x FIP

Part #	Size	List Price
33-053B	1/4 x 1/4"	----



**P**

Part #	Size	List Price
33-052P	1/4 x 1/8"	----
33-054P	1/4 x 3/8"	----
33-350P	1/4 x 1/2"	----
33-325P	1/4 x 3/4"	----
33-057P	3/8 x 1/8"	----
33-442P	3/8 x 3/4"	----
33-066P	1/2 x 1/4"	----
33-062P	1/2 x 3/8"	----
33-067P	1/2 x 3/4"	----
33-444P	5/8 x 3/8"	----
33-068P	5/8 x 1/2"	----
33-326P	3/4 x 3/8"	----



**W**

Part #	Size	List Price
33-052W	1/4 x 1/8"	----
33-053W	1/4 x 1/4"	----
33-054W	1/4 x 3/8"	----
33-350W	1/4 x 1/2"	----
33-325W	1/4 x 3/4"	----
33-057W	3/8 x 1/8"	----
33-058W	3/8 x 1/4"	----
33-059W	3/8 x 3/8"	----
33-060W	3/8 x 1/2"	----
33-442W	3/8 x 3/4"	----
33-066W	1/2 x 1/4"	----
33-061W	1/2 x 1/2"	----
33-067W	1/2 x 3/4"	----
33-444W	5/8 x 3/8"	----
33-068W	5/8 x 1/2"	----
33-063W	5/8 x 3/4"	----
33-326W	3/4 x 3/8"	----
33-064W	3/4 x 1/2"	----
33-065W	3/4 x 3/4"	----

**HOSE BARB X FE ELBOW**



**P**

Hose ID x Female Pipe

Part #	Size	List Price
33-338P	1/4 x 1/8"	----
33-467P	1/4 x 1/4"	----
33-339P	1/4 x 3/8"	----
33-340P	1/4 x 1/2"	----
33-341P	3/8 x 1/8"	----
33-468P	3/8 x 1/4"	----
33-469P	3/8 x 3/8"	----
33-342P	3/8 x 1/2"	----
33-343P	1/2 x 1/2"	----
33-470P	5/8 x 1/2"	----
33-344P	5/8 x 3/4"	----
33-345P	3/4 x 1/2"	----
33-471P	3/4 x 3/4"	----



**W**

Hose ID x Female Pipe

Part #	Size	List Price
33-338W	1/4 x 1/8"	----
33-467W	1/4 x 1/4"	----
33-339W	1/4 x 3/8"	----
33-340W	1/4 x 1/2"	----
33-341W	3/8 x 1/8"	----
33-468W	3/8 x 1/4"	----
33-469W	3/8 x 3/8"	----
33-342W	3/8 x 1/2"	----
33-402W	1/2 x 3/8"	----
33-343W	1/2 x 1/2"	----
33-403W	1/2 x 3/4"	----
33-470W	5/8 x 1/2"	----
33-344W	5/8 x 3/4"	----
33-345W	3/4 x 1/2"	----
33-471W	3/4 x 3/4"	----

**P** = Polypropylene

**W** = White Nylon

**B** = Black Polyethylene

**PLASTIC FITTINGS**

**UNION ELBOWS**



**B**

Part #	Size	List Price
33-390B	1/4	----
33-391B	3/8	----
33-394B	1/2	----
33-395B	5/8	----
33-396B	3/4	----



**W**

Part #	Size	List Price
33-390W	1/4	----
33-391W	3/8	----
33-394W	1/2	----
33-395W	5/8	----
33-396W	3/4	----
33-397W	1	----
33-398W	1-1/4	----
33-399W	1-1/2	----
33-389W	2	----

**SPLICERS**



**B**

Part #	Size	List Price
33-091B	1/8	----
33-092B	3/16	----
33-093B	1/4	----
33-095B	3/8	----
33-096B	1/2	----
33-097B	5/8	----
33-098B	3/4	----



Part #	Size	List Price
33-095P	3/8	----
33-096P	1/2	----
33-098P	3/4	----
33-099P	1	----

## PLASTIC FITTINGS

## PLASTIC BARBS

### SPLICERS



**W**

Part #	Size	List Price
33-091W	1/8	----
33-092W	3/16	----
33-093W	1/4	----
33-094W	5/16	----
33-095W	3/8	----
33-096W	1/2	----
33-097W	5/8	----
33-098W	3/4	----
33-099W	1	----
33-480W	1-1/4	----
33-481W	1-1/2	----
33-482W	2	----

### REDUCING SPLICERS



**B**

Part #	Size	List Price
33-406B	3/8 x 1/4	----
33-407B	1/2 x 1/4	----
33-408B	1/2 x 3/8	----
33-410B	5/8 x 1/2	----



**W**

Part #	Size	List Price
33-079W	1/4 x 1/8	----
33-347W	1/4 x 3/16	----
33-406W	3/8 x 1/4	----
33-348W	3/8 x 5/16	----
33-407W	1/2 x 1/4	----
33-408W	1/2 x 3/8	----
33-409W	5/8 x 3/8	----
33-410W	5/8 x 1/2	----
33-089W	3/4 x 1/2	----

### TEES BARBED ON ALL SIDES

**B**



Part #	Size	List Price
33-415B	1/8	----
33-418B*	3/16	----
33-420B	3/16	----
33-422B	1/4	----
33-426B	5/16	----
33-429B	3/8	----
33-433B	1/2	----
33-436B	5/8	----
33-437B	3/4	----
33-438B	1	----

**P**



Part #	Size	List Price
33-429P	3/8	----
33-440P	1-1/2	----

### ALL HOSE BARB "Y"



**P**

Part #	Size	List Price
33-300P*	1/4"	----
33-301P*	3/8"	----
33-302P*	1/2"	----

\*Natural Polypro



**W**

Part #	Size	List Price
33-301W	3/8"	----

**P** = Polypropylene  
**W** = White Nylon  
**B** = Black Polyethylene

**W**



Part #	Size	List Price
33-415W	1/8	----
33-417W	5/32	----
33-418W*	3/16	----
33-420W	3/16	----
33-422W	1/4	----
33-426W	5/16	----
33-429W	3/8	----
33-433W	1/2	----
33-436W	5/8	----
33-437W	3/4	----
33-438W	1	----
33-439W	1-1/4	----
33-440W	1-1/2	----
33-441W	2	----

### REDUCING TEES



**B**

Part #	Size	List Price
33-423B	3/8 x 3/8 x 1/4	----
33-430B	1/2 x 1/2 x 3/8	----
33-432B	3/8 x 3/8 x 1/2	----
33-434B	1/2 x 5/8 x 1/2	----
33-435B	3/4 x 3/4 x 1/2	----



**W**

Part #	Size	List Price
33-430W	1/2 x 1/2 x 3/8	----
33-431W	5/8 x 5/8 x 3/8	----
33-432W	3/8 x 3/8 x 1/2	----
33-435W	3/4 x 3/4 x 1/2	----

**PLASTIC GARDEN HOSE**

**PLASTIC FITTINGS**

**MALE BRANCH TEE**



Part #	Size	List Price
33-448W	1/4 x 1/4	----
33-450W	3/8 x 1/4	----
33-451W	3/8 x 3/8	----
33-453W	1/2 x 1/4	----
33-454W	1/2 x 3/8	----
33-455W	1/2 x 1/2	----
33-458W	5/8" x 3/4"	----
33-456W	3/4 x 3/4	----

**PLASTIC GARDEN HOSE FITTINGS**

FITTINGS WITH GARDEN HOSE THREAD

**GARDEN HOSE CAP**

• Washer not included



• White Nylon

Part #	Size	List Price
30-103P	3/4"	----

**GARDEN HOSE NUT**



• White Nylon

Part #	Size	List Price
31-022	3/4"	----
31-023	3/4" FIP	----

**GARDEN HOSE ADAPTER INSERTS**

• for assembly with 31-022



• White Nylon

Part #	Size	List Price
31-030	1/4"	----
31-031	3/8"	----
31-032	1/2"	----
31-033	5/8"	----
31-034	3/4"	----
31-035	1/2" MPT	----

**GARDEN HOSE THREAD ADAPTERS**

**BARB X MALE GARDEN HOSE**



• White Nylon

Part #	Size	List Price
31-038	1/4"	----
31-039	3/8"	----
31-040	1/2"	----
31-041	5/8"	----
31-042	3/4"	----

**MALE GARDEN HOSE X FEMALE PIPE**



• White Nylon

Part #	Size	List Price
31-067	MGH X 1/4	----
31-068	MGH X 1/2 FIP	----
31-069	MGH X 3/4	----

**FEMALE GARDEN HOSE X MALE PIPE**



• White Nylon

Part #	Size	List Price
31-093	FGH X 3/4 MPT	----
31-095	FGH X 3/4 MGH	----

**FEMALE GARDEN HOSE X FEMALE PIPE**



• White Nylon

Part #	Size	List Price
31-096	FGH X 1/2 FIP	----
31-097	FGH X 3/4 FIP	----

**MALE GARDEN HOSE X MALE PIPE**



• White Nylon

Part #	Size	List Price
31-055	GHT X 3/8 MPT	----
31-058	GHT X 1/2 MPT	----
31-063	GHT X 3/4 MPT	----
31-064	GHT X 1	----



## PLASTIC FITTINGS

### PLASTIC COMPRESSION FITTINGS

Corrosion resistant thermoset resins designed to resist vibration, provide good electrical insulation, low flow resistance, and resistance to scale buildup.

The letter on the end of part no. denotes the type.

N = Nylon

P = Polypropylene

Standard nut and sleeves will be provided (sleeve is integral part of nut). Other sizes available upon request.

FDA and NSF Listed

### UNION & REDUCING UNION CONNECTORS



Part #	Size	List Price
17-064P	1/4"	----
17-066P	3/8"	----
17-079P	3/8" x 1/4"	----
17-068P	1/2"	----
17-081P	1/2" x 3/8"	----



Part #	Size	List Price
17-064N	1/4"	----
17-065N	5/16"	----
17-078N	5/16" x 1/4"	----
17-066N	3/8"	----
17-079N	3/8" x 1/4"	----
17-068N	1/2"	----

### BULKHEAD UNIONS



Part #	Size	List Price
17-088N	1/4"	----
17-090N	3/8"	----
17-091N	1/2"	----

### UNION TEES



• Nylon

Part #	Size	List Price
17-103N	1/4"	----
17-105N	3/8"	----
17-106N	1/2"	----

### UNION ELBOWS



Part #	Size	List Price
17-124P	1/4"	----
17-126P	3/8"	----
17-127P	1/2"	----



• Nylon

Part #	Size	List Price
17-124N	1/4"	----
17-126N	3/8"	----

### FEMALE CONNECTORS



Part #	Size	List Price
17-145P	1/4 x 1/8	----
17-153P	3/8 x 1/4	----
17-154P	3/8 x 3/8	----
17-158P	1/2 x 3/8	----
17-159P	1/2 x 1/2	----



• Nylon

Part #	Size	List Price
17-146N	1/4 x 1/4	----
17-153N	3/8 x 1/4	----
17-154N	3/8 x 3/8	----

## PLASTIC COMPRESSION

### MALE CONNECTORS



Part #	Size	List Price
17-179P	1/4 x 1/8	----
17-180P	1/4 x 1/4	----
17-188P	3/8 x 1/4	----
17-189P	3/8 x 3/8	----
17-190P	3/8 x 1/2	----
17-193P	1/2 x 1/4	----
17-194P	1/2 x 3/8	----
17-195P	1/2 x 1/2	----



Part #	Size	List Price
17-179N	1/4 x 1/8	----
17-180N	1/4 x 1/4	----
17-188N	3/8 x 1/4	----
17-189N	3/8 x 3/8	----
17-190N	3/8 x 1/2	----
17-193N	1/2 x 1/4	----
17-194N	1/2 x 3/8	----
17-195N	1/2 x 1/2	----

### MALE ELBOWS



Part #	Size	List Price
17-224P	1/4 x 1/8	----
17-225P	1/4 x 1/4	----
17-233P	3/8 x 1/4	----
17-234P	3/8 x 3/8	----
17-237P	1/2 x 3/8	----
17-238P	1/2 x 1/2	----



• Nylon

Part #	Size	List Price
17-224N	1/4 x 1/8	----
17-225N	1/4 x 1/4	----
17-233N	3/8 x 1/4	----
17-234N	3/8 x 3/8	----
17-237N	1/2 x 3/8	----
17-238N	1/2 x 1/2	----

**PLASTIC PUSH-IN**

**PLASTIC FITTINGS**

**PLASTIC PUSH-IN TUBE FITTINGS**

**Fitting Working Specifications**

**Operating Temperature**  
33°F to 140°F ( 1°C to 60°C )

**Operating Pressure**  
Air: 0 - 150 lbs. psi.  
Liquid: 0 - 150 lbs. psi.  
Suitable for Vacuum

**Material Specifications**

**Bodies:** Food Grade, Polypropylene  
**O'Rings:** Food Grade, Nitrile Rubber or EPDM  
**Collet:** Food Grade Acetal Copolymer, stainless steel teeth



**Fitting Tube Types**

**Plastic Tube:**

Polyethylene, nylon, polyurethane (for soft tubing or thin wall tube, tube supports are recommended).

**Braided Tube:**

For Braided Tube, the use of Tube to Hose Stems and Elbows is required. To retain braided tube on barbs, the use of clamps is also recommended.

**UNION CONNECTOR**



Part #	Tube OD	List Price
20-018P	5/32"	----
20-702P	3/16"	----
20-019P	1/4"	----
20-703P	5/16"	----
20-020P	3/8"	----
20-021P	1/2"	----

**UNION TEE**



Part #	Tube OD	List Price
20-028P	1/4"	----
20-031P	5/16"	----
20-029P	3/8"	----
20-030P	1/2"	----

**REDUCING ELBOW**



Part #	Tube OD	Tube OD	List Price
20-732P	5/16"	1/4"	----
20-733P	3/8"	3/16"	----
20-734P	3/8"	1/4"	----
20-736P	1/2"	3/8"	----

**REDUCING UNION**



Part #	Tube OD	Tube OD	List Price
20-750P	1/4"	3/16"	----
20-753P	5/16"	1/4"	----
20-754P	3/8"	3/16"	----
20-755P	3/8"	1/4"	----
20-756P	3/8"	5/16"	----
20-758P	1/2"	3/8"	----

**REDUCING BRANCH TEE**



Part #	Tube OD	Tube OD	List Price
20-725P	3/8"	1/4"	----
20-724P	1/2"	3/8"	----

**FEMALE CONNECTOR**



Part #	Tube OD	Thread NPTF	List Price
20-993P	1/4"	1/8"	----
20-035P	1/4"	1/4"	----
20-944P	3/8"	1/8"	----
20-036P	3/8"	1/4"	----

**UNION ELBOW**



Part #	Tube OD	List Price
20-152P	1/4"	----
20-155P	5/16"	----
20-153P	3/8"	----
20-154P	1/2"	----

**BULKHEAD UNION**



Part #	Tube OD	List Price
20-127P	1/4"	----
20-128P	3/8"	----
20-129P	1/2"	----

## PLASTIC FITTINGS

## PLASTIC PUSH-IN

### MALE CONNECTOR



P

Part #	Tube OD	Thread NPTF	List Price
20-050P	5/32"	1/8"	----
20-054P	1/4"	1/8"	----
20-055P	1/4"	1/4"	----
20-056P	1/4"	3/8"	----
20-531P	5/16"	1/4"	----
20-532P	5/16"	3/8"	----
20-057P	3/8"	1/8"	----
20-058P	3/8"	1/4"	----
20-059P	3/8"	3/8"	----
20-062P	3/8"	1/2"	----
20-061P	1/2"	3/8"	----
20-063P	1/2"	1/2"	----

### STEM ADAPTER



P

Part #	Tube OD	Thread NPTF	List Price
20-524P	1/4"	1/8"	----
20-525P	1/4"	1/4"	----
20-528P	3/8"	1/4"	----
20-529P	3/8"	3/8"	----

### REDUCER



P

Part #	Tube OD	Tube OD	List Price
20-512P	3/8"	1/4"	----
20-763P	3/8"	5/16"	----
20-514P	1/2"	3/8"	----

### FIXED ELBOW



P

Part #	Tube OD	Thread NPTF	List Price
20-068P	1/4"	1/8"	----
20-069P	1/4"	1/4"	----
20-070P	1/4"	3/8"	----
20-072P	3/8"	1/4"	----
20-073P	3/8"	3/8"	----

### PLUG-IN ELBOW



Part #	Tube OD	Tube OD	List Price
20-740P	5/32"	5/32"	----
20-742P	1/4"	1/4"	----
20-743P	5/16"	5/16"	----
20-745P	3/8"	1/4"	----
20-747P	3/8"	3/8"	----
20-748P	1/2"	1/2"	----

### 2-WAY DIVIDER



P

Part #	Tube OD	List Price
20-776P	5/16"	----
20-777P	3/8"	----

### PLUG



P

Part #	Tube OD	List Price
20-876P	5/32"	----
20-878P	1/4"	----
20-880P	3/8"	----
20-881P	1/2"	----

### TUBE END STOP



P

Part #	Tube OD	List Price
20-925P	1/4"	----
20-927P	3/8"	----

### PL X PL



P

Part #	Tube OD	List Price
20-900P	1/4"	----
20-901P	3/8"	----

### PL X MALE NPTF

P

Part #	Tube OD	Thread NPTF	List Price
20-904P	1/4"	1/4"	----
20-905P	3/8"	3/8"	----

### CHECK VALVE



P

Part #	Tube OD	List Price
20-779P	3/8"	----



See Polyethylene Tubing on pages 352-353

# HOSE ACCESSORIES



**LOWER PRICING!**

**CAM AND GROOVE**



**ALUMINIUM**



**POLYPROPLYENE**



**STAINLESS STEEL**



**BRASS**

**COMBINATION HOSE NIPPLES**



**FIRE HOSE FITTINGS**



**BARBED FITTINGS  
FOR PLASTIC PIPE**



**UNIVERSAL/ GROUND JOINT  
COUPLINGS**



**ALUMINUM**

SEE PAGES 332 FOR JUMP SIZES IN ALUMINUM

**NEW  
LOWER  
PRICE**

**MALE ADAPTER X FEMALE NPT**

**TYPE A**



Part#	Size	List Price
61-911	3/4"	----
61-912	1"	----
61-913	1-1/4"	----
61-914	1-1/2"	----
61-915	2"	----
61-916	2-1/2"	----
61-917	3"	----
61-918	4"	----
61-919	5"	----
61-920	6"	----

**MALE ADAPTER X HOSE SHANK**

**TYPE E**



Part#	Size	List Price
61-951	3/4"	----
61-952	1"	----
61-953	1-1/4"	----
61-954	1-1/2"	----
61-955	2"	----
61-956	2-1/2"	----
61-957	3"	----
61-958	4"	----
61-959	5"	----

**FEMALE COUPLER X MALE NPT**

**TYPE B**



Part#	Size	List Price
61-921	3/4"	----
61-922	1"	----
61-923	1-1/4"	----
61-924	1-1/2"	----
61-925	2"	----
61-926	2-1/2"	----
61-927	3"	----
61-928	4"	----
61-929	5"	----

**MALE ADAPTER X MALE NPT**

**TYPE F**



Part#	Size	List Price
61-961	3/4"	----
61-962	1"	----
61-963	1-1/4"	----
61-964	1-1/2"	----
61-965	2"	----
61-966	2-1/2"	----
61-967	3"	----
61-968	4"	----
61-970	5"	----

**FEMALE COUPLER X HOSE SHANK**

**TYPE C**



Part#	Size	List Price
61-931	3/4"	----
61-932	1"	----
61-933	1-1/4"	----
61-934	1-1/2"	----
61-935	2"	----
61-936	2-1/2"	----
61-937	3"	----
61-938	4"	----
61-939	5"	----

**DUST CAP**

**TYPE DC**



Part#	Size	List Price
61-971	3/4"	----
61-972	1"	----
61-973	1-1/4"	----
61-974	1-1/2"	----
61-975	2"	----
61-976	2-1/2"	----
61-977	3"	----
61-978	4"	----
61-980	5"	----
61-979	6"	----
61-998	8"	----

**FEMALE COUPLER X FEMALE NPT**

**TYPE D**



Part#	Size	List Price
61-941	3/4"	----
61-942	1"	----
61-943	1-1/4"	----
61-944	1-1/2"	----
61-945	2"	----
61-946	2-1/2"	----
61-947	3"	----
61-948	4"	----

**DUST CAP**

**TYPE DP**



Part#	Size	List Price
61-981	3/4"	----
61-982	1"	----
61-983	1-1/4"	----
61-984	1-1/2"	----
61-985	2"	----
61-986	2-1/2"	----
61-987	3"	----
61-988	4"	----
61-909	5"	----
61-908	6"	----



## ALUMINUM JUMP SIZES

## MALE ADAPTER X MALE ADAPTER

ALUMINUM  
SPOOL ADAPTER

Part#	Size	List Price
61-872	1"	----
61-873	1-1/2"	----
61-874	2"	----
61-875	2" x 3"	----
61-876	2-1/2"	----
61-877	3"	----
61-878	3" x 4"	----
61-879	4"	----

## FEMALE COUPLER X FEMALE COUPLER

ALUMINUM  
TYPE DD

Part#	Size	List Price
619-440	1-1/2"	----
619-450	2"	----
619-470	3"	----
619-480	4"	----

## FEMALE COUPLER X MALE ADAPTER

ALUMINUM  
TYPE DA

Part#	Size	List Price
619-001	1-1/2" x 1"	----
619-002	1-1/2" x 2"	----
619-003	2" x 1-1/2"	----
619-004	2" x 3"	----
619-005	2" x 4"	----
619-006	3" x 1-1/2"	----
619-007	3" x 2"	----
619-008	3" x 4"	----
619-009	4" x 2"	----
619-010	4" x 3"	----
619-011	4" x 6"	----
619-012	6" x 4"	----

## MALE ADAPTER X FEMALE NPT

ALUMINUM  
JUMP SIZE A

Part#	Size	List Price
61-851	2" x 3"	----
61-853	3" x 4"	----
61-854	4" x 3"	----

## FEMALE COUPLER X MALE NPT

ALUMINUM  
JUMP SIZE B

Part#	Size	List Price
61-859	3" x 2"	----
61-860	3" x 4"	----
61-861	4" x 3"	----

NEW  
LOWER  
PRICE

## FEMALE COUPLER X FEMALE NPT

ALUMINUM  
JUMP SIZE D

Part#	Size	List Price
61-867	3" x 2"	----
61-868	4" x 3"	----

## MALE ADAPTER X MALE NPT

ALUMINUM  
JUMP SIZE F

Part#	Size	List Price
61-870	3" x 2"	----
61-871	3" x 4"	----

TYPE A MALE COUPLER X FIP  
 TYPE B FEMALE COUPLER X MIP  
 TYPE C FEMALE COUPLER X HOSE SHANK  
 TYPE D FEMALE COUPLER X FIP  
 TYPE E MALE COUPLER X HOSE SHANK  
 TYPE F MALE COUPLER X MIP  
 TYPE DC DUST CAP  
 TYPE DP DUST PLUG

**POLYPROPYLENE**

**NEW  
LOWER  
PRICE**

**MALE ADAPTER X FEMALE NPT**

**TYPE A**



Part#	Size	List Price
35-910	1/2"	----
35-911	3/4"	----
35-912	1"	----
35-913	1-1/4"	----
35-914	1-1/2"	----
35-915	2"	----

**MALE ADAPTER X HOSE SHANK**

**TYPE E**



Part#	Size	List Price
35-950	1/2"	----
35-951	3/4"	----
35-952	1"	----
35-953	1-1/4"	----
35-954	1-1/2"	----
35-955	2"	----
35-957	3"	----

**FEMALE COUPLER X MALE NPT**

**TYPE B**



Part#	Size	List Price
35-920	1/2"	----
35-921	3/4"	----
35-922	1"	----
35-923	1-1/4"	----
35-924	1-1/2"	----
35-925	2"	----
35-927	3"	----

**MALE ADAPTER X MALE NPT**

**TYPE F**



Part#	Size	List Price
35-960	1/2"	----
35-961	3/4"	----
35-962	1"	----
35-963	1-1/4"	----
35-964	1-1/2"	----
35-965	2"	----
35-967	3"	----

**FEMALE COUPLER X HOSE SHANK**

**TYPE C**



Part#	Size	List Price
35-930	1/2"	----
35-931	3/4"	----
35-932	1"	----
35-933	1-1/4"	----
35-934	1-1/2"	----
35-935	2"	----
35-937	3"	----

**DUST CAP  
TYPE DC**



Part#	Size	List Price
35-970	1/2"	----
35-971	3/4"	----
35-972	1"	----
35-973	1-1/4"	----
35-974	1-1/2"	----
35-975	2"	----
35-977	3"	----

**FEMALE COUPLER X FEMALE NPT**

**TYPE D**



Part#	Size	List Price
35-940	1/2"	----
35-941	3/4"	----
35-942	1"	----
35-943	1-1/4"	----
35-944	1-1/2"	----
35-945	2"	----
35-947	3"	----

**DUST PLUG  
TYPE DP**



Part#	Size	List Price
35-980	1/2"	----
35-981	3/4"	----
35-982	1"	----
35-983	1-1/4"	----
35-984	1-1/2"	----
35-985	2"	----
35-987	3"	----

**CAM & GROOVE**

**HOSE ACCESSORIES**

**316 STAINLESS STEEL**

**NEW LOWER PRICE**

**FEMALE ADAPTER X FEMALE NPT**

**TYPE A**



Part#	Size	List Price
63-911	3/4"	----
63-912	1"	----
63-913	1-1/4"	----
63-914	1-1/2"	----
63-915	2"	----
63-916	2-1/2"	----
63-917	3"	----
63-918	4"	----
63-919	5"	----

**FEMALE COUPLER X MALE NPT**

**TYPE B**



Part#	Size	List Price
63-921	3/4"	----
63-922	1"	----
63-923	1-1/4"	----
63-924	1-1/2"	----
63-925	2"	----
63-926	2-1/2"	----
63-927	3"	----
63-928	4"	----
63-929	5"	----

**FEMALE COUPLER X HOSE SHANK**

**TYPE C**



Part#	Size	List Price
63-931	3/4"	----
63-932	1"	----
63-933	1-1/4"	----
63-934	1-1/2"	----
63-935	2"	----
63-936	2-1/2"	----
63-937	3"	----
63-938	4"	----
63-939	5"	----

**FEMALE COUPLER X FEMALE NPT**

**TYPE D**



Part#	Size	List Price
63-941	3/4"	----
63-942	1"	----
63-943	1-1/4"	----
63-944	1-1/2"	----
63-945	2"	----
63-946	2-1/2"	----
63-947	3"	----
63-948	4"	----
63-949	5"	----
63-950	6"	----

**MALE ADAPTER X HOSE SHANK**

**TYPE E**



Part#	Size	List Price
63-951	3/4"	----
63-952	1"	----
63-953	1-1/4"	----
63-954	1-1/2"	----
63-955	2"	----
63-956	2-1/2"	----
63-957	3"	----
63-958	4"	----
63-959	5"	----

**MALE ADAPTER X MALE NPT**

**TYPE F**



Part#	Size	List Price
63-961	3/4"	----
63-962	1"	----
63-963	1-1/4"	----
63-964	1-1/2"	----
63-965	2"	----
63-966	2-1/2"	----
63-967	3"	----
63-968	4"	----
63-969	5"	----
63-999	6"	----

**DUST CAP**

**TYPE DC**



Part#	Size	List Price
63-971	3/4"	----
63-972	1"	----
63-973	1-1/4"	----
63-974	1-1/2"	----
63-975	2"	----
63-976	2-1/2"	----
63-977	3"	----
63-978	4"	----
63-979	5"	----
63-980	6"	----

**DUST PLUG**

**TYPE DP**



Part#	Size	List Price
63-981	3/4"	----
63-982	1"	----
63-983	1-1/4"	----
63-984	1-1/2"	----
63-985	2"	----
63-986	2-1/2"	----
63-987	3"	----
63-988	4"	----
63-989	6"	----

**BRASS**

**NEW  
LOWER  
PRICE**

**MALE ADAPTER X FEMALE NPT**

**TYPE A**



Part#	Size	List Price
44-911	3/4"	----
44-912	1"	----
44-913	1-1/4"	----
44-914	1-1/2"	----
44-915	2"	----
44-916	2-1/2"	----
44-917	3"	----
44-918	4"	----
44-919	5"	----
44-920	6"	----

**MALE ADAPTER X HOSE SHANK**

**TYPE E**



Part#	Size	List Price
44-951	3/4"	----
44-952	1"	----
44-953	1-1/4"	----
44-954	1-1/2"	----
44-955	2"	----
44-956	2-1/2"	----
44-957	3"	----
44-958	4"	----
44-959	5"	----
44-960	6"	----

**FEMALE COUPLER X MALE NPT**

**TYPE B**



Part#	Size	List Price
44-921	3/4"	----
44-922	1"	----
44-923	1-1/4"	----
44-924	1-1/2"	----
44-925	2"	----
44-926	2-1/2"	----
44-927	3"	----
44-928	4"	----
44-929	5"	----
44-930	6"	----

**MALE ADAPTER X MALE NPT**

**TYPE F**



Part#	Size	List Price
44-961	3/4"	----
44-962	1"	----
44-963	1-1/4"	----
44-964	1-1/2"	----
44-965	2"	----
44-966	2-1/2"	----
44-967	3"	----
44-968	4"	----
44-969	5"	----
44-970	6"	----

**FEMALE COUPLER X HOSE SHANK**

**TYPE C**



Part#	Size	List Price
44-931	3/4"	----
44-932	1"	----
44-933	1-1/4"	----
44-934	1-1/2"	----
44-935	2"	----
44-936	2-1/2"	----
44-937	3"	----
44-938	4"	----
44-939	5"	----
44-940	6"	----

**DUST CAP**

**TYPE DC**



Part#	Size	List Price
44-971	3/4"	----
44-972	1"	----
44-973	1-1/4"	----
44-974	1-1/2"	----
44-975	2"	----
44-976	2-1/2"	----
44-977	3"	----
44-978	4"	----
44-979	5"	----
44-980	6"	----

**FEMALE COUPLER X FEMALE NPT**

**TYPE D**



Part#	Size	List Price
44-941	3/4"	----
44-942	1"	----
44-943	1-1/4"	----
44-944	1-1/2"	----
44-945	2"	----
44-946	2-1/2"	----
44-947	3"	----
44-948	4"	----
44-949	5"	----
44-950	6"	----

**DUST CAP**

**TYPE DP**



Part#	Size	List Price
44-981	3/4"	----
44-982	1"	----
44-983	1-1/4"	----
44-984	1-1/2"	----
44-985	2"	----
44-986	2-1/2"	----
44-987	3"	----
44-988	4"	----
44-989	5"	----
44-990	6"	----

**CAM & GROOVE**

**HOSE ACCESSORIES**

**STAINLESS STEEL AND BRASS JUMP SIZES**

**NEW  
LOWER  
PRICE**

**MALE ADAPTER X MALE ADAPTER**

**316 SS  
SPOOL ADAPTER**



Part#	Size	List Price
63-850	1"	----
63-851	1-1/2"	----
63-852	1-1/2" x 2"	----
63-853	2"	----
63-854	2" x 3"	----
63-855	3"	----
63-856	3" x 4"	----
63-857	4"	----

**FEMALE COUPLER X FEMALE COUPLER**

**316 SS  
TYPE DD**



Part#	Size	List Price
639-440	1-1/2"	----
639-450	2"	----
639-470	3"	----
639-480	4"	----

**FEMALE COUPLER X MALE ADAPTER**

**316 SS  
TYPE DA**



Part#	Size	List Price
639-001	2" x 1-1/2"	----
639-002	3" x 2"	----
639-003	4" x 3"	----
639-004	6" x 4"	----

**MALE ADAPTER X MALE ADAPTER**

**BRASS  
SPOOL ADAPTER**



Part#	Size	List Price
44-212	1-1/2"	----
44-213	2"	----
44-214	2-1/2"	----
44-215	3"	----
44-216	4"	----

**FEMALE COUPLER X MALE ADAPTER**

**BRASS  
TYPE DA**



Part#	Size	List Price
449-450	2" x 3"	----
449-470	3" x 2"	----
449-480	4" x 2"	----
449-481	4" x 3"	----
449-482	6" x 4"	----

**INVESTMENT CAST STAINLESS STEEL  
HANDLE, RING & PIN**



Part#	Size	List Price
61-447	3/4"	----
61-448	1"	----

**FORGED BRASS HANDLE - RING & PIN STEEL**



Part#	Size	List Price
61-455	3/4"	----
61-450	1"	----

**BUNA-N GASKET**



Part#	Size	List Price
BG-50	1/2"	----
BG-75	3/4"	----
BG-100	1"	----
BG-125	1-1/4"	----
BG-150	1-1/2"	----

**SILICONE  
GASKET**



Part#	Size	List Price
SG300	3"	----
SG400	4"	----

**VITON GASKET**



Part#	Size	List Price
VG100	1"	----
VG150	1-1/2"	----
VG200	2"	----
VG250	2-1/2"	----
VG300	3"	----

**STEEL HOSE NIPPLES**



( Barb x Male Pipe ) • Black

Part #	Hose Size	List Price
973-850	1/2"	----
973-851	3/4"	----
973-852	1"	----
973-853	1-1/4"	----
973-854	1-1/2"	----
973-855	2"	----
973-856	2-1/2"	----
973-857	3"	----
973-858	4"	----

**ZINC PLATED STEEL**



Part #	Size	List Price
973-870	1/2"	----
973-871	3/4"	----
973-872	1"	----
973-873	1-1/4"	----
973-874	1-1/2"	----
973-875	2"	----
973-876	2-1/2"	----
973-877	3"	----
973-878	4"	----
973-879	5"	----
973-880	6"	----
973-881	8"	----

**316 STAINLESS STEEL**



Part #	Size	List Price
973-700	1/2"	----
973-701	3/4"	----
973-702	1"	----
973-703	1-1/4"	----
973-704	1-1/2"	----
973-705	2"	----
973-706	2-1/2"	----
973-707	3"	----
973-708	4"	----

**BRASS**



• Lead Free

Part #	Size	List Price
973-600	1/2"	----
973-601	3/4"	----
973-602	1"	----
973-603	1-1/4"	----
973-604	1-1/2"	----
973-605	2"	----
973-606	2-1/2"	----
973-607	3"	----

**ALUMINUM**



Part #	Size	List Price
973-620	1/2"	----
973-621	3/4"	----
973-622	1"	----
973-623	1-1/4"	----
973-624	1-1/2"	----
973-625	2"	----
973-626	2-1/2"	----
973-627	3"	----
973-628	4"	----

**MENDERS**

**STEEL HOSE MENDERS**



Part #	Hose Size	List Price
973-890	1/2"	----
973-891	3/4"	----
973-892	1"	----
973-893	1-1/4"	----
973-894	1-1/2"	----
973-895	2"	----

**PLATED STEEL MENDER**

• Zinc



Part #	Size	List Price
973-650	3/8"	----
973-651	1/2"	----
973-652	3/4"	----
973-653	1"	----
973-654	1-1/4"	----
973-655	1-1/2"	----
973-656	2"	----
973-657	2-1/2"	----
973-658	3"	----
973-659	4"	----

**316 STAINLESS STEEL HOSE MENDER**



Part #	Size	List Price
73-670	3/4"	----
73-671	1"	----
73-672	1-1/4"	----
73-673	1-1/2"	----
73-674	2"	----

**BRASS HOSE MENDER**



• Lead Free

Part #	Size	List Price
73-983	3/4"	----
73-984	1"	----
73-985	1-1/4"	----
73-986	1-1/2"	----
73-987	2"	----

**BARB FOR PLASTIC PIPE****BRONZE INSERT FITTINGS**

150 PSI Genuine red brass - for plastic pipe

• Lead Free available

**HEX MALE ADAPTERS****( Barb x Male Pipe )**

Part #	Barb x Male	List Price
973-927	1" x 1"	----
973-930	1" x 1-1/4"	----
973-928	1-1/4" x 1-1/4"	----
973-929	1-1/4" x 1"	----
973-948	1-1/2" x 1-1/2"	----
973-949	2" x 2"	----

**BRONZE TEES ALL BARB**

Part #	Size	List Price
973-965	3/4"	----
973-966	1"	----
973-967	1-1/4"	----

**ELBOWS****( Barb x Male Pipe )**

Part #	Size	List Price
973-980	3/4" x 3/4"	----
973-981	1" x 3/4"	----
973-982	1" x 1"	----

**ELBOWS****( Barb x Barb )**

Part #	Hose Size	List Price
973-975	3/4"	----
973-976	1"	----
973-977	1-1/4" x 1"	----
973-978	1-1/4"	----
973-979	1-1/2"	----

**HOSE ACCESSORIES****STEEL INSERT FITTINGS FOR PLASTIC PIPE****MALE ADAPTER**

• Galvanized

**( Barb x Male Pipe )**

Part #	Size	Box/Case	List Price
973-906	1/2"	25/100	----
973-907	3/4"	25/10	----
973-908	1"	16/48	----
973-909	1-1/4"	12/36	----
973-910	1-1/2"	6/36	----
973-911	2"	5/25	----
973-912	2-1/2"	1/3	----
973-913	3"	1/3	----
973-914	4"	1/3	----

**REDUCING ADAPTER****( Insert x NPT )**

Part #	Size	List Price
974-264	3/4 x 1/2	----
974-265	1 x 3/4	----
974-266	1-1/4 x 1	----
974-267	1-1/2 x 1-1/4	----

**COUPLINGS**

Part #	Size	Box/Case	List Price
973-900	1/2	30/120	----
973-901	3/4	20/100	----
973-902	1	20/100	----
973-903	1-1/4	16/64	----
973-904	1-1/2	12/48	----
973-905	2	5/25	----

**MALE NPT ENDS**

• Twist claw/ universal/ chicago

**NEW  
LOWER  
PRICE**



- Malleable iron
- ISO PSI

\* Safety clip included

Part #	Size	List Price
66005	3/8"	----
66006	1/2"	----
66007	3/4"	----
66008	1"	----

**HOSE END**



\* Safety clip included

Part #	Size	List Price
66001	3/8"	----
66002	1/2"	----
66003	3/4"	----
66004	1"	----

**WASHER**



Part #	List Price
66000	----

**FEMALE NPT ENDS**



\* Safety clip included

Part #	Size	List Price
66009	3/8"	----
66010	1/2"	----
66011	3/4"	----
66012	1"	----

**TRIPLE CONNECTIONS**



Part #	List Price
66013	----



**GROUND JOINT COUPLING****HOSE ACCESSORIES**

For high pressure air and water service, steam, sanitary, high pressure spray, LPG and anhydrous ammonia service, petroleum products and chemicals: All parts plated malleable iron. Insert and spud may be either steel or malleable iron. NPT Male and Female spud. Female wing nut-to-spud connection is NPSM ground joint.

**HEAVY DUTY COUPLINGS - GROUND JOINT TYPE - PLATED****HOSE STEM W/ WING NUT  
AND FEMALE SPUD**

Part #	Size	List Price
73-003	1/2"	----
73-004	3/4"	----
73-005	1"	----
73-006	1-1/4"	----
73-007	1-1/2"	----
73-008	2"	----
73-009	2-1/2"	----
73-010	3"	----
73-011	4"	----

**HOSE STEM ONLY**

Part #	Size	List Price
73-023	1/2"	----
73-024	3/4"	----
73-025	1"	----
73-026	1-1/4"	----
73-027	1-1/2"	----
73-028	2"	----
73-029	2-1/2"	----
73-030	3"	----
73-031	4"	----

**WING NUT ONLY**

Part #	Size	List Price
73-033	1/2"	----
73-035	1"	----
73-036	1-1/4"	----
73-037	1-1/2"	----
73-038	2"	----
73-039	2-1/2"	----
73-040	3"	----
73-041	4"	----

**FEMALE SPUD ONLY**

Part #	Size	List Price
73-063	1/2"	----
73-064	3/4"	----
73-065	1"	----
73-066	1-1/4"	----
73-067	1-1/2"	----
73-068	2"	----
73-069	2-1/2"	----
73-070	3"	----
73-071	4"	----

**MALE PIPE STEM ONLY (NPT)**

Part #	Size	List Price
73-043	1/2"	----
73-044	3/4"	----
73-045	1"	----
73-046	1-1/4"	----
73-047	1-1/2"	----
73-048	2"	----
73-049	2-1/2"	----
73-050	3"	----
73-051	4"	----

**2, 4, 6 BOLT CLAMPS**

Part #	Size	# Bolts	List Price
73-056	3/4"	2	----
73-057	1"	4	----
73-058	1-1/2"	4	----
73-059	2"	4	----
73-060	3"	4	----

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

- Coupling or parts thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Contact with suddenly moving or falling objects that are to be held in position or moved by the conveyor fluid.
- Dangerously whipping hose.
- Contact with conveyed fluids that may be hot, cold, toxic or otherwise injurious.
- Sparking or explosion while paint or flammable liquid spraying.

Before selecting or using any of our products, it is important to check with our offices for more detailed specifications regarding use.

**HYDRANT ADAPTERS - BRASS**



**FEMALE X MALE**

Part #	Description	List Price
444-011	1-1/2" NST x 3/4" GHT	----
444-000	2-1/2" NST x 3/4" GHT	----
444-001	2-1/2" NST x 3/4" NPT	----
444-003	2-1/2" NST x 1" NPSH	----
444-002	2-1/2" NST x 1" NPT	----
444-004	2-1/2" NST x 1-1/2" NPSH	----
444-005	2-1/2" NST x 1-1/2" NPT	----
444-007	2-1/2" NST x 2" NPSH	----
444-008	2-1/2" NST x 2" NPT	----
444-006	2-1/2" NST x 1-1/2" NST	----
444-009	3" NPSH x 2-1/2" NST	----
444-010	3" NST x 2-1/2" NST	----

**FEMALE TO MALE HEX ADAPTER - BRASS**



**FEMALE X MALE**

Part #	Description	List Price
444-021	1-1/2" NST x 1-1/2" NPSH	----
444-023	1-1/2" NPT x 1-1/2" NPSH	----
444-027	2-1/2" NST x 2-1/2" NPSH	----
444-028	2-1/2" NPT x 2-1/2" NPSH	----
444-024	1-1/2" NPSH x 1-1/2" NST	----
444-020	1-1/2" NST x 1-1/2" NPT	----
444-026	2-1/2" NST x 2-1/2" NPT	----

**DOUBLE MALE HEX NIPPLE - BRASS**



Part #	Description	List Price
444-042	1-1/2" NPT x 1-1/2" NPSH	----
444-047	2-1/2" NPT x 2-1/2" NPSH	----
444-040	1-1/2" NPT x 1-1/2" NST	----
444-048	2" NPT x 2-1/2" NST	----
444-045	2-1/2" NPT x 2-1/2" NST	----
444-049	3" NPT x 2-1/2" NST	----

**DOUBLE FEMALE - BRASS**



Part #	Description	List Price
444-100	1-1/2" NPSH x 1-1/2" NPSH	----
444-101	2-1/2" NPSH x 2-1/2" NPSH	----
444-102	1-1/2" NST x 1-1/2" NST	----
444-103	2-1/2" NST x 2-1/2" NST	----
444-104	1-1/2" NST x 1-1/2" NPSH	----
444-105	2-1/2" NST x 2-1/2" NPSH	----

**MALE SWIVEL ADAPTER - BRASS**



Part #	Description Female x Male	List Price
444-110	1-1/2" NST x 1-1/2" NPT	----
444-111	2-1/2" NST x 2" NPT	----
444-112	2-1/2" NST x 2-1/2" NPT	----
444-113	2-1/2" NST x 3" NPT	----

**CAP - BRASS**



Part #	Description	List Price
444-061	1-1/2" NPSH	----
444-060	1-1/2" NST	----
444-062	2-1/2" NST	----

# HOSE CLAMPS



NEW



**CONSTANT TORQUE**  
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**SPRING LOADED T-BOLT**  
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NEW



NEW



**V-BAND**  
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**1 EAR, 2 EAR, GAPLESS**  
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NEW



**MUFFLER**  
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NEW



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**NON-PERFORATED OR LINED BAND**  
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**T-BOLT**  
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**RUBBER LINED**  
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**MINIATURE CLAMPS - 5/16" BAND**



**Stainless Steel band with Carbon Steel Housing and Screw**

5/16" band, 1/4" screw

**300 Series**

- 1/4" Hex Slotted Carbon Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- Carbon Steel Housing

**Applications:** For marine, agricultural, industrial and automotive uses. Corrosion resistance varies with stainless components.

Mechanically interlocked, 3 piece construction for service sealing pressure without spot welding.

Part #	Dia. Range		Box/Case	List Price
	Min.	Max.		
300-0004	7/32"	5/8"	200/2400	----
300-005	7/16"	11/16"	200/2400	----
300-0006	5/16"	7/8"	200/2400	----
300-0008	7/16"	1"	200/1200	----
300-010	1/2"	1-1/16"	200/1200	----
300-012	9/16"	1-1/4"	200/1200	----
300-016	11/16"	1-1/2"	200/1200	----
300-0020	7/8"	1-3/4"	200/1200	----

**1/2" BAND CLAMPS**



**Stainless Steel band with Carbon Steel Housing and Screw**

1/2" band, 5/16" screw

**600 Series**

- 5/16" Hex Slotted Carbon Steel Screw
- 1/2" Wide 201 Stainless Steel Band
- Carbon Steel Housing

**Applications:** A general purpose clamp for automobiles, plumbing, home and garden general clamping applications, with anti-corrosive properties varying with the number of components made from stainless steel.

- No PSI Rating
- 50lb/ Inch Torque Rating Die Set Function

Part #	#	Dia. Range		Bag/Case	List Price
		Min.	Max.		
600-006	6	3/8"	7/8"	100/600	----
600-008	8	7/16"	1"	100/600	----
600-010	10	9/16"	1-1/16"	100/600	----
600-012	12	9/16"	1-1/4"	100/600	----
600-016	16	11/16"	1-1/2"	100/600	----
600-020	20	3/4"	1-3/4"	100/300	----
600-024	24	1-1/16"	2"	100/300	----
600-028	28	1-5/16"	2-1/4"	100/300	----
600-032	32	1-9/16"	2-1/2"	100/300	----
600-036	36	1-13/16"	2-3/4"	50/200	----
600-040	40	2-1/16"	3"	50/200	----
600-044	44	2-5/16"	3-1/4"	50/200	----
600-048	48	2-9/16"	3-1/2"	50/200	----
600-052	52	2-13/16"	3-3/4"	25/100	----
600-056	56	3-1/16"	4"	25/100	----
600-060	60	3-5/16"	4-1/4"	25/100	----
600-064	64	2-1/2"	4-1/2"	25/100	----
600-072	72	3"	5"	25/100	----
600-080	80	3-1/2"	5-1/2"	10/100	----
600-088	88	4"	6"	10/100	----
600-096	96	4-1/2"	6-1/2"	10/100	----
600-104	104	5"	7"	10/100	----

**325 & 611 WORM GEAR CLAMPS****HOSE CLAMPS****MINIATURE CLAMPS - 5/16" BAND****325 Series**

- 1/4" Hex Slotted Carbon Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- 301 Stainless Steel Housing

**Applications:** For agricultural, industrial and automotive uses. Corrosion resistance varies with stainless components.

Mechanically interlocked, 3 piece construction for service sealing pressure without spot welding.

**Stainless Steel band and housing with Carbon Steel Screw**

5/16" band, 1/4" screw

Part #	Dia. Range		Box/Case	List Price
	Min.	Max.		
325-004	7/32"	5/8"	200/2400	----
325-005	7/16"	11/16"	200/2400	----
325-006	5/16"	7/8"	200/2400	----
325-008	7/16"	1"	200/1200	----
325-010	1/2"	1-1/16"	200/1200	----
325-012	9/16"	1-1/4"	200/1200	----
325-016	11/16"	1-1/2"	200/1200	----
325-020	7/8"	1-3/4"	200/1200	----

Lightweight, low profile, compact design allows ease of installation in restricted applications. The 5/16 band width generates significant sealing pressure with relatively low installation torque levels. 300 series stainless band and housing

**Stainless Steel band and housing with Carbon Steel Screw**

1/2" band, 5/16" screw

**1/2" BAND CLAMPS****611 Series**

- 5/16" Hex Slotted Carbon Steel Screw
- 1/2" Wide 201 Stainless Steel Band
- 301 Stainless Steel Housing

**Applications:** The perfect clamp for automobiles, plumbing, home and garden general clamping applications, with anti-corrosive properties varying with the number of components made from stainless steel.

- No PSI Rating
- 50lb/ Inch Torque Rating Die Set Function

Part #	#	Dia. Range		Bag/Case	List Price
		Min.	Max.		
611-006	6	3/8"	7/8"	100/600	----
611-008	8	7/16"	1"	100/600	----
611-010	10	9/16"	1-1/16"	100/600	----
611-012	12	9/16"	1-1/4"	100/600	----
611-016	16	11/16"	1-1/2"	100/600	----
611-020	20	3/4"	1-3/4"	100/300	----
611-024	24	1-1/16"	2"	100/300	----
611-028	28	1-5/16"	2-1/4"	100/300	----
611-032	32	1-9/16"	2-1/2"	100/300	----
611-036	36	1-13/16"	2-3/4"	50/200	----
611-040	40	2-1/16"	3"	50/200	----
611-044	44	2-5/16"	3-1/4"	50/200	----
611-048	48	2-9/16"	3-1/2"	50/200	----
611-052	52	2-13/16"	3-3/4"	25/100	----
611-056	56	3-1/16"	4"	25/100	----
611-060	60	3-5/16"	4-1/4"	25/100	----
611-064	64	2-1/2"	4-1/2"	25/100	----
611-072	72	3"	5"	25/100	----
611-080	80	3-1/2"	5-1/2"	10/100	----
611-088	88	4"	6"	10/100	----
611-096	96	4-1/2"	6-1/2"	10/100	----
611-104	104	5"	7"	10/100	----
611-116	116	5-3/4"	7-3/4"	100/100	----
611-128	128	6-1/2"	8-1/2"	100/100	----
611-152	152	2"	10"	100/100	----
611-164	164	1-3/4"	10-3/4"	100/100	----
611-176	176	9-1/4"	11-1/4"	100/100	----
611-188	188	2-1/16"	12-1/4"	100/100	----
611-200	200	11"	13"	100/100	----
611-212	212	11-3/4"	13-3/4"	100/100	----
611-224	224	12-1/2"	14-1/2"	100/100	----
611-248	248	10-3/4"	16"	100/100	----
611-270	270	15-3/8"	17-3/8"	100/100	----
611-312	312	18"	20"	100/100	----
611-332	332	19-1/8"	21-1/4"	100/100	----
611-390	390	22-7/8"	24-7/8"	100/100	----

**MINIATURE CLAMPS - 5/16" BAND**



**350 Series**

- 1/4" Hex Slotted 410 Stainless Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- 301 stainless Steel Housing
- 6mm thick

**All Stainless Steel**

5/16" band, 1/4" screw

Part #	Dia. Range		Box/Case	List Price
	Min.	Max.		
350-004	7/32"	5/8"	200/2400	----
350-005	7/16"	11/16"	200/2400	----
350-006	5/16"	7/8"	200/2400	----
350-008	7/16"	1"	200/1200	----
350-010	1/2"	1-1/16"	200/1200	----
350-012	9/16"	1-1/4"	200/1200	----
350-016	11/16"	1-1/2"	200/1200	----
350-020	7/8"	1-3/4"	200/1200	----

**Applications:** For agricultural, industrial and automotive uses. Corrosion resistance varies with stainless components.

Mechanically interlocked, 3 piece construction for service sealing pressure without spot welding.

**1/2" WIDE BAND CLAMPS (12.70mm)**



**620 Series**

- 5/16" Hex Slotted 305 Stainless Steel Screw
- 1/2" Wide 301 Stainless Steel Band
- 301 Stainless Steel Housing
- 60mm Thickness
- Use for underground and other high corrosive applications.
- For a sure grip application.
- Especially suited to industrial applications

**All Stainless Steel**

1/2" band, 5/16" screw

Part #	#	Dia. Range		Box/Case	List Price
		Min.	Max.		
620-006	6	3/8"	7/8"	100/600	----
620-008	8	7/16"	1"	100/600	----
620-010	10	9/16"	1-1/16"	100/600	----
620-012	12	9/16"	1-1/4"	100/600	----
620-016	16	11/16"	1-1/2"	100/600	----
620-020	20	3/4"	1-3/4"	100/300	----
620-024	24	1-1/16"	2"	100/300	----
620-028	28	1-5/16"	2-1/4"	100/300	----
620-032	32	1-9/16"	2-1/2"	100/300	----
620-036	36	1-13/16"	2-3/4"	50/200	----
620-040	40	2-1/16"	3"	50/200	----
620-044	44	2-5/16"	3-1/4"	50/200	----
620-048	48	2-9/16"	3-1/2"	50/200	----
620-052	52	2-13/16"	3-3/4"	25/100	----
620-056	56	3-1/16"	4"	25/100	----
620-060	60	3-5/16"	4-1/4"	25/100	----
620-064	64	2-1/2"	4-1/2"	25/100	----
620-072	72	3"	5"	25/100	----
620-080	80	3-1/2"	5-1/2"	10/100	----
620-088	88	4"	6"	10/100	----
620-096	96	4-1/2"	6-1/2"	10/100	----
620-104	104	5"	7"	10/100	----
620-116	116	5-3/4"	7-3/4"	100/100	----
620-128	128	6-1/2"	8-1/2"	100/100	----
620-152	152	2"	10"	100/100	----
620-164	164	1-3/4"	10-3/4"	100/100	----
620-176	176	9-1/4"	11-1/4"	100/100	----
620-188	188	9.9"	12-1/4"	100/100	----
620-200	200	11"	13"	100/100	----
620-212	212	11-3/4"	13-3/4"	100/100	----
620-224	224	12-1/2"	14-1/2"	100/100	----
620-248	248	10-3/4"	16"	100/100	----
620-270	270	15-3/8"	17-3/8"	100/100	----
620-312	312	18"	20"	100/100	----
620-332	332	19-1/8"	21-1/4"	100/100	----
620-390	390	22-7/8"	24-7/8"	100/100	----

**#316 MARINE WORM GEAR CLAMPS****HOSE CLAMPS****MINIATURE CLAMPS - 5/16" BAND****All #316 SS for Marine Environments**

5/16" band, 1/4" screw



Part #	Dia. Range		Box/Case	List Price
	Min.	Max.		
350-004SS	7/32"	5/8"	200/2400	----
350-005SS	7/16"	11/16"	200/2400	----
350-006SS	5/16"	7/8"	200/2400	----
350-008SS	7/16"	1"	200/1200	----
350-010SS	1/2"	1-1/16"	200/1200	----
350-012SS	9/16"	1-1/4"	200/1200	----
350-016SS	11/16"	1-1/2"	200/1200	----
350-020SS	7/8"	1-3/4"	200/1200	----

**350SS Series**

- 1/4" Hex Slotted 316 Stainless Steel Screw
- 316 Stainless Steel Band
- 8mm wide
- 60 mm thick
- 316 stainless Steel Housing

**Applications:** For marine, agricultural, industrial and automotive uses. Corrosion resistance varies with stainless components.

Mechanically interlocked, 3 piece construction for service sealing pressure without spot welding.

**1/2" WIDE BAND CLAMPS (12.70mm)****All #316 SS for Marine Environments**

1/2" band, 5/16" screw

All 316SS		Dia. Range		Box/Case	List Price
Part #	#	Min.	Max.		
620-006SS	6	3/8"	7/8"	100/600	----
620-008SS	8	7/16"	1"	100/600	----
620-010SS	10	9/16"	1-1/16"	100/600	----
620-012SS	12	9/16"	1-1/4"	100/600	----
620-016SS	16	11/16"	1-1/2"	100/600	----
620-020SS	20	3/4"	1-3/4"	100/300	----
620-024SS	24	1-1/16"	2"	100/300	----
620-028SS	28	1-5/16"	2-1/4"	100/300	----
620-032SS	32	1-9/16"	2-1/2"	100/300	----
620-036SS	36	1-13/16"	2-3/4"	50/200	----
620-040SS	40	2-1/16"	3"	50/200	----
620-044SS	44	2-5/16"	3-1/4"	50/200	----
620-048SS	48	2-9/16"	3-1/2"	50/200	----
620-052SS	52	2-13/16"	3-3/4"	25/100	----
620-056SS	56	3-1/16"	4"	25/100	----
620-060SS	60	3-5/16"	4-1/4"	25/100	----
620-064SS	64	2-1/2"	4-1/2"	25/100	----
620-072SS	72	3"	5"	25/100	----

**620SS Series**

- 5/16" Hex Slotted 316 Stainless Steel Screw
- 1/2" Wide 316 Stainless Steel Band
- 316 Stainless Steel Housing
- 60mm Thickness
- Use for marine, underground and other high corrosive applications.

**QUICK RELEASE 500/550 SERIES**

These clamps feature a unique quick release design between the one piece housing and band allowing for quick and easy installation in restricted or difficult areas.

**Applications:** Quick release action permits easy installation in applications where clamp must be opened to be applied. Quick release clamps are used extensively in the telecommunications industry on cable enclosures where open air application demands durability.



Open/Close design allows easy installation.



- 500 Series**
- 5/16" Hex Slotted Carbon Steel Screw
  - 1/2" 301 Stainless Steel band
  - 301 Stainless Steel Housing
  - 410 Stainless Steel Bridge

- 550 Series**
- 5/16" Hex Slotted 410 Stainless Steel Screw
  - 1/2" 301 Stainless Steel band
  - 301 Stainless Steel Housing
  - 410 Stainless Steel Bridge

Part #	List Price	#	Dia. Range		Part #	List Price
			Min.	Max.		
500-012	----	12	1/2"	1-1/4"	550-012	----
500-020	----	20	3/4"	1-3/4"	550-020	----
500-028	----	28	1"	2-1/4"	550-028	----
500-036	----	36	1"	2-3/4"	550-036	----
500-048	----	48	1-1/2"	3-1/2"	550-048	----
500-056	----	56	1"	4"	550-056	----
500-072	----	72	2"	5"	550-072	----
500-088	----	88	2-1/16"	6"	550-088	----
500-104	----	104	1-3/4"	7"	550-104	----
500-128	----	128	1-3/4"	8-9/16"	550-128	----
500-152	----	152	2"	10"	550-152	----
500-188	----	188	2-1/16"	12-5/16"	550-188	----
500-216	----	216	10-3/16"	14"	550-216	----
500-248	----	248	10-3/4"	16"	550-248	----
500-280	----	280	14-1/4"	18"	550-280	----
		312	14"	20"	550-312	----



**T-BOLT CLAMPS****HOSE CLAMPS****T-Bolt Clamps**

- All designs meet SAE J1508 specifications.
- .025" Band Thickness
- 3/4" Wide Band
- Band Material: 301 Series Stainless Steel
- Bolt Material: 304 Series Stainless Steel
- Nut Material: 304 Series Stainless Steel
- Nuts are Self-locking
- Torque Rating 75 in/lb



Opens 1/16" above and tightens 1/8" smaller than nominal I.D. for a total of 3/16" range for clamps sizes 150 through 250. Opens 1/16" above and tightens 7/32" smaller than nominal I.D. for clamps sizes 256 through 750.

**Purpose:** To provide a quick, yet effective means of clamping a variety of fittings to a wide range of hose. T-Bolts can be applied with a standard 7/16" socket wrench. They provide 360° sealing surface by using a shoe or formed bridge.

**Services:** The T-Bolt clamp is a high strength, reliable clamp with numerous applications in both the commercial and industrial markets including hose and ductwork connections for air, oil, water, other types of low pressure fluid lines, engine air intake, exhaust, hose and filters.

**ALL STAINLESS STEEL**

Nominal Size	O.D. Range		Part#	List Price
	From:	To:		
1-1/4	1-5/32"	1-15/32"	840-131	----
1-1/2	1-3/8"	1-9/16"	840-150	----
1-3/4	1-5/8"	1-13/16"	840-175	----
1-7/8	1-3/4"	1-15/16"	840-188	----
2	1-7/8"	2-1/16"	840-200	----
2-1/4	2-1/8"	2-5/16"	840-225	----
2-3/8	2-1/4"	2-7/16"	840-238	----
2-1/2	2-3/8"	2-9/16"	840-250	----
2-9/16	2-11/32"	2-5/8"	840-256	----
2-5/8	2-13/32"	2-11/16"	840-263	----
2-3/4	2-17/32"	2-13/16"	840-275	----
2-7/8	2-21/32"	2-15/16"	840-288	----
3	2-25/32"	3-1/16"	840-300	----
3-1/8	2-29/32"	3-3/16"	840-312	----
3-1/4	3-1/32"	3-5/16"	840-325	----
3-1/2	3-9/32"	3-9/16"	840-350	----
3-3/4	3-17/32"	3-13/16"	840-375	----
3-53/64	3-19/32"	3-7/8"	840-382	----
4	3-25/32"	4-1/16"	840-400	----
4-1/4	4-1/32"	4-5/16"	840-425	----
4-1/2	4-9/32"	4-9/16"	840-450	----
4-3/4	4-17/32"	4-13/16"	840-475	----
5	4-25/32"	5-1/16"	840-500	----
5-1/4	5-1/32"	5-5/16"	840-525	----
5-1/2	5-9/32"	5-9/16"	840-550	----
5-3/4	5-17/32"	5-13/16"	840-575	----
6	5-25/32"	6-1/16"	840-600	----
6-1/4	6-1/32"	6-5/16"	840-625	----
6-1/2	6-9/32"	6-9/16"	840-650	----
6-3/4	6-17/32"	6-13/16"	840-675	----
7	6-25/32"	7-1/16"	840-700	----
7-1/2	7-9/32"	7-9/16"	840-750	----
8	7-25/32"	8-1/16"	840-800	----
8-1/4	8-9/32"	8-9/16"	840-850	----
8-7/8	8-21/32"	8-15/16"	840-888	----
10-7/8	10-21/32"	10-15/16"	840-1088	----
12-7/8	12-15/16"	12-15/16"	840-1288	----

## Spring Loaded T-Bolt Hose Clamp

- Per SAE standard J1508 Type "SLTB"
- .025 Band Thickness
- 3/4 (19mm) band width
- Heavy duty springs
- Band Material: 300 stainless
- T-bolt: Carbon steel w/ zinc plating
- Housing (Bridge): 300 Stainless
- Hex nut: Carbon Steel, Nylon insert
- Torque rating: 150 in-lbs (8.5 mm)

NEW



**Purpose:** To provide constant tension performance to compensate for the expansion and contraction when temperatures fluctuate. Provides high strength and a 360° seal. Tighten with a 7/16" wrench or hex nutdriver.

**Services:** Designed for use in high vibration and large diameter applications common in heavy trucks, industrial machinery, off road equipment, agricultural irrigation and machinery, for air intake and coolant adapter

Part #	SAE #	Min - Max	WGT	Box Qty	List Price
844-213	40	2.13 - 2.44	0.170	100	----
844-225	44	2.25 - 2.56	0.174	100	----
844-238	48	2.38 - 2.69	0.179	100	----
844-250	52	2.50 - 2.81	0.181	100	----
844-263	56	2.63 - 2.94	0.183	100	----
844-275	60	2.75 - 3.06	0.185	100	----
844-300	68	3 - 3.31	0.187	100	----
844-306	70	3.06 - 3.38	0.190	100	----
844-313	72	3.13 - 3.44	0.192	100	----
844-325	76	3.25 - 3.56	0.194	100	----
844-338	80	3.38 - 3.69	0.196	100	----
844-350	84	3.50 - 3.81	0.196	100	----
844-356	86	3.56 - 3.88	0.196	100	----
844-363	88	3.63 - 3.94	0.198	100	----
844-375	92	3.75 - 4.06	0.198	100	----
844-406	102	4.06 - 4.38	0.203	100	----
844-413	104	4.13 - 4.44	0.209	100	----
844-425	108	4.25 - 4.56	0.214	100	----
844-456	118	4.56 - 4.88	0.216	100	----
844-500	132	5 - 5.31	0.218	100	----
844-525	140	5.25 - 5.56	0.220	100	----
844-600	164	6 - 6.31	0.223	100	----
844-625	172	6.25 - 6.56	0.225	100	----

Automatically adjust diameter for hose expansion and contraction due to temperature changes.

## CONSTANT TORQUE/ V-BAND

## HOSE CLAMPS

### Constant Torque Hose Clamps

- All designs meet SAE J1508 specifications type "SLHD"
- .028 Band thickness
- Band material: 304 thickness
- Band width: 9/16" for 45in-lb  
5/8" for 90in-lb
- Band material: 304 stainless
- Housing: 304 stainless steel
- Bridge: 410 stainless steel
- Hex screw: 410 stainless steel



NEW

**Purpose:** To eliminate leaks by automatically increasing or decreasing the clamps diameter, decreasing the need for retightening. Constant torque clamps have an extended tail on the band to protect soft hose or tube from being cut.

**Services:** Constant torque clamps are an excellent choice for fluctuating and extreme temperature applications and thermal compensation.

Part #	Clamping Range	Band Width	Torque	Screw Size	WGT	Box Qty	List Price
842-010	9/16" - 1 1/16"	9/16"	45 in-lb	5/16"	0.106	100	----
842-012	11/16" - 1 1/4"	9/16"	45 in-lb	5/16"	0.108	100	----
842-016	13/16" - 1 1/2"	9/16"	45 in-lb	5/16"	0.112	100	----
842-020	13/16" - 1 3/4"	9/16"	45 in-lb	5/16"	0.119	100	----
842-024	1 1/16" - 2"	9/16"	45 in-lb	5/16"	0.121	100	----
842-200	1 1/4" - 2 1/8"	5/8"	90 in-lb High	3/8"	0.207	100	----
842-250	1 3/4" - 2 5/8"	5/8"	90 in-lb High	3/8"	0.216	100	----
842-300	2 1/4" - 3 5/8"	5/8"	90 in-lb High	3/8"	0.220	100	----
842-350	2 3/4" - 3 5/8"	5/8"	90 in-lb High	3/8"	0.225	100	----
842-400	3 1/4" - 4 1/8"	5/8"	90 in-lb High	3/8"	0.231	100	----
842-450	3 3/4" - 4 5/8"	5/8"	90 in-lb High	3/8"	0.238	100	----
842-500	4 1/4" - 5 1/8"	5/8"	90 in-lb High	3/8"	0.256	100	----

### V-Band Hose Clamps

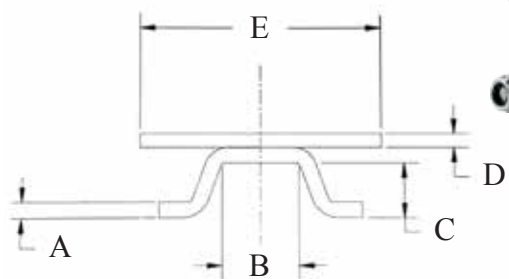
- Band thickness: see chart
- Band width: see chart
- Band material: 300 stainless
- Trunion: 300 stainless
- 1/4" T-bolt: 410 stainless
- 7/17" Hex nut: 300 stainless

NEW



**Purpose:** to provide a fast, secure coupling for connecting flanged joints.

**Services:** V-Band clamps feature high strength and positive sealing integrity for applications including: heavy duty diesel engine exhaust and turbochargers, filter housings, emissions and general industrial applications.



Part#	Nominal Diameter	V-Insert Sections			Bands		WGT	Box Qty	List Price
		A	B	C	D	E			
843-321	3.21	0.050	0.262	0.141	0.035	0.750	0.525	100	----
843-382	3.82	0.077	0.207	0.281	0.040	0.875	0.531	100	----
843-388	3.88	0.050	0.400	0.281	0.040	0.875	0.536	100	----
843-450	4.50	0.077	0.207	0.281	0.040	0.875	0.547	100	----
843-461	4.61	0.050	0.156	0.281	0.035	0.750	0.549	100	----
843-475	4.75	0.050	0.400	0.281	0.040	0.875	0.553	100	----
843-525	5.25	0.050	0.262	0.141	0.035	0.750	0.567	100	----
843-588	5.88	0.050	0.400	0.281	0.040	0.875	0.575	100	----

**MUFFLER CLAMPS**

Muffler Clamps are designed with elongated and tapered holes that pulls the legs around the pipe as the nuts tighten, making a tight seal. Other clamps legs do not wrap around the pipe, they stay straight and the clamp only connects at two points.

- Carbon steel band, housing and bridge
- All muffler clamps are zinc plated for superior corrosion resistance
- Heavy duty U-Bolt and band construction
- 3/8 U-bolt
- Base 2.4mm

**SADDLE**

**NEW**



Part #	Size	WGT	Box Qty	List Price
841-175	1-3/4"	0.335	50	----
841-200	2"	0.410	50	----
841-250	2-1/2"	0.448	50	----
841-300	3"	0.582	50	----
841-350	3-1/2"	0.741	50	----
841-400	4"	0.847	25	----
841-450	4-1/2"	1.023	25	----
841-500	5"	1.067	25	----

**FLAT BAND**

**NEW**



Part #	Size	WGT	Box Qty	List Price
841-004	4"	0.847	25	----
841-005	5"	1.093	25	----

**GUILLOTINE - provides a complete 360° heavy duty seal**

**NEW**



Part #	Size	WGT	Box Qty	List Price
841-040	4"	0.820	25	----
841-045	4-1/2"	0.847	25	----
841-050	5"	0.988	25	----

**EXHAUST****HOSE CLAMPS****EXHAUST CLAMPS**

Complete with:

- One metal band - 76mm width
- One spacer
- Two bolts
- Two reaction blocks
- Individually boxed

**NEW****ALUMINIZED STEEL BUTT CLAMPS**

- .7mm band thickness
- 76mm band width



Part #	Size	WGT	Box Qty	List Price
845-200	2"	0.970	50	----
845-300	3"	1.058	50	----
845-350	3.50"	1.102	50	----
845-400	4"	1.146	50	----
845-500	5"	1.235	50	----
845-600	6"	1.323	50	----
845-500SS*	5"	1.190	50	----

\*Light pattern .5mm band thickness

**ALUMINIZED STEEL LAP CLAMPS**

- .7mm band thickness
- 76mm band width



Part #	Size	WGT	Box Qty	List Price
846-200	2"	0.970	50	----
846-250	2.50"	1.014	50	----
846-275	2.75"	1.036	50	----
846-300	3"	1.058	50	----
846-350	3.50"	1.102	50	----
846-400	4"	1.146	50	----
846-500	5"	1.235	50	----

**STAINLESS STEEL LAP CLAMPS**

- .5mm band thickness
- 76mm band width



Part #	Size	WGT	Box Qty	List Price
847-200	2"	0.926	50	----
847-250	2.50"	0.970	50	----
847-275	2.75"	0.992	50	----
847-300	3"	1.014	50	----
847-350	3.50"	1.058	50	----
847-400	4"	1.102	50	----
847-500	5"	1.190	50	----
847-600	6"	1.279	50	----

**STAINLESS STEEL EASY-FORM CLAMPS**

- .5mm band thickness
- 76mm band width



Part #	Size	WGT	Box Qty	List Price
848-200	2"	0.926	50	----
848-225	2.25"	0.948	50	----
848-250	2.50"	0.970	50	----
848-275	2.75"	0.992	50	----
848-300	3"	1.014	50	----
848-350	3.50"	1.058	50	----
848-400	4"	1.102	50	----
848-500	5"	1.190	50	----
848-600	6"	1.279	50	----
848-700	7"	1.367	50	----

## CARBON STEEL 1-EAR CLAMPS

1-Ear Clamps are intended for low pressure applications such as automotive (not fuel lines), appliances, industrial machinery, underground irrigation systems and beverage dispensing equipment. They are specifically designed for mass production applications where inexpensive clamps are needed.

**Pressure:**

As a guideline, 1-Ear Clamps have held  
30 bar - 441 psi.

This was done using a static water pressure test.

- 100 PER BAG

**Material:**

Hot dipped galvanized carbon steel band - G90

Part #	Ref#	Nominal Size	Inches		List Price
			Close	Open	
1050000	105	3/8"	0.350	0.414	----
1050001	113	7/16"	0.381	0.444	----
1050002	123	15/32"	0.394	0.486	----
1050003	133	1/2"	0.453	0.524	----
1050006	140	35/64"	0.472	0.551	----
1050007	145	9/16"	0.496	0.571	----
1050008	157	5/8"	0.543	0.618	----
1050009	170	11/16"	0.594	0.669	----
1050010	185	23/32"	0.618	0.728	----
1050011	198	3/4"	0.669	0.779	----
1050012	210	13/16"	0.716	0.827	----
1050013	226	7/8"	0.779	0.890	----
1050014	241	15/16"	0.839	0.949	----
1050015	256	1"	0.898	1.008	----
1050016	271	1-1/16"	0.945	1.067	----
1050017	286	1-1/8"	1.004	1.126	----
1050018	301	1-3/16"	1.063	1.185	----
1050020	331	1-5/16"	1.181	1.303	----
1050021	346	1-3/8"	1.240	1.362	----
1050023	376	1-15/32"	1.358	1.480	----
1050025	396	1-9/16"	1.437	1.559	----
1050026	410	1-5/8"	1.492	1.614	----
1050027	425	1-11/16"	1.551	1.673	----
1050028	440	1-23/32"	1.610	1.732	----
1050029	455	1-3/4"	1.669	1.791	----
1050030	470	1-16/16"	1.728	1.850	----
1050031	485	1-7/8"	1.787	1.909	----
1050032	500	1-15/16"	1.846	1.968	----
1050033	515	2"	1.905	2.028	----

**2 EAR AND GAPLESS****HOSE CLAMPS****2-EAR CLAMPS**

2-Ear Clamps are especially suited for industrial use and with heavily vibrating equipment.

This is a medium pressure clamp and is widely used for maintenance and OEM applications. Rubber hose, plastic tubing, coaxial and electrical cable, rope, etc. are all easily clamped. These clamps are installed on air, fluid, gas and steam lines. The one piece design offers a positive, tamper-proof seal without damaging the hose.

**PRESSURE:**

As a guideline, 2-Ear Clamps successfully seal at 54 bar - 800 psi with 35 pulsating strokes a minute.

**MATERIAL:**

Zinc plated carbon steel  
SAE 1008/1010 or DIN 1.0338  
Stainless steel tubing  
UNS S30400 or DIN 1.4301



- 100 PER BAG

Note: When ordering your 2-Ear Clamps select nominal clamp size nearest to, but always larger than, O.D. of material to be clamped after insert has been fitted.

**ZINC PLATED CARBON STEEL**

Part #	Nominal Size	Inches		List Price
		Close	Open	
1010002	3/16"	0.134	0.197	----
1010008	5/16"	0.276	0.354	----
1010011	3/8"	0.319	0.433	----
1010016	1/2"	0.425	0.512	----
1010019	9/16"	0.492	0.591	----
1010022	19/32"	0.551	0.669	----
1010024	5/8"	0.591	0.709	----
1010027	3/4"	0.638	0.787	----

**STAINLESS STEEL**

Part #	Nominal Size	Inches		List Price
		Close	Open	
1510003	1/4"	0.197	0.276	----
1510004	5/16"	0.276	0.354	----
1510023	3/8"	0.319	0.433	----
1510006	1/2"	0.425	0.512	----
1510007	9/16"	0.492	0.591	----
1510008	19/32"	0.551	0.669	----
1510009	5/8"	0.591	0.709	----
1510010	3/4"	0.638	0.787	----
1510011	13/16"	0.709	0.866	----
1510012	7/8"	0.748	0.906	----
1510013	15/16"	0.827	0.984	----
1510014	1"	0.886	1.063	----
1510016	1-1/8"	1.035	1.221	----
1510019	1-9/16"	1.260	1.457	----
1510020	1-1/2"	1.378	1.575	----

*\*Minimum QTYs may apply\**

**GAPLESS EAR CLAMPS****Features**

- Assured clamping seal
- For low durometer and/ or thin-walled hose/ tubing
- Perfect for silicon, vinyl, polyurethane or other high tech materials used in all industries.
- Once installed, smooth inner band circumference prevents damage to the hose while the unique tongue-in-groove design provides a 360° seal
- There are no steps or gaps inside clamp

**Material**

- Stainless steel tubing UNS S30400 or DIN 1.4301

- 100 PER BAG

Part #	Nominal Size	Band Width	Inches		List Price
			Close	Open	
16700001	9/32"	5mm	0.228	0.276	----
16700004	3/8"	5mm	0.307	0.374	----
16700007	7/16"	5mm	0.378	0.445	----
16700010	1/2"	7mm	0.425	0.524	----
16700012	35/64"	7mm	0.453	0.551	----
16700013	9/16"	7mm	0.472	0.571	----
16700016	5/8"	7mm	0.520	0.618	----
16700017	11/16"	7mm	0.571	0.669	----
16700022	3/4"	7mm	0.654	0.780	----
16700024	13/16"	7mm	0.701	0.827	----

# HOSE CLAMPS

# PREFORMED

**TO ORDER** the correct size Fast Lok Clamps, measure the outside diameter of the hose or article and then select the next larger inside diameter clamp by catalog number.

- Minimum Qty may apply



Preformed Clamps are double wrapped and formed to a given diameter. Used primarily where one end of the hose or article is free to allow the clamps to be slid over the hose end before the fitting is inserted. All clamps may be pulled down to a smaller diameter but cannot be adjusted to a larger diameter.

### PREFORMED CLAMPS

(3/8" AND 5/8" (NOMINAL) WIDTH) - 100/BOX

Catalog Number Galv	Band Width & Thickness	List Price	Clamp I.D. Inches	Catalog Number SS	Band Width & Thickness	List Price
F-3	3/8 x .025	----	13/16	FS-3	3/8 x .020	----
F-311	3/8 x .025	----	1 3/8	FS-311	3/8 x .020	----
F-4	5/8 x .025	----	1	FS-4	5/8 x .022	----
F-5	5/8 x .025	----	1 1/4	FS-5	5/8 x .022	----
F-6	5/8 x .031	----	1 1/2	FS-6	5/8 x .022	----
F-7	5/8 x .031	----	1 3/4	FS-7	5/8 x .022	----
F-8	5/8 x .031	----	2	FS-8	5/8 x .022	----
F-9	5/8 x .031	----	2 1/4	FS-9	5/8 x .022	----

### WITH STAINLESS STEEL LOK - 50/BOX

F-10	5/8 x .031	----	2 1/2	FS-10	5/8 x .022	----
F-11	5/8 x .031	----	2 3/4	FS-11	5/8 x .022	----
F-12	5/8 x .031	----	3	FS-12	5/8 x .022	----
F-14	5/8 x .031	----	3 1/2	FS-14	5/8 x .022	----

### 25/ BOX

F-16	5/8 x .031	----	4	FS-16	5/8 x .022	----
F-18	5/8 x .031	----	4 1/2	FS-18	5/8 x .022	----
F-20	5/8 x .031	----	5	FS-20	5/8 x .022	----
F-24	5/8 x .031	----	6	FS-24	5/8 x .022	----
F-28	5/8 x .031	----	7	FS-28	5/8 x .022	----
F-32	5/8 x .031	----	8	FS-32	5/8 x .022	----

Double-wrapped, Triple Punched, Holds Permanently



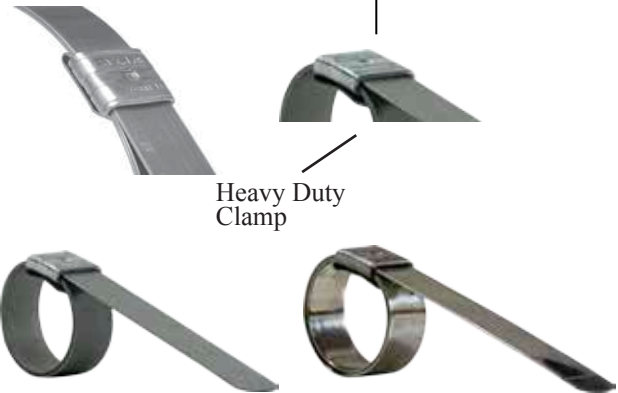
Galvanized Preformed Clamps 2 1/2 inch I.D. and above, and 5/8" wide open end clamps have a stainless steel lock for greater strength and rigidity.

# K-CLAMP PREFORMED HOSE CLAMPS

Each clamp is a double wrapped metal band formed to a given diameter. The clamp is designed to be slid over the hose end before the fitting is inserted. A punch-type or fold-up tool is then used to apply the clamp.

Punch Indentation for ease of center punching

Heavy Duty Lock for greater strength and rigidity



Heavy Duty Clamp

**K-Clamps may be secured by either a punch or fold-up method. (See cross sectioned views)**

- Minimum Qty may apply

### Center Punched

Less tension loss. Patented hole in inner band gives better internal mechanical locking after punching

### Fold-up



### PREFORMED CLAMPS

(3/8" AND 5/8" (NOMINAL) WIDTH) - 100/BOX

### GALVANIZED STEEL

### STAINLESS STEEL TYPE 301

Catalog Number	List Price	Clamp I.D. Inches	Band Width & Thickness	Catalog Number	List Price
K-3	----	13/16"	3/8" x .025	KS-3	----
K-311	----	1-3/8"	3/8" x .025	KS-311	----
K-4	----	1"	5/8" x .030	KS-4	----
K-5	----	1-1/4"	5/8" x .030	KS-5	----
K-6	----	1-1/2"	5/8" x .030	KS-6	----
K-7	----	1-3/4"	5/8" x .030	KS-7	----
K-8	----	2"	5/8" x .030	KS-8	----
K-9	----	2-1/4"	5/8" x .030	KS-9	----

### 50/BOX

K-10	----	2-1/2"	5/8" x .030	KS-10	----
K-11	----	2-3/4"	5/8" x .030	KS-11	----
K-12	----	3"	5/8" x .030	KS-12	----
K-14	----	3-1/2"	5/8" x .030	KS-14	----

### 25/BOX

K-16	----	4"	5/8" x .030	KS-16	----
K-18	----	4-1/2"	5/8" x .030	KS-18	----
K-20	----	5"	5/8" x .030	KS-20	----
K-24	----	6"	5/8" x .030	KS-24	----
K-28	----	7"	5/8" x .030	KS-28	----
K-32	----	8"	5/8" x .030	KS-32	----



**FLJS/ CLAMP-IT****HOSE CLAMPS**

**TO ORDER** the correct size Fast Lok Clamps, measure the outside diameter of the hose or article and then select the next larger inside diameter clamp by catalog number.



## FLJS-Clamp SMOOTH I.D. CLAMPS

- Minimum Qty may apply

**FLJS** - Clamps are double wrapped clamps with a more smooth inside diameter, intended for your thermoplastic and other thinner wall hose clamping applications. The JS series clamps slide on the hose prior to inserting the fitting.

**Preformed JS** - Clamps are available in 5/8" and 3/4" widths, 1" I.D. to 8" I.D. in 1/4" increments.

The **FLJS** - Clamp is intended to be applied with a KS001 tool or other comparable fold-up locking tool.

### STAINLESS STEEL

#### 5/8" (NOMINAL WIDTH) - 100/BOX

Catalog #	Clamp I.D. Inches	Band Width & Thickness	List Price
FLJS-203	1"	5/8" x .030	----
FLJS-204	1-1/4"	5/8" x .030	----
FLJS-205	1-1/2"	5/8" x .030	----
FLJS-206	1-3/4"	5/8" x .030	----
FLJS-207	2"	5/8" x .030	----
FLJS-208	2-1/4"	5/8" x .030	----
FLJS-209	2-1/2"	5/8" x .030	----

#### 100' CLAMP-IT STRAPPING



Catalog #	Width	Thickness	Material 100'/CTN.	List Price/ CNT
SS-3751	3/8"	.025	301 Stainless	----
SS-5001	1/2"	.030	301 Stainless	----
SS-6251	5/8"	.030	301 Stainless	----
SS-7501	3/4"	.030	301 Stainless	----
SG-3750	3/8"	.025	Galvanized	----
SG-5000	1/2"	.030	Galvanized	----
SG-6250	5/8"	.030	Galvanized	----
SG-7500	3/4"	.030	Galvanized	----

### CLAMP-IT

The multi-sized clamps all rolled up in one..for your unknown requirements for 1 inch to 30 feet, be they round or otherwise. Clamp-It products will fill your needs. This Strapping in widths of 3/8", 1/2", 5/8", and 3/4" stainless or galvanized steel, as are the clamps (buckles).



#### CLAMPS (BUCKLES)

Catalog #	Width	Material	Qty per box	List Price Each pc.
CS-3751	3/8"	301 Stainless	100	----
CS-5001	1/2"	301 Stainless	100	----
CS-6251	5/8"	301 Stainless	100	----
CS-7501	3/4"	301 Stainless	50	----
CG-3750	3/8"	Galvanized	100	----
CG-5000	1/2"	Galvanized	100	----
CG-6250	5/8"	Galvanized	100	----
CG-7500	3/4"	Galvanized	50	----

**HOSE CLAMPS**

**CLAMPLING TOOLS**

**Model 1098 I  
Standard Jaw Pincers**



**Part #**  
1410118

**List Price**  
----

**FOLD UP ADAPTER**



**Part #**  
KA001

**List Price**  
----

**SIDE JAW PINCERS**

This dual purpose, side jaw design allows clamps to be applied or removed in confined areas with pincers held parallel to the hose. Also used like standard Pincers.



**Part #**  
1410083

Model 1099 I

**List Price**  
----

**LOKING TOOL**



**Part #** Portable hand tool used to apply punch **List Price**  
F-38 Type 3/8 & 5/8 Clamps ----

**HOSE CRIMPER**

**HOSE RULE CRIMPING TOOL**

Tool is equipped with mounting holes for permanent installation or may be used as a portable tool assembly in the field.

**IMPORTANT! BEFORE USING THIS TOOL**

Make sure the crimping arm is in the closed (down) position and then set the adjusting screw so it touches the end stop.

**OPERATION:**

- A. FERRULE - The proper ferrule should fit easily over the hose. It is better to use a slightly oversized ferrule as an undersized ferrule may make inserting the barbed fitting difficult.
- B. BARBED FITTING - Dip the ferrule end of the hose into soapy water. Insert the chosen barbed fitting into the hose with a fair amount of force. A barbed fitting that slides into a hose too easily will not crimp properly.
- C. CRIMPING DIE - To find the proper crimping die find the smallest die opening which the hose will just pass through freely. Use the next smallest die and depress the crimping arm fully, keep fingers free from the crimper. Open the crimper and rotate the hose one quarter turn and repeat to finish the crimp.

- Provides production capability and "big tool" crimping advantages at just a fraction of the cost of other tools offering comparable results.



**HOSE CRIMPER COMES WITH 5 DIES**

Die Sizes = 5/8", 37/64", 12/32", 31/64", 11/16"

Part #		List Price
308-070	Hose Crimper	----

**LOKING TOOL**



**Part #** Used to apply Punch Type 3/8 & 5/8 **List Price**  
F-40 clamps. Order mallet separately ----

**LOKING TOOL**



**Part #** Used to apply Punch Type 3/8 & 5/8 **List Price**  
F-100 clamps. Order mallet separately ----

## LINED BAND CLAMPS

- All designs exceed SAE J1508 specifications
- Smooth inside surface
- Even tightening torque for 360° seal
- Rolled-up band edge
- \* **Non-perforated band prevents hose damage \***



### GENERAL PURPOSE EMBOSSED WORM-GEAR HOSE CLAMPS

Features unique one-piece housing, rolled-up band edges and a non-perforated (embossed) band that protects the hose. For added corrosion resistance, the band in the 12mm Standard is made of Aluzinc which gives three times the protection offered by conventional galvanized steel.

- Features high clamping force and high durability torque.
- Stainless: All parts in AISI 304 Stainless Steel.

A non-perforated band with rolled up edges eliminates hose damage while increasing clamping force.

Per SAE standard J1508 Type "FEO"

Part # Aluzinc	List Price	SAE Size	Clamping Range		Bag	Part# 304 SS	List Price
			Inches	mm			
88-024	----	8	5/8-1	15-24	1000	89-024	----
88-028	----	10	3/4-1-1/8	19-28	500	89-028	----
88-032	----	12	7/8-1-1/4	22-32	500	89-032	----
88-038	----	16	1-1/16-1-1/2	26-38	500	89-038	----
		20	1-1/4-1-3/4	32-44	500	89-044	----
88-050	----	24	1-1/2-2	38-50	500	89-050	----
		28	1-3/4-2-1/4	44-56	500	89-056	----
88-065	----	32	2-2-9/16	50-65	200	89-065	----
88-075	----	40	2-5/16-3	58-75	200	89-075	----
88-085	----	44	2-11/16-3-3/8	68-85	200	89-085	----
		52	3-3-3/4	77-95	200	89-095	----
88-112	----	64	3-7/16-4-7/16	87-112	200	89-112	----
		80	4-1/8-5-7/16	104-138	20	89-138	----

- Minimum Qty may apply

## HOSE CLAMPS

- Precision thread pitch for high vibration applications
- Design allows reuse
- Provides a strong seal
- Tolerates corrosive environments
- Minimum qty may apply



• marine

### ULTRA

The overwhelmingly preferred 316 SS embossed design clamp for the marine market.

Made of al AISI 316 high tensile strength stainless steel, the ULTRA has one of the highest clamping force ratings of all worm-gear style clamps due to the final thread pitch and riveted housing.

ULTRA Stainless Steel: All parts are made of AISI 316 Stainless steel. 12 mm bandwidth unless other wise indicated.

A non-perforated band with rolled up edges eliminates hose damage while increasing clamping force.

Per SAE standard J1508 Type "FEO"

Part #	SAE Size	Clamping Range		Bag	List Price
		Inches	mm		
90-014	3	5/16-9/16	8-14	1000	----
90-017	4	7/16-11/16	11-17	1000	----
90-020	6	1/2-13/16	13-20	1000	----
90-024	8	5/8-1	15-24	1000	----
90-028	10	3/4-1-1/8	19-28	500	----
90-032	12	7/8-1-1/4	22-32	500	----
90-038	16	1-1/16-1-1/2	26-38	500	----
90-044	20	1-1/4-1-3/4	32-44	500	----
90-050	24	1-1/2-2	38-50	500	----
90-056	28	1-1/4-2-1/4	35-57	400	----
90-065	32	1-1/2-2-1/2	38-64	200	----
90-075	40	2-3	51-76	200	----
90-085	44	2-1/4-3-1/4	57-83	100	----
90-095	52	2-3/4-3-3/4	70-95	100	----
90-112	64	3-1/2-4-1/2	89-114	100	----
90-138	80	4-5-1/2	102-140	100	----

**MINI CLAMPS**

Sure seal for small, thin walled hoses. The nut is secured to the clamp, making installation easier and the hexagonal head can be tightened with a socket wrench or screw driver. Bandwidth is 9mm.



**PAINTED ALUZINC STANDARD MINI CLAMPS**

Part # Aluzinc	Clamping Range		Qty per Bag	List Price
	Inches	mm		
92-010	.36-.41	9-10.5	1000	----
92-011	.37-.45	9.5-11.5	900	----
92-012	.41-.49	10.5-12.5	800	----
92-013	.45-.53	11.5-13.5	800	----
92-014	.49-.57	12.5-14.5	700	----
92-015	.53-.61	13.5-15.5	600	----
92-016	.55-.65	14-16.5	500	----
92-017	.59-.69	15-17.5	500	----

**304 SS MINI CLAMPS**

Part # 304 SS	Clamping Range		Qty per Bag	List Price
	Inches	mm		
93-008	.30-.34	7.5-8.5	1000	----
93-009	.34-.37	8.5-9.5	1000	----
93-011	.41-.47	10.5-12	900	----
93-013	.49-.55	12.5-14	800	----
93-014	.53-.59	13.5-15	700	----
93-016	.59-.67	15-17	1000	----
93-017	.63-.71	16-18	500	----



**RUBBER LINED CLAMPS**

Multiple uses for holding cable, wire, pipe and hose. The rubber cushion absorbs vibration, provides protection against scratching and is made of black EPDM type rubber.

Rubber cushion clamps are used in a variety of industries and applications including automotive, truck, hydraulics and pneumatics, ship building, refrigeration, large equipment packaging etc.

Bandwidths and mounting hose sizes vary by diameter and material.

- Aluzinc clamps have a .26 hole diameter
- Stainless Steel .20 diameter

Part # Aluzinc	Qty per Bag	List Price	Clamping Range		Part# 304 SS	Qty per Bag	List Price
			Inches	mm			
95-300	100	----	1/8	3			
95-301	100	----	3/16	5	96-301	1000	----
95-302	100	----	1/4	6	96-302	200	----
95-303	100	----	5/16	8	96-303	1000	----
95-304	100	----	3/8	10	96-304	100	----
95-305	100	----	7/16	11	96-305	1000	----
95-306	100	----	1/2	13	96-306	100	----
95-307	100	----	9/16	14	96-307	100	----
95-308	100	----	5/8	16	96-308	100	----
95-309	50	----	11/16	18			
95-310	50	----	3/4	19	96-310	500	----
95-311	50	----	13/16	21			
95-312	50	----	7/8	22	96-312	500	----
95-313	50	----	15/16	24			
95-314	50	----	1	25	96-314	500	----
95-315	50	----	1-1/16	27			
95-316	50	----	1-1/8	29	96-316	500	----
95-317	50	----	1-3/16	30			
95-318	50	----	1-1/4	32	96-318	500	----
95-319	50	----	1-5/16	33			
95-320	50	----	1-3/8	35	96-320	500	----
95-321	50	----	1-7/16	36			
95-322	500	----	1-1/2	38	96-322	100	----
95-326	50	----	1-5/8	41			
95-323	25	----	1-3/4	45	96-323	500	----
95-328	25	----	1-7/8	47			
95-324	25	----	2	51			
95-325	25	----	2-1/8	54			
95-329	25	----	2-3/8	60			
95-327	25	----	2-1/2	65			
95-330	15	----	2-15/16	74			
95-331	10	----	4-5/16	110			

**HOSE FERRULES**

**HOSE CLAMPS**



**RUBBER CUSHIONED SS CLAMP**

Part #	Mounting Dia	Clamp Dia	List Price
95402	3/8"	1/4"	----
95404	3/8"	3/8"	----
95406	3/8"	1/2"	----
95408	3/8"	5/8"	----
95410	3/8"	3/4"	----
95414	3/8"	1"	----
95418	3/8"	1 1/4"	----
95422	3/8"	1 1/2"	----
95424	3/8"	2"	----
95427	3/8"	2 1/2"	----
95432	3/8"	3"	----
95433	3/8"	4"	----
95434	3/8"	5"	----

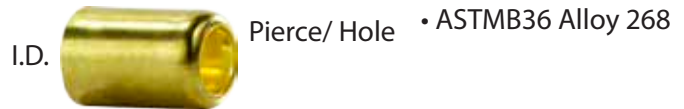


**GALVANIZED STEEL VINYL COATED CLAMP**

Part #	Mounting Dia	Clamp Dia	List Price
95504	1/4"	3/8"	----
95506	1/4"	1/2"	----
95508	1/4"	5/8"	----
95510	1/4"	3/4"	----
95512	1/4"	7/8"	----
95514	1/4"	1"	----
95516	1/4"	1 1/8"	----
95518	1/4"	1 1/4"	----
95522	1/4"	1 1/2"	----
95523	1/4"	1 3/4"	----
95524	1/4"	2"	----

**SMOOTH BRASS HOSE FERRULES**

Brass Hose Ferrules offer an alternative to hose clamps. After crimping, the ferrule will provide a permanent clamping force on both the hose and fitting.



Part #	Ferrule #	I.D.	Length	Pierce	Gauge	List Price
32-500	6231	0.330	0.49	0.250	0.020	----
32-501	833	0.358	0.500	0.265	0.020	----
32-503	833B	0.375	0.718	0.265	0.025	----
32-502	622	0.380	0.500	0.265	0.020	----
32-550	619	0.400	0.47	0.27	0.020	----
32-504	620	0.410	0.500	0.265	0.020	----
32-551	769R	0.450	0.562	0.343	0.020	----
32-552 *	4750	0.478	0.687	0.328	0.025	----
32-553	624R	0.500	0.500	0.343	0.020	----
32-506	7322A	0.500	1.000	0.343	0.025	----
32-554	7322	0.500	1.000	0.328	0.025	----
32-555	625	0.525	0.47	0.36	0.020	----
32-517	625A	0.525	0.56	0.360	0.020	----
32-556	7323	0.525	1.000	0.375	0.025	----
32-521	9974	0.525	1.000	0.437	0.025	----
32-557 *	7324	0.531	1.000	0.375	0.025	----
32-558	626	0.550	0.484	0.375	0.020	----
32-507	3588	0.56	0.75	0.375	0.020	----
32-559 *	7325	0.56	1.000	0.437	0.025	----
32-561 *	7326	0.593	1.000	0.437	0.025	----
32-562	JJ	0.600	0.484	0.437	0.016	----
32-563	JJ	0.600	0.500	0.500	0.020	----
32-526	II	0.625	0.500	0.500	0.020	----
32-564 *	7327	0.625	1.000	0.437	0.025	----
32-565	HH	0.650	0.500	0.500	0.020	----
32-566 *	7328	0.656	1.000	0.437	0.025	----
32-567	GG	0.675	0.515	0.500	0.020	----
32-568 *	7329	0.69	1.000	0.500	0.025	----

Part #	Ferrule #	I.D.	Length	Pierce	Gauge	List Price
32-570 *	7330	0.718	1.000	0.500	0.025	----
32-508	7330A	0.718	1.000	0.625	0.025	----
32-571	EE	0.725	0.530	0.500	0.020	----
32-572	DD	0.750	0.531	0.500	0.020	----
32-510	7331B	0.75	1.00	0.500	0.025	----
32-573 *	7331	0.750	1.000	0.625	0.025	----
32-574	CC	0.775	0.531	0.500	0.020	----
32-533	7332B	0.781	1.000	0.500	0.025	----
32-575 *	7332	0.781	1.000	0.625	0.025	----
32-576	BB	0.800	0.546	0.562	0.020	----
32-577 *	7333	0.812	1.000	0.625	0.025	----
32-578	AA	0.825	0.546	0.562	0.020	----
32-535		0.85	0.968	0.687	0.025	----
32-579	7244	0.875	0.843	0.687	0.025	----
32-539	5029A	0.900	0.875	0.687	0.025	----
32-580	7113	0.925	0.968	0.750	0.025	----
32-543	5028A	0.975	0.843	0.687	0.025	----
32-545	5235A	1.000	0.843	0.687	0.025	----
32-549	7145A	1.050	0.843	0.687	0.025	----
32-584	5027	1.100	0.843	0.812	0.025	----
32-586	7104A	1.15	0.843	0.875	0.025	----
32-588 *	7088	1.175	0.875	0.875	0.025	----
32-590	875L	1.200	0.843	0.875	0.025	----
32-591	7291	1.225	0.968	0.875	0.025	----
32-592	7255	1.25	0.968	1.000	0.04	----
32-596	8000	1.425	0.875	1.062	0.025	----
32-597	1500	1.50	0.875	1.125	0.025	----

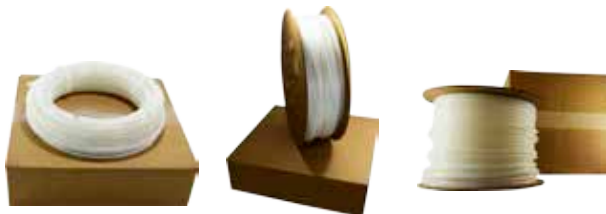
\* Add SS to part # for stainless steel

TUBING



POLYETHYLENE

Sold individually boxed



Natural, Black, Blue, Green, Red, Yellow, Orange

NYLON

Sold individually boxed



PVC

• Clear

Sold individually boxed



COPPER AND ALUMINUM



TYPE L AND REFRIGERATION

ALUMINUM



## LINEAR LOW DENSITY POLYETHYLENE TUBING (LLDPE)

### Features

- Chemically Inert
- Chemical Resistant
- Lightweight & Flexible
- Good Dielectric Properties
- Impermeable to Gases
- Meets FDA Requirements
- Multiple Colors Available
- Vacuum rating to 28" Hg

Polyethylene is made from 100% non-toxic ingredients. It's inert nature and FDA compliant status makes it perfect for food, water and beverage piping. It is ideal for use in pneumatic, drain piping, lab use and chemical transfer applications which require an inexpensive tubing

Polyethylene is highly-resistant to stress cracking from chemicals, aging and ultraviolet exposure. For use with barb-type, push-to-connect or compression-style fittings.

### Specifications

Temperature Range: -50°F to +140°F

Hardness: Shore A 93A

Shore D 45D

### Applications

Food & Beverage      Process Control  
 Pneumatic Tools      Laboratories  
 Pneumatic Piping  
 Electrical Jacketing  
 Drain Lines  
 Instrumentation  
 Chemical Transfer



100' LENGTH



500' LENGTH



1000' LENGTH

### 100' LENGTH - Natural

Part #	Tube O.D.	Tube ID	Tube Wall	Working Pressure	List Price
973-200	1/8"	0.08	0.022	250	----
973-201	4mm/5/32"	0.106	0.025	180	----
973-203	1/4"	0.17	0.040	150	----
*973-204	1/4"	0.125	0.0625	350	----
973-205	8mm/5/16"	0.236	0.038	150	----
973-206	3/8"	0.25	0.0625	150	----
973-207	1/2"	0.375	0.0625	125	----
973-208	5/8"	0.50	0.0625	100	----
973-211	3/4"	0.625	0.0625	100	----
973-210	1"	0.75	0.125	150	----

### 500' LENGTH

Part #	Tube O.D.	Tube ID	Tube Wall	Working Pressure	List Price
73-200N5	1/8"	0.085	0.020	250	----
73-203N5	1/4"	0.17	0.040	150	----
73-204N5	1/4"	0.125	0.0625	350	----
73-206N5	3/8"	0.25	0.0625	150	----
73-207N5	1/2"	0.375	0.0625	125	----

### 1000' LENGTH

Part #	Tube O.D.	Tube ID	Tube Wall	Working Pressure	List Price
73-203N1	1/4"	0.17	0.040	150	----
73-204N1	1/4"	0.125	0.0625	350	----
73-206N1	3/8"	0.25	0.0625	150	----

**LLDPE POLYETHYLENE TUBING - COLORS**

**BLACK**



- 100'
- 500'
- 1000'

Part #	Color	Length	Nominal O.D.	List Price
73-200B	Black	100'	1/8"	----
73-201B	Black	100'	5/32"	----
73-203B	Black	100'	1/4"	----
73-204B	Black	100'	1/4"	----
73-205B	Black	100'	5/16"	----
73-206B	Black	100'	3/8"	----
73-207B	Black	100'	1/2"	----
73-208B	Black	100'	5/8"	----
73-203B5	Black	500'	1/4"	----
73-205B5	Black	500'	5/16"	----
73-206B5	Black	500'	3/8"	----
73-207B5	Black	500'	1/2"	----
73-206B1	Black	1000'	3/8"	----

**GREEN**



- 100'
- 500'
- 1000'

Part #	Color	Length	Nominal O.D.	List Price
73-201G	Green	100'	5/32"	----
73-203G	Green	100'	1/4"	----
73-204G	Green	100'	1/4"	----
73-205G	Green	100'	5/16"	----
73-206G	Green	100'	3/8"	----
73-207G	Green	100'	1/2"	----
73-203G5	Green	500'	1/4"	----
73-203G1	Green	1000'	1/4"	----

**WHITE**



- 100'
- 500'

Part #	Color	Length	Nominal O.D.	List Price
73-203W	White	100'	1/4"	----
73-206W	White	100'	3/8"	----
73-207W	White	100'	1/2"	----
73-207W5	White	500'	1/2"	----

**BLUE**



- 100'
- 500'
- 1000'

Part #	Color	Length	Nominal O.D.	List Price
73-200U	Blue	100'	1/8"	----
73-201U	Blue	100'	5/32"	----
73-203U	Blue	100'	1/4"	----
73-204U	Blue	100'	1/4"	----
73-205U	Blue	100'	5/16"	----
73-206U	Blue	100'	3/8"	----
73-207U	Blue	100'	1/2"	----
73-203U5	Blue	500'	1/4"	----
73-206U5	Blue	500'	3/8"	----
73-203U1	Blue	1000'	1/4"	----

**RED**



- 100'
- 500'
- 1000'

Part #	Color	Length	Nominal O.D.	List Price
73-203R	Red	100'	1/4"	----
73-205R	Red	100'	5/16"	----
73-206R	Red	100'	3/8"	----
73-203R5	Red	500'	1/4"	----
73-206R5	Red	500'	3/8"	----
73-203R1	Red	1000'	1/4"	----

**YELLOW**



- 100'

Part #	Color	Length	Nominal O.D.	List Price
73-203Y	Yellow	100'	1/4"	----
73-204Y	Yellow	100'	1/4"	----
73-205Y	Yellow	100'	5/16"	----
73-206Y	Yellow	100'	3/8"	----

**ORANGE**



Part #	Color	Length	Nominal O.D.	List Price
73-203O	Orange	100'	1/4"	----



**NYLON 12 TUBING**

Nylon 12 tubing is recognized as an industry standard for applications which require higher working pressures and higher heat and/or chemical resistance. It is ideal for outdoor use applications because of its superior stress crack resistance. Nylon 12 is strong, lightweight and has a very low moisture absorption rate compared to other nylons. By not absorbing moisture, Nylon 12 remains more flexible, which in turn extends its service life. Nylon 12 tubing can be used with standard push-to-connect fittings and compression fittings for simple installation.

Because of its semi-rigid properties, a thinner tube wall provides higher flow rates and working pressure.

**Features**

- Strong
- Lightweight
- Flexible
- Abrasion Resistant
- Heat Resistant
- Chemical Resistant
- Heat/ Light Stabilized
- Black - UV Rated

**Specifications**

Temperature Range: -60°F to +200°F  
 Hardness: Rockwell 78 R  
 Shore D 70  
 Vacuum Rating: To 28" Hg  
 Higher Flow Rates & Working Pressure  
 Tolerances: 1/8"-1/4" +/- .004  
 3/4"-1/2" +/- .006

**Applications**

Pneumatic Tools      Chemical Transfer  
 Pneumatic Piping      Vacuum  
 Instrumentation      Process Control  
 Lube Lines      Fuel Lines  
 Coolants      Paint Supply Lines  
 Refrigeration      Laboratories

**Part #'s shown are for natural. 500' and 1000' reels available on request.**



100' LENGTH



BLACK TUBING & MISC.



METRIC LENGTH

**100' LENGTH**

Part #	Tube O.D.	Tube ID	Tube Wall	Working Pressure	List Price
973-230	1/8"	0.08	.022	420	----
973-231	5/32"	0.106	.025	350	----
973-232	1/4"	0.18	.035	290	----
973-238	1/4"	0.15	.05	800	----
973-233	3/8"	0.275	.050	250	----
973-234	1/2"	0.375	.062	240	----

**BLACK TUBING & MISC.**

Part #	O.D.	Tube ID	Wall	Working Pressure	List Price
73-230B	1/8	0.08	0.022	420	----
73-231B	5/32	0.106	0.025	400	----
73-232B	1/4	0.18	0.035	400	----
73-238B	1/4	0.15	0.05	800	----
73-233B	3/8	0.275	0.05	300	----
73-232N5*	1/4	0.18	0.035	400	----
73-238U**	1/4	0.15	0.075	800	----

• 500' Natural    \*\*Blue

\*METRIC LENGTH - 100 ft. coils    • available in natural color only

Part #	MM O.D.	MM I.D.	MM Wall	Working Pressure	List Price
973-325	6	4	1	340	----
973-327	8	6	1	250	----
973-329	10	8	1	225	----
973-332	12	10	1	200	----
973-334	14	11	1.5	175	----



**PVC POLYVINYLCHLORIDE TUBING - NSF61**

PVC is suited for general, low-pressure, industrial applications for the conveyance of liquids and solids of suitable granular size. Made from a PVC compound that complies with FDA regulations. Although it is primarily intended for applications where pressure is not essential, it will withstand the pressures shown.

The clear PVC Tubing provides good chemical resistance, is lightweight, flexible and economically priced.

**Features**

- Lightweight
- Flexible
- Food Grade
- Clear Color/ Blue tint

**Specifications**

Temperature Range: +25°F to +150°F  
 Hardness: Shore A 75 PVC  
 Meets FDA requirements  
 NSF 61 Certified  
 USP Class VI rated materials  
 RoHS Compliant

**Applications**

Beverage Dispensing      Distilled Water Transfer  
 Drain Tubing              Light Vacuum  
 Potable Water              Wire Harness  
 Laboratory Tubing        3:1 Burst Pressure  
 Wine Transfer  
 Low Pressure Air Line

**Colors Available: Clear**

**Package Lengths: 100'**

**100' LENGTH**

Part #	Tube I.D.	Tube O.D.	Tube Wall	Working Pressure	List Price
973-224	3/16 (.187)	1/4 (.25)	1/16 (.032)	50	----
973-223	3/16 (.187)	5/16 (.313)	1/16 (.062)	55	----
*973-215	1/4 (.25)	3/8 (.375)	1/16 (.062)	55	----
973-252	5/16 (.312)	7/16 (.438)	1/16 (.062)	50	----
973-253	5/16 (.312)	1/2 (.500)	3/32 (.094)	55	----
973-216	3/8 (.375)	1/2 (.500)	1/16 (.062)	45	----
973-255	3/8 (.375)	5/8 (.625)	1/8 (.125)	55	----
973-262	3/8 (.375)	9/16 (.563)	3/32 (.094)	50	----
973-217	1/2 (.500)	5/8 (.625)	1/16 (.062)	30	----
973-219	3/4 (.750)	1 (1.00)	1/8 (.125)	35	----
973-221	1 (1.00)	1-1/4 (1.25)	1/8 (.125)	25	----

**TUBING ACCESSORIES**

**MINI-TUBING CUTTER**

• Great for tight places



**TUBING CUTTER**



**PLASTIC TUBE CUTTER**

Range: 1/8" - 3/8" I.D. (3mm-10mm)



Part #	Size	List Price	Part #	Size	List Price	Part #	Description	List Price
990-571	3mm-22mm (1/8"-7/8")	----	*990-570	1/8"-1-1/8"	----	*91-707	Cutter w/Blade	----

**MOUNTING RACKS**



- Route and secure multiple tubing lines
- Mounting versatility
  - Racks can be easily hand separated down to single holders.
  - Thru holes provided (all sizes)
- Standard color is BLACK.  
 Other colors available on special request.

Part #	Tubing OD	Description	Channels	List Price
*28-988	1/4	non-adhesive	10	----
28-989	1/4	adhesive	10	----
28-990	3/8	non-adhesive	7	----
28-991	1/2	non-adhesive	5	----

**NOTE: MOUNTING SCREWS NOT PROVIDED**

## TUBING

## ALUMINUM AND COPPER

## ALUMINUM TUBING - EASY BEND

Alloy  
3003-0  
ASTM  
B-483



Material  
to ASTM  
B-483

900 PSI max  
3700 Burst PSI

Bend this tubing into the shape you need without special tools or elbow fittings. It is also known as Alloy 3003. Tubing has seamless construction, which provides a smooth interior and allows it to be flared without splitting. Use with water, air, alcohol and oil. Tubing meets ASTM B483 and has a soft (annealed) temper. OD tolerance is  $\pm 0.004$ "

## ALUMINUM VERSATUBE 50' COILS

Part #	O.D.	Wall Thick	ID	Max PSI @ 100°F	Case	50' Coils
972-190	1/8	.025	.075"	2,300	10 coils	----
972-191	3/16	.028	.132"	1,600	10 coils	----
*972-192	1/4	.032	.186"	1,400	10 coils	----
972-193	5/16	.035	.243"	1,200	10 coils	----
972-194	3/8	.035	.305"	1,000	10 coils	----
972-195	1/2	.035	.43"	740	10 coils	----

## COPPER TUBING - REFRIGERATION TUBING

ASTMB280



- Temp range: 32° to 400°F
- Bend with a bending tool
- Use with copper solder-connect fittings

This copper Alloy 122 tube comes cleaned and capped to prevent moisture and dirt from contaminating the inside. It's often called refrigeration and air conditioning tubing. Use with water, natural gas, oil and R22 refrigerant. Tubing meets ASTM B280. It has seamless construction, which provides a smooth interior. Tubing has a soft (annealed) temper.

## REFRIGERATION COPPER TUBE 50' COILS

Part #	Tube Size	OD	Wall	ID	Max PSI @ 100°F	Weight per 50' Coil	50' Coils
972-180	-	1/8	.030	.065"	3,000	1.74	----
972-181	-	3/16	.030	.128"	1,900	2.88	----
972-182	1/8	1/4	.030	.19"	1,400	4.02	----
972-183	-	5/16	.032	.248"	1,100	5.45	----
*972-184	1/4	3/8	.032	.311"	980	6.70	----
972-185	3/8	1/2	.032	.436"	720	9.10	----
972-186	1/2	5/8	.035	.555"	610	12.55	----
972-187	5/8	3/4	.035	.68'	510	15.25	----

## COPPER TUBING - DRINKING WATER

For residential water lines



- Temp range: 32° to 180°F
- Bend with a bending tool
- Use with copper solder-connect fittings

NSF 61 certified for drinking (potable) water, this copper Alloy 122 tubing is also called type L. Tubing meets ASTM B88. It has seamless construction, which provides a smooth interior. Coils - Have a soft (annealed) temper.

• Water service • Natural, liquified and petroleum gases • Fire protection • Solar • Fuel/ Fuel oil • HVAC • Snow melting

## TYPE L SOFT COPPER TUBING 60' COILS

Part #	TUBE SIZE	OD	WALL	ID	Max PSI @ 100°F	Weight per 60' Coil	60' Coils
972-171	1/4	3/8"	.03"	.315"	910	7.56	----
972-172	3/8	1/2	.035"	.43"	770	11.88	----
972-173	1/2	5/8"	.04"	.545"	720	17.10	----

# PNEUMATICS



1/4" 3/8" 1/2" 1/4" 1/4" 3/8" 1/4" 1/4" 3/8"  
 INDUSTRIAL INTERCHANGE ARO AUTO AUTO LINCOLN STRAIGHT THRU STRAIGHT THRU

## QUICK DISCONNECTS



- Universal
- ARO 210
- Lincoln
- Industrial
- Automotive
- Straight Through

## BREATHER VENTS, MUFFLERS



- Mufflers
- Snubbers
- In-line filters
- Breather vents
- Control valves
- Manifolds

## PNEUMATIC ACCESSORIES



- Kits NEW
- Tire gauge
- Tank and vent valves
- Blow guns
- Air chucks
- Inflators

## GAUGES



- Liquid filled & Dry
- Lower mount & center mount
- Water test
- Syphons

**INDUSTRIAL**

**QUICK DISCONNECTS**

**INDUSTRIAL INTERCHANGE**

- Couplers are brass or plated steel body with brass or steel valves, 6 steel locking balls, NBR seal and stainless steel springs
- 6 Steel locking balls (1/2" body size has 8 steel locking balls)
- Plugs are brass or steel with green blue zinc plating
- Industry standard design for compressed air, water, grease, paint, limited vacuum and limited gases
- Manual retract for connecting and disconnecting
- Maximum working pressure is 250 PSI

**BRASS FEMALE COUPLER**



Part#	Body Size	Thread Size	List Price
28-540	1/4"	1/4"	----
28-541	1/4"	3/8"	----

**BRASS MALE COUPLER**



Part#	Body Size	Thread Size	List Price
28-552	1/4"	1/4"	----
28-553	1/4"	3/8"	----

**STEEL FEMALE COUPLER**



Part#	Body Size	Thread Size	List Price
28-540S	1/4"	1/4"	----
28-541S	1/4"	3/8"	----
98-810	3/8"	1/4"	----
98-811	3/8"	3/8"	----
98-812	3/8"	1/2"	----
99-812	1/2"	1/2"	----
99-813	1/2"	3/4"	----

**STEEL MALE COUPLER**



Part#	Body Size	Thread Size	List Price
28-552S	1/4"	1/4"	----
28-553S	1/4"	3/8"	----
98-823	3/8"	1/4"	----
98-824	3/8"	3/8"	----
98-825	3/8"	1/2"	----
99-825	1/2"	1/2"	----
99-826	1/2"	3/4"	----

**BRASS HOSE ID COUPLER**



Part#	Body Size	Barb Size	List Price
28-562	1/4"	1/4"	----
28-564	1/4"	3/8"	----

**STEEL HOSE ID COUPLER**



Part#	Body Size	Barb Size	List Price
28-562S	1/4"	1/4"	----
28-564S	1/4"	3/8"	----
98-840	3/8"	1/4"	----
98-841	3/8"	3/8"	----
99-841	1/2"	3/8"	----
99-843	1/2"	1/2"	----

**BRASS PUSH-ON HOSE COUPLER**



Part#	Body Size	Barb Size	List Price
28-565	1/4"	1/4"	----
28-566	1/4"	3/8"	----

**STEEL PUSH-ON HOSE COUPLER**



Part#	Body Size	Barb Size	List Price
28-565S	1/4"	1/4"	----
28-566S	1/4"	3/8"	----
98-842	3/8"	3/8"	----

**STEEL MALE PLUG**



Part#	Body Size	Thread Size	List Price
28-545	1/4"	1/8"	----
28-546	1/4"	1/4"	----
28-547	1/4"	3/8"	----
98-814	3/8"	1/4"	----
98-815	3/8"	3/8"	----
99-816	1/2"	1/2"	----
99-817	1/2"	3/4"	----

**STEEL FEMALE PLUG**



Part#	Body Size	Thread Size	List Price
28-533	1/4"	1/8"	----
28-534	1/4"	1/4"	----
28-535	1/4"	3/8"	----
98-801	3/8"	1/4"	----
98-802	3/8"	3/8"	----
99-803	1/2"	1/2"	----
99-804	1/2"	3/4"	----

**BRASS MALE PLUG**



Part#	Body Size	Thread Size	List Price
28-546B	1/4"	1/4"	----

**BRASS FEMALE PLUG**



NEW

Part#	Body Size	Thread Size	List Price
28-534B	1/4"	1/4"	----

**STEEL HOSE ID PLUG**



Part#	Body Size	Barb Size	List Price
28-557	1/4"	1/4"	----
28-559	1/4"	3/8"	----
98-828	3/8"	3/8"	----
99-828	1/2"	3/8"	----
99-830	1/2"	1/2"	----

**STEEL PUSH-ON HOSE PLUG**



Part#	Body Size	Barb Size	List Price
28-558	1/4"	1/4"	----
28-561	1/4"	3/8"	----
98-830	3/8"	3/8"	----

**STEEL SWIVEL MALE PLUG**



Part#	Body Size	Thread Size	List Price
320-065	1/4"	1/4"	----

**UNIVERSAL**

**QUICK DISCONNECTS**

**UNIVERSAL SERIES COUPLERS**

- Automatic Coupler means flow will cut off automatically at time of disconnect
- Brass Couplers have brass body and brass sleeve with brass valve, 6 steel locking balls, NBR seal and 6 stainless steel springs.
- Stainless Steel Couplers have stainless steel body and stainless steel sleeve with stainless steel valve, 6 steel locking balls, FKM seal, and stainless steel springs
- Coupler compatible with ARC 210, Parker Interchange and Industrial Interchange plugs
- Maximum working pressure is 250 PSI

**BRASS MALE COUPLER**



Part#	Body Size	Thread Size	List Price
28-579	1/4"	1/4"	----
28-589	1/4"	3/8"	----

**BRASS FEMALE COUPLER**



Part#	Body Size	Thread Size	List Price
28-560	1/4"	1/4"	----

**BRASS HOSE ID COUPLER**



Part#	Body Size	Barb Size	List Price
28-690	1/4"	1/4"	----
28-691	1/4"	3/8"	----

**STAINLESS STEEL MALE COUPLER**

NEW



Part#	Body Size	Thread Size	List Price
28-579SS	1/4"	1/4"	----

**STAINLESS STEEL FEMALE COUPLER**

NEW



Part#	Body Size	Thread Size	List Price
28-560SS	1/4"	1/4"	----

**STAINLESS STEEL INDUSTRIAL MALE PLUG**

NEW



Part#	Body Size	Thread Size	List Price
28-546SS	1/4"	1/4"	----

**STAINLESS STEEL INDUSTRIAL FEMALE PLUG**

NEW



Part#	Body Size	Thread Size	List Price
28-534SS	1/4"	1/4"	----

**ARO 210 INTERCHANGE**

- Couplers have brass bodies and brass valves, 6 steel locking balls, NBR seal, and stainless steel springs
- Plugs are steel with green blue zinc plating
- Couplers have a full opening tubular valve for maximum flow and a built-in sleeve guard to minimize accidental disconnect
- Maximum working pressure is 250 PSI

**MALE COUPLER**



Part#	Body Size	Thread Size	List Price
28-592	1/4"	1/8"	----
28-593	1/4"	1/4"	----
28-594	1/4"	3/8"	----

**MALE PLUG**



Part#	Body Size	Thread Size	List Price
28-586	1/4"	1/8"	----
28-587	1/4"	1/4"	----

**FEMALE COUPLER**



Part#	Body Size	Thread Size	List Price
28-583	1/4"	1/8"	----
28-584	1/4"	1/4"	----
28-585	1/4"	3/8"	----

**FEMALE PLUG**



Part#	Body Size	Thread Size	List Price
28-578	1/4"	1/4"	----

**HOSE ID COUPLER**



Part#	Body Size	Barb Size	List Price
28-601	1/4"	1/4"	----
28-603	1/4"	3/8"	----

**HOSE ID PLUG**



Part#	Body Size	Barb Size	List Price
28-595	1/4"	1/4"	----
28-597	1/4"	3/8"	----



## AUTOMOTIVE/ PARKER INTERCHANGE

## QUICK DISCONNECTS

### AUTOMOTIVE/ PARKER INTERCHANGE (Tru-Flate)

- Brass couplers are brass bodies with brass valves, 6 steel locking balls, NBR seal, and stainless steel springs.
- Steel couplers are steel bodies with steel valves, 6 stainless steel locking balls, NBR seal, and stainless steel springs.
- Plugs are brass or steel with green blue zinc plating
- Unique design has been field proven as a long-lasting, high performance coupling especially when used with pneumatic tools
- Maximum working pressure is 300 PSI

#### BRASS MALE COUPLER



Part#	Body Size	Thread Size	List Price
28-515	1/4"	1/8"	----
28-516	1/4"	1/4"	----
28-517	1/4"	3/8"	----

#### BRASS FEMALE COUPLER



Part#	Body Size	Thread Size	List Price
28-507	1/4"	1/4"	----
28-508	1/4"	3/8"	----

#### STEEL MALE COUPLER



Part#	Body Size	Thread Size	List Price
28-516S	1/4"	1/4"	----
28-514S	3/8"	1/4"	----
28-519S	3/8"	3/8"	----

**NEW**  
**NEW**

#### STEEL FEMALE COUPLER



Part#	Body Size	Thread Size	List Price
28-507S	1/4"	1/4"	----
28-525S	3/8"	1/4"	----
28-526S	3/8"	3/8"	----

**NEW**  
**NEW**

#### BRASS MALE PLUG



**NEW**

Part#	Body Size	Thread Size	List Price
28-510B	1/4"	1/4"	----

#### BRASS FEMALE PLUG



**NEW**

Part#	Body Size	Thread Size	List Price
28-501B	1/4"	1/4"	----

#### STEEL MALE PLUG



Part#	Body Size	Thread Size	List Price
28-509	1/4"	1/8"	----
28-510	1/4"	1/4"	----
28-511	1/4"	3/8"	----
28-512	3/8"	1/4"	----
28-513	3/8"	3/8"	----

**NEW**  
**NEW**

#### STEEL FEMALE PLUG



Part#	Body Size	Thread Size	List Price
28-500	1/4"	1/8"	----
28-501	1/4"	1/4"	----
28-502	1/4"	3/8"	----
28-503	3/8"	1/4"	----
28-504	3/8"	3/8"	----

**NEW**  
**NEW**

## QUICK DISCONNECTS

## AUTOMOTIVE/ PARKER INTERCHANGE

### HOSE ID COUPLER



Part#	Body Size	Barb Size	List Price
28-528	1/4"	1/4"	----
28-530	1/4"	3/8"	----
<b>NEW</b> <b>NEW</b> 28-536	3/8"	1/4"	----
28-538	3/8"	3/8"	----

### HOSE ID PLUG



Part#	Body Size	Barb Size	List Price
28-518	1/4"	1/4"	----
28-520	1/4"	3/8"	----
<b>NEW</b> <b>NEW</b> 28-523	3/8"	1/4"	----
28-524	3/8"	3/8"	----

### PUSH-ON HOSE COUPLER



Part#	Body Size	Barb Size	List Price
28-531	1/4"	1/4"	----
28-532	1/4"	3/8"	----

### PUSH-ON HOSE PLUG



Part#	Body Size	Barb Size	List Price
28-521	1/4"	1/4"	----
28-522	1/4"	3/8"	----

## LINCOLN INTERCHANGE

- Couplers have brass bodies with steel sleeves, Acetal valves, 6 steel locking balls, Nitrile seal and stainless steel springs
- Plugs are steel with green blue zinc plating
- Manual style
- Unique design includes long nose and short ball groove
- Maximum working pressure is 250 PSI

### MALE COUPLER



Part#	Body Size	Thread Size	List Price
28-683	1/4"	1/4"	----

### STEEL MALE PLUG



Part#	Body Size	Thread Size	List Price
28-685	1/4"	1/8"	----
28-686	1/4"	1/4"	----

### FEMALE COUPLER



Part#	Body Size	Thread Size	List Price
28-684	1/4"	1/4"	----

### STEEL FEMALE PLUG



Part#	Body Size	Thread Size	List Price
28-687	1/4"	1/4"	----

**STRAIGHT THROUGH**

**QUICK DISCONNECTS**

**STRAIGHT THROUGH STYLE**

- Brass couplers have brass bodies and brass valves, 8 steel locking balls, Buna-N seal, and stainless steel springs
- Stainless steel couplers have stainless steel bodies, 8 stainless steel locking balls, Buna-N seal, and stainless steel springs
- Plugs are steel with green blue zinc plating or stainless steel
- Straight through design means there is no positive shut-off after disconnect
- Fully interchangeable with Parker, Hansen, Foster and Adams
- Use with liquids, hydraulic service, compressed air, gases, water and vacuum
- Ideal for applications such as high pressure water, steam washers, and carpet cleaners



**MALE BRASS COUPLERS**



Part #	Body Size	Thread Size	PSI	List Price
86-030	1/4	1/4	4000	----
86-031	3/8	3/8	4000	----

**FEMALE BRASS COUPLERS**



Part #	Body Size	Thread Size	PSI	List Price
86-035	1/4	1/4	4000	----
86-036	3/8	3/8	4000	----

**MALE STAINLESS STEEL COUPLERS**



Part #	Body Size	Thread Size	PSI	List Price
86-030SS	1/4	1/4	6000	----
86-031SS	3/8	3/8	6000	----

**FEMALE STAINLESS STEEL COUPLERS**



Part #	Body Size	Thread Size	PSI	List Price
86-035SS	1/4	1/4	6000	----
86-036SS	3/8	3/8	6000	----

**MALE STEEL PLUGS**



Part #	Body Size	Thread Size	PSI	List Price
86-040	1/4	1/4	4000	----
86-041	3/8	3/8	4000	----

**FEMALE STEEL PLUGS**



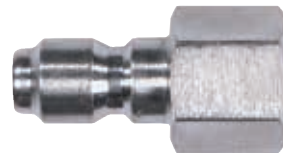
Part #	Body Size	Thread Size	PSI	List Price
86-045	1/4	1/4	4000	----
86-046	3/8	3/8	4000	----

**MALE STAINLESS STEEL PLUGS**



Part #	Body Size	Thread Size	PSI	List Price
86-040SS	1/4	1/4	6000	----
86-041SS	3/8	3/8	6000	----

**FEMALE STAINLESS STEEL PLUGS**



Part #	Body Size	Thread Size	PSI	List Price
86-045SS	1/4	1/4	6000	----
86-046SS	3/8	3/8	6000	----

**QUICK DISCONNECTS****INSULATED KNOB****M22 SCREW TYPE X MNPT**

Part #	Thread Size	Male	PSI	List Price
86-001	M22	1/4	4000	----
86-002	M22	3/8	4000	----

**NEW****M22 SCREW TYPE X FNPT**

Part #	Thread Size	Female Size	PSI	List Price
86-005	M22	1/4	4000	----
86-006	M22	3/8	4000	----

**INSULATED KNOB****M22 INSULATED KNOB X MNPT**

Part #	Thread Size	Male Size	PSI	List Price
86-012	M22	1/4	4000	----
86-013	M22	3/8	4000	----

**M22 INSULATED KNOB X FNPT**

Part #	Thread Size	Female Size	PSI	List Price
86-017	M22	1/4	4000	----
86-018	M22	3/8	4000	----

**M22 X M22 FNPT**

Part #	Thread Size	Thread Size	PSI	List Price
86-022	M22	M22	4000	----

**M22 INSULATED KNOB X QC PLUG**

Part #	Thread Size	Plug	PSI	List Price
86-020	M22	3/8	4000	----

## MUFFLERS/VENTS

### BRASS MUFFLERS

Materials:  
 Body: Brass  
 Element: Sintered Bronze  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 300°F  
 • Application: Designed to diffuse Air & Muffler noise to acceptable levels within OSHA noise requirements.  
 • Used on exhaust ports, valves, cylinders and air tools.  
 • Construction: Porous sintered bronze 40 micron filter element secured to a brass body



Part #	Size	List Price
300-020	10/32"	----
300-021	1/8"	----
300-022	1/4"	----
300-023	3/8"	----
300-024	1/2"	----
300-026	3/4"	----
300-028	1"	----

40 Micron element

### STAINLESS MUFFLERS



Materials:  
 Body: 303 Grade Stainless Steel  
 Element: 316 Grade Stainless Steel  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 392°F

Part #	Size	List Price
300-032	1/8"	----
300-033	1/4"	----
300-034	3/8"	----
300-035	1/2"	----
300-036	3/4"	----

### BRASS BREATHER VENT

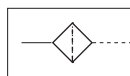


Materials:  
 Body: Brass  
 Element: Sintered Bronze  
 Max Operating Pressure: 150PSI  
 Temperature: 35° to 300°F  
 • Application: Prevents Dirt and Foreign Particles from Entering Ports Open to Atmosphere. Typically used on Acting Cylinders  
 • Additional Use is Vacuum Relief or Pressure Equalization on Storage Vessels or Tanks  
 • Construction: Porous Sintered Bronzed 40 Micron Filter Element Secured to a brass body

Part #	Size	List Price
300-000	10-32"	----
300-001	1/8"	----
300-002	1/4"	----
300-003	3/8"	----
300-004	1/2"	----
300-006	3/4"	----
300-008	1"	----

40 Micron element

### STAINLESS BREATHER VENT

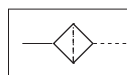


Materials:  
 Body: 303 Grade Stainless Steel  
 Element: 316 Grade Stainless Steel  
 Max Operating Pressure: 150PSI  
 Temperature: 35° to 390°F

Part #	Size	List Price
300-014	1/8"	----
300-015	1/4"	----
300-017	3/8"	----
300-018	1/2"	----
300-019	3/4"	----
300-007	1"	----

## PNEUMATIC ACCESSORIES

### PRESSURE SNUBBER

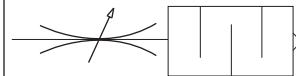


Materials:  
 Body: Brass  
 Element: Sintered Bronze  
 Max Operating Pressure: 9000PSI  
 Temperature: 35° to 300°F  
 • Applications: Protect pressure instruments from sudden pressure surges and fluctuations providing more accurate gauge readings  
 • Construction: Solid brass housing with porous bronze element  
 • Can be used for mini in-line filters  
 • 5 different porosity elements per package, allows each user to adjust snubbing capacity for the specific application

Part #	Size	Porosity	List Price
28-354	1/4"	40 um	----
28-353	1/4"	30 um	----
28-352	1/4"	25 um	----
28-351	1/4"	20 um	----
28-350	1/4"	10 um	----

Recommended Element Porosity Rating		
Rating	Color	Recommended Application
40 um	None	Viscous Fluids (over 500 ssu)
30 um	Black	Med. Type Oils (225 to 500 ssu)
25 um	Brown	Water & LT. Oils (30 to 25 ssu)
20 um	Green	Low Viscosity Fluids (under 30 ssu)
10 um	Red	
5 um	Purple	Air and Other Gases

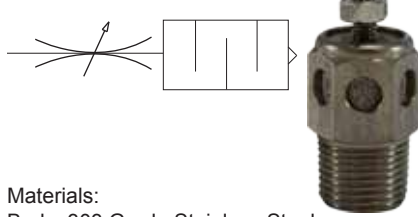
### SPEED CONTROL VALVE



Materials:  
 Body: Brass  
 Element: 40 Micron Sintered Bronze  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 300°F  
 • Application: Provide infinite variation of metering air flow at acceptable sound levels on air valve exhaust ports with complete safety  
 • The speed of an operating cylinder or air tool may be increased or decreased with the adjusting screw, the final position is locked in place by a lock nut  
 • Objectionable exhaust air noise is eliminated by the surrounding sleeve - 40 µm sintered bronze  
 • Brass Body  
 • Max operating pressure: 300PSI  
 • Operating temperature: 35° F to 300° F

Part #	Size	List Price
940-800	1/8"	----
940-801	1/4"	----
940-803	3/8"	----
940-804	1/2"	----
940-805	3/4"	----
940-806	1"	----

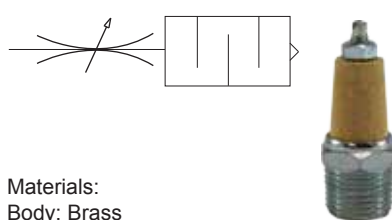
**STAINLESS SPEED CONTROL VALVE**



Materials:  
 Body: 303 Grade Stainless Steel  
 Element: 316 Grade Stainless Steel  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 392°F

Part #	Size	List Price
940-810	1/8"	----
940-811	1/4"	----
940-812	3/8"	----
940-813	1/2"	----
940-814	3/4"	----
940-815	1"	----

**MUFFLER W/ FLOW ADJUSTMENT**



Materials:  
 Body: Brass  
 Element: Sintered Bronze  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 300°F

Part #	Size	List Price
28-379	1/8"	----
28-380	1/4"	----
28-381	3/8"	----
28-382	1/2"	----

**HIGH FLOW ALUMINUM MUFFLER**

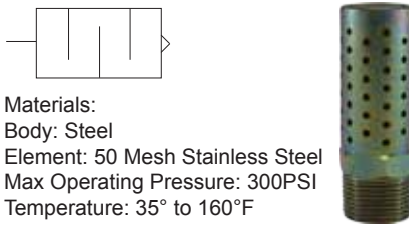
• hole pattern



Materials:  
 Body: Aluminum  
 Element: 50 Mesh Stainless Steel  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 160°F

Part #	Size	List Price
940-822	1/8"	----
940-823	1/4"	----
940-824	3/8"	----
940-825	1/2"	----
940-826	3/4"	----
940-827	1"	----

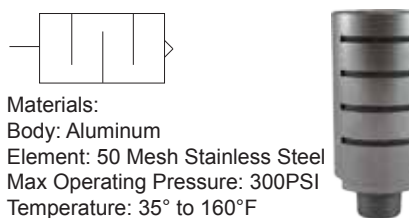
**HIGH FLOW STEEL MUFFLER**



Materials:  
 Body: Steel  
 Element: 50 Mesh Stainless Steel  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 160°F

Part #	Size	List Price
28-373	1/8"	----
28-374	1/4"	----
28-375	3/8"	----
28-376	1/2"	----
28-377	3/4"	----
28-378	1"	----

**ALUMINUM HIGH FLOW MUFFLER**

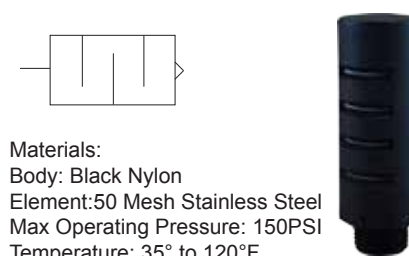


Materials:  
 Body: Aluminum  
 Element: 50 Mesh Stainless Steel  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 160°F

- Slit pattern
- Application: Used exhaust ports of Pneumatic valves or manifolds to reduce work area noise
- Construction: Aluminum body, 50 mesh self cleaning stainless steel screen corrosion resistant aluminum shell
- High flow & minimal back pressure

Part #	Size	List Price
28-367	1/8"	----
28-368	1/4"	----
28-369	3/8"	----
28-370	1/2"	----
28-371	3/4"	----
28-372	1"	----

**PLASTIC HIGH FLOW MUFFLER**



Materials:  
 Body: Black Nylon  
 Element: 50 Mesh Stainless Steel  
 Max Operating Pressure: 150PSI  
 Temperature: 35° to 120°F

Part #	Size	List Price
28-363	1/8"	----
28-364	1/4"	----
28-365	3/8"	----
28-366	1/2"	----

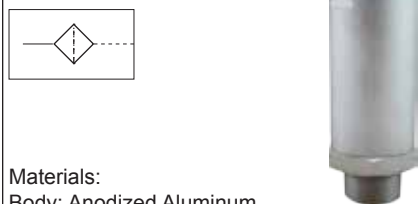
**NIPPLE INLINE FILTER**



Materials:  
 Body: Brass  
 Element: 40 Micron Sintered Bronze  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 300°F

Part #	Size	List Price
940-845	1/8"	----
940-846	1/4"	----
940-847	3/8"	----
940-848	1/2"	----

**REPAIRABLE AIR/ OIL INLINE FILTER**



Materials:  
 Body: Anodized Aluminum  
 Element: 40 Micron Sintered Bronze  
 Max Operating Pressure: 300PSI  
 Temperature: 35° to 200°F

- Application: Protect small air tools i.e. impact wrench grinders, screwdrivers and low pressure hydraulic applications
- Construction: All anodized, lightweight aluminum housing
- Can be installed directly before the air tool
- Features cleanable or replaceable 40 micron filter element

Part #	Size	List Price
940-840	1/8"	----
940-841	1/4"	----
940-842	3/8"	----
940-843	1/2"	----
940-844	3/4"	----

**MANIFOLDS & AIR REGULATORS**

**PNEUMATIC ACCESSORIES**

**AIR REGULATOR**

- Rated for Inlet Pressure up to 140PSI(10bar).
- Ambient and Fluid Temperature:5~60°C(41~140°F)
- Port Threads:NPT
- Flow Capacity:See Below,at 0.7Mpa Inlet Pressure and set at 0.5Mpa.
- Assembly Bracket is included.
- With Overflow Valve

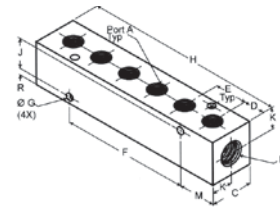


**NEW**

Part #	Size	Gauge Port	Regulating Range	List Price
AR2	1/4"	1/8	0.05~0.85Mpa(0.5~8.5kgf/cm2)(7.25psi~123psi)	----

**MANIFOLDS**

Materials:  
Aluminum with black anodizing for corrosion resistance.  
Specifications:  
Max Operating Pressure: 1000PSI  
Temperature: -10° to 200°F  
Media: Air and liquids compatible with materials of construction.  
• Ports column = # of ports in top of manifold



**THREADED PORTS**

Part #	Ports	List Price	A - out NPT	B - in NPT	C	D	E	F	G	H	J	K	M	R
28-450	4	----	1/8"	1/4"	1.00	0.50	0.75	1.5	0.17	3.25	0.70	0.50	0.88	0.15
28-452	6	----						3.00		4.75				
28-456	10	----						6.00		7.75				
28-457	2	----	1/4"	3/8"	1.25	0.63	0.88	N/A	0.20	2.13	0.89	0.63	1.06	0.18
28-458	3	----						0.88		3.00				
28-459	4	----						1.75		3.88				
28-460	5	----						2.63		4.75				
28-461	6	----						3.50		5.63				
28-463	8	----	5.25	7.38										
28-464	9	----	6.13	8.25										
28-465	10	----	7.00	9.13										
28-467	3	----	3/8"	3/8"	1.25	1.00	1.13	1.13	0.20	4.25	0.89	0.63	1.56	0.18
28-468	4	----						2.25		5.38				
28-469	5	----						3.38		6.50				
28-470	6	----						4.50		7.63				
28-473	9	----						7.88		N/A				

**3 IN 1 ALUMINUM AIR MANIFOLD**

No need to connect and disconnect every time you want to change tools. Supply 3 air tools from one outlet. These manifolds have one inlet with three 1/4 outlets.



Part #	Size	List Price
320-120	1/4" Inlet	----
320-121	3/8" Inlet	----
320-122	1/2" Inlet	----

three 1/4" Outlets

S685-4 S685-6 S685-8 D3404 D3406 D3408 3104 3106

**MULTI-PURPOSE AIR VENT**



Part #	Size	List Price
46-048	1/8"	----
46-048S*	1/8" SS	----

#303 SS 705

**BRASS BICYCLE PUMP FITTING**

Screw on swivel chuck for most hand operated tire pumps.  
Buna-N-Seal • Deflator



INT x 3/16 Barb

Part #	Size	List Price
32-782	3/16"	----

**INFLATOR**



INT x 3/16

Part #	Size	List Price
32-783	3/16"	----

**PNEUMATIC SLIDE VALVE**

- Max Operating Pressure: 200 psig
- Temperatures: -20°F to +200°F

Manually operated slide valves provide simple on/off airflow control. They can be mounted horizontally, vertically or at any angle.

Open Position



**MALE X FEMALE**

Part #	Size	L	Hex	List Price
20-780	1/8"	2.15	9/16"	----

INT = Inflation needle thread .305 in. OD x 32 threads per inch (see page 371)

**TANK & VENT VALVE**

Three standard styles of valve bodies, complete with short core, for air lifts, water pumps, vacuum, pressurized containers, air jacks, and other pneumatic devices.  
REGULAR: 300 PSI and cracking pressure 80 PSI

**1/8" NPT - .9" LONG SPRING CORE**

7/16" Hex

1/8 x INT



Part #	Size	List Price
46-620	1/8	----

**1/8" NPT 1.207" LONG SPRING CORE**

7/16" Hex

1/8 x INT



Part #	Size	List Price
46-621	1/8	----

**1/4" NPT 1.46" LONG SPRING CORE**

9/16" Hex

w/ Black cap

1/4 x INT



Part #	Size	List Price
46-622	1/4	----

**TANK VALVE ACCESSORIES**

**BLACK PLASTIC CAP**

No gasket

Inflation needle threads



Part #	List Price
46-630	----

**SHORT NICKEL PLATED DOME CAP**

Dome skirted type

Inflation needle thread



Part #	List Price
46-631	----



## BLOW GUNS

### COMPACT BLOW GUN W/RUBBER TIP

- Includes One Rubber Tip and One Safety Tip
- Zinc Alloy Body
- 1/4" FPT Inlet
- Maximum 150 psi (Recommended Working Pressure 90-120 psi)
- Safety Tip Limits Air Pressure to 30 psi When Dead-Ended per OSHA requirement
- Maximum 87 dba
- 1/8" Outlet



NEW

Part #	Size	List Price
320-053	1/4"	----

### SAFETY BLOW GUN

- Heavy-Duty Design
- Internal Safety Valve that Limits Air Pressure to Less than 30 psi When dead-ended per OSHA
- Aluminium Alloy Body
- 1/4" FPT Inlet
- Maximum 150 psi (Recommended Working Pressure 90-120 psi)
- Safety Tip Limits Air Pressure to 30 psi When Dead-Ended per OSHA Requirement
- Maximum 87 dba
- 1/8" Outlet



NEW

Part #	Size	List Price
320-054	1/4"	----

### SAFETY BLOW GUN

- N/P steel handle with plastic sleeve
- Brass Valve
- Zinc body
- Aluminum nozzle



90 PSI

1/8" Outlet

Part #	Size	List Price
320-050	1/4" Inlet	----

5114 51-124 401 20430AD S148 D204-30 6475

### COMPACT BLOW GUN

- With standard tip and safety tip
- Zinc Alloy Body
- 1/4" FPT Inlet
- Maximum 150 psi (Recommended Working Pressure 90-120 psi)
- Safety Tip Limits Air Pressure to 30 psi When Dead-Ended per OSHA Requirement
- Maximum 87 dba



NEW

Part #	Size	List Price
320-055	1/4"	----

## PNEUMATIC ACCESSORIES

### PISTOL GRIP BLOW GUN

- Lightweight, Ergonomic Design
- Delrin® Body
- Trigger Air Flow Control
- 1/4" FPT Inlet
- 3" Nozzle Ideal for Tight Spaces
- Recommended Working Pressure 90-120 psi
- Maximum 87 DbA



NEW

Part #	Size	List Price
320-036	1/4"	----

### PISTOL GRIP BLO-GUN

#### Material

- Body: POM (engineering plastic)
- Nozzle: nickel plated carbon steel
- Blue Handle Color

#### Features

- Simple construction, economic
- Global thread connection
- Durable and versatile applications
- 4 inch nozzle



150 PSI

NEW

Part #	Size	List Price
320-035	1/4"	----

### RUBBER TIPPED NOZZLE



Makes positive seal between gun and fuel line or other openings. Use only on air line regulated to 30 PSI or less

Part #	Thread Size	List Price
320-070	1/8 - 27	----

51-521 2058 D201RT 411R

### HIGH FLOW SAFETY NOZZLE



Meets OSHA regulations of 30 PSI maximum outlet pressure when line pressure is 150 PSI or less. Has an air pressure bypass which prevents build up of tip pressure even if nozzle is blocked. Adapts to any blow gun with a 1/8" NPT nozzle port

Part #	Size	List Price
320-075	1/8 MIP x Female Needle Thread	----

51-338 SST10 411BT 2056

**M - TIRE GAUGE**

320-021



**POCKET TIRE GAUGES**  
**HEAVY DUTY DUAL FOOT TIRE GAUGE**

320-022



**NEW**

**DUEL ANGLE FOOT TRUCK PENCIL GAUGE**

320-023



Part #	Pressure Range	Increment	Head	Body	Bar(psi/kPa)	List Price
320-021	20-120psi	2 psi	Metal	Metal	4 sided plastic	----
320-022	10-120psi	2 psi	Plastic	Metal	4 sided plastic	----
320-023	20-120psi	2 psi	Metal	Metal	4 sided plastic	----

**INFLATION NEEDLE**

**NEW**



• See thread note below

Part #	List Price
320-095	----

**1 PIECE BLOW GUN TAPERED NOZZLE**



**NEW**

Part #	Size	List Price
320-076	NT	----

**1 PIECE BLOW GUN STANDARD NOZZLE**



**NEW**

Part #	Size	List Price
320-077		----

**VOLUME REGULATOR**



Part #	FIP X MIP	List Price
46-615	1/4	----

**What size thread is an inflation needle (INT)?**  
**Metric:** 7.7mm OD, thread root diameter is 6.9mm x 0.794 pitch  
**English:** 0.305 OD, threadroot diameter 0.302 in x 32 tpi (threads per inch)

**1 PIECE DIAL TIRE GAUGE**

**NEW**



Part #	List Price
320-410	----

**1 PIECE EXTENSION**

**NEW**



Part #	Size	List Price
320-080	NT	----

**1 PIECE BLOW GUN ADAPTER**



**NEW**

Part #	Size	List Price
320-078	Female NT x 1/8 MPT	----

**NYLON COIL AIR HOSE**

**NEW**

- 200 psi working pressure
- 4:1 Safety factor (burst vs working pressure)
- Spring end sleeves to prevent kinking
- 1/4 MPT Brass fittings on both ends
- Temperature range 32°F to 120°F
- Packaged for retail sale



Part #	Description	Size	List Price
307-030	25'	1/4" NPT	----
307-031	50'	1/4" NPT	----

**CHUCKS**

**PNEUMATIC ACCESSORIES**

**HEX BALL FOOT CHUCK**



Part #		List Price
46-600	1/4 FPT Live Air	----

**MALE BALL FOOT CHUCK**



Part #		List Price
46-605	1/4 MIP Live Air	----

**BALL FOOT CHUCK W/ 1/4 ID HOSE BARB**



Part #		List Price
46-607	1/4 ID Live Air	----

**DUEL HEAD AIR CHUCK**



Dual Head Air Chuck 1/4"FNPT,the length is 6.08",the head is Zinc-alloy,and the nut is brass with chrome plated.

Part #		List Price
320-000	1/4	----

**DUEL HEAD STRAIGHT FOOT AIR CHUCK**



Dual Head Straight Foot Air Chuck 1/4"FNPT For inner duals;both ends lock on valve core threads,the length is 6.66",the head is Zinc-alloy,and the nut is brass with chrome plated.

Part #		List Price
320-005	1/4	----

**INFLATORS WITH GAUGE**

**INFLATOR/ GAUGE**

- Rugged Zinc Cast Body with Brass Internals for long life
- Solid Brass Gauge Bar
- Built-in Air Relief Valve
- 6" Dual-Foot Air Chuck



320-010

**INFLATOR/ GAUGE**

- Rugged Zinc Cast Body with Brass Internals for Long Life
- Easy to View Built-In Sight Gauge
- Full Swivel Hose Fittings
- Protective Rubber Bumper
- Built-in Air Relief Valve
- 6" Dual-Foot Air Chuck

NEW



320-011

Part #	Pressure Range	Increment	Inlet	Hose Length	List Price
320-010	10-120 psi	2 psi	1/4 FPT	12"	----
320-011	10-120 psi	2 psi	1/4 FPT	12"	----

**16PCS-AIR ACCESSORY SET  
PART# 87-400**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
1pc-1/4"FNPT industrial coupler	28-540	358
2pcs-1/4"FNPT industrial plugs	28-534	359
2pcs-1/4"MNPT industrial plugs	28-546	359
1pc-1/4" male connector	28-212	8
1pc-1/4" double female connector	28-059	3
1pc-ball foot chuck	46-600	372
1pc-blow gun	320-050	370
1pc-dial tire gauge	320-410	371
1pc-tapered rubber tip	320-070	370
1pc-blow gun safety nozzle	320-075	370
1pc-blow gun tapered nozzle	320-076	371
2pcs-inflation needles	320-095	371
1pc-25ft. nylon recoil hose	307-030	371

**10PCS-AIR ACCESSORY SET  
PART# 87-402**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
1pc-1/4"female connector	28-059	3
1pc-blow gun safety nozzle	320-075	370
1pc-blow gun tapered nozzle	320-076	371
1pc-ball foot chuck	46-605	372
1pc-blow gun	320-050	370
1pc-1/4"FNPT industrial coupler	28-540	358
1pc-1/4" FNPT industrial plug	28-534	359
1pc-1/4"MNPT industrial plug	28-546	359
2pcs-inflation needles	320-095	371

**7PCS-AIR ACCESSORY SET  
PART# 87-404**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
1pc-blow gun rubber tip	320-070	370
1pc-blow gun safety nozzle	320-075	370
1pc-blow gun tapered nozzle	320-076	371
1pc-extension	320-080	371
1pc-blow gun	320-050	370
2pcs-inflation needles	320-095	371

**11PCS-AIR ACCESSORY SET  
PART# 87-406**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
1pc-blow gun rubber tip	320-070	370
1pc-blow gun safety nozzle	320-075	370
1pc-blow gun tapered nozzle	320-076	371
1pc-blow gun standard nozzle	320-077	371
1pc-blow gun adapter	320-078	371
1pc-hose&chuck assembly	320-414	371
1pc-blow gun	320-050	371
1pc-inflation needle	320-095	371
1pc-1/4"FNPT industrial coupler	28-540	358
1pc-1/4" FNPT industrial plug	28-534	359
1pc-1/4"MNPT industrial plug	28-546	359

**AIR ACCESSORY SET**

**PNEUMATIC ACCESSORIES**

**17PCS-AIR ACCESSORY SET**

Contents of blister card package

**PART# 87-408**



**LIST PRICE: ---**

Components and part#'s		Page #
1pc-1/4" double female connector	50004	420
2pcs-1/4" double male connectors	54044	420
1pc-blow gun safety nozzle	320-075	370
1pc-blow gun tapered nozzle	320-076	371
1pc-dual-foot tire chuck	320-005	372
1pc-tire gauge	320-021	371
1pc-blow gun	320-050	370
1pc-1/4" FNPT industrial coupler	28-540S	358
2pcs-1/4" FNPT industrial plug	28-534	359
4pcs-1/4" MNPT industrial plug	28-546	359
2pcs-inflation needles	320-095	371

**12PCS-AIR ACCESSORY SET**

Contents of blister card package

**PART# 87-410**



**LIST PRICE: ---**

Components and part#'s		Page #
1pc-blow gun safety nozzle	320-075	370
1pc-blow gun tapered nozzle	320-076	371
1pc-blow gun rubber nozzle	320-070	370
1pc-ball foot tire chuck	46-600	372
1pc-blow gun	320-050	370
1pc-1/4"FNPT industrial coupler	28-540	358
1pc-1/4" MNPT industrial coupler	28-552	358
2pcs-1/4"FNPT industrial plug	28-534B	359
2pcs-1/4"MNPT industrail plug	28-546B	359
1pc-inflation needle	320-095	371

Contents of blister card package

**20PCS-AIR ACCESSORY SET**

**PART# 87-412**



**LIST PRICE: ---**

Components and part#'s		Page #
1pc-dual-foot tire chuck	320-005	372
1pc-tire gauge	320-021	371
1pc-blow gun rubber nozzle	320-070	370
1pc-blow gun adapter	320-078	371
1pc-1/4" double male connector	54044	420
1pc-1/4" double female connector	50004	420
1pc-blow gun safety nozzle	320-075	370
1pc-blow gun tapered nozzle	320-076	371
1pc-thread seal tape	982-107	379
1pc-blow gun	320-050	370
2pcs-1/4"FNPT industrial coupler	28-540S	358
2pcs-1/4"FNPT industrial plug	28-534	359
3pcs-1/4"MNPT industrial plug	28-546	359
2pcs-inflation needles	320-095	371
1pc-1/4"x 25Ft coil Nylon hose	307-030	371

**1/4" X 1/4" NPT INDUSTRIAL 7PCS**

**PART# 87-414**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
2pc-1/4"x1/4" FNPT T I/M coupler	28-540S	358
2pcs-1/4"x1/4" FNPT I/M plugs	28-534	359
2pcs-1/4"x1/4"MNPT I/M plugs	28-546	359
1pc-double 1/4" MNPT fitting	54044	420

**1/4" X 1/4" NPT INDUSTRIAL 5PCS**

**PART# 87-416**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
1pc-1/4"x1/4"FNPT I/M coupler	28-540S	358
4pc-1/4"X1/4" MNPT I/M plug	28-546	359

**1/4" X 1/4" NPT INDUSTRIAL 5PCS**

**PART# 87-418**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
1pc-1/4"x1/4"FNPT I/M coupler	28-540S	358
1pc-1/4"x1/4"FNPT I/M plug	28-534	359
1pc-1/4"X1/4" MNPT I/M plug	28-546	359
1pc-double 1/4" MNPT fitting	54-044	420

**1/4" X 1/4" NPT INDUSTRIAL 3PCS**

**PART# 87-420**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
1pc-1/4"x1/4" FNPT I/M coupler	28-540S	358
1pc-1/4"x1/4" FNPT I/M plug	28-534	359
1pc-1/4"x1/4" MNPT I/M plug	28-546	359

**3/8" X 1/4" NPT AUTOMOTIVE 5PCS KIT**

**PART# 87-422**

**NEW**



**LIST PRICE: ---**

Contents of blister card package

Components and part#'s		Page #
1pc-3/8"x1/4" FNPT Automotive coupler	28-525S	362
2pcs-3/8"x1/4"MNPT Automotive plugs	28-512	362
1pc-double 1/4"MNPT fitting	28-212	8
1pc-double 1/4"FNPT fitting	28-059	3

**STANDARD DRY GAUGES**

**STEEL CASE**

All the gauges supplied by us are designed for long, reliable service under rugged conditions. Typical applications include compressors, filter regulators, water pumps, beverage dispensing equipment, hydraulic and pneumatic systems, and other applications, where the media does not corrode brass. ALL CONNECTIONS ARE BRASS.

**LOWER MOUNT**

- Plastic lens (window)



**1-1/2" FACE  
1/8" NPT LOWER MOUNT**

Part #	PSI	List Price
80-501	0-15	----
80-502	0-30	----
80-503	0-60	----
80-504	0-100	----
80-505	0-160	----
80-506	0-200	----



**2" FACE  
1/4" LOWER MOUNT**

Part #	PSI	List Price
80-001	0-15	----
80-002	0-30	----
80-003	0-60	----
80-004	0-100	----
80-005	0-160	----
80-006	0-200	----
80-007	0-300	----
80-020	30-0 Vacuum	----



**2-1/2" FACE  
1/4" LOWER MOUNT**

Part #	PSI	List Price
80-031	0-15	----
80-032	0-30	----
80-033	0-60	----
80-034	0-100	----
80-035	0-160	----
80-036	0-200	----



**1-1/2" FACE  
1/8" NPT CENTER BACK MOUNT**

Part #	PSI	List Price
80-511	0-15	----
80-512	0-30	----
80-513	0-60	----
80-514	0-100	----
80-515	0-160	----
80-516	0-200	----

**CENTER BACK MOUNT**



**2" FACE  
1/4" CENTER BACK MOUNT**

Part #	PSI	List Price
80-301	0-15	----
80-302	0-30	----
80-303	0-60	----
80-304	0-100	----
80-305	0-160	----
80-306	0-200	----
80-307	0-300	----



**2-1/2" FACE  
1/4" CENTER BACK MOUNT**

Part #	PSI	List Price
80-331	0-15	----
80-332	0-30	----
80-333	0-60	----
80-334	0-100	----
80-335	0-160	----
80-336	0-200	----

**LIQUID FILLED GAUGES**

**STAINLESS CASE**

Liquid filled gauges enhance the reliability and integrity of the measuring system for long periods. The glycerine filling helps dampen the effects of vibration and pulsation. It also lubricates the movement which extends the life of the gauge. ALL CONNECTIONS ARE BRASS.



**1-1/2" FACE  
1/8" LOWER MOUNT**

Part #	PSI	List Price
80-601	0-15	----
80-602	0-30	----
80-603	0-60	----
80-604	0-100	----
80-605	0-160	----
80-606	0-200	----



**2-1/2" FACE  
1/4" LOWER MOUNT**

Part #	PSI	List Price
80-061	0-15	----
80-062	0-30	----
80-063	0-60	----
80-064	0-100	----
80-065	0-160	----
80-066	0-200	----
80-067	0-300	----
80-068	0-400	----
80-069	0-600	----
80-100	0-1000	----
80-101	0-1500	----
80-102	0-2000	----
80-103	0-3000	----
80-104	0-5000	----
80-105	0-10000	----
80-080	30-0 Vacuum	----
80-081	-30 to +30	----

- Liquid Filled Gauges with a stainless case are used for protection in harsh environments.
- Stainless Steel Case
- Copper Alloy Wetted parts
- Polycarbonate window
- ± 1.5% of span accuracy
- Temp. Range -104°F to 158°F



**4" FACE  
1/4" LOWER MOUNT**

Part #	PSI	List Price
80-463	0-100	----

**CENTER BACK MOUNT**



**1-1/2" FACE  
1/8" CENTER BACK MOUNT**

Part #	PSI	List Price
80-611	0-15	----
80-612	0-30	----
80-613	0-60	----
80-614	0-160	----
80-615	0-100	----
80-616	0-200	----



**2-1/2" FACE  
1/4" CENTER BACK MOUNT**

Part #	PSI	List Price
80-201	0-15	----
80-202	0-30	----
80-204	0-60	----
80-203	0-160	----
80-205	0-100	----
80-206	0-200	----
80-207	0-300	----
80-208	0-400	----
80-209	0-600	----



**GAUGES/ SYPHON**

**Water Test Gauge**

0-300 PSI DIAL  
3/4" FEMALE HOSE  
CONNECTION



Part #	Face Size	List Price
991-249	2"	----
991-250	2-1/2"	----

**Water Test Gauge  
w/Lazy Hand (Maximum pointer)**

2-1/2" GAUGE  
0-300 PSI DIAL  
3/4" FEMALE HOSE  
CONNECTION



Regular pressure hand pushes LAZY hand to peak operating or surge pressure point where it remains until you manually reset it. Excellent to determine if P/T valve is leaking from failure or if leaking is caused by surge of excessive pressures. (Attach gauge to Boiler Drain Valve overnight.) LAZY hand operates over entire gauge range of 0-300psi

Part #	List Price
991-251	----

**PNEUMATIC ACCESSORIES**

**GAS TEST GAUGE**

Pressure test residential and commerical pipe systems



Part #	Face Size	List Price
GT15	0-15	----
GT30	0-30	----
GT60	0-60	----

**BODY ONLY**



Part #	Face Size	List Price
991-259	3/4" FIP x 1/4" TAP	----

**SYPHON**

**BRASS**

Syphons protect instruments from effects of hot pressure media commonly used in steam applications



Part #	Size	List Price
995-210	1/4" 90°	----
995-211	1/4" 180°	----
995-212	1/4" 270°	----
995-213	1/4" 360°	----

**STEEL**

Syphons protect instruments from effects of hot pressure media commonly used in steam applications



Part #	Size	List Price
995-214	1/4" 90°	----
995-215	1/4" 180°	----
995-216	1/4" 270°	----
995-217	1/4" 360°	----

## PNEUMATIC ACCESSORIES

## TAPES/ SEALANT

### PTFE THREAD SEAL TAPE

- Density 0.4
- Thickness 3.5 MIL
- Meets MIL specs  
T-27730A



Part #	Size	Case Qty	List Price
982-107	1/2" x 260"	500	----
982-108	1/2" x 520"	500	----
982-109	3/4" x 260"	350	----
982-110	3/4" x 520"	350	----

POP OUT COVERED SPOOL

### GREY STAINLESS STEEL

- Density 1.2
- Thickness 4MIL
- Meets MIL specs  
T-27730A &  
CID A-A 58092



NEW

Part #	Size	Case Qty	List Price
982-135	1/2" x 260"	250	----
982-136	1/2" x 520"	150	----
982-137	3/4" x 260"	150	----
982-138	3/4" x 520"	150	----

### GREEN OXYGEN TAPE

- Density 1.2
- Thickness 3.5MIL
- Meets MIL specs  
T-27730A &  
CID A-A 58092



NEW

Part #	Size	Case Qty	List Price
982-130	1/2" x 260"	250	----
982-131	1/2" x 520"	150	----
982-132	3/4" x 520"	150	----

### PTFE BLUE SEAL TAPE

- Professional grade top -450 to +450°F
- Super long roll
- Twice the density of standard tape for less passes, lasts longer
- Density 0.8
- Thickness 3.5 MIL
- Meets MIL Spec  
T-27730A



NEW

Part #	Size	Case Qty	List Price
982-120	1/2" x 1368"	250	----
982-121	3/4" x 1368"	150	----
982-122	1" x 1296"	150	----

### YELLOW GAS LINE TAPE

- Density 0.9
- Thickness 4MIL
- Meets MIL specs  
T-27730A



NEW

Part #	Size	Case Qty	List Price
982-125	1/2" x 260"	250	----
982-126	1/2" x 520"	150	----
982-127	3/4" x 520"	150	----

### PVC ELECTRICAL TAPE

- Rated to 176 degrees fahrenheit
- Suitable for use up to 600V
- UL Listed
- Individually wrapped in cellophane



NEW

Part #	Size	List Price
982140	3/4" X 60' Black	----

## THREAD SEALANT

### GASOILA SOFT-SET THREAD SEALANT WITH PTFE



NEW

Part#	Size	Units per case	List Price
983100	1/4 pt. Brush	24	----
983101	1/2 pt. Brush	24	----
983102	1 pt. Brush	12	----

### PLS 2 PREMIUM THREAD AND GASKET SEALER



NEW

Part#	Size	Units per case	List Price
983110	1/4 pt. Brush	12	----
983111	1 pt. Brush	6	----

### GASOILA NT NON-PTFE THREAD SEALANT



NEW

Part#	Size	Units per case	List Price
983120	1/2 pt. Brush	12	----
983121	1 pt. Brush	6	----

### JC-30 GASOILA HIGH-FILL



NEW

Part#	Size	Units per case	List Price
983115	1/4 pt. Brush	12	----
983116	1 pt. Brush	6	----

### FREE ALL DEEP PENETRATING OIL



NEW

Part#	Size	Units per case	List Price
983125	6 oz. Aerosol	12	----
983126	11 oz. Aerosol	12	----

### LUBE-IT ALL DEEP LUBRICATING OIL



NEW

Part#	Size	Units per case	List Price
	6 oz. Aerosol	12	----

**TRUCK AND TRAILER**



**INDUSTRY GRADE NYLON AIR COIL ASSEMBLY - SET**

- Each kit contains one Emergency (Red) and one service (Blue) 1/2" O.D. nylon tubing assembly.
- 1/2" -14 NPTF end fitting with heavy gauge spring.
- Assemblies meet SAE J844 and DOT FMVSS 106 requirements.
- Temp rating -40° - +208°



Part #	Length	Pigtail Length Tractor end	Pigtail Length Trailer end	List Price
39404	12'	6'	6'	----
39400	15'	12'	12'	----
39402	15'	40"	12"	----
39406	20'	12"	12"	----

**FIFTH WHEEL SLIDER COIL**

- Temperatures range -40 to 208°F
- 150 psi max pressure rating
- Meets SAE J844 and DOT FMVSS 106 requirements.
- (2) 1/4" OD fittings assembled



Part #	Description	Length	Fittings	List Price
39839	5th Wheel slider coil	up to 54"	(2) 1/4" MPT	----
39838	5th Wheel slider coil	up to 72"	(2) 1/4" MPT	----

**3-IN-1 AND 4-IN-1 COMBINATION AIRLINE CABLE**

- (2) 3/8" ID SAE J1402 rubber service and emergency with blue (service) and red (emergency) gladhand grip handle
- Color-coded grip helps to minimize incorrect tractor/trailer connections have glad handle with Vibraseal
- ABS power line (green) – meets SAE J2222 requirements
- Auxiliary power line (yellow) – fitted with SAESS60 plugs that have an inverted (male) ground pin 4-in-1 only
- SAE J560 Plugs with sleeves for superior corrosion protection and strain relief
- Corrosion resistant all brass fittings 1/2" male NPT w/ Vibraseal
- Tapered grip flexes with airline during tight turns for kink protection
- Temp rating -40 - 208°F



Part #	Description	List Price
39825	Combo 3 in 1 assembly 15 ft.	----
39962	Combo 4 in 1 assembly 15 ft.	----

**AIRBRAKE HOSE REPAIR KIT**



- Fittings to repair two rubber air brake hoses, 3/8" or 1/2"
- Contains 2 fittings and a hex tool
- Meets DOT 106 SAE j1402
- Brass sleeve and barb
- Pre-applied sealant

Part #	Description	Qty	List Price
39855	3/8" Quick fix hose fitting	Bulk/100	----
39856	3/8" Quick fix hose kit- clam pack	Box of 12	----
39857	1/2" Quick fix hose	Bulk/100	----

**POGO STICKS CANNISTER STYLE**

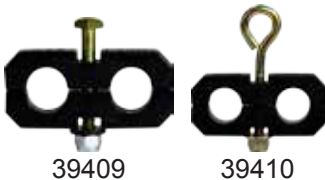


39425

39426

- Large diameter housing eliminates spring binding
- Increased resistance to sagging and bending
- Thick gauge heavy duty spring
- Used for all nylon and rubber air brake hose
- Forged steel mounting stud 7/16-20 thread
- All Pogo Sticks include Eyebolt and Nut

Part #	Size	Description	List Price
39425	40"	Chrome finish	----
39426	40"	Zinc Plated Steel	----

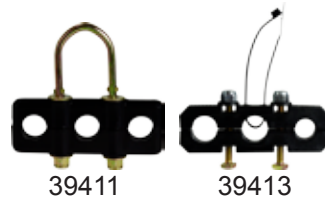


39409

39410

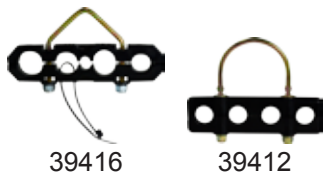
**HOSE HOLDERS**

- ABS Plastic
- 2, 3 and 4 Hold



39411

39413



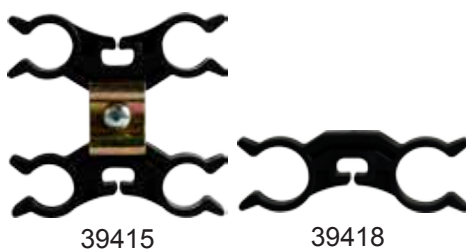
39416

39412

Part #	Size	Description	List Price
39409	1/2"	2-Hose Holder Hex Head	----
39410	1/2"	2-Hose Holder	----
39411	1/2"	3-Hose Holder	----
39413	1/2"	3-Hose Hex Head w Cable tie	----
39416	1/2"	4-Hose V Bolt w Cable Tie	----
39412	1/2"	4-Hose Holder	----

**HOSE SEPARATORS**

- ABS Plastic



39415

39418

Part #	Size	Description	List Price
39414	3/8"	2-Hose Separator	----
39415	3/8"	4-Hose Separator	----
39418	1/2"	2-Hose Separator	----
39419	1/2"	4-Hose Separator	----

**HOSE SUPPORT**

**TRUCK AND TRAILER**



39469



39473



39472

**TENDER KIT COMPONENTS**

Part #	Description	List Price
39411	3 hole holder	----
39469	Clip Carabiner	----
39472	Hanger Bracket	----
39473	Yoke	----

• Sold Separately



39477



39846

**HOSE SUPPORT**

Part #	Description	List Price
39477	Frame Clip with Cable Tie	----
39846	Hose Support Spring 1-1/8" x 8" long	----
39847	Hose Support Spring 1" x 13" long	----

**SPRING WITH TANDEM FRAME CLIP**

- Steel spring and clip - yellow dichromate finish
- 3/4" OD

39471



39463

Part #	Length	Description	List Price
39463	6" Spring	Tandem frame clip	----
39464	3" Spring	Tandem frame clip	----
39471		Frame clip only	----



95631



95640

**CLIPS**

Part #	Description	List Price
95631	ABS Clip for 1/2" Air Hose	----
95640	5" Axle Clip	----
95641	5-3/4" Axle Clip	----



**TENDER KIT**

**Complete Tender Kit includes:**

- Large snap Clip
- Heavy duty spring
- Protective tube

Part #	Spring & Tube Length/ #pcs	Large Clip	3 Hole Clamp	Yoke	List Price
39442	16" / 1pc	1pc	1pc		----
39444	16" / 2 pcs	2pcs	1pc	2pcs	----
39446	20"/ 1pc	1pc	1pc		----
39448	20"/ 2pcs	2pcs	1pc	2pcs	----
39452	25" / 1pc	1pc	1pc		----
39453	25" / 2pcs	2pcs	1pc	2pcs	----

**HYDRAULIC TENDER KIT**

Part #	Spring & Tube Length/ #pcs	Large Clip	Hanger Bracket	Yoke	List Price
39457	25" / 2pcs	2pcs	1pc	2pcs	----



**SLIDER BAR KITS**

Part #	Spring & Tube Length/ #pcs	Large Clip	3 Hole Clamp	Slider Bar Length	Yoke	List Price
39437	16" / 1pc	1pc	1pc	43"		----
39438	16" / 2pcs	2pcs	1pc	43"	2pcs	----
39459	20"/ 2pcs	2pcs	1pc	43"	2pcs	----
39460	25" / 1pc	1pc	1pc	43"		----
39461	25" / 2pcs	2pcs	1pc	43"	2pcs	----
39470	16" / 1pc	1pc	1pc	38"		----
39462	16" / 2pcs	2pcs	1pc	38"	2pcs	----
39451	25" / 1pc	1pc	1pc	38"		----
39454	25" / 2pcs	2pcs	1pc	38"	2pcs	----



**BARS, SPRINGS, TUBES**

Part #	Spring & Tube Length/ #pcs	List Price
39443	16" Tube only	----
39447	20" Tube only	----
39436	25" Tube only	----
39466	16" Spring only	----
39467	20" Spring only	----
39468	25" Spring only	----
39474	38" Slider Bar	----
39475	43" Slider Bar	----

**ALUMINUM GLADHANDS**

- 1/2 " FPT port
- Aluminum Casting
- Permanent Clamp Screw
- Black rubber seals
- Stainless Steel filter
- Meet SAE J318 requirements



PORT A

Part #	Description	Material	Seal	Filter	Port A	List Price
39870	Universal	Aluminum	Blk Rubber	No	1/2"	----
39871	Universal with filter	Aluminum	Blk Rubber	Yes	1/2"	----
39877	Emergency Red	Aluminum	Blk Rubber	No	1/2"	----
39878	Emergency with filter	Aluminum	Blk Rubber	Yes	1/2"	----
39874	Service Blue	Aluminum	Blk Rubber	No	1/2"	----
39875	Service with filter	Aluminum	Blk Rubber	Yes	1/2"	----

**PLATED ALUMINUM GLADHANDS**



Part #	Description	Material	Seal	Filter	Port A	List Price
39832	Universal Standard	Plated Aluminum	Blk Rubber	No	1/2"	----
39833	Service - Blue	Plated Aluminum	Blk Rubber	No	1/2"	----
39834	Emergency - Red	Plated Aluminum	Blk Rubber	No	1/2"	----
39828	Service 38 degree	Plated Aluminum	Blk Rubber	No	1/2"	----
39829	Emergency 38 dgree	Plated Aluminum	Blk Rubber	No	1/2"	----
39830	Service 38 degree	Plated Aluminum	Blk Rubber	No	3/8"	----
39831	Emergency 38 dgree	Plated Aluminum	Blk Rubber	No	3/8"	----

**CAST IRON GLADHANDS**

- 1/2 " FPT port
- One-piece casting eliminates problems with clamp separation
- "Positive-stop" post, assures a perfect connection
- Polyurethane seal resist oils, chemicals & provide improved sealing & service life
- Gladhands meet SAE J318 requirements including breakaway requirement.



PORT A

Part #	Description	Material	Seal	Filter	Port A	List Price
39506	Universal	Cast Iron	Black Polyurethane	No	1/2"	----
39507	Emergency	Cast Iron	Red Polyurethane	No	1/2"	----
39508	Service	Cast Iron	Blue Polyurethane	No	1/2"	----

**ANGLE MOUNT ALUMINUM GLADHANDS**

- For use in trailer mounting locations
- Dual port provides connection options
- Powder-coated clamp plates are color coded for easy identification
- Port "A" comes standard as unplugged
- (2) 3/8 inch FPT Ports (one plugged).
- (2) 11/32 inch diameter mounting holes.
- Available with Port "B" plugged or unplugged (plug is included, loose in bag)
- Meet SAE J318



PORT A

PORT B

Part #	Type	Material	Seal	Filter	Port A	Port B	List Price
39511	Emergency	Aluminum	Blk Rubber	No	Unplugged	Plugged	----
39512	Service	Aluminum	Blk Rubber	No	Unplugged	Plugged	----

**POWDER COATED IRON GLADHAND**

- Tough powder coating improves wear & corrosion resistance
- Vividly colored to provide improved identification of service & emergency lines
- Stainless steel plate eliminates corrosion of the mating surface
- Polyurethane seal resist oil, chemicals, provide improved sealing & service life
- Meet or exceeds SAE J318 standard



PORT A

Part #	Description	Filter	Port A	List Price
39509	Service with blue poly seal	Yes	1/2"	----
39510	Emergency with red poly seal	Yes	1/2"	----

**BRACKET MOUNT SWING AWAY GLADHAND**

- Bracket allows 180° rotation allowing for easy hookups, eliminating the need to twist lines during connections
- Helps protect rear-trailer gladhands when not in use
- Filter and closed seal are recommended
- Spring design provides consistent tension throughout rotation
- Design provides both back port and bottom port capabilities  
Gladhand mount - 1/2" Male Thread



Part #	Description	Material	Seal	Filter	List Price
39515	Service (Blue)	Aluminum	Blk Rubber	yes	----
39516	Emergency (Red)	Aluminum	Blk Rubber	yes	----

**KNOB STYLE SHUTOFF GLADHAND**

- Economical trailer shutoff gladhand
- Centered low-profile "snap-stop" knob
- Full face rubber seal
- Available with assembled or separate fittings.
- Meets SAE J318
- Color coded polyurethane seals included



Part #	Description	Material	Seal	Filter	List Price
39520	1/2" Service Chrome Finish	Aluminum	Blk Rubber	No	----
39521	3/8" Service Chrome Finish	Aluminum	Blk Rubber	No	----
39522	1/2" Emergency Chrome Finish	Aluminum	Blk Rubber	No	----
39524	3/8" Emergency Chrome Finish	Aluminum	Blk Rubber	No	----

PORT B



PORT A

**LEVER STYLE SHUTOFF GLADHAND**

- Flange mount
- Metal handle shutoff
- Full face rubber seal
- Tough metal Ball valve
- Color coded
- Meets SAE J318

Part #	Description	Material	Seal	Filter	Port A NPT	Port B NPT	List Price
39531	Emergency (Red)	Aluminum	Blk Rubber	No	3/8"	1/4"	----
39530	Service (Blue)	Aluminum	Blk Rubber	No	3/8"	1/4"	----



**GLADHAND GRIPS**



**1/2" NPTF.**

- Comes with hardware and sealant
- Color-coded red and blue for easy air line identification - clamshell
- Handles are heat, oil and UV-resistant.
- Meet SAE J318

Part #	Description	List Price
39535	Poly grip hardware	----

**ALUMINUM GLADHAND GRIPS**



- 1/2" NPTF
- Each pack contains (1) red and (1) blue - clamshell
- One piece design
- No screws or plastic parts
- Easy to install
- Class II anodized coating provides greater corrosion resistance

Part #	Description	List Price
39537	Sure grip	----

**GLADHAND PACIFIER SEAL**



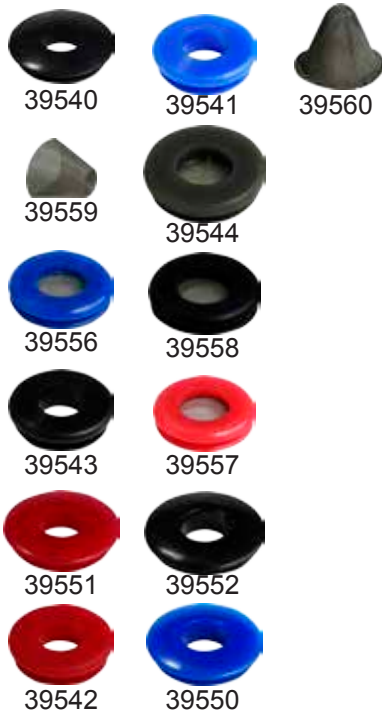
- Seals Gladhand from moisture, dirt and debris

Part #	Description	List Price
39566	Gladhand pacifier	----

**GLADHAND SEALS**

Seal Options:

- Rubber
- Polyurethane
- With screen filter
- Double lip
- Filter screen only



Part #	Description	List Price
39540	Black Rubber	----
39541	Blue, Polyurethane	----
39542	Red, Polyurethane	----
39543	Black, Polyurethane	----
39556	Blue with a screen filter Polyurethane	----
39557	Red with a screen filter Polyurethane	----
39558	Black with a screen filter Polyurethane	----
39550	Blue Double lip, Polyurethane	----
39551	Red Double Lips, Polyurethane	----
39552	Double Lip, Polyurethane	----
39544	Grey, Closed Style, Polyurethane	----
39560	Filter, Screen, Gladhand	----
39559	Filter, Screen, Gladhand	----



39565

**DUMMY GLADHAND COUPLING KIT**

- 6 1/2" coupling length

Part #	Connection	Vent	Material	List Price
39563	Chain	Yes	Steel Yellow Zinc plated	----
39564	Chain	No	Steel Yellow Zinc plated	----
39565	Cable	N/A	Aluminum	----

**NYLON GLADHAND AND PLUG HOLDER**

- Stores Gladhand and electrical hook ups at a 45° angle.
- Can accept heavy ABS plug
- Standard mounting holes to install on back of cab.
- Glass-filled nylon, non-corrosive construction.



39574

39575

Part #	Description	List Price
39574	1 plug slot	----
39575	2 plug slot	----

**GLADHAND HOLDER KIT**

- Steel - Zinc Yellow Dichromate
- Holds gladhands when disconnected



Part #	Description	List Price
39573	Holder Kit	----
39572	Bracket only	----

**GLADHAND LOCK**

- Red molded plastic
- Prevents unwanted connections with trailers
- Protects idle units
- Unversal for Aluminum and Iron Gladhands
- Supplied with 2-keys



Part #	Description	List Price
39570	Gladhand Lock w/ 2 keys	----

*\* Not an Anti theft device*

**KING PIN LOCK-ANTI HOOK UP**

- Cast, Zinc plated
- Anti-tractor, trailer hook-up
- Supplied with 2 keys



Part #	Description	List Price
39860	King Pin Lock w/ 2 keys	----

**AIR CYLINDER**

- 300 series stainless steel cylinder shafts provide excellent corrosion resistance and extended cycle life -cylinders tested to over 500,000 cycles.
- Lightweight, corrosion resistant aluminum tube with die cast aluminum end caps.
- Rear clevis cast as integral part of the rear cover for improved durability and mounting integrity.
- Double acting, Emralon-coated piston cup assures smooth long lasting operation even in cold weather conditions to ( - 40°F).
- Front end cap assembly includes pressure seal, dirt seal and oil impregnated bronze bushing.
- Cylinder tube imprinted with part number and date code for quick identification.
- All cylinders are factory pressure and leak tested prior to shipping.
- Front Cover Kit-Includes front cover with bushing and seals installed and two cylinder gaskets.
- Rear Cover Kit-Includes rear cover with two cylinder gaskets.
- Piston Cup Kit-Includes piston cup, lock nut and two cylinder gaskets.
- Shaft Kit-Includes shaft, lock nut and two cylinder gaskets.

Part #	Size	Stroke	Retracted	Extended	Type	List Price
39672	2 1/2"	4.0"	9.89"	13.89"	push/pull	----
39673	2 1/2"	6.0"	11.89"	17.89"	push/pull	----
39674	2 1/2"	8.0"	13.89"	21.89"	push/pull	----
39675	2 1/2"	6.0"	13.75"	19.75"	Spring return	----
39676	3 1/2"	8.0"	15.60"	24.28"	push/pull	----
39677	3 1/2"	10.0"	16.92"	26.95"	push/pull	----

**HIGH LIFT AIR CYLINDERS**

- Aluminum tube with 16 RMS finish
- Temp rating -40 to 185°F
- Recommended working pressure 150 psi
- Minimum bursting pressure 150 psi
- 1275 lb. thrust at 100 psi
- 1158 lb. draw at 100 psi

Part #	Dia.	Stroke	Retracted	Extended	Type	List Price
39654	4"	24"	34.5"	58.5"	push/pull	----

**TAILGATE AIR CYLINDERS**

- Die cast aluminum with mount hole for 1/2" pin and 1/4" NPT port
- Molded piston cup
- Stainless steel piston rod with 5/8" – 18 thread
- 10 PSI – 120 PSI
- 10 psi min-120 psi max



Part #	Dia.	Stroke	Length	Type	List Price
39655	2-1/2"	4.0"	13.37	Push/Pull	----
39656	2-1/2"	6.0"	17.37	Push/Pull	----
39657	2-1/2"	8.0"	21.37	Push/Pull	----
39658	2-1/2"	4.0"	14.71	Spring Ret	----
39659	2-1/2"	6.0"	19.75	Spring Ret	----
39660	3-1/2"	6.0"	20.23	Push/Pull	----
39661	3-1/2"	8.0"	24.23	Push/Pull	----
39662	3-1/2"	8.0"	26.98	Push/Pull	----



**TAILGATE AIR CYLINDERS**

- Machined aluminum, 5/8" diameter ,stainless steel shaft with 5/8" - 18 threads, "O" rings and a UHMW polyethylene wear band
- Direct replacements to Haldex and MGM
- Standard operating pressure 100 psi
- 90psi min to 150 psi max

Part #	Dia.	Stroke	Bracket	Type	List Price
39665	6"	3"	Yes	Spring Ret	----
39667	6"	4.38"	No	Spring Ret	----



**FIFTH WHEEL AIR CYLINDER**

- 1/4" FPT port cast aluminum front and rear
- 2-1/2" Bore
- 6-3/4" stroke
- Front and rear mounting hole for 17/32" clevis,
- 100 psi
- Gold anodized tube for corrosion resistance

Part #	Description	List Price
39669	Fifth Wheel Air Cylinder	----

**AIR TANK DRAIN PULL VALVE**

Part #	Size	Description	List Price
39595	1/4" male	5ft nylon coated pull cable	----
39596	1/4" male	4ft nylon coated pull cable	----
39597	1/4" male	3ft nylon coated pull cable	----
39600	1/4" male	Air valve only	----

**AIR TANK CHECK VALVE**

- Single check valves allow air to pass from a single source to its destination, and prevent air travel in the opposite direction.



Part #	Male x Female	List Price
39604	1/4"	----
39605	3/8"	----
39606	1/2"	----

**D-2 STYLE AIR BRAKE GOVERNOR**

- Opening and closing pressures of 100 to 120 psi
- High temperature O-ring construction
- Gasket and plugs included
- Replaces Bendix 275491 & KN18530



Part #	Thread	Description	List Price
39592	6-1/8" NPT	Air Brake Governors D-2 style	----

**IN-LINE QUICK RELEASE VALVE**

- Quick release for the air brake system
- 3/8" female exhaust port
- 2-3/8" female delivery port
- Cracking pressure: 1 PSI
- Helps meet the FMVSS -121 requirement for timing



Part #	Description	List Price
39610*	3/8" NPT In-Line quick release valve	----
39611**	1/2" NPT In-Line quick release valve	----

\* Replaces Bendix 229859, 288351 & KN32005

\*\* Replaces Bendix 229860 & KN32011

**R-12 RELAY VALVE**

- 1/4" Relay Valve with multiple delivery ports
- Replaces Bendix 102166, 102626, 103009



Part #	Supply Port	Delivery Port	Description	List Price
39613	1/2" NPT	4, 1/2"NPT	4 psi no Bracket	----
39614	1/2" NPT	4, 1/2"NPT	4 psi Relay Valve	----
39615	3/4" NPT	2, 1/2" NPT	4 psi Relay Valve	----



**R-14 RELAY VALVE**

- 1/4" Relay Valve with two delivery and supply ports
- Replaces Bendix 103010

Part #	Supply Port	Delivery Port	Description	List Price
39616	2-3/4"NPT	2-1/2"NPT	4 psi Relay Valve	----

**THREE WAY SOLENOID**



- Operates a minimum GF 50,000 cycles
- Inlet port normally closed
- Must be mounted vertically with the air inlet port facing up
- 1/4" female NPT ports
- 12 Volts
- 100-120 psi operating pressure
- Attached mounting bracket with two 9/32" diameter mounting holes on 2-1/2" centers

Part #	Supply Port	Description	List Price
39684	2, 1/4" FPT	Three way Solenoid	----

**UNIVERSAL SOLENOID**



- Operates a minimum of 50,000 cycles.
- 125 amps at 12 volts.
- Continuous voltage.
- One on/off circuit
- 5/16 inch side studs, No. 10 top stud(s).
- Hardware included.

Part #	Description	List Price
39687	4 stud Solenoid	----
39688	3 stud Solenoid	----

**AIR SOLENOID VALVE**



- Operates a minimum of 50,000 cycles.
- 100 psi max pressure.
- 1/4" Thread
- 10 Watts, 12 VDC
- Replaces Neway 90054075

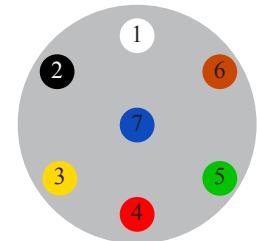
Part #	Description	List Price
39689	12V Closed	----
39690	12V Open	----

**SEVEN-WAY COILED CABLE ASSEMBLIES**

- ABS assemblies are heavy duty to power trailers
- HD Green gives clear ABS identification
- Resists abrasion, great coil retention
- Heavy duty plugs with spring guards
- ABS Cable meets SAE J2394
- Operating temperature range of -55° to +185°F



Pin Location	Color code	Gauge	Circuit
1	White	8	Ground
2	Black	12	Clearance, side and ID lamps
3	Yellow	12	Left turn and Hazard
4	Red	10	Stop lamp and Anti-lock
5	Green	12	Right turn and Hazard
6	Brown	12	Tail and Plate lamp
7	Blue	10	ABS Power Aux



**ABS**

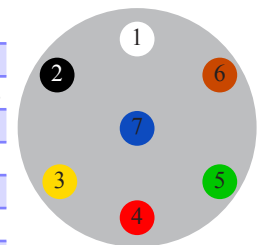
Part #	Length	Description	List Price
39736	12'	Coiled Electrical Cord, ABS w/12 in lead, w/plugs, Green	----
39737	15'	Coiled Electrical Cord, ABS w/12 in lead, w/plugs, Green	----

**SEVEN-WAY COILED CABLE BLACK**

- This high quality, durable construction is recommended for single-trailer configurations using standard lighting on non-ABS vehicles.
- Durable black outer jacket with heavy duty zinc die cast plugs and two spring guards included.



Pin	Color code	HD Gauge	Eco Gauge	Circuit
1	White	10	12	Ground
2	Black	12	14	Clearance, side and ID lamps
3	Yellow	12	14	Left turn and Hazard
4	Red	12	14	Stop lamp and Anti-lock
5	Green	12	14	Right turn and Hazard
6	Brown	12	14	Tail and Plate lamp
7	Blue	12	14	ABS Power Aux



**STANDARD - HEAVY DUTY**

Part #	Length	Description	List Price
39738	12'	Coiled Electrical Cord, w/12 in lead, w/plugs, Black	----
39739	15'	Coiled Electrical Cord, w/15 in lead, w/plugs, Black	----

**STANDARD - ECONOMY**

Part #	Length	Description	List Price
39740	12'	Coiled Electrical Cord, w/12 in lead, w/plugs, Black	----
39741	15'	Coiled Electrical Cord, w/12 in lead, w/plugs, Black	----

**SIX WAY COILED ELECTRIC CABLE ASSEMBLY**

- 6', 8', 12' Length
- Includes 2 Thermoseal 6-way plugs
- For light duty towing applications such as boats and utility trailers
- Plugs are molded for moisture and corrosion resistance
- 4/14 Gauge cable
- Flexible from -55°F to 150°F (-66°C to 66°C)



Part #	Description	List Price
39752	6ft, 14awg w/12" Lead at 2 ends	----
39753	8 ft, 14awg w/12" Lead at 2 ends	----
39754	12ft, 14awg w/12" Lead at 2 ends	----

**FOUR WAY COILED ELECTRIC CABLE ASSEMBLY**

- 4/14 Gauge cable
- 12' & 15' length
- Includes 2 Thermoseal 4-way plugs
- For light duty towing applications such as boats and utility trailers
- Plugs are molded for moisture and corrosion resistance
- Flexible from -55°F to 150°F (-66°C to 66°C)



Part #	Description	List Price
39748	12' with 12" Lead, both ends 4/14awg	----
39749	15' with 12" Lead, both ends 4/14awg	----

**DUEL POLE COILED ELECTRIC CABLE ASSEMBLY**

- Black Jacket
- 12' & 15' length
- 200 Amp at 12 VDC.
- Zinc die cast plugs.
- 4 gauge cable.



Part #	Description	List Price
39744	12' Coil With 12" Lead at 2 ends 4awg	----
39745	15' Coil With 12" Lead at 2 ends 4awg	----

**SINGLE POLE COILED ELECTRIC CABLE ASSEMBLY**

- Black Jacket
- 12' & 15' length
- For applications that require direct electrical power to trailer lift gates.
- Rated at 265 amps on/off service (30 seconds on/50 seconds off).
- Zinc die cast plugs with spring guards included.
- 4 gauge cable.



Part #	Description	List Price
39742	12' Coil With 12" Lead both ends 4awg	----
39743	15' Coil With 12" Lead both ends 4awg	----



**7 WAY PLUGS AND SOCKETS**

39758



39757



39772



- Heavy-duty, nickel-plated zinc die cast housings
- Brass terminal pins for maximum current carrying ability
- Field repairable with standard tools
- Fully interchangeable with other SAE-type, 7-way connectors
- ATA marked wire terminals.
- Internal clamp holds cable securely in place.
- Standard seven-way plugs meet ATA and SAE J560 requirements
- ISO plugs meet ISO 3731:1997 requirements.
- ISO socket prevents connections with Non-ISO plugs - Used in tractor/trailer systems
- ISO color-coded yellow, non-corrosive reinforced nylon housing.

**PLUGS**

Part #	Description	List Price
39757	7-Way Single Grip Plug w/Spring Guard	----
39758	7-Way Single Grip Plug w/Spring.	----
39772	7-Way Double Grip Plug w/Spring.	----
39773	7-Way Double Grip Plug NO Spring Guard	----
39788	7-way ISO plug	----

**SOCKETS**

Part #	Description	List Price
39774	Solid Pin 7-Way Metal Socket	----
39775	Split Pin 7-Way Metal Socket	----
39789	7-way, ISO socket	----

**7 WAY DOUBLE GRIP PLUG**

- T-Grip weather guard
- Plastic grip

Part #	Description	List Price
39818	7-Way Double Grip Plug, Plastic	----

**6 AND 7 WAY ADAPTER**

Part #	Description	List Price
39786	Seven way plug to Six Way Socket Adapter	----
39787	Six way plug to Seven Way socket Adapter	----

**RV 7-WAY PLUG**

- Primarily used in RV applications.
- Constructed of molded PVC for impact resistance
- Blade Style Pin

Part #	Description	List Price
39819	7-way Plastic plug	----

**RV 7-WAY SOCKET**

- RV Screw-type socket
- 6-24 VDC.
- Mounting 2-1/4" inch on center .
- Constructed of molded PVC

Part #	Description	List Price
39820	7-way socket	----

**6 - WAY PLUGS AND SOCKETS**

Part #	Description	List Price
39782	6-Way Double Grip Metal Plug w/Spring Guard.	----
39783	6-Way Metal Socket.	----

**4 WAY PLUGS AND SOCKETS**

- Heavy-duty zinc die cast housings on plugs and sockets.
- Plug locking system works with socket door to ensure proper hookup and prevent unintentional disconnections.
- Spring guard supports and protects cable.

**4 - WAY**

Part #	Description	List Price
39778	4-Way Double Grip Metal Plug w/Spring Guard.	----
39779	4-Way Metal Socket.	----

**2 POLE PLUGS AND SOCKETS**

- 200 amp 4 gauge wire capacity.
- Heavy-duty zinc die cast housing.
- Internal ground.
- Spring guard supports and protects cable.

Part #	Description	List Price
39768	2 Pole Double Grip Metal Plug w/Spring Guard.	----
39769	2 Pole Metal Socket	----

**SINGLE POLE PLUGS AND SOCKETS**

- Used to provide power to heavy draw auxiliary trailer equipment.
- Heavy-duty zinc die cast housings.
- Power and ground terminals hold up to 1/0 gauge wire.

Part #	Description	List Price
39764	1-Way Double Grip Plug w/Spring Guard.	----
39765	1-Way Double Grip Plug w/Spring Guard and Ground Kit	----
39766	1-Way Metal Socket	----
39767	1-Way Metal Socket and Ground Kit	----

**GROUND KIT**

Part #	Description	List Price
39809	Ground Kit (Bolt, Nut and Wire Lug) for 1-Way Plug or Socket	----

**PROTECTOR BOOT FOR PLUG**

- Protective rubber boot seals out moisture and contaminants

Part #	Description	List Price
39807	Protector Boot	----

**7 WAY SOCKET WITH CIRCUIT BREAKER**

- Non-corrosive, reinforced nylon housing for added durability.
- Designed for No. 8 ring terminals.
- ATA color-coded contacts.
- Solid brass split pins are zinc-plated for corrosion resistance.
- Each socket includes automatic reset circuit breakers with positive snap action to eliminate arcing (unless otherwise noted).
- Mounting holes are 4 1/2 inch on center and include steel bushings for added housing protection.
- Adhesive-backed mounting gasket included.
- Circuit breaker sockets meet SAE J560 requirements.

Part #	Description	List Price
39792	No circuit breakers	----
39793	15amp Plastic with circuit breakers	----
39794	20amp Plastic with circuit breakers	----
39795	30amp Plastic with circuit breakers	----

**7 WAY CIRCUIT CHASER**

- Instantly finds short or faulty circuits
- Portable

Part #	Description	List Price
39805	7 way circuit	----

**CIRCUIT BREAKERS - PLASTIC**

- Colored Battery molded Stud
- 12 Volt
- Meets SAE j553 requirements
- Nuts included



Part #	Description	List Price
39800	15 AMP	----
39801	20 AMP	----
39802	25 AMP	----
39803	30 AMP	----

**NOSE BOX - DEEP**

- Zinc - extra deep



Part #	Description	List Price
39814	Deep Nose Box	----

**BATTERY GROUND STRAP**



- 4 gauge wire.
- Molded zinc-plated steel lugs and tin-plated copper stranding.
- 7/16 inch diameter bolt hole.
- 12" Long

Part #	Description	List Price
39712	21", 4 Gauge ground strap	----

**STAINLESS STEEL BATTERY NUT**



Part #	Type	List Price
39713	3/8"	----

**RUBBER GROMMET**

- Black Rubber



Part #	ID	OD	List Price
95450	5/16"	9/16"	----
95451	5/8"	1 1/4"	----
95452	3/4"	1 3/4"	----

## ACCESSORIES

## TRUCK AND TRAILER

**DEER WHISTLES**

- Produces two separate and unique frequencies
- High output airflow activated
- Can be removed from base for cleaning and car washes
- Mounts with high bond tape **(included)**
- Lowers risk for vehicle-animal collisions

Part #	Description	List Price
39465	2 pack whistle	----

**CABLE TIE STRAPS - NYLON**

- Used to secure and bundle
- CSA Certified
- RoHs Compliant
- UV or Standard

**STANDARD**

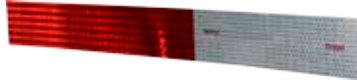
Part #	Length	Strength	Package Qty	List Price
95601	7 1/2"	50lb	100	----
95602	11"	50 lb	100	----
95603	14.5"	50 lb	100	----
95604	24"	175 lb	50	----
95605	36"	175lb	50	----
95606	48"	175 lb	50	----

**UV BLACK**

Part #	Length	Strength	Package Qty	List Price
95610	7 1/2"	50lb	100	----
95611	14"	50 lb	100	----
95612	24"	175lb	50	----
95613	36"	175lb	50	----



95620



**CONSPICUITY TAPE**

Tape is designed for trucks, trailers, and other vehicles for easy nighttime vehicle recognition and increased road safety. It is a high quality, durable microprismatic retroreflective material with a pressure sensitive adhesive. The solid construction does not require edge sealing. Conspicuity tape provides superior reflectivity and may help reduce accidents.

- DOT -C2 Certified
- Meets or exceeds NHTSA, FMVSS 108 & ASTM D4956
- Meets Canada TSD 108
- 10 year durability

Part #	Description	App. Wt.	List Price
95620	2" x 150' Roll of 11" Red / 7" White	0.32	----
95621	2" x 150' Roll of 6" Red / 6" White	0.32	----
95622	2" x 150' Roll of solid white	0.32	----
95623	2" x 18", kiss cut strip, white	0.03	----
95624	2" x 18" kiss cut strip of 11" Red / 7" White	0.03	----



95625



95627



95628

- Meets or exceeds ANSI/ASAE S279, ANSI/ASAE S276 & ASTM D-4956
- 7 year durability

Part #	Description	App. Wt.	List Price
95625	1" X 150' Roll of solid yellow	0.17	----
95626	2" X 150' Roll of solid yellow	0.32	----
95627	3" round all plastic reflector, Red	0.06	----
95628	3 3/4" x 6 1/2" American flag, type IV HIP	0.02	----

**TARP STRAPS**

- Heavy Duty EPDM tarp straps
- Longer lasting than rubber
- Greater stretch length
- Ozone and weather resilient
- Made in the USA



Part #	Strap Length	Material	Description	Qty	List Price
990790	10"	EPDM	Tarp strap with S hook	50	----
990791	15"	EPDM	Tarp strap with S hook	50	----
990792	21"	EPDM	Tarp strap with S hook	50	----
990793	31"	EPDM	Tarp strap with S hook	50	----
990794	41"	EPDM	Tarp strap with S hook	50	----

## NYLON DOT AIR BRAKE TUBING

## TRUCK AND TRAILER

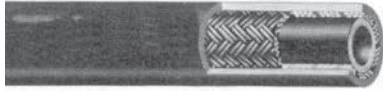


- Air Brake Tubing available from inventory in a large variety of colors and sizes
- Superior cold weather flexibility and abrasion resistance
- UV and ozone resistant nylon
- Meets or exceeds SAEJ844 (Type A - non-reinforced & Type B - reinforced)
- Meets or exceeds DOT requirements for use with compression fittings (NOTE: SAE does not recognize 1/8", 5/32" or 3/16" O.D. tubing for use with air brake systems)
- Air Brake Tubing identified per SAE J844 & FMVSS No. 106 Brake Hoses, 49 CFR 571.106
- Conforms to our own rigorous qualification and inspection testing which exceeds SAE and DOT requirements
- Designed to operate at up to 150 psi in air brake systems
- Resistant to attack by gasoline, diesel fuel and commonly used road and cleaning chemicals
- Air Brake Tubing available on bulk spools or by packages
- Operating range: -40° - 200°F - Not made for fuel

Part Number	Color	Length	Nominal O.D.	Nominal Wall	List Price
38-950B2	Black	2000'	1/8"	0.023"	----
38-950	Black	100'	1/8"	0.023"	----
38-95BA	Black	50'	1/8"	0.023"	----
38-951B1	Black	1000'	5/32"	0.032"	----
38-951	Black	100'	5/32"	0.032"	----
38-951BA	Black	50'	5/32"	0.032"	----
38-953B1	Black	1000'	3/16"	0.035"	----
38-953	Black	100'	3/16"	0.035"	----
38-953BA	Black	50'	3/16"	0.035"	----
38-9523	Black	1000'	1/4"	0.040"	----
38-9522	Black	500'	1/4"	0.040"	----
38-952	Black	100'	1/4"	0.040"	----
38-952BA	Black	50'	1/4"	0.040"	----
38-952U1	Blue	1000'	1/4"	0.040"	----
38-952U	Blue	100'	1/4"	0.040"	----
38-952UA	Blue	50'	1/4"	0.040"	----
38-952O	Orange	100'	1/4"	0.040"	----
38-952OA	Orange	50'	1/4"	0.040"	----
38-952G1	Green	1000'	1/4"	0.040"	----
38-952G	Green	100'	1/4"	0.040"	----
38-952GA	Green	50'	1/4"	0.040"	----
38-952R1	Red	1000'	1/4"	0.040"	----
38-952R	Red	100'	1/4"	0.040"	----
38-952RA	Red	50'	1/4"	0.040"	----
38-952Y1	Yellow	1000'	1/4"	0.040"	----
38-952Y	Yellow	100'	1/4"	0.040"	----
38-952YA	Yellow	50'	1/4"	0.040"	----
38-954B5	Black	500'	5/16"	0.040"	----
38-954	Black	100'	5/16"	0.040"	----
38-954BA	Black	50'	5/16"	0.040"	----
38-960B5	Black	500'	3/8"	0.062"	----
38-960	Black	100'	3/8"	0.062"	----
38-960BA	Black	50'	3/8"	0.062"	----
38-960U5	Blue	500'	3/8"	0.062"	----
38-960U	Blue	100'	3/8"	0.062"	----
38-960UA	Blue	50'	3/8"	0.062"	----
38-960O5	Orange	500'	3/8"	0.062"	----
38-960O	Orange	100'	3/8"	0.062"	----
38-960OA	Orange	50'	3/8"	0.062"	----
38-960G5	Green	500'	3/8"	0.062"	----
38-960G	Green	100'	3/8"	0.062"	----
38-960GA	Green	50'	3/8"	0.062"	----
38-960R5	Red	500'	3/8"	0.062"	----
38-960R	Red	100'	3/8"	0.062"	----
38-960RA	Red	50'	3/8"	0.062"	----

Part Number	Color	Length	Nominal O.D.	Nominal Wall	List Price
38-960Y5	Yellow	500'	3/8"	0.062"	----
38-960Y	Yellow	100'	3/8"	0.062"	----
38-960YA	Yellow	50'	3/8"	0.062"	----
38-965B5	Black	500'	1/2"	0.062"	----
38-965	Black	100'	1/2"	0.062"	----
38-965BA	Black	50'	1/2"	0.062"	----
38-965U5	Blue	500'	1/2"	0.062"	----
38-965U	Blue	100'	1/2"	0.062"	----
38-965UA	Blue	50'	1/2"	0.062"	----
38-965O5	Orange	500'	1/2"	0.062"	----
38-965O	Orange	100'	1/2"	0.062"	----
38-965OA	Orange	50'	1/2"	0.062"	----
38-965G5	Green	500'	1/2"	0.062"	----
38-965G	Green	100'	1/2"	0.062"	----
38-965GA	Green	50'	1/2"	0.062"	----
38-965R5	Red	500'	1/2"	0.062"	----
38-965R	Red	100'	1/2"	0.062"	----
38-965RA	Red	50'	1/2"	0.062"	----
38-965Y5	Yellow	500'	1/2"	0.062"	----
38-965Y	Yellow	100'	1/2"	0.062"	----
38-965YA	Yellow	50'	1/2"	0.062"	----
38-970BC	Black	250'	5/8"	0.092"	----
38-970	Black	100'	5/8"	0.092"	----
38-970BA	Black	50'	5/8"	0.092"	----
38-970GC	Green	250'	5/8"	0.092"	----
38-970G	Green	100'	5/8"	0.092"	----
38-970GA	Green	50'	5/8"	0.092"	----
38-970RC	Red	250'	5/8"	0.092"	----
38-970R	Red	100'	5/8"	0.092"	----
38-970RA	Red	50'	5/8"	0.092"	----
38-975BC	Black	250'	3/4"	0.092"	----
38-975	Black	100'	3/4"	0.092"	----
38-975BA	Black	50'	3/4"	0.092"	----
38-975GC	Green	250'	3/4"	0.092"	----
38-975G	Green	100'	3/4"	0.092"	----
38-975GA	Green	50'	3/4"	0.092"	----

**FUEL LINE AND VAPOR EMISSION**



- SAE 30R7
- Nitrile tube w/ spiral synthetic cord, hypalon cover.
- 50 p.s.i. working pressure. 1/2 -35 PSI
- 40° F to + 257° F temperature range.
- Low pressure/ high temperature fuel for cars, light trucks, and small engines.
- Meets SAE J1402

Part #	ID	OD	Length	List Price
38-920	3/16	13/32	25'	----
38-926	5/16	9/16	25'	----
38-923	1/4	1/2	25'	----
38-927	3/8	5/8	50'	----

**AIR BRAKE HOSE**



- Black

- Spiral synthetic cord reinforcement with neoprene cover.
- 40° F to +200° F temperature range.
- Max opperating pressure 255 psi
- Max burst pressure 900 psi
- Meets SAE J1402

Part #	ID	OD	Length	List Price
38-910	3/8	3/4	50'	----
38-915	1/2	7/8	50'	----



## HYDRAULIC ADAPTERS & ACCESSORIES



### STEEL ADAPTERS

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## WORKING PRESSURE

The tables on the following pages list the recommended working pressure for a variety of hydraulic fittings made in accordance with certain industry standards. Many factors such as impulse, vibration, mechanical shock, and improper assembly may affect the integrity of the fitting connection.

We recommend sufficient testing be conducted to ensure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions. Working pressure ratings are capable of a 4 to 1 minimum burst. All steel fittings meet or exceed the minimum SAE pressure ratings. Always consider application and maximum pressure requirements when selecting fittings.

---

## METHODS FOR INSTALLING FITTINGS

There are three methods for installing a fitting:

- Torque wrench
- Flats From Wrench Resistance
- Turns From Finger Tight

For Flare and NPSM Fittings, we recommend the flats from wrench resistance method be used whenever possible.

The differences in material, plating, and surface finish impacts the coefficient of friction when installing or connecting fittings. To minimize these variances, we recommend that fitting connections are lubricated when installed. Connections that are lubricated provide a more accurate installation torque, which results in fewer leaks.

---

## USING A TORQUE WRENCH

The torque values given in the tables on the following pages are for reference purposes only based on industry standard practice and for low carbon steel mating with steel/iron components. Actual torque values may need to be adjusted due to variances described above.

SAE recommends always making a wet (lubricated) installation or connection to reduce friction on moving parts, O-rings, and variances in material and plating. The torque values in these tables are based off SAE values using a .17 coefficient of friction as per SAE J2593. Many hydraulic leaks are a result of over-torque, which causes excessive deformation of material or exceeds the yield strength of the material, which may reduce the load or clamping force between seal contacts.

If more than one value or range is given, use the lower value first and increase only if required. Over-torquing can damage a fitting or mating component.

# TECHNICAL INFORMATION

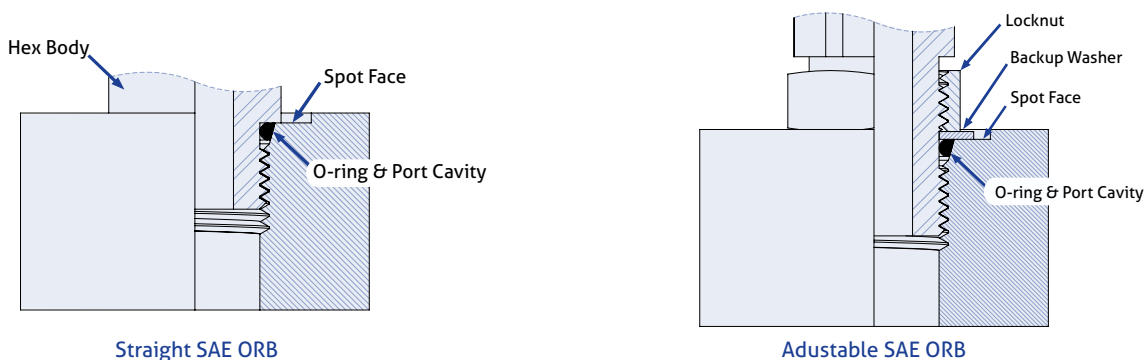
# HYDRAULIC ADAPTER

## SAE O-Ring Boss Port Specifications

O-ring Boss ports (ORB) provide a seal by trapping the fitting's O-ring inside a port cavity. When a fitting is installed into the port, the O-ring is trapped between the fitting body hex or washer and port cavity.

Straight fittings include a hex, and sometimes an additional cylindrical shoulder below the hex and above the threads, to trap the O-ring in the port cavity.

Elbow and Tee fittings require a backup washer and a locknut above the O-ring on the threaded stud to permit a 360° orientation of the fitting around the port.



The following table lists the specifications for SAE O-Ring Boss Ports.

SAE O-Ring Boss Specifications									
Dash Size	Tube Size	Thread	SAE-ORB to JIC and Pipe Fittings*			SAE-ORB to ORFS Fittings**			
			Torque		Working Pressure		Torque		Working Pressure
			Adjustable & Non-Adjustable	Adjustable	Non-Adjustable	Adjustable & Non-Adjustable	Adjustable	Non-Adjustable	
			(ft-lbs) +25% -0%	(psi)	(psi)	(ft-lbs) +25% -0%	(psi)	(psi)	
02	1/8	5/16-24	6	4500	4500	-	-	-	
03	3/16	3/8-24	7	4500	4500	7	5800	9100	
04	1/4	7/16-20	13	4500	4500	15	5800	9100	
05	5/16	1/2-20	18	4500	4500	18	5800	9100	
06	3/8	9/16-18	22	3600	4500	26	5800	9100	
08	1/2	3/4-16	37	3600	4500	52	5800	9100	
10	5/8	7/8-14	44	2900	3600	74	5800	9100	
12	3/4	1-1/16-12	70	2900	3600	125	5800	5800	
14	7/8	1-3/16-12	92	2300	2900	158	5800	5800	
16	1	1-5/16-12	111	2300	2900	199	4500	5800	
20	1 1/4	1-5/8-12	147	1800	2300	210	3600	3600	
24	1 1/2	1-7/8-12	155	1800	2300	273	2900	3600	
32	2	2-1/2-12	221	1450	1800	-	-	-	

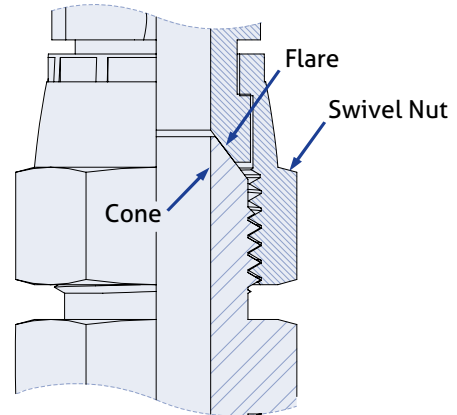
\* = Light duty studs included on JIC, NPTF and NPSM fittings per SAE J1926/3 & J514  
 \*\* = Heavy duty studs included on ORFS fittings per SAE J1926/2 & J1453

Note: Torque values are for wet torque and are allowed up to 25% the listed value according to SAE J2593.

**JIC Adapter Specifications**

Male flared fittings include a conical nose with external threads for clamping.

A flared fitting or tube assembly is tightened against the cone with a swivel nut. By forcing the flare against the cone during the torquing process, the nose cone is slightly deformed and meshes to create a metal to metal seal between the flare and the cone.



The following table lists the specifications for JIC adapters.

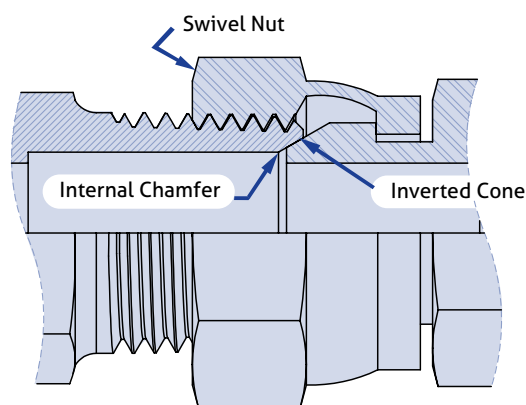
JIC Specifications							
Dash Size	Tube Size	Thread	Working Pressure		Torque		
			Male	Female Swivel Nut	JIC Rigid	JIC Swivel	Bulkhead Locknut
			(psi)	(psi)	(FFWR)	(FFWR)	(ft-lbs) +25% -0%
02	1/8	5/16-24	5000	5000	1/4 - 1/2	2	4
03	3/16	3/8-24	5000	5000	1/4 - 1/2	2	6
04	1/4	7/16-20	5000	4500	1/4 - 1/2	2	10
05	5/16	1/2-20	5000	4000	1/4 - 1/2	2	13
06	3/8	9/16-18	5000	4000	1/4 - 1/2	2	16
08	1/2	3/4-16	4500	4000	1/4 - 1/2	2	27
10	5/8	7/8-14	3500	3000	1/4 - 1/2	1 1/2	32
12	3/4	1-1/16-12	3500	3000	1/4 - 1/2	1 1/2	52
14	7/8	1-3/16-12	3000	2500	1/4 - 1/2	1 1/2	66
16	1	1-5/16-12	3000	2500	1/4 - 1/2	1 1/2	85
20	1 1/4	1-5/8-12	2500	2000	1/4 - 1/2	1	111
24	1 1/2	1-7/8-12	2000	1500	1/4 - 1/2	1	114
32	2	2-1/2-12	1500	1125	1/4 - 1/2	1	162

Values are per SAE J514

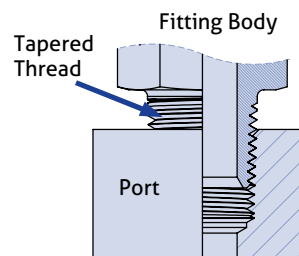
## Pipe & Pipe Swivel Adapter Specifications

NPSM fittings include an inverted 60° cone inside an internally threaded swivel union nut. Male NPTF fittings that have a 30° internal chamfer that make a 60° inverted cone, will mate with NPSM swivel unions.

**NOTE: THE MATING MALE THREADS MUST INCLUDE AN INSIDE CHAMFER ON THE END OF THE FITTING THAT MATES WITH THE INVERTED CONE. THREADS ARE FOR CLAMPING FORCE ONLY AND THE SEALING OCCURS ON A SMALL RADIAL SECTION BETWEEN THE MALE FITTING INTERNAL CHAMFER AND THE SWIVEL UNION INVERTED CONE.**



**NPTF & NPSM Union**



**NPT & NPTF Assembly**

NPT and NPTF pipe threads seal by wedging the tapered threads through deformation into each other. Both of these threads require thread sealants to complete a seal.

The following table lists the specifications for NPT, NPTF, and NPSM Pipe adapters.

NPT, NPTF, and NPSM Pipe Specifications						
Dash Size	Thread Size	Major OD* (inch)	Working Pressure		Torque	
			NPT, NPTF Male and Female	NPSM Female Swivel Nut	NPT, NPTF	NPSM Swivel Union
			(psi)	(psi)	(TFFT)	(FFWR)
02	1/8-27	.405	5000	5000	2-3	2
04	1/4-18	.540	4000	5000	2-3	2
06	3/8-18	.675	3000	4000	2-3	2
08	1/2-14	.84	3000	3500	2-3	2
12	3/4-14	1.050	2500	2250	2-3	2
16	1-11 1/2	1.315	2000	2000	1 1/2 - 2 1/2	1 1/2
20	1 1/4-11 1/2	1.660	1150	1625	1 1/2 - 2 1/2	1 1/2
24	1 1/2-11 1/2	1.900	1000	1250	1 1/2 - 2 1/2	1 1/2
32	2-11 1/2	2.375	1000	1125	1 1/2 - 2 1/2	1 1/2

Values are per SAE J514 & J2593

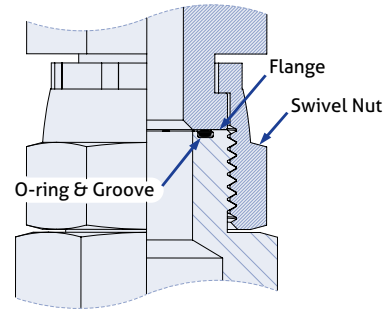
**NPT, NPTF, and NPSM Pipe Specifications**

**O-ring Face Seal Adapter Specifications**

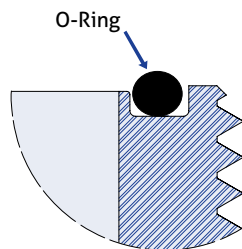
O-ring face seal fittings include a precision groove in the face of the male fitting. Sealing occurs when an O-ring is trapped in the groove by a smooth flat flange that is clamped against the face with a nut or nut and sleeve. The flat flange may be formed or brazed onto the end of a tube, or is machined on a fitting.

There are two SAE groove types:

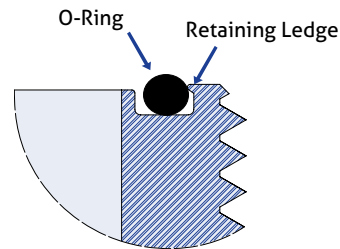
- Type A: The original style A O-ring has no retaining ledge.
- Type B: The Type B groove has a retaining ledge (half dovetail) that improves O-ring retention. The Type B style is more commonly found and is a design improvement over the Type A.



**ORFS Fitting Assembly**



**Detail View of Cross Section of Groove Type A**



**View of Groove Type B**

The following table lists the specifications for O-ring Face Seal adapters.

ORFS Specifications								
Dash Size	Tube Size	Thread Size	Working Pressure		Torque			
			Male	Female Swivel Nut	Male & Female	Bulkhead Locknut	Tube Nuts	Swivel Nuts
			(psi)	(psi)	(ft-lbs) +25% -0%	(ft-lbs) +25% -0%		
04	1/4	9/16-18	6000	6000	18	16	1/4-1/2	1/2-3/4
06	3/8	11/16-16	6000	6000	29	22	1/4-1/2	1/2-3/4
08	1/2	13/16-16	6000	6000	41	29	1/4-1/2	1/2-3/4
10	5/8	1-14	6000	6000	44	44	1/4-1/2	1/2-3/4
12	3/4	1-3/16-12	6000	6000	66	66	1/4-1/2	1/3-1/2
16	1	1-7/16-12	6000	5000	92	92	1/4-1/2	1/3-1/2
20	1 1/4	1-11/16-12	4000	4000	125	111	1/4-1/2	1/3-1/2
24	1 1/2	2-12	4000	3000	147	125	1/4-1/2	1/3-1/2

Note: Values are per SAE J2593 & J1453

Torque values are for wet installation of steel components. Reduce torque values for softer material components.

**ORFS Specifications**

## BSPT, BSPP and Metric Adapter Specifications

BSPT and Metric tapered threads install and work in the same manner as NPT and NPTF.

Male BSPP fittings include an inverted 60° cone inside an internally threaded swivel union nut. Male BSPP fittings that have a 30° internal chamfer that make a 60° inverted cone, will mate with Female BSPP swivel unions.

**NOTE: THE MATING MALE THREADS MUST INCLUDE AN INSIDE CHAMFER ON THE END OF THE FITTING THAT MATES WITH THE INVERTED CONE. THREADS ARE FOR CLAMPING FORCE ONLY AND THE SEALING OCCURS ON A SMALL RADIAL SECTION BETWEEN THE MALE FITTING INTERNAL CHAMFER AND THE SWIVEL UNION INVERTED CONE.**

DIN swivel unions have a 24° inverted cone and may be installed into DIN bite-ring compression fittings. To provide enhanced performance, an O-ring is sometimes included in the cone of some DIN swivel unions.

British Standard Pipe Parallel (BSPP) and Metric Parallel threaded ports do not include a port cavity like the O-ring Boss or ISO 6149 port. Instead, an O-ring sits on top of the spot face or external surface and is surrounded by a metal retaining ring or other retaining component to trap the O-ring between the fitting hex, body, and spot face.

Elbow and Tee fittings have a locknut, backup washer, O-ring and retaining washer to permit 360° orientation around the axis of the port.

The following table lists the specifications for **BSPP & BSPT Adapters**

BSPP & BSPT Specifications				
Dash Size	BSPT & BSPP		Torque	
	THREAD SIZE	MAJOR OD* (inch)	BSPP Swivel Union	BSPT
02	1/8-28	0.383	2	2-3
04	1/4-19	0.518	2	2-3
06	3/8-19	0.656	2	2-3
08	1/2-14	0.825	2	2-3
10	5/8-14	0.929	2	2-3
12	3/4-14	1.041	2	2-3
16	1-11	1.309	1 1/2	1 1/2 - 2 1/2
20	1 1/4-11	1.650	1 1/2	1 1/2 - 2 1/2
24	1 1/2-11	1.882	1 1/2	1 1/2 - 2 1/2
32	2-11	2.347	1 1/2	1 1/2 - 2 1/2

The following table lists the specifications for **Metric Adapters**

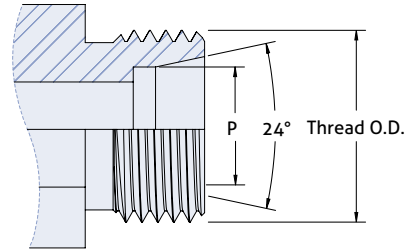
Metric DIN 3852-1 Threads	
Dash Size	THREAD SIZE (mm)
08	8 x 1.0
10	10 x 1.0
12	12 x 1.5
14	14 x 1.5
16	16 x 1.5
18	18 x 1.5
20	20 x 1.5
22	22 x 1.5
24	24 x 1.5
26	26 x 1.5
27	27 x 2.0
30	30 x 2.0
33	33 x 2.0
39	39 x 2.0
42	42 x 2.0
48	48 x 2.0
60	60 x 2.0

Values are from DIN 3852-1

**Metric Compression Tube Adapter Specifications (DIN L, & S)**

You can use a metric compression tube adapter with different types of fitting connections that use a metric tube size. The DIN figure to the right shows the cross sectional cut of a DIN connection. The Tube size dimension is P. The thread size is the Thread O.D.

**DIN Standard 2353**



**DIN Identification**

The following table lists the specifications for DIN **L** adapters

DIN S			
Metric Tube O.D. Size	Thread O.D.	Tube (P)ilot	Pressure
(mm)	(mm)	(mm)	(psi)
6	14 x 1.5	6	9000
8	16 x 1.5	8	9000
10	18 x 1.5	10	9000
12	20 x 1.5	12	9000
14	22 x 1.5	14	5800
16	24 x 1.5	16	5800
20	30 x 2.0	20	5800
25	36 x 2.0	25	5800
30	42 x 2.0	30	3600
38	52 x 2.0	38	3600

\*Meets standard ISO 8434-1

The following table lists the specifications for DIN **S** adapters

DIN L			
Metric Tube O.D. Size	Thread O.D.	Tube (P)ilot	Pressure
(mm)	(mm)	(mm)	(psi)
6	12 x 1.5	6	3600
8	14 x 1.5	8	3600
10	16 x 1.5	10	3600
12	18 x 1.5	12	3600
15	22 x 1.5	15	3600
18	26 x 1.5	18	2300
22	30 x 2.0	22	2300
28	36 x 2.0	28	1500
35	45 x 2.0	35	1500
42	52 x 2.0	42	1500

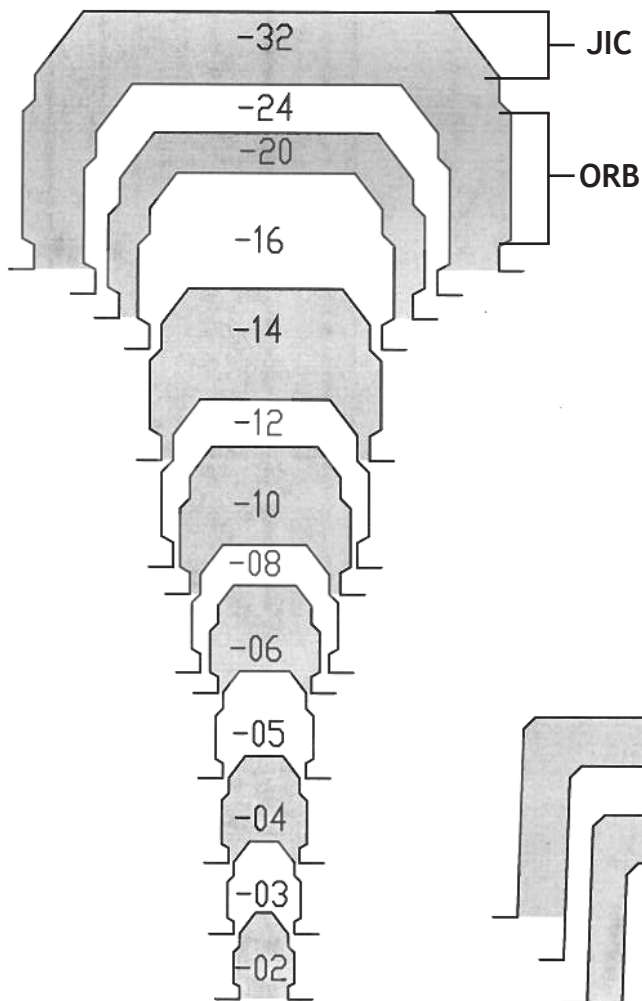
\*Meets standard ISO 8434-1



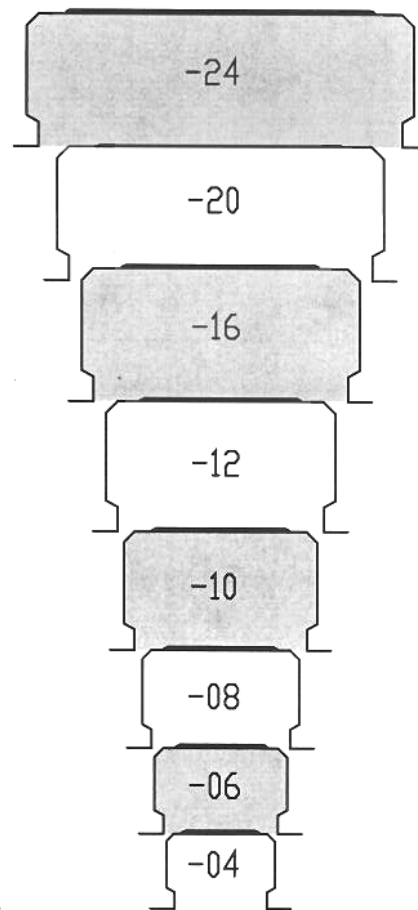
**PROFILE SIZE CHART**

**HYDRAULIC ADAPTER**

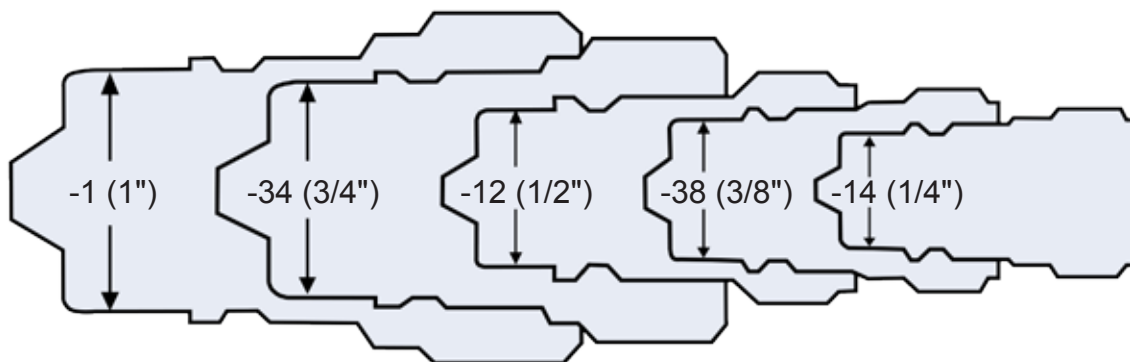
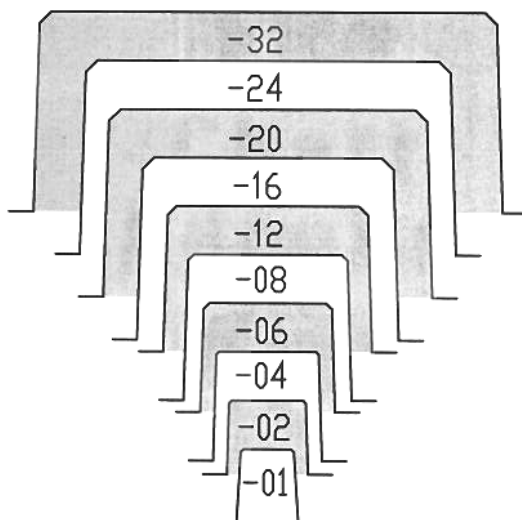
MALE JIC/ MALE O-RING BOSS



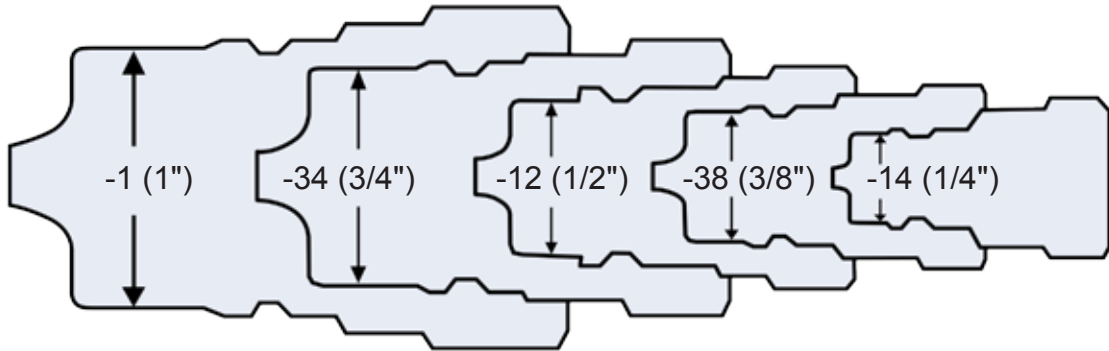
O-RING FACE SEAL



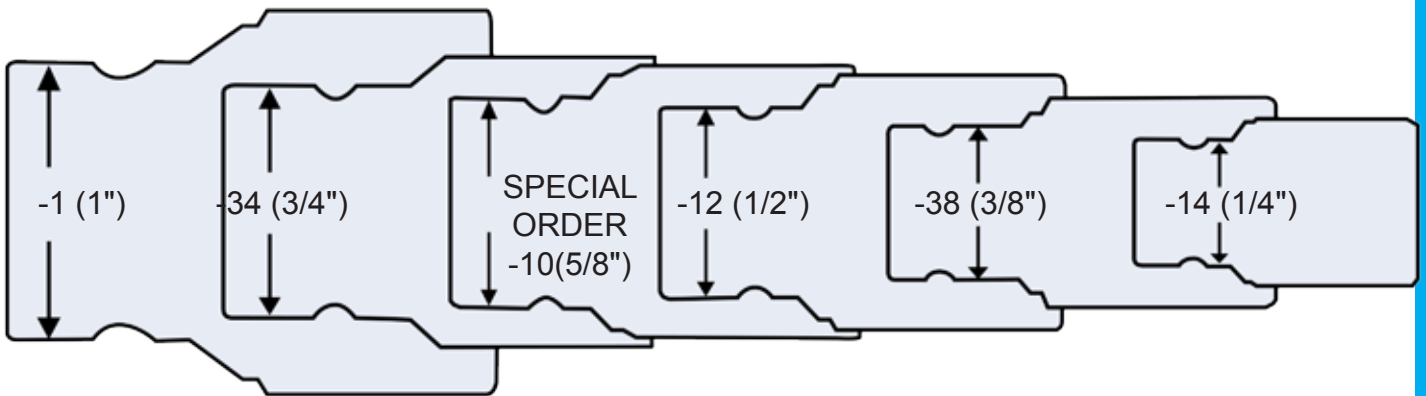
MALE PIPE



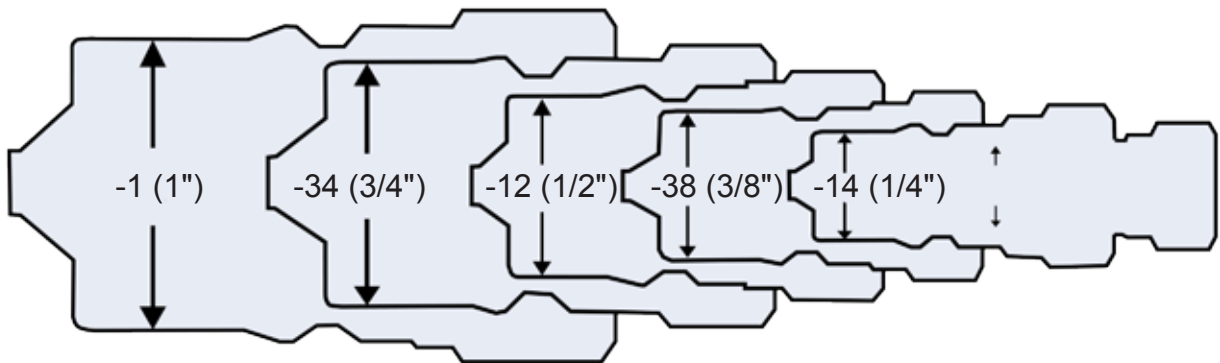
AG INTERCHANGE - NV SERIES



**ISO 7241 - 1 - ISO A - ANV SERIES**



**ISO 16028 - FF SERIES**



**ISO 7241 - 1 ISO B - HNV SERIES**

## FEMALE PIPE SWIVELS

## HYDRAULIC ADAPTERS

### STEEL PIPE SWIVEL ADAPTERS

#### MALE PIPE SWIVEL ADAPTER

SAE 140130



Part #	Male Pipe 1	Female NPSM 2	List Price
1404-2-2	1/8	1/8	----
1404-2-4	1/8	1/4	----
1404-4-2	1/4	1/8	----
1404-4-4	1/4	1/4	----
1404-4-6	1/4	3/8	----
1404-4-8	1/4	1/2	----
1404-6-4	3/8	1/4	----
1404-6-6	3/8	3/8	----
1404-6-8	3/8	1/2	----
1404-8-4	1/2	1/4	----
1404-8-6	1/2	3/8	----
1404-8-8	1/2	1/2	----
1404-12-8	3/4	1/2	----
1404-12-12	3/4	3/4	----
1404-12-16	3/4	1	----
1404-16-12	1	3/4	----
1404-16-16	1	1	----
1404-20-16	1-1/4	1	----
1404-20-20	1-1/4	1-1/4	----
1404-24-24	1-1/2	1-1/2	----
1404-32-32	2	2	----

1404 2045R 1210 9205R 0107

#### FEMALE PIPE SWIVEL ADAPTER

SAE 140131



Part #	Female Pipe 1	Female NPSM 2	List Price
1405-2-2	1/8	1/8	----
1405-4-2	1/4	1/8	----
1405-4-4	1/4	1/4	----
1405-4-6	1/4	3/8	----
1405-6-4	3/8	1/4	----
1405-6-6	3/8	3/8	----
1405-6-8	3/8	1/2	----
1405-8-4	1/2	1/4	----
1405-8-6	1/2	3/8	----
1405-8-8	1/2	1/2	----
1405-12-12	3/4	3/4	----
1405-16-12	1	3/4	----
1405-16-16	1	1	----
1405-20-20	1-1/4	1-1/4	----
1405-24-24	1-1/2	1-1/2	----
1405-32-32	2	2	----

1405 2046R 1212 9255 C207

#### MALE PIPE ELBOW SWIVEL ADAPTER

SAE 140230



Part #	Male Pipe 1	Female NPSM 2	List Price
1501-2-2	1/8	1/8	----
1501-4-2	1/4	1/8	----
1501-4-4	1/4	1/4	----
1501-6-4	3/8	1/4	----
1501-6-6	3/8	3/8	----
1501-8-4	1/2	1/4	----
1501-8-6	1/2	3/8	----
1501-8-8	1/2	1/2	----
1501-12-8	3/4	1/2	----
1501-12-12	3/4	3/4	----
1501-16-12	1	3/4	----
1501-16-16	1	1	----
1501-20-20	1-1/4	1-1/4	----
1501-24-24	1-1/2	1-1/2	----
1501-32-32	2	2	----

1501 2047R 1218 9405 2107

#### FEMALE UNION ELBOW SWIVEL ADAPTER

SAE 140231



Part #	Female Pipe 1	Female NPSM 2	List Price
1502-2-2	1/8	1/8	----
1502-4-4	1/4	1/4	----
1502-6-4	3/8	1/4	----
1502-6-6	3/8	3/8	----
1502-6-8	3/8	1/2	----
1502-8-6	1/2	3/8	----
1502-8-8	1/2	1/2	----
1502-12-12	3/4	3/4	----
1502-16-16	1	1	----
1502-20-20	1-1/4	1-1/4	----
1502-24-24	1-1/2	1-1/2	----

1502 2207 1216 945SR

**MALE 45° PIPE ELBOW SWIVEL ADAPTER**

SAE 140330



Part #	Male Pipe 1	Female NPSM 2	List Price
1503-2-2	1/8	1/8	----
1503-4-4	1/4	1/4	----
1503-6-4	3/8	1/4	----
1503-6-6	3/8	3/8	----
1503-8-6	1/2	3/8	----
1503-8-8	1/2	1/2	----
1503-12-8	3/4	1/2	----
1503-12-12	3/4	3/4	----
1503-16-12	1	3/4	----
1503-16-16	1	1	----
1503-20-20	1-1/4	1-1/4	----
1503-24-24	1-1/2	1-1/2	----
1503-32-32	2	2	----

1503 2049R 3107 1214 9355R

**FEMALE 45° UNION ELBOW SWIVEL ADAPTER**

SAE 140331



Part #	Female Pipe 1	Female NPSM 2	List Price
1504-2-2	1/8	1/8	----
1504-4-4	1/4	1/4	----
1504-6-6	3/8	3/8	----
1504-8-8	1/2	1/2	----
1504-12-12	3/4	3/4	----
1504-16-16	1	1	----
1504-20-20	1-1/4	1-1/4	----
1504-24-24	1-1/2	1-1/2	----

1504 2050R 1249 9385R

**MALE SWIVEL BRANCH TEE**



Part #	Female NPSM 1 & 2	Male Pipe 3	List Price
1601-2-2	1/8	1/8	----
1601-4-4	1/4	1/4	----
1601-6-6	3/8	3/8	----
1601-8-8	1/2	1/2	----
1601-12-12	3/4	3/4	----
1601-16-16	1	1	----
1601-20-20	1-1/4	1-1/4	----
1601-24-24	1-1/2	1-1/2	----

1601 2254R 1258 9406R

**FEMALE SWIVEL TEE**



Part #	Female NPSM 1 & 2	Female Pipe 3	List Price
1602-4-4	1/4	1/4	----
1602-6-6	3/8	3/8	----
1602-8-8	1/2	1/2	----
1602-12-12	3/4	3/4	----
1602-16-16	1	1	----
1602-20-20	1-1/4	1-1/4	----

1602 2253R 1259 9456R

**FEMALE SWIVEL UNION TEE**



Part #	Female NPSM 1,2 & 3	List Price
1603-4-4	1/4	----
1603-6-6	3/8	----
1603-8-8	1/2	----
1603-12-12	3/4	----
1603-16-16	1	----
1603-20-20	1-1/4	----

1603 2255 1223 9705R

**STRAIGHTS STEEL JIC FLARE 37°**

**HYDRAULIC ADAPTERS**

**LONG JIC TUBE NUT**

SAE 070111



Part #	Tube O.D	JIC Thread Size	List Price
0304-4	1/4	7/16-20	----
0304-6	3/8	9/16-18	----
0304-8	1/2	3/4-16	----
0304-10	5/8	7/8-14	----
0304-12	3/4	1-1/16-12	----
0304-16	1	1-5/16-12	----

304 221000 0304 C5115

**JIC CAP**

SAE 070112  
MS 51532



Part #	Tube O.D.	JIC Thread Size	List Price
0304-C-2	1/8	5/16-24	----
0304-C-3	3/16	3/8-24	----
0304-C-4	1/4	7/16-20	----
0304-C-5	5/16	1/2-20	----
0304-C-6	3/8	9/16-18	----
0304-C-8	1/2	3/4-16	----
0304-C-10	5/8	7/8-14	----
0304-C-12	3/4	1-1/16-12	----
0304-C-14	7/8	1-3/16-12	----
0304-C-16	1	1-5/16-12	----
0304-C-20	1-1/4	1-5/8-12	----
0304-C-24	1-1/2	1-7/8-12	----
0304-C-32	2	2-1/2-12	----

820 304 210292 FNTX 1329 C5129

**JIC TUBE NUT  
(SLEEVE REQUIRED)**

SAE 070110  
MS 51531



Part #	Tube O.D	JIC Thread Size	List Price
0318-2	1/8	5/16-24	----
0318-3	3/16	3/8-24	----
0318-4	1/4	7/16-20	----
0318-5	5/16	1/2-20	----
0318-6	3/8	9/16-18	----
0318-8	1/2	3/4-16	----
0318-10	5/8	7/8-14	----
0318-12	3/4	1-1/16-12	----
0318-14	7/8	1-3/16-12	----
0318-16	1	1-5/16-12	----
0318-20	1-1/4	1-5/8-12	----
0318-24	1-1/2	1-7/8-12	----
0318-32	2	2-1/2-12	----

318 1290 BTX 1311 C5105

**JIC TUBE SLEEVE**

SAE 070115  
MS 51533



Part #	Tube O.D	List Price
0319-2	1/8	----
0319-3	3/16	----
0319-4	1/4	----
0319-5	5/16	----
0319-6	3/8	----
0319-8	1/2	----
0319-10	5/8	----
0319-12	3/4	----
0319-14	7/8	----
0319-16	1	----
0319-20	1-1/4	----
0319-24	1-1/2	----
0319-32	2	----

319 900605 TX 1253 C5165

**JIC TUBE UNION**

SAE 070101  
MS 51501



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2403-2-2	5/16-24	5/16-24	----
2403-3-3	3/8-24	3/8-24	----
2403-4-4	7/16-20	7/16-20	----
2403-5-5	1/2-20	1/2-20	----
2403-6-6	9/16-18	9/16-18	----
2403-6-4	9/16-18	7/16-20	----
2403-8-8	3/4-16	3/4-16	----
2403-8-4	3/4-16	7/16-20	----
2403-8-6	3/4-16	9/16-18	----
2403-10-10	7/8-14	7/8-14	----
2403-10-8	7/8-14	3/4-16	----
2403-12-12	1-1/16-12	1-1/16-12	----
2403-12-8	1-1/16-12	3/4-16	----
2403-12-10	1-1/16-12	7/8-14	----
2403-14-14	1-3/16-12	1-3/16-12	----
2403-16-16	1-5/16-12	1-5/16-12	----
2403-16-12	1-5/16-12	1-1/16-12	----
2403-20-20	1-5/8-12	1-5/8-12	----
2403-24	1-7/8-12	1-7/8-12	-----
2403-24-20	1-7/8-12	1-5/8-12	----
2403-32	2-1/2-12	2-1/2-12	-----

2403 2027 HTX 1204 C5305

# HYDRAULIC ADAPTERS

# STRAIGHTS STEEL JIC FLARE 37°

## JIC MALE CONNECTOR

SAE 070102  
MS 51500



Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
2404-2-2	5/16-24	1/8	----
2404-2-4	5/16-24	1/4	----
2404-4-2	7/16-20	1/8	----
2404-4-4	7/16-20	1/4	----
2404-4-6	7/16-20	3/8	----
2404-4-8	7/16-20	1/2	----
2404-6-2	9/16-18	1/8	----
2404-6-4	9/16-18	1/4	----
2404-6-6	9/16-18	3/8	----
2404-6-8	9/16-18	1/2	----
2404-8-4	3/4-16	1/4	----
2404-8-6	3/4-16	3/8	----
2404-8-8	3/4-16	1/2	----
2404-8-12	3/4-16	3/4	----
2404-8-16	3/4-16	1	----
2404-10-8	7/8-14	1/2	----
2404-10-12	7/8-14	3/4	----
2404-12-6	1-1/16-12	3/8	----
2404-12-8	1-1/16-12	1/2	----
2404-12-12	1-1/16-12	3/4	----
2404-12-16	1-1/16-12	1	----
2404-16-12	1-5/16-12	3/4	----
2404-16-16	1-5/16-12	1	----
2404-20-16	1-5/8-12	1	----
2404-20-20	1-5/8-12	1-1/4	----
2404-20-24	1-5/8-12	1-1/2	----
2404-24-16	1-7/8-12	1	----
2404-24-20	1-7/8-12	1-1/4	----
2404-24-24	1-7/8-12	1-1/2	----
2404-32-24	2-1/2-12	1-1/2	----
2404-32-32	2-1/2-12	2	----

2404 2021R FTX 1202R C5205 816

## JIC FEMALE CONNECTOR

SAE 070103  
MS 51503



Part #	JIC Thread Size 1	Female Pipe Size 2	List Price
2405-2-2	5/16-24	1/8	----
2405-4-2	7/16-20	1/8	----
2405-4-4	7/16-20	1/4	----
2405-6-4	9/16-18	1/4	----
2405-6-6	9/16-18	3/8	----
2405-6-8	9/16-18	1/2	----
2405-8-4	3/4-16	1/4	----
2405-8-6	3/4-16	3/8	----
2405-8-8	3/4-16	1/2	----
2405-10-6	7/8-14	3/8	----
2405-10-8	7/8-14	1/2	----
2405-12-8	1-1/16-12	1/2	----
2405-12-12	1-1/16-12	3/4	----
2405-16-12	1-5/16-12	3/4	----
2405-16-16	1-5/16-12	1	----
2405-20-20	1-5/8-12	1-1/4	----
2405-24-24	1-7/8-12	1-1/2	----
2405-32-32	2-1/2-12	2	----

2405 2022R GTX 1230R C5255

## JIC REDUCER/ EXPANDER



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2406-6-4	9/16-18	7/16-20	----
2406-6-8	9/16-18	3/4-16	----
2406-8-4	3/4-16	7/16-20	----
2406-8-6	3/4-16	9/16-18	----
2406-8-12	3/4-16	1-1/16-12	----
2406-10-4	7/8-14	7/16-20	----
2406-10-6	7/8-14	9/16-18	----
2406-10-8	7/8-14	3/4-16	----
2406-12-4	1-1/16-12	7/16-20	----
2406-12-6	1-1/16-12	9/16-18	----
2406-12-8	1-1/16-12	3/4-16	----
2406-12-10	1-1/16-12	7/8-14	----
2406-16-4	1-5/16-12	7/16-20	----
2406-16-12	1-5/16-12	1-1/16-12	----
2406-16-20	1-5/16-12	1-5/8-12	----
2406-20-12	1-5/8-12	1-1/16-12	----
2406-20-16	1-5/8-12	1-5/16-12	----
2406-24-16	1-7/8-12	1-5/16-12	----
2406-32-24	2-1/2-12	1-7/8-12	----

2406 C5015 2215 TRTX 1246

**STRAIGHTS STEEL JIC FLARE 37°**

**PLUG**

SAE 070109  
MS 51518



Part #	Tube O.D.	JIC Thread Size	List Price
2408-2	1/8	5/16-24	----
2408-3	3/16	3/8-24	----
2408-4	1/4	7/16-20	----
2408-5	5/16	1/2-20	----
2408-6	3/8	9/16-18	----
2408-8	1/2	3/4-16	----
2408-10	5/8	7/8-14	----
2408-12	3/4	1-1/16-12	----
2408-14	7/8	1-3/16-12	----
2408-16	1	1-5/16-12	----
2408-20	1-1/4	1-5/8-12	----
2408-24	1-1/2	1-7/8-12	----
2408-32	2	2-1/2-12	----

2408 430549 PNTX 1254 C5229

**JIC UNION ELBOW**

SAE 070201  
MS 51505



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2500-2-2	5/16-24	5/16-24	----
2500-4-4	7/16-20	7/16-20	----
2500-5-5	1/2-20	1/2-20	----
2500-6-6	9/16-18	9/16-18	----
2500-6-4	9/16-18	7/16-20	----
2500-8-8	3/4-16	3/4-16	----
2500-8-6	3/4-16	9/16-18	----
2500-10-10	7/8-14	7/8-14	----
2500-12-12	1-1/16-12	1-1/16-12	----
2500-16-16	1-5/16-12	1-5/16-12	----
2500-20-20	1-5/8-12	1-5/8-12	----
2500-24-24	1-7/8-12	1-7/8-12	----
2500-32-32	2-1/2-12	2-1/2-12	----

2500 2039 1234 C5505 821

**HYDRAULIC ADAPTERS**

**STEEL 37° JIC FLARE SHAPES**

SAE 070202  
MS 51504

**JIC MALE ELBOW**

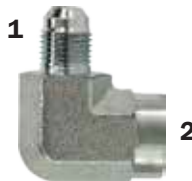


Part #	JIC Thread Size 1	Male Pipe Size 2	List Price
2501-2-2	5/16-24	1/8	----
2501-4-2	7/16-20	1/8	----
2501-4-4	7/16-20	1/4	----
2501-4-6	7/16-20	3/8	----
2501-4-8	7/16-20	1/2	----
2501-6-2	9/16-18	1/8	----
2501-6-4	9/16-18	1/4	----
2501-6-6	9/16-18	3/8	----
2501-6-8	9/16-18	1/2	----
2501-8-4	3/4-16	1/4	----
2501-8-6	3/4-16	3/8	----
2501-8-8	3/4-16	1/2	----
2501-8-12	3/4-16	3/4	----
2501-10-6	7/8-14	3/8	----
2501-10-8	7/8-14	1/2	----
2501-12-8	1-1/16-12	1/2	----
2501-12-12	1-1/16-12	3/4	----
2501-12-16	1-1/16-12	1	----
2501-16-12	1-5/16-12	3/4	----
2501-16-16	1-5/16-12	1	----
2501-16-20	1-5/16-12	1-1/4	----
2501-20-20	1-5/8-12	1-1/4	----
2501-24-24	1-7/8-12	1-1/2	----
2501-32-32	2-1/2-12	2	----

1208R C5405 2501 2024R CTX 822

**JIC FEMALE ELBOW**

SAE 070203  
MS 51506



Part #	JIC Thread Size 1	Female Pipe Size 2	List Price
2502-4-2	7/16-20	1/8	----
2502-4-4	7/16-20	1/4	----
2502-6-4	9/16-18	1/4	----
2502-6-6	9/16-18	3/8	----
2502-6-8	9/16-18	1/2	----
2502-8-4	3/4-16	1/4	----
2502-8-6	3/4-16	3/8	----
2502-8-8	3/4-16	1/2	----
2502-10-6	7/8-14	3/8	----
2502-10-8	7/8-14	1/2	----
2502-12-8	1-1/16-12	1/2	----
2502-12-12	1-1/16-12	3/4	----
2502-16-16	1-5/16-12	1	----
2502-20-20	1-5/8-12	1-1/4	----

2502 2025R DTX 1240R C5455

# HYDRAULIC ADAPTERS

# SHAPES STEEL JIC FLARE 37°

SAE 070302  
MS 51508

## JIC MALE 45° ELBOW



Part #	JIC Thread Size 1	Male Pipe Size 2	List Price
2503-2-2	5/16-24	1/8	----
2503-4-4	7/16-20	1/4	----
2503-6-4	9/16-18	1/4	----
2503-6-6	9/16-18	3/8	----
2503-6-8	9/16-18	1/2	----
2503-8-4	3/4-16	1/4	----
2503-8-6	3/4-16	3/8	----
2503-8-8	3/4-16	1/2	----
2503-10-6	7/8-14	3/8	----
2503-10-8	7/8-14	1/2	----
2503-12-8	1-1/16-12	1/2	----
2503-12-12	1-1/16-12	3/4	----
2503-12-16	1-1/16-12	1	----
2503-16-16	1-5/16-12	1	----
2503-16-20	1-5/16-12	1-1/4	----
2503-20-16	1-5/8-12	1	----
2503-20-20	1-5/8-12	1-1/4	----

2503 2023R VTX 1206R C5355 823

## JIC MALE BRANCH TEE



Part #	JIC Thread Size 1&2	Pipe Thread Size 3	List Price
2601-4-4	7/16-20	1/4	----
2601-6-4	9/16-18	1/4	----
2601-6-6	9/16-18	3/8	----
2601-8-8	3/4-16	1/2	----
2601-12-12	1-1/16-12	3/4	----
2601-16-16	1-5/16-12	1	----

2601 2030R STX 1221R C5605

SAE 070427  
MS 51513

## JIC FEMALE BRANCH TEE



Part #	JIC Thread Size 1 & 2	Female Pipe Size 3	List Price
2602-4-4	7/16-20	1/4	----
2602-6-6	9/16-18	3/8	----
2602-8-8	3/4-16	1/2	----
2602-12-12	1-1/16-12	3/4	----
2602-16-16	1-5/16-12	1	----
2602-20-20	1-5/8-12	1-1/4	----

2602 2031R OTX 1228R C6566

## JIC UNION TEE

SAE 070401  
MS 51510



Part #	JIC Thread Size 1 & 2	JIC Thread Size 3	List Price
2603-2-2	5/16-24	5/16-24	----
2603-3-3	3/8-24	3/8-24	----
2603-4-4	7/16-20	7/16-20	----
2603-6-6	9/16-18	9/16-18	----
2603-8-8	3/4-16	3/4-16	----
2603-10-10	7/8-14	7/8-14	----
2603-12-12	1-1/16-12	1-1/16-12	----
2603-16-16	1-5/16-12	1-5/16-12	----
2603-20-20	1-5/8-12	1-5/8-12	----

2603 2033 JTX 1220 C5705



# STEEL BULKHEAD FITTINGS

# HYDRAULIC ADAPTERS

## LOCK NUT

SAE 070118  
MS 51860



\* Lock Nut no longer included on fittings

Part #	Thread Size	List Price
0306-2	5/16-24	----
0306-4	7/16-20	----
0306-5	1/2-20	----
0306-6	9/16-18	----
0306-8	3/4-16	----
0306-10	7/8-14	----
0306-12	1-1/16-12	----
0306-14	1-3/16-12	----
0306-16	1-5/16-12	----
0306-20	1-5/8-12	----
0306-24	1-7/8-12	----
0306-32	2-1/2-12	----

1306 894 210212 WLN 1332 C5624

## JIC BULKHEAD UNION

SAE 070601  
MS 51520



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2700-2-2	5/16-24	5/16-24	----
2700-4-4	7/16-20	7/16-20	----
2700-5-5	1/2-20	1/2-20	----
2700-6-6	9/16-18	9/16-18	----
2700-8	3/4-16	3/4-16	----
2700-10	7/8-14	7/8-14	----
2700-12	1-1/16-12	1-1/16-12	----
2700-14	1-3/16-12	1-3/16-12	----
2700-16	1-5/16-12	1-5/16-12	----
2700-20	1-5/8-12	1-5/8-12	----
2700-24	1-7/8-12	1-7/8-12	----
2700-32	2-1/2-12	2-1/2-12	----

2700 2041R WTX 1260 C5325

## JIC BULKHEAD UNION ELBOW

SAE 070701  
MS 51507



Part #	JIC Thread Size 1	JIC Bulkhead Thread 2	List Price
2701-4	7/16-20	7/16-20	----
2701-5	1/2-20	1/2-20	----
2701-6	9/16-18	9/16-18	----
2701-8	3/4-16	3/4-16	----
2701-10	7/8-14	7/8-14	----
2701-12	1-1/16-12	1-1/16-12	----
2701-16	1-5/16-12	1-5/16-12	----
2701-20	1-5/8-12	1-5/8-12	----
2701-24	1-7/8-12	1-7/8-12	----

2701 2043R WETX 1262 C5525

## JIC BULKHEAD UNION 45° ELBOW

SAE 070801  
MS 51509



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2702-4	7/16-20	7/16-20	----
2702-6	9/16-18	9/16-18	----
2702-8	3/4-16	3/4-16	----
2702-10	7/8-14	7/8-14	----
2702-12	1-1/16-12	1-1/16-12	----
2702-16	1-5/16-12	1-5/16-12	----
2702-20	1-5/8-12	1-5/8-12	----

2702 2042 WNTX 1261 C5375

## JIC BULKHEAD BRANCH TEE

SAE 070959  
MS 51515

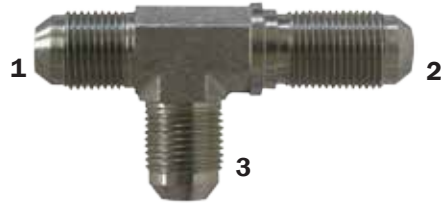


Part #	JIC Thread Size 1&2	JIC Thread Size 3	List Price
2703-4	7/16-20	7/16-20	----
2703-6	9/16-18	9/16-18	----
2703-8	3/4-16	3/4-16	----
2703-10	7/8-14	7/8-14	----
2703-12	1-1/16-12	1-1/16-12	----
2703-16	1-5/16-12	1-5/16-12	----
2703-20	1-5/8-12	1-5/8-12	----

2703 203002 WJT 1283 C5725

## JIC BULKHEAD RUN TEE

SAE 070958  
MS 51516



Part #	JIC Thread Size 1&3	JIC Thread Size 2	List Price
2704-4	7/16-20	7/16-20	----
2704-6	9/16-18	9/16-18	----
2704-8	3/4-16	3/4-16	----
2704-10	7/8-14	7/8-14	----
2704-12	1-1/16-12	1-1/16-12	----
2704-16	1-5/16-12	1-5/16-12	----

2704 203008 WJTT 1284 C5726

\* Lock Nuts sold separately

**JIC TO FEMALE PIPE BULKHEAD**



Part #	JIC Thread Size 1	Female Pipe Size 2	List Price
2705-4-4	7/16-20	1/4	----
2705-6-6	9/16-18	3/8	----
2705-8-8	3/4-16	1/2	----
2705-12-12	1-1/16-12	3/4	----
2705-16-16	1-5/16-12	1	----
2705-20-20	1-5/8-12	1-1/4	----

2705 2239 WGTX C5275

**JIC TO MALE PIPE BULKHEAD**



Part #	JIC Thread Size 1	Pipe Thread Size 2	List Price
2706-4-4	7/16-20	1/4	----
2706-6-6	9/16-18	3/8	----
2706-8-8	3/4-16	1/2	----
2706-12-12	1-1/16-12	3/4	----
2706-16-16	1-5/16-12	1	----
2706-20-20	1-5/8-12	1-1/4	----

2706 2240

\* Lock Nuts sold separately - pg. 408

# STEEL PIPE FITTINGS

# HYDRAULIC ADAPTERS

SAE 140138 **PIPE COUPLING** 910



Part #	Female Pipe 1	Female Pipe 2	List Price
5000-2	1/8	1/8	----
5000-4-2	1/4	1/8	----
5000-4	1/4	1/4	----
5000-6-4	3/8	1/4	----
5000-6-6	3/8	3/8	----
5000-8-4	1/2	1/4	----
5000-8-6	1/2	3/8	----
5000-8	1/2	1/2	----
5000-12-12	3/4	3/4	----
5000-16-12	1	3/4	----
5000-16	1	1	----
5000-20-20	1-1/4	1-1/4	----
5000-24	1-1/2	1-1/2	----
5000-32	2	2	----

5000 2096 GG 1273 C3309

SAE 140137 **HEX PIPE NIPPLES**



Part #	Male Pipe 1	Male Pipe 2	List Price
5404-2	1/8	1/8	----
5404-4-2	1/4	1/8	----
5404-4	1/4	1/4	----
5404-6-2	3/8	1/8	----
5404-6-4	3/8	1/4	----
5404-6	3/8	3/8	----
5404-8-4	1/2	1/4	----
5404-8-6	1/2	3/8	----
5404-8	1/2	1/2	----
5404-12-6	3/4	3/8	----
5404-12-8	3/4	1/2	----
5404-12	3/4	3/4	----
5404-16-12	1	3/4	----
5404-16	1	1	----
5404-20-16	1-1/4	1	----
5404-20	1-1/4	1-1/4	----
5404-24-20	1-1/2	1-1/4	----
5404-24	1-1/2	1-1/2	----
5404-32-24	2	1-1/2	----
5404-32	2	2	----

5404 2083 FF 1252 C3069 911

**EXPANDING PIPE ADAPTER**

SAE 140139



Part #	Male Pipe 1	Female Pipe 2	List Price
5405-2-2	1/8	1/8	----
5405-2-4	1/8	1/4	----
5405-4-2	1/4	1/8	----
5405-4-4	1/4	1/4	----
5405-6-4	3/8	1/4	----
5405-6-6	3/8	3/8	----
5405-6-8	3/8	1/2	----
5405-8-8	1/2	1/2	----
5405-8-12	1/2	3/4	----
5405-12-12	3/4	3/4	----
5405-16-16	1	1	----
5405-16-20	1	1-1/4	----
5405-20-20	1-1/4	1-1/4	----
5405-20-24	1-1/4	1-1/2	----
5405-24-24	1-1/2	1-1/2	----

920 5405 2040 FG-(R) 1274 C3209(R)

**HEX REDUCER BUSHING**

SAEF1  
140140



Part #	Male Pipe	Female Pipe	List Price
5406-4-2	1/4	1/8	----
5406-6-2	3/8	1/8	----
5406-6-4	3/8	1/4	----
5406-8-2	1/2	1/8	----
5406-8-4	1/2	1/4	----
5406-8-6	1/2	3/8	----
5406-12-2	3/4	1/8	----
5406-12-4	3/4	1/4	----
5406-12-6	3/4	3/8	----
5406-12-8	3/4	1/2	----
5406-16-4	1	1/4	----
5406-16-6	1	3/8	----
5406-16-8	1	1/2	----
5406-16-12	1	3/4	----
5406-24-20	1-1/2	1-1/4	----
5406-32-20	2	1-1/4	----
5406-32-24	2	1-1/2	----

5406 2081 PTR 1250 C3109 912

# HYDRAULIC ADAPTERS

# STEEL PIPE FITTINGS

## HEX HEAD PLUG

SAE 130109E



Part #	Male Pipe	List Price
5406-P-2	1/8	----
5406-P-4	1/4	----
5406-P-6	3/8	----
5406-P-8	1/2	----
5406-P-12	3/4	----
5406-P-16	1	----
5406-P-20	1-1/4	----
5406-P-24	1-1/2	----
5406-P-32	2	----

933 5406P 2082 HP 1251 C3159

## HOLLOW HEX PLUG

SAE 130109



Part #	Male Pipe	List Price
5406-HHP-2	1/8	----
5406-HHP-4	1/4	----
5406-HHP-6	3/8	----
5406-HHP-8	1/2	----
5406-HHP-12	3/4	----
5406-HHP-16	1	----
5406-HHP-20	1-1/4	----
5406-HHP-24	1-1/2	----

C3169 2222

## FLUSH HOLLOW HEX PLUG W/ 7/8 TAPER



Part #	Male Pipe	List Price
5406-FLP-2	1/8	----
5406-FLP-4	1/4	----
5406-FLP-6	3/8	----
5406-FLP-8	1/2	----
5406-FLP-12	3/4	----

## SQUARE HEAD PLUG

SAE 130109A



Part #	Male Pipe	List Price
5406-SHP-2	1/8	----
5406-SHP-4	1/4	----
5406-SHP-6	3/8	----
5406-SHP-8	1/2	----
5406-SHP-12	3/4	----
5406-SHP-16	1	----
5406-SHP-20	1-1/4	----
5406-SHP-24	1-1/2	----
5406-SHP-32	2	----

C3179

## PIPE CAP



Part #	Female Pipe	List Price
5406-C-2	1/8	----
5406-C-4	1/4	----
5406-C-6	3/8	----
5406-C-8	1/2	----
5406-C-12	3/4	----
5406-C-16	1	----

HPC

## MALE ELBOW

SAE 140237



Part #	Male Pipe 1	Male Pipe 2	List Price
5500-2	1/8	1/8	----
5500-4	1/4	1/4	----
5500-6	3/8	3/8	----
5500-8-4	1/2	1/4	----
5500-8-6	1/2	3/8	----
5500-8	1/2	1/2	----
5500-12-8	3/4	1/2	----
5500-12-12	3/4	3/4	----
5500-16	1	1	----
5500-16-12	1	3/4	----
5500-20-20	1-1/4	1-1/4	----
5500-24	1-1/2	1-1/2	----

919 5500 2085 CR 1275 C3529

## STEEL PIPE FITTINGS

## HYDRAULIC ADAPTERS

### 45° MALE ELBOW



Part #	Male Pipe 1	Male Pipe 2	List Price
5501-2-2	1/8	1/8	----
5501-4-4	1/4	1/4	----
5501-6-6	3/8	3/8	----
5501-8	1/2	1/2	----
5501-12-12	3/4	3/4	----
5501-16-16	1	1	----

5501 2247

### 90° STREET ELBOW

SAE 140239



Part #	Male Pipe 1	Female Pipe 2	List Price
5502-2	1/8	1/8	----
5502-4	1/4	1/4	----
5502-4-6	1/4	3/8	----
5502-6-2	3/8	1/8	----
5502-6-4	3/8	1/4	----
5502-6	3/8	3/8	----
5502-6-8	3/8	1/2	----
5502-8-4	1/2	1/4	----
5502-8-6	1/2	3/8	----
5502-8-8	1/2	1/2	----
5502-12-8	3/4	1/2	----
5502-12	3/4	3/4	----
5502-16-12	1	3/4	----
5502-16-16	1	1	----
5502-20	1-1/4	1-1/4	----
5502-24	1-1/2	1-1/2	----

5502 2089 CD 1234R C3409 914

### 45° STREET ELBOW

SAE 140339



Part #	Male Pipe 1	Female Pipe 2	List Price
5503-2	1/8	1/8	----
5503-4	1/4	1/4	----
5503-6	3/8	3/8	----
5503-8	1/2	1/2	----
5503-12-12	3/4	3/4	----
5503-16	1	1	----
5503-20	1-1/4	1-1/4	----
5503-24	1-1/2	1-1/2	----

5503 CD45 1244

### FEMALE ELBOW

SAE 140238



Part #	Female Pipe 1	Female Pipe 2	List Price
5504-2	1/8	1/8	----
5504-4-2	1/4	1/8	----
5504-4	1/4	1/4	----
5504-6-4	3/8	1/4	----
5504-6	3/8	3/8	----
5504-8-6	1/2	3/8	----
5504-8	1/2	1/2	----
5504-12	3/4	3/4	----
5504-16	1	1	----
5504-20	1-1/4	1-1/4	----
5504-24	1-1/2	1-1/2	----

5504 2087 DD 1245 C3509 916

### 45° FEMALE ELBOW

SAE 140338



Part #	Female Pipe 1	Female Pipe 2	List Price
5505-4	1/4	1/4	----
5505-6	3/8	3/8	----
5505-8	1/2	1/2	----
5505-12	3/4	3/4	----
5505-16	1	1	----
5505-20	1-1/4	1-1/4	----

5505 DD45 1241 C3559

# HYDRAULIC ADAPTERS

# STEEL PIPE FITTINGS

## MALE PIPE TEE

SAE 140437

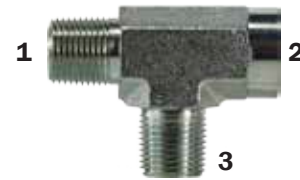


Part #	Male Pipe 1 & 2	Male Pipe 3	List Price
5600-2-2	1/8	1/8	----
5600-4-4	1/4	1/4	----
5600-6-6	3/8	3/8	----
5600-8-8	1/2	1/2	----
5600-12	3/4	3/4	----
5600-16	1	1	----
5600-20	1-1/4	1-1/4	----
5600-24	1-1/2	1-1/2	----

5600 2257 RRS

## FEMALE RUN PIPE TEE

SAE 1404276



Part #	Male Pipe 1 & 3	Female Pipe 2	List Price
5603-2-2	1/8	1/8	----
5603-4-4	1/4	1/4	----
5603-6-6	3/8	3/8	----
5603-8-8	1/2	1/2	----
5603-12	3/4	3/4	----
5603-16	1	1	----
5603-20	1-1/4	1-1/4	----
5603-24	1-1/2	1-1/2	----

5603 2093 MMO 1277

## FEMALE BRANCH PIPE TEE

SAE 140427



Part #	Male Pipe 1 & 2	Female Pipe 3	List Price
5601-2-2	1/8	1/8	----
5601-4-4	1/4	1/4	----
5601-6-6	3/8	3/8	----
5601-8	1/2	1/2	----
5601-12	3/4	3/4	----
5601-16	1	1	----
5601-20	1-1/4	1-1/4	----
5601-24	1-1/2	1-1/2	----

901 5601 2256

## MALE BRANCH PIPE TEE



Part #	Female Pipe 1 & 2	Male Pipe 3	List Price
5604-2-2	1/8	1/8	----
5604-4-4	1/4	1/4	----
5604-6-6	3/8	3/8	----
5604-8-8	1/2	1/2	----
5604-12	3/4	3/4	----
5604-16	1	1	----
5604-20	1-1/4	1-1/4	----
5604-24	1-1/2	1-1/2	----

904 5604 2091 MMS 1278 C3609

## STREET PIPE TEE

SAE 140424



Part #	Male Pipe 1	Female Pipe 2 & 3	List Price
5602-2-2	1/8	1/8	----
5602-4-4	1/4	1/4	----
5602-6-6	3/8	3/8	----
5602-8-8	1/2	1/2	----
5602-12	3/4	3/4	----
5602-16	1	1	----
5602-20	1-1/4	1-1/4	----
5602-24	1-1/2	1-1/2	----

902 5602 2092 MRO 1276 C3759

## FEMALE PIPE TEE

SAE 140438



Part #	Female Pipe	List Price
5605-2-2	1/8	----
5605-4-4	1/4	----
5605-6-6	3/8	----
5605-8	1/2	----
5605-12	3/4	----
5605-16	1	----
5605-20	1-1/4	----
5605-24	1-1/2	----

917 5605 2090 1225 C3709



# STEEL O-RING ADAPTERS

# HYDRAULIC ADAPTERS

## JIC TO O-RING CONNECTOR

SAE 070120  
MS 51525



Part #	JIC Thread Size 1	O-Ring Thread 2	List Price
6400-2	5/16-24	5/16-24	----
6400-3	3/8-24	3/8-24	----
6400-4	7/16-20	7/16-20	----
6400-4-2	7/16-20	5/16-24	----
6400-4-3	7/16-20	3/8-24	----
6400-4-5	7/16-20	1/2-20	----
6400-4-6	7/16-20	9/16-18	----
6400-4-8	7/16-20	3/4-16	----
6400-5	1/2-20	1/2-20	----
6400-6	9/16-18	9/16-18	----
6400-6-4	9/16-18	7/16-20	----
6400-6-5	9/16-18	1/2-20	----
6400-6-8	9/16-18	3/4-16	----
6400-6-10	9/16-18	7/8-14	----
6400-6-12	9/16-18	1-1/16-12	----
6400-8	3/4-16	3/4-16	----
6400-8-4	3/4-16	7/16-20	----
6400-8-6	3/4-16	9/16-18	----
6400-8-10	3/4-16	7/8-14	----
6400-8-12	3/4-16	1-1/16-12	----
6400-10	7/8-14	7/8-14	----
6400-10-6	7/8-14	9/16-18	----
6400-10-8	7/8-14	3/4-16	----
6400-10-12	7/8-14	1-1/16-12	----
6400-10-16	7/8-14	1-5/16-12	----
6400-12	1-1/16-12	1-1/16-12	----
6400-12-6	1-1/16-12	3/8	----
6400-12-8	1-1/16-12	3/4-16	----
6400-12-10	1-1/16-12	7/8-14	----
6400-12-14	1-1/16-12	1-3/16-12	----
6400-12-16	1-1/16-12	1-5/16-12	----
6400-14	1-3/16-12	1-3/16-12	----
6400-16	1-5/16-12	1-5/16-12	----
6400-16-12	1-5/16-12	1-1/16-12	----
6400-16-20	1-5/16-12	1-5/8-12	----
6400-16-24	1-5/16-12	1-7/8-12	----
6400-20	1-5/8-12	1-5/8-12	----
6400-20-24	1-5/8-12	1-7/8-12	----
6400-24	1-7/8-12	1-7/8-12	----
6400-24-32	1-7/8-12	2-1/2-12	----

6400 202702R F50X 1231 C5315

## O-RING HEX NIPPLE UNION



Part #	O-Ring Thread 1	O-Ring Thread 2	List Price
6403-O-6	9/16-18	9/16-18	----
6403-O-8	3/4-16	3/4-16	----
6403-O-10	7/8-14	7/8-14	----
6403-O-12	1-1/16-12	1-1/16-12	----
6403-O-16	1-5/16-12	1-5/16-12	----

## O-RING TO PIPE ADAPTER



Part #	O-Ring Thread 1	Male Pipe Thread 2	List Price
6401-4-2	7/16-20	1/8	----
6401-4-4	7/16-20	1/4	----
6401-6-4	9/16-18	1/4	----
6401-6-6	9/16-18	3/8	----
6401-6-8	9/16-18	1/2	----
6401-8-6	3/4-16	3/8	----
6401-8-8	3/4-16	1/2	----
6401-10-6	7/8-14	3/8	----
6401-10-8	7/8-14	1/2	----
6401-12-8	1-1/16-12	1/2	----
6401-12-12	1-1/16-12	3/4	----
6401-16-16	1-5/16-12	1	----
6401-20-20	1-5/8-12	1-1/4	----

6401 F5X 1264R C3249

## O-RING TO 37° JIC - SWIVEL ADAPTER



Part #	O-Ring Thread 1	JIC Thread Size 2	List Price
6402-O-4-4	7/16-20	7/16-20	----
6402-O-6-6	9/16-18	9/16-18	----
6402-O-8-8	3/4-16	3/4-16	----
6402-O-10-10	7/8-14	7/8-14	----
6402-O-12-12	1-1/16-12	1-1/16-12	----
6402-O-16-16	1-5/16-12	1-5/16-12	----
6402-O-20-20	1-5/8-12	1-5/8-12	----
6402-O-24-24	1-7/8-12	1-7/8-12	----

6402 2266 F65X 1213 9316

## FEMALE O-RING TO MALE PIPE ADAPTER



Part #	O-Ring Thread 1	Male Pipe Thread 2	List Price
6404-4-2	7/16-20	1/8	----
6404-4-4	7/16-20	1/4	----
6404-6-4	9/16-18	1/4	----
6404-6-6	9/16-18	3/8	----
6404-6-8	9/16-18	1/2	----
6404-8-8	3/4-16	1/2	----
6404-10-8	7/8-14	1/2	----
6404-12-12	1-1/16-12	3/4	----
6404-16-16	1-5/16-12	1	----
6404-20-20	1-5/8-12	1-1/4	----

6404 2246R 1267R C3239 FHG5

# HYDRAULIC ADAPTERS

# STEEL O-RING ADAPTERS

## O-RING TO FEMALE PIPE ADAPTER



Part #	O-Ring Thread 1	Female Pipe Thread 2	List Price
6405-O-4-2	7/16-20	1/8	----
6405-O-4-4	7/16-20	1/4	----
6405-O-6-4	9/16-18	1/4	----
6405-O-6-6	9/16-18	3/8	----
6405-O-8-4	3/4-16	1/4	----
6405-O-8-6	3/4-16	3/8	----
6405-O-8-8	3/4-16	1/2	----
6405-O-10-6	7/8-14	3/8	----
6405-O-10-8	7/8-14	1/2	----
6405-O-12-6	1-1/16-12	3/8	----
6405-O-12-8	1-1/16-12	1/2	----
6405-O-12-12	1-1/16-12	3/4	----
6405-O-16-8	1-5/16-12	1/2	----
6405-O-16-12	1-5/16-12	3/4	----
6405-O-16-16	1-5/16-12	1	----
6405-O-20-20	1-5/8-12	1-1/4	----
6405-O-24-24	1-7/8-12	1-1/2	----
6405-O-32-32	2-1/2-12	2	----

6405 2216R F50G 1268R C3269

## O-RING HEX HEAD PLUG

SAE 090109A



\* Not all sizes are solid

Part #	O-Ring Thread	List Price
6408-O-2	5/16-24	----
6408-O-4	7/16-20	----
6408-O-5	1/2-20	----
6408-O-6	9/16-18	----
6408-O-8	3/4-16	----
6408-O-10	7/8-14	----
6408-O-12	1-1/16-12	----
6408-O-14	1-3/16-20	----
6408-O-16	1-5/16-12	----
6408-O-20	1-5/8-12	----
6408-O-24	1-7/8-12	----
6408-O-32	2-1/2-12	----

6408 900598 P50N 1265 7237

## O-RING HOLLOW - HEX HEAD PLUG

SAE 090109B



Part #	O-Ring Thread	List Price
6408-H-O-2	5/16-24	----
6408-H-O-4	7/16-20	----
6408-H-O-5	1/2-20	----
6408-H-O-6	9/16-18	----
6408-H-O-8	3/4-16	----
6408-H-O-10	7/8-14	----
6408-H-O-12	1-1/16-12	----
6408-H-O-14	1-3/16-20	----
6408-H-O-16	1-5/16-12	----
6408-H-O-20	1-5/8-12	----
6408-H-O-24	1-7/8-12	----
6408-H-O-32	2-1/2-12	----

6408HHP FF2138 HP50N 1256 7238 6409

## O-RING PORT REDUCER/EXPANDER



Part #	O-Ring Thread 1	O-Ring Thread 2	List Price
6410-O-4-4	7/16-20	7/16-20	----
6410-O-8-4	3/4-16	7/16-20	----
6410-O-8-6	3/4-16	9/16-18	----
6410-O-8-8	3/4-16	3/4-16	----
6410-O-12-6	1-1/16-12	9/16-18	----
6410-O-12-8	1-1/16-12	3/4-16	----
6410-O-12-12	1-1/16-12	1-1/16-12	----
6410-O-16-12	1-5/16-12	1-1/16-12	----
6410-O-24-16	1-7/8-12	1-5/16-12	----

6410 FF1010 F50G5 1270 7033



## FEMALE SWIVELS JIC

### JIC SWIVEL NUT ELBOW

SAE 070221  
MS 51521



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
6500-4	7/16-20	7/16-20	----
6500-5	1/2-20	1/2-20	----
6500-6	9/16-18	9/16-18	----
6500-8	3/4-16	3/4-16	----
6500-10	7/8-14	7/8-14	----
6500-10-8	7/8-14	3/4-16	----
6500-12	1-1/16-12	1-1/16-12	----
6500-12-8	1-1/16-12	3/4-16	----
6500-14	1-3/16-12	1-3/16-12	----
6500-16	1-5/16-12	1-5/16-12	----
6500-20	1-5/8-12	1-5/8-12	----
6500-24	1-7/8-12	1-7/8-12	----

6500 2071R C6X 1236 G5506

### JIC SWIVEL TO MALE PIPE ELBOW



Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
6501-4-2	7/16-20	1/8	----
6501-4-4	7/16-20	1/4	----
6501-6-4	9/16-18	1/4	----
6501-6-6	9/16-18	3/8	----
6501-8-8	3/4-16	1/2	----
6501-10-8	7/8-14	1/2	----
6501-12-12	1-1/16-12	3/4	----
6501-16-16	1-5/16-12	1	----
6501-20-20	1-5/8-12	1-1/4	----
6501-24-24	1-7/8-12	1-1/2	----

6501 2250 1247R TF5406

### JIC SWIVEL 45° ELBOW

SAE 070321  
MS 51522



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
6502-4	7/16-20	7/16-20	----
6502-6	9/16-18	9/16-18	----
6502-8	3/4-16	3/4-16	----
6502-10	7/8-14	7/8-14	----
6502-12	1-1/16-12	1-1/16-12	----
6502-16	1-5/16-12	1-5/16-12	----
6502-20	1-5/8-12	1-5/8-12	----
6502-24	1-7/8-12	1-7/8-12	----

6502 2070R V6X 1237 C5356

## HYDRAULIC ADAPTERS

### JIC SWIVEL TO FEMALE - PIPE ELBOW



Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
6503-4-4	7/16-20	1/4	----
6503-6-6	9/16-18	3/8	----
6503-8-8	3/4-16	1/2	----
6503-12-12	1-1/16-12	3/4	----

### JIC SWIVEL CONNECTOR



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
6504-4-4	7/16-20	7/16-20	----
6504-6-4	9/16-18	7/16-20	----
6504-6-6	9/16-18	9/16-18	----
6504-8-8	3/4-16	3/4-16	----
6504-10-10	7/8-14	7/8-14	----
6504-12-12	1-1/16-12	1-1/16-12	----
6504-16-16	1-5/16-12	1-5/16-12	----
6504-20-20	1-5/8-12	1-5/8-12	----
6504-24-24	1-7/8-12	1-7/8-12	----

6504 1205

### JIC SWIVEL TO MALE - PIPE ADAPTER



Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
6505-4-2	7/16-20	1/8	----
6505-4-4	7/16-20	1/4	----
6505-4-6	7/16-20	3/8	----
6505-6-4	9/16-18	1/4	----
6505-6-6	9/16-18	3/8	----
6505-8-6	3/4-16	3/8	----
6505-8-8	3/4-16	1/2	----
6505-10-8	7/8-14	1/2	----
6505-12-8	1-1/16-12	1/2	----
6505-12-12	1-1/16-12	3/4	----
6505-16-16	1-5/16-12	1	----
6505-20-20	1-5/8-12	1-1/4	----
6505-24-24	1-7/8-12	1-1/2	----

6505 2018 F6X 1211 9100R

## HYDRAULIC ADAPTERS

## FEMALE SWIVELS

### JIC SWIVEL TO FEMALE PIPE ADAPTER

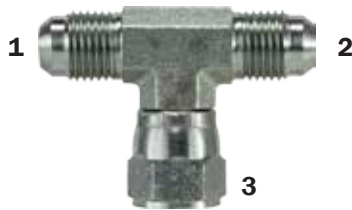


Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
6506-4-2	7/16-20	1/8	----
6506-4-4	7/16-20	1/4	----
6506-4-6	7/16-20	3/8	----
6506-6-4	9/16-18	1/4	----
6506-6-6	9/16-18	3/8	----
6506-6-8	9/16-18	1/2	----
6506-8-6	3/4-16	3/8	----
6506-8-8	3/4-16	1/2	----
6506-10-6	7/8-14	3/8	----
6506-10-8	7/8-14	1/2	----
6506-12-12	1-1/16-12	3/4	----
6506-16-16	1-5/16-12	1	----
6506-20-20	1-5/8-12	1-1/4	----
6506-24-24	1-7/8-12	1-1/2	----

6506 2242 1215

### JIC SWIVEL BRANCH TEE

SAE 070433  
MS 51524



Part #	JIC Thread Size 1 & 2	JIC Female Thread 3	List Price
6600-4-4	7/16-20	7/16-20	----
6600-5-5	1/2-20	1/2-20	----
6600-6-6	9/16-18	9/16-18	----
6600-8-8	3/4-16	3/4-16	----
6600-10	7/8-14	7/8-14	----
6600-12	1-1/16-12	1-1/16-12	----
6600-16	1-5/16-12	1-5/16-12	----
6600-20	1-5/8-12	1-5/8-12	----
6600-24	1-7/8-12	1-7/8-12	----

6600 203101R 65X 1227 C5707

### JIC SWIVEL RUN TEE

SAE 070432  
MS 51523



Part #	JIC Thread Size 1 & 3	JIC Female Thread 2	List Price
6602-4	7/16-20	7/16-20	----
6602-5	1/2-20	1/2-20	----
6602-6	9/16-18	9/16-18	----
6602-8	3/4-16	3/4-16	----
6602-10	7/8-14	7/8-14	----
6602-12	1-1/16-12	1-1/16-12	----
6602-14	1-3/16-12	1-3/16-12	----
6602-16	1-5/16-12	1-5/16-12	----
6602-20	1-5/8-12	1-5/8-12	----
6602-24	1-7/8-12	1-7/8-12	----

6602 203102R R6X 1248 C5706

NWO = Nut, Washer & O-Ring

## STEEL SAE O-RING ADAPTERS

## HYDRAULIC ADAPTERS

### JIC TO O-RING ELBOW CONNECTOR

SAE 070220  
MS 51527



Part #	JIC Thread	O-Ring Thread	List Price
	Size 1	Size 2	
6801-NWO-4	7/16-20	7/16-20	----
6801-NWO-4-6	7/16-20	9/16-18	----
6801-NWO-4-8	7/16-20	3/4-16	----
6801-NWO-5	1/2-20	1/2-20	----
6801-NWO-6	9/16-18	9/16-18	----
6801-NWO-6-4	9/16-18	7/16-20	----
6801-NWO-6-5	9/16-18	1/2-20	----
6801-NWO-6-8	9/16-18	3/4-16	----
6801-NWO-6-10	9/16-18	7/8-14	----
6801-NWO-8	3/4-16	3/4-16	----
6801-NWO-8-6	3/4-16	9/16-18	----
6801-NWO-8-10	3/4-16	7/8-14	----
6801-NWO-8-12	3/4-16	1-1/16-12	----
6801-NWO-10	7/8-14	7/8-14	----
6801-NWO-10-8	7/8-14	3/4-16	----
6801-NWO-10-12	7/8-14	1-1/16-12	----
6801-NWO-12	1-1/16-12	1-1/16-12	----
6801-NWO-12-10	1-1/16-12	7/8-14	----
6801-NWO-12-16	1-1/16-12	1-5/16-12	----
6801-NWO-16	1-5/16-12	1-5/16-12	----
6801-NWO-16-12	1-5/16-12	1-1/16-12	----
6801-NWO-16-14	1-5/16-12	1-3/16-12	----
6801-NWO-16-20	1-5/16-12	1-5/8-12	----
6801-NWO-20	1-5/8-12	1-5/8-12	----
6801-NWO-20-16	1-5/8-12	1-5/16-12	----
6801-NWO-24	1-7/8-12	1-7/8-12	----

6801 2062R C50X 1238L C5515

### JIC TO O-RING 45° ELBOW

SAE 070320  
MS 51528

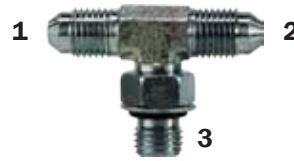


Part #	JIC	O-Ring	List Price
	Thread Size 1	Thread Size 2	
6802-NWO-2	5/16-24	5/16-24	----
6802-NWO-4	7/16-20	7/16-20	----
6802-NWO-6	9/16-18	9/16-18	----
6802-NWO-8	3/4-16	3/4-16	----
6802-NWO-8-6	3/4-16	9/16-18	----
6802-NWO-8-10	3/4-16	7/8-14	----
6802-NWO-10	7/8-14	7/8-14	----
6802-NWO-10-8	7/8-14	3/4-16	----
6802-NWO-12	1-1/16-12	1-1/16-12	----
6802-NWO-16	1-5/16-12	1-5/16-12	----
6802-NWO-20	1-5/8-12	1-5/8-12	----
6802-NWO-24	1-7/8-12	1-7/8-12	----

6802 2061 V50X 1240R C5365

### JIC TO O-RING - BRANCH TEE

SAE 070429  
MS 51529

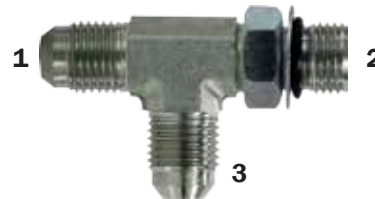


Part #	JIC Thread	O-Ring	List Price
	Size 1 & 2	Thread Size 3	
6803-NWO-4	7/16-20	7/16-20	----
6803-NWO-6	9/16-18	9/16-18	----
6803-NWO-8	3/4-16	3/4-16	----
6803-NWO-10	7/8-14	7/8-14	----
6803-NWO-12	1-1/16-12	1-1/16-12	----
6803-NWO-16	1-5/16-12	1-5/16-12	----
6803-NWO-20	1-5/8-12	1-5/8-12	----
6803-NWO-24	1-7/8-12	1-7/8-12	----

6803 203003X S50X 1265R C5715

### JIC TO O-RING RUN TEE

SAE 070428  
MS 51530



Part #	JIC Thread	O-Ring	List Price
	Size 1 & 3	Thread Size 2	
6804-NWO-4	7/16-20	7/16-20	----
6804-NWO-6	9/16-18	9/16-18	----
6804-NWO-8	3/4-16	3/4-16	----
6804-NWO-10	7/8-14	7/8-14	----
6804-NWO-12	1-1/16-12	1-1/16-12	----
6804-NWO-16	1-5/16-12	1-5/16-12	----
6804-NWO-20	1-5/8-12	1-5/8-12	----
6804-NWO-24	1-7/8-12	1-7/8-12	----

6804 203005R R50X 1266R C5716

### O-RING TO - FEMALE PIPE ELBOW



Part #	O-Ring	Pipe Thread	List Price
	Thread Size 1	Size 2	
6805-NWO-4-4	7/16-20	1/4	----
6805-NWO-6-6	9/16-18	3/8	----
6805-NWO-8-6	3/4-16	3/8	----
6805-NWO-8-8	3/4-16	1/2	----
6805-NWO-10-8	7/8-14	1/2	----
6805-NWO-12-8	1-1/16-12	1/2	----
6805-NWO-12-12	1-1/16-12	3/4	----
6805-NWO-16-16	1-5/16-12	1	----
6805-NWO-20-20	1-5/8-12	1-1/4	----
6805-NWO-24-24	1-7/8-12	1-1/2	----

6805 206801R AE0G 1264 C3459

## O-RING TO MALE PIPE ELBOW



Part #	O-Ring Thread Size 1	Pipe Thread Size 2	List Price
6806-NWO-4-4	7/16-20	1/4	----
6806-NWO-6-6	9/16-18	3/8	----
6806-NWO-8-8	3/4-16	1/2	----
6806-NWO-12-12	1-1/16-12	3/4	----
6806-NWO-16-16	1-5/16-12	1	----
6806-NWO-20-20	1-5/8-12	1-1/4	----
6806-NWO-24-24	1-7/8-12	1-1/2	----

6806 1263 TF3569

## O-RING TO 37° JIC SWIVEL NUT TO O-RING ELBOW



Part #	O-Ring Thread Size 1	JIC Thread Size 2	List Price
6809-NWO-4-4	7/16-20	7/16-20	----
6809-NWO-6-6	9/16-18	9/16-18	----
6809-NWO-8-8	3/4-16	3/4-16	----
6809-NWO-12-12	1-1/16-12	1-1/16-12	----
6809-NWO-16-16	1-5/16-12	1-5/16-12	----
6809-NWO-20-20	1-5/8-12	1-5/8-12	----
6809-NWO-24-24	1-7/8-12	1-7/8-12	----

## FEMALE O-RING TO MALE O-RING ELBOW



Part #	O-Ring Thread Size 1	O-Ring Thread Size 2	List Price
6815-NWO-4-4	7/16-20	7/16-20	----
6815-NWO-6-6	9/16-18	9/16-18	----
6815-NWO-6-8	9/16-18	3/4-16	----
6815-NWO-8-8	3/4-16	3/4-16	----
6815-NWO-10-10	7/8-14	7/8-14	----
6815-NWO-12-12	1-1/16-12	1-1/16-12	----

## MALE O-RING SWIVEL ADAPTER

SAE 140157



Part #	O-Ring Thread Size 1	Female NPSM Size 2	List Price
6900-O-4-2	7/16-20	1/8	----
6900-O-4-4	7/16-20	1/4	----
6900-O-6-4	9/16-18	1/4	----
6900-O-6-6	9/16-18	3/8	----
6900-O-6-8	9/16-18	1/2	----
6900-O-8-6	3/4-16	3/8	----
6900-O-8-8	3/4-16	1/2	----
6900-O-8-12	3/4-16	3/4	----
6900-O-10-8	7/8-14	1/2	----
6900-O-10-12	7/8-14	3/4	----
6900-O-12-8	1-1/16-12	1/2	----
6900-O-12-12	1-1/16-12	3/4	----
6900-O-16-16	1-5/16-12	1	----
6900-O-20-20	1-5/8-12	1-1/4	----
6900-O-24-20	1-7/8-12	1-1/4	----
6900-O-24-24	1-7/8-12	1-1/2	----

6900 2066R 1235 9315

## 90° O-RING SWIVEL ADAPTER

SAE 140257



Part #	O-Ring Thread Size 1	Female NPSM Size 2	List Price
6901-NWO-4-4	7/16-20	1/4	----
6901-NWO-6-4	9/16-18	1/4	----
6901-NWO-6-6	9/16-18	3/8	----
6901-NWO-6-8	9/16-18	1/2	----
6901-NWO-8-4	3/4-16	1/4	----
6901-NWO-8-6	3/4-16	3/8	----
6901-NWO-8-8	3/4-16	1/2	----
6901-NWO-8-12	3/4-16	3/4	----
6901-NWO-10-6	7/8-14	3/8	----
6901-NWO-10-8	7/8-14	1/2	----
6901-NWO-12-6	1-1/16-12	3/8	----
6901-NWO-12-8	1-1/16-12	1/2	----
6901-NWO-12-12	1-1/16-12	3/4	----
6901-NWO-16-12	1-5/16-12	3/4	----
6901-NWO-16-16	1-5/16-12	1	----
6901-NWO-20-20	1-5/8-12	1-1/4	----
6901-NWO-24-24	1-7/8-12	1-1/2	----

6401 2068R 1271 9515

**STEEL SAE O-RING**

**45° O-RING SWIVEL ADAPTER**

SAE 140357



Part #	O-Ring Thread Size 1	Female NPSM Size 2	List Price
6902-NWO-4-4	7/16-20	1/4	----
6902-NWO-6-4	9/16-18	1/4	----
6902-NWO-6-6	9/16-18	3/8	----
6902-NWO-8-6	3/4-16	3/8	----
6902-NWO-8-8	3/4-16	1/2	----
6902-NWO-10-8	7/8-14	1/2	----
6902-NWO-12-8	1-1/16-12	1/2	----
6902-NWO-12-12	1-1/16-12	3/4	----
6902-NWO-16-16	1-5/16-12	1	----
6902-NWO-20-20	1-5/8-12	1-1/4	----

6902 2067R 1272 9365

**HYDRAULIC ADAPTERS**

**NITRILE 90 SAE BOSS O-RING**



Part #	O-Ring Thread	List Price
4000-2-2	5/16-24	----
4000-3-3	3/8-24	----
4000-4-4	7/16-20	----
4000-5-5	1/2-20	----
4000-6-6	9/16-18	----
4000-8-8	3/4-16	----
4000-10	7/8-14	----
4000-12	1-1/16-12	----
4000-14	1-3/16-12	----
4000-16	1-5/16-12	----
4000-20	1-5/8-12	----
4000-24	1-7/8-12	----
4000-32	2-1/2-12	----

**O-RINGS**

**VITON 75 SAE BOSS O-RING**

Fluorocarbon



Part #	O-Ring Thread	List Price
4001-2-2	5/16-24	----
4001-3-3	3/8-24	----
4001-4-4	7/16-20	----
4001-5-5	1/2-20	----
4001-6-6	9/16-18	----
4001-8-8	3/4-16	----
4001-10	7/8-14	----
4001-12	1-1/16-12	----
4001-16	1-5/16-12	----
4001-20	1-5/8-12	----
4001-24	1-7/8-12	----
4001-32	2-1/2-12	----

## HYDRAULIC ADAPTERS

## O-RING FACE SEAL ADAPTERS

### BRAZE TUBE NUT (SLEEVE REQUIRED)

SAE 520110



Part #	Tube O.D.	Braze Tube O.D.	List Price
FSO318-4	1/4	.25	----
FSO318-6	3/8	.38	----
FSO318-8	1/2	.50	----
FSO318-10	5/8	.62	----
FSO318-12	3/4	.72	----
FSO318-16	1	1.00	----
FSO318-20	1 1/4	1.25	----
FSO318-24	1 1/2	1.50	----

FF318 FF1311

### BRAZE TUBE SLEEVE

SAE 520115



Part #	Tube O.D.	List Price
FSO319-4	1/4	----
FSO319-6	3/8	----
FSO319-8	1/2	----
FSO319-10	5/8	----
FSO319-12	3/4	----
FSO319-16	1	----
FSO319-20	1-1/4	----
FSO319-24	1-1/2	----

FF319 FF3019

*See Page 414 for JIC Nut and Sleeve*

### CAP

SAE 520112



• Two Piece  
Nut/ Insert

Part #	Tube O.D.	Face Seal Thread	List Price
FSO304-C-4	1/4	9/16-18	----
FSO304-C-6	3/8	11/16-16	----
FSO304-C-8	1/2	13/16-16	----
FSO304-C-10	5/8	1-14	----
FSO304-C-12	3/4	1-3/16-12	----
FSO304-C-16	1	1-7/16-12	----
FSO304-C-20	1-1/4	1-11/16-12	----
FSO304-C-24	1-1/2	2-12	----

FF304C

### BULKHEAD LOCKNUT

SAE 520118



Part #	Thread Size	List Price
FSO306-4	9/16-18	----
FSO306-6	11/16-16	----
FSO306-8	13/16-16	----
FSO306-10	1-14	----
FSO306-12	1-3/16-12	----
FSO306-16	1-7/16-12	----
FSO306-20	1-11/16-12	----
FSO306-24	2-12	----

### MALE UNION CONNECTOR

SAE 520102



Part #	Tube O.D.	Face Seal Thread 1&2	List Price
FSO2403-4-4	1/4	9/16-18	----
FSO2403-6-6	3/8	11/16-16	----
FSO2403-8-8	1/2	13/16-16	----
FSO2403-12-12	3/4	1-3/16-12	----
FSO2403-16-16	1	1-7/16-12	----
FSO2403-20-20	1-1/4	1-11/16-12	----
FSO2403-24-24	1-1/2	2-12	----

FF403

FF2403 FF1203

## O-RING FACE SEAL ADAPTERS

### MALE O-RING FACE SEAL ADAPTER



Part #	Face Seal Thread 1	Male Pipe Size 2	List Price
FSO2404-4-4	9/16-18	1/4-18	----
FSO2404-6-2	11/16-16	1/8-27	----
FSO2404-6-4	11/16-16	1/4-18	----
FSO2404-6-6	11/16-16	3/8-18	----
FSO2404-8-4	13/16-16	1/4-18	----
FSO2404-8-8	13/16-16	1/2-14	----
FSO2404-10-8	1-14	1/2-14	----
FSO2404-12-8	1-3/16-12	1/2-14	----
FSO2404-12-12	1-3/16-12	3/4-14	----
FSO2404-16-12	1-7/16-12	3/4-14	----
FSO2404-16-16	1-7/16-12	1-11-1/2	----
FSO2404-20-20	1-11/16-12	1-1/4-11-1/2	----

FF2404 4205 FLO

### FEMALE ORFS TO MALE ORFS REDUCER



Part #	Female Face Seal Size 1	Male Face Seal Thread 2	List Price
FSO2406-6-4	11/16-16	9/16-18	----
FSO2406-8-4	13/16-16	9/16-18	----
FSO2406-10-6	1-14	11/16-16	----
FSO2406-10-8	1-14	13/16-16	----
FSO2406-12-6	1-3/16-12	11/16-16	----
FSO2406-12-8	1-3/16-12	13/16-16	----
FSO2406-16-12	1-7/16-12	1-3/16-12	----
FSO2406-20-12	1-11/16-12	1-3/16-12	----
FSO2406-20-16	1-11/16-12	1-7/16-12	----
FSO2406-24-20	2-12	1-11/16-12	----

FF2406 TRLON

## HYDRAULIC ADAPTERS

### PLUG

SAE 520109



Part #	Tube O.D.	Face Seal Thread	List Price
FSO2408-4	1/4	9/16-18	----
FSO2408-6	3/8	11/16-16	----
FSO2408-8	1/2	13/16-16	----
FSO2408-10	5/8	1-14	----
FSO2408-12	3/4	1-3/8-12	----
FSO2408-16	1	1-7/16-12	----
FSO2408-20	1-1/4	1-11/16-12	----
FSO2408-24	1-1/2	2-12	----

FF2408 FF1254 4229 PNLO

### ORFS UNION ELBOW 90°



Part #	Face Seal Thread 1	Face Seal Thread 2	List Price
FS2500-4-4	9/16-18	9/16-18	----
FS2500-6-6	11/16-16	11/16-16	----
FS2500-10-10	1-14	1-14	----
FS2500-12-12	1-3/16-12	1-3/16-12	----
FS2500-16-16	1-7/16-12	1-7/16-12	----
FS2500-20-20	1-11/16-12	1-11/16-12	----
FS2500-24-24	2-12	2-12	----

FF2500 4505 ELO

### ORFS TO MALE ELBOW

SAE 520202



Part #	Face Seal Thread 1	Male Pipe Thread 2	List Price
FS2501-4-4	9/16-18	1/4	----
FS2501-6-4	11/16-16	1/4	----
FS2501-6-6	11/16-16	3/8	----
FS2501-8-6	13/16-16	3/8	----
FS2501-8-8	13/16-16	1/2	----
FS2501-10-8	1-14	1/2	----
FS2501-12-8	1-3/8-12	1/2	----
FS2501-12-12	1-3/8-12	3/4	----
FS2501-16-12	1-7/16-12	3/4	----
FS2501-16-16	1-7/16-12	1	----
FS2501-20-20	1-11/16-12	1-1/4	----
FS2501-24-24	2-12	1-1/2	----

FF2501 FF1208 4405 CLO

## HYDRAULIC ADAPTERS

### ORFS TO PIPE ELBOW 45°



Part #	Face Seal Thread 1	Male Pipe Thread 2	List Price
FS2503-4-4	9/16-18	1/4	----
FS2503-6-6	11/16-16	3/8	----
FS2503-8-8	13/16-16	1/2	----
FS2503-12-12	1-3/16-12	3/4	----
FS2503-16-16	1-7/16-12	1	----

FF2503 4355 VLO

### ORFS TO PIPE BRANCH TEE



Part #	Face Seal Thread 1+2	Male Pipe Thread 3	List Price
FS2601-4-4	9/16-18	1/4-18	----
FS2601-6-6	11/16-16	3/8-18	----
FS2601-8-8	13/16-16	1/2-14	----
FS2601-12-12	1-3/16-12	3/4-14	----
FS2601-16-16	1-7/16-12	1-11-1/2	----

FF2601

### ORFS UNION TEE



Part #	Face Seal Thread 1+2+3	List Price
FS2603-4-4	9/16-18	----
FS2603-6-6	11/16-16	----
FS2603-8-8	13/16-16	----
FS2603-12-12	1-3/16-12	----
FS2603-16-16	1-7/16-12	----
FS2603-20-20	1-11/16-12	----
FS2603-24-24	2-12	----

FF2603 4705 JLO

## O-RING FACE SEAL ADAPTERS

### ORFS BULKHEAD UNION



Part #	Face Seal Thread 1+2	List Price
FS2700-4-4	9/16-18	----
FS2700-6-6	11/16-16	----
FS2700-8-8	13/16-16	----
FS2700-12-12	1-3/16-12	----
FS2700-16-16	1-7/16-12	----
FS2700-20-20	1-11/16-12	----
FS2700-24-24	2-12	----

• Locknut not included on Bulkhead fittings

FF2700 WLO

### ORFS BULKHEAD UNION 90°



Part #	Face Seal Thread 1+2	List Price
FS2701-4-4	9/16-18	----
FS2701-6-6	11/16-16	----
FS2701-8-8	13/16-16	----
FS2701-12-12	1-3/16-12	----
FS2701-16-16	1-7/16-12	----
FS2701-20-20	1-11/16-12	----
FS2701-24-24	2-12	----

• Locknut not included on Bulkhead fittings

FF2701 4525 WELO

### ORFS BULKHEAD UNION 45°



Part #	Face Seal Thread 1+2	List Price
FS2702-4-4	9/16-18	----
FS2702-6-6	11/16-16	----
FS2702-16-16	1-7/16-12	----
FS2702-20-20	1-11/16-12	----

• Locknut not included on Bulkhead fittings

FF2702 4375 WNLO



**O-RING FACE SEAL ADAPTERS**

**ORFS BULKHEAD UNION BRANCH TEE**



Part #	Face Seal Thread 1+2+3	List Price
FS2703-4	9/16-18	----
FS2703-6	11/16-16	----
FS2703-8	13/16-16	----
FS2703-12	1-3/16-12	----
FS2703-16	1-7/16-12	----
FS2703-20	1-11/16-12	----

• Locknut not included on Bulkhead Fittings FF2703 WJLO

**ORFS BULKHEAD UNION RUN TEE**



Part #	Face Seal Thread 1+2+3	List Price
FS2704-4-4	9/16-18	----
FS2704-6-6	11/16-16	----
FS2704-8-8	13/16-16	----
FS2704-12-12	1-3/16-12	----
FS2704-16-16	1-7/16-12	----
FS2704-20-20	1-11/16-12	----

• Locknut not included on Bulkhead Fittings FF2704 WJLO

**ORFS TO FEMALE SWIVEL BRANCH TEE**



Part #	Face Seal Thread 1+2	Female JIC 3	List Price
FS6600-4-4	9/16-18	9/16-18	----
FS6600-6-6	11/16-16	11/16-16	----
FS6600-8-8	13/16-16	13/16-16	----
FS6600-12-12	1-3/16-12	1-3/16-12	----
FS6600-16-16	1-7/16-12	1-7/16-12	----
FS6600-20-20	1-11/16-12	1-11/16-12	----
FS6600-24-24	2-12	2-12	----

FF6600 S6LO

**HYDRAULIC ADAPTERS**

**ORFS TO JIC SWIVEL RUN TEE**



Part #	Face Seal Thread 1+3	Female Face Seal 2	List Price
FS6602-4-4	9/16-18	9/16-18	----
FS6602-6-6	11/16-16	11/16-16	----
FS6602-8-8	13/16-16	13/16-16	----
FS6602-12-12	1-3/16-12	1-3/16-12	----
FS6602-16-16	1-7/16-12	1-7/16-12	----
FS6602-20-20	1-11/16-12	1-11/16-12	----
FS6602-24-24	2-12	2-12	----

FF6602 R6LO

**MALE ORFS TO ORB CONNECTOR**

SAE 520120



Part #	Face Seal Thread 1	O-Ring Thread 2	List Price
FS6400-O-4-4	9/16-18	7/16-20	----
FS6400-O-4-6	9/16-18	9/16-18	----
FS6400-O-6-4	11/16-16	7/16-20	----
FS6400-O-6-6	11/16-16	9/16-18	----
FS6400-O-6-8	11/16-16	3/4-16	----
FS6400-O-8-6	13/16-16	9/16-18	----
FS6400-O-8-8	13/16-16	3/4-16	----
FS6400-O-8-10	13/16-16	7/8-14	----
FS6400-O-10-8	1-14	3/4-16	----
FS6400-O-10-10	1-14	7/8-14	----
FS6400-O-12-8	1-3/16-12	3/4-16	----
FS6400-O-12-10	1-3/16-12	7/8-14	----
FS6400-O-12-12	1-3/16-12	1-1/16-12	----
FS6400-O-12-16	1-3/16-12	1-5/16-12	----
FS6400-O-16-12	1-7/16-12	1-1/16-12	----
FS6400-O-16-16	1-7/16-12	1-5/16-12	----
FS6400-O-20-20	1-11/16-12	1-5/8-12	----
FS6400-O-24-24	2-12	1-7/8-12	----

4315 FF6400 FF1231

**MALE FLAT FACE TO FEMALE 37 ° SWIVEL**



Part #	Face Seal Thread 1	JIC Thread 2	List Price
FS6402-4-4	9/16-18	7/16-20	----
FS6402-6-6	11/16-16	9/16-18	----
FS6402-8-8	13/16-16	3/4-16	----
FS6402-10-10	1-14	7/8-14	----
FS6402-12-12	1-3/16-12	1-1/16-12	----
FS6402-16-16	1-7/16-12	1-5/16-12	----

FF6402 FF1294

## HYDRAULIC ADAPTERS

### SWIVEL NUT ELBOW



Part #	Face Seal Thread 1	Face Seal Thread 2	List Price
FS6500-4-4	9/16-18	9/16-18	----
FS6500-6-6	11/16-16	11/16-16	----
FS6500-8-8	13/16-16	13/16-16	----
FS6500-10-10	1-14	1-14	----
FS6500-12-12	1-3/16-12	1-3/16-12	----
FS6500-16-16	1-7/16-12	1-7/16-12	----
FS6500-20-20	1-11/16-12	1-11/16-12	----
FS6500-24-24	2-12	2-12	----

FF6500 FF1236

### MALE JIC 37° FLARE TO FEMALE FLAT FACE SWIVEL



Part #	JIC Thread Size 1	Face Seal Thread 2	List Price
FS6504-4-4	7/16-20	9/16-18	----
FS6504-6-6	9/16-18	11/16-16	----
FS6504-8-8	3/4-16	13/16-16	----
FS6504-10-10	7/8-14	1-14	----
FS6504-12-12	1-1/16-12	1-3/16-12	----
FS6504-16-16	1-5/16-12	1-7/16-12	----

FF6504 FF1296

### O-RING ELBOW CONNECTOR



Part #	Face Seal Thread 1	O-Ring Thread 2	List Price
FS6801-4-4	9/16-18	7/16-20	----
FS6801-6-4	11/16-16	7/16-20	----
FS6801-6-6	11/16-16	9/16-18	----
FS6801-8-6	13/16-16	9/16-18	----
FS6801-8-8	13/16-16	3/4-16	----
FS6801-8-10	13/16-16	7/8-14	----
FS6801-10-8	1-14	3/4-16	----
FS6801-10-10	1-14	7/8-14	----
FS6801-12-12	1-3/16-12	1-1/16-12	----
FS6801-16-16	1-7/16-12	1-5/16-12	----
FS6801-20-20	1-11/16-12	1-5/8-12	----
FS6801-24-24	2-12	1-7/8-12	----

FF6801 FF1238 4515

## O-RING FACE SEAL ADAPTERS

### ORFS TO O-RING ELBOW 45°



Part #	Face Seal Thread 1	O-Ring Size 2	List Price
FS6802-4-4	9/16-18	7/16-20	----
FS6802-6-6	11/16-16	9/16-18	----
FS6802-8-8	13/16-16	3/4-16	----
FS6802-10-10	1-14	7/8-14	----
FS6802-12-12	1-3/16-12	1-1/16-12	----
FS6802-16-16	1-7/16-12	1-5/16-12	----
FS6802-20-20	1-11/16-12	1-5/8-12	----
FS6802-24-24	2-12	1-7/8-12	----

FF6802 4365 V5OLO

### ORFS TO O-RING BRANCH TEE



Part #	Face Seal Thread 1 + 2	O-Ring Size 3	List Price
FS6803-4-4	9/16-18	7/16-20	----
FS6803-6-6	11/16-16	9/16-18	----
FS6803-8-8	13/16-16	3/4-16	----
FS6803-12-12	1-3/16-12	1-1/16-12	----
FS6803-16-16	1-7/16-12	1-5/8-12	----
FS6803-20-20	1-11/16-12	1-5/8-12	----
FS6803-24-24	2-12	1-7/8-12	----

FF6803 4715 SJOLO

### ORFS TO O-RING RUN TEE



Part #	Face Seal Size 1	O-Ring Size 2	Face Seal Size 3	List Price
FS6804-4-4	9/16-18	7/16-20	9/16-18	----
FS6804-6-6	11/16-16	9/16-18	11/16-16	----
FS6804-8-8	13/16-16	3/4-16	13/16-16	----
FS6804-12-12	1-3/16-12	1-1/16-12	1-3/16-12	----
FS6804-16-16	1-7/16-12	1-5/8-12	1-7/16-12	----
FS6804-20-20	1-11/16-12	1-5/8-12	1-11/16-12	----
FS6804-24-24	2-12	1-7/8-12	2-12	----

FF6804 4716 KJOLO

## STEEL BSPT ADAPTERS

### STRAIGHT THREAD SWIVEL NUT ELBOW



Part #	O-Ring Thread 1	Face Seal Thread 2	List Price
FS6809-4-4	7/16-20	9/16-18	----
FS6809-6-6	9/16-18	11/16-16	----
FS6809-8-8	3/4-16	13/16-16	----
FS6809-12-12	1-1/16-12	1-3/16-12	----
FS6809-16-16	1-5/16-12	1-7/16-12	----

FF6809 FF1239 4535 AOELC

## STEEL BSPT ADAPTERS

### JIC MALE CONNECTOR BSPT



Part #	JIC Thread Size 1	Male BSPT 2	List Price
7000-4-2	7/16-20	1/8-28	----
7000-4-4	7/16-20	1/4-19	----
7000-6-4	9/16-18	1/4-19	----
7000-6-6	9/16-18	3/8-19	----
7000-6-8	9/16-18	1/2-14	----
7000-8-6	3/4-16	3/8-19	----
7000-8-8	3/4-16	1/2-14	----
7000-8-12	3/4-16	3/4-14	----
7000-10-8	7/8-14	1/2-14	----
7000-10-12	7/8-14	3/4-14	----
7000-12-8	1-1/16-12	1/2-14	----
7000-12-12	1-1/16-12	3/4-14	----
7000-16-16	1-5/16-12	1-11	----
7000-20-20	1-5/8-12	1-1/4-11	----

3404 305

### JIC MALE ELBOW BSPT



Part #	JIC Thread Size 1	Male BSPT 2	List Price
7200-4-2	7/16-20	1/8-28	----
7200-4-4	7/16-20	1/4-19	----
7200-6-4	9/16-18	1/4-19	----
7200-6-6	9/16-18	3/8-19	----
7200-6-8	9/16-18	1/2-14	----
7200-8-6	3/4-16	3/8-19	----
7200-8-8	3/4-16	1/2-14	----
7200-12-12	1-1/16-12	3/4-14	----
7200-16-16	1-5/16-12	1-11	----

3501 315

## HYDRAULIC ADAPTERS

### BSPT HEX NIPPLE



Part #	Male BSPT 1	Male BSPT 2	List Price
7520-2-2	1/8-28	1/8-28	----
7520-4-4	1/4-19	1/4-19	----
7520-6-6	3/8-19	3/8-19	----
7520-8-8	1/2-14	1/2-14	----
7520-10-10	5/8-14	5/8-14	----
7520-12-12	3/4-14	3/4-14	----

3520 MBT

### BSPT PLUG



Part #	BSPT	List Price
9508-2	1/8-28	----
9508-4	1/4-19	----
9508-6	3/8-19	----
9508-8	1/2-14	----
9508-12	3/4-14	----
9508-16	1-11	----

100B-Y KA-RM MHL 296

## STEEL BSPP ADAPTERS

### BSPP HEX NIPPLE



Part #	Male BSPP 1	Male BSPP 2	List Price
7420-2-2	1/8-28	1/8-28	----
7420-4-2	1/4-19	1/8-28	----
7420-6-4	3/8-19	1/4-19	----
7420-6-6	3/8-19	3/8-19	----
7420-8-6	1/2-14	3/8-19	----
7420-8-8	1/2-14	1/2-14	----
7420-10-8	5/8-14	1/2-14	----
7420-12-8	3/4-14	1/2-14	----
7420-12-12	3/4-14	3/4-14	----
7420-16-12	1-11	3/4-14	----
7420-16-16	1-11	1-11	----

3420 MB 9022

## HYDRAULIC ADAPTERS

## STEEL BSPP ADAPTERS

### BSPP COUPLING



Part #	BSPP	List Price
7425-2	1/8-28	----
7425-4	1/4-19	----
7425-8	1/2-14	----
7425-10	5/8-14	----
7425-12	3/4-14	----
7425-16	1-11	----

3425 FB

### JIC TO FEMALE BSPP STRAIGHT SWIVEL



Part #	JIC Thread Size 1	Female BSPP Swivel 2	List Price
7240-4	7/16-20	1/4-19	----
7240-6	9/16-18	3/8-19	----
7240-8	3/4-16	1/2-14	----
7240-10	7/8-14	5/8-14	----
7240-12	1-1/16-12	3/4-14	----
7240-16	1-5/16-12	1-11	----

3240 MJFBS

### JIC TO BSPP MALE ELBOW



Part #	JIC Thread Size 1	Male BSPP 2	List Price
7202-NWO-4-2	7/16-20	1/8-28	----
7202-NWO-4-4	7/16-20	1/4-19	----
7202-NWO-6-4	9/16-18	1/4-19	----
7202-NWO-6-6	9/16-18	3/8-19	----
7202-NWO-6-8	9/16-18	1/2-14	----
7202-NWO-8-6	3/4-16	3/8-19	----
7202-NWO-8-8	3/4-16	1/2-14	----
7202-NWO-8-12	3/4-16	3/4-14	----
7202-NWO-10-8	7/8-14	1/2-14	----
7202-NWO-12-12	1-1/16-12	3/4-14	----
7202-NWO-12-16	1-1/16-12	1-11	----
7202-NWO-16-16	1-5/16-12	1-11	----

3801 315

### JIC TO BSPP 45° ELBOW



Part #	JIC Thread Size 1	Male BSPP 2	List Price
7802-4	7/16-20	1/4-19	----
7802-6	9/16-18	3/8-19	----
7802-8	3/4-16	1/2-14	----
7802-12	1-1/16-12	3/4-14	----
7802-16	1-5/16-12	1-11	----

3802 35J

### BSPP TO MALE PIPE NIPPLE



Part #	Male BSPP Size 1	Male Pipe Thread Size 2	List Price
7825-2	1/8-28	1/8	----
7825-4	1/4-19	1/4	----
7825-6	3/8-19	3/8	----
7825-8	1/2-14	1/2	----
7825-12	3/4-14	3/4	----
7825-16	1-11	1	----

MBMP 3825

### JIC TO BSPP MALE CONNECTOR



Part #	JIC Thread Size 1	Male BSPP 2	List Price
7002-4-2	7/16-20	1/8-28	----
7002-4-4	7/16-20	1/4-19	----
7002-4-6	7/16-20	3/8-19	----
7002-4-8	7/16-20	1/2-14	----
7002-6-4	9/16-18	1/4-19	----
7002-6-6	9/16-18	3/8-19	----
7002-6-8	9/16-18	1/2-14	----
7002-8-6	3/4-16	3/8-19	----
7002-8-8	3/4-16	1/2-14	----
7002-8-12	3/4-16	3/4-14	----
7002-10-8	7/8-14	1/2-14	----
7002-12-12	1-1/16-12	3/4-14	----
7002-12-16	1-1/16-12	1-11	----
7002-16-16	1-5/16-12	1-11	----

30J 3800

## STEEL BSPP ADAPTERS

### JIC TO BSPP STRAIGHT SWIVEL



Part #	JIC Thread Size 1	Male BSPP 2	List Price
7022-4-2	7/16-20	1/8-28	----
7022-4-4	7/16-20	1/4-19	----
7022-6-4	9/16-18	1/4-19	----
7022-6-6	9/16-18	3/8-19	----
7022-8-6	3/4-16	3/8-19	----
7022-8-8	3/4-16	1/2-14	----
7022-10-8	7/8-14	1/2-14	----
7022-12-12	1-1/16-12	3/4-14	----
7022-16-16	1-5/16-12	1-11	----

3402 3055

### HEX HEAD PLUG BSPP



Part #	Male BSPP	List Price
9522-P-2	1/8-28	----
9522-P-4	1/4-19	----
9522-P-6	3/8-19	----
9522-P-8	1/2-14	----
9522-P-12	3/4-14	----
9522-P-16	1-11	----

3408

### HOLLOW HEX PLUG BSPP



Part #	Male BSPP	List Price
9522-H-2	1/8-28	----
9522-H-4	1/4-19	----
9522-H-6	3/8-19	----
9522-H-8	1/2-14	----
9522-H-12	3/4-14	----
9522-H-16	1-11	----

3408 HHP

## HYDRAULIC ADAPTERS

### FEMALE ADAPTER BSPP



Part #	Female Pipe 1	Male BSPP 2	List Price
7042-2-2	1/8	1/8-28	----
7042-4-2	1/4	1/8-28	----
7042-4-4	1/4	1/4-19	----
7042-6-6	3/8	3/8-19	----
7042-8-8	1/2	1/2-14	----
7042-12-12	3/4	3/4-14	----
7042-16-16	1	1-11	----

3455 MMFP

## STEEL METRIC ADAPTERS

### MALE CONNECTOR



Part #	JIC Thread Size 1	Metric Thread 2	List Price
7005-4-10	7/16-20	10x1.0	----
7005-4-12	7/16-20	12x1.5	----
7005-4-14	7/16-20	14x1.5	----
7005-4-18	7/16-20	18x1.5	----
7005-5-12	1/2-20	12x1.5	----
7005-5-14	1/2-20	14x1.5	----
7005-6-14	9/16-18	14x1.5	----
7005-6-16	9/16-18	16x1.5	----
7005-6-18	9/16-18	18x1.5	----
7005-8-16	3/4-16	16x1.5	----
7005-8-18	3/4-16	18x1.5	----
7005-8-22	3/4-16	22x1.5	----
7005-10-18	7/8-14	18x1.5	----
7005-10-20	7/8-14	20x1.5	----
7005-10-22	7/8-14	22x1.5	----
7005-12-22	1-1/16-12	22x1.5	----
7005-12-27	1-1/16-12	27x1.5	----

Port-seal crush washer and O-ring included

7400 30J (R) 7011

## HYDRAULIC ADAPTERS

### MALE ELBOW



Part #	JIC Thread Size 1	Metric Thread 2	List Price
7205-NWO-4-10	7/16-20	10x1.0	----
7205-NWO-4-12	7/16-20	12x1.5	----
7205-NWO-4-14	7/16-20	14x1.5	----
7205NWO-5-12	1/2-20	12x1.5	----
7205-NWO-6-14	9/16-18	14x1.5	----
7205-NWO-6-16	9/16-18	16x1.5	----
7205-NWO-8-16	3/4-16	16x1.5	----
7205-NWO-8-18	3/4-16	18x1.5	----
7205-NWO-8-22	3/4-16	22x1.5	----
7205-NWO-10-18	7/8-14	18x1.5	----

Port-seal crush washer and O-ring included

7801 315 (R)

### STRAIGHT SWIVEL



Part #	JIC Thread Size 1	Metric Thread 2	List Price
7025-4-10	7/16-20	10x1.0	----
7025-4-12	7/16-20	12x1.5	----
7025-5-12	1/2-20	12x1.5	----
7025-6-14	9/16-18	14x1.5	----
7025-6-16	9/16-18	16x1.5	----
7025-8-16	3/4-16	16x1.5	----
7025-10-22	7/8-14	22x1.5	----
7025-12-27	1-1/16-12	27x2.0	----
7025-16-33	1-5/16-12	33x2.0	----

7402 30JS (R)

### HEX HEAD PLUG METRIC PARALLEL



Part #	Metric Thread	List Price
8555-P-10	10x1.0	----
8555-P-12	12x1.5	----
8555-P-14	14x1.5	----
8555-P-16	16x1.5	----
8555-P-18	18x1.5	----
8555-P-20	20x1.5	----
8555-P-22	22x1.5	----
8555-P-26	26x1.5	----
8555-P-30	30x1.5	----

7408

## STEEL METRIC ADAPTERS

### HOLLOW HEX HEAD PLUG METRIC PARALLEL



Part #	Metric Thread	List Price
8555-H-10	10x1.0	----
8555-H-12	12x1.5	----
8555-H-14	14x1.5	----
8555-H-16	16x1.5	----
8555-H-18	18x1.5	----
8555-H-20	20x1.5	----
8555-H-22	22x1.5	----
8555-H-26	26x1.5	----
8555-H-30	30x1.5	----

7408 HHP

### FEMALE ADAPTER



Part #	Female Pipe Thread 1	Metric Thread 2	List Price
7045-2-10	1/8	10x1.0	----
7045-4-12	1/4	12x1.5	----
7045-4-14	1/4	14x1.5	----
7045-6-12	3/8	12x1.5	----
7045-6-16	3/8	16x1.5	----
7045-6-18	3/8	18x1.5	----
7045-8-16	1/2	16x1.5	----
7045-8-18	1/2	18x1.5	----
7045-8-22	1/2	22x1.5	----
7045-12-27	3/4	27x2.0	----
7045-16-33	1	33x2.0	----

MMFP (R)

**STEEL BEADED HOSE INSERTS**

**HYDRAULIC ADAPTERS**

**MALE PIPE HOSE INSERT**

SAE 430160



Part #	Hose I.D.	Pipe Thread	List Price
	1	2	
4404-4-4	1/4	1/4	----
4404-6-6	3/8	3/8	----
4404-8-8	1/2	1/2	----
4404-12-12	3/4	3/4	----
4404-16-16	1	1	----
4404-20-16	1-1/4	1	----
4404-20-20	1-1/4	1-1/4	----
4404-24-24	1-1/2	1-1/2	----

**90° PIPE HOSE INSERT**

SAE 430260



Part #	Hose I.D.	Pipe Thread	List Price
	1	2	
4501-4-4	1/4	1/4	----
4501-6-6	3/8	3/8	----
4501-8-6	1/2	3/8	----
4501-8-8	1/2	1/2	----
4501-10-8	5/8	1/2	----
4501-12-12	3/4	3/4	----
4501-16-12	1	3/4	----
4501-16-16	1	1	----
4501-20-20	1-1/4	1-1/4	----
4501-24-24	1-1/2	1-1/2	----

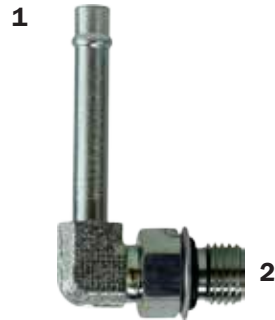
**45° PIPE HOSE INSERT**

SAE 430360



Part #	Hose I.D.	Pipe Thread	List Price
	1	2	
4503-12-12	3/4	3/4	----
4503-16-16	1	1	----
4503-20-20	1-1/4	1-1/4	----

**90° O-RING HOSE INSERT**



Part #	Hose I.D.	O-Ring Thread 2	List Price
	1	2	
4601-NWO-4	1/4	7/16-20	----
4601-NWO-6	3/8	9/16-18	----
4601-NWO-8	1/2	3/4-16	----
4601-NWO-12	3/4	1-1/16-12	----
4601-NWO-16	1	1-5/16-12	----
4601-NWO-20	1-1/4	1-5/8-12	----
4601-NWO-24	1-1/2	1-7/8-12	----

**45° O-RING HOSE INSERT**



Part #	Hose I.D.	O-Ring Thread 2	List Price
	1	2	
4603-NWO-4	1/4	7/16-20	----
4603-NWO-6	3/8	9/16-18	----
4603-NWO-8	1/2	3/4-16	----
4603-NWO-10	5/8	7/8-14	----
4603-NWO-12	3/4	1-1/12-12	----
4603-NWO-16	1	1-5/16-12	----
4603-NWO-20	1-1/4	1-5/8-12	----
4603-NWO-24	1-1/2	1-7/8-12	----

**O-RING HOSE INSERT**



Part #	Hose I.D.	O-Ring Thread 2	List Price
	1	2	
4604-O-4	1/4	7/16-20	----
4604-O-6	3/8	9/16-18	----
4604-O-8	1/2	3/4-16	----
4604-O-12	3/4	1-1/16-12	----
4604-O-16	1	1-5/16-12	----
4604-O-20	1-1/4	1-5/8-12	----
4604-O-24	1-1/2	1-7/8-12	----

# HYDRAULIC ADAPTERS

# FLARELESS BITE-TYPE STEEL

## TUBE NUT

SAE 080110



Part #	Tube O.D	JIC Thread Size	List Price
C318-2	1/8	5/16-24	----
C318-4	1/4	7/16-20	----
C318-6	3/8	9/16-18	----
C318-8	1/2	3/4-16	----
C318-12	3/4	1-1/16-12	----
C318-16	1	1-5/16-12	----

7105 BU-S

## TUBE SLEEVE

SAE 08011SA



Part #	Tube O.D	List Price
C319-2	1/8	----
C319-4	1/4	----
C319-6	3/8	----
C319-8	1/2	----
C319-12	3/4	----
C319-16	1	----

TU-S 7165

## UNION

SAE 080101



Part #	Tube Size	List Price
C2403-2-2	1/8	----
C2403-4-4	1/4	----
C2403-6-6	3/8	----
C2403-8-8	1/2	----
C2403-12-12	3/4	----
C2403-16-16	1	----

7305 HBU-S

• Fittings are single ferrule

## MALE CONNECTOR

SAE 080102



Part #	Tube Size 1	Male Pipe Thread 2	List Price
C2404-2-2	1/8	1/8	----
C2404-4-4	1/4	1/4	----
C2404-6-4	3/8	1/4	----
C2404-6-6	3/8	3/8	----
C2404-8-6	1/2	3/8	----
C2404-8-8	1/2	1/2	----
C2404-12-12	3/4	3/4	----
C2404-16-16	1	1	----

FBU-S 7205

## UNION ELBOW

SAE 080201



Part #	Tube Size	List Price
C2500-2-2	1/8	----
C2500-4-4	1/4	----
C2500-6-6	3/8	----
C2500-8-8	1/2	----
C2500-12-12	3/4	----
C2500-16-16	1	----

7505 EBU-S

## MALE ELBOW

SAE 080202  
ms 51504



Part #	Tube Size 1	Male Pipe Size 2	List Price
C2501-4-2	1/4	1/8	----
C2501-4-4	1/4	1/4	----
C2501-6-4	3/8	1/4	----
C2501-6-6	3/8	3/8	----
C2501-6-8	3/8	1/2	----
C2501-8-8	1/2	1/2	----
C2501-12-12	3/4	3/4	----
C2501-16-16	1	1	----

7405 CBU-S



## FLARELESS BITE-TYPE STEEL

### FEMALE ELBOW

SAE 080203



Part #	Tube Size 1	Female Pipe Size 2	List Price
C2502-4-4	1/4	1/4	----
C2502-6-4	3/8	1/4	----
C2502-6-6	3/8	3/8	----
C2502-8-8	1/2	1/2	----
C2502-12-12	3/4	3/4	----
C2502-16-16	1	1	----

7455 DBU-S

### MALE BRANCH TEE

SAE 080425



Part #	Tube Size 1&2	Pipe Thread Size 3	List Price
C2601-2-2	1/8	1/8	----
C2601-4-2	1/4	1/8	----
C2601-4-4	1/4	1/4	----
C2601-8-8	1/2	1/2	----
C2601-12-12	3/4	3/4	----
C2601-16-16	1	1	----

SBU-S 7605

### FEMALE BRANCH TEE

SAE 080427



Part #	Tube Size 1+2	Female Pipe Size 3	List Price
C2602-4-4	1/4	1/4	----
C2602-6-4	3/8	1/4	----
C2602-6-6	3/8	3/8	----
C2602-8-8	1/2	1/2	----
C2602-12-12	3/4	3/4	----
C2602-16-16	1	1	----

7655 OBU-S

• Fittings are single ferrule

## HYDRAULIC ADAPTERS

### UNION TEE

SAE 080401



Part #	Tube Size	List Price
C2603-2-2	1/8	----
C2603-4-4	1/4	----
C2603-6-6	3/8	----
C2603-8-8	1/2	----
C2603-12-12	3/4	----
C2603-16-16	1	----

7705 JBU-S

### MALE O-RING CONNECTOR

SAE 080120



Part #	Tube Size	O-Ring Thread 2	List Price
C6400-4-4	1/4	7/16-20	----
C6400-6-6	3/8	9/16-18	----
C6400-8-8	1/2	3/4-16	----
C6400-8-10	1/2	7/8-14	----
C6400-12-12	3/4	1-1/16-12	----
C6400-16-16	1	1-5/16-12	----

7315 F5B-J

### O-RING ELBOW CONNECTOR

SAE 080220



Part #	Tube Size 1	O-Ring Thread Size 2	List Price
C6801-4-4	1/4	7/16-20	----
C6801-6-6	3/8	9/16-18	----
C6801-8-8	1/2	3/4-16	----
C6801-12-12	3/4	1-1/16-12	----
C6801-16-16	1	1-5/16-12	----

7515 C5BU-S

### MALE O-RING BRANCH TEE

SAE 080429



Part #	Tube Size Size 1 & 2	O-Ring Thread Size 3	List Price
C6803-4-4	1/4	7/16-20	----
C6803-6-6	3/8	9/16-18	----
C6803-8-8	1/2	3/4-16	----

7715 S5BU-S

# HYDRAULIC ADAPTERS

# STAINLESS STEEL FLARELESS BITE-TYPE

- Double Ferule bite-type
- Material 316SS
- Metal to Metal

## TUBE NUT



STAINLESS STEEL

Part #	Tube O.D	Thread Size	List Price
SSC318-2	1/8	5/16-24	----
SSC318-4	1/4	7/16-20	----
SSC318-6	3/8	9/16-18	----
SSC318-8	1/2	3/4-16	----
SSC318-12	3/4	1-1/16-12	----
SSC318-16	1	1-5/16-12	----

## SLEEVE SET



STAINLESS STEEL

- Front and Back sold as a set

Part #	Tube O.D	List Price
SSC320-2	1/8	----
SSC320-4	1/4	----
SSC320-6	3/8	----
SSC320-8	1/2	----
SSC320-12	3/4	----
SSC320-16	1	----

## TUBE UNION



STAINLESS STEEL

Part #	Tube Size	List Price
SSC2403-4-4	1/4	----
SSC2403-6-6	3/8	----
SSC2403-8-8	1/2	----
SSC2403-12-12	3/4	----
SSC2403-16-16	1	----

- Reducers available upon request

**SS = Stainless Steel (316)**

## MALE CONNECTOR



STAINLESS STEEL

Part #	Tube Size 1	Male Pipe Thread 2	List Price
SSC2404-4-2	1/4	1/8	----
SSC2404-4-4	1/4	1/4	----
SSC2404-4-8	1/4	1/2	----
SSC2404-6-4	3/8	1/4	----
SSC2404-6-6	3/8	3/8	----
SSC2404-6-8	3/8	1/2	----
SSC2404-8-8	1/2	1/2	----
SSC2404-12-12	3/4	3/4	----
SSC2404-16-16	1	1	----

## FEMALE CONNECTOR



STAINLESS STEEL

Part #	Tube O.D. 1	Thread Size 2	List Price
SSC2405-4-2	1/4	1/8	----
SSC2405-4-4	1/4	1/4	----
SSC2405-6-2	3/8	1/8	----
SSC2405-6-6	3/8	3/8	----
SSC2405-6-8	3/8	1/2	----
SSC2405-8-4	1/2	1/4	----
SSC2405-8-6	1/2	3/8	----
SSC2405-8-8	1/2	1/2	----
SSC2405-12-12	3/4	3/4	----
SSC2405-16-16	1	1	----

## UNION ELBOW



STAINLESS STEEL

Part #	Tube Size	List Price
SSC2500-2-2	1/8	----
SSC2500-4-4	1/4	----
SSC2500-6-6	3/8	----
SSC2500-8-8	1/2	----
SSC2500-12-12	3/4	----
SSC2500-16-16	1	----

**STAINLESS STEEL BITE-TYPE**

**HYDRAULIC ADAPTERS**

**MALE ELBOW**

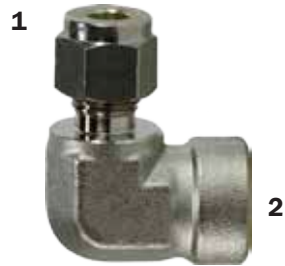
**STAINLESS STEEL**



Part #	Tube Size 1	Male Pipe Size 2	List Price
SSC2501-4-2	1/4	1/8	----
SSC2501-4-4	1/4	1/4	----
SSC2501-6-2	3/8	1/8	----
SSC2501-6-4	3/8	1/4	----
SSC2501-6-6	3/8	3/8	----
SSC2501-6-8	3/8	1/2	----
SSC2501-8-4	1/2	1/4	----
SSC2501-8-6	1/2	3/8	----
SSC2501-8-8	1/2	1/2	----
SSC2501-12-12	3/4	3/4	----
SSC2501-16-16	1	1	----

**FEMALE ELBOW**

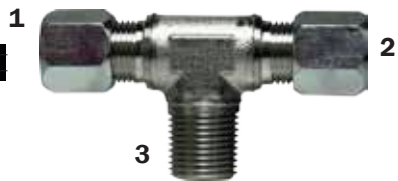
**STAINLESS STEEL**



Part #	Tube Size 1	Female Pipe Size 2	List Price
SSC2502-4-4	1/4	1/4	----
SSC2502-6-4	3/8	1/4	----
SSC2502-6-6	3/8	3/8	----
SSC2502-8-8	1/2	1/2	----
SSC2502-12-12	3/4	3/4	----
SSC2502-16-16	1	1	----

**MALE BRANCH TEE**

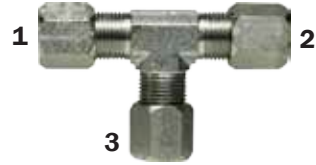
**STAINLESS STEEL**



Part #	Tube Size 1&2	Pipe Thread Size 3	List Price
SSC2601-2-2	1/8	1/8	----
SSC2601-4-4	1/4	1/4	----
SSC2601-6-4	3/8	1/4	----
SSC2601-6-6	3/8	3/8	----
SSC2601-8-8	1/2	1/2	----

**UNION TEE**

**STAINLESS STEEL**



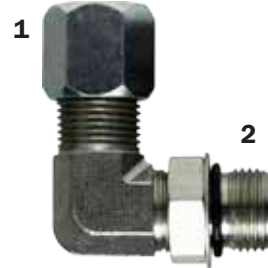
Part #	Tube Size	List Price
SSC2603-2-2	1/8	----
SSC2603-4-4	1/4	----
SSC2603-6-6	3/8	----
SSC2603-8-8	1/2	----
SSC2603-12-12	3/4	----
SSC2603-16-16	1	----

**O-RING ELBOW CONNECTOR**

SAE 080220

C5BU-SS

**STAINLESS STEEL**



Part #	Tube Size 1	O-Ring Thread Size 2	List Price
SSC6801-4-4	1/4	7/16-20	----
SSC6801-6-6	3/8	9/16-18	----
SSC6801-8-8	1/2	3/4-16	----
SSC6801-12-12	3/4	1-1/16-12	----
SSC6801-16-16	1	1-5/16-12	----

# HYDRAULIC ADAPTERS

# QUICK DISCONNECT



- Brass Body
- Steel Wing Nut
- Buna-Seal ( -40° to +250°F)

Aeroquip 5100  
Parker 6100  
Snaptite B78



- Bonded Face Seal
- External ORing Alleviates Full Connection

Part #	Body Size	Female NPT	Max PSI	List Price	Part #	Body Size	Female NPT	Max PSI	List Price
61-150	3/4	1/2	3000	----	61-050	3/4	1/2	3000	----
61-152	3/4	3/4	3000	----	61-052	3/4	3/4	3000	----
61-153	1	1	3000	----	61-053	1	1	3000	----
61-154	1-1/4	1-1/4	2750	----	61-054	1-1/4	1-1/4	2750	----
61-155	1-1/2	1-1/2	2500	----	61-055	1-1/2	1-1/2	2500	----

### FEATURES - ISO A and ISO B

- Poppet valves to prevent uncoupled leakage
- Critical parts are induction hardened for durability
- Dependable ball-locking mechanism holds the mating halves together
- Socket and plug are precision machined from solid barstock
- Standard nitrile seals temp range -40°F to +250°F

Body Size	ISO 7241-1 ISO-A Interchange ( Connected )			
	Steel Coupler/ Plug			
	Maximum Working		Burst	
	PSI	Bar	PSI	Bar
1/4"	5,000	345	18,270	1,200
3/8"	4,000	275	18,270	1,200
1/2"	4,000	275	16,500	1,100
3/4"	4,000	275	14,800	1,000
1"	4,000	275	12,400	850

### INTERCHANGE DATA:

- Parker 6600, Aeroquip/ Eaton FD56, Dixon 'K' Series.
- Hansen HA 15000, Safeway S56

Body Size	ISO 7241-1 Series B ISO-B Interchange ( Connected )							
	Steel Coupler/ Plug				Brass Coupler/ Plug			
	Max. Working		Burst		Max. Working		Burst	
	PSI	Bar	PSI	Bar	PSI	Bar	PSI	Bar
1/4"	5,000	345	22,500	1,550	3,000	200	15,000	1,000
3/8"	4,000	275	16,500	1,150	2,500	175	12,000	800
1/2"	4,000	275	16,000	1,100	2,500	175	11,500	750
3/4"	4,000	275	16,500	1,150	2,000	150	12,000	800
1"	4,000	275	16,000	1,100	1,500	100	8,500	800

### INTERCHANGE DATA:

- Parker 60 Series, Snap-tite 72 series, Dixon 'H' series
- Hansen HK - series, Aeroquip/ Eaton FDH5

### B=BRASS



BRASS - HNV SERIES PLUG



BRASS - HNV SERIES COUPLER



### ISO-A FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
ANV-14-F	1/4"	1/4"	----
ANV-38-F	3/8"	3/8"	----
ANV-12-F	1/2"	1/2"	----
ANV-34-F	3/4"	3/4"	----
ANV-1-F	1"	1"	----



### ISO-A FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
ANV-14-M	1/4"	1/4"	----
ANV-38-M	3/8"	3/8"	----
ANV-12-M	1/2"	1/2"	----
ANV-34-M	3/4"	3/4"	----
ANV-1-M	1"	1"	----



### ISO-B FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
HNV-14-F	1/4"	1/4"	----
HNV-14-F-B	1/4"	1/4"	----
HNV-38-F	3/8"	3/8"	----
HNV-38-F-B	3/8"	3/8"	----
HNV-12-F	1/2"	1/2"	----
HNV-12-F-B	1/2"	1/2"	----
HNV-34-F	3/4"	3/4"	----
HNV-34-F-B	3/4"	3/4"	----
HNV-1-F	1"	1"	----
HNV-1-F-B	1"	1"	----



### ISO-B FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
HNV-14-M	1/4"	1/4"	----
HNV-14-M-B	1/4"	1/4"	----
HNV-38-M	3/8"	3/8"	----
HNV-38-M-B	3/8"	3/8"	----
HNV-12-M	1/2"	1/2"	----
HNV-12-M-B	1/2"	1/2"	----
HNV-34-M	3/4"	3/4"	----
HNV-34-M-B	3/4"	3/4"	----
HNV-1-M	1"	1"	----
HNV-1-M-B	1"	1"	----

# QUICK DISCONNECT

# HYDRAULIC ADAPTERS

### FEATURES

- Steel construction, zinc plated trivalent finish. Hardened Nipples and sleeves and solid barstock construction for maximum resistance to damage from hydraulic and mechanical shock.
- This Anti-Blowout Nitrile/ PTFE bonded seal is designed to prevent blow out or damage during severe service conditions.
- Durable ball-locking mechanism assures reliable connection everytime.
- Temp Range -65° to +250°

## ISO 16028

Body Size	FLUSH FACE			
	Steel Coupler/ Plug Coupled			
	Maximum Working		Burst	
	PSI	Bar	PSI	Bar
1/4"	5,000	345	18,270	1,200
3/8"	4,000	275	18,270	1,200
1/2"	4,000	275	16,500	1,100
5/8"	4,000	275	14,800	1,000
3/4"	4,000	275	12,400	850
1"	3,000	200	12,600	850

FF Series  
HTMC  
74C



### FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
FF-14-F	1/4"	1/4"	----
FF-38-F	3/8"	3/8"	----
FF-12-F	1/2"	1/2"	----
FF-3812-F	3/8"	1/2"	----
FF-1234-F	1/2"	3/4"	----
FF-3416-F	3/4"	1"	----
FF-34-F	3/4"	3/4"	----
FF-1-F	1"	1"	----

FF Series  
HTMN  
74N



### FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
FF-14-M	1/4"	1/4"	----
FF-38-M	3/8"	3/8"	----
FF-12-M	1/2"	1/2"	----
FF-3812-M	3/8"	1/2"	----
FF-1234-M	1/2"	3/4"	----
FF-3416-M	3/4"	1"	----
FF-34-M	3/4"	3/4"	----
FF-1-M	1"	1"	----

## FLAT FACE THREAD LOCK - VEP QUICK COUPLING

### SPECIFICATIONS

Body Size (in)	1/2(12)	3/4(34)	1(1)	1-1/2(24)
Rated Pressure (PSI)	7000	7000	6000	5000
Rated Flow (GPM)	12	50	88	152
Temperature Range	-20°C +120°C			

Standard seal material is **NBR**

Test Fluid-Oil = 200 SUS

### APPLICATIONS

- Widely used in public equipment
- Portable construction equipment.
- Hydraulic tools
- Vehicles

### FEATURES

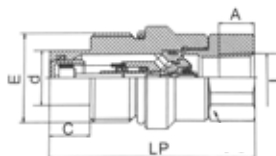
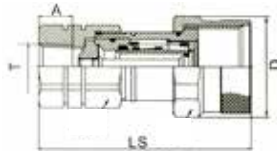
- New valve design provides better resistance from high flow and the pressure of impulse, thus providing advanced performance.
- Special nipple design for connecting under pressure, allows connection and disconnection with high residual pressures.
- The LSQ-VEP series employs a threaded sleeve locking mechanism, mates with matching male threads on the coupler.
- New plating treatment provides advanced anti-rust performance.
- LSQ-VEP series couplings employ flush valving when connecting or disconnecting, therefore only a small amount of fluid can be lost during disconnecting or air inclusion during reconnection.
- The Anti-Blowout bonded seal is designed to prevent blow-out or damage during severe service conditions.
- Machined from solid steel barstock for durability. Compatible with most other VEP series.
- **O-Ring SAE Boss Thread available with import lead time (same list price)**

### FEMALE COUPLER

Part #	LS	D	A	NPT	List Price
LSQ-VEP-12-SF	4.09	1.13	0.67	1/2	----
LSQ-VEP-34-SF	4.49	2.13	0.79	3/4	----
LSQ-VEP-1-SF	5.28	2.33	0.83	1	----
LSQ-VEP-20-SF	5.71	2.72	0.83	1-1/4	----
LSQ-VEP-24-SF	7.41	3.63	0.83	1-1/2	----

### FEMALE PLUG

Part #	LS	D	A	NPT	List Price
LSQ-VEP-12-PF	4.09	1.13	0.67	1/2	----
LSQ-VEP-34-PF	4.49	2.13	0.79	3/4	----
LSQ-VEP-1-PF	5.28	2.33	0.83	1	----
LSQ-VEP-20-PF	5.71	2.72	0.83	1-1/4	----
LSQ-VEP-24-PF	7.41	3.63	0.83	1-1/2	----



**AG - Series Agricultural Interchange ( Connected )**

Nominal Size	Steel Coupler/ Plug			
	Maximum Working		Burst	
	PSI	Bar	PSI	Bar
1/4"	4,000	275	21,000	1,500
3/8"	4,000	275	23,100	1,600
1/2"	4,000	275	16,500	1,100
3/4"	3,000	200	10,300	700
1"	3,000	200	13,000	900

**Snap-Tite 60 Series**



**FEMALE PIPE COUPLER**

Part #	Body Size	NPT	List Price
NV-14-F	1/4"	1/4"	----
NV-38-F	3/8"	3/8"	----
NV-12-F	1/2"	1/2"	----
NV-34-F	3/4"	3/4"	----
NV-1-F	1"	1"	----

**FEMALE PIPE PLUG**

Part #	Body Size	NPT	List Price
NV-14-M	1/4"	1/4"	----
NV-38-M	3/8"	3/8"	----
NV-12-M	1/2"	1/2"	----
NV-34-M	3/4"	3/4"	----
NV-1-M	1"	1"	----

**FEATURES**

- Heavy duty heat treated poppet: valves are standard with rugged, specially-designed seals made of nitrite for leak-free performance in the toughest application.
- High-strength steel valve guides designed for high flow rates and made extra tough for agricultural service.
- Dependable hardened chrome alloy steel locking balls. Heat treated plugs and sleeves.
- Standard seals temp range -40°F to +250°F

**THREAD LOCK HYDRAULIC JACK COUPLING**

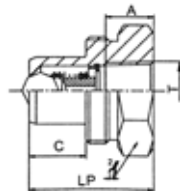
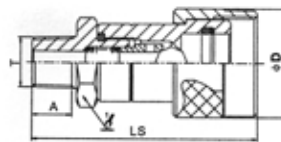
**SPECIFICATIONS**

Body Size	1/4(14)	3/8(38)
Rated Pressure	10.000	
Rated Flow (GPM)	3	6
Temperature Range	-20°C +120°C	

Standard seal material is **NBR**

**APPLICATIONS**

- Thread lock couplings with their threaded union locking system and precision ball-type check valves are designed for extreme high pressure applications such as portable hydraulic jacks.
- **Ball Type.**



**MALE COUPLER**

Part #	LS	D	Hex	A	NPT	List Price
KZE-B-14-SM	2.40	1.14	0.87	0.55	1/4	----
KZE-B-38-SM	2.91	1.38	0.98	0.57	3/8	----

**FEMALE COUPLER**

Part #	LS	D	Hex	A	NPT	List Price
KZE-B-14-PF	1.30	0.44	0.75	0.51	1/4	----
KZE-B-38-PF	1.38	0.63	1.26	0.55	3/8	----

## DIN 2353 METRIC

## HYDRAULIC ADAPTERS

## TUBE PLUG - INSERT/NUT



Part #	Tube 1 - MM	Size 2	List Price
8003-L06	6	M12 X 1.5	----
8003-L08	8	M14 X 1.5	----
8003-L10	10	M16 X 1.5	----
8003-L12	12	M18 X 1.5	----
8003-L15	15	M22 X 1.5	----
8003-L18	18	M26 X 1.5	----
8003-L22	22	M30 X 2.0	----
8003-L28	28	M36 X 2.0	----
8003-L35	35	M45 X 2.0	----
8003-L42	42	M52 X 2.0	----
8003-S06	6	M14 X 1.5	----
8003-S08	8	M16 X 1.5	----
8003-S10	10	M18 X 1.5	----
8003-S12	12	M22 X 1.5	----
8008-S16	16	M26 X 1.5	----
8003-S20	20	M30 X 2.0	----
8003-S25	25	M36 X 2.0	----
8003-S30	30	M45 X 2.0	----
8003-S38	38	M52 X 2.0	----

## TUBE CAP 24° INNER CORE



Part #	Tube 1 - MM	Size 2	List Price
8004-L08	8	M14 X 1.5	----
8004-L10	10	M16 X 1.5	----
8004-L12	12	M18 X 1.5	----
8004-L15	15	M22 X 1.5	----
8004-L18	18	M26 X 1.5	----
8004-L22	22	M30 X 2.0	----
8004-L28	28	M36 X 2.0	----
8004-S06	6	M14 X 1.5	----
8004-S08	8	M16 X 1.5	----
8004-S10	10	M18 X 1.5	----
8004-S12	12	M22 X 1.5	----
8004-S16	16	M26 X 1.5	----
8004-S20	20	M30 X 2.0	----

## PARALLELL MALE STUD COUPLING



Part #	Tube 1 - MM	Size 2	List Price
8031-L06-10	6	M10 X 1.0	----
8031-L08-12	8	M12 X 1.5	----
8031-L10-14	10	M14 X 1.5	----
8031-L12-16	12	M16 X 1.5	----
8031-L15-18	15	M18 X 1.5	----
8031-L18-22	18	M22 X 1.5	----
8031-L22-26	22	M26 X 1.5	----
8031-L28-33	28	M33 X 2.0	----
8031-L35-42	35	M42 X 2.0	----
8031-L42-48	42	M48 X 2.0	----
8031-S06-12	6	M12 X 1.5	----
8031-S08-14	8	M14 X 1.5	----
8031-S10-16	10	M16 X 1.5	----
8031-S12-18	12	M18 X 1.5	----
8031-S16-22	16	M22 X 1.5	----
8031-S20-27	20	M27 X 2.0	----
8031-S25-33	25	M33 X 2.0	----
8031-S30-42	30	M42 X 2.0	----
8031-S38-48	38	M48 X 2.0	----

## DIN MALE STUD BSPP



Part #	Tube 1 - MM	Size 2 BSPP	List Price
8046-L08-04	8	1/4	----
8046-L10-04	10	1/4	----
8046-L12-06	12	3/8	----
8046-L15-08	15	1/2	----
8046-L22-12	22	3/4	----
8046-L28-16	28	1-1/8	----
8046-L35-20	35	1-1/4	----
8046-L42-24	42	1-1/2	----
8046-S10-06	10	1/4	----
8046-S12-06	12	3/8	----
8046-S16-08	16	1/2	----
8046-S20-12	20	3/4	----

L = LIGHT PATTERN S = HEAVY PATTERN

**UNION COUPLING**



Part #	Tube 1 - MM	Tube 2 - MM	List Price
8060-L08-08	8	8	----
8060-L10-10	10	10	----
8060-L12-12	12	12	----
8060-L15-15	15	15	----
8060-L18-18	18	18	----
8060-L22-22	22	22	----
8060-L28-28	28	28	----
8060-L35-35	35	35	----
8060-L42-42	42	42	----
8060-S06-06	6	6	----
8060-S08-08	8	8	----
8060-S10-10	10	10	----
8060-S12-12	12	12	----
8060-S16-16	16	16	----
8060-S20-20	20	20	----
8060-S25-25	25	25	----
8060-S30-30	30	30	----

**BULKHEAD STRAIGHT COUPLING**



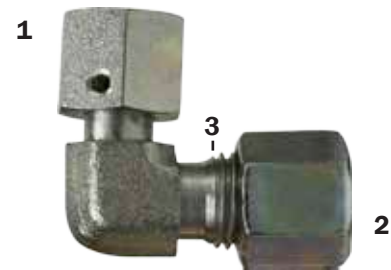
Part #	Tube 1 - MM	Tube 2 - MM	List Price
8061-LN-L08-08	8	8	----
8061-LN-L10-10	10	10	----
8061-LN-L12-12	12	12	----
8061-LN-L15-15	15	15	----
8061-LN-L18-18	18	18	----
8061-LN-L22-22	22	22	----
8061-LN-L28-28	28	28	----
8061-LN-L35-35	35	35	----
8061-LN-L42-42	42	42	----
8061-LN-S06-06	6	6	----
8061-LN-S08-08	8	8	----
8061-LN-S10-10	10	10	----
8061-LN-S12-12	12	12	----
8061-LN-S16-16	16	16	----
8061-LN-S20-20	20	20	----
8061-LN-S25-25	25	25	----
8061-LN-S30-30	30	30	----
8061-LN-S38-38	38	38	----

**UNION ELBOW**



Part #	Tube 1 - MM	Tube 2 - MM	List Price
8260-L08-08	8	8	----
8260-L10-10	10	10	----
8260-L12-12	12	12	----
8260-L15-15	15	15	----
8260-L18-18	18	18	----
8260-L22-22	22	22	----
8260-L28-28	28	28	----
8260-L35-35	35	35	----
8260-L42-42	42	42	----
8260-S06-06	6	6	----
8260-S08-08	8	8	----
8260-S10-10	10	10	----
8260-S12-12	12	12	----
8260-S16-16	16	16	----
8260-S20-20	20	20	----
8260-S25-25	25	25	----
8260-S30-30	30	30	----
8260-S38-38	38	38	----

**DIN SWIVEL NUT ELBOW**



Part #	Tube 1 - MM	Tube 2 - MM	DIN 3	List Price
8263-L08-08	8	8	M14 X 1.5	----
8263-L12-12	12	12	M18 X 1.5	----
8263-L15-15	15	15	M22 X 1.5	----
8263-L22-22	22	22	M30 X 2.0	----
8263-L28-28	28	28	M36 X 2.0	----
8263-L35-35	35	35	M45 X 2.0	----
8263-S08-08	8	8	M16 X 1.5	----
8263-S12-12	12	12	M20 X 1.5	----
8263-S16-16	16	16	M24 X 1.5	----
8263-S20-20	20	20	M30 X 2.0	----
8263-S25-25	25	25	M36 X 2.0	----
8263-S30-30	30	30	M42 X 2.0	----
8263-S38-38	38	38	M52 X 2.0	----

L = LIGHT PATTERN S = HEAVY PATTERN

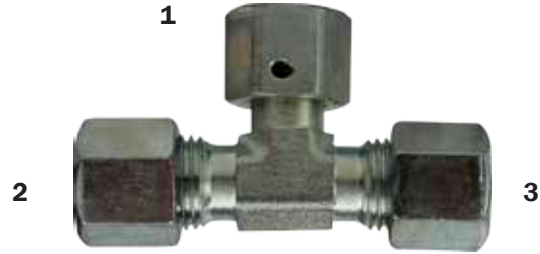


**DIN 2353 METRIC****HYDRAULIC ADAPTERS****UNION TEE**

Part #	Tube 1 - MM	Tube 2 - MM	Tube 3 - MM	List Price
8360-L06-06-06	6	6	6	----
8360-L08-08-08	8	8	8	----
8360-L10-10-10	10	10	10	----
8360-L12-12-12	12	12	12	----
8360-L15-15-15	15	15	15	----
8360-L18-18-18	18	18	18	----
8360-L22-22-22	22	22	22	----
8360-L28-28-28	28	28	28	----
8360-L35-35-35	35	35	35	----
8360-L42-42-42	42	42	42	----
8360-S06-06-06	6	6	6	----
8360-S08-08-08	8	8	8	----
8360-S10-10-10	10	10	10	----
8360-S12-12-12	12	12	12	----
8360-S16-16-16	16	16	16	----
8360-S20-20-20	20	20	20	----
8360-S25-25-25	25	25	25	----
8360-S30-30-30	30	30	30	----
8360-S38-38-38	38	38	38	----

**DIN SWIVEL NUT BRANCH TEE**

Part #	Tube 1, 3 THREAD	DIN - 2	List Price
8563-L08-08-08	8	M14 X 1.5	----
8563-L10-10-10	10	M16 X 1.5	----
8563-L12-12-12	12	M18 X 1.5	----
8563-L15-15-15	15	M22 X 1.5	----
8563-L18-18-18	18	M26 X 1.5	----
8563-L22-22-22	22	M30 X 2.0	----
8563-L28-28-28	28	M36 X 2.0	----
8563-L35-35-35	35	M45 X 2.0	----
8563-S08-08-08	8	M16 X 1.5	----
8563-S10-10-10	10	M18 X 1.5	----
8563-S12-12-12	12	M20 X 1.5	----
8563-S16-16-16	16	M24 X 1.5	----
8563-S25-25-25	25	M36 X 2.0	----
8563-S30-30-30	30	M42 X 2.0	----
8563-S38-38-38	38	M52 X 2.0	----

**DIN SWIVEL NUT RUN TEE**

Part #	Tube 1, 2, 3 - MM	DIN THREAD	List Price
8469-L08-08-08	8	M14 X 1.5	----
8469-L10-10-10	10	M16 X 1.5	----
8469-L12-12-12	12	M18 X 1.5	----
8469-L15-15-15	15	M22 X 1.5	----
8469-L18-18-18	18	M26 X 1.5	----
8469-L22-22-22	22	M30 X 2.0	----
8469-L28-28-28	28	M36 X 2.0	----
8469-L35-35-35	35	M45 X 2.0	----
8469-L42-42-42	42	M52 X 2.0	----
8469-S08-08-08	8	M16 X 1.5	----
8469-S10-10-10	10	M18 X 1.5	----
8469-S12-12-12	12	M20 X 1.5	----
8469-S16-16-16	16	M24 X 1.5	----
8469-S20-20-20	20	M30 X 2.0	----
8469-S25-25-25	25	M36 X 2.0	----
8469-S30-30-30	30	M42 X 2.0	----
8469-S38-38-38	38	M52 X 2.0	----

L = LIGHT PATTERN S = HEAVY PATTERN

(Charlynn 101 / Danfoss DH / White HS / Parker ME-MB-TE-TJ / -RR-USA HP)

The MMPH series gear set, shaft distribution flow, hydraulic motor is a compact, high efficient, low speed high torque design which can be used in either parallel or series systems.



Part #		MMPH50	MMPH80	MMPH100	MMPH125	MMPH160	MMPH200	MMPH250	MMPH315	MMPH400
<b>List Price</b>		----	----	----	----	----	----	----	----	----
<b>Displacement cm3/rev(cu.in/rev)</b>		51.7 (3.15)	77.7 (4.75)	96.2 (5.9)	118 (7.2)	156 (9.5)	190 (11.6)	231 (14.1)	312 (19)	387 (23.6)
<b>Max Speed rpm</b>	Cont.	880	740	590	475	370	295	240	190	150
	Int.	975	825	675	595	465	370	295	235	185
<b>Max Torque NW (in.lbs)</b>	Cont.	81 (717)	129(1140)	161(1425)	202(1790)	245(2170)	286(2530)	360(3185)	406(3575)	435(3850)
	Int.	108(956)	171(1514)	213(1885)	268(2372)	342(3026)	390(3450)	456(4035)	505(4470)	533(4717)
<b>Max performance KW/ (HP)</b>	Cont.	7(9.4)	9.1(12.2)	9(12.1)	9.1(12.2)	8.7(11.65)	8.1(10.85)	8.2(11)	7.2(9.7)	6.1(8.2)
	Int.	8.9(12)	11.8(15.8)	11.9(15.95)	11.8(15.8)	11.9(15.95)	10.9(14.7)	10.1(13.5)	8.6(11.5)	7.2(9.65)
<b>Max Differential Mpa/ (PSI)</b>	Cont.	12.5(1840)	12.5(1840)	12.5(1840)	12.5(1840)	12.5(1840)	11(1625)	11(1625)	11(1625)	10(1450)
	Int.	16.5(2425)	16.5(2425)	16.5(2425)	16.5(2425)	16.5(2425)	16.5(2425)	14(2060)	12.5(1840)	10.5(1540)
<b>Max flow L/min. / (gpm)</b>	Cont.	45(11.85)	60(15.8)	60(15.8)	60(15.8)	60(15.8)	60(15.8)	60(15.8)	60(15.8)	60(15.8)
	Int.	50(13.15)	75(19.75)	75(19.75)	75(19.75)	75(19.75)	75(19.75)	75(19.75)	75(19.75)	75(19.75)
<b>Weight</b>	lb.	5.6	5.7	5.9	6	6.2	6.4	6.6	6.9	7.4

**ORDERING INFORMATION**

<b>MMPH</b>	<b>50</b>	<b>H2</b>	<b>K</b>	<b>P</b>
<b>MODEL SERIES</b>	<b>FRAME SIZE</b>	<b>MOUNTING FLANGE TYPE</b>	<b>DRIVE SHAFT</b>	<b>PORT SIZE</b>
MMPH (GEROTOR)	(cu.in/rev)		K - 1 Inch Woodruff Key	P - 1/2 NPTF
MMRS (GEROTOR)	<b>MMPH</b> <b>MMRS</b>	H4 - 4 Bolt	S - SAE - 6B Spline	S - 7/8-14 SAE "O" Ring
	50 (3.15)      50 (3.13)	H2 - SAE "A" 2 Bolt	H - 1 Inch parallel	F - Manifold
	80 (4.74)      80 (4.92)	H6 - Magneto	0.40 dia. crosshole	
	100 (5.87)      100 (6.15)		H1 - 1 Inch parallel	
	125 (7.19)      125 (7.62)		0.31 dia. crosshole	
	160 (9.49)      160 (9.59)			
	200 (11.59)      200 (12.15)			
	250 (15.25)      250 (15.38)			
	315 (19.02)      315 (19.2)			
	400 (23.57)      375 (22.58)			

(Charlynn 103 & 158 / Danfoss DS / Parker ME-MB-TE-TJ / RR-USA HR)

The MMRS series advanced gear set, shaft distribution flow, hydraulic motor is a compact, low noise, highly efficient torque low speed design. The gear set also affords a reliable smooth start-up at low pressure. The special design of the drive linkage and high pressure capability of the shaft seal provides a long life and these motors can be used in either series or parallel operation.



Part #		MMRS50	MMRS80	MMRS100	MMRS125	MMRS160	MMRS200	MMRS250	MMRS315	MMRS375
<b>List Price</b>		----	----	----	----	----	----	----	----	----
<b>Displacement cm3/rev(cu.in/rev)</b>		51.3 (3.13)	80.6 (4.92)	100.8 (6.15)	124.9 (7.62)	157.2 (9.59)	199.2 (12.15)	252 (15.38)	314.5 (19.2)	370 (22.58)
<b>Max Speed rpm</b>	Rated	755	750	600	475	375	300	240	190	160
	Cont.	970	940	750	600	470	375	300	240	200
<b>Max Torque NW (in.lbs)</b>	Cont.	100(885)	190(1682)	240(2124)	292(2584)	363(3273)	358(3168)	352(3115)	360(3186)	420(3717)
	Int.	126(1115)	220(1947)	280(2478)	340(3010)	430(3806)	448(3965)	470(4159)	470(4159)	548(4850)
<b>Max performance KW/ (HP)</b>	Cont.	7.7(10.3)	15(20.10)	15(20.10)	14(18.75)	14(18.75)	11(14.75)	9(12.10)	7.2(9.7)	6.1(8.2)
	Int.	9.7(13)	17(22.8)	17(22.8)	16(21.45)	16(21.45)	14(18.75)	12(16.10)	9(12.10)	12(16.10)
<b>Max Differential Mpa/ (PSI)</b>	Cont.	14(2061)	17.5(2576)	17.5(2576)	17.5(2576)	16.5(2429)	13(1914)	11(1619)	8.5(1251)	8.5(1251)
	Int.	17.5(2576)	20(2944)	20(2944)	20(2944)	20(2944)	17.5(2576)	14(2061)	11.5(1693)	11.5(1693)
<b>Max flow L/min. / (gpm)</b>	Cont.	40(10.5)	60(15.8)	60(15.8)	60(15.8)	60(15.8)	60(15.8)	60(15.8)	60(15.8)	60(15.8)
	Int.	50(13.1)	75(19.75)	75(19.75)	75(19.75)	75(19.75)	75(19.75)	75(19.75)	75(19.75)	75(19.75)
<b>Weight</b>	lb.	6.7	6.9	6.9	7.2	7.5	8.0	8.5	9.0	9.3

# HYDRAULIC GEAR PUMP

# HYDRAULIC ADAPTERS

## MODEL # MGP-F10

- All Aluminium construction.
- 7 Displacement sizes from 0.07 to 0.37 cu. in/rev.
- Mounting flange is SAE AA-2 bolt.
- Ports are SAE-8 inlet and SAE-6 outlet.
- Drive shaft is a 1/2 inch straight shaft with 1/8 key.

### Recommended working conditions:

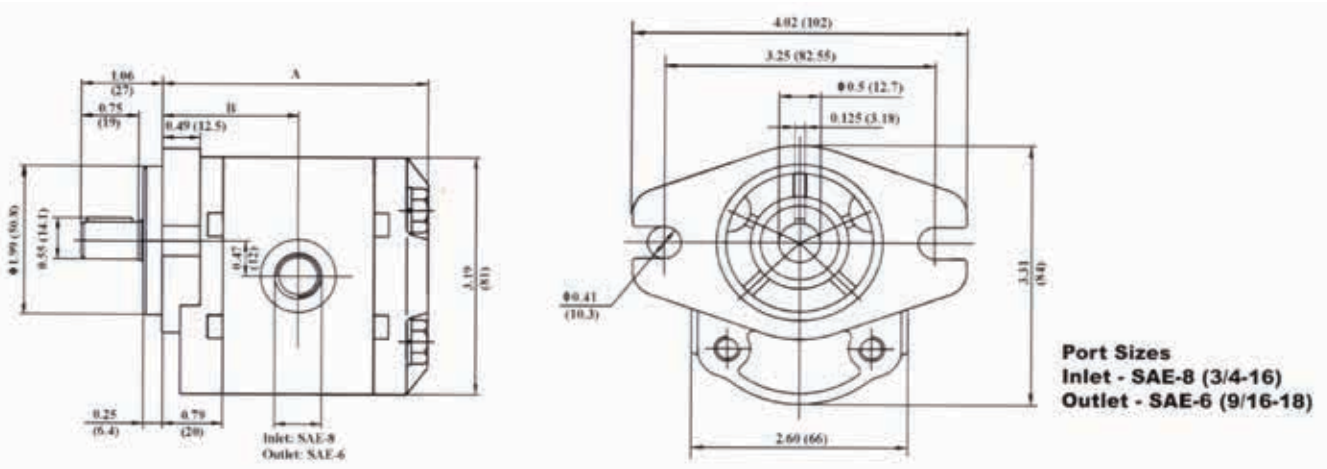
- Filtration 25 micron or better.
- Oil Viscosity 6 to 200 cSt.
- Inlet pressure 12 to 32 psi abs.
- Oil Temperature -25 to 55 degrees C (-12 to 175 F°).
- Ambient -22 to 55 C° (-8 to 130 F°).



Part #	Displacement cu.in/rev	PSI	Speed RPM		Weight Lbs	List Price
			Rated	Max		
MGP-F10-13	0.07	3625	2000	5000	2.02	----
MGP-F10-20	0.12	3625	2000	5000	2.31	----
MGP-F10-27	0.16	3625	2000	5000	2.68	----
MGP-F10-34	0.20	3625	2000	5000	2.99	----
MGP-F10-41	0.25	3625	2000	4000	3.34	----
MGP-F10-51	0.31	3625	2000	4000	3.78	----
MGP-F10-61	0.37	3625	2000	4000	4.18	----

- Displacement (cu.in/ rev) x speed (RPM)/ 231 Volumetric efficiency % $\geq$ 93
- GPM X 231/ RPM = CU.IN

## INSTALLATION DATA



Part #	A		B	
	Millimeters	Inches	Millimeters	Inches
MGP-F10-13	82	3.23	42	1.65
MGP-F10-20	84	3.3	43	1.69
MGP-F10-27	86	3.39	44	1.73
MGP-F10-34	88	3.46	45	1.77

Part #	A		B	
	Millimeters	Inches	Millimeters	Inches
MGP-F10-41	90	3.54	46	1.81
MGP-F10-51	93	3.66	47.5	1.87
MGP-F10-61	96	3.78	49	1.93

## ORDERING INFORMATION

### MGP

Aluminum  
Gear Pump

### F10

High  
Pressure  
Series

### 16

Displacement  
cm<sup>3</sup>/rev  
(see chart)  
13/20/27/34  
41/51/61

### P

Drive  
Shaft  
P-1/2 Dia

### C

Rotation  
Direction  
C-Clockwise  
A-Counter Clockwise  
(viewed from drive shaft  
end)

**MODEL # MGP-F20**

- Aluminium construction.
- 8 Displacement sizes from 0.36 to 1.52 cu. in/rev.
- Mounting flange is SAE A-2 bolt.
- Ports are SAE-12 inlet and SAE-10 outlet.
- Drive shaft is a 5/8 inch diameter straight with 5/32 straight key.

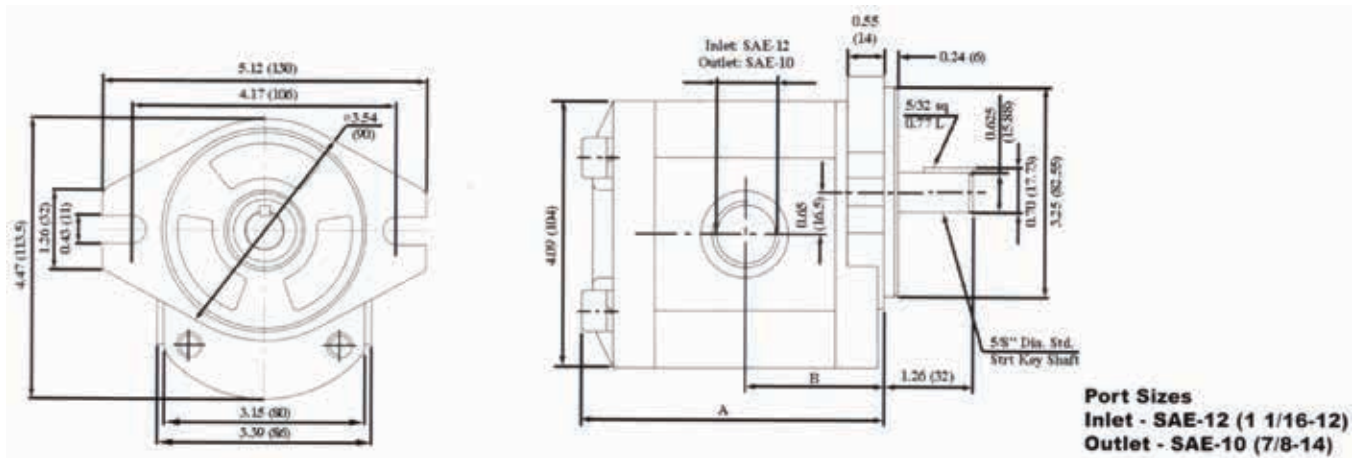
**Recommended working conditions:**

- Filtration 25 micron or better.
- Oil Viscosity 6 to 200 cSt.
- Inlet pressure 12 to 32 psi abs.
- Oil Temperature -25 to 55 degrees C (-12 to 175 F°).
- Ambient -22 to 55 C° (-8 to 130 F°).



Part #	Displacement cu.in/rev	PSI	Speed RPM		Weight Lbs	List Price
			Rated	Max		
MGP-F20-06	0.36	3650	2000	3000	5.35	----
MGP-F20-08	0.48	3650	2000	3600	5.61	----
MGP-F20-10	0.61	3650	2000	3600	5.72	----
MGP-F20-12	0.73	3650	2000	3600	5.91	----
MGP-F20-14	0.85	3650	2000	3600	6.00	----
MGP-F20-16	0.97	2900	2000	3600	6.27	----
MGP-F20-20	1.22	2900	2000	3600	6.73	----
MGP-F20-25	1.52	2900	2000	3600	7.19	----

**INSTALLATION DATA**



Part #	A		B	
	Millimeters	Inches	Millimeters	Inches
MGP-F20-06	98	3.87	45	1.77
MGP-F20-08	100	3.95	47	1.85
MGP-F20-10	104	4.12	48	1.89
MGP-F20-12	108	4.25	50	1.97

Part #	A		B	
	Millimeters	Inches	Millimeters	Inches
MGP-F20-14	110	4.35	51	2
MGP-F20-16	114	4.50	52.5	2.07
MGP-F20-20	120	4.72	56	2.2
MGP-F20-25	128	5.05	60	2.36

**ORDERING INFORMATION**

<b><u>MGP</u></b> Aluminum Gear Pump	<b><u>F20</u></b> High Pressure Series	<b><u>16</u></b> Displacement cm3/rev (see chart) 06/08/10/12/14/16 20/25	<b><u>P</u></b> Drive Shaft P-5/8 Dia Straight P1-3/4 Dia Straight S9-Spline 9 tooth	<b><u>C</u></b> Rotation Direction C-Clockwise A-Counter Clockwise (viewed from drive shaft end)
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## HYDRAULIC FLOW CONTROL/NEEDLE VALVES

## HYDRAULIC ADAPTERS

## MM-FC SERIES FLOW CONTROL VALVES

## FEATURES:

- Micrometer adjustment knob for accurate valve setting.
- Rugged construction.

## TECHNICAL DATA:

## • Materials

Body:	Carbon steel w/ black oxide plating
Handle:	Zinc Alloy
Set Screw:	Steel
Packing:	Buna O-Ring/ PTFE stem packing

Maximum Pressure: 5000PSI

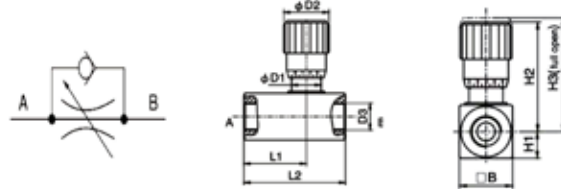
Temperature Ratings: -4°F to 176°F (-20°C to 80°C)

Flow Rate: 0-42 GPM



INLET

&lt;&lt; FREE FLOW



Part#	B	D1	D2	D3	H1	H2	H3	L1	L2	WEIGHT (lbs)	List Price
MMFC4NPT	1.10	0.76	1.18	1/4 NPT	0.55	2.41	2.67	1.54	2.52	0.90	----
MMFC6NPT	1.10	0.76	1.18	3/8 NPT	0.55	2.41	2.67	1.69	2.75	0.90	----
MMFC8NPT	1.50	0.95	1.46	1/2 NPT	0.75	3.07	3.41	2.05	3.27	2.00	----
MMFC12NPT	1.50	0.95	1.46	3/4 NPT	0.75	3.08	3.41	2.19	3.50	2.00	----
MMFC16NPT	1.89	1.38	1.89	1 NPT	0.94	4.03	4.50	2.79	4.60	4.20	----
MMFC20NPT	2.38	1.96	2.28	1-1/4 NPT	1.18	5.25	5.88	3.39	6.07	9.55	----

## MM-NV SERIES NEEDLE VALVES

## FEATURES:

- Micrometer adjustment knob for accurate valve setting.
- Rugged construction.

## TECHNICAL DATA:

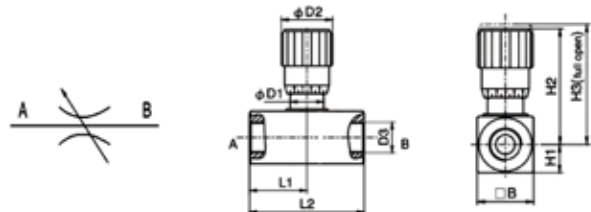
## • Materials

Body:	Carbon steel w/ black oxide plating
Handle:	Zinc Alloy
Set Screw:	Steel
Packing:	Buna O-Ring/ PTFE stem packing

Maximum Pressure: 5000PSI

Temperature Ratings: -4°F to 176°F (-20°C to 80°C)

Flow Rate: 0-42 GPM



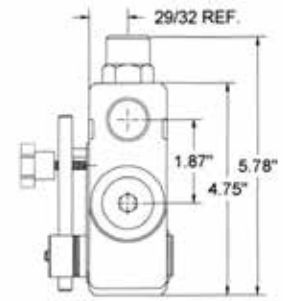
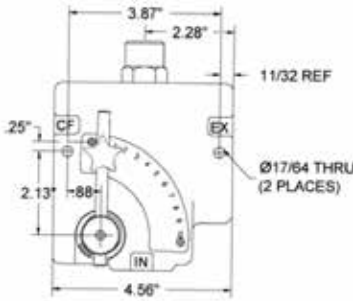
Part#	B	D1	D2	D3	H1	H2	H3	L1	L2	WEIGHT (lbs)	List Price
MMNV4NPT	1.10	0.76	1.18	1/4 NPT	0.55	2.41	2.67	1.07	2.13	0.90	----
MMNV6NPT	1.10	0.76	1.18	3/8 NPT	0.55	2.41	2.67	1.07	2.13	0.90	----
MMNV8NPT	1.50	0.95	1.46	1/2 NPT	0.75	3.07	3.41	1.34	2.38	2.00	----
MMNV12NPT	1.50	0.95	1.46	3/4 NPT	0.75	3.08	3.41	1.54	3.09	2.00	----
MMNV16NPT	1.89	1.38	1.89	1 NPT	0.94	4.03	4.50	1.81	3.62	4.20	----

**PRESSURE COMPENSATING VARIABLE FLOW CONTROL**

**FEATURES:**

MFC-51 model is a full range pressure compensating variable flow control. It is designed so that the orifice area varies as the lever is rotated. The outlet flow is smooth and constant regardless of the pressure on the control flow or excess flow ports. An adjustable ball spring relief allows for pressure compensated flow up to the pressure setting on the relief. Relief valves are preset at 1500 PSI and field adjustable from 750 to 3000 PSI.

- Materials: Cast Iron Body, Heat Treated Compensator Spool, Stainless Steel Rotary Spool, Buna N "O" Rings (Standard)
- **ALL ARE STANDARD FLOW CONTROL**
- **ALL HAVE ADJUSTABLE BALL SPRING RELIEF**
- **SAE PORT AVAILABLE. MINIMUM ORDER REQUIRED**



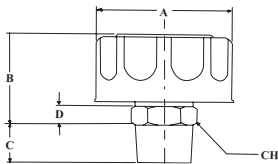
Part#	Size	Flow	List Price
MFC-38-N	3/8" - NPT	0-8 gpm	----
MFC-12-N	1/2" - NPT	0-16 gpm	----
MFC-34-N	3/4" - NPT	0-30 gpm	----

**SCREW-ON TYPE AIR BREATHERS**



- **Chrome Plated Steel**
- **1/4 To 1 Inch NPT**
- **40 Micron Breather**

Part Number	Flow cfm	NPT	A	B	C	D	CH	Micron	List Price
MB40-04	10	1/4	1.85	1.60	.50	.30	.63	40	----
MB40-06	10	3/8	1.85	1.70	.50	.30	.75	40	----
MB40-08	10	1/2	2.54	1.88	.68	.29	.95	40	----
MB40-12	25	3/4	3.13	2.00	.82	.35	1.12	40	----
MB40-16	25	1	3.13	2.11	.90	.42	1.35	40	----



# LP GAS PRODUCTS



## POL & ACME FITTINGS

p.459-467



## REGULATORS

p.468-477



## TANK EQUIPMENT

p.478-490



## BULK STORAGE & TRUCK EQUIPMENT

p.492-499

**ALSO AVAILABLE:** YELLOW BRASS FITTINGS • COPPER AND ALUMINUM TUBING • BRASS VALVES • MALLEABLE FITTINGS • STEEL NIPPLES • QUICK DISCONNECTS • FORGED FITTINGS • GAUGES • SWAGES AND BULLPLUGS

# NPGA

NATIONAL PROPANE GAS ASSOCIATION

## POL ADAPTERS, CONNECTORS & FITTINGS

- Used for making connections in LP Gas systems
- POL Thread 880-14LH
- All bottle fittings are UL listed



## ACME ADAPTERS, CONNECTORS & FITTINGS



Products meet or exceed the requirements of Compressed Gas Association (CGA), the National Fire Protection Association (NFPA), the Canadian Gas Association, American Society of Mechanical Engineers (ASME) and Underwriters Laboratories (UL).



**POL FITTINGS**

**LP GAS**

**TEE CONNECTION**



Part #	Pipe Size	List Price
34-001	1/4" Inverted flare x 1/4" MPT	----

41-1-390-0014 2000

**TAILPIECE WITH FLATS**

1/4 NPT



Part #	Length	List Price
34-011	2.34 w/ wrench Flats	----
34-012	2.13 w/ Hex	----

1001AUL 21605 M-2001-A 2002A 2001AHN

**STANDARD NUT**

7/8" Hex



Part #	Pipe Size	List Price
34-016	.880-14 LH	----

2001B

**TAILPIECE & NUT ASSEMBLY**



Part #	Pipe Size	List Price
34-022	1/4	----

2002AB

**POL CAP**



Part #	Pipe Size	List Price
34-031	.880-14LH	----

ME1699 POL2004 1004A M-2004

**POL PLUG**



Part #	Length	List Price
34036	POL PLUG	----

ME1691

**POL PLUG WITH CHAIN**



Part #	Length	List Price
34141	POL PLUG WITH CHAIN	----

ME1691-1

**SINGLE PIECE POL ADAPTER**



Part #	Length	List Price
34130	MALE POL X 1/4 FPT	----
34131	MALE POL X 1/2 FPT	----

ME351 ME357

**ADAPTERS**



Part #	Pipe Size	List Price
34-041	3/8 Flare x .880-14LH	----
34-046	1/2 Flare x .880-14LH	----
34-051	5/8 Flare x .880-14LH	----

ME3510 2906E 2007

**TAILPIECE ASSEMBLY W/HEX HEAD NUT & STEM**



Part #	Length	List Price
34080	1/4 NPT X POL 2 LONG HARD NOSE 2 OAL	----
34082	MALE POL X 3/8 NPT	----

2906D ME352



Part #	Length	List Price
34088	MPOL HARD NOSE 9/16-18 FE LH THREAD	----

ME1650



Part #	Length	List Price
34084	MPOL X 1/4 HOSE BARB 7/8 HEX	----

ME5930 970JR

**SOFT NOSE TAILPIECE ASSEMBLY**



Part #	Length	List Price
34060	1/4 NPT X POL 2.1 LONG #60 ORIFICE	----
34061	1/4 MPT X POL SOFT NOSE 2-1/2	----
34062	1/4 NPT POL SOFT NOSE #60 ORIFICE 2.3 LONG	----
34063	POL X 9/16-18 LH TAILPIECE SOFT NOSE	----
34064	1/4 NPT X POL SOFT NOSE 2 3/8 LONG	----

ME1638 2003-T-GH-60 2002 2018-L 2003-T 970S

**HAND WHEEL POL ADAPTERS**



Part #	Length	List Price
34065	MPOL SOFT NOSE X 1/4 HOSE BARB BR.WHEEL	----

ME1656AR



Part #	Length	List Price
34072	1/4 MPT POL SOFT NOSE W/PLASTIC WHEEL	----

ME1654



Part #	Length	List Price
34073	1/4 MPT POL SOFT NOSE WITH BRASS WHEEL	----

ME1654AR



Part #	Length	List Price
34074	MPOL SOFT NOSE X 1/4 HB W/PLASTIC WHEEL	----

ME1656

**POL FITTINGS**

**LP GAS**

**PROPANE MOTOR FUEL FILL ADAPTER**



• Allows a standard POL fitting to be adapted to fill an engine fuel tank.

Part #	Length	List Price
34079	FE POL X 1 3/4 ACME FUEL FILL ADPT	----

ME458 2017

**FEMALE POL X MIP ADAPTER**



Part #	Length	List Price
34111	1/4 MPT X FE POL ADAPTER	----
34112	3/8 MPT X FE POL ADAPTER	----
34113	1/2 MPT X FE POL ADAPTER	----
34114	3/4 MPT X FE POL ADAPTER	----

2011-B ME285 2011-D 2011-E

**FEMALE FPT X FEMALE POL ADAPTER**



Part #	Length	List Price
34120	1/4 FPT X FE POL	----
34121	3/8 FPT X FE POL	----
34122	1/2 FPT X FE POL	----
34123	3/4 FPT X FE POL	----

2016-B ME302 2016-D ME304

**POL O-RING ONLY**



Part #	Length	List Price
34143	POL O-RING ONLY	----

C5-OR-POL 568-110-01

**POL PLASTIC DUST PLUG**



Part #	Length	List Price
34160	POL PLASTIC DUST PLUG	----

ME970P

**APPLIANCE TEE**



• Tap & Add

Part #	Length	List Price
34170	M.POLXF.POL W/1-20M CYL AND 1/4 INV FLAR	----

2090



• Add an appliance

Part #	Length	List Price
34172	M.POLXF. POL W/1-20 MALE CYLINDER THREAD	----

2012



• With QCC1 connection

Part #	Length	List Price
34174	QCC1 X F. POL W/1-20 MALE CYLINDER THD	----

2013

**DUAL APPLIANCE TEE**



Part #	Length	List Price
34176	M.POL X (2) OF 1-20 MALE CYLINDER THREAD	----

2099

**ANGLE ADAPTER - 7/8" NUT**



Part #	Length	List Price
34089	1/4 M POL 90 ANGLE ADAPTER	----

ME345

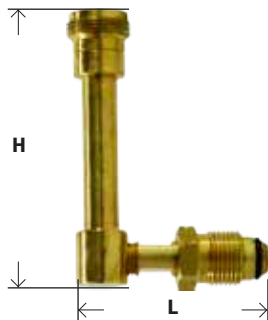
**FEMALE POL ADAPTER**



Part #	Length	List Price
34179	FE POL X FE POL	----

ME305

**CYLINDER PRIMUS BY O-RING POL**



Part #	Length	List Price
34180	POL X 1-20 X M14 X 1.5 4 1/4 HIGH 3 LONG	----

8815

**MANIFOLD BLOCK TEE ASSEMBLY**



- For dual tank installations
- Compact forged pattern
- 2-9/16W x 3-1/8H

Part #	Length	List Price
34181	FE POL (2) X MALE SOFT NOSE POL TEE	----

2001-SE

**TEE BLOCK MANIFOLD**



Part #	Length	List Price
34186	FE X MALE POL MANIFOLD BLOCK TEE ASSY	----

2001-S ME1701B 2001-SX

**TEE CHECK MANIFOLD**



Part #	Length	List Price
34198	FE POL X 1/4 MPT TEE CHECK	----

ME1705A

**TEE CHECK MANIFOLD**



Part #	Length	List Price
34195	FE POL X MALE POL TEE CHECK	----

ME1702A

**MANIFOLD TEE**



- All ends Female POL

Part #	Length	List Price
34192	FE POL MANIFOLD TEE	----

2001-F

**ACME FITTINGS**

**LP GAS**

**PLASTIC BLACK CAP**



Part #	Length	List Price
35201	1 1/4 F ACME PLASTIC CAP	----
35200	1 3/4 F ACME PLASTIC CAP	----

M108 M109 3144-9P 3174-9P

**ACME GASKET**



Part #	Length	List Price
35672	1 1/4 ACME GASKET	----
35673	1 3/4 ACME GASKET	----
35674	2 1/4 ACME GASKET	----

1E8122 ST-1102A-16 ST-1E8126

**PLASTIC CAP WITH CHAIN**



Part #	Length	List Price
35205	1 3/4 F.ACME PLASTIC CAP WITH CHAIN	----
35208	2 1/4 F.ACME CAP WITH CHAIN	----

ST-M109-1 ST-1177C

**FIP ADAPTER**



Part #	Length	List Price
35650	1 3/4 ACME THREAD X 1/4 FIP ADAPTER	----
35651	1 3/4 ACME THREAD X 3/8 FIP ADAPTER	----
35652	1 3/4 ACME THREAD X 1/2 FIP ADAPTER	----
35653	1 3/4 ACME THREAD X 3/4 FIP ADAPTER	----
35654	1 3/4 ACME THREAD X 1 FIP ADAPTER	----
35-692	3-1/4 ACME X 2 FIP ADAPTER	----

ME210 ME211 ME212 ME213 ME214 ME252-16  
5764A 5764B 5764C 5764D 5764E 5764H

**PLASTIC PLUG WITH CHAIN**



Part #	Length	List Price
35215	1 1/4 M.ACME PLASTIC PLUG WITH CHAIN	----
35216	1 3/4 M.ACME PLASTIC PLUG WITH CHAIN	----
35217	2 1/4 M.ACME PLASTIC PLUG WITH CHAIN	----

ST-M178-1 ST-M179-1 ST-M180-1

**MALE ACME X MPT ADAPTER**



Part #	Length	List Price
35680	1 1/4 M.ACME X 1/2 MPT	----
35681	1 1/4 M.ACME X 3/4 MPT	----
35682	1 3/4 M.ACME X 3/4 MPT	----
35683	1 3/4 M.ACME X 1 MPT	----
35684	1 3/4 M.ACME X 1 1/4 MPT	----
35685	2 1/4 M.ACME X 1 1/4 MPT ADAPTER	----
35686	3 1/4 M.ACME X 2 MPT ADAPTER	----
35687	3 1/4 M.ACME X 3 MPT ADAPTER	----

ME498-4/2 ME498 6/3 ME215 ME216 ME217  
5763D 5765D 5765E 5765F

**MALE ACME X MALE ACME ADAPTER**



Part #	Length	List Price
35690	1 1/4 ACME ADAPTER	----
35691	1 3/4 ACME ADAPTER	----

ME270 ME273 5765M

**MALE ACME X FIP X MIP ADAPTER**



Part #	Length	List Price
35648	1 1/4 ACME X 1/4 FIP X 1/2 MIP ADAPTER	----
35649	1 1/4 ACME X 3/8 FIP X 3/4 MIP ADAPTER	----
35655	2 1/4 ACME THREAD X 1 FIP X 1 1/2 MPT	----
35656	2 1/4 ACME THREAD X 1 1/4 X 2 MPT	----
35657	2 1/4 ACME THREAD X 1 1/2 X 2 MPT	----

1009500255 1009500256 ME502-12/8 ME502-16/10  
ME502-16/12 5766E 5766F 5766H

**FILLER COUPLING FE ACME X MIP ADAPTER**



Part #	Length	List Price
35710	1 1/4 F.ACME X 3/8 NPT	----
35711	1 1/4 F.ACME X 1/2 NPT	----
35712	1 3/4 F.ACME X 1/2 NPT	----
35713	1 3/4 F.ACME X 3/4 NPT	----
35714	1 3/4 F.ACME X 1 NPT	----

ME100 ME101 ME110 ME111 ME112  
3171 31715B

**VAPOR COUPLING FEMALE ACME X MIP ADAPTER**



Part #	Length	List Price
35570	1 1/4 F/ACME X 3/8 MIP ADAPTER	----
35571	1 1/4 F/ACME X 1/2 MIP ADAPTER	----
35573	1 1/4 F/ACME X 1 MIP ADAPTER	----
35572	1 3/4 F/ACME X 3/4 MIP ADAPTER	----
35574	2 1/4 F/ACME X 1 1/4 MIP ADAPTER	----

ME140 ME141 ME151 ME150 ME160  
3171 3171A 3181A 3181

**WINGNUT ACME CAP**



Part #	Length	List Price
35762	1 3/4 F.ACME CAP	----
35763	2 1/4 F.ACME CAP	----

ME229-F

**ACME FITTINGS**

**LP GAS**

**WING NUT**

**FEMALE ACME X MALE ACME ADAPTER**



Part #	Length	List Price
35665	2 1/4 F.ACME X 1 3/4 M. ACME ADAPTER	----
35666	3 1/4 FE ACME X 1 3/4 MALE ACME ADAPTER	----

ME611 ME612 5776

**WING NUT**

**FEMALE ACME X 1-1/4 MIP ADAPTER**



Part #	Length	List Price
35715	2 1/4 F.ACME X 1 1/4 NPT	----

ME120 1009500257 3185

**POWDER COATED WING NUT ACME CAP**



Part #	Length	List Price
35770	1 3/4 F.ACME POWER COATED CAP	----

ME229FY

**ACME CAP**



Part #	Length	List Price
35760	1 3/4 FE ACME CAP	----
35844	1 1/4 FE ACME CAP	----

ME229 ME220FP 7141FP

**CAP WITH CHAIN**



Part #	Length	List Price
35761	1 3/4 F.ACME CAP WITH CHAIN	----

ME229-1

**ACME CHECK CONNECTOR**



- Couples directly to the service valve
- Use with **35810**

Part #	Length	List Price
35792	3/8 FNPT X 1 1/4 M.ACME FITTING	----

ME220M 7141M

**ACME CHECK CONNECTOR**



- Accepts fuel line adapter and couples directly to **35792**

Part #	Length	List Price
35810	1 1/4 F.ACME X 1/4 FPT	----

ME220F 7141F

**FILLER VALVE**



Part #	Length	List Price
35840	1 1/4 F.ACME X 1/4 MPT	----

ME790

**STEEL WING NUT  
FEMALE ACME X MALE ACME ADAPTER**



Part #	Length	List Price
35666S	3-1/4 FE ACME X 1-3/4 MALE ACME ADAPTER	----

**STEEL MALE ACME X FPT ADAPTER**



Part #	Length	List Price
35692S	3-1/4 MALE ACME X 2 FPT STEEL ADAPTER	----

**ACME CAP WITH CHAIN**



Part #	Length	List Price
35766	1-3/4 FEMALE ACME	----
35767	2-1/4 FEMALE ACME	----
35768	3-1/4 FEMALE ACME	----

**STEEL MALE ACME X MIP ADAPTER**



Part #	Length	List Price
35684S	1-3/4 M ACME X 1-1/4 MPT	----
35685S	2-1/4 M ACME X 1-1/4 MPT	----
35686S	3-1/4 M ACME X 2 MPT	----

**ACME CAP WITH METALIC CABLE**



Part #	Length	List Price
35771	1-3/4 FEMALE ACME	----
35773	3-1/4 FEMALE ACME	----



**REGULATORS**

**LP GAS PRODUCTS**



**DOMESTIC**



Propane Regulators for Industrial, Commercial and Residential use.



First Stage



Second Stage



Second Stage with  
incorporated Dielectric Protection



2 PSIG Second Stage

**COMMERCIAL/ INDUSTRIAL**



Pound to Pound  
High Pressure



First Stage  
High Pressure



Adjustable  
High Pressure



High capacity regulators  
up to 7.7 M BTU



**RECREATIONAL VEHICLES**



Single Barb  
Low Pressure



Double Stage  
ASME Regulator



Automatic Changeover



Automatic Changeover

**OUTDOOR**



Single Stage



Double Stage



Adjustable  
High Pressure



Single Stage High  
Pressure

*Type 984HP*



**Product description**

The first stage regulator is a regulator reducing the inlet pressure coming from the withdrawal cylinder to a medium level suitable for feeding a second stage regulator consequently. Therefore Type 984 HP regulators are designed for Type A installations, or for installations Type C. They have to be used outdoors in correct mounting position with vent-hole turned downwards. In their standard version the Type 984 HP regulators are delivered with vent-hole turned in line with the outlet fitting.

*Type 988HP*



**Technical Specifications**

**Body And Cover:** Aluminium  
**Diaphragm:** Reinforced  
**Supplying Pressure:** 25-250 PSIG  
**Cover Screws:** Stainless Steel  
**Inlet Fitting Screws:** Stainless Steel  
**Gas Type:** Propane  
**Setting Point:** Inlet Pressure 100 PSIG, 140,000 BTU, Outlet Pressure 10 PSIG  
**Provided Flows:** Flow Based On 25 PSIG (1.725 Bar) Inlet Pressure And 20% Drop (In accordance with UL 144)  
**Type 984HP** - L 4.881 x W 4.33 x H 3.917" Weight: 31.375 oz  
**Type 988HP** - L 6.027 x W 4.33 x H 4.94" Weight: 48.75 oz

**984HP & 988HP CONFIGURATIONS**

Part #	Capacities in BTU\hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	Outlet adjustment range, PSIG (bar)	Outlet pressure setting, PSIG (bar)	List Price
200000	1,000,000 (11.26)	1/4" NPT	1/2" NPT	No adjustment	10 (0.69)	----
200001	2,000,000 (22.51)	1/2" NPT		3/4" NPT	4 to 6 (0.28 to 0.41)	5 (0.34)
200002		POL	----			
200003	2,250,000 (25.33)	1/2" NPT	1/2" NPT	8 to 12 (0.55 to 0.83)	10 (0.69)	----
200004	2,100,000 (23.64)		3/4" NPT			----
200005	2,400,000 (27.01)	3/4" NPT	1/2" NPT	3/4" NPT	10 (0.69)	----
200006	2,100,000 (23.64)	POL	3/4" NPT			----
200007	2,250,000 (25.33)					----

**SECOND STAGE REGULATORS**

**LP GAS**

*Type 988LP*



**Product description**

The second stage regulator is a regulator reducing the pressure coming from a first stage regulator directly to the inlet pressure of the user appliance, or to a medium pressure value in case of installations with Line Pressure Regulators. Therefore Type 988 LP regulators are designed for Type A installations. They have to be used outdoors in correct mounting position with venthole turned downwards. In the standard version these regulators are delivered with vent-hole in line with the inlet fitting. But there are three other configurations of the inlet and outlet fittings for the Type 998 LP model:

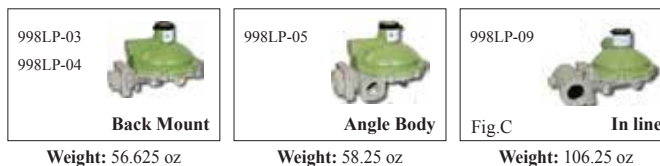
- Back Mount 998 LP-03, 998 LP-04 and 998LP-29 (fig. A)
- Angle Body 998 LP-05 (fig. B)
- In line inlet and outlet Flange 998 LP-09 and 998LP-10 (fig. C)

*Type 998LP*



**Technical Specifications**

- Body And Cover:** Aluminium
- Diaphragm:** Reinforced
- Supplying Pressure:** 5-15 PSIG
- Cover Screws:** Stainless Steel
- Inlet Fitting Screws:** Stainless Steel
- Gas Type:** Propane
- Setting Point:** Inlet Pressure 10 PSIG, 140,000 BTU, Outlet Pressure 11 Inch WC
- Provided Flows:** Flow based On 10 PSIG (0.69 Bar) Inlet Pressure And 20% Drop (In accordance With UL144).
- Type 988LP** - L 6.027 x W 4.33 x H 4.94" Weight: 40.75 oz
- Type 998LP** - L 7.055 x W 5.657 x H 4.964" Weight: 57.625 oz



**988LP & 998LP CONFIGURATIONS**

Part #	Capacities in BTU\hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	Outlet pressure range, inches W.C. (mbar)	Outlet pressure setting, inches W.C. (mbar)	List Price
200010	800,000 (9.01)	1/2" NPT	1/2" NPT	9 to 13 (22 to 32)	11 (27)	----
200012	1,000,000 (11.26)		3/4" NPT			----
200013	1,400,000 (15.76)		3/4" NPT			3/4" NPT LAT
200014		3/4" NPT				----
200015	920,000 (10.36)	1/2" NPT	3/4" NPT 90°			----
200016	1,000,000 (11.26)	3/4" NPT	3/4" NPT			----
200017			1" NPT			1" NPT
200018	2,300,000 (25.89)	1" NPT	1" NPT			----
200020			1" NPT	1" NPT	----	
200021						----

<sup>1</sup> Vent-hole in line with the outlet fitting.

*Type 998LP*



*Type 998TP*



**WITH INCORPORATED DIELECTRIC UNION**

**Product description**

The KOSAN+ Guardian regulators incorporate a dielectric insulation. This regulator is an all in one solution and there is no need to buy separate dielectric unions. The Guardian reduces installation costs and time as well as potential leak points.

**Technical Specifications**

**Type 998LP:** L 7.055 x W 5.657 x H 4.964" - Weight: 57.50 oz

**Type 998TP:** L 7.055 x W 5.657 x H 4.964" - Weight: 57.50 oz

For Type LP see page 11.

For Type TP see page 13.

**In accordance with NFPA 58**

§ 6.9.3.16 Underground metallic piping, tubing, or both which convey LPG from a gas storage container shall be provided with dielectric fittings at the building to electrically isolate it from the aboveground portion of the fixed piping system that enters a building. Such dielectric fitting shall be installed above ground and outdoors.

**KOSAN+ GUARDIAN CONFIGURATIONS**

Part #	Capacities in BTU/hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	Outlet pressure range, inches W.C. (Mbar)	Outlet pressure setting, inches W.C. (Mbar)	List Price
200030	800,000 (9.01)	1/2" NPT	1/2" NPT	9 to 13 (22 to 32)	11 (27)	----
200031						----
200032	1,000,000 (11.26)		3/4" NPT			----
200033						----
200034	1,400,000 (15.76)	3/4" NPT	3/4" NPT LAT			----
200035						----
200036	920,000 (10.36)	3/4" NPT	3/4" NPT 90°			----
200037	1,000,000 (11.26)	1/2" NPT	3/4" NPT 90°			----
200038		3/4" NPT		----		
200039		3/4" NPT	----			
200040	700,000 (7.88)	1/2" NPT	1/2" NPT	Non-adjustable	2 PSIG (0.14 bar)	----
200041	1,680,000 (18.91)	3/4" NPT	3/4" NPT	1 to 2.2 PSIG (0.069 to 0.15 bar)		----
200042	1,500,000 (16.88)		3/4" NPT 90°			----
200043	1,460,000 (16.43)		1/2" NPT			1/2" NPT

<sup>1</sup> Vent-hole in line with the outlet fitting.

**2-PSIG REGULATORS**

**LP GAS**

*Type 988TP*



**Product description**

Type 988 TP regulators are designed for C Type of installations.

They are to be used outdoors in correct mounting position with vent-hole turned downwards.

In the standard version Type 988 TP regulators are delivered with the vent-hole turned in line with the outlet fitting. There is a special configuration of inlet and outlet fittings for the Type 998 TP model:

- Back Mount 998 LP-07 (fig. A).



Weight: 57.875 oz

*Type 998TP*



**Technical Specifications**

**Body And Cover:** Aluminium

**Diaphragm:** Reinforced

**Supplying Pressure:** 5-15 PSIG

**Cover Screws:** Stainless Steel

**Inlet Fitting Screws:** Stainless Steel

**Gas Type:** Propane

**Setting Point:** Inlet Pressure 10 PSIG, 140,000 BTU, Outlet Pressure: 2 PSIG

**Provided Flows:** Flow Based On 10 PSIG (0.69 Bar) Inlet Pressure with a 20% Drop (In accordance With UL144)

**Type 988TP:** L 6.692 x W 4.33 x H 4.94" - Weight: 41.625 oz

**Type 998TP:** L 7.055 x W 5.657 x H 4.964" - Weight: 57.5 oz

**988TP & 998TP CONFIGURATIONS**

Part #	Capacities in BTU/hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	Outlet adjustment range, PSIG (bar)	Outlet pressure setting, PSIG (bar)	List Price
200050	700,000 (7.88)	1/2" NPT	1/2" NPT	1 to 2.2 (0.069 to 0.15)	2 (0.14)	----
200052	1,680,000 (18.91)	3/4" NPT	3/4" NPT			----
200053	1,500,000 (16.88)		3/4" NPT 90°			----
200054	1,460,000 (16.43)	1/2" NPT	1/2" NPT			----

*Type 988TW*



*Type 998TW*



**Product description**

The twin stage regulator is a regulator consisting of two regulation levels, which regulate the inlet pressure coming from the withdrawal cylinder or tank directly to the inlet pressure of the user appliance.

Type 988 TW regulators are designed for Type B installations. They are to be used outdoors in correct mounting position with vent-hole turned downwards. In the standard version, Type 988 TW regulators are delivered with vent-hole turned in line with to the outlet fitting.

**Technical Specifications**

**Body And Cover:** Aluminium

**Diaphragm:** Reinforced

**Supplying Pressure:** 25-250 PSIG

**Cover Screws:** Stainless Steel

**Inlet Fitting Screws:** Stainless Steel

**Gas Type:** Propane

**Setting Point:** Inlet Pressure 10 PSIG, 140,000 BTU, Outlet Pressure: 11 Inch WC

**Provided Flows:** Flow Based On 10 PSIG (0.69 Bar) Inlet Pressure with a 20% Drop (In accordance With UL144)

**Type 988TW:** L 6.692 x W 4.33 x H 4.94” - Weight: 39.75 oz.

**Type 998TW:** L 7.055 x W 5.657 x H 4.964” - Weight: 54.875 oz.

**988TW & 998TW CONFIGURATIONS**

Part #	Capacities in BTU/hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	Outlet adjustment range, inches W.C. (mbar)	Outlet pressure setting, inches W.C. (mbar)	List Price		
200060	750,000 (8.44)	1/4" NPT	1/2" NPT	9 to 13 (22 to 32)	11 (27)	----		
200061			3/4" NPT			----		
200063	1,400,000 (15.76)		POL			1/2" NPT	----	
200064						3/4" NPT	----	
200065	750,000 (8.44)	POL	1/2" NPT			1 to 2.2 PSIG (0.069 to 0.15 bar)	2 PSIG (0.14 bar)	----
200066			3/4" NPT					----
200067	1,400,000 (15.76)	1/4" NPT	1/2" NPT			1 to 2.2 PSIG (0.069 to 0.15 bar)	2 PSIG (0.14 bar)	----
200069			3/4" NPT					----
200070			3/4" NPT	----				
200071	450,000 (5.07)	1/4" NPT	3/4" NPT	1 to 2.2 PSIG (0.069 to 0.15 bar)	2 PSIG (0.14 bar)	----		
200072	1,460,000 (16.43)	1/4" NPT	3/4" NPT	1 to 2.2 PSIG (0.069 to 0.15 bar)	2 PSIG (0.14 bar)	----		

<sup>1</sup> First and Second-Stage spring case vents opposite gauge taps.

## AUTOMATIC CHANGEOVERS

## LP GAS

*Type 524AC***Technical Specifications**

**Body And Cover Of The Automatic Changeover:** Zamak

**Diaphragm:** Reinforced

**Supplying Pressure:** 25-250 PSIG

**Cover Screws:** Stainless Steel

**Fittings:** Brass

**Gas:** Propane Gas

**Setting Point:** Inlet Pressure 100 PSIG, 140,000 BTU,

Outlet Pressure: 11 WC

**Provided Flows:** Flow Based On 25 PSIG (1.725 Bar) Inlet Pressure And 20% Drop (In accordance With UL144)

**Type 524AC:** L 9.921 x W 4.212 x H 5.275"

**Product description**

The double stage automatic changeover regulator Type 524 AC is a consisting of an automatic changeover working as a 1st stage coupled to a 2nd stage regulator. The 1st stage automatic changeover works as per the description found on the next page titled "functioning of the automatic changeover", which is connected to the 2nd stage regulator: Type 988 LP. Since the regulator body is made of zinc alloy, it is necessary to use the proper plastic mounting bracket for this type of regulator.

**524AC CONFIGURATION**

Part #	Capacities in BTU\hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	Vent size, inches	List Price
213400	600,000 (6.75)	1/4 Inverted Flare	1/2 NPT	3/4 NPT	----

*Type 528B***Technical Specifications**

**Body And Cover Of The Automatic Changeover:** Zamak

**Diaphragm:** Reinforced

**Supplying Pressure:** 25-250 PSIG

**Fittings:** Brass

**Gas:** Propane Gas

**Setting Point:** Inlet Pressure 100 PSIG, 140,000 BTU, Outlet

Pressure: 11 WC

**Provided Flows:** Flow Based On 25 PSIG (1.725 Bar) Inlet Pressure And 20% Drop (In accordance With UL144)

**Type 528B:** L 7.677 x W 4.212 x H 4.094"

**528B CONFIGURATION**

Part #	Capacities in BTU\hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	Vent size, inches	List Price
200240	450,000 (5.07)	1/4 Inverted Flare	1/2"NPT	3/8"NPT	----

*Type 924N***Technical Specifications**

**Body And Cover Of The Automatic Changeover:** Zamak

**Supplying Pressure:** 25-250 PSIG

**Fittings:** Brass

**Gas:** Propane Gas

**Setting Point:** Inlet Pressure 100 PSIG, 70,000 BTU, Outlet

Pressure: 11 WC

**Provided Flows:** Flow Based On 25 PSIG (1.725 Bar) Inlet Pressure And 20% Drop (In accordance With UL144)

**Type 924N:** L 5.314 x W 3.11 x H 3.897"

**924N CONFIGURATION**

Part #	Capacities in BTU\hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	List Price
200250	2200,000 (2.47)	1/4 Inverted Flare	3/8"NPT	----

**FUNCTIONING AND READING OF THE AUTOMATIC CHANGEOVER**

The automatic changeover ensures continuous gas flow, automatically changing the gas withdrawal from the empty “service” cylinder to the full “reserve” one. The full-empty indicator incorporated into the bonnet of the automatic changeover indicates the exhaustion status of the “service” cylinder. The indicator color changes from green to red, when the “service” cylinder is exhausted. The rotation of the automatic changeover handle to the full “reserve” cylinder restores the green color on the indicator.

**Start up**

- Turn two cylinders’ gas valves on at the same time. This is fundamental and ensures the automatic changeover the ability to continuously supply the gas appliance in case the service cylinder becomes empty. The automatic changeover cannot turn to the reserve gas bottle if its valve is closed.

**Reading the automatic changeover’s indicator: when the service gas bottle is full**

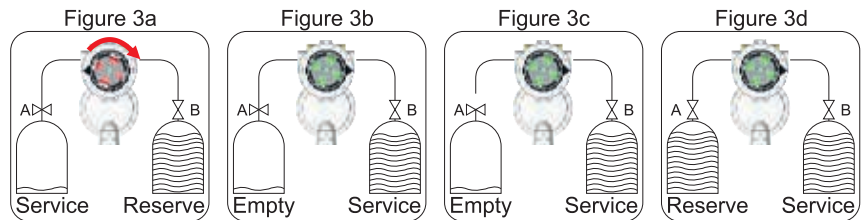
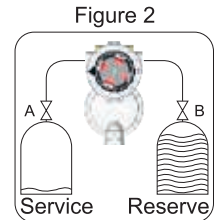
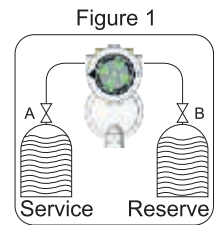
- When the two gas cylinders are full, the automatic changeover’s indicator turns to green while opening gas valves A and B.  
 - The arrow on the automatic changeover’s knob indicates which one of the two gas cylinders is supplying gas: that is to say the “service gas bottle”.  
 The other cylinder is the “reserve gas bottle”.

**Reading the automatic changeover’s indicator: when the service gas bottle is empty**

- When the service bottle is getting exhausted and reaches pressure values of inversion (lower than 10 PSIG), the automatic changeover turns automatically to the “reserve gas bottle” and the gas appliance continues working. In this case the automatic changeover’s indicator turns to red: the end user gets to know that the “service gas bottle” is empty: it is not supplying gas any more.

**Substituting the empty gas bottle**

- Close the valve of the service gas bottle A and turn the automatic changeover’s knob 180° (see figure 3 a).  
 If the reserve gas bottle is full and its valve is open, the automatic changeover’s indicator turns to green (figure 3 b).  
 - Remove the empty gas bottle (figure 3c).  
 - Position a new full gas bottle. Open the gas valve A (figure 3d).



**POL DOUBLE STAGE REGULATOR**

**Type 524AS**



**Technical Specifications**

ASME Double Stage Regulator  
 Body And Cover Material: Zamak  
 Diaphragm: Reinforced  
 Supplying Pressure: 25-250 PSIG  
 Fittings: Brass  
 Gas: Propane  
 Setting Point: Inlet Pressure 100 PSIG, 70,000 BTU,  
 Outlet Pressure: 11 WC  
 Provided Flows: Flow Based On 25 PSIG (1.725 Bar) Inlet Pressure  
 And 20% Drop (In accordance With UL144)  
 Type 524AS: L 6.389 x W 2.696 x H 2.488”

**524AS CONFIGURATION**

Part #	Capacities in BTU\hr (SCMH) propane	Inlet connection, inches	Outlet connection, inches	List Price
200252	160,000 (1.80)	.880 P.O.L.	3/8” NPT	----



**TYPE 49HP**



**200181**



**200211**

**Technical Specifications**

Body And Cover: Aluminium  
 Diaphragm: Reinforced  
 Supplying Pressure: 25-250 PSIG  
 Cover Screws: Stainless Steel  
 Gas Type: Propane  
 Setting Point: Inlet Pressure 100 PSIG, 200,000 BTU, Outlet Pressure 20 PSIG  
 Provided Flows: Flow based on Inlet Pressure 20 PSIG (1.38 Bar) greater than Outlet with 20% drop (In accordance With UL144)  
 Inlet & Outlet: 1/4" FNPT  
 Type 49HP: L 2.56 x W 2.89 x H 4.88

**Product description**

The 49 series direct operated regulators are designed for high pressure service and can be used on either vapor or liquid applications. Their outlet pressure ranges from 3 to 135 PSIG.

High pressure regulators usually reduce tank pressure to an intermediate pressure for use by another regulator.

NOTE: Type 49 regulators do not have internal relief valves, so these regulators can not be installed in fixed piping serving 0.5 appliance systems.

Type 492HP regulator is an adjustable high pressure regulator with handwheel adjustment.

Type 495HP regulator is an adjustable high pressure regulator with a dial cap adjustment. This cap eliminates the need for a gauge on portable applications. All types are equipped with a 1/4" FNPT side outlet which is normally plugged and provides an opening for an outlet pressure gauge.

**49HP Configuration**

Part #	Description	Capacity BTU\hr	Outlet pressure setting	Outlet adjustment range	List Price
200181	Basic Regulator	750,000	20 PSIG	3-35 PSIG	----
200182		1,200,000	40 PSIG	30-60 PSIG	----
200183		1,000,000	50 PSIG	50-135 PSIG	----
200211	Dial Cap Adjustment	750,000	20 PSIG	5-30 PSIG	----
200212		1,200,000	40 PSIG	20-50 PSIG	----

*Type 756 HP - Fixed*



**Technical Specifications**

The single stage regulator has to be installed in compliance with state or federal laws and with NFPA58. It is designed to supply gas appliances functioning at pressure equal to or higher than 0.5 PSI. This regulator will be consequently connected to gas appliances through high pressure flexible hoses, see Accessories paragraph. Depending on the versions the outlet fitting may be at 90° or 180° in comparison with inlet fitting.

**Technical Specifications**

- Body:** Zinc die casting EN1773
- Outlet:** 1/4" FNPT at 90° or 80°, single barb at 90°
- Inlet:** 1/4" FNPT
- Outlet pressure:** 9 or 10 or 15 or 16 PSI
- Setting point:** 11 WC+/-1 WC; 35000 BTU/h
- Inlet pressure:** 25-250 PSI
- Temperature of functioning:** -4 °F/122°F (-20 °C/ 50 °C)



*Type 755 HP - Adjustable*



**Technical Specifications**

The regulator HP 755 Type is especially designed for gas appliances such as turkey fryers, fish fryers, camping stoves and torches, i.e. appliances that need variable pressure in terms of PSI. The regulation of the flow rate is allowed by rotating the regulation hand-wheel on the regulator that turns from position Oto 10. Position "O" means TURNED OFF (no gas is flowing). For safety reasons position "O" is locked. Gas begins to flow by pressing the hand-wheel red button and turning clockwise the hand-wheel at the same time. Calorific power is shown by the casted digits on the regulator cover.

**Technical Specifications**

- Body:** Zinc die casting EN1773
- Outlet:** 1/4" FNPT or single barb at 90°
- Inlet:** 1/4" FNPT
- Outlet pressure:** 0-10 PSI
- Inlet pressure:** 25-250 PSI
- Temperature of functioning:** -4 °F/122°F (-20 °C/ 50 °C)

**49HP Configuration**

Part #	Description	Capacity BTU\hr @ 100 PSIG Inlet	Outlet pressure setting	Outlet adjustment range	List Price
200371	Adjustable	320,000	-	0-15 PSIG	----
200372	Fixed	460,000	10 PSIG	-	----

**TYPE 1 ACME NUT PIGTAIL****LP GAS***Type 1 ACME Nut Pigtail***Product Description**

Pigtails are used with Double Stage Automatic Changeover Regulators for two cylinder systems or Standard Two Stage Regulators with "T" check connections

**Safety features:**

- Excess flow device: Limits gas flow in the event of hose rupture or accidental disconnection
- Thermofuse: A heat sensitive plug, which shuts off gas flow if temperature reaches above 240° F



Available in Bulk and Hang Tagged:

**TYPE 1 ACME NUT PIGTAIL X 1/4" INVERTED FLARE**

Part #	Description	Carton Count	List Price
210001	12" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)	12	----
210002	15" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Bulk)		----
210003	15" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----
210005	18" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----
210006	20" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Bulk)		----
210007	20" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----
210008	24" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Bulk)		----
210009	24" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----
210010	30" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Bulk)		----
210011	30" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----
210012	36" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Bulk)		----
210013	36" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----
210014	40" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Bulk)		----
210015	40" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----
210016	48" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Bulk)		----
210017	48" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----
210018	60" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Bulk)		----
210019	60" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" inverted flare (Hang Tagged)		----

**TYPE 1 ACME NUT PIGTAIL X 1/4" MPT**

Part #	Description	Carton Count	List Price
210030	15" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" MPT (Bulk)	12	----
210031	15" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" MPT (Hang Tagged)		----
210032	20" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" MPT (Bulk)		----
210033	20" Pigtail -1/4" I.D. hose, Type 1 ACME nut x 1/4" MPT (Hang Tagged)		----

*LPG High Pressure Hoses*

**Product Description**

Thermoplastic high pressure hose assemblies, working pressure of 350 psi with 1,700 psi burst rating



Available in Bulk and Hang Tagged:

**1/4" I.D. HIGH PRESSURE HOSE 3/8" MPT X 3/8" FEMALE FLARE SWIVEL NUT**

Part #	Description	Carton Count	List Price
211000	24" LP Gas High Pressure Hose -1/4" I.D., 3/8" MPT x 3/8" Female Flare swivel (Bulk)	12	----
211001	24" LP Gas High Pressure Hose -1/4" I.D., 3/8" MPT x 3/8" Female Flare swivel (Hang Tagged)		----
211002	24" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Bulk)		----
211003	24" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Hang Tagged)		----
211004	36" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Bulk)		----
211005	36" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Hang Tagged)		----
211006	48" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Bulk)		----
211007	48" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Hang Tagged)		----
211008	72" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Bulk)		----
211009	72" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Hang Tagged)		----
211010	144" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Bulk)		----
211011	144" LP Gas High Pressure Hose -1/4" I.D., 3/8" FPT x 3/8" Female Flare swivel (Hang Tagged)		----

**3/8" I.D. HIGH PRESSURE HOSE 3/8" MPT X 3/8" FEMALE FLARE SWIVEL NUT**

Part #	Description	Carton Count	List Price
211030	24" LP Gas High Pressure Hose - 3/8" I.D., 3/8" MPT x 3/8" Female Flare swivel (Bulk)	12	----
211031	24" LP Gas High Pressure Hose - 3/8" I.D., 3/8" MPT x 3/8" Female Flare swivel (Hang Tagged)		----
211032	30" LP Gas High Pressure Hose - 3/8" I.D., 3/8" MPT x 3/8" Female Flare swivel (Bulk)		----
211033	30" LP Gas High Pressure Hose - 3/8" I.D., 3/8" MPT x 3/8" Female Flare swivel (Hang Tagged)		----
211034	36" LP Gas High Pressure Hose - 3/8" I.D., 3/8" MPT x 1/2" Female Flare swivel (Bulk)		----
211035	36" LP Gas High Pressure Hose - 3/8" I.D., 3/8" MPT x 1/2" Female Flare swivel (Hang Tagged)		----



**Product Description**

Pigtails are available in a variety of connections, sizes and style. Select the proper pigtail for a particular application.

Note: We recommend to install a new pigtail with every new and replaced regulator.

Connections	Approximate Length	Part Number		List Price
		Part 1/4" tube		
		7/8" Hex Short Nipple	1 1/8" Hex Long Nipple	
1/4" Inv. flare + M.POL	20"	213000	-	----
	36"	213001	-	----
1/4" NPT + M.POL	12"	213002	-	----
	20"	213003	-	----
M.POL + M.POL	12"	213004	-	----
	20"	213005	-	----
	48"	213006	-	----
		-	213008	-



**MULTI-SERVICE VALVE**

**Features**

- Multi-service valve with double back check filler valve
- Ideal for on site filling of DOT cylinders up to 200 lb LPG capacity without interrupting service
- Includes a service valve, back check filler valve, fixed maximum liquid level gauge (specify DT length when ordering)
- New high discharge flow capacity pressure relief valve (1123 UL listing)
- Reduced filler valve chamber reduces the waste of LPG during filling operation
- Increased high filling capacity
- Double O-ring replaceable stem
- Vapor service connection; POL (CGAS10)
- Filler connection; 1-3/4" ACME
- Fixed liquid level gauge not captive

**Application**

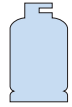
These multi-service valves are suitable for 100-200 lb DOT containers.

**Ordering Information**

Part #	Tank Connection	OPD	DT Length	Propane liquid capacity at various differential pressure (GPM)				Pressure Relief Valve Flow Capacity (SCFM) Air			List Price
				10 PSIG	20 PSIG	50 PSIG	100 PSIG	PRV Setting	UL	ASME	
212100	3/4" M NPT	-	10.6"	9	15	23	35	375	1123	n/a	----
212102	3/4" M NPT	-	11.6"	9	15	23	35	375	1123	n/a	----
212103	3/4" M NPT	-	8.2"	9	15	23	35	375	1123	n/a	----
212104	3/4" M NPT	-	10.2"	9	15	23	35	375	1123	n/a	----
212105	3/4" M NPT	-	8.6"	9	15	23	35	375	1123	n/a	----



**420 MULTIVALVE**



**Application**

This multi-service valve is designed for use with 420 lb DOT containers.

**Features**

- Multi purpose valve with double back check filler valve
- Includes service valve, filler valve, fixed maximum liquid level gauge
- Reduced filler valve chamber minimizes LPG waste during filling operation
- Increased high filling capacity
- Double O-Ring replaceable stem

**Application**

This multi-service valve is designed for use with 420 lb DOT containers.

**Features**

- Multi purpose valve with double back check filler valve
- Includes service valve, filler valve, fixed maximum liquid level gauge
- Reduced filler valve chamber minimizes LPG waste during filling operation
- Increased high filling capacity
- Double O-Ring replaceable stem

**Ordering Information**

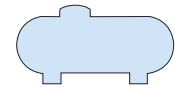
Part #	Tank Connection	Vapor Service Connection	Filler Connection	Fixed Liquid Level Gauge	DT Length	Pressure Relief Valve Flow Capacity (SCFM) Air	PRV Setting (PSIG)	List Price
212110	1" NPT	POL (CGA 510)	1-3/4" ACME	not captive	11.6"	1986	375	----

**UNDERGROUND MULTI-SERVICE VALVE**

**LP GAS**



**UNDERGROUND MULTI-SERVICE VALVE**



**212121**

Multi-Service Valve for ASME underground propane tank and Liquid Withdrawal Valve for liquid evacuation Kit



**212120**



**212120**

+



**200509**

This multi-service valve is designed for use in a single opening ASME container with a riser of 2-1/2" M NPT. A separate opening is required for a liquid withdrawal valve.

**Features**

The solid brass multi-service valve incorporates:

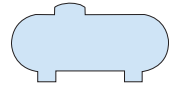
- double back check filler valve
- vapor equalizing valve with excess flow
- pressure relief valve with protective cap
- service valve with Cavagna quality handwheel system
- plugged 1/4" F.NPT gauge boss
- fixed liquid level gauge with 36" DT
- "Junior" size float gauge flange opening. Specify float gauge when ordering
- internal threads accommodate 2-1/2" M NPT riser pipe connection and a 3/4" F.NPT connection for the filling valve opening
- double O-ring service valve: individual replacement system

**Ordering Information**

Part #	Tank Connection	Vapor Service Connection	Filler Connection	Fixed Liquid Level Gauge	DT Lgth	Propane liquid capacity at various differential pressure (GPM)				Pressure Relief Valve Flow Capacity (SCFM) Air			List Price	
						10 PSIG	25 PSIG	50 PSIG	75 PSIG	PRV Setting	UL	ASME		
212120	2-1/2" M NPT	POL (CGA510)	1-3/4" ACME	captive	36"	58	98	146	186	250	1918	1808	----	
212121	212120	2-1/2" M NPT	POL (CGA510)	1-3/4" ACME	captive	36"	58	98	146	186	250	1918	1808	----
	200509	Container Connection		Outlet Connection		U.L. Closing Flow (Propane)			Wrench Hex Flat			----		
		3/4" M NPT		1-5/8" UN		20 GPM			1-3/4"			----		



UNDERGROUND MULTI-SERVICE VALVE



212130

This multi-service valve is designed for use in a single opening ASME container with a riser of 2-1/2" M NPT. A separate opening is NOT required for a liquid withdrawal valve.

**Features**

- Integrated liquid withdrawal valve in the body of the multi-service valve provides easy access
- Integrated service valve in the body of the multi-service valve
- New, compact design. More function in less space!
- 100% brass construction
- Replacement components available (see table below)

The solid brass multi-service valve incorporates:

- double back check filler valve
- vapor equalizing valve with excess flow
- pressure relief valve with protective cap
- service valve with Cavagna quality handwheel system
- integrated fixed liquid level gauge with 36" DT

**Ordering Information**

Part #	Tank Connection	Vapor Service Connection	Filler Connection	Internal Threads		Fixed Liquid Level Gauge	DT Length	Propane liquid capacity at various differential pressure (GPM) PSIG				Pressure Relief Valve Flow Capacity (SCFM) Air			List Price
								10	25	50	75	PRV Setting	UL	ASME	
212130	2-1/2" M NPT	POL (CGA 510)	1-3/4" ACME	3/4" NPT L.H. Filler	3/4" NPT Liquid Withdrawal	captive	36"	58	98	146	186	250	1918	1808	----

**Spare Parts for Multi-Valve**

Part #		List Price
212131	Filler Valve Repair Kit	----
212132	Vapor Return Valve	----
212133	Liquid Withdrawal Valve	----
212134	Safety Pressure Relief Valve	----

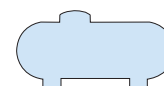


**MULTI-SERVICE & FILLER VALVES**

**LP GAS**



**MULTI-SERVICE VALVE**



**212140**

Multi-service valve suitable for ASME tanks where a vapor service valve is required. This valve incorporates in the same body a service valve, a vapor withdrawal valve and a fixed level gauge.

**Features**

**Improved Stem Seal** - Two seals - a back seat and an O-ring protect against stem leakage in the service valve portion. When the service valve is fully open, the O-ring is not under pressure, increasing the service life of the O-ring.

**Redesigned Body Configuration** - Installation of the 212140 can be performed with a standard 1" socket wrench using the large center wrenching hex.

The extremely low body silhouette (approximately 2-3/4") allows the use of small, economical hoods.

**Convenient Level Gauge** - Top mounting of the fixed liquid level gauge gives easy access.

**Gauge Connection** - The 1/4" F.NPT gauge connection can be plugged or left unplugged for installation of a pressure gauge.

**Fixed level gauge** - Please specify DT length when ordering.

**Sealant** - Pre-applied on the inlet thread.

**Various DT lengths upon request.**

**Ordering Information**

Part #	Tank Connection	Vapor Service Connection	Vapor Line Connection	Gauge Boss	Fixed Liquid Level Gauge	Fixed Level Gauge DT Length	Wrench Hex Flat	List Price

**FILLER VALVES**

Pre-applied sealant on the inlet thread.



**212141**  
3/4" M NPT  
Forklift Filler Valve  
Soft seal



**212142**  
1-1/4" M NPT  
Filler Valve  
Metal to metal seal

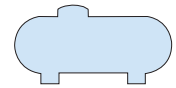
**Ordering Information**

Part #	Container Connection	Line Connection	Wrench Hex Flat	Propane liquid capacity at various differential pressure (GPM) PSIG							List Price
				10	20	25	30	40	50	75	
212141	3/4" M NPT	1-3/4" M.ACME	1-3/4"	17	23	-	28	33	37	-	----
212142	1-1/4" M NPT	1-3/4" M.ACME	1-3/4"	58	-	98	-	-	146	186	----



3/4" M NPT Forklift EN 12806  
 Snapfill Euro-style filler valve for use on motor fuel cylinders.  
 Faster fill times and reduces injuries from repetitive twisting motion.  
 Pre-applied sealant on the inlet thread.

ACME to EURO Filling Head Adapter available upon request.



212145

Ordering Information

Part #	Container Connection	Line Connection	Wrench Hex Flat	List Price
212145	3/4" M NPT	1 3/4" - ACME Ø30-EN12806	1-3/4"	----

FILLER VALVES FOR DISPENSERS



212148



212149

Features

- Double back-check filler valve with integral emergency shut-off ball valve: ALL-IN-ONE SOLUTION.
- Both valves are double back check filler valves that have:  
 (1) a soft seated upper back check, and (2) a metal-to-metal lower back check seat.
- Eliminates the need for installing expensive and un-reliable filler hose adapters as a temporary fix to a failed or leaky filler valve.
- Permits safe filler valve maintenance without tank evacuation.
- These two versions can be used either for underground or above ground

Ordering Information

Part #	Tank Connection	Filler Connection	Wrench Hex Flat	Propane liquid capacity at various differential pressure (GPM) PSIG						List Price	
				10	20	25	30	40	50		75
212148	1-1/4" NPT	1-3/4" 6 ACME	1-13/16"	54	-	98	-	-	146	186	----
212149	1-1/4" NPT	1-3/4" 6 ACME	1-13/16"	54	-	98	-	-	146	186	----

VAPOR EQUALIZATION VALVE



212150

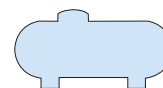
Upper back check valve and lower excess flow valve combined.  
 Pre-applied sealant on the inlet thread.

Ordering Information

Part #	Tank Connection	Filler Connection	Wrench Hex Flat	List Price
212150	3/4" M NPT	1-1/4" 5 ACME	1-1/4"	----

**FILLER VALVES W/OPD**

**LP GAS**



**212154**

Filler valve for vertical ASME and DOT containers. Specify tank diameter when ordering. Suitable for a 300 liter horizontal tank or 119VG tank. They can be fitted to other tank sizes upon request.



**212155**

Filler valve with OPD for Automotive Application.



**212156**

Remote Filler valve with OPD for Automotive Application.



**Application**

These valves incorporate a standard 1-1/4" flat wrenching hex allowing easy installation from the top with a socket wrench.

**\*When ordering it is necessary to specify tank dimension, mount angle and diameter to determine correct part number.**

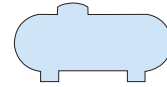
**Ordering Information**

Part #	Tank Connection	Filler Connection	Wrench Hex Flat	Dimension	List Price
212154	3/4" NPT	1-3/4" ACME	1-3/4"	*	----
212155	3/4" NPT	1-3/4" ACME	1-3/4"	*	----
212156	3/4" NPT	1/2" SAE	1-1/16"	*	----

\* Specify Tank Dimension when ordering

**ALSO AVAILABLE: YELLOW BRASS FITTINGS • COPPER AND ALUMINUM TUBING • BRASS VALVES • MALLEABLE FITTINGS • STEEL NIPPLES • QUICK DISCONNECTS • FORGED FITTINGS • GAUGES • SWAGES AND BULLPLUGS**

**INTERNAL PRESSURE RELIEF VALVES FOR ASME AND DOT CONTAINERS**



Designed specifically for use as a primary pressure relief device on ASME containers up to 2000 gallon water capacity. Furnished with a rain cap for protection against contamination. See ordering information for part numbers. These valves have a pre-applied sealant on the container connection. These valves are ASME approved.



Cap Part #	for Valve	Cap List Price
200400	212171	----
200401	212172	----
200402	212173	----
200403	212175	----

**212171      212172      212173      212175      212176**

Rain Caps for Internal Pressure Relief Valves

**Ordering Information**

Part #	Container Connection	Start to Discharge Setting PSIG	UL (at 120% of set pressure) Flow capacity SCFM/AIR	ASME (at 120% of set pressure) Flow capacity SCFM/AIR	Wrench Hex Flat	List Price
212170	1" NPT	375	1491	n/a	1-5/16"	----
212171	3/4" NPT	250	2007	1807	1-9/16"	----
212172	1" NPT	250	2757	2493	1-3/4"	----
212173	1-1/4" NPT	250	4312	3913	2-1/4"	----
212175	1" NPT	250	864	786	1-5/16"	----
212176	3/4"-NPT	312	690	690	1-1/16"	----

**EXTERNAL PRESSURE RELIEF DEVICES**



**212680**

Pressure relief valve for small containers and on-line pipe installations. Setting point: 250 PSIG.



**212681**

Pressure relief valve for small containers and on-line pipe installations. Setting point: 375 PSIG.



**212181**

External pressure relief valve ASME containers. Setting point: 250 PSIG.



**212177**

Hydrostatic Pressure relief valve provides pressure relief at or in excess of the stated pressure setting, protecting against line or plumbing system failures.

**Ordering Information - (Thread Type - Taper)**

Part #	Bottom Male Connection	Wrench grip hexagon	Configuration suitable for a tank with a max surface area of:	PRV - Start to Discharge Setting (PSIG)	PRV-OVERPRESSURE 20%	Approval	PRV Orifice	List Price
					CAPACITY SCFM-AIR			
212680	1/4-18 NPT	14/16"	-	250	296-262	UL/ASME	7/8"	----
212681	1/4-18 NPT	14/16"	-	375	486	UL CGA S1.1	7/8"	----
212181	3/4-14 NPT	1 13/16"	73 sq.ft Aboveground 316 sq.ft Underground	250	1918-1808	UL/ASME	1-13/16"	----
212177	1/4-18 NPT	9/16"	-	440	-	UL	9/16	----

**FORKLIFT CONNECTORS**

**LP GAS**



**212190**

Designed specifically for use as primary relief valve on fork lift cylinders. A 45° deflector adapter is already included into the body of the valve. The valve is a one-piece hot forged brass body.



**212191**

Designed specifically for use as primary relief valve on fork lift cylinders.

**Ordering Information**

Part #	Container Connection	Start to Discharge Setting (PS)	UL (at 120% fo set pressure) Flow capacity SCFM/AIR	Wrench Hex Flat	List Price
212190	3/4" NPT	375	400	1-1/16"	----
212191	3/4" NPT	375	400	1-1/16"	----

**FORK LIFT CONNECTORS**



These brass connectors are designed to join the carburetor fuel line to the service valve.



**35792**

Half coupling ACME. For installation between the LPG engine fuel line and the fork lift service valve.



**35810**

Female coupling ACME. For installation on the carburetor fuel line.

**Ordering Information**

Part #	Inlet A	Outlet B	Normal Application	List Price
35792	3/8" F.NPT	1-1/4" M.ACME	Service Valve	----
35810	1-1/4" F.ACME	1/4" F.NPT	Fuel	----



SERVICE VALVES FOR DOT FORK LIFT AND ASME FUEL CONTAINERS



212201



212200



212204



212202

**Application**

These valves are designed for vapor or liquid withdrawal service on DOT fork lift containers (80-2064) and ASME containers. These valves are equipped with an excess flow limiter with different settings. Because these valves do not have an integrated pressure relief valve, they may only be used as an accessory valve on containers that have an independent PRV suitable for that containers capacity (see pressure relief valves).

**Features**

These valves are supplied with pre-applied sealant on the inlets. The 80.2064 also has pre-applied sealant on the outlet.  
**Double O-ring Stem Seal** - Two O-rings form the stem seal for improved resistance to leakage caused by dirt or extreme temperatures.  
**Tamperproof Design** - A travel stop keeps the handwheel from being removed which helps to prevent tampering. It also prevents removal of the stem and provides an additional seal against gas leakage.  
**Sturdy Quality Brass Handwheel** - Large, sturdy brass handwheel and stem threads less likely to break, even with rough handling.  
**Static Seat Disc** - In the 73.0001 Valve the seat disc does not rotate, abrasive wear on the disc is eliminated, improving service life.  
**Recessed Excess Flow Valve** - The recessed excess flow valve helps reduce the possibility of mechanical damage or fouling from excess pipe compound.

**Ordering Information**

Part #	Container Connection	Outlet Connection	Normal Application	Excess Flow Closing	List Price
212200	3/4" M.NGT	3/8" SAE Flare (70)	ASME Motor Fuel	3.3 GPM	----
212201		3/8" SAE Flare (90)	ASME Motor Fuel	3.3 GPM	----
212202		POL (CGA 510)	ASME Motor Fuel	1.5 GPM	----
212204		3/8" 18 NPT	DOT Fork Lift	2.6 GPM	----

**FIXED LIQUID LEVEL GAUGES**



Special DT length available. An optional instruction plate may be ordered for use with these valves. These valves incorporate a No. 54 drill size orifice. Captive screw.



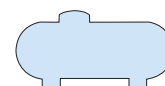
Remote outgauge. Captive screw.

Part #	Container Connection	Outlet Connection	DT Length	List Price
212210	1/4" M NPT	-	12"	----
212211	1/4" M NPT	-	5.4"	----
212215	1/4" M NPT	-	5.6"	----
212217	1/4" M NPT	-	Without	----
212219	1/4" NPTF	1/4" SAE Flare	Without	----

**LIQUID WITHDRAWAL VALVES** **LP GAS**

**LIQUID WITHDRAWAL VALVES WITH EXCESS FLOW**

These valves are designed for liquid withdrawal from stationary containers.



**200509**

This new liquid withdrawal valve is designed for liquid evacuation prior to moving the tank. This valve can also be used on permanent installations equipped with an excess flow limiter. Designed according to the latest UL standard.  
Pre-applied sealant

**212226**

This adapter is designed to be used with a liquid withdrawal valve. Fully compatible with the new evacuation valves on the market.



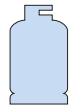
**212227**

This new liquid withdrawal valve is designed for liquid evacuation prior to moving the tank. This valve can also be used on permanent installations equipped with an excess flow limiter. Designed according to the latest UL standard.  
Pre-applied sealant



**Ordering Information**

Part #	Container Connection	Outlet Connection	U.L. Closing Flow (Propane)	Wrench Hex Flat	List Price
200509	3/4" M NPT	1-5/8" UN	20 GPM	1-3/4"	----
212226	1-5/8" UN	3/4" NPT	n/a	n/a	----
212227	1-1/4" NPT	1-5/8" UN	36 GPM	1-3/4"	----



**212230**

Designed specially for vapor withdrawal service on ASME and DOT containers. Because this valve has no integral pressure relief valve, it may only be used as an accessory valve on containers that have an independent pressure relief valve sufficient for that container's capacity. This valve can also be used as a service valve on a 420 lb vertical tank or a 300 liter horizontal tank. This valve also incorporates a fixed liquid level gauge. Specify DT length when ordering.



**212232**

Open-close valve with POL outlet. Designed for vapor withdrawal only.

**Features**

**Double O-ring Stem Seal** - Two O-rings from the stem seal for improved resistance to leakage due to dirt or temperature extremes.  
**Sturdy Quality Brass Handwheel** - New large sturdy brass handwheel and stem threads are less likely to break, even with rough handling.

Repairable design based upon request.

**Static Seat Disc** - Because the seat disc does not rotate, abrasive wear on the disc is eliminated, improving service life.

**Ordering Information**

Part #	Tank Connection	Vapor Service Connection	Fixed Liquid Level Gauge	Fixed Level Gauge DT Length	List Price
212230	3/4" NGT	POL CGA 510	Not captive	11.1"	----
212231	3/4" NGT	POL CGA 510	Not captive	5.8"	----
212232	3/4" NGT	POL CGA 510	N/A	N/A	----
212233	3/4" NGT	POL CGA 510	Not captive	11.0"	----
212235	3/4" NGT	POL CGA 510	Not captive	10.63"	----



**SERVICE VALVES FOR DOT CYLINDERS**



**212241**

DOT cylinder valve for vapor withdrawal up to 100 lb LPG capacity. Specify dip-tube length when ordering.

**212240**

Heavy duty POL valve with pressure relief valve for 200 lb propane cylinders. Different DT lengths available.



**Ordering Information**

Part #	Cylinder Connection	Outlet Connection	Normal Application	Liquid Level Gauge	DT Length	Relief Setting	UL rated discharge flow capacity (SCFM)	List Price
212240		Female	DOT cylinder up to 100 lbs	Yes	10.2"		765	----
212241	3/4" NGT	POL	Service valve on DOT cylinder	Yes	10.6"	375	366	----
212242		(CGA 510)	DOT cylinder up to 100 lbs	No	-		366	----



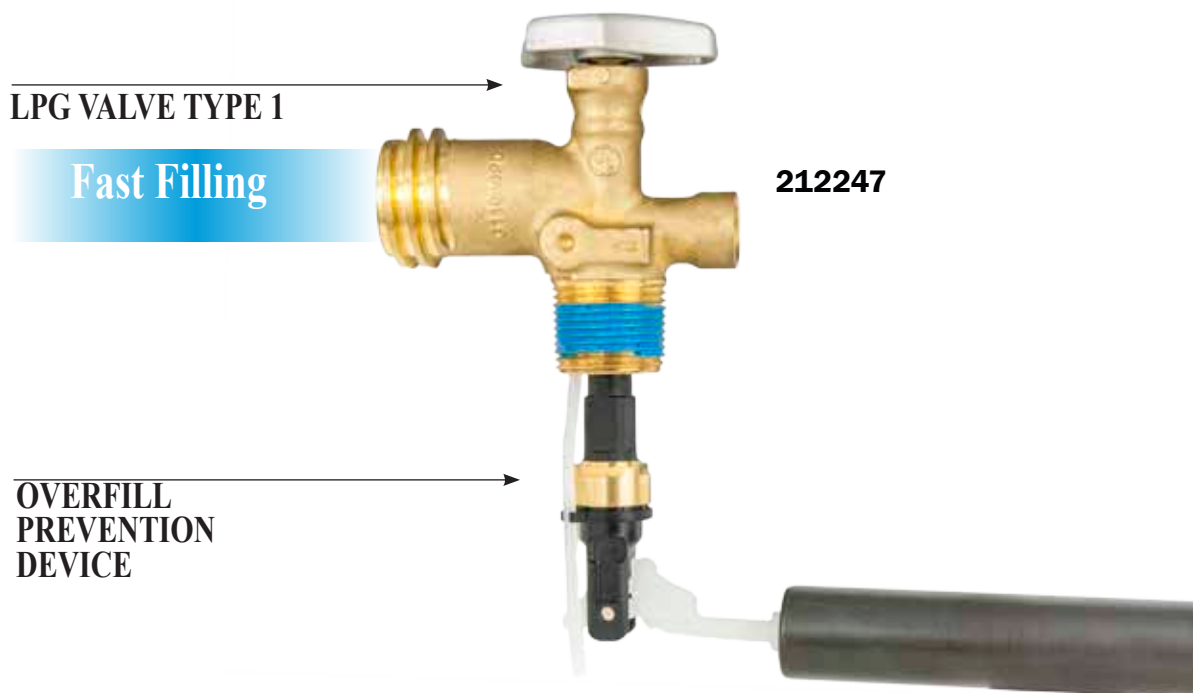
**OVERFILL PREVENTION DEVICE (OPD)**

**LP GAS**

**TYPE 1 ACME CYLINDER VALVE WITH OVERFILL PREVENTION DEVICE**



These Type 1 ACME valves (CGA791) are intended for DOT cylinders up to 40 pounds LPG capacity (96 pounds water capacity). This valve has a vapor service outlet, relief valve, captive fixed liquid level gauge, and an overfill prevention device (OPD).



**Features**

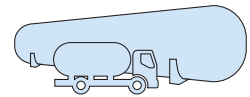
- Rapid purging and filling with over one million BTU withdrawal capacity.
- Tri-lobular one-piece forged aluminum handwheel.
- Double “O-ring” stem seal for improved leak resistance.
- Pre-applied sealant.
- Quality “O-ring” check valve seat, opens only with positive seal.
- Brass safety cage surrounding critical welds provides additional protection to components for long-term operational performance.

**Ordering Information**

Part #	Cylinder Capacity	Container Connection	Outlet Connection	Relief Setting	Dip Tube	List Price
212247	20 lbs	3/4” 14 NGT	Type 1 ACME and POL	375 PSIG	4.0”	----
212248	30 lbs	3/4” 14 NGT	Type 1 ACME and POL	375 PSIG	4.7”	----
212249	40 lbs	3/4” 14 NGT	Type 1 ACME and POL	375 PSIG	6.4”	----



STEEL THREADED INTERNAL VALVES



These valves, designed as primary shut-offs to control product discharge in LPG service, are predominantly used in the liquid and vapor openings of bobtail and other transport vehicles. All valves satisfy the requirements of NFPA 58 and can also be used in stationary storage tank applications. All internal valves have a robust, one piece body design and an incorporated excess flow function. Each valve has a weak section that allows the pump or piping to “shear” in the event of an accident, thereby leaving the valve mechanism intact. Threaded valves are compact and can be operated either manually or remotely via cable or pneumatic control. Valves contain spring-loaded, PTFE packing providing excellent leakage protection and the standard disc material provided is Nitrile.



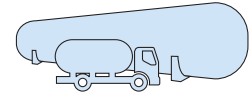
Part #		Inlet Connection	Outlet Connection	Closing Flow GPM Propane		LPG Vapor Capacity (SCFH/Propane)		Closing Flow GPM Ammonia NH <sub>3</sub> + LPG	1 WAY List Price	2 WAY List Price
1 Way	2 Way			Half Coupling	Full Coupling	25 PSIG	100 PSIG			
212310	-----	1-1/4" M NPT	1-1/4" F NPT	30	-----	5.800	9.100	27	----	
212311	-----	1-1/4" M NPT	1-1/4" F NPT	50	35	7.650	12.900	45	----	
212312	-----	1-1/4" M NPT	1-1/4" F NPT	80	65	10.950	18.800	72	----	
212316	212330	2" M NPT	2" F NPT	100	60	21.550	36.800	90	----	----
212317	212331	2" M NPT	2" F NPT	150	90	33.600	57.200	135	----	----
212318	212332	2" M NPT	2" F NPT	250	130	-----	-----	225	----	----
212319	212333	3" M NPT	3" F NPT	150	100	28.600	48.700	135	----	----
212320	212334	3" M NPT	3" F NPT	200	125	43.500	73.900	180	----	----
212321	212335	3" M NPT	3" F NPT	250	165	51.500	87.600	225	----	----
212323	212339	3" M NPT	3" F NPT	500	325	-----	-----	450	----	----

**FLANGED INTERNAL VALVES**

**LP GAS**



**STEEL FLANGED INTERNAL VALVE 3"**



Flanged valves, equipped with a built-in excess flow valve to prevent uncontrolled product release, are perfect for mounting a pump or other similar piping connections.

Mounting bolts weakened section, provided, allow the pump or piping to “shear” in the event of an accident, thereby leaving the valve intact. Flanged valves have a protection filter to avoid pump contamination from dirt and particles, easily removable when the valve is installed on the filling piping line. Flanged valves contain PTFE packing providing excellent leakage protection and the standard disc material provided is Nitrile, they can be operated manually or remotely via cable or pneumatic control.

- Inlet Connection: 3” 300lb ANSI RF Modified (4 7/8” dia bore)
- Outlet Connection: 3” 300lb. ANSI RF

Part #		Closing Flow GPM Propane	LPG Vapor Capacity (SCFH/Propane)		Closing Flow GPM Ammonia NH <sub>3</sub> + LPG	Single List Price	Double List Price
Single	Double		25 PSIG Inlet	100 PSIG Inlet			
212350	212360	150	25.100	42.700	135	----	----
212351	212362	200	36.900	62.800	180	----	----
212352	212363	250	42.200	71.800	225	----	----
212353	212364	400	59.400	100.900	360	----	----
212354	212365	500	----	----	450	----	----

**BACK PRESSURE VALVES FOR CONTAINER OR LINE APPLICATIONS**



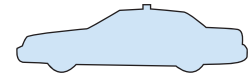
Valves are intended to prevent liquid discharge when the desired flow is directed into the vessel thereby allowing the flow in only one direction. When coupled with the appropriate single check filler valve, the combination forms a double check filler valve suitable for use in filling of bulk storage tanks.

Part #	Material	Inlet Connection	Outlet Connection	Wrench Hex Flats	Length	Propane Liquid Capacity at different Δ Pressure			List Price
						5 PSIG	10 PSIG	25 PSIG	
212630	Steel	3/4" F NPT	3/4" M NPT	1 3/8"	1-15/16" (49,2 mm)	10,75	15,7	24,5	----
212632	Steel	1-1/4" F NPT	1-1/4" M NPT	2"	2-1/2" (63,5 mm)	27,5	39,2	61,75	----
212633	Steel	2" F NPT	2" M NPT	3"	3-3/8" (83,5 mm)	121,5	171,5	270,5	----

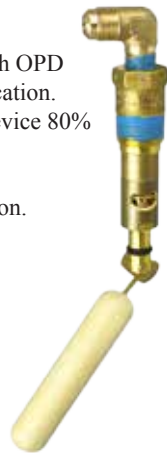
**ALSO AVAILABLE: YELLOW BRASS FITTINGS • COPPER AND ALUMINUM TUBING • BRASS VALVES • MALLEABLE FITTINGS • STEEL NIPPLES • QUICK DISCONNECTS • FORGED FITTINGS • GAUGES • SWAGES AND BULLPLUGS**



**FILLER VALVES**



**212155**  
 Direct Filler valve with OPD for Automotive Application. Fitted with an OPD device 80% fill limiter. Pre-applied sealant on the container connection.



**212156**  
 Remote Filler valve with OPD for Automotive Application. Incorporates standard 1 1/16" hex wrench flat that allows easy installation from the top with a socket wrench.



**212640**  
 Allows the filling through the EN 12806 Euro connection.

**Ordering Information - Specify tank diameter when ordering**

Part #	Tank Connection	Filler Connection	Wrench Hex Flat	Inlet Connection	List Price
212155	3/4" NPT	1-3/4" ACME	1-3/4"	/	----
212156	3/4" NPT	1/2" SAE	1-1/16"	/	----
212157	3/4" NPT	1/2" SAE	1-1/16"	/	----
212640	/	Ø30-EN12806	/	1/2" SAE FLARE	----

\* Full Range of Remote filler valves with OPD available according to tank diameter. Please specify tank diameter when ordering.



**SERVICE VALVES**



**212710**  
 Solenoid Service Valve: can be fitted to all tank sizes upon request. Pre-applied sealant on the container connection. Equipped with excess flow and manual shutoff device. Voltage: 12V

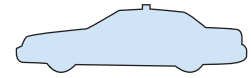


**212202**  
 Manual Service Valve equipped with an excess flow device. Pre-applied sealant on the container connection.

**Ordering Information**

Part #	Container Connection	Outlet Connection	Normal Application	Excess Flow Closing	List Price
212710	3/4" - 14 NPT	5/8" UNF (1/2" SAE FLARE)	RV - Automotive	1.4 GPM	----
212202	3/4" M.NGT	POL (CGA 510)	ASME Motor Fuel	2.6 GPM	----

SAFETY RELIEF VALVES



**212674**

Equipped with rain cap for protection against contamination. Pre-applied sealant on the container connection.



**212176**

Equipped with rain cap for protection against contamination. Pre-applied sealant on the container connection.

Ordering Information

Part #	Container Connection	Start to Discharge Setting PSIG	UL (at 120% of set pressure) Flow capacity SCFM/AIR	ASME (at 120% of set pressure) Flow capacity SCFM/AIR	Wrench Hex Flat	List Price
212674	1" NPT	312	1109	979	1-5/16"	----
212176	3/4" NPT	312	690	690	1-1/16"	----

SAFETY RELIEF VALVES



Pre-applied sealant on the container connection. Special DT length can be ordered apart. An optional instruction plate may be ordered for use with these valves.

**212210**

Fixed Liquid Level Gauge



**212219**

Remote Fixed Liquid Level Gauge



Ordering Information

Part #	Container Connection	Outlet Connection	DT Length	List Price
212210	1/4" M NPT	-	12"	----
212211	1/4" M NPT	-	5.4"	----
212215	1/4" M NPT	-	5.6"	----
212217	1/4" M NPT	-	Without	----
212219	1/4" NPTF	1/4" SAE Flare	Without	----

**EURO FILLER**

**LP GAS**



**EURO FILLER**



**200525**

Allows the filling through the EN 12806 Euro connection.



**213020**

Allows the filling through the EN 12806 Euro connection.  
Kit includes Black Housing, Cap and Euro Filler Valve

**Ordering Information**

Part #	Filler Connection	Inlet Connection	Specify tank diameter when ordering	List Price
200525	Ø30-EN12806	1/2" SAE FLARE	*	----
213020	Ø30-EN12806	1/2" SAE FLARE	*	----

**ACME/EURO ADAPTERS**

The adapter converts the EN 12806 connection to ACME connection.  
Once installed the adapter will prevent any disconnection caused by accidental rotations of the filling head.

The adapter converts the ACME connection to EN 12806 connection.



**212645**



**212646**

**Ordering Information**

Part #	Female Thread	Male Thread	List Price
212645	M33 x 2	1 3/4 - 6 ACME	----
212646	1 3/4 - 6 ACME	EURO EN 12806	----

**EURO FILLER ACCESSORIES**



Plastic Housing with Flip Door



Plastic Housing Assembly



Bulkhead Mount Euro Valve Protection Cap

Part #	List Price	Part #	List Price	Part #	List Price
212650	----	212652	----	212654	----



Plastic Housing Flip Door



Euro Filler Plate



Flip Door O-Ring

Part #	List Price	Part #	List Price	Part #	List Price
212651	----	212653	----	212660	----

**DUAL CHECK T-CONNECTOR**

Should two tank pressures become unequal, this connector will draw LPG from the tank with the higher pressure until both pressures equalize; LPG will then be drawn from both tanks. Integrated Hydrostatic Pressure Relief Valve.



**200530**

**Ordering Information**

Part #	PRV - Setting to discharge setting (PSIG)	Working Temperature	Pipe Connection	Outlet Connection	List Price
200530	400	-40 °F to +130 °F	3/8" SAE Flare	3/8" SAE Flare	----



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0304-4	414	100-100	288	10-039	49	10-109	51	101-410	290	101-770	290
0304-6	414	100-101	288	100-392	288	10-109L	51	101-411	290	101-771	290
0304-8	414	100-102	288	100-393	288	10-109LF	166	101-412	290	101-772	290
0304-C-10	414	100-103	288	100-394	288	10-110	51	101-413	290	101-773	290
0304-C-12	414	100-104	288	100-395	288	101-100	289	101-414	290	101-774	290
0304-C-14	414	100-105	288	100-396	288	101-101	289	101-415	290	101-775	290
0304-C-16	414	100-106	288	100-397	288	101-102	289	101-416	290	101-776	290
0304-C-2	414	100-107	288	100-398	288	101-103	289	101-417	290	101-777	290
0304-C-20	414	100-108	288	10-040	49	101-104	289	101-418	290	101-778	290
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0304-C-8	414	10011665	212	10-045	49	10-110LF	166	101-434	291	10-181	52
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0306-12	418	10012065	212	10-047	49	101-110	289	101-437	291	10-187	52
0306-14	418	1001245	212	10-048	49	101-111	289	101-438	291	10-188	52
0306-16	418	10012465	212	10-049	49	10-112	51	101-440	291	10-189	52
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0318-14	414	1001665	212	10-066	50	101-180	289	101-453	291	10-212	53
0318-16	414	10-017	48	10-067	50	101-181	289	101-454	291	10-213	53
0318-2	414	100-179	288	10-068	50	101-182	289	101-458	291	10-214	53
0318-20	414	10-017L	48	10-069	50	101-183	289	101-461	291	10-215	53
0318-24	414	10-017LF	166	10-074	50	101-184	289	101-462	291	10-216	53
0318-3	414	10-018	48	10-075	50	101-185	289	101-470	290	10-217	53
0318-32	414	100-181	288	10-075LF	166	101-186	289	101-471	290	10-218	53
0318-4	414	100-182	288	10-076	50	101-187	289	101-472	290	10-219	53
0318-5	414	100-183	288	10-077	50	101-188	289	101-473	290	10-220	53
0318-6	414	100-184	288	10-077LF	166	101-189	289	101-474	290	10-221	53
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0319-16	414	100-188	288	10-080	50	10-121	52	101-479	290	10-229L	53
0319-2	414	100-189	288	10-081	50	10-122	52	101-480	290	10-230	53
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0319-24	414	100-190	288	10-085	50	101-250	289	10-157	52	10-232	53
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10-002	48	100-252	288	1010002	344	10-131	51	101-607	291	10-239	53
100025	212	100-253	288	1010008	344	10-133	51	101-608	291	10-240	53
1000265	212	100-254	288	1010011	344	10-135	59	101-609	291	10-240L	53
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1000365	212	100-257	288	1010022	344	101-390	290	101-611	291	10-241L	53
10-004	48	100-258	288	1010024	344	101-391	290	10-162	52	10-241LF	166
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1000465	212	10-026	48	10-104	51	101-393	290	10-164	52	10-242LF	166
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10-006	48	100-261	288	10-106	51	101-395	290	10-170	52	10-244	53
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10-254	54	10-294LF	166	103-255	253	103-602	254	10-484LF	166	105-417	254
10-255	54	10-295	55	103-256	253	103-603	254	10-485	60	105-418	254
10-255L	54	10-295B	55	103-257	253	103-604	254	10-485LF	166	105-419	254
10-255LF	166	10-295LF	166	103-258	253	103-605	254	10-486	60	105-420	254
10-256	54	10-296	55	10-326	56	103-606	254	10-487	60	105-434	254
10-256L	54	10-296LF	166	10-327	56	103-607	254	10-487LF	166	105-435	254
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10-257	54	10-298B	55	10-330	56	10-373	57	10-493	60	105-441	254
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10-258	54	10-299B	55	10-333	56	10-375	57	10-495	60	105-445	254
10-258LF	166	10-299LF	166	10-340	56	10-376	57	10-496	60	105-446	254
10-259	54	10-300	55	103-410	254	103-770	254	10-497	60	105-449	254
10-259L	54	10-300B	55	103-411	254	103-771	254	1050000	343	105-450	254
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10-261	54	10-301LF	166	103-414	254	103-774	254	1050003	343	105-454	254
10-262	54	10-302	55	103-415	254	103-775	254	1050006	343	105-470	255
10-262LF	166	10-302B	55	103-416	254	103-776	254	1050007	343	105-471	255
10-263	54	10-303	55	103-417	254	103-777	254	1050008	343	105-472	255
10-263L	54	10-303B	55	103-418	254	103-778	254	1050009	343	105-473	255
10-263LF	166	10-304	55	103-419	254	10-382	57	1050010	343	105-474	255
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10-264LF	166	10-306B	55	10-343	56	10-405	57	1050013	343	105-477	255
10-265	54	10-307	55	103-434	254	10-406	57	1050014	343	105-478	255
10-265L	54	10-308	55	103-435	254	10-407	57	1050015	343	105-500	255
10-265LF	166	10-309	55	103-437	254	10-408	57	1050016	343	105-502	255
10-266	54	103-100	253	103-438	254	10-409	57	1050017	343	105-504	255
10-267	54	103-101	253	10-344	56	10-410	57	1050018	343	105-505	255
10-268	54	103-102	253	103-441	254	10-411	57	1050020	343	105-508	255
10-268L	54	103-103	253	103-442	254	10-412	57	1050021	343	105-509	255
10-268LF	166	103-104	253	103-445	254	10-416	57	1050023	343	105-512	255
10-269	54	103-105	253	103-446	254	10-419	57	1050025	343	105-513	255
10-269L	54	103-106	253	103-449	254	10-421	57	1050026	343	105-517	255
10-269LF	166	103-107	253	10-345	56	10-429	58	1050027	343	105-518	255
10-270	54	103-108	253	103-450	254	10-430	58	1050028	343	105-522	255
10-270LF	166	10-311	55	103-452	254	10-431	58	1050029	343	105-523	255
10-271	54	10-312	56	103-453	254	10-432	58	1050030	343	105-524	255
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10-272L	54	10-313B	56	10-347	56	10-440	59	1050032	343	105-530	255
10-273	54	10-314	56	103-470	255	10-441	59	1050033	343	105-531	255
10-273L	54	10-315	56	103-471	255	10-442	59	105-100	253	105-600	254
10-273LF	166	10-316	56	103-472	255	10-443	59	105-101	253	105-601	254
10-274	54	103-160	253	103-473	255	10-444	59	105-102	253	105-602	254
10-275	54	103-161	253	103-474	255	10-448	58	105-103	253	105-603	254
10-276	54	103-162	253	103-475	255	10-448B	58	105-104	253	105-604	254
10-276LF	166	103-163	253	103-477	255	10-449	58	105-105	253	105-605	254
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10-284B	55	103-181	253	10-351	56	10-455B	58	105-184	253	105-654	255
10-285	55	103-182	253	103-512	255	10-456	58	105-185	253	105-655	255
10-286	55	103-183	253	103-513	255	10-457	58	105-186	253	105-656	255
10-286B	55	103-184	253	103-517	255	10-458	58	105-187	253	105-657	255
10-286LF	166	103-185	253	103-518	255	10-459	58	105-188	253	105-658	255
10-287	55	103-186	253	10-352	56	10-460	58	105-250	253	105-770	254
10-287B	55	103-187	253	103-522	255	10-461	59	105-251	253	105-771	254
10-287LF	166	103-188	253	103-523	255	10-462	59	105-252	253	105-772	254
10-288	55	10-319	56	103-524	255	10-463	59	105-253	253	105-773	254
10-288LF	166	10-319B	56	103-529	255	10-464	59	105-254	253	105-774	254
10-289	55	10-320	56	10-353	56	10-467	59	105-255	253	105-775	254
10-290	55	10-321	56	103-530	255	10-468	59	105-256	253	105-776	254
10-290B	55	10-322	56	103-531	255	10-469	59	105-257	253	105-777	254
10-291	55	10-323	56	10-354	56	10-470	59	105-258	253	105-778	254
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FS0318-24	431	K-4	345	MGP-F20-25	453	SSC2405-6-6	443				
FS0318-4	431	K-5	345	MMFC12NPT	454	SSC2405-6-8	443				
FS0318-6	431	K-6	345	MMFC16NPT	454	SSC2405-8-4	443				
FS0318-8	431	K-7	345	MMFC20NPT	454	SSC2405-8-6	443				
FS0319-10	431	K-8	345	MMFC4NPT	454	SSC2405-8-8	443				
FS0319-12	431	K-9	345	MMFC6NPT	454	SSC2500-12-12	443				
FS0319-16	431	KA001	347	MMFC8NPT	454	SSC2500-16-16	443				
FS0319-20	431	KS-10	345	MMNV12NPT	454	SSC2500-2-2	443				
FS0319-24	431	KS-11	345	MMNV16NPT	454	SSC2500-4-4	443				
FS0319-4	431	KS-12	345	MMNV4NPT	454	SSC2500-6-6	443				
FS0319-6	431	KS-14	345	MMNV6NPT	454	SSC2500-8-8	443				
FS0319-8	431	KS-16	345	MMNV8NPT	454	SSC2501-12-12	444				
GB2-20T-SAE	211	KS-18	345	MMPH100	451	SSC2501-16-16	444				
GB2-24T-SAE	211	KS-20	345	MMPH125	451	SSC2501-4-2	444				
GB2-32T-SAE	211	KS-24	345	MMPH160	451	SSC2501-4-4	444				
GB3L-20T-SAE	211	KS-28	345	MMPH200	451	SSC2501-6-2	444				
GB3L-24T-SAE	211	KS-3	345	MMPH250	451	SSC2501-6-4	444				
GB3L-32T-SAE	211	KS-311	345	MMPH315	451	SSC2501-6-6	444				
GE2-04-SAE	211	KS-32	345	MMPH400	451	SSC2501-6-8	444				
GE2-06-SAE	211	KS-4	345	MMPH50	451	SSC2501-8-4	444				
GE2-08-SAE	211	KS-5	345	MMPH80	451	SSC2501-8-6	444				
GE2-112T-NPT	211	KS-6	345	MMRS100	451	SSC2501-8-8	444				
GE2-114T-NPT	211	KS-7	345	MMRS125	451	SSC2502-12-12	444				
GE2-12-NPT	211	KS-8	345	MMRS160	451	SSC2502-16-16	444				
GE2-12-SAE	211	KS-9	345	MMRS200	451	SSC2502-4-4	444				
GE2-14-NPT	211	KZE-B-14-PF	447	MMRS250	451	SSC2502-6-4	444				
GE2-16-SAE	211	KZE-B-14-SM	447	MMRS315	451	SSC2502-6-6	444				
GE2-1-NPT	211	KZE-B-38-PF	447	MMRS375	451	SSC2502-8-8	444				
GE2-2T-NPT	211	KZE-B-38-SM	447	MMRS50	451	SSC2601-2-2	444				
GE2-34-NPT	211	LSQ-VEP-12-PF	446	MMRS80	451	SSC2601-4-4	444				
GE2-38-NPT	211	LSQ-VEP-12-SF	446	NV-12-F	447	SSC2601-6-4	444				
GE3L-04-SAE	211	LSQ-VEP-1-PF	446	NV-12-M	447	SSC2601-6-6	444				
GE3L-06-SAE	211	LSQ-VEP-1-SF	446	NV-14-F	447	SSC2601-8-8	444				
GE3L-08-SAE	211	LSQ-VEP-20-PF	446	NV-14-M	447	SSC2603-12-12	444				
GE3L-112T-NPT	211	LSQ-VEP-20-SF	446	NV-1-F	447	SSC2603-16-16	444				
GE3L-114T-NPT	211	LSQ-VEP-24-PF	446	NV-1-M	447	SSC2603-2-2	444				
GE3L-12-NPT	211	LSQ-VEP-24-SF	446	NV-34-F	447	SSC2603-4-4	444				
GE3L-12-SAE	211	LSQ-VEP-34-PF	446	NV-34-M	447	SSC2603-6-6	444				
GE3L-14-NPT	211	LSQ-VEP-34-SF	446	NV-38-F	447	SSC2603-8-8	444				
GE3L-16-SAE	211	MB40-04	455	NV-38-M	447	SSC318-12	443				
GE3L-1-NPT	211	MB40-06	455	SG300	326	SSC318-16	443				
GE3L-2T-NPT	211	MB40-08	455	SG-3750	346	SSC318-2	443				
GE3L-34-NPT	211	MB40-12	455	SG400	326	SSC318-4	443				
GE3L-38-NPT	211	MB40-16	455	SG-5000	346	SSC318-6	443				
HNV-12-F	445	MFC-12-N	455	SG-6250	346	SSC318-8	443				
HNV-12-F-B	445	MFC-34-N	455	SG-7500	346	SSC320-12	443				
HNV-12-M	445	MFC-38-N	455	SS-3751	346	SSC320-16	443				
HNV-12-M-B	445	MGP-F10-13	452	SS-5001	346	SSC320-2	443				
HNV-14-F	445	MGP-F10-13	452	SS54044	255	SSC320-4	443				
HNV-14-F-B	445	MGP-F10-20	452	SS540442.0	255	SSC320-6	443				
HNV-14-M	445	MGP-F10-20	452	SS540443.0	255	SSC320-8	443				
HNV-14-M-B	445	MGP-F10-27	452	SS54046	255	SSC6801-12-12	444				
HNV-1-F	445	MGP-F10-27	452	SS54048	255	SSC6801-16-16	444				
HNV-1-F-B	445	MGP-F10-34	452	SS540482.0	255	SSC6801-4-4	444				
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HNV-1-M-B	445	MGP-F10-41	452	SS-6251	346	SSC6801-8-8	444				
HNV-34-F	445	MGP-F10-41	452	SS-7501	346	VG100	326				
HNV-34-F-B	445	MGP-F10-51	452	SSC2403-12-12	443	VG150	326				
HNV-34-M	445	MGP-F10-51	452	SSC2403-16-16	443	VG200	326				
HNV-34-M-B	445	MGP-F10-61	452	SSC2403-4-4	443	VG250	326				
HNV-38-F	445	MGP-F10-61	452	SSC2403-6-6	443	VG300	326				
HNV-38-F-B	445	MGP-F20-06	453	SSC2403-8-8	443						
HNV-38-M	445	MGP-F20-06	453	SSC2404-12-12	443						
HNV-38-M-B	445	MGP-F20-08	453	SSC2404-16-16	443						
K-10	345	MGP-F20-08	453	SSC2404-4-2	443						
K-11	345	MGP-F20-10	453	SSC2404-4-4	443						
K-12	345	MGP-F20-10	453	SSC2404-4-8	443						
K-14	345	MGP-F20-12	453	SSC2404-6-4	443						
K-16	345	MGP-F20-12	453	SSC2404-6-6	443						
K-18	345	MGP-F20-14	453	SSC2404-6-8	443						
K-20	345	MGP-F20-14	453	SSC2404-8-8	443						
K-24	345	MGP-F20-16	453	SSC2405-12-12	443						

**THREAD INFORMATION**

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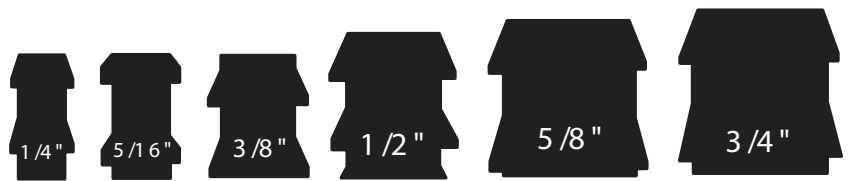
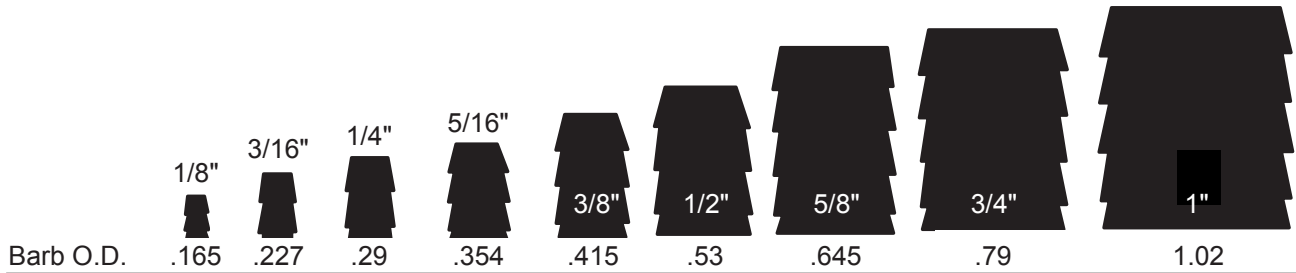
**Thread Chart**

DASH SIZE	2	3	4	5	6	7	8	10	12	14	16	20	24	32	40	48	
O.D. TUBING SIZE	1/8	5/32	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1-1/4	1-1/2	2	2-1/2	3
STANDARD PIPE SIZE N.P.T.F. (DRYSEAL)*	1/8-27		1/4-18		3/8-18		1/2-14		3/4-14		1-11 1/2	1 1/4-11 1/2	1 1/2-11 1/2	2-11 1/2	2 1/2 -8	3-8	
S.A.E. 45° FLARE	5/16-24		7/16-20	1/2-20	5/8-18	11/16-16	3/4-16	7/8-14	1 1/16-14	1 1/4-12	1 3/8-12						
INVERTED FLARE	5/16-24		7/16-24	1/2-20	5/8-18	11/16-18	3/4-18	7/8-18	1 1/16-16								
J.I.C. 37° FLARE	5/16-24		7/16-20	1/2-20	9/16-18		3/4-16	7/8-14	1 1/16-12	1 3/16-12	1 5/16-12	1 5/8-12	1 7/8-12	2 1/2-12	3-12	3 1/2-12	
COMPRESSION	5/16-24	5/16-24	7/16-24	1/2-24	9/16-24	5/8-24	11/16-20	13/16-18	1 -18	1 1/8-18							
FLARELESS																	
COMPRESSION (PLASTIC TUBE)	5/16-24		3/8-24	7/16-24	1/2-24		11/16-20										
AIR BRAKE - PLASTIC TUBE			7/16-24		17/32-24		11/16-20	13/16-18	1 -18								
AIR BRAKE - COPPER TUBE			7/16-24	1/2-24	17/32-24		11/16-20	13/16-18	1 -18								
DOUBLE COMPRESSION	5/16-24		7/16-24	1/2-20	9/16-20		11/16-16										
STEEL																	
COMPRESSION (HIGH PRESSURE)	5/16-24		7/16-20	1/2-20	9/16-18		3/4-16	7/8-14	1 1/16-12	1 3/16-12	1 5/16-12	1 5/8-12	1 7/8-12	2 1/2-12			
S.A.E. O-RING	5/16-24		7/16-20	1/2-20	9/16-18		3/4-16	7/8-14	1 1/16-12	1 3/16-12	1 5/16-12	1 5/8-12	1 7/8-12	2 1/2-12			
INTERNAL O-RING																	
NPSM SWIVEL THREAD	1/8-27		1/4-18		3/8-18		1/2-14		3/4-14		1-11 1/2	1 1/4 -11 1/2	1 1/2 - 11 1/2	2-11 1/2			
FLAT FACE THREAD			9/16-18		11/16-16		13/16-16	1-14	1 3/16-12		1 7/16-12	1 11/16-12	2-12				
BRITISH THREAD BSPP/BSPT	1/8-28		1/4-19		3/8-19		1/2-14		3/4-14		1-11	1 1/4-11	1 1/2-11	2-11			
METRIC THREAD	10	12	14	16	18	20	22	24	26	27	30	33	36	42	48		
CODE 61	M10X1.0	M12x1.5	M14x1.5	M16x1.5	M18x1.5	M20x1.5	M22x1.5	M24x1.5	M26x1.5	M27x2.0	M30x2.0	M33x2.0	M36x2.0	M42x2.0	M48x2.0		
FLANGE HEAD O.D							1.19	1.335	1.50		1.75	2.00	2.38	2.81	3.31	4.00	
CODE 62																	
FLANGE HEAD O.D							1.25		1.62		1.88	2.12	2.50	3.12			



**THREAD PROFILES**

**Pipe Threads**

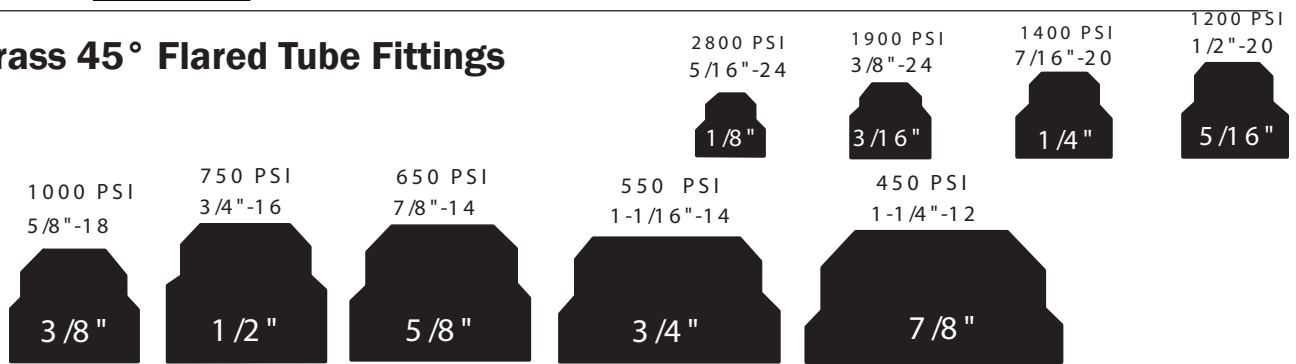


**Garden Hose Fittings**

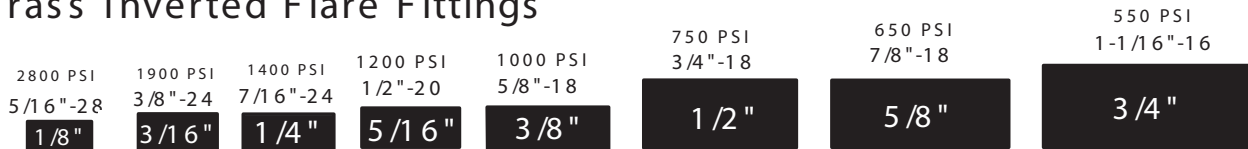
Male Garden Hose Threads are 3/4" with O.D. of 1.0625 and 11-1/2 threads per inch



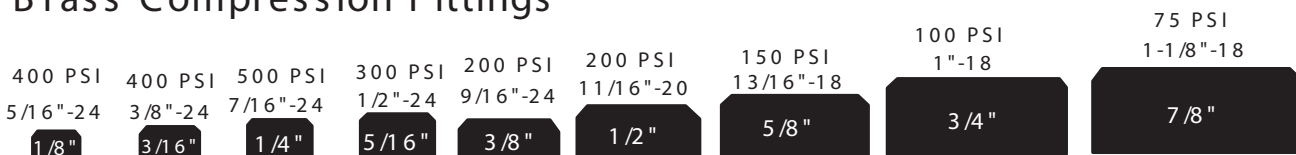
**Brass 45° Flared Tube Fittings**



**Brass Inverted Flare Fittings**



**Brass Compression Fittings**



**Tubing O.D. Size**

