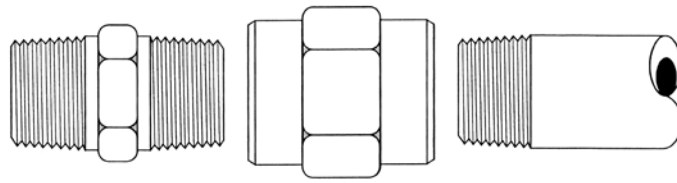
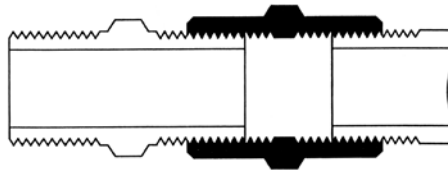


# Pipe



- For Bronze & Larger see pages 187.
- For BSPT/ BSPP see pages 112,



<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).

**•Material**

CA360 Brass for Barstock fittings.  
CA377 Brass for forged fittings.

**•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.

**•“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.

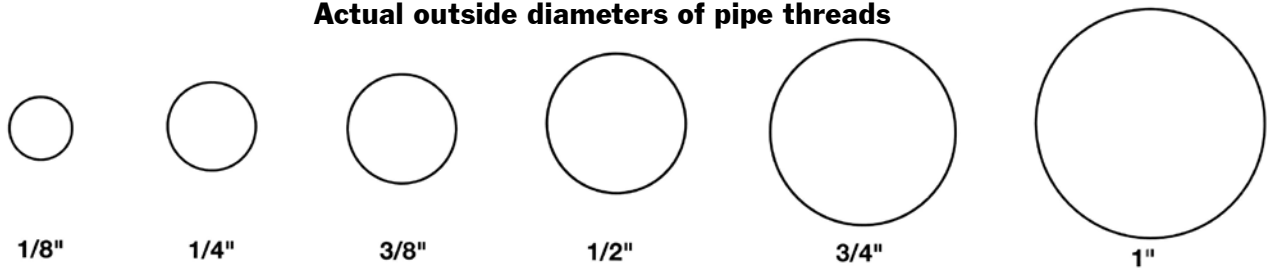
**•Assembly Instructions**

- 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.

• for larger sizes see bronze fittings on page 190

• see page 240 for plastic pipe fittings.

**Actual outside diameters of pipe threads**



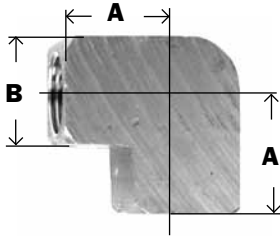
**Actual Male Thread Profiles**



**90° FEMALE ELBOW**

**SAE# 130238**

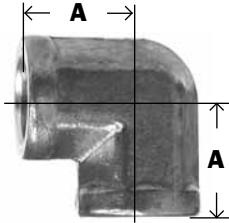
2200P  
3500  
302  
200



Part #	Thread Size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-001	1/8"	0.55	0.56	0.09	2.64
28-002	1/4"	0.78	0.68	0.13	4.14
28-003	3/8"	0.84	0.81	0.16	4.80
28-004	1/2"	1.09	1.00	0.34	8.07
28-005	3/4"	1.16	1.25	0.60	15.22

**90° FORGED FEMALE ELBOW**

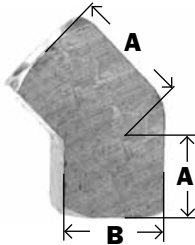
1200P  
E7  
100AF  
100B



Part #	Thread size NPTF	A	Body Width	Approx. Wt. Lbs.	List Price
28-009	1/8"	0.57	0.50	0.04	2.43
28-010	1/4"	0.70	0.68	0.10	3.69
28-011	3/8"	0.81	0.81	0.12	5.28
28-012	1/2"	1.00	1.00	0.23	8.25
28-013	3/4"	1.13	1.25	0.42	18.97
28-014	1/4" x 1/8"	0.72	0.69	0.12	5.04
28-015	3/8" x 1/4"	0.81	0.81	0.15	4.95
28-016	1/2" x 3/8"	1.00	1.00	0.28	12.73

**45° FEMALE ELBOW**

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

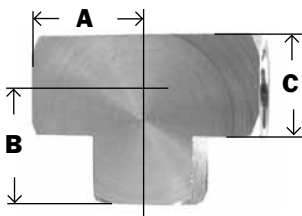


Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-018	1/8"	0.45	0.56	0.06	4.38
28-019	1/4"	0.66	0.68	0.12	5.83

**UNION TEE**

**SAE# 130438**

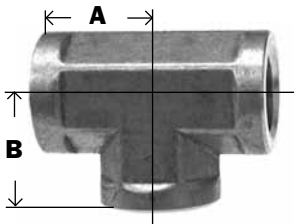
311  
101A  
322  
2203P  
3700  
203



Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-024	1/8"	0.55	0.55	0.56	0.08	2.97
28-025	1/4"	0.78	0.78	0.68	0.17	4.44
28-026	3/8"	0.84	0.84	0.81	0.22	6.96
28-027	1/2"	1.09	1.09	1.00	0.43	11.12
28-028	3/4"	1.16	1.16	1.25	0.64	19.97

**UNION FORGED TEE**

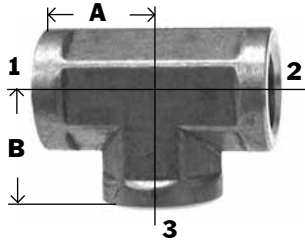
1203P  
LT7  
101AF  
101B



Part #	Thread size NPTF	A & B	Body Width	Approx. Wt. Lbs.	List Price
28-032	1/8"	0.56	0.50	0.06	2.89
28-033	1/4"	0.71	0.68	0.13	4.36
28-034	3/8"	0.81	0.81	0.16	5.52
28-035	1/2"	1.00	1.00	0.27	10.26
28-036	3/4"	1.16	1.25	0.53	17.23

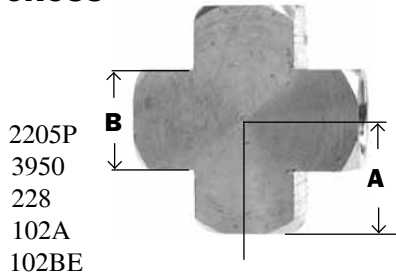


**REDUCING FORGED TEES**



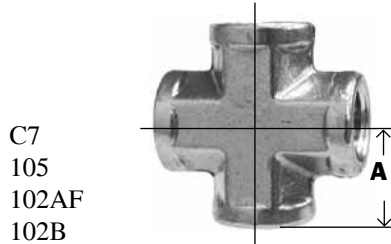
Part #	1 NPT	2 NPT	3 NPT	A & B	Body Width	Approx. Wt. Lbs.	List Price
28-029	1/8"	1/8"	1/4"	0.72	0.69	0.16	7.32
28-030	1/4"	1/4"	1/8"	0.72	0.69	0.14	6.19
28-031	1/4"	1/4"	3/8"	0.81	0.81	0.21	12.01
28-037	3/8"	3/8"	1/8"	0.81	0.81	0.19	11.69
28-038	3/8"	1/4"	3/8"	0.81	0.81	0.18	10.62
28-039	3/8"	3/8"	1/4"	0.81	0.81	0.18	11.20
28-046	1/2"	1/2"	3/8"	1.00	1.00	0.30	15.20
28-047	3/4"	1/2"	3/4"	1.16	1.25	0.56	27.78
28-048	3/4"	3/4"	1/2"	1.16	1.25	0.59	29.52

**CROSS**



Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-041	1/8"	0.50	0.50	0.10	6.20
28-042	1/4"	0.78	0.68	0.21	6.60
28-043	3/8"	0.84	0.81	0.25	8.10
28-044	1/2"	1.09	1.00	0.51	17.24
28-045	3/4"	1.16	1.25	0.75	23.65

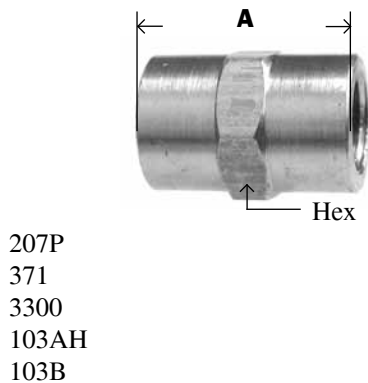
**FORGED CROSS**



Part #	Thread size NPTF	A	Body Width	Approx. Wt. Lbs.	List Price
28-049	1/8"	0.56	0.50	0.06	5.45
28-050	1/4"	0.72	0.69	0.15	7.46
28-051	3/8"	0.81	0.81	0.18	10.49
28-052	1/2"	1.00	1.00	0.34	16.67

**COUPLING**

**SAE# 130238**



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-058L	1/8"	0.75	0.50	0.02	0.79
28-058	1/8"	0.75	0.56	0.03	1.71
28-059L	1/4"	0.88	0.63	0.03	1.17
28-059	1/4"	1.12	0.75	0.09	2.67
28-060L	3/8"	1.00	0.81	0.06	2.00
28-060	3/8"	1.12	0.87	0.10	3.51
28-061L	1/2"	1.19	0.93	0.09	3.38
28-061	1/2"	1.50	1.06	0.19	5.26
28-062L	3/4"	1.19	1.25	0.18	5.44
28-062	3/4"	1.53	1.25	0.24	14.43

• 1/16" available (28-057) - POR

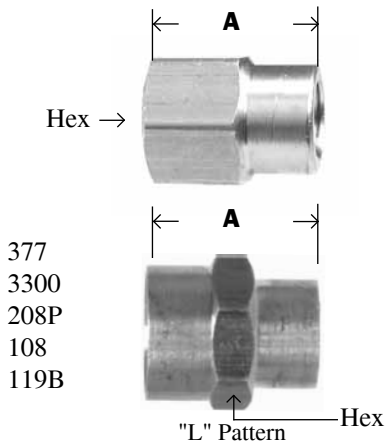
\* For larger sizes, see bronze couplings on pg. 196

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



**REDUCING COUPLING**

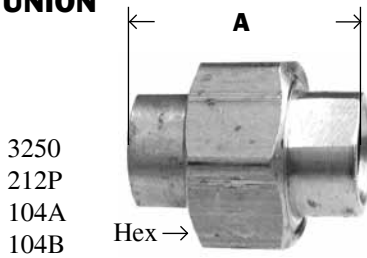
**SAE# 130138**



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-181L	1/4" x 1/8"	0.83	0.62	0.04	1.50
28-181	1/4" x 1/8"	0.97	0.75	0.08	2.58
28-182	3/8" x 1/8"	0.94	0.87	0.10	4.01
28-183L	3/8" x 1/4"	1.00	0.81	0.06	2.55
28-183	3/8" x 1/4"	1.16	0.87	0.12	3.60
28-180*	1/2" x 1/8"	1.19	0.93	0.15	6.79
28-184L	1/2" x 1/4"	1.11	1.00	0.10	4.80
28-184	1/2" x 1/4"	1.28	1.06	0.20	6.35
28-185L	1/2" x 3/8"	1.19	0.93	0.10	4.71
28-185	1/2" x 3/8"	1.38	1.06	0.20	7.96
28-188*	3/4" x 3/8"	1.32	1.37	0.20	16.62
28-189*	3/4" x 1/2"	1.19	1.18	0.14	8.47

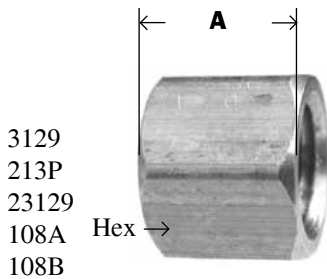
\*Not to SAE specs

**UNION**



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-067	1/8"	1.19	0.94	0.13	19.39
28-068	1/4"	1.31	1.06	0.18	18.93
28-069	3/8"	1.75	1.25	0.33	40.42
28-070	1/2"	1.79	1.56	0.50	26.05

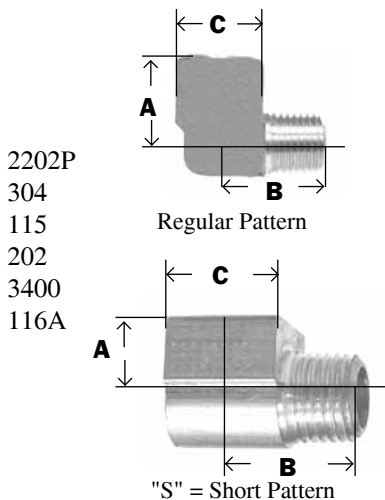
**CAP**



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-075	1/8"	0.47	0.56	0.03	0.81
28-076	1/4"	0.60	0.68	0.04	1.67
28-077	3/8"	0.69	0.81	0.06	2.22
28-078	1/2"	0.78	0.93	0.08	3.31
28-079	3/4"	0.94	1.25	0.16	7.62

**90° STREET ELBOW**

**SAE# 130239**

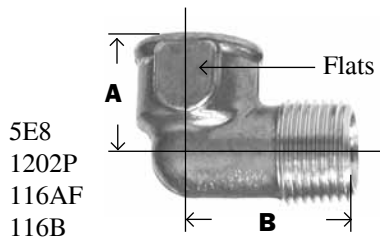


Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-156	1/8"	0.48	0.66	0.56	0.05	2.00
28-156S	1/8" short	0.34	0.57	0.50	0.03	1.27
28-157	1/4"	0.72	0.91	0.68	0.09	2.89
28-157S	1/4" short	0.45	0.78	0.68	0.07	2.34
28-158	3/8"	0.78	0.97	0.81	0.16	4.58
28-159	1/2"	1.03	1.25	1.00	0.33	8.12
28-160	3/4"	1.12	1.38	1.25	0.52	15.11



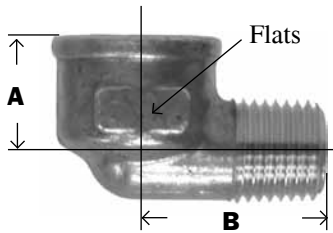


**FORGED 90° STREET ELBOW**



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	3.31
28-166	1/4"	0.50	0.86	0.72	0.08	2.87
28-167	3/8"	0.70	1.00	0.88	0.10	4.43
28-168	1/2"	0.96	1.43	1.00	0.20	6.43
28-169	3/4"	0.90	1.40	1.25	0.25	10.90

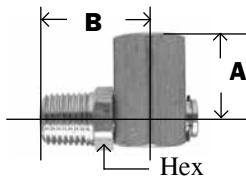
**FORGED REDUCING 90° STREET ELBOW**



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	4.45
28-261B*	1/4" x 1/8"	0.53	0.72	0.69	0.07	3.13
28-261	1/4" x 1/8"	0.50	0.81	0.72	0.06	4.19
28-262	1/4" x 3/8"	0.93	1.06	0.59	0.12	5.63
28-263	3/8" x 1/4"	0.58	0.94	0.81	0.07	6.89
28-264	3/8" x 1/2"	0.97	1.36	1.00	0.28	11.09
28-265	1/2" x 3/8"	0.96	1.37	1.00	0.22	12.13

\*Barstock

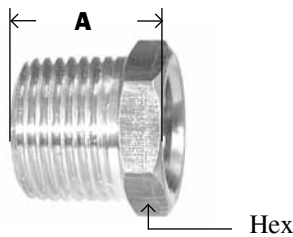
**PIPE SWIVEL 90° STEET ELBOW**



Part #	Thread size NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
28-430	1/4"	1.18	1.25	.625	0.22	30.00

**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	0.64
28-102	1/4" x 1/8"	0.75	0.56	0.04	1.06
28-103	3/8" x 1/8"	0.75	0.68	0.05	1.66
28-104L	3/8" x 1/4"	0.69	0.68	0.03	1.08
28-104	3/8" x 1/4"	0.75	0.75	0.05	1.72
28-105L	1/2" x 1/8"	0.81	0.81	0.08	3.51
28-105	1/2" x 1/8"	1.00	0.87	0.10	3.15
28-106L	1/2" x 1/4"	0.81	0.81	0.08	2.16
28-106	1/2" x 1/4"	1.00	0.87	0.11	2.93
28-107L	1/2" x 3/8"	0.81	0.81	0.05	1.46
28-107	1/2" x 3/8"	1.00	0.87	0.10	2.19
28-108	3/4" x 1/8"	0.94	1.06	0.20	7.73
28-109L	3/4" x 1/4"	0.94	1.06	0.18	3.83
28-110L	3/4" x 3/8"	0.94	1.06	0.15	4.61
28-111L	3/4" x 1/2"	0.94	1.06	0.11	3.37
28-111	3/4" x 1/2"	1.00	1.12	0.14	4.51
28-112	1" x 1/4"	1.15	1.37	0.32	8.28
28-113	1" x 3/8"	1.12	1.37	0.30	8.18
28-114	1" x 1/2"	1.31	1.44	0.29	8.19
28-115	1" x 3/4"	1.31	1.37	0.20	6.76

373  
3220  
209P  
110A  
110B

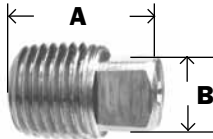


**FACE BUSHING**



Part #	Thread size NPTF MxF	A	Approx. Wt. Lbs.	List Price
28-121	1/4" x 1/8"	0.45	0.01	1.45
28-122	3/8" x 1/8"	0.50	0.03	2.43
28-116	3/8" x 1/4"	0.50	0.02	1.86
28-090	1/2" x 1/8"	0.56	0.06	3.96
28-128	1/2" x 1/4"	0.56	0.05	2.77
28-117	1/2" x 3/8"	0.56	0.03	2.15
28-129	3/4" x 1/4"	0.62	0.11	5.96
28-130	3/4" x 3/8"	0.62	0.08	5.38
28-118	3/4" x 1/2"	0.64	0.03	4.83

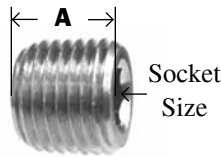
**SQUARE HEAD PLUG**



3151  
211P  
109A  
109B

Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-084	1/8"	0.58	0.27	0.02	0.64
28-085	1/4"	0.80	0.37	0.03	1.02
28-086	3/8"	0.80	0.43	0.06	1.72
28-087	1/2"	1.07	0.55	0.13	2.69
28-088	3/4"	1.11	0.61	0.20	4.22
28-089	1"	1.24	0.81	0.35	9.40

**COUNTERSUNK HEX PLUG**



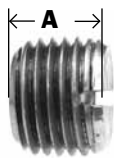
3153  
219P  
109CS  
118

SAE J531

Part #	Thread size NPTF	A	Socket size	Approx. Wt. Lbs.	List Price
28-092	1/16"	0.30	0.12	0.01	0.94
28-093	1/8"	0.30	0.18	0.01	0.71
28-094	1/4"	0.45	0.26	0.02	0.82
28-095	3/8"	0.45	0.31	0.03	1.11
28-096	1/2"	0.61	0.39	0.05	2.27
28-097	3/4"	0.62	0.56	0.10	3.76

• 7/8 Taper (flush) & countersunk square available upon request

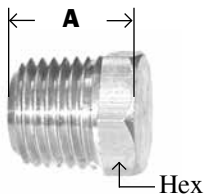
**SLOTTED-HEAD PLUG**



220P  
3150  
117A  
117B

Part #	Thread size NPTF	A	Approx. Wt. Lbs.	List Price
28-174	1/8"	0.31	0.01	0.90
28-175	1/4"	0.42	0.02	1.09
28-176	3/8"	0.45	0.05	1.67

**CORED HEX PLUGS**

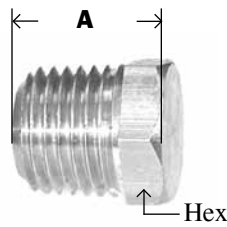


218P  
3152  
121A  
103  
121B  
PPH  
218P

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-201	1/8"	0.55	0.43	0.01	0.62
28-202	1/4"	0.62	0.56	0.02	0.97
28-203	3/8"	0.72	0.68	0.06	1.32
28-204	1/2"	0.81	0.87	0.09	2.46
28-205	3/4"	0.94	1.06	0.16	3.78
28-206	1"	1.16	1.37	0.28	12.23



**SOLID HEX HEAD PLUGS**



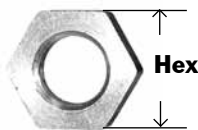
121AS

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-201S	1/8"	0.55	0.43	0.02	1.38
28-202S	1/4"	0.62	0.56	0.05	1.46
28-203S	3/8"	0.66	0.68	0.07	2.68
28-204S	1/2"	0.81	0.87	0.12	2.98
28-205S	3/4"	0.92	1.06	0.24	5.80
28-206S	1"	1.00	1.31	0.38	17.19

**LOCKNUT**

- Jam Nuts
- Straight pipe thread

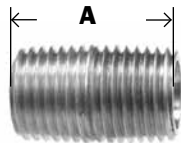
210P  
21102  
111A  
111B



Part #	Thread size NPSM	Hex	Thickness	Approx. Wt. Lbs.	List Price
28-123	1/8"	0.68	0.19	0.02	0.88
28-124	1/4"	0.87	0.25	0.04	1.23
28-125	3/8"	1.00	0.31	0.04	1.46
28-126	1/2"	1.125	0.25	0.04	1.82

**CLOSE NIPPLE**

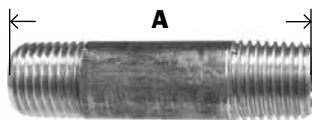
165  
215PN  
3326  
112A  
112B



Part #	Thread size NPTF	A	Approx. Wt. Lbs.	List Price
28-131	1/8"	0.75	0.01	0.49
28-132	1/4"	0.88	0.02	0.97
28-133	3/8"	1.00	0.05	1.73
28-134	1/2"	1.12	0.06	2.00
28-135	3/4"	1.31	0.11	3.84

**LONG NIPPLE**

113B  
113A  
166  
3327  
3331  
215PNL



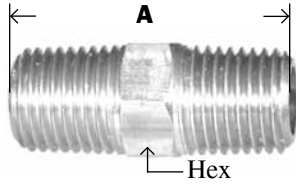
Part #	Thread size NPTF	A Length	Approx. Wt. Lbs.	List Price
28-140	1/8"	1.50	0.03	1.06
28-141	1/8"	2.00	0.04	1.39
28-142	1/8"	2.50	0.06	2.36
28-143	1/8"	3.00	0.06	2.50
28-144	1/4"	1.50	0.03	1.71
28-145	1/4"	2.00	0.05	1.97
28-146	1/4"	2.50	0.08	3.12
28-147	1/4"	3.00	0.10	4.00
28-148	3/8"	1.50	0.06	2.15
28-149	3/8"	2.00	0.10	3.19
28-150	3/8"	2.50	0.10	4.20
28-151	3/8"	3.00	0.13	4.47
28-152	1/2"	1.50	0.08	2.30
28-153	1/2"	2.00	0.12	3.99
28-154	1/2"	2.50	0.16	5.02
28-155	1/2"	3.00	0.20	6.51

• NOTE: For longer lengths and larger diameters, see our red brass nipples section, pg. 188-192



**HEX NIPPLE**

**SAE# 130137**

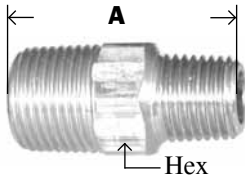


- 216P
- 3325
- 379
- 122AH
- 122B

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-211L	1/8"	0.91	0.43	0.02	0.84
28-211	1/8"	0.97	0.43	0.03	0.94
28-212L	1/4"	1.12	0.56	0.04	1.12
28-212	1/4"	1.38	0.56	0.06	1.52
28-213L	3/8"	1.25	0.68	0.07	1.74
28-213	3/8"	1.41	0.68	0.07	2.41
28-214L	1/2"	1.50	0.87	0.11	3.18
28-214	1/2"	1.81	0.87	0.17	3.52
28-215	3/4"	1.96	1.13	0.23	6.71
28-216	1"	2.30	1.37	0.43	10.87

**REDUCING HEX NIPPLE**

**SAE# 130137**



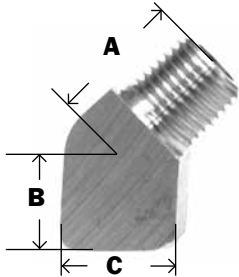
- 216P
- 3325
- 379
- 122AH
- 122B

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-220L	1/4" x 1/8"	1.00	0.56	0.04	1.16
28-220	1/4" x 1/8"	1.19	0.56	0.04	1.49
28-221L	3/8" x 1/8"	1.11	0.68	0.06	2.57
28-221	3/8" x 1/8"	1.22	0.68	0.07	2.82
28-222L	3/8" x 1/4"	1.19	0.68	0.06	1.61
28-222	3/8" x 1/4"	1.41	0.68	0.07	2.31
28-223L	1/2" x 1/4"	1.34	0.87	0.09	2.93
28-223	1/2" x 1/4"	1.62	0.87	0.12	2.99
28-224L	1/2" x 3/8"	1.41	0.87	0.11	3.10
28-224	1/2" x 3/8"	1.62	0.87	0.12	3.44
28-225	3/4" x 1/2"	1.50	1.06	0.15	5.30

• 1/8" x 1/16" available (28-218) - POR

**45° STREET ELBOW**

**SAE# 130339**

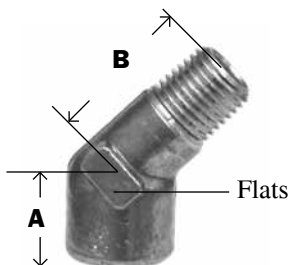


- 306
- 3350
- 2214P
- 224

Part #	Thread size NPTF	B	A	C	Approx. Wt. Lbs.	List Price
28-230	1/8"	0.38	0.50	0.56	0.03	2.30
28-231	1/4"	0.56	0.72	0.68	0.09	3.08
28-232	3/8"	0.56	0.78	0.81	0.12	4.89
28-233	1/2"	0.75	1.00	1.00	0.20	8.65
28-234	3/4"	0.75	1.06	1.25	0.34	26.39

**45° FORGED STREET ELBOW**

- 45E8
- 124B

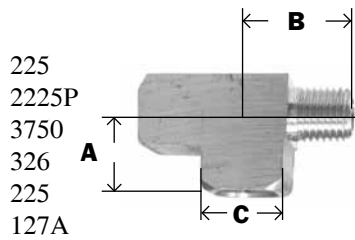


Part #	Thread size NPTF	A	B	Wrench flats	Approx. Wt. Lbs.	List Price
28-238	1/8"	0.63	0.81	0.56	0.05	4.52
28-239	1/4"	0.63	1.06	0.81	0.11	5.82
28-240	3/8"	0.72	1.06	0.93	0.17	7.90



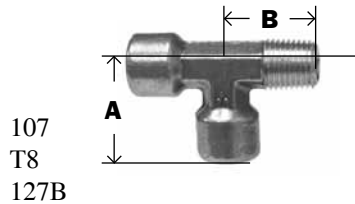
**STREET TEE/ SERVICE TEE**

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	3.03
28-246	1/4"	0.78	0.91	0.68	0.17	5.40
28-247	3/8"	0.84	0.97	0.81	0.22	5.99
28-248	1/2"	1.09	1.25	1.00	0.40	10.81
28-249	3/4"	1.16	1.39	1.25	0.60	18.44

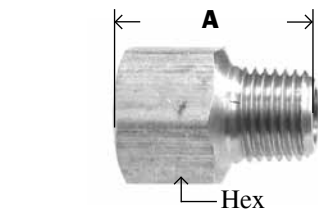
**FORGED STREET TEE**



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	4.41
28-254	1/4"	1.03	0.11	0.46	0.13	4.69
28-255	3/8"	1.19	1.09	0.68	0.24	8.04
28-256	1/2"	1.52	1.40	0.88	0.45	18.29
28-257	3/4"	1.34	1.73	1.25	0.65	43.93

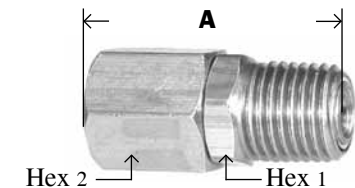
**EXTENDER ADAPTER**

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	1.51
28-190	1/8" x 1/8"	0.88	0.56	0.04	1.14
28-191L	1/4" x 1/8"	0.94	0.62	0.04	1.10
28-191	1/4" x 1/8"	1.06	0.75	0.07	2.68
28-192L	1/4" x 1/4"	1.00	0.62	0.04	1.36
28-192	1/4" x 1/4"	1.25	0.75	0.07	2.53
28-198	3/8" x 1/8"	1.00	0.81	0.06	4.72
28-193L	3/8" x 1/4"	1.12	0.81	0.08	2.07
28-193	3/8" x 1/4"	1.25	0.87	0.09	3.56
28-194L	3/8" x 3/8"	1.24	0.81	0.10	2.76
28-194	3/8" x 3/8"	1.25	0.87	0.11	3.33
28-199	1/2" x 1/4"	1.46	1.06	0.08	4.20
28-195L	1/2" x 3/8"	1.19	0.93	0.09	4.03
28-195	1/2" x 3/8"	1.47	1.06	0.18	6.12
28-196	1/2" x 1/2"	1.66	1.06	0.12	4.22
28-207	3/4" x 3/8"	1.59	1.25	0.26	22.56
28-208	3/4" x 1/2"	1.69	1.37	0.14	12.23
28-209	3/4" x 3/4"	1.69	1.37	0.34	17.33

**PIPE SWIVEL ADAPTER**



Part #	Thread size NPTF FxM	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
28-425	1/4"	1.34	0.56	0.62	0.06	11.17
28-426	3/8"	1.36	0.68	0.75	0.08	30.32

**SWIVEL FITTING**

- 360° Turning
- Swivels

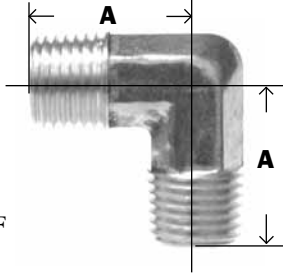


**Male NPT x Female NPT**

Part #	Size	List Price
320-061	1/4	9.99

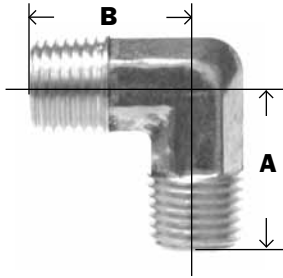
**FORGED 90° MALE ELBOW**

LE5  
3455  
116AMF



Part #	Thread size NPTF	A	Body Width	Approx. Wt. Lbs.	List Price
28-266	1/8"	0.79	0.38	0.04	2.74
28-267	1/4"	0.87	0.45	0.06	2.89
28-268	3/8"	1.00	0.59	0.12	5.41
28-269	1/2"	1.38	0.78	0.21	8.09

**FORGED 90° MALE REDUCING ELBOW**

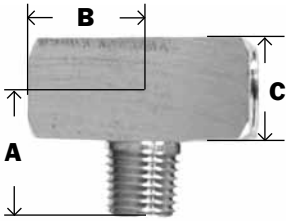


Part #	Thread size NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
28-274	1/4" x 1/8"	0.88	0.78	0.47	0.06	4.30
28-275	3/8" x 1/4"	0.90	0.90	0.46	0.06	4.38
28-276	1/2" x 3/8"	1.12	1.00	0.59	0.12	7.29

**MALE BRANCH TEE**

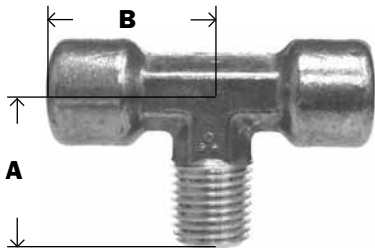
SAE# 130425

T9  
X106  
23601  
3600  
2224P  
226  
329  
128



Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-281	1/8"	0.66	0.55	0.56	0.08	2.98
28-282	1/4"	0.91	0.78	0.68	0.15	5.05
28-283	3/8"	0.97	0.84	0.81	0.22	7.27
28-284	1/2"	1.25	1.09	1.00	0.40	14.51
28-285	3/4"	1.38	1.16	1.25	0.62	21.34

**FORGED MALE BRANCH TEE**



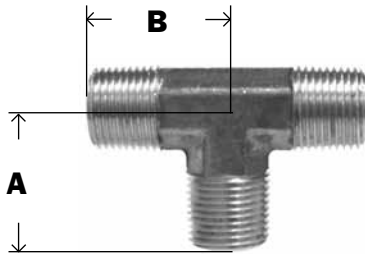
Part #	Thread size NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
28-281F	1/8"	0.75	0.56	0.50	0.06	3.83
28-282F	1/4"	1.00	1.03	0.46	0.12	6.26

T9

Man's mind stretched to a new idea never goes back to its original dimensions  
- Oliver Wendell Holmes



**FORGED ALL MALE TEE**

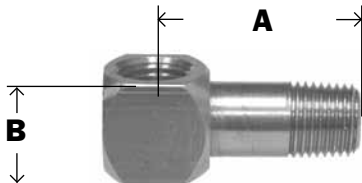


Part #	Thread size NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
28-290	1/8"	0.75	0.75	0.43	0.06	4.47
28-291	1/4"	0.86	0.86	0.43	0.08	4.52
28-292	3/8"	1.09	1.09	0.60	0.16	8.91
28-293	1/2"	1.22	1.22	0.68	0.22	8.87
28-294	3/4"	1.43	1.43	0.87	0.38	26.52

T12  
M101

**LONG STREET ELLS**

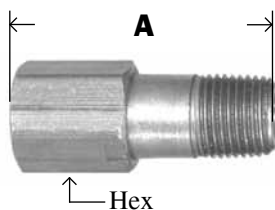
D.O.T. Approved



Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-440	1/8"	1-3/16"	0.50	0.06	7.49
28-441	1/8"	1-7/16"	0.50	0.06	3.61
28-442	1/8"	1-11/16"	0.50	0.06	7.74
28-443	1/8"	1-7/8"	0.50	0.16	8.92
28-328	1/4"	1-3/16"	0.75	0.12	15.72
28-329	1/4"	1-7/16"	0.75	0.14	12.80
28-330	1/4"	1-11/16"	0.75	0.15	12.77
28-332	1/4"	2-1/4"	0.75	0.17	17.41
28-333	3/8"	1-3/4"	0.87	0.22	19.94

**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	8.44
28-336	1/8"	1-3/4"	0.50	0.05	11.21
28-337	1/8"	3"	0.50	0.09	20.20
28-338	1/4"	1-9/16"	0.62	0.07	6.00
28-339	1/4"	1-13/16"	0.62	0.08	7.73
<b>NEW</b> 28-331	1/4"	1-7/8"	0.62	0.09	13.30
28-340	1/4"	2-1/16"	0.62	0.10	7.31

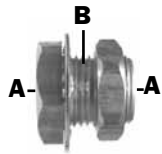
Dimension data can change without notice.  
Please call us when dimensions are critical.

Lead Free fittings available on  
**pgs. 382-388**



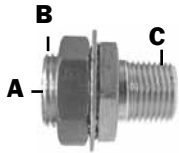


**BULKHEAD / ANCHOR / FRAME COUPLINGS**

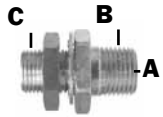


Part #	Terminal Bolts/ Frame			Length (in.)	List Price
	A	B	C		
28-300	1/8-27 NPTF	5/8-18 UNS	----	1-1/2	6.10
28-301	1/4-18 NPTF	3/4-16 UNS	----	15/16	6.23
28-302	1/4-18 NPTF	3/4-16 UNS	----	1-1/2	6.87
28-315*	1/4-18 NPTF	3/4-16 UNS	----	15/16	7.57
28-303	3/8-18 NPTF	1-14 UNS	----	1-5/16	9.10
28-304	1/2-14 NPTF	1-1/8-14 UNS	----	1-1/2	10.66

\* Same as 28-302 except with a larger mounting nut.

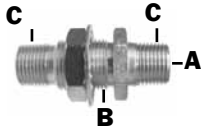


28-317	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2-1/8	25.20
28-318	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-11/16	12.37
28-319	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-29/32	11.98

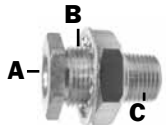


28-325	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	1-11/16	20.72
28-345*	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	2-5/32	16.97

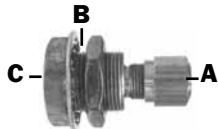
\* Steel



28-313	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2-7/8	26.86
28-312	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2.94	25.81



28-346	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-7/8	14.54
28-347	1/2-14 NPTF	1-14 UNS	1/2-14 NPTF	2-3/8	22.18



28-321	1/2-O.D. Tube	7/8-20 UNCF	3/8-18 NPTF	1-5/16	10.78
28-322	3/8-O.D. Tube	7/8-20 UNCF	3/8-18 NPTF	1-3/8	10.57



28-348	3/8-18 NPTF	7/8-20 UNCF	3/8-18 NPTF	2-5/16	19.69
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**CROSSOVER NUMBERS**

28-300: 207x2 207ACBH-2 ACBH207-2 129A-A 392A-1&1/2 50004 55207

28-301: 114-44 1345 207x4 392C-94 ACBHS 207-4 382-44S 129AS-B 55611

28-302: 392C-1&1/2 114B-44 1344 207x4 382-44L 50005 ACBH 207-4 207ACBH-4 129A-B 035081 55661

28-303: 129A-C 392E-1&5/16 114-66 1346 035087 207x6 ACBH 207-6 382-66

207ACBH-6 50006 55607

28-304: 114-88 207x8 129A-D 1351 ACBH 207-8 207ACBH-8 50007 392F-1&1/2 55807

28-317: 117-84 55615

28-318: 381-86S 55620

28-319: 115-86 035079 1496-DC 381-86L 50001 55646

28-312: 115-88 1342 035021 005730 1342 380-84M 50010 55600

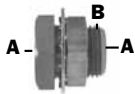
28-346: 50013 55613

28-347: 035029 50012 55629



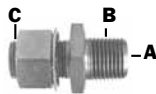
**BULKHEAD / ANCHOR / FRAME COUPLINGS**

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



**STEEL BULKHEAD FITTINGS**

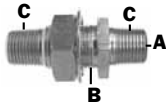
28-306	1/4-18 NPTF	3/4 - 16 UNS		0.94	9.88
28-307	1/4-18 NPTF	3/4 - 16 UNS		1.50	10.61



28-309	1/4-18 NPTF	3/4 - UNS	1/2-14 NPTF	2.16	16.74
--------	-------------	-----------	-------------	------	-------

Crossover #: 005498 381-84S 50003 1340 390FC5 55689

28-310	1/4-18 NPTF	3/4 - UNS	1/2-14 NPTF	2.53	28.92
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28-312	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2.94	25.81
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**MARINE BULKHEAD FITTINGS**

46-540	5/16 Hose ID	----	----	2.37	11.79
46-541	3/8 Hose ID	----	----	2.37	11.41

**NEW**



**BULKHEAD JAM NUTS**

Part #	Size	Material	QTY	Weight	List Price
28-301J	3/4-16UNEF	Brass	10	0.05 ea.	2.77
28-321J	7/8-20UNEF	Brass	10	0.04 ea.	2.84
28-317J	1-14UNS	Brass	10	0.07 ea.	3.61
28-304J	1-1/8-14UNS	Brass	10	0.07 ea.	4.81

**NEW**



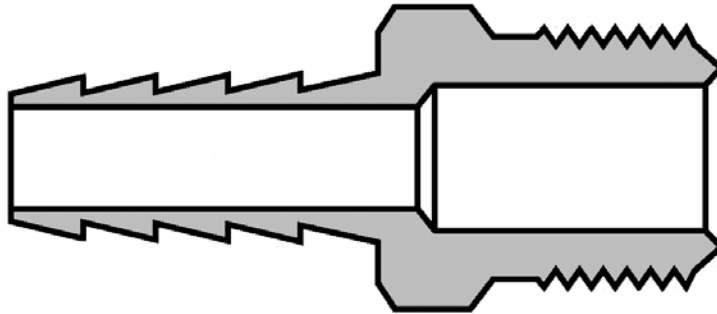
**BULKHEAD LOCK WASHERS**

Part #	Size	Material	QTY	Weight	List Price
28-301W	3/4"	Steel	25	0.70 per 100	0.60
28-321W	7/8"	Steel	25	0.90 per 100	0.71
28-317W	1"	Steel	25	1.4 per 100	1.07
28-304W	1-1/8"	Steel	25	1.7 per 100	1.23

Lead Free fittings available on  
pgs. 382-388



# 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.

**•Material**

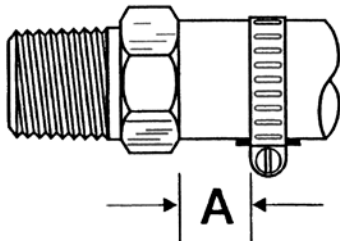
CA360 Brass for Barstock fittings.  
CA377 Brass for Forged fittings.

**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.

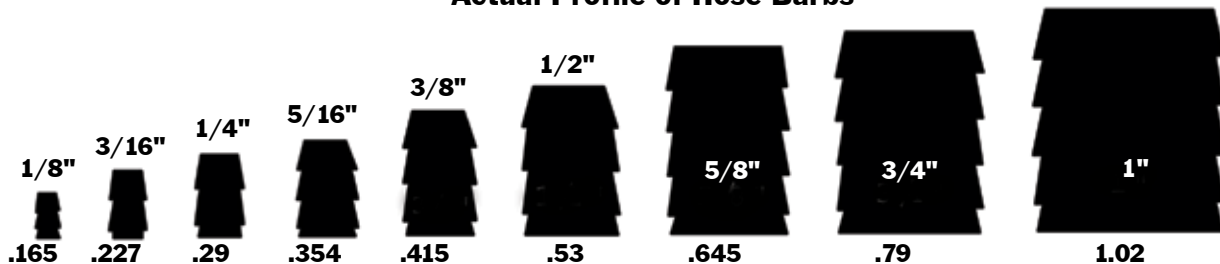
See page 288 for hose ferrules  
See page 273-287 for hose clamps  
See page 266-267 for plastic hose barb fittings  
See page 26 for stainless steel hose barbs



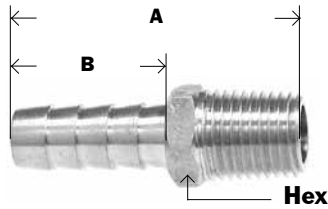
Hose Size	A
3/16"	1/4"
1/4"	1/4"
5/16"	1/4"
3/8"	1/8"
1/2"	1/8"
5/8"	1/8"
3/4"	1/8"

Stainless Steel hose barbs for beverage service available -  
See beverage fitting section, pg. 311, 312

**Actual Profile of Hose Barbs**



**RIGID MALE ADAPTER**



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

Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-300	1/8" x 1/16"	1.13	0.60	0.31	0.02	11.63
32-001	1/8" x 1/8"	1.19	0.69	0.43	0.02	0.94
32-027	1/8" x 1/4"	1.16	0.46	0.56	0.02	1.22
32-002	3/16" x 1/8"	1.19	0.75	0.43	0.02	0.88
32-003	3/16" x 1/4"	1.37	0.69	0.56	0.04	1.44
32-301	1/4" x 1/16"	1.44	0.88	0.43	0.02	4.35
32-004	1/4" x 1/8"	1.47	0.97	0.43	0.02	1.08
32-005	1/4" x 1/4"	1.72	0.97	0.56	0.04	1.16
32-006	1/4" x 3/8"	1.72	0.97	0.68	0.05	1.80
32-007	1/4" x 1/2"	1.72	0.81	0.87	0.10	3.14
32-008	5/16" x 1/8"	1.47	0.97	0.43	0.02	0.99
32-009	5/16" x 1/4"	1.72	0.97	0.56	0.04	1.40
32-010	5/16" x 3/8"	1.76	0.97	0.68	0.06	1.85
32-390	5/16" x 1/2"	1.88	0.95	0.87	0.10	3.60
32-011	3/8" x 1/8"	1.53	0.97	0.56	0.03	1.29
32-012	3/8" x 1/4"	1.75	0.97	0.56	0.05	1.20
32-013	3/8" x 3/8"	1.72	0.96	0.68	0.06	1.71
32-014	3/8" x 1/2"	1.97	0.97	0.87	0.09	3.09
32-026	3/8" x 3/4"	1.97	0.97	1.06	0.16	4.25
32-333	7/16" x 1/4"	1.76	0.97	0.56	0.04	4.26
32-302	1/2" x 1/8"	1.57	0.95	0.56	0.06	3.25
32-015	1/2" x 1/4"	1.72	0.97	0.56	0.04	1.66
32-016	1/2" x 3/8"	1.76	0.97	0.68	0.07	1.90
32-017	1/2" x 1/2"	1.87	0.96	0.87	0.11	2.57
32-018	1/2" x 3/4"	1.94	0.97	1.06	0.16	4.12
32-303	1/2" x 1"	2.31	0.99	1.37	0.33	12.43
32-304	5/8" x 1/4"	1.67	0.92	0.68	0.06	4.25
32-019	5/8" x 3/8"	1.76	0.97	0.68	0.08	2.28
32-020	5/8" x 1/2"	1.87	0.96	0.87	0.11	2.93
32-021	5/8" x 3/4"	1.87	0.96	1.06	0.14	4.19
32-305	5/8" x 1"	2.31	0.96	1.37	0.36	15.69
32-306	3/4" x 3/8"	1.65	0.87	0.81	0.12	5.31
32-022	3/4" x 1/2"	1.87	0.96	0.87	0.14	3.30
32-023	3/4" x 3/4"	1.87	0.96	1.06	0.15	4.63
32-316	3/4" x 1"	2.55	1.15	1.37	0.38	11.31
32-307	1" x 1/2"	1.80	0.87	1.06	0.24	6.74
32-024	1" x 3/4"	2.19	1.19	1.06	0.32	5.15
32-025	1" x 1"	2.48	1.19	1.37	0.39	8.77
32-029	1-1/4" x 3/4"	2.37	1.19	1.37	0.35	20.15
32-028	1-1/4" x 1"	2.55	1.19	1.37	0.46	12.51

\* See Bronze insert fittings on pages 265,266 for larger sizes.

For Stainless Barb Fittings see pg. 26 or beverage section, pg. 311

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

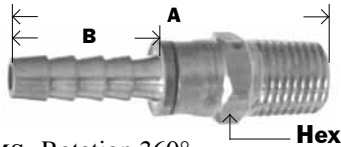


**BRASS RIGID MALE BSPT BARB ADAPTER**



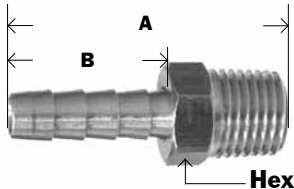
Part #	Hose I.D. x BSPT	List Price
32-450	1/4" x 1/8"	1.27
32-451	1/4" x 1/4"	1.85
32-452	3/8" x 1/4"	1.98
32-453	3/8" x 3/8"	2.36
32-454	3/8" x 1/2"	3.92
32-455	1/2" x 3/8"	2.54
32-456	1/2" x 1/2"	4.15
32-457	3/4" x 3/4"	6.46
32-458	1" x 1"	13.33

**SWIVEL MALE ADAPTER**



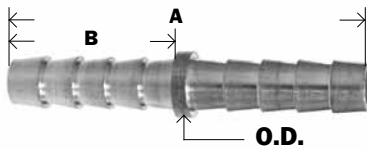
SMS Rotation 360°  
103

Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-201	3/8" x 1/4"	2.12	0.97	0.56	0.07	3.71
32-355	1/2" x 3/8"	2.12	0.97	0.68	0.10	5.88
32-356	1/2" x 1/2"	2.33	0.97	0.87	0.14	6.25
32-357	3/4" x 3/4"	2.33	0.97	1.06	0.20	8.54



Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-200	1/4" x 1/4"	2.12	0.97	0.56	0.04	3.76
32-202	3/8" x 3/8"	2.12	0.97	0.68	0.08	4.40

**MENDER/ SPLICER**



MSB  
122HBL  
HM  
129  
178  
73  
108

**NEW**

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	1.16
32-092	3/16"	1.62	0.77	0.36	0.02	1.54
32-093	1/4"	2.00	0.96	0.37	0.02	1.21
32-079	1/4" x 1/8"	1.55	0.97	0.56	0.02	3.15
32-094	5/16"	2.00	0.96	0.39	0.02	1.29
32-090	5/16" x 1/4"					2.08
32-095	3/8"	2.00	0.94	0.51	0.04	1.25
32-080	3/8" x 1/4"	2.06	0.97	0.56	0.03	3.62
32-096	1/2"	2.00	0.96	0.62	0.06	1.94
32-087	1/2" x 3/8"	2.06	0.97	0.71	0.06	5.00
32-097	5/8"	2.05	0.96	0.75	0.08	2.64
32-088	5/8" x 3/8"	2.06	0.97	0.75	0.06	5.28
32-098	3/4"	2.50	1.15	0.87	0.10	3.97
32-089	3/4" x 1/2"	2.28	1.19	0.87	0.10	7.23
32-099	1"	3.00	1.44		0.23	10.21

See Bronze insert fittings on page 266 for larger sizes.

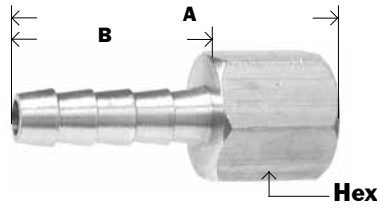
See Hose Clamps on page 273-287 .

For Stainless Barb Fittings see pg. 26 or beverage section, pg. 311

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



**RIGID FEMALE ADAPTER**



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

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	1.35
32-317	1/8" x 1/4"	1.15	0.46	0.62	0.04	4.42
32-051	3/16" x 1/8"	1.10	0.68	0.50	0.02	1.31
32-062	3/16" x 1/4"	1.44	0.75	0.62	0.04	3.60
32-052	1/4" x 1/8"	1.35	0.93	0.50	0.02	1.58
32-053	1/4" x 1/4"	1.60	0.97	0.62	0.06	1.63
32-054	1/4" x 3/8"	1.65	1.03	0.75	0.04	2.29
32-441	1/4" x 1/2"	1.66	0.97	0.93	0.08	6.85
32-055	5/16" x 1/8"	1.47	0.97	0.56	0.04	3.34
32-056	5/16" x 1/4"	1.66	0.97	0.62	0.04	2.03
32-318	5/16" x 3/8"	1.66	0.97	0.75	0.06	4.44
32-320	5/16" x 1/2"	1.67	0.96	0.93	0.08	4.41
32-057	3/8" x 1/8"	1.47	0.97	0.56	0.04	2.12
32-058	3/8" x 1/4"	1.61	0.97	0.62	0.06	2.00
32-059	3/8" x 3/8"	1.63	1.00	0.81	0.08	2.00
32-063	3/8" x 1/2"	1.72	0.94	0.93	0.12	3.46
32-442	3/8" x 3/4"	1.97	0.97	1.18	0.20	11.54
32-064	1/2" x 1/4"	1.66	0.69	0.62	0.08	2.39
32-060	1/2" x 3/8"	1.66	0.97	0.75	0.08	3.87
32-061	1/2" x 1/2"	1.76	0.96	0.93	0.12	3.91
32-443	1/2" x 3/4"	1.97	0.97	1.18	0.26	12.36
32-444	5/8" x 3/8"	1.66	0.97	0.75	0.08	4.68
32-445	5/8" x 1/2"	1.66	0.97	0.93	0.10	6.82
32-446	5/8" x 3/4"	1.97	0.97	1.18	0.21	12.29
32-447	3/4" x 1/2"	1.88	1.19	0.93	0.13	7.54
32-065	3/4" x 3/4"	2.19	1.21	1.18	0.22	5.95
32-049	1" x 3/4"	2.19	1.19	1.18	0.26	15.27
32-321	1" x 1"	2.32	1.19	1.18	0.35	21.82
32-448	1-1/4" x 1"	2.32	1.19	1.43	0.44	19.66

**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	8.55
32-472	3/8" x 1/4"	1.80	0.97	0.62	0.06	8.72
32-473	3/8" x 3/8"	1.82	0.97	0.75	0.09	8.78
32-475	1/2" x 3/8"	1.82	0.97	0.75	0.09	9.01
32-476	1/2" x 1/2"	1.86	0.97	0.93	0.14	10.83

Fall Seven times, stand up eight.  
 - Japanese Proverb

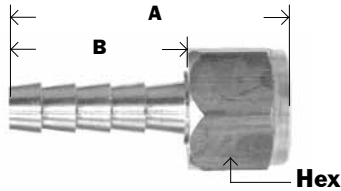
Lead Free fittings available on  
 pgs. 382-388



## SWIVEL FEMALE ADAPTER - With Gasket

• NPSM Thread

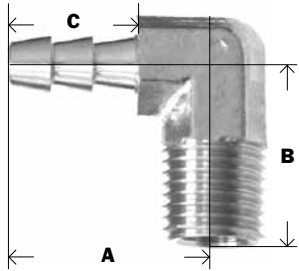
National Pipe Straight Gasket Seal Swivel



130  
126  
29FSG  
KF-RN  
NPSM Gasket

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	4.12
32-132	3/16" x 1/8"	1.19	0.75	0.50	0.03	3.75
32-133	3/16" x 1/4"	1.28	0.75	0.62	0.04	6.02
32-120	1/4" x 1/8"	1.41	0.97	0.50	0.02	6.97
32-121	1/4" x 1/4"	1.50	0.97	0.62	0.02	2.67
32-129	1/4" x 3/8"	1.63	0.97	0.75	0.04	6.16
32-130	5/16" x 1/4"	1.50	0.97	0.62	0.04	7.25
32-122	3/8" x 1/4"	1.54	1.00	0.62	0.06	4.50
32-123	3/8" x 3/8"	1.60	0.97	0.75	0.06	6.53
32-354	3/8" x 1/2"	1.66	0.97	0.93	0.10	8.88
32-124	1/2" x 3/8"	1.60	0.97	0.75	0.08	6.19
32-125	1/2" x 1/2"	1.66	0.97	0.93	0.12	6.53
32-117	1/2" x 3/4"	1.82	1.19	1.18	0.16	10.14
32-118	5/8" x 3/4"	1.82	1.19	1.18	0.18	10.79
32-119	3/4" x 3/4"	1.82	1.19	1.18	0.14	6.91

## FORGED HOSE BARB 90° ELBOW



Grooved End Barb



Square Body

129  
HBE1  
KF-PS90  
HE-1  
29E  
139

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	2.35
32-391	3/16" x 1/4"	1.00	0.84	0.63	0.46	0.10	3.42
32-038	1/4" x 1/8"	1.01	0.81	0.71	0.47	0.06	2.13
32-039	1/4" x 1/4"	1.01	0.87	0.63	0.47	0.06	2.92
32-309*	1/4" x 3/8"	1.08	0.97	0.73	0.69	0.12	3.91
32-036	5/16" x 1/8"	1.01	0.81	0.63	0.47	0.04	2.61
32-040	5/16" x 1/4"	1.01	0.87	0.63	0.47	0.06	3.00
32-310	5/16" x 3/8"	1.06	0.94	0.63	0.50	0.06	5.67
32-046	3/8" x 1/8"	1.01	0.81	0.63	0.47	0.06	2.35
32-041	3/8" x 1/4"	1.02	0.88	0.65	0.47	0.06	3.03
32-042	3/8" x 3/8"	1.09	0.93	0.68	0.50	0.08	3.64
32-047	3/8" x 1/2"	1.11	1.09	0.63	0.59	0.10	3.87
32-048	1/2" x 1/4"	1.06	1.00	0.68	0.59	0.10	3.64
32-043	1/2" x 3/8"	1.06	1.09	0.69	0.59	0.10	4.13
32-311	1/2" x 1/2"	1.31	1.19	0.87	0.56	0.22	5.87
32-044**	5/8" x 3/8"	1.12	1.06	0.61	0.56	0.12	5.69
32-045**	5/8" x 1/2"	1.12	1.12	0.66	0.59	0.14	5.54
32-312	5/8" x 3/4"	1.46	1.26	0.93	1.06	0.32	9.52
32-313***	3/4" x 1/2"	1.31	1.28	0.87	0.85	0.22	7.93
32-314	3/4" x 3/4"	1.46	1.26	0.91	1.06	0.32	12.72
32-330***	3/4" x 1"	1.57	1.64	0.90	1.34	0.64	19.27
32-315	1" x 3/4"	1.60	1.40	0.95	1.06	0.32	11.70
32-319	1" x 1"	1.69		0.98		0.43	39.70

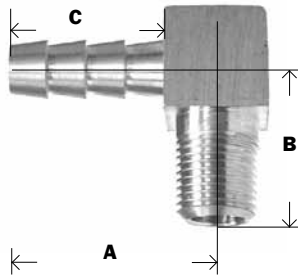
\* Barstock  
\*\* Grooved End Barbs  
\*\*\* Square Body

See Bronze insert fittings on page 266 for larger sizes.

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



**BARSTOCK HOSE BARB 90° ELBOW**

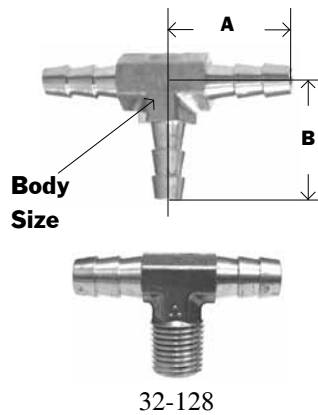


129HB

Part #	Hose I.D. x Male NPTF	A	B	C	Body Size	Approx. Wt. Lbs.	List Price
32-308B	3/16" X 1/8"	0.97	0.72	0.75	0.43	0.04	6.10
32-038B	1/4" X 1/8"	1.00	0.75	0.75	0.50	0.02	4.77
32-039B	1/4" X 1/4"	1.02	0.91	0.74	0.56	0.04	5.23
32-041B	3/8" X 1/4"	1.32	0.89	0.97	0.58	0.08	6.73
32-042B	3/8" X 3/8"	1.50	1.06	0.97	0.75	0.14	14.49
32-043B	1/2" X 3/8"	1.53	1.07	0.97	0.72	0.16	11.34

**BRASS**

**HOSE BARB TEES**

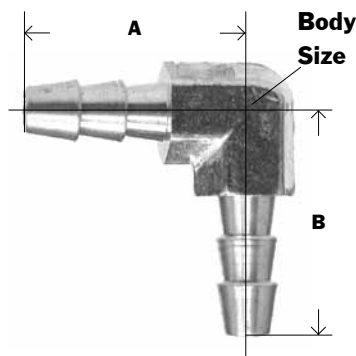


32-128

Part #	Hose Barb Size	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-367	1/8"	0.84	0.83	0.25	0.02	3.46
32-368	3/16"	1.02	1.02	0.37	0.03	6.08
32-365	1/4"	1.00	1.00	0.44	0.06	2.89
<b>NEW</b> 32-350	1/4" x 1/8"	0.94	0.94	0.44	0.04	5.87
32-366	5/16"	1.00	1.00	0.44	0.06	3.63
32-126	3/8"	1.01	1.01	0.43	0.06	3.83
32-400	1/2"	1.02	1.00	0.43	0.08	4.44
<b>NEW</b> 32-352	1/2" x 3/8"	1.26	1.26	0.43	0.10	11.12
32-361	5/8"	1.26	1.26	0.75	0.16	16.93
32-363	3/4"	1.26	1.26	0.88	0.18	23.29
<b>NEW</b> 32-353	3/4" x 1/2"	1.41	1.41	0.88	0.23	23.20
32-128	3/8" HB x 1/4" MIP	1.00	0.94	0.43	0.06	9.58

\* See Bronze insert fittings on page 265 for larger sizes.

**90° HOSE BARB ELBOW**

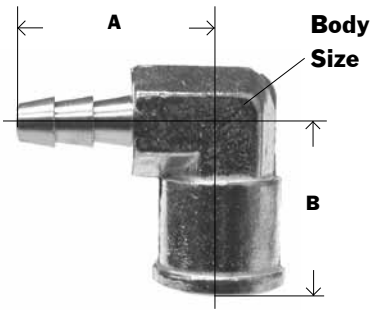


Part #	Hose I.D. x Hose I.D.	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-429	1/8" x 1/8"	0.55	0.55	0.37	0.03	6.02
32-433	3/16" x 3/16"	0.90	0.90	0.37	0.03	4.92
32-412	1/4" x 1/8"	1.02	1.02	0.44	0.04	2.73
32-413	1/4" x 1/4"	1.01	1.01	0.44	0.04	3.51
32-425	5/16" x 5/16"	1.15	1.15	0.48	0.05	7.74
32-414	3/8" x 1/8"	1.01	1.01	0.44	0.04	3.96
32-415	3/8" x 1/4"	1.00	1.00	0.44	0.04	3.82
32-416	3/8" x 3/8"	1.02	1.02	0.44	0.04	5.75
32-417	3/8" x 1/2"	1.24	1.10	0.50	0.06	4.65
32-418	1/2" x 1/4"	1.24	1.08	0.50	0.06	4.83
32-419	1/2" x 3/8"	1.22	1.09	0.50	0.06	4.62
32-420	1/2" x 1/2"	1.24	1.24	0.50	0.06	5.05
32-434	5/8" x 5/8"	1.20	1.20	0.75	0.16	15.45
32-435	3/4" x 1/2"	1.41	1.41	0.88	0.21	18.37
32-436	3/4" x 3/4"	1.41	1.41	0.88	0.21	20.37



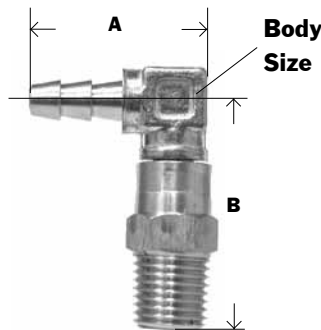


**90° FEMALE HOSE BARB ELBOW**



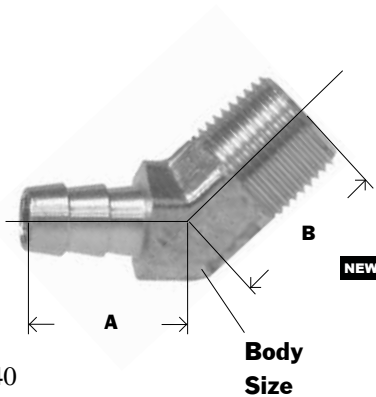
Part #	Hose I.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-401	1/4" x 1/8"	1.01	0.82	0.47	0.06	4.28
32-402	1/4" x 1/4"	1.13	0.91	0.56	0.10	4.39
32-403	3/8" x 1/8"	1.01	0.82	0.47	0.06	4.26
32-404	3/8" x 1/4"	1.15	0.91	0.56	0.10	5.61
32-405	3/8" x 3/8"	1.15	1.11	0.68	0.14	6.73
32-406	3/8" x 1/2"	1.26	1.39	0.75	0.20	9.84
32-407	1/2" x 1/4"	1.26	0.91	0.56	0.10	6.26
32-410	1/2" x 3/8"	1.24	1.11	0.68	0.14	8.35
32-411	1/2" x 1/2"	1.37	1.39	0.75	0.20	9.33
32-409	3/4" x 3/4"	1.52		0.81	0.50	14.03

**90° HOSE BARB x SWIVEL MALE PIPE**



Part #	Hose I.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-421	1/4" x 1/8"	1.00	1.53	0.47	0.08	6.26
32-422	1/4" x 1/4"	1.00	1.54	0.56	0.08	6.26
32-423	3/8" x 1/8"	1.00	1.53	0.47	0.08	8.21
32-424	3/8" x 1/4"	1.00	1.54	0.56	0.08	8.26
32-426	3/8" x 3/8"	0.98	1.46	0.68	0.12	8.71
32-427	3/8" x 1/2"	1.01	1.79	0.87	0.18	9.12
32-428	1/2" x 1/4"	1.07	1.61	0.56	0.12	8.56
32-431	1/2" x 3/8"	1.07	1.53	0.68	0.14	9.47
32-432	1/2" x 1/2"	1.07	1.79	0.87	0.16	11.61

**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	5.71
32-109*	1/4" x 1/4"	1.00	0.62	0.57	0.06	11.47
32-111	3/8" x 1/8"	0.83	0.66	0.53	0.04	4.58
32-112	3/8" x 1/4"	0.82	0.84	0.53	0.06	4.10
32-113	3/8" x 3/8"	0.93	0.87	0.59	0.08	5.21
32-346	1/2" x 1/4"	1.00	0.84	0.59	0.08	8.07
32-114	1/2" x 3/8"	1.00	0.88	0.59	0.08	6.87
<b>NEW</b> 32-116	1/2" x 1/2"				0.12	12.39
32-115	5/8" x 3/8"	0.97	0.88	0.59	0.10	7.12
32-345	3/4" x 1/2"	1.15	0.94	0.81	0.13	21.13

140  
HE145  
139HB  
KF-PS45  
139

\* Barstock

If I have seen further it is by standing on the shoulders of giants.

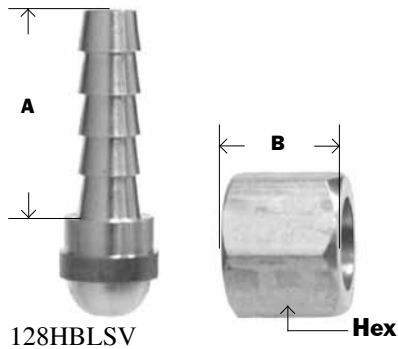
- Isaac Newton





**BALL END SWIVEL**

NPSM - Ball seat type

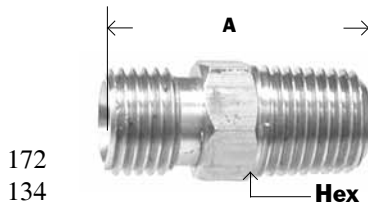


- 128HBLSV
- 29FS
- 209AS
- 124
- 131

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	3.76
32-067	3/16" x 1/8"	0.75	0.44	0.50	0.03	3.86
32-068	3/16" x 1/4"	0.75	0.52	0.62	0.04	4.27
32-069	1/4" x 1/8"	0.97	0.44	0.50	0.04	3.35
32-070	1/4" x 1/4"	0.97	0.53	0.62	0.06	2.29
32-078	1/4" x 3/8"	0.97	0.63	0.75	0.06	5.17
32-071	5/16" x 1/4"	0.97	0.52	0.62	0.05	3.03
32-072	3/8" x 1/4"	0.97	0.53	0.62	0.06	2.27
32-073	3/8" x 3/8"	0.97	0.59	0.75	0.08	2.51
32-074	3/8" x 1/2"	0.97	0.69	0.94	0.14	7.50
32-075	1/2" x 3/8"	0.97	0.59	0.75	0.08	2.78
32-076	1/2" x 1/2"	0.97	0.69	0.94	0.10	3.50
32-077	3/4" x 3/4"	0.97	0.70	1.12	0.14	5.99

**BALLSEAT MALE ADAPTER**

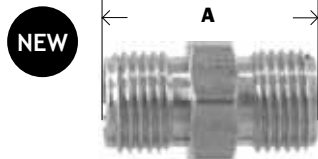
Beveled seat



- 172
- 134
- 127HB
- 122AS

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	2.97
32-034	1/4" x 1/8"	1.06	0.56	0.04	2.48
32-030	1/4" x 1/4"	1.25	0.56	0.06	3.03
32-362	3/8" x 1/4"	1.28	0.68	0.08	3.46
32-031	3/8" x 3/8"	1.30	0.68	0.08	3.72
32-364	1/2" x 3/8"	1.35	0.87	0.10	6.40
32-032	1/2" x 1/2"	1.53	0.87	0.14	6.17
32-033	3/4" x 3/4"	1.53	1.06	0.20	8.72

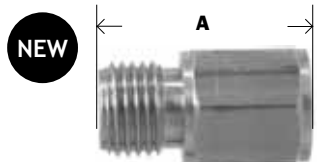
**BALLSEAT UNION**



NEW

Part #	NPSM x NPSM	A	Hex	Approx. Wt. Lbs.	List Price
32-460	1/8"	0.79	0.43	0.02	3.36
32-461	1/4"	1.09	0.56	0.04	3.71
32-462	3/8"	1.19	0.68	0.07	5.19
32-463	1/2"	1.31	0.87	0.10	6.61

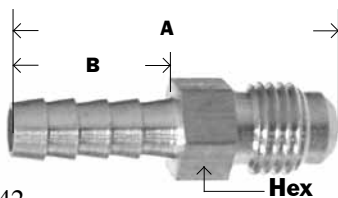
**FEMALE BALLSEAT ADAPTER**



NEW

Part #	NPSM x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
32-465	1/4" x 1/4"	1.12	0.62	0.05	4.39
32-466	3/8" x 3/8"	1.15	0.75	0.07	5.02
32-467	1/2" x 1/2"	1.22	0.94	0.10	6.50

**45° FLARE ADAPTER**

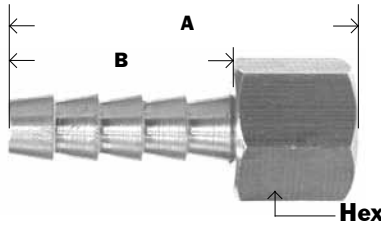


- 142
- 201BF
- KF-MS

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	5.39
32-081	1/4" x 1/4"	7/16-20	1.72	0.97	0.43	0.03	2.72
32-082	1/4" x 3/8"	5/8-18	1.82	0.97	0.62	0.07	3.59
32-083	5/16" x 5/16"	1/2-20	1.75	0.97	0.50	0.08	4.24
32-084	3/8" x 3/8"	5/8-18	1.82	0.97	0.62	0.08	3.95
32-085	3/8" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	5.47
32-086	1/2" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	5.90

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

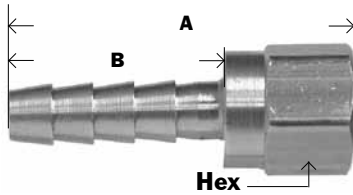
**FEMALE 45° FLARE SWIVEL**



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

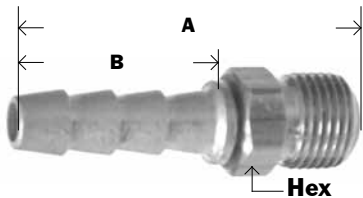
Part #	Hose I.D. x Female 45° Flare	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-326	3/16" x 3/16"	3/8-24	1.19	0.75	0.43	0.04	3.82
32-107	3/16" x 1/4"	7/16-20	1.34	0.75	0.56	0.04	2.96
32-101	1/4" x 1/4"	7/16-20	1.57	0.97	0.56	0.04	1.94
32-102	1/4" x 5/16"	1/2-20	1.53	0.97	0.62	0.06	2.65
32-103	1/4" x 3/8"	5/8-18	1.64	0.97	0.75	0.08	2.31
32-104	5/16" x 5/16"	1/2-20	1.58	0.97	0.62	0.05	4.26
32-327	5/16" x 3/8"	5/8-18	1.64	0.97	0.75	0.08	3.29
32-105	3/8" x 3/8"	5/8-18	1.64	0.97	0.75	0.08	2.93
32-106	3/8" x 1/2"	3/4-16	1.81	0.97	0.87	0.10	6.51
32-100	1/2" x 1/2"	3/4-16	1.68	0.97	0.87	0.12	3.61
32-328	3/4" x 3/4"	1-1/16-14	2.00	0.97	1.25	0.20	16.04

**DUAL 45°/ 37° FLARE SWIVEL**



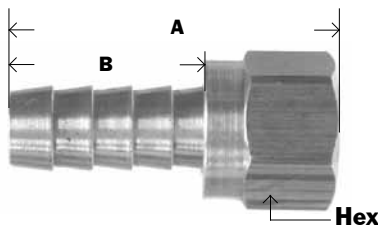
Part #	Hose I.D. x Female 45° Flare	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-337	1/4" x 1/4"	7/16-20	1.56	0.97	0.56	0.04	2.47
32-339	5/16" x 5/16"	1/2-20	1.60	0.97	0.62	0.06	2.98
32-340	3/8" x 1/2"	3/4-16	1.68	0.97	0.87	0.10	4.53
32-341	1/2" x 1/2"	3/4-16	1.68	0.97	0.87	0.10	3.99
32-342	1/2" x 5/8"	7/8-14	1.76	0.97	1.00	0.12	6.43

**INVERTED FLARE SWIVEL**



Part #	Hose I.D. x Female 45° Flare	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-369	1/4" x 1/4"	7/16-24	1.56	0.95	0.43	0.04	9.39
32-371	3/8" x 3/8"	5/8-18	1.70	0.96	0.62	0.06	12.56
32-372	1/2" x 1/2"	3/4-18	1.80	0.96	0.75	0.08	9.66
32-373	5/8" x 5/8"	7/8-18	2.05	1.17	0.87	0.15	16.71

**FEMALE 37° J.I.C. FLARE SWIVEL**



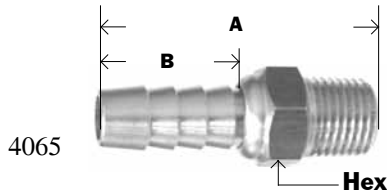
Part #	Hose I.D. x Female 45° Flare	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-334	1/4" x 3/8"	9/16-18	1.60	0.97	0.68	0.06	3.09
32-335	5/16" x 3/8"	9/16-18	1.60	0.97	0.68	0.06	3.20
32-336	3/8" x 3/8"	9/16-18	1.60	0.97	0.68	0.10	3.05
32-338	3/4" x 3/4"	1-1/16-12	2.00	0.97	1.25	0.20	16.13

We learn something every day, and lots of times it's that what we learned the day before was wrong.

- Bill Vaughan



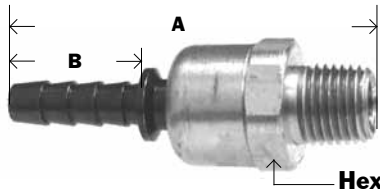
**HIGH PRESURE MALE SWIVEL**



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	16.78

**HOSE ID x MALE BALL SWIVEL**

**300 PSI. Max. Working Pressure**

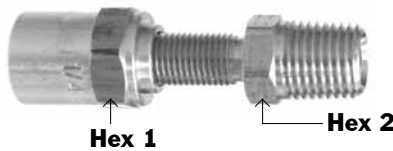


Part #	Hose I.D. x Male ball swivel	A	B	Hex	Approx. Wt. Lbs.	List Price
28-415	1/4" x 1/4"	1.30	0.94	0.81	0.14	31.98
28-417	3/8" x 1/4"	1.30	1.00	0.81	0.14	29.54

**1/4" MALE THREAD ID x OD**

**Reusable Hose Couplings**

183



Part #	Size 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	7.81
32-726	1/4" x 5/8"	1.86	0.81	0.56	0.13	7.02
32-727	1/4" x 1/2"	1.86	0.69	0.56	0.11	6.36
32-728	1/4" x 9/16"	1.86	0.75	0.56	0.12	10.31
32-741	5/16" x 5/8"	1.97	0.81	0.56	0.13	7.40
32-742	3/8" x 5/8"	1.97	0.81	0.56	0.14	11.46

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

The secret of being miserable is to have leisure to bother about whether you are happy or not. The cure for it is occupation.

- George Bernard Shaw

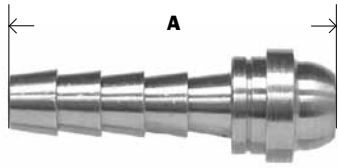
Beware all enterprises that require new clothes.

- Henry David Thoreau

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



**STEM ONLY - WELDING HOSE CONNECTOR**

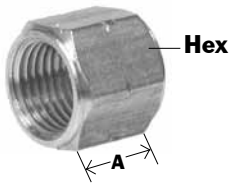


201RWA  
WRS  
WLS

Part #	Hose I.D.	A	Approx. Wt. Lbs.	List Price
30-410	3/16"	1.43	0.02	1.53
30-411	1/4"	1.43	0.02	1.34
30-412	5/16"	1.43	0.03	1.96
30-413	3/8"	1.43	0.04	1.88

Assemble with nuts below.

**RIGHT HAND 9/16 - 18 FOR OXYGEN LINE - WELDING HOSE CONNECTOR**

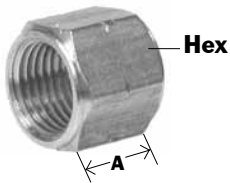


201RWA  
WRS  
KF-PE  
152

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-420	R.H. Nut only	0.63	0.68	0.04	1.75

Assemble with stem above.

**LEFT HAND 9/16 - 18 FOR ACETYLENE LINE - WELDING HOSE CONNECTOR**

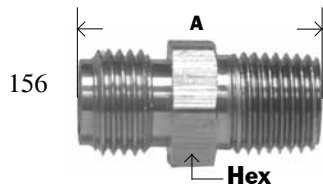


209LWA  
WLS  
154  
KF-RE

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-421	L.H. Nut only	0.63	0.68	0.04	1.50

Assemble with stem above.

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

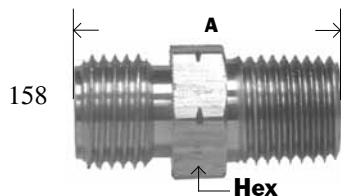


156

**NEW**  
**NEW**

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-401	1/4"-18	1.30	0.62	0.06	4.32
32-437	3/8"-18	1.30	0.68	0.09	4.79
32-438	9/16"-18	1.25	0.68	0.07	4.56

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



158

**NEW**  
**NEW**

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-406	1/4"-18	1.30	0.62	0.06	4.32
32-439	3/8"-18	1.30	0.68	0.09	4.79
32-440	9/16"-18	1.25	0.68	0.07	4.56

While I am busy with little things, I am not required to do greater things.

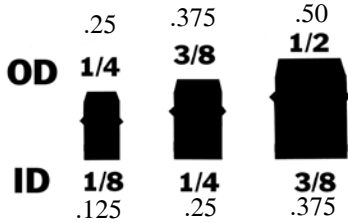
- St. Francis de Sales



# BRASS FITTINGS

## 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.)



### UNION



1062  
962

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)	2.85
21-007	3/8(1/4) x 1/4(1/8)	5.15
21-009	3/8(1/4) x 3/8(1/4)	2.30

### MALE ADAPTER



1068  
968  
688

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

Part #	Size	List Price
21-021	1/4(1/8) x 1/16	3.92
21-023	1/4(1/8) x 1/8	2.77
21-025	1/4(1/8) x 1/4	4.53
21-027	3/8(1/4) x 1/8	3.63

### FEMALE ADAPTER



1066  
966  
26  
668

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

Part #	Size	List Price
21-043	1/4(1/8) x 1/8	5.58
21-047	3/8(1/4) x 1/4	5.25

### BULKHEAD UNION



1074

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

Part #	Size	List Price
21-082	1/4(1/8)	12.06
21-083	3/8(1/4)	16.60

## UNION ELBOW



1065  
965

TUBE O.D. (I.D.)

Part #	Size	List Price
21-095	1/4(1/8)	4.48
21-097	3/8(1/4)	6.48
21-099	1/2(3/8)	7.57

## MALE 90° ELBOW



1069  
969  
229

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

Part #	Size	List Price
21-111	1/4(1/8) x 1/16	5.51
21-113	1/4(1/8) x 1/8	3.21
21-115	1/4(1/8) x 1/4	5.15
21-117	3/8(1/4) x 1/8	6.36
21-119	3/8(1/4) x 1/4	4.43
21-121	1/2(3/8) x 3/8	15.45

## FEMALE 90° ELBOW



1070  
970  
230

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

Part #	Size	List Price
21-133	1/4(1/8) x 1/8	5.82

## UNION TEE



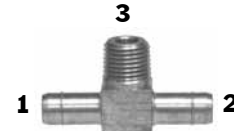
1064  
964  
224

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

Part #	Size	List Price
21-151	1/4(1/8)	5.69
21-153	3/8(1/4) X 3/8(1/4) X 1/4(1/8)	6.18
21-155	3/8(1/4)	1.52
21-159	1/2(3/8) X 1/2(3/8) X 3/8(1/4)	38.65
21-161	1/2(3/8)	9.21

# HOSE BARB

## MALE BRANCH TEE

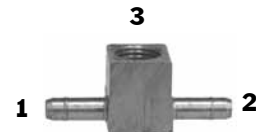


1072  
972  
232

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	5.00
21-195	3/8(1/4) x 3/8(1/4) x 1/8	8.05
21-197	3/8(1/4) x 3/8(1/4) x 1/4	9.09

## FEMALE BRANCH TEE



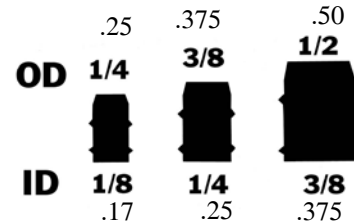
1077  
978

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	8.73

## TWO BARB FITTINGS

More Sizes Available - Please Ask!



## MALE ADAPTER PIPE



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

Part #	Size	List Price
32-150	1/4(1/8) x 1/8	3.71
32-151	1/4(1/8) x 1/4	6.08
32-153	3/8(1/4) x 1/4	6.84

## UNION TEE



Part #	Tube O.D. (I.D.)	List Price
32-159	1/4(1/8 ID)	5.79
32-160	3/8(1/4 ID)	10.35

## 90° ELBOW



Part #	Tube O.D. (I.D.)	List Price
32-170	1/4(1/8 ID)	6.23
32-171	3/8(1/4 ID)	9.26

BRASS



# HOSE BARB

# BRASS FITTINGS

BRASS

## STAINLESS STEEL HOSE BARBS



• Cast

### 304 STAINLESS STEEL HOSE NIPPLES

Part #	Hose I.D. x Male Pipe	List Price
73-951	1/4"	5.80
73-952	3/8"	9.04
73-953	1/2"	10.08
73-954	3/4"	11.38
73-955	1"	14.54
73-956	1-1/4"	25.21
73-957	1-1/2"	26.31
73-958	2"	40.28
73-959	2-1/2"	87.49
73-960	3"	108.40

### 304 STAINLESS STEEL REDUCING HOSE NIPPLES

Part #	Hose I.D. x Male Pipe	List Price
73-970	1/4" X 1/8"	5.91
73-971	3/8" X 1/4"	6.83
73-972	1/2" X 3/8"	10.20
73-973	1/2" X 1/4"	10.54
73-974	3/4" X 1/2"	13.46
73-975	1" X 3/4"	15.20
73-976	1" X 1/2"	24.75
73-977	1-1/4" X 1"	24.48
73-979	1-1/2" X 1-1/4"	38.48
73-980	1-1/2" X 1"	29.52
73-981	2" X 1-1/2"	50.91
73-982	2" X 1-1/4"	40.71

### 316 STAINLESS STEEL HOSE NIPPLES

Part #	Hose I.D. x Male Pipe	List Price
973-951	1/4"	6.49
973-952	3/8"	8.33
973-953	1/2"	14.86
973-954	3/4"	15.62
973-955	1"	18.71
973-956	1-1/4"	25.42
973-957	1-1/2"	44.19
973-958	2"	47.08
973-959	2-1/2"	121.52
973-990	3"	149.72
973-991	4"	185.95

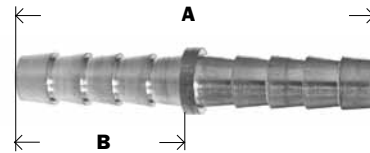
Dimension data can change without notice. Please call us when dimensions are critical.

• NOTE: See Stainless Steel Hose Barbs for beverage on pg. 311



### 316 STAINLESS STEEL MACHINED RIGID MALE ADAPTER

Part #	Hose I.D. x NPT	List Price
32-001SS	1/8" x 1/8"	6.24
32-002SS	3/16" x 1/8"	6.72
32-003SS	3/16" x 1/4"	8.94
32-004SS	1/4" x 1/8"	7.89
32-005SS	1/4" x 1/4"	9.42
32-006SS	1/4" x 3/8"	13.77
32-008SS	5/16" x 1/8"	8.01
32-009SS	5/16" x 1/4"	9.90
32-010SS	5/16" x 3/8"	13.77
32-011SS	3/8" x 1/8"	8.19
32-012SS	3/8" x 1/4"	9.42
32-013SS	3/8" x 3/8"	12.78
32-014SS	3/8" x 1/2"	17.58
32-015SS	1/2" x 1/4"	11.10
32-016SS	1/2" x 3/8"	13.77
32-017SS	1/2" x 1/2"	16.68
32-018SS	1/2" x 3/4"	23.88
32-019SS	5/8" x 3/8"	12.54
32-020SS	5/8" x 1/2"	17.34
32-021SS	5/8" x 3/4"	23.88
32-022SS	3/4" x 1/2"	18.30
32-023SS	3/4" x 3/4"	25.56
32-024SS	1" x 3/4"	25.56



### 316 STAINLESS STEEL SPLICER

Part #	Hose I.D. x Hose I.D.	A	B	List Price
32-093SS	1/4"	2.03	0.97	4.32
32-095SS	3/8"	2.06	0.97	6.00
32-096SS	1/2"	2.06	0.97	8.70
32-098SS	3/4"	2.50	1.19	12.85

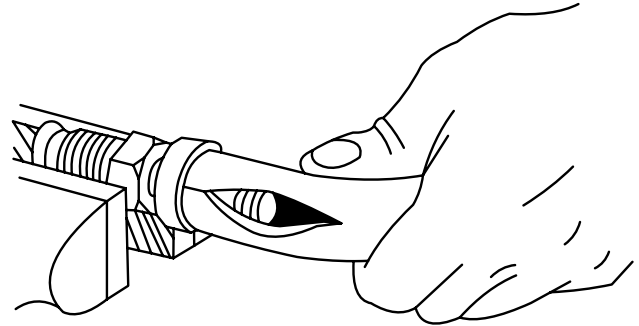
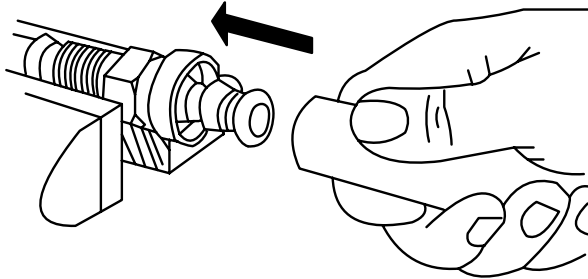
NEW



### STAINLESS STEEL BARB ELBOW

Part #	Size	List Price
32-038SS	1/4 x 1/8	13.56
32-039SS	1/4 x 1/4	13.56
32-041SS	3/8 x 1/4	13.56
32-042SS	3/8 x 3/8	13.56
32-311SS	1/2 x 1/2	16.26

# Push On Barb Fittings



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

**Material:** CA360 Brass

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

• **Assembly Instructions**

- 1- Lubricate insert.

**150 PSI**

- 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.

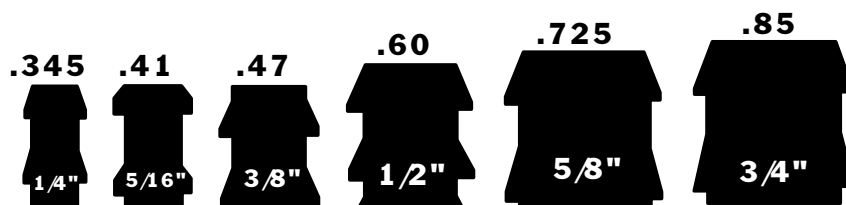
• **Disassembling Instructions**

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

If a man loves the labour of his trade, apart from any question of success or fame, the gods have called him.

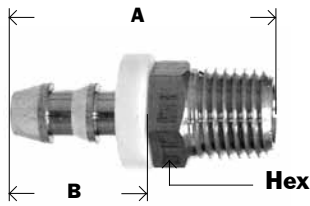
- Robert Louis Stevenson

## Actual Profile of Push On Barbs





**MALE ADAPTER**

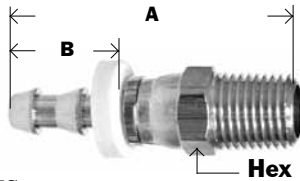


- 301
- P990A
- HLM
- 100B-1
- KA-MB
- 272
- 29PO
- 725
- 625
- BPN

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	1.21
30-201	1/4" x 1/4"	1.66	0.87	0.56	0.06	1.67
30-211	1/4" x 3/8"	1.66	0.87	0.68	0.06	2.64
30-212	5/16" x 1/8"	1.42	0.77	0.43	0.04	3.92
30-213	5/16" x 1/4"	1.66	0.87	0.56	0.06	2.52
30-202	3/8" x 1/8"	1.53	0.97	0.50	0.04	1.82
30-203	3/8" x 1/4"	1.69	0.89	0.56	0.07	2.00
30-204	3/8" x 3/8"	1.76	0.97	0.68	0.08	2.32
30-205	3/8" x 1/2"	1.97	0.97	0.87	0.10	4.17
30-392	3/8" x 3/4"	1.97	0.92	1.06	0.16	11.07
30-216	1/2" x 1/4"	1.76	0.97	0.68	0.08	2.42
30-206	1/2" x 3/8"	1.76	0.97	0.68	0.09	2.55
30-207	1/2" x 1/2"	1.97	0.97	0.87	0.14	4.21
30-217	1/2" x 3/4"	1.97	0.97	1.06	0.16	5.86
30-219	5/8" x 3/8"	2.34	1.50	0.75	0.12	8.65
30-209	5/8" x 1/2"	2.45	1.45	0.87	0.16	6.00
30-214	5/8" x 3/4"	2.45	1.45	1.06	0.18	7.01
30-215	3/4" x 1/2"	2.45	1.45	0.87	0.21	6.00
30-210	3/4" x 3/4"	2.45	1.45	1.06	0.20	6.30
30-238	1" x 3/4"	2.93	1.50	1.25	0.43	20.71
30-239	1" x 1"	3.11	1.50	1.37	0.49	27.22

For STAINLESS PUSH ON FITTINGS see pg. 33

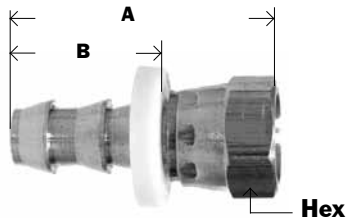
**MALE SWIVEL**



- HMS
- 285

Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
30-385	1/4" x 1/4"	2.02	0.87	0.56	0.06	4.80
30-386	3/8" x 1/4"	2.12	0.97	0.56	0.08	5.53
30-387	3/8" x 3/8"	2.12	0.97	0.68	0.08	6.36
30-388	1/2" x 3/8"	2.12	0.97	0.68	0.10	6.28
30-389	1/2" x 1/2"	2.33	0.97	0.87	0.14	6.59
30-390	3/4" x 3/4"	2.80	1.45	1.06	0.24	10.29

**FEMALE GASKET SEAL SWIVEL - NPSM**



- 280

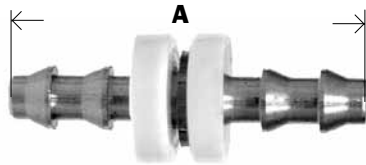
Part #	Hose I.D. x Gasket Swivel (NPSM)	A	B	Hex	Approx. Wt. Lbs.	List Price
30-359	1/4" x 1/8"	1.39	0.77	0.50	0.03	8.13
30-358	1/4" x 1/4"	1.47	0.82	0.68	0.06	5.61
30-360	3/8" x 1/4"	1.61	1.00	0.68	0.06	6.34
30-361	3/8" x 3/8"	1.77	0.97	0.81	0.08	7.49
30-362	3/8" x 1/2"	1.80	0.92	0.93	0.09	13.04
30-365	5/8" x 3/4"	2.40	1.55	1.18	0.28	17.65
30-363	1/2" x 1/2"	1.88	1.02	0.93	0.11	11.02
30-366	3/4" x 3/4"	2.36	1.55	1.18	0.32	20.16

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





**HOSE SPLICER**

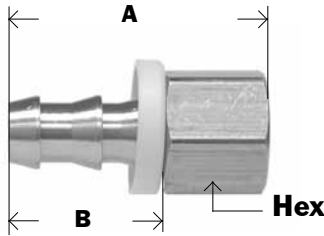


BPM  
696 100B-Y  
29SPO KA-RM  
296 MHL  
729 296

Part #	Hose I.D.	A	Approx. Wt. Lbs.	List Price
30-300	1/4"	1.87	0.04	1.52
30-305	5/16"	1.80	0.04	2.41
30-301	3/8"	2.00	0.06	1.83
30-302	1/2"	2.01	0.08	2.79
30-303	5/8"	3.03	0.14	5.76
30-304	3/4"	3.03	0.14	6.99
30-306	1"	3.21	0.28	16.96

For STAINLESS see pg. 33

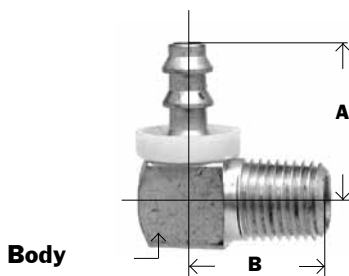
**RIGID FEMALE ADAPTER**



29FPO 274  
HLF 726  
626

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	2.09
30-221	1/4" x 1/4"	1.51	0.87	0.62	0.06	1.73
30-384	1/4" x 3/8"	1.51	0.77	0.75	0.06	5.14
30-391	5/16" x 1/8"	1.32	0.77	0.50	0.03	3.58
30-222	5/16" x 1/4"	1.51	0.87	0.62	0.06	3.02
30-393	3/8" x 1/8"	1.47	0.92	0.56	0.06	3.87
30-224	3/8" x 1/4"	1.61	0.97	0.62	0.06	2.20
30-225	3/8" x 3/8"	1.63	0.97	0.75	0.06	2.98
30-394	3/8" x 1/2"	1.66	0.92	0.93	0.12	5.77
30-397	3/8" x 3/4"	1.97	0.97	1.18	0.20	12.46
30-223	1/2" x 1/4"	1.76	1.02	0.68	0.08	9.03
30-226	1/2" x 3/8"	1.63	0.97	0.75	0.08	3.67
30-227	1/2" x 1/2"	1.77	0.97	0.93	0.14	5.77
30-396	1/2" x 3/4"	2.07	1.02	1.18	0.20	13.10
30-398	5/8" x 3/8"	2.24	1.55	0.75	0.10	6.52
30-229	5/8" x 1/2"	2.24	1.48	0.93	0.11	6.81
30-399	3/4" x 1/2"	2.24	1.50	0.93	0.14	8.89
30-395	3/4" x 3/4"	2.55	1.50	1.18	0.24	12.12
30-400	1" x 3/4"	2.55	1.55	1.18	0.25	14.60
30-402	1" x 1"	2.68	1.55	1.43	0.37	25.32

**MALE ELBOW**

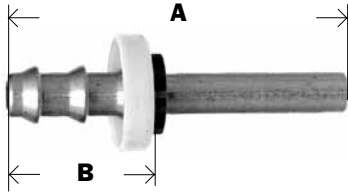


100-C  
29EPO  
273

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	6.61
30-373	1/4" x 1/4"	1.04	0.95	0.56	0.06	6.33
30-374	5/16" x 1/8"	1.02	0.94	0.50	0.06	13.26
30-375	5/16" x 1/4"	1.09	0.94	0.56	0.08	15.90
30-370	3/8" x 1/8"	1.11	0.75	0.50	0.10	7.44
30-371	3/8" x 1/4"	1.13	0.90	0.56	0.10	4.78
30-376	3/8" x 3/8"	1.21	0.92	0.70	0.12	4.82
30-377	3/8" x 1/2"	1.30	1.19	0.87	0.22	17.15
30-382	1/2" x 3/8"	1.54			0.13	11.02
30-378	1/2" x 1/2"	1.50	1.19	0.87	0.22	10.17
30-379	5/8" x 1/2"	1.98	1.19	0.87	0.26	23.12
30-380	5/8" x 3/4"	2.07	1.28	1.06	0.32	27.35
30-383	3/4" x 1/2"	2.15			0.25	29.72
30-381	3/4" x 3/4"	2.07	1.28	1.06	0.34	14.81



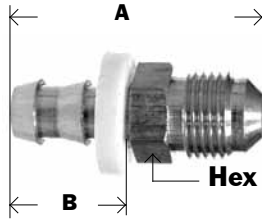
**RIGID TUBE ADAPTER**



294 303  
100B-X 732  
KA-RL 694

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	4.03
30-291	1/4" x 1/4"	1.88	0.77	0.04	1.67
30-292	1/4" x 5/16"	1.88	0.77	0.04	4.62
30-293	5/16" x 5/16"	1.91	0.79	0.04	3.97
30-294	3/8" x 3/8"	2.03	0.92	0.06	3.00
30-297	1/2" x 1/2"	2.13	1.02	0.06	5.69
30-298	5/8" x 5/8"	2.61	1.50	0.10	8.14
30-299	3/4" x 3/4"	2.61	1.50	0.25	11.71

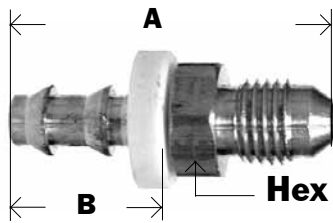
**MALE SAE FLARE ADAPTER**



100B-3 682  
KA-MS 302  
727 282

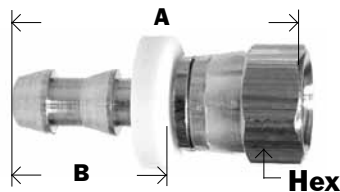
Part #	Hose I.D. x 45° Male Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-240	1/4" x 1/4"	7/16-20	1.45	0.84	0.43	0.04	5.17
30-241	1/4" x 5/16"	1/2-20	1.59	0.84	0.50	0.04	3.57
30-249	5/16" x 5/16"	1/2-20	1.60	0.80	0.50	0.06	2.54
30-271	3/8" x 5/16"	1/2-20	1.64	0.86	0.50	0.08	3.76
30-243	3/8" x 3/8"	5/8-18	1.83	0.92	0.62	0.08	5.72
30-245	1/2" x 1/2"	3/4-16	2.04	1.05	0.75	0.10	9.07
30-246	5/8" x 5/8"	7/8-14	2.73	1.50	0.87	0.19	9.41
30-247	3/4" x 3/4"	1-1/16-14	2.98	1.50	1.06	0.32	13.85

**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	4.31
32-901	1/4" x 5/16"	1/2-20	1.60	0.83	0.56	0.04	4.71
32-906	1/4" x 3/8"	9/16-18	1.63	0.77	0.62	0.05	6.69
32-902	3/8" x 3/8"	9/16-18	1.78	0.97	0.62	0.06	6.48
32-903	1/2" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	8.37
32-907	5/8" x 5/8"	7/8-14	2.62	1.50	0.93	0.19	9.12
32-905	3/4" x 3/4"	1-1/16-12	2.79	1.50	1.12	0.29	16.73

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



29FDS  
287  
HDF  
309  
735  
690  
P990-K  
305

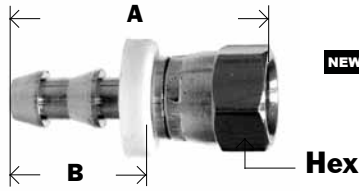
Part #	Hose I.D. x 45° Male Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-230	1/4" x 1/4"	7/16-20	1.53	0.87	0.56	0.06	2.11
30-231	1/4" x 5/16"	1/2-20	1.57	0.87	0.62	0.04	3.07
30-232	5/16" x 5/16"	1/2-20	1.56	0.87	0.62	0.04	3.01
30-233	3/8" x 1/2"	3/4-16	1.79	0.97	0.87	0.10	4.32
30-234	1/2" x 1/2"	3/4-16	1.77	0.97	0.87	0.10	4.07
30-235	1/2" x 5/8"	7/8-14	1.84	0.97	1.00	0.12	6.91
30-236	5/8" x 1/2"	3/4-16	2.27	1.45	0.87	0.18	6.87
30-237	5/8" x 5/8"	7/8-14	2.33	1.45	1.00	0.14	6.34

For STAINLESS see pg. 33 or Beverage Fittings, pg. 311

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



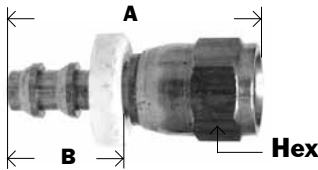
**45° SAE FLARE FEMALE SWIVEL**



Part #	Hose I.D. x 45° Male Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-295	3/16" x 3/8"	5/8-18					3.87
30-250	1/4" x 1/4"	7/16-20	1.54	0.87	0.56	0.04	2.31
30-251	1/4" x 5/16"	1/2-20	1.57	0.87	0.62	0.04	3.26
30-253	1/4" x 3/8"	5/8-20	1.63	0.87	0.75	0.06	4.51
30-254	5/16" x 5/16"	1/2-20	1.58	0.87	0.68	0.06	9.00
30-260	5/16" x 3/8"	5/8-18	1.63	0.87	0.75	0.08	4.44
30-252	3/8" x 3/8"	5/8-18	1.73	0.97	0.75	0.10	3.19
30-257	3/8" x 1/2"	3/4-16	1.85	0.87	0.87	0.10	12.11
30-261	1/2" x 3/8"	5/8-18	1.92	1.05	0.75	0.10	11.00
30-255	1/2" x 1/2"	3/4-16	1.77	0.97	0.87	0.12	5.14
30-258	5/8" x 5/8"	7/8-14	2.35	1.45	1.00	0.14	9.37
30-259	3/4" x 3/4"	1-1/16-14	2.42	1.45	1.25	0.22	9.53

728 100S-4  
 P990-H KA-MB  
 29AEPO HSF  
 307 684  
 284

**FEMALE 37° JIC FLARE SWIVEL**



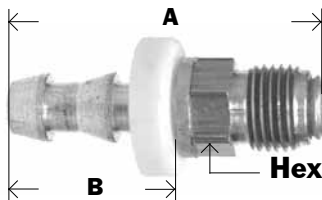
Part #	Hose I.D. x Female JIC	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-265	1/4" x 1/4"	7/16-20	1.54	0.87	0.56	0.04	2.03
30-264	1/4" x 3/8"	9/16-18	1.60	0.87	0.68	0.06	3.28
30-270	5/16" x 3/8"	9/16-18	1.60	0.82	0.68	0.06	3.12
30-266	3/8" x 3/8"	9/16-18	1.70	0.97	0.68	0.08	3.15
30-267	1/2" x 1/2"	3/4-16	1.78	0.97	0.87	0.10	4.71
30-268	5/8" x 5/8"	7/8-14	2.33	1.45	1.00	0.14	6.65
30-269	3/4" x 3/4"	1-1/16-12	2.40	1.45	1.25	0.22	8.74

29J1CPO 288  
 HJF 100B-6  
 688 308  
 738 P990-F

For STAINLESS see pg. 33

• More sizes available

**INVERTED FLARE MALE SWIVEL**

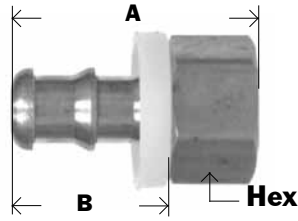


Part #	Hose I.D. x Male INV Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-275	1/4" x 3/16"	3/8-24	1.52	0.87	0.37	0.04	5.87
30-276	1/4" x 1/4"	7/16-24	1.56	0.87	0.43	0.04	3.60
30-277	1/4" x 5/16"	1/2-20	1.62	0.87	0.50	0.04	3.89
30-278	5/16" x 1/4"	7/16-24	1.56	0.87	0.43	0.06	5.52
30-280	5/16" x 5/16"	1/2-20	1.62	0.87	0.50	0.06	5.07
30-283	5/16" x 3/8"	5/8-18	1.63	0.87	0.62	0.06	7.63
30-284	3/8" x 5/16"	1/2-20	1.72	0.97	0.50	0.06	4.72
30-279	3/8" x 3/8"	5/8-18	1.76	0.97	0.62	0.06	3.92
30-281	1/2" x 3/8"	5/8-18	1.86	1.06	0.62	0.08	14.45
30-282	1/2" x 1/2"	3/4-18	1.84	0.97	0.75	0.10	7.72
30-286	5/8" x 5/8"	7/8-18	2.50	1.57	0.87	0.14	14.26

290  
 100B-B  
 KA-MF  
 1MS



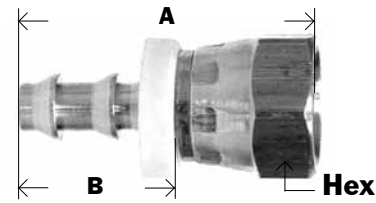
**INVERTED FLARE FEMALE ADAPTER**



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

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	4.10
30-311	1/4" x 1/4"	1.14	0.84	0.56	0.02	4.71
30-312	1/4" x 5/16"	1.18	0.84	0.62	0.02	7.16
30-316	5/16" x 5/16"	1.25	0.81	0.62	0.04	9.39
30-313	3/8" x 5/16"	1.32	0.87	0.62	0.04	6.65
30-314	3/8" x 3/8"	1.35	0.95	0.75	0.06	6.40
30-315	1/2" x 1/2"	1.73	1.04	0.87	0.12	15.18

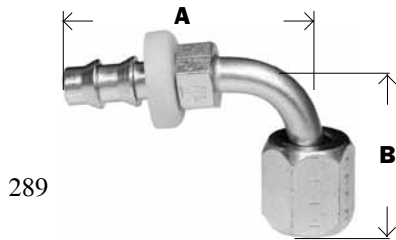
**FEMALE BALLSEAT SWIVEL**



628 731  
 278 NPSM  
 29SPO

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	7.25
30-341	1/4" X 1/4"	1.47	0.80	0.68	0.06	6.04
30-342	1/4" x 3/8"	1.40	0.77	0.68	0.09	7.67
30-343	3/8" X 1/4"	1.61	0.97	0.68	0.08	8.60
30-344	3/8" X 3/8"	1.75	0.95	0.81	0.10	8.64
30-346	1/2" X 1/2"	1.88	1.09	0.93	0.12	12.88
30-345	1/2" x 3/4"	2.36	1.02	1.18	0.18	11.66
30-349	3/4" X 3/4"	2.36	1.55	1.18	0.22	19.47

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



289

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	27.35
30-482	3/8"	9/16-18	1.85	0.91	.095	25.70
30-483*	3/8"	5/8-18	1.98	0.85	.095	33.50
30-484	1/2"	3/4-16	2.33	1.09	.171	29.55
30-486	3/4"	1-1/16-12	3.26	1.81	.281	82.52

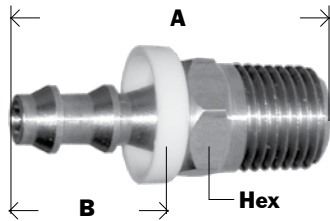
\* SAE

If you resolve to give up smoking, drinking and loving, you don't actually live longer, it just seems longer.

- Clement Freud

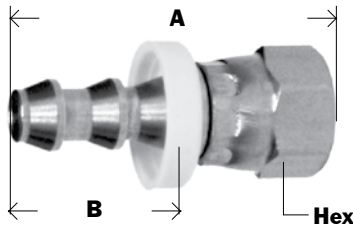


**STAINLESS STEEL MALE ADAPTERS**



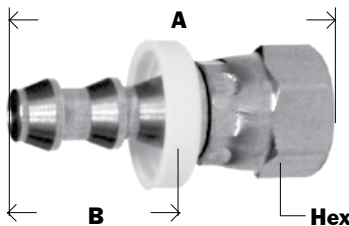
Part #	Hose I.D. x NPT	A	B	Hex	Approx. Wt. Lbs.	List Price
30-200SS	1/4" x 1/8"	1.42	0.77	0.44	0.027	10.49
30-201SS	1/4" x 1/4"	1.61	0.77	0.56	0.043	11.19
30-203SS	3/8" x 1/4"	1.76	0.92	0.56	0.053	12.89
30-204SS	3/8" x 3/8"	1.76	0.92	0.69	0.067	18.13
30-206SS	1/2" x 3/8"	1.86	1.02	0.69	0.071	21.87
30-207SS	1/2" x 1/2"	2.07	1.02	0.88	0.119	24.22
30-215SS	3/4" x 1/2"	2.55	1.50	0.88	0.20	46.73
30-210SS	3/4" x 3/4"	2.55	1.50	1.06	0.194	35.84

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



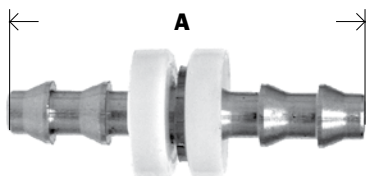
Part #	Hose I.D. x Female 45°/37°	A	B	Hex	Approx. Wt. Lbs.	List Price
30-230SS	1/4" x 1/4"	2.03	0.97	0.56	0.023	34.06
30-234SS	1/2" x 1/2"	2.06	0.97	0.88	0.04	50.53

**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"	1.75	.92	1.06	0.065	40.35
30-269SS	3/4"	2.53	1.50	1.25	0.259	85.42

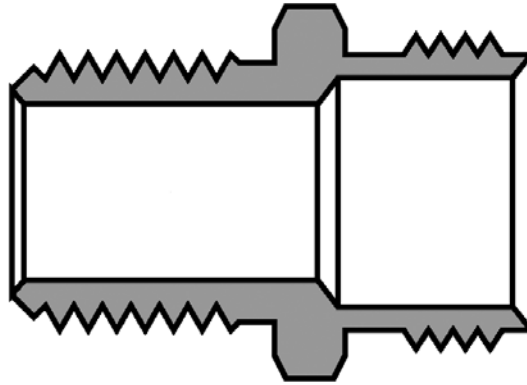
**STAINLESS STEEL HOSE SPLICER**



Part #	Hose I.D. x Tube O.D.	A	Approx. Wt. Lbs.	List Price
30-300SS	1/4"	1.73	0.025	35.55
30-301SS	3/8"	2.05	0.051	42.45
30-302SS	1/2"	2.25	0.073	44.75

• NOTE: See Stainless Steel beverage fittings on pg. 311

# Garden Hose Fittings



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



See page 260 for  
Plastic 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.

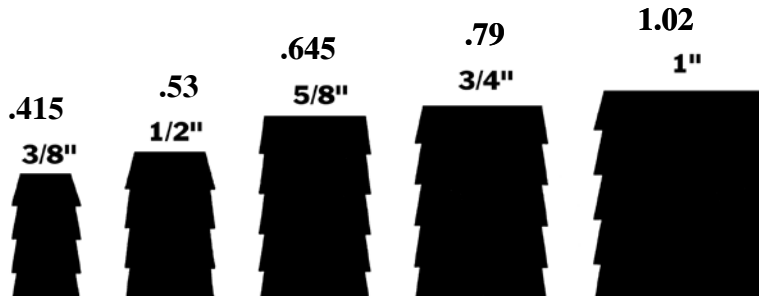
**FGH** = Female Garden Hose threads  
**MGH** = Male Garden Hose threads



## Male Garden Hose Profile

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

## Actual Profile of Garden Hose Barbs



**SWIVEL - MGH X FGH**

•WASHER INCLUDED

Internal Hex

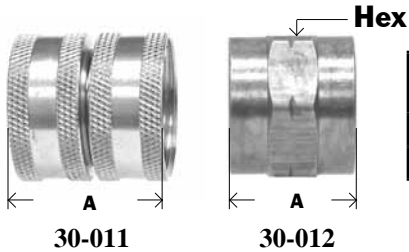


Part #	MGH X FGH	A	Hex	Approx. Wt. Lbs.	List Price
30-000	3/4" x 3/4"	1.03	0.50*	0.26	4.63

\* Internal Hex  
\* Not a live swivel

**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	4.44
30-012	No Swivel	1.08	1.19	0.24	5.97

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"	1.05	0.87	0.11	4.35
30-006	3/4" x 3/4"	1.11	1.12	0.11	4.69

HSU11 91Z 197S 98GHSV  
5AS 21517 502 F565

**RIGID - FGH X FEMALE PIPE**

•WASHER INCLUDED



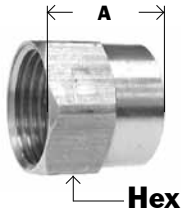
Part #	FGH x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-016	3/4" x 1/8"	1.02	1.18	0.08	4.72
30-017	3/4" x 1/4"	0.65	1.12	0.07	4.31
30-018	3/4" x 3/8"	1.19	1.18	0.11	8.32

95GH 501

Home is not where you live, but where they understand you.  
- Christian Morganstern



**RIGID - FGH X FEMALE PIPE**

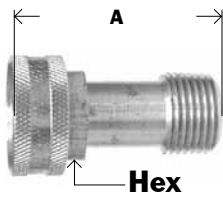


FS67  
198  
HU11  
21507  
501  
99GH  
5A  
H15PP

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	3.78
30-083	3/4" x 3/4"	1.06	1.18	0.12	4.76

**SWIVEL - FGH X MALE PIPE w/ SCREEN**

•WASHER INCLUDED

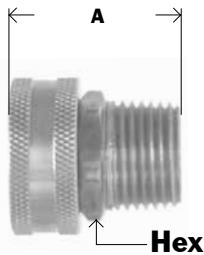


504  
89GH  
W1  
62H4  
88GH  
W1

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	5.02
30-048	3/4" x 3/8"	2.06	0.75	0.14	4.86
30-049	3/4" x 1/2"	2.06	0.87	0.18	5.66

**SWIVEL - FGH X MALE PIPE**

•WASHER INCLUDED



**NEW**  
**NEW**  
**NEW**

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	4.39
30-184	3/4" x 3/8"	1.43	1.18	0.15	4.56
30-183	3/4" x 1/2"	1.32	0.81	0.11	6.20
30-182	3/4" x 3/4"	1.43	1.18	0.14	12.06

**RIGID - FGH X MALE PIPE**



21505  
503  
83GH  
20A  
HU21  
199  
H7

**NEW**

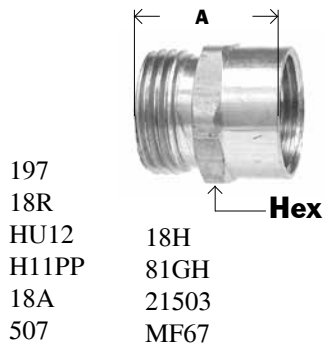
Part #	FGH x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-087	3/4" x 3/8"	1.37	1.18	0.11	4.33
30-088	3/4" x 1/2" (1/2" SWT)**	1.06	1.18	0.09	5.45
30-093	3/4" x 3/4"	1.06	1.18	0.11	3.55
30-094	3/4" x 3/4" (1/2" FIP)	1.17	1.18	0.11	5.09
30-093L*	3/4" x 3/4"	1.22	1.18	0.14	11.23

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



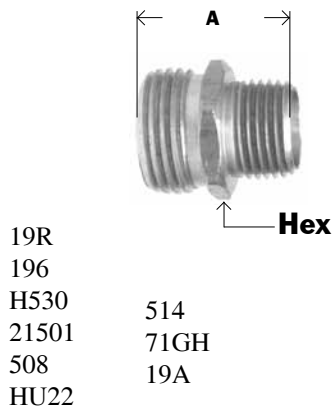


**RIGID - MGH X FEMALE PIPE**



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	4.20
30-067	3/4" x 3/8"	1.09	1.06	0.12	5.30
30-068	3/4" x 1/2"	0.81	1.06	0.10	3.06
30-073	3/4" x 3/4"	1.12	1.18	0.10	3.76

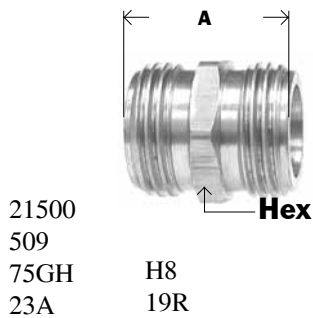
**RIGID - MGH X MALE PIPE**



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	3.36
30-058*	3/4" x 1/2"	1.31	1.06	0.12	3.39
30-063**	3/4" x 3/4" x 1/2"	1.31	1.06	0.13	3.76
30-063BE****	3/4" x 3/4"	1.31	1.06	0.15	6.40
30-063L	Long Pattern	1.43	1.06	0.12	6.00
30-063S	3/4" x 3/4" Short	1.10	1.06	0.10	3.17
<b>NEW</b> 30-064	3/4" x 1"	1.62	1.37	0.35	0.95

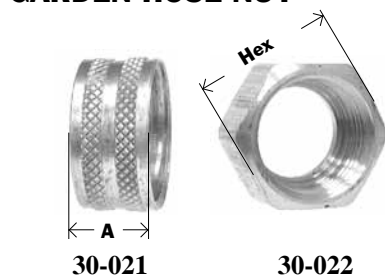
No Tap  
 \* (1/2 Swt = 5/8 O.D.)  
 \*\* (Tapped 1/2 FIP)  
 \*\*\* (Tapped 1/2 FIP Both ends)

**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	4.51
<b>NEW</b> 30-100	1" x 3/4"	1.31	1.37	0.21	6.64

**GARDEN HOSE NUT**



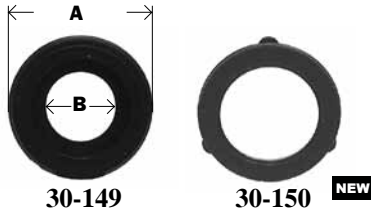
Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-021	Knurled	0.61	1.37 O.D.	0.08	2.59
30-022	Hex Nut	0.51	1.12	0.08	3.57

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

94GH  
 GHN1  
 HNR  
 21514



**GARDEN HOSE WASHERS**

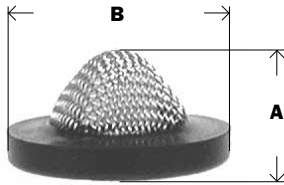


Part #	Size	A	B	Thickness	Approx. Wt. Lbs.	List Price
30-149	recessed washer	1.02	0.49	0.18	0.01	0.34
30-150	black*	0.98	0.68	0.13	0.01	0.19
30-150R	red	1.00	0.68	0.13	0.01	0.17
30-150B	black rubber	1.00	0.68	0.13	0.01	0.25

\* plasticized rubber

GHW  
901GH

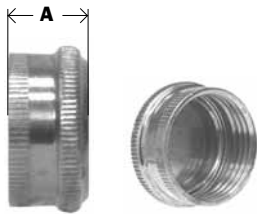
**GARDEN HOSE FILTER WASHER**



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-180	30 Mesh	0.52	1.00	0.02	0.87
30-180F	60 Mesh	0.52	1.00	0.02	1.02

LA662

**GARDEN HOSE CAP - Die Cast Brass**

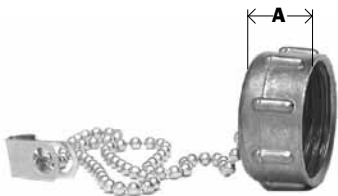


Part #	Size	A	Approx. Wt. Lbs.	List Price
30-103	3/4" Die Cast	0.58	0.04	1.28

• Barstock Caps available

513  
96GH  
GHN5  
HC1      21518  
LA215    200-W

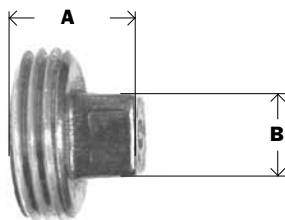
**GARDEN HOSE CAP WITH CHAIN**



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-142	3/4" w/ 8" Chain	0.58	0.06	6.89

\* Zinc die cast

**GARDEN HOSE PLUG**

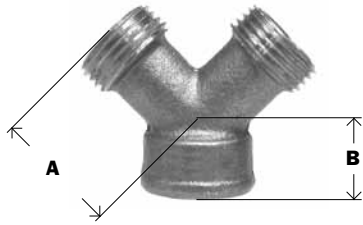


Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-026	3/4"	0.69	0.61	0.12	8.05



**CAST BRASS HOSE - "Y" CONNECTOR**

•WASHER INCLUDED



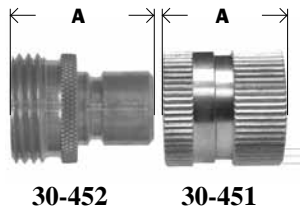
21A

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-140	3/4"	1.40	0.67	0.22	7.99

• See more Garden Hose "Y"'s on page 44

**QUICK DISCONNECT GARDEN HOSE COUPLERS**

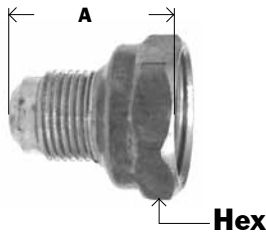
•WASHER INCLUDED



LA73C

Part #	Size	A	Approx. Wt. Lbs.	List Price
30-450	Complete	-----	0.24	12.11
30-451	Female end	1.14	0.12	5.94
30-452	Male end	1.26	0.12	3.28

**MALE FLARE X FEMALE HOSE RIGID**

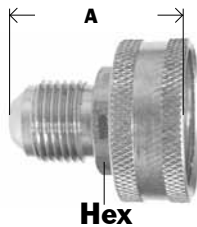


190  
46WH  
HFU21

Part #	Male Flare x Female Hose	A	Hex	Approx. Wt. Lbs.	List Price
30-123	3/8" x 3/4"	1.31	1.18	0.10	6.94
30-128	1/2" x 3/4"	1.38	1.18	0.12	6.70
30-133	5/8" x 3/4"	1.53	1.18	0.14	9.67

**MALE FLARE x FEMALE HOSE SWIVEL**

•WASHER INCLUDED



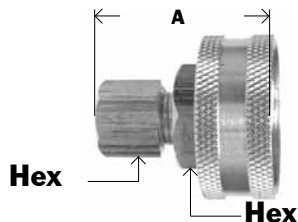
50GHSV  
51GHSV 68H  
W1 191

Part #	Male Flare x Female Hose	A	Hex	Approx. Wt. Lbs.	List Price
30-052	1/4" x 3/4"	1.24	0.75	0.10	4.10
30-138	3/8" x 3/4"	1.25	0.25*	0.12	11.16
30-139	1/2" x 3/4"	1.49	0.81	0.14	4.83

\* Internal Hex

**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	7.24
30-051	3/8" x 3/4"	1.04	0.62	0.75	0.12	7.02

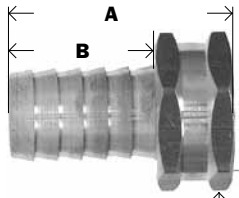


**BARSTOCK BRASS GARDEN HOSE COUPLINGS**

**BRASS**

**FEMALE SWIVEL ONLY**

•WASHER INCLUDED



22RF KF-RY  
591 HU126  
GHF 195

Hex

**NEW**

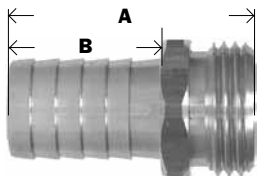
**BRASS**

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	4.22
30-032	1/2" x 3/4"	1.82	1.19	1.18	0.12	4.18
30-033	5/8" x 3/4"	1.82	1.19	1.18	0.13	4.18
30-034	3/4" x 3/4"	1.82	1.19	1.18	0.15	4.35
30-044	1" x 3/4"	2.10	1.19	1.18	0.18	6.94
30-035	1" x 1"	2.28	1.47	1.50	0.18	12.45

**STAINLESS STEEL 316**

30-032SS	1/2" x 3/4"	1.82	1.19	1.18	0.12	27.41
30-033SS	5/8" x 3/4"	1.82	1.19	1.18	0.13	29.33
30-034SS	3/4" x 3/4"	1.82	1.19	1.18	0.15	29.33

**MALE END ONLY**



22RM  
590 201GH  
GHM 193  
KF-PY HU125

Hex

**NEW**

**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	3.42
30-040	1/2" x 3/4"	1.88	1.19	1.06	0.12	3.44
30-041	5/8" x 3/4"	1.88	1.19	1.06	0.12	3.66
30-042	3/4" x 3/4"	1.88	1.19	1.06	0.13	3.66
30-045	1" x 3/4"	1.94	1.19	1.06	0.21	5.65
30-043	1" x 1"	2.34	1.47	1.37	0.26	11.37

**STAINLESS STEEL 316**

30-040SS	1/2" x 3/4"	1.88	1.19	1.06	0.12	22.91
30-041SS	5/8" x 3/4"	1.88	1.19	1.06	0.12	22.91
30-042SS	3/4" x 3/4"	1.88	1.19	1.06	0.13	22.91

**GARDEN HOSE COUPLING**

•WASHER INCLUDED



GHS 22R  
92GH 592  
936H  
202GHS

**NEW**

**BRASS**

Part #	Hose Barb	List Price
30-025	3/8"	7.45
30-027	1/2"	7.79
30-028	5/8"	9.31
30-029	3/4"	8.09
30-046	1"(3/4" threads)	23.60
30-030	1"	24.25

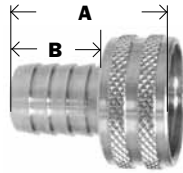
**STAINLESS STEEL 316**

30-027SS	1/2"	50.31
30-028SS	5/8"	50.31
30-029SS	3/4"	53.83

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



**GARDEN HOSE COUPLING - 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	5.05
30-467	5/8" x 3/4"	1.50	0.88	0.09	3.20
30-468	3/4" x 3/4"	1.47	0.88	0.10	4.01

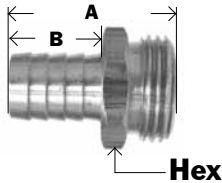
**GARDEN HOSE COUPLING - Short Shank w/ hex**



**NEW**

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	3.81
30-454	5/8" x 3/4"	1.63	1.00	1.18	0.11	3.98
30-455	3/4" x 3/4"	1.63	1.00	1.18	0.13	4.39

**GARDEN HOSE COUPLING - 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	4.94
30-472	5/8" x 3/4"	1.56	0.88	1.06	0.12	3.09
30-473	3/4" x 3/4"	1.56	0.88	1.06	0.13	4.45

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



**NEW**

Part #	Hose Barb	List Price
30-461	1/2"	9.71
30-462	5/8"	9.71
30-463	3/4"	9.90

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

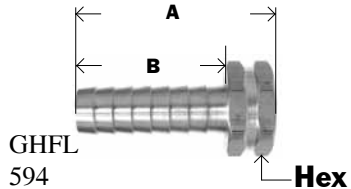


**NEW**

Part #	Hose Barb	List Price
30-457	1/2"	8.42
30-458	5/8"	8.42
30-459	3/4"	9.00

**ROD BRASS - 2" SHANK**

**•WASHER INCLUDED**

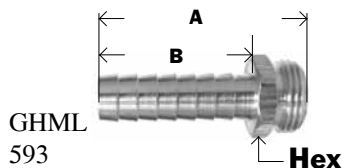


GHFL  
594

**NEW**

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	5.76
30-506	5/8" x 3/4"	2.56	2.04	1.18	0.16	5.76
30-507	3/4" x 3/4"	2.56	2.04	1.18	0.17	8.37
30-508	1" x 1"	2.84	2.03	1.43	0.29	9.00

**ROD BRASS - 2" SHANK**



GHML  
593

**NEW**

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	6.23
30-511	5/8" x 3/4"	2.72	2.04	1.06	0.17	5.73
30-512	3/4" x 3/4"	2.72	2.04	1.06	0.20	5.38
30-513	1" x 1"	2.90	2.03	1.37	0.28	9.81

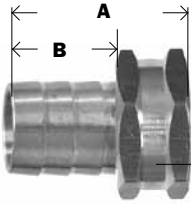
**2" SHANK GARDEN HOSE COUPLING SETS**



**NEW**

Part #	Hose x FGH	List Price
30-516	1/2"	12.40
30-517	5/8"	12.40
30-518	3/4"	15.46
30-519	1"	19.81

**NPSM FEMALE SHORT SHANK**

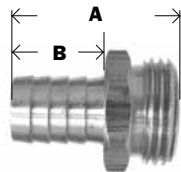


**NEW**

HEX HEAD

Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-545	1/2	3/4"	1.45	0.88	1.18	4.20
30-546	5/8	3/4"	1.47	0.88	1.18	4.26
30-547	3/4	3/4"	1.47	0.88	1.18	4.32
30-548	1	1"	1.50	1.00	1.50	9.00

**NPSM MALE SHORT SHANK**



**NEW**

Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-550	1/2	3/4"	1.56	0.88	1.06	4.02
30-551	5/8	3/4"	1.56	0.88	1.06	4.14
30-552	3/4	3/4"	1.56	0.88	1.06	4.26
30-553	1	1"	1.77	0.98	1.30	8.76

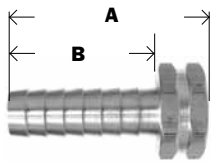
**NPSM SHORT SHANK SETS**



**NEW**

Part #	Size	List Price
30-540	1/2"	8.28
30-541	5/8"	8.46
30-542	3/4"	8.64
30-543	1"	17.82

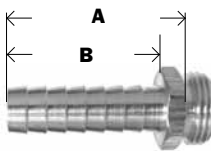
**NPSM FEMALE LONG SHANK**



**NEW**

Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-565	1/2	1/2"	2.09	1.50	0.94	3.78
30-566	5/8	3/4"	2.09	1.50	1.18	6.06
30-567	3/4	3/4"	2.09	1.50	1.18	5.82
30-568	1	1"	2.12	1.53	1.50	13.98

**NPSM MALE LONG SHANK**



**NEW**

Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-570	1/2	1/2"	2.18	1.50	0.87	4.02
30-571	5/8	3/4"	2.18	1.50	1.06	5.40
30-572	3/4	3/4"	2.18	1.50	1.06	5.76
30-573	1	1"	2.28	1.53	1.30	12.42

**NPSM LONG SHANK SETS**



**NEW**

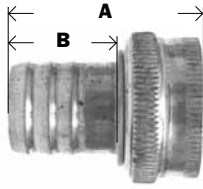
Part #	Size	List Price
30-560	1/2"	7.80
30-561	5/8"	11.46
30-562	3/4"	11.58
30-563	1"	26.40



**WROUGHT BRASS**

**WROUGHT BRASS - Female end only**

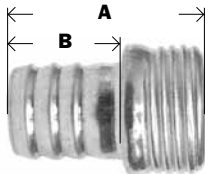
•WASHER INCLUDED



85L

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	4.24
30-527	3/4" x 3/4"	1.50	0.84	0.06	4.10

**WROUGHT BRASS COUPLINGS - Male end only**

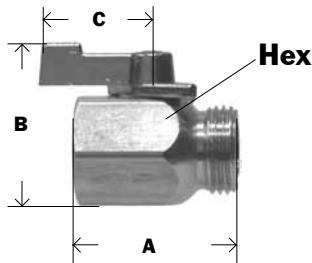


85M

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	2.56
30-531	5/8" x 3/4"	1.50	0.88	0.02	2.56

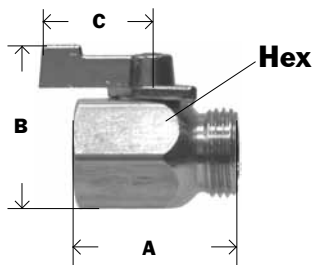
**GARDEN HOSE VALVES**

**ONE WAY BRASS BALL VALVE - FGH x MGH**



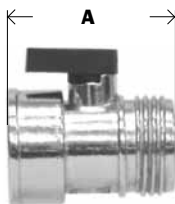
Part #	FGH x MGH	A	B	C	Hex	Approx. Wt. Lbs.	List Price
30-161	3/4" x 3/4"	1.55	1.89	1.31	1.06	0.42	46.88

**ONE WAY BRASS BALL VALVE - Female x 3/4 MGH Pipe**



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	49.41

**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	3.95

**BRASS**





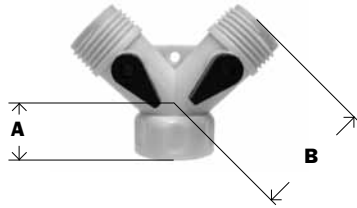
**PLASTIC GARDEN HOSE VALVE • CYCOLAC BODY & BALL**



LA450C

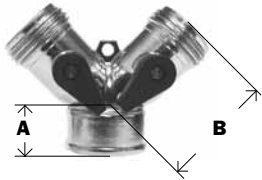
Part #	FGH x MGH	A	Hex	Approx. Wt. Lbs.	List Price
30-163	3/4" x 3/4"	1.75	1.25	0.04	4.27

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



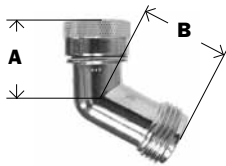
Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-160	3/4"	0.74	1.87	0.08	3.30

**"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	7.82

**ZINC ALLOY SWIVEL HOSE CONNECTOR**



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-629	3/4"	1.31	1.50	0.08	4.39

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

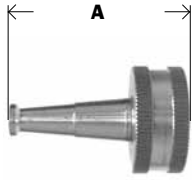


Part #	Size	Description	Approx. Wt. Lbs.	List Price
30-627	3/4"	3/4 Double Y valve, swivel inlet	0.56	49.15

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

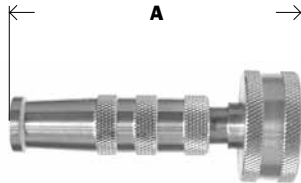


**BRASS NOZZLE**



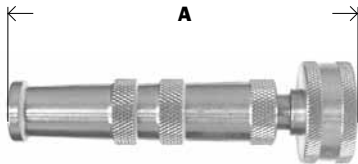
Part #	Size	A	Approx. Wt. Lbs.	List Price
30-637	3/4"	1.87	0.14	5.76

**3" CROSSED PATTERN BRASS NOZZLE**



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-640	3/4"	2.89	0.25	9.04

**4" CROSSED PATTERN BRASS NOZZLE**



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-638	3/4"	3.80	0.50	11.22



Lead Free

Part #	Size	Zinc Alloy spray nozzle with insulated handle soft grip and front thread protector	List Price
30-600	5-1/2"		15.22



Lead Free

Part #	Size	Zinc Alloy spray nozzle	List Price
30-620	4-1/4"		6.15



Lead Free

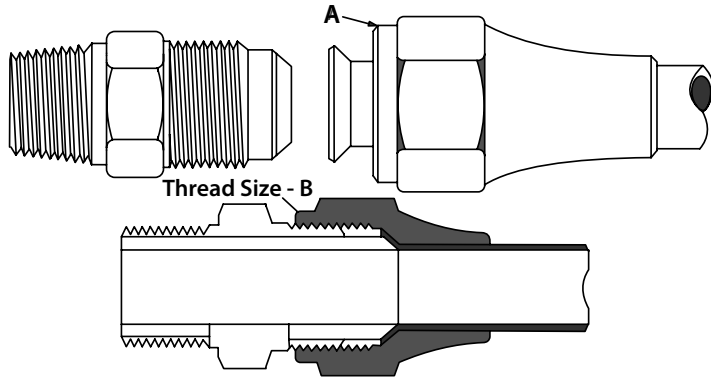
Part #	Size	Zinc Alloy spray nozzle with easily adjustable brass head and plastic grip	List Price
30-609	5-1/4"		14.46



Part #	Size	Plastic spray nozzle	List Price
30-630	4-1/2"		3.01



# SAE 45° Flare



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

**•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:

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

**•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.

**•Material**

CA360 Brass for Barstock fittings.  
CA377 Brass for forged fittings.

**•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.

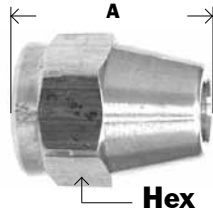
**Actual O.D. of Flare Fittings**



**SHORT ROD NUT**

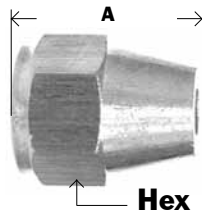
**SAE# 010110**

20910  
41FS  
1110  
N1  
41FX  
441S  
L'



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	1.43
10-014	3/16"	3/8-24	0.62	0.43	0.02	1.32
10-015	1/4"	7/16-20	0.75	0.56	0.03	1.23
10-015L	1/4"	7/16-20	0.75	0.50	0.03	0.89
10-016	5/16"	1/2-20	0.88	0.62	0.04	1.92
10-017L	3/8"	5/8-18	0.88	0.75	0.05	1.28
10-017	3/8"	5/8-18	1.00	0.75	0.04	1.93
10-018	7/16"	11/16-16	1.06	0.81	0.06	8.83
10-019L	1/2"	3/4-16	0.93	0.87	0.06	2.94
10-019	1/2"	3/4-16	1.12	0.87	0.09	2.68
10-020L	5/8"	7/8-14	1.08	1.00	0.10	3.52
10-020	5/8"	7/8-14	1.31	1.06	0.15	7.08
10-021	3/4"	1-1/16-14	1.50	1.25	0.24	6.47
10-022	7/8"	1-1/4-12	1.62	1.50	0.36	13.92
10-026	1"	1-3/8-12	1.81	1.62	0.44	18.50

**REDUCING SHORT ROD NUT**

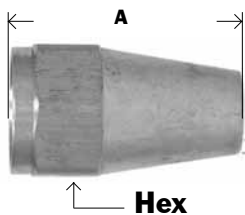


Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-023	3/8" x 1/4"	0.74	0.81	0.06	6.58
10-024	1/2" x 3/8"	0.86	0.94	0.10	10.14
10-025	5/8" x 1/2"	0.99	1.06	0.12	15.49

**LONG ROD NUT**

**SAE# 010111**

41FL  
N2  
241  
441  
41



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-001	1/8"	0.75	0.37	0.01	4.75
10-002	3/16"	0.81	0.43	0.02	1.71
10-003	1/4"	0.94	0.56	0.03	1.73
10-004	5/16"	1.12	0.62	0.04	2.65
10-005	3/8"	1.31	0.75	0.06	3.45
10-006	1/2"	1.62	0.87	0.12	6.29
10-007	5/8"	1.88	1.06	0.20	7.49
10-008	3/4"	2.19	1.25	0.34	17.00

Lead Free fittings available on  
**pgs. 382-388**



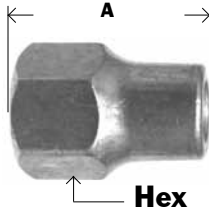
**"L" means light pattern.**

-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**

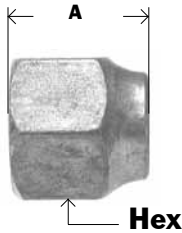


41FF  
39  
N4  
14FL  
641

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-028	1/4"	0.94	0.62	0.05	3.55
10-030	3/8"	1.06	0.81	0.08	5.39
10-031	1/2"	1.19	0.94	0.12	5.64
10-032	5/8"	1.44	1.06	0.26	10.10
10-033	3/4"	1.75	1.31	0.35	12.06

**SHORT FORGED NUT**

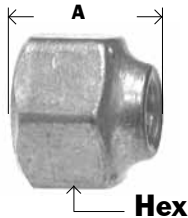
**SAE# 010166**



14FS  
41FFS  
40  
641-S  
1116  
NS4

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-038	3/16"	0.56	0.50	0.02	4.48
10-039	1/4"	0.60	0.62	0.04	1.34
10-040	5/16"	0.66	0.69	0.04	2.75
10-041	3/8"	0.70	0.81	0.06	1.84
10-042	1/2"	0.82	0.94	0.08	2.62
10-043	5/8"	0.95	1.06	0.12	4.23
10-044	3/4"	1.16	1.31	0.22	9.11
10-045	7/8"	1.18	1.38	0.30	11.14

**EXTRA HEAVY SHORT FORGED NUT**



NSA

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-046	1/4"	0.63	0.75	0.04	2.73
10-047	3/8"	0.72	0.88	0.06	3.09
10-048	1/2"	0.88	1.00	0.08	3.56
10-049	5/8"	0.98	1.12	0.12	5.75

**FORGED REDUCING NUT**

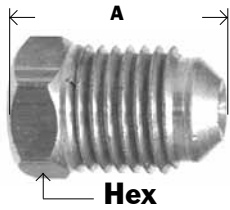


NSR4  
14FS  
41FRS  
40R  
662-S

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-051	5/16" x 1/4"	0.66	0.75	0.06	10.54
10-052	3/8" x 1/4"	0.72	0.81	0.06	4.23
10-053	3/8" x 5/16"	0.72	0.81	0.08	4.00
10-054	1/2" x 3/8"	0.81	0.94	0.08	3.56
10-055	5/8" x 3/8"	0.96	1.12	0.15	10.33
10-056	5/8" x 1/2"	0.97	1.06	0.12	5.94
10-058	3/4" x 5/8"	1.17	1.31	0.30	14.16



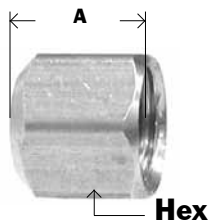
**FLARED PLUG**



58 57 439  
639F P2  
PF 2229

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-063	3/16"	0.59	0.50	0.02	4.71
10-064	1/4"	0.69	0.43	0.02	1.59
10-065	5/16"	0.78	0.50	0.04	3.53
10-066	3/8"	0.88	0.62	0.06	1.75
10-067	1/2"	1.06	0.75	0.10	3.25
10-068	5/8"	1.19	0.87	0.14	3.78

**FLARED CAP**

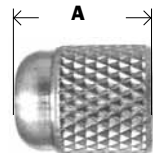


640F N5 440  
41FC 2129  
56 54

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-074	3/16"	0.47	0.50	0.02	3.18
10-075	1/4"	0.48	0.50	0.02	0.65
10-076	5/16"	0.62	0.62	0.04	2.55
10-077	3/8"	0.58	0.75	0.03	1.61
10-078	1/2"	0.69	0.81	0.14	1.58
10-079	5/8"	0.81	0.94	0.20	2.80
10-080	3/4"	1.17	1.37	0.30	12.53

**FINGER TIGHTENING CAP**

• O-Ring Included

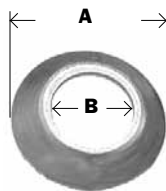


NFT5

Part #	Thread Size UNF	A	Approx. Wt. Lbs.	List Price
10-081	1/4"	0.62	0.02	1.39

**COPPER GASKET**

SAE# 010113



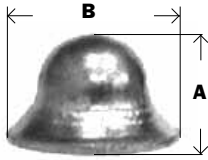
B2  
2GF  
6251  
FG  
157  
59  
463

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
10-084	3/16"	0.31	0.12	0.01	0.95
10-085	1/4"	0.36	0.19	0.01	0.49
10-086	5/16"	0.42	0.22	0.01	0.81
10-087	3/8"	0.55	0.28	0.01	0.60
10-088	1/2"	0.66	0.41	0.01	0.81
10-089	5/8"	0.77	0.50	0.01	1.04
10-090	3/4"	0.95	0.62	0.01	1.26



**COPPER BONNET**

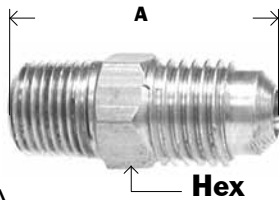
SAE# 010114



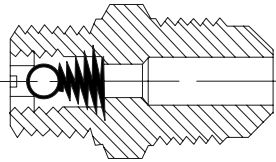
B1 156  
3GF FB  
64C 695  
57 464

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
10-094	3/16"	0.16	0.31	0.01	2.05
10-095	1/4"	0.22	0.36	0.01	1.65
10-097	3/8"	0.34	0.55	0.01	1.46
10-098	1/2"	0.41	0.66	0.01	2.38
10-099	5/8"	0.44	0.77	0.01	2.29
10-100	3/4"	0.56	0.95	0.01	5.52

**MALE BALL CHECK CONNECTOR**



43A

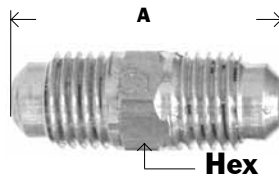


Part #	Male UNF x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-131	1/4" x 1/8"	1.06	0.43	0.04	12.84
10-133	3/8" x 1/4"	1.31	0.62	0.08	18.83

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

**UNION**

SAE# 010101



42F  
U2

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-104	1/8"	0.91	0.31	0.02	4.07
10-105	3/16"	1.06	0.37	0.02	4.12
10-106L	1/4"	1.19	0.43	0.03	1.02
10-106	1/4"	1.19	0.43	0.03	2.16
10-107	5/16"	1.34	0.50	0.05	2.95
10-108L	3/8"	1.50	0.62	0.09	2.32
10-108	3/8"	1.50	0.62	0.09	2.59
10-109L	1/2"	1.67	0.75	0.12	4.47
10-109	1/2"	1.81	0.75	0.14	5.20
10-110L	5/8"	2.00	0.87	0.20	5.79
10-110	5/8"	2.12	0.87	0.20	10.10
10-111	3/4"	2.44	1.06	0.35	16.67
10-112	7/8"	2.72	1.25	0.52	22.73

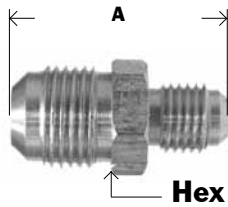
"L" means light pattern.

-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.





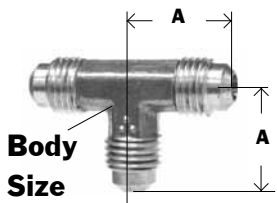
**REDUCING UNION**



656F  
UR2  
42-R

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-117	5/16" x 1/4"	1.28	0.50	0.04	4.14
10-118	3/8" x 1/4"	1.38	0.62	0.06	3.03
10-119	3/8" x 5/16"	1.44	0.62	0.08	5.86
10-120	1/2" x 1/4"	1.53	0.75	0.10	5.24
10-121	1/2" x 3/8"	1.69	0.75	0.10	4.53
10-122	5/8" x 3/8"	1.88	0.87	0.17	9.57
10-123	5/8" x 1/2"	1.75	0.87	0.14	4.87

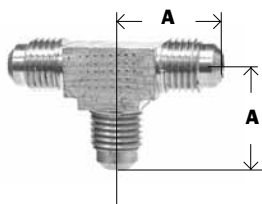
**UNION TEE**



**Forged Tee**

244F  
T2  
144F

**SAE# 010401**

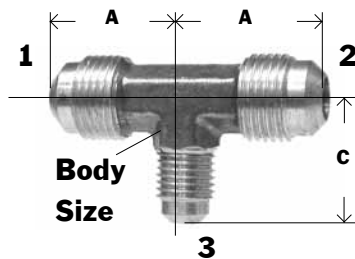


**Barstock Tee**

Part #	Thread Size UNF	A	Body Size	Approx. Wt. Lbs.	List Price
10-157	1/8"	0.67	0.36	0.04	6.51
10-158	3/16"	0.75	0.36	0.06	4.00
10-159	1/4"	0.78	0.36	0.06	4.10
10-159B*	1/4"	0.88	0.50	0.08	5.86
10-160	5/16"	0.91	0.44	0.10	5.57
10-161	3/8"	1.00	0.44	0.12	5.82
10-162	1/2"	1.16	0.59	0.19	6.08
10-163	5/8"	1.41	0.69	0.30	10.87
10-164	3/4"	1.64	0.88	0.53	23.10
10-165	7/8"	1.75	1.25	0.93	46.11

\* Barstock

**REDUCING TEE 1 x 2 x 3**



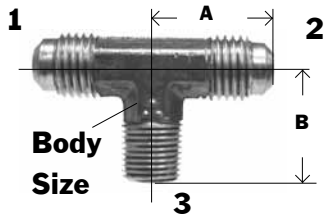
144F  
TR2  
659F  
684F  
44R

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	6.14
10-171	5/16" x 5/16" x 1/4"	0.94	0.94	0.44	0.12	9.19
10-172	3/8" x 1/4" x 1/4"	0.91	1.00	0.44	0.10	7.34
10-173	3/8" x 1/4" x 3/8"	1.00	0.91	0.44	0.12	9.15
10-174	3/8" x 3/8" x 1/4"	1.00	0.88	0.44	0.11	6.59
10-175	3/8" x 3/8" x 1/2"	1.00	1.19	0.59	0.14	9.19
10-176	3/8" x 3/8" x 5/8"	1.16	1.44	0.69	0.16	17.73
10-178	1/2" x 3/8" x 3/8"	1.16	1.12	0.59	0.18	7.60
10-179	1/2" x 3/8" x 1/2"	1.16	1.09	0.59	0.18	8.51
10-180	1/2" x 1/2" x 1/4"	1.16	0.97	0.59	0.18	11.78
10-181	1/2" x 1/2" x 3/8"	1.16	1.12	0.59	0.19	8.10
10-182	1/2" x 1/2" x 5/8"	1.28	1.41	0.69	0.28	11.22
10-187	5/8" x 1/2" x 5/8"	1.44	1.33	0.69	0.27	17.40
10-188	5/8" x 5/8" x 3/8"	1.38	1.16	0.69	0.30	15.15
10-189	5/8" x 5/8" x 1/2"	1.38	1.28	0.69	0.28	23.43
10-197	3/4" x 3/4" x 5/8"	1.66	1.50	0.88	0.36	37.78

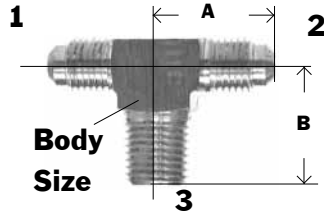


**MALE BRANCH TEE**

**SAE# 010425**



**Forged Tee**



**Barstock Tee**

T1  
145F  
45

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	4.43
10-204	1/4" x 1/8"	0.78	0.75	0.36	0.05	4.43
10-204B*	1/4" x 1/8"	0.82	0.81	0.47	0.08	8.09
10-205	1/4" x 1/4"	0.88	0.88	0.44	0.08	4.70
10-206	1/4" x 3/8"	0.92	1.00	0.47	0.10	7.60
10-207	5/16" x 1/8"	0.89	0.78	0.44	0.08	5.41
10-208	5/16" x 1/4"	0.94	0.94	0.44	0.08	6.33
10-209	3/8" x 1/8"	1.00	0.91	0.44	0.14	9.04
10-210	3/8" x 1/4"	1.00	0.94	0.44	0.12	5.97
10-211	3/8" x 3/8"	1.00	1.00	0.47	0.13	7.22
10-212	3/8" x 1/2"	1.12	1.22	0.69	0.22	10.80
10-213	1/2" x 1/4"	1.16	1.00	0.59	0.20	15.91
10-214	1/2" x 3/8"	1.16	1.14	0.59	0.19	11.25
10-215	1/2" x 1/2"	1.22	1.22	0.69	0.24	11.13
10-216	1/2" x 3/4"	1.38	1.41	0.88	0.22	21.21
10-217	5/8" x 3/8"	1.38	1.25	0.69	0.24	18.07
10-218	5/8" x 1/2"	1.41	1.31	0.69	0.29	14.16
10-219	5/8" x 3/4"	1.41	1.41	0.88	0.36	21.34
10-220	3/4" x 1/2"	1.63	1.59	0.88	0.49	28.53
10-221	3/4" x 3/4"	1.63	1.44	0.88	0.48	27.51

\* Barstock

Deliberate often - decide once.

- Latin Proverb

I prefer the errors of enthusiasm to the indifference of wisdom.

- Anatole France

Do what you can with what you have, where you are.

- Theodore Roosevelt

Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men of talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent.

- Calvin Coolidge

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

Phone: 1-888-504-2620

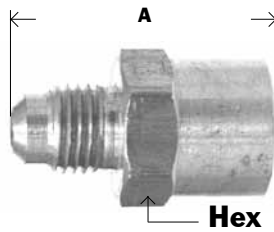


**GLOBAL HOSE**  
& INDUSTRIAL SALES CO

www.global-hose.com

**FEMALE ADAPTER**

**SAE# 010103**



46  
U3

Part #	Male Flare x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-226	1/8" x 1/8"	0.91	0.56	0.03	4.13
10-227	3/16" x 1/8"	0.97	0.56	0.03	3.22
10-228L	1/4" x 1/8"	1.03	0.56	0.03	1.22
10-228	1/4" x 1/8"	1.03	0.56	0.04	2.59
10-229L	1/4" x 1/4"	1.06	0.68	0.06	3.00
10-229	1/4" x 1/4"	1.23	0.68	0.07	3.77
10-230	1/4" x 3/8"	1.18	0.75	0.08	5.00
10-231	1/4" x 1/2"	1.31	0.94	0.06	7.63
10-232	5/16" x 1/8"	1.06	0.56	0.05	4.56
10-233	5/16" x 1/4"	1.28	0.68	0.08	4.94
10-234	3/8" x 1/8"	1.09	0.62	0.08	3.03
10-235L	3/8" x 1/4"	1.25	0.68	0.08	2.53
10-235	3/8" x 1/4"	1.31	0.81	0.08	3.89
10-236L	3/8" x 3/8"	1.25	0.81	0.08	3.21
10-236	3/8" x 3/8"	1.25	0.81	0.10	9.45
10-237L	3/8" x 1/2"	1.31	0.94	0.08	3.05
10-237	3/8" x 1/2"	1.60	1.00	0.16	8.72
10-238	3/8" x 3/4"	1.41	1.18	0.11	5.25
10-239	1/2" x 1/4"	1.37	0.75	0.10	2.88
10-240L	1/2" x 3/8"	1.38	0.81	0.12	3.46
10-240	1/2" x 3/8"	1.50	0.81	0.14	7.02
10-241L	1/2" x 1/2"	1.42	0.87	0.10	5.55
10-241	1/2" x 1/2"	1.75	1.00	0.12	9.42
10-242	1/2" x 3/4"	1.60	1.12	0.16	5.35
10-243	5/8" x 3/8"	1.24	0.87	0.12	6.94
10-244	5/8" x 1/2"	1.62	0.94	0.12	5.00
10-245	5/8" x 3/4"	1.65	1.12	0.17	7.08
10-246	3/4" x 1/2"	1.74	1.18	0.32	18.01
10-247	3/4" x 3/4"	1.75	1.18	0.22	17.37
10-248	7/8" x 3/4"	1.94	1.31	0.26	17.07

 **"L" means light pattern.**

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

-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.

If you don't want anyone to know it, don't do it.

- Chinese Proverb

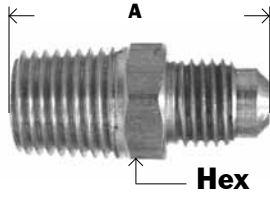
If a man has no vices, he's in great danger of making vices about his virtues, and there's a spectacle.

- Thornton Wilder



**MALE ADAPTER**

**SAE# 010102**



U1  
48

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	3.34
10-254	3/16" x 1/8"	1.00	0.43	0.03	1.53
10-255L	1/4" x 1/8"	1.06	0.43	0.03	1.18
10-255	1/4" x 1/8"	1.06	0.43	0.04	1.08
10-256L	1/4" x 1/4"	1.15	0.56	0.03	1.40
10-256	1/4" x 1/4"	1.25	0.56	0.04	1.42
10-257	1/4" x 3/8"	1.31	0.68	0.06	2.23
10-258	1/4" x 1/2"	1.44	0.87	0.11	4.47
10-259L	5/16" x 1/8"	1.15	0.50	0.04	2.08
10-259	5/16" x 1/8"	1.16	0.50	0.04	1.87
10-260L	5/16" x 1/4"	1.31	0.56	0.06	2.44
10-260	5/16" x 1/4"	1.34	0.56	0.06	2.20
10-261	5/16" x 3/8"	1.38	0.68	0.08	4.17
10-262	3/8" x 1/8"	1.25	0.62	0.07	1.99
10-263L	3/8" x 1/4"	1.31	0.62	0.06	2.11
10-263	3/8" x 1/4"	1.44	0.62	0.08	2.08
10-264L	3/8" x 3/8"	1.37	0.68	0.09	2.41
10-264	3/8" x 3/8"	1.44	0.68	0.09	2.32
10-265L	3/8" x 1/2"	1.49	0.89	0.12	2.70
10-265	3/8" x 1/2"	1.69	0.87	0.14	4.90
10-266	3/8" x 3/4"	1.81	1.06	0.18	5.41
10-267	1/2" x 1/4"	1.60	0.75	0.11	3.03
10-268L	1/2" x 3/8"	1.46	0.75	0.10	2.93
10-268	1/2" x 3/8"	1.62	0.75	0.12	3.32
10-269L	1/2" x 1/2"	1.62	0.87	0.13	3.10
10-269	1/2" x 1/2"	1.79	0.87	0.15	4.35
10-270	1/2" x 3/4"	1.75	1.06	0.22	4.55
10-271	5/8" x 1/4"	1.81	0.87	0.14	8.75
10-272L	5/8" x 3/8"	1.67	0.87	0.14	3.87
10-272	5/8" x 3/8"	1.81	0.87	0.18	7.01
10-273L	5/8" x 1/2"	1.80	0.87	0.11	4.48
10-273	5/8" x 1/2"	2.00	0.87	0.20	7.05
10-274	5/8" x 3/4"	1.85	1.06	0.21	4.31
10-275	3/4" x 1/2"	2.19	1.06	0.28	11.83
10-276	3/4" x 3/4"	2.08	1.06	0.28	8.06
10-277	7/8" x 1/2"	2.22	1.25	0.52	28.65
10-278	7/8" x 3/4"	2.35	1.25	0.41	19.10
10-279	1" x 3/4"	2.44	1.43	0.53	22.66
10-280	1" x 1"	2.44	1.43	0.53	28.11

**FLARE x MIP WITH CHECK**



**NEW**

Part #	Size	List Price
10-256WC	1/4" x 1/4"	2.25

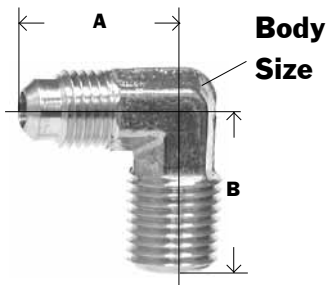
**KEY** "L" means light pattern.

-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.

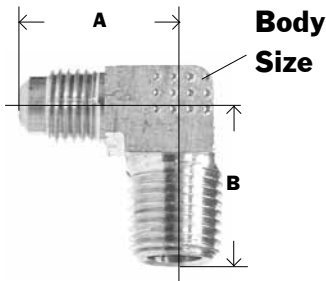


**90° MALE ELBOW**

**SAE# 010202**



**Forged Elbow**



**Barstock Elbow**

249F  
49  
E1  
149F

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	6.48
10-283B*	1/8" x 1/8"	0.62	0.69	0.43	0.04	6.73
10-284	3/16" x 1/8"	0.75	0.75	0.44	0.04	6.59
10-284B*	3/16" x 1/8"	0.75	0.75	0.43	0.06	3.21
10-285	3/16" x 1/4"	0.81	0.88	0.44	0.08	5.21
10-286	1/4" x 1/8"	0.84	0.78	0.38	0.04	2.61
10-286B*	1/4" x 1/8"	0.81	0.78	0.47	0.05	2.10
10-287	1/4" x 1/4"	0.81	0.88	0.44	0.05	2.71
10-287B*	1/4" x 1/4"	0.91	0.93	0.59	0.08	3.38
10-288	1/4" x 3/8"	0.91	0.91	0.47	0.08	4.47
10-289	1/4" x 1/2"	1.03	1.09	0.59	0.10	5.61
10-290	5/16" x 1/8"	0.91	0.88	0.44	0.06	4.47
10-290B*	5/16" x 1/8"	0.91	0.78	0.52	0.06	3.58
10-291	5/16" x 1/4"	0.98	0.96	0.44	0.08	4.56
10-291B*	5/16" x 1/4"	0.95	0.92	0.62	0.08	5.06
10-292	5/16" x 3/8"	1.06	1.09	0.59	0.08	5.20
10-293	3/8" x 1/8"	1.00	0.91	0.53	0.08	5.16
10-293B*	3/8" x 1/8"	1.03	0.91	0.65	0.08	7.90
10-294	3/8" x 1/4"	1.01	0.89	0.48	0.08	3.10
10-294B*	3/8" x 1/4"	0.97	1.04	0.68	0.11	4.49
10-295	3/8" x 3/8"	1.00	0.88	0.47	0.10	3.12
10-295B*	3/8" x 3/8"	1.06	1.09	0.69	0.12	6.26
10-296	3/8" x 1/2"	1.10	1.09	0.59	0.12	4.45
10-297	3/8" x 3/4"	1.25	1.31	0.81	0.12	11.35
10-298	1/2" x 1/4"	1.19	1.00	0.59	0.12	4.82
10-298B*	1/2" x 1/4"	1.22	1.19	0.81	0.12	10.43
10-299	1/2" x 3/8"	1.10	1.00	0.59	0.13	4.52
10-299B*	1/2" x 3/8"	1.22	1.12	0.77	0.18	6.57
10-300	1/2" x 1/2"	1.16	1.13	0.59	0.14	4.93
10-300B*	1/2" x 1/2"	1.26	1.36	0.94	0.26	10.00
10-301	1/2" x 3/4"	1.42	1.25	0.81	0.24	8.17
10-311	5/8" x 1/4"	1.34	1.13	0.72	0.28	9.34
10-302	5/8" x 3/8"	1.35	1.22	0.72	0.20	8.62
10-302B*	5/8" x 3/8"	1.41	1.25	0.94	0.20	19.94
10-303	5/8" x 1/2"	1.35	1.22	0.72	0.20	6.64
10-303B*	5/8" x 1/2"	1.41	1.38	0.94	0.20	12.28
10-304	5/8" x 3/4"	1.44	1.31	0.81	0.25	11.21
10-305	3/4" x 1/2"	1.67	1.50	0.88	0.34	13.84
10-306	3/4" x 3/4"	1.67	1.63	0.88	0.30	12.56
10-306B*	3/4" x 3/4"	1.60	1.62	0.91	0.32	22.47
10-307	7/8" x 3/4"	1.75	1.68	1.00	0.44	36.75
10-308	1" x 3/4"	1.94	1.69	1.31	0.75	42.54
10-309	1" x 1"	1.94	1.75	1.25	0.78	37.82

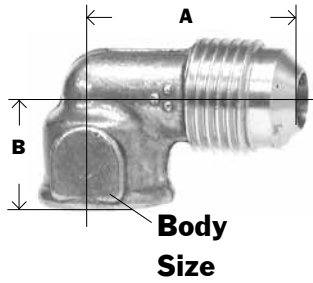
\* Barstock

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

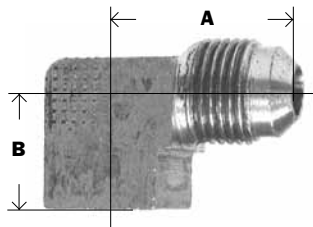


**90° FEMALE ELBOW**

SAE# 010203



**Forged Elbow**



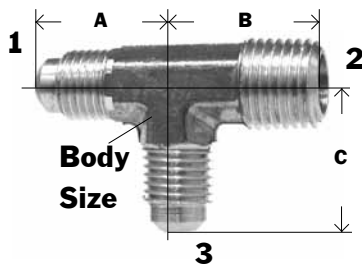
**Barstock Elbow**

E3  
50  
150F

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	5.79
10-313	1/4" x 1/8"	0.90	0.46	0.56	0.06	3.49
10-313B*	1/4" x 1/8"	0.88	0.47	0.56	0.06	3.89
10-314	1/4" x 1/4"	0.97	0.59	0.75	0.08	4.94
10-315	1/4" x 3/8"	1.03	0.57	0.81	0.09	6.89
10-333	1/4" x 1/2"	1.08	0.66	1.00	0.12	8.84
10-316	5/16" x 1/8"	0.94	0.88	0.45	0.08	6.09
10-317	5/16" x 1/4"	1.03	0.58	0.75	0.06	9.90
10-318	3/8" x 1/8"	1.00	0.88	0.47	0.10	6.44
10-319	3/8" x 1/4"	1.06	0.59	0.75	0.09	3.36
10-319B*	3/8" x 1/4"	1.09	0.69	0.75	0.10	10.12
10-320	3/8" x 3/8"	1.06	0.57	0.81	0.10	4.62
10-321	3/8" x 1/2"	1.16	0.66	1.00	0.14	6.06
10-322	3/8" x 3/4"	1.28	0.72	1.25	0.12	9.85
10-323	1/2" x 1/4"	1.25	0.70	0.88	0.13	8.59
10-324	1/2" x 3/8"	1.25	0.70	0.88	0.12	6.38
10-324B*	1/2" x 3/8"	1.28	0.75	0.81	0.19	17.97
10-325	1/2" x 1/2"	1.29	0.72	1.00	0.18	6.72
10-326	1/2" x 3/4"	1.41	0.72	1.25	0.20	9.17
10-327	5/8" x 3/8"	1.35	1.22	0.72	0.22	11.45
10-328	5/8" x 1/2"	1.38	0.75	1.00	0.20	10.03
10-329	5/8" x 3/4"	1.50	0.76	1.25	0.28	10.13
10-330	3/4" x 1/2"	1.63	1.06	1.06	0.42	20.43
10-331	3/4" x 3/4"	1.88	1.06	1.31	0.40	30.57

\* Barstock

**FORGED MALE RUN TEE**



T3  
151F  
51

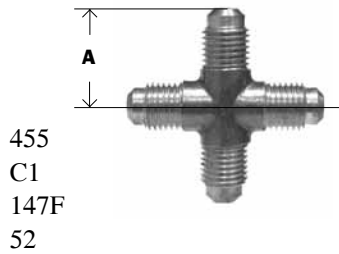
Part #	Male Flare x Male NPTF (1&3) x 2	A	B	C	Body Size	Approx. Wt. Lbs.	List Price
10-361	3/16" x 5/16" x 1/8"	0.87	0.78	0.97	0.44	0.08	5.06
10-343	3/16" x 1/8"	0.75	0.75	0.75	0.37	0.05	5.71
10-344	1/4" x 1/8"	0.78	0.75	0.78	0.37	0.06	5.01
10-345	1/4" x 1/4"	0.88	0.88	0.88	0.44	0.08	6.03
10-347	5/16" x 1/8"	0.88	0.80	0.88	0.44	0.08	5.26
10-348	5/16" x 1/4"	0.94	0.94	0.94	0.44	0.08	7.71
10-350	3/8" x 1/4"	1.00	0.94	1.00	0.44	0.12	7.71
10-351	3/8" x 3/8"	1.00	1.00	1.00	0.47	0.10	10.69
10-340	3/8" x 1/2" x 3/8"	1.09	1.09	1.16	0.59	0.18	9.91
10-352	3/8" x 1/2"	1.12	1.22	1.12	0.69	0.12	15.01
10-353	1/2" x 3/8" x 1/2"	1.22	1.22	1.15	0.69	0.22	11.75
10-354	1/2" x 3/8"	1.16	1.09	1.16	0.59	0.18	12.98
10-355	1/2" x 1/2"	1.22	1.22	1.22	0.69	0.22	12.94
10-357	5/8" x 1/2"	1.41	1.31	1.41	0.69	0.28	16.10
10-359	3/4" x 1/2"	1.63	1.59	1.63	0.88	0.48	31.70
10-360	3/4" x 3/4"	1.62	1.44	1.62	0.88	0.48	27.99

Dimension data can change without notice.  
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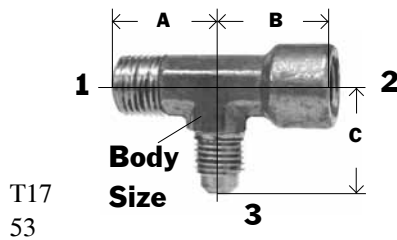
**FORGED FLARE CROSS**

SAE# 010501



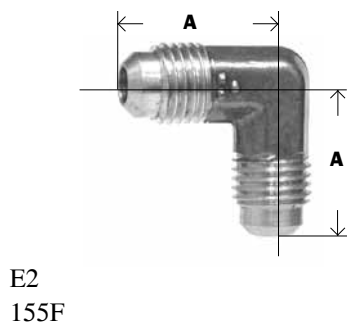
Part #	Thread Size UNF	A	Body Size	Approx. Wt. Lbs.	List Price
10-373	1/4"	0.88	0.44	0.10	11.60
10-374	5/16"	0.92	0.44	0.10	11.36
10-375	3/8"	1.00	0.44	0.16	10.84
10-376	1/2"	1.16	0.59	0.24	12.77

**FORGED ADAPTER TEE / SERVICE TEE**



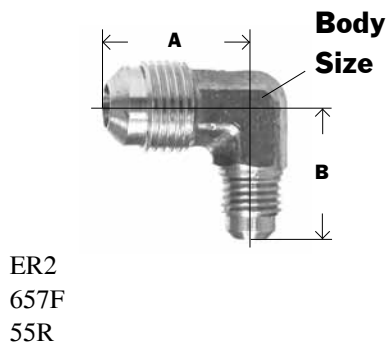
Part #	Size 1 x 2 x 3	A	B	C	Body Size	Approx. Wt. Lbs.	List Price
10-382	1/8" x 1/8" x 1/4"	0.72	0.53	0.80	0.47	0.08	5.97
10-383	1/4" x 1/4" x 1/4"	0.88	1.00	0.91	0.47	0.11	7.55

**FORGED 90° FLARE ELBOW**



Part #	Thread Size UNF	A	Approx. Wt. Lbs.	List Price
10-404	1/8"	0.64	0.04	9.17
10-405	3/16"	0.75	0.06	8.52
10-406	1/4"	0.81	0.08	3.36
10-407	5/16"	0.91	0.10	5.07
10-408	3/8"	1.00	0.10	4.54
10-409	1/2"	1.16	0.14	6.44
10-410	5/8"	1.41	0.22	10.45
10-411	3/4"	1.66	0.68	20.97
10-412	7/8"	1.81	0.82	38.40

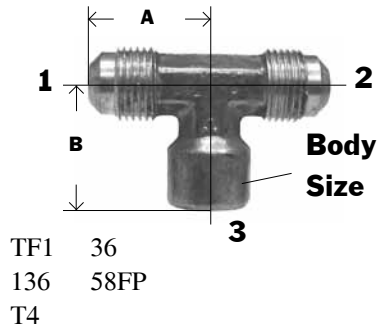
**FORGED REDUCING ELBOW**



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	5.16
10-417	3/8" x 5/16"	1.00	0.94	0.44	0.08	6.74
10-419	1/2" x 3/8"	1.19	1.02	0.59	0.14	6.55
10-421	5/8" x 1/2"	1.34	1.23	0.72	0.21	10.48



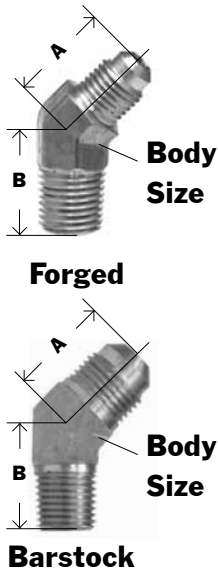
**FORGED FEMALE BRANCH TEE**



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	8.83
10-430	3/8" x 1/4"	1.00	1.03	0.47	0.14	8.24
10-431	3/8" x 3/8"	1.17	0.69	1.05	0.22	12.75
10-432	3/8" x 1/2"	1.16	0.69	1.05	0.19	11.46
10-434	1/2" x 1/2"	1.31	0.69	1.06	0.22	19.15
10-435	5/8" x 1/2"	1.38	0.76	1.06	0.24	19.10

**45° ELBOW**

SAE# 010302

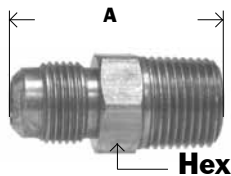


Part #	Male Flare x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-448	1/4" x 1/8"	0.67	0.64	0.41	0.04	2.62
10-448B*	1/4" x 1/8"	0.67	0.64	0.44	0.04	7.29
10-449	1/4" x 1/4"	0.75	0.86	0.53	0.07	5.40
10-450	5/16" x 1/8"	0.78	0.64	0.53	0.06	5.62
10-451	5/16" x 1/4"	0.81	0.86	0.53	0.07	5.68
10-452	3/8" x 1/4"	0.91	0.86	0.53	0.09	4.19
10-452B*	3/8" x 1/4"	0.89	0.86	0.64	0.12	10.95
10-453	3/8" x 3/8"	0.93	0.94	0.59	0.11	5.24
10-454	3/8" x 1/2"	0.99	1.17	0.75	0.19	7.51
10-455	1/2" x 3/8"	1.07	0.88	0.59	0.12	5.96
10-455B*	1/2" x 3/8"	1.06	0.94	0.76	0.18	13.15
10-456	1/2" x 1/2"	1.12	1.18	0.75	0.20	8.66
10-460	5/8" x 3/8"	1.13	0.95	0.81	0.22	12.17
10-457	5/8" x 1/2"	1.12	1.17	0.78	0.18	9.43
10-458	3/4" x 1/2"	1.28	1.16	0.88	0.26	15.07
10-459	3/4" x 3/4"	1.41	1.20	0.88	0.31	15.45

\* Barstock

**BRASS GAS RANGE FITTINGS**

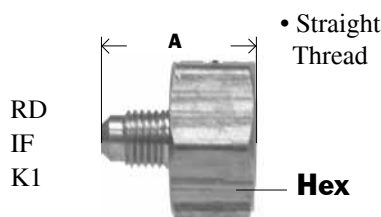
**BRASS MALE ADAPTERS**



Part #	Male Flare x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
35-132	1/2" x 1/2" (3/8" FIP TAP)	1.88	0.87	0.16	5.29
35-134	15/16" x 1/2"	1.90	0.94	0.14	6.03

**DRUM ADAPTERS**

SAE# 010165



Part #	Male Flare x FIP	A	Hex	Approx. Wt. Lbs.	List Price
50-011	1/4" x 1/2"	1.12	1.12	0.12	21.86
50-001	1/4" x 3/4"	1.16	1.25	0.14	11.68



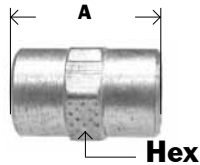
**FEMALE 45° FLARE FITTINGS**

• Use with Copper Gasket

**UNION**

**SAE# 010107**

2310  
U4  
660HD  
32

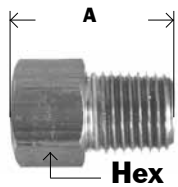


Part #	Female Flare x Female Flare	A	Hex	Approx. Wt. Lbs.	List Price
10-135	1/4"	1.00	0.62	0.06	8.89
10-136	3/8"	1.25	0.81	0.14	14.34
10-137	1/2"	1.43	0.94	0.18	13.05

**FEMALE FLARE ADAPTER**

**SAE# 010106**

U5  
664FHD  
33  
48-FF

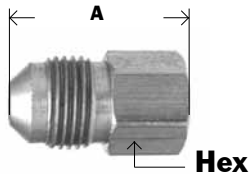


Part #	Female Flare x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-440	1/4" x 1/8"	0.91	0.62	0.05	5.47
10-441	1/4" x 1/4"	1.01	0.62	0.06	6.01
10-442	3/8" x 1/4"	1.28	0.81	0.10	7.53
10-443	1/2" x 3/8"	1.36	0.94	0.14	10.41
10-444	1/2" x 1/2"	1.46	0.94	0.14	9.90

**FLARE REDUCER**

**SAE# 010105**

UR3  
661FHD  
227  
46-FF

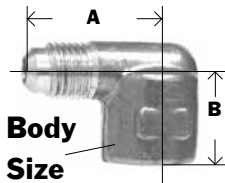


Part #	Male Flare x Female Flare	A	Hex	Approx. Wt. Lbs.	List Price
10-462	1/4" x 3/8"	1.22	0.81	0.10	5.80
10-461	1/4" x 1/2"	1.36	0.94	0.14	15.13
10-463	3/8" x 1/4"	1.12	0.62	0.06	5.86
10-464	3/8" x 1/2"	1.44	0.94	0.14	6.06
10-473	3/8" x 5/8"	1.63	1.12	0.16	14.41
10-467	1/2" x 3/8"	1.41	0.81	0.13	5.50
10-468	1/2" x 5/8"	1.68	1.06	0.20	18.77
10-469	5/8" x 1/2"	1.63	1.00	0.17	16.94
10-470	5/8" x 3/4"	1.97	1.31	0.31	18.45
10-471	3/4" x 5/8"	1.75	1.18	0.32	19.22

**90° ELBOW**

• Use with Copper Gasket

E4  
669F



Part #	Male Flare x Female Flare	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-500	1/4" x 1/4"	0.97	0.69	0.75	0.56	6.91
10-495	1/2" x 1/2"	1.41	1.12	0.81	0.72	12.13

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

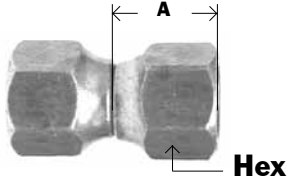


**BRASS FLARE SWIVEL FITTINGS**

**FORGED SWIVEL**

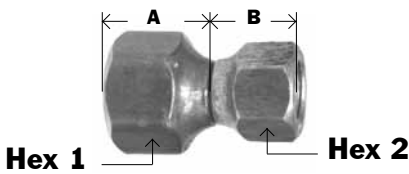
**SAE# 010108**

1350  
US4  
14FSV  
34



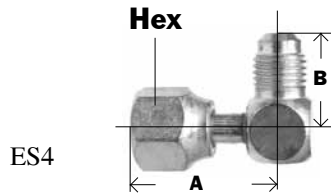
Part #	Female Flare UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-481	1/4"	0.59	0.62	0.04	5.11
10-482	5/16"	0.62	0.68	0.06	7.47
10-483	3/8"	0.69	0.81	0.10	5.56
10-484	1/2"	0.81	0.94	0.16	7.63
10-485	5/8"	0.94	1.06	0.24	8.73
10-486	3/4"	1.12	1.31	0.34	30.76

**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	11.94
10-488	1/2" x 3/8"	0.84	0.70	0.94	0.81	0.12	13.88
10-489	5/8" x 1/2"	0.98	0.82	1.03	0.94	0.22	17.29

**FORGED SWIVEL ELBOWS**



ES4

Part #	Male Flare x Female Flare	A	B	Hex	Approx. Wt. Lbs.	List Price
10-493	1/4"	0.81	1.15	0.62	0.12	9.72
10-494*	3/8"	1.09	1.00	0.75	0.36	24.65

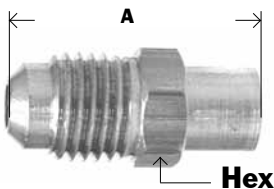
\* Steel

**BRASS SOLDER FITTINGS**

**FLARE TO SWT UNION**

**SAE# 010104**

4085 46FS  
US3 277  
672FS



Part #	Male Flare x SWT	A	Hex	Approx. Wt. Lbs.	List Price
10-602	1/4" x 3/8"	1.00	0.50	0.06	5.60
10-611	1/2" x 5/8"	1.56	0.75	0.12	19.00
10-615	3/4" x 3/4"	2.06	1.06	0.32	15.59

Lead Free fittings available on  
**pgs. 382-388**



# BRASS FITTINGS

# JIC 37° FLARE

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

## STRAIGHT



Part #	JIC Thread	Pipe Size	List Price
28-701	7/16-20	1/8	2.71
28-702	7/16-20	1/4	5.48
28-703	7/16-20	3/8	5.09
28-704	1/2-20	1/8	18.70
28-705	1/2-20	1/4	19.01
28-706	9/16-18	1/8	6.07
28-707	9/16-18	1/4	4.90
28-708	9/16-18	3/8	4.00
28-709	9/16-18	1/2	7.60
28-710	3/4-16	1/4	11.23
28-711	3/4-16	3/8	7.29
28-712	3/4-16	1/2	9.92
28-713	3/4-16	3/4	19.66
28-714	7/8-14	3/8	19.80
28-715	7/8-14	1/2	18.35
28-716	7/8-14	3/4	20.25
28-717	1-1/16-12	3/4	19.62
28-718	1-5/16-12	1	36.87

## 45° FORGED ELBOW



Part #	JIC Thread	Pipe Size	List Price
28-722F	7/16-20	1/8	7.37
28-724F	7/16-20	1/4	9.88
28-728F	1/2-20	1/4	4.23
28-729F <sup>1</sup>	9/16-18	1/8	26.02
28-731F	9/16-18	1/4	7.65
28-733F	9/16-18	3/8	7.28
28-734F	9/16-18	1/2	14.92
28-736F	3/4-16	3/8	10.35
28-738F	3/4-16	1/2	33.68
28-740F	7/8-14	1/2	16.91
28-742F	1-1/16-12	3/4	58.65

## BULKHEAD TUBE UNION



Part #	JIC Thread	List Price
28-797	9/16-18	51.45
28-955	1-1/16-12	54.84

## 90° FORGED ELBOW



Part #	JIC Thread	Pipe Size	List Price
28-760F	7/16-20	1/8	7.04
28-762F	7/16-20	1/4	4.72
28-766F	1/2-20	1/4	9.19
28-768F	9/16-18	1/8	20.70
28-770F	9/16-18	1/4	6.45
28-772F	9/16-18	3/8	12.42
28-773F	9/16-18	1/2	21.00
28-774F	3/4-16	3/8	16.21
28-777F	3/4-16	1/2	10.61
28-778F	3/4-16	3/4	31.21
28-780F	7/8-14	1/2	25.59
28-781F	1-1/16-12	1/2	52.16
28-783F	1-1/16-12	3/4	18.92
28-784F	1-5/16-12	3/4	39.80
28-786F	1-5/16-12	1	43.98

For Steel 37° Flare JIC fittings  
see page 319

## STRAIGHT SWIVEL ADAPTER



Part #	JIC Thread	Pipe Size	List Price
28-753	9/16-18	1/4	7.83
28-754	9/16-18	3/8	14.38
28-756	3/4-16	1/2	18.48

## FEMALE STRAIGHT ADAPTER



Part #	JIC Thread	Pipe Size	List Price
28-957	7/16-20	1/8	7.31
28-958	7/16-20	1/4	9.26
28-959	9/16-18	1/4	10.93
28-960	9/16-18	3/8	42.00
28-961	3/4-16	3/8	8.14
28-962	3/4-16	1/2	21.87
28-963	7/8-14	1/2	16.92
28-964	1-1/16-12	3/4	27.46

## STRAIGHT TUBE UNION



Part #	JIC Thread	List Price
28-966	7/16-20	7.04
28-969	9/16-18	7.44
28-970	3/4-16	11.68
28-971	1-1/16-12	26.02
28-972	1-5/16-12	28.97

## TUBE TEE



Part #	JIC Thread	List Price
28-981	7/16-20	56.30
28-982	9/16-18	62.72

## FEMALE ELBOW (FORGED BODY)

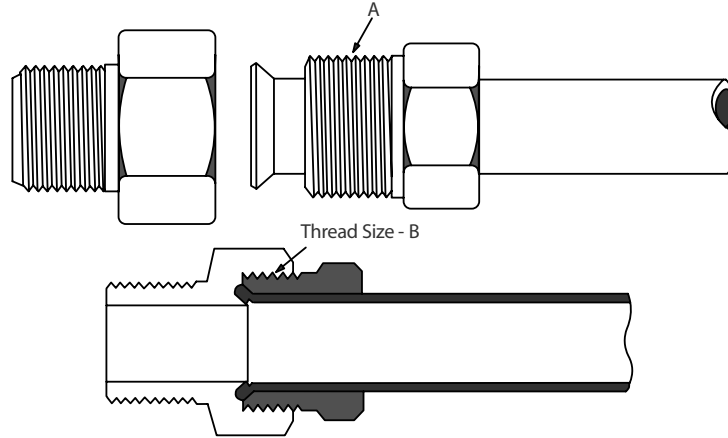


Part #	JIC Thread	Pipe Size	List Price
28-973	7/16-20	1/8	7.77
28-974	7/16-20	1/4	14.27
28-975	9/16-18	1/4	18.94

BRASS



# Inverted Flare



<b>Tube O.D.</b>	<b>1/8</b>	<b>3/16</b>	<b>1/4</b>	<b>5/16</b>	<b>3/8</b>	<b>7/16</b>	<b>1/2</b>	<b>5/8</b>	<b>3/4</b>	<b>7/8</b>	<b>1</b>
<b>Thread Size-B</b>	<b>5/16-28</b>	<b>3/8-24</b>	<b>7/16-24</b>	<b>1/2-20</b>	<b>5/8-18</b>	<b>1 1/16-18</b>	<b>3/4-18</b>	<b>7/8-18</b>	<b>1-1/16-16</b>	<b>1-3/16-16</b>	<b>1-5/16-16</b>

**•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:

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

**•Vibration**

Excellent resistance.

**•Temperature Range**

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

**•Material**

CA360 Brass.

**•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. 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 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.

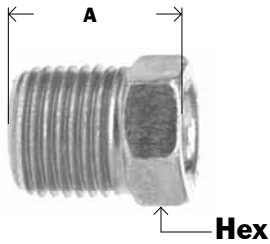
**Actual O.D. of male inverted flare threads**

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



**ZINC CHROMATE STEEL NUT**

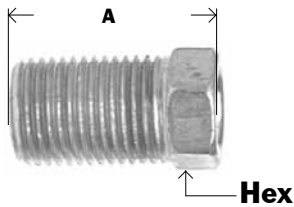
**SAE# 040110**



2105  
411FS  
105  
41W

Part #	Size	Thread	A	Hex	Approx. Wt. Lbs.	List Price
12-001	1/8"	5/16-28	0.52	0.31	0.01	1.11
12-002	3/16"	3/8-24	0.56	0.37	0.02	0.37
12-003	1/4"	7/16-24	0.56	0.43	0.02	0.42
12-004	5/16"	1/2-20	0.62	0.50	0.02	0.48
12-005	3/8"	5/8-18	0.66	0.62	0.03	0.79
12-000	7/16"	11/16-18	0.68	0.68	0.04	1.94
12-011	3/8"	11/16-18	0.66	0.68	0.05	5.21
12-006	1/2"	3/4-18	0.74	0.75	0.08	1.16
12-007	5/8"	7/8-18	0.80	0.87	0.10	2.81
12-008	3/4"	1-1/16-16	0.88	1.06	0.10	4.79

**LONG STEEL NUT**

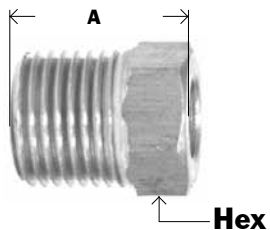


7896

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-009	3/16"	0.84	0.37	0.02	1.11
12-010	1/4"	0.81	0.43	0.02	1.32

**INVERTED FLARE BRASS NUT**

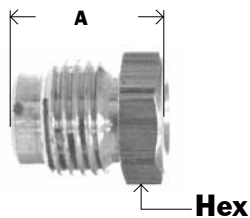
**SAE# 040110**



2100  
411F  
100  
411B

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-012	1/8"	0.52	0.31	0.01	2.42
12-013	3/16"	0.56	0.37	0.01	1.50
12-014	1/4"	0.56	0.43	0.02	0.97
12-015	5/16"	0.62	0.50	0.03	1.03
12-016	3/8"	0.66	0.62	0.04	1.55
12-017	1/2"	0.74	0.75	0.05	3.61

**SPECIAL FORD NUT**



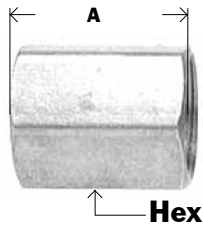
431F

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-020	1/4"	0.82	0.50	0.02	5.40



**UNION INTERNAL**

**SAE# 040101**

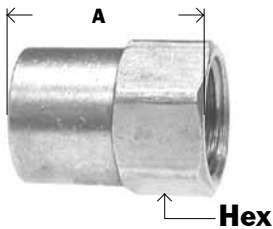


2300  
42IFHD

Part #	Inv. Flare X Inv. Flare	A	Hex	Approx. Wt. Lbs.	List Price
12-022	1/8"	0.59	0.40	0.02	4.12
12-023	3/16"	0.62	0.47	0.02	1.16
12-024	1/4"	0.62	0.50	0.03	1.80
12-025	5/16"	0.70	0.56	0.04	3.35
12-026	3/8"	0.80	0.75	0.08	3.76
12-027	1/2"	0.91	0.90	0.10	6.30

**FEMALE ADAPTER**

**SAE# 040103**

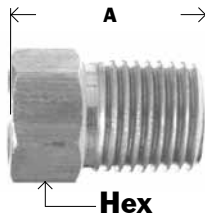


46IFHD  
252  
46W

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	2.60
12-033	1/4" x 1/8"	0.75	0.53	0.02	2.67
12-034	5/16" x 1/8"	0.78	0.59	0.04	9.29
12-035	3/8" x 1/4"	1.03	0.75	0.08	5.30
12-036	1/2" x 3/8"	1.10	0.90	0.12	9.93

**MALE ADAPTER**

**SAE# 040102**



2200  
48IFHD  
202  
48W

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	3.09
12-042	3/16" x 1/8"	0.70	0.43	0.02	1.98
12-043	1/4" x 1/8"	0.74	0.50	0.03	2.08
12-044	1/4" x 1/4"	0.89	0.56	0.04	1.94
12-045	5/16" x 1/8"	0.79	0.56	0.03	2.30
12-046	5/16" x 1/4"	0.98	0.56	0.05	3.01
12-047	3/8" x 1/8"	0.88	0.72	0.05	3.70
12-048	3/8" x 1/4"	1.02	0.75	0.06	3.09
12-049	3/8" x 3/8"	1.02	0.75	0.08	3.70
12-038	1/2" x 1/4"	0.97	0.87	0.10	7.78
12-050	1/2" x 3/8"	1.06	0.87	0.08	5.11
12-051	1/2" x 1/2"	1.06	0.87	0.11	8.15
12-052	5/8" x 1/2"	1.32	1.06	0.15	4.77
12-040	3/4" x 3/4"	1.39	1.25	0.24	14.96

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

World War II was the last government program that really worked.

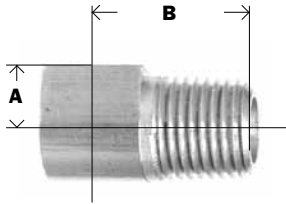
- George F. Will





**ELBOW**

**SAE# 040202**



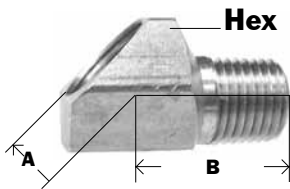
400  
2400  
249IFHD 249IF  
402 49W

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	3.45
12-058	3/16" x 1/8"	0.26	0.61	0.03	2.12
12-059	1/4" x 1/8"	0.33	0.65	0.04	2.24
12-054*	1/4" x 1/8"	0.33	0.65	0.04	14.00
12-060	1/4" x 1/4"	0.28	0.82	0.06	3.03
12-061	5/16" x 1/8"	0.47	0.68	0.05	2.79
12-062	5/16" x 1/4"	0.45	0.85	0.08	4.68
12-063	3/8" x 1/8"	0.54	0.76	0.14	5.51
12-064	3/8" x 1/4"	0.53	0.92	0.14	5.40
12-065	3/8" x 3/8"	0.50	0.94	0.12	7.08
12-066	1/2" x 3/8"	0.59	1.03	0.16	7.63
12-067	1/2" x 1/2"	0.66	1.22	0.25	12.48
12-056	5/8" x 3/8"	0.67	1.09	0.20	14.48
12-068	5/8" x 1/2"	0.67	1.29	0.18	13.15
12-069	3/4" x 1/2"	0.80	1.39	0.42	37.75
12-080	7/8" x 3/4"	0.94	1.43	0.48	48.23
12-081	1" x 1"	1.02	1.69	0.60	59.38

\* Restricted pipe end .062

**45° ELBOW**

**SAE# 040302**

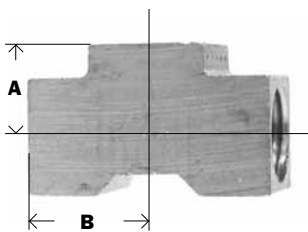


154  
2352  
259IFHD  
352 94W

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	3.87
12-073	1/4" x 1/8"	0.27	0.58	0.56	0.04	4.00
12-074	5/16" x 1/8"	0.36	0.56	0.62	0.06	5.74
12-075	5/16" x 1/4"	0.23	0.83	0.62	0.06	9.51
12-076	3/8" x 1/4"	0.51	0.84	0.78	0.09	7.88
12-077	1/2" x 3/8"	0.38	0.91	0.84	0.11	11.39
12-079	5/8" x 1/2"	0.44	1.00	1.06	0.21	19.27

**UNION TEE**

**SAE# 040401**



244IFHD  
702  
44I

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
12-085	1/8"	0.33	0.47	0.04	7.15
12-086	3/16"	0.39	0.55	0.04	3.53
12-087	1/4"	0.42	0.56	0.08	5.24
12-088	5/16"	0.45	0.63	0.09	5.66
12-089	3/8"	0.56	0.74	0.17	11.27
12-090	1/2"	0.67	0.88	0.24	21.63



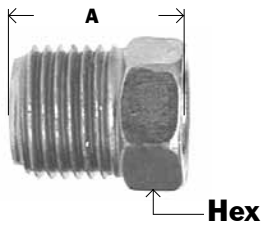
## INVERTED FLARE

## BRASS FITTINGS

## STEEL PLUG

• cored

SAE# 040109

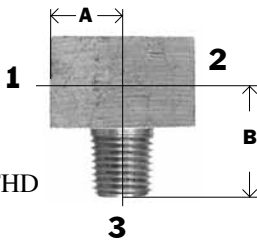


106  
411P  
131  
2131

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-091	3/16"	0.53	0.37	0.01	0.61
12-092	1/4"	0.54	0.43	0.02	0.97
12-093	5/16"	0.59	0.50	0.03	0.91
12-094	3/8"	0.66	0.62	0.04	2.67

## MALE BRANCH TEE

SAE# 040427

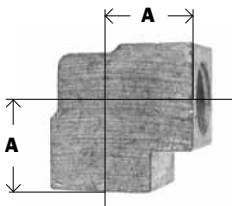


145  
245IFHD  
602  
2600  
600

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	5.69
12-101	1/4" x 1/8"	0.42	0.64	0.06	5.15
12-102	5/16" x 1/8"	0.47	0.68	0.07	7.57
12-103	3/8" x 1/4"	0.58	0.93	0.15	11.15

## FEMALE ELBOW

SAE# 040203

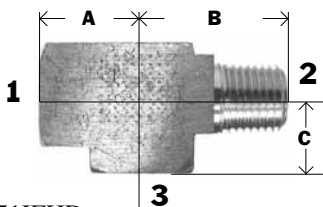


450

Part #	Inv. Flare x Female NPTF	A	Approx. Wt. Lbs.	List Price
12-110	1/4" x 1/8"	0.55	0.07	5.27
12-111	5/16" x 1/8"	0.51	0.08	6.48
12-112	3/8" x 1/4"	0.68	0.10	8.79

## MALE RUN TEE

SAE# 040424



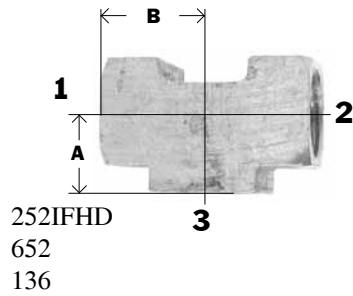
251IFHD  
752  
550  
151

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	11.22
12-119	1/4" x 1/8"	0.56	0.75	0.42	0.08	8.42
12-120	5/16" x 1/8"	0.62	0.85	0.45	0.10	15.06
12-121	3/8" x 1/4"	0.75	1.08	0.56	0.14	14.18



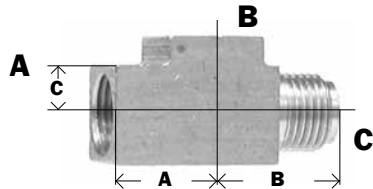
**FEMALE BRANCH TEE**

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	15.88
12-129	5/16" x 1/8"	0.45	0.63	0.12	10.13
12-130	3/8" x 1/4"	0.56	0.74	0.17	11.51

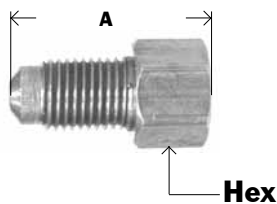
**TOWED TRAILER BRAKE TEE**



Part #	A	B	C	Reference #	Approx. Wt. Lbs.	List Price
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	10.96
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	10.85
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	8.73
12-147	3/16" (7/16-24) 0.57	3/16" (3/8-24) 0.76	3/16" (7/16-24) 0.42	7900	0.08	8.55
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	11.09
12-150	1/4" (9/16-18) 0.56	3/16" (3/8-24) 0.77	1/4" (9/16-18) 0.43	7901	0.10	8.55
12-151	1/4" (9/16-18) 0.56	1/4" (9/16-18) 0.77	1/4" (9/16-18) 0.43	7898	0.12	11.51

**INVERTED FLARE AUTO FITTINGS**

**DUAL MASTER CYLINDER ADAPTER**



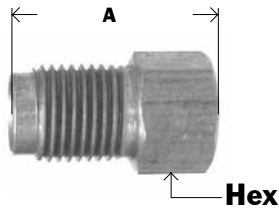
Part #	Male Flare x Female Inv.	A	Hex	Reference #	Approx. Wt. Lbs.	List Price
12-200	3/16" x 3/16"	1.00	0.50	1441	0.03	2.85
12-202	5/16" x 3/16"	0.96	0.68	7897	0.07	4.90

Travel is fatal to prejudice, bigotry and narrow-mindedness.

- Mark Twain



**DUAL MASTER CYLINDER ADAPTER**

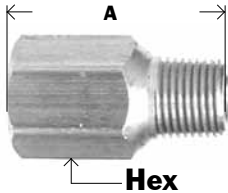


Part #	Male Inv. x Female Inv.	A	Hex	Reference #	Approx. Wt. Lbs.	List Price
12-210	3/16" x 1/4"	0.84	0.56	7828	0.03	3.32
12-212	1/4" x 3/16"	0.84	0.50	7818	0.04	3.39
12-214*	7/16-20 x 1/4"	0.87	0.68	7732	0.06	5.82
12-216	5/16" x 3/16"	0.94	0.50	7909	0.04	3.39
12-218*	5/16" x 1/4"	0.93	0.62	7727	0.06	4.79
12-220	5/16" x 1/4"	0.95	0.68	7829	0.07	3.82
12-222*	5/16" x 5/16"	0.95	0.68	1074	0.06	15.23
12-224	3/8" MPT x 5/16"	0.87	0.75	7771	0.08	8.66

\* Seals on hex face

47W

**CARBURETOR TO FUEL LINE ADAPTER - FORD**

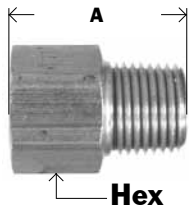


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-230	1/4"(1/2-20) x 1/8"MPT	1.06	0.56	0.04	11.27

1513

**RESTRICTION PIPE ADAPTER**

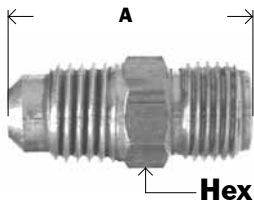
(.0625 ORIFICE)



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-310	1/8"	0.75	0.50	0.02	4.82

1510

**SAE FLARE X INVERTED FLARE**



Part #	SAE Flare x Inv. Flare	A	Hex	Approx. Wt. Lbs.	List Price
12-250	1/4" x 3/16"	1.03	0.43	0.02	11.95
12-252	1/4" x 1/4"	1.03	0.43	0.03	5.27
12-254	3/8" x 5/16"	1.34	0.63	0.08	17.57
12-256	3/8" x 3/8"	1.37	0.63	0.09	15.39
12-257	3/8" x 7/16"	1.40	0.68	0.10	12.54

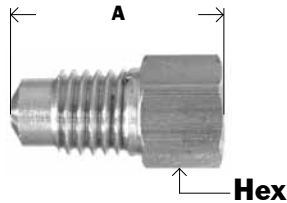
4205

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



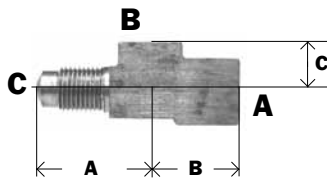
**METRIC HYDRAULIC BRAKE FITTINGS**

**METRIC ADAPTER**



Part #	Male	O.D.	A	Hex	Approx. Wt. Lbs.	List Price
12-335	M10x1.0	3/16"(3/8-24)	1.02	0.50	0.02	2.67
12-326	M11x1.5	3/16"(M10x1.0)	1.06	0.50	0.02	12.30
12-327	M12x1.0	3/16"(M10x1.0)	1.02	0.53	0.04	12.30
12-328	M16x1.5	3/16"(M10x1.0)	1.02	0.56	0.06	12.30

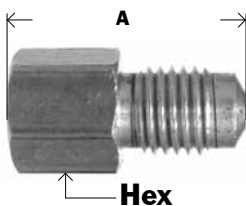
**METRIC TOWED TRAILER BRAKE TEE**



Part #	A	B	C	Approx. Wt. Lbs.	List Price
12-333	3/16" (M12x1.0) 1.03	3/16" (3/8-24) 0.75	3/16" (M12x1.0) 0.49	0.16	26.11

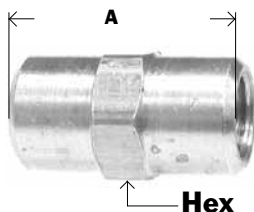
\* Bubble flare type

**ADAPTER STANDARD TO METRIC BUBBLE**



Part #	Female	Male	A	Hex	Reference #	Approx. Wt. Lbs.	List Price
12-337	3/16" (3/8-24)	4.762(3/16") (10x1.25)	1.00	0.50	7970	0.02	10.12
12-339	3/16" (3/8-24)	13x1.5	1.03	0.56	7972	0.04	12.84
12-341	3/16" (3/8-24)	12x1.0	1.02	0.53	7974	0.04	12.42

**METRIC UNION**



Part #	Size	A	Hex	Reference #	Approx. Wt. Lbs.	List Price
12-343	3/16"(10.0MM)	1.04	0.56	7975	0.04	12.12



**POL ( BOTTLE GAS )****POL BRASS FITTINGS  
(BOTTLE GAS)**

Used for making connections in LP gas systems

POL Thread 880 - 14LH

Note: All bottle fittings are UL listed.

**TEE CHECK**

POL-T1  
2000  
1000

Part #	Pipe Size	List Price
34-001	M2000	23.82

**TAILPIECE WITH FLATS**

1001AUL  
21605



POL-LPT  
POL-LTPH  
M-2001-A

Part #	Length	List Price
34-011	2.34 w/ wrench Flats	13.27
34-012	2.13 w/ Hex	6.15

**STANDARD NUT**

7/8" Hex



1001BUL  
POL-N  
21601  
M-2001-B

Part #	Pipe Size	List Price
34-016	.880-14 LH	3.80

**TAILPIECE & NUT ASSEMBLY**

2002AB

Part #	Pipe Size	List Price
34-022	1/4	11.42

**BRASS FITTINGS****POL CAP**

POL-N5  
2004  
1004A  
M-2004

Part #	Pipe Size	List Price
34-031	.880-14LH	10.31

**POL PLUG**

1014A  
POL-P2  
2014  
M-2014

Part #	Pipe Size	List Price
34-036	.880-14LH	15.30

**ADAPTERS**

POL 2005  
POL 2006  
POL 2007



21607  
POL-U2  
1015

Part #	Pipe Size	List Price
34-041	3/8 Flare x .880-14LH	14.82
34-046	1/2 Flare x .880-14LH	15.00
34-051	5/8 Flare x .880-14LH	11.93

**POL X 1/4 FPT**

2008  
POL-U3B

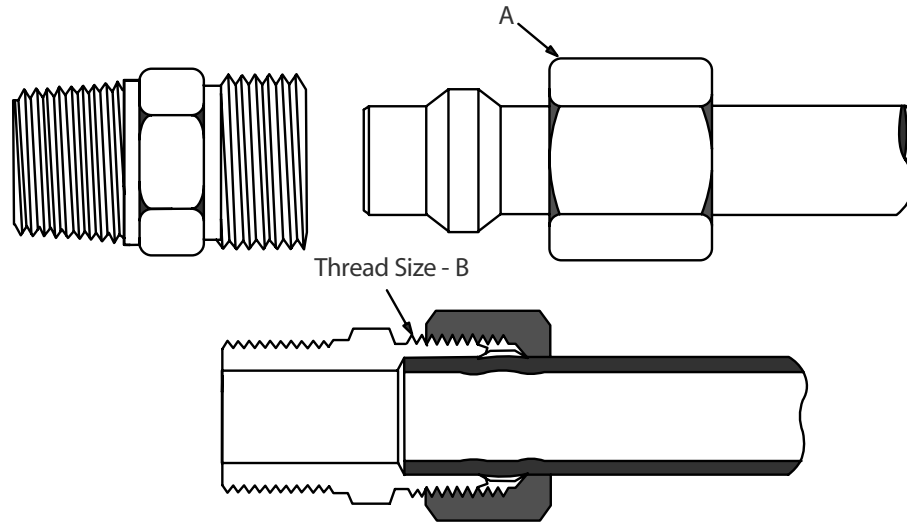
Part #	Pipe Size	List Price
34-056	.880-14LH POL x 1/4 FPT	19.75

**TAILPIECE & NUT ASSEMBLY**

Part #	Size	List Price
34-025	POL x 1/4 Barb	16.27



# Compression Fittings



<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

**•Typical Application**

Instrumentation, hydraulic and pneumatic systems.

**•Pressure**

Working pressure up to 2000 PSI with a 4:1 safety factor depending on tube size. When using plastic tubing, use the working pressure for type used.

**•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.)

**•Material**

CA360 Brass for barstock fittings.  
CA377 Brass for forged fittings.

**•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*

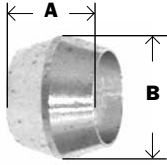




**BRASS SLEEVE**

**SAE# 060115**

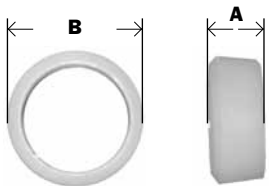
• FERRULES



60  
260

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-001	1/8"	0.19	0.19	0.01	0.22
18-002	3/16"	0.22	0.27	0.01	0.16
18-003	1/4"	0.25	0.34	0.01	0.16
18-004	5/16"	0.25	0.41	0.01	0.17
18-005	3/8"	0.25	0.47	0.02	0.18
18-006	7/16"	0.31	0.53	0.02	0.49
18-007	1/2"	0.38	0.59	0.02	0.49
18-008	5/8"	0.38	0.71	0.03	0.50
18-009	3/4"	0.44	0.87	0.03	1.45
18-010	7/8"	0.41	0.99	0.03	0.92

**DELRIN SLEEVE**

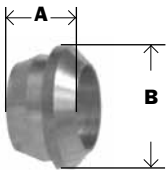


60-P

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-015	1/4"	0.19	0.37	0.01	0.16
18-016	5/16"	0.19	0.43	0.01	0.76
18-017	3/8"	0.19	0.50	0.02	0.25
18-018	1/2"	0.25	0.63	0.02	0.30
18-019	5/8"	0.22	0.74	0.02	0.32
18-020	3/4"	0.25	0.93	0.03	2.25

**SELF-ALIGN SLEEVE**

601



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
27-001	1/8"	0.19	0.25	0.01	0.27
27-002	3/16"	0.20	0.31	0.01	0.87
27-003	1/4"	0.21	0.37	0.02	0.33



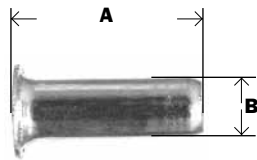
Part #	Size	A	B	Approx. Wt. Lbs.	List Price
27-005	3/8"	0.23	0.50	0.03	0.53
27-006	1/2"	0.35	0.62	0.03	1.50

\* Note: To buy compression fittings with self-align sleeve, simply delete the 18- prefix on the same size compression fitting and substitute 27- prefix. Pricing available upon request. 72 Hour lead time.



**BRASS INSERT**

• SLEEVE

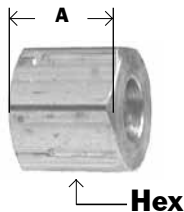


63-BI  
60AE  
2030  
63PT

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
22-008	1/8"	0.46	0.080	0.01	0.55
22-009	3/16"	0.45	0.135	0.01	0.55
22-009A	3/16"	0.52	0.095	0.01	0.63
22-010	1/4"	0.50	0.163	0.02	0.35
22-010A	1/4"	0.59	0.125	0.02	0.83
22-010B	1/4"	0.53	0.172	0.02	1.27
22-011A	5/16"	0.50	0.232	0.02	1.44
22-011	5/16"	0.53	0.187	0.02	0.62
22-012	3/8"	0.56	0.250	0.03	0.51
22-013	1/2"	0.72	0.372	0.03	0.66
22-014	5/8"	0.72	0.483	0.03	1.44
22-015	3/4"	1.03	0.563	0.03	3.23

**BRASS NUT**

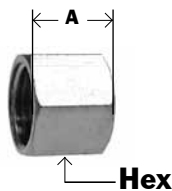
SAE# 060110



61  
261

Part #	Size	Thread	A	Hex	Approx. Wt. Lbs.	List Price
18-033	1/8"	5/16-24	0.38	0.37	0.01	0.62
18-034	3/16"	3/8-24	0.41	0.43	0.01	0.45
18-035L	1/4"	7/16-24	0.44	0.50	0.02	0.49
18-035	1/4"	7/16-24	0.44	0.50	0.02	0.70
18-036	5/16"	1/2-24	0.44	0.56	0.02	0.75
18-037L	3/8"	9/16-24	0.47	0.62	0.04	0.78
18-037	3/8"	9/16-24	0.47	0.62	0.04	0.80
18-038	7/16"	5/8-24	0.50	0.68	0.04	2.80
18-039L	1/2"	11/16-20	0.56	0.75	0.04	1.59
18-039	1/2"	11/16-20	0.62	0.81	0.04	1.99
18-040L	5/8"	13/16-18	0.56	0.87	0.06	1.49
18-040	5/8"	13/16-18	0.62	0.94	0.06	2.67
18-041	3/4"	1-18	0.68	1.12	0.08	3.22
18-042	7/8"	1-1/8 - 18	0.62	1.25	0.10	3.95

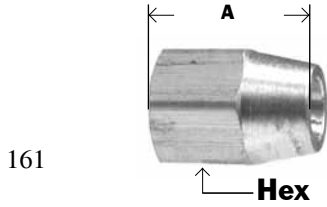
**NICKEL PLATED NUT**



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-054	1/4"	0.44	0.50	0.02	0.65
18-055	3/8"	0.45	0.62	0.02	0.65
18-056	1/2"	0.56	0.75	0.04	1.58
18-057	5/8"	0.56	0.94	0.04	1.59



**LONG NUT COMPRESSION**



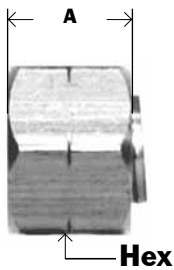
161

• More sizes available

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
24-003	1/4"	0.75	0.50	0.02	1.58
24-004	5/16"	0.84	0.56	0.02	1.22
24-005	3/8"	0.97	0.62	0.04	2.46
24-006	1/2"	1.06	0.81	0.06	3.45

\* Note: To buy compression fittings with long nut, simply delete the 18- prefix on the same size compression fitting and substitute a 24- prefix. Pricing available upon request. 72 hour lead time.

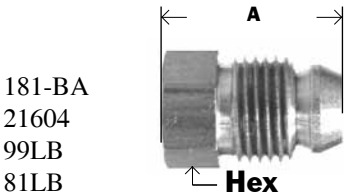
**CAPTIVE SLEEVE NUT**



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
26-001	1/8"	0.38	0.37	0.02	2.05
26-002	3/16"	0.40	0.43	0.02	1.87
26-003	1/4"	0.40	0.50	0.04	1.37
26-004	5/16"	0.44	0.56	0.04	1.93
26-005	3/8"	0.46	0.62	0.06	1.77
26-007	1/2"	0.50	0.75	0.08	2.29
26-008	5/8"	0.51	0.87	0.10	6.87

\* Note: To buy compression fittings with captive sleeve, simply delete the 18- prefix on the same size compression fitting and substitute a 26- prefix. Pricing available upon request. 72 hour lead time.

**BREAK-AWAY NUT**

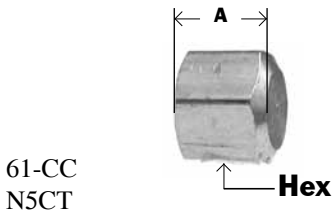


181-BA  
21604  
99LB  
81LB

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
16-090	3/16"	0.57	0.37	0.02	6.17
16-010	1/4"	0.62	0.43	0.02	1.79

\* Threaded sleeve fittings on page 84.

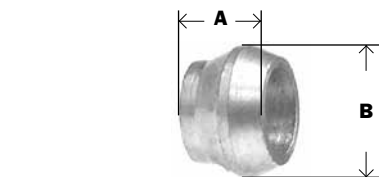
**CAP**



61-CC  
N5CT

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-047	1/4"	0.44	0.50	0.02	1.16
18-048	3/8"	0.40	0.62	0.04	1.28
18-049	1/2"	0.48	0.75	0.06	2.43
18-050	5/8"	0.56	0.94	0.10	5.00

**COMPRESSION PLUG**



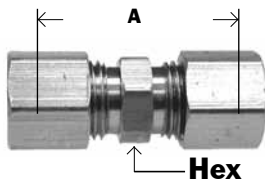
CSP

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-029	3/8"	0.31	0.47	0.04	1.22
18-030	1/2"	0.34	0.59	0.06	1.73



**UNION**

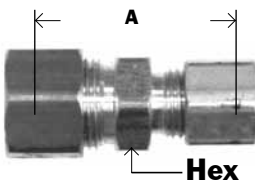
**SAE# 060101BA**



M-62

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-062	1/8"	0.64	0.31	0.03	2.50
18-063	3/16"	0.75	0.37	0.04	1.98
18-064L	1/4"	0.79	0.43	0.06	2.09
18-064	1/4"	0.81	0.43	0.06	2.40
18-065	5/16"	0.88	0.50	0.06	3.08
18-066L	3/8"	0.96	0.56	0.09	3.06
18-066	3/8"	0.98	0.56	0.10	2.94
18-067	7/16"	1.02	0.62	0.12	13.95
18-068L	1/2"	1.06	0.68	0.16	6.11
18-068	1/2"	1.25	0.68	0.16	7.59
18-069L	5/8"	1.43	0.81	0.24	6.23
18-069	5/8"	1.25	0.81	0.26	8.70
18-070	3/4"	1.41	1.00	0.35	16.49
18-071L	7/8"	1.03	1.12	0.34	13.64
18-071	7/8"	1.00	1.12	0.36	13.13

**REDUCING UNION**

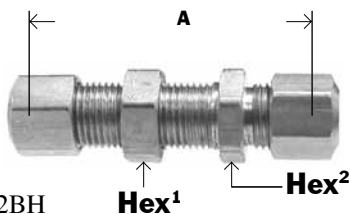


62-R

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-076	1/4" x 1/8"	0.73	0.44	0.04	3.39
18-077	1/4" x 3/16"	0.78	0.44	0.06	5.17
18-078	5/16" x 1/4"	0.81	0.50	0.06	3.68
18-079	3/8" x 1/4"	0.90	0.56	0.10	6.26
18-080	3/8" x 5/16"	0.94	0.56	0.10	5.47
18-081	1/2" x 3/8"	1.03	0.68	0.12	6.37
18-082	5/8" x 3/8"	1.03	0.81	0.15	6.32
18-083	5/8" x 1/2"	1.10	0.81	0.15	7.60
18-084	7/8" x 5/8"	1.23	1.18	0.20	25.48

**BULKHEAD UNIONS**

**SAE# 060101**



62BH  
75  
274

Part #	Size	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
18-088	1/4"	1.58	0.56	0.56	0.10	6.88
18-090	3/8"	1.76	0.68	0.68	0.14	16.91

Every perfect traveller always creates the country where he travels  
- Nikos Kazantzakis

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



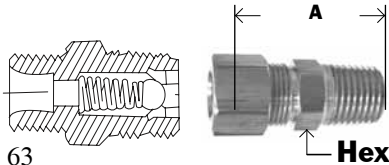
**BULKHEAD NUTS**



20102

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-097	1/4"	0.25	0.56	0.02	2.66
18-099	3/8"	0.25	0.68	0.04	3.64
18-100	1/2"	0.38	0.94	0.06	5.00

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

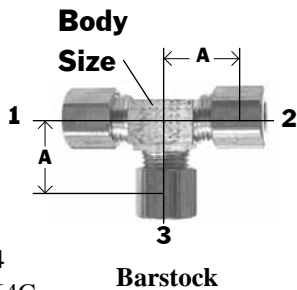
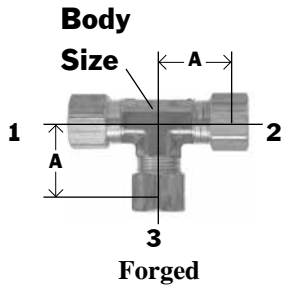


63  
263  
63A

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	10.11
18-094	1/4" x 1/8"	0.88	0.44	0.04	9.84
18-096	3/8" x 1/4"	1.16	0.56	0.08	13.80

**TEE**

**SAE# 060401**

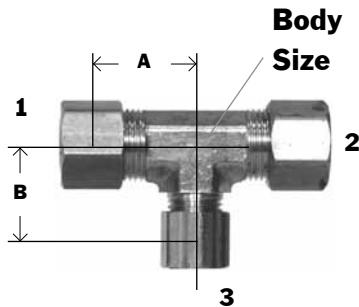


64  
264C

Part #	Size	A	Body Size	Approx. Wt. Lbs.	List Price
18-101	1/8"	0.61	0.37	0.04	10.21
18-101B*	1/8"	0.62	0.33	0.04	9.03
18-102	3/16"	0.59	0.36	0.08	5.04
18-102B*	3/16"	0.60	0.38	0.08	6.34
18-103	1/4"	0.63	0.36	0.10	4.65
18-103B*	1/4"	0.62	0.49	0.10	8.36
18-104	5/16"	0.72	0.50	0.13	7.38
18-104B*	5/16"	0.60	0.50	0.14	10.17
18-105	3/8"	0.75	0.50	0.16	5.45
18-105B*	3/8"	0.73	0.59	0.16	9.43
18-106	1/2"	0.94	0.59	0.22	11.53
18-106B*	1/2"	0.94	0.69	0.24	21.43
18-107	5/8"	1.06	0.69	0.28	11.75
18-108	3/4"	1.22	0.88	0.32	41.11
18-109	7/8"	1.25	0.94	0.34	31.46

\* Barstock

**FORGED REDUCING TEE**



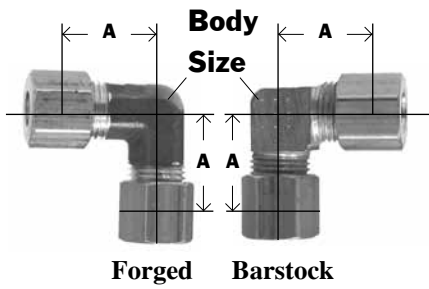
64-R

Part #	Size	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	6.33
18-110	1/4" x 1/4" x 3/8"	0.69	0.75	0.50	0.14	14.00
18-111	3/8" x 1/4" x 1/4"	0.75	0.69	0.50	0.12	8.61
18-115	3/8" x 3/8" x 1/4"	0.75	0.69	0.50	0.14	6.32
18-116	1/2" x 1/2" x 1/4"	0.94	0.81	0.59	0.16	11.95
18-117	1/2" x 1/2" x 3/8"	0.94	0.81	0.59	0.24	12.86
18-118	5/8" x 5/8" x 3/8"	1.06	0.94	0.69	0.28	15.38
18-119	5/8" x 5/8" x 1/2"	1.06	1.06	0.69	0.30	16.36



**UNION ELBOW**

**SAE# 060201**

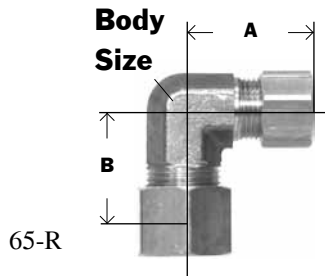


65  
BSE2  
165C  
265C

Part #	Size	A	Body Size	Approx. Wt. Lbs.	List Price
18-122B*	1/8"	0.62	0.35	0.04	6.30
18-123	3/16"	0.61	0.37	0.06	5.46
18-123B*	3/16"	0.62	0.41	0.06	5.72
18-124	1/4"	0.66	0.38	0.08	3.96
18-124B*	1/4"	0.60	0.48	0.08	5.83
18-125	5/16"	0.69	0.47	0.09	6.52
18-125B*	5/16"	0.62	0.52	0.09	8.12
18-126	3/8"	0.72	0.43	0.12	4.62
18-127	1/2"	0.94	0.59	0.19	8.15
18-127B*	1/2"	0.94	0.71	0.19	16.09
18-128	5/8"	1.06	0.72	0.26	7.96
18-129	3/4"	1.19	0.94	0.48	20.88
18-130	7/8"	1.25	0.94	0.44	23.86

\* Barstock

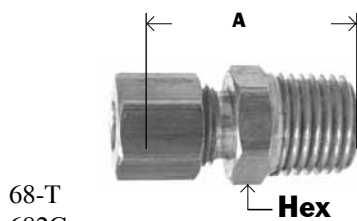
**REDUCING ELBOW - Forged**



65-R

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	8.71
18-136	1/2" x 3/8"	0.88	0.94	0.59	0.15	9.58
18-137	5/8" x 3/8"	0.88	0.97	0.56	0.18	13.27

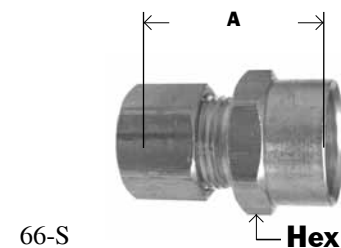
**TANK ADAPTER DRILLED THRU (NO STOP)**



68-T  
682C  
80F

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	2.35
18-209	1/4" x 1/4"	0.99	0.56	0.05	1.97
18-210	3/8" x 1/4"	1.16	0.56	0.05	2.99
18-211	3/8" x 3/8"	1.09	0.68	0.08	2.95
18-212	3/8" x 1/2"	1.19	0.87	0.10	4.27
18-213	1/2" x 3/8"	1.22	0.68	0.12	5.97
18-214	1/2" x 1/2"	1.09	0.81	0.14	4.73
18-215	5/8" x 1/2"	1.12	0.81	0.18	5.72

**COMP X SWEAT ADAPTER**



66-S

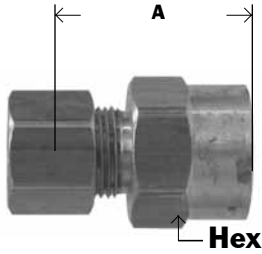
Part #	Comp. X Sweat Adapter	A	Hex	Approx. Wt. Lbs.	List Price
18-171	3/8" x 1/2" nom.swt.	0.98	0.75	0.08	5.43

Lead Free fittings available on  
**pgs. 382-388**



**FEMALE ADAPTER**

**SAE# 060103**



66

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	2.74
18-143	3/16" x 1/8"	0.78	0.56	0.04	2.45
18-144	3/16" x 1/4"	0.96	0.68	0.04	7.73
18-145L	1/4" x 1/8"	0.84	0.50	0.05	1.62
18-145	1/4" x 1/8"	0.78	0.56	0.05	2.32
18-146L	1/4" x 1/4"	0.88	0.62	0.09	3.21
18-146	1/4" x 1/4"	1.03	0.68	0.09	4.46
18-147	1/4" x 3/8"	1.00	0.81	0.10	3.66
18-148	1/4" x 1/2"	1.02	0.87	0.12	4.43
18-149	5/16" x 1/8"	0.81	0.56	0.05	2.79
18-150	5/16" x 1/4"	0.91	0.62	0.06	4.07
18-152	3/8" x 1/8"	0.88	0.56	0.06	2.90
18-153L	3/8" x 1/4"	0.97	0.62	0.08	3.75
18-153	3/8" x 1/4"	1.06	0.68	0.08	4.03
18-154L	3/8" x 3/8"	1.03	0.75	0.08	2.66
18-154	3/8" x 3/8"	1.06	0.81	0.10	5.66
18-155	3/8" x 1/2"	1.12	1.00	0.08	4.06
18-156	3/8" x 3/4"	1.19	1.16	0.14	13.92
18-157	1/2" x 1/4"	1.09	0.68	0.10	7.67
18-158L	1/2" x 3/8"	0.94	0.81	0.12	4.21
18-158	1/2" x 3/8"	1.12	0.81	0.12	5.75
18-159L	1/2" x 1/2"	1.19	1.00	0.12	5.01
18-159	1/2" x 1/2"	1.31	1.00	0.12	10.51
18-160	1/2" x 3/4"	1.25	1.16	0.18	13.21
18-161	5/8" x 3/8"	1.03	0.81	0.12	9.17
18-162L	5/8" x 1/2"	1.20	0.94	0.18	5.74
18-162	5/8" x 1/2"	1.38	1.00	0.18	8.20
18-163	5/8" x 3/4"	1.20	1.12	0.22	8.72
18-164	3/4" x 1/2"	1.25	1.06	0.26	14.93
18-165	3/4" x 3/4"	1.28	1.19	0.28	22.77
18-167	7/8" x 1/2"	1.28	1.19	0.32	14.29
18-166	7/8" x 3/4"	1.31	1.12	0.34	9.93

We find it hard to believe that other people's thoughts are as silly as our own, but they probably are.

- James Harvey Robinson

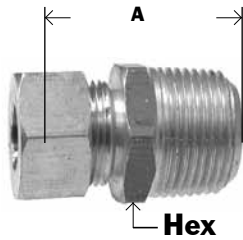
Dimension data can change without notice.  
Please call us when dimensions are critical.





**MALE ADAPTER**

**SAE# 060102**



68

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	6.13
18-176	1/8" x 1/8"	0.78	0.43	0.04	1.85
18-177	3/16" x 1/8"	0.84	0.43	0.04	1.77
18-178	3/16" x 1/4"	0.94	0.56	0.06	3.68
18-179L	1/4" x 1/8"	0.88	0.56	0.04	1.70
18-179	1/4" x 1/8"	0.88	0.43	0.04	1.66
18-180L	1/4" x 1/4"	0.94	0.56	0.05	1.46
18-180	1/4" x 1/4"	1.06	0.56	0.06	2.70
18-181	1/4" x 3/8"	1.03	0.68	0.08	2.43
18-182	1/4" x 1/2"	1.09	0.81	0.10	3.68
18-183	5/16" x 1/8"	0.91	0.50	0.05	2.26
18-184L	5/16" x 1/4"	1.01	0.56	0.06	2.64
18-184	5/16" x 1/4"	1.09	0.56	0.06	2.70
18-185	5/16" x 3/8"	1.06	0.68	0.07	4.39
18-186	5/16" x 1/2"	1.14	0.87	0.10	7.67
18-187L	3/8" x 1/8"	0.94	0.56	0.06	2.50
18-187	3/8" x 1/8"	0.97	0.56	0.06	2.82
18-188L	3/8" x 1/4"	1.03	0.56	0.06	2.45
18-188	3/8" x 1/4"	1.16	0.56	0.07	2.94
18-189L	3/8" x 3/8"	1.09	0.68	0.08	2.60
18-189	3/8" x 3/8"	1.14	0.69	0.08	3.51
18-190L	3/8" x 1/2"	1.19	0.88	0.12	4.24
18-190	3/8" x 1/2"	1.34	0.87	0.13	4.96
18-191	3/8" x 3/4"	1.29	1.06	0.16	7.95
18-192	7/16" x 1/4"	1.06	0.62	0.10	8.00
18-204	7/16" x 3/8"	1.10	0.68	0.12	6.07
18-193L	1/2" x 1/4"	1.09	0.69	0.11	4.87
18-193	1/2" x 1/4"	1.22	0.68	0.11	5.32
18-194L	1/2" x 3/8"	1.16	0.68	0.12	4.70
18-194	1/2" x 3/8"	1.16	0.69	0.12	4.83
18-195L	1/2" x 1/2"	1.09	0.81	0.12	4.70
18-195	1/2" x 1/2"	1.41	0.87	0.19	6.67
18-196	1/2" x 3/4"	1.38	1.06	0.22	6.67
18-197	5/8" x 3/8"	1.22	0.81	0.24	5.08
18-198	5/8" x 1/2"	1.12	0.81	0.24	6.00
18-199	5/8" x 3/4"	1.31	1.06	0.26	5.93
18-200	3/4" x 1/2"	1.44	1.00	0.26	9.01
18-201	3/4" x 3/4"	1.50	1.06	0.26	9.90
18-202	7/8" x 1/2"	1.18	1.12	0.26	15.54
18-203	7/8" x 3/4"	1.22	1.12	0.28	8.66
18-205	7/8" x 1"	1.67	1.37	0.32	22.00

**BRASS**

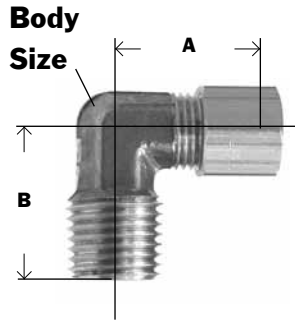
Never invest your money in anything that eats or needs repairing.

- Billy Rose

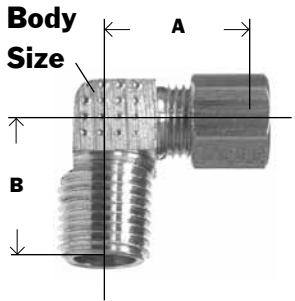


**MALE ELBOW**

**SAE# 060202**



**Forged**



**Barstock**

69  
269C  
BSE1  
169C

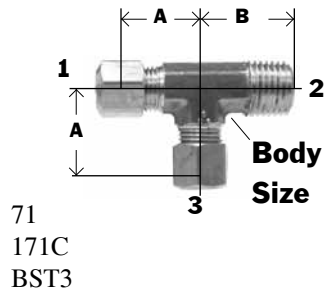
Part #	Comp. X Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-220	1/8" x 1/8"	0.59	0.75	0.34	0.02	3.96
18-220B*	1/8" x 1/8"	0.60	0.67	0.43	0.04	2.97
18-221	3/16" x 1/8"	0.63	0.72	0.34	0.04	3.72
18-221B*	3/16" x 1/8"	0.62	0.69	0.43	0.06	2.51
18-223	3/16" x 1/4"	0.60	0.81	0.39	0.05	4.28
18-224	1/4" x 1/8"	0.60	0.75	0.37	0.06	2.85
18-224B*	1/4" x 1/8"	0.62	0.75	0.43	0.06	2.49
18-225	1/4" x 1/4"	0.65	0.94	0.36	0.08	3.36
18-225B*	1/4" x 1/4"	0.61	0.81	0.56	0.08	2.97
18-226	1/4" x 3/8"	0.75	0.91	0.47	0.08	3.97
18-227	1/4" x 1/2"	0.81	1.13	0.56	0.12	6.42
18-228	5/16" x 1/8"	0.66	0.75	0.47	0.06	3.87
18-228B*	5/16" x 1/8"	0.62	0.75	0.42	0.06	3.27
18-229	5/16" x 1/4"	0.66	0.81	0.47	0.07	4.04
18-229B*	5/16" x 1/4"	0.69	0.84	0.57	0.08	4.38
18-230	5/16" x 3/8"	0.75	0.91	0.47	0.10	4.91
18-231	5/16" x 1/2"	0.84	1.12	0.56	0.12	7.30
18-232	3/8" x 1/8"	0.72	0.66	0.39	0.06	3.37
18-232B*	3/8" x 1/8"	0.69	0.69	0.57	0.06	4.91
18-233	3/8" x 1/4"	0.75	0.82	0.46	0.08	4.13
18-233B*	3/8" x 1/4"	0.75	0.94	0.57	0.08	3.79
18-234	3/8" x 3/8"	0.81	0.94	0.46	0.10	4.66
18-234B*	3/8" x 3/8"	0.71	0.83	0.69	0.10	7.86
18-235	3/8" x 1/2"	0.87	1.12	0.56	0.14	9.57
18-235B*	3/8" x 1/2"	0.88	1.16	0.94	0.14	14.50
18-248	3/8" x 3/4"	1.03	1.19	0.81	0.18	9.73
18-247	7/16" x 1/4"	0.84	1.00	0.56	0.14	7.62
18-236	1/2" x 1/4"	0.88	0.97	0.56	0.14	6.84
18-237	1/2" x 3/8"	0.88	1.03	0.56	0.19	6.06
18-237B*	1/2" x 3/8"	0.94	1.12	0.70	0.19	7.62
18-238	1/2" x 1/2"	0.94	1.13	0.59	0.17	6.53
18-238B*	1/2" x 1/2"	0.94	1.31	0.86	0.17	12.80
18-239	1/2" x 3/4"	1.16	1.25	0.81	0.18	12.13
18-240	5/8" x 3/8"	1.06	1.12	0.68	0.18	7.40
18-241	5/8" x 1/2"	1.06	1.16	0.68	0.20	7.91
18-241B*	5/8" x 1/2"	1.06	1.31	0.86	0.20	10.00
18-242	5/8" x 3/4"	1.16	1.31	0.81	0.24	12.43
18-243	3/4" x 1/2"	1.19	1.31	0.94	0.26	12.87
18-245	3/4" x 3/4"	1.19	1.38	0.94	0.30	15.42
18-246	7/8" x 3/4"	1.25	1.38	0.94	0.35	21.73

\* Barstock

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



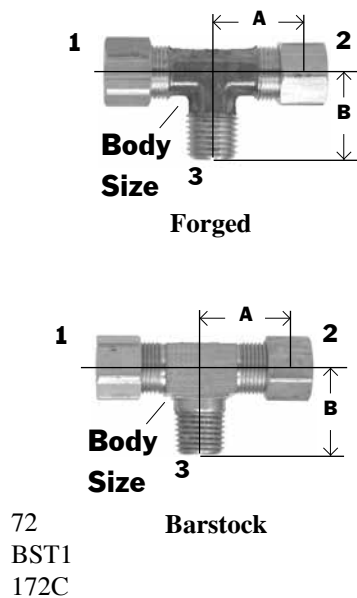
**FORGED MALE RUN TEE**



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	4.56
18-273	3/16" x 1/8"	0.63	0.69	0.36	0.07	5.48
18-274	1/4" x 1/8"	0.63	0.75	0.36	0.08	4.72
18-275	1/4" x 1/4"	0.69	0.88	0.44	0.10	5.59
18-276	5/16" x 1/8"	0.72	0.75	0.50	0.10	7.30
18-277	5/16" x 1/4"	0.75	0.88	0.44	0.10	6.61
18-278	3/8" x 1/8"	0.75	0.75	0.50	0.14	7.37
18-279	3/8" x 1/4"	0.79	0.87	0.44	0.18	6.35
18-280	3/8" x 3/8"	0.88	1.00	0.47	0.20	8.12
18-281	1/2" x 3/8"	0.94	1.09	0.59	0.24	11.18
18-282	1/2" x 1/2"	0.97	1.19	0.69	0.26	14.36
18-283	5/8" x 1/2"	1.06	1.31	0.69	0.28	13.69
18-284	3/4" x 1/2"	1.22	1.34	0.88	0.30	33.18

**MALE BRANCH TEE**

**SAE# 060203**



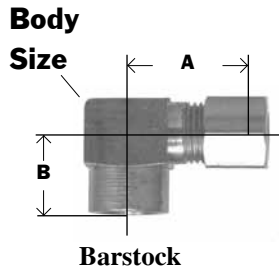
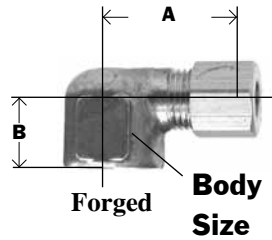
Part #	Comp. X Male NPTF (1&2) X 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-290	3/16" x 1/8"	0.63	0.69	0.36	0.08	7.14
18-291	1/4" x 1/8"	0.62	0.75	0.36	0.10	5.11
18-291B*	1/4" x 1/8"	0.64	0.73	0.45	0.10	7.00
18-292	1/4" x 1/4"	0.69	0.86	0.44	0.10	5.92
18-293	5/16" x 1/8"	0.72	0.75	0.50	0.11	5.92
18-294	5/16" x 1/4"	0.75	0.88	0.44	0.12	6.62
18-295	3/8" x 1/8"	0.75	0.75	0.50	0.14	7.58
18-296	3/8" x 1/4"	0.78	0.88	0.44	0.16	5.89
18-296B*	3/8" x 1/4"	0.78	0.91	0.62	0.16	8.22
18-297	3/8" x 3/8"	0.78	0.97	0.47	0.18	8.88
18-298	3/8" x 1/2"	0.88	1.22	0.69	0.20	13.31
18-304	1/2" x 1/4"	0.94	0.97	0.59	0.22	11.10
18-299B*	1/2" x 3/8"	0.96	1.09	0.70	0.24	17.90
18-299	1/2" x 3/8"	0.94	1.12	0.59	0.24	10.81
18-300	1/2" x 1/2"	0.97	1.19	0.69	0.30	14.01
18-301	5/8" x 1/2"	1.06	1.31	0.69	0.32	16.02
18-302	3/4" x 1/2"	1.22	1.34	0.88	0.50	35.59
18-303	3/4" x 3/4"	1.25	1.50	0.88	0.54	33.27

\* Barstock



**FEMALE ELBOW**

**SAE# 060203**

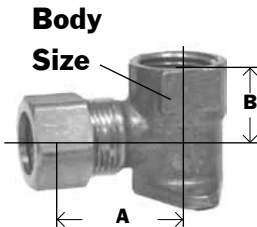


70  
270C  
BSE3  
170C

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	6.29
18-252	3/16" x 1/8"	0.69	0.47	0.56	0.04	4.13
18-253	1/4" x 1/8"	0.69	0.47	0.56	0.06	3.97
18-253B*	1/4" x 1/8"	0.69	0.56	0.56	0.06	4.25
18-254	1/4" x 1/4"	0.75	0.50	0.72	0.08	4.65
18-267	1/4" x 3/8"	0.81	0.58	0.81	0.08	6.58
18-268	1/4" x 1/2"	0.89	0.66	1.00	0.10	8.71
18-255	5/16" x 1/8"	0.72	0.84	0.47	0.08	7.59
18-256	5/16" x 1/4"	0.78	0.50	0.72	0.09	5.92
18-257	3/8" x 1/8"	0.75	0.84	0.47	0.10	4.70
18-258	3/8" x 1/4"	0.84	0.59	0.75	0.10	4.73
18-259	3/8" x 3/8"	0.88	0.58	0.81	0.12	5.33
18-260	3/8" x 1/2"	0.97	0.66	1.00	0.14	6.80
18-250	3/8" x 3/4"	1.09	0.72	1.25	0.18	11.03
18-261	1/2" x 1/4"	1.06	0.70	0.88	0.18	9.47
18-262	1/2" x 3/8"	1.00	0.70	0.88	0.16	7.61
18-263	1/2" x 1/2"	1.03	0.72	1.00	0.20	8.04
18-270	1/2" x 3/4"	1.16	0.72	1.25	0.23	11.89
18-269	5/8" x 3/8"	1.09	0.77	1.00	0.20	12.09
18-264	5/8" x 1/2"	1.09	0.77	1.00	0.22	9.46
18-265	5/8" x 3/4"	1.22	0.77	1.25	0.24	12.98
18-266	3/4" x 1/2"	1.25	1.25	0.94	0.28	21.26

\* Barstock

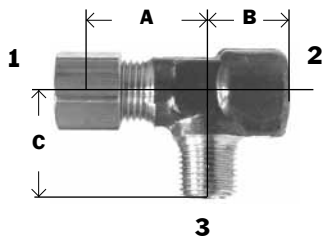
**FORGED DROP-EAR ELBOW**



BSE3-DE

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	17.63

**FORGED TEE**

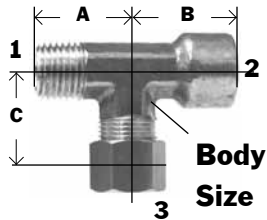


71  
171C  
BST3

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	6.37



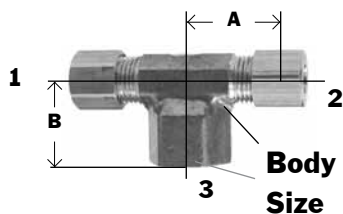
**ADAPTER TEE**



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	7.05
18-316	3/8" x 1/4"	0.84	0.97	0.81	0.47	0.10	7.93

76  
176C

**FEMALE BRANCH FORGED TEE**

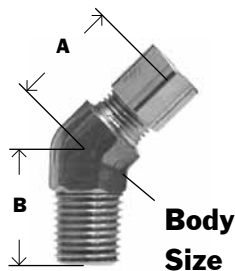


Part #	Comp. X Female NPTF (1&2)x3	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-321	1/4" x 1/8"	0.78	0.75	0.45	0.10	6.08
18-328	1/4" x 1/4"	0.78	0.75	0.44	0.12	9.49
18-325	3/8" x 1/8"	0.75	0.63	0.50	0.12	6.84
18-322	3/8" x 1/4"	0.81	0.97	0.47	0.14	9.26
18-323	3/8" x 3/8"	0.97	0.69	1.05	0.16	14.28
18-326	1/2" x 1/8"	0.94	0.75	0.59	0.20	12.17
18-324	1/2" x 3/8"	1.00	0.72	0.88	0.22	18.80
18-327	5/8" x 1/8"	1.06	0.81	0.69	0.26	16.96

78      2908  
BST4  
77  
177C

**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	4.71
18-330	1/4" x 1/8"	0.40	0.61	0.41	0.04	4.34
18-336	1/4" x 1/4"	0.59	0.84	0.53	0.06	6.36
18-331	5/16" x 1/8"	0.59	0.65	0.53	0.06	6.93
18-332	5/16" x 1/4"	0.59	0.83	0.53	0.08	6.65
18-333	3/8" x 1/4"	0.62	0.83	0.53	0.08	5.68
18-338	3/8" x 3/8"	0.75	0.95	0.59	0.10	11.73
18-334	1/2" x 3/8"	0.75	0.88	0.59	0.14	7.03
18-339	1/2" x 1/2"	0.94	1.14	0.75	0.14	12.94
18-335	5/8" x 1/2"	0.78	1.14	0.78	0.14	14.50

6945    273  
45BSE1 77  
74  
179C

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

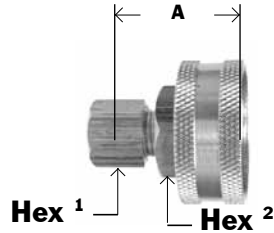


## COMPRESSION

## BRASS FITTINGS

## 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	7.24
30-051	3/8" x 3/4"	1.04	0.62	0.75	0.12	7.02

## 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

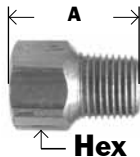
\* For break away nut, see page 74.

## NUT

181  
6100  
11

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
16-001	1/8"	0.50	0.37	0.02	0.84
16-002	3/16"	0.53	0.43	0.02	1.33
16-003	1/4"	0.56	0.50	0.04	1.75
16-004	5/16"	0.61	0.56	0.04	1.45
16-005	3/8"	0.61	0.62	0.04	2.68

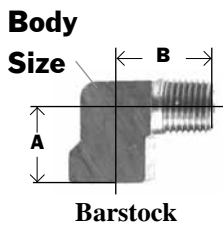
## MALE ADAPTER

188  
6200  
12

Part #	THRD Sleeve x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
16-117	1/8" x *	0.62	0.43	0.02	2.91
16-118	1/8" x 1/8"	0.62	0.43	0.02	1.75
16-119	3/16" x 1/8"	0.69	0.43	0.02	1.94
16-121	1/4" x 1/8"	0.75	0.50	0.04	2.00
16-122	5/16" x 1/8"	0.89	0.56	0.04	3.90
16-123	3/8" x 1/4"	0.84	0.62	0.06	4.34

\* 1/4 - 28 Male Thread Tapered.

## 90° ELBOW

189  
6400  
15

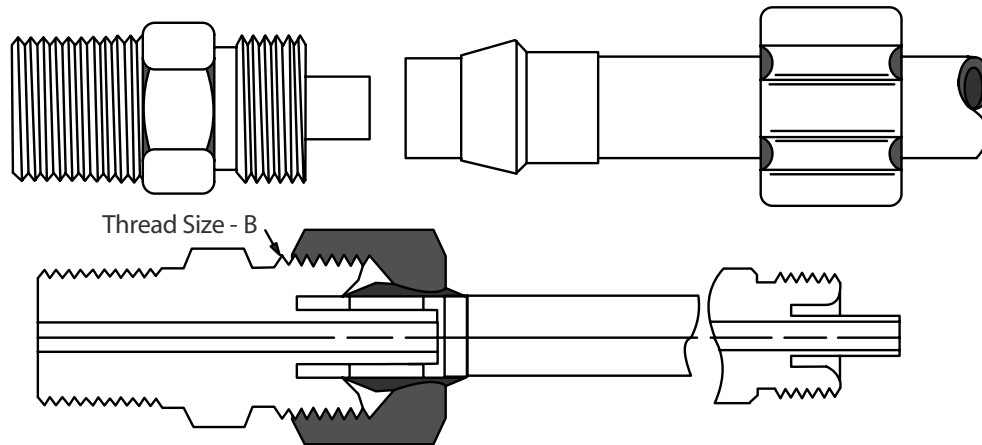
Part #	THRD Sleeve x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
16-127	1/8" x *	0.50	0.52	0.41	0.02	6.85
16-128	1/8" x 1/8"	0.50	0.66	0.43	0.02	8.42
16-129	3/16" x 1/8"	0.56	0.62	0.44	0.02	9.41
16-130	1/4" x 1/8"	0.52	0.62	0.50	0.04	7.94

\* 1/4 - 28 Male Thread Tapered



# Flareless

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



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.

#### •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

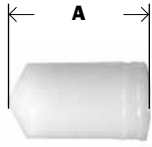
- 1- Cut tubing to desired length.
- 2- Slide nut/sleeve assembly on tube. Threaded end "A" of nut must face toward fitting.
- 3- Bottom tubing into fitting.
- 4- Plastic sleeve - Tighten nut hand tight.  
Brass Sleeve - Tighten nut hand tight, then an additional 3/4 turn.

The dead bird does not leave the nest.  
- The aging Winston Churchill when told in the House of Commons that his fly was open.





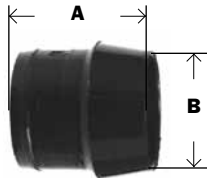
**PLASTIC CAP**



1229  
59P  
259P

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-201	1/4"	0.50	0.01	1.83
20-203	3/8"	0.56	0.01	1.39
20-204	1/2"	0.59	0.01	1.97

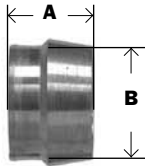
**PLASTIC SLEEVE**



260FF  
1260  
60P  
260P

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-205	1/4"	0.34	0.26	0.01	0.24
20-206	5/16"	0.39	0.32	0.01	0.36
20-207	3/8"	0.41	0.38	0.01	0.45
20-208	1/2"	0.44	0.51	0.01	0.30

**BRASS SLEEVE**



260FB

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-380	1/8"	0.19	0.12	0.01	1.88
20-381	3/16"	0.30	0.19	0.01	1.79
20-382	1/4"	0.32	0.25	0.01	0.85
20-384	3/8"	0.37	0.38	0.02	1.73

**NUT AND PLASTIC SLEEVE ASSEMBLY**



261PF  
1261  
61PN  
261U

Part #	Tube O.D.	Thread	A	Hex (Dia.)	Approx. Wt. Lbs.	List Price
20-211	1/4"	3/8-24	0.43	0.43	0.02	1.10
20-212	5/16"	7/16-24	0.45	0.50	0.02	2.07
20-213	3/8"	1/2-24	0.49	0.56	0.04	1.49
20-214	1/2"	11/16-20	0.42	0.81	0.04	2.71

A journey of a thousand miles begins with a single step.

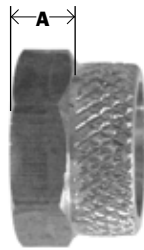
Lead Free fittings available on  
**pgs. 382-388**

- Lao Tzu



**NUT**

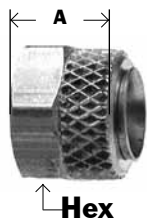
61PN  
1261  
261FPN



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	1.09
20-219	3/16"	3/8-24	0.41	0.44	0.01	1.09
20-220	1/4"	3/8-24	0.34	0.44	0.02	1.07
20-221	5/16"	7/16-24	0.34	0.50	0.02	1.09
20-222	3/8"	1/2-24	0.38	0.56	0.04	1.29
20-223	1/2"	11/16-20	0.42	0.81	0.06	2.15

**UNIVERSAL NUT AND BRASS SLEEVE ASSEMBLY**

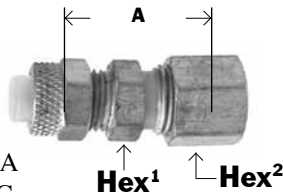
261PFB  
1261B  
61PB  
261UB



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	1.70
20-228	3/16"	3/8-24	0.41	0.44	0.02	1.43
20-229	1/4"	3/8-24	0.34	0.43	0.02	1.91
20-230	5/16"	7/16-24	0.34	0.50	0.02	1.79
20-231	3/8"	1/2-24	0.37	0.56	0.04	2.44
20-232	1/2"	11/16-20	0.42	0.81	0.04	3.49

**UNION TUBE #M62C**

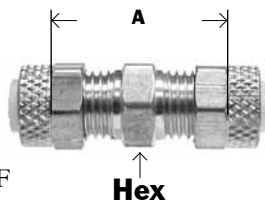
262S  
62PCA  
262PC



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	7.15
20-237	3/8"	0.84	0.62	0.62	0.08	8.68

**UNION**

262PF  
1262  
62P  
262P



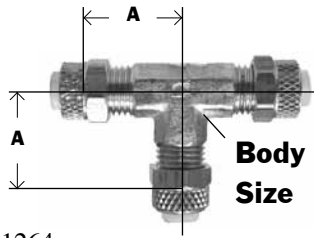
Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-240	1/8"	0.66	0.31	0.02	6.89
20-241	3/16"	0.75	0.37	0.04	7.87
20-242	1/4"	0.69	0.37	0.04	3.19
20-243	5/16"	0.69	0.44	0.04	7.69
20-244	3/8"	0.72	0.50	0.10	8.05
20-200	3/8" x 1/4"	0.72	0.50	0.08	8.03
20-245	1/2"	0.84	0.69	0.14	11.10

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



**UNION TEE**

**BRASS**

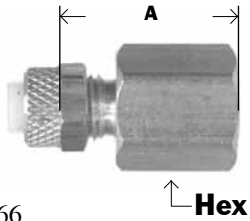


1264  
164P  
264P

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-248	1/8"	0.62	0.31	0.02	11.18
20-249	3/16"	0.62	0.31	0.04	11.54
20-250	1/4"	0.73	0.44	0.06	9.52
20-251	5/16"	0.62	0.37	0.08	10.35
20-252	3/8"	0.86	0.56	0.08	10.25
20-330*	3/8" x 1/4"	0.72	0.44	0.08	18.80
20-253	1/2"	0.81	0.62	0.24	23.44

\* Reducing Branch

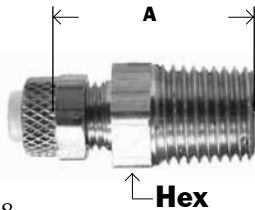
**FEMALE CONNECTOR**



1266  
66P  
266P

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	6.35
20-257	3/16" x 1/8"	0.78	0.56	0.05	6.44
20-258	3/16" x 1/4"	0.97	0.69	0.05	13.02
20-259	1/4" x 1/8"	0.76	0.50	0.04	7.68
20-260	1/4" x 1/4"	1.08	0.62	0.05	6.21
20-261	5/16" x 1/8"	0.75	0.50	0.03	6.59
20-264	5/16" x 1/4"	0.90	0.62	0.04	7.39
20-265	3/8" x 1/8"	0.77	0.56	0.05	13.73
20-262	3/8" x 1/4"	0.94	0.62	0.05	6.89
20-263	1/2" x 3/8"	1.00	0.81	0.12	9.48

**MALE CONNECTOR**



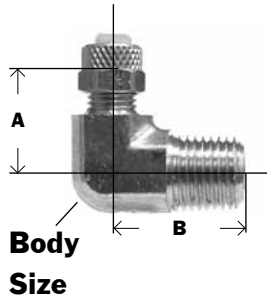
1268  
68P  
268P

Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-266	1/8" x 1/16"	0.78	0.34	0.02	10.64
20-267	1/8" x 10-32*	0.59	0.37	0.02	6.77
20-268	1/8" x 1/8"	0.80	0.34	0.04	3.58
20-269	3/16" x 1/8"	0.86	0.44	0.04	3.31
20-280	1/4" x 1/16"	0.81	0.43	0.03	10.62
20-270	1/4" x 10-32*	0.75	0.37	0.02	7.22
20-271	1/4" x 1/8"	0.82	0.44	0.03	3.07
20-272	1/4" x 1/4"	1.00	0.56	0.05	3.57
20-273	1/4" x 3/8"	1.03	0.69	0.08	6.65
20-274	5/16" x 1/8"	0.81	0.44	0.04	3.83
20-275	5/16" x 1/4"	1.00	0.56	0.05	4.65
20-276	3/8" x 1/8"	0.84	0.50	0.06	4.63
20-277	3/8" x 1/4"	1.03	0.56	0.08	4.92
20-278	3/8" x 3/8"	1.03	0.69	0.10	5.90
20-279	1/2" x 3/8"	1.09	0.69	0.16	6.90
20-282	1/2" x 1/2"	1.33	0.88	0.18	11.68

\* Furnished with gasket.



**MALE ELBOW**

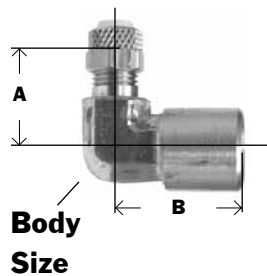


1269  
169P  
269P

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	4.56
20-288	3/16" x 1/8"	0.62	0.69	0.37	0.04	4.83
20-289*	1/4" x 1/8"	0.53	0.73	0.50	0.04	3.46
20-290	1/4" x 1/4"	0.66	0.94	0.37	0.06	6.08
20-291	1/4" x 3/8"	0.75	1.03	0.50	0.10	10.11
20-292	5/16" x 1/8"	0.62	0.75	0.41	0.04	5.11
20-293	3/8" x 1/8"	0.91	0.81	0.56	0.08	5.43
20-294	3/8" x 1/4"	0.72	0.94	0.44	0.10	6.80
20-295	3/8" x 3/8"	0.78	1.03	0.50	0.14	9.21
20-296	1/2" x 3/8"	1.09	1.10	0.73	0.16	7.50

\* Barstock

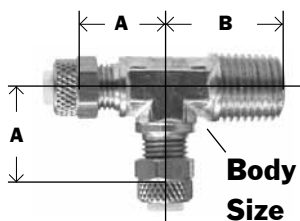
**FEMALE ELBOW**



1270  
170P  
270P

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	7.60
20-301	3/16" x 1/8"	0.72	0.55	0.56	0.02	7.91
20-302	1/4" x 1/8"	0.62	0.75	0.37	0.08	7.60
20-303	1/4" x 1/4"	0.72	0.88	0.50	0.10	8.14
20-304	3/8" x 1/4"	0.72	0.88	0.50	0.12	7.78
20-305	1/2" x 3/8"	0.91	0.94	0.63	0.16	12.26

**MALE RUN TEE**



1271  
171P  
271P

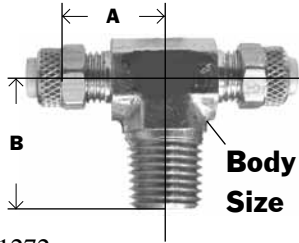
Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-308	1/8" x 1/8"	0.62	0.69	0.31	0.04	9.93
20-309	3/16" x 1/8"	0.62	0.69	0.31	0.04	10.20
20-310	1/4" x 1/8"	0.62	0.75	0.37	0.08	8.25
20-311	1/4" x 1/4"	0.66	0.94	0.37	0.10	12.17
20-312	5/16" x 1/8"	0.62	0.75	0.37	0.08	10.11
20-313	3/8" x 1/4"	0.66	0.94	0.44	0.10	11.14
20-314	1/2" x 3/8"	0.81	1.06	0.63	0.16	17.44

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



**MALE BRANCH TEE**

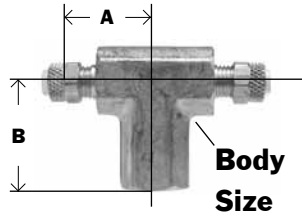
**BRASS**



1272  
172P  
272P

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	14.58
20-318	3/16" x 1/8"	0.63	0.69	0.31	0.04	10.29
20-319	1/4" x 1/8"	0.63	0.75	0.37	0.07	8.23
20-320	1/4" x 1/4"	0.66	0.94	0.37	0.09	10.71
20-321	5/16" x 1/8"	0.63	0.75	0.37	0.10	10.29
20-322	3/8" x 1/8"	0.63	0.75	0.44	0.08	14.27
20-323	3/8" x 1/4"	0.66	0.94	0.44	0.11	11.54
20-324	1/2" x 3/8"	0.81	1.06	0.63	0.21	26.66

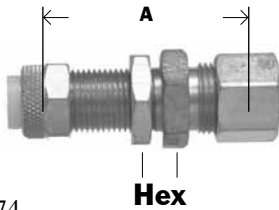
**FEMALE BRANCH TEE**



1277  
177P  
277P

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	18.46
20-328	1/4" x 1/4"	0.84	1.16	0.56	0.16	15.60

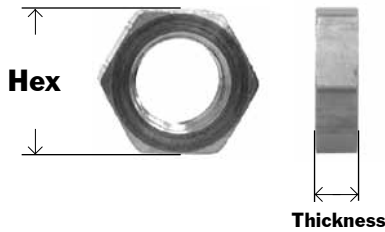
**BULKHEAD UNION - FLARELESS X COMPRESSION**



1274

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-333	1/4"	1.31	0.56	0.07	9.21
20-334	3/8"	1.44	0.69	0.12	14.13

**BULKHEAD NUT**

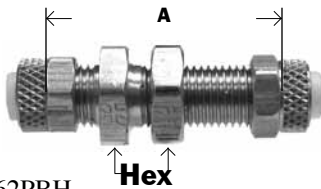


Part #	Tube O.D.	Hex	Thickness	Approx. Wt. Lbs.	List Price
20-370	1/8"	0.31	0.25	0.01	3.06
20-372	5/16"	0.62	0.19	0.02	2.71

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



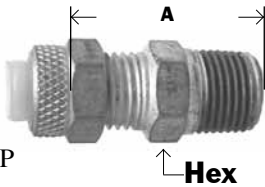
**BULKHEAD UNION**



62PBH  
329P  
282P

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-337	1/4"	1.25	0.56	0.06	9.90
20-338	5/16"	1.25	0.62	0.08	12.82
20-339	3/8"	1.31	0.69	0.10	13.67

**QUICK DISCONNECT FITTING**

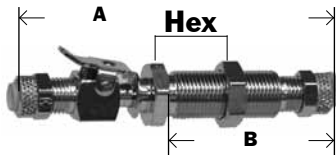


292P

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	27.64

**QUICK DISCONNECT COUPLERS**

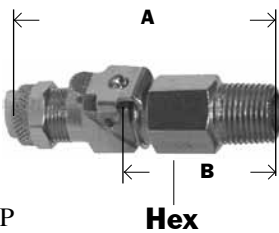
**TUBE X TUBE**



349P

Part #	Tube O.D.	A	B	Hex	Approx. Wt. Lbs.	List Price
20-401	1/4"	3.00	1.72	0.62	0.06	75.96
20-403	3/8"	3.56	1.92	0.81	0.10	77.01

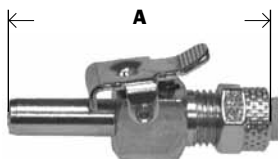
**TUBE TO MALE THREAD - Single end Shut-Off, Connector, Quick Coupler.**



398P  
391P + 393P

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	54.24
20-411	1/4" x 1/4"	2.31	1.28	0.56	0.14	64.44
20-413	3/8" x 1/4"	2.63	1.42	0.62	0.18	77.98

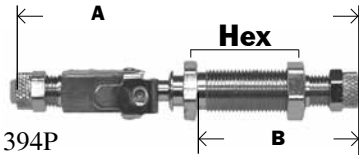
**INSERT ONLY - Thru type insert. No Shut-Off.**



393P

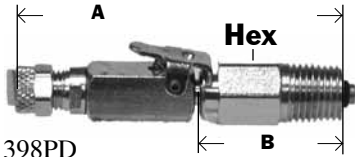
Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-417	1/4"	1.69	0.04	26.48
20-419	3/8"	1.93	0.06	31.28



**FLARELESS****BRASS FITTINGS****TUBE TO TUBE - Double end Shut-Off Type.**

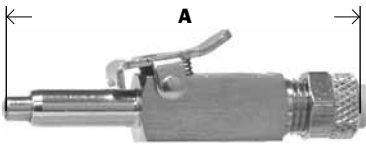
394P  
392P + 393PD

Part #	Tube O.D.	A	B	Hex	Approx. Wt. Lbs.	List Price
20-425	1/4"	3.67	1.79	0.62	0.18	90.26
20-427	3/8"	3.82	1.97	0.81	0.26	100.14

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

398PD  
393PD + 391P

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	73.47
20-437	1/4" x 1/4"	2.91	1.27	0.56	0.18	88.17
20-439	3/8" x 1/4"	3.02	1.40	0.62	0.24	84.88

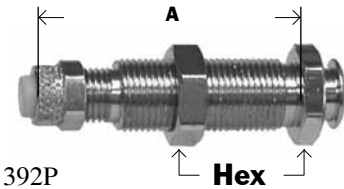
**INSERT ONLY - Double End Shut-Off**

393PD

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-445	1/4"	2.40	0.08	45.68

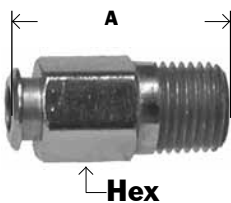
**CHROME PLATED NUT AND PLASTIC SLEEVE**

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-451	1/4"	0.34	0.43	0.01	1.84
20-453	3/8"	0.38	0.56	0.01	2.42

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

392P

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-455	1/4"	1.79	0.62	0.10	48.72
20-457	3/8"	1.97	0.81	0.16	61.95

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

391P

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	32.17
20-463	1/4" x 1/4"	1.27	0.56	0.08	40.31
20-465	3/8" x 1/4"	1.40	0.62	0.08	46.69

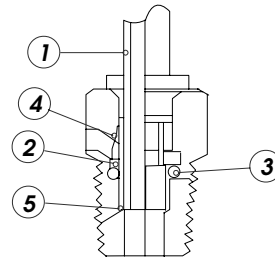


**BRASS PUSH-IN FITTINGS**

**PAGES 93-98**

**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 of 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.

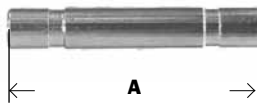


When tubing (1) is inserted into the fitting, it first passes through the gripping teeth (2). Just beyond the gripping teeth is the o-ring (3) which provides the leak proof seal against the OD of the tube. The gripping teeth grab the tube, which

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

**DOUBLE MALE UNION - NICKEL PLATED**



AQ34

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-004	1/8"	1.28	0.01	5.17
20-005	5/32"	1.28	0.01	10.34
20-006	1/4"	1.40	0.02	5.64
20-007	5/16"	1.59	0.02	6.36
20-008	3/8"	1.81	0.02	7.49
20-000	1/2"	1.89	0.03	12.66

( For polyurethane or other soft plastic tubing )

**PLASTIC PLUG**

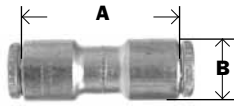


- 284PP 6900
- AQ59 639PL
- 209-OF 12-004
- 1129 50-526

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-009	5/32"	1.16	0.01	1.33
20-010	1/4"	1.40	0.01	1.72
20-011	3/8"	1.40	0.02	3.04
20-013	1/2"	1.50	0.02	4.08



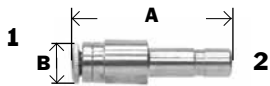
**UNION CONNECTOR**



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

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-017	1/8"	1.07	0.38	0.03	9.40
20-018	5/32"	1.07	0.38	0.03	6.70
20-019	1/4"	1.50	0.44	0.05	6.58
20-022	3/8" x 1/4"	1.46	0.56	0.05	8.48
20-020	3/8"	1.44	0.56	0.06	9.14
20-021	1/2"	1.63	0.81	0.18	13.38

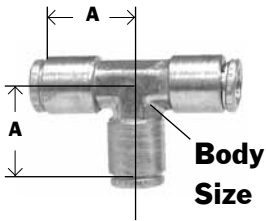
**REDUCER - NICKEL PLATED - TUBE OD X STUD**



67PPL  
 286PP

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	10.85
20-511	5/32" x 1/4"	1.33	0.35	0.02	10.04
20-512	1/4" x 3/8"	1.50	0.51	0.04	13.56

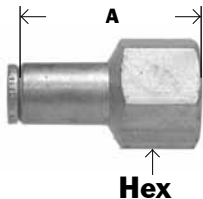
**UNION TEE**



KQT  
 12-060 AQ64  
 50-564 6540  
 264OF 3140  
 264PP 164PL

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-025	1/8"	0.65	0.31	0.04	9.37
20-026	5/32"	0.67	0.31	0.04	9.11
20-027	3/16"	0.75	0.37	0.06	11.43
20-028	1/4"	0.92	0.37	0.09	9.11
20-031	5/16"	0.89	0.49	0.10	16.28
20-029	3/8"	0.98	0.50	0.13	12.38
20-030	1/2"	1.16	0.62	0.24	19.06

**FEMALE CONNECTOR**



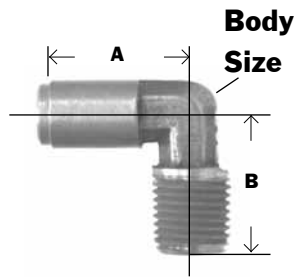
**NEW**

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

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	9.72
20-038	1/8" x 1/4"	1.04	0.67	0.04	17.89
20-012	5/32" x 1/8"	1.09	0.56	0.05	13.76
20-034	1/4" x 1/8"	1.23	0.56	0.06	9.47
20-035	1/4" x 1/4"	1.42	0.75	0.09	13.63
20-036	3/8" x 1/4"	1.32	0.75	0.09	14.92
20-037	3/8" x 3/8"	1.31	0.87	0.12	19.03



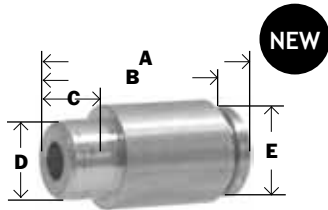
**FIXED MALE ELBOW**



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

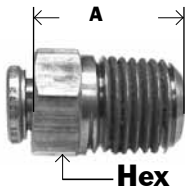
Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-065	1/8" x 1/8"	0.69	0.69	0.31	0.03	6.53
20-066	5/32" x 1/8"	0.68	0.68	0.31	0.03	10.54
20-067	3/16" x 1/8"	0.75	0.71	0.37	0.04	5.96
20-068	1/4" x 1/8"	0.89	0.75	0.37	0.06	5.53
20-069	1/4" x 1/4"	0.95	0.96	0.37	0.08	5.30
20-070	1/4" x 3/8"	1.00	0.98	0.50	0.10	10.20
20-071	3/8" x 1/8"	0.99	0.80	0.50	0.06	8.19
20-072	3/8" x 1/4"	0.98	0.98	0.50	0.09	7.15
20-073	3/8" x 3/8"	0.97	0.98	0.50	0.12	9.96
20-074	1/2" x 1/4"	1.15	1.05	0.62	0.15	11.40
20-075	1/2" x 3/8"	1.18	1.05	0.62	0.22	10.61
20-064	1/2" x 1/2"	1.16	1.66	0.62	0.20	13.08

**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	8.57
20-041	5/32"	0.67	0.59	0.20	0.30	0.38	2.72
20-043	1/4"	0.93	0.85	0.26	0.38	0.50	4.83
20-044	3/8"	1.21	1.13	0.26	0.38	0.63	7.29

**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	5.85
20-045	1/8" x 1/16"	0.68	0.37	0.02	10.13
20-048	1/8" x 1/8"	0.61	0.43	0.02	4.06
20-023	1/8" x 1/4"	0.98	0.56	0.04	5.06
20-049	5/32" x 10-32"*	0.67	0.37	0.02	4.20
20-050	5/32" x 1/8"	0.67	0.43	0.03	4.20
20-046	5/32" x 1/4"	0.85	0.56	0.05	6.22
20-051	3/16" x 10-32"*	0.80	0.37	0.02	8.18
20-052	3/16" x 1/8"	0.93	0.43	0.03	5.22
20-053	1/4" x 10-32"*	0.87	0.43	0.03	7.55
20-039	1/4" x 1/16"	0.92	0.43	0.06	8.74
20-054	1/4" x 1/8"	0.93	0.43	0.06	4.23
20-055	1/4" x 1/4"	0.93	0.56	0.10	4.43
20-056	1/4" x 3/8"	0.94	0.68	0.08	6.88
20-530	5/16" x 1/8"	1.07	0.56	0.05	14.41
20-531	5/16" x 1/4"	0.98	0.56	0.10	15.13
20-532	5/16" x 3/8"	1.06	0.75	0.08	14.08
20-057	3/8" x 1/8"	1.10	0.56	0.06	6.93
20-058	3/8" x 1/4"	1.11	0.56	0.05	6.17
20-059	3/8" x 3/8"	1.02	0.68	0.08	6.61
20-062	3/8" x 1/2"	1.02	0.87	0.08	11.36
20-060	1/2" x 1/4"	1.36	0.81	0.11	8.47
20-061	1/2" x 3/8"	1.30	0.81	0.12	10.30
20-063	1/2" x 1/2"	1.23	0.87	0.14	12.23

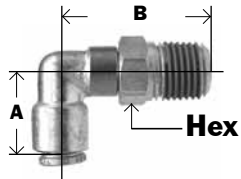
268PP KQH  
 AQ68 12-425  
 6510 50-568  
 3115 268-OF  
 68PL 1168

\* Furnished with gaskets

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



**SWIVEL MALE ELBOW**

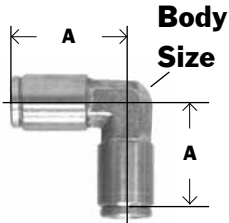


AQ69-PS 12-447  
 56520 50-579  
 3109 269-OFS  
 169PL 11695  
 KQL

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	6.81
20-535*	1/8" x 1/4"	0.76	0.87	0.56	0.06	14.56
20-080	5/32" x 1/8"	0.68	0.89	0.43	0.05	7.25
20-076	5/32" x 10-32"*	0.67	0.71	0.37	0.04	12.00
20-077	5/32" x 1/4"	0.68	1.08	0.56	0.07	10.41
20-081	1/4" x 1/8"	0.90	0.93	0.37	0.08	6.35
20-078	1/4" x 10-32"*	0.86	0.79	0.31	0.05	10.05
20-082	1/4" x 1/4"	0.90	0.99	0.56	0.10	7.49
20-086	1/4" x 3/8"	0.98	1.14	0.68	0.09	13.61
20-538*	5/16" x 1/4"	0.91	0.85	0.56	0.07	17.25
20-539*	5/16" x 3/8"	0.91	0.87	0.75	0.08	23.08
20-087	3/8" x 1/8"	0.94	1.08	0.50	0.09	11.41
20-083	3/8" x 1/4"	0.99	1.15	0.56	0.10	9.26
20-084	3/8" x 3/8"	1.00	1.24	0.68	0.20	10.12
20-088	3/8" x 1/2"	1.00	1.54	0.87	0.19	16.47
20-085	1/2" x 3/8"	1.16	1.34	0.62	0.18	12.73
20-092	1/2" x 1/2"	1.16	1.61	0.62	0.24	17.40

\* Nickel Plated                      \* Furnished with gaskets

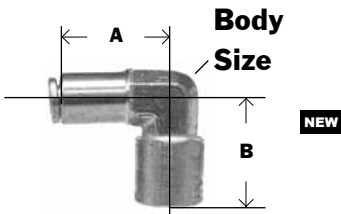
**UNION ELBOW**



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

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-150	1/8"	0.65	0.31	0.02	8.80
20-151	5/32"	0.67	0.31	0.04	9.07
20-152	1/4"	0.87	0.37	0.06	8.00
20-155	5/16"	0.91	0.47	0.08	21.69
20-153	3/8"	0.97	0.50	0.09	12.29
20-154	1/2"	1.15	0.62	0.18	16.83

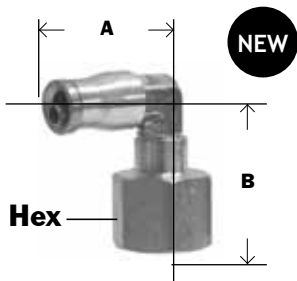
**FEMALE ELBOW**



AQ70-P  
 3009

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	6.96
20-094	5/32" x 1/8"	0.68	0.82	0.37	0.02	9.14
20-089	1/4" x 1/8"	0.91	0.75	0.37	0.06	9.94
20-090	1/4" x 1/4"	1.03	1.03	0.50	0.11	11.73
20-091	3/8" x 1/4"	0.98	0.95	0.50	0.16	15.10

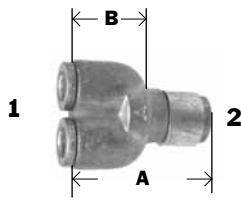
**FEMALE SWIVEL ELBOW**



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	13.89
20-089S	1/4" x 1/8"	0.98	1.08	0.56	13.97
20-090S	1/4" x 1/4"	0.98	1.26	0.75	12.26
20-091S	3/8" x 1/4"	1.07	1.48	0.75	16.60



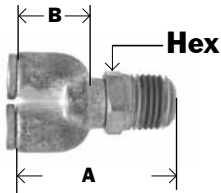
**UNION "Y"**



**NEW**

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	52.00
20-552	1/4" x 1/8"	1.61	1.06	0.12	32.54
20-553	1/4" x 1/4"	1.81	1.16	0.14	22.10

**MALE "Y"**



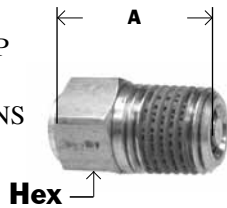
12-445  
50-569  
1169

Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
20-557	1/4" x 1/4"	1.90	1.06	0.56	0.20	28.27

**QUICK DISCONNECT**

When tube is disconnected, flow shuts off automatically.

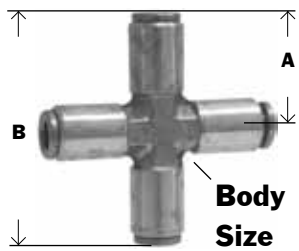
AQ92-P  
6500  
169PLNS



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	32.95
20-134	1/4" x 1/4"	0.92	0.56	0.12	17.15

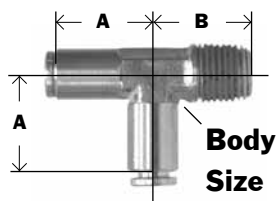
**CROSS**

**NEW**



Size	Size	A	B	Body Size	List Price
20-142	1/4"	1.03	2.06	0.37	19.05
20-143	3/8"	1.06	2.12	0.50	22.56

**FIXED MALE RUN TEE**

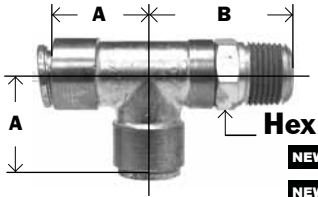


AQ71-P

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	10.14
20-097	3/16" x 1/8"	0.75	0.73	0.37	0.06	13.62
20-098	1/4" x 1/8"	0.92	0.74	0.37	0.08	9.44
20-093	1/4" x 1/4"	0.92	0.92	0.43	0.10	11.02
20-099	3/8" x 1/8"	0.94	0.82	0.50	0.14	14.32
20-100	3/8" x 1/4"	0.98	0.98	0.50	0.12	16.28
20-101	3/8" x 3/8"	1.05	1.05	0.62	0.10	16.37
20-102	1/2" x 3/8"	1.14	1.05	0.62	0.18	24.69



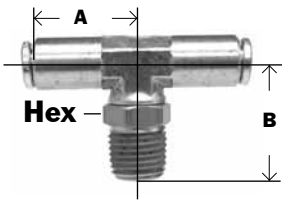
**SWIVEL MALE RUN TEE**



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

Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
NEW 20-160	1/8" x 1/8"	0.65	0.86	0.43	0.08	10.33
NEW 20-161	5/32" x 1/8"	0.67	1.04	0.43	0.09	12.01
20-162	1/4" x 1/8"	0.92	1.04	0.44	0.09	11.42
20-163	1/4" x 1/4"	0.92	1.13	0.56	0.11	12.39
NEW 20-164	3/8" x 1/4"	0.94	1.19	0.56	0.11	13.67
20-165	3/8" x 3/8"	0.96	1.24	0.50	0.12	20.46
20-174	1/2" x 1/4"	1.12	1.18	0.51	0.16	39.06
20-166	1/2" x 3/8"	1.14	1.31	0.68	0.14	25.14
NEW 20-167	1/2" x 1/2"	1.14	1.61	0.87	0.16	25.60

**SWIVEL MALE BRANCH TEE**

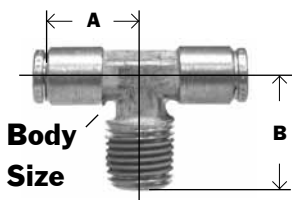


KQT AQ64  
 12-060 6540  
 50-564 3140  
 264OF 64PL

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	14.92
20-104	5/32" x 10-32**	0.65	0.71	0.31	0.04	20.10
20-109	5/32" x 1/8"	0.67	0.94	0.37	0.06	14.13
20-105	1/4" x 1/8"	0.92	0.97	0.37	0.08	12.20
20-106	1/4" x 1/4"	0.92	1.09	0.37	0.10	10.46
20-107	3/8" x 1/4"	0.96	1.14	0.56	0.18	13.90
20-108	3/8" x 3/8"	0.96	1.23	0.69	0.16	17.37
20-110	1/2" x 3/8"	1.16	1.34	0.69	0.24	24.93
20-111	1/2" x 1/2"	1.16	1.64	0.87	0.28	28.36

\* Furnished with gaskets

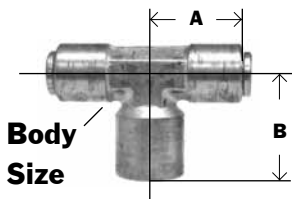
**FIXED MALE BRANCH TEE**



AQ72-P

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	10.87
20-113	5/32" x 1/8"	0.69	0.65	0.31	0.04	10.79
20-115	1/4" x 1/8"	0.92	0.74	0.37	0.12	10.95
20-116	1/4" x 1/4"	0.91	0.93	0.37	0.10	11.97
20-117	3/8" x 1/8"	0.98	0.80	0.50	0.08	15.04
20-118	3/8" x 1/4"	0.98	0.97	0.50	0.12	15.28
20-119	3/8" x 3/8"	0.98	0.97	0.50	0.14	16.86
20-120	1/2" x 3/8"	1.16	1.05	0.62	0.18	23.19

**FEMALE BRANCH TEE**

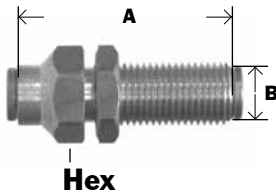


AQ77-P  
 3008  
 177PL

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	16.61
20-132	3/8" x 1/4"	0.96	0.98	0.50	0.12	15.83



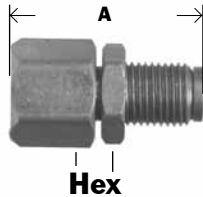
**BULKHEAD UNION**



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

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-124	1/8"	1.12	0.62	0.03	14.85
20-125	5/32"	1.12	0.62	0.03	23.56
20-126	3/16"	1.27	0.68	0.04	22.17
20-127	1/4"	1.69	0.68	0.06	15.20
20-128	3/8"	1.69	0.81	0.13	16.95
20-129	1/2"	1.85	1.12	0.16	24.89

**FEMALE BULKHEAD UNION**



AQ86-P

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	14.26
20-171	1/4" x 1/4"	1.36	0.75	0.10	17.42
20-172	3/8" x 1/4"	1.71	0.75	0.14	18.60

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

**NICKEL PLATED PUSH-IN FITTINGS**

PAGES 99-107

Component Parts and Materials	
Body	Brass - Nickel Plated
Thrust Ring	Plastic
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**



**Look for this Logo**

“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)**

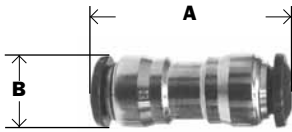
Lead Free fittings available on  
**pgs. 382-388**





**NICKEL PLATED PUSH-IN FITTINGS**

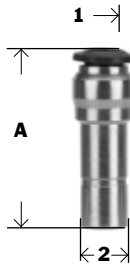
**UNION CONNECTOR**



62PL  
88040

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-017N	1/8"	1.06	0.34	0.03	6.85
20-018N	5/32"	1.20	0.41	0.03	6.93
20-016N	5/32" x 1/4"	1.20	0.40	0.04	7.39
20-019N	1/4"	1.38	0.49	0.05	6.65
20-020N	3/8"	1.69	0.69	0.06	9.91
20-022N	3/8" x 1/4"	1.69	0.68	0.06	9.98
20-021N	1/2"	1.93	0.81	0.18	13.72
20-024N	1/2" x 3/8"	1.84	0.80	0.17	11.83

**REDUCER**

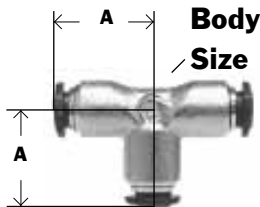


67PPL  
88700

Part #	Tube O.D. 2	Tube O.D. 1	A	List Price
20-510N	1/4"	1/8"	1.142	4.90
20-511N	1/4"	5/32"	1.181	5.12
20-512N	3/8"	1/4"	1.496	6.64
20-513N	1/2"	1/4"	1.693	6.64
20-514N	1/2"	3/8"	1.693	8.42

**UNION TEE**

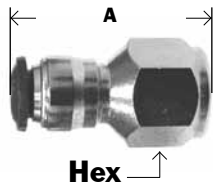
164PL  
88230



Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-025N	1/8"	0.67	0.35	0.04	10.09
20-026N	5/32"	0.67	0.35	0.04	19.33
20-028N	1/4"	0.83	0.43	0.09	10.70
20-031N	5/16"	0.87	0.51	0.10	14.74
20-029N	3/8"	1.04	0.63	0.13	14.74
20-030N	1/2"	1.20	0.74	0.24	20.42

**FEMALE CONNECTOR**

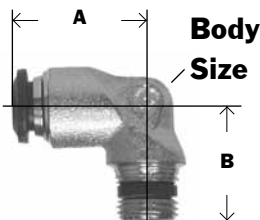
66PL  
88030



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	11.29
20-038N	1/8" x 1/4"	1.14	0.63	0.04	10.25
20-034N	1/4" x 1/8"	1.06	0.51	0.06	9.03
20-035N	1/4" x 1/4"	1.26	0.63	0.09	9.89
20-036N	3/8" x 1/4"	1.38	0.71	0.09	16.08
20-037N	3/8" x 3/8"	1.38	0.79	0.12	16.58

**FIXED MALE ELBOW**

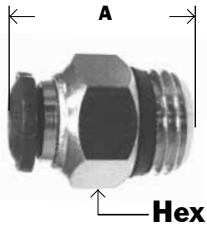
W169P  
88100



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	5.73
20-069N	1/4" x 1/4"	0.83	0.91	0.43	0.08	6.26
20-072N	3/8" x 1/4"	1.04	1.04	0.63	0.09	9.89
20-073N	3/8" x 3/8"	1.04	1.00	0.63	0.12	10.70



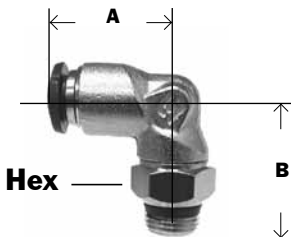
**MALE CONNECTOR**



68PL  
87000

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	5.47
20-048N	1/8" x 1/8"	0.77	0.43	0.02	4.78
20-023N	1/8" x 1/4"	0.97	0.55	0.04	4.86
20-049N	5/32" x 10-32"	0.83	0.39	0.02	5.37
20-050N	5/32" x 1/8"	0.83	0.43	0.03	4.16
20-046N	5/32" x 1/4"	0.98	0.55	0.05	6.49
20-053N	1/4" x 10-32"	0.97	0.51	0.03	6.12
20-054N	1/4" x 1/8"	0.98	0.51	0.06	4.28
20-055N	1/4" x 1/4"	0.98	0.55	0.10	4.90
20-056N	1/4" x 3/8"	0.98	0.71	0.08	6.26
20-530N	5/16" x 1/8"	0.98	0.55	0.05	6.77
20-531N	5/16" x 1/4"	1.08	0.55	0.10	7.11
20-532N	5/16" x 3/8"	1.08	0.71	0.08	8.31
20-057N	3/8" x 1/8"	1.38	0.67	0.06	7.11
20-058N	3/8" x 1/4"	1.32	0.67	0.05	6.62
20-059N	3/8" x 3/8"	1.32	0.71	0.08	7.37
20-062N	3/8" x 1/2"	1.32	0.87	0.08	12.59
20-060N	1/2" x 1/4"	1.54	0.79	0.11	9.56
20-061N	1/2" x 3/8"	1.42	0.79	0.12	11.11
20-063N	1/2" x 1/2"	1.58	0.87	0.14	14.26

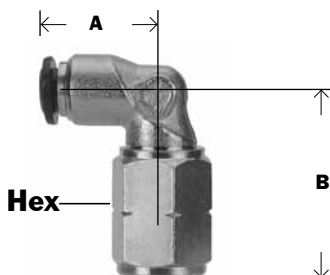
**SWIVEL MALE ELBOW**



W169PL  
87110

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	7.22
20-535N	1/8" x 1/4"	0.67	0.95	0.59	0.06	9.13
20-080N	5/32" x 1/8"	0.67	0.79	0.51	0.05	7.72
20-076N	5/32" x 10-32"	0.67	0.95	0.59	0.04	8.34
20-081N	1/4" x 1/8"	0.83	0.87	0.51	0.08	7.10
20-082N	1/4" x 1/4"	0.83	0.98	0.59	0.10	7.92
20-086N	1/4" x 3/8"	0.83	1.10	0.67	0.09	12.50
20-538N	5/16" x 1/4"	0.89	1.02	0.59	0.07	10.25
20-539N	5/16" x 3/8"	0.87	1.10	0.67	0.08	12.41
20-087N	3/8" x 1/8"	1.04	1.02	0.51	0.09	12.16
20-083N	3/8" x 1/4"	1.04	1.10	0.59	0.10	10.28
20-084N	3/8" x 3/8"	1.04	1.18	0.67	0.20	12.78
20-088N	3/8" x 1/2"	1.04	1.30	0.83	0.19	17.37
20-085N	1/2" x 3/8"	1.20	1.24	0.59	0.18	16.13
20-092N	1/2" x 1/2"	1.20	1.42	0.83	0.24	18.15

**FEMALE SWIVEL ELBOW**



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	9.06
20-761N	5/32" x 1/4"	0.669	1.161	0.354	9.69
20-089N	1/4" x 1/8"	0.826	1.023	0.433	10.73
20-090N	1/4" x 1/4"	0.826	1.200	0.433	10.56
20-762N	3/8" x 1/8"	0.885	1.082	0.511	11.54
20-091N	3/8" x 1/4"	0.885	1.240	0.511	12.23

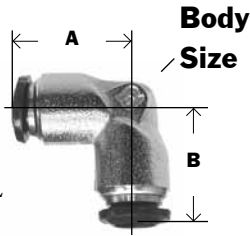


# NICKEL PLATED PUSH - IN FITTINGS

# BRASS FITTINGS

BRASS

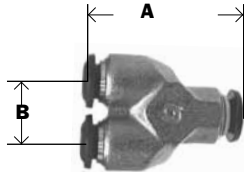
## UNION ELBOW



165PL  
88130

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-150N	1/8"	0.67	0.35	0.02	9.32
20-151N	5/32"	0.67	0.35	0.04	7.74
20-152N	1/4"	0.83	0.43	0.06	7.99
20-155N	5/16"	0.87	0.51	0.08	9.82
20-153N	3/8"	1.04	0.63	0.09	11.90
20-154N	1/2"	1.20	0.75	0.18	17.19

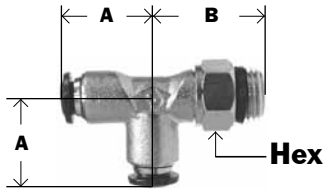
## UNION "Y"



662PL  
88310

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-553N	1/4" x 1/4"	1.44	0.53	0.14	22.67

## SWIVEL MALE RUN TEE

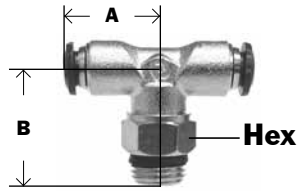


W171PL  
87222



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	11.81
20-163N	1/4" x 1/4"	0.83	0.98	0.59	0.11	12.59
20-164N	1/4" x 3/8"	0.83	1.10	0.59	0.11	13.67
20-165N	3/8" x 3/8"	1.04	1.18	0.67	0.12	20.49
20-174N	1/2" x 1/4"	1.20	1.24	0.59	0.16	25.92
20-166N	1/2" x 3/8"	1.20	1.30	0.67	0.14	24.62

## SWIVEL MALE BRANCH TEE

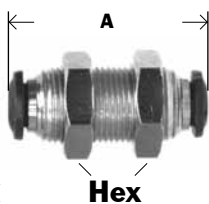


W172PL  
87210



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	10.78
20-104N	5/32" x 10-32"	0.67	0.79	0.31	0.04	11.49
20-109N	5/32" x 1/8"	0.67	0.78	0.51	0.06	12.95
20-105N	1/4" x 1/8"	0.83	0.87	0.51	0.08	11.81
20-106N	1/4" x 1/4"	0.83	0.98	0.59	0.10	11.81
20-156N	1/4" x 3/8"	1.043	1.10	0.59	0.18	13.67
20-107N	3/8" x 1/4"	1.04	1.10	0.59	0.18	16.25
20-108N	3/8" x 3/8"	1.04	1.18	0.67	0.16	18.41
20-110N	1/2" x 3/8"	1.20	1.30	0.67	0.24	24.62
20-111N	1/2" x 1/2"	1.20	1.42	0.82	0.28	25.85

## BULKHEAD UNION



62PLBH  
88050

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-127N	1/4"	1.38	0.67	0.06	12.25
20-123N	5/16"	1.45	0.74	0.08	15.55
20-128N	3/8"	1.69	0.94	0.13	17.53



**Push-In Ball Valves**

**Pressure Range:**  
**0-250 PSI ( 17 bar )**  
**Vacuum service**

**Temperatures:**  
**Minimum: 0°F ( -18°C )**  
**Maximum: 160°F ( +70°C )**

**Media:**  
**Air, Oil, Water, Gas**  
**(Consult factory for seal compatibility)**

POS	Components	Materials
1	Body	Chrome plated brass
2	Ball Seats	Teflon
3	Stem Seal	NBR 70 (Viton & other compounds on request)
4	Stem	Chrome plated brass
5	Handle	Glass filled nylon
6	Color Plate	Nylon (Std. Blue, optional, green, yellow, red, white)
7	Handle Screw	Steel - Plated for corrosion resistance
8	Ball Retainer Seal	NBR 70 (Viton & other compounds on request)
9	Ball Retainer	Chrome plated brass
10	Ball	Chrome plated brass



**BALL VALVE WITH PUSH-FIT CONNECTIONS**

Part #	Tube	List Price
28-400	1/8"	30.42
28-401	1/4"	34.67
28-402	3/8"	38.07



**BALL VALVE MALE NPTF  
 PUSH-FIT CONNECTIONS**

Part #	NPTF	Tube	List Price
28-403	1/8"	5/32"	23.33
28-404	1/4"	1/4"	24.61
28-405	3/8"	3/8"	27.77

**Neologisms from Washington Post readers.**

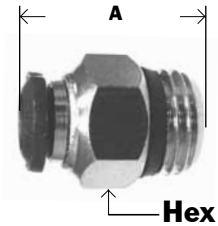
1. Coffee (n.), the person upon whom one coughs.
2. Flabbergasted (adj.), appalled over how much weight you have gained.
3. Abdicate (v.), to give up all hope of ever having a flat stomach.
4. Esplanade (v.), to attempt an explanation while drunk.
5. Willy-nilly (adj.), impotent.
6. Negligent (adj.), a condition in which you absentmindedly answer the door in your nightgown.
7. Lymph (v.), to walk with a lisp.
8. Gargoyle (n), olive-flavored mouthwash.
9. Flatulence (n.) emergency vehicle that picks you up after you are run over by a steamroller.
10. Balderdash (n.), a rapidly receding hairline.
11. Testicle (n.), a humorous question on an exam.
- 12.. Rectitude (n.), the formal, dignified bearing adopted by proctologists.
13. Pokemon (n), a Rastafarian proctologist.
14. Oyster (n.), a person who sprinkles his conversation with Yiddishisms.
- 15.. Frisbeetarianism (n.), (back by popular demand): The belief that, when you die, your soul flies up onto the roof and gets stuck there.
16. Circumvent (n.), an opening in the front of boxer shorts worn by Jewish men.



**NICKEL PLATED METRIC PUSH-IN FITTINGS**

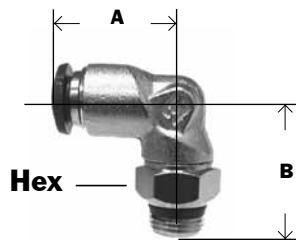
**BRASS**

**METRIC TUBE STRAIGHT MALE**



Part #	Tube O.D. (mm)	Global Thread	A	Hex	List Price
20-630N	4	1/8"	0.702	0.429	4.10
20-631N	4	1/4"	0.760	0.546	5.08
20-700N	5	1/8"	0.78	0.429	4.79
20-701N	5	1/4"	0.78	0.546	5.14
20-632N	6	1/8"	0.78	0.546	4.79
20-633N	6	1/4"	0.819	0.546	5.14
20-702N	8	1/8"	0.955	0.546	5.31
20-634N	8	1/4"	0.858	0.546	5.37
20-635N	8	3/8"	0.897	0.663	5.94
20-703N	8	1/2"	0.897	0.663	7.15
20-636N	10	1/4"	1.092	0.663	6.98
20-637N	10	3/8"	1.092	0.663	7.15
20-704N	10	1/2"	1.014	0.663	8.14
20-801N	12	1/4"	1.267	0.78	8.37
20-638N	12	3/8"	1.267	0.78	8.83
20-705N	12	1/2"	1.209	0.78	9.17
20-706N	14	3/8"	1.287	0.858	10.67
20-707N	14	1/2"	1.248	0.858	11.54

**METRIC TUBE SWIVEL MALE ELBOW**

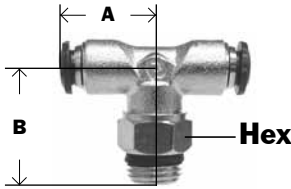


Part #	Tube O.D. (mm)	Global Thread	A	B	Hex	List Price
20-708N	4	1/8"	0.663	0.780	0.507	8.31
20-709N	4	1/4"	0.663	0.936	0.585	9.06
20-710N	5	1/8"	0.780	0.858	0.507	8.37
20-642N	6	1/8"	0.819	0.858	0.507	7.73
20-803N	6	1/4"	0.819	0.975	0.585	9.06
20-711N	8	1/8"	0.878	0.917	0.507	9.69
20-805N	8	1/4"	0.878	1.014	0.585	10.10
20-655N	8	3/8"	0.878	1.092	0.663	13.16
20-712N	8	1/2"	0.878	1.404	0.819	14.25
20-656N	10	1/4"	1.034	1.092	0.585	12.75
20-657N	10	3/8"	1.034	1.170	0.663	14.25
20-713N	10	1/2"	1.034	1.287	0.819	16.56
20-658N	12	3/8"	1.190	1.287	0.663	16.44
20-659N	12	1/2"	1.190	1.404	0.819	18.75
20-714N	14	3/8"	1.268	1.404	0.663	19.79
20-715N	14	1/2"	1.268	1.443	0.819	21.00

Low Lead fittings available on  
**pgs. 382-388**



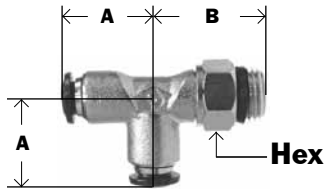
**METRIC TUBE SWIVEL MALE BRANCH TEE**



Part #	Tube O.D. (mm)	Global Thread	A	B	Hex	List Price
20-680N	4	1/8"	0.663	0.780	0.507	11.60
20-716N	4	1/4"	0.663	0.936	0.585	12.64
20-717N	5	1/8"	0.78	0.858	0.507	11.60
20-682N	6	1/8"	0.819	0.858	0.507	11.60
20-683N	6	1/4"	0.819	0.975	0.585	12.64
20-809N	8	1/8"	0.877	0.917	0.507	14.08
20-684N	8	1/4"	0.877	1.014	0.585	14.37
20-686N	10	1/4"	1.033	1.092	0.585	18.69
20-687N	10	3/8"	1.033	1.170	0.663	19.79
20-810N	10	1/2"	1.033	1.287	0.819	21.00
20-688N	12	3/8"	1.189	1.287	0.663	21.93
20-689N	12	1/2"	1.189	1.404	0.819	23.71
20-718N	14	3/8"	1.267	1.404	0.663	27.41
20-719N	14	1/2"	1.267	1.443	0.819	29.54

**BRASS**

**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	11.60
20-720N	4	1/4"	0.663	0.936	0.585	12.64
20-721N	5	1/8"	0.780	0.858	0.507	11.60
20-672N	6	1/8"	0.819	0.858	0.507	11.60
20-673N	6	1/4"	0.819	0.975	0.585	12.64
20-811N	8	1/8"	0.819	0.917	0.507	14.08
20-674N	8	1/4"	0.878	1.014	0.585	14.37
20-676N	10	1/4"	0.878	1.092	0.585	18.69
20-677N	10	3/8"	1.034	1.170	0.663	19.79
20-722N	10	1/2"	1.034	1.287	0.819	21.00
20-678N	12	3/8"	1.190	1.287	0.663	21.93
20-679N	12	1/2"	1.190	1.404	0.819	23.71

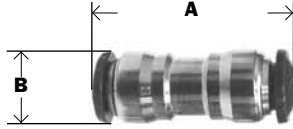
It's not the world that's got so much worse but the news coverage that's got so much better.

- G.K. Chesterton



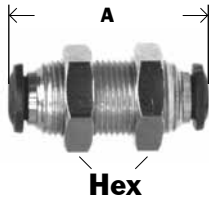
**BULKHEAD UNION**

**BRASS**



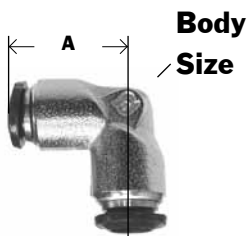
Part #	Tube O.D. (mm)	Tube O.D. (mm)	A	B	List Price
20-723N	3		1.014	0.332	10.79
20-600N	4		1.190	0.410	7.56
20-724N	5		1.287	0.449	7.85
20-725N	6	4	1.248	0.488	7.85
20-601N	6		1.326	0.488	7.85
20-726N	8	6	1.365	0.566	8.60
20-727N	8		1.404	0.566	8.60
20-728N	10	8	1.638	0.683	10.79
20-603N	10		1.638	0.683	10.79
20-729N	12	10	1.833	0.800	12.75
20-604N	12		1.833	0.800	12.75
20-730N	14		1.911	0.839	19.10

**BULKHEAD**



Part #	Tube O.D. (mm)	M	A	Hex	List Price
20-731N	3	M10x1	1.014	0.546	17.54
20-732N	4	M12x1	1.229	0.663	11.60
20-733N	5	M14x1	1.287	0.663	12.87
20-734N	6	M14x1	1.365	0.663	12.87
20-735N	8	M16x1	1.443	0.741	14.08
20-736N	10	M20x1	1.677	0.936	18.64
20-737N	12	M22x1	1.872	1.014	22.33

**UNION ELBOW**



Part #	Tube O.D. (mm)	A	Body Size	List Price
20-738N	3	0.663	0.51	10.79
20-206N	4	0.663	0.351	8.37
20-739N	5	0.780	0.429	8.48
20-660N	6	0.780	0.429	8.48
20-661N	8	0.878	0.507	9.98
20-807N	10	1.034	0.624	12.29
20-808N	12	1.190	0.741	16.16
20-740N	14	1.268	0.741	19.91

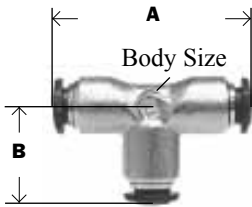
When he was born, his father came into the room and gave him a funny look. As you can see, he's still got it.

- ???



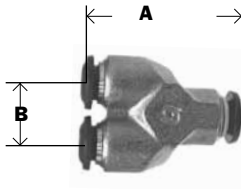


**UNION TEE**



Part #	Tube O.D. (mm)	A	B	Body Size	List Price
20-741N	3	1.326	0.663	0.351	15.00
20-610N	4	1.326	0.663	0.351	11.54
20-742N	5	1.560	0.780	0.429	12.17
20-611N	6	1.638	0.819	0.429	12.17
20-612N	8	1.755	0.878	0.507	14.08
20-613N	10	2.067	1.034	0.624	18.29
20-614N	12	2.379	1.190	0.741	22.68
20-743N	14	2.379	2.535	0.741	27.70

**UNION Y**



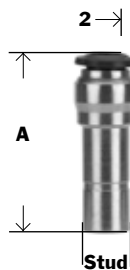
Part #	Tube O.D. (mm)	B	A	List Price
20-744N	3	0.390	1.131	21.23
20-813N	4	0.429	1.248	15.93
20-745N	5	0.527	1.365	16.85
20-814N	6	0.527	1.424	16.85
20-815N	8	0.605	1.599	19.10
20-746N	10	0.728	1.890	26.95

**PLUG**



Part #	Tube O.D. (mm)	A	List Price
20-748N	4	0.917	1.04
20-749N	5	0.956	1.04
20-750N	6	0.956	1.04
20-751N	8	1.014	1.27
20-752N	10	1.112	1.29
20-753N	12	1.190	1.30

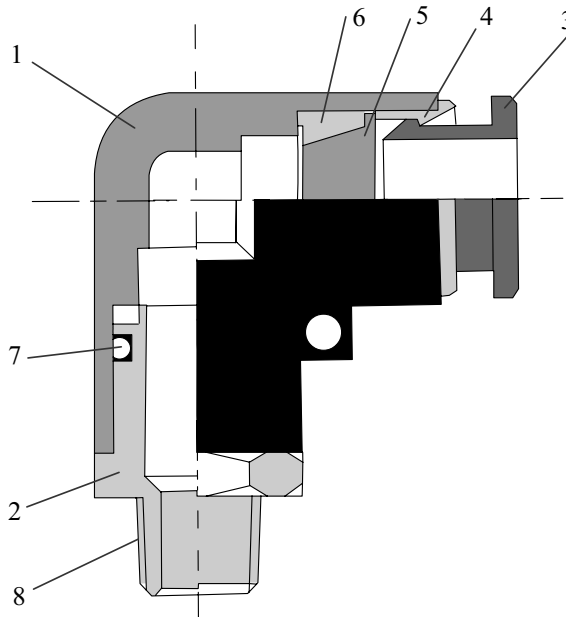
**REDUCER**



Part #	Stud	Tube O.D. 2	A	List Price
20-754N	4	3	1.053	9.17
20-755N	5	4	1.131	4.79
20-756N	6	4	1.170	4.79
20-757N	6	5	1.248	4.79
20-758N	8	6	1.326	5.08
20-759N	10	8	1.482	5.37
20-760N	12	8	1.521	5.77

# Composite Body Push-In Fittings

BRASS



### Specifications

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

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.

### 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



**UNION**



PQ62P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-019C	1/4"	0.01	3.22
20-020C	3/8"	0.02	4.19

**UNION TEE**



PQ64P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-028C	1/4"	0.02	4.26
20-029C	3/8"	0.02	5.20

**FEMALE CONNECTOR**

- Brass



PQ66P

Part #	Tube O.D. x Female NPT	Approx. Wt. Lbs.	List Price
20-034C	1/4" x 1/8"	0.02	4.84
20-035C	1/4" x 1/4"	0.04	2.97
20-036C	3/8" x 1/4"	0.04	3.82
20-037C	3/8" x 3/8"	0.06	3.82

**MALE CONNECTOR**

- Nickel Plated



PQ68P

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-054C	1/4" x 1/8"	0.02	2.43
20-055C	1/4" x 1/4"	0.02	2.08
20-056C	1/4" x 3/8"	0.04	3.09
20-058C	3/8" x 1/4"	0.06	3.14
20-059C	3/8" x 3/8"	0.06	3.15
20-062C	3/8" x 1/2"	0.08	4.81
20-060C	1/2" x 1/4"	0.06	4.86
20-061C	1/2" x 3/8"	0.08	4.59
20-063C	1/2" x 1/2"	0.10	5.12

**SWIVEL MALE ELBOW**

- Swivels for installation only.
- Not Free Swiveling



PQ69PS

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-081C	1/4" x 1/8"	0.02	3.38
20-082C	1/4" x 1/4"	0.04	3.45
20-086C	1/4" x 3/8"	0.06	3.37
20-087C	3/8" x 1/8"	0.04	4.53
20-083C	3/8" x 1/4"	0.08	4.51
20-084C	3/8" x 3/8"	0.10	4.44
20-088C	3/8" x 1/2"	0.12	8.56



**SWIVEL MALE BRANCH TEE**

- Swivels for installation only.
- Not Free Swiveling



PQ72PS

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-105C	1/4" x 1/8"	0.04	4.70
20-106C	1/4" x 1/4"	0.06	8.04
20-121C	1/4" x 3/8"	0.08	5.46
20-107C	3/8" x 1/4"	0.10	7.63
20-108C	3/8" x 3/8"	0.12	5.74

**BULKHEAD UNION**



PQ82P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-127C	1/4"	0.04	7.12
20-128C	3/8"	0.06	6.29

**90° UNION ELBOW**



PQ65P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-152C	1/4"	0.02	3.20
20-153C	3/8"	0.02	4.30

**SWIVEL MALE RUN TEE**

- Swivels for installation only.
- Not Free Swiveling



PQ71PS

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-162C	1/4" x 1/8"	0.04	8.08
20-163C	1/4" x 1/4"	0.04	4.70
20-099C	3/8" x 1/8"	0.06	5.65
20-100C	3/8" x 1/4"	0.08	5.20
20-165C	3/8" x 3/8"	0.10	6.24

**UNION "Y" CONNECTOR**



PQ89P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-553C	1/4"	0.02	5.40
20-555C	3/8"	0.02	6.65

**SWIVEL "Y" CONNECTOR** • Swivels for installation only. • Not Free Swiveling



PQ88PS

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-557C	1/4" x 1/4"	0.02	5.31

**IN-LINE NEEDLE VALVE**



PQ310C

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-487C	1/4"	0.04	19.47

**RIGHT ANGLE FLOW CONTROL METER IN**

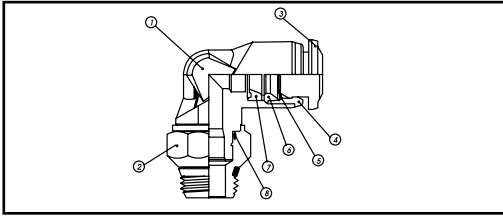


JPQ

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-728C	1/4" x 1/4"	0.04	16.94



**Technical Characteristics**



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

**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.

**MALE ADAPTER**



**Nickel Plated**

Part #	Tube OD (mm)	BSPT Thread	List Price
20-630	4	1/8"	4.17
20-631	4	1/4"	4.88
20-632	6	1/8"	5.21
20-633	6	1/4"	4.81
20-634	8	1/4"	5.42
20-635	8	3/8"	5.94
20-636	10	1/4"	6.91
20-637	10	3/8"	6.91
20-801	12	1/4"	8.21
20-638	12	3/8"	8.79

**UNION 90° ELBOW**



Part #	Tube O.D. (mm)	List Price
20-806	4	8.46
20-660	6	8.48
20-661	8	10.16
20-807	10	11.97
20-808	12	15.86

**UNION TEE**



Part #	Tube O.D. (mm)	List Price
20-610	4	11.54
20-611	6	11.89
20-612	8	13.68
20-613	10	17.88
20-614	12	22.80

**UNION**



Part #	Tube O.D. (mm)	List Price
20-600	4	7.39
20-601	6	7.20
20-602	8	7.84
20-603	10	10.58
20-604	12	12.21

**SWIVEL MALE BRANCH TEE**



Part #	Tube OD (mm)	BSPT Thread	List Price
20-680	4	1/8"	11.49
20-682	6	1/8"	10.68
20-683	6	1/4"	12.48
20-809	8	1/8"	12.99
20-684	8	1/4"	14.51
20-685	8	3/8"	21.65
20-686	10	1/4"	18.20
20-687	10	3/8"	20.59
20-810	10	1/2"	20.56
20-688	12	3/8"	19.98
20-689	12	1/2"	23.22

**SWIVEL MALE RUN TEE**



Part #	Tube OD (mm)	BSPT Thread	List Price
20-670	4	1/8"	11.38
20-672	6	1/8"	12.32
20-673	6	1/4"	11.20
20-811	8	1/8"	13.36
20-674	8	1/4"	13.53
20-675	8	3/8"	14.85
20-676	10	1/4"	19.34
20-677	10	3/8"	20.56
20-678	12	3/8"	21.32
20-679	12	1/2"	23.22

**SWIVEL MALE 90° ELBOW**



Part #	Tube OD (mm)	BSPT Thread	List Price
20-642	6	1/8"	6.63
20-803	6	1/4"	8.48
20-805	8	1/4"	10.17
20-655	8	3/8"	13.17
20-656	10	1/4"	12.29
20-657	10	3/8"	13.45
20-658	12	3/8"	15.64
20-659	12	1/2"	17.18

**UNION Y CONNECTOR**



Part #	Tube OD (mm)	List Price
20-813	4	15.26
20-814	6	15.67
20-815	8	18.24



## BSPT / BSPP FITTINGS

## BRASS FITTINGS

## MALE BSPP NIPPLE



Part #	Size	List Price
28-800	1/8 X 1/8	10.44
28-801	1/4 X 1/8	11.85
28-802	1/4 X 1/4	15.04
28-803	3/8 X 1/8	12.64
28-804	3/8 X 1/4	11.83
28-805	3/8 X 3/8	14.17
28-806	1/2 X 1/4	26.31
28-807	1/2 X 3/8	26.31
28-808	1/2 X 1/2	26.31
28-810	3/4 X 1/2	38.97
28-811	3/4 X 3/4	49.07

## MALE NIPPLE



## BSPT X MALE NPT

Part #	Size	List Price
28-815*	1/8 X 1/8	15.89
28-816*	1/4 X 1/4	23.83
28-817*	3/8 X 3/8	28.37
28-818*	1/2 X 1/2	42.93
28-819*	3/4 X 3/4	89.24

## MALE BSPT NIPPLE



Part #	Size	List Price
28-820	1/8 X 1/8	9.06
28-821	1/4 X 1/8	9.21
28-822	1/4 X 1/4	8.59
28-823	3/8 X 1/8	12.88
28-824	3/8 X 1/4	12.13
28-825	3/8 X 3/8	11.89
28-826	1/2 X 1/8	34.13
28-827	1/2 X 1/4	21.26
28-828	1/2 X 3/8	26.08
28-829	1/2 X 1/2	18.98
28-832	3/4 X 1/2	29.34
28-833	3/4 X 3/4	49.33

BSPP COUNTERSUNK  
SEALED PLUG

Part #	Size	List Price
28-835	1/8	9.75
28-836	1/4	13.56
28-837	3/8	10.73
28-838	1/2	23.13

BSPT HEX COUNTERSUNK  
PLUG

Part #	Size	List Price
28-840*	1/8	3.92
28-841*	1/4	6.75
28-842*	3/8	13.03
28-843*	1/2	24.99
28-844*	3/4	48.91

FEMALE BSPP  
CAP

Part #	Size	List Price
28-855	1/8	7.43
28-856	1/4	9.66
28-857	3/8	15.11
28-858	1/2	26.99

## BSPT MALE X FEMALE NPT



Part #	Size	List Price
28-860*	1/8 X 1/8	10.35
28-861*	1/4 X 1/4	20.77
28-862*	3/8 X 3/8	33.18
28-863*	1/2 X 1/2	80.96
28-864*	3/4 X 3/4	88.46

## NPT MALE X FEMALE BSPP



Part #	Size	List Price
28-867*	1/8 X 1/8	13.58
28-868*	1/4 X 1/4	20.66
28-869*	3/8 X 3/8	42.71
28-870*	1/2 X 1/2	68.20
28-871*	3/4 X 3/4	92.61

## BUSHING

## BSPT MALE X BSPP FEMALE



Part #	Size	List Price
28-873	1/4 X 1/8	7.77
28-874	3/8 X 1/8	13.91
28-875	3/8 X 1/4	13.56
28-876	1/2 X 1/4	16.56
28-877	1/2 X 3/8	15.49
28-878	3/4 X 1/2	23.66

All Fittings are Nickel Plated

except (\*) which are Yellow Brass

## BRASS RIGID MALE BARB

## ADAPTER



Part #	Hose I.D. x BSPT	List Price
32-450*	1/4" x 1/8"	1.27
32-451*	1/4" x 1/4"	1.85
32-452*	3/8" x 1/4"	1.98
32-453*	3/8" x 3/8"	2.36
32-454*	3/8" x 1/2"	3.92
32-455*	1/2" x 3/8"	2.54
32-456*	1/2" x 1/2"	4.15
32-457*	3/4" x 3/4"	6.46
32-458*	1" x 1"	13.33

GLOBAL HOSE  
& INDUSTRIAL SALES CO

## BRASS FITTINGS

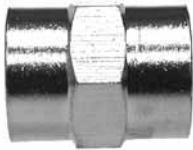
## BSPT/BSPP FITTINGS

### MALE BSPP X FEMALE BSPP ADAPTER



Part #	Size	List Price
28-880	1/8 X 1/8	11.48
28-881	1/8 X 1/4	10.21
28-882	1/4 X 1/8	8.79
28-883	1/4 X 1/4	15.29
28-884	1/4 X 3/8	15.88
28-885	3/8 X 1/8	12.13
28-886	3/8 X 1/4	11.08
28-887	3/8 X 3/8	27.60
28-888	3/8 X 1/2	27.67
28-889	1/2 X 1/4	23.13
28-890	1/2 X 3/8	21.26
28-891	1/2 X 1/2	38.84

### FEMALE BSPP COUPLING



Part #	Size	List Price
28-894	1/8 X 1/8	12.87
28-895	1/4 X 1/8	17.55
28-896	1/4 X 1/4	12.08
28-897	3/8 X 1/8	26.79
28-898	3/8 X 1/4	23.46
28-899	3/8 X 3/8	18.89
28-900	1/2 X 1/4	30.08
28-901	1/2 X 3/8	30.46
28-902	1/2 X 1/2	38.59

All Fittings are Nickel Plated

### 90° BSPT MALE ELBOW



Part #	Size	List Price
28-905	1/8 X 1/8	18.93
28-906	1/4 X 1/4	21.86
28-907	3/8 X 3/8	39.58
28-908	1/2 X 1/2	49.00

### MALE BSPT X FEMALE BSPP 90° ELBOW



Part #	Size	List Price
28-911	1/8 X 1/8	15.41
28-912	1/4 X 1/4	22.16
28-913	3/8 X 3/8	29.68
28-914	1/2 X 1/2	44.88

### BSPP FEMALE 90° ELBOW



Part #	Size	List Price
28-917	1/8 X 1/8	15.41
28-918	1/4 X 1/4	26.00
28-919	3/8 X 3/8	33.73
28-920	1/2 X 1/2	59.00

### MALE BSPT TEE



Part #	Size	List Price
28-924	1/8	18.86
28-925	1/4	33.40
28-926	3/8	40.74

### BSPP FEMALE TEE



Part #	Size	List Price
28-930	1/8	26.08
28-931	1/4	29.01
28-932	3/8	68.47
28-933	1/2	91.68

### BSPP FEMALE X BSPT MALE BRANCH TEE



Part #	Size	List Price
28-940	1/8	19.25
28-941	1/4	29.01
28-942	3/8	43.85
28-943	1/2	63.41

### BSPP MALE RUN TEE



Part #	Size	List Price
28-947	1/8	21.62
28-948	1/4	29.01
28-949	3/8	47.66
28-950	1/2	72.68

### FEMALE BSPP CROSS



Part #	Size	List Price
28-952	1/8	37.40
28-953	1/4	53.54
28-954	3/8	72.26

BRASS



GLOBAL HOSE  
& INDUSTRIAL SALES CO

Fax: 1-615-262-2660

Email: sales@global-hose.com



# STEEL GREASE FITTINGS

# BRASS FITTINGS

BRASS

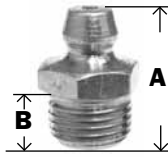
Meets SAE #J-534C

Many types available on special order.

## PIPE THREAD

## BALL CHECK

#610  
1610  
2800  
1720  
5000

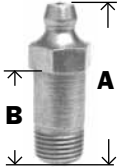


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-110	1/8" -27 NPT	0.68	0.29	0.43	0.01	0.70
36-111	Thread Forming	0.62	0.23	0.43	0.01	0.95

## PIPE THREAD

## BALL CHECK

#607  
1607  
2800  
1669  
5003

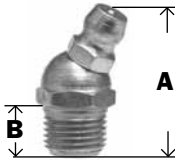


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-112	1/8" -27 NPT	1.25	0.78	0.43	0.02	1.99
36-113	1/8" -27 NPT	1.75	1.26	0.43	0.02	2.17

## PIPE THREAD

## 30° ANGLE BALL CHECK

#611  
1611  
2830  
5100

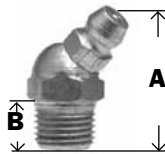


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-114	1/8" -27 NPT	0.90	0.29	0.43	0.01	1.16

## PIPE THREAD

## 45° ANGLE BALL CHECK

#688  
1688  
2845  
5200



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-116	1/8" -27 NPT	0.89	0.29	0.43	0.01	1.27

## PIPE THREAD

## 65° ANGLE BALL CHECK

#612  
1612  
2865  
5300

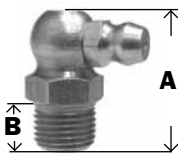


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-118	1/8" -27 NPT	0.84	0.29	0.43	0.01	1.15

## PIPE THREAD

## 90° ANGLE BALL CHECK

#613  
1613  
2890  
5400  
5407

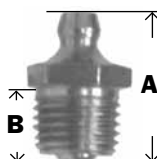


Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-120	1/8" -27 NPT	0.84	0.29	0.43	0.01	1.13
36-121	1/8" -27 NPT	1.81	1.25	0.43	0.01	3.61

## PIPE THREAD

## BALL CHECK

#627  
1627  
2900K  
5050



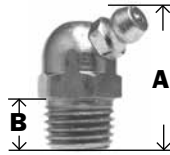
Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-130	1/4" -18 NPT	0.87	0.42	0.56	0.02	1.23





**PIPE THREAD**

#629  
1629  
2965  
5350

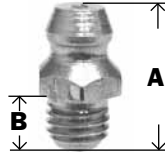


**65° ANGLE BALL CHECK**

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-132	1/4"-18 NPT	0.96	0.34	0.56	0.02	1.76

**1/4-28 TAPER THREAD**

#641  
1641  
2400  
3038  
5010

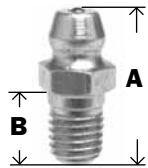


**SHORT BALL CHECK**

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-140	1/4"-28 NPT	0.54	0.18	0.31	0.01	0.40
36-141	Thread Forming	0.57	0.20	0.31	0.01	0.43

**1/4-28 TAPER THREAD**

#652  
1652  
2400  
5013

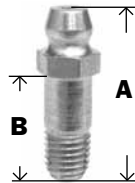


**LONG BALL CHECK**

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-142	1/4"-28 Taper Thread	0.90	0.29	0.43	0.01	0.51

**1/4-28 TAPER THREAD**

#680  
1680  
2400  
5014

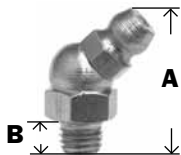


**EXTRA LONG BALL CHECK**

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-144	1/4"-28 Taper Thread	0.96	0.62	0.31	0.02	0.77

**1/4-28 TAPER THREAD**

#637 5210  
1637  
2445  
1665  
2465  
3010

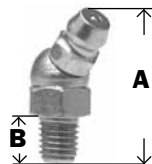


**SHORT 45° BALL CHECK**

Part #	Size	Angle	A	B	Hex	Approx. Wt. Lbs.	List Price
36-146	1/4"-28 Taper Thread	45°	0.81	0.20	0.37	0.02	1.01
36-147	1/4"-28 Taper Thread	65°	0.78	0.20	0.37	0.02	1.14

**1/4-28 TAPER THREAD**

#636  
1630  
2445

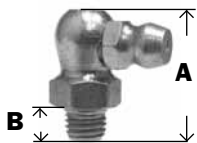


**LONG 45° BALL CHECK**

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-148	1/4"-28 Taper Thread	0.90	0.29	0.37	0.02	1.41

**1/4-28 TAPER THREAD**

#911  
1911  
2490  
3054  
5410



**90° ANGLE BALL CHECK**

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-150	1/4"-28 Taper Thread	0.75	0.20	0.37	0.02	0.85
36-152	Thread Forming	0.75	0.20	0.37	0.02	1.62



## STEEL GREASE FITTINGS

## BRASS FITTINGS

## DRIVE TYPE

## BALL CHECK

#608  
1608  
5021

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-160	5/16"	0.54	0.25	0.01	0.58

## DRIVE TYPE

## BALL CHECK

#728  
1728  
2316  
5033

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-164	3/16"	0.51	0.25	0.01	0.57

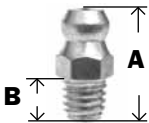
## DRIVE TYPE

## BALL CHECK

#743  
1743  
214  
5029

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-166	1/4"	0.55	0.23	0.01	0.47

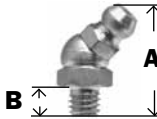
## METRIC

#711  
6000  
2106  
2M6  
5175

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-168	6MM x 1	16	6	7	0.01	0.74

## METRIC

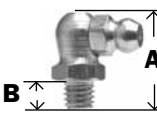
## 45° ANGLE

#712  
6045  
2107  
5176

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-170	6MM x 1	21	5.5	9	0.02	1.00

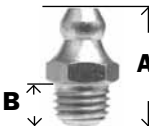
## METRIC

## 90° ANGLE

#713  
6090  
2108  
ZM906  
5177

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-172	6MM x 1	18	5.5	9	0.02	1.05

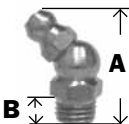
## METRIC

#811  
8000  
2103  
ZM58  
5178

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-174	8MM x 1	17	6	9	0.02	0.63

## METRIC

## 45° ANGLE

#812  
8045  
2104  
ZM458  
5179

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-176	8MM x 1	21	5.5	9	0.02	1.05

## METRIC

## 90° ANGLE

#813  
8090  
2105  
ZM908  
5180

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-178	8MM x 1	18	5.5	9	0.02	1.08



## BRASS FITTINGS

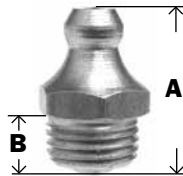
## STEEL GREASE FITTINGS

BRASS

### METRIC

#911

9000  
2109  
ZM510  
5181

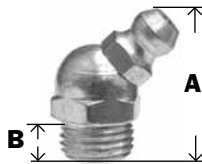


Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-180	10MM x 1	18	6	11	0.02	0.94

### METRIC

#912

9045  
2110  
ZM4510



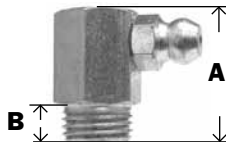
### 45° ANGLE

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-182	10MM x 1	21	5.5	11	0.02	1.38

### METRIC

#913

9090  
2111  
ZM9010  
5183

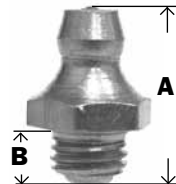


### 90° ANGLE

Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-184	10MM x 1	18	5.5	11	0.02	1.22

#711-B

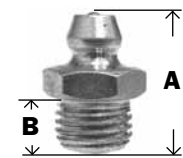
1711  
2500



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-186	5/16"-24	0.65	0.25	0.37	0.02	0.74

#710-B

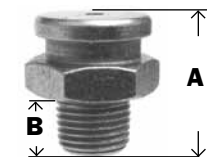
1710  
2600



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-188	3/8"-24	0.65	0.25	0.43	0.01	1.25

## BUTTON HEAD

1184  
1186



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-200	1/8"-27 PTF	0.75	0.34	0.62	0.03	2.79
36-205	1/4"-18 NPT	0.82	0.42	0.62	0.03	3.12

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

### 10,000 PSI Burst Pressure Rubber Hose



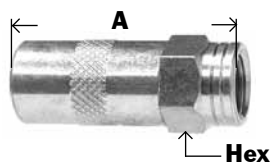
3/16" ID      1/8" NPT Solid Base

3,000 PSI Working pressure

Part #	Length	List Price
36-210	12" RUBBER	26.06
36-212	18" RUBBER	18.17
36-214	24" RUBBER	22.23
36-216	36" RUBBER	34.91

## 4 JAW GREASE GUN COUPLER

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

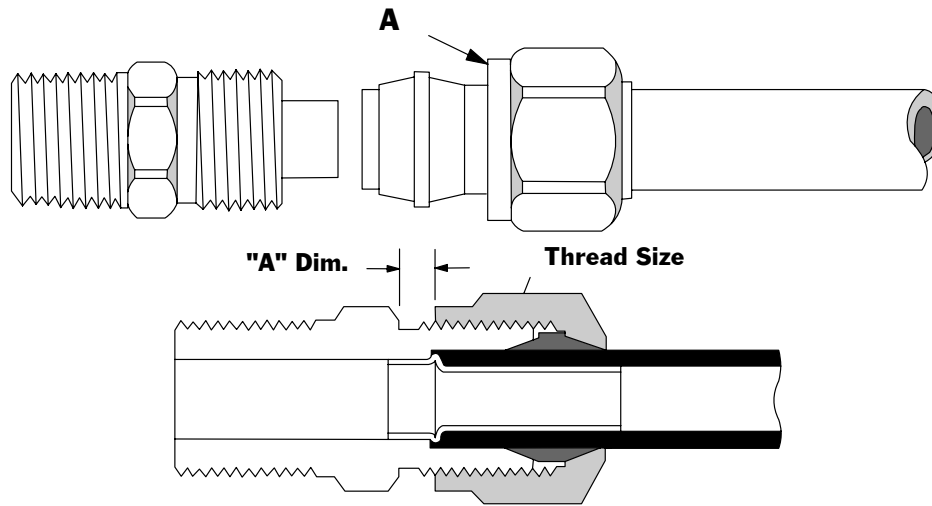


1/8" NPTF

Part #	A	Hex	Approx. Wt. Lbs.	List Price
36-220	1.50	0.56	0.05	8.28



# D.O.T. Air Brake - Nylon Tubing



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

**•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**

CA360 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. Fittings are pre-applied with thread sealent. 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.

<b>Tube Size</b>	<b>Additional Number of Turns from Hand-Tight</b>
<b>1/4</b>	<b>3</b>
<b>3/8, 1/2</b>	<b>4</b>
<b>5/8, 3/4</b>	<b>3-1/2</b>

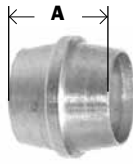
You don't get anything clean without getting something else dirty.

- Cecil Baxter



**SLEEVE**

**SAE# 100115**

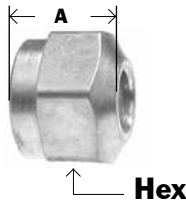


60NAB  
60NTA  
1460

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-001	1/4"	0.30	0.01	0.35
38-002	3/8"	0.39	0.02	0.46
38-003	1/2"	0.43	0.02	0.64
38-004	5/8"	0.48	0.03	1.06
38-005	3/4"	0.53	0.04	1.91

**NUT**

**SAE# 100110**

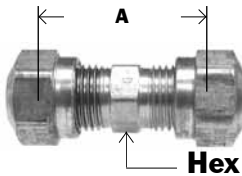


61NAB  
61NTA  
1461

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-010	1/4"	0.45	0.56	0.02	0.75
38-011	3/8"	0.63	0.62	0.02	0.95
38-012	1/2"	0.72	0.81	0.04	2.33
38-013	5/8"	0.77	0.94	0.04	2.47
38-014	3/4"	0.81	1.12	0.06	4.16

**UNION**

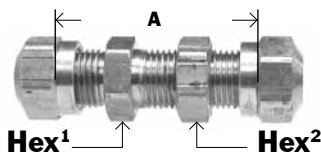
**SAE# 100101BA**



62NAB  
62NTA  
1462

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-019	1/4"	0.85	0.43	0.08	5.02
38-020	3/8"	1.10	0.56	0.18	5.94
38-021	1/2"	1.31	0.68	0.20	9.64
38-022	5/8"	1.43	0.81	0.26	19.85
38-023	3/4"	1.60	1.00	0.48	27.72

**BULKHEAD UNION**

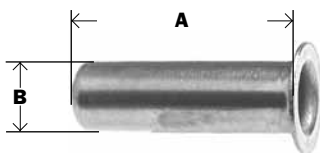


62NBH  
1474  
475

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	11.71
38-029	3/8"	1.61	0.69	0.75	0.16	16.44
38-030	1/2"	1.88	0.81	0.87	0.26	26.65

**STAINLESS STEEL INSERT**

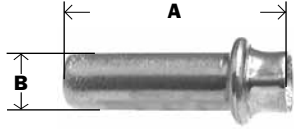
• For SAE# J844 TUBING



59A  
63NTA

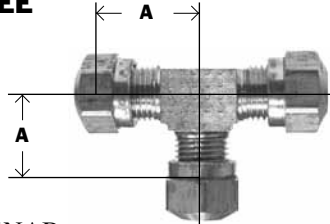
Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
38-035	1/4"	0.53	0.16	0.01	0.65
38-036	3/8"	0.64	0.24	0.02	0.69
38-037	1/2"	0.81	0.37	0.02	1.15
38-038	5/8"	0.86	0.43	0.03	2.79
38-039	3/4"	1.04	0.56	0.03	3.31



**D.O.T. AIR BRAKE - NYLON TUBING****BRASS FITTINGS****BRASS INSERT**

1484  
463

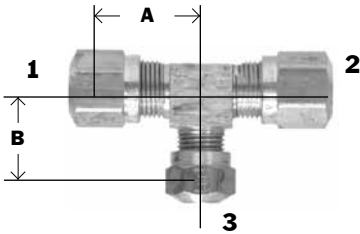
Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
38-040	1/4"	0.64	0.16	0.01	0.63
38-041	3/8"	0.76	0.24	0.02	0.63
38-042	1/2"	0.94	0.37	0.02	1.28
38-043	5/8"	1.06	0.43	0.02	1.13
38-048	3/4"	1.21	0.56	0.04	2.42

**TEE**

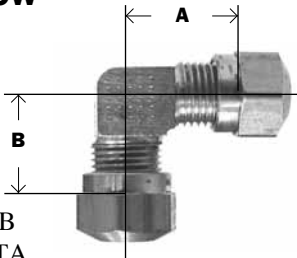
64NAB  
264NTA  
1464

**SAE# 100401BA**

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-044	1/4"	0.61	0.14	9.81
38-045	3/8"	0.78	0.18	10.45
38-046	1/2"	0.92	0.36	16.08
38-047	5/8"	1.09	0.46	35.73

**REDUCING TEE**

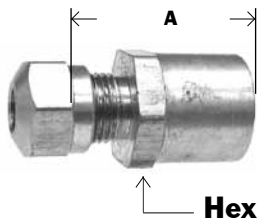
Part #	Tube O.D. (1&2) x 3	A	B	Approx. Wt. Lbs.	List Price
38-049	3/8" x 1/4"	0.72	0.69	0.24	33.59
38-057	1/2" x 3/8"	0.92	0.85	0.30	19.07

**ELBOW**

65NAB  
265NTA  
1465

**SAE# 100201BA**

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-052	1/4"	0.61	0.10	10.66
38-053	3/8"	0.78	0.12	7.88
38-054	1/2"	0.92	0.26	20.90
38-055	5/8"	1.09	0.34	24.49

**FEMALE ADAPTER**

66NAB  
66NTA  
1466  
66NBH

**SAE# 100103BA**

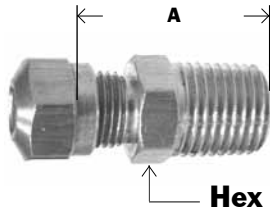
Part #	Tube O.D. x Female NPT	A	Hex	Approx. Wt. Lbs.	List Price
38-060	1/4" x 1/8"	0.83	0.56	0.07	3.78
38-061	1/4" x 1/4"	1.06	0.68	0.08	5.85
38-062	3/8" x 1/8"	1.00	0.56	0.10	5.65
38-063	3/8" x 1/4"	1.18	0.68	0.10	6.87
38-064	3/8" x 3/8"	1.18	0.87	0.12	7.69
38-065	1/2" x 3/8"	1.27	0.87	0.16	10.98
38-066	1/2" x 1/2"	1.43	1.06	0.26	11.71
38-067	5/8" x 3/8"	1.31	0.87	0.28	17.56
38-068	5/8" x 1/2"	1.50	1.06	0.28	20.71

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



**MALE ADAPTER**

**SAE# 100102BA**

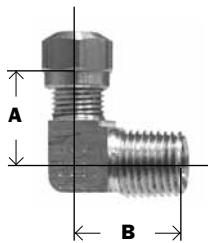


68NAB  
68NTA  
1468

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	9.01
38-073	1/4" x 1/8"	0.88	0.43	0.05	3.38
38-074	1/4" x 1/4"	1.09	0.56	0.07	5.71
38-075	1/4" x 3/8"	1.13	0.68	0.09	7.09
38-076	3/8" x 1/8"	1.03	0.56	0.08	3.85
38-077	3/8" x 1/4"	1.20	0.56	0.10	4.07
38-078	3/8" x 3/8"	1.24	0.68	0.10	4.55
38-079	3/8" x 1/2"	1.43	0.87	0.16	6.62
38-080	1/2" x 1/4"	1.32	0.68	0.13	6.73
38-081	1/2" x 3/8"	1.32	0.68	0.14	5.81
38-082	1/2" x 1/2"	1.51	0.87	0.21	7.51
38-087	1/2" x 3/4"	1.57	1.06	0.23	21.46
38-083	5/8" x 3/8"	1.39	0.81	0.17	12.07
38-084	5/8" x 1/2"	1.57	0.87	0.20	12.17
38-088	5/8" x 3/4"	1.71	1.06	0.25	16.83
38-085	3/4" x 1/2"	1.68	1.00	0.28	16.89
38-086	3/4" x 3/4"	1.71	1.06	0.33	19.79

**MALE ELBOW**

**SAE# 100202BA**

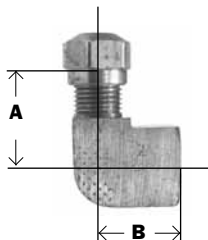


1469

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	4.25
38-092	1/4" x 1/4"	0.67	0.86	0.09	4.86
38-093	1/4" x 3/8"	0.72	0.85	0.12	5.73
38-094	3/8" x 1/8"	0.72	0.73	0.09	6.02
38-095	3/8" x 1/4"	0.80	0.93	0.11	5.37
38-090	3/8" x 1/4" LONG	0.80	1.44	0.14	14.83
38-101	3/8" x 3/8"	0.83	0.90	0.14	6.26
38-102	3/8" x 1/2"	0.93	1.09	0.21	8.61
38-103	1/2" x 1/4"	0.85	0.98	0.18	7.71
38-104	1/2" x 3/8"	0.92	0.98	0.19	9.12
38-109	1/2" x 3/8" LONG	0.94	1.38	0.26	20.95
38-105	1/2" x 1/2"	1.02	1.17	0.28	9.52
38-106	5/8" x 3/8"	1.00	1.05	0.24	16.31
38-107	5/8" x 1/2"	1.10	1.25	0.28	14.19
38-110	5/8" x 3/4"	1.09	1.24	0.38	24.46
38-108	3/4" x 1/2"	1.19	1.33	0.41	21.36

**FEMALE ELBOW**

**SAE# 100203BA**



70NAB  
1470  
270NTA

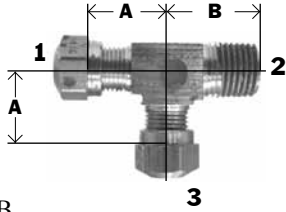
Part #	Tube O.D. x Female NPTF	A	B	Approx. Wt. Lbs.	List Price
38-113	1/4" x 1/8"	0.68	0.52	0.08	5.98
38-114	1/4" x 1/4"	0.77	0.70	0.12	12.98
38-115	3/8" x 1/8"	0.82	0.58	0.14	10.28
38-116	3/8" x 1/4"	0.88	0.76	0.10	8.43
38-117	3/8" x 3/8"	0.93	0.76	0.12	9.57
38-118	1/2" x 3/8"	1.02	0.81	0.23	16.44
38-119	1/2" x 1/2"	1.13	1.01	0.36	17.78
38-120	5/8" x 1/2"	1.19	1.07	0.38	17.58





**MALE RUN TEE**

**SAE# 100424BA**

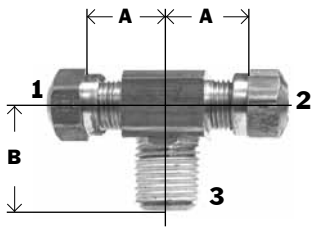


71NAB  
271NTA  
1471

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	10.06
38-126	1/4" x 1/4" x 1/4"	0.68	0.86	0.14	8.63
38-124	3/8" x 1/4" x 1/4"	0.72	0.69	0.14	21.87
38-127	3/8" x 1/4" x 3/8"	0.78	0.91	0.16	9.84
38-128	3/8" x 3/8" x 3/8"	0.83	0.90	0.20	8.55
38-129	1/2" x 3/8" x 1/2"	0.92	0.98	0.30	11.60

**MALE BRANCH TEE**

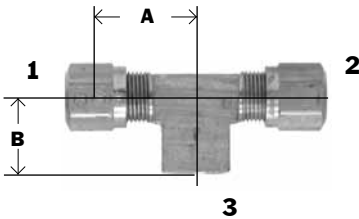
**SAE# 100425BA**



72NAB  
272NTA  
1472

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	8.53
38-137	1/4" x 1/4" x 1/4"	0.67	0.86	0.13	13.41
38-138	3/8" x 3/8" x 1/8"	0.71	0.73	0.14	14.32
38-132	3/8" x 1/4" x 1/4"	0.80	0.93	0.15	25.79
38-139	3/8" x 3/8" x 1/4"	0.78	0.91	0.16	8.97
38-133	1/2" x 1/2" x 1/4"	0.87	1.00	0.26	22.54
38-140	3/8" x 3/8" x 3/8"	0.83	0.90	0.20	9.12
38-134	1/2" x 3/8" x 3/8"	0.94	1.00	0.26	25.68
38-141	1/2" x 1/2" x 3/8"	0.92	0.98	0.30	13.12
38-142	1/2" x 1/2" x 1/2"	1.02	1.17	0.38	16.10
38-143	5/8" x 5/8" x 1/2"	1.09	1.24	0.44	46.67

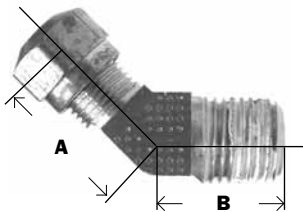
**SPECIAL TEES**



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	28.97
38-146	5/8" x 5/8" x 1/4"	1.04	0.89	0.48	44.14

**45° ELBOW**

**SAE# 100302BA**



6945NAB  
279NTA  
1480

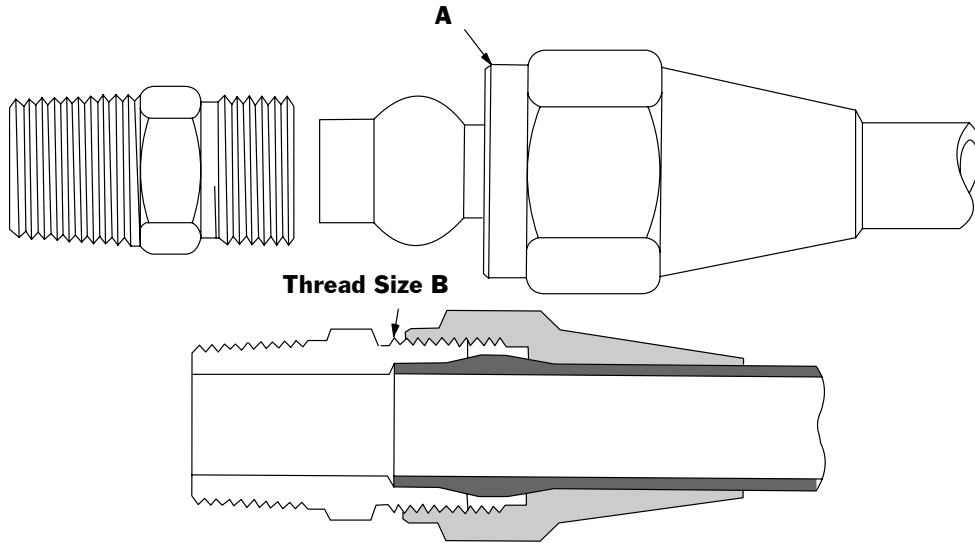
Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-148	1/4" x 1/8"	0.49	0.63	0.06	8.97
38-149	1/4" x 1/4"	0.60	0.85	0.08	9.99
38-150	3/8" x 1/8"	0.71	0.67	0.10	19.96
38-151	3/8" x 1/4"	0.72	0.86	0.10	7.28
38-152	3/8" x 3/8"	0.76	0.95	0.14	10.30
38-153	3/8" x 1/2"	0.78	1.20	0.24	15.38
38-157	1/2" x 1/4"	0.85	0.95	0.20	18.93
38-154	1/2" x 3/8"	0.84	0.94	0.20	11.54
38-155	1/2" x 1/2"	0.87	1.16	0.24	13.80
38-156	5/8" x 1/2"	1.00	1.20	0.28	16.01
38-158	3/4" x 1/2"	1.10	1.18	0.38	37.86





# D.O.T. Air Brake - Copper Tubing

**BRASS**



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

**•Typical Application**  
Air brake systems.

**•Pressure**  
Maximum operating pressure of 150 PSI.

**•Vibration**  
Fair resistance.

**•Temperature Range**  
-65°F to +250°F (-53°C to +121°C) with copper tubing.

**•Material**  
CA360 Brass.

**•Used With**  
Copper tubing in air brake systems.

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

**•Advantages**  
Easy to assemble (no flaring). May be used with nylon tubing by replacing long nut and spherical sleeve with insert, rigid sleeve and nut.

**•Conformance**

Meets specifications and standards of SAE and DOT.

**•Assembly Instructions**

- 1- Cut tubing to desired length. Make sure all burrs are removed and the ends are cut square.
- 2- Slide nut and then sleeve on tubing. Threaded end "A" must face toward fitting body.
- 3- Insert tubing into fitting. Be sure tubing is bottomed on fitting shoulder.
- 4- Thread nut onto fitting body until it is hand tight.
- 5- From that point, tighten with a wrench the number of turns indicated in the chart below:

Tube Size	Additional Number of Turns from Hand Tight
1/4, 3/8	1-3/4
1/2, 5/8, 3/4	3-1/4



**SLEEVE**

**SAE# 120115BA**

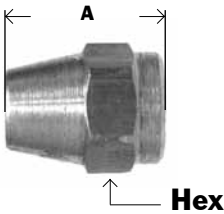


Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-161	1/4"	0.25	0.01	0.24
38-162	3/8"	0.31	0.02	0.52
38-163	1/2"	0.38	0.02	0.63
38-164	5/8"	0.44	0.02	1.18
38-165	3/4"	0.50	0.04	2.42

60AB  
1360

**NUT**

**SAE# 120111BA**

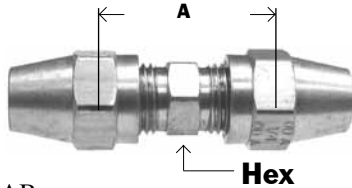


Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-170	1/4"	0.75	0.56	0.02	1.59
38-171	3/8"	1.13	0.62	0.04	1.73
38-172	1/2"	1.25	0.81	0.08	3.14
38-173	5/8"	1.38	0.94	0.12	4.18
38-174	3/4"	1.56	1.12	0.18	8.92

20961  
61AB  
1361

**UNION**

**SAE# 120101BA**

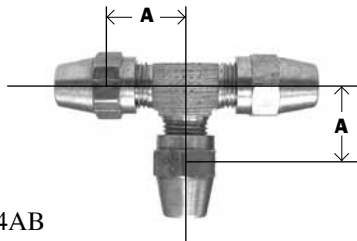


Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-179	1/4"	0.81	0.44	0.08	5.14
38-180	3/8"	1.10	0.56	0.14	6.77
38-181	1/2"	1.07	0.69	0.24	12.52
38-182	5/8"	1.41	0.81	0.34	18.09
38-183	3/4"	1.59	1.00	0.54	36.82

62AB  
1362

**TEE**

**SAE# 120401BA**



Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-188	1/4"	0.62	0.16	11.14
38-189	3/8"	0.82	0.24	13.50
38-190	1/2"	0.94	0.48	23.02
38-191	5/8"	1.09	0.60	34.45

264AB  
1364

A conference is a gathering of important people who singly can do nothing, but together can decide that nothing can be done.

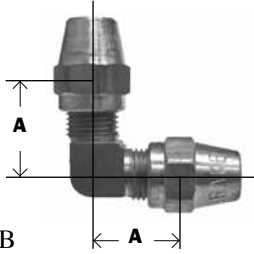
- Fred Allen

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



**ELBOW**

**SAE# 120201BA**



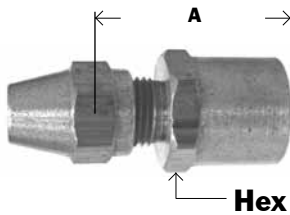
265AB  
1365

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-196	1/4"	0.62	0.10	14.25
38-197*	3/8"	0.78	0.16	10.32
38-198	1/2"	0.92	0.28	13.98
38-199	5/8"	1.10	0.42	22.90

\* Forged

**FEMALE ADAPTER**

**SAE# 120103BA**

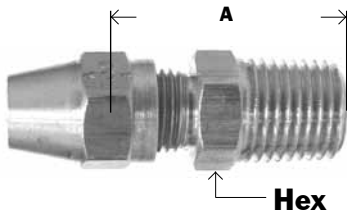


66AB  
1366

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	5.06
38-205	1/4" x 1/4"	1.07	0.68	0.10	8.44
38-206	3/8" x 1/8"	1.00	0.56	0.10	6.98
38-207	3/8" x 1/4"	1.19	0.68	0.12	6.50
38-208	3/8" x 3/8"	1.18	0.87	0.16	6.85
38-209	1/2" x 3/8"	1.27	0.87	0.18	14.71
38-210	1/2" x 1/2"	1.44	1.06	0.20	15.46
38-211	5/8" x 3/8"	1.31	0.87	0.24	13.96
38-212	5/8" x 1/2"	1.50	1.06	0.26	21.86

**MALE ADAPTER**

**SAE# 120102BA**



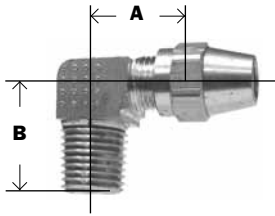
68AB  
1368

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	3.27
38-218	1/4" x 1/4"	0.97	0.56	0.08	4.44
38-219	1/4" x 3/8"	1.14	0.68	0.10	5.65
38-220	3/8" x 1/8"	1.02	0.56	0.08	5.65
38-221	3/8" x 1/4"	1.09	0.56	0.10	4.73
38-222	3/8" x 3/8"	1.19	0.69	0.12	5.08
38-223	3/8" x 1/2"	1.45	0.87	0.18	5.93
38-224	1/2" x 1/4"	1.32	0.69	0.16	8.71
38-225	1/2" x 3/8"	1.35	0.69	0.18	6.89
38-226	1/2" x 1/2"	1.51	0.87	0.24	10.56
38-227	5/8" x 3/8"	1.39	0.81	0.22	14.29
38-228	5/8" x 1/2"	1.57	0.87	0.24	12.69
38-229	3/4" x 1/2"	1.67	1.00	0.34	17.64
38-230	3/4" x 3/4"	1.71	1.06	0.40	25.02



**90° MALE ELBOW**

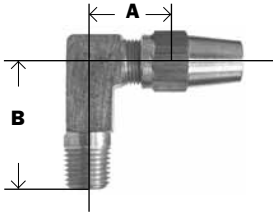
**SAE# 120202BA**



269AB  
1369

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	5.14
38-236	1/4" x 1/4"	0.69	0.88	0.10	5.89
38-237	1/4" x 3/8"	0.73	0.86	0.14	8.91
38-238	3/8" x 1/8"	0.73	0.75	0.12	6.81
38-239	3/8" x 1/4"	0.80	0.93	0.12	6.58
38-240	3/8" x 3/8"	0.83	0.90	0.16	8.46
38-241	3/8" x 1/2"	0.95	1.11	0.24	9.35
38-242	1/2" x 1/4"	0.85	0.98	0.24	10.15
38-243	1/2" x 3/8"	0.92	0.98	0.22	11.08
38-244	1/2" x 1/2"	1.04	1.19	0.30	13.27
38-245	5/8" x 3/8"	1.01	1.06	0.34	16.18
38-246	5/8" x 1/2"	1.10	1.25	0.36	17.08
38-247	3/4" x 1/2"	1.19	1.32	0.44	25.73

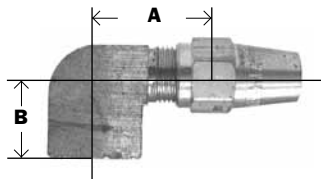
**LONG PATTERN ELBOW**



Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-249	3/8" x 1/4"	0.81	1.44	0.16	13.79

**90° FEMALE ELBOW**

**SAE# 120203BA**

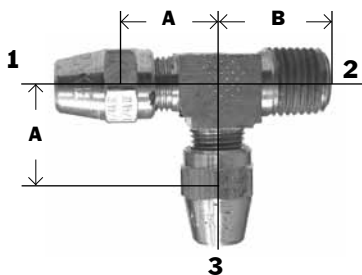


270AB  
1370

Part #	Tube O.D. x Female NPTF	A	B	Approx. Wt. Lbs.	List Price
38-252	1/4" x 1/8"	0.69	0.52	0.10	7.96
38-253	1/4" x 1/4"	0.78	0.71	0.14	12.58
38-255	3/8" x 1/4"	0.84	0.78	0.16	6.05
38-256	3/8" x 3/8"	0.93	0.77	0.18	8.34
38-257	1/2" x 3/8"	1.03	0.82	0.26	20.14
38-259	5/8" x 1/2"	1.19	1.07	0.44	27.75

**MALE RUN TEE**

**SAE# 120424BA**



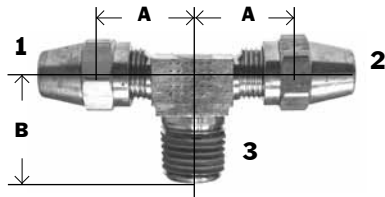
271AB  
1371

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	17.96
38-265	1/4" x 1/4"	0.68	0.87	0.16	16.91
38-266	3/8" x 1/4"	0.79	0.92	0.20	15.82
38-267	3/8" x 3/8"	0.83	0.90	0.24	13.67
38-269	1/2" x 1/2"	1.03	1.18	0.42	18.11



**MALE BRANCH TEE**

**SAE# 120425BA**

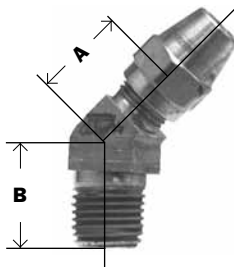


Part #	Tube O.D. x Male NPTF (1&2)x3	A	B	Approx. Wt. Lbs.	List Price
38-278	3/8" x 1/4"	0.78	0.91	0.18	14.97
38-279	3/8" x 3/8"	0.85	0.92	0.24	10.75
38-280	1/2" x 3/8"	0.91	0.98	0.36	11.25
38-281	1/2" x 1/2"	1.03	1.18	0.42	32.43

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	6.98
38-288	1/4" x 1/4"	0.60	0.85	0.10	13.76
38-290	3/8" x 1/4"	0.72	0.86	0.18	6.73
38-291	3/8" x 3/8"	0.75	0.94	0.20	11.94
38-292	3/8" x 1/2"	0.78	1.16	0.22	21.30
38-293*	1/2" x 3/8"	0.82	0.94	0.18	15.15
38-294	1/2" x 1/2"	0.87	1.16	0.24	14.36

\* Forged

279AB  
1380

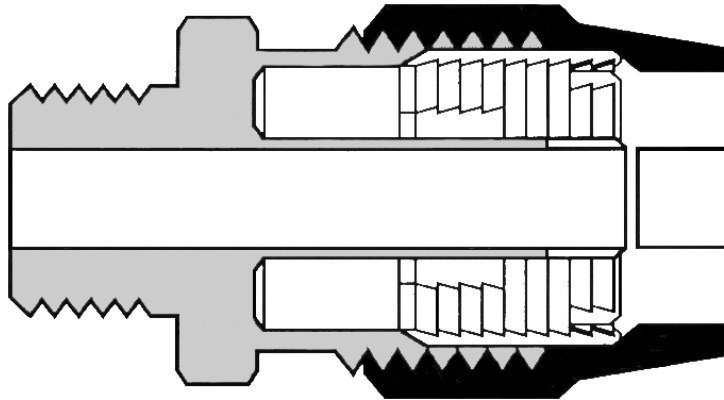
I'm throwing twice as hard as I ever did. The ball's just not getting there as fast.

- Lefty Gomez



# D.O.T. Air Brake - Hose/ Ends

BRASS



### •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

CA360 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

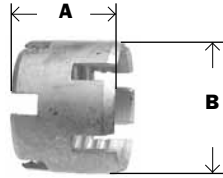
- 1- Slide nut and sleeve onto hose. Make sure bevel edge of sleeve faces out toward fitting.
- 2- Push hose into fitting until it bottoms.
- 3- Screw nut until contact is made with body hex.

NOTE: When reassembling fitting, body and nut should be inspected. Only reuse if in proper condition. Sleeves should never be reused.



**SLEEVE**

#60HC  
3380-A  
0903610  
367



Part #	Hose I.D. Size	A	B	Approx. Wt. Lbs.	List Price
38-300	3/8"	0.69	0.90	0.02	1.77
38-301	1/2"	0.64	1.03	0.02	3.32

**NUT**

#61HC  
369  
3380-B  
0903624



Part #	Hose I.D. Size	A	Hex	Approx. Wt. Lbs.	List Price
38-306	3/8"	1.26	1.03	0.04	4.06
38-307	1/2"	1.20	1.25	0.06	5.08

**NUT**

#61HCS  
0903613  
3380-D  
31RBSG



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	4.08
38-313	1/2"	1-3/32-20	1.20	1.25	0.06	5.34

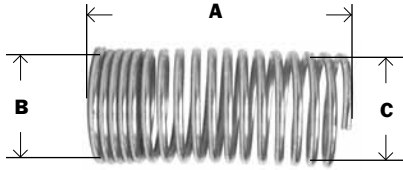
Nothing is impossible for the person who doesn't have to do it.  
- Weller's Law

Anyone who goes to a psychiatrist ought to have his head examined  
- Sam Goldwyn





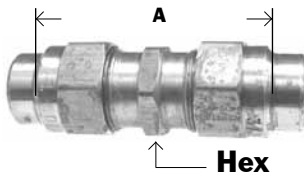
**SPRING**



Part #	Hose I.D.	A	B	C	Approx. Wt. Lbs.	List Price
38-351	3/8"	2.75	0.84	0.78	0.20	1.33
38-352	1/2"	2.75	1.10	1.10	0.22	2.57

#60SG 3380-C  
0901045 377

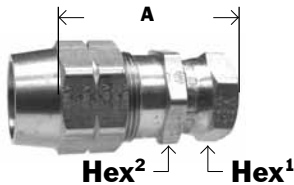
**UNION**



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	24.96
38-319	1/2"	1-1/8-20	2.55	1.12	0.48	41.59

#62HC 362  
3380B-Y0

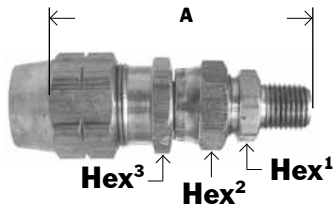
**FEMALE CONNECTOR HOSE**



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	25.75
38-358	1/2" x 7/8-20	2.1	1.06	1.12	0.38	30.80

#66ABS 3380B-Y7  
66RBSV 386

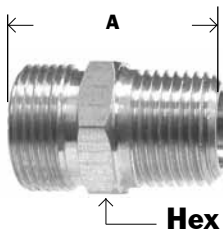
**MALE CONNECTOR**



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	26.53
38-364	1/2" x 3/8"	2.96	0.87	1.06	1.12	0.46	50.83

#68ABS 3380B-Y8  
09155 387

**ADAPTER**

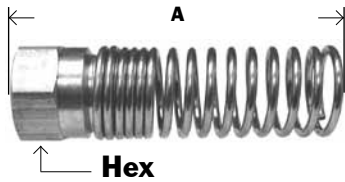


Part #	Male ABS x Male Pipe	ABS Thread	A	Hex	Approx. Wt. Lbs.	List Price
38-369	3/8" x 1/4"	3/4-20	1.14	0.75	0.06	3.23
38-368	3/8" x 3/8"	3/4-20	1.14	0.75	0.08	2.88
38-372	3/8" x 1/2"	3/4-20	1.37	0.87	0.12	4.86
38-370	1/2" x 3/8"	7/8-20	1.18	0.87	0.10	4.37
38-371	1/2" x 1/2"	7/8-20	1.38	0.87	0.12	9.51

#68ABS 76RB  
1390 388



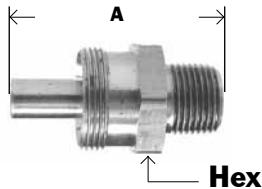
**NUT AND SPRING ASSEMBLY**



Part #	Hose I.D. Size	A	Hex	Approx. Wt. Lbs.	List Price
38-015	3/8"	3.55	1.03	0.18	4.12
38-016	1/2"	3.50	1.25	0.24	7.59

379  
67RBSG  
0999999

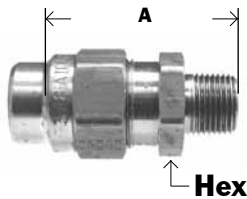
**ADAPTER BODY**



#68B  
W1391Z

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	4.79
38-325	3/8" x 3/8"	1.92	0.97	0.14	5.03
38-326	3/8" x 1/2"	2.02	1.00	0.20	5.38
38-327	1/2" x 3/8"	2.07	1.12	0.18	14.43
38-328	1/2" x 1/2"	2.06	1.12	0.20	8.30

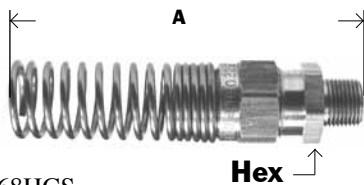
**MALE ADAPTER**



#68HC  
368  
3380B-Y2  
68RB

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	10.06
38-334	3/8" x 3/8"	1.94	0.97	0.24	11.38
38-335	3/8" x 1/2"	2.12	0.97	0.26	12.90
38-336	1/2" x 3/8"	2.07	1.12	0.33	15.33
38-337	1/2" x 1/2"	2.07	1.12	0.36	16.68

**MALE ADAPTER**



#68HCS  
3380B-Y3  
68RBGS  
378

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	11.83
38-343	3/8" x 3/8"	4.96	1.00	0.34	12.03
38-344	3/8" x 1/2"	5.53	1.00	0.38	13.34
38-345	1/2" x 3/8"	4.75	1.12	0.48	16.88
38-346	1/2" x 1/2"	4.88	1.12	0.52	19.03

**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 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.

lation of tubing. All male threads have a pre-applied Teflon® based pipe sealant to provide for easy assembly and leak proof seal.

• **Materials:**

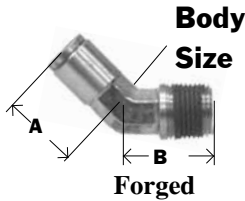
CA360 Brass - Barstock CA377 - Forged  
"O" Ring: Buna - Nitrile (90 Durometer)  
EP (Ethylene Propylene)

• **Working Pressures & Temperature Ranges**

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

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 instal-

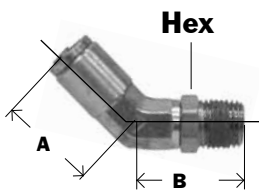
**MALE 45° ELBOW**



AQ54DOT  
179MTNS  
1880  
DQ54DOT

Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
540402	1/4" x 1/8"	0.83	0.89	0.37	0.06	10.85
540404	1/4" x 1/4"	0.91	0.89	0.37	0.06	12.29
540602	3/8" x 1/8"	0.75	0.89	0.51	0.08	11.89
540604	3/8" x 1/4"	0.95	0.98	0.49	0.10	13.74
540606	3/8" x 3/8"	0.89	0.98	0.50	0.10	15.57
540608	3/8" x 1/2"	1.14	1.30	0.87	0.15	12.83
540804	1/2" x 1/4"	1.00	1.24	0.82	0.13	19.00
540806	1/2" x 3/8"	1.05	1.10	0.62	0.16	17.07
540808	1/2" x 1/2"	1.20	1.10	0.62	0.18	19.60
541006	5/8" x 3/8"	1.46	1.02	1.06	0.22	40.42
541008	5/8" x 1/2"	0.98	0.98	0.72	0.21	25.68
541208	3/4" x 1/2"	1.36	1.08	0.93	0.28	32.96
541212	3/4" x 3/4"	1.36	1.08	0.94	0.32	39.08

**MALE 45° SWIVEL ELBOW**



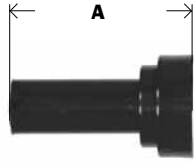
AQ54DOTS  
179PMT  
1880  
DQ54DOTS

Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
540402S	1/4" x 1/8"	0.60	0.72	0.43	0.06	16.29
540404S	1/4" x 1/4"	1.10	0.89	0.56	0.09	16.57
540602S	3/8" x 1/8"	1.07	0.98	0.43	0.10	15.25
540604S	3/8" x 1/4"	1.07	0.98	0.56	0.11	15.32
540606S	3/8" x 3/8"	1.23	0.97	0.68	0.14	16.08
540804S	1/2" x 1/4"	1.22	1.12	0.56	0.14	29.06
540806S	1/2" x 3/8"	1.32	1.10	0.68	0.16	25.64
540808S	1/2" x 1/2"	1.61	1.10	0.88	0.18	22.58
541008S	5/8" x 1/2"	1.69	1.23	0.87	0.24	34.32

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



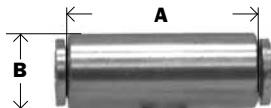
**PLUG**



1829  
DQ59DOT  
639PMT

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
595320	5/32"	1.16	0.01	1.09
590400	1/4"	0.81	0.02	2.04
590600	3/8"	0.99	0.02	1.81
590800	1/2"	0.99	0.04	2.16

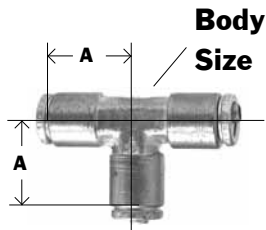
**UNION**



AQ62DOT  
62PMT  
1862  
DQ62DOT

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
620532	5/32"	1.18	.37	0.06	7.64
620400	1/4"	1.40	.51	0.08	9.68
620600	3/8"	1.54	.67	0.14	9.22
<b>NEW</b> 620604	3/8" x 1/4"				17.77
620800	1/2"	1.81	.81	0.19	9.13
621000	5/8"	1.84	.94	0.30	21.22
621200	3/4"	2.38	1.18	0.44	38.49

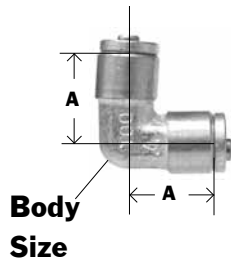
**UNION TEE**



AQ64DOT  
164 PMT  
1864  
DQ64DOT

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
640400	1/4"	0.73	0.37	0.11	14.15
640600	3/8"	0.97	0.52	0.22	17.36
640800	1/2"	1.16	0.62	0.25	23.41
<b>NEW</b> 641000	5/8"	1.44	0.69	0.32	39.91

**UNION ELBOW**

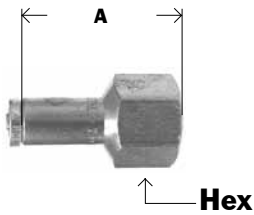


AQ65DOT  
165 PMT  
1865  
DQ65DOT

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
655320	5/32"	0.59	0.29	0.03	21.16
650400	1/4"	0.83	0.37	0.06	10.56
650600	3/8"	0.98	0.50	0.10	14.75
650800	1/2"	1.26	0.62	0.18	18.14



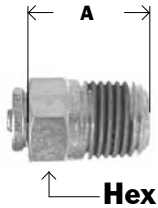
**FEMALE CONNECTOR**



AQ66DOT  
66PMT  
1866  
DQ66DOT

Part #	Tube O.D. x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
660402	1/4" x 1/8"	1.23	0.56	0.06	9.49
660404	1/4" x 1/4"	1.42	0.75	0.10	12.54
660602	3/8" x 1/8"	1.37	0.68	0.09	26.34
660604	3/8" x 1/4"	1.30	0.75	0.11	11.60
660606	3/8" x 3/8"	1.41	0.87	0.14	14.37
660804	1/2" x 1/4"	1.56	0.81	0.14	21.16
660806	1/2" x 3/8"	1.51	0.87	0.16	25.45
660808	1/2" x 1/2"	2.01	0.68	0.25	28.85

**MALE CONNECTOR**



AQ68DOT  
68PM  
1868  
DQ68DOT  
68PMT

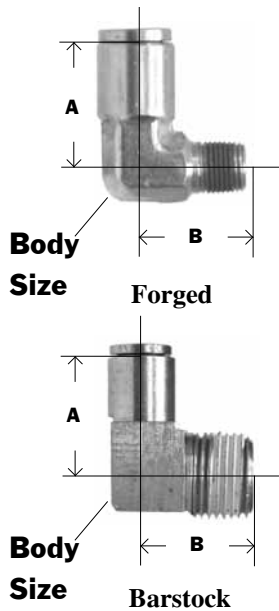
**NEW**

Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
685320	5/32" x 10/32"	0.69	0.37	0.02	10.88
685321	5/32" x 1/16"	0.67	0.37	0.02	7.55
685322	5/32" x 1/8"	0.67	0.43	0.02	8.40
680302	3/16" x 1/8"	1.82	0.50	0.02	8.89
680421	1/4" x 1/16"	1.17	0.44	0.02	11.24
680402	1/4" x 1/8"	0.94	0.50	0.04	4.34
680404	1/4" x 1/4"	1.08	0.56	0.05	5.00
680406	1/4" x 3/8"	1.10	0.68	0.08	8.22
680602	3/8" x 1/8"	1.22	0.68	0.04	6.62
680604	3/8" x 1/4"	1.38	0.68	0.08	5.96
680606	3/8" x 3/8"	1.32	0.68	0.08	7.11
680608	3/8" x 1/2"	1.02	0.87	0.14	11.43
680804	1/2" x 1/4"	1.36	0.81	0.11	15.32
680806	1/2" x 3/8"	1.54	0.87	0.12	9.08
680808	1/2" x 1/2"	1.62	0.87	0.14	9.41
681006	5/8" x 3/8"	1.34	.94	0.18	15.81
681008	5/8" x 1/2"	1.50	.94	0.18	17.13
681208	3/4" x 1/2"	1.28	1.06	0.20	21.01
681212	3/4" x 3/4"	1.93	1.18	0.20	21.73

A bus station is where a bus stops. A train station is where a train stops. On my desk, I have a work station.



**MALE ELBOW**

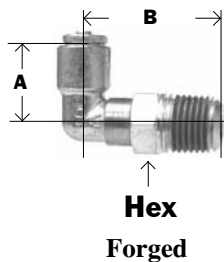


Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
695302*	5/32" x 1/16"	0.65	0.59	0.32	0.03	11.90
695322*	5/32" x 1/8"	0.65	0.59	0.32	0.03	9.09
690302	3/16" x 1/8"	0.71	0.75	0.47	0.03	15.29
690402	1/4" x 1/8"	0.91	0.75	0.37	0.05	8.01
690404	1/4" x 1/4"	0.77	1.02	0.71	0.06	7.66
690406	1/4" x 3/8"	1.00	0.98	0.50	0.11	10.64
690602	3/8" x 1/8"	0.97	0.80	0.49	0.14	11.55
690604	3/8" x 1/4"	0.96	1.02	0.71	0.14	9.11
690606	3/8" x 3/8"	1.04	1.10	0.87	0.15	10.04
690608	3/8" x 1/2"	1.04	1.19	0.62	0.20	18.53
690804	1/2" x 1/4"	1.15	1.05	0.62	0.22	15.85
690806	1/2" x 3/8"	1.15	1.05	0.62	0.22	15.76
690808	1/2" x 1/2"	1.16	1.12	0.87	0.24	19.06
691006	5/8" x 3/8"	1.34	1.10	0.95	0.30	21.91
691008	5/8" x 1/2"	1.44	1.42	1.18	0.32	23.71
691208	3/4" x 1/2"	1.42	1.48	0.94	0.32	29.00
691212	3/4" x 3/4"	1.22	1.40	0.93	0.34	38.48

\* Barstock

AQ69DOT  
169 PMTNS  
1869  
DQ69DOT

**MALE SWIVEL ELBOW**



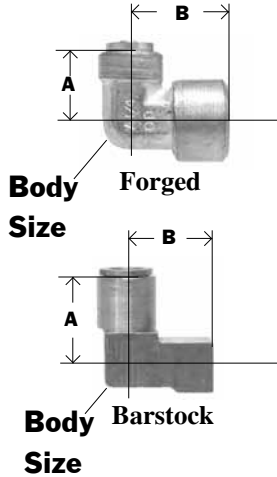
Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
<b>NEW</b> 695322S	5/32" x 1/8"	0.79	0.88	0.44	0.07	11.08
690402S	1/4" x 1/8"	0.89	0.88	0.43	0.07	10.25
690404S	1/4" x 1/4"	0.73	1.12	0.56	0.10	14.53
690406S	1/4" x 3/8"	0.75	1.25	0.75	0.10	12.97
690602S	3/8" x 1/8"	0.98	1.08	0.43	0.10	11.55
690604S	3/8" x 1/4"	0.98	1.14	0.56	0.10	13.21
690606S	3/8" x 3/8"	0.98	1.19	0.68	0.14	12.80
690608S	3/8" x 1/2"	0.98	1.52	0.87	0.19	20.14
690804S	1/2" x 1/4"	1.16	1.26	0.56	0.16	36.08
690806S	1/2" x 3/8"	1.16	1.34	0.68	0.18	17.05
690808S	1/2" x 1/2"	1.16	1.61	0.62	0.26	22.12
691006S	5/8" x 3/8"	1.23	1.41	0.68	0.28	22.30
691008S	5/8" x 1/2"	1.23	1.71	0.87	0.30	26.58
691208S	3/4" x 1/2"	1.42	1.77	0.87	0.50	45.29
691212S	3/4" x 3/4"	1.22	2.30	1.06	0.56	47.66

AQ69DOTS  
169PMT  
1869  
DQ69DOTS

A bank is a place that will lend you money, if you can prove that you don't need it.



**FEMALE ELBOW**



Part #	Tube O.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
700402	1/4" x 1/8"	0.92	0.83	0.37	0.06	9.21
700404	1/4" x 1/4"	1.02	1.02	0.50	0.10	11.47
700406	1/4" x 3/8"	1.11	0.98	0.62	0.16	14.52
700602	3/8" x 1/8"	0.96	0.67	0.71	0.15	19.56
700604	3/8" x 1/4"	0.96	0.94	0.48	0.12	11.52
700606	3/8" x 3/8"	0.98	0.91	0.68	0.17	16.02
700804*	1/2" x 1/4"	1.15	1.11	0.82	0.22	12.34
700806*	1/2" x 3/8"	1.12	1.11	0.82	0.26	21.58
700808	1/2" x 1/2"	1.05	1.22	1.06	0.30	17.27

\* Barstock

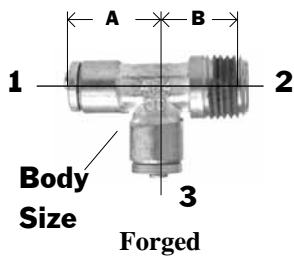
AQ70DOTS  
1870  
DQ70DOTS  
170PMTNS

**FEMALE SWIVEL ELBOW**



Part #	Size	List Price
700404S	1/4" x 1/4"	9.13

**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"	0.74	0.92	0.37	0.06	12.80
<b>NEW</b> 71040604	(1/4" x 3/8") x 1/4"					30.10
710404	1/4" x 1/4"	0.92	1.24	0.37	0.08	13.64
710604	3/8" x 1/4"	1.00	1.14	0.50	0.20	17.05
<b>NEW</b> 71060404	(3/8" x 1/4") x 1/4"					51.81
710606	3/8" x 3/8"	0.98	0.98	0.49	0.12	16.30
<b>NEW</b> 71060406	(3/8" x 1/4") x 3/8"					32.21
710608	3/8" x 1/2"	1.12	1.42	0.94	0.14	27.46
710806	1/2" x 3/8"	1.14	1.05	0.62	0.28	24.61
<b>NEW</b> 71080804	1/2" x 1/4"					59.28

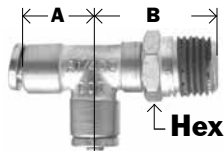
AQ71DOT  
171PMTNS  
1871  
DQ71DOT

Knowledge is knowing a tomato is a fruit; Wisdom is not putting it in a fruit salad.

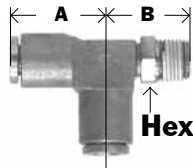




**MALE SWIVEL RUN TEE**



**Forged**



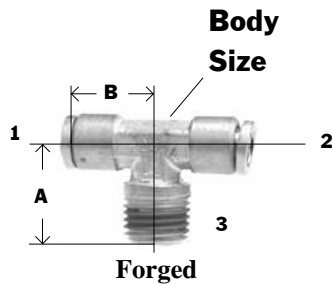
**Barstock**

AQ71DOTS  
171PMT  
1871  
DQ71DOTS

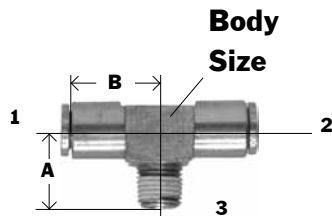
Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
710402S	1/4" x 1/8"	0.92	0.82	0.43	0.10	14.38
710404S	1/4" x 1/4"	0.92	1.24	0.56	0.11	16.19
710604S	3/8" x 1/4"	1.00	1.14	0.56	0.15	19.49
710606S	3/8" x 3/8"	0.98	1.18	0.68	0.14	20.41
710804S*	1/2" x 1/4"	1.18	1.22	0.56	0.24	37.62
710806S	1/2" x 3/8"	1.14	1.31	0.68	0.24	26.90
710808S	1/2" x 1/2"	1.14	1.61	0.62	0.30	29.85

\* Barstock

**MALE BRANCH TEE**



**Forged**



**Barstock**

AQ72DOT  
172PMTNS  
1872  
DQ72DOT

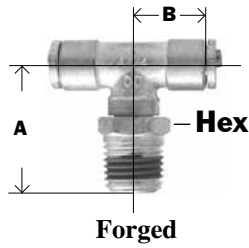
Part #	Tube O.D. x Male NPTF (1 x 2) x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
720302*	3/16" x 1/8"	0.64	0.75	0.41	0.07	20.95
720402	1/4" x 1/8"	0.74	0.92	0.37	0.10	13.09
720404	1/4" x 1/4"	0.92	0.92	0.43	0.10	13.64
720604	3/8" x 1/4"	1.00	0.99	0.50	0.20	16.22
<b>NEW</b> 72060404	(3/8" x 1/4") x 1/4"					42.98
720606	3/8" x 3/8"	0.98	0.99	0.50	0.10	24.07
720804	1/2" x 1/4"	1.14	1.12	0.87	0.20	28.63
720806	1/2" x 3/8"	1.05	1.16	0.62	0.24	25.08
720808	1/2" x 1/2"	1.42	1.24	0.94	0.32	32.94
<b>NEW</b> 72100808	(5/8" x 1/2") x 1/2"					67.49

\* Barstock

The early bird might get the worm, but the second mouse gets the cheese.



**MALE SWIVEL BRANCH TEE**



AQ72DOTS  
172PMT  
1872  
DQ72DOTS

Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
720402S	1/4" x 1/8"	1.04	0.92	0.43	0.12	14.37
720404S	1/4" x 1/4"	1.16	0.92	0.56	0.14	15.52
720602S	3/8" x 1/8"	1.06	0.96	0.43	0.19	16.64
720604S	3/8" x 1/4"	1.16	0.99	0.56	0.20	20.73
720606S	3/8" x 3/8"	1.21	0.98	0.68	0.18	20.48
720804S	1/2" x 1/4"	1.26	1.16	0.56	0.30	25.89
720806S	1/2" x 3/8"	1.34	1.16	0.68	0.34	27.09
720808S	1/2" x 1/2"	1.64	1.16	0.87	0.22	28.75

**FEMALE BRANCH TEE**



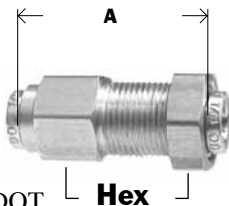
Part #	Size	List Price
770402	1/4" x 1/8"	15.63
770404	1/4" x 1/4"	15.65
770604	3/8" x 1/4"	16.36

**GLADHAND BULKHEAD CONNECTOR**



Part #	Size	List Price
830808	1/2" x 1/2"	51.80

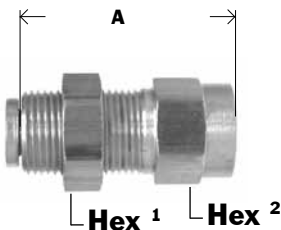
**BULKHEAD UNION**



AQ82DOT  
62PMTBH  
1874  
DQ82DOT

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
820400	1/4"	1.69	0.62	0.16	15.48
820600	3/8"	1.55	1.06	0.21	21.44
820800	1/2"	1.82	1.18	0.14	23.47
821000	5/8"	1.85	1.25	0.30	43.66

**FEMALE BULKHEAD UNION**



AQ86DOT  
1873  
DQ86DOT  
66PMTBH

Part #	Tube O.D. x Female NPTF	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
860402	1/4" x 1/8"	1.30	0.68	0.68	0.08	12.44
860404	1/4" x 1/4"	1.53	0.68	0.75	0.10	12.63
860604	3/8" x 1/4"	2.10	1.12	0.94	0.14	14.01
860606	3/8" x 3/8"	1.84	0.81	0.87	0.16	19.44
860808	1/2" x 1/2"	2.54	1.31	1.06	0.32	21.93



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

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"	1.39
25-001	1/8"	1.43

**NUT**



Part #	Tube O.D.	List Price
38-732	5/32"	1.73
25-033	1/8"	1.30

**DOUBLE END UNION**



Part #	Tube O.D.	List Price
38-761	5/32"	12.77
25-062	1/8"	7.50

**CONNECTOR**



Part #	Tube O.D.	Pipe Thread	List Price
38-769	5/32"	1/16"	8.39
38-770	5/32"	1/8"	8.15
25-175	1/8"	1/16"	8.28
25-176	1/8"	1/8"	7.20

**ELBOW**



Part #	Tube	Pipe Thread	List Price
38-718	5/32"	1/8"	7.76
25-220	1/8"	1/8"	7.58

**AIR BRAKE TUBING**

- SAE J844, Type 3 A & B & DOT FMVSS 106
- Nylon inner tube with open ply nylon fiber reinforcement and nylon cover.
- 40° F to +200° F temperature range.
- 150 P.S.I. max. working pressure.
- More colors available.



**BRASS**

Part #	Type A	Color	Length	List Price
38-950	1/8"	Black	100'	55.08
38-952	1/4"	Black	100'	114.81
38-952R	1/4"	Red	100'	111.70
38-952U	1/4"	Blue	100'	111.70
38-952-2	1/4"	Black	500'	420.18

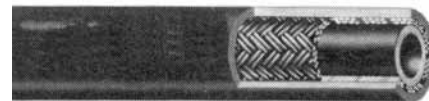
**AIR BRAKE TUBING**

Part #	Type B	Color	Length	List Price
38-960	3/8"	Black	100'	162.98
38-960U	3/8"	Blue	100'	324.30
38-960Y	3/8"	Yellow	100'	324.30
38-960B5	3/8"	Black	500'	1031.31
38-965	1/2"	Black	100'	228.24
38-965R	1/2"	Red	100'	463.68
38-965B5	1/2"	Black	500'	1080.04
38-970	5/8"	Black	100'	454.36
38-975	3/4"	Black	100'	523.95

NOTE: The Synflex, Parker and Eaton tubing must be torqued at 47 in. pounds.

Any other 5/32 DOT tubing used, tubing or fitting manufacturer should be contacted for proper torque requirements.

**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'	124.20
38-926	5/16	9/16	25'	146.92
38-923	1/4	1/2	25'	130.26
38-927	3/8	5/8	50'	190.85



**NYLON 12 D.O.T. TUBING**



Our Nylon 12 D.O.T. Tubing is ideal for use on vehicles for instrumentation and pneumatic accessories connected to the air brake system. It also has outstanding tensile strength and chemical resistance. It meets SAEJ 844 Type "A" Specifications for use on Air Brake systems.

**Features**

- Strong
- Lightweight
- Flexible
- Abrasion Resistant
- Heat Resistant
- Chemical Resistant

**Specifications**

Hardness: Rockwell 78 R Shore D 70  
 Temperature Range: -40°F to +200°F  
 Vacuum Rating: To 28" Hg  
 Meets SAEJ 844 Type "A" Specifications

**Applications**

Air Brake Lines      Refrigeration  
 Pneumatic Tools      Chemical Transfer  
 Pneumatic Piping      Vacuum  
 Instrumentation      Process Control  
 Lube Lines      Fuel Lines  
 Coolants      Paint Supply Lines

**Colors Available: Black=B**

Replace N in part number with a B for Black Tubing - Part numbers shown are for natural.

**100' LENGTH**

Part #	O.D.	I.D.	Wall Thickness	Bend Radius	Minimum Burst Pressure @73°F (PSI)	Package Weight (lbs)	List Price
38600N	1/8"	.080"	.023"	.375"	1000	.34	38.28
38601N	5/32"	.106"	.025"	.500"	1200	.57	45.96
38602N	1/4"	.180"	.040"	1.000"	1200	1.21	89.04
38603N	5/16"	.267"	.023"	1.250"	1000	1.57	114.60

**500' LENGTH**

Part #	O.D.	I.D.	Wall Thickness	Bend Radius	Minimum Burst Pressure @73°F (PSI)	Package Weight (lbs)	List Price
38600N5	1/8"	.080"	.023"	.375"	1000	1.70	191.22
38601N5	5/32"	.106"	.025"	.500"	1200	2.85	229.62
38602N5	1/4"	.180"	.040"	1.000"	1200	6.05	445.38
38603N5	5/16"	.267"	.023"	1.250"	1000	7.85	572.82

**1000' LENGTH**

Part #	O.D.	I.D.	Wall Thickness	Bend Radius	Minimum Burst Pressure @73°F (PSI)	Package Weight (lbs)	List Price
38600N1	1/8"	.080"	.023"	.375"	1000	3.40	382.32
38601N1	5/32"	.106"	.025"	.500"	1200	5.70	459.24
38602N1	1/4"	.180"	.040"	1.000"	1200	12.10	890.64
38603N1	5/16"	.267"	.023"	1.250"	1000	15.7	1145.64

Lead Free fittings available on  
**pgs. 382-388**





**STEEL BRAKE LINES FOR DOMESTIC VEHICLES**

Length	Catalog Number 3/16" O.D.	List Price	Catalog Number 1/4" O.D.	List Price	Catalog Number 5/16" O.D.	List Price	Catalog Number 3/8" O.D.	List Price
6"	38-930	5.15						
8"	38-931	5.51						
10"	38-932	5.82						
12"	38-933	4.91					38-985	7.00
20"	38-934	6.42					38-986	10.79
30"	38-935	7.33	38-943	8.41				
40"	38-936	8.54	38-944	10.01			38-988	13.76
51"	38-937	10.00	38-945	12.77	38-984	15.30	38-989	17.45
60"	38-938	13.63	38-946	13.43			38-990	19.32
72"	38-939	14.24						

NOTE: 3/16" and 1/4" tube assemblies have one long and one short inverted flare nut.

**AIR BRAKE ACCESSORIES  
GLADHAND COUPLINGS**

- Die Cast Aluminum Body
- Conforms to SAE J318
- Connects to 1/2" pipe



**SERVICE (Signal) Blue**  
connects only to service

Part #	List Price
38-712	13.80

**EMERGENCY (Supply Line) Red**

Part #	connects only to emergency	List Price
38-714		13.80

**UNIVERSAL - Gold**

Part #	connects to both styles	List Price
38-716		12.74

**GLADHAND SEAL**



Part #	Full Face	List Price
38-720		1.58

**HEX BALL FOOT CHUCK**



Part #	1/4" Female Pipe	List Price
46-600		3.07

**BALL FOOT CHUCK WITH  
1/4 I.D. HOSE BARB**



Part #	1/4" I.D. Hex	List Price
46-607		3.14

**DUAL FOOT CHUCKS**

6999		99941
693		50-065
108		6569
DFG-1		



Standard straight-on chuck with 30° reverse angle chuck.

Part #	1/4" NPT Female Thread	List Price
320-000		29.21

**ANGLE CHUCK**



For inner dual wheels with tilted valves.  
Has 6" extension and 1/4" NPT female thread.

Part #	1/4" NPT Female Thread	List Price
320-005		9.53



**AIR BRAKE - HOSES****AIR BRAKE HOSES****AIR BRAKE HOSE**

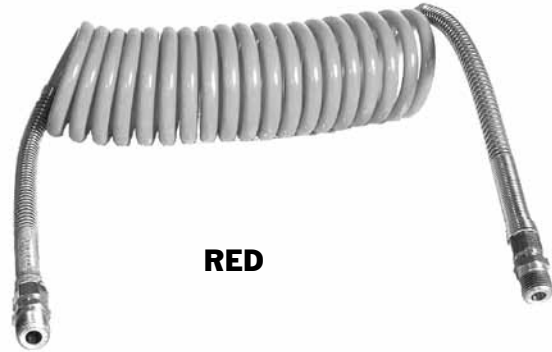
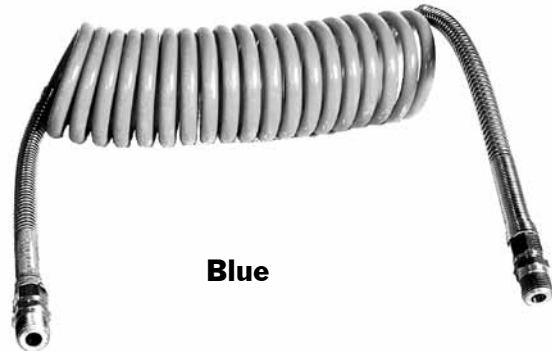
- Spiral synthetic cord reinforcement with neoprene cover.
- 40° F to +200° F temperature range.
- Max operating pressure 255 psi
- Max burst pressure 900 psi
- Meets SAE J1402

Part #	ID	OD	Length	List Price
38-910	3/8	3/4	50'	101.29
38-915	1/2	7/8	50'	130.73

**REMOTE CONTROL DRAIN VALVES****REMOTE CONTROL DRAIN VALVES**

- Brass Body and stainless steel spring.
- Steel cable, nylon coated, certified to 200lbs pull test.
- Low profile to minimize accidental hits and damages.
- Pipe thread 1/4" NPTF.

Part #	Length	List Price
46-492	Standard 48"	25.04
46-493	Standard 60"	25.63

**BRASS FITTINGS****COILED AIRBRAKE TUBE ASSEMBLIES****RED****Blue**

- Conforms to SAE J844 Type B and SAE J1131.
- Conforms to DOT FMVSS 571. 106.
- Maximum Working Pressure 150 PSI,
- Minimum Burst 950 PSI.
- Temperature Range -40° F to 200° F.
- Brass end with spring guards and 1/2" male pipe connectors.
- Spring guards zinc plated for maximum corrosion resistance.
- Color coding, red for emergency and blue for service, provides you with error free installation.
- Preassembled for immediate installation.
- 1/2" O.D. with 1/2" fitting.

**Each contains 1 red, 1 blue.**

Part #	Working Length	Pigtail Length	List Price
38-700	12'	6"	136.72
38-705	12'	12"	192.54
38-710	15'	12"	170.26





## BRASS FITTINGS

## AIR BRAKE - FITTINGS

### BRASS FUEL HOSE FITTINGS

**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	1.92
38-802	1/4	1/8	1537	1.98
32-377	1/4	1/4	1581	1.73
38-806	5/16	1/8	1551	2.18
38-808	5/16	1/4	1555	2.45
38-810	3/8	1/8	1565	2.25
32-381	3/8	1/4	1564	2.18
32-382	3/8	3/8	1566	3.95
32-383	1/2	3/8		2.83
32-384	1/2	1/2		4.31
32-182	5/8	3/8	1411	4.90
32-385	5/8	1/2	1431	4.56
32-387	3/4	1/2	1430	4.78
32-388	3/4	3/4		6.17
32-185	1	3/4		12.84

#### INVERTED FLARE MALE CONNECTOR



#### HOSE BARB X INVERTED FLARE

Part #	Hose ID	Inv. Flare	Ind #	List Price
38-828	5/16	1/4	1598	3.10
38-830	5/16	5/16	1560	2.47
38-832	5/16	3/8	1561	4.01
38-834	3/8	5/16	1568	3.75
38-836	3/8	3/8	1570	5.55

See Hose Clamps starting on page 273

### 90° MALE ELBOW



#### HOSE BARB X MALE PIPE

Part #	Hose ID	Size	Ind #	List Price
38-860	1/4	1/8	1582	4.60
38-862	5/16	1/8	1556	4.34
38-864	5/16	1/4	1557	4.73
38-866	3/8	1/8	1572	5.35
38-868	3/8	1/4	1571	4.67
32-186	3/8	3/8		8.57
32-187	1/2	3/8		11.94
32-191	1/2	1/2		15.93
32-188	5/8	3/8		9.24
32-189	5/8	1/2		10.66
32-190	3/4	1/2		13.74

#### INVERTED FLARE MALE SWIVEL 90° ELBOW



#### HOSE BARB X TUBE O.D.

Part #	Hose ID	Tube	Ind #	List Price
38-873	5/16	5/16	1405	15.44
38-874	3/8	3/8	1407	9.00

#### LONG STREET ELLS



Part #	Size	Length	List Price
28-440	1/8	1-3/16"	7.49
28-441	1/8	1-7/16"	3.61
28-442	1/8	1-11/16"	7.74
28-328	1/4	1-3/16"	15.72
28-329	1/4	1-7/16"	12.80
28-330	1/4	1-11/16"	12.77
28-332	1/4	2-1/4"	17.41
28-333	3/8	1-3/4"	19.94

#### EXTENSION ADAPTERS D.O.T.



Part #	Size	Length	List Price
28-335	1/8	1-1/4"	8.44
28-336	1/8	1-3/4"	11.21
28-338	1/4	1-9/16"	6.00
28-339	1/4	1-13/16"	7.73
28-340	1/4	2-1/16"	7.31

BRASS



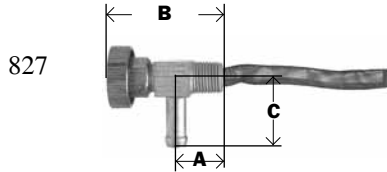
## DRAIN COCKS

## BRASS FITTINGS

## DRAIN COCKS

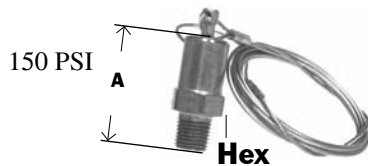
- For use with low pressure air, water and fluids.
- Designed for a working pressure of 150 PSI.
- Hand-tightening provides a metal-to-metal seal.
- Not intended for natural gas, LPG, nuclear or aircraft applications.

## GASOLINE SHUT OFF w/ SCREEN FILTER



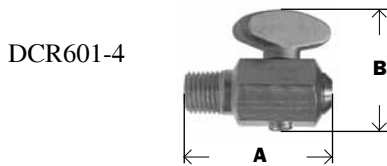
Part #	Barb X Male Pipe	A	B	C	Approx. Wt. Lbs.	List Price
46-064	1/4" x 1/8"	0.55	1.34	0.66	0.06	39.12

## AIR TANK DRAIN VALVE - Self Sealing w/ 5ft. remote cable



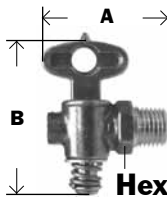
Part #	Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
46-065	1/4"	1.74	0.75	0.16	40.45

## DRAIN COCK 150 PSI - Trunk Air Tank



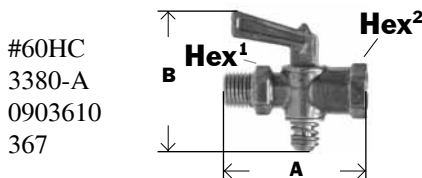
Part #	Male Pipe	A	B	Approx. Wt. Lbs.	List Price
46-066	1/4"	1.73	1.41	0.22	21.16

## TRUCK DRAIN - 125 P.S.I.G



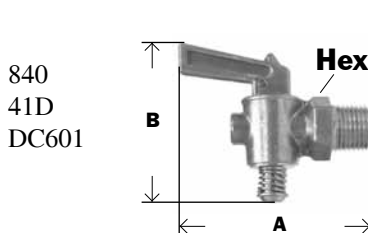
Part #	Male Pipe	Industry Number	A	B	Hex	Approx. Wt. Lbs.	List Price
46-067	1/8"		1.53	1.95	0.62	0.14	15.95
46-068	1/4"	W15310	1.53	1.95	0.62	0.18	15.96

## 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	27.06

## LEVER HANDLE



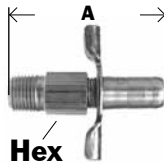
Part #	Male Pipe	Industry Number	A	B	Hex	Approx. Wt. Lbs.	List Price
46-070	1/8"	M-41-P	1.99	1.80	0.62	0.04	13.98
46-071	1/4"	M-42-P	2.06	1.81	0.62	0.06	13.98
46-072	3/8"	M-43-P	2.30	2.29	0.81	0.08	17.10
46-073	1/2"	M-44-P	3.00	2.50	0.87	0.16	39.72





**INTERNAL SEAT**

DC602  
808  
400A  
1800A



Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-079	1/8"	6783	1.63	0.40	0.02	11.65

**INTERNAL SEAT**

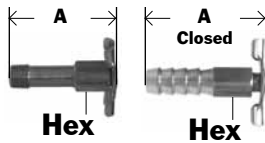
HB - 5/16  
803  
305A



Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-074	1/8"	130	0.92	0.40	0.04	5.26
46-075	1/4"	140	0.94	0.56	0.06	5.71
46-077	3/8"	230	1.34	0.68	0.08	9.90

**LONG INTERNAL SEAT**

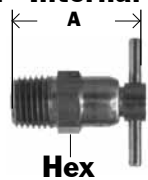
809



Part #	Size	Ind #	A	Hex	Approx. Wt. Lbs.	List Price
46-078	1/8" MIP	185	1.72	0.43	0.02	17.52
46-076	3/8" Hose I.D.		1.65	0.43	0.02	10.69

**TEE HANDLE - Internal Seat**

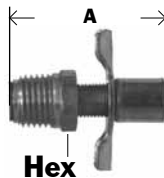
DC603  
802



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	12.48
46-081	1/4"	M-201-P	1.31	0.56	0.06	9.94
46-082	3/8"	M-202-P	1.69	0.68	0.12	16.38

**EXTERNAL SEAT w/ SPOUT**

200A  
239  
DC606  
807

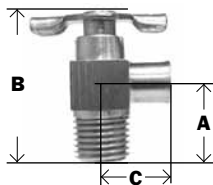


Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-084*	1/4"	6788	1.56	0.56	0.02	3.36

\* Replaces GM # 511771 & Chrysler #836015

**BIBB NEEDLE VALVE - .38 Hose ID**

804  
DC607  
2019  
201DH



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	9.72
46-089	1/4"	120	0.82	1.76	0.66	0.06	11.54
46-089A	1/4"	6660	0.55	1.34	0.66	0.06	7.27

**RADIATOR TYPE - External Seat**

320D  
240  
DC604  
801



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	3.12
46-086	1/4"	M-321-P	145	1.00	0.56	0.04	3.12
46-087	3/8"	M-322-P	270	1.25	0.68	0.08	9.95
46-083	1/2"		108	1.52	0.87	0.12	24.97



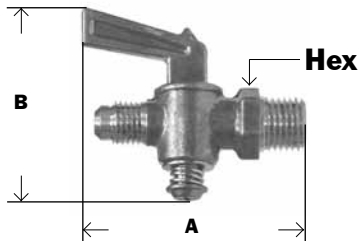
## SHUT-OFF COCKS

## BRASS FITTINGS

• Designed for automotive or industrial use. **AGA** approved shut-off cocks approved for **LPG** and natural gas applications. Lubricant may wash out at higher pressures or with some exotic fluids.

- Designed for working pressure of 30 PSI.
- Forged brass bodies and brass handles.
- Instantaneous off-on operation with 360° rotation.

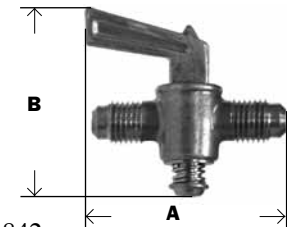
## FLARE X MALE PIPE



V402F  
848

Part #	Male Flare X Male Pipe	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-100	1/4" x 1/8"	27SAE	2.16	1.88	0.50	0.14	14.43
46-101	1/4" x 1/4"	227SAE	2.19	1.84	0.62	0.16	17.54
46-102	5/16" x 1/8"	29SAE	2.06	1.88	0.50	0.14	14.43
46-103	5/16" x 1/4"	229SAE	2.12	1.82	0.69	0.16	17.54
46-104	3/8" x 1/4"	57SAE	2.27	1.84	0.62	0.17	17.54
46-107	1/2" x 3/8"	67SAE	2.36	2.27	0.82	0.20	16.10

## FLARE X FLARE

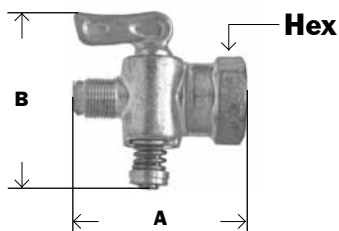


842  
V203F  
136C

Part #	Male Flare X Male Flare	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-115	1/4"	28SAE	1.94	1.87	0.13	14.94
46-116	5/16"	30SAE	2.00	1.90	0.16	46.68
46-117	3/8"	58SAE	2.20	1.83	0.18	17.19
46-118	1/2"	68SAE	2.50	2.31	0.50	20.95
46-119	5/8"	1010SAE	3.05	2.59	0.70	18.75

\* Please request AGA valves

## FLARE X FEMALE PIPE



138C  
2046

Part #	Male Flare X Female Pipe	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-127	3/8" x 3/8"	163SAE	2.28	2.38	1.03	0.40	37.91
46-125	3/8" x 1/2"	161SAE	2.45	2.31	1.03	0.32	31.39
46-126*	3/8" x 1/2"	161SAE	2.26	2.32	1.03	0.28	33.64
46-128	1/2" x 1/2"	164SAE	2.52	2.19	1.03	0.34	38.60
46-123	5/8" x 1/2"	164SAE	2.61	2.12	1.25	0.54	60.07

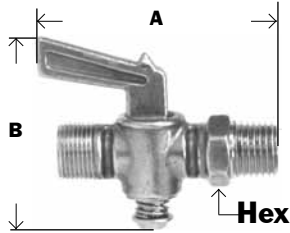
\* Heater Valve

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



**COMPRESSION X MALE PIPE**

\* See pg. 72 to order nut and sleeve separately.

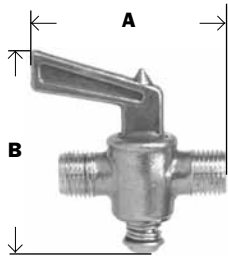


868 133C  
V304C VC206  
2068

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	15.80
46-131	1/4" x 1/4"	227-C	2.05	1.86	0.62	0.15	18.06
46-132	5/16" x 1/8"	29-C	2.05	1.90	0.50	0.16	15.81
46-134	3/8" x 1/4"	57-C	2.05	1.83	0.62	0.15	16.73

**COMPRESSION X COMPRESSION**

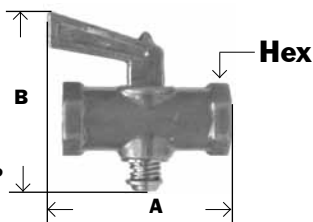
\* See pg. 72 to order nut and sleeve separately.



V3030F  
2062  
134C

Part #	Comp X Comp	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-140	1/4"	28-C	1.82	1.84	0.12	16.21
46-141	5/16"	30-C	1.84	1.88	0.14	17.01
46-142	3/8"	58-C	1.87	1.80	0.14	16.73
46-143	1/2"	68-C	2.21	2.32	0.22	25.33

**FEMALE X FEMALE PIPE**

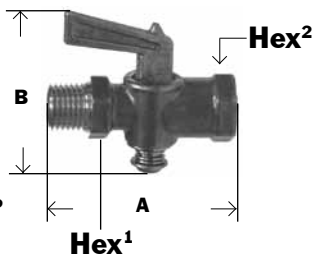


V403P  
132C  
875

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	14.02
46-152	1/4"	2.28	1.82	0.69	0.20	14.59
46-152T*	1/4"	2.28	2.00	0.68	0.20	20.13
46-153	3/8"	2.44	2.28	0.81	0.30	23.54

\* 150 PSI

**MALE PIPE X FEMALE**

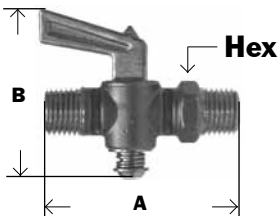


880  
V402P  
130C

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	14.19
46-161	1/4"	49-P	2.26	1.84	0.69	0.69	0.18	14.59
46-161T*	1/4"		2.26	1.98	0.69	0.69	0.20	20.13
46-162	3/8"	50-P	2.33	2.28	0.82	0.82	0.28	23.54

\* 150 PSI

**MALE PIPE X MALE PIPE**



1V401P  
890

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	14.77
46-166	1/4"	77-P	2.22	1.84	0.70	0.17	15.92
46-166T*	1/4"		2.23	2.00	0.68	0.18	20.77
46-167	3/8"	78-P	2.43	2.24	0.82	0.22	25.42

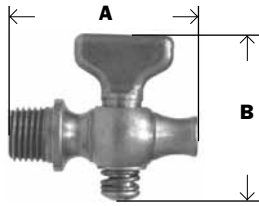
\* 150 PSI



- 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**

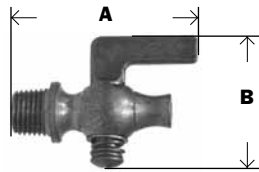
- tee handle
- no hex



Part #	MIP x BIBB	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-300	1/8"	6	1.53	1.55	0.12	17.41
46-301	1/4"	7	1.61	1.54	0.14	21.51

**MIP X BIBB**

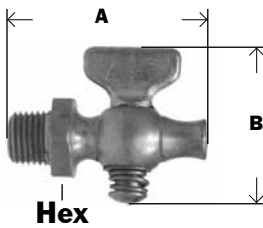
- lever handle
- no hex



Part #	MIP x BIBB	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-305	1/8"	12	2.01	1.71	0.14	19.39
46-306	1/4"	13	2.09	1.66	0.14	22.91

**MIP X BIBB**

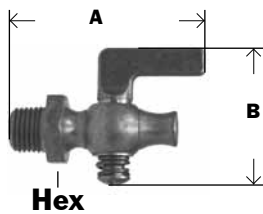
- tee handle
- hex



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	20.94
46-311	1/4"	64	1.69	1.54	0.62	0.14	20.56
46-312	3/8"	8	1.75	1.48	0.75	0.17	21.11

**MIP X BIBB**

- lever handle
- hex



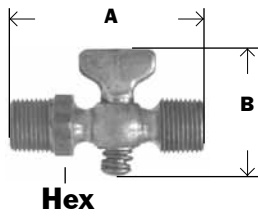
Part #	MIP x BIBB	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-315	1/8"	65	2.11	1.71	0.62	0.14	22.14
46-316	1/4"	66	2.16	1.71	0.62	0.16	23.87
46-317	3/8"	14	2.26	1.71	0.75	0.18	23.38
46-318	1/2"	15	2.32	1.46	0.87	0.26	24.33

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



**MIP X MIP**

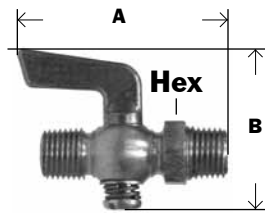
- tee handle
- hex



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	21.07
46-321	1/4"	19	1.92	1.55	0.62	0.16	26.59
46-322	3/8"	20	2.34	1.55	0.75	0.19	22.68
46-323	1/2"	21	2.18	1.50	0.87	0.26	26.86

**MIP X MIP**

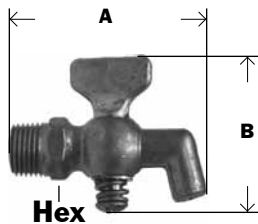
- lever handle
- hex



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	24.03
46-325	1/4"	23	2.18	1.69	0.62	0.16	23.32
46-326	3/8"	24	2.26	1.72	0.75	0.20	25.60
46-327	1/2"	25	2.57	1.81	0.91	0.36	30.15

**MIP X BIBB NOSE**

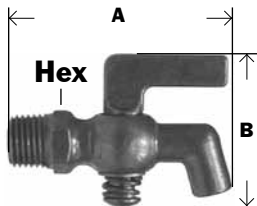
- tee handle
- hex



Part #	MIP X BIBB NOSE	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-330	1/8"	26	2.18	1.75	0.56	0.14	27.15
46-331	1/4"	27	2.11	1.57	0.56	0.16	28.15

**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	28.58
46-336	1/4"	30	2.20	1.67	0.56	0.17	30.38
46-337	3/8"	31	2.25	1.72	0.87	0.20	46.39
46-338	1/2"	32	2.31	1.71	0.87	0.22	45.49

Lead Free fittings available on  
pgs. 382-388



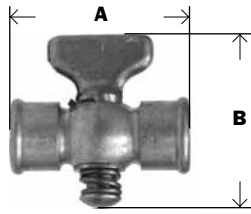
# BRASS AIR COCKS

# BRASS FITTINGS

BRASS

## FIP X FIP

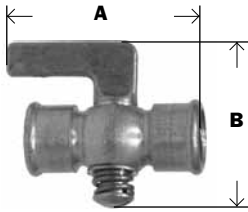
- tee handle
- no hex



Part #	FIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-340	1/8"	37	1.62	1.50	0.14	19.17
46-341	1/4"	38	1.93	1.56	0.16	20.19
46-342	3/8"	39	2.00	1.55	0.20	23.20

## FIP X FIP

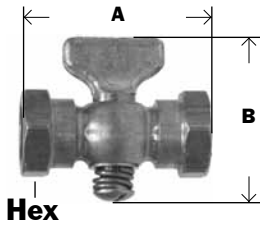
- lever handle
- no hex



Part #	FIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-345	1/8"	43	1.94	1.68	0.14	22.10
46-346	1/4"	44	2.10	1.71	0.16	22.17
46-347	3/8"	45	2.14	1.69	0.20	26.00

## FIP X FIP

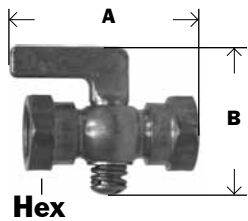
- tee handle
- hex



Part #	FIP X FIP	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-350	1/8"	55	1.62	1.54	0.75	0.17	23.20
46-351	1/4"	56	1.94	1.55	0.75	0.18	23.00
46-352	3/8"	57	1.99	1.58	0.81	0.20	27.11

## FIP X FIP

- lever handle
- hex



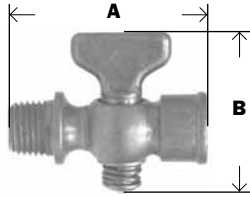
Part #	FIP X FIP	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-355	1/8"	58	1.97	1.70	0.56	0.15	24.02
46-356	1/4"	59	2.10	1.71	0.75	0.18	24.08
46-357	3/8"	60	2.10	1.69	0.81	0.20	27.80
46-358	1/2"	60A	2.50	2.02	1.00	0.36	34.82

Whenever I fill out an application, in the part that says, "If an emergency, notify:" I put "DOCTOR".



**MIP X FIP**

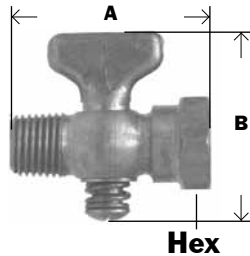
- tee handle
- no hex



Part #	MIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-360	1/8"	40	1.70	1.55	0.14	19.67
46-361	1/4"	41	1.94	1.55	0.16	24.91
46-362	3/8"	42	2.06	1.50	0.20	24.70

**MIP X FIP**

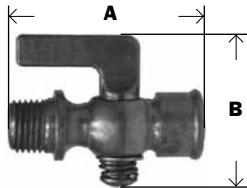
- tee handle
- hex



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	26.59
46-371	1/4"	50	2.06	1.55	0.75	0.20	24.73
46-372	3/8"	51	2.12	1.53	0.81	0.22	27.47
46-373	1/2"	51A	2.13	1.62	1.00	0.30	34.88

**MIP X FIP**

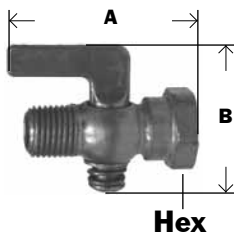
- lever handle
- no hex



Part #	MIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-365	1/8"	46	1.94	1.72	0.14	21.28
46-366	1/4"	47	2.10	1.65	0.16	24.68
46-367	3/8"	48	2.20	1.81	0.24	27.29
46-368	1/2"	48A	2.50	1.95	0.42	34.25

**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	24.08
46-376	1/4"	53	2.06	1.76	0.75	0.20	25.55
46-377	3/8"	54	2.13	1.71	0.81	0.22	29.77
46-378	1/2"	54A	2.65	1.96	1.00	0.28	35.65

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





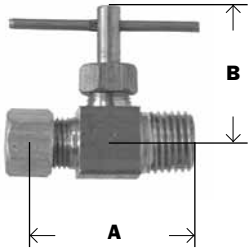
**NEEDLE VALVES**

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.

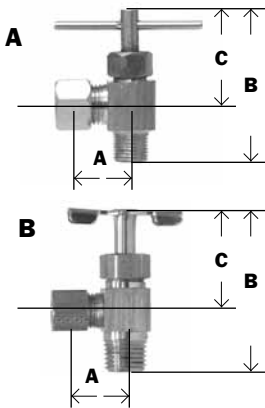
**COMP X MALE PIPE**



NV106C 820  
2205 3068

Part #	Comp X Male Pipe	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-001	3/16" x 1/8"	M-133-C	1.16	0.88	0.06	24.33
46-002	1/4" x 1/8"	M-101-C	1.29	1.12	0.07	15.69
46-002X	Heavy Pattern	M-101-C	1.19	0.88	0.09	15.00
46-003	1/4" x 1/4"	M-101-C	1.27	1.14	0.10	7.49
46-004	5/16" x 1/8"	M-102-C	1.50	1.25	0.14	16.68
46-005	3/8" x 1/4"	M-143-C	1.53	1.22	0.18	13.08

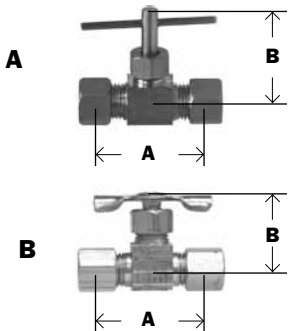
**COMP X MALE PIPE-ANGLE**



NV104C 821  
2203 3069

Part #	Comp X Male Pipe	Handle	Ind. #	A	B	C	Approx. Wt. Lbs.	List Price
46-010	3/16" x 1/8"	B	M-33-C	0.50	1.50	0.82	0.07	20.72
46-011	1/4" x 1/8"	A	M-103-C	0.56	1.48	0.93	0.08	5.60
46-011X	Heavy Pattern	B	M-103-C	0.53	1.53	0.83	0.08	13.16
46-012	1/4" x 1/4"	B	M-104-C	0.62	1.67	0.90	0.13	14.91
46-013	5/16" x 1/8"	B	M-104-C	0.63	1.63	0.95	0.10	18.11
46-014	5/16" x 1/4"	B	M-104-C	0.69	1.73	0.92	0.14	41.62
46-016	3/8" x 1/4"	A	M-303-C	0.69	1.81	0.92	0.16	8.78

**COMP X COMP**

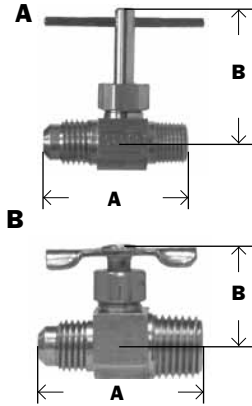


NV105C 2201  
3062 822

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	22.56
46-021	1/4"	A	M-106-C	1.17	1.12	0.10	5.97
46-022	5/16"	A	M-107-C	1.22	1.08	0.12	13.87
46-023	3/8"	B	M-113-C	1.31	1.15	0.13	9.17



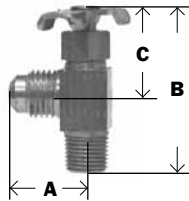
**FLARE X MALE PIPE**



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	13.06
46-029	1/4" x 1/4"	B	M-1040-SAE	1.38	0.88	0.09	13.81
46-031	3/8" x 1/4"	B	M-108-SAE	1.73	1.22	0.18	21.57

NV103F  
2405  
823  
3048

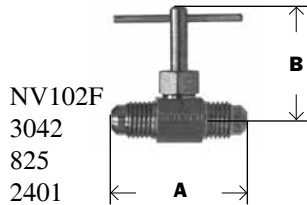
**FLARE X MALE PIPE**



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	10.95
46-038	5/16" x 1/8"	M-203-SAE	0.88	1.59	0.94	0.11	18.35
46-039	5/16" x 1/4"	M-204-SAE	0.90	1.94	1.00	0.14	15.69
46-040	3/8" x 1/4"	M-303-SAE	0.97	1.84	0.90	0.17	22.06

NV101F 824  
2403 3049

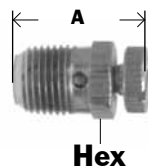
**FLARE X FLARE**



NV102F  
3042  
825  
2401

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	4.90
46-046	3/8"	M-115-SAE	1.79	1.19	0.20	13.56

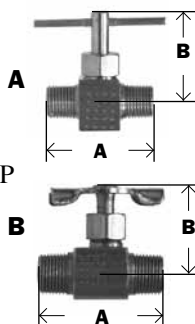
**MULTI-PURPOSE AIR VENT**



705

Part #	Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
46-048	1/8"	0.78	0.43	0.02	2.99

**MALE PIPE TO MALE PIPE**



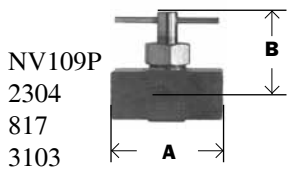
NV107P  
2301  
826  
3122

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	19.69
46-050X	1/8"	B	M-108-P	1.38	0.66	0.08	14.53
46-051	1/4"	A	M-110-P	1.69	1.00	0.16	12.78



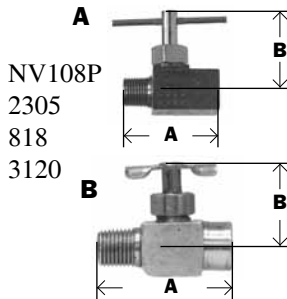
## NEEDLE VALVES

## BRASS FITTINGS



Part #	Female Pipe X Female Pipe	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-055	1/8"	M-304-P	1.12	0.88	0.18	13.93
46-056	1/4"	M-3044-P	1.60	1.24	0.21	8.17
46-056P	1/4" Heavy	M-3044-P	1.60	1.12	0.20	13.12

## MALE X FEMALE PIPE

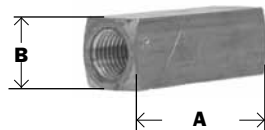


Part #	Male Pipe X Female Pipe	Handle	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-060	1/8"	A	M-305-P	1.18	1.09	0.10	5.90
46-061	1/4"	A	M-3055-P	1.60	1.14	0.18	8.63
46-061L	1/4" Light Pattern	B	M-3055-P	1.88	1.09	0.21	19.41

## FLOW CONTROL NEEDLE &amp; CHECK VALVES

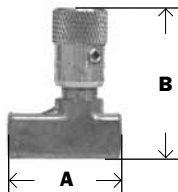
- Precision calibrated dial to determine and allow a return to required flow settings.
- Safe positive stop for needle travel.
- Positive no-leak stem seal.
- 2PSI cracking pressure.
- 1000 PSI maximum operating pressure.
- One piece forged housing.
- Nickel Plated available.
- Suitable for natural gas.

## CHECK VALVE



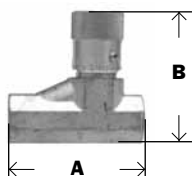
Part #	Size	A	B	Approx. Wt. Lbs.	List Price
20-473	1/4"	1.94	0.68	0.20	72.78

## FLOW CONTROL



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
20-485	1/8"	1.47	1.48	0.18	84.94
20-487	1/4"	1.94	1.92	0.27	101.35

## NEEDLE VALVE



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
20-501	1/8"	1.47	1.80	0.18	53.48
20-503	1/4"	1.94	2.00	0.28	90.39



## BRASS FITTINGS

### SCREW STEM SHUT-OFF VALVES NEEDLE VALVES

**NEEDLE VALVES** are constructed to meter fluids and gases. They are **O-RING SEALED** to eliminate valve maintenance. The O-ring is positioned between the actuating threads and the seat, and seals the closely fitted cylinder to give the lowest possible internal volume and protect threads from contamination.

**NEEDLE VALVES** have a medium tipped stem (37°) to offer **RAPID SHUT OFF, FULL FLOW** and a **SEMI-METERING FUNCTION**.

The standard construction is a forged brass body, brass stem, thrust washer, cap and a BUNA "N" 'O' - RING seal. This valve is rated for 1,000 p.s.i.g. service from -40° to 250° F.

**FACTORY MUST BE CONSULTED WHEN VALVES ARE TO BE USED WITH FLAMMABLE FLUIDS IN ORDER TO DETERMINE WORKING PRESSURE AND O-RING COMPATIBILITY.**

COMPRESSION AND FLARE ENDS CAN BE SUBSTITUTED FOR PIPE ENDS IN MOST CASES.

( Price on application )



#### MIP X FIP STRAIGHT

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-768	1/8 Male x 1/8 Female	Regular	0.141	46.16
46-769	1/8 Male x 1/8 Female	Panel	0.141	61.76
46-770	1/4 Male x 1/4 Female	Regular	0.188	44.29
46-771	1/4 Male x 1/4 Female	Panel	0.188	57.96

#### MIP X MIP STRAIGHT

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-774	1/8 Male x 1/8 Male	Regular	0.141	42.47
46-775	1/8 Male x 1/8 Male	Panel	0.141	61.76
46-776	1/4 Male x 1/4 Male	Regular	0.188	40.35
46-777	1/4 Male x 1/4 Male	Panel	0.188	57.96

#### FIP X FIP STRAIGHT

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-780	1/8 Female x 1/8 Female	Regular	0.172	42.47
46-781	1/8 Female x 1/8 Female	Panel	0.172	56.82
46-782	1/4 Female x 1/4 Female	Regular	0.188	46.39
46-783	1/4 Female x 1/4 Female	Panel	0.188	57.96

## NEEDLE VALVES



#### MIP X FIP ANGLE

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-786	1/8 Male x 1/8 Female	Regular	0.188	44.60
46-787	1/8 Male x 1/8 Female	Panel	0.188	60.00
46-788	1/4 Male x 1/4 Female	Regular	0.281	44.77

#### MIP X MIP ANGLE

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-792	1/8 Male x 1/8 Male	Regular	0.188	44.60
46-793	1/8 Male x 1/8 Male	Panel	0.188	60.00
46-794	1/4 Male x 1/4 Male	Regular	0.281	42.01
46-795	1/4 Male x 1/4 Male	Panel	0.281	61.16

#### FIP X FIP ANGLE

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-798	1/8 Female x 1/8 Female	Regular	0.188	41.03
46-799	1/8 Female x 1/8 Female	Panel	0.188	55.20
46-800	1/4 Female x 1/8 Female	Regular	0.281	42.01
46-801	1/4 Female x 1/4 Female	Panel	0.281	56.27

### 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
46-090A	1/4"	1	5.43

#### SPECIAL VERSIONS

Many special versions of these valves have been produced for other services. If your application is not described here or covered by our recommendations, please contact us. It is quite possible that one of these valve types can be economically adapted to your requirements.

**MICRO-METERING VALVES****MICRO-METERING VALVES**

**MICRO-METERING VALVES** offer PRECISE FLUID CONTROL through a full metering tip ( 5° ) and lubricated micrometer threads. Our O-ring seal arrangement eliminates contamination of system media by the thread lubricant.

The standard construction is forged brass body, brass stem and cap, a CELCON® thrust bearing and a BUNA "N" 'O'-RING seal. It is rated for 3,500 p.s.i.g. service from -40° to 150° F.

Many variations and modifications have been made in these valves to accommodate customer applications. It is quite possible they can be economically adapted to your requirements.

**MIP X FIP STRAIGHT**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-741	1/8 Male x 1/8 Female	Regular	0.102	50.84
46-742	1/8 Male x 1/8 Female	Panel	0.102	64.71
46-743	1/4 Male x 1/4 Female	Regular	0.172	56.27
46-744	1/4 Male x 1/4 Female	Panel	0.175	61.76

**MIP X MIP STRAIGHT**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-746	1/8 Male x 1/8 Male	Panel	0.102	70.34
46-747	1/4 Male x 1/4 Male	Regular	0.172	56.27
46-748	1/4 Male x 1/4 Male	Panel	0.172	65.87

**FIP X FIP STRAIGHT**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-752	1/8 Female x 1/8 Female	Regular	0.141	47.66
46-753	1/8 Female x 1/8 Female	Panel	0.141	64.71
46-754	1/4 Female x 1/4 Female	Regular	0.172	52.76
46-755	1/4 Female x 1/4 Female	Panel	0.172	61.76

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

**BRASS FITTINGS****MIP X FIP ANGLE**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-756	1/8 Male x 1/8 Female	Regular	0.182	49.13
46-757	1/8 Male x 1/8 Female	Panel	0.182	63.02
46-758	1/4 Male x 1/4 Female	Regular	0.182	54.76

**MIP X MIP ANGLE**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-760	1/8 Male x 1/8 Male	Regular	0.182	53.60
46-761	1/8 Male x 1/8 Male	Panel	0.182	68.50
46-762	1/4 Male x 1/4 Male	Regular	0.182	50.38
46-763	1/4 Male x 1/4 Male	Panel	0.182	64.18

**FIP X FIP ANGLE**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-765	1/8 Female x 1/8 Female	Panel	0.182	68.50
46-766	1/4 Female x 1/4 Female	Regular	0.182	50.38
46-767	1/4 Female x 1/4 Female	Panel	0.182	62.26

COMPRESSION AND FLARE ENDS CAN BE SUBSTITUTED FOR PIPE ENDS IN MOST CASES

*Some valves only available on made-to-order basis.*

I didn't say it was your fault, I said I was blaming you.



**TOGGLE VALVES**

**TOGGLE SHUT OFF VALVES** are constructed to INSTANTANEOUSLY OPEN and CLOSE the flow of fluids and gases. It is ideally suited for use in gas sampling and analysis systems as well as test equipment.

This valve is O-RING SEALED to eliminate leakage and maintenance. The O-ring is positioned between the operating mechanism and the seat, and seals the closely fitted cylinder to give the lowest possible internal volume and protect the mechanism from contamination.

The standard construction is forged brass body, brass cylinder, cap and lever, Viton seat, BUNA "N" 'O' RING seal, steel spring, and stainless steel lever pin.

This valve is rated for 200 p.s.i.g. service from -40° to 250° F and is available in the angle and straight pattern, both of which are available for panel or bracket mounting.



**MIP X FIP STRAIGHT**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-804	1/8 Male x 1/8 Female	Regular	0.102	45.63
46-805	1/8 Male x 1/8 Female	Panel	0.102	61.76

**MIP X MIP STRAIGHT**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-809	1/8 Male x 1/8 Male	Panel	0.102	56.82
46-810	1/4 Male x 1/4 Male	Regular	0.172	43.48
46-811	1/4 Male x 1/4 Male	Panel	0.172	57.96

**FIP X FIP STRAIGHT**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-812	1/8 Female x 1/8 Female	Regular	0.141	46.16
46-813	1/8 Female x 1/8 Female	Panel	0.141	57.50
46-814	1/4 Female x 1/4 Female	Regular	0.172	47.53
46-815	1/4 Female x 1/4 Female	Panel	0.172	54.35



**MIP X FIP ANGLE**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-817	1/8 Male x 1/8 Female	Panel	0.182	60.00
46-818	1/4 Male x 1/4 Female	Regular	0.182	43.70
46-819	1/4 Male x 1/4 Female	Panel	0.182	61.16

**MIP X MIP ANGLE**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-820	1/8 Male x 1/8 Male	Regular	0.182	44.60
46-822	1/4 Male x 1/4 Male	Regular	0.182	45.66
46-823	1/4 Male x 1/4 Male	Panel	0.182	61.16

**FIP X FIP ANGLE**

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-824	1/8 Female x 1/8 Female	Regular	0.182	40.96
46-825	1/8 Female x 1/8 Female	Panel	0.182	55.20
46-826	1/4 Female x 1/4 Female	Regular	0.182	45.66

COMPRESSION AND FLARE ENDS CAN BE SUBSTITUTED FOR PIPE ENDS IN MOST CASES

*Some valves only available on made-to-order basis*

If you don't know where you're going, you don't know when you're lost.

- Unknown Author





## INDUSTRIAL INSTRUMENTATION BALL VALVES

INDUSTRIAL  
INSTRUMENTATION  
BALL VALVES

• With Double O-RING STEM SEALS provide 20,000 leak-free performance cycles without leakage. Valves also have an exclusive stem seal design that never needs tightening and can be panel mounted for instrumentation applications. For systems with working pressures up to 1,500 p.s.i.g.

- TEFLON ® Ball Seats
- Blow Out Proof Stem Seal
- Double O-Ring
- Up to 1,500 P.S.I.



## FEMALE X FEMALE

Part #	Size	List Price
46-830	1/8 x 1/8	70.30
46-832	1/4 x 1/4	74.76
46-833	3/8 x 3/8	168.57
46-834	1/2 x 1/2	191.71

## FEMALE X MALE

Part #	Size	List Price
46-835	1/8 x 1/8	83.69
46-838	1/4 x 1/4	83.84
46-840	1/2 x 1/2	208.38

## MALE X MALE

Part #	Size	List Price
46-841	1/8 x 1/8	95.33
46-843	1/4 x 1/4	88.48
46-845	3/8 x 3/8	177.36
46-846	1/2 x 1/2	217.95

## HOSE BARB X MALE PIPE THREAD

Part #                      Size                      List

Part #	Size	List Price
46-849	1/4 x 1/4	112.54
46-850	3/8 x 1/4	112.99

INDUSTRIAL  
INSTRUMENTATION  
ANGLE BALL VALVES

## FEMALE X FEMALE

Part #	Size	List Price
46-875	1/8 x 1/8	78.40
46-876	1/8 x 1/4	85.55
46-877	1/4 x 1/8	85.74
46-878	1/4 x 1/4	73.96

## FEMALE X MALE (Bottom)

Part #	Size	List Price
46-880	1/8 x 1/8	89.55
46-881	1/8 x 1/4	89.90
46-882	1/4 x 1/8	89.90
46-883	1/4 x 1/4	82.89
46-884	1/4 x 3/8	103.45
46-885	3/8 x 1/2	110.15

## MALE X MALE PIPE THREADS

Part #	Size	List Price
46-886	1/8 x 1/8	86.39
46-887	1/8 x 1/4	94.35
46-888	1/4 x 1/8	94.35
46-889	1/4 x 1/4	86.39
46-891	3/8 x 1/4	95.65

## HOSE BIB X MALE PIPE THREAD

Part #                      Size                      List

Part #	Size	List Price
46-893	1/4 x 1/8	94.40
46-894	1/4 x 1/4	94.81
46-895	3/8 x 1/8	95.37
46-896	3/8 x 1/4	93.99

## BRASS FITTINGS

INDUSTRIAL  
INSTRUMENTATION  
3-WAY BALL VALVES

Part #	Size	List Price
46-951	1/8 FPT	75.77
46-956	1/4 FPT	73.76
46-959	3/8 FPT	182.21
46-960	1/2 FPT	188.81

Any size and Any combination of male pipe, female pipe, hose barb, compression or flare connections are available...just ask!

*Some valves only available on made-to-order basis*

Research is what I'm doing when I don't know what I'm doing.

**- Wernher von Braun**

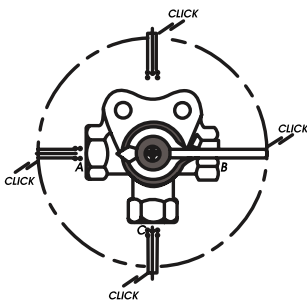




**THREE AND FOUR-WAY  
SELECTOR VALVES**

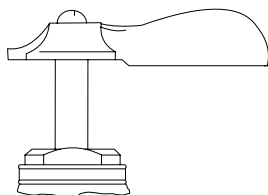
NON-LUBRICATED PLUG VALVES are designed to operate in systems where INSTANTANEOUS PORT SELECTION is desired. Since LUBRICANTS ARE NOT USED, relubrication is not required. There is no lubricant to freeze and lock the valve or to contaminate fine fluids. The O-RING SEALED CAP and STEM eliminate leakage 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).



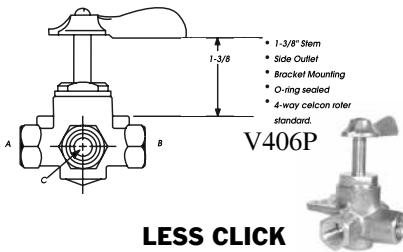
**Type 1 (Standard)**

A pronounced "click" may be felt at each position. Handle travel is not restricted.



**PANEL MOUNTING AVAILABLE**

**THREE-WAY VALVES  
(Side Outlet)**



**LESS CLICK**

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-247	1/4	1-3/8"	34.01
46-248	3/8	1-3/8"	38.25

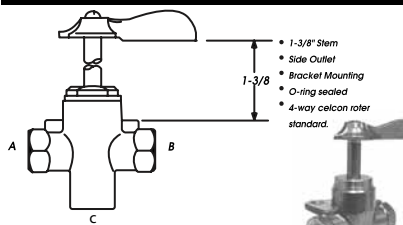
**M-108-MID WITH CLICK 360°**

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-250	1/8	1-3/8"	35.42
46-251	1/4	1-3/8"	34.62
46-252	3/8	1-3/8"	40.74

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)**



**LESS CLICK**

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-241	1/4	1-3/8"	35.48

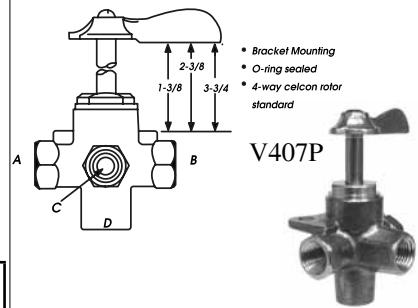
**WITH CLICK 360°**

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-243	1/8	1-3/8"	39.41
46-244	1/4	1-3/8"	37.10

Openings:

- Handle Pointer over A.....Valve Open A-C
- Handle Pointer over C.....Valve Open B-C

**FOUR-WAY VALVES**



**LESS CLICK**

Part #	A-B-C-D Female Pipe Thread	Length of Stem	List Price
46-257	1/4	1-3/8"	35.57

**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"	37.62
46-256	3/8	1-3/8"	41.19

**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"	36.59

Direction of Flow on four way valves pointer at:

- a) A, D open
- b) C, D open
- c) B, D open
- bracket open

Openings:

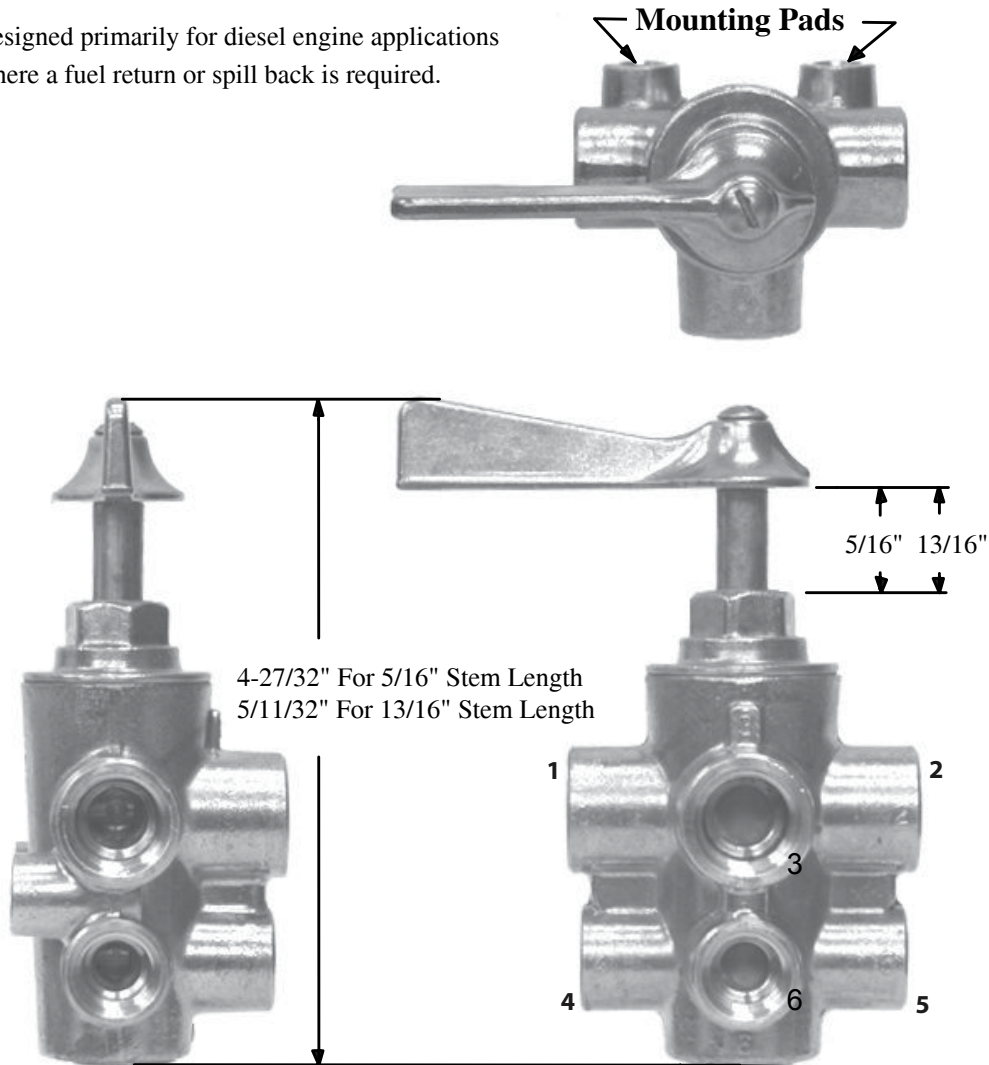
- Handle Pointer over A.....Valve Open A-D
- Handle Pointer over C.....Valve Open C-D
- Handle Pointer over B.....Valve Open B-D
- Handle Pointer over Bracket.....Valve "OFF"



**SIX PORT VALVES**

**BRASS**

- 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	636.17

*More sizes available...just ask!*



## BRASS FITTINGS

## SPECIALTY VALVES

### BRASS TRUCK VALVES



404V

#### HOSE TO MALE PIPE

Part #	Size	List Price
46-450	3/8 x 3/8	16.28
46-451	5/8 x 3/8	16.27



404V

#### HOSE TO MALE PIPE

Part #	Size	List Price
46-455	5/8 x 1/2	33.14
46-457	3/4 x 3/8	37.01
46-456	3/4 x 1/2	34.89



405V

#### FEMALE TO MALE PIPE

Part #	Size	List Price
46-465	3/8 x 3/8	20.42
46-466	3/8 x 1/2	34.97
46-467	1/2 x 1/2	27.75



409V

#### FLARE TO MALE PIPE

Part #	Size	List Price
46-475	1/2 x 1/2	42.41
46-476	5/8 x 1/2	27.81



412V

#### MALE PIPE TO FLARE

Part #	Size	List Price
46-485	1/2 x 5/8	23.31

### SOLID BOTTOM VALVES

• Designed for instantaneous on-off operation.

• 360° rotation standard.

• 30 PSI

• Packed with grease.

1035D

M-70-SBV



#### O-RING SEALED

#### MIP X FIP

Part #	Size	List Price
46-400	1/8	25.50
46-401	1/4	25.50
46-402	3/8	28.04



8875

#### #M-72-SBV

#### FIP x FIP

Part #	Size	List Price
46-411	1/4	30.20



#### #M-75-SBV

#### MIP x FLARE

Part #	Size	List Price
46-429	1/4 x 3/8	27.86

### 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.



8980

#### PIPE

#### MALE X FEMALE

Part #	Size	List Price
46-400M	1/8 x 1/8	41.41
46-401M	1/4 x 1/4	34.67
46-402M	3/8 x 3/8	41.14



8990

#### PIPE

#### MALE x MALE

Part #	Size	List Price
46-406M	1/4 x 1/4	39.30



8975

#### PIPE

#### FEMALE X FEMALE

Part #	Size	List Price
46-411M	1/4 x 1/4	41.70



8948

#### MALE PIPE X FLARE

Part #	Size	List Price
46-429M	1/4 x 3/8	39.05
46-430M	3/8 x 3/8	55.59



GLOBAL HOSE  
& INDUSTRIAL SALES CO

Fax: 1-615-262-2660

Email: sales@global-hose.com

BRASS

**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.



**MALE X FEMALE**

Part #	Size	List Price
46-900	1/8 x 1/8	21.17
46-903	1/4 x 1/4	23.29



**MALE X MALE**

Part #	Size	List Price
46-910	1/8 x 1/8	23.45
46-912	1/4 x 1/4	25.20



**MALE PIPE X HOSE BARB**

Part #	Size	List Price
47-042	1/8 x 1/4	28.51
46-980	1/4 x 1/4	23.05
46-981	1/4 x 3/8	21.98

46-920  
46-921  
46-922



46-922A  
46-923



46-924



46-925



**FEMALE X FEMALE**

Part #	Size	List Price
46-920	1/8 x 1/8	23.87
46-921	1/8 x 1/4	26.87
46-922	1/4 x 1/4	23.17
46-922A	1/4 x 1/4	16.51
46-923	3/8 x 3/8	27.21
46-924	1/2 x 1/2	43.79
46-925	3/4 x 3/4	49.05

**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	23.78



**U.L. TWO WAY VALVES  
MNPT X FNPT**

Part #	Size	List Price
46-443	1/4 x 1/4	23.78

**BRASS FITTINGS**

**MINI BALL VALVES**

• See p. 166 for specifications



**FEMALE X FEMALE**

Part #	Size	List Price
46-920 I	1/8	13.54
46-922 I	1/4	13.54
46-923 I	3/8	13.54
46-924 I	1/2	15.64

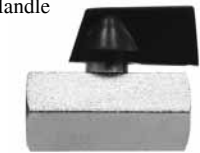


**MALE X FEMALE**

Part #	Size	List Price
46-900 I <sup>5</sup>	1/8	13.25
46-903 I	1/4	13.25
46-904 I <sup>5</sup>	3/8	13.25
46-905 I <sup>3</sup>	1/2	14.69

**ECONOMY MINI BALL VALVES**

- Max Working Pressure: 450psi
- Maximum Temperatures: 356°F at 142 psi  
212°F at 355 psi
- 1/4 Turn Handle



**FEMALE X FEMALE**

Part #	Size	List Price
46-935	1/4	6.87
46-936	3/8	7.52



**MALE X FEMALE**

Part #	Size	List Price
46-931	1/4	6.87
46-932	3/8	6.46

See more mini valves on page 170



**BRASS CHECK VALVES**

MAX. 2500 PSI  
Cracking Pressure 1/3-3 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	20.87

MAX. 2500 PSI

- Flo direction ->
- Opening diameter .187
- 180° max operating temp.



•SS ball and spring

**MNPT X FNPT**

Part #	Size	Opening Dia.	List Price
46-505	1/4 x 1/4	0.187	20.87

MAX. 1200 PSI

- O-Ring poppet seal Bubble tight operation
- 180°F max operating temp.



**FNPT X FNPT**

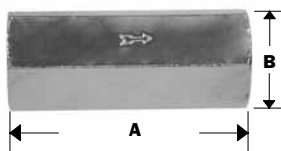
Part #	Size	Opening Dia.	List Price
46-510	1/4 x 1/4	0.25	24.32
46-511	3/8 x 3/8	0.375	29.31
46-512	1/2 x 1/2	0.437	38.43

**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	15.63
46-201	3/8	1.97	0.83	14.71
46-202	1/2	2.48	0.98	35.17

**HIGH PRESSURE CHECK VALVES**

- Operates in any position, and is available in mixed or matched end combinations.
- Standard cracking pressure 1 p.s.i (optional 3 or 7 p.s.i. available) 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
- Brass
- Approximate CV 1.2
- Water G.P.M. @ 10 p.s.i. is 4.0



**FEMALE X FEMALE**

Part #	Size	List Price
46-513	1/4	43.24
46-517	3/8	48.98

- Flo direction ->



**FEMALE X MALE**

Part #	Size	List Price
46-514	1/4	43.24
46-518	3/8	48.98

- Flo direction ->



**MALE X FEMALE**

Part #	Size	List Price
46-516	1/4	43.62
46-539	3/8	48.98



**MALE X MALE**

Part #	Size	List Price
46-515	1/4	43.24
46-519	3/8	48.98

**MARINE FITTINGS**

- Calibrated to support 30" column of gasoline.



**ANTI-SIPHON VALVES**

**NPT X NPT**

Part #	Size	List Price
46-520	1/4 x 1/4	16.87
46-521	3/8 x 3/8	27.32

- Flo direction <-



**ANTI-SIPHON VALVES**

**BARB X NPT**

Part #	Size	List Price
46-530	5/16 x 1/4	16.30
46-531	3/8 x 1/4	14.88
46-532	3/8 x 3/8	27.32
46-533	1/2 x 3/8	27.32



**BULKHEAD FITTINGS**

Part #	Size	List Price
46-540	5/16	11.79
46-541	3/8	11.41

If you're not failing every now and again, it's a sign you're not doing anything very innovative.

- Woody Allen





**BALL VALVE PRIVATE LABEL PROGRAM**

**BRASS**



We will put your company name and logo on our ball valve handle for FREE. Simply place a minimum blanket order of 10 cases per size and We will stock them under a special part # for your access only. Please allow 90-120 days for delivery on the first shipment only: Then have them delivered as you need them!

**\*For Italian valves only.**

**TEE HANDLES**



Part #	Valve Size	List Price
43-200T	1/4" - 3/4"	2.07
43-204T	1"	3.54

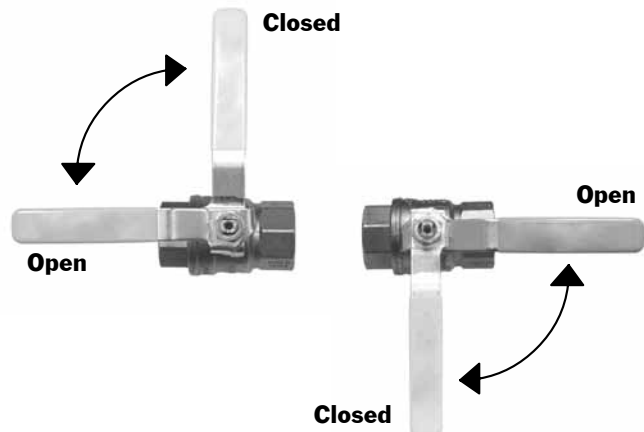
**LOCKING HANDLES**



Part #	Valve Size	List Price
43-200L	1/4" - 3/4"	13.96
43-204L	1" - 1 1/4"	25.00
43-206L	1 1/2" - 2"	42.01

**Reversible Handles:**

All regular ball valve handles are now reversible. You can take the handle off and “reverse” it, so it turns and opens over the opposite end of the valve in the opposite direction. Please let us know if this is a requirement when you order as some older stock may not have this feature.



**FULL PORT 600WOG FORGED BRASS BALL VALVE**

1/2" - 2" Sizes Gas Approved



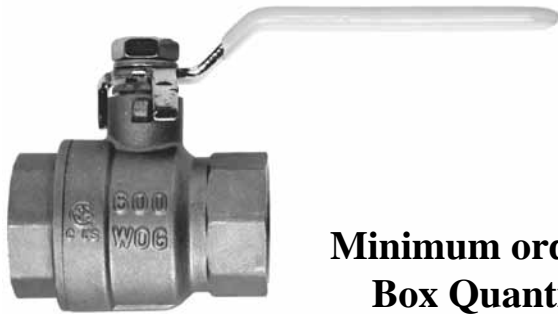
**ISO 9002 Manufacturer FEATURES**

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

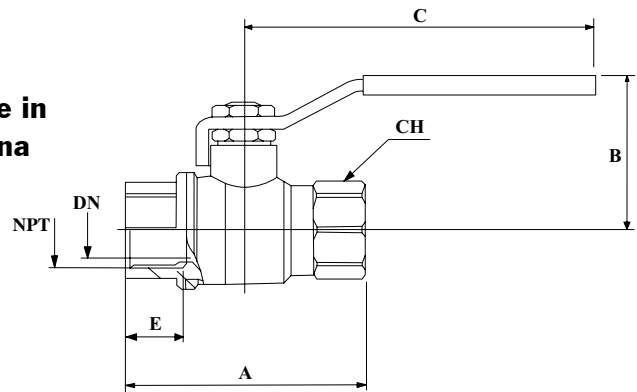
- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-2" at 600psi (42 bars) and 2-1/2"-4" at 400 psi WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- Yellow vinyl insulator on heavy duty plated carbon steel handles
- Fast 1/4 turn open or close operation

- 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

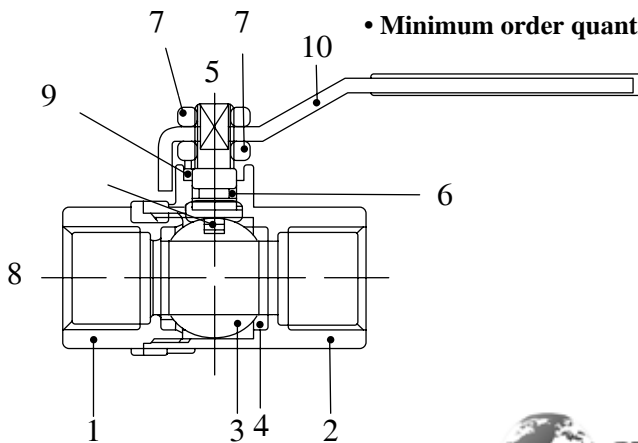


**Made in China**

**Minimum order is Box Quantity**



Part#	Size	Dimension Inches						Min. Order		List Price
	NPT	DN	A	B	C	E	CH	Box	Case	
940-171	1/4"	0.39	1.75	1.27	3.54	0.46	0.78	70	140	8.25
940-172	3/8"	0.41	1.75	1.27	3.54	0.46	0.78	70	140	8.25
940-173	1/2"	0.58	2.05	1.92	3.54	0.52	0.98	50	100	9.90
940-174	3/4"	0.75	2.36	2.08	3.78	0.56	1.20	30	60	14.50
940-175	1"	0.94	2.75	2.56	4.52	0.66	1.50	20	40	22.56
940-176	1-1/4"	1.26	3.30	2.95	4.52	0.70	1.82	12	24	33.21
940-177	1-1/2"	1.57	3.66	3.34	5.51	0.72	2.09	9	18	49.24
940-178	2"	1.97	4.18	3.68	5.51	0.74	2.62	6	12	77.02
940-179	2-1/2"	2.52	5.38	4.76	8.66	1.01	3.36	4	8	193.83
940-180	3"	2.95	6.04	5.08	8.66	1.11	3.86	2	4	226.67
940-181	4"	3.89	7.38	5.86	9.00	1.22	4.89	1	2	428.68



• Minimum order quantity is Box Quantity

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





**FULL PORT 600WOG FORGED BRASS BALL VALVE**



**ISO 9002 Manufacturer FEATURES**

600 PSI non-shock cold water, gas, oil  
- 150 PSI saturated steam

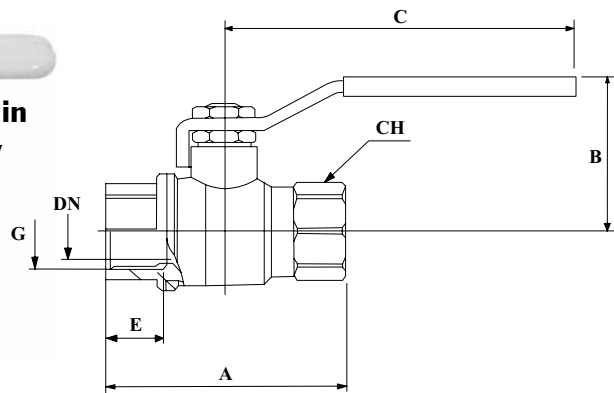
CSA AGA 3.88 5 PSIG IAMPO IGC 157 - 2004b

- **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.
- 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
- 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

**VALVES**



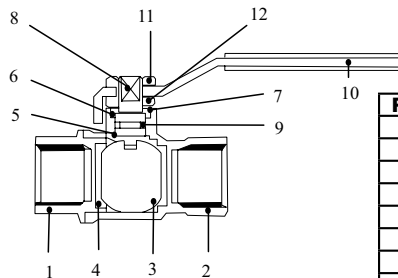
**Made in Italy**



**Female x Female**

Part#	Size	Dimension Inches						Box	Case	List Price
		G	DN	A	B	C	E			
943-200	1/4"	.31	1.96	1.57	3.43	.43	.74	24	96	14.62
943-201	3/8"	.39	1.96	1.57	3.43	.43	.86	24	96	14.52
943-202	1/2"	.59	2.28	1.77	3.35	.61	.94	20	80	16.34
943-203	3/4"	.78	2.44	1.89	3.35	.64	1.22	14	56	24.97
943-204	1"	.98	3.03	2.20	4.61	.75	1.50	6	24	40.25
943-205	1-1/4"	1.26	3.46	2.36	4.61	.77	1.89	4	16	65.53
943-206	1-1/2"	1.57	3.94	3.15	6.30	.77	2.12	2	8	102.10
943-207	2"	1.97	4.45	3.15	6.30	.79	2.63	1	4	148.10
942-208	2-1/2"	2.48	5.94	4.17	7.48	1.06	3.30	---	5	290.54
942-209	3"	2.99	6.85	5.47	9.84	1.14	3.89	---	3	409.54
942-210	4"	3.54	7.67	5.88	9.84	1.50	4.80	---	2	737.83

See additional handle options on page 164.



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

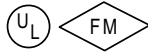


**NSF 61 FULL PORT 600WOG FORGED BRASS BALL VALVE**

**ISO 9002 Manufacturer  
FEATURES**



1/4" - 2" Gas Approved



UL842, UL258, UL125, FM

**NSF 61** CSA AGA 3.88 5 PSIG

**• NSF approved for drinking water applications**

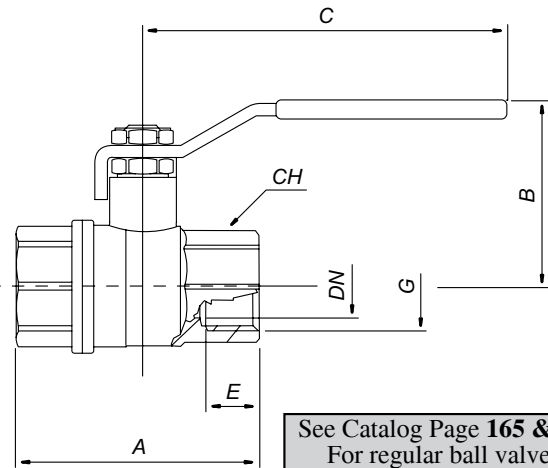
- 600 PSI non-shock cold water, gas, oil 150 PSI saturated steam
- Suitable for full range of liquids and gases.
- Virgin TFE stem packing seal, thrust washer and seats
- Blue vinyl handle cover

- Solid chrome plated brass ball
- Adjustable stem packing gland
- Threaded ends to ANSI B1.20.1
- Bottom entry, blow-out proof stem



**Female x Female**

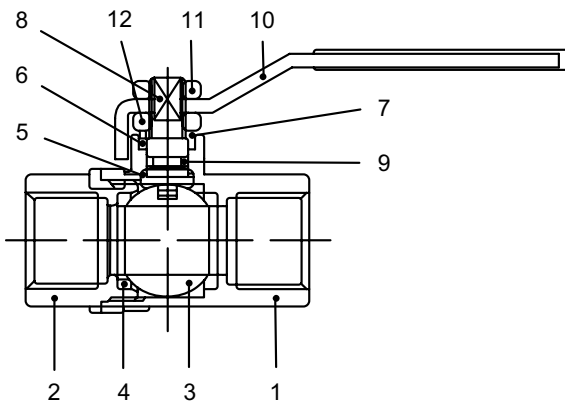
**Made in Italy**



See Catalog Page 165 & 166 For regular ball valves!

NSF 61 Approved Part#	Size	Dimension Inches						Box	Case	NSF 61 List Price
	G	DN	A	B	C	E	CH			
943-220	1/4"	.31	1.96	1.57	3.43	.43	.74	24	96	17.05
943-221	3/8"	.39	1.96	1.57	3.43	.43	.86	24	96	18.08
943-222	1/2"	.59	2.40	1.77	3.43	.59	1.06	20	80	19.48
943-223	3/4"	.78	2.72	1.77	3.43	.64	1.26	14	56	27.93
943-224	1"	.98	3.28	2.20	4.72	.75	1.59	6	24	47.16
943-225	1-1/4"	1.25	3.86	2.36	4.72	.84	1.96	4	16	71.78
943-226	1-1/2"	1.57	4.25	3.12	6.33	.84	2.16	2	8	117.16
943-227	2"	1.96	5.03	3.12	6.33	1.01	2.76	1	4	179.10

See additional handle options on page 164



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



Gas Approved

**FULL PORT 600WOG FORGED BRASS BALL VALVE**



UL842, UL258, UL125, FM

CSA AGA 3.88 5 PSIG

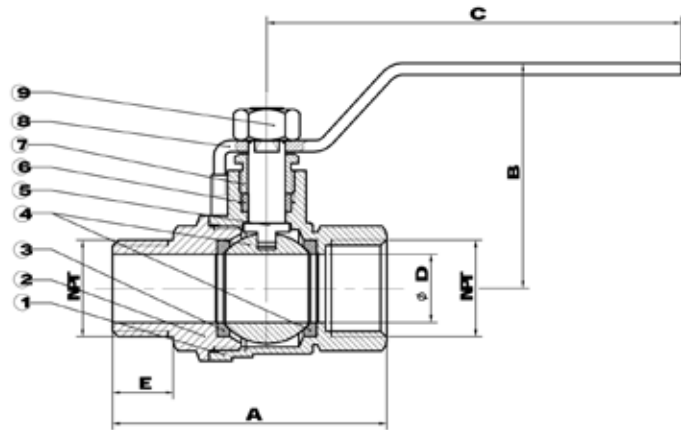
- Solid chrome plated brass ball
- Suitable for full range of liquids and gases.
- Minimal pressure drop due to large full size ports.
- Bottom loaded, pressure retaining stem.
- Pressure rated at 600psi (42 bars) WOG ( non-shock) and 150psi (10.34 bars) saturated steam. Virgin TFE stem packing seal, 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.

- 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.

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

**VALVES**

**MADE IN CHINA**



Part#	Size	NPT	A	B	C	D	E	Box	Case	List Price
948-170	1/4	1/4 - 18	2.016	1.689	2.756	0.315	0.457	70	140	8.86
948-171	3/8	3/8 - 18	2.094	1.732	3.543	0.394	0.457	70	140	9.10
948-172	1/2	1/2 - 14	2.343	1.941	3.543	0.583	0.520	50	100	11.06
948-173	3/4	3/4 - 14	2.618	2.106	3.780	0.748	0.563	30	60	16.48
948-174	1	1 - 11.5	3.000	2.579	4.528	0.945	0.630	20	40	24.37
948-175	1-1/4	1-1/4 - 11.5	3.563	2.953	4.528	1.260	0.709	12	24	35.67
948-176	1-1/2	1-1/2 - 11.5	3.965	3.346	5.512	1.575	0.717	9	18	53.06
948-177	2	2 - 11.5	4.496	3.681	5.512	1.969	0.748	6	12	76.86

**FULL PORT 600WOG FORGED BRASS BALL VALVE**

Gas Approved



CSA AGA 3.88 5 PSIG

Made in Italy

**ISO 9002 Manufacturer FEATURES**

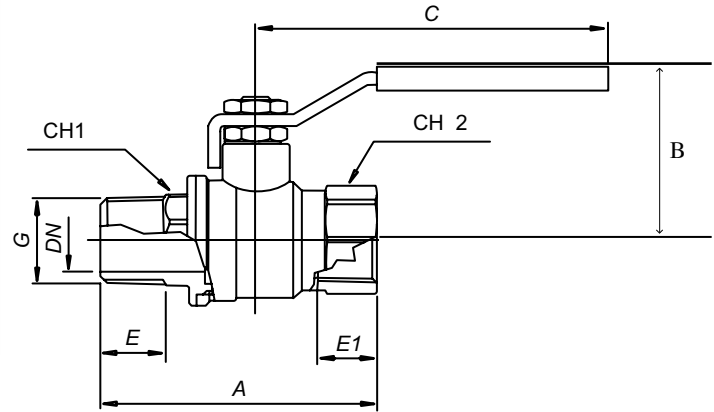
- Solid chrome plated brass ball
- Suitable for full range of liquids and gases.
- Minimal pressure drop due to large full size ports.
- Bottom loaded, pressure retaining stem.
- Pressure rated at 600psi (42 bars) WOG ( non-shock) and 150psi (10.34 bars) saturated steam. Virgin TFE stem packing seal, thrust washer and seats.
- Yellow vinyl insulator on heavy duty plated carbon steel handles.
- Fast 1/4 turn open or close operation.

- 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<sup>3</sup>/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.

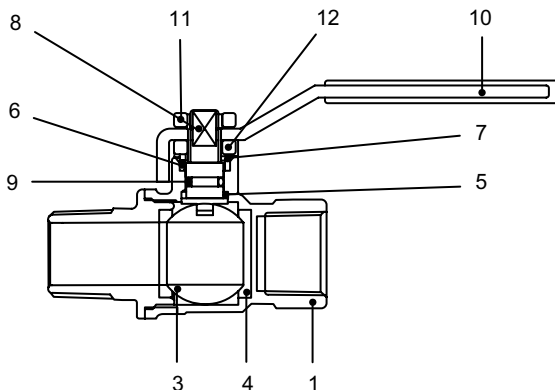


**MIP x FIP**

**Made in Italy**



Part#	Size	DN	A	B	C	E	E1	CH1	CH2	Box	Case	List Price
948-101	1/4	.31	2.28	1.49	3.35	.46	.51	.55	.74	24	96	14.55
948-102	3/8	.39	2.37	1.57	3.35	.46	.51	.71	.86	24	96	15.83
948-103	1/2	.59	2.28	1.49	3.35	.61	.59	.85	.96	14	56	19.27
948-104	3/4	.78	2.87	1.57	3.35	.66	.63	1.10	1.22	12	48	30.42
948-105	1	.98	3.42	1.93	5.20	.77	.75	1.36	1.50	6	24	44.65
948-106	1-1/4	1.26	3.94	2.36	4.72	.79	.76	1.69	1.89	4	16	78.17
948-107	1-1/2	1.57	4.25	3.00	6.34	.81	.76	2.12	2.12	2	8	108.17
948-108	2	1.97	4.96	2.95	6.34	.84	.76	2.40	2.63	1	4	163.59



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

**FULL PORT 600WOG FORGED BRASS BALL VALVE**

- 600 PSI non-shock cold water, gas, oil
- 150 PSI saturated steam (WSP)

**ISO 9002 Manufacturer  
FEATURES**

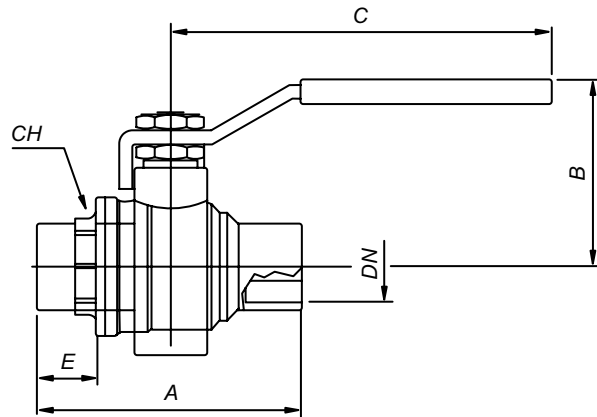


- Minimal pressure drop due to large full size ports.
- Bottom loaded, pressure retaining stem.
- Pressure rated at 600psi (42 bars) WOG (non-shock) and 150psi (10.34 bars) saturated steam. Virgin TFE stem packing seal, thrust washer and seats.
- Vinyl insulator on heavy duty plated carbon steel handles.
- Fast 1/4 turn open or close operation
- Low operating torque
- Adjustable stem packing gland.

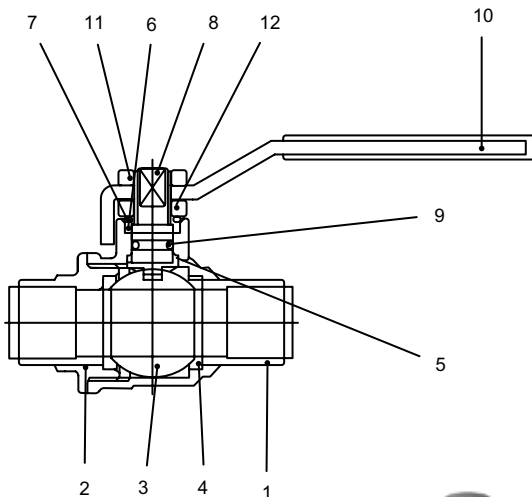
- Maximum operating temperature: 248°F (120° C) at 600 psi.
- Minimum operating temperature: -20°F (-40°C)
- Each valve individually tested.
- Forged Brass - for more strength.
- Tube ends to ANSI B16.22.
- Hard chromium plated solid ball.
- Bottom entry, blow-out proof stem.
- Use with ASTM B88 copper water tubing.



**SWT x SWT**



Part#	Size	Dimension Inches						Box	Case	List Price
	SWT	DN	A	B	C	E	CH			
940-212	1/2	0.58	2.04	1.84	3.54	0.43	0.80	50	100	17.58
940-213	3/4	0.74	2.74	1.99	3.78	0.63	1.05	30	60	22.22
940-214	1	0.94	3.22	2.44	4.52	0.75	1.33	20	40	31.96
940-215	1-1/4	1.26	3.81	2.85	4.52	0.83	1.60	12	24	49.89
940-216	1-1/2	1.57	4.42	3.16	5.51	0.90	1.90	9	18	82.12
940-217	2	1.97	5.31	3.44	5.51	1.30	2.37	6	12	120.29



POS	Components	Materials	N
1	Body	Forged Brass	1
2	End Connection	Forged Brass	1
3	Ball	CP Brass	1
4	Ball Seats	P.T.F.E.	2
5	Stem	Brass	1
6	O-Ring	NBR 80	1
7	Brass Ring	Brass	1
8	Nut	UNI 5771 Steel	1
9	Stem Seat	P.T.F.E.	1
10	Handle	Steel	1
11	Stem Seat	P.T.F.E.	1
12	Nut	Brass	1



**FORGED BRASS BALL VALVE - STANDARD PORT**

1/2" Gas Approved



CSA AGA 3.88 5 PSIG

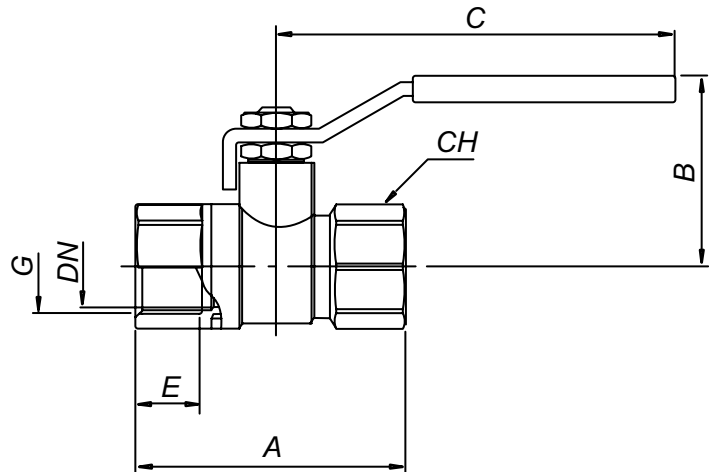
**ISO 9002 Manufacturer FEATURES**

- 400 PSI non-shock cold water, gas, oil
- 150 PSI saturated steam (WSP)
- Solid chrome plated brass ball
- Threaded ends to ANSI B1.20.1
- Each valve individually tested
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Double stem packing, Teflon seats.

Yellow Handle



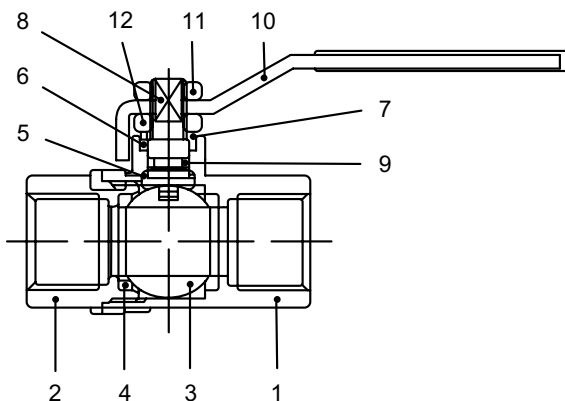
**FIP x FIP**



**FORGED BRASS BALL VALVE IPS SCREWED ENDS**

Part#	Size	Dimension Inches						Box	Case	List Price
	G	DN	A	B	C	E	CH			
940-241	1/2	0.47	2.26	1.51	3.27	0.61	0.98	20	80	15.85
940-242	3/4	0.59	2.50	1.59	3.27	0.63	1.22	14	56	22.28
940-243	1	0.78	2.87	1.88	3.74	0.75	1.49	10	40	33.33
940-244	1-1/4	0.98	3.46	2.08	4.61	0.77	1.89	4	16	57.27
940-245	1-1/2	1.26	3.52	2.45	4.61	0.77	2.13	4	16	79.57
940-246	2	1.57	4.05	2.65	4.61	0.79	2.64	1	4	115.53

See additional handle options on page 164



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



**GAS BALL VALVES**

**ISO 9002 Manufacturer  
FEATURES**

**Made in Italy**



CSA AGA 3.88 5 PSIG



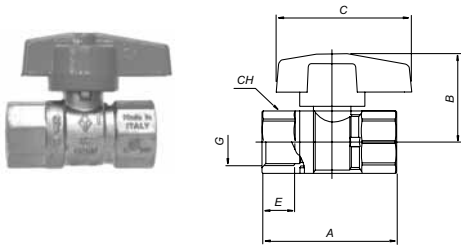
Manual Valve  
LISTED  
Threaded NPT  
UL 842, UL 258, UL 125

**VALVES**

- 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.
- For use with natural, manufactured, mixed liquified, petroleum and LP gas-air mixtures.

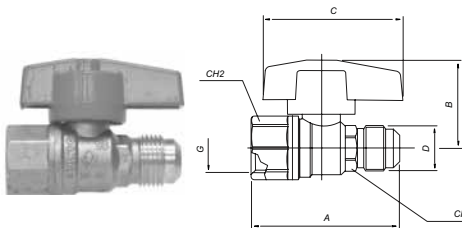
- Deeper thread connections. Smooth quarter-turn.
- Manufactured to ANSI Z21.15, C.G.A. 9.1-M81, 9.2-M88, 1/2 psig. 372 also to A.G.A. 3-8, C.G.A. CR91-002, 2 psig.
- Red Reversible handle.
- May be used with water 400 WOG.

**GAS BALL VALVES  
FEMALE x FEMALE**



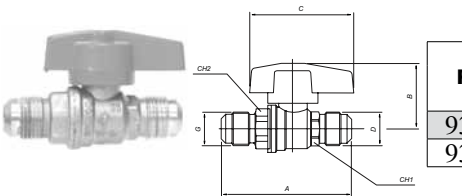
Part#	Size	Dimension Inches							PN in psi	Box	Case	List Price
	G	DN	A	B	C	E	CH					
943-212	1/2"	.31	1.96	1.57	3.43	.43	.98	600	20	80	12.12	
943-213	3/4"	.39	1.96	1.57	3.43	.43	1.22	600	14	56	17.12	

**APPLIANCE CONNECTOR VALVES  
FEMALE X FLARE**

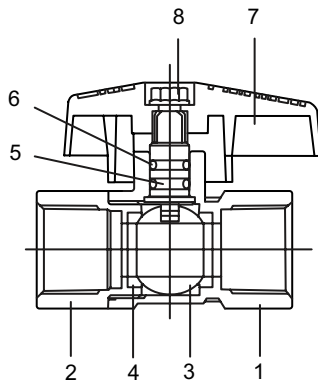


Part#	Size	Dimension Inches							PN in psi	Box	Case	List Price
	G	DN	A	B	C	CH1	CH2					
935-122	1/2 x 3/8	0.27	2.41	1.45	2.28	0.67	0.98	20	80	15.23		
935-123	1/2 x 1/2	0.39	2.44	1.45	2.28	0.67	0.98	20	80	17.71		
935-124	3/4 x 5/8	0.47	2.50	1.48	2.28	-	1.22	20	80	19.76		

**FLARE x FLARE**



Part#	Size	Dimension Inches							PN in psi	Box	Case	List Price
	G	DN	A	B	C	CH1	CH2					
935-129	3/8 x 3/8	0.27	2.79	1.45	2.28	0.67	0.83	363	20	80	20.50	
935-130	1/2 x 1/2	0.39	2.87	1.45	2.28	0.67	0.83	363	20	80	17.71	



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





**CHROME PLATED BRASS MINI BALL VALUE**

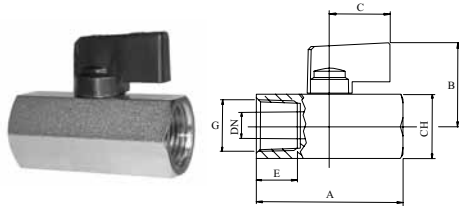
Made in Italy

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 Nylon handle with mechanical stop.
- NSF Approved valves available upon request!

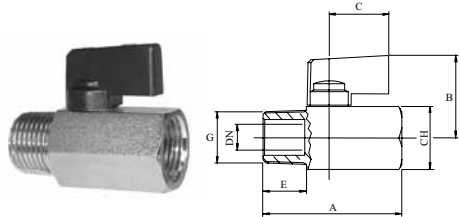
**Female x Female**



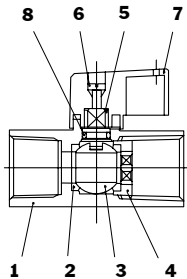
Part#	Size		Dimension Inches							
	G	DN	A	B	C	E	CH	BOX	CASE	List Price
46-920 I	1/8"	0.24	1.51	1.2	0.9	0.31	0.83	50	200	13.54
46-922 I	1/4"	0.31	1.88	1.2	0.9	0.51	0.83	50	200	13.54
46-923 I	3/8"	0.31	1.88	1.2	0.9	0.51	0.83	50	200	13.54
46-924 I	1/2"	0.39	2.18	1.28	0.9	0.61	0.96	40	160	15.64

Made in Italy

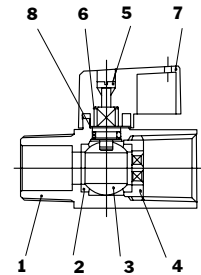
**Male x Female**



Part#	Size		Dimension Inches							
	G	DN	A	B	C	E	CH	BOX	CASE	List Price
46-900 I	1/8"	0.24	1.5	1.2	0.9	0.34	0.83	50	200	13.25
46-903 I	1/4"	0.31	1.77	1.2	0.9	0.48	0.83	50	200	13.25
46-904 I	3/8"	0.31	1.81	1.2	0.9	0.49	0.83	50	200	13.25
46-905 I	1/2"	0.39	2.15	1.28	0.9	0.65	0.96	40	160	14.69



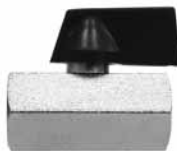
POS	Components	Materials	N
1	Body	CW517N Forged Brass	1
2	Ball Seats	P.T.F.E	2
3	Ball	CW517N CP Brass	1
4	Ring Unit	CW614N Brass	1
5	Stem	CW614N Brass	1
6	Screw	UNI 5771 Steel	1
7	Handle	Nylon	1
8	O-Ring	NBR 80	1



**ECONOMY MINI BALL VALVES**

- Max Working Pressure: 450psi
- Maximum Temperatures: 356°F at 142 psi  
212°F at 355 psi
- 1/4 Turn Handle

*Send us your volume quotes!*



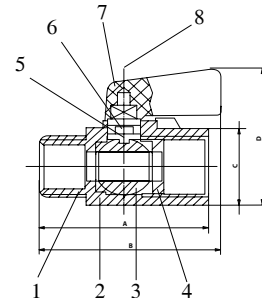
**FEMALE X FEMALE**

Part #	Size	Dimensions (In)				List Price
		A	B	C	D	
46-935	1/4	1.57	1.69	0.78	1.46	6.87
46-936	3/8	1.57	1.69	0.78	1.46	7.52



**MALE X FEMALE**

Part #	Size	Dimensions (In)				List Price
		A	B	C	D	
46-931	1/4	1.57	1.69	0.78	1.46	6.87
46-932	3/8	1.57	1.69	0.78	1.46	6.46



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	Stem	Brass	1
6	O-Ring	NBR 80	1
7	Handle	ABS	1
8	Screw	Steel	1



## MINI BALL VALVES

### FORGED BRASS MINI-BALL VALVES

- 180° operational handle, blow out proof stem. Stem with double “O” Rings - \*90° Operational handle.
- 200 WOG
- 125SWSP

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	List Price
* 944-116	1/4X1/4	9.83
944-118	1/4X1/2	9.20

\* 90° Operational handle.



#### MALE x FEMALE

Part #	Size	List Price
944-106	1/8X1/8	9.20
944-100	1/8X1/4	12.45
944-101	1/4X1/4	10.90
944-102	1/4X3/8	9.20



#### MALE x MALE

Part #	Size	List Price
944-108	1/8X1/4	6.92
944-111	1/4X1/2	9.20
944-112	1/2X1/2	11.70



#### HOSE BARB x MALE

Part #	Size	List Price
944-138 *	1/4X1/4	7.30
944-128	3/8X1/4	6.83

\* 90° Operational handle.



#### HOSE BARB x HOSE BARB

Part #	Size	List Price
* 944-142	1/4X1/4	9.75
* 944-134	3/8X3/8	9.89

\* 90° Operational handle.

## BRASS VALVES



#### FEMALE x HOSE BARB

Part #	Size	List Price
944-135	1/8X1/8	9.36
944-121	1/4X5/16	9.36
944-136	1/4X1/4	8.79

#### NP MINI BALL VALVES

- With and without internal check valve.
- \* Nickel Plated



NEW

#### BARB x MALE PIPE w/ CHECK

Part #	Size	List Price
944-051	1/4 x 1/4	13.44
944-052	3/8 x 1/4	13.76

#### BARB x MALE PIPE WITHOUT CHECK

Part #	Size	List Price
944-012	3/8 x 1/4	12.99

NEW



#### FLARE x MIP w/ CHECK VALVE

Part #	Size	List Price
944-060	1/4 x 1/4	13.44

#### FLARE x MIP WITHOUT CHECK VALVE

Part #	Size	List Price
944-026	1/4 x 1/4	15.36

NEW



#### BARB x BARB NO CHECK

Part #	Size	List Price
944-005	1/4	13.63
944-013	3/8	13.63

NEW



#### FLARE x MIP WITH CHECK

Part #	Size	List Price
10-256WC	1/4 x 1/4	2.25

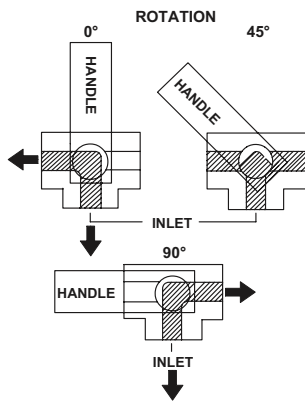
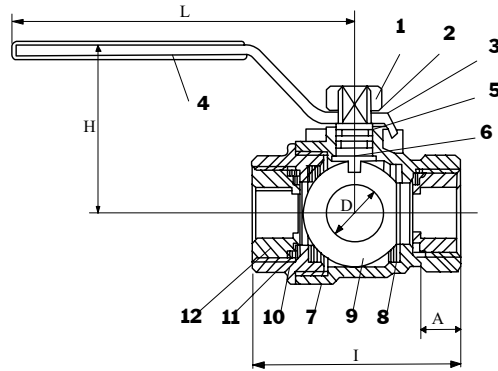
*Private label handle available on volume purchases.*

**SIDE OUTLET 3 WAY BALL VALVE**



- Forged Brass
- 200 WOG
- 125 WSP
- Temp Rating 0-230°F

• **Side outlet**



- Full Port
- Blow-out proof stem
- double o-ring stem packing
- PTFE Seal

**Nomenclature & Materials**

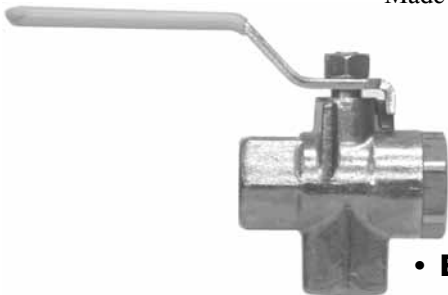
NO	Part Name	Material	Qty
1	Nut	Steel	1
2	Spring Washer	Steel	1
3	Handle	Steel	1
4	Cover	PVC	1
5	O-Ring	NBR	2
6	Stem	Brass	1
7	Body	Forged Brass	1
8	Seat	Teflon	2
9	Ball Disc	Brass	1
10	End Plug	Brass	1
11	O-Ring	NBR	3
12	Socket	Brass	3

Part#	Size	I	H	D	L	A	Box	Case	List Price
940-464	1/4"	1.89	1.73	0.39	3.35	0.47	50	100	38.59
940-465	3/8"	1.89	1.73	0.39	3.35	0.47	25	100	40.49
940-461	1/2"	2.11	1.80	0.50	3.35	0.51	30	60	32.00
940-462	3/4"	2.56	2.16	0.74	4.41	0.55	20	40	51.98

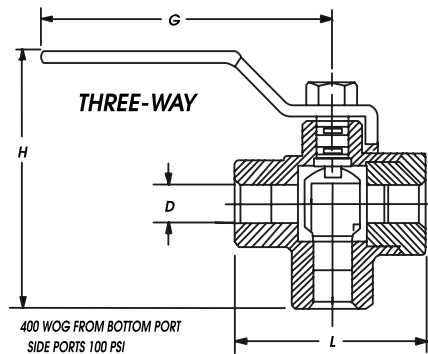
**BOTTOM OUTLET 3 WAY BALL VALVE**

- 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



• **Bottom outlet**



Part#	Size	D	G	H	L	Cv	List Price
940-121	1/4"	.44	3.50	3.12	2.25	5.2	53.14
940-122	3/8"	.50	3.50	3.12	2.25	5.5	44.72
940-123	1/2"	.50	3.50	3.12	2.25	5.5	55.78

**VALVES**



## MISC. VALVES

### STAINLESS TRIM BALL VALVES

Full Port 600 WOG Forged Brass Ball Valves

- Nickel plated body.
- Stainless steel tee handle and nut.



CSA AGA 3.88 5 PSIG



#### T - HANDLE

Part #	Size	List Price
948-154ST	3/4	15.46



#### LEVER HANDLE

Part #	Size	List Price
948-154STL	3/4	15.88
948-155STL	1	25.18

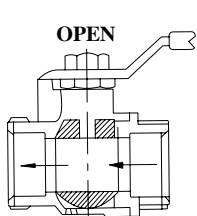
More options available ... just ask!

### 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.

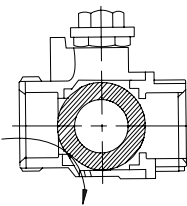


Valve - open position.  
Drain vent shut off.

200 PSI



CLOSED



Part#	Size	List Price
948-131	1/4"	40.76
948-132	3/8"	40.76
948-133	1/2"	46.79
948-134	3/4"	64.16
948-135	1"	72.45

Valve - closed and draining occurs. Upstream seat prevents air flow. Downstream system is vented to atmosphere.

## BRASS VALVES

### ANGLE SILLCOCKS 3/4" Hose Thread Outlet

- Notched flange for convenient installation.
- Heavy brass construction.
- Cast Iron handle.



#### FEMALE IPS

Part #	Size	Box	List Price
942-142	1/2	12	9.34

### HOSE BIBBS 3/4" Hose Thread Outlet



#### IPS

Part #	Size	Box	List Price
942-170	1/2 (1/2"C)	12	11.50
942-171	3/4	12	13.19

### DRUM & BARREL FAUCET VALVE

- Die cast body w/ nylon seat and steel spring.
- For use with all petroleum products except trichlorethylene.
- Lockable handle.

G261N



Not suitable for potable water.

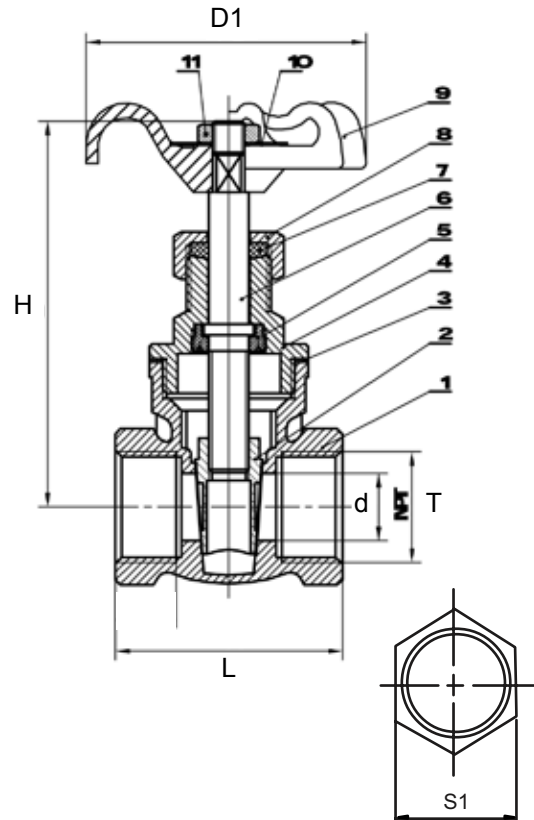
### SELF-CLOSING DRUM & BARREL FAUCET

Part #	Size	List Price
46-270	3/4"	11.70



**FULL PORT BRASS GATE VALVE**

- 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.
- Forged Brass Body for 1/2" - 1"
- Cast brass body for 1-1/4" - 4".
- Each valve individually air tested under water.



NO	Description	Material
1	Body	C37700
2	Disk	C37700
3	Seat	PTFE
4	Cap	C37700
5	Packing	C37700
6	Stem	C37700
7	Rubber Seat	NBR
8	Packing Nut	C37700
9	Handle	HT200
10	Nameplate	AL
11	Stem Nut	A570 Gr.A

**BRASS GATE VALVES IPS**

Part#	Size	L	H	D1	d	T	S1	Box	Case	List Price
940-130	1/4	1.57	2.91	2.09	.24	1/4-18 NPT	.85	10	120	19.18
940-131	3/8	1.61	2.91	2.09	.39	3/8-18 NPT	.85	10	120	20.00
940-132	1/2	1.575	2.874	2.087	0.50	1/2-14 NPT	1.03	10	100	12.74
940-133	3/4	1.752	3.228	2.087	0.748	3/4-14 NPT	1.26	5	60	17.11
940-134	1	1.984	3.661	2.283	0.984	1-11.5 NPT	1.51	5	40	23.45
940-135	1-1/4	2.165	4.567	2.835	1.22	1-1/4-11.5 NPT	1.89	5	30	42.17
940-136	1-1/2	2.283	4.98	3.11	2.496	1-1/2-11.5 NPT	2.17	4	24	54.41
940-137	2	2.677	5.846	3.819	1.85	2-11.5 NPT	2.60	2	16	71.59
940-138	2-1/2	3.661	7.638	4.252	2.48	2-1/2-8 NPT	3.27	2	8	126.12
940-139	3	3.819	8.839	4.961	2.835	3-8 NPT	3.86	1	6	188.44
940-140	4	4.567	10.189	4.961	3.661	4-8 NPT	4.88	1	3	299.10

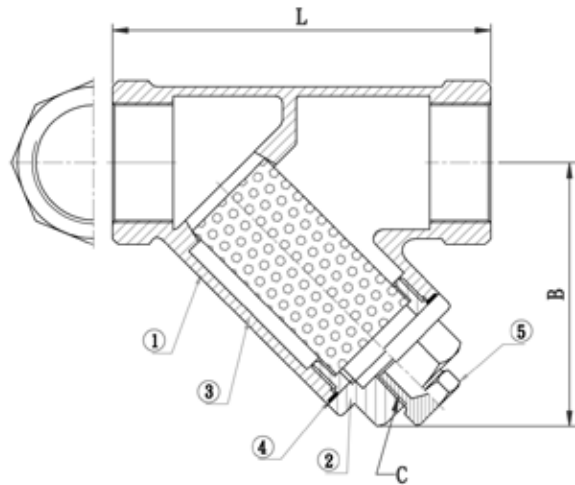


**CLASS 150 BRONZE Y-PATTERN STRAINER**

- Casting bronze body, size 1/4"-3".
- Pressure rating: 150 WOG (water, oil, gas)/PN25  
150 WSP (Saturated Steam)
- 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.

**VALVES**



Part#	Size	L	B	C	Box	Case	List Price
940-521	1/4"	2.60	1.67	1/4	10	100	33.02
940-522	3/8"	2.60	1.67	1/4	10	100	34.82
940-523	1/2"	3.13	2.00	1/4	10	80	26.00
940-524	3/4"	3.43	1.93	1/4	8	64	37.69
940-525	1"	4.11	2.53	3/8	8	48	65.42
940-526	1-1/4"	4.90	3.25	3/8	6	24	89.70
940-527	1-1/2"	5.59	3.54	1/2	4	16	118.67
940-528	2"	6.69	4.40	1/2	1	12	195.60
940-529	2-1/2"	8.26	5.61	3/4	1	6	396.63
940-530	3"	9.37	6.69	3/4	1	4	448.95

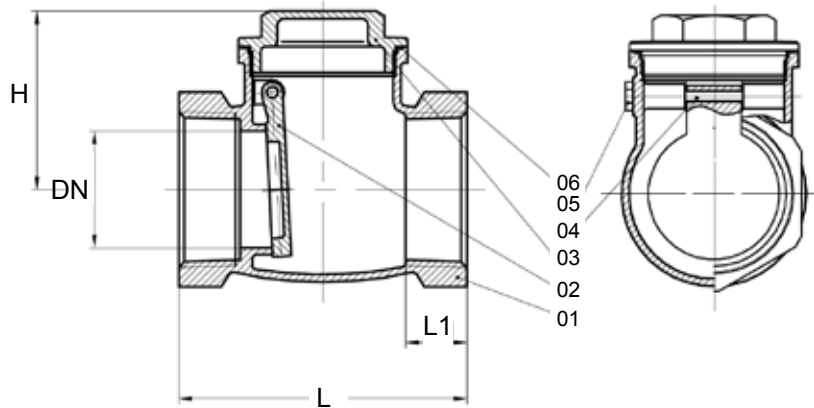
NO	Name	Material	Qty
1	Body	Bronze B584 C84400	1
2	Cap	Bronze B584 C84400	1
3	Screen	SS-304	1
4	Gasket	Non-Asbestos	1
5	Plug	Brass B16 C36000	1

Lead Free fittings available on  
**pgs. 382-388**



**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.



NO	Description	Material
1	Body	C37700
2	Disc	C37700
3	Cap	C37700
4	Brass Bar	C37700
5	Screw	C37700
6	Gasket	PTFE

**CAST BRASS SWING CHECK VALVES IPS SCREWED ENDS**

Part #	Size	L	H	L1	DN	Box	Case	List Price
940-352	1/2	2.071	1.299	0.531	0.512	10	120	14.39
940-353	3/4	2.382	1.417	0.579	0.728	10	80	16.19
940-354	1	2.835	1.614	0.748	0.925	5	60	23.19
940-355	1-1/4	3.228	1.969	0.748	1.201	4	36	36.60
940-356	1-1/2	3.740	2.244	0.846	1.417	4	24	50.49
940-357	2	4.212	2.638	0.886	1.772	4	16	75.81
940-358	2-1/2	5.591	3.346	1.063	2.224	2	8	143.39
940-359	3	6.024	3.504	1.102	2.579	1	6	201.69
940-360	4	7.008	4.212	1.102	3.602	1	4	332.42



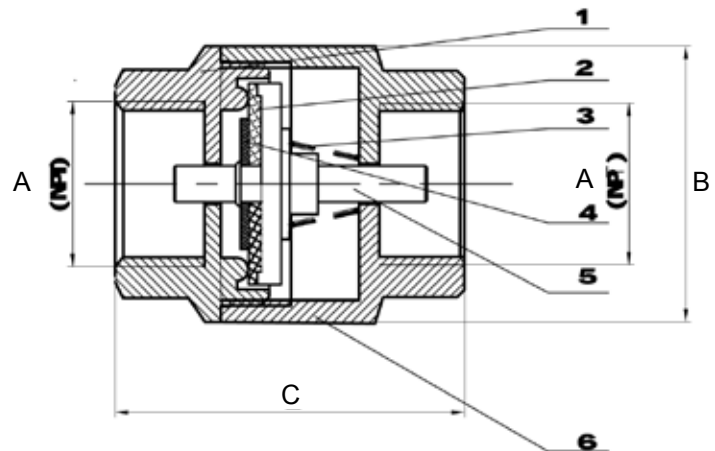


**BRASS CHECK VALVES**

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.

**Temp Range**  
 -10°C - 110°C  
 -4°F - 248°F



**Brass Check Valve (Inches)**

Part#	Size	Enters Pipe Size	A NPT	B	C	Box	Case	List Price
944-428	1/4"	-	1/4"	1.26	2.28	24	192	14.99
944-429	3/8"	-	3/8"	1.50	2.28	21	168	16.43
944-430	1/2"	1-1/4"	1/2"	1.299	1.89	10	100	13.75
944-431	3/4"	1-1/4"	3/4"	1.594	2.126	10	100	20.54
944-432	1"	2"	1"	1.85	2.303	10	60	27.40
944-433	1-1/4"	2-1/2"	1-1/4"	2.205	2.52	10	40	39.57
944-434	1-1/2"	3"	1-1/2"	2.618	2.717	5	30	49.34
944-435	2"	3-1/2"	2"	3.091	3.071	2	20	77.18

See more Check Valves on page 163

NO	Part	Material
1	Cap	C37700
2	Gasket	PTFE
3	Spring	Stainless Steel
4	Positioning Seat	ABS
5	Screw	ABS
6	Body	C37700

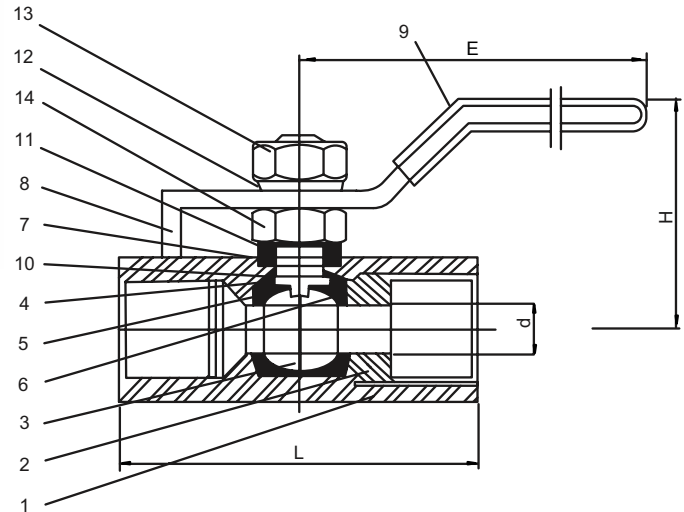
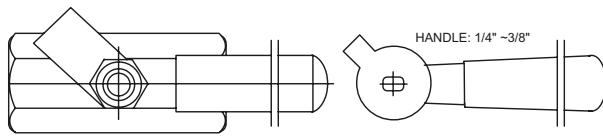


**STANDARD PORT CARBON STEEL BALL VALVE**

- For chemical and industrial applications.
- Blow-out proof stem design.
- 100% air tested under water, at 100 psi, open and closed positions.

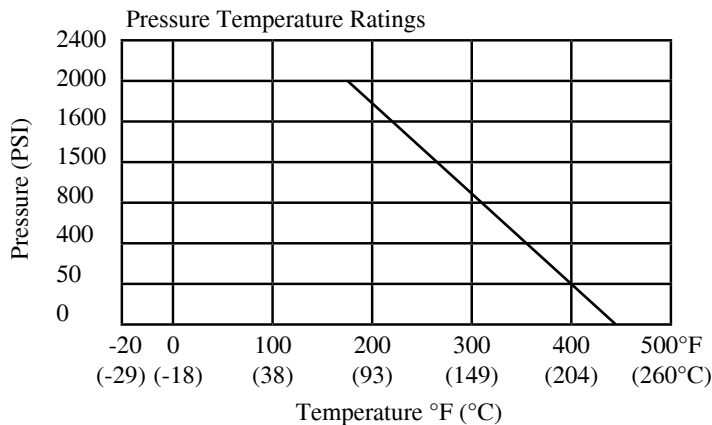
**SPECIFICATIONS**

- 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 reducing bore
- Reinforced PTFE seat



**2000 PSI STANDARD PORT**

Part #	Size	d	H	E	L	Box	Case	List Price
949-121	1/4	.20	1.14	2.40	1.71	10	100	59.28
949-122	3/8	.28	1.38	3.55	1.87	10	100	55.28
949-123	1/2	.36	2.60	4.08	2.20	5	75	53.31
949-124	3/4	.49	2.72	4.21	2.58	5	60	59.78
949-125	1	.59	2.95	4.65	3.19	6	36	77.10
949-126	1-1/4	.78	3.07	5.83	3.62	4	20	119.46
949-127	1-1/2	1.02	3.39	5.83	3.78	3	15	143.75
949-128	2	1.26	3.86	5.90	4.49	3	12	205.79



Item	Parts	Material
1	Body	ASTM A108 CL. 1018 or AISI 1021 C.S.
2	Unscrewed Seat Retainer	
3	Ball	SS304
4	Stem	SS316
5	Ball Seat	RPTFE
6	Cap Seal	PTFE
7	Packing	PTFE
8	Handle	SS304
9	Handle Sleeve	Vinyl Grip
10	Thrust Washer	PTFE
11	Gland	SS304
12	Washer	SS304
13	Handle Nut	SS304
14	Stem Nut	SS304

**VALVES**



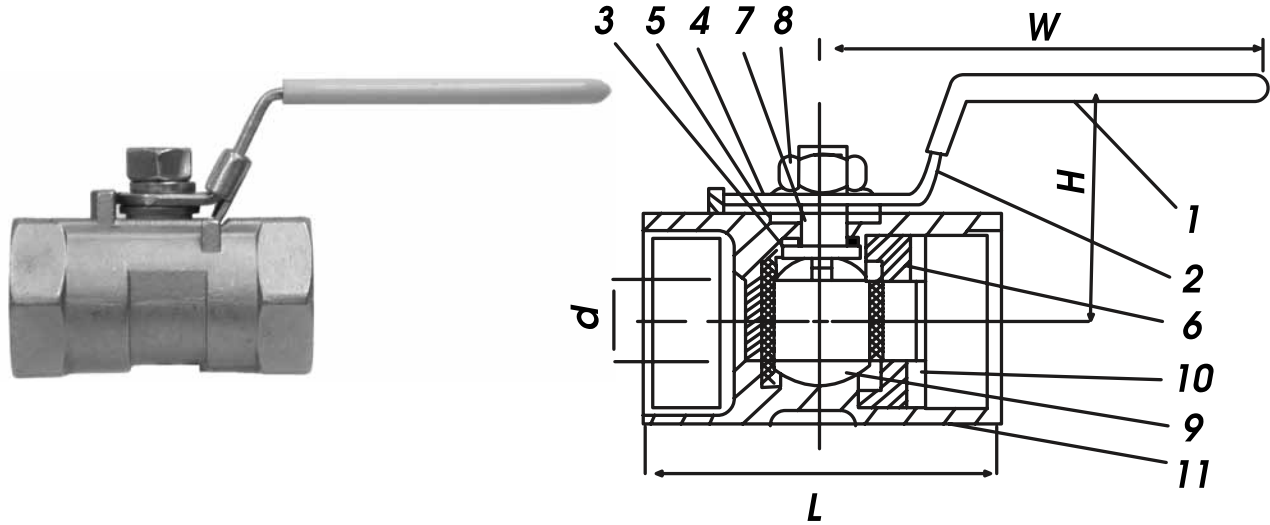
**ONE PIECE STANDARD PORT BALL VALVE**

316 Stainless Steel

**1000 PSI**

Yellow locking handle now standard

**VALVES**



Valves will accept a pad-lock on the handle.

dimensions (inches)

Part#	Size	D	L	H	W	List Price
949-101	1/4"	.18	2.24	1.54	3.15	28.67
949-102	3/8"	.27	2.24	1.73	3.15	29.08
949-103	1/2"	.36	2.48	2.20	3.62	32.30
949-104	3/4"	.49	2.95	2.32	3.62	37.81
949-105	1"	.59	3.50	2.80	4.13	48.43
949-106	1-1/4"	.79	4.13	3.07	4.13	84.63
949-107	1-1/2"	.98	4.65	3.27	5.08	86.22
949-108	2"	1.26	5.35	3.94	5.08	122.73

Larger sizes available on special order basis

Dimensions may change.

*Private Label handles available.  
See Page 164 for details*

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



**1000 PSI 2 PC FULL PORT STAINLESS STEEL VALVE**

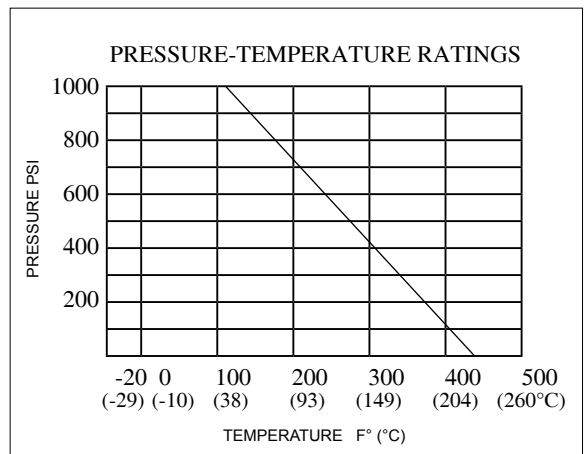
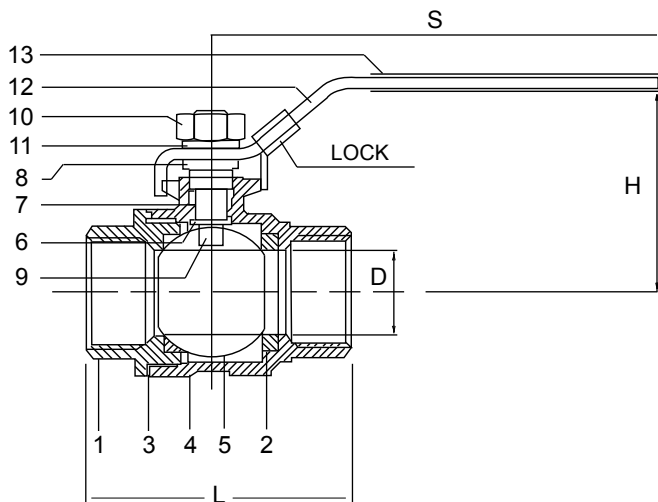
Materials: CFM8M (SS316), DIN 1.4408

Features:

- 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/ yellow generic sleeve



**VALVES**



Valves will accept a pad-lock on the handle.

NO.	NAME	MATERIAL	QTY
1	CAP	316 SS	1
2	BALL SEAT	PTFE	2
3	JOINT GASKET	PTFE	1
4	BODY	316 SS	1
5	BALL	316 SS	1
6	THRUST WASHER	PTFE	1
7	STEM PACKING	PTFE	1
8	GLAND NUT	304 SS	1
9	STEM	316 SS	1
10	STEM NUT	304 SS	1
11	SPRING WASHER	304 SS	1
12	HANDLE	304 SS	1
13	PLASTIC SLEEVE	PVC	1

Part #	Size	D	L	H	S	Approx. Wt. Lbs.	List Price
949-181	1/4"	0.46	1.84	1.89	4.06	0.44	33.17
949-182	3/8"	0.46	1.91	1.89	4.06	0.55	33.73
949-183	1/2"	0.59	2.28	1.89	4.06	0.66	36.66
949-184	3/4"	0.79	2.56	2.05	4.84	0.77	43.64
949-185	1"	0.98	3.03	2.45	4.84	1.43	65.11

Do not argue with an idiot. He will drag you down to his level and beat you with experience.



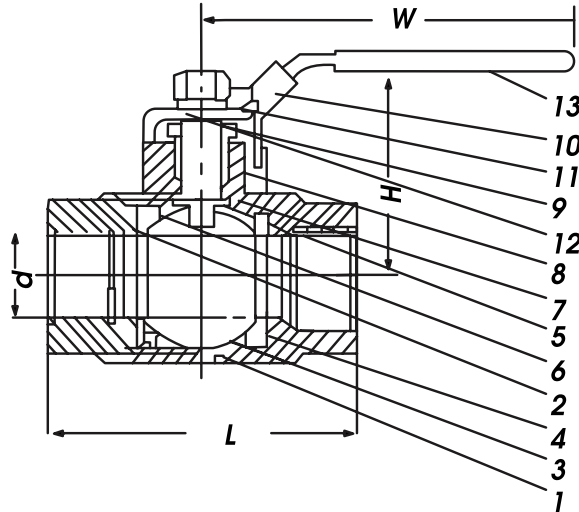
**TWO PIECE FULL PORT BALL VALVE**

316 Stainless Steel

**1000 PSI**

Yellow locking handle now standard!

**VALVES**



Valves will accept a pad-lock on the handle.

dimensions (inches)

Part#	Size	D	L	H	W	List Price
949-161	1/4"	.46	2.24	1.93	4.13	50.03
949-162	3/8"	.50	2.24	1.93	4.13	42.04
949-163	1/2"	.59	2.48	2.01	4.13	56.76
949-164	3/4"	.78	2.95	2.28	5.12	60.23
949-165	1"	.98	3.50	2.76	5.71	76.19
949-166	1-1/4"	1.26	4.13	2.87	5.71	117.45
949-167	1-1/2"	1.50	4.65	3.29	7.48	154.75
949-168	2"	2	5.35	3.62	7.48	198.50

Larger sizes available on special order basis

Dimensions may change without notice.

*Private Label handles available.  
See Page 164 for details*

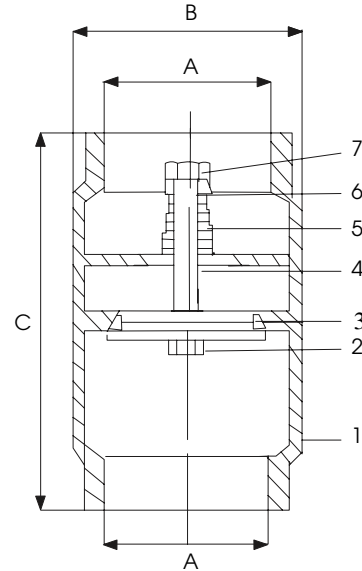
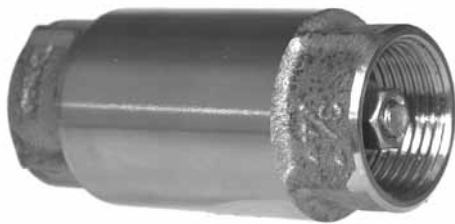
Item	Parts	Material
1	Body	316SS ASTM-A351 CF8M
2	Body Cap	316SS ASTM-A351 CF8M
3	Ball	316SS ASTM-A351 CF8M
4	Seat	Reinforced PTFE
5	Stem	AISI 316 SS
6	Seal	Reinforced PTFE
7	Thrust Washer	Reinforced PTFE
8	Packing	Reinforced PTFE
9	Gland Nut	AISI 304SS
10/11	Nut & Washer	AISI 304SS
12	Handle	AISI 304SS
13	Plastic Cover	Plastic

SS = Stainless Steel



**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.

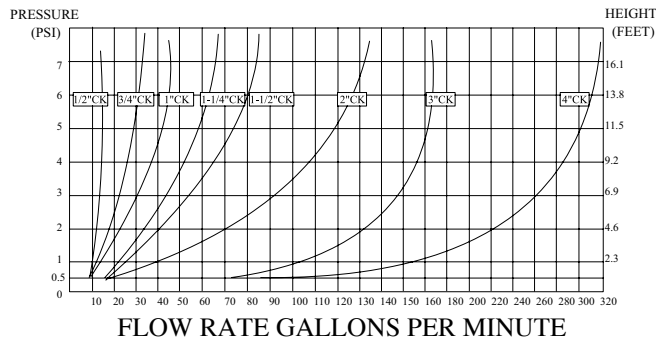


**VALVES**

**Dimensions (Inches)**

Part#	Size	A NPT	B	C	Box	Case	List Price
949-430	1/2"	1/2"	1.26	2.43	10	100	31.15
949-431	3/4"	3/4"	1.50	2.72	10	80	45.13
949-432	1"	1"	1.77	3.23	10	60	54.24

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

See more Check Valves on page 163



## PVC VALVES

### 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
- EPDM O-ring
- Fits both Sch. 40 & 80 pipe
- NSF approved
- Rated for 150 PSI at 73°F
- Threaded ends comply with ANSI B1.20.1



### MOLDED IN PLACE

#### WHITE PIPE THREADS

Part#	Size	Box	Case	List Price
940-284	1/2"	10	100	3.78
940-285	3/4"	5	60	5.51
940-286	1"	5	40	7.83
940-287	1-1/4"	5	30	11.98
940-288	1-1/2"	4	24	14.69
940-289	2"	4	16	23.73
940-291	3"	3	12	100.63
940-292	4"	2	8	177.39



### WHITE SOCKET

#### SLIP X SLIP

Part #	Size	Box	Case	List Price
940-294	1/2"	10	100	4.15
940-295	3/4"	5	60	5.51
940-296	1"	5	40	7.92
940-297	1-1/4"	5	30	11.98
940-298	1-1/2"	4	24	16.13
940-299	2"	4	16	23.88

## PVC VALVES

### COMPACT BALL VALVES

#### FEATURES

- Sizes range from 1/2" to 4"
- Excellent flow characteristics
- Leak-tight shut-off
- Test pressure: 225 psi @ 73°F
- Working Pressure: 150 psi @ 73°F



#### SLIP X SLIP BALL VALVE

Part #	Size	List Price
899050	1/2"	11.15
899051	3/4"	12.94
899052	1"	18.73
899053	1-1/4"	22.76
899054	1-1/2"	40.31
899055	2"	51.84
899056	2-1/2"	219.32
899057	3"	288.34
899058	4"	549.05



#### FIP X FIP THREADED BALL VALVE

Part #	Size	List Price
899000	1/2"	11.15
899001	3/4"	12.94
899002	1"	18.73
899003	1-1/4"	22.76
899004	1-1/2"	40.31
899005	2"	51.84
899006	2-1/2"	219.32
899007	3"	288.34
899008	4"	549.05

## 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"	10.99



#### "FLO-KING" DRUM FAUCET

Part #	Size	List Price
46-278	2	89.59





# BRASS NIPPLES

# BRASS NIPPLES

We hereby certify that to the best of our knowledge and belief the CDA 230 alloy Red Brass Pipe from which our nipples are produced meet the requirements of ASTM Specifications B43-91 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 ASTM B687-97 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-28.

Brass nipples are in compliance with California's Health & Safety code section 116875 (AB1953) and Vermont Act 193. This product is certified by NSF to NSF/ANSI 61 for use in drinking water supplies of pH 6.5 and above.

## 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					

## EXTRA HEAVY 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	.205	.100	1/8"	1960	1960	1960	1240
1/4"	.540	.294	.123	1/4"	2210	2210	2210	1340
3/8"	.675	.421	.127	3/8"	1840	1840	1840	1150
1/2"	.840	.542	.149	1/2"	1760	1760	1760	1100
3/4"	1.050	.736	.157	3/4"	1510	1510	1510	950
1"	1.315	.951	.182	1"	1340	1340	1340	850
1-1/4"	1.660	1.272	.194	1-1/4"	1160	1160	1160	730
1-1/2"	1.900	1.494	.203	1-1/2"	1090	1090	1090	680
2"	2.375	1.933	.221	2"	1000	1000	1000	630
3"	2.875	2.315	.280	2-1/2"	970	970	970	620
3-1/2"	3.500	2.892	.304	3"	910	910	910	570
4"	4.000	3.358	.321	3-1/2"	860	860	860	550
4-1/2"	4.500	3.818	.341	4"	840	840	840	530
5"	5.562	4.812	.375	5"	770	770	770	480
6"	6.625	5.751	.437	6"	800	800	800	500

Diameter	Length of Close	Close	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"
1/8"	3/4"	1.4	3.0	3.8	5.2	6.2	7.2	8.4	9.2	11.0	12.2	13.2
1/4"	7/8"	2.4	4.8	6.4	8.2	10.4	12.2	14.0	16.0	18.0	20.2	22.0
3/8"	1"	3.8	6.2	8.6	11.0	13.4	16.2	18.4	20.4	23.4	25.6	28.0
1/2"	1-1/8"	5.6	8.6	11.6	16.2	19.4	22.4	27.4	29.6	33.0	37.4	40.4
3/4"	1-3/8"	10.2	11.8	16.2	21.4	22.6	31.0	35.6	40.2	45.6	50.0	55.0
1"	1-1/2"	15.6		23.4	29.6	37.0	44.2	52.6	59.2	68.4	74.8	76.8
1-1/4"	1-5/8"	26.5		36.0	45.0	56.5	68.0	81.0	92.0	98.5	110.5	125.0
1-1/2"	1-3/4"	35.0		42.0	55.5	67.0	81.0	95.5	108.0	121.5	131.0	144.0
2"	2"	54.5			72.0	88.5	107.0	125.0	143.5	155.0	179.0	190.0
2-1/2"	2-1/2"	90.0				116.5	148.5	168.5	180.0	218.5	239.5	262.0
3"	2-5/8"	134.5				170.0	210.0	239.0	268.5	314.0	349.0	390.0
4"	2-7/8"	226.3				253.1	307.0	357.5	422.5	450.0	516.3	563.8

Approximate weight per 100 pieces.

Standard Brass Nipples.

For Extra Heavy Brass multiply above weight by 1.37

## FOR THREAD CHARTS PLEASE SEE PAGE 428

## BRASS NIPPLES

### 1/8" Diameter



Part #	Size	List Price
40-001	Close ( 3/4" )	3.01
40-002	x 1-1/2"	3.40
40-003	x 2"	3.64
40-004	x 2-1/2"	4.13
40-005	x 3"	4.46
40-006	x 3-1/2"	4.82
40-007	x 4"	5.41
40-008	x 4-1/2"	6.11
40-009	x 5"	6.62
40-010	x 5-1/2"	7.15
40-011	x 6"	7.67
40-012	x 7"	9.11
40-013	x 8"	10.04
40-014	x 9"	12.35
40-015	x 10"	13.51
40-016	x 11"	14.65
40-017	x 12"	15.60

### 1/4" Diameter



Part #	Size	List Price
40-020	Close ( 7/8" )	3.51
40-021	x 1-1/2"	4.06
40-022	x 2"	4.60
40-023	x 2-1/2"	4.98
40-024	x 3"	5.85
40-025	x 3-1/2"	6.37
40-026	x 4"	7.48
40-027	x 4-1/2"	8.13
40-028	x 5"	8.86
40-029	x 5-1/2"	9.61
40-030	x 6"	10.80
40-031	x 7"	12.31
40-032	x 8"	13.49
40-033	x 9"	14.99
40-034	x 10"	16.46
40-035	x 11"	17.96
40-036	x 12"	19.44

## BRASS NIPPLES

### 3/8" Diameter



Part #	Size	List Price
40-040	Close ( 1" )	3.64
40-041	x 1-1/2"	4.31
40-042	x 2"	5.23
40-043	x 2-1/2"	5.67
40-044	x 3"	6.94
40-045	x 3-1/2"	7.48
40-046	x 4"	8.91
40-047	x 4-1/2"	9.49
40-048	x 5"	10.40
40-049	x 5-1/2"	11.31
40-050	x 6"	12.24
40-051	x 7"	14.86
40-052	x 8"	16.65
40-053	x 9"	19.70
40-054	x 10"	19.84
40-055	x 11"	21.66
40-056	x 12"	23.49

### 1/2" Diameter



Part #	Size	List Price
40-060	Close ( 1-1/8" )	4.85
40-061	x 1-1/2"	5.62
40-062	x 2"	6.60
40-063	x 2-1/2"	7.85
40-064	x 3"	9.22
40-065	x 3-1/2"	10.52
40-066	x 4"	12.05
40-067	x 4-1/2"	13.09
40-068	x 5"	14.42
40-069	x 5-1/2"	15.84
40-070	x 6"	17.55
40-071	x 7"	20.33
40-072	x 8"	22.78
40-073	x 9"	25.28
40-074	x 10"	27.97
40-075	x 11"	30.60
40-076	x 12"	33.27

*Extra Heavy Schedule 80 Red Brass Nipples page 191  
Chrome Plated Brass Nipples Available upon request*



## BRASS NIPPLES

## BRASS NIPPLES

### 3/4" Diameter



Part #	Length	List Price
40-080	Close (1- 3/8" )	7.00
40-081	x 1-1/2"	7.46
40-082	x 2"	8.81
40-083	x 2-1/2"	10.22
40-084	x 3"	11.78
40-085	x 3-1/2"	13.23
40-086	x 4"	15.38
40-087	x 4-1/2"	16.72
40-088	x 5"	18.46
40-089	x 5-1/2"	20.17
40-090	x 6"	22.46
40-091	x 7"	26.32
40-092	x 8"	29.64
40-093	x 9"	32.82
40-094	x 10"	36.17
40-095	x 11"	39.47
40-096	x 12"	43.04

### 1-1/4" Diameter



Part #	Length	List Price
40-120	Close ( 1-5/8" )	15.57
40-121	x 2"	17.78
40-122	x 2-1/2"	20.11
40-123	x 3"	23.80
40-124	x 3-1/2"	27.85
40-125	x 4"	31.34
40-126	x 4-1/2"	34.71
40-127	x 5"	38.28
40-128	x 5-1/2"	41.87
40-129	x 6"	45.73
40-130	x 7"	53.94
40-131	x 8"	61.10
40-132	x 9"	72.47
40-133	x 10"	75.56
40-134	x 11"	86.50
40-135	x 12"	90.39

### 1" Diameter



Part #	Length	List Price
40-100	Close ( 1-1/2" )	10.32
40-101	x 2"	12.73
40-102	x 2-1/2"	14.86
40-103	x 3"	17.10
40-104	x 3-1/2"	19.80
40-105	x 4"	22.28
40-106	x 4-1/2"	24.84
40-107	x 5"	27.46
40-108	x 5-1/2"	30.08
40-109	x 6"	32.80
40-110	x 7"	38.31
40-111	x 8"	43.73
40-112	x 9"	48.80
40-113	x 10"	54.13
40-114	x 11"	58.40
40-115	x 12"	64.54

### 1-1/2" Diameter



Part #	Length	List Price
40-140	Close ( 1-3/4" )	20.25
40-141	x 2"	21.78
40-142	x 2-1/2"	26.09
40-143	x 3"	29.98
40-144	x 3-1/2"	34.44
40-145	x 4"	39.06
40-146	x 4-1/2"	43.89
40-147	x 5"	48.56
40-148	x 5-1/2"	53.13
40-149	x 6"	57.72
40-150	x 7"	67.45
40-151	x 8"	76.63
40-152	x 9"	85.78
40-153	x 10"	94.94
40-154	x 11"	104.10
40-155	x 12"	113.24

*Extra Heavy Schedule 80 Red Brass Nipples page 191  
Chrome Plated Brass Nipples Available upon request*



## BRASS NIPPLES

### 2" Diameter



Part #	Length	List Price
40-160	Close ( 2" )	30.83
40-161	x 2-1/2"	33.28
40-162	x 3"	38.42
40-163	x 3-1/2"	44.22
40-164	x 4"	50.25
40-165	x 4-1/2"	56.03
40-166	x 5"	62.13
40-167	x 5-1/2"	68.15
40-168	x 6"	74.19
40-169	x 7"	86.78
40-170	x 8"	98.97
40-171	x 9"	110.36
40-172	x 10"	122.58
40-173	x 11"	132.46
40-174	x 12"	146.20

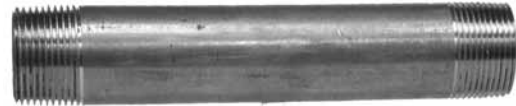
### 2-1/2" Diameter



Part #	Length	List Price
40-180	Close ( 2-1/2" )	81.37
40-181	x 3"	85.07
40-182	x 3-1/2"	96.38
40-183	x 4"	107.14
40-184	x 4-1/2"	114.95
40-185	x 5"	126.45
40-186	x 5-1/2"	136.19
40-187	x 6"	149.10
40-188	x 7"	169.86
40-189	x 8"	195.08
40-190	x 9"	216.53
40-191	x 10"	239.26
40-192	x 11"	257.81
40-193	x 12"	282.85

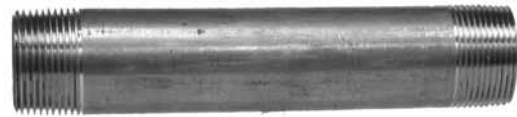
## BRASS NIPPLES

### 3" Diameter



Part #	Length	List Price
40-200	Close ( 2-5/8" )	110.64
40-201	x 3"	114.98
40-202	x 3-1/2"	130.07
40-203	x 4"	146.51
40-204	x 4-1/2"	161.05
40-205	x 5"	177.19
40-206	x 5-1/2"	192.53
40-207	x 6"	209.29
40-208	x 7"	244.21
40-209	x 8"	278.22
40-210	x 9"	304.67
40-211	x 10"	337.98
40-212	x 11"	367.54
40-213	x 12"	404.83

### 4" Diameter



Part #	Length	List Price
40-220	Close ( 2-7/8" )	166.47
40-221	x 3"	169.08
40-222	x 3-1/2"	189.85
40-223	x 4"	216.51
40-224	x 4-1/2"	233.87
40-225	x 5"	258.30
40-226	x 5-1/2"	275.45
40-234	x 6"	304.15
40-229	x 8"	396.07
40-233	x 12"	577.94

*Extra Heavy Schedule 80 Red Brass Nipples page 192  
Chrome Plated Brass Nipples Available upon request*

Better to remain silent and be thought a fool,  
than to speak up and remove all doubt.



**BRASS NIPPLES****EXTRA HEAVY RED BRASS NIPPLES****1/8" Diameter**

Part #	Length	List Price
42-001	Close (3/4")	7.00
42-002	1-1/2"	7.89
42-003	2"	8.49
42-004	2-1/2"	9.61
42-005	3"	10.38
42-006	3-1/2"	11.21
42-007	4"	12.60
42-008	4-1/2"	14.24
42-009	5"	15.42
42-010	5-1/2"	16.65

**1/4" Diameter**

Part #	Length	List Price
42-020	Close (7/8")	8.18
42-021	1-1/2"	9.47
42-022	2"	10.72
42-023	2-1/2"	11.61
42-024	3"	13.63
42-025	3-1/2"	14.83
42-026	4"	17.43
42-027	4-1/2"	18.92
42-028	5"	20.63
42-029	5-1/2"	22.36
42-030	6"	25.14

**3/8" Diameter**

Part #	Length	List Price
42-040	Close (1")	8.47
42-041	1-1/2"	10.03
42-042	2"	12.18
42-043	2-1/2"	13.21
42-044	3"	16.16
42-045	3-1/2"	17.43
42-046	4"	20.74
42-047	4-1/2"	22.09
42-048	5"	24.23
42-049	5-1/2"	26.34
42-050	6"	28.49

**1/2" Diameter**

Part #	Length	List Price
42-060	Close (1-1/8")	11.31
42-061	1-1/2"	13.09
42-062	2"	15.38
42-063	2-1/2"	18.29
42-064	3"	20.00
42-065	3-1/2"	24.50
42-066	4"	28.08
42-067	4-1/2"	30.47
42-068	5"	33.58
42-069	5-1/2"	36.87
42-070	6"	40.87

**3/4" Diameter**

Part #	Length	List Price
42-080	Close (1-3/8")	16.29
42-082	2"	20.53
42-083	2-1/2"	23.80
42-084	3"	27.43
42-085	3-1/2"	30.80
42-086	4"	35.81
42-087	4-1/2"	38.96
42-088	5"	42.99
42-089	5-1/2"	46.98
42-090	6"	52.30

**1" Diameter**

Part #	Length	List Price
42-100	Close (1-1/2")	24.03
42-101	2"	29.64
42-102	2-1/2"	34.59
42-103	3"	39.83
42-104	3-1/2"	46.10
42-105	4"	51.86
42-106	4-1/2"	57.83
42-107	5"	63.96
42-108	5-1/2"	70.05
42-109	6"	76.37

**NIPPLES & FITTINGS**

# EXTRA HEAVY RED BRASS NIPPLES

# BRASS NIPPLES

## 1-1/4" Diameter



Part #	Length	List Price
42-120	Close (1-5/8")	36.26
42-121	2"	41.40
42-122	2-1/2"	46.83
42-123	3"	55.42
42-124	3-1/2"	64.84
42-125	4"	72.98
42-126	4-1/2"	80.82
42-127	5"	89.12
42-128	5-1/2"	97.49
42-129	6"	106.48

## 1-1/2" Diameter



Part #	Length	List Price
42-140	Close (1-3/4")	47.14
42-141	2"	50.73
42-142	2-1/2"	60.78
42-143	3"	69.84
42-144	3-1/2"	80.20
42-145	4"	90.98
42-146	4-1/2"	102.22
42-147	5"	113.10
42-148	5-1/2"	123.75
42-149	6"	134.40

## 2" Diameter



Part #	Length	List Price
42-160	Close (2")	71.79
42-161	2-1/2"	77.52
42-162	3"	89.46
42-163	3-1/2"	102.98
42-164	4"	117.04
42-165	4-1/2"	130.48
42-166	5"	144.68
42-167	5-1/2"	158.70
42-168	6"	172.79

## 2-1/2" Diameter



Part #	Length	List Price
42-180	Close (2-1/2")	189.50
42-181	3"	198.11
42-182	3-1/2"	224.46
42-183	4"	249.52
42-184	4-1/2"	267.70
42-185	5"	294.48
42-186	5-1/2"	317.14
42-187	6"	347.25

## 3" Diameter



Part #	Length	List Price
42-200	Close (2-5/8")	257.68
42-201	3"	267.77
42-202	3-1/2"	302.92
42-203	4"	341.17
42-204	4-1/2"	375.05
42-205	5"	412.66
42-206	5-1/2"	448.38
42-207	6"	429.76

## 4" Diameter



Part #	Length	List Price
42-220	Close (2-3/4")	387.69
42-221	3"	393.77
42-222	3-1/2"	442.14
42-223	4"	504.23
42-224	4-1/2"	544.64
42-225	5"	601.55
42-226	5-1/2"	641.48
42-227	6"	708.30

How is it one careless match can start a forest fire, but it takes a whole box to start a campfire?

NIPPLES & FITTINGS





**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

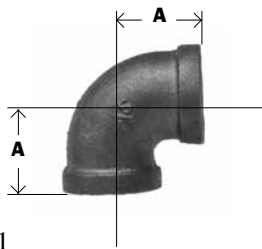
Threads - ANSI B2.1 or BA 21 and Fed. WW-P-460

• UL/ FM Approved

• ISO 9001:2000

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.

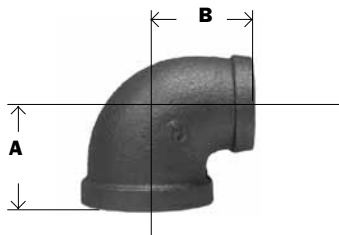
**90° ELBOWS**



X101

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-100	1/8"	0.55	0.08	4.94
44-101	1/4"	0.72	0.10	4.94
44-102	3/8"	0.83	0.17	4.94
44-103	1/2"	1.03	0.24	7.52
44-104	3/4"	1.19	0.35	10.11
44-105	1"	1.43	0.59	15.61
44-106	1-1/4"	1.71	0.96	24.82
44-107	1-1/2"	1.87	1.33	30.99
44-108	2"	2.14	2.34	50.46
44-109	2-1/2"	2.74	3.79	98.97
44-110	3"	3.10	5.21	151.82
44-112	4"	3.80	8.59	366.13

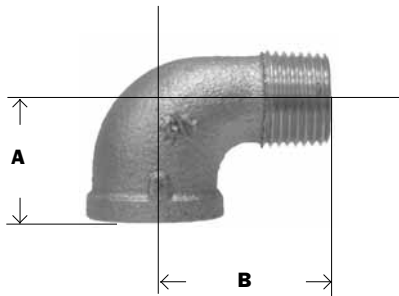
**90° REDUCING ELBOWS**



X101

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
44-120	1/4" x 1/8"	0.67	0.60	0.10	7.65
44-124	1/2" x 3/8"	0.93	0.90	0.22	8.12
44-127	3/4" x 1/2"	1.08	1.11	0.31	11.07
44-131	1" x 3/4"	1.30	1.31	0.56	19.43
44-134	1-1/4" x 1"	1.52	1.60	0.81	30.34
44-137	1-1/2" x 1"	1.56	1.72	1.02	38.34
44-140	2" x 1"	1.72	2.02	1.30	70.74
44-142	2"x1-1/2"	1.89	2.07	1.65	70.74

**90° STREET ELLS**



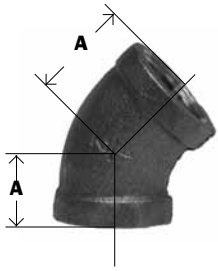
X103

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
44-160	1/8"	0.55	0.92	0.07	7.52
44-161	1/4"	0.72	1.11	0.11	7.52
44-162	3/8"	0.83	1.24	0.16	7.52
44-163	1/2"	1.03	1.51	0.21	9.33
44-164	3/4"	1.19	1.66	0.34	13.18
44-165	1"	1.43	1.98	0.65	21.79
44-166	1-1/4"	1.71	2.26	1.11	33.37
44-167	1-1/2"	1.87	2.46	1.16	43.47
44-168	2"	2.14	2.98	2.09	73.70
44-169	2-1/2"	2.74	3.92	3.79	116.52
44-170	3"	3.10	4.45	6.38	174.75





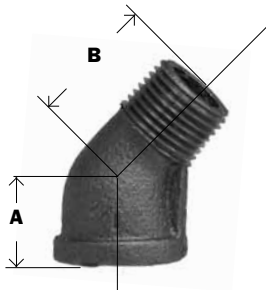
**45° ELBOWS**



X102

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-180	1/8"	0.43	0.05	5.42
44-181	1/4"	0.55	0.08	5.42
44-182	3/8"	0.63	0.12	5.42
44-183	1/2"	0.79	0.22	6.87
44-184	3/4"	0.91	0.34	10.11
44-185	1"	1.07	0.57	17.09
44-186	1-1/4"	1.23	0.90	27.32
44-187	1-1/2"	1.31	1.08	34.23
44-188	2"	1.47	1.54	55.49
<b>NEW</b> 44-189	2-1/2"	1.95	3.25	109.12
<b>NEW</b> 44-190	3"	2.17	5.00	175.40

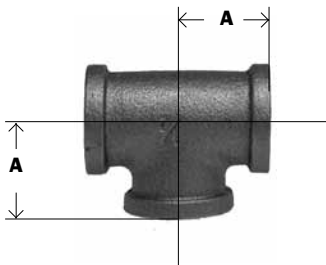
**45° STREET ELBOWS**



X103A

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
44-200	1/8"	0.26	0.43	0.06	7.65
44-201	1/4"	0.35	0.56	0.11	7.65
44-202	3/8"	0.37	0.63	0.13	7.65
44-203	1/2"	0.45	0.79	0.18	9.33
44-204	3/4"	0.52	0.91	0.28	18.37
44-205	1"	0.60	1.07	0.52	21.79
44-206	1-1/4"	0.67	1.23	0.77	33.37
44-207	1-1/2"	0.70	1.31	0.97	44.82
44-208	2"	0.76	1.47	2.04	75.96

**TEES**



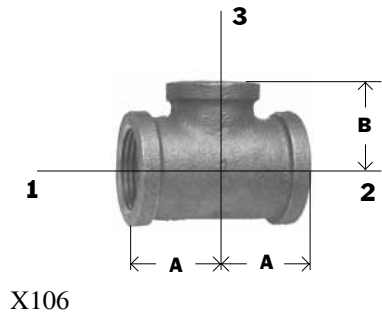
X106

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-250	1/8"	0.55	0.09	6.87
44-251	1/4"	0.72	0.16	6.87
44-252	3/8"	0.83	0.25	6.87
44-253	1/2"	1.03	0.31	8.64
44-254	3/4"	1.19	0.48	12.43
44-255	1"	1.43	0.84	22.10
44-256	1-1/4"	1.71	1.18	30.99
44-257	1-1/2"	1.87	1.69	42.64
44-258	2"	2.14	2.69	69.85
44-259	2-1/2"	2.74	4.70	135.83
44-260	3"	3.10	6.69	207.73

If 4 out of 5 people SUFFER from diarrhea... does that mean that one enjoys it?



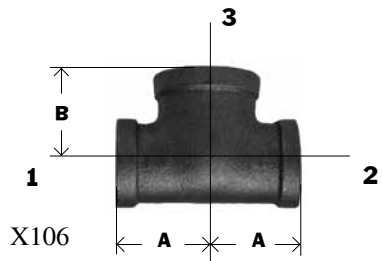
**REDUCING TEES**



**REDUCING ON THE BRANCH**

Part #	Size (1 & 2) x 3	A	B	Approx. Wt. Lbs.	List Price
44-276	1/2" x 1/4"	0.87	0.87	0.28	10.49
44-279	1/2" x 3/8"	0.93	0.90	0.40	12.00
44-282	3/4" x 1/4"	1.05	1.08	0.38	14.89
44-283	3/4" x 3/8"	1.00	1.00	0.46	14.89
44-286	3/4" x 1/2"	1.08	1.11	0.40	14.89
44-291	1" x 1/2"	1.20	1.24	0.73	27.23
44-298	1" x 3/4"	1.30	1.31	0.71	27.23
44-301	1-1/4" x 1/2"	1.34	1.53	1.18	38.34
44-303	1-1/4" x 3/4"	1.30	1.31	1.08	38.34
44-306	1-1/4" x 1"	1.58	1.67	1.23	38.34

**BULLHEAD TEES**

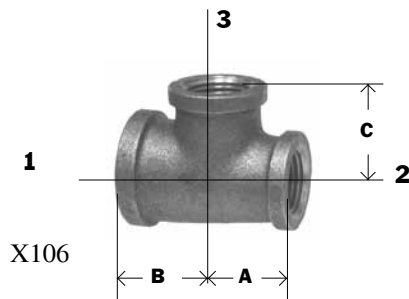


**LARGER BRANCH**

Part #	Size 1x2x3	A	B	Approx. Wt. Lbs.	List Price
44-280	1/2" x 1/2" x 3/4"	1.22	1.20	0.48	16.38

\* Many sizes available...just ask!

**REDUCING TEES**

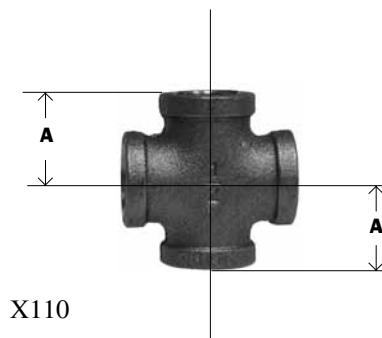


**REDUCING ON THE RUN**

Part #	Size 1x2x3	A	B	C	Approx. Wt. Lbs.	List Price
44-287	3/4" x 1/2" x 1/2"	1.12	1.20	1.22	0.37	16.38
44-296	1" x 3/4" x 3/4"	1.31	1.37	1.45	0.71	29.66

\* Many sizes available...just ask!

**CROSSES**



Part #	Size	A	Approx. Wt. Lbs.	List Price
44-391	1/4"	0.72	0.20	11.48
44-392	3/8"	0.83	0.29	11.48
44-393	1/2"	1.03	0.43	13.95
44-394	3/4"	1.19	0.59	20.15
44-395	1"	1.19	1.15	31.96
44-396	1-1/4"	1.71	1.70	50.03
44-397	1-1/2"	1.87	1.97	63.91
44-398	2"	2.14	2.52	133.21

A computer once beat me at chess, but it was no match for me at kick boxing.



**COUPLINGS**



X111

**NEW**

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-410	1/8"	0.80	0.06	4.94
44-411	1/4"	0.80	0.08	4.94
44-412	3/8"	1.05	0.14	4.94
44-413	1/2"	1.29	0.21	6.21
44-414	3/4"	1.43	0.29	8.19
44-415	1"	1.68	0.45	12.43
44-416	1-1/4"	1.86	0.80	19.43
44-417	1-1/2"	1.92	0.98	26.42
44-418	2"	2.20	1.56	43.47
44-419	2-1/2"	2.88	2.75	72.23
44-420	3"	3.18	3.63	99.86

**REDUCING COUPLINGS**



X112

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-430	1/4" x 1/8"	0.88	0.08	5.30
44-431	3/8" x 1/8"	0.92	0.10	5.30
44-432	3/8" x 1/4"	0.92	0.12	5.30
44-433	1/2" x 1/8"	1.17	0.14	7.65
44-434	1/2" x 1/4"	1.17	0.17	6.61
44-435	1/2" x 3/8"	1.17	0.17	6.61
44-436	3/4" x 1/4"	1.35	0.24	10.93
44-437	3/4" x 3/8"	1.35	0.24	9.84
44-438	3/4" x 1/2"	1.35	0.27	9.84
44-440	1" x 3/8"	1.56	0.40	18.45
44-441	1" x 1/2"	1.56	0.36	16.37
44-442	1" x 3/4"	1.56	0.45	16.37
44-444	1-1/4" x 1/2"	1.77	0.60	31.35
44-445	1-1/4" x 3/4"	1.77	0.67	26.42
44-446	1-1/4" x 1"	1.77	0.65	26.42
44-447	1-1/2" x 1/2"	1.80	0.77	37.57
44-448	1-1/2" x 3/4"	1.80	0.70	37.57
44-449	1-1/2" x 1"	1.80	0.74	33.37
44-450	1-1/2" x 1-1/4"	1.80	0.83	33.37
44-458	2" x 1/2"	2.03	1.07	55.88
44-451	2" x 3/4"	2.03	1.25	55.88
44-452	2" x 1"	2.03	1.32	55.88
44-453	2" x 1-1/4"	2.03	1.37	49.59
44-454	2" x 1-1/2"	2.03	1.74	49.59
44-461	2-1/2" x 1-1/2"	3.15	1.94	87.85
44-462	2-1/2" x 2"	3.15	2.37	87.85
44-456	3" x 2"	3.69	2.40	116.43
44-463	3" x 2-1/2"	3.69	3.82	116.43

Why does someone believe you when you say there are four billion stars, but check when you say the paint is wet?



**CAPS**



X116

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-470	1/8"	0.53	0.03	3.70
44-471	1/4"	0.58	0.06	3.70
44-472	3/8"	0.66	0.09	3.70
44-473	1/2"	0.75	0.13	4.94
44-474	3/4"	0.87	0.20	6.53
44-475	1"	1.03	0.29	10.23
44-476	1-1/4"	1.10	0.47	15.56
44-477	1-1/2"	1.12	0.61	21.01
44-478	2"	1.35	1.10	35.65
44-480	3"	1.83	2.64	108.26

**NIPPLES & FITTINGS**

**UNIONS**



X187

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-600	1/8"	1.18	0.13	17.52
44-601	1/4"	1.26	0.22	17.52
44-602	3/8"	1.50	0.39	17.52
44-603	1/2"	1.57	0.47	19.05
44-604	3/4"	1.89	0.69	26.42
44-605	1"	2.13	1.01	34.98
44-606	1-1/4"	2.36	1.48	51.24
44-607	1-1/2"	2.68	1.92	60.47
44-608	2"	2.99	3.04	93.07
44-609	2-1/2"	3.35	4.80	183.15
44-610	3"	3.74	6.49	282.96

A clear conscience is usually the sign of a bad memory.



**HEX BUSHINGS**



X114

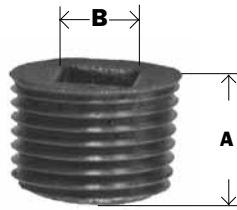
Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
44-500	1/4" x 1/8"	0.58	0.66	0.03	3.34
44-501	3/8" x 1/8"	0.64	0.72	0.06	3.34
44-502	3/8" x 1/4"	0.64	0.75	0.06	3.34
44-503	1/2" x 1/8"	0.75	0.92	0.11	4.68
44-504	1/2" x 1/4"	0.75	0.93	0.10	3.93
44-505	1/2" x 3/8"	0.75	0.92	0.09	3.93
44-506	3/4" x 1/8"	0.87	1.15	0.17	6.53
44-507	3/4" x 1/4"	0.85	1.14	0.17	6.53
44-508	3/4" x 3/8"	0.85	1.14	0.16	5.42
44-509	3/4" x 1/2"	0.85	1.15	0.14	5.42
44-510	1" x 1/4"	1.05	1.43	0.30	9.94
44-511	1" x 3/8"	1.05	1.50	0.26	9.94
44-512	1" x 1/2"	1.00	1.40	0.27	8.19
44-513	1" x 3/4"	1.00	1.43	0.22	8.19
44-514	1-1/4" x 1/4"	1.22	1.10	0.34	16.84
44-515	1-1/4" x 3/8"	1.19	1.84	0.29	17.54
44-516	1-1/4" x 1/2"	1.14	1.33	0.47	16.84
44-517	1-1/4" x 3/4"	1.08	1.75	0.46	13.95
44-518	1-1/4" x 1"	1.08	1.76	0.33	13.95
44-519	1-1/2" x 1/4"	1.09	2.12	0.29	21.79
44-520	1-1/2" x 3/8"	1.35	2.16	0.44	21.79
44-521	1-1/2" x 1/2"	1.20	2.10	0.51	21.79
44-522	1-1/2" x 3/4"	1.20	2.12	0.51	21.79
44-523	1-1/2" x 1"	1.14	2.08	0.61	17.82
44-524	1-1/2" x 1-1/4"	1.14	2.12	0.40	17.82
44-527	2" x 1/2"	1.27	1.32	1.10	31.82
44-528	2" x 3/4"	1.27	1.62	0.77	31.82
44-529	2" x 1"	1.29	1.95	0.88	31.82
44-530	2" x 1-1/4"	1.22	2.47	0.97	26.42
44-531	2" x 1-1/2"	1.22	2.50	0.77	26.42
44-532	2-1/2" x 1"	1.53	1.94	1.19	65.51
44-534	2-1/2" x 1-1/2"	1.50	2.38	1.15	52.81
44-535	2-1/2" x 2"	1.43	2.97	1.12	52.81
44-537	3" x 1-1/2"	1.61	2.68	2.44	103.82
44-538	3" x 2"	1.61	3.70	1.82	79.86
44-539	3" x 2-1/2"	1.53	3.70	2.11	79.86
<b>NEW</b> 44-543	4" x 3"	2.01	4.62	3.30	183.83

“Success is not the key to happiness. Happiness is the key to success. If you love what you are doing, you’ll be a success.”

-Albert Schweitzer

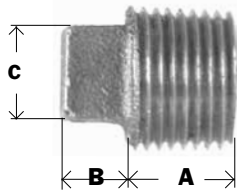


**BRONZE COUNTERSUNK PLUGS**



Part #	Size	A	Socket Size	Approx. Wt. Lbs.	List Price
44-633	1/2"	0.57	0.43	0.06	4.04
44-634	3/4"	0.58	0.47	0.11	4.63
44-635	1"	0.75	0.59	0.22	8.66
44-636	1-1/4"	0.74	0.72	0.33	14.42
44-637	1-1/2"	0.79	0.72	0.50	21.65
44-638	2"	0.80	0.85	0.88	35.24
44-639	2-1/2"	1.06	1.12	1.56	72.08

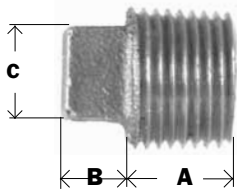
**CORED SQUARE HEAD PLUGS**



X117

Part #	Size	A	B	C	Approx. Wt. Lbs.	List Price
44-650	1/8"	0.27	0.24	0.28	0.02	3.70
44-651	1/4"	0.41	0.28	0.37	0.04	3.70
44-652	3/8"	0.41	0.31	0.43	0.07	3.70
44-653	1/2"	0.54	0.38	0.56	0.11	5.17
44-654	3/4"	0.55	0.44	0.62	0.17	5.92
44-655	1"	0.69	0.50	0.81	0.25	7.80
44-656	1-1/4"	0.71	0.56	0.93	0.39	11.61
44-657	1-1/2"	0.73	0.62	1.12	0.51	14.80
44-658	2"	0.76	0.68	1.31	0.83	23.37
44-659	2-1/2"	1.07	0.74	1.50	1.26	39.98
44-660	3"	1.13	0.80	1.68	1.49	63.91
44-662	4"	1.22	0.92	2.25	3.20	124.85

**SOLID SQUARE HEAD PLUGS**



X117A

Part #	Size	A	B	C	Approx. Wt. Lbs.	List Price
44-670	1/8"	0.27	0.24	0.28	0.04	3.93
44-671	1/4"	0.41	0.28	0.37	0.05	3.93
44-672	3/8"	0.41	0.31	0.43	0.08	3.28
44-673	1/2"	0.54	0.38	0.56	0.12	6.21
44-674	3/4"	0.55	0.44	0.62	0.18	8.10
44-675	1"	0.69	0.50	0.81	0.28	13.80
44-676	1-1/4"	0.71	0.56	0.93	0.40	24.87
44-677	1-1/2"	0.73	0.62	1.12	0.56	32.32
44-678	2"	0.76	0.68	1.31	0.90	51.24

A man walks into a bar with a slab of asphalt under his arm and says: "A beer please, and one for the road."



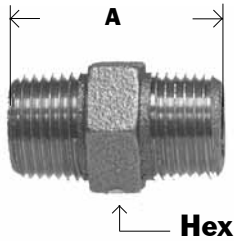
**HEX LOCKNUTS**



X119

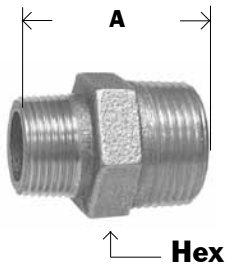
Part #	Size	A	Thickness	Approx. Wt. Lbs.	List Price
44-700	1/8"	0.50	0.19	0.02	2.45
44-701	1/4"	0.66	0.25	0.03	2.45
44-702	3/8"	0.77	0.28	0.04	2.45
44-703	1/2"	0.97	0.31	0.10	3.93
44-704	3/4"	1.23	0.34	0.13	4.68
44-705	1"	1.50	0.38	0.20	6.98
44-706	1-1/4"	1.86	0.42	0.28	11.35
44-707	1-1/2"	2.12	0.47	0.52	14.72
44-708	2"	2.63	0.53	0.64	23.38

**HEX NIPPLES**



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
44-720	1/8"	1.25	0.50	0.05	5.76
44-721	1/4"	1.25	0.61	0.06	9.54
44-723	1/2"	1.65	1.03	0.18	9.81
44-724	3/4"	1.77	1.21	0.24	10.30
44-725	1"	2.06	1.46	0.36	11.11
44-726	1-1/4"	2.12	1.81	0.47	23.07
44-727	1-1/2"	2.25	2.07	0.76	35.24
44-728	2"	2.50	2.41	1.50	42.64
44-729	2-1/2"	2.80	3.10	2.10	43.93

**REDUCING NIPPLES**



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
44-740	1/4" x 1/8"	1.22	0.68	0.06	9.86
44-742	1/2" x 3/8"	1.49	0.97	0.20	12.31
44-743	3/4" x 1/2"	1.65	1.18	0.26	16.14
44-744	1" x 1/2"	1.87	1.41	0.32	21.01
44-745	1" x 3/4"	1.95	1.50	0.37	21.01
44-748	1-1/4" x 1"	2.48	1.75	0.69	35.25
44-750	1-1/2" x 1"	2.28	2.10	0.70	40.33
44-753	1-1/2" x 1-1/4"	2.47	1.96	1.10	43.11
44-760	2" x 1-1/2"	2.83	2.43	1.36	50.11

Floor Flanges and Companion Flanges available upon request.





# STAINLESS STEEL

# SCH 40 STAINLESS STEEL NIPPLES

Schedule 40 Welded - NPT threaded both ends

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.

Why Stainless Steel - Corrosion-resistant to hundreds of industrial and chemical solutions, high strength at high temperatures.

Can be used with water, oil and gas. Is sanitary and does not contaminate product being transported, makes it an excellent choice for pharmaceutical, dairy, brewery, beverage and food industries.

• Max. Pressure: 150 PSI WOG @ 150°F

• Temp. Range: -60° to 450°F

304 stainless steel offers great corrosion resistance at an economical price. Type 316 has a larger nickel content and offers even better corrosion resistance.



**1/8" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-001	1.90	X Close (3/4")	49-001	2.36
48-002	2.49	x 1-1/2"	49-002	3.31
48-003	2.97	x 2"	49-003	4.03
48-004	3.44	x 2-1/2"	49-004	4.74
48-005	3.91	x 3"	49-005	5.46
48-006	4.39	x 3-1/2"	49-006	6.18
48-007	4.88	x 4"	49-007	6.91
48-008	5.35	x 4-1/2"	49-008	7.63
48-009	5.83	x 5"	49-009	8.36
48-010	6.32	x 5-1/2"	49-010	9.08
48-011	6.79	x 6"	49-011	9.81
48-015	10.76	x 10"		



**1/4" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-020	2.15	X Close (7/8")	49-020	2.65
48-021	2.66	x 1-1/2"	49-021	3.40
48-022	3.20	x 2"	49-022	4.14
48-023	3.79	x 2-1/2"	49-023	4.94
48-024	4.38	x 3"	49-024	5.74
48-025	4.97	x 3-1/2"	49-025	6.54
48-026	5.60	x 4"	49-026	7.40
48-027	6.20	x 4-1/2"	49-027	8.19
48-028	6.79	x 5"	49-028	9.00
48-029	7.38	x 5-1/2"	49-029	9.80
48-030	7.97	x 6"	49-030	10.60
48-032	10.48	x 8"		
48-034	12.84	x 10"		
48-036	15.20	x 12"		



**3/8" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-040	2.58	X Close (1")	49-040	3.27
48-041	3.13	x 1-1/2"	49-041	4.09
48-042	3.79	x 2"	49-042	5.02
48-043	4.51	x 2-1/2"	49-043	6.02
48-044	5.23	x 3"	49-044	7.03
48-045	5.96	x 3-1/2"	49-045	8.03
48-046	6.68	x 4"	49-046	9.03
48-047	7.40	x 4-1/2"	49-047	10.03
48-048	8.12	x 5"	49-048	11.04
48-049	8.84	x 5-1/2"	49-049	12.03
48-050	9.57	x 6"	49-050	13.04
48-052	12.68	x 8"		
48-054	15.57	x 10"		



**1/2" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-060	3.33	X Close (1")	49-060	4.36
48-061	4.01	x 1-1/2"	49-061	5.36
48-062	4.81	x 2"	49-062	6.56
48-063	5.76	x 2-1/2"	49-063	7.94
48-064	6.71	x 3"	49-064	9.31
48-065	7.67	x 3-1/2"	49-065	10.68
48-066	8.65	x 4"	49-066	12.09
48-067	9.60	x 4-1/2"	49-067	13.46
48-068	10.55	x 5"	49-068	14.68
48-069	11.50	x 5-1/2"	49-069	16.21
48-070	12.46	x 6"	49-070	17.58
48-071	14.53	x 7"		
48-072	16.44	x 8"		
48-073	18.34	x 9"		
48-074	20.25	10"		
48-075	22.15	x 11"		
48-076	24.05	x 12"		

\* Stainless Steel Nipples available in SCH80 seamless beginning on page 204

**NIPPLES & FITTINGS**



# SCH 40 STAINLESS STEEL NIPPLES

# STAINLESS STEEL



**3/4" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-080	4.49	X Close (1-3/8")	49-080	5.69
48-081	4.78	x 1-1/2"	49-081	6.07
48-082	5.73	x 2"	49-082	7.42
48-083	6.88	x 2-1/2"	49-083	8.97
48-084	8.03	x 3"	49-084	10.52
48-085	9.18	x 3-1/2"	49-085	12.08
48-086	10.33	x 4"	49-086	13.63
48-087	11.48	x 4-1/2"	49-087	15.19
48-088	12.64	x 5"	49-088	16.74
48-089	13.79	x 5-1/2"	49-089	18.30
48-090	14.94	x 6"	49-090	19.86
48-091	17.36	x 7"		
48-092	19.67	x 8"		
48-094	24.28	x 10"	49-094	32.42
48-096	28.89	x 12"		



**1" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-100	5.90	X Close (1-1/2")	49-100	7.89
48-101	7.39	x 2"	49-101	10.01
48-102	8.77	x 2-1/2"	49-102	12.01
48-103	10.26	x 3"	49-103	14.13
48-104	11.74	x 3-1/2"	49-104	16.24
48-105	13.22	x 4"	49-105	18.36
48-106	14.71	x 4-1/2"	49-106	20.47
48-107	16.19	x 5"	49-107	22.58
48-108	17.68	x 5-1/2"	49-108	24.70
48-109	19.16	x 6"	49-109	26.81
48-110	22.44	x 7"		
48-111	25.41	x 8"		
48-113	31.35	x 10"		

\* Stainless Steel Nipples available in SCH80 seamless beginning on page 204



**1-1/4" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-120	7.93	X Close (1-5/8")	49-120	10.80
48-121	9.34	x 2"	49-121	12.85
48-122	11.06	x 2-1/2"	49-122	15.40
48-123	12.95	x 3"	49-123	18.13
48-124	14.83	x 3-1/2"	49-124	20.85
48-125	16.71	x 4"	49-125	23.58
48-126	18.59	x 4-1/2"	49-126	26.30
48-127	20.47	x 5"	49-127	29.03
48-128	22.35	x 5-1/2"	49-128	31.75
48-129	24.23	x 6"	49-129	34.48
48-131	31.86	x 8"		
48-135	46.90	x 12"		



**1-1/2" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-140	9.71	x 1-3/4"	49-140	13.34
48-141	10.64	x 2"	49-141	14.76
48-142	12.86	x 2-1/2"	49-142	17.98
48-143	15.08	x 3"	49-143	21.20
48-144	17.31	x 3-1/2"	49-144	24.42
48-145	19.53	x 4"	49-145	27.64
48-146	21.75	x 4-1/2"	49-146	30.86
48-147	23.97	x 5"	49-147	34.07
48-148	26.19	x 5-1/2"	49-148	37.29
48-149	28.41	x 6"	49-149	40.51
48-151	37.54	x 8"		
48-152	41.98	x 9"		

Other Stainless Steel Nipples Available

- Schedule 40 & 80 seamless

Two cannibals are eating a clown. One says to the other: "Does this taste funny to you?"



## STAINLESS STEEL

## SCH 40 STAINLESS STEEL NIPPLES



**2" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-160	15.07	X Close (2")	49-160	20.72
48-161	16.79	x 2-1/2"	49-161	23.70
48-162	19.43	x 3"	49-162	27.68
48-163	22.33	x 3-1/2"	49-163	31.92
48-164	25.22	x 4"	49-164	36.17
48-165	28.11	x 4-1/2"	49-165	40.41
48-166	31.01	x 5"	49-166	44.66
48-167	33.90	x 5-1/2"	49-167	48.90
48-168	36.80	x 6"	49-168	53.14
48-169	43.14	x 7"	49-169	62.23
48-170	48.93	x 8"		
48-171	54.72	x 9"		
48-172	60.50	x 10"		



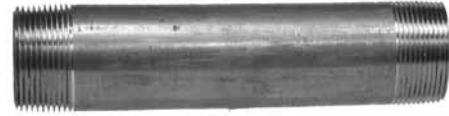
**2-1/2" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-180	30.56	X Close (2-1/2")		
48-193	117.34	x 12"		
		x 5-1/2"	49-186	75.97



**3" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-200	43.00	X Close (2-5/8")		
48-201	47.48	x 3"		
48-203	59.44	x 4"	49-203	78.52
48-205	68.08	x 5"		
48-207	80.04	x 6"		
		x 7"	49-208	128.60
48-209	107.76	x 8"		
48-213	155.59	x 12"		



**4" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-220	54.95	X Close (2-7/8")		
		x 5"	49-225	122.12
48-227	102.73	x 6"		

\* Stainless Steel Nipples available in SCH80 seamless beginning on page 204

### 304 STAINLESS STEEL TOE NIPPLES/ WELDING NIPPLES

Toe nipples are only threaded on one end to allow for easy connections, unthreaded end allows for welding a permanent leak-resistant bond.

- Roller cut



Part #	Size	List Price
48-021T	1/4" x 1-1/2"	7.15
48-022T	1/4" x 2"	7.55
48-041T	3/8" x 1-1/2"	8.96
48-042T	3/8" x 2"	9.35
48-061T	1/2" x 1-1/2"	9.36
48-062T	1/2" x 2"	10.67
48-081T	3/4" x 1-1/2"	12.05
48-082T	3/4" x 2"	12.89
48-101T	1" x 2"	16.15
48-102T	1" x 2-1/2"	18.31
48-121T	1-1/4" x 2"	19.05
48-122T	1-1/4" x 2-1/2"	20.35
48-141T	1-1/2" x 2"	21.56
48-142T	1-1/2" x 2-1/2"	22.35
48-160T	2" x 2"	28.96
48-161T	2" x 2-1/2"	30.05

Reamed & Chamfer or Saw Cut available upon request.

NIPPLES & FITTINGS



# SCH 80 STAINLESS STEEL NIPPLES

# STAINLESS STEEL



**1/8" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-001	5.83	X Close (3/4")	52-001	7.22
51-002	7.63	X 1-1/2"	52-002	10.13
51-003	8.96	X 2"	52-003	12.35
51-004	10.54	X 2-1/2"	52-004	14.51
51-005	11.99	X 3"	52-005	16.73
51-006	13.47	X 3-1/2"	52-006	18.95
51-007	14.94	X 4"	52-007	21.17
51-008	16.40	X 4-1/2"	52-008	23.39
51-009	17.88	X 5"	52-009	25.61
51-010	19.36	X 5-1/2"	52-010	27.83
51-011	20.82	X 6"	52-011	30.06



**1/2" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-060	9.81	X Close (1-1/8")	52-060	13.35
51-061	11.83	X 1-1/2"	52-061	16.42
51-062	14.17	X 2"	52-062	20.11
51-063	16.98	X 2-1/2"	52-063	24.33
51-064	19.78	X 3"	52-064	28.52
51-065	22.59	X 3-1/2"	52-065	32.74
51-066	25.48	X 4"	52-066	37.06
51-067	28.30	X 4-1/2"	52-067	41.25
51-068	31.10	X 5"	52-068	44.99
51-069	33.90	X 5-1/2"	52-069	49.68
51-070	36.71	X 6"	52-070	53.88

**1/4" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-020	6.32	X Close (7/8")	52-020	8.11
51-021	7.84	X 1-1/2"	52-021	10.41
51-022	9.42	X 2"	52-022	12.68
51-023	11.16	X 2-1/2"	52-023	15.12
51-024	12.90	X 3"	52-024	17.58
51-025	14.63	X 3-1/2"	52-025	20.04
51-026	16.52	X 4"	52-026	22.67
51-027	18.26	X 4-1/2"	52-027	25.11
51-028	20.00	X 5"	52-028	27.58
51-029	21.74	X 5-1/2"	52-029	30.02
51-030	23.48	X 6"	52-030	32.47

**3/4" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-080	13.75	X Close (1-3/8")	52-080	17.43
51-081	14.64	X 1-1/2"	52-081	18.62
51-082	17.55	X 2"	52-082	22.73
51-083	21.07	X 2-1/2"	52-083	27.49
51-084	24.60	X 3"	52-084	32.25
51-085	28.14	X 3-1/2"	52-085	37.01
51-086	31.67	X 4"	52-086	41.78
51-087	35.18	X 4-1/2"	52-087	46.55
51-088	38.72	X 5"	52-088	51.31
51-089	42.25	X 5-1/2"	52-089	56.08
51-090	45.78	X 6"	52-090	60.85

**3/8" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-040	7.91	X CLOSE (1")	52-040	10.04
51-041	9.60	X 1-1/2"	52-041	12.53
51-042	11.61	X 2"	52-042	15.39
51-043	13.83	X 2-1/2"	52-043	18.46
51-044	16.03	X 3"	52-044	21.53
51-045	18.26	X 3-1/2"	52-045	24.60
51-046	20.45	X 4"	52-046	27.66
51-047	22.68	X 4-1/2"	52-047	30.74
51-048	24.87	X 5"	52-048	33.82
51-049	27.09	X 5-1/2"	52-049	36.87
51-050	29.31	X 6"	52-050	39.95

**1" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-100	17.39	X Close (1-1/2")	52-100	24.19
51-101	21.78	X 2"	52-101	30.67
51-102	25.85	X 2-1/2"	52-102	36.82
51-103	30.23	X 3"	52-103	43.29
51-104	34.60	X 3-1/2"	52-104	49.76
51-105	38.97	X 4"	52-105	56.25
51-106	43.34	X 4-1/2"	52-106	62.71
51-107	47.72	X 5"	52-107	69.20
51-108	52.11	X 5-1/2"	52-108	75.68
51-109	56.47	X 6"	52-109	82.16

**NIPPLES & FITTINGS**



# STAINLESS STEEL

# SCH 80 STAINLESS STEEL NIPPLES



**1-1/4" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-120	24.30	X Close (1-5/8")	52-120	33.10
51-121	28.62	X 2"	52-121	39.36
51-122	33.90	X 2-1/2"	52-122	47.19
51-123	39.67	X 3"	52-123	55.56
51-124	45.44	X 3-1/2"	52-124	63.90
51-125	51.20	X 4"	52-125	72.25
51-126	56.96	X 4-1/2"	52-126	80.61
51-127	62.72	X 5"	52-127	88.96
51-128	68.48	X 5-1/2"	52-128	97.29
51-129	74.25	X 6"	52-129	105.65

**1-1/2" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-140	28.61	X Close (1-3/4")	52-140	40.87
51-141	31.36	X 2"	52-141	45.23
51-142	37.90	X 2-1/2"	52-142	55.10
51-143	44.44	X 3"	52-143	64.96
51-144	51.01	X 3-1/2"	52-144	74.83
51-145	57.54	X 4"	52-145	84.69
51-146	64.09	X 4-1/2"	52-146	94.55
51-147	70.63	X 5"	52-147	104.42
51-148	77.17	X 5-1/2"	52-148	114.28
51-149	83.72	X 6"	52-150	103.45

**2" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-160	46.18	X Close (2")	52-160	63.49
51-161	51.44	X 2-1/2"	52-161	72.64
51-162	59.54	X 3"	52-162	84.83
51-163	68.42	X 3-1/2"	52-163	97.81
51-164	77.28	X 4"	52-164	110.83
51-165	86.14	X 4-1/2"	52-165	123.84
51-166	95.01	X 5"	52-166	136.85
51-167	103.88	X 5-1/2"	52-167	149.84
51-168	112.76	X 6"	52-168	162.84



**2-1/2" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-180	90.06	X Close (2-1/2")	52-180	120.73
51-181	103.45	X 3"	52-181	139.73
51-182	116.85	X 3-1/2"	52-182	158.73
51-183	130.22	X 4"	52-183	177.72
51-184	141.89	X 4-1/2"	52-184	194.89
51-185	155.29	X 5"	52-185	213.78
51-186	168.67	X 5-1/2"	52-186	232.79
51-187	182.07	X 6"	52-187	251.77

**3" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-200	131.75	X Close (2-5/8")	52-200	171.00
51-201	145.50	X 3"	52-201	190.00
51-202	163.82	X 3-1/2"	52-202	215.30
51-203	182.15	X 4"	52-203	240.61
51-204	190.31	X 4-1/2"	52-204	255.04
51-205	208.63	X 5"	52-205	280.34
51-206	226.95	X 5-1/2"	52-206	305.66
51-207	245.27	X 6"	52-207	330.96

**4" Diameter**

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-220	161.94	X Close (2-7/8")	52-220	230.94
51-223	213.35	X 4"	52-223	307.99
51-224	234.15	X 4-1/2"	52-224	339.97
51-225	257.02	X 5"	52-225	374.21
51-226	279.88	X 5-1/2"	52-226	408.46
51-227	302.71	X 6"	52-227	442.71

**NIPPLES & FITTINGS**





- Stainless Casting conform to ASTM A351
- NPT Threads conform to ASME B1.20.1

- Max pressure: 300 psi WOG; 150 psi saturated steam
- Meets MSS-SP-114 Class 150 pressure ratings.

**90° ELBOWS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-100	5.09	1/8"	63-100	6.53
62-101	5.09	1/4"	63-101	6.53
62-102	6.32	3/8"	63-102	7.92
62-103	6.73	1/2"	63-103	8.75
62-104	9.66	3/4"	63-104	12.69
62-105	13.69	1"	63-105	15.93
62-106	24.02	1-1/4"	63-106	27.31
62-107	31.97	1-1/2"	63-107	36.43
62-108	40.54	2"	63-108	46.05
62-109	92.35	2-1/2"	63-109	40.96
62-110	117.67	3"	63-110	84.11
62-112	229.64	4"	63-112	255.77

**90° STREET ELLS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-160	7.27	1/8"	63-160	8.74
62-161	7.27	1/4"	63-161	8.91
62-162	8.75	3/8"	63-162	10.95
62-163	10.30	1/2"	63-163	12.88
62-164	14.29	3/4"	63-164	16.98
62-165	24.73	1"	63-165	27.11
62-166	35.91	1-1/4"	63-166	40.51
62-167	42.48	1-1/2"	63-167	45.13
62-168	57.54	2"	63-168	64.45

**45° ELBOWS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-180	6.44	1/8"	63-180	7.77
62-181	6.44	1/4"	63-181	7.77
62-182	7.56	3/8"	63-182	9.49
62-183	8.31	1/2"	63-183	10.42
62-184	12.13	3/4"	63-184	13.68
62-185	14.81	1"	63-185	17.14
62-186	23.72	1-1/4"	63-186	26.96
62-187	28.22	1-1/2"	63-187	32.06
62-188	39.70	2"	63-188	44.83

**TEES**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-250	6.83	1/8"	63-250	8.11
62-251	6.83	1/4"	63-251	8.11
62-252	8.70	3/8"	63-252	10.75
62-253	9.13	1/2"	63-253	11.34
62-254	14.53	3/4"	63-254	16.72
62-255	18.50	1"	63-255	21.00
62-256	36.80	1-1/4"	63-256	41.79
62-257	45.74	1-1/2"	63-257	50.70
62-258	58.75	2"	63-258	65.32
62-260	181.61	3"		

**CROSSES**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
		1/8"	63-390	14.67
62-391	11.88	1/4"	63-391	14.67
62-392	14.16	3/8"	63-392	17.26
62-393	17.44	1/2"	63-393	21.42
62-394	29.84	3/4"	63-394	37.43
62-395	44.16	1"	63-395	45.18
62-396	52.44	1-1/4"	63-396	65.32
62-397	64.97	1-1/2"	63-397	81.52
62-398	93.00	2"	63-398	112.31

**STAINLESS STEEL OD MACHINED COUPLINGS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-410B	4.26	1/8"	63-410B	4.95
62-411B	4.14	1/4"	63-411B	4.95
62-412B	5.31	3/8"	63-412B	5.40
62-413B	5.72	1/2"	63-413B	7.57
62-414B	7.91	3/4"	63-414B	10.64
62-415B	15.55	1"	63-415B	17.28
62-416B	20.32	1-1/4"	63-416B	24.24
62-417B	27.10	1-1/2"	63-417B	30.30
62-418B	39.31	2"	63-418B	45.43

\* 3000 LB Forged Stainless Steel Fittings available

**COUPLINGS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-413	5.44	1/2"	63-413	6.29
62-414	7.85	3/4"	63-414	9.09
62-415	11.93	1"	63-415	13.55
62-416	44.19	1-1/4"	63-416	21.54
62-417	22.51	1-1/2"	63-417	25.60
62-418	31.73	2"	63-418	36.04
62-419	69.64	2-1/2"	63-419	84.66
62-420	90.03	3"	63-420	109.36
62-421	139.95	4"	63-421	168.89

**REDUCING COUPLINGS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-430	5.32	1/4" x 1/8"	63-430	6.06
62-431	5.91	3/8" x 1/8"		
62-432	5.91	3/8" x 1/4"	63-432	6.73
62-433	5.64	1/2" x 1/8"		
62-434	5.64	1/2" x 1/4"	63-434	8.07
62-435	5.64	1/2" x 3/8"	63-435	8.07
62-455	8.49	3/4" x 1/8"		
62-436	8.49	3/4" x 1/4"	63-436	10.35
62-437	8.49	3/4" x 3/8"	63-437	10.35
62-438	8.49	3/4" x 1/2"	63-438	10.35
62-440	11.61	1" x 3/8"		
62-441	11.61	1" x 1/2"	63-441	17.08
62-442	11.61	1" x 3/4"	63-442	17.08
62-445	16.93	1-1/4" x 3/4"	63-445	22.30
62-446	16.93	1-1/4" x 1"	63-446	22.30
62-447	24.41	1-1/2" x 1/2"	63-447	29.78
62-448	24.41	1-1/2" x 3/4"	63-448	29.78
62-449	24.41	1-1/2" x 1"	63-449	29.78
62-450	24.41	1-1/2" x 1-1/4"	63-450	29.78
62-452	40.77	2" x 1"	63-452	50.23
62-453	40.77	2" x 1-1/4"	63-453	50.23
62-454	40.77	2" x 1-1/2"	63-454	50.23

**CAPS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-470	2.56	1/8"	63-470	3.11
62-471	3.67	1/4"	63-471	4.18
62-472	4.32	3/8"	63-472	4.93
62-473	4.48	1/2"	63-473	5.71
62-474	5.61	3/4"	63-474	6.55
62-475	8.43	1"	63-475	10.04
62-476	15.26	1-1/4"	63-476	19.72
62-477	20.02	1-1/2"	63-477	25.29
62-478	25.53	2"	63-478	32.37
62-480	63.65	3"	63-480	66.72

**HEX CAPS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-075	1.55	1/8"	63-075	2.78
62-076	2.10	1/4"	63-076	2.78
62-077	2.60	3/8"	63-077	2.78
62-078	2.09	1/2"	63-078	3.33
62-079	3.08	3/4"	63-079	4.31
62-080	6.34	1"	63-080	5.88
62-081	10.10	1-1/4"	63-081	13.37
62-082	12.46	1-1/2"	63-082	16.39
62-083	12.32	2"	63-083	24.66

\* 3000 LB Forged Stainless Steel Fittings available

**HEX SOCKET PLUGS**



Part # 316 S.S.	Size	List Price
63-759	1/16"	3.05
63-760	1/8 "	2.74
63-761	1/4 "	3.90
63-762	3/8 "	5.49
63-763	1/2 "	9.15
63-764	3/4 "	21.93

**NIPPLES & FITTINGS**





**HEX BUSHINGS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-500	3.32	1/4" x 1/8"	63-500	3.74
		3/8" x 1/8"	63-501	4.27
62-502	3.63	3/8" x 1/4"	63-502	4.27
62-503	4.59	1/2" x 1/8"		
62-504	4.59	1/2" x 1/4"	63-504	5.02
62-505	4.59	1/2" x 3/8"	63-505	5.02
62-507	3.77	3/4" x 1/4"	63-507	7.46
62-508	6.71	3/4" x 3/8"	63-508	8.44
62-509	6.71	3/4" x 1/2"	63-509	7.46
62-512	9.33	1" x 1/2"	63-512	10.65
62-513	9.33	1" x 3/4"	63-513	10.65
62-516	10.53	1-1/4" x 1/2"	63-516	20.82
62-517	16.69	1-1/4" x 3/4"	63-517	20.82
62-518	16.69	1-1/4" x 1"	63-518	20.82
62-521	19.97	1-1/2" x 1/2"	63-521	24.62
62-522	19.97	1-1/2" x 3/4"	63-522	24.62
62-532	24.42	1-1/2" x 1"	63-523	24.62
62-524	19.97	1-1/2" x 1-1/4"	63-524	24.62
62-527	30.46	2" x 1/2"		
62-528	30.46	2" x 3/4"	63-528	34.96
62-529	30.46	2" x 1"	63-529	34.96
62-530	30.46	2" x 1-1/4"	63-530	34.96
62-531	30.46	2" x 1-1/2"	63-531	34.96
62-534	52.21	2-1/2" x 1-1/2"	63-534	59.40
62-535	52.21	2-1/2" x 2"	63-535	59.40
62-538	80.00	3" x 2"	63-538	91.34
62-539	80.00	3" x 2-1/2"		
62-543	145.57	4" x 3"		

**UNIONS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-600	17.19	1/8"	63-600	19.50
62-601	17.19	1/4"	63-601	19.50
62-602	17.52	3/8"	63-602	19.84
62-603	18.96	1/2"	63-603	21.54
62-604	24.02	3/4"	63-604	27.32
62-605	36.24	1"	63-605	41.24
62-606	62.85	1-1/4"	63-606	71.30
62-607	71.09	1-1/2"	63-607	80.93
62-608	85.11	2"	63-608	96.51
62-610	290.29	3"	63-610	344.86

**HEX HEAD PLUGS**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-630	2.44	1/8"	63-630	3.02
62-631	2.44	1/4"	63-631	3.02
62-632	3.01	3/8"	63-632	3.41
62-633	4.75	1/2"	63-633	5.71
62-634	5.97	3/4"	63-634	7.20
62-635	10.30	1"	63-635	11.47
62-636	16.53	1-1/4"	63-636	19.81
62-637	18.09	1-1/2"	63-637	23.45
62-638	24.97	2"	63-638	33.84

**SOLID HEX HEAD PLUGS**



Part # 316 S.S.	Size	List Price
63-660	1/8"	5.64
63-661	1/4"	7.10
63-662	3/8"	10.39
63-663	1/2"	18.46

**HEX NIPPLES**



Part # 304 S.S.	List Price	Size	Part # 316 S.S.	List Price
62-720	4.96	1/8"	63-720	5.56
62-721	4.66	1/4"	63-721	5.56
62-722	5.51	3/8"	63-722	6.17
62-723	6.54	1/2"	63-723	7.31
62-724	8.04	3/4"	63-724	9.55
62-725	11.76	1"	63-725	13.15
62-726	18.02	1-1/4"	63-726	21.48
62-727	22.77	1-1/2"	63-727	25.49
62-728	51.96	2"	63-728	36.57

\* 3000 LB Forged Stainless Steel Fittings available

**NIPPLES & FITTINGS**



## STAINLESS STEEL

## 304 AND 316 150# STAINLESS STEEL FITTINGS

### SQUARE HEAD PLUGS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-670	2.20	1/8"	63-670	2.37
62-671	2.60	1/4"	63-671	3.01
62-672	3.48	3/8"	63-672	3.97
62-653	4.97	1/2"	63-653	5.61
62-654	6.06	3/4"	63-654	6.86
62-655	7.66	1"	63-655	8.57
62-656	15.26	1-1/4"	63-656	20.27
62-657	18.19	1-1/2"	63-657	22.40
62-658	21.53	2"	63-658	30.91
62-660	51.56	3"		

### SOLID SQUARE HEAD PLUGS



Part # 316 S.S	Size	List Price
63-680	1/8"	5.17
63-681	1/4"	6.89
63-682	3/8"	8.08
63-683	1/2"	12.12
63-684	3/4"	23.08

### HEX LOCKNUTS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-701	10.46	1/4"	63-701	11.41
62-702	10.46	3/8"	63-702	11.41
62-703	10.46	1/2"	63-703	11.41
62-704	12.76	3/4"	63-704	14.32
62-705	14.47	1"	63-705	16.09
62-706	29.94	1-1/4"	63-706	32.59
62-707	29.97	1-1/2"	63-707	32.59
62-708	32.96	2"	63-708	35.76

Can't find it here? Ask us for price & availability.

### STAINLESS STEEL HALF COUPLINGS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-771	2.21	1/4"	63-771	2.33
62-772	2.39	3/8"	63-772	2.72
62-773	3.32	1/2"	63-773	3.96
62-774	4.44	3/4"	63-774	5.04
62-775	5.69	1"	63-775	7.66
62-776	9.29	1-1/4"	63-776	11.62
62-777	11.91	1-1/2"	63-777	15.46
62-778	16.33	2"	63-778	20.23

### HOSE NIPPLES



Part # 304 S.S	List Price	Hose I.D. x Male Pipe	Part # 316 S.S.	List Price
73-951	5.80	1/4"	973-951	6.49
73-952	9.04	3/8"	973-952	8.33
73-953	10.08	1/2"	973-953	14.86
73-954	11.38	3/4"	973-954	15.62
73-955	14.54	1"	973-955	18.71
73-956	25.21	1-1/4"	973-956	25.42
73-957	26.31	1-1/2"	973-957	44.19
73-958	40.28	2"	973-958	47.08
73-959	87.49	2-1/2"	973-959	121.52
73-960	108.40	3"	973-990	149.72
73-961	343.46	4"	973-991	185.95

### REDUCING HOSE NIPPLES - 304 S.S.



Part # 304 S.S	Hose I.D. x Male Pipe	List Price
73-970	1/4" x 1/8"	5.91
73-971	3/8" x 1/4"	6.83
73-972	1/2" x 3/8"	10.20
73-973	1/2" x 1/4"	10.54
73-974	3/4" x 1/2"	13.46
73-975	1" x 3/4"	15.20
73-976	1" x 1/2"	24.75
73-977	1-1/4" x 1"	24.48
73-979	1-1/2" x 1-1/4"	38.48
73-980	1-1/2" x 1"	29.52
73-981	2" x 1-1/2"	50.91
73-982	2" x 1-1/4"	40.71

NIPPLES & FITTINGS



**STAINLESS STEEL 3000 LB THREADED FITTINGS  
ASTM A182/ASME SA182 & ANSI B16.11**



**90° ELBOWS**



Part #	Size	List Price
103-100	1/8"	15.49
103-101	1/4"	19.52
103-102	3/8"	22.56
103-103	1/2"	23.33
103-104	3/4"	33.71
103-105	1"	51.61
103-106	1-1/4"	76.21
103-107	1-1/2"	121.69
103-108	2"	154.35

**STREET ELBOWS**



Part #	Size	List Price
103-160	1/8"	27.37
103-161	1/4"	24.76
103-162	3/8"	35.51
103-163	1/2"	44.31
103-164	3/4"	64.15
103-165	1"	99.16
103-166	1-1/4"	248.81
103-167	1-1/2"	340.77

**45° ELBOWS**



Part #	Size	List Price
103-180	1/8"	34.14
103-181	1/4"	34.14
103-182	3/8"	34.14
103-183	1/2"	34.14
103-184	3/4"	46.51
103-185	1"	64.13
103-186	1-1/4"	94.45
103-187	1-1/2"	113.55
103-188	2"	136.48
103-189	2-1/2"	591.60
103-190	3"	979.20

**COUPLINGS**



Part #	Size	List Price
103-410	1/8"	5.51
103-411	1/4"	6.00
103-412	3/8"	6.99
103-413	1/2"	8.42
103-414	3/4"	11.22
103-415	1"	19.03
103-416	1-1/4"	42.79
103-417	1-1/2"	49.72
103-418	2"	71.05
103-419	2-1/2"	188.70
103-420	3"	268.60
103-421	4"	POR

**REDUCING COUPLINGS**



Part #	Size	List Price
103-434	1/2" x 1/4"	17.38
103-435	1/2" x 3/8"	17.38
103-437	3/4" x 3/8"	24.43
103-438	3/4" x 1/2"	24.43
103-440	1" x 3/8"	34.55
103-441	1" x 1/2"	34.55
103-442	1" x 3/4"	34.55
103-443	1-1/4" x 3/8"	59.03
103-444	1-1/4" x 1/2"	59.03
103-445	1-1/4" x 3/4"	59.03
103-446	1-1/4" x 1"	59.03
103-447	1-1/2" x 1/2"	63.78
103-448	1-1/2" x 3/4"	63.78
103-449	1-1/2" x 1"	63.78
103-450	1-1/2" x 1-1/4"	63.78
103-458	2" x 1/2"	91.18
103-451	2" x 3/4"	91.18
103-452	2" x 1"	91.18
103-453	2" x 1-1/4"	91.18
103-454	2" x 1-1/2"	91.18

**HALF COUPLINGS**



Part #	Size	List Price
103-770	1/8"	5.66
103-771	1/4"	4.75
103-772	3/8"	7.02
103-773	1/2"	8.08
103-774	3/4"	11.22
103-775	1"	18.53
103-776	1-1/4"	29.73
103-777	1-1/2"	39.10
103-778	2"	55.29
103-779	2-1/2"	159.80
103-780	3"	200.60
103-781	4"	POR

**TEES**



Part #	Size	List Price
103-250	1/8"	19.91
103-251	1/4"	20.45
103-252	3/8"	27.89
103-253	1/2"	31.61
103-254	3/4"	41.75
103-255	1"	72.32
103-256	1-1/4"	110.18
103-257	1-1/2"	167.12
103-258	2"	194.26

**CAPS**



Part #	Size	List Price
103-470	1/8"	6.20
103-471	1/4"	6.43
103-472	3/8"	6.58
103-473	1/2"	8.55
103-474	3/4"	11.27
103-475	1"	20.05
103-477	1-1/2"	36.48

**NIPPLES & FITTINGS**



# STAINLESS STEEL

# 3000 # SOCKET WELD FITTINGS #304

ASTM A182/ASME SA182 & ANSI B16.11

## THREADED CONT.

### UNIONS



Part #	Size	List Price
103-600	1/8"	41.45
103-601	1/4"	42.16
103-602	3/8"	44.30
103-603	1/2"	45.19
103-604	3/4"	54.30
103-605	1"	87.62
103-606	1-1/4"	131.36
103-607	1-1/2"	148.23
103-608	2"	198.19
103-609	2-1/2"	382.50
103-610	3"	630.70

### HEX BUSHING



Part #	Size	List Price
103-504	1/2" x 1/4"	10.93
103-505	1/2" x 3/8"	10.93
103-508	3/4" x 3/8"	13.56
103-509	3/4" x 1/2"	13.56
103-511	1" x 3/8"	22.00
103-512	1" x 1/2"	22.00
103-513	1" x 3/4"	22.00
103-515	1-1/4" x 3/8"	41.75
103-516	1-1/4" x 1/2"	41.75
103-517	1-1/4" x 3/4"	41.75
103-518	1-1/4" x 1"	41.75
103-520	1-1/2" x 3/8"	47.03
103-521	1-1/2" x 1/2"	47.03
103-522	1-1/2" x 3/4"	47.03
103-523	1-1/2" x 1"	47.03
103-524	1-1/2" x 1-1/4"	47.03
103-526	2" x 3/8"	67.30
103-527	2" x 1/2"	67.30
103-528	2" x 3/4"	67.30
103-529	2" x 1"	67.30
103-530	2" x 1-1/4"	67.30
103-531	2" x 1-1/2"	67.30

### 90° ELBOWS



Part #	Size	List Price
104-100	1/8"	12.41
104-101	1/4"	12.72
104-102	3/8"	16.15
104-103	1/2"	17.75
104-104	3/4"	22.35
104-105	1"	33.71
104-106	1-1/4"	53.86
104-107	1-1/2"	75.40
104-108	2"	121.69

### COUPLINGS



Part #	Size	List Price
104-410	1/8"	8.72
104-411	1/4"	8.89
104-412	3/8"	9.01
104-413	1/2"	9.57
104-414	3/4"	12.42
104-415	1"	18.53
104-416	1-1/4"	33.37
104-417	1-1/2"	38.78
104-418	2"	53.89

### REDUCING COUPLINGS

Part #	Size	List Price
104-434	1/2" x 1/4"	13.98
104-435	1/2" x 3/8"	13.98
104-437	3/4" x 3/8"	18.38
104-438	3/4" x 1/2"	18.38
104-440	1" x 3/8"	30.30
104-441	1" x 1/2"	30.30
104-442	1" x 3/4"	30.30
104-443	1-1/4" x 3/8"	45.95
104-444	1-1/4" x 1/2"	45.95
104-445	1-1/4" x 3/4"	45.95
104-446	1-1/4" x 1"	45.95
104-447	1-1/2" x 1/2"	50.39
104-448	1-1/2" x 3/4"	50.39
104-449	1-1/2" x 1"	50.39
104-450	1-1/2" x 1-1/4"	50.39
104-458	2" x 1/2"	75.33
104-451	2" x 3/4"	75.33
104-452	2" x 1"	75.33
104-453	2" x 1-1/4"	75.33
104-454	2" x 1-1/2"	75.33

### TEES



Part #	Size	List Price
104-250	1/8"	16.68
104-251	1/4"	16.97
104-252	3/8"	19.90
104-253	1/2"	27.42
104-254	3/4"	41.77
104-255	1"	41.77
104-256	1-1/4"	74.21
104-257	1-1/2"	110.18
104-258	2"	167.11
104-259	2-1/2"	640.90
104-260	3"	934.15

### CAPS



Part #	Size	List Price
104-470	1/8"	7.70
104-471	1/4"	7.96
104-472	3/8"	9.17
104-473	1/2"	12.04
104-474	3/4"	15.25
104-475	1"	18.26
104-476	1-1/4"	29.14
104-477	1-1/2"	30.30
104-478	2"	46.60

NIPPLES & FITTINGS

**STAINLESS STEEL 3000 LB THREADED FITTINGS  
ASTM A182/ASME SA182 & ANSI B16.11**



**90° ELBOWS**



Part #	Size	List Price
105-100	1/8"	21.85
105-101	1/4"	21.85
105-102	3/8"	29.23
105-103	1/2"	37.22
105-104	3/4"	55.50
105-105	1"	94.38
105-106	1-1/4"	119.55
105-107	1-1/2"	203.69
105-108	2"	283.61
105-109	2-1/2"	1147.50
105-110	3"	1258.00

**45° ELBOWS**



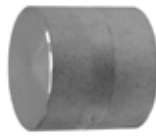
Part #	Size	List Price
105-180	1/8"	56.37
105-181	1/4"	56.37
105-182	3/8"	56.37
105-183	1/2"	56.37
105-184	3/4"	72.72
105-185	1"	96.89
105-186	1-1/4"	125.47
105-187	1-1/2"	168.91
105-188	2"	205.43
105-189	2-1/2"	958.80
105-190	3"	1635.40

**TEES**



Part #	Size	List Price
105-250	1/8"	29.24
105-251	1/4"	29.24
105-252	3/8"	39.89
105-253	1/2"	47.78
105-254	3/4"	73.63
105-255	1"	124.78
105-256	1-1/4"	166.52
105-257	1-1/2"	265.98
105-258	2"	355.83
105-259	2-1/2"	1241.00
105-260	3"	1401.65

**CAPS**



Part #	Size	List Price
105-470	1/8"	9.62
105-471	1/4"	9.62
105-472	3/8"	10.22
105-473	1/2"	13.93
105-474	3/4"	18.05
105-475	1"	27.74
105-476	1-1/4"	41.45
105-477	1-1/2"	53.77
105-478	2"	84.08
105-479	2-1/2"	243.10
105-480	3"	311.10

**HALF COUPLINGS**



Part #	Size	List Price
105-770	1/8"	4.93
105-771	1/4"	4.93
105-772	3/8"	7.24
105-773	1/2"	8.26
105-774	3/4"	12.41
105-775	1"	20.57
105-776	1-1/4"	39.07
105-777	1-1/2"	52.07
105-778	2"	74.38
105-779	2-1/2"	198.90
105-780	3"	289.00

**COUPLINGS**



Part #	Size	List Price
105-410	1/8"	7.02
105-411	1/4"	7.98
105-412	3/8"	8.55
105-413	1/2"	12.12
105-414	3/4"	17.81
105-415	1"	29.84
105-416	1-1/4"	62.15
105-417	1-1/2"	74.39
105-418	2"	102.89
105-419	2-1/2"	309.40
105-420	3"	447.10

“There are only two ways to live your life. One is as though nothing is a miracle. The other is as though everything is a miracle.”

– Albert Einstein

“The best years of your life are the ones in which you decide your problems are your own. You do not blame them on your mother, the ecology, or the president. You realize that you control your own destiny.”

– Albert Ellis

“The trouble with not having a goal is that you can spend your life running up and down the field and never score.”

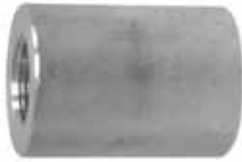
– Bill Copeland

**NIPPLES & FITTINGS**





**REDUCING COUPLINGS**



Part #	Size	List Price
105-434	1/2" x 1/4"	21.01
105-435	1/2" x 3/8"	21.01
105-437	3/4" x 3/8"	30.77
105-438	3/4" x 1/2"	30.77
105-440	1" x 3/8"	53.25
105-441	1" x 1/2"	53.25
105-442	1" x 3/4"	53.25
105-443	1-1/4" x 3/8"	79.88
105-444	1-1/4" x 1/2"	79.88
105-445	1-1/4" x 3/4"	79.88
105-446	1-1/4" x 1"	79.88
105-447	1-1/2" x 1/2"	101.70
105-448	1-1/2" x 3/4"	101.70
105-449	1-1/2" x 1"	101.70
105-450	1-1/2" x 1-1/4"	101.70
105-458	2" x 1/2"	145.47
105-451	2" x 3/4"	145.47
105-452	2" x 1"	145.47
105-453	2" x 1-1/4"	145.47
105-454	2" x 1-1/2"	145.47

"If what you're doing is not your passion, you have nothing to lose."

"It is never too late to be what you might have been."

- George Eliot

**HEX BUSHING**



Part #	Size	List Price
105-500	1/4" x 1/8"	10.53
105-502	3/8" x 1/4"	14.40
105-504	1/2" x 1/4"	16.83
105-505	1/2" x 3/8"	16.83
105-508	3/4" x 3/8"	20.19
105-509	3/4" x 1/2"	20.19
105-511	1" x 3/8"	31.52
105-512	1" x 1/2"	31.52
105-513	1" x 3/4"	31.52
105-515	1-1/4" x 3/8"	49.61
105-516	1-1/4" x 1/2"	49.61
105-517	1-1/4" x 3/4"	49.61
105-518	1-1/4" x 1"	49.61
105-521	1-1/2" x 1/2"	46.80
105-522	1-1/2" x 3/4"	46.80
105-523	1-1/2" x 1"	46.80
105-524	1-1/2" x 1-1/4"	46.80
105-525	2" x 3/8"	82.78
105-527	2" x 1/2"	82.78
105-528	2" x 3/4"	82.78
105-529	2" x 1"	82.78
105-530	2" x 1-1/2"	82.78
105-531	2" x 1-1/2"	82.78

**UNIONS**



Part #	Size	List Price
105-600	1/8"	52.80
105-601	1/4"	52.80
105-602	3/8"	61.15
105-603	1/2"	61.23
105-604	3/4"	79.84
105-605	1"	128.44
105-606	1-1/4"	190.31
105-607	1-1/2"	239.67
105-608	2"	304.73
105-609	2-1/2"	605.20
105-610	3"	929.90

"All our dreams can come true - if we have the courage to pursue them."

- Walt Disney

**SQUARE PLUG**



Part #	Size	List Price
105-650	1/8"	5.10
105-651	1/4"	5.48
105-652	3/8"	6.77
105-653	1/2"	12.03
105-654	3/4"	15.34
105-655	1"	22.26
105-656	1-1/4"	43.21
105-657	1-1/2"	47.67
105-658	2"	75.81

**HIGH PRESSURE HEX NIPPLES**



Part #	Size	PSI	List Price
SS54044	1/4 x CL	5000	11.35
SS540442.0	1/4 x 2	5000	9.65
SS540443.0	1/4 x 3	5000	13.70
SS54046	3/8 x CL	4000	15.58
SS540462.0	3/8 x 2	4000	15.71
SS54048	1/2 x CL	3000	24.25
SS540482.0	1/2 x 2	3000	19.97
SS540483.0	1/2 x 3	3000	29.95

**NIPPLES & FITTINGS**

**SOCKET WELD  
ASTM A182/ASME SA182 & ANSI B16.11**



**90° ELBOWS**



Part #	Size	List Price
106-100	1/8"	18.41
106-101	1/4"	18.41
106-102	3/8"	21.51
106-103	1/2"	28.10
106-104	3/4"	37.04
106-105	1"	55.13
106-106	1-1/4"	98.22
106-107	1-1/2"	112.98
106-108	2"	121.69

**COUPLINGS**



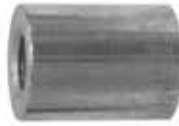
Part #	Size	List Price
106-410	1/8"	13.20
106-411	1/4"	13.20
106-412	3/8"	14.54
106-413	1/2"	14.98
106-414	3/4"	19.54
106-415	1"	27.81
106-416	1-1/4"	54.06
106-417	1-1/2"	73.81
106-418	2"	99.08
106-419	2-1/2"	268.60
106-420	3"	393.55

**TEES**



Part #	Size	List Price
106-250	1/8"	23.41
106-251	1/4"	23.41
106-252	3/8"	28.49
106-253	1/2"	38.63
106-254	3/4"	47.78
106-255	1"	72.98
106-256	1-1/4"	116.12
106-257	1-1/2"	166.52
106-258	2"	265.98

**REDUCING COUPLINGS**



Part #	Size	List Price
106-434	1/2" x 1/4"	23.75
106-435	1/2" x 3/8"	23.75
106-437	3/4" x 3/8"	32.88
106-438	3/4" x 1/2"	32.88
106-440	1" x 3/8"	38.88
106-441	1" x 1/2"	38.88
106-442	1" x 3/4"	38.88
106-443	1-1/4" x 3/8"	74.45
106-444	1-1/4" x 1/2"	74.45
106-445	1-1/4" x 3/4"	74.45
106-446	1-1/4" x 1"	74.45
106-447	1-1/2" x 1/2"	98.37
106-448	1-1/2" X 3/4"	98.37
106-449	1-1/2" x 1"	98.37
106-450	1-1/2" x 1-1/4"	98.37
106-458	2" x 1/2"	143.11
106-451	2" x 3/4"	143.11
106-452	2" x 1"	143.11
106-453	2" x 1-1/4"	143.11
106-454	2" x 1-1/2"	143.11

**CAPS**



Part #	Size	List Price
106-470	1/8"	10.50
106-471	1/4"	10.50
106-472	3/8"	12.41
106-473	1/2"	15.86
106-474	3/4"	20.18
106-475	1"	25.77
106-476	1-1/4"	38.17
106-477	1-1/2"	49.86
106-478	2"	80.85

**45° ELBOWS**



Part #	Size	List Price
106-183	1/2"	41.47
106-184	3/4"	46.81
106-185	1"	70.64
106-186	1-1/4"	89.21
106-187	1-1/2"	111.35
106-188	2"	166.09

**UNIONS**



Part #	Size	List Price
106-600	1/8"	52.80
106-601	1/4"	52.80
106-602	3/8"	61.15
106-603	1/2"	61.24
106-604	3/4"	79.84
106-605	1"	128.44
106-606	1-1/4"	190.31
106-607	1-1/2"	239.68
106-608	2"	304.73

**NIPLLES & FITTINGS**





# 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".

## 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.

**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.

## Steel and Wrought Iron Welded

Nominal Size	Outside Diameter	Schedule 40 Standard			Schedule 80 Extra Heavy		
		Wall Thickness	Inside Diameter	Weight per Foot P.E.	Wall Thickness	Inside Diameter	Weight per Foot P.E.
1/8"	.405	.068	.269	.24	.095	.215	.31
1/4"	.540	.088	.364	.42	.119	.302	.54
3/8"	.675	.091	.493	.57	.126	.423	.74
1/2"	.840	.109	.622	.85	.147	.546	1.09
3/4"	1.050	.113	.824	1.13	.154	.742	1.47
1"	1.315	.133	1.049	1.68	.179	.957	2.17
1-1/4"	1.660	.140	1.380	2.27	.191	1.278	3.00
1-1/2"	1.900	.145	1.610	2.72	.200	1.500	3.63
2"	2.375	.154	2.067	3.65	.218	1.939	5.02
2-1/2"	2.875	.203	2.469	5.79	.276	2.323	7.66
3"	3.500	.216	3.068	7.58	.300	2.900	10.25
3-1/2"	4.000	.226	3.548	9.11	.318	3.364	12.51
4"	4.500	.237	4.026	10.79	.337	3.826	14.98
5"	5.563	.258	5.047	14.62	.375	4.813	20.78
6"	6.625	.280	6.065	18.97	.432	5.761	28.57

## Chemical Composition

Maximum%

C 0.25  
Mn 0.95

## Tensile Requirements

	Kg/Mm2	PSI	MPA
Tensile Strength Min.	33.7	48000	331
Tensile Strength Min.	20.0	28500	196

## Pounds per 100 pcs. approximate

Diam	Length close/RC	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	7"	8"	9"	10"	11"	12"
1/8"	1.3	2.4	3.5	4.4	5.4	6.8	7.4	8.5	9.5	11.2	11.4	13.4	15.4	17.4	19.1	20.8	23.1
1/4"	2.4	4.3	6.1	8.3	9.0	11.8	13.5	16.1	16.8	19.1	19.9	24.7	28.7	32.0	35.1	38.1	41.4
3/8"	3.6	6.0	7.8	9.9	13.4	15.4	17.8	20.3	22.7	24.9	28.4	32.6	36.6	40.8	44.8	48.7	52.9
1/2"	6.1	8.7	12.7	15.9	19.3	24.2	26.0	31.6	34.5	39.2	43.1	50.0	58.0	66.1	74.5	82.3	89.0
3/4"	11.0	12.2	21.8	23.1	26.1	31.6	37.0	41.6	47.1	52.6	55.9	65.4	79.1	79.6	94.9	111.9	116.9
1"	15.3		22.0	28.4	37.0	44.2	52.1	59.4	66.6	76.5	79.7	94.8	111.6	124.5	136.3	153.6	175.0
1-1/4"	22.7		32.0	41.9	51.3	61.9	68.1	81.9	90.7	98.2	115.1	133.4	149.3	174.8	199.2	219.3	236.6
1-1/2"	29.9		37.9	46.8	80.6	72.6	85.8	99.1	112.7	120.3	134.5	162.1	184.9	208.5	219.4	247.5	277.8
2"	51.8			63.1	82.1	97.1	110.0	128.4	142.0	165.0	166.9	208.5	246.7	276.9	303.2	334.4	369.2
2-1/2"	82.6				109.0	133.5	156.2	172.9	209.9	232.8	253.4	318.9	337.3	408.1	457.6	514.2	554.4
3"	116.5				147.2	181.6	210.4	247.7	274.1	213.6	338.0	389.2	469.4	555.1	599.2	649.4	747.1
4"	172.7						265.3	326.2	344.4	405.7	451.7	547.3	632.2	721.8	832.7	927.1	1057.0
6"																	

Available Upon Request



**1/8" DIAMETER**



Part # Galv	List Price	Length	Part # Black	List Price
56-001	1.50	X Close (3/4")	57-001	1.07
56-002	1.55	x 1-1/2"	57-002	1.20
56-003	1.74	x 2"	57-003	1.29
56-004	1.89	x 2-1/2"	57-004	1.43
56-005	2.14	x 3"	57-005	1.59
56-006	2.29	x 3-1/2"	57-006	1.74
56-007	2.53	x 4"	57-007	2.02
56-008	3.25	x 4-1/2"	57-008	2.62
56-009	4.27	x 5"	57-009	3.02
56-010	4.60	x 5-1/2"	57-010	3.31
56-011	4.80	x 6"	57-011	3.67
56-012	5.99	x 7"	57-012	4.36
56-013	6.32	x 8"	57-013	4.60
56-014	6.64	x 9"	57-014	4.78
56-015	7.20	x 10"	57-015	5.08
56-016	8.14	x 11"	57-016	5.34
56-017	8.07	x 12"	57-017	5.37

**1/4" Diameter**



Part # Galv	List Price	Length	Part # Black	List Price
56-020	1.57	X Close (7/8")	57-020	1.28
56-021	1.68	x 1-1/2"	57-021	1.37
56-022	1.95	x 2"	57-022	1.52
56-023	2.25	x 2-1/2"	57-023	1.72
56-024	2.55	x 3"	57-024	1.89
56-025	2.74	x 3-1/2"	57-025	2.09
56-026	2.86	x 4"	57-026	2.31
56-027	3.43	x 4-1/2"	57-027	2.80
56-028	4.05	x 5"	57-028	3.31
56-029	4.70	x 5-1/2"	57-029	3.65
56-030	4.91	x 6"	57-030	4.07
56-031	5.91	x 7"	57-031	4.77
56-032	6.02	x 8"	57-032	4.86
56-033	6.32	x 9"	57-033	5.28
56-034	7.13	x 10"	57-034	5.73
56-035	9.08	x 11"	57-035	5.99
56-036	9.25	x 12"	57-036	6.35
56-038	23.96	x 18"		
56-037	28.70	x 24"		

*More sizes available*

**3/8" DIAMETER**



Part # Galv	List Price	Length	Part # Black	List Price
56-040	1.83	X Close (1")	57-040	1.41
56-041	2.12	x 1-1/2"	57-041	1.50
56-042	2.19	x 2"	57-042	1.86
56-043	2.45	x 2-1/2"	57-043	1.83
56-044	2.75	x 3"	57-044	2.18
56-045	3.55	x 3-1/2"	57-045	2.31
56-046	3.55	x 4"	57-046	2.56
56-047	3.74	x 4-1/2"	57-047	2.80
56-048	4.85	x 5"	57-048	3.74
56-049	5.24	x 5-1/2"	57-049	3.96
56-050	5.51	x 6"	57-050	4.20
56-051	5.84	x 7"	57-051	5.03
56-052	6.09	x 8"	57-052	5.51
56-053	7.37	x 9"	57-053	5.87
56-054	7.58	x 10"	57-054	6.23
56-055	7.73	x 11"	57-055	6.58
56-056	8.09	x 12"	57-056	6.77
56-430	19.75	x 18"	57-430	25.11
56-431	19.75	x 24"	57-431	18.44
56-432	22.07	x 30"	57-432	17.44
56-433	24.13	x 36"	57-433	23.83
56-234	47.66	x 42"	57-234	30.61
56-235	48.78	x 48"	57-235	33.62
56-236	52.26	x 60"	57-236	42.16
56-237	62.53	x 72"	57-237	53.20

Black Steel Nipples available in Schedule 40 Seamless beginning on page 221.

Black Steel Nipples available in Schedule 80 beginning on page 234.

Other Steel Nipples available upon request:

- Toe Nipples, see pg. 220
- L&R Nipples
- Di-electric Nipples
- Nipple Assortments
- Nipples cut to any lengths



**STEEL NIPPLES****BLACK AND GALVANIZED SCHEDULE 40****1/2" DIAMETER**

Part # Galv	List Price	Length	Part # Black	List Price
56-060	1.11	X Close (1-1/8")	57-060	0.99
56-061	1.25	x 1-1/2"	57-061	1.07
56-062	1.38	x 2"	57-062	1.13
56-063	1.45	x 2-1/2"	57-063	1.20
56-064	1.57	x 3"	57-064	1.35
56-065	1.74	x 3-1/2"	57-065	1.48
56-066	1.92	x 4"	57-066	1.68
56-067	2.14	x 4-1/2"	57-067	1.81
56-068	2.32	x 5"	57-068	1.99
56-069	2.46	x 5-1/2"	57-069	2.23
56-070	2.62	x 6"	57-070	2.38
56-071	4.20	x 7"	57-071	3.61
56-072	4.58	x 8"	57-072	3.89
56-073	5.34	x 9"	57-073	4.38
56-074	5.46	x 10"	57-074	4.66
56-075	5.89	x 11"	57-075	5.21
56-076	6.22	x 12"	57-076	7.59
56-240	10.67	x 18"	57-240	12.42
56-241	16.73	x 24"	57-241	15.20
56-242	18.03	x 30"	57-242	18.70
56-243	23.40	x 36"	57-243	20.20
56-244	51.56	x 42"	57-244	42.93
56-245	26.92	x 48"	57-245	24.35
56-246	34.29	x 60"	57-246	28.28
56-247	39.38	x 72"	57-247	36.03

**3/4" DIAMETER**

Part # Galv	List Price	Length	Part # Black	List Price
56-080	1.48	X Close (1-3/8")	57-080	1.35
56-081	1.57	x 1-1/2"	57-081	1.42
56-082	1.68	x 2"	57-082	1.49
56-083	1.82	x 2-1/2"	57-083	1.65
56-084	2.00	x 3"	57-084	1.81
56-085	2.21	x 3-1/2"	57-085	2.01
56-086	2.42	x 4"	57-086	2.20
56-087	2.64	x 4-1/2"	57-087	2.41
56-088	3.06	x 5"	57-088	2.66
56-089	3.49	x 5-1/2"	57-089	2.87
56-090	3.40	x 6"	57-090	3.09
56-091	5.75	x 7"	57-091	4.41
56-092	5.96	x 8"	57-092	4.90
56-093	6.50	x 9"	57-093	5.88
56-094	6.53	x 10"	57-094	6.16
56-095	7.59	x 11"	57-095	6.30
56-096	7.31	x 12"	57-096	6.53
56-250	11.92	x 18"	57-250	10.55
56-251	15.32	x 24"	57-251	12.49
56-252	18.28	x 30"	57-252	16.35
56-253	21.52	x 36"	57-253	18.91
56-254	55.33	x 42"	57-254	47.84
56-255	29.83	x 48"	57-255	24.03
56-256	36.54	x 60"	57-256	30.89
56-257	43.45	x 72"	57-257	35.42

**NIPPLES & FITTINGS**

A little girl, dressed in her Sunday best, was running as fast as she could, trying not to be late for Bible class. As she ran she prayed, 'Dear Lord, please don't let me be late! Dear Lord, please don't let me be late!'

While she was running and praying, she tripped on a curb and fell, getting her clothes dirty and tearing her dress. She got up, brushed herself off, and started running again! As she ran she once again began to pray, 'Dear Lord, please don't let me be late...But please don't shove me either!'



**1" DIAMETER**



Part # Galv	List Price	Length	Part # Black	List Price
56-100	2.18	X Close (1-1/2")	57-100	1.98
56-101	2.29	x 2"	57-101	2.20
56-102	2.50	x 2-1/2"	57-102	2.20
56-103	2.75	x 3"	57-103	2.45
56-104	3.31	x 3-1/2"	57-104	2.71
56-105	3.77	x 4"	57-105	3.00
56-106	3.76	x 4-1/2"	57-106	3.22
56-107	3.94	x 5"	57-107	3.47
56-108	4.40	x 5-1/2"	57-108	3.74
56-109	4.52	x 6"	57-109	4.07
56-110	6.77	x 7"	57-110	5.53
56-111	7.39	x 8"	57-111	6.06
56-112	13.83	x 9"	57-112	6.70
56-113	14.26	x 10"	57-113	7.19
56-114	17.43	x 11"	57-114	9.77
56-115	17.43	x 12"	57-115	8.39
56-260	21.69	x 18"	57-260	18.44
56-261	26.24	x 24"	57-261	21.35
56-262	43.90	x 30"	57-262	32.38
56-263	38.32	x 36"	57-263	30.35
56-264	70.53	x 42"	57-264	63.46
56-265	55.77	x 48"	57-265	54.20
56-266	66.91	x 60"	57-266	59.24
56-267	74.34	x 72"	57-267	83.25

**1-1/4" DIAMETER**



Part # Galv	List Price	Length	Part # Black	List Price
56-120	2.93	X Close (1-5/8")	57-120	2.61
56-121	3.05	x 2"	57-121	2.80
56-122	3.32	x 2-1/2"	57-122	3.01
56-123	3.63	x 3"	57-123	3.30
56-124	4.17	x 3-1/2"	57-124	3.61
56-125	4.80	x 4"	57-125	4.00
56-126	5.33	x 4-1/2"	57-126	4.31
56-127	5.13	x 5"	57-127	4.74
56-128	5.66	x 5-1/2"	57-128	4.90
56-129	5.81	x 6"	57-129	5.24
56-130	10.58	x 7"	57-130	7.27
56-131	9.76	x 8"	57-131	8.06
56-132	15.22	x 9"	57-132	8.68
56-133	15.68	x 10"	57-133	9.29
56-134	15.86	x 11"	57-134	11.08
56-135	19.75	x 12"	57-135	16.92
56-270	26.02	x 18"	57-270	20.06
56-271	33.87	x 24"	57-271	26.02
56-272	39.50	x 30"	57-272	40.45
56-273	50.90	x 36"	57-273	50.88
56-274	59.84	x 42"	57-274	60.23
56-275	67.87	x 48"	57-275	64.76
56-276	83.28	x 60"	57-276	65.05
56-277	138.48	x 72"	57-277	92.51

**NIPPLES & FITTINGS**

**Five (5) lessons about the way we treat people**

1 - First Important Lesson - Cleaning Lady.

During my second month of college, our professor gave us a pop quiz. I was a conscientious student and had breezed through the questions until I read the last one:

"What is the first name of the woman who cleans the school?"

Surely this was some kind of joke. I had seen the cleaning woman several times. She was tall, dark-haired and in her 50's, but how would I know her name? I handed in my paper, leaving the last question blank. Just before class ended, one student asked if the last question would count toward our quiz grade.

"Absolutely," said the professor.. "In your careers, you will meet many people. All are significant.. They deserve your attention and care, even if all you do is smile and say "hello.."

I've never forgotten that lesson.. I also learned her name was Dorothy.



**1-1/2" DIAMETER**



Part # Galv	List Price	Length	Part # Black	List Price
56-140	3.67	X Close (1-3/4")	57-140	3.14
56-141	3.86	x 2"	57-141	3.24
56-142	4.05	x 2-1/2"	57-142	3.59
56-143	4.43	x 3"	57-143	4.05
56-144	4.84	x 3-1/2"	57-144	4.58
56-145	5.28	x 4"	57-145	4.87
56-146	5.94	x 4-1/2"	57-146	5.37
56-147	6.13	x 5"	57-147	5.46
56-148	6.85	x 5-1/2"	57-148	5.78
56-149	6.96	x 6"	57-149	6.06
56-150	10.47	x 7"	57-150	8.42
56-151	11.47	x 8"	57-151	9.22
56-152	15.00	x 9"	57-152	10.31
56-153	14.30	x 10"	57-153	10.90
56-154	18.59	x 11"	57-154	18.13
56-155	18.45	x 12"	57-155	12.72
56-280	27.88	x 18"	57-280	26.36
56-281	40.25	x 24"	57-281	36.86
56-282	62.10	x 30"	57-282	47.30
56-283	65.05	x 36"	57-283	57.36
56-284	112.33	x 42"	57-284	76.47
56-285	74.84	x 48"	57-285	88.46
56-286	109.18	x 60"	57-286	98.82
56-287	139.38	x 72"	57-287	124.25

**2" DIAMETER**



Part # Galv	List Price	Length	Part # Black	List Price
56-160	5.00	X Close (2")	57-160	4.16
56-161	5.77	x 2-1/2"	57-161	5.00
56-162	5.98	x 3"	57-162	5.24
56-163	6.75	x 3-1/2"	57-163	6.16
56-164	7.81	x 4"	57-164	6.09
56-165	8.09	x 4-1/2"	57-165	6.87
56-166	9.29	x 5"	57-166	7.28
56-167	8.90	x 5-1/2"	57-167	7.91
56-168	9.79	x 6"	57-168	8.21
56-169	14.86	x 7"	57-169	11.27
56-170	15.24	x 8"	57-170	13.03
56-171	26.20	x 9"	57-171	14.40
56-172	17.86	x 10"	57-172	16.21
56-173	20.44	x 11"	57-173	17.82
56-174	22.88	x 12"	57-174	21.29
56-290	33.07	x 18"	57-290	35.03
56-291	43.06	x 24"	57-291	48.75
56-292	66.54	x 30"	57-292	54.59
56-293	70.00	x 36"	57-293	62.26
56-294	121.61	x 42"	57-294	101.45
56-295	92.53	x 48"	57-295	105.58
56-296	118.55	x 60"	57-296	122.57
56-297	152.46	x 72"	57-297	150.34

**Five (5) lessons about the way we treat people**

**2. - Second Important Lesson - Pickup in the Rain**

One night, at 11:30 p.m., an older African American woman was standing on the side of an Alabama highway trying to endure a lashing rain storm. Her car had broken down and she desperately needed a ride. Soaking wet, she decided to flag down the next car. A young white man stopped to help her, generally unheard of in those conflict-filled 1960's. The man took her to safety, helped her get assistance and put her into a taxicab. She seemed to be in a big hurry, but wrote down his address and thanked him. Seven days went by and a knock came on the man's door. To his surprise, a giant console color TV was delivered to his home. A special note was attached.

It read:

"Thank you so much for assisting me on the highway the other night. The rain drenched not only my clothes, but also my spirits. Then you came along. Because of you, I was able to make it to my dying husband's' bedside just before he passed away... God bless you for helping me and unselfishly serving others."

Sincerely,

Mrs. Nat King Cole.





**2-1/2" DIAMETER**



Part # Galv	List Price	Length	Part # Black	List Price
56-180	14.62	X Close (2-1/2")	57-180	13.53
56-181	15.05	x 3"	57-181	14.12
56-182	18.99	x 3-1/2"	57-182	14.90
56-183	16.57	x 4"	57-183	15.35
56-184	18.68	x 4-1/2"	57-184	16.29
56-185	18.45	x 5"	57-185	17.15
56-186	20.63	x 5-1/2"	57-186	18.67
56-187	20.27	x 6"	57-187	18.78
56-188	25.72	x 7"	57-188	30.96
56-189	32.36	x 8"	57-189	25.93
56-190	30.90	x 9"	57-190	33.50
56-191	31.79	x 10"	57-191	25.97
56-192	33.57	x 11"	57-192	33.09
56-193	33.69	x 12"	57-193	31.39



**4" DIAMETER**

Part # Galv	List Price	Length	Part # Black	List Price
56-220	25.52	X Close (2-7/8")	57-220	24.74
56-221	26.19	3-1/2"		
56-223	28.07	x 4"	57-223	26.87
56-224	33.43	x 4-1/2"	57-224	28.50
56-225	35.30	x 5"	57-225	30.29
56-226	47.04	x 5-1/2"	57-226	32.13
56-227	38.07	x 6"	57-227	32.90
56-330	65.05	x 7"	57-330	57.76
56-229	63.16	x 8"	57-229	58.54
56-331	65.35	x 9"	57-331	67.44
56-332	76.66	x 10"	57-332	66.28
56-228	76.22	x 12"		



**6" DIAMETER**

Part # Galv	List Price	6" Dia.	Part # Black	List Price
56-300	157.82	Close (3-1/8")	57-300	95.50

**3" DIAMETER**



Part # Galv	List Price	Length	Part # Black	List Price
56-200	17.85	X Close (2-5/8")	57-200	17.03
56-201	18.81	x 3"	57-201	17.92
56-202	20.71	x 3-1/2"	57-202	18.80
56-203	21.16	x 4"	57-203	19.90
56-204	25.50	x 4-1/2"	57-204	21.96
56-205	26.15	x 5"	57-205	22.47
56-206	28.45	x 5-1/2"	57-206	23.17
56-207	27.54	x 6"	57-207	24.61
56-208	33.81	x 7"	57-208	31.39
56-209	34.15	x 8"	57-209	32.52
56-210	38.36	x 9"	57-210	37.00
56-211	41.10	x 10"	57-211	38.03
56-212	41.69	x 11"	57-212	45.37
56-213	54.68	x 12"	57-213	48.17
		x 24"	57-311	136.56

**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-resistant bond.

- Roller cut
- Reamed and Chamfer or Saw Cut available upon request.



Part #	Size	List Price
57-021T	1/4" x 1-1/2"	4.54
57-022T	1/4" x 2"	4.54
57-041T	3/8" x 1-1/2"	4.69
57-042T	3/8" x 2"	4.96
57-061T	1/2" x 1-1/2"	3.70
57-062T	1/2" x 2"	3.70
57-081T	3/4" x 1-1/2"	4.54
57-082T	3/4" x 2"	4.54
57-101T	1" x 2"	6.74
57-102T	1" x 2-1/2"	7.10
57-121T	1-1/4" x 2"	8.40
57-122T	1-1/4" x 2-1/2"	8.92
57-141T	1-1/2" x 2"	9.94
57-142T	1-1/2" x 2-1/2"	11.10
57-160T	2" x 2"	12.60
57-161T	2" x 2-1/2"	14.42
57-181T*	2-1/2" x 3"	40.32
57-201T*	3" x 3"	50.80
57-223T*	4" x 4"	81.40

\* Saw Cut

**SCHEDULE 40 SEAMLESS NIPPLES  
1/8" DIAMETER**



Part #	Length	List Price
71-001	X Close (3/4")	7.89
71-002	x 1-1/2"	8.36
71-003	x 2"	8.98
71-004	x 2-1/2"	9.81
71-005	x 3"	10.80
71-006	x 3-1/2"	11.88
71-007	x 4"	13.18
71-008	x 4-1/2"	14.27
71-009	x 5"	19.66
71-010	x 5-1/2"	20.98
71-011	x 6"	22.52

**SCHEDULE 40 SEAMLESS NIPPLES  
1/4" DIAMETER**



Part #	Length	List Price
71-020	X Close (7/8")	9.30
71-021	x 1-1/2"	9.52
71-022	x 2"	10.50
71-023	x 2-1/2"	11.40
71-024	x 3"	12.77
71-025	x 3-1/2"	14.10
71-026	x 4"	15.64
71-027	x 4-1/2"	17.02
71-028	x 5"	24.06
71-029	x 5-1/2"	25.46

**SCHEDULE 40 SEAMLESS NIPPLES  
3/8" DIAMETER**



Part #	Length	List Price
71-040	X Close (1")	10.02
71-041	x 1-1/2"	10.43
71-042	x 2"	11.40
71-043	x 2-1/2"	12.81
71-044	x 3"	14.44
71-045	x 3-1/2"	15.87
71-046	x 4"	17.24
71-047	x 4-1/2"	18.98
71-048	x 5"	25.41
71-049	x 5-1/2"	27.06
71-050	x 6"	28.80

**SCHEDULE 40 SEAMLESS NIPPLES  
1/2" DIAMETER**



Part #	Length	List Price
71-060	X Close (1-1/8)	5.21
71-061	x 1-1/2"	5.56
71-062	x 2"	6.12
71-063	x 2-1/2"	6.76
71-064	x 3"	7.44
71-065	x 3-1/2"	8.48
71-066	x 4"	9.27
71-067	x 4-1/2"	10.21
71-068	x 5"	11.75
71-069	x 5-1/2"	12.80
71-070	x 6"	13.82

**SCHEDULE 40 SEAMLESS NIPPLES  
3/4" DIAMETER**



Part #	Length	List Price
71-080	X Close (1-3/8")	5.88
71-081	x 1-1/2"	6.33
71-082	x 2"	6.60
71-083	x 2-1/2"	7.46
71-084	x 3"	8.34
71-085	x 3-1/2"	9.47
71-086	x 4"	10.40
71-087	x 4-1/2"	11.36
71-088	x 5"	12.95
71-089	x 5-1/2"	13.97
71-090	x 6"	14.96

**SCHEDULE 40 SEAMLESS NIPPLES  
1" DIAMETER**



Part #	Length	List Price
71-100	X Close (1-1/2")	8.34
71-101	x 2"	8.82
71-102	x 2-1/2"	9.48
71-103	x 3"	11.08
71-104	x 3-1/2"	12.30
71-105	x 4"	13.19
71-106	x 4-1/2"	14.93
71-107	x 5"	17.25
71-108	x 5-1/2"	18.50
71-109	x 6"	19.72

**NIPPLES &  
FITTINGS**





**SCHEDULE 40 SEAMLESS NIPPLES  
1-1/4" DIAMETER**



Part #	Length	List Price
71-120	X Close (1-5/8")	10.46
71-121	x 2"	10.88
71-122	x 2-1/2"	11.98
71-123	x 3"	13.92
71-124	x 3-1/2"	15.21
71-125	x 4"	17.02
71-126	x 4-1/2"	18.50
71-127	x 5"	21.47
71-128	x 5-1/2"	23.09
71-129	x 6"	24.68

**SCHEDULE 40 SEAMLESS NIPPLES  
1-1/2" DIAMETER**



Part #	Length	List Price
71-140	X Close (1-3/4")	12.81
71-141	x 2"	13.33
71-142	x 2-1/2"	14.51
71-143	x 3"	16.67
71-144	x 3-1/2"	18.19
71-145	x 4"	20.37
71-146	x 4-1/2"	22.27
71-147	x 5"	25.76
71-148	x 5-1/2"	27.36
71-149	x 6"	30.29

**SCHEDULE 40 SEAMLESS NIPPLES  
2" DIAMETER**



Part #	Length	List Price
71-160	X Close (2")	12.55
71-161	x 2-1/2"	14.13
71-162	x 3"	16.42
71-163	x 3-1/2"	17.68
71-164	x 4"	19.75
71-165	x 4-1/2"	21.35
71-166	x 5"	24.94
71-167	x 5-1/2"	26.91
71-168	x 6"	28.46

**SCHEDULE 40 SEAMLESS NIPPLES  
2-1/2" DIAMETER**



Part #	Length	List Price
71-180	X Close (2-1/2")	41.80
71-181	x 3"	43.87
71-182	x 3-1/2"	47.18
71-183	x 4"	48.94
71-184	x 4-1/2"	51.57
71-185	x 5"	55.10
71-186	x 5-1/2"	57.85
71-187	x 6"	60.37

**SCHEDULE 40 SEAMLESS NIPPLES  
3" DIAMETER**



Part #	Length	List Price
71-200	X Close (2-5/8")	52.75
71-201	x 3"	55.79
71-202	x 3-1/2"	59.63
71-203	x 4"	63.13
71-204	x 4-1/2"	66.60
71-205	x 5"	71.25
71-206	x 5-1/2"	74.83
71-207	x 6"	78.32

**SCHEDULE 40 SEAMLESS NIPPLES  
4" DIAMETER**



Part #	Length	List Price
71-220	X Close (2-7/8")	75.20
71-223	x 4"	85.10
71-224	x 4-1/2"	90.08
71-225	x 5"	97.70
71-226	x 5-1/2"	101.53
71-227	x 6"	106.44

**NIPPLES & FITTINGS**



**Product Specifications**

Welded steel couplings both galvanized and black in diameters from 1/8" up to 4".

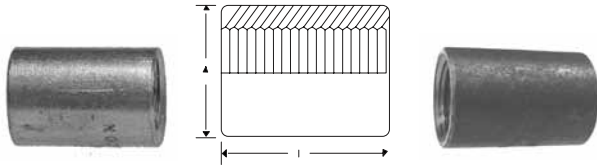
**Technical Specifications**

**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 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**



Part #	List Price	Size	Part #	List Price
Galv			Black	
64-770	2.71	1/8"	65-770	1.69
64-771	3.49	1/4"	65-771	2.60
64-772	3.19	3/8"	65-772	2.01
64-773	2.79	1/2"	65-773	1.95
64-774	3.97	3/4"	65-774	2.87
64-775	6.37	1"	65-775	4.52
64-776	6.88	1-1/4"	65-776	6.23
64-777	9.66	1-1/2"	65-777	6.68
64-778	15.83	2"	65-778	9.50
64-779	31.10	2-1/2"	65-779	28.93
64-780	67.48	3"	65-780	55.86
64-781	90.01	4"	65-781	71.65

**HALF MERCHANT COUPLINGS**



Part #	List Price	Size	Part #	List Price
Galv			Black	
		1/4"	65-771H	3.02
		3/8"	65-772H	3.49
64-773H	2.38	1/2"	65-773H	2.33
64-774H	3.23	3/4"	65-774H	3.09
64-775H	6.53	1"	65-775H	4.50
64-776H	5.78	1-1/4"	65-776H	5.83
64-777H	8.23	1-1/2"	65-777H	6.73
64-778H	14.46	2"	65-778H	9.14
		2-1/2"	65-779H	29.63
		3"	65-780H	42.68
		4"	65-781H	57.84

Also available:  
API Line Couplings  
L&R Merchant Coupling

**MERCHANT COUPLINGS SPECIFICATIONS**

Size	Outside Diam.	Length	Weight 100 pcs approx.	Quantity per box	Threads per Inch	Threads
		Inches	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



**ISO 9002 - CERTIFICATE OF QUALITY - UL/FM LISTED AND APPROVED**

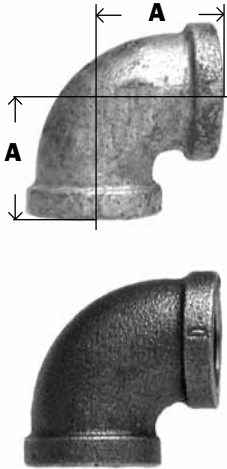
Our quality fittings are made with care and attention to detail. With better molds we can reduce parting lines and rough edges resulting in better fluid flow. By using a low temperature galvanizing process the coating is more durable which means a longer lasting fitting.

*(Every fitting is subjected to an underwater fitness test to ensure the highest quality)*

**SPECIFICATIONS**

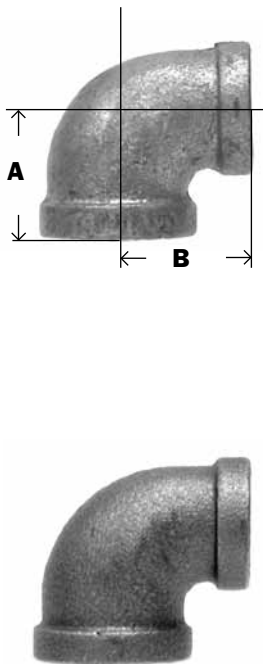
- MATERIAL: ASTM A 197 - Cuppla Malleable Iron, ASTM A 153 - Hot dipped galvanizing
- DIMENSIONS: ANSI B 16.3 - Malleable Iron threaded fittings, ANSI B 16.14 - Ferrous Pipe Plugs, Bushings etc..., ANSI B 16.39 - Malleable Iron threaded pipe unions.
- THREADS: ANSI B 2.1 or BS 21
- PHYSICAL PROPERTIES: Tensile Strength - 28.4kg ./mm. Min.  
Elongation - 5% min.

**ELBOWS 90°**



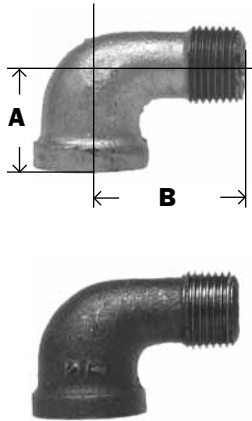
Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-100	2.85	1/8"	0.69	50/600	0.06	65-100	1.92
64-101	2.71	1/4"	0.81	35/420	0.11	65-101	1.74
64-102	2.56	3/8"	0.95	90/360	0.16	65-102	1.74
64-103	1.65	1/2"	1.12	50/200	0.24	65-103	1.39
64-104	2.20	3/4"	1.31	35/105	0.37	65-104	1.89
64-105	3.68	1"	1.50	20/60	0.59	65-105	3.03
64-106	6.20	1-1/4"	1.75	20/40	0.94	65-106	4.56
64-107	8.17	1-1/2"	1.94	15/30	1.15	65-107	6.06
64-108	12.40	2"	2.25	8/16	1.76	65-108	9.69
64-109	33.95	2-1/2"	2.70	12	2.90	65-109	22.19
64-110	56.99	3"	3.08	8	5.41	65-110	31.37
64-112	95.51	4"	3.79	2	9.07	65-112	70.36
64-114	337.44	6"	5.13	1	18.92	65-114	226.77

**REDUCING ELBOWS 90°**



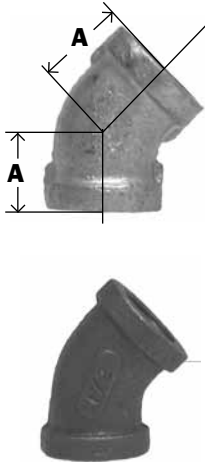
Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-121	5.75	3/8" x 1/8"	0.81	0.85	105/420	0.13	65-121	4.67
64-122	4.03	3/8" x 1/4"	0.88	0.90	90/360	0.14	65-122	2.77
64-123	3.34	1/2" x 1/4"	0.97	0.98	60/240	0.18	65-123	2.87
64-124	3.14	1/2" x 3/8"	1.04	1.03	60/240	0.21	65-124	2.53
64-126	4.50	3/4" x 3/8"	1.12	1.13	40/160	0.28	65-126	3.61
64-127	3.62	3/4" x 1/2"	1.20	1.22	40/160	0.32	65-127	2.74
64-130	4.63	1" x 1/2"	1.26	1.40	25/100	0.44	65-130	3.70
64-131	4.69	1" x 3/4"	1.37	1.45	50/100	0.52	65-131	3.50
64-133	9.93	1-1/4" x 3/4"	1.45	1.62	15/60	0.70	65-133	6.47
64-134	7.77	1-1/4" x 1"	1.58	1.67	10/40	0.81	65-134	6.05
64-136	11.26	1-1/2" x 3/4"	1.52	1.75	10/40	0.74	65-136	9.33
64-137	11.94	1-1/2" x 1"	1.65	1.80	10/40	0.66	65-137	8.15
64-138	12.74	1-1/2" x 1-1/4"	1.82	1.88	15/30	1.27	65-138	8.16
64-139	18.06	2" x 3/4"	1.60	1.97	9/36	1.21	65-139	13.70
64-140	17.72	2" x 1"	1.73	2.02	14/28	1.22	65-140	14.34
64-141	16.61	2" x 1-1/4"	1.90	2.10	10/20	1.43	65-141	14.34
64-142	14.52	2" x 1-1/2"	2.02	2.16	10/20	1.38	65-142	11.82
64-145	69.42	2-1/2" x 1-1/2"	2.16	2.51	6/12	2.20	65-145	33.04
64-146	50.46	2-1/2" x 2"	2.39	2.60	6/12	2.70	65-146	32.42
64-148	79.68	3" x 1-1/2"	2.28	2.83	6/18	4.50	65-148	55.88
		3" x 2-1/2"	2.83	2.99	8/16	5.00	65-151	55.88
		4" x 2"	2.72	3.43	1/12	8.00	65-152	145.11
		4" x 2-1/2"	3.03	3.50	1/8	8.00	65-153	145.11
		4" x 3"	3.27	3.58	1/9	9.00	65-154	136.04

**90° STREET ELBOWS**



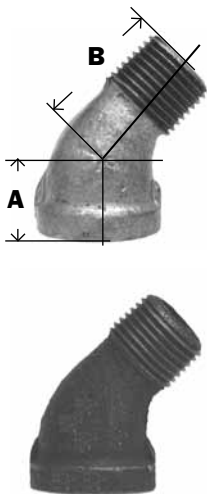
Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-160	3.49	1/8"	0.69	1.00	60/720	0.06	65-160	2.77
64-161	3.55	1/4"	0.80	1.17	35/420	0.10	65-161	2.65
64-162	3.68	3/8"	0.95	1.48	40/260	0.17	65-162	2.65
64-163	3.61	1/2"	1.10	1.59	60/180	0.25	65-163	2.72
64-164	3.48	3/4"	1.28	1.85	35/105	0.42	65-164	2.61
64-165	4.74	1"	1.47	2.10	45/90	0.57	65-165	3.83
64-166	8.49	1-1/4"	1.75	2.57	25/50	1.01	65-166	5.84
64-167	10.46	1-1/2"	1.90	2.63	9/27	1.32	65-167	7.45
64-168	16.52	2"	2.21	3.19	8/16	2.22	65-168	12.64
64-169	49.16	2-1/2"	2.65	3.78	5/10	2.83	65-169	32.22
64-170	74.20	3"	3.02	4.42	8	5.71	65-170	47.56
64-171	122.47	4"	3.72	5.57	4	10.47	65-171	77.48

**ELBOWS 45°**



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-180	4.07	1/8"	0.63	50/600	0.07	65-180	2.93
64-181	3.62	1/4"	0.73	30/360	0.11	65-181	2.97
64-182	3.62	3/8"	0.80	75/300	0.16	65-182	2.70
64-183	2.77	1/2"	0.88	50/200	0.24	65-183	2.33
64-184	3.87	3/4"	0.98	40/120	0.56	65-184	2.87
64-185	4.46	1"	1.12	20/60	0.35	65-185	3.67
64-186	8.12	1-1/4"	1.29	20/40	0.85	65-186	6.39
64-187	9.70	1-1/2"	1.43	10/30	1.11	65-187	7.92
64-188	14.46	2"	1.68	12/24	1.80	65-188	11.52
64-189	48.98	2-1/2"	1.95	12	2.68	65-189	33.63
64-190	71.22	3"	2.17	10	4.33	65-190	42.24
64-191	119.37	4"	2.61	4	7.54	65-191	84.80
64-192	421.82	6"	3.46	1	12.76	65-192	335.52

**45° STREET ELBOWS**

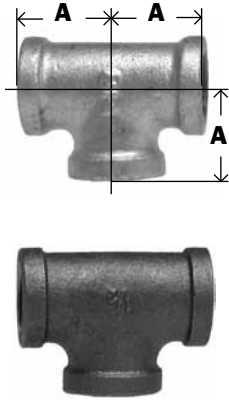


Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-200	5.31	1/8"	0.63	0.83	70/840	0.05	65-200	4.52
64-201	4.52	1/4"	0.73	0.94	40/480	0.13	65-201	3.19
64-202	5.20	3/8"	0.80	1.03	100/400	0.13	65-202	3.82
64-203	4.02	1/2"	0.86	1.30	75/225	0.23	65-203	3.07
64-204	6.47	3/4"	0.96	1.48	40/120	0.33	65-204	4.45
64-205	8.00	1"	1.10	1.69	25/75	0.55	65-205	5.49
64-206	12.01	1-1/4"	1.26	1.87	10/40	0.76	65-206	9.19
64-207	14.55	1-1/2"	1.40	2.05	10/30	1.13	65-207	11.68
64-208	25.00	2"	1.65	2.38	12/24	1.76	65-208	20.70
64-209	58.81	2-1/2"	1.95	2.72	12/24	2.57	65-209	43.97
64-210	95.12	3"	2.17	3.16	3/6	3.52	65-210	64.80
64-211	197.64	4"	2.61	3.90	4	8.29	65-211	120.31

**NIPPLES & FITTINGS**

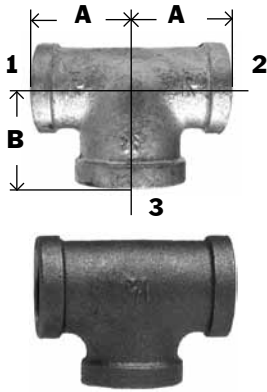


**TEES**



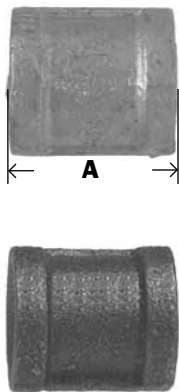
Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-250	3.82	1/8"	0.69	120/480	0.09	65-250	2.96
64-251	3.33	1/4"	0.81	75/300	0.16	65-251	2.64
64-252	3.52	3/8"	0.95	45/180	0.24	65-252	2.64
64-253	2.09	1/2"	1.12	40/120	0.35	65-253 <sup>5</sup>	1.68
64-254	3.66	3/4"	1.31	35/70	0.55	65-254	2.49
64-255	5.42	1"	1.50	20/40	0.84	65-255	4.28
64-256	9.41	1-1/4"	1.75	14/28	1.37	65-256	6.94
64-257	11.73	1-1/2"	1.94	12/24	1.74	65-257	8.63
64-258	19.59	2"	2.26	8/16	2.54	65-258	14.69
64-259	52.61	2-1/2"	2.70	4/8	3.76	65-259	33.21
64-260	61.72	3"	3.08	6	6.36	65-260	45.39
64-261	145.91	4"	3.79	1/2	11.69	65-261	117.07
64-262	449.95	6"	5.13	1	24.55	65-262	335.52

**BULLHEAD TEES**



Part # Galvanized	List Price	Size (1&2) x 3	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-280	5.75	1/2" x 3/4"	1.22	1.20	30/120	0.43	65-280	4.69
64-733	8.67	1/2" x 1"	1.36	1.26	40/160	0.48	65-733	10.73
64-289	8.49	3/4" x 1"	1.45	1.37	40/80	0.67	65-289	5.95
64-299	13.51	1" x 1-1/4"	1.67	1.58	11/44	0.91	65-299	11.07
64-300	22.97	1" x 1-1/2"	1.80	1.65	9/36	1.16	65-300	17.62
64-317	19.47	1-1/4" x 1-1/2"	1.88	1.82	12/24	1.45	65-317	13.84
64-319	36.29	1-1/2" x 2"	2.12	1.98	16	1.98	65-319	38.19

**COUPLINGS**



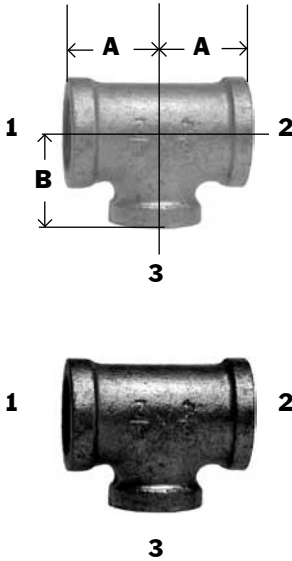
Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-410	3.38	1/8"	0.96	70/840	0.06	65-410	2.75
64-411	3.14	1/4"	1.06	40/480	0.09	65-411	2.59
64-412	3.14	3/8"	1.16	40/480	0.06	65-412	2.82
64-413	2.49	1/2"	1.34	60/240	0.19	65-413	2.82
64-414	2.91	3/4"	1.52	50/150	0.30	65-414	2.30
64-415	4.78	1"	1.67	25/100	0.45	65-415	3.50
64-416	6.58	1-1/4"	1.93	16/64	0.65	65-416	4.47
64-417	7.52	1-1/2"	2.15	18/36	0.90	65-417	5.99
64-418	10.95	2"	2.54	12/24	1.39	65-418	8.17
64-419	33.48	2-1/2"	2.88	8/16	2.42	65-419	23.69
64-420	44.75	3"	3.18	12	3.40	65-420	32.01
64-421	95.05	4"	3.69	3/6	6.23	65-421	63.88
64-422	248.27	6"	4.23	2	11.22	65-422	171.42





**REDUCING TEES**

(SAME SIZE ON RUN, REDUCING ON BRANCH)

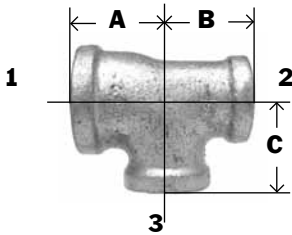


Part # Galvanized	List Price	Size (1&2) x 3	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-273	5.53	3/8" x 1/4"	0.81	0.90	25	0.20	65-273	5.29
64-276	4.21	1/2" x 1/4"	0.97	0.98	40/160	0.26	65-276	3.18
64-279	4.90	1/2" x 3/8"	1.04	1.03	40/160	0.29	65-279	3.99
64-282	5.21	3/4" x 1/4"	1.05	1.08	125	0.35	65-282	5.74
64-283	5.55	3/4" x 3/8"	1.12	1.13	55/110	0.40	65-283	5.10
64-286	5.89	3/4" x 1/2"	1.20	1.18	50/100	0.47	65-286	3.84
64-268	9.92	1" x 1/4"	1.11	1.22	20/80	0.52	65-268	5.72
64-269	8.66	1" x 3/8"	1.18	1.27	15/60	0.60	65-269	7.39
64-291	7.06	1" x 1/2"	1.26	1.40	15/60	0.70	65-291	5.24
64-298	7.06	1" x 3/4"	1.37	1.45	12/48	0.77	65-298	5.24
64-301	16.52	1-1/4" x 1/2"	1.34	1.45	20/40	0.97	65-301	9.50
64-303	10.90	1-1/4" x 3/4"	1.45	1.62	20/40	1.00	65-303	8.34
64-306	10.90	1-1/4" x 1"	1.58	1.66	20/40	1.10	65-306	9.03
64-316	13.51	1-1/2" x 3/4"	1.41	1.75	15/30	1.25	65-316	10.52
64-318	14.40	1-1/2" x 1"	1.65	1.88	10/30	1.41	65-318	10.52
64-322	17.33	1-1/2" x 1-1/4"	1.65	1.88	12/24	1.58	65-322	13.60
		2" x 1/2"	1.49	1.88	10/20	1.61	65-327	16.49
64-328	19.65	2" x 3/4"	1.60	1.97	10/20	1.77	65-328	16.49
64-330	19.65	2" x 1"	1.73	2.02	10/20	1.97	65-330	16.49
64-334	24.70	2" x 1-1/4"	1.86	2.06	8/16	1.92	65-334	17.42
64-336	24.70	2" x 1-1/2"	1.98	2.12	8/16	2.08	65-336	17.42
64-343	66.99	2-1/2" x 1-1/2"	2.16	2.51	5/10	3.38	65-343	43.19
64-351	85.24	3" x 2"	2.52	2.89	3/6	4.54	65-351	57.67

**NIPLLES & FITTINGS**

**REDUCING TEES**

(REDUCING ON RUN)



Part # Galvanized	List Price	Size 1 x 2 x 3	A	B	C	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-287	8.87	3/4" x 1/2" x 1/2"	1.18	1.18	1.20	30/180	0.45	65-287	4.26
64-288	6.11	3/4" x 1/2" x 3/4"	1.28	1.20	1.28	20/80	0.52	65-288	4.69
		1" x 1/2" x 1/2"	1.31	1.22	1.31	20/120	0.60	65-292	7.08
		1" x 3/4" x 3/4"	1.34	1.28	1.42	15/60	0.66	65-296	5.52
		1-1/4" x 1" x 1"	1.55	1.47	1.63	18/72	0.98	65-309	12.10

**LOCKNUTS**



Part # Galvanized	Size	Hex	Thickness	Box/ Case	Approx. Wt. Lbs.	List Price
64-703	1/2"	1.18	0.32	150/600	0.08	2.14
64-704	3/4"	1.43	0.35	90/360	0.13	2.44
64-705	1"	1.75	0.39	60/240	0.19	4.62
64-706	1-1/4"	2.10	0.43	45/180	0.27	4.49
64-707	1-1/2"	2.35	0.48	45/135	0.47	6.37
64-708	2"	2.88	0.54	25/75	0.56	9.72

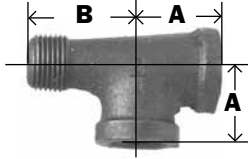
\* Black locknuts available on special order basis.



# BLACK & GALVANIZED MALLEABLE IRON 150#

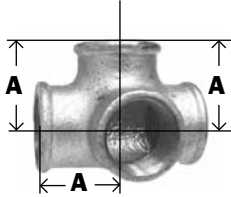
# MALLEABLE FITTINGS

## MALLEABLE SERVICE TEE (STREET TEE)



Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-363	6.91	1/2"	1.12	1.62	40/120	0.31	65-363	4.82
64-364	7.58	3/4"	1.31	1.89	25/75	0.55	65-364	6.39

## SIDE OUTLET TEES



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-383	10.77	1/2"	1.12	25/100	0.38	65-383	8.32
64-384	13.60	3/4"	1.31	15/60	0.58	65-384	10.61
64-385	22.04	1"	1.50	20/40	0.89	65-385	17.02
64-386	36.69	1-1/4"	1.75	12/24	1.39	65-386	26.64

## REDUCING COUPLINGS



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-430	2.91	1/4" x 1/8"	1.00	50/600	0.08	65-430	2.14
64-431	2.95	3/8" x 1/8"	1.13	35/420	0.10	65-431	2.33
64-432	2.95	3/8" x 1/4"	1.13	30/360	0.12	65-432	2.14
64-433	3.30	1/2" x 1/8"	1.25	75/300	0.17	65-433	2.32
64-434	2.68	1/2" x 1/4"	1.25	75/300	0.15	65-434	2.14
64-435	2.49	1/2" x 3/8"	1.25	60/240	0.16	65-435	1.95
64-439	3.62	3/4" x 1/8"	1.44	70/210	0.20	65-439	2.70
64-436	3.34	3/4" x 1/4"	1.44	45/180	0.21	65-436	2.65
64-437	3.34	3/4" x 3/8"	1.44	45/180	0.22	65-437	2.65
64-438	2.95	3/4" x 1/2"	1.44	60/180	0.29	65-438	2.11
64-459	5.90	1" x 1/4"	1.69	45/135	0.32	65-459	4.10
64-440	6.03	1" x 3/8"	1.69	30/120	0.35	65-440	4.16
64-441	4.62	1" x 1/2"	1.69	30/120	0.37	65-441	3.56
64-442	4.52	1" x 3/4"	1.69	25/100	0.40	65-442	3.48
64-460	12.31	1-1/4" x 3/8"	2.06	25/75	0.49	65-460	9.44
64-444	7.70	1-1/4" x 1/2"	2.06	25/75	0.55	65-444	5.15
64-445	6.23	1-1/4" x 3/4"	2.06	25/75	0.60	65-445	4.47
64-446	6.23	1-1/4" x 1"	2.06	15/60	0.66	65-446	4.90
64-443	14.46	1-1/2" x 3/8"	2.31	15/120	0.61	65-443	8.35
64-447	9.08	1-1/2" x 1/2"	2.31	20/60	0.77	65-447	6.55
64-448	8.03	1-1/2" x 3/4"	2.31	15/60	0.77	65-448	7.38
64-449	8.03	1-1/2" x 1"	2.31	25/50	0.84	65-449	6.55
64-450	7.60	1-1/2" x 1-1/4"	2.31	12/48	0.86	65-450	5.66
64-458	20.94	2" x 1/2"	2.81	12/36	1.12	65-458	10.66
64-451	13.12	2" x 3/4"	2.81	12/36	1.11	65-451	9.39
64-452	10.95	2" x 1"	2.81	12/36	1.28	65-452	8.86
64-453	11.58	2" x 1-1/4"	2.81	9/27	1.30	65-453	9.39
64-454	10.95	2" x 1-1/2"	2.81	9/27	1.41	65-454	8.19
64-461	34.54	2-1/2" x 1-1/2"	3.25	7/14	1.74	65-461	24.42
64-462	33.90	2-1/2" x 2"	3.25	7/14	1.79	65-462	20.94
64-486	50.03	3" x 1-1/2"	3.69	16/32	2.18	65-486	32.66
64-456	43.78	3" x 2"	3.69	6/12	2.26	65-456	24.67
64-463	45.06	3" x 2-1/2"	3.69	5/10	3.52	65-463	32.66
64-464	97.48	4" x 2"	4.38	3/6	4.96	65-464	65.45
64-465	89.40	4" x 2-1/2"	4.38	3/6	4.00	65-465	65.45
64-457	97.48	4" x 3"	4.38	3/6	4.07	65-457	61.61
		6" x 4"	4.24	1/8	9.84	65-491	248.23



# MALLEABLE FITTINGS

# BLACK & GALVANIZED MALLEABLE IRON 150#

## HEX BUSHING



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 - See page 232				
		*3/8" x 1/8"						
		*3/8" x 1/4"						
64-503	4.03	1/2" x 1/8"	0.84	1.03	150/600	0.10	65-503	2.66
		*1/2" x 1/4"						
64-505	4.03	1/2" x 3/8"	0.75	1.03	150/600	0.07	65-505	2.49
64-506	4.30	3/4" x 1/8"	0.85	1.15	75/300	0.17	65-506	2.61
64-507	4.16	3/4" x 1/4"	0.85	1.15	75/300	0.16	65-507	2.57
64-508	4.39	3/4" x 3/8"	0.85	1.15	75/300	0.14	65-508	2.61
64-509	3.76	3/4" x 1/2"	0.93	1.15	75/300	0.10	65-509	2.21
64-510	4.50	1" x 1/4"	1.13	1.12	50/200	0.19	65-510	3.07
64-511	7.06	1" x 3/8"	1.13	1.12	50/200	0.24	65-511	3.15
64-512	4.07	1" x 1/2"	1.10	1.42	50/200	0.21	65-512	2.16
64-513	3.62	1" x 3/4"	1.10	1.42	50/200	0.17	65-513	2.16
64-514	6.53	1-1/4" x 1/4"	1.24	1.12	30/120	0.31	65-514	3.95
64-515	6.53	1-1/4" x 3/8"	1.24	1.12	30/120	0.43	65-515	3.52
64-516	5.71	1-1/4" x 1/2"	1.24	1.24	30/120	0.29	65-516	3.39
64-517	5.21	1-1/4" x 3/4"	1.08	1.76	30/120	0.35	65-517	3.03
64-518	5.21	1-1/4" x 1"	1.08	1.76	30/120	0.29	65-518	3.03
64-519	13.23	1-1/2" x 1/4"	1.30	1.12	25/75	0.64	65-519	4.68
64-520	13.23	1-1/2" x 3/8"	1.30	1.12	25/75	0.64	65-520	4.68
64-521	7.58	1-1/2" x 1/2"	1.30	1.34	25/75	0.40	65-521	3.72
64-522	7.58	1-1/2" x 3/4"	1.30	1.44	25/75	0.39	65-522	3.72
64-523	6.81	1-1/2" x 1"	1.23	2.00	25/75	0.46	65-523	3.56
64-524	6.29	1-1/2" x 1-1/4"	1.23	2.00	25/75	0.32	65-524	3.56
64-525	10.05	2" x 3/8"	1.28	1.12	20/60	0.95	65-525	5.83
64-527	9.43	2" x 1/2"	1.39	1.34	20/60	0.84	65-527	5.83
64-528	8.80	2" x 3/4"	1.39	1.63	20/60	0.63	65-528	4.93
64-529	8.32	2" x 1"	1.39	1.77	20/60	0.67	65-529	4.93
64-530	8.32	2" x 1-1/4"	1.50	2.48	20/60	0.73	65-530	4.93
64-531	7.07	2" x 1-1/2"	1.50	2.48	20/60	0.70	65-531	4.93
64-546	20.72	2-1/2" x 1/2"	1.51	1.34	15/30	1.57	65-546	8.35
64-547	13.69	2-1/2" x 3/4"	1.51	1.63	15/30	1.54	65-547	8.35
64-532	19.58	2-1/2" x 1"	1.51	1.95	15/30	1.51	65-532	8.35
64-533	14.58	2-1/2" x 1-1/4"	1.51	2.39	15/30	1.41	65-533	8.35
64-534	13.40	2-1/2" x 1-1/2"	1.51	2.98	15/30	1.37	65-534	8.35
64-535	11.93	2-1/2" x 2"	1.54	2.98	15/30	1.11	65-535	8.35
64-550	18.04	3" x 1"	1.61	1.95	12/24	1.46	65-550	12.14
64-549	21.18	3" x 1-1/4"	1.61	2.39	12/24	2.22	65-549	12.14
64-537	16.07	3" x 1-1/2"	1.61	2.68	12/24	1.96	65-537	12.14
64-538	16.98	3" x 2"	1.61	3.86	12/24	1.91	65-538	12.14
64-539	32.32	3" x 2-1/2"	1.61	3.86	12/24	1.50	65-539	11.41
64-551	62.05	4" x 3/4"	2.15	4.90	5/10	4.50	65-551	28.96
64-553	40.38	4" x 1"	2.00	4.75	5/10	4.00	65-553	25.00
64-540	44.92	4" x 1-1/2"	1.82	2.68	5/10	3.91	65-540	24.32
64-541	33.37	4" x 2"	1.82	3.31	5/10	2.89	65-541	23.82
64-542	37.85	4" x 2-1/2"	2.06	3.87	5/10	2.77	65-542	22.73
64-543	34.22	4" x 3"	2.17	4.96	5/10	3.03	65-543	22.73
64-545	72.67	6" x 4"	2.33	5.79	2/4	5.69	65-545	63.64

NIPPLES & FITTINGS



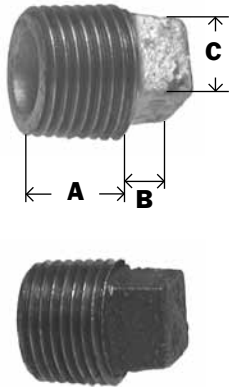
**UNIONS**



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-600	12.54	1/8"	1.26	60/240	0.19	65-600	10.43
64-601	12.14	1/4"	1.44	20/240	0.20	65-601	9.60
64-602	8.09	3/8"	1.61	40/160	0.35	65-602	7.76
64-603	7.70	1/2"	1.72	50/100	0.43	65-603	5.83
64-604	8.45	3/4"	1.94	35/70	0.63	65-604	7.58
64-605	10.56	1"	2.06	20/40	0.91	65-605	9.10
64-606	16.36	1-1/4"	2.26	15/30	1.35	65-606	12.14
64-607	20.20	1-1/2"	2.41	10/20	1.75	65-607	15.91
64-608	26.18	2"	2.75	6/12	2.62	65-608	22.51
64-609	79.15	2-1/2"	3.22	4/8	4.40	65-609	57.84
64-610	110.78	3"	3.50	4/8	5.63	65-610	67.04
64-611	239.98	4"	3.85	2/4	10.31	65-611	176.13

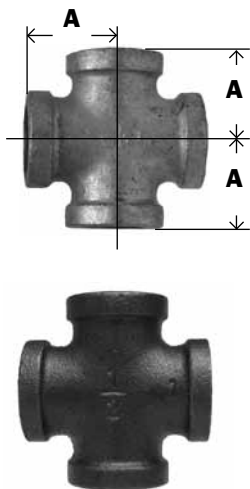
**NIPPLES & FITTINGS**

**SQUARE HEAD PLUGS**



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 - see p. 232						
		*1/4"							
		*3/8"							
64-653	1.81	1/2"	0.58	0.38	0.56	50/600	0.09	65-653	1.08
64-654	2.81	3/4"	0.65	0.44	0.63	30/360	0.13	65-654	1.20
64-655	2.57	1"	0.75	0.50	0.82	20/240	0.22	65-655	1.68
64-656	4.31	1-1/4"	0.82	0.56	0.94	40/120	0.40	65-656	2.57
64-657	5.84	1-1/2"	0.85	0.62	1.13	30/90	0.46	65-657	3.11
64-658	7.23	2"	0.91	0.68	1.31	20/60	0.74	65-658	3.98
64-659	14.27	2-1/2"	1.26	0.74	1.50	16/32	1.24	65-659	9.39
64-660	19.63	3"	1.16	0.80	1.69	16/32	1.69	65-660	13.32
64-661	25.32	4"	1.22	1.00	2.28	6/12	2.70	65-661	27.75

**CROSSES**



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-390	12.03	1/8"	0.65	---	0.12	65-390	9.48
64-391	12.03	1/4"	0.80	60/240	0.18	65-391	8.11
64-392	12.03	3/8"	0.95	50/150	0.27	65-392	8.11
64-393	12.03	1/2"	1.12	30/90	0.45	65-393	8.11
64-394	13.39	3/4"	1.31	20/60	0.69	65-394	9.26
64-395	15.13	1"	1.50	15/30	1.06	65-395	10.28
64-396	21.91	1-1/4"	1.75	10/20	1.56	65-396	16.71
64-397	26.59	1-1/2"	1.94	8/16	1.91	65-397	20.68
64-398	50.73	2"	2.25	5/10	3.24	65-398	34.25
64-399	126.77	2-1/2"	2.71	3/6	5.55	65-399	77.00
64-400	170.77	3"	3.06	1/8	8.00	65-400	122.74

Don't see what your looking for? Hex Nipples, Wyes, etc... Just call us for availability.



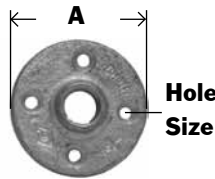
**CAPS**



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
		1/4"	0.62	80/960	0.05	65-471	1.20
64-472	2.54	3/8"	0.74	60/720	0.08	65-472	1.49
64-473	1.94	1/2"	0.87	75/300	0.13	65-473	1.54
64-474	2.78	3/4"	0.97	40/160	0.22	65-474	2.03
64-475	3.08	1"	1.16	25/100	0.37	65-475	2.25
64-476	4.48	1-1/4"	1.28	20/80	0.49	65-476	3.07
64-477	5.71	1-1/2"	1.33	18/54	0.64	65-477	4.35
64-478	7.22	2"	1.45	12/36	1.00	65-478	5.16
64-479	22.96	2-1/2"	1.70	20/40	1.45	65-479	13.36
64-480	27.81	3"	1.80	24	2.20	65-480	21.10
64-481	55.22	4"	2.08	6/12	3.75	65-481	32.95
64-482	201.00	6"	2.55	2/4	8.86	65-482	132.57

\* Use steel fittings for smaller sizes. See page 224 for Galvanized and Black Steel Fittings.

**FLOOR FLANGES**



Part # Galvanized	List Price	Size	A	Thickness	Hole Size	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-692	11.83	1/2"	3.50	0.50	0.25	25/50	0.63	65-692	5.46
64-693	13.21	3/4"	3.50	0.63	0.25	15/45	0.75	65-693	5.66
64-694	14.53	1"	4.00	0.69	0.25	15/30	1.06	65-694	8.16
64-695	16.56	1-1/4"	4.00	0.75	0.25	10/30	1.08	65-695	9.10
64-696	20.67	1-1/2"	4.50	0.87	0.31	8/24	1.43	65-696	9.98
64-697	27.22	2"	5.50	1.00	0.31	8/16	2.23	65-697	12.89

**STEEL MAGNETIC PLUGS**

**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.

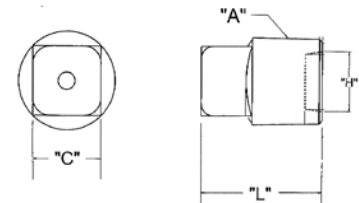


**Magnetic Drain Plugs** prevent excessive wear to the system's components.

**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

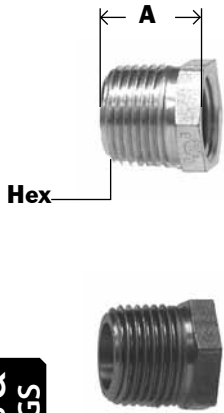
Part	Size "A"	Head Width "C"	Recess Dia. "H"	O/L Length "L"	List Price
28-996	3/8 - 18	.428 - .440	.435 - .445	.805 - .860	2.84
28-997	1/2 - 14	.553 - .565	.560 - .570	.970 - 1.04	3.39
28-998	3/4 - 14	.615 - .627	.725 - .735	1.120 - 1.170	4.29
28-999	1-11 1/2	.803 - 815	.895 - .905	1.25 - 1.33	6.22



# BLACK & GALVANIZED STEEL FITTINGS

# STEEL FITTINGS

## HEX BUSHINGS



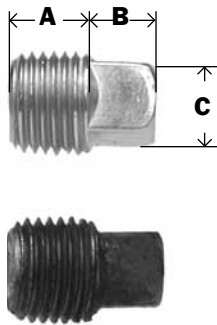
Part # Galvanized	List Price	Size M x F	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-500	1.13	1/4" x 1/8"	0.63	0.62	0.02	67-500	1.38
66-501	1.33	3/8" x 1/8"	0.66	0.68	0.04	67-501	1.78
66-502	1.33	3/8" x 1/4"	0.66	0.68	0.02	67-502	1.78
66-503	2.05	1/2" x 1/8"	0.80	0.87	0.10	67-503	1.94
66-504	2.05	1/2" x 1/4"	0.80	0.87	0.08	67-504	1.94
66-505	2.05	1/2" x 3/8"	0.80	0.87	0.06	67-505	1.94
66-506	3.28	3/4" x 1/8"	0.94	1.06	0.18	67-506	2.97
66-507	3.28	3/4" x 1/4"	0.94	1.06	0.14	67-507	2.97
66-508	3.28	3/4" x 3/8"	0.94	1.06	0.14	67-508	2.97
66-509	3.28	3/4" x 1/2"	0.94	1.06	0.10	67-509	2.97
66-510	6.16	1" x 1/4"	1.00	1.31	0.16	67-510	5.23
66-511	6.16	1" x 3/8"	1.00	1.31	0.26	67-511	5.23
66-512	6.16	1" x 1/2"	1.00	1.31	0.22	67-512	5.23
66-513	6.16	1" x 3/4"	1.00	1.31	0.14	67-513	5.23

## CAPS



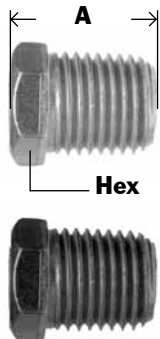
Part # Galvanized	List Price	Size	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-470	1.04	1/8"	0.53	0.56	0.02	67-470	0.92
66-471	1.11	1/4"	0.63	0.62	0.04	67-471	1.12
66-472	1.86	3/8"	0.69	0.81	0.06	67-472	1.75
66-473	3.10	1/2"	0.87	1.00	0.12	67-473	2.68
66-474	4.42	3/4"	0.97	1.18	0.16	67-474	3.91
66-475	6.37	1"	1.16	1.50	0.30	67-475	5.42
66-476	28.75	1-1/4"	1.28	2.00	0.68	67-476	26.03
66-477	39.05	1-1/2"	1.35	2.25	0.83	67-477	35.80
66-478	81.99	2"	1.45	2.625	1.36		

## SQUARE HEAD PLUGS



Part # Galvanized	List Price	Size	A	B	C	Approx. Wt. Lbs.	Part # Black	List Price
		1/16"	0.33	0.18	0.22	0.01	67-669	0.42
66-670	0.46	1/8"	0.33	0.24	0.28	0.01	67-670	0.42
66-671	0.51	1/4"	0.45	0.28	0.37	0.02	67-671	0.40
66-672	0.80	3/8"	0.50	0.31	0.43	0.04	67-672	0.64
66-653	1.24	1/2"	0.59	0.38	0.55	0.12	67-653	1.12
66-654	1.80	3/4"	0.63	0.44	0.62	0.18	67-654	1.64
66-655	6.65	1"	0.75	0.5	0.81	0.34	67-655	5.89
66-656	11.88	1-1/4"	0.80	0.56	0.93	0.62	67-656	10.06
66-657	17.37	1-1/2"	0.83	0.62	1.12	0.82	67-657	15.23
66-658	23.77	2"	0.88	0.68	1.31	1.36	67-658	20.72

## HEX HEAD PLUGS



Part # Galvanized	List Price	Size	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-770	0.42	1/8"	0.55	0.43	0.01	67-770	0.32
66-771	0.68	1/4"	0.74	0.56	0.04	67-771	0.62
66-772	1.23	3/8"	0.67	0.68	0.06	67-772	1.12
66-773	2.06	1/2"	0.80	0.70	0.12	67-773	1.86
66-774	3.19	3/4"	0.94	1.06	0.18	67-774	2.97
66-775	6.79	1"	1.00	1.31	0.22	67-775	5.23
66-776	9.75	1-1/4"	1.17	1.75	0.7	67-776	8.89
66-777	23.59	1-1/2"	1.51	2.00	1.2	67-777	18.71
66-778	40.41	2"	1.65	2.50	2.06	67-778	34.44



**COUNTERSUNK PLUG - Square Socket**



Galvanized						Black	
Part #	List Price	Size	A	Socket Size	Approx. Wt. Lbs.	Part #	List Price
66-630	0.32	1/8"	0.29	0.19	0.01	67-630	0.31
66-631	0.45	1/4"	0.45	0.25	0.02	67-631	0.42
66-632	0.62	3/8"	0.45	0.31	0.04	67-632	0.54
66-633	0.95	1/2"	0.59	0.38	0.08	67-633	0.82
66-634	1.46	3/4"	0.60	0.50	0.12	67-634	1.33
66-635	3.57	1"	0.75	0.50	0.16	67-635	2.98
66-636	5.81	1-1/4"	0.80	0.75	0.32	67-636	5.56
66-637	13.21	1-1/2"	0.83	0.75	0.45	67-637	11.56
66-638	23.98	2"	0.88	0.875	2.06	67-638	20.36

**COUNTERSUNK PLUG - Hex Socket**



Galvanized						Black	
Part #	List Price	Size	A	Socket Size	Approx. Wt. Lbs.	Part #	List Price
66-760	0.45	1/16"	0.29	0.15	0.01	67-760	0.42
66-761	0.32	1/8"	0.29	0.18	0.01	67-761	0.42
66-762	0.42	1/4"	0.44	0.25	0.02	67-762	0.42
66-763	0.54	3/8"	0.44	0.31	0.04	67-763	0.54
66-764	0.84	1/2"	0.59	0.37	0.08	67-764	0.82
66-765	1.46	3/4"	0.60	0.56	0.14	67-765	1.32
66-766	3.70	1"	0.75	0.625	0.22	67-766	2.61
66-767	5.81	1-1/4"	0.80	0.75	0.37	67-767	4.54
66-768	13.21	1-1/2"	0.83	1.0	0.45	67-768	11.56
66-769	23.98	2"	0.88	1.0	0.86	67-769	20.36

**FACE BUSHING**



Galvanized					Black	
Part #	List Price	Size M x F	A	Approx. Wt. Lbs.	Part #	List Price
66-700	1.12	1/4" x 1/8"	0.44	0.01	67-700	1.04
66-701	1.38	3/8" x 1/8"	0.48	0.02	67-701	1.23
66-702	2.08	3/8" x 1/4"	0.48	0.02	67-702	1.23
		1/2" x 1/8"	0.56	0.04	67-703	1.86
66-704	1.94	1/2" x 1/4"	0.56	0.04	67-704	1.86
66-705	2.08	1/2" x 3/8"	0.56	0.04	67-705	1.86
		3/4" x 1/4"	0.62	0.12	67-707	2.45
66-708	3.01	3/4" x 3/8"	0.62	0.10	67-708	2.45
66-709	3.01	3/4" x 1/2"	0.62	0.10	67-709	2.52
		1" x 3/8"	0.75	0.18	67-711	4.52
66-712	5.14	1" x 1/2"	0.75	0.16	67-712	4.52
66-713	5.37	1" x 3/4"	0.75	0.16	67-713	4.52

**NIPPLES & FITTINGS**





**STANDARDS & SPECIFICATIONS**

- DIMENSIONAL: ASTM A733      • MATERIAL: ASTM A53 Type F or Type E      • GALVANIZING: Hot dip galvanizing
- THREADING: ASME B 1.20.1

Max Pressure: 200 psi WOG @ 72°F; 150 psi saturated steam

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
1/8" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-001	5.08	Close (3/4")	59-001	3.19
58-002	6.08	1-1/2"	59-002	3.69
58-003	6.08	2"	59-003	3.62
58-004	7.21	2-1/2"	59-004	4.03
58-005	7.48	3"	59-005	4.29
58-006	8.82	3-1/2"	59-006	5.51
58-007	9.11	4"	59-007	6.07
58-008	13.17	4-1/2"	59-008	11.11
58-009	16.95	5"	59-009	9.89
58-010	16.25	5-1/2"	59-010	11.10
58-011	18.25	6"	59-011	10.79
58-012	24.24	7"	59-012	23.95
58-013	24.41	8"	59-013	15.25
58-014	25.54	9"	59-014	16.12
58-015	28.27	10"	59-015	17.02
58-016	28.99	11"	59-016	17.92
58-017	28.50	12"	59-017	18.60

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
3/8" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-040	5.90	Close (1")	59-040	3.47
58-041	6.96	1-1/2"	59-041	4.33
58-042	7.32	2"	59-042	4.37
58-043	9.08	2-1/2"	59-043	5.08
58-044	8.81	3"	59-044	5.20
58-045	11.41	3-1/2"	59-045	6.42
58-046	11.77	4"	59-046	6.21
58-047	14.00	4-1/2"	59-047	8.40
58-048	14.79	5"	59-048	8.91
58-049	15.87	5-1/2"	59-049	10.52
58-050	16.14	6"	59-050	9.97
58-051	26.26	7"	59-051	18.80
58-052	27.80	8"	59-052	19.93
58-053	33.27	9"	59-053	21.04
58-054	34.87	10"	59-054	21.71
58-055	37.02	11"	59-055	22.38
58-056	38.21	12"	59-056	22.93

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
1/4" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-020	5.48	Close (3/4")	59-020	3.09
58-021	6.31	1-1/2"	59-021	3.87
58-022	6.31	2"	59-022	3.92
58-023	8.22	2-1/2"	59-023	5.04
58-024	8.26	3"	59-024	5.20
58-025	6.73	3-1/2"	59-025	5.37
58-026	9.57	4"	59-026	5.54
58-027	11.22	4-1/2"	59-027	8.91
58-028	13.96	5"	59-028	8.78
58-029	15.73	5-1/2"	59-029	9.37
58-030	15.30	6"	59-030	9.96
58-031	24.98	7"	59-031	15.95
58-032	27.08	8"	59-032	17.92
58-033	29.29	9"	59-033	18.80
58-034	30.47	10"	59-034	19.04
58-035	33.27	11"	59-035	20.16
58-036	33.87	12"	59-036	21.04

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
1/2" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-060	5.39	Close (1-1/8")	59-060	3.17
58-061	6.01	1-1/2"	59-061	3.27
58-062	5.90	2"	59-062	3.46
58-063	6.49	2-1/2"	59-063	3.78
58-064	7.07	3"	59-064	4.10
58-065	8.01	3-1/2"	59-065	4.53
58-066	8.35	4"	59-066	4.95
58-067	9.57	4-1/2"	59-067	5.46
58-068	10.26	5"	59-068	5.68
58-069	10.95	5-1/2"	59-069	6.02
58-070	10.92	6"	59-070	6.38
58-071	18.80	7"	59-071	10.91
58-072	18.45	8"	59-072	12.55
58-073	22.25	9"	59-073	13.44
58-074	23.57	10"	59-074	14.33
58-075	25.09	11"	59-075	15.66
58-076	26.88	12"	59-076	15.42

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
3/4" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-080	5.89	Close (1-3/8")	59-080	3.30
58-081	5.99	1-1/2"	59-081	3.70
58-082	6.47	2"	59-082	3.62
58-083	7.92	2-1/2"	59-083	4.16
58-084	7.67	3"	59-084	4.54
58-085	9.41	3-1/2"	59-085	5.04
58-086	9.17	4"	59-086	5.45
58-087	11.41	4-1/2"	59-087	6.36
58-088	12.51	5"	59-088	6.68
58-089	13.08	5-1/2"	59-089	7.94
58-090	12.84	6"	59-090	7.97
58-091	22.86	7"	59-091	12.78
58-092	22.79	8"	59-092	14.68
58-093	26.35	9"	59-093	16.60
58-094	28.85	10"	59-094	16.49
58-095	30.79	11"	59-095	18.93
58-096	30.22	12"	59-096	20.57

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
1-1/4" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-120	10.99	Close (1-5/8")	59-120	6.44
58-121	11.20	2"	59-121	6.66
58-122	12.95	2-1/2"	59-122	8.08
58-123	13.86	3"	59-123	8.63
58-124	14.82	3-1/2"	59-124	9.96
58-125	15.41	4"	59-125	10.13
58-126	19.51	4-1/2"	59-126	12.55
58-127	21.67	5"	59-127	12.47
58-128	23.42	5-1/2"	59-128	14.17
58-129	26.85	6"	59-129	14.01
58-130	38.49	7"	59-130	22.11
58-131	41.51	8"	59-131	23.35
58-132	45.35	9"	59-132	27.04
58-133	29.81	10"	59-133	28.77
58-134	54.32	11"	59-134	31.98
58-135	56.93	12"	59-135	31.03

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
1" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-100	8.80	Close (1-1/2")	59-100	4.88
58-101	9.26	2"	59-101	5.12
58-102	10.12	2-1/2"	59-102	5.96
58-103	10.50	3"	59-103	6.44
58-104	12.45	3-1/2"	59-104	7.24
58-105	12.55	4"	59-105	7.81
58-106	15.22	4-1/2"	59-106	9.10
58-107	15.74	5"	59-107	9.29
58-108	17.88	5-1/2"	59-108	14.94
58-109	18.12	6"	59-109	10.95
58-110	31.37	7"	59-110	18.93
58-111	31.55	8"	59-111	19.74
58-112	35.62	9"	59-112	22.52
58-113	39.19	10"	59-113	21.33
58-114	42.20	11"	59-114	25.69
58-115	43.70	12"	59-115	25.75

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
1-1/2" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-140	13.17	Close (1-3/4")	59-140	7.53
58-141	16.38	2"	59-141	8.43
58-142	16.52	2-1/2"	59-142	9.26
58-143	15.65	3"	59-143	10.06
58-144	19.07	3-1/2"	59-144	12.03
58-145	20.84	4"	59-145	12.07
58-146	21.99	4-1/2"	59-146	14.17
58-147	32.72	5"	59-147	14.09
58-148	25.66	5-1/2"	59-148	16.32
58-149	27.63	6"	59-149	16.09
58-150	42.77	7"	59-150	27.04
58-151	48.01	8"	59-151	28.30
58-152	52.93	9"	59-152	31.53
58-153	58.17	10"	59-153	34.69
58-154	61.54	11"	59-154	38.76
58-155	60.53	12"	59-155	41.90





**SCHEDULE 80 EXTRA HEAVY NIPPLES  
2" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-160	22.82	Close (2")	59-160	11.07
58-161	20.54	2-1/2"	59-161	12.66
58-162	21.69	3"	59-162	13.29
58-163	24.19	3-1/2"	59-163	14.30
58-164	26.10	4"	59-164	15.29
58-165	29.54	4-1/2"	59-165	24.81
58-166	32.72	5"	59-166	26.05
58-167	37.27	5-1/2"	59-167	28.16
58-168	38.10	6"	59-168	32.19
58-169	58.61	7"	59-169	49.37
58-170	70.42	8"	59-170	53.63
58-171	76.22	9"	59-171	57.94
58-172	80.13	10"	59-172	65.36
58-173	88.42	11"	59-173	74.35
58-174	96.65	12"	59-174	81.13

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
3" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-200	71.34	Close (2-5/8")	59-200	41.26
58-201	85.38	3"	59-201	48.94
58-202	95.89	3-1/2"	59-202	55.99
58-203	97.31	4"	59-203	54.00
58-204	106.43	4-1/2"	59-204	61.15
58-205	113.90	5"	59-205	62.96
58-206	118.74	5-1/2"	59-206	71.37
58-207	116.97	6"	59-207	64.30
58-208	153.95	7"	59-208	97.79
58-209	162.03	8"	59-209	93.57
58-210	175.87	9"	59-210	111.96
58-211	179.72	10"	59-211	113.37
58-212	189.50	11"	59-212	116.00
58-213	200.24	12"	59-213	123.53

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
2-1/2" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-180	61.76	Close (2-1/2")	59-180	51.24
58-181	66.34	3"	59-181	37.66
58-182	85.05	3-1/2"	59-182	45.21
58-183	86.96	4"	59-183	43.86
58-184	95.70	4-1/2"	59-184	53.86
58-185	94.53	5"	59-185	52.39
58-186	100.37	5-1/2"	59-186	61.15
58-187	102.63	6"	59-187	57.94
58-188	118.94	7"	59-188	73.70
58-189	122.69	8"	59-189	69.97
58-190	109.86	9"	59-190	83.96
58-191	136.65	10"	59-191	82.94
58-192	149.20	11"	59-192	92.38
58-193	140.50	12"	59-193	97.63

**SCHEDULE 80 EXTRA HEAVY NIPPLES  
4" DIAMETER**



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-220	105.58	Close (2-7/8")	59-220	92.08
58-221	144.64	4"	59-221	79.42
58-222	157.58	4-1/2"	59-222	93.77
58-223	159.19	5"	59-223	95.10
58-224	174.62	5-1/2"	59-224	95.72
58-225	176.82	6"	59-225	98.50
58-226	197.95	7"	59-226	123.17
58-227	204.89	8"	59-227	115.88
58-228	227.89	9"	59-228	140.89
58-229	237.58	10"	59-229	133.47
58-230	259.91	11"	59-230	158.15
58-231	262.24	12"	59-231	155.47

**NIPPLES & FITTINGS**



**STEEL NIPPLES****BLACK EXTRA HEAVY SCH80 SEAMLESS****STANDARDS & SPECIFICATIONS**

- DIMENSIONAL: ASTM A733
- MATERIAL: ASTM A 106 Grade B
- GALVANIZING: Hot dip galvanizing
- THREADING: ASME B 1.20.1
- Thicker walls
- Excellent leak protection

Max Pressure: 300 psi WOG @ 150°F; 150 psi saturated steam

**SCHEDULE 80 SEAMLESS NIPPLES**  
**1/8" DIAMETER**



Part #	Length	List Price
72-001	X Close (3/4")	7.77
72-002	x 1-1/2"	8.23
72-003	x 2"	8.88
72-004	x 2-1/2"	9.63
72-005	x 3"	10.69
72-006	x 3-1/2"	11.67
72-007	x 4"	12.96
72-008	x 4-1/2"	14.06
72-009	x 5"	19.32
72-010	x 5-1/2"	20.69
72-011	x 6"	22.22

**SCHEDULE 80 SEAMLESS NIPPLES**  
**1/4" DIAMETER**



Part #	Length	List Price
72-020	X Close (7/8")	8.54
72-021	x 1-1/2"	9.35
72-022	x 2"	10.34
72-023	x 2-1/2"	11.26
72-024	x 3"	12.53
72-025	x 3-1/2"	13.92
72-026	x 4"	14.40
72-027	x 4-1/2"	16.77
72-028	x 5"	23.79
72-029	x 5-1/2"	25.10
72-030	x 6"	25.04

**SCHEDULE 80 SEAMLESS NIPPLES**  
**3/8" DIAMETER**



Part #	Length	List Price
72-040	X Close (1")	9.89
72-041	x 1-1/2"	10.30
72-042	x 2"	11.26
72-043	x 2-1/2"	12.66
72-044	x 3"	14.22
72-045	x 3-1/2"	15.64
72-046	x 4"	17.05
72-047	x 4-1/2"	18.73
72-048	x 5"	24.97
72-049	x 5-1/2"	26.68
72-050	x 6"	28.41

**SCHEDULE 80 SEAMLESS NIPPLES**  
**1/2" DIAMETER**



Part #	Length	List Price
72-060	X Close (1-1/8")	4.71
72-061	x 1-1/2"	5.36
72-062	x 2"	5.51
72-063	x 2-1/2"	6.52
72-064	x 3"	7.17
72-065	x 3-1/2"	8.13
72-066	x 4"	8.93
72-067	x 4-1/2"	9.83
72-068	x 5"	11.33
72-069	x 5-1/2"	12.34
72-070	x 6"	13.34

**SCHEDULE 80 SEAMLESS NIPPLES**  
**3/4" DIAMETER**



Part #	Length	List Price
72-080	X Close (1-3/8")	5.31
72-081	x 1-1/2"	6.07
72-082	x 2"	6.37
72-083	x 2-1/2"	7.19
72-084	x 3"	8.00
72-085	x 3-1/2"	9.13
72-086	x 4"	10.03
72-087	x 4-1/2"	10.95
72-088	x 5"	12.49
72-089	x 5-1/2"	13.41
72-090	x 6"	14.42

**SCHEDULE 80 SEAMLESS NIPPLES**  
**1" DIAMETER**



Part #	Length	List Price
72-100	X Close (1-1/2")	7.51
72-101	x 2"	8.54
72-102	x 2-1/2"	9.13
72-103	x 3"	10.68
72-104	x 3-1/2"	11.83
72-105	x 4"	13.23
72-106	x 4-1/2"	14.39
72-107	x 5"	16.66
72-108	x 5-1/2"	17.82
72-109	x 6"	19.01

**NIPPLES & FITTINGS**

**SCHEDULE 80 SEAMLESS NIPPLES  
1-1/4" DIAMETER**



Part #	Length	List Price
72-120	X Close (1-5/8")	9.43
72-121	x 2"	9.80
72-122	x 2-1/2"	11.55
72-123	x 3"	13.42
72-124	x 3-1/2"	14.66
72-125	x 4"	16.40
72-126	x 4-1/2"	17.84
72-127	x 5"	20.69
72-128	x 5-1/2"	22.26
72-129	x 6"	23.79

**SCHEDULE 80 SEAMLESS NIPPLES  
1-1/2" DIAMETER**



Part #	Length	List Price
72-140	X Close (1-3/4")	12.14
72-141	x 2"	12.85
72-142	x 2-1/2"	13.95
72-143	x 3"	16.07
72-144	x 3-1/2"	17.54
72-145	x 4"	19.63
72-146	x 4-1/2"	21.46
72-147	x 5"	24.83
72-148	x 5-1/2"	26.40
72-149	x 6"	27.92

**SCHEDULE 80 SEAMLESS NIPPLES  
2" DIAMETER**



Part #	Length	List Price
72-160	X Close (2")	14.42
72-161	x 2-1/2"	16.18
72-162	x 3"	18.82
72-163	x 3-1/2"	20.24
72-164	x 4"	22.60
72-165	x 4-1/2"	24.39
72-166	x 5"	28.55
72-167	x 5-1/2"	30.83
72-168	x 6"	32.61

**SCHEDULE 80 SEAMLESS NIPPLES  
2-1/2" DIAMETER**



Part #	Length	List Price
72-180	X Close (2-1/2")	47.91
72-181	x 3"	50.18
72-182	x 3-1/2"	54.04
72-183	x 4"	56.04
72-184	x 4-1/2"	59.07
72-185	x 5"	63.08
72-186	x 5-1/2"	66.24
72-187	x 6"	69.08

**SCHEDULE 80 SEAMLESS NIPPLES  
3" DIAMETER**



Part #	Length	List Price
72-200	X Close (2-5/8")	60.43
72-201	x 3"	63.91
72-202	x 3-1/2"	68.27
72-203	x 4"	72.28
72-204	x 4-1/2"	76.28
72-205	x 5"	81.60
72-206	x 5-1/2"	85.73
72-207	x 6"	89.69

**SCHEDULE 80 SEAMLESS NIPPLES  
4" DIAMETER**



Part #	Length	List Price
72-220	X Close (2-7/8")	86.08
72-223	x 4"	97.47
72-224	x 4-1/2"	103.13
72-225	x 5"	111.84
72-226	x 5-1/2"	116.29
72-227	x 6"	121.83

**NIPPLES & FITTINGS**



# MALLEABLE FITTINGS

# EXTRA HEAVY 300# MALLEABLE IRON

Max. pressure: 300 psi WOG @ 72°F; 150 psi WOG saturated steam

• Meet ANSI/ASME B1.20.1 standards • Galvanized meet ASME B16.3 Standards • Black meet ASTM 197 standards



## 90° ELBOWS



Galvanized

Black

Part #	List Price	Size	Part #	List Price
68-101	28.41	1/4"	69-101	15.74
68-102	28.72	3/8"	69-102	13.98
68-103	32.35	1/2"	69-103	19.21
68-104	35.98	3/4"	69-104	20.91
68-105	49.67	1"	69-105	26.75
68-106	77.32	1-1/4"	69-106	38.19
68-107	84.57	1-1/2"	69-107	41.66
68-108	171.00	2"	69-108	66.18



## 45° ELBOWS



Galvanized

Black

Part #	List Price	Size	Part #	List Price
68-181	46.56	1/4"	69-181	24.59
68-182	46.13	3/8"	69-182	26.49
68-183	53.36	1/2"	69-183	26.08
68-184	58.70	3/4"	69-184	28.99
68-185	67.37	1"	69-185	34.28
68-186	104.58	1-1/4"	69-186	51.41
68-187	130.00	1-1/2"	69-187	66.41
68-188	187.32	2"	69-188	101.24



## 90° STREET ELBOWS



Galvanized

Black

Part #	List Price	Size	Part #	List Price
68-161	39.32	1/4"	69-161	18.66
68-162	34.41	3/8"	69-162	22.36
68-163	58.57	1/2"	69-163	24.32
68-164	74.76	3/4"	69-164	34.58
68-165	81.36	1"	69-165	40.56
68-166	114.93	1-1/4"	69-166	55.76
68-167	135.29	1-1/2"	69-167	68.97
68-168	237.30	2"	69-168	107.28



## TEES



Galvanized

Black

Part #	List Price	Size	Part #	List Price
68-252	38.12	3/8"	69-252	20.98
68-253	51.55	1/2"	69-253	26.71
68-254	56.28	3/4"	69-254	28.85
68-255	65.61	1"	69-255	32.12
68-256	120.06	1-1/4"	69-256	60.52
68-257	103.86	1-1/2"	69-257	69.90
68-258	179.66	2"	69-258	85.60



## COUPLINGS



Galvanized

Black

Part #	List Price	Size	Part #	List Price
68-411	23.00	1/4"	69-411	13.16
68-412	32.25	3/8"	69-412	13.16
68-413	34.51	1/2"	69-413	15.85
68-414	31.08	3/4"	69-414	18.21
68-415	40.72	1"	69-415	19.28
68-416	53.07	1-1/4"	69-416	24.11
68-417	89.75	1-1/2"	69-417	37.11
68-418	90.14	2"	69-418	56.99



## REDUCING COUPLING



Galvanized

Black

Part #	List Price	Size	Part #	List Price
68-432	47.96	3/8 x 1/4"	69-432	21.45
68-434	40.82	1/2 x 1/4"	69-434	21.97
68-435	38.52	1/2 x 3/8"	69-435	20.92
68-438	47.19	3/4 x 1/2"	69-438	21.38
68-441	56.57	1 x 1/2"	69-441	30.50
68-442	56.34	1 x 3/4"	69-442	33.56



## CAPS



Galvanized

Black

Part #	List Price	Size	Part #	List Price
68-471	24.82	1/4"	69-471	14.54
68-472	24.80	3/8"	69-472	16.35
68-473	30.16	1/2"	69-473	16.51
68-474	30.96	3/4"	69-474	18.21
68-475	42.48	1"	69-475	23.91
68-476	64.19	1-1/4"	69-476	26.48
68-477	86.53	1-1/2"	69-477	38.71
68-478	104.05	2"	69-478	53.74



## UNIONS



Galvanized

Black

Part #	List Price	Size	Part #	List Price
68-600	70.76	1/8"	69-600	42.13
68-601	79.39	1/4"	69-601	42.13
68-602	70.11	3/8"	69-602	44.93
68-603	77.49	1/2"	69-603	42.13
68-604	80.11	3/4"	69-604	43.34
68-605	82.54	1"	69-605	45.24
68-606	84.26	1-1/4"	69-606	70.99
68-607	112.27	1-1/2"	69-607	96.63
68-608	124.33	2"	69-608	85.49

NIPPLES & 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.



**FORGED BUSHING**



**HEX HEAD FORGED PLUG**



**NIPPLES & FITTINGS**

Part #	Size	List Price
107-500	1/4" x 1/8"	2.56
107-501	3/8" x 1/8"	2.56
107-502	3/8" x 1/4"	2.56
107-503	1/2" x 1/8"	2.58
107-504	1/2" x 1/4"	2.58
107-505	1/2" x 3/8"	2.58
107-508	3/4" x 3/8"	3.17
107-509	3/4" x 1/2"	3.17
107-510	1" x 1/4"	5.16
107-511	1" x 3/8"	5.16
107-512	1" x 1/2"	5.16
107-513	1" x 3/4"	5.16
107-515	1-1/4" x 3/8"	8.41
107-516	1-1/4" x 1/2"	8.41
107-517	1-1/4" x 3/4"	8.41
107-518	1-1/4" x 1"	8.41
107-521	1-1/2" x 1/2"	9.69
107-522	1-1/2" x 3/4"	9.69
107-523	1-1/2" x 1"	9.69
107-524	1-1/2" x 1-1/4"	9.69
107-527	2" x 1/2"	14.54
107-528	2" x 3/4"	14.54
107-529	2" x 1"	14.54
107-530	2" x 1-1/4"	14.54
107-531	2" x 1-1/2"	14.54
107-532	2-1/2" x 1"	45.59
107-533	2-1/2" x 1-1/4"	45.59
107-534	2-1/2" x 1-1/2"	45.59
107-535	2-1/2" x 2"	45.59
107-550	3" x 1"	70.52
107-537	3" x 1-1/2"	70.52
107-538	3" x 2"	70.52
107-539	3" x 2-1/2"	70.52
107-540	4" x 1-1/2"	152.79
107-541	4" x 2"	152.79
107-542	4" x 2-1/2"	152.79
107-543	4" x 3"	152.79

Part #	Size	List Price
107-630	1/8"	1.56
107-631	1/4"	1.56
107-632	3/8"	1.62
107-633	1/2"	1.62
107-634	3/4"	3.00
107-635	1"	4.23
107-636	1-1/4"	7.18
107-637	1-1/2"	10.22
107-638	2"	15.85
107-639	2-1/2"	35.74
107-640	3"	65.29
107-641	4"	107.45

**SQUARE HEAD FORGED PLUG**



Part #	Size	List Price
107-670	1/8"	1.86
107-671	1/4"	1.86
107-672	3/8"	1.95
107-673	1/2"	2.04
107-674	3/4"	2.54
107-675	1"	3.89
107-676	1-1/4"	8.02
107-677	1-1/2"	9.15
107-678	2"	14.45
107-679	2-1/2"	37.18
107-680	3"	62.22
107-681	4"	98.30

“What the mind can conceive, it can achieve.”

– Napoleon Hill

“It is not because things are difficult that we do not dare; it is because we do not dare that things are difficult.”

– Seneca

“Great minds discuss ideas. Average minds discuss events. Small minds discuss people.”

- Eleanor Roosevelt

“Gravitation is not responsible for people falling in love.”

-Albert Einstein.

“If opportunity doesn’t knock, build a door.”

-Milton Berle

“The sky has never been the limit. We are our own limits. It’s then about breaking our personal limits and outgrowing ourselves to live our best lives.”

- unknown

**2000 LB FORGED STEEL THREADED FITTINGS**

**ASTM: A105 ANSI: B16.11**

**90° ELBOWS**



Part #	Size	List Price
100-100	1/8"	10.53
100-101	1/4"	7.82
100-102	3/8"	9.04
100-103	1/2"	7.92
100-104	3/4"	8.63
100-105	1"	11.13
100-106	1-1/4"	22.24
100-107	1-1/2"	27.13
100-108	2"	37.21
100-109	2-1/2"	97.94
100-110	3"	151.23
100-111	4"	495.85

**45° ELBOWS**



Part #	Size	List Price
100-181	1/4"	11.64
100-182	3/8"	12.10
100-183	1/2"	11.51
100-184	3/4"	12.89
100-179	1"	15.08
100-186	1-1/4"	23.86
100-187	1-1/2"	30.03
100-188	2"	46.83
100-189	2-1/2"	125.21
100-190	3"	202.18
100-191	4"	487.32

**TEES**



Part #	Size	List Price
100-251	1/4"	9.99
100-252	3/8"	11.15
100-253	1/2"	9.59
100-254	3/4"	12.99
100-255	1"	18.05
100-256	1-1/4"	31.93
100-257	1-1/2"	38.60
100-258	2"	48.32
100-259	2-1/2"	122.52
100-260	3"	211.17
100-261	4"	523.68

**CROSS**



Part #	Size	List Price
100-392	3/8"	30.40
100-393	1/2"	30.09
100-394	3/4"	33.47
100-395	1"	39.30
100-396	1-1/4"	71.81
100-397	1-1/2"	88.08
100-398	2"	120.59

**FORGED STEEL 3000# FITTINGS**

**90° ELBOWS**



Part #	Size	List Price
101-100	1/8"	11.18
101-101	1/4"	16.32
101-102	3/8"	16.13
101-103	1/2"	12.83
101-104	3/4"	16.12
101-105	1"	23.97
101-106	1-1/4"	45.54
101-107	1-1/2"	58.75
101-108	2"	71.35
101-109	2-1/2"	140.81
101-110	3"	202.85
101-111	4"	512.34

**For 3000# Socket Weld Forged Steel fittings, replace the 101 part# prefix with a 111 prefix.**

**\* Special Order**

**STREET ELBOWS**



Part #	Size	List Price
101-161	1/4"	16.73
101-162	3/8"	16.13
101-163	1/2"	24.19
101-164	3/4"	30.57
101-165	1"	40.79
101-166	1-1/4"	73.89
101-167	1-1/2"	89.31
101-168	2"	128.82

**45° ELBOWS**



Part #	Size	List Price
101-180	1/8"	14.19
101-181	1/4"	14.19
101-182	3/8"	14.19
101-183	1/2"	20.99
101-184	3/4"	24.25
101-185	1"	33.02
101-186	1-1/4"	45.64
101-187	1-1/2"	65.53
101-188	2"	90.42
101-189	2-1/2"	140.85
101-190	3"	228.98

**TEES**



Part #	Size	List Price
101-250	1/8"	13.58
101-251	1/4"	16.34
101-252	3/8"	13.58
101-253	1/2"	18.34
101-254	3/4"	24.77
101-255	1"	32.63
101-256	1-1/4"	63.32
101-257	1-1/2"	73.86
101-258	2"	95.53
101-259	2-1/2"	172.59
101-260	3"	321.85
101-261	4"	536.24

**NIPLLES & FITTINGS**



# FORGED STEEL 3000# FITTINGS

# FORGED STEEL FITTINGS

## 3000 LB FORGED STEEL THREADED FITTINGS ASTM A105/ASME SA105 & ANSI B16.11



### CROSS



Part #	Size	List Price
101-390	1/8"	51.31
101-391	1/4"	51.32
101-392	3/8"	51.32
101-393	1/2"	51.84
101-394	3/4"	68.41
101-395	1"	96.26
101-396	1-1/4"	127.53
101-397	1-1/2"	169.92
101-398	2"	229.06
101-399	2-1/2"	387.99
101-400	3"	513.73
101-401	4"	889.65

### HALF COUPLINGS



Part #	Size	List Price
101-770	1/8"	2.22
101-771	1/4"	2.22
101-772	3/8"	2.30
101-773	1/2"	3.20
101-774	3/4"	4.59
101-775	1"	6.29
101-776	1-1/4"	11.38
101-777	1-1/2"	15.14
101-778	2"	20.35
101-779	2-1/2"	27.82
101-780	3"	62.58
101-781	4"	109.34

### CAPS



Part #	Size	List Price
101-470	1/8"	4.14
101-471	1/4"	4.11
101-472	3/8"	4.11
101-473	1/2"	5.99
101-474	3/4"	8.35
101-475	1"	12.81
101-476	1-1/4"	20.63
101-477	1-1/2"	24.65
101-478	2"	35.48
101-479	2-1/2"	65.14
101-480	3"	120.02
101-481	4"	151.43

### COUPLINGS



Part #	Size	List Price
101-410	1/8"	4.04
101-411	1/4"	4.04
101-412	3/8"	4.04
101-413	1/2"	5.25
101-414	3/4"	6.83
101-415	1"	11.89
101-416	1-1/4"	19.81
101-417	1-1/2"	25.63
101-418	2"	31.98
101-419	2-1/2"	52.30
101-420	3"	99.75
101-421	4"	187.11

### REDUCING COUPLINGS

Part #	Size	List Price
101-431	1/4" x 1/8"	6.68
101-432	3/8" x 1/8"	6.97
101-433	3/8" x 1/4"	6.97
101-434	1/2" x 1/4"	10.45
101-435	1/2" x 3/8"	10.45
101-437	3/4" x 3/8"	12.40
101-438	3/4" x 1/2"	12.40
101-440	1" x 3/8"	16.15
101-441	1" x 1/2"	16.15
101-442	1" x 3/4"	16.15
101-443	1-1/4" x 3/8"	28.28
101-444	1-1/4" x 1/2"	28.28
101-445	1-1/4" x 3/4"	28.28
101-446	1-1/4" x 1"	28.28
101-447	1-1/2" x 1/2"	30.71
101-449	1-1/2" x 1"	30.71
101-450	1-1/2" x 1-1/4"	30.71
101-451	2" x 3/4"	44.54
101-452	2" x 1"	44.54
101-453	2" x 1-1/4"	44.54
101-454	2" x 1-1/2"	44.54
101-458	2" x 1/2"	44.54
101-459	2-1/2" x 1-1/2"	118.16
101-460	2-1/2" x 2"	118.16
101-461	3" x 1-1/2"	156.27
101-462	3" x 2"	156.27
101-463	3" x 2-1/2"	156.27
101-464	4" x 1-1/2"	239.26
101-465	4" x 2"	239.26
101-466	4" x 2-1/2"	239.26
101-467	4" x 3"	239.26

### UNIONS



Part #	Size	List Price
101-600	1/8"	17.19
101-601	1/4"	17.19
101-602	3/8"	17.49
101-603	1/2"	22.09
101-604	3/4"	27.27
101-605	1"	35.64
101-606	1-1/4"	56.53
101-607	1-1/2"	67.42
101-608	2"	91.41
101-609	2-1/2"	151.03
101-610	3"	177.80
101-611	4"	412.89

NIPPLES & FITTINGS



# FORGED STEEL FITTINGS

# FORGED STEEL 6000# FITTINGS

## 6000 LB FORGED STEEL THREADED FITTINGS

ASTM: A105 ANSI: B16.11

### 90° ELBOWS



Part #	Size	List Price
102-100	1/8"	POR
102-101	1/4"	79.55
102-102	3/8"	79.55
102-103	1/2"	17.02
102-104	3/4"	21.67
102-105	1"	27.79
102-106	1-1/4"	60.19
102-107	1-1/2"	72.79
102-108	2"	122.64
102-110	3"	626.87

### TEES



Part #	Size	List Price
102-251	1/4"	105.73
102-252	3/8"	105.73
102-253	1/2"	23.34
102-254	3/4"	31.57
102-255	1"	54.53
102-256	1-1/4"	66.36
102-257	1-1/2"	94.31
102-258	2"	170.52
102-259	2-1/2"	POR
102-260	3"	POR

For 6000# Socket Weld Forged Steel fittings, replace the 102 part# prefix with a 112 prefix.

\* Special Order

### CROSS



Part #	Size	List Price
102-393	1/2"	91.56
102-394	3/4"	187.88
102-395	1"	270.52
102-396	1-1/4"	369.85
102-397	1-1/2"	444.94
102-398	2"	489.98
102-399	2-1/2"	870.68
102-400	3"	924.51

### HALF COUPLINGS



Part #	Size	List Price
102-770	1/8"	10.03
102-771	1/4"	10.03
102-772	3/8"	11.19
102-773	1/2"	6.53
102-774	3/4"	6.93
102-775	1"	8.63
102-776	1-1/4"	19.38
102-777	1-1/2"	24.16
102-778	2"	44.01
102-779	2-1/2"	226.96
102-780	3"	259.53

### CAPS



Part #	Size	List Price
102-470	1/8"	18.27
102-471	1/4"	18.27
102-472	3/8"	18.27
102-473	1/2"	12.50
102-474	3/4"	15.00
102-475	1"	15.97
102-476	1-1/4"	40.61
102-477	1-1/2"	41.36
102-478	2"	49.17
102-479	2-1/2"	354.11
102-480	3"	383.85

### COUPLINGS



Part #	Size	List Price
102-410	1/8"	13.39
102-411	1/4"	10.36
102-412	3/8"	10.36
102-413	1/2"	8.95
102-414	3/4"	10.24
102-415	1"	13.75
102-416	1-1/4"	25.77
102-417	1-1/2"	28.40
102-418	2"	42.17

### REDUCING COUPLINGS

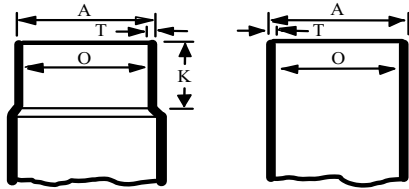
Part #	Size	List Price
102-434	1/2" x 1/4"	POR
102-435	1/2" x 3/8"	POR
102-437	3/4" x 3/8"	69.11
102-438	3/4" x 1/2"	69.11
102-440	1" x 3/8"	97.49
102-441	1" x 1/2"	97.49
102-442	1" x 3/4"	97.49
102-443	1-1/4" x 3/8"	157.10
102-444	1-1/4" x 1/2"	157.10
102-445	1-1/4" x 3/4"	157.10
102-448	1-1/4" x 1"	157.10
102-447	1-1/2" x 1/2"	135.03
102-449	1-1/2" x 1"	135.03
102-450	1-1/2" x 1-1/4"	135.03
102-451	2" x 3/4"	189.44
102-452	2" x 1"	189.44
102-453	2" x 1-1/4"	189.44
102-454	2" x 1-1/2"	189.44
102-458	2" x 1/2"	189.44

### UNIONS

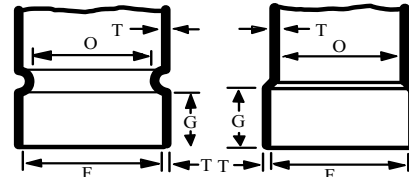


Part #	Size	List Price
102-600	1/8"	53.90
102-601	1/4"	45.02
102-602	3/8"	40.93
102-603	1/2"	36.66
102-604	3/4"	41.57
102-605	1"	53.78
102-606	1-1/4"	89.35
102-607	1-1/2"	104.63
102-608	2"	210.09

NIPPLES & FITTINGS



**MALE (FITTING)**



**FEMALE (COPPER)**

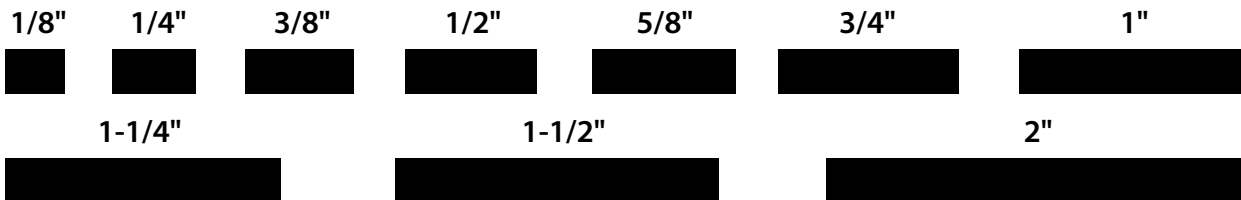
Nominal Size	Joint Ends										Metal Thickness T (in)	Inside Diameter O (in)
	Male End					Female End						
	Outside Diameter (A) in	Average Tolerance (mm)	Actual MIN in	O.D. MAX in	Length (Min) H (in)	Inside Diameter F (in)	Average Tolerance (mm)	Actual MIN in	O.D. MAX in	Length (Min) G (in)		
1/8	2/8	0.03	2/8	2/8	3/8	2/8	0.03	2/8	2/8	3/8	0	2/8
1/4	3/8		3/8	3/8	3/8	3/8		3/8	3/8	3/8	0	2/8
3/8	4/8		4/8	4/8	3/8	4/8		4/8	4/8	3/8	0	3/8
1/2	5/8		5/8	5/8	4/8	5/8		5/8	5/8	3/8	0	4/8
5/8	6/8		6/8	6/8	5/8	6/8		6/8	6/8	5/8	0	4/8
3/4	7/8		7/8	7/8	6/8	7/8		7/8	7/8	5/8	0	5/8
1	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
1-1/4	1-3/8		1-3/8	1-3/8	1	1-3/8		1-3/8	1-3/8	1	0	1-1/8
1-1/2	1-5/8	0.05	1-5/8	1-5/8	1-1/8	1-5/8	0.05	1-5/8	1-5/8	1-1/8	0	1-3/8
2	2-1/8		2-1/8	2-1/8	1-3/8	2-1/8		2-1/8	2-1/8	1-2/8	0	1-6/8
2-1/2	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
3	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
4	4-1/8	0.08	4-1/8	4-1/8	2-1/8	4-1/8	0.08	4-1/8	4-1/8	2-1/8	1/8	3-4/8
5	5-1/8		1-1/8	5-1/8	2-6/8	5-1/8		5-1/8	5-1/8	2-5/8	1/8	4-5/8
6	6-1/8		6-1/8	6-1/8	3-2/8	6-1/8		6-1/8	6-1/8	3-1/8	1/8	5-6/8
8	8-1/8	0.35	8-1/8	8-1/8	4-1/8	8-1/8	0.35	8-1/8	8-1/8	3-7/8	1/8	7-4/8
10	10-1/8		10-1/8	10-1/8	4-4/8	10-2/8		10-2/8	10-2/8	4-3/8	2/8	9-2/8

**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

**The above conforms to ASTM B 88 & ASTM B 306**

**Warranty:** Seller warrants that all fittings will be free from defects in materials and construction that will impair their usefulness, provided they are used as recommended. Any fitting that proves to be defective will be replaced or a credit issued but no incidental labor charges, expenses or damages will be allowed.



# COPPER FITTINGS

# WROT SOLDER JOINT

## 90° Ell C x C



WE-500-R  
607-R  
107-C

Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-100	1/8"	0.01	W 02003	5.69
77-101	1/4"	0.01	W 02009	6.37
77-102	3/8"	0.03	W 02017	6.41
77-103	3/8" x 1/4"	0.03	W 02019	10.21
77-104	1/2"	0.04	W 02022	1.88
77-105	1/2"x3/8"	-	W 02023	21.82
77-107	5/8"	0.07	W 02028	11.98
77-108	3/4"	0.09	W 02034	4.20
77-109	3/4" x 1/2"	0.12	W 02036	10.88
77-110	1"	0.17	W 02047	10.29
77-111	1"x3/4"	0.23	W 02049	21.01
77-112	1"x1/2"	0.23	W 02051	23.42
77-113	1-1/4"	0.27	W 02077	11.63
77-114	1-1/2"	0.41	W 02085	24.26
77-116	2"	0.73	W 02086	44.21
77-117	2"x1 -1/2"	0.73	W 02078	94.70
77-118	2-1/2"	1.16	W 02087	93.26
77-119	3"	1.87	W 02088	122.09
77-120	4"	3.79	W 02090	178.08

## 90° Street Ell Ftg. x C



77-124	1/4"	0.01	W 02312	9.01
77-125	3/8"	0.03	W 02321	6.21
77-126	1/2"	0.05	W 01652	2.77
77-127	5/8"	0.07	W 02330	9.72
77-128	3/4"	0.12	W 01654	9.41
77-129	1"	0.22	W 02344	15.75
77-130	1-1/4"	0.33	W 02384	20.67
77-131	1-1/2"	0.45	W 02385	32.76
77-132	2"	0.87	W 02386	59.04
77-134	3"	1.93	W 02388	150.18

## 90° Long Turn Ell C x C



WE-500-L  
607-LT  
107-L

77-139	1/8"	0.01	W 02715	10.78
77-140	1/4"	0.02	W 02716	9.25
77-141	5/16"	0.03		9.15
77-142	3/8"	0.04	W 02717	11.09
77-143	1/2"	0.06	W 02722	8.24
77-144	5/8"	0.10	W 02728	10.08
77-145	3/4"	0.15	W 02734	10.61

## 90° Long Turn Street Ell Ftg. x C



WE-503-L  
607-2LT

77-152	1/8"	0.01		8.36
77-153	1/4"	0.22	W 02809	5.04
77-154	3/8"	0.04	W 02817	17.94
77-155	1/2"	0.06	W 02822	12.97
77-156	5/8"	0.11	W 02828	14.17
77-157	3/4"	0.15	W 02834	14.30

See copper fitting brushes on page 310.

# WROT SOLDER JOINT

# COPPER FITTINGS

## 45° ELL C x C

WE-504  
606  
106



Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-161	1/8"	0.01	W 03005	12.24
77-162	1/4"	0.01	W 03012	9.79
77-163	3/8"	0.02	W 03021	11.33
77-164	1/2"	0.04	W 03026	2.88
77-165	5/8"	0.06	W 03030	15.49
77-166	3/4"	0.10	W 03034	6.02
77-167	1"	0.19	W 03044	15.44
77-168	1-1/4"	0.27	W 03050	17.80
77-169	1-1/2"	0.39	W 03055	21.42
77-170	2"	0.75	W 03059	43.24
77-171	2-1/2"	1.23	W 03063	61.79

## Street 45° Ftg. x C

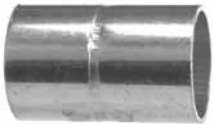
WE-505  
606-2



77-177	1/4"	0.01	W 03312	13.60
77-178	3/8"	0.02	W 03321	10.68
77-179	1/2"	0.06	W 03326	3.91
77-180	5/8"	0.06	W 03330	22.57
77-181	3/4"	0.10	W 03334	5.42
77-182	1"	0.18	W 03344	21.01
77-183	1-1/4"	0.27	W 03350	21.89
77-184	1-1/2"	0.38	W 03355	27.28
77-185	2"	0.75	W 03359	42.52

## Coupling (Socket) w/Rolled Tube Stop C x C

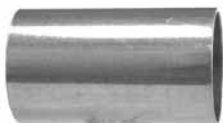
WC-400  
100



77-201	1/8"	0.01	W 01003	1.69
77-202	1/4"	0.01	W 01009	1.38
77-203	3/8"	0.02	W 01017	1.89
77-204	1/2"	0.03	W 01022	1.43
77-205	5/8"	0.04	W 01028	4.46
77-206	3/4"	0.06	W 01034	2.77
77-207	1"	0.10	W 01047	5.10
77-208	1-1/4"	0.15	W 01055	10.84
77-209	1-1/2"	0.22	W 01063	14.01
77-210	2"	0.39	W 01072	23.42
77-211	2-1/2"	0.71	W 01082	43.63
77-212	3"	0.98	W 01092	76.40
77-214	4"	2.01	W 10107	105.10

## Coupling (Socket) Less Tube Stop C x C

WC-400NS  
601



77-219	1/8"	0.01	W 01900	1.76
77-220	1/4"	0.01	W 01901	1.19
77-222	1/2"	0.03	W 01903	1.88
77-223	3/4"	0.06	W 01905	3.39
77-224	1"	0.10	W 01906	9.11
77-225	1-1/4"	0.15	W 01907	13.34
77-226	1-1/2"	0.22	W 01908	18.06
77-227	2"	0.39	W 01909	29.77

# COPPER FITTINGS

# WROT SOLDER JOINT

**Coupling (Socket)  
w/Dimpled Tube Stop  
C x C**



**WC-400S**

Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-238	1/2"	0.03		1.44
77-240	3/4"	0.06		3.07
77-241	1"	0.10		5.68
77-242	1-1/4"	0.15		10.60
77-244	2"	0.39		19.38
77-247	4"	2.01		105.10

**Reducer Coupling  
w/ Stop  
C x C**



**WC-400R  
600-R**

77-252	1/4" x 1/8"	0.01	W 01011	9.75
77-253	3/8" x 1/4"	0.02	W 01019	3.27
77-255	1/2" x 3/8"	0.03	W 01021	2.57
77-256	1/2" x 1/4"	0.03	W 01023	3.80
77-258	5/8" x 1/2"	0.04	W 01025	6.82
77-262	3/4" x 1/2"	0.06	W 01029	5.03
77-263	3/4" x 3/8"	0.06	W 01036	5.56
77-264	3/4" x 1/4"	0.06	W 01037	5.49
77-265	1"x3/4"	0.12	W 01038	9.80
77-267	1"x1/2"	0.10	W 01049	10.41
77-268	1-1/4" x 1"	0.17	W 01051	13.20
77-269	1 -1/4" x 3/4"	0.17	W 01056	13.20
77-270	1 -1/4" x 1/2"	0.14	W 01058	11.87
77-271	1-1/2" x 1-1/4"	0.24	W 01060	22.88
77-272	1-1/2" x 1"	0.24	W 01064	19.30
77-273	1 -1/2" x 3/4"	0.25	W 01065	22.88
77-274	1-1/2" x 1/2"	0.19	W 01067	21.24
77-275	2" x 1-1/2"	0.42	W 01069	35.37
77-276	2 x 1-1/4"	0.46	W 01073	29.28
77-277	2" x 1"	0.48	W 01074	30.84
77-280	2-1/2"x2"	0.79	W 01075	47.33
77-284	3" x 2-1/2"	1.15	W 01093	62.22

**Fitting Reducer**

**Ftg. x C**



**WC-403  
600-2**

77-291	3/8" x 1/4"	0.02	W 01312	3.59
77-292	3/8" x 1/8"	0.01	W 01314	5.29
77-294	1/2" x 1/4"	0.03	W 01317	3.21
77-295	5/8" X 1/2"	0.03	W 01320	7.01
77-296	3/4" x 5/8"	0.08	W 01325	5.18
77-297	3/4" x 1/2"	0.06	W 01326	5.02
77-298	3/4" x 3/8"	0.05	W 01327	5.77
77-299	3/4" X 1/4"	0.05	W 01328	6.21
77-300	1"x3/4"	0.11	W 01337	8.22
77-352	1" x 1/2"	0.10	W 01265	10.91
77-354	1-1/4" x 1"	0.17	W 01343	12.45
77-355	1 -1/4" x 3/4"	0.15	W 01345	13.06
77-356	1 -1/4" x 1/2"	0.14	W 01347	13.06
77-357	1 -1/2" X 1-1/4"	0.21	W 01350	17.62
77-358	1-1/2"x1"	0.22	W 01351	16.59
77-359	1 -1/2" x 3/4"	0.21	W 01353	17.62
77-360	1 -1/2" x 1/2"	0.21	W 01355	20.21
77-361	2" x 1-1/2"	0.39	W 01358	31.20
77-362	2" x 1 -1/4"	0.38	W 01359	30.62
77-363	2" x 1"	0.40	W 01360	32.26
77-364	2" x 3/4"	0.39	W 01362	32.26
77-365	2" x 1/2"	0.44	W 01364	34.23
77-370	3" x 2-1/2"	0.93	W 01376	57.21

**NIPLLES & FITTINGS**

**Flush Bushing**  
Ftg. x C  
WC-106  
618



Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-382	3/4" x 1/2"	0.08	W 01726	6.29
77-383	3/4" x 5/8"	0.04	W 01725	6.58
77-385	1" x 3/4"	0.13	W 01737	9.82
77-387	1" x 1/2"	0.22	W 01739	10.85
77-389	1-1/4" x 3/4"	0.30	W 01745	10.91
77-391	1-1/2" x 1-1/4"	0.22	W 01750	15.74
77-392	2" x 1-1/2"	0.68	W 01758	45.11

**NIPPLES & FITTINGS**

**Male Adapter**  
C x M  
WC-401  
604



77-393	1/8"	0.02	W 01107	21.58
77-394	1/4"	0.03	W 01115	19.60
77-395	1/4" x 1/2"	0.09	W 01113	14.58
77-396	1/4"x3/8"	0.06	W 01114	20.29
77-397	1/4" x 1/8"	0.02	W 01116	14.58
77-398	3/8"	0.06	W 01125	8.41
77-401	1/2"	0.08	WB01131	3.91
77-303	1/2"x3/4"	0.16	WB01130	10.24
77-306	3/4"	0.14	WB01146	6.57
77-307	3/4" x 1"	0.29		25.27
77-309	1"	0.24	WB01163	16.95
77-312	1"x3/4"	0.18	W 01164	21.89
77-314	1-1/4"	0.41	W 01171	26.47
77-318	1-1/2"	0.50	W 01179	30.38
77-320	1-1/2" x 1-1/4"	0.44	W 01180	50.88
77-322	2"	0.87	W 01187	42.53

**Fitting Male Adapters**  
Ftg. x M

WC-404  
604-2



77-331	1/2"	0.09	W 01431	31.07
77-332	1/2" x 3/4"	0.15		35.48
77-333	3/4"	0.15	W 01446	19.38
77-335	1-1/4"	0.41	W 01471	76.13
77-337	2"	0.86	W 01487	149.09

Can't find it here? Ask us for price & availability.

My grandpa started walking five miles a day when he was 60.  
Now he's 97 years old and we don't know where he is.

# COPPER FITTINGS

# WROT SOLDER JOINT

**Female Adapters  
C x F  
WC402  
603  
WC402R  
603R**



Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-338	1/8"	0.03	W 01207	15.90
77-339	1/4"	0.04	W 01215	11.98
77-340	3/8"	0.06	W 01225	11.55
77-341	3/8" x 1/2"	0.10	W 01224	11.27
77-343	1/2"	0.10	WB01231	6.22
77-345	1/2" x 3/4"	0.15	WB01230	12.71
77-346	1/2"x3/8"	0.70	W 01232	10.17
77-347	1/2" x 1/4"	0.05	W 01233	10.17
77-349	3/4"	0.14	WB01246	10.69
77-351	3/4" x 1/2"	0.11	W 01247	14.18
77-402	1"	0.24	WB01263	20.74
77-404	1"x3/4"	0.22	W 01264	30.38
77-405	1"x 1/2"	0.29	W 01265	31.41
77-406	1-1/4"	0.43	W 01271	30.38
77-407	1-1/4" x 1-1/2"	0.52	W 01270	53.67
77-409	1 -1/4" x 3/4"	0.26		41.71
77-410	1-1/2"	0.58	W 01279	47.54
77-413	2"	0.74	W 01287	64.57
77-416	3"	1.83	W 01297	294.79

**Fitting Female Adapt.  
Ftg. x F**



WC405  
603-2

WC405R  
603R

77-419	3/8"	0.05	W 01525	14.84
77-420	1/2"	0.11	W 01531	10.99
77-423	3/4"	0.19	W 01546	16.85
77-424	1"	0.25	W 01563	24.89
77-426	1-1/2"	0.55	W 01579	52.83
77-427	2"	0.68	W 01587	70.83

**Cap  
WC-415  
617**



77-428	1/8"	0.003	W 07002	2.75
77-429	1/4"	0.01	W 07004	1.55
77-430	3/8"	0.01	W 07006	2.42
77-431	1/2"	0.02	WB07007	1.35
77-432	5/8"	0.03	W 07008	3.50
77-433	3/4"	0.04	WB07009	2.44
77-434	1"	0.08	WB07011	5.68
77-435	1-1/4"	0.11	W 07012	9.37
77-436	1-1/2"	0.18	W 07013	12.39
77-437	2"	0.30	W 07014	23.37

**Unions C x C  
WC-407**



77-453	1/4"	0.11	W 08001	35.53
77-454	3/8"	0.11	W 08002	37.35
77-455	1/2"	0.17	W 08003	17.74
77-456	3/4"	0.37	W 08004	26.98
77-457	1"	0.51	W 08005	45.43

**U-Type Strap  
WS-1100**



77-458	1/8"	0.01	A 01203	0.88
77-459	1/4"	0.02	A 01278	1.23
77-460	3/8"	0.02	A 01366	2.29
77-461	1/2"	0.03	A 02529	1.90
77-462	3/4"	0.03	A 02574	2.59
77-463	1"	0.04	A 02614	4.83
77-464	1-1/4"	0.04	A 02650	1.98
77-465	1-1/2"	0.05	A 02675	2.34
77-466	2	0.06	A 02708	2.63



Part#	Nominal 1 x 2 x 3	Approx Net Wt.	Ind #	List Price
77-467	1/8"	0.02	W 40306	12.61
77-468	1/4"	0.03	W 04000	11.69
77-470	3/8"	0.05	W 04001	10.25
77-473	1/2"	0.08	WB04006	3.17
77-474	1/2"x1/2"x1"	-	W 04067	27.54
77-481	5/8"	-	W 04017	19.40
77-483	3/4"	0.18	WB04031	7.68
77-485	3/4"x3/4"x1"	0.25	W 04065	22.57
77-486	3/4" x 3/4" x 1/2"	0.15	WB04033	6.44
77-488	3/4" x 1/2" x 3/4"	0.19	WB04041	9.35
77-489	3/4"x1/2"x1/2"	0.15	WB04043	26.06
77-490	1"	0.35	WB04048	23.84
77-492	1"x1"x 1-1/4"	0.64	W 04082	46.28
77-493	1"x1"x3/4"	0.29	WB04049	30.05
77-496	1"x1"x1/2"	0.24	WB04051	25.15
77-498	1"x3/4"x1"	0.38	W 04055	29.91
77-499	1"x3/4"x3/4"	0.31	W 04056	28.59
77-500	1"x3/4"x1/2"	0.27	W 04058	24.75
77-501	1"x1/2"x1"	0.34	W 04061	24.75
77-502	1"x1/2"x3/4"	0.34	W 04062	26.06
77-504	1-1/4"	0.58	W 04068	34.99
77-506	1 -1/4" x1 -1/4" x 1-1/2"	0.79	W 40100	66.34
77-507	1-1/4"x1-1/4"x1"	0.47	W 04069	30.62
77-508	1-1/4" x 1-1/4" x 3/4"	0.39	W 04070	34.34
77-509	1-1/4"x1-1/4"x1/2"	0.33	W 04071	30.62
77-510	1-1/4" x 1"x 1-1/4"	-	W 04073	40.23
77-511	1-1/4" x 1"x1"	0.50	W 04074	39.31
77-514	1 -1/4" x 3/4" x 1-1/4"	0.63	W 04078	39.31
77-516	1-1/4"x3/4"x3/4"	-	W 04080	39.31
77-518	1 -1/4"x 1/2" x 1-1/4"	-	W 04083	31.42
77-519	1-1/2"	-	W 04084	52.82
77-521	1-1/2"x1-1/2"x 1-1/4"	-	W 04085	25.46
77-522	1-1/2" x 1-1/2" x1"	-	W 04086	24.24
77-523	1 -1/2" x 1-1/2" x 3/4"	0.51	W 04087	24.24
77-524	1 -1/2" x 1 -1/2" x 1/2"	0.46	W 04088	39.32
77-543	2"	1.35	W 40102	68.13
77-545	2" x 2" x 1-1/2"	1.17	W 40103	53.04
77-546	2" x 2" x 1-1/4"	1.01	W 40104	58.92
77-547	2"x2"x1"	0.99	W 40105	53.04
77-548	2" x 2" x 3/4"	0.90	W 40106	52.71
77-549	2"x2"x1/2"	0.77	W 40107	52.71
77-554	2" x 1 -1/2" x 3/4"	1.40	W 40113	64.77
77-556	2" x 1-1/4" x 1-1/4"	1.14	W 40117	70.26
77-559	2"x1"x2"	1.34	W 40245	64.77
77-560	2"x1"x1"	0.98	W 40247	64.77
77-563	2-1/2"	2.21	W 40123	137.46
77-585	3"x 3" x 2"	2.53	W 40150	176.51
77-587	3" x 3" x 1-1/4"	2.18	W 04074	129.01
77-588	3"x3"x1"	2.14	W 04075	129.01

**Tee**  
**C x C x C**



**NIPPLES & FITTINGS**



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



**1/2" DIAMETER**

Part #	Length	List Price
55-060	X Close (1-1/8")	0.64
55-061	1-1/2"	0.75
55-062	2"	0.67
55-063	2-1/2"	0.83
55-064	3"	0.72
55-065	3-1/2"	0.85
55-066	4"	1.07
55-067	4-1/2"	1.07
55-068	5"	1.07
55-069	5-1/2"	1.18
55-070	6"	1.11
55-072	8"	1.46
55-076	12"	1.63
55-241	24"	3.33
55-243	36"	5.49

**3/4" DIAMETER**

Part #	Length	List Price
55-080	X Close (1-3/8")	0.68
55-081	1-1/2"	0.74
55-082	2"	0.77
55-083	2-1/2"	0.70
55-084	3"	0.76
55-085	3-1/2"	0.92
55-086	4"	1.01
55-087	4-1/2"	1.25
55-088	5"	1.10
55-089	5-1/2"	1.30
55-090	6"	1.49
55-250	18"	3.37
55-253	36"	8.65

**1" DIAMETER**

Part #	Length	List Price
55-100	X Close (1-1/2")	1.05
55-101	2"	1.24
55-102	2-1/2"	1.25
55-103	3"	1.76
55-104	3-1/2"	1.30
55-105	4"	1.40
55-106	4-1/2"	1.63
55-107	5"	1.74
55-108	5-1/2"	1.81
55-109	6"	2.20
55-111	8"	2.73
55-115	12"	3.05

**1-1/4" DIAMETER**

Part #	Length	List Price
55-120	X Close (1-5/8")	1.77
55-121	2"	1.59
55-122	2-1/2"	1.77
55-123	3"	2.41
55-124	3-1/2"	2.20
55-125	4"	2.65
55-126	4-1/2"	2.52
55-127	5"	2.54
55-128	5-1/2"	3.13
55-129	6"	3.16

**1-1/2" DIAMETER**

Part #	Length	List Price
55-140	X Close (1-5/8")	1.93
55-141	2"	1.84
55-142	2-1/2"	3.72
55-143	3"	2.27
55-144	3-1/2"	2.66
55-145	4"	2.62
55-146	4-1/2"	2.96
55-147	5"	3.17
55-148	5-1/2"	3.35
55-149	6"	3.65

**2" DIAMETER**

Part #	Length	List Price
55-160	X Close (2")	2.80
55-161	2-1/2"	2.53
55-162	3"	3.28
55-163	3-1/2"	3.30
55-164	4"	3.42
55-165	4-1/2"	3.85
55-166	5"	4.10
55-167	5-1/2"	4.46
55-168	6"	4.39
55-174	12"	7.58
55-292	30"	16.27

*More sizes available...just ask!*

I joined a health club last year, spent about 400 bucks. Haven't lost a pound. Apparently you have to go there.

**PLASTIC FITTINGS**



**SLIP TEES**



Part #	Size	List Price
55-710	1/2"	0.70
55-711	3/4"	0.81
55-712	3/4" x 3/4" x 1/2"	0.92
55-713	1"	1.49
55-714	1" x 1" x 1/2"	1.58
55-715	1" x 1" x 3/4"	1.73
55-716	1-1/4"	2.35
55-717	1-1/2"	2.85
55-718	2"	4.14
55-719	2-1/2"	13.68

**SLIP COUPLING**



Part #	Size	List Price
55-736	1/2"	0.37
55-737	3/4"	0.51
55-738	1"	0.89
55-739	1-1/4"	1.23
55-740	1-1/2"	1.30
55-741	2"	2.00
55-742	2-1/2"	4.44
55-743	3"	6.94

**THREADED COUPLING**



Part #	Size	List Price
55-950	1/2"	0.71
55-951	3/4"	1.30

History is the version of past events that people have decided to agree upon.

- Napoleon Bonaparte

**SLIP X FEMALE ADAPTER**



Part #	Size	List Price
55-744	1/2"	0.63
55-812	1/2" x 1/4"	1.13
55-813	1/2" x 3/8"	1.13
55-745	3/4"	0.81
55-746	1"	0.92
55-747	1-1/4"	1.44
55-748	1-1/2"	1.64
55-749	2"	2.20
55-807	2-1/2"	5.59
55-804	3"	7.50

**MIP X ADAPTER**



Part #	Size	List Price
55-750	1/2"	0.51
55-751	3/4"	0.56
55-752	1"	1.01
55-753	1-1/4"	1.23
55-754	1-1/2"	1.64
55-755	2"	2.16
55-808	2-1/2"	6.36
55-811	3"	9.32

**90° SLIP ELBOW**



Part #	Size	List Price
55-720	1/2"	0.56
55-721	3/4"	0.63
55-722	1"	1.13
55-723	1-1/4"	1.99
55-725	2"	3.36
55-726	2-1/2"	10.23
55-727	3"	12.25

PLASTIC FITTINGS



# PLASTIC FITTINGS

# PVC SCHEDULE 40 FITTINGS

## SLIP CAP



Part #	Size	List Price
55-756	1/2"	0.51
55-757	3/4"	0.58
55-758	1"	0.92
55-759	1-1/4"	1.30
55-760	1-1/2"	1.44
55-761	2"	1.73
55-762	2-1/2"	5.50
55-801	3"	6.02

## THREADED PIPE CAP



Part #	Size	List Price
55-763	1/2"	1.06
55-764	3/4"	1.23

## SLIP X FIP BUSHING



Part #	Size	List Price
55-805	1/2" x 1/4"	1.23
55-806	1/2" x 3/8"	1.23
55-781	3/4" x 1/2"	0.92
55-782	1" x 1/2"	1.49
55-783	1" x 3/4"	1.49
55-784	1-1/4" x 1/2"	2.31
55-785	1-1/4" x 3/4"	2.31
55-786	1-1/4" x 1"	2.31
55-803	1-1/2" x 1/2"	2.66
55-787	1-1/2" x 3/4"	2.66
55-788	1-1/2" x 1"	2.66
55-809	1-1/2" x 1-1/4"	2.66
55-810	2" x 1/2"	3.56
55-789	2" x 3/4"	3.56
55-790	2" x 1"	3.56
55-791	2" x 1-1/4"	3.56
55-792	2" x 1-1/2"	3.56
55-798	2-1/2" x 1-1/2"	5.15
55-796	2-1/2" x 2"	5.15
55-816	3" x 2"	5.94
55-780	3" x 2-1/2"	5.94

## 45° SLIP ELBOW



Part #	Size	List Price
55-728	1/2"	0.92
55-729	3/4"	1.44
55-730	1"	1.73
55-731	1-1/4"	2.41
55-732	1-1/2"	2.79
55-733	2"	3.93
55-734	2-1/2"	10.25
55-735	3"	15.91

## SLIP BUSHING



Part #	Size	List Price
55-765	3/4" x 1/2"	0.58
55-766	1" x 1/2"	1.06
55-767	1" x 3/4"	1.06
55-768	1-1/4" x 1/2"	1.44
55-769	1-1/4" x 3/4"	1.44
55-770	1-1/4" x 1"	1.44
55-815	1-1/2" x 1/2"	1.52
55-771	1-1/2" x 3/4"	1.52
55-772	1-1/2" x 1"	1.52
55-773	1-1/2" x 1-1/4"	1.52
55-774	2" x 1/2"	2.51
55-775	2" x 3/4"	2.51
55-776	2" x 1"	2.51
55-777	2" x 1-1/4"	2.51
55-778	2" x 1-1/2"	2.51
55-814	2-1/2" x 1-1/2"	4.04
55-779	2-1/2" x 2"	4.04
55-797	3" x 2"	5.94
55-802	3" x 2-1/2"	5.94

PLASTIC FITTINGS

Never put off until tomorrow, what you can put off until the day after tomorrow.

- Mark Twain



# 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
806-002	1/4"	3.77
806-003	3/8"	3.77
806-005	1/2"	3.77
806-007	3/4"	4.83
806-010	1"	7.78
806-012	1-1/4"	10.42
806-015	1-1/2"	11.15
806-020	2"	13.49
806-025	2-1/2"	31.55
806-030	3"	35.48
806-040	4"	53.91
806-060	6"	153.46



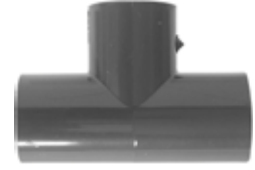
## FIP X FIP 90° ELBOW

Part #	Size	List Price
808-002	1/4"	9.37
808-003	3/8"	9.37
808-005	1/2"	8.75
808-007	3/4"	10.90
808-010	1"	13.72
808-012	1-1/4"	14.77
808-015	1-1/2"	20.95
808-020	2"	23.60
808-025	2-1/2"	91.90
808-030	3"	148.21
808-040	4"	260.78



## SLIP X SLIP 45° ELBOW

Part #	Size	List Price
817-002	1/4"	13.57
817-003	3/8"	13.57
817-005	1/2"	7.13
817-007	3/4"	10.87
817-010	1"	16.30
817-012	1-1/4"	20.77
817-015	1-1/2"	18.80
817-020	2"	31.82
817-025	2-1/2"	66.81
817-030	3"	81.31
817-040	4"	146.44
817-060	6"	184.41



## SLIP X SLIP TEE

Part #	Size	List Price
801-002	1/4"	10.65
801-003	3/8"	10.65
801-005	1/2"	10.65
801-007	3/4"	11.17
801-010	1"	13.97
801-012	1-1/4"	38.38
801-015	1-1/2"	38.38
801-020	2"	48.01
801-025	2-1/2"	52.18
801-030	3"	65.22
801-040	4"	75.58
801-060	6"	258.07



## FIP X FIP TEE

Part #	Size	List Price
805-002	1/4"	12.32
805-003	3/8"	12.32
805-005	1/2"	12.32
805-007	3/4"	13.72
805-010	1"	30.27
805-012	1-1/4"	32.09
805-015	1-1/2"	38.90
805-020	2"	41.83
805-025	2-1/2"	152.26
805-030	3"	159.02
805-040	4"	258.45



## SLIP X SLIP COUPLING

Part #	Size	List Price
829-002	1/4"	10.94
829-003	3/8"	10.94
829-005	1/2"	6.85
829-007	3/4"	9.26
829-010	1"	9.51
829-012	1-1/4"	14.50
829-015	1-1/2"	15.62
829-020	2"	16.77
829-025	2-1/2"	41.30
829-030	3"	47.42
829-040	4"	59.38
829-060	6"	127.79

PLASTIC FITTINGS



**FIP X FIP COUPLING**

Part #	Size	List Price
830-002	1/4"	8.20
830-003	3/8"	8.20
830-005	1/2"	7.65
830-007	3/4"	10.92
830-010	1"	11.72
830-012	1-1/4"	14.50
830-015	1-1/2"	32.25
830-020	2"	33.85
830-030	3"	94.76
830-040	4"	164.08



**SLIP X SLIP REDUCING COUPLING**

Part #	Size	List Price
829-101	3/4" x 1/2"	8.37
829-130	1" x 1/2"	11.69
829-131	1" x 3/4"	12.20
829-168	1-1/4" x 1"	24.77
829-211	1-1/2" x 1"	25.95
829-212	1-1/2" x 1-1/4"	32.05
829-251	2" x 1-1/2"	29.25
829-338	3" x 2"	71.86
829-422	4" x 3"	135.35
829-532	6" x 4"	276.08



**FIP X FIP REDUCING COUPLING**

Part #	Size	List Price
830-052	3/8" x 1/4"	12.00
830-073	1/2" x 3/8"	12.53
830-101	3/4" x 1/2"	9.09
830-130	1" x 1/2"	12.86
830-131	1" x 3/4"	13.50
830-167	1-1/4" x 3/4"	29.02
830-168	1-1/4" x 1"	20.72
830-211	1-1/2" x 1"	43.05
830-212	1-1/2" x 1-1/4"	46.05
830-251	2" x 1-1/2"	57.18



**MIP X SLIP ADAPTER**

Part #	Size	List Price
836002	1/4"	7.99
836003	3/8"	7.99
836005	1/2"	7.99
836007	3/4"	8.82
836010	1"	15.26
836012	1-1/4"	17.83
836015	1-1/2"	25.62
836020	2"	37.05
836025	2-1/2"	42.14
836030	3"	46.77
836040	4"	83.20



**MIP X FIP BUSHING**

Part #	Size	List Price
839041	1/4" x 1/8"	13.78
839050	3/8" x 1/8"	13.78
839052	3/8" x 1/4"	13.78
839072	1/2" x 1/4"	13.78
839073	1/2" x 3/8"	13.78
839099	3/4" x 3/8"	10.27
839101	3/4" x 1/2"	8.46
839130	1" x 1/2"	13.26
839131	1" x 3/4"	13.26
839166	1-1/4" x 1/2"	14.06
839167	1-1/4" x 3/4"	14.06
839168	1-1/4" x 1"	14.06
839209	1-1/2" x 1/2"	16.66
839210	1-1/2" x 3/4"	16.66
839211	1-1/2" x 1"	16.66
839212	1-1/2" x 1-1/4"	16.66
839247	2" x 1/2"	24.42
839248	2" x 3/4"	24.42
839249	2" x 1"	24.42
839250	2" x 1-1/4"	24.42
839251	2" x 1-1/2"	24.42
839338	3" x 2"	44.92
839420	4" x 2"	92.60
839422	4" x 3"	118.27

**PLASTIC FITTINGS**





**SLIP X SLIP UNION**

Part #	Size	List Price
897002	1/4"	25.86
897003	3/8"	25.86
897005	1/2"	13.82
897007	3/4"	17.59
897010	1"	20.13
897012	1-1/4"	39.90
897015	1-1/2"	45.16
897020	2"	61.26
897025	2-1/2"	97.39
897030	3"	113.99
897040	4"	157.68



**FIP X FIP THREADED UNION**

Part #	Size	List Price
898002	1/4"	27.87
898003	3/8"	27.87
898005	1/2"	16.06
898007	3/4"	22.46
898010	1"	29.90
898012	1-1/4"	57.06
898015	1-1/2"	70.64
898020	2"	108.71
898025	2-1/2"	145.57
898030	3"	275.78
898040	4"	322.54



**MIP THREADED PLUG**

Part #	Size	List Price
850002	1/4"	7.22
850003	3/8"	7.22
850005	1/2"	6.44
850007	3/4"	6.70
850010	1"	8.20
850012	1-1/4"	12.07
850015	1-1/2"	14.70
850020	2"	15.09
850025	2-1/2"	42.14
850030	3"	49.16
850040	4"	95.71



**SLIP CAP**

Part #	Size	List Price
847002	1/4"	8.69
847003	3/8"	8.69
847005	1/2"	6.70
847007	3/4"	7.06
847010	1"	12.53
847012	1-1/4"	15.13
847015	1-1/2"	15.13
847020	2"	29.85
847025	2-1/2"	60.96
847030	3"	71.32
847040	4"	120.28
847060	6"	299.24



**FIP THREADED CAP**

Part #	Size	List Price
848002	1/4"	8.37
848003	3/8"	8.37
848005	1/2"	8.37
848007	3/4"	9.37
848010	1"	11.81
848012	1-1/4"	14.06
848015	1-1/2"	16.06
848020	2"	31.55
848025	2-1/2"	63.11
848030	3"	74.31
848040	4"	130.83

**PLASTIC FITTINGS**





**AVAILABLE IN THREE TYPES OF PLASTIC**

**Add ( ) letter for type of plastic required**

**(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.**

**HEX HEAD PLUGS**



Part #	Size	List Price		
		B	P	W
28-601	1/8"	0.53	0.66	0.73
28-602	1/4"	0.48	0.66	0.73
28-603	3/8"	0.56	0.81	0.66
28-604	1/2"	0.66		1.66
28-605	3/4"	1.16		0.99
28-606	1"			1.60
28-607	1-1/4"			2.05
28-608	1-1/2"			2.96
28-609	2"			4.39

**HEX NIPPLES**



Part #	Size	List Price		
		B	P	W
28-611	1/8"	0.58		0.71
28-612	1/4"	0.64	0.78	1.17
28-613	3/8"	0.64	0.81	0.71
28-614	1/2"	0.82	0.88	0.92
28-615	3/4"		1.25	1.12
28-616	1"			1.93
28-617	1 1/4"			3.86

**HEX BUSHING**



Part #	Size	List Price	
		P	W
28-659	1/4 x 1/8"	2.10	1.96
28-660	3/8 x 1/8"	2.06	1.53
28-661	3/8 x 1/4"	1.99	1.94
28-663	1/2 x 1/4"	2.02	1.60
28-664	1/2 x 3/8"	1.76	2.02
28-665	3/4 x 1/8"		2.78
28-666	3/4 x 1/4"	2.29	1.76
28-667	3/4 x 3/8"		2.12
28-668	3/4 x 1/2"	2.38	1.73
28-671	1 x 1/2"	2.35	2.57
28-672	1 x 3/4"	2.79	2.02
28-674	1-1/4 x 3/4"		3.76
28-675	1-1/4 x 1"		3.30
28-678	1-1/2 x 3/4"	4.01	4.36
28-679	1-1/2 x 1"		4.83
28-680	1-1/2 x 1-1/4"	3.08	3.67
28-682	2 x 3/4"		11.80
28-683	2 x 1"		9.65
28-685	2 x 1-1/2"		5.43

**PIPE CAP**



Part #	Size	List Price
		W
28-640	1/4"	0.74
28-641	3/8"	0.87
28-642	1/2"	0.95
28-643	3/4"	0.89

**REDUCER NIPPLES**



Part #	Size	List Price		
		B	P	W
28-620	1/4 x 1/8"			1.08
28-621	3/8 x 1/8"			0.81
28-622	3/8 x 1/4"			0.77
28-627	1/2" x 1/8"			0.90
28-623	1/2 x 1/4"	0.76		0.93
28-624	1/2 x 3/8"	0.77		0.91
28-628	3/4 x 3/8"	0.89		0.91
28-625	3/4 x 1/2"	1.20		1.00
28-629	1 x 3/4"		6.16	
28-631	1-1/4 x 3/4"		6.60	
28-634	2 x 1-1/4"		8.80	
28-635	3 x 2"		27.03	

*More shapes and sizes available*

**ALL HOSE BARB "Y"**



Part #	Size	List Price	
		P*	W
33-300*	1/4"	5.75	
33-301*	3/8"	2.68	2.81
33-302*	1/2"	6.59	

*\*Natural Polypro*



# PLASTIC PIPE

# PLASTIC FITTINGS

## ELBOW



Part #	Size	List Price	
		P	W
28-701	1/4"		5.28
28-702	3/8"	7.80	
28-703	1/2"		5.62
28-704	3/4"	6.24	6.17
28-705	1"		11.29
28-706	1-1/4"		13.18
28-707	1-1/2"		10.88

## COUPLING



Part #	Size	List Price	
		P	W
28-760	1/8"	4.71	4.21
28-761	1/4"	4.69	4.80
28-762	3/8"	4.21	5.28
28-763	1/2"	4.84	4.63
28-764	3/4"	4.97	4.75
28-765	1"		5.99
28-767	1-1/2"		7.56
28-768	2"		9.36

## HOSE BARB X FEMALE ADAPTERS



Hose ID x FIP

Part #	Size	List Price		
		B	P	W
33-053	1/4 x 1/4"	2.66		5.19
33-058	3/8 x 1/4"	3.95		1.55
33-059	3/8 x 3/8"			3.46
33-060	3/8 x 1/2"			4.43
33-062	1/2 x 3/8"		3.78	
33-061	1/2 x 1/2"			3.17
33-063	5/8 x 3/4"			4.83
33-064	3/4 x 1/2"			3.88
33-065	3/4 x 3/4"			2.45

## STREET ELBOW



Part #	Size	List Price	
		P	W
28-720	1/4"		4.73
28-721	3/8"		5.84
28-723	1/2"	4.24	4.16
28-724	3/4"		5.60
28-725	1"		12.66
28-726	1-1/4"		13.98

## MALE ADAPTERS



Hose ID x MIP

Part #	Size	List Price		
		B	P	W
33-002	3/16 x 1/8"	0.51		0.68
33-003	3/16 x 1/4"	0.54		0.76
33-004	1/4 x 1/8"	0.51		0.68
33-005	1/4 x 1/4"	0.62		0.65
33-006	1/4 x 3/8"	0.64		0.87
33-007	1/4 x 1/2"	0.70		0.92
33-380	1/4 x 3/4"			0.97
33-008	5/16 x 1/8"	0.55		0.71
33-009	5/16 x 1/4"	0.62		0.77
33-010	5/16 x 3/8"			0.66
33-011	3/8 X 1/8"			0.75
33-012	3/8 x 1/4"	0.55	0.70	1.02
33-013	3/8 x 3/8"	0.67		0.84
33-014	3/8 x 1/2"	0.70	0.95	0.90
33-026	3/8 x 3/4"	0.63		1.12
33-015	1/2 x 1/4"	0.58	0.76	0.77
33-016	1/2 x 3/8"	0.67	0.79	0.77
33-017	1/2 x 1/2"	0.75	0.79	0.87
33-018	1/2 x 3/4"	0.84	1.16	1.18
33-019	5/8 x 3/8"	0.72		0.77
33-020	5/8 x 1/2"	0.71	0.84	1.04
33-021	5/8 x 3/4"	0.85		1.17
33-022	3/4 x 1/2"	0.78	0.93	1.21
33-023	3/4 x 3/4"	0.90	1.02	1.14
33-000	3/4 x 1"			1.45
33-024	1 x 3/4"	3.04	1.43	1.38
33-025	1 x 1"	1.94	1.42	1.77
33-029	1 x 1-1/4"			3.23
33-028	1-1/4 x 1"			2.54
33-030	1-1/4 x 1-1/4"			3.04
33-032	1-1/4 x 1-1/2"			2.66
33-033	1-1/2 x 1-1/2"	2.15		3.38
33-035	2 x 2"			5.71

## TEE



Part #	Size	List Price	
		P	W
28-741	1/4"	5.04	4.05
28-742	3/8"	8.95	
28-743	1/2"	5.35	6.16
28-744	3/4"	7.29	6.87
28-745	1"		15.36
28-746	1-1/4"		16.66
28-747	1-1/2"		23.02

More shapes and sizes available

# PLASTIC FITTINGS

# PLASTIC PIPE

## HOSE BARB ADAPTERS -CONTINUED-

### ELBOWS



Hose ID x Male Pipe

Part #	Size	List Price		
		B	P	W
33-308	3/16 x 1/8	0.97		
33-381	3/16 x 1/4			1.41
33-038	1/4 x 1/8	1.07		1.35
33-039	1/4 x 1/4	1.02		1.02
33-309	1/4 x 3/8	0.88		1.36
33-040	5/16 x 1/4	1.02		1.45
33-310	5/16 x 3/8	1.13		1.62
33-046	3/8 x 1/8	1.02		1.38
33-041	3/8 x 1/4	1.22		1.24
33-042	3/8 x 3/8	1.86		1.25
33-047	3/8 x 1/2	1.48		1.38
33-384	3/8 x 3/4	1.94		1.90
33-048	1/2 x 1/4		1.33	1.33
33-043	1/2 x 3/8	1.18		1.31
33-311	1/2 x 1/2	1.16	1.39	1.55
33-385	1/2 x 3/4	2.16	1.73	1.76
33-044	5/8 x 3/8	1.64		1.48
33-045	5/8 x 1/2	1.68		1.72
33-312	5/8 x 3/4	2.05		1.98
33-313	3/4 x 1/2	1.89	1.59	1.80
33-314	3/4 x 3/4	2.21	1.93	1.84
33-315	3/4 x 1			1.99
33-386	1x3/4			2.45
33-316	1 x 1	3.07	2.30	2.30
33-460	1 x 1-1/4			3.66
33-461	1-1/4 x 1-1/4		3.70	4.28
33-463	1-1/2 x 1-1/2		5.47	5.49
33-464	2 x 2			6.43

## HOSE BARB X FEMALE ELBOW



Hose ID x Female Pipe

Part #	Size	List Price	
		B	W
33-402	1/2 x 3/8		4.22
33-403	1/2 x 3/4		3.50
33-471	3/4 x 3/4		4.63

## UNION ELBOWS



Part #	Size	List Price		
		B	P	W
33-390	1/4	1.12		1.21
33-391	3/8	1.01		1.27
33-394	1/2	1.02		1.30
33-395	5/8	1.49	1.23	1.45
33-396	3/4	1.67	1.86	1.67
33-397	1			2.89
33-398	1-1/4			7.63
33-399	1-1/2			10.02
33-389	2			15.46

## REDUCING UNION ELBOWS

Part #	Size	List Price
		W
33-392	1/2 X 1/4	1.59

## SPLICERS



Part #	Size	List Price		
		B	P	W
33-091	1/8	0.56		0.67
33-092	3/16	0.55		0.98
33-093	1/4	0.56		0.73
33-094	5/16			0.71
33-095	3/8	0.61	0.71	0.71
33-096	1/2	0.58	0.80	0.71
33-097	5/8	0.87		0.88
33-098	3/4	2.13	1.16	1.23
33-099	1		1.45	1.82
33-480	1-1/4			3.31
33-481	1-1/2			3.49
33-482	2			12.31

## REDUCER CONNECTORS

Part #	Size	List Price	
		B	W
33-406	3/8 x 1/4	0.61	0.75
33-407	1/2 x 1/4	0.31	0.70
33-408	1/2 x 3/8	0.56	0.78
33-409	5/8 x 3/8		0.76
33-410	5/8 x 1/2	0.64	0.85

## TEES BARBED ON ALL SIDES



Part #	Size	List Price		
		B	P	W
33-415	1/8	0.97		1.33
33-417	5/32			3.02
33-418*	3/16	0.95		2.31
33-420	3/16	1.00		1.32
33-422	1/4	1.03		1.41
33-426	5/16	1.66		1.36
33-429	3/8	1.08	1.67	1.36
33-433	1/2	1.13		1.55
33-436	5/8	1.40		1.53
33-437	3/4	1.49		1.82
33-438	1	1.83		2.08
33-439	1-1/4			4.50
33-440	1-1/2		4.08	4.99
33-441	2			15.96

\* single barb

## REDUCING TEES

Part #	Size 3 x 1 x 2	List Price	
		B	W
33-416*	1/8 x 5/32 x 5/32		1.38
33-423	1/4 x 3/8 x 3/8	1.06	
33-424	1/4 x 1/2 x 1/2	1.27	1.47
33-430	3/8 x 1/2 x 1/2	1.30	1.52
33-431	3/8 x 5/8 x 5/8		1.58
33-432	1/2 x 3/8 x 3/8	1.24	1.70
33-434	1/2 x 1/2 x 5/8	1.83	
33-435	1/2 x 3/4 x 3/4	1.52	1.87

\* single barb

## TEES



Part #	Size 1 & 2 x 3	List Price	
		B	W
33-448	1/4 x 1/4	1.13	1.33
33-450	3/8 x 1/4		1.60
33-451	3/8 x 3/8		1.47
33-453	1/2 x 1/4		2.46
33-454	1/2 x 3/8		1.48
33-455	1/2 x 1/2		1.42
33-456	3/4 x 3/4		2.12

More sizes available...just ask!



PLASTIC  
FITTINGS

# PLASTIC GARDEN HOSE & COMPRESSION

# PLASTIC FITTINGS

## PLASTIC GARDEN HOSE FITTINGS

FITTINGS WITH GARDEN HOSE THREAD

### GARDEN HOSE CAP



• White Nylon

Part #	Size	List Price
30-103P	3/4"	1.07

### GARDEN HOSE NUT



• White Nylon

Part #	Size	List Price
31-022	3/4"	0.85

### GARDEN HOSE ADAPTER INSERTS



• White Nylon

Part #	Size	List Price
31-031	3/8"	0.34
31-032	1/2"	0.70
31-033	5/8"	0.70
31-034	3/4"	0.70

### GARDEN HOSE THREAD ADAPTERS



• White Nylon

Part #	Size	List Price
31-040	1/2"	1.42
31-041	5/8"	1.18

More sizes available

## MALE GARDEN HOSE X FEMALE PIPE



• White Nylon

Part #	Size	List Price
31-068	MGH X 1/2 FIP	3.23

## FEMALE GARDEN HOSE X MALE PIPE



• White Nylon

Part #	Size	List Price
31-093	FGH X 3/4 MPT	3.43

## FEMALE GARDEN HOSE X FEMALE PIPE



• White Nylon

Part #	Size	List Price
31-096	FGH X 1/2 FIP	2.96

## ADAPTERS GARDEN TO PIPE THREAD



• White Nylon

Part #	Size	List Price
31-055	GHT X 3/8 MPT	0.77
31-058	GHT X 1/2 MPT	1.07
31-063	GHT X 3/4 MPT	1.27

## PLASTIC COMPRESSION FITTINGS

Corrosion resistant thermoresins designed to resist vibration, provide good electrical insulation, low flow resistance, and resistance to scale buildup.

Add letter to the end of part no. to denote the type you prefer.

N = Nylon

P = Polypropylene

Standard nut and sleeves will be provided (sleeve is integral part of nut). Other sizes available upon request.

## UNION & REDUCING UNION CONNECTORS



Part #	Size	List Price	
		P	N
17-064	1/4"	3.53	3.49
17-065	5/16"	3.77	3.53
17-078	5/16" x 1/4"		4.12
17-066	3/8"	6.54	5.41
17-079	3/8" x 1/4"	5.11	7.26
17-068	1/2"	6.41	8.06
17-081	1/2" x 3/8"	6.00	

## BULKHEAD UNIONS



Part #	Size	List Price
17-088N	1/4"	5.52
17-090N	3/8"	6.58
17-091N	1/2"	8.59

## UNION TEES



Part #	Size	List Price	
		P	N
17-103	1/4"	8.75	6.51
17-105	3/8"	11.16	8.38
17-106	1/2"	10.11	9.59

## UNION ELBOWS



Part #	Size	List Price	
		P	N
17-124	1/4"	4.39	4.39
17-126	3/8"	6.42	6.37
17-127	1/2"	8.38	

PLASTIC FITTINGS



GLOBAL HOSE & INDUSTRIAL SALES CO

**FEMALE CONNECTORS**



Part #	Tube x Female Pipe	List Price	
		P	N
17-145	1/4 x 1/8	3.22	
17-146	1/4 x 1/4		3.31
17-153	3/8 x 1/4	3.63	3.59
17-154	3/8 x 3/8	4.20	4.16
17-158	1/2 x 3/8	5.40	
17-159	1/2 x 1/2	4.61	

**MALE CONNECTORS**



Part #	Tube x Male Pipe	List Price	
		P	N
17-176	1/8 x 1/8		1.99
17-179	1/4 x 1/8	2.35	2.35
17-180	1/4 x 1/4	2.86	2.60
17-181	1/4 x 3/8	2.68	2.68
17-184	5/16 x 1/4		2.72
17-187	3/8 x 1/8	2.76	2.90
17-188	3/8 x 1/4	3.58	3.13
17-189	3/8 x 3/8	3.58	3.50
17-190	3/8 x 1/2	4.70	4.27
17-193	1/2 x 1/4	5.16	5.21
17-194	1/2 x 3/8	5.66	4.54
17-195	1/2 x 1/2	5.66	5.23

**MALE ELBOWS**



Part #	Tube x Male Pipe	List Price	
		P	N
17-224	1/4 x 1/8	3.31	3.73
17-225	1/4 x 1/4	3.63	3.63
17-226	1/4 x 3/8		4.24
17-229	5/16 x 1/4		4.40
17-233	3/8 x 1/4	4.68	5.47
17-234	3/8 x 3/8	4.90	8.05
17-237	1/2 x 3/8	5.94	5.13
17-238	1/2 x 1/2	5.70	5.39

**FEMALE ELBOWS**



Part #	Tube x Female Pipe	List Price	
		P	N
17-254	1/4 x 1/4	5.80	
17-258	3/8 x 1/4	4.93	5.81
17-259	3/8 x 3/8	6.76	6.76
17-262	1/2 x 3/8	8.89	
17-263	1/2 x 1/2	9.18	

**MALE RUN TEES**



Part #	Tube x Male Pipe	List Price	
		P	N
17-279	3/8 x 1/4		7.25
17-282	1/2 x 1/2		9.66

**MALE BRANCH TEES**



Part #	Tube x Male Pipe	List Price	
		P	N
17-291	1/4 x 1/8	4.75	
17-292	1/4 x 1/4	5.83	6.35
17-296	3/8 x 1/4	9.12	7.45
17-297	3/8 x 3/8	7.40	
17-299	1/2 x 3/8	9.05	

And then the fight started.....

1) My wife sat down on the couch next to me as I was flipping channels.

She asked, "What's on TV?" I said, "Dust."

And then the fight started...

2) My wife and I are watching "Who Wants To Be A Millionaire" while we were in bed. I turned to her and said, "Do you want to have sex?"

"No," she answered. I then said, "Is that your final answer?"

She didn't even look at me this time, simply saying, "Yes."

So I said, "Then I'd like to phone a friend."

And then the fight started...

3) Saturday morning I got up early, quickly dressed, made my lunch, grabbed the dog, and slipped quietly into the garage. I hooked up the boat to the truck and proceeded to back out into a torrential downpour. The wind was blowing 50 mph, so I pulled back into the garage, turned on the radio and discovered that the weather would be bad all day.

I went back into the house, quietly undressed, and slipped back into bed. I cuddled up to my wife's back, now with a different anticipation, and whispered, "The weather out there is terrible."

My loving wife of 10 years replied, "Can you believe my stupid husband is out fishing in that?"

And then the fight started...

**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, Acetal Copolymer or 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.

Also available in metric sizes. Call order desk for details

**MALE CONNECTOR**



Part #	Tube OD	Thread NPTF	List Price
20-050P	5/32"	1/8"	2.99
20-046P	5/32"	1/4"	2.79
20-052P	3/16"	1/8"	2.86
20-054P	1/4"	1/8"	2.99
20-055P	1/4"	1/4"	3.11
20-531P	5/16"	1/4"	4.28
20-056P	1/4"	3/8"	4.66
20-532P	5/16"	3/8"	5.39
20-057P	3/8"	1/8"	6.36
20-058P	3/8"	1/4"	4.23
20-059P	3/8"	3/8"	4.73
20-062P	3/8"	1/2"	9.14
20-061P	1/2"	3/8"	7.00
20-063P	1/2"	1/2"	7.96

*More sizes available upon request*

**UNION CONNECTOR**



Part #	Tube OD	List Price
20-018P	5/32"	3.94
20-702P	3/16"	3.61
20-019P	1/4"	3.83
20-703P	5/16"	4.28
20-020P	3/8"	5.18
20-021P	1/2"	6.04

**CROSS**



Part #	Tube OD	List Price
20-143P	3/8"	15.88

**REDUCING UNION**



Part #	Tube OD	Tube OD	List Price
20-750P	1/4"	3/16"	7.30
20-751P	5/16"	5/32"	7.21
20-752P	5/16"	3/16"	8.84
20-753P	5/16"	1/4"	7.09
20-754P	3/8"	3/16"	10.79
20-755P	3/8"	1/4"	6.62
20-756P	3/8"	5/16"	9.19
20-757P	1/2"	5/16"	14.26
20-758P	1/2"	3/8"	8.23

**UNION ELBOW**



Part #	Tube OD	List Price
20-151P	5/32"	5.01
20-704P	3/16"	4.67
20-152P	1/4"	4.90
20-155P	5/16"	6.39
20-153P	3/8"	8.18
20-154P	1/2"	9.04

"Doc, I can't stop singing 'The Green, Green Grass of Home.'  
"That sounds like Tom Jones Syndrome."  
"Is it common?"  
"Well, It's Not Unusual."





## PLASTIC FITTINGS

## PLASTIC PUSH-IN

### REDUCING ELBOW



Part #	Tube OD	Tube OD	List Price
20-730P	5/16"	5/32"	11.83
20-731P	5/16"	3/16"	5.99
20-732P	5/16"	1/4"	7.77
20-733P	3/8"	3/16"	15.71
20-734P	3/8"	1/4"	8.11
20-735P	3/8"	5/16"	10.08
20-736P	1/2"	3/8"	11.61

### FIXED ELBOW



Part #	Tube OD	Thread NPTF	List Price
20-068P	1/4"	1/8"	4.32
20-069P	1/4"	1/4"	4.83
20-070P	1/4"	3/8"	5.65
20-072P	3/8"	1/4"	6.38
20-073P	3/8"	3/8"	8.66

### PLUG-IN ELBOW



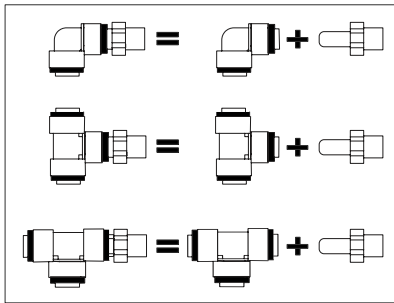
Part #	Stem OD	Tube OD	List Price
20-740P	5/32"	5/32"	4.88
20-741P	3/16"	3/16"	6.11
20-742P	1/4"	1/4"	16.01
20-743P	5/16"	5/16"	7.93
20-744P	3/8"	3/16"	8.67
20-745P	3/8"	1/4"	7.66
20-746P	3/8"	5/16"	8.67
20-747P	3/8"	3/8"	9.42
20-748P	1/2"	1/2"	11.20

More sizes available upon request

An invisible man marries an invisible woman. The kids were nothing to look at either.

### Adaptability

Products can be coupled together to form new, integral fittings.



Use to get reducing swivel sizes you need!

### STEM ADAPTER



Part #	Stem OD	Thread NPTF	List Price
20-522P	5/32"	1/8"	1.81
20-523P	5/32"	1/4"	1.78
20-700P	3/16"	1/8"	2.22
20-524P	1/4"	1/8"	1.75
20-526P	5/16"	1/8"	2.25
20-525P	1/4"	1/4"	1.75
20-527P	5/16"	1/4"	2.25
20-701P	5/16"	3/8"	3.65
20-528P	3/8"	1/4"	2.05
20-529P	3/8"	3/8"	2.55
20-530P	1/2"	3/8"	3.94
20-533P	1/2"	1/2"	4.65

### REDUCER



Part #	Stem OD	Tube OD	List Price
20-760P	5/16"	3/16"	5.38
20-761P	5/16"	1/4"	5.81
20-762P	3/8"	3/16"	6.64
20-512P	3/8"	1/4"	6.68
20-763P	3/8"	5/16"	6.74
20-764P	1/2"	5/16"	8.16
20-514P	1/2"	3/8"	11.08

### UNION TEE



Part #	Tube OD	List Price
20-026P	5/32"	6.45
20-027P	3/16"	9.41
20-028P	1/4"	5.94
20-031P	5/16"	6.14
20-029P	3/8"	6.90
20-030P	1/2"	8.51

### REDUCING BRANCH TEE



Part #	Tube OD Ends	Tube OD Branch	List Price
20-724P	1/2"	3/8"	14.43
20-725P	3/8"	1/4"	11.98

### BULKHEAD UNION



Part #	Tube OD	List Price
20-125P	5/32"	10.34
20-126P	3/16"	9.26
20-127P	1/4"	8.18
20-123P	5/16"	14.83
20-128P	3/8"	9.98
20-129P	1/2"	15.07

### FEMALE CONNECTOR



Part #	Tube OD	Thread NPTF	List Price
20-993P	1/4"	1/8"	7.54
20-035P	1/4"	1/4"	6.44
20-944P	3/8"	1/8"	8.62
20-036P	3/8"	1/4"	8.42

PLASTIC FITTINGS



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# PLASTIC PUSH-IN

# PLASTIC FITTINGS

## 2-WAY DIVIDER



Part #	Tube OD	List Price
20-776P	5/16"	10.54
20-777P	3/8"	9.04

## TUBE TO HOSE STEM



Part #	Stem OD	Hose OD	List Price
20-853P	1/4"	3/16"	2.84
20-854P	1/4"	1/4"	3.01
20-855P	5/16"	5/16"	4.28
20-856P	1/4"	5/16"	3.44
20-857P	5/16"	3/16"	3.82
20-858P	5/16"	1/4"	4.14
20-859P	5/16"	3/8"	5.44
20-860P	3/8"	1/4"	4.26
20-861P	3/8"	5/16"	5.44
20-862P	3/8"	3/8"	5.31
20-863P	3/8"	1/2"	5.73
20-864P	1/2"	3/8"	6.46
20-865P	1/2"	1/2"	7.48

## PLUG



Part #	Stem OD	List Price
20-876P	5/32"	1.28
20-877P	3/16"	1.34
20-878P	1/4"	1.35
20-879P	5/16"	2.21
20-880P	3/8"	2.15
20-881P	1/2"	3.44

## TUBE SUPPORT



Part #	Tube OD	Tube ID	List Price
20-836P	5/16"	1/4"	0.64
20-837P	3/8"	5/16"	0.69
20-838P	1/2"	3/8"	0.69

## Propylene push-in shut off valves for potable water

### Technical Specifications

- Operating Pressure: 0 to 150 psi ( 0 to 10 bar)
- Operating Temp. ( water ): 33° F to 150° F ( +1°C to 65°C)

### Materials

- Body - Food grade Polypropylene
- Collet - Food grade Polypropylene with stainless steel teeth
- O-Ring - EPDM

### Tube Tolerances

- Shut-off Valves are intended for use with potable water.
- The Valves are not for use with compressed air, explosive gases, petroleum spirits and other fuels or for heating systems.

## PL X PL



Part #	Tube OD	List Price
20-900P	1/4"	13.52
20-901P	3/8"	13.73

## CHECK VALVE



Part #	Tube OD	List Price
20-779P	3/8"	51.00

And then the fight started.....

1) My wife sat down on the couch next to me as I was flipping channels.

She asked, "What's on TV?" I said, "Dust."

And then the fight started...

2) My wife and I are watching "Who Wants To Be A Millionaire" while we were in bed. I turned to her and said, "Do you want to have sex?"

"No," she answered. I then said, "Is that your final answer?"

She didn't even look at me this time, simply saying, "Yes."

So I said, "Then I'd like to phone a friend."

And then the fight started...

## PL X MALE NPTF



Part #	Tube OD	Thread NPTF	List Price
20-904P	1/4"	1/4"	12.29
20-905P	3/8"	3/8"	15.52



GLOBAL HOSE  
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## HOSE ACCESSORIES

## BARB FITTINGS FOR PLASTIC PIPE

### BRONZE INSERT FITTINGS

150 PSI Genuine red brass  
- for plastic pipe

#### HEX MALE ADAPTERS



( Barb x Male Pipe )

Part #	Barb x Male	List Price
973-927	1" x 1"	26.68
973-930	1" x 1-1/4"	23.32
973-928	1-1/4" x 1-1/4"	25.10
973-929	1-1/4" x 1"	21.20
973-948	1-1/2" x 1-1/2"	33.10
973-949	2" x 2"	49.09

#### BRONZE TEES ALL BARB



Part #	Size	List Price
973-965	3/4"	18.18
973-966	1"	32.21
973-967	1-1/4"	55.54

#### ELBOWS



( BARB X MALE PIPE )

Part #	Size	List Price
973-980	3/4" x 3/4"	18.80
973-981	1" x 3/4"	22.33
973-982	1" x 1"	26.21

#### ELBOWS



( Barb x Barb )

Part #	Hose Size	List Price
973-975	3/4"	13.93
973-976	1"	23.95
973-977	1-1/4" x 1"	42.41
973-978	1-1/4"	42.41
973-979	1-1/2"	74.77

### STEEL INSERT FITTINGS FOR PLASTIC PIPE

#### MALE ADAPTER



( BARB X MALE PIPE )

Part #	Size	Box/Case	List Price
973-906	1/2"	25/100	3.01
973-907	3/4"	25/10	4.38
973-908	1"	16/48	5.05
973-909	1-1/4"	12/36	5.97
973-910	1-1/2"	6/36	10.60
973-911	2"	5/25	17.33
973-912	2-1/2"	1/3	42.70
973-877	3"	1/3	45.95
973-914	4"	1/3	59.14

#### REDUCING ADAPTER



( INSERT X NPT )

Part #	Size	List Price
974-264	3/4 x 1/2	14.12
974-265	1 x 3/4	11.10
974-266	1-1/4 x 1	16.01
974-267	1-1/2 x 1-1/4	25.13

#### COUPLINGS



Part #	Size	Box/Case	List Price
973-900	1/2	30/120	2.26
973-901	3/4	20/100	3.34
973-902	1	20/100	4.02
973-903	1-1/4	16/64	6.71
973-904	1-1/2	12/48	8.00
973-905	2	5/25	11.38

3) Saturday morning I got up early, quickly dressed, made my lunch, grabbed the dog, and slipped quietly into the garage. I hooked up the boat to the truck and proceeded to back out into a torrential downpour. The wind was blowing 50 mph, so I pulled back into the garage, turned on the radio and discovered that the weather would be bad all day.

I went back into the house, quietly undressed, and slipped back into bed. I cuddled up to my wife's back, now with a different anticipation, and whispered, "The weather out there is terrible."

My loving wife of 10 years replied, "Can you believe my stupid husband is out fishing in that?"

And then the fight started...

4) I rear-ended a car this morning. So, there we were alongside the road and slowly the other driver got out of his car. You know how sometimes you just get soooo stressed and little things just seem funny? Yeah, well I couldn't believe it.... He was a DWARF!!!

He stormed over to my car, looked up at me, and shouted, "I AM NOT HAPPY!!!"

So, I looked down at him and said, "Well then, that leaves six possibilities. Which one are you?"

And then the fight started...

5) My wife was hinting about what she wanted for our upcoming anniversary.

She said, "I want something shiny that goes from 0 to 150 in about 3 seconds."

I bought her a scale.

And then the fight started...

6) When I got home last night, my wife demanded that I take her someplace > expensive... So, I took her to a gas station.

And then the fight started...



GLOBAL HOSE  
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# COMBINATION (KING) NIPPLES

# HOSE ACCESSORIES

## STEEL HOSE NIPPLES



( Barb x Male Pipe )

Part #	Hose Size	List Price
973-850	1/2"	6.02
973-851	3/4"	6.84
973-852	1"	7.14
973-853	1-1/4"	9.24
973-854	1-1/2"	10.34
973-855	2"	13.46
973-856	2-1/2"	28.39
973-857	3"	34.58
973-858	4"	62.66

## PLATED STEEL



Part #	Size	List Price
973-870	1/2"	1.49
973-871	3/4"	7.50
973-872	1"	8.32
973-873	1-1/4"	9.84
973-874	1-1/2"	11.63
973-875	2"	16.24
973-876	2-1/2"	31.11
<b>NEW</b> 973-877	3"	45.95
973-878	4"	59.14
<b>NEW</b> 973-879	5"	157.65
<b>NEW</b> 973-880	6"	180.91
<b>NEW</b> 973-881	8"	367.56

## 316 STAINLESS STEEL



Part #	Size	List Price
973-700	1/2"	40.16
973-701	3/4"	38.53
973-702	1"	40.28
973-703	1-1/4"	47.31
973-704	1-1/2"	57.82
973-705	2"	81.81
973-706	2-1/2"	157.67
973-707	3"	219.89
973-708	4"	319.62

## BRASS

**NEW**



Part #	Size	List Price
973-600	1/2"	26.68
973-601	3/4"	38.28
973-602	1"	38.57
973-603	1-1/4"	48.92
973-604	1-1/2"	54.85
973-605	2"	78.41
973-606	2-1/2"	137.61
973-607	3"	188.09

## ALUMINUM

**NEW**



Part #	Size	List Price
973-620	1/2"	24.78
973-621	3/4"	23.50
973-622	1"	23.50
973-623	1-1/4"	26.12
973-624	1-1/2"	26.64
973-625	2"	32.11
973-626	2-1/2"	78.34
973-627	3"	78.34
973-628	4"	125.31

## MENDERS

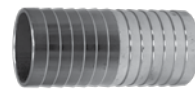
### STEEL HOSE MENDERS



Part #	Hose Size	List Price
973-890	1/2"	9.95
973-891	3/4"	8.10
973-892	1"	8.25
973-893	1-1/4"	13.00
973-894	1-1/2"	14.30
973-895	2"	15.50

### PLATED STEEL MENDER

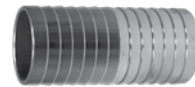
**NEW**



Part #	Size	List Price
973-650	3/8"	12.71
973-651	1/2"	11.47
973-652	3/4"	9.33
973-653	1"	9.47
973-654	1-1/4"	14.54
973-655	1-1/2"	14.14
973-656	2"	18.78
973-657	2-1/2"	36.99
973-658	3"	38.00
973-659	4"	65.49

### STAINLESS STEEL HOSE MENDER

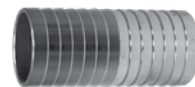
**NEW**



Part #	Size	List Price
73-669	1/2"	16.15
73-670	3/4"	102.22
73-671	1"	113.87
73-672	1-1/4"	122.66
73-673	1-1/2"	144.02
73-674	2"	146.01

### BRASS HOSE MENDER

**NEW**



Part #	Size	List Price
73-983	3/4"	23.31
73-984	1"	23.99
73-985	1-1/4"	40.71
73-986	1-1/2"	66.04
73-987	2"	71.67

HOSE ACCESSORIES





**TYPE A**



**TYPE B**



**TYPE C**



**TYPE D**

**ALUMINUM**

Type	A		B		C		D	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	61-911	6.38	61-921	14.09	61-931	12.39	61-941	14.47
1"	61-912	8.07	61-922	17.71	61-932	15.48	61-942	17.71
1-1/4"	61-913	10.03	61-923	20.71	61-933	21.25	61-943	22.34
1-1/2"	61-914	7.90	61-924	19.80	61-934	19.46	61-944	22.47
2"	61-915	8.86	61-925	21.25	61-935	21.84	61-945	22.70
2-1/2"	61-916	20.09	61-926	35.74	61-936	32.24	61-946	35.27
3"	61-917	17.96	61-927	38.90	61-937	38.99	61-947	35.15
4"	61-918	29.57	61-928	49.17	61-938	50.94	61-948	57.11

**316 STAINLESS STEEL**

Type	A		B		C		D	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	63-911	26.57	63-921	41.33	63-931	37.63	63-941	43.36
1"	63-912	32.97	63-922	58.41	63-932	52.60	63-942	60.94
1-1/4"	63-913	46.11	63-923	79.33	63-933	67.16	63-943	74.10
1-1/2"	63-914	50.50	63-924	89.60	63-934	81.38	63-944	73.38
2"	63-915	56.51	63-925	92.49	63-935	100.91	63-945	95.29
2-1/2"	63-916	96.82	63-926	139.41	63-936	148.68	63-946	141.59
3"	63-917	116.46	63-927	170.07	63-937	181.87	63-947	193.96
4"	63-918	173.02	63-928	251.17	63-938	305.25	63-948	271.65



**TYPE E**



**TYPE F**



**TYPE DC**



**TYPE DP**

**ALUMINUM**

Type	E		F		DC		DP	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	61-951	6.74	61-961	7.52	61-971	13.33	61-981	6.93
1"	61-952	8.15	61-962	10.32	61-972	15.67	61-982	7.06
1-1/4"	61-953	12.28	61-963	13.84	61-973	22.87	61-983	7.85
1-1/2"	61-954	8.61	61-964	10.43	61-974	16.62	61-984	7.03
2"	61-955	11.25	61-965	11.56	61-975	20.37	61-985	8.10
2-1/2"	61-956	21.40	61-966	22.34	61-976	26.26	61-986	16.36
3"	61-957	26.03	61-967	25.34	61-977	32.54	61-987	15.25
4"	61-958	37.91	61-968	40.69	61-978	42.58	61-988	24.43

**316 STAINLESS STEEL**

Type	E		F		DC		DP	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	63-951	23.34	63-961	29.01	63-971	34.31	63-981	18.30
1"	63-952	33.21	63-962	40.51	63-972	44.34	63-982	28.26
1-1/4"	63-953	49.41	63-963	62.73	63-973	59.68	63-983	36.75
1-1/2"	63-954	66.25	63-964	77.98	63-974	66.02	63-984	39.24
2"	63-955	77.29	63-965	117.48	63-975	82.07	63-985	50.03
2-1/2"	63-956	106.21	63-966	163.60	63-976	111.95	63-986	74.29
3"	63-957	160.92	63-967	174.50	63-977	145.61	63-987	86.36
4"	63-958	248.47	63-968	254.74	63-978	182.05	63-988	131.57

# CAM & GROOVE

# HOSE ACCESSORIES



**TYPE A**



**TYPE B**



**TYPE C**



**TYPE D**

**BRASS**

Type	A		B		C		D	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	44-911	17.10	44-921	34.16	44-931	32.52	44-941	30.92
1"	44-912	21.22	44-922	41.34	44-932	40.73	44-942	42.16
1-1/4"	44-913	29.85	44-923	54.44	44-933	51.29	44-943	62.95
1-1/2"	44-914	27.85	44-924	50.75	44-934	41.70	44-944	58.29
2"	44-915	34.82	44-925	73.31	44-935	83.95	44-945	74.36
2-1/2"	44-916	48.24	44-926	76.74	44-936	73.40	44-946	61.50
3"	44-917	53.94	44-927	97.50	44-937	121.83	44-947	95.73

**POLYPROPYLENE**

Type	A		B		C		D	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
1/2"	35-910	6.44	35-920	18.55	35-930	17.92	35-940	17.92
3/4"	35-911	7.04	35-921	17.07	35-931	17.07	35-941	19.53
1"	35-912	7.39	35-922	19.27	35-932	18.07	35-942	18.97
1-1/4"	35-913	8.51	35-923	21.50	35-933	20.77	35-943	20.77
1-1/2"	35-914	8.04	35-924	23.08	35-934	20.61	35-944	19.75
2"	35-915	9.63	35-925	27.61	35-935	27.61	35-945	27.61
3"	35-917	26.55	35-927	50.89	35-937	49.16	35-947	49.16
4"	63-918	173.02	63-928	251.17	63-938	305.25	63-948	271.65



**TYPE E**



**TYPE F**



**TYPE DC**



**TYPE DP**

**BRASS**

Type	E		F		DC		DP	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	44-951	22.79	44-961	21.52	44-971	28.80	44-981	16.00
1"	44-952	26.86	44-962	27.32	44-972	30.39	44-982	17.05
1-1/4"	44-953	33.49	44-963	31.41	44-973	38.08	44-983	19.81
1-1/2"	44-954	35.74	44-964	43.03	44-974	40.03	44-984	18.34
2"	44-955	52.16	44-965	58.64	44-975	63.76	44-985	37.32
2-1/2"	44-956	54.33	44-966	56.70	44-976	57.50	44-986	36.72
3"	44-957	79.61	44-967	96.54	44-977	114.71	44-987	43.27
4"	44-958	127.54	44-968	119.85	44-978	115.30	44-988	68.23

**POLYPROPYLENE**

Type	E		F		DC		DP	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	35-950	7.83	35-960	7.83	35-970	16.92	35-980	7.65
1"	35-951	7.83	35-961	8.56	35-971	17.77	35-981	7.39
1-1/4"	35-952	9.63	35-962	8.60	35-972	20.19	35-982	7.48
1-1/2"	35-953	9.96	35-963	9.17	35-973	20.90	35-983	8.90
2"	35-954	9.83	35-964	8.79	35-974	23.31	35-984	9.21
2-1/2"	35-955	11.80	35-965	12.22	35-975	25.96	35-985	10.85
3"	35-957	33.23	35-967	34.40	35-977	49.16	35-987	27.49
4"	63-958	248.47	63-968	254.74	63-978	182.05	63-988	131.57

**MALE NPT ENDS**



\* Safety clip included

Part #	Size	List Price
66005	3/8"	6.43
66006	1/2"	5.35
66007	3/4"	5.68
66008	1"	6.38

**WASHER**



Part #	List Price
66000	0.52

**FEMALE NPT ENDS**



\* Safety clip included

Part #	Size	List Price
66009	3/8"	6.43
66010	1/2"	5.35
66011	3/4"	5.68
66012	1"	6.38

**HOSE END**



\* Safety clip included

Part #	Size	List Price
66001	3/8"	7.46
66002	1/2"	4.85
66003	3/4"	4.90
66004	1"	6.43

**TRIPLE CONNECTIONS**



Part #	List Price
66013	16.73

"Neither man nor woman can be worth anything until they have discovered that they are fools. This is the first step toward becoming either estimable or agreeable; and until it is taken there is no hope."

William Lamb, 2nd Viscount Melbourne





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 with

#### Wing Nut & Female Spud



Part #	Size	List Price
73-003	1/2"	35.00
73-004	3/4"	37.20
73-005	1"	37.65
73-006	1-1/4"	64.50
73-007	1-1/2"	64.50
73-008	2"	88.95
73-009	2-1/2"	241.05
73-010	3"	255.70
73-011	4"	505.15

#### Hose Stem Only



Part #	Size	List Price
73-023	1/2"	9.95
73-024	3/4"	12.10
73-025	1"	12.15
73-026	1-1/4"	20.65
73-027	1-1/2"	22.40
73-028	2"	28.90
73-029	2-1/2"	78.05
73-030	3"	82.80
73-031	4"	181.65

#### Wing Nut Only



Part #	Size	List Price
73-033	1/2"	11.30
73-035	1"	14.10
73-036	1-1/4"	23.90
73-037	1-1/2"	25.40
73-038	2"	32.90
73-039	2-1/2"	89.20
73-040	3"	94.55
73-041	4"	207.60

#### Female Spud Only



Part #	Size	List Price
73-063	1/2"	16.60
73-064	3/4"	20.10
73-065	1"	20.35
73-066	1-1/4"	34.95
73-067	1-1/2"	37.00
73-068	2"	48.10
73-069	2-1/2"	126.65
73-070	3"	138.35
73-071	4"	303.60

### Male Pipe Stem Only (NPT)



Part #	Size	List Price
73-043	1/2"	7.90
73-044	3/4"	12.35
73-045	1"	19.00
73-046	1-1/4"	17.30
73-047	1-1/2"	20.65
73-048	2"	33.80
73-049	2-1/2"	56.80
73-050	3"	70.70
73-051	4"	123.35

### 2, 4, 6 Bolt Clamps



Part #	Size	List Price
73-056	3/4"	8.35
73-057	1"	14.35
73-058	1-1/2"	27.45
73-059	2"	35.25
73-060	3"	79.95

**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	44.83
444-000	2-1/2" NST x 3/4" GHT	44.83
444-001	2-1/2" NST x 3/4" NPT	44.83
444-003	2-1/2" NST x 1" NPSH	44.83
444-002	2-1/2" NST x 1" NPT	44.83
444-004	2-1/2" NST x 1-1/2" NPSH	44.83
444-005	2-1/2" NST x 1-1/2" NPT	44.83
444-007	2-1/2" NST x 2" NPSH	51.76
444-008	2-1/2" NST x 2" NPT	51.76
444-006	2-1/2" NST x 1-1/2" NST	44.83
444-009	3" NPSH x 2-1/2" NST	159.71
444-010	3" NST x 2-1/2" NST	159.71

**FEMALE TO MALE HEX ADAPTER - BRASS**



**FEMALE X MALE**

Part #	Description	List Price
444-021	1-1/2" NST x 1-1/2" NPSH	43.51
444-023	1-1/2" NPT x 1-1/2" NPSH	43.51
444-027	2-1/2" NST x 2-1/2" NPSH	82.63
444-028	2-1/2" NPT x 2-1/2" NPSH	82.63
444-024	1-1/2" NPSH x 1-1/2" NST	44.83
444-020	1-1/2" NST x 1-1/2" NPT	40.39
444-026	2-1/2" NST x 2-1/2" NPT	88.74

**DOUBLE MALE HEX NIPPLE - BRASS**



Part #	Description	List Price
444-042	1-1/2" NPT x 1-1/2" NPSH	40.39
444-047	2-1/2" NPT x 2-1/2" NPSH	84.65
444-040	1-1/2" NPT x 1-1/2" NST	40.39
444-048	2" NPT x 2-1/2" NST	96.76
444-045	2-1/2" NPT x 2-1/2" NST	78.88
444-049	3" NPT x 2-1/2" NST	165.83

**DOUBLE FEMALE SWIVEL - BRASS**



Part #	Description	List Price
444-100	1-1/2" NPT x 1-1/2" NPSH	144.37
444-101	2-1/2" NPT x 2-1/2" NPSH	283.48
444-102	1-1/2" NPT x 1-1/2" NST	144.37
444-103	2" NPT x 2-1/2" NST	283.48
444-104	2-1/2" NPT x 2-1/2" NST	144.37
444-105	3" NPT x 2-1/2" NST	283.48

**HOSE ACCESSORIES**



**MALE SWIVEL ADAPTER - BRASS**



Part #	Description Female x Male	List Price
444-110	1-1/2" NST x 1-1/2" NPT	164.45
444-111	2-1/2" NST x 2" NPT	252.44
444-112	2-1/2" NST x 2-1/2" NPT	191.22
444-113	2-1/2" NST x 3" NPT	317.06

**FEMALE SWIVEL ADAPTER - BRASS**



Part #	Description	List Price
444-120	2-1/2" NST x 2-1/2" NPT	206.45
444-121	2-1/2" NST x 3" NPT	247.13

**DOUBLE MALE - BRASS**



Part #	Description	List Price
444-130	1-1/2" NPSH x 1-1/2" NPSH	72.24
444-131	2-1/2" NPSH x 2-1/2" NPSH	134.27
444-132	1-1/2" NST x 1-1/2" NST	72.24
444-133	2-1/2" NST x 2-1/2" NST	134.27

**CAP - BRASS**



Part #	Description	List Price
444-061	1-1/2" NPSH	41.08
444-060	1-1/2" NST	41.08
444-062	2-1/2" NST	59.49

**PLUG AND CHAIN - BRASS**



Part #	Description	List Price
444-071	1-1/2" NST	67.51
444-072	2-1/2" NST	96.07

**HOSE ACCESSORIES**



**1/2" BAND CLAMPS**

57  
62  
HS  
H  
HF  
015



**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.



**600 Series**

- 5/16" Hex Slotted Carbon Steel Screw
- 1/2" Wide 201 Stainless Steel Band
- Carbon Steel Housing

**611 Series**

- 5/16" Hex Slotted Carbon Steel Screw
- 1/2" Wide 201 Stainless Steel Band
- 301 Stainless Steel Housing

#	Dia. Range		Part #	List Price	Part #	List Price
	Min.	Max.				
6	3/8"	7/8"	600-006	1.32	611-006	1.44
8	7/16"	1"	600-008	1.32	611-008	1.52
10	9/16"	1-1/16"	600-010	1.34	611-010	1.30
12	9/16"	1-1/4"	600-012	1.41	611-012	1.54
16	11/16"	1-1/2"	600-016	1.33	611-016	1.54
20	3/4"	1-3/4"	600-020	1.34	611-020	1.56
24	1-1/16"	2"	600-024	1.34	611-024	1.35
28	1-5/16"	2-1/4"	600-028	1.56	611-028	2.19
32	1-9/16"	2-1/2"	600-032	1.38	611-032	2.19
36	1-13/16"	2-3/4"	600-036	1.39	611-036	1.39
40	2-1/16"	3"	600-040	1.59	611-040	1.58
44	2-5/16"	3-1/4"	600-044	2.19	611-044	2.62
48	2-9/16"	3-1/2"	600-048	1.86	611-048	1.79
52	2-13/16"	3-3/4"	600-052	3.10	611-052	1.96
56	3-1/16"	4"	600-056	2.76	611-056	2.28
60	3-5/16"	4-1/4"	600-060	2.04	611-060	2.04
64	2-1/2"	4-1/2"	600-064	2.12	611-064	2.24
72	3"	5"	600-072	2.18	611-072	2.86
80	3-1/2"	5-1/2"	600-080	2.22	611-080	3.34
88	4"	6"	600-088	2.78	611-088	2.93
96	4-1/2"	6-1/2"	600-096	3.04	611-096	2.93
104	5"	7"	600-104	3.29	611-104	2.67
116	5-3/4"	7-3/4"			611-116	4.45
128	6-1/2"	8-1/2"			611-128	3.80
152	2"	10"			611-152	4.36
164	1-3/4"	10-3/4"			611-164	5.52
176	9-1/4"	11-1/4"			611-176	4.16
188	2-1/16"	12-1/4"			611-188	4.80
200	11"	13"			611-200	5.23
212	11-3/4"	13-3/4"			611-212	6.78
224	12-1/2"	14-1/2"			611-224	4.96
248	10-3/4"	16"			611-248	5.19
270	15-3/8"	17-3/8"			611-270	7.55
312	18"	20"			611-312	7.70
332	19-1/8"	21-1/4"			611-332	5.65
390	22-7/8"	24-7/8"			611-390	8.49

**CLAMPS**



67-5  
63  
HSS  
HF-SS  
035  
HAS-X

**1/2" BAND CLAMPS**

•Use for marine, underground and other high corrosive applications.



**620 Series**  
 • 5/16" Hex Slotted 305 Stainless Steel Screw  
 • 1/2" Wide 301 Stainless Steel Band  
 • 301 Stainless Steel Housing

#	Dia. Range		Part #	List Price
	Min.	Max.		
6	3/8"	7/8"	620-006	1.55
8	7/16"	1"	620-008	1.75
10	9/16"	1-1/16"	620-010	1.75
12	9/16"	1-1/4"	620-012	1.95
16	11/16"	1-1/2"	620-016	1.77
20	3/4"	1-3/4"	620-020	1.79
24	1-1/16"	2"	620-024	1.60
28	1-5/16"	2-1/4"	620-028	1.61
32	1-9/16"	2-1/2"	620-032	1.61
36	1-13/16"	2-3/4"	620-036	1.66
40	2-1/16"	3"	620-040	2.12
44	2-5/16"	3-1/4"	620-044	2.87
48	2-9/16"	3-1/2"	620-048	2.12
52	2-13/16"	3-3/4"	620-052	2.31
56	3-1/16"	4"	620-056	2.31
60	3-5/16"	4-1/4"	620-060	3.66
64	2-1/2"	4-1/2"	620-064	2.44
72	3"	5"	620-072	2.56
80	3-1/2"	5-1/2"	620-080	4.20
88	4"	6"	620-088	2.92
96	4-1/2"	6-1/2"	620-096	4.07
104	5"	7"	620-104	3.18
116	5-3/4"	7-3/4"	620-116	6.82
128	6-1/2"	8-1/2"	620-128	4.41
152	2"	10"	620-152	6.12
164	1-3/4"	10-3/4"	620-164	6.67
176	9-1/4"	11-1/4"	620-176	5.00
188	2-1/16"	12-1/4"	620-188	6.72
200	11"	13"	620-200	5.48
212	11-3/4"	13-3/4"	620-212	7.09
224	12-1/2"	14-1/2"	620-224	5.94
248	10-3/4"	16"	620-248	7.10
270	15-3/8"	17-3/8"	620-270	6.68
312	18"	20"	620-312	6.86
332	19-1/8"	21-1/4"	620-332	6.82
390	22-7/8"	24-7/8"	620-390	7.14

CLAMPS



**MINIATURE CLAMPS - 5/16" BAND**

**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.

52

**300 Series**

- 1/4" Hex Slotted Carbon Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- Carbon Steel Housing



Dia. Range		Part #	List Price
Min.	Max.		
7/32"	5/8"	300-004	1.08
7/16"	11/16"	300-005	1.08
5/16"	7/8"	300-006	1.02
7/16"	1"	300-008	1.12
1/2"	1-1/16"	300-010	1.19
9/16"	1-1/4"	300-012	0.98
11/16"	1-1/2"	300-016	1.01
7/8"	1-3/4"	300-020	1.48

62P 011  
MHX 21  
35  
MH  
MF

**325 Series**

- 1/4" Hex Slotted Carbon Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- 301 Stainless Steel Housing



Dia. Range		Part #	List Price
Min.	Max.		
7/32"	5/8"	325-004	0.86
7/16"	11/16"	325-005	1.06
5/16"	7/8"	325-006	0.85
7/16"	1"	325-008	1.13
1/2"	1-1/16"	325-010	1.33
9/16"	1-1/4"	325-012	1.25
11/16"	1-1/2"	325-016	1.38
7/8"	1-3/4"	325-020	1.60

**350 Series**

- 1/4" Hex Slotted 410 Stainless Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- 301 stainless Steel Housing



Dia. Range		Part #	List Price
Min.	Max.		
7/32"	5/8"	350-004	0.87
7/16"	11/16"	350-005	1.42
5/16"	7/8"	350-006	0.87
7/16"	1"	350-008	0.98
1/2"	1-1/16"	350-010	1.14
9/16"	1-1/4"	350-012	1.14
11/16"	1-1/2"	350-016	1.61
7/8"	1-3/4"	350-020	1.68

**CLAMPS**



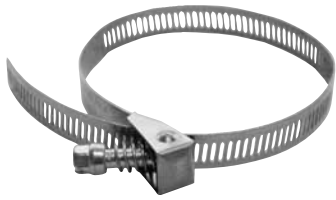
# METAL HOSE CLAMPS

# HOSE CLAMPS

## QUICK RELEASE 500/550 SERIES

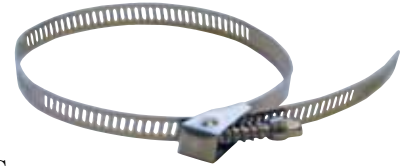
These clamps feature a unique quick release design between the one piece housing and band allowing for quick and easy installation in restricted or difficult areas.

**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.



56  
LS

Open/Close design allows easy installation.



58  
LSS

### 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

#	Dia. Range		Part #	List Price	Part #	List Price
	Min.	Max.				
12	1/2"	1-1/4"	500-012	2.19	550-012	2.96
20	3/4"	1-3/4"	500-020	2.23	550-020	2.35
28	1"	2-1/4"	500-028	2.28	550-028	2.53
36	1"	2-3/4"	500-036	1.73	550-036	2.62
48	1-1/2"	3-1/2"	500-048	2.91	550-048	3.10
56	1"	4"	500-056	3.32	550-056	4.50
72	2"	5"	500-072	2.80	550-072	5.18
88	2-1/16"	6"	500-088	4.16	550-088	4.95
104	1-3/4"	7"	500-104	4.38	550-104	6.32
128	1-3/4"	8-9/16"	500-128	3.89	550-128	5.57
152	2"	10"	500-152	4.12	550-152	6.05
188	2-1/16"	12-5/16"	500-188	4.58	550-188	7.72
216	10-3/16"	14"	500-216	4.94	550-216	9.30
248	10-3/4"	16"	500-248	5.20	550-248	8.59
280	14-1/4"	18"	500-280	6.17	550-280	8.25
312	14"	20"			550-312	9.80

CLAMPS

### HOSE CLAMP KITS

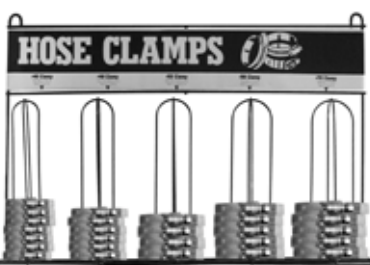
#### DISPLAY RACK

600-000 210.00



#### DISPLAY RACK

600-001 210.00



KIT#	LIST	KIT#	LIST	KIT#	LIST
600-100	512.23	611-100	548.91	620-100	602.34

Qty	Part#
60	300-0004
60	300-0006
30	600-008
30	600-010
90	600-012
40	600-016
40	600-020
20	600-028
20	600-032
10	600-036

Qty	Part#
60	325-0004
60	325-006
30	611-006
30	611-010
90	611-012
40	611-016
40	611-020
20	611-028
20	611-032
10	311-036

Qty	Part#
60	350-004
60	350-006
30	620-006
30	620-010
90	620-012
40	620-016
40	620-020
20	620-028
20	620-032
10	620-036

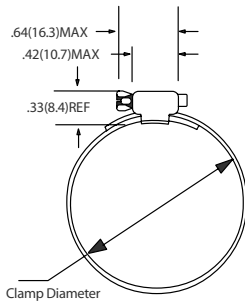
KIT#	LIST	KIT#	LIST	KIT#	LIST
600-101	103.31	611-101	104.71	620-101	114.23

Qty	Part#
10	600-040
10	600-048
10	600-052
10	600-056
10	600-072

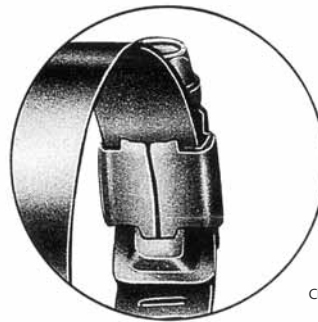
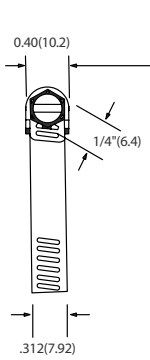
Qty	Part#
10	611-040
10	611-048
10	611-052
10	611-056
10	611-072

Qty	Part#
10	620-040
10	620-048
10	620-052
10	620-056
10	620-072

## WORM GEAR HOSE CLAMPS 830 Series

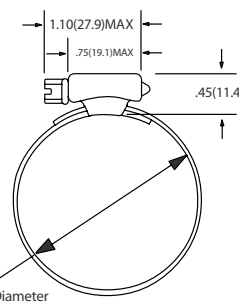


**MINI CLAMP**  
Screw: 1/4" hex-head  
Band: 5/16" wide

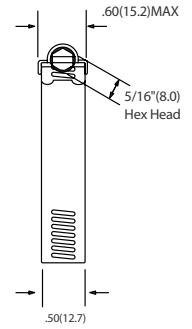


**Interlock Construction**

No welds, no bumps, which strengthens under tension to ensure maximum torque application.



**REGULAR CLAMP**  
Screw: 5/16" hex-head  
Band: 1/2" wide



No.	Diameter Range		Use for General Industrial Application			
	Inch	MM	All Galvanized Steel		400 Series Stainless Steel Band, Housing and Screw	
	Min-Max	Min-Max	Part #	List Price	Part #	List Price
<b>Mini Clamp with 8 mm wide Band (5/16")</b>						
4	7/32"-5/8"	6-16	830-185	0.65	830-185S	0.76
6	7/16"-3/4"	11-20	830-184	0.66	830-184S	0.77
8	1/2"-7/8"	13-23	830-183	0.44	830-183S	0.77
<b>Regular Clamp with 12.7 mm (1/2") wide Band</b>						
10	9/16"-1-1/16"	14-27	830-188	0.62	830-188S	1.14
12	11/16"-1-1/4"	18-32	830-189	0.61	830-189S	1.14
16	13/16"-1-1/2"	21-38	830-190	0.87	830-190S	1.07
20	13/16"-1-3/4"	21-44	830-192	0.83	830-192S	1.23
24	1-1/16"-2"	27-51	830-193	0.85	830-193S	1.33
28	15/16"-2-1/4"	33-57	830-194	0.76	830-194S	1.23
32	19/16"-2-1/2"	40-63	830-132	0.91	830-132S	1.37
36	1-13/16"-2 3/4"	46-70	830-195	0.89	830-195S	1.26
40	2-1/16"-3"	52-76	830-182	1.07	830-182S	1.50
44	2-5/16"-3-1/4"	59-82	830-196	0.83	830-196S	1.44
48	2-9/16"-3-3/4"	65-89	830-197	0.93	830-197S	1.51
52	2-13/16"-3-3/4"	72-95	830-152	1.14	830-152S	1.51
56	3-1/16"-4"	78-101	830-198	0.95	830-198S	1.54
60	3-5/16"-4-1/4"	84-108	830-060	1.32	830-060S	1.70
64	3-9/16"-4-1/2"	91-114	830-064	0.95	830-064S	2.49
72	4-1/8"-5"	105-127	830-072	1.26	830-072S	1.68
80	4-5/8"-5-1/2"	118-140	830-080	1.35	830-080S	1.67
88	5-1/8"-6"	130-152	830-288	1.28	830-288S	1.85
96	5-5/8"-6-1/2"	143-165	830-096	1.33	830-096S	2.15

CLAMPS





**T-Bolt Clamps**

- All designs meet SAE J1508 specifications.
- .025" Band Thickness
- 3/4" Wide Band
- Band Material: 300 Series Stainless Steel
- Bolt Material: 300 Series Stainless Steel
- Nut Material: 300 Series Stainless Steel
- Nuts are Self-locking
- Torque Rating 75 in/lb



**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 and other types of low pressure

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.

30010

Nominal Size	O.D. Range		Part#	List Price
	From:	To:		
1-1/4	1-5/32"	1-15/32"	840-131	4.60
1-1/2	1-3/8"	1-9/16"	840-150	4.21
1-3/4	1-5/8"	1-13/16"	840-175	4.00
1-7/8	1-3/4"	1-15/16"	840-188	4.36
2	1-7/8"	2-1/16"	840-200	4.44
2-1/4	2-1/8"	2-5/16"	840-225	5.15
2-3/8	2-1/4"	2-7/16"	840-238	4.40
2-1/2	2-3/8"	2-9/16"	840-250	4.30
2-9/16	2-11/32"	2-5/8"	840-256	6.15
2-5/8	2-13/32"	2-11/16"	840-263	4.38
2-3/4	2-17/32"	2-13/16"	840-275	5.25
2-7/8	2-21/32"	2-15/16"	840-288	4.86
3	2-25/32"	3-1/16"	840-300	4.97
3-1/8	2-29/32"	3-3/16"	840-312	6.11
3-1/4	3-1/32"	3-5/16"	840-325	4.95
3-1/2	3-9/32"	3-9/16"	840-350	4.91
3-3/4	3-17/32"	3-13/16"	840-375	5.80
3-53/64	3-19/32"	3-7/8"	840-382	6.50
4	3-25/32"	4-1/16"	840-400	5.27
4-1/4	4-1/32"	4-5/16"	840-425	5.32
4-1/2	4-9/32"	4-9/16"	840-450	5.67
4-3/4	4-17/32"	4-13/16"	840-475	5.76
5	4-25/32"	5-1/16"	840-500	6.40
5-1/4	5-1/32"	5-5/16"	840-525	6.50
5-1/2	5-9/32"	5-9/16"	840-550	6.60
5-3/4	5-17/32"	5-13/16"	840-575	7.44
6	5-25/32"	6-1/16"	840-600	7.56
6-1/4	6-1/32"	6-5/16"	840-625	7.78
6-1/2	6-9/32"	6-9/16"	840-650	7.89
6-3/4	6-17/32"	6-13/16"	840-675	8.00
7	6-25/32"	7-1/16"	840-700	8.11
7-1/2	7-9/32"	7-9/16"	840-750	8.22
8	7-25/32"	8-1/16"	840-800	7.70
8-1/4	8-9/32"	8-9/16"	840-850	8.89
8-7/8	8-21/32"	8-15/16"	840-888	9.33

## HOSE CLAMPS

## 1-EAR CLAMPS

### CARBON STEEL 1-EAR CLAMPS

1-Ear Clamps are intended for low pressures 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.



#### 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	0.44
1050001	113	7/16"	0.381	0.444	0.46
1050002	123	15/32"	0.394	0.486	0.46
1050003	133	1/2"	0.453	0.524	0.46
1050006	140	35/64"	0.472	0.551	0.50
1050007	145	9/16"	0.496	0.571	0.54
1050008	157	5/8"	0.543	0.618	0.51
1050009	170	11/16"	0.594	0.669	0.48
1050010	185	23/32"	0.618	0.728	0.51
1050011	198	3/4"	0.669	0.779	0.48
1050012	210	13/16"	0.716	0.827	0.53
1050013	226	7/8"	0.779	0.890	0.48
1050014	241	15/16"	0.839	0.949	0.51
1050015	256	1"	0.898	1.008	0.51
1050016	271	1-1/16"	0.945	1.067	0.57
1050017	286	1-1/8"	1.004	1.126	0.56
1050018	301	1-3/16"	1.063	1.185	0.63
1050020	331	1-5/16"	1.181	1.303	0.63
1050021	346	1-3/8"	1.240	1.362	0.68
1050023	376	1-15/32"	1.358	1.480	0.73
1050025	396	1-9/16"	1.437	1.559	0.71
1050026	410	1-5/8"	1.492	1.614	0.76
1050027	425	1-11/16"	1.551	1.673	0.75
1050028	440	1-23/32"	1.610	1.732	0.83
1050029	455	1-3/4"	1.669	1.791	0.83
1050030	470	1-16/16"	1.728	1.850	0.84
1050031	485	1-7/8"	1.787	1.909	0.88
1050032	500	1-15/16"	1.846	1.968	0.89
1050033	515	2"	1.905	2.028	0.93

### ONE PIECE 1-EAR CLAMPS

- Smooth inner band surface protects hose other material when subjected to pulsation, expansion, or contraction.
- One piece design offers quick and easy installation.
- Used in places where clamping a second ear is impractical.
- For air and fluid media lines.



#### Material:

- Zinc plated-steel SAE 1008/1010 or DIN 1.0338
- Stainless steel UNS S30400 or DIN 1.4301

### STAINLESS STEEL

Part #	Nominal Size	Inches		Band Width	List Price
		Close	Open		
15300000	1/8"	0.114	0.130	0.118	1.05
15300001	9/64"	0.118	0.138	0.118	1.15
15300002	5/32"	0.130	0.161	0.157	1.17
15300003	3/16"	0.161	0.201	0.157	1.28
15300004	15/64"	0.201	0.240	0.157	1.15
15300005	1/4"	0.221	0.260	0.157	0.70
15300006	9/32"	0.240	0.276	0.197	1.06
15300008	5/16"	0.268	0.315	0.197	1.11
15300010	11/32"	0.295	0.343	0.236	1.15
15300012	3/8"	0.319	0.374	0.276	1.19
15300013	25/64"	0.335	0.394	0.236	1.13
15300014	13/32"	0.369	0.413	0.256	0.77
15300015	27/64"	0.370	0.433	0.256	1.23
15300016	7/16"	0.376	0.445	0.236	1.13
15300017	29/64"	0.398	0.465	0.236	1.23
15300018	15/32"	0.398	0.472	0.276	1.23
15300019	31/64"	0.406	0.484	0.236	1.23
15300020	1/2"	0.425	0.504	0.236	1.29
15300021	33/64"	0.448	0.524	0.276	0.88
15300023	35/64"	0.476	0.551	0.276	1.23
15300024	9/16"	0.492	0.571	0.236	1.23
15300027	5/8"	0.543	0.630	0.295	1.43
15300030	11/16"	0.602	0.689	0.236	1.09

8) My wife and I were sitting at a table at my high school reunion and I kept staring at a drunken lady swigging her drink as she sat alone at a nearby table.

My wife asked, "Do you know her?"

"Yes," I sighed, "she's my old girlfriend. I understand she took to drinking right after we split up those many years ago, and I hear she hasn't been sober since."

"My God!" says my wife, "who would think a person could go on celebrating that long?"

And then the fight started...

CLAMPS



## EAR 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



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	0.93
1010008	5/16"	0.276	0.354	1.05
1010011	3/8"	0.319	0.433	0.70
1010016	1/2"	0.425	0.512	0.64
1010019	9/16"	0.492	0.591	0.94
1010022	19/32"	0.551	0.669	1.06
1010024	5/8"	0.591	0.709	0.74
1010027	3/4"	0.638	0.787	0.82

#### STAINLESS STEEL

Part #	Nominal Size	Inches		List Price
		Close	Open	
1510003	1/4"	0.197	0.276	0.70
1510004	5/16"	0.276	0.354	1.59
1510023	3/8"	0.319	0.433	0.70
1510006	1/2"	0.425	0.512	1.25
1510007	9/16"	0.492	0.591	1.54
1510008	19/32"	0.551	0.669	1.52
1510009	5/8"	0.591	0.709	0.90
1510010	3/4"	0.638	0.787	1.71
1510011	13/16"	0.709	0.866	1.96
1510012	7/8"	0.748	0.906	1.13
1510013	15/16"	0.827	0.984	2.18
1510014	1"	0.886	1.063	2.09
1510016	1-1/8"	1.035	1.221	2.51
1510019	1-9/16"	1.260	1.457	2.87
1510020	1-1/2"	1.378	1.575	3.12

## HOSE CLAMPS

### 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 ban 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

Part #	Nominal Size	Band Width	Inches		List Price
			Close	Open	
16700001	9/32"	5mm	0.228	0.276	0.84
16700004	3/8"	5mm	0.307	0.374	0.92
16700007	7/16"	5mm	0.378	0.445	1.17
16700010	1/2"	7mm	0.425	0.524	0.98
16700012	35/64"	7mm	0.453	0.551	0.98
16700013	9/16"	7mm	0.472	0.571	1.29
16700016	5/8"	7mm	0.520	0.618	1.21
16700017	11/16"	7mm	0.571	0.669	0.91
16700022	3/4"	7mm	0.654	0.780	0.74
16700024	13/16"	7mm	0.701	0.827	0.74

### PINCERS

#### Model 1098 I Standard Jaw Pincers



Part #  
1410118

List Price  
142.50

#### 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  
139.33





Open End Clamps are of the same general construction as the preformed clamps with this exception, the double wrapping of the band around the hose or article is part of the application. The open end clamps are used when one end or both, of the article to be clamped is not free, or an obstruction prevents slipping a preformed clamp over the end.

**OPEN END CLAMPS  
(3/8" AND 5/8" (NOMINAL) WIDTH)**

Catalog Number	Band Width & Thickness	List Price	Clamp I.D. Inches	Catalog Number	Band Width & Thickness	List Price
FO-3	3/8 x .022	4.07	13/16	FOS-3	3/8 x .020	4.52
FO-311	3/8 x .022	4.24	1 3/8	FOS-311	3/8 x .020	4.81
FO-316	3/8 x .022	4.36	2	FOS-316	3/8 x .020	5.06
FO-325	3/8 x .022	4.42	3 1/8	FOS-325	3/8 x .020	5.69
WITH STAINLESS STEEL LOK						
FO-8	5/8 x .025	3.52	2	FOS-8	5/8 x .022	5.24
FO-10	5/8 x .025	3.60	2 1/2	FOS-10	5/8 x .022	5.54
HEAVY DUTY BANDS						
FO-12	5/8 x .031	3.89	3	FOS-12	5/8 x .022	6.95
FO-14	5/8 x .031	3.86	3 1/2	FOS-14	5/8 x .022	6.73
FO-16	5/8 x .031	4.13	4	FOS-16	5/8 x .022	7.14
FO-18	5/8 x .031	4.04	4 1/2	FOS-18	5/8 x .022	7.58
FO-20	5/8 x .031	4.34	5	FOS-20	5/8 x .022	8.15
FO-24	5/8 x .031	4.75	6	FOS-24	5/8 x .022	9.06
FO-28	5/8 x .031	5.00	7	FOS-28	5/8 x .022	10.63
FO-32	5/8 x .031	5.39	8	FOS-32	5/8 x .022	11.88
FO-36	5/8 x .031	5.36	9	FOS-36	5/8 x .022	12.33
FO-40	5/8 x .031	6.19	10	FOS-40	5/8 x .022	13.66
FO-48	5/8 x .031	7.14	12	FOS-48	5/8 x .022	15.77
FO-56	5/8 x .031	9.12	14	FOS-56	5/8 x .022	17.00
FO-64	5/8 x .031	9.61	16			
FO-80	5/8 x .031	10.02	20			
FO-96	5/8 x .031	11.17	24			
FO-144	5/8 x .031	13.87	36			
FO-168	5/8 x .031	17.93	42			

**APPLICATION TOOLS**

For 3/8", 5/8" .....F-38, F-40, F-100  
See page 285 for these tools.



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)**

Catalog Number	Band Width & Thickness	List Price	Clamp I.D. Inches	Catalog Number	Band Width & Thickness	List Price
F-3	3/8 x .025	1.18	13/16	FS-3	3/8 x .020	1.87
F-311	3/8 x .025	1.35	1 3/8	FS-311	3/8 x .020	1.92
F-4	5/8 x .025	1.11	1	FS-4	5/8 x .022	2.42
F-5	5/8 x .025	1.23	1 1/4	FS-5	5/8 x .022	2.61
HEAVY DUTY BANDS						
F-6	5/8 x .031	1.24	1 1/2	FS-6	5/8 x .022	2.59
F-7	5/8 x .031	1.30	1 3/4	FS-7	5/8 x .022	2.94
F-8	5/8 x .031	1.30	2	FS-8	5/8 x .022	3.01
F-9	5/8 x .031	1.49	2 1/4	FS-9	5/8 x .022	FS9

F-10	5/8 x .031	1.61	2 1/2	FS-10	5/8 x .022	3.37
F-11	5/8 x .031	1.87	2 3/4	FS-11	5/8 x .022	3.74
F-12	5/8 x .031	2.00	3	FS-12	5/8 x .022	3.60
F-14	5/8 x .031	1.85	3 1/2	FS-14	5/8 x .022	4.12
F-16	5/8 x .031	2.24	4	FS-16	5/8 x .022	4.58
F-18	5/8 x .031	2.53	4 1/2	FS-18	5/8 x .022	5.03
F-20	5/8 x .031	2.50	5	FS-20	5/8 x .022	5.32
F-24	5/8 x .031	3.06	6	FS-24	5/8 x .022	6.49
F-28	5/8 x .031	3.54	7	FS-28	5/8 x .022	6.49
F-32	5/8 x .031	4.02	8	FS-32	5/8 x .022	8.50

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.

**CLAMPS**



**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.

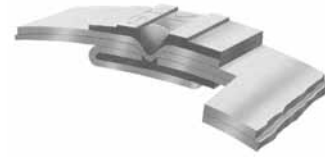
**Punch Indentation for ease of center punching**

Heavy Duty Lock for greater strength and rigidity



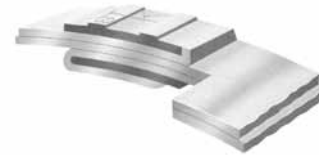
Heavy Duty Clamp

**Center Punched**



Less tension loss. Patented hole in inner band gives better internal mechanical locking after punching

**Fold-up**



K-Clamps may be secured by either a punch or fold-up method. (See cross sectioned views)

**PREFORMED CLAMPS  
(3/8" AND 5/8" (NOMINAL) WIDTH)**

**GALVANIZED STEEL**

**STAINLESS STEEL TYPE 301**

Catalog Number	List Price	Clamp I.D. Inches	Band Width & Thickness	Catalog Number	List Price
K-3	1.17	13/16"	3/8" x .025	KS-3	1.83
K-311	1.16	1-3/8"	3/8" x .025	KS-311	1.85
K-4	1.55	1"	5/8" x .030	KS-4	2.92
K-5	1.76	1-1/4"	5/8" x .030	KS-5	2.85
K-6	1.74	1-1/2"	5/8" x .030	KS-6	3.06
K-7	1.97	1-3/4"	5/8" x .030	KS-7	3.11
K-8	1.85	2"	5/8" x .030	KS-8	3.68
K-9	2.09	2-1/4"	5/8" x .030	KS-9	3.69
K-10	2.02	2-1/2"	5/8" x .030	KS-10	4.14
K-11	2.10	2-3/4"	5/8" x .030	KS-11	4.31
K-12	2.48	3"	5/8" x .030	KS-12	4.86
K-14	2.62	3-1/2"	5/8" x .030	KS-14	5.90
K-16	2.51	4"	5/8" x .030	KS-16	5.61
K-18	2.70	4-1/2"	5/8" x .030	KS-18	6.41
K-20	2.94	5"	5/8" x .030	KS-20	6.79
K-24	3.32	6"	5/8" x .030	KS-24	7.33
K-28	4.37	7"	5/8" x .030	KS-28	9.45
K-32	4.99	8"	5/8" x .030	KS-32	10.37

**PREFORMED CLAMPS  
(3/4" (NOMINAL) WIDTH)**

**GALVANIZED STEEL**

**STAINLESS STEEL TYPE 301**

Catalog Number	List Price	Clamp I.D. Inches	Band Width & Thickness	Catalog Number	List Price
K-87500	3.05	2"	3/4" x .030	KS-87501	5.06
K-97500	3.12	2-1/4"	3/4" x .030	KS-97501	5.44
K-107500	3.25	2-1/2"	3/4" x .030	KS-107501	5.57
K-117500	3.31	2-3/4"	3/4" x .030	KS-117501	6.07
K-127500	3.39	3"	3/4" x .030	KS-127501	6.20
K-147500	5.16	3-1/2"	3/4" x .030	KS-147501	6.73
K-167500	3.91	4"	3/4" x .030	KS-167501	7.39
K-187500	4.23	4-1/2"	3/4" x .030	KS-187501	8.49
K-207500	4.63	5"	3/4" x .030	KS-207501	9.12
K-247500	5.19	6"	3/4" x .030	KS-247501	10.48
K-287500	5.99	7"	3/4" x .030	KS-287501	12.12
K-327500	6.37	8"	3/4" x .030	KS-327501	13.27

*316 Stainless available upon request*

*For 3/8" and 5/8" widths .....F-40, F-100  
For 3/4" width .....F-175(special order item)  
For all widths .....KS001 (with KA001 aapter)*

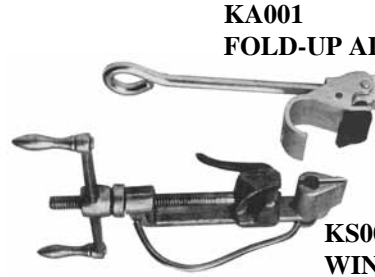
See page 285 for these tools.





**FLJ-Clamp  
PREFORMED HOSE CLAMPS**

J-Clamps are available in 3/8", 5/8" and 3/4" widths, from 13/16" to 8" I.D. These non punch type clamps are to be secured by the foldup method, using the Wind-Up tool, our part no. KS001 and adapter KA001.



**KA001  
FOLD-UP ADAPTER**

**List Price:  
237.92**

**KS001  
WIND-UP TOOL**

**List Price:  
327.39**

**GALVANIZED  
STEEL**

**3/8" ( NOMINAL WIDTH)**

**STAINLESS STEEL  
TYPE 301**

Catalog Number	List Price	Clamp I.D. Inches	Band Width & Thickness	Catalog Number	List Price
FLJ-301	1.31	13/16"	3/8" x .025	FLJ-201	1.95
FLJ-343	1.42	1"	3/8" x .025	FLJ-243	1.80
FLJ-302	1.49	1-3/8"	3/8" x .025	FLJ-202	1.80
FLJ-345	1.56	2"	3/8" x .025	FLJ-245	2.11
FLJ-346	2.06	3"	3/8" x .025	FLJ-246	2.95
N/A		3-1/4"	3/8" x .025	FLJ-255	3.56
5/8" ( NOMINAL WIDTH )					
FLJ-303	2.52	1"	5/8" x 0.30	FLJ-203	3.62
FLJ-304	2.50	1-1/4"	5/8" x 0.30	FLJ-204	3.36
FLJ-305	2.67	1-1/2"	5/8" x 0.30	FLJ-205	3.65
FLJ-306	2.75	1-3/4"	5/8" x 0.30	FLJ-206	4.08
FLJ-307	2.77	2"	5/8" x 0.30	FLJ-207	4.17
FLJ-308	2.79	2-1/4"	5/8" x 0.30	FLJ-208	4.24
FLJ-309	2.98	2-1/2"	5/8" x 0.30	FLJ-209	4.32
3/4" ( NOMINAL WIDTH )					
FLJ-327	3.56	2"	3/4" x 0.30	FLJ-227	5.76
FLJ-310	3.96	2-3/4"	3/4" x 0.30	FLJ-210	6.31
FLJ-311	3.99	3"	3/4" x 0.30	FLJ-211	6.73
FLJ-312	4.14	3-1/2"	3/4" x 0.30	FLJ-212	6.92
FLJ-313	4.72	4"	3/4" x 0.30	FLJ-213	8.75
FLJ-314	4.91	4-1/2"	3/4" x 0.30	FLJ-214	9.11
FLJ-315	5.34	5"	3/4" x 0.30	FLJ-215	9.74
FLJ-316	6.09	6"	3/4" x 0.30	FLJ-216	11.09
FLJ-318	6.83	7"	3/4" x 0.30	FLJ-218	12.94
FLJ-319	7.32	8"	3/4" x 0.30	FLJ-219	14.11

**CLAMPS**

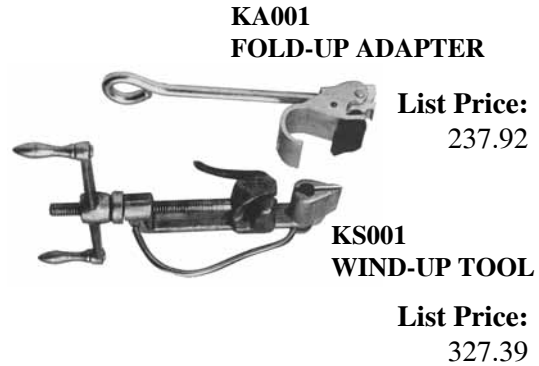


**FLJS-Clamp  
SMOOTH I.D. CLAMPS**

**FLJS** - Clamps are double wrapped clamps with a more smooth inside diameter, intended for your thermo-plastic 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.

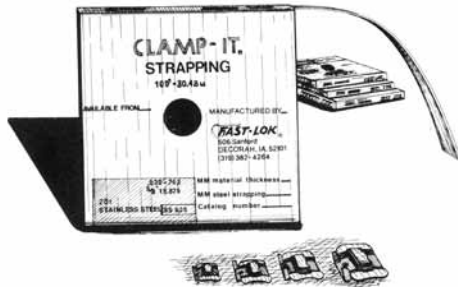


**STAINLESS  
STEEL**

<b>5/8" (NOMINAL WIDTH)</b>			
<b>Catalog Number</b>	<b>Clamp I.D. Inches</b>	<b>Band Width &amp; Thickness</b>	<b>List Price</b>
FLJS-203	1"	5/8" x .030	3.16
FLJS-204	1-1/4"	5/8" x .030	3.57
FLJS-205	1-1/2"	5/8" x .030	3.39
FLJS-206	1-3/4"	5/8" x .030	4.61
FLJS-207	2"	5/8" x .030	3.98
FLJS-208	2-1/4"	5/8" x .030	4.43
FLJS-209	2-1/2"	5/8" x .030	4.45
<b>3/4" (NOMINAL WIDTH)</b>			
FLJS-227	2"	3/4" x .030	5.47
FLJS-210	2-3/4"	3/4" x .030	6.31
FLJS-211	3"	3/4" x .030	6.07
FLJS-212	3-1/2"	3/4" x .030	7.29
FLJS-213	4"	3/4" x .030	7.97
FLJS-214	4-1/2"	3/4" x .030	8.81
FLJS-215	5"	3/4" x .030	9.13
FLJS-216	6"	3/4" x .030	10.80
FLJS-218	7"	3/4" x .030	12.65
FLJS-219	8"	3/4" x .030	13.81







**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).

**100' CLAMP-IT STRAPPING**

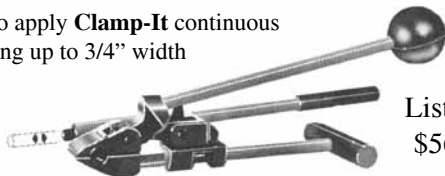
Catalog Number	Width	Thickness	Material 100'/CTN.	List Price/CNT
SS-3751	3/8"	.025	301 Stainless	112.04
SS-5001	1/2"	.030	301 Stainless	169.73
SS-6251	5/8"	.030	301 Stainless	197.88
SS-7501	3/4"	.030	301 Stainless	240.61
SG-3750	3/8"	.025	Galvanized	67.51
SG-5000	1/2"	.030	Galvanized	75.30
SG-6250	5/8"	.030	Galvanized	98.35
SG-7500	3/4"	.030	Galvanized	110.20

**CLAMPS (BUCKLES)**

Catalog Number	Width	Material 100'/CTN.	List Price Each pc.
CS-3751	3/8"	301 Stainless	0.86
CS-5001	1/2"	301 Stainless	0.96
CS-6251	5/8"	301 Stainless	1.31
CS-7501	3/4"	301 Stainless	1.75
CG-3750	3/8"	Galvanized	0.42
CG-5000	1/2"	Galvanized	0.54
CG-6250	5/8"	Galvanized	0.67
CG-7500	3/4"	Galvanized	0.89

**C-2 Orbitor (Loking Tool)**

Used to apply Clamp-It continuous strapping up to 3/4" width



List Price \$562.65

**ORBITOR**

A tool of endless travel... this lightweight, side entry, jack-type tool is the most rapid cinch-up application tool in its field. The **Orbitor C-2 Loking Tool** will handle Clamp-It strapping widths to 3/4" and always reached desired tension without fear of losing travel capacity of the tool. The **Clamp-It Strapping, Clamp-It Clamps**, and the unique **Clamp-It tool** add up to a superior system for you.

**F-38 Loking Tool**



List Price: \$110.68

Portable hand tool used to apply punch Type 3/8 & 5/8 Clamps

**F-40 Loking Tool**



List Price: \$187.04

Used to apply Punch Type 3/8 & 5/8 clamps. Order mallet separately

**F-100 Loking Tool**



List Price: \$450.96

Used to apply Punch Type 3/8 & 5/8 clamps. Order mallet separately

**F-225 Mallet**



List Price: \$111.39

Used for punching of all punch type clamps.

**F-550 Clamp Cutter**



List Price: \$207.45

Used to remove clamps with minimum effort

**KS001 Wind-up Tool**



List Price: \$327.39

Used to apply fold-up clamps and continuous strapping up to 3/4" width

**CLAMPS**



# NON PERFORATED (LINED) BAND

# HOSE CLAMPS

## HOSE CLAMPS

- All designs exceed SAE J1508 specifications
- Smooth inside surface
- Even tightening torque for 3600 seal
- Rolled-up band edge

\* Non-perforated band prevents hose damage \*

- Precision thread pitch for high vibration applications
- Design allows reuse
- Provides a strong seal
- Tolerates corrosive environments

### ALUZINC MINI-F



Band and Housing • Aluzinc/ Painted  
Band Width • (9mm) 3/8" wide band  
Screw • Zinc Plated / Chromed  
Corrosion Factor • 100  
**Sure seal of small thin-walled hoses.**

Part #	Size	List Price
92-008	15/64-21/64	1.31
92-009	9/32-3/8	1.17
92-010	5/16-13/32	1.13
92-011	23/64-29/64	1.01
92-012	25/64-31/64	1.20
92-013	7/16-17/32	1.28
92-014	15/32-9/16	1.16
92-015	33/64-29/64	1.34
92-016	35/64-41/64	1.43
92-017	19/32-11/16	1.12

### 304 S.S. MINI-F



Band and Housing • SS2333/ AISI 304  
Band Width • (9mm) 3/8" wide band  
Screw • Zinc Plated / Chromed  
Corrosion Factor • 1000 Industrial

Part #	Size	List Price
93-008	15/64-21/64	2.78
93-009	9/32-3/8	3.06
93-010	5/16-13/32	2.78
93-011	23/64-29/64	3.16
93-012	25/64-31/64	3.01
93-013	7/16-17/32	2.95
93-014	15/32-9/16	2.68
93-015	33/64-29/64	2.68
93-016	35/64-41/64	2.78
93-017	19/32-11/16	2.93

Band and Housing • Aluzinc/ Painted  
Band Width • (12.2mm) 3/8" wide band  
Screw • Zinc Plated / Chromed  
Corrosion Factor • 100

### ALUZINC



Part #	SAE	Size	List Price
88-024	8	5/8-15/16	2.62
88-028	10	3/4-1-1/8	2.68
88-032	12	7/8-1-1/4	3.25
88-038	16	1-1/16-1-1/2	3.06
88-044	20	1-1/4-1-3/4	3.06
88-050	24	1-1/2-2	3.47
88-056	28	1-3/4-2-1/4	3.64
88-065	32	2-2-9/16	4.82
88-075	40	2-5/16-3	4.81
88-085	44	2-11/16-3-3/8	4.27
88-095	52	3-3-3/4	4.54
88-112	64	3-7/16-4-7/16	5.84
88-138	80	4-1/8-5-7/16	7.51
88-165	96	5-1/8-7-1/8	9.31
88-180	104	5-7/8-7-1/8	9.48
88-205	122	6-7/8-8-1/8	10.31
88-231	138	7-7/8-9-1/8	9.71
88-256	154	8-7/8-10-1/16	11.44
88-282	170	9-7/8-11-1/8	12.21
88-307	186	10-7/8-12-1/8	13.76

Band and Housing • SS2333/ AISI 304  
Band Width • (12.2mm) 1/2" wide band  
Screw • SS2333/ AISI 304  
Corrosion Factor • 1000 Industrial

### All 304 S.S.



Part #	SAE	Size	List Price
89-024	8	5/8-15/16	5.01
89-028	10	3/4-1-1/8	5.49
89-032	12	7/8-1-1/4	6.40
89-038	16	1-1/16-1-1/2	5.52
89-044	20	1-1/4-1-3/4	6.02
89-050	24	1-1/2-2	6.80
89-056	28	1-3/4-2-1/4	6.55
89-065	32	2-2-9/16	7.33
89-075	40	2-5/16-3	8.47
89-085	44	2-11/16-3-3/8	9.41
89-095	52	3-3-3/4	10.87
89-112	64	3-7/16-4-7/16	10.35
89-138	80	4-1/8-5-7/16	13.54
89-165	96	5-1/8-7-1/8	13.63
89-180	104	5-7/8-7-1/8	14.82
89-205	122	6-7/8-8-1/8	17.69
89-231	138	7-7/8-9-1/8	17.40
89-256	154	8-7/8-10-1/16	20.71
89-282	170	9-7/8-11-1/8	19.69
89-307	186	10-7/8-12-1/8	18.91

Band and Housing • Aluzinc/ Painted  
Band Width • (9mm) 3/8" wide band  
Screw • Zinc Plated / Chromed  
Corrosion Factor • 100

### ALUZINC NOVA



Part #	SAE	Size	List Price
91-015	3	5/16-9/16	2.16
91-017	4	7/16-11/16	1.90
91-022	6	1/2-13/16	2.02
91-025	8	5/8-15/16	2.49
91-028	10	3/4-1-1/8	2.78
91-032	12	7/8-1-1/4	2.93
91-040	16	1-1/16-1-1/2	2.88
91-045	20	1-1/4-1-3/4	2.78
91-051	24	1-1/2-2	3.07
91-056	28	1-3/4-2-1/4	3.16
91-065	32	2-2-9/16	3.23
91-075	40	2-5/16-3	3.26
91-085	44	2-11/16-3-3/8	3.54

CLAMPS



GLOBAL HOSE  
& INDUSTRIAL SALES CO

Phone: 1-888-504-2620

www.global-hose.com

# HOSE CLAMPS

# NON PERFORATED (LINED) BAND

Band and Housing • SS2333/ AISI 316  
 Band Width • (12.2mm) 1/2" wide band  
 Screw • SS2333/ AISI 304  
 Corrosion Factor • 1000 Industrial

## HOSE CLAMPS 304 S.S. RUBBER CLIP



Eliminates hose and cable wear due to vibrations

### ALL 316 ACID RESISTANT



Part #	SAE	Size	List Price
90-014	3	5/16-9/16	4.99
90-017	4	7/16-11/16	6.18
90-020	6	1/2-13/16	6.56
90-024	8	5/8-15/16	6.38
90-028	10	3/4-1-1/8	6.72
90-032	12	7/8-1-1/4	6.86
90-038	16	1-1/16-1-1/2	7.35
90-044	20	1-1/4-1-3/4	8.51
90-050	24	1-1/2-2	7.22
90-056	28	1-3/4-2-1/4	8.07
90-065	32	2-2-9/16	8.36
90-075	40	2-5/16-3	9.11
90-085	44	2-11/16-3-3/8	8.28
90-095	52	3-3-3/4	9.83
90-112	64	3-7/16-4-7/16	20.46
90-138	80	4-1/8-5-7/16	10.62
90-165	96	5-1/8-7-1/8	11.41
90-180	104	5-7/8-7-1/8	11.70
90-205	122	6-7/8-8-1/8	12.61
90-231	138	7-7/8-9-1/8	13.25
90-256	154	8-7/8-10-1/16	14.81
90-282	170	9-7/8-11-1/8	15.12
90-307	186	10-7/8-12-1/8	15.91

### ALUZINC EXHAUST CLAMP

Uniform tightening force around the exhaust tubes for a good seal.



Part #	Size	List Price
94-030	1.06-1.18	6.25
94-033	1.18-1.30	7.00
94-036	1.30-1.42	6.66
94-038	1.38-1.50	7.33
94-039	1.44-1.56	6.89
94-042	1.54-1.65	7.71
94-043	1.59-1.71	7.44
94-045	1.65-1.77	6.99
94-046	1.69-1.81	6.25
94-047	1.73-1.85	6.64
94-048	1.77-1.89	7.72
94-051	1.89-2.01	7.71
94-052	1.93-2.05	8.37
94-054	2.00-2.13	8.68
94-055	2.05-2.17	9.09
94-056	2.09-2.20	9.09
94-058	2.17-2.28	10.63
94-061	2.28-2.40	10.45
94-064	2.40-2.52	10.52
94-071	2.68-2.80	39.35
94-074	2.80-2.91	21.08

## ALUZINC ROBUST



Band and Housing Aluzinc/ Painted  
 Screw • Zinc Plated/ Chromed  
 Corrosion Factor • 100

Part #	Size	Hole Dia.	List Price
96-301	3/16	.20	2.01
96-302	1/4	.20	2.14
96-303	5/16	.20	2.01
96-304	3/8	.20	2.21
96-305	7/16	.20	2.09
96-306	1/2	.20	2.29
96-307	9/16	.20	2.77
96-308	5/8	.20	2.79
96-310	3/4	.20	2.93
96-312	7/8	.20	2.72
96-314	1	.20	3.37
96-316	1-1/8	.20	3.48
96-318	1-1/4	.25	3.77
96-320	1-3/8	.20	5.22
96-322	1-1/2	.20	5.11
96-323	1-3/4	.25	5.17



Eliminates hose and cable wear due to vibrations

### ALUZINC RUBBER CLIP

Part #	Size	Hole Dia.	List Price
95-300	1/8	.26	0.82
95-301	3/16	.26	0.90
95-302	1/4	.26	1.03
95-303	5/16	.26	1.07
95-304	3/8	.26	0.99
95-305	7/16	.26	1.11
95-306	1/2	.26	1.33
95-307	9/16	.26	1.39
95-308	5/8	.26	1.28
95-309	11/16	.26	1.42
95-310	3/4	.26	1.45
95-311	13/16	.26	1.62
95-312	7/8	.26	1.74
95-313	15/16	.26	1.85
95-314	1	.26	1.72
95-315	1-1/6	.26	2.11
95-316	1-1/8	.26	2.11
95-317	1-3/16	.26	2.62
95-318	1-1/4	.26	2.96
95-319	1-5/16	.26	3.00
95-320	1-3/8	.26	3.23
95-321	1-7/16	.26	3.16
95-322	1-1/2	.26	3.60
95-326	1-5/8	.26	4.40
95-323	1-3/4	.26	4.14
95-328	1-7/8	.26	4.39
95-324	2	.26	4.68
95-325	2-1/8	.26	4.41
95-329	2-3/8	.26	5.46
95-327	2-1/2	.26	5.29
95-330	2-15/16	.26	6.08
95-331	4-5/16	.26	8.87

Part #	Size (mm)	Band Width (mm)	List Price
97-031	29-31	18	7.12
97-035	31-34	18	6.27
97-039	37-40	18	7.21
97-043	40-43	18	6.79
97-047	43-47	20	9.41
97-051	47-51	20	9.65
97-055	51-55	20	9.57
97-059	55-59	20	11.29
97-063	59-63	20	9.83
97-073	68-73	25	10.52
97-079	73-79	25	10.27
97-085	79-85	25	10.36
97-091	85-91	25	10.54
97-103	97-104	25	10.79
97-112	104-112	25	11.23
97-121	112-121	25	10.53
97-130	121-130	25	12.89
97-139	130-140	30	14.03
97-148	140-150	30	12.86
97-161	150-162	30	13.49
97-174	162-174	30	13.20
97-187	174-187	30	21.56
97-200	187-200	30	22.11
97-213	200-213	30	22.18
97-226	213-226	30	22.55
97-239	226-239	30	22.92
97-252	239-252	30	23.39

A single question can be more influential than a thousand statements.

- Bo Bennett



GLOBAL HOSE  
 & INDUSTRIAL SALES CO

Fax: 1-615-262-2660

Email: sales@global-hose.com

CLAMPS

# HOSE FERRULES

## SMOOTH BRASS HOSE FERRULES



Part #	Ferrule #	I.D.	Length	Pierce	Gauge	List Price
32-500	6231	0.330	0.49	0.250	0.020	0.32
32-501	833	0.358	0.500	0.265	0.020	0.32
32-502	622	0.380	0.500	0.265	0.020	0.32
32-550	619	0.400	0.47	0.27	0.020	0.38
32-504	620	0.410	0.500	0.265	0.020	0.36
32-551	769R	0.450	0.562	0.343	0.020	0.37
32-552	4750	0.478	0.687	0.328	0.025	0.42
32-553	624R	0.500	0.500	0.343	0.020	0.39
32-554	7322	0.500	1.000	0.328	0.025	0.49
32-555	625	0.525	0.47	0.36	0.020	0.39
32-517	625A	0.525	0.56	0.360	0.020	0.37
32-556	7323	0.525	1.000	0.375	0.025	0.68
32-521	9974	0.525	1.000	0.437	0.025	0.63
32-557	7324	0.531	1.000	0.375	0.025	0.59
32-558	626	0.550	0.484	0.375	0.020	0.48
32-559	7325	0.56	1.000	0.437	0.025	0.73
32-561	7326	0.593	1.000	0.437	0.025	0.66
32-562	JJ	0.600	0.484	0.437	0.016	0.73
32-563	JJ	0.600	0.500	0.500	0.020	0.45
32-526	II	0.625	0.500	0.500	0.020	0.39
32-564	7327	0.625	1.000	0.437	0.025	0.66
32-565	HH	0.650	0.500	0.500	0.020	0.43
32-566	7328	0.656	1.000	0.437	0.025	0.67
32-567	GG	0.675	0.515	0.500	0.020	0.59
32-568	7329	0.69	1.000	0.500	0.025	0.70
32-570	7330	0.718	1.000	0.500	0.025	0.66
32-571	EE	0.725	0.530	0.500	0.020	0.55
32-572	DD	0.750	0.531	0.500	0.020	0.49
32-573	7331	0.750	1.000	0.625	0.025	1.05
32-574	CC	0.775	0.531	0.500	0.020	0.67
32-533	7332B	0.781	1.000	0.500	0.025	0.81
32-575	7332	0.781	1.000	0.625	0.025	0.82
32-576	BB	0.800	0.546	0.562	0.020	0.63
32-577	7333	0.812	1.000	0.625	0.025	0.85
32-578	AA	0.825	0.546	0.562	0.020	0.56
32-579	7244	0.875	0.843	0.687	0.025	0.89
32-580	7113	0.925	0.968	0.750	0.025	0.93
32-545	5235A	1.000	0.843	0.687	0.025	1.07
32-549	7145A	1.050	0.843	0.687	0.025	1.06
32-584	5027	1.100	0.843	0.812	0.025	1.11
32-588	7088	1.175	0.875	0.875	0.025	1.15
32-590	875L	1.200	0.843	0.875	0.025	1.32
32-591	7291	1.225	0.968	0.875	0.025	1.33

Also available in steel. Call for a quote!

*More sizes available*

CLAMPS

# HOSE ACCESSORIES

## HOSE CRIMPER

### HOSE CRIMPERS

• 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

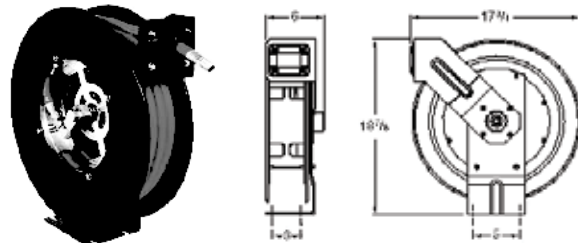
# 308-071 THRU # 308-075

Part #		List Price
308-070	Hose Crimper	312.59

### REPLACEMENT DIES

Part #	Size	List Price
308-071	5/8"	56.22
308-072	37/64"	56.22
308-073	17/32"	59.03
308-074	31/64"	56.22
308-075	11/16"	61.84
308-076	7/16"	55.34
308-077	3/4"	56.22
308-078	13/16"	59.03
308-079	3/8"	57.97

## HOSE REEL



### LOW PRESSURE

Reels are ideally suited for plant maintenance or many other industrial functions where hose storage is a problem. Standard hose for air, water and oxygen/ acetylene application.

- Made in the USA .
- All metal reel.
- Unitized multi-functional hub arbor.
- 8 Position guide arm.
- Minimal size envelope permits installation where space is a factor.
- Simple design incorporates fewer parts.
- Single set screw to access latch area and spring case.
- Heavy gauge base with no welds.

Part #	Operating Pressure	Capacity Hose ID		Shipping Weight	List Price
		I.D.	Length		
940-350	300	3/8	50	41	586.69
940-250	300	1/4	50	44	896.89

940350 - Air/ Water

940250 - Oxygen/ Acetylene



**CORROSION RESISTANCE VALUES  
for Plastic Tubing**

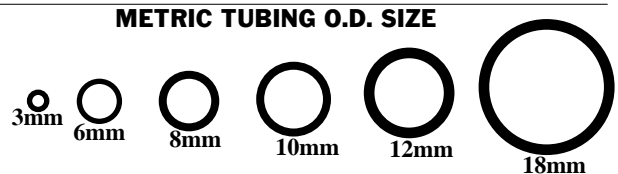
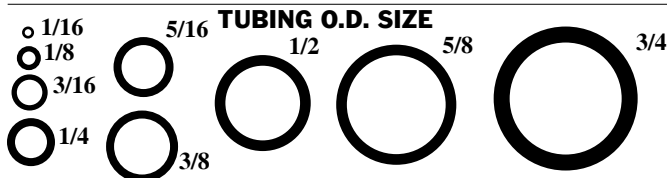
Ratings based on tests at 70°F and should not be exposed to higher temperature without testing

**F**-5000 Poly Vinyl Chloride  
**U**-2000 Polyurethane  
**E**-1000 Low Density Polyethylene  
**N**-6000 Nylon

**P**-1100 Polypropylene  
**D**-4000 EVA  
**T**-7000 Teflon  
**U**-8000 Special Plasticizers PVC

**G**-Good  
**L**-Limited  
**P**-Poor  
**N**-Not Tested

<b>FUELS:</b>	<b>F</b>	<b>U</b>	<b>E</b>	<b>N</b>	<b>P</b>	<b>D</b>	<b>T</b>	<b>U</b>	<b>ACIDS &amp; BASES</b>	<b>F</b>	<b>U</b>	<b>E</b>	<b>N</b>	<b>P</b>	<b>D</b>	<b>T</b>
Butane (1).....	G	G	L	G	L	G	G	N	Acetic, 50%.....	G	P	P	L	G	P	G
Diesel Fuel .....	L	G	L	G	L	P	N	G	Boric.....	G	G	G	G	G	G	G
Gasoline (regular) .....	L	G	P	G	L	N	G	G	Carbolic (phenol) .....	P	P	G	P	G	P	N
Kerosene .....	L	G	P	G	G	P	G	G	Fatty .....	G	G	P	G	G	N	G
Methane (nat. gas)(1).....	G	G	L	G	G	N	N	N	Formic, 90%.....	G	P	G	P	G	G	G
Propane (1).....	G	G	L	G	L	N	N	N	Hydrochloric, 10%.....	G	G	G	L	G	G	G
<b>OTHERS:</b>									Hydrochloric, 25%.....	G	L	G	P	G	L	G
Acetylene .....	N	G	G	G	G	N	N	N	Hydrochloric, 50%.....	G	L	G	P	G	L	G
Ammonia gas .....	P	G	G	G	G	G	N	N	Hydrocyanic, 50%.....	L	P	G	P	G	G	G
Ammonium salts .....	G	G	G	G	G	N	N	N	Maleic .....	G	P	G	G	G	N	N
Amyl acetate .....	P	P	L	G	P	P	G	N	Nitric, 10%.....	G	P	G	L	G	L	G
Aniline.....	P	P	L	L	G	P	G	N	Nitric, 30%.....	G	P	G	P	L	L	G
Animal oils.....	G	G	P	G	G	N	G	G	Oleic.....	L	G	L	G	G	P	N
Bleach, 7% .....	G	P	G	L	L	N	N	G	Phosphoric, 25% .....	G	L	G	G	G	G	N
Bromine.....	L	G	P	P	P	P	G	N	Sulfuric, 30% .....	G	L	G	L	G	L	G
Butandiol.....	G	G	G	G	G	N	N	N	Sulfuric, 70% .....	L	P	P	P	G	P	G
Calcium salts incl. Chloride....	G	G	G	G	G	N	G	G	Sulfuric, 98% .....	P	P	P	P	G	P	G
Chlorine gas, dry.....	G	G	P	P	P	P	N	N	Sulfurous, 30%.....	G	P	G	L	G	N	G
Dibutyl phthalate.....	N	P	L	G	L	P	N	G	Tannic .....	G	P	G	G	G	N	G
Glucose .....	G	G	G	G	G	G	G	G	Ammonium hydroxide, 25%... P	G	G	L	G	G	G	N
Glycerine.....	G	G	G	G	G	G	N	G	Potassium hydroxide, 25%. L	G	G	G	G	G	G	G
Hydrogen peroxide 10% ....	G	G	G	G	G	G	G	G	Sodium hydroxide, 50%.... G	G	G	G	G	G	L	G
Hydrogen peroxide 25% ....	L	G	G	P	G	G	G	G	<b>SOLVENTS:</b>							
Hydrogen sulfide.....	G	P	G	L	G	N	G	N	Acetone .....	P	P	G	G	L	P	G
Isocyanates.....	N	G	G	G	N	P	N	N	Benzene.....	P	L	P	G	P	P	G
Lead salts (3).....	G	G	G	G	G	N	N	N	Carbon tetrachloride.....	P	L	L	L	P	P	G
Magnesium salts.....	G	G	G	G	G	N	G	N	Chloroform.....	P	P	P	L	P	P	G
Mercury.....	G	G	G	G	G	G	N	N	Cyclohexanone.....	P	P	P	G	L	P	G
Milk.....	G	G	G	G	G	G	N	G	Dimethylformamide.....	P	P	L	N	G	N	N
Mineral Oil.....	G	G	L	G	L	P	G	G	Dioxane.....	N	N	P	G	L	N	N
Nitrous Oxide (1).....	G	G	L	G	G	N	N	N	Ethyl acetate.....	P	L	G	G	L	P	G
Oxygen (1) .....	G	G	G	G	G	G	G	G	Ethyl alcohol (1) .....	L	G	G	L	G	G	G
Ozone, ambient .....	G	G	L	G	L	N	N	G	Ethyl ether.....	L	L	G	G	L	P	N
Paint, oil base.....	L	G	L	G	G	N	N	G	Ethylene glycol .....	G	G	G	G	G	N	N
Polyglycols.....	G	G	G	G	G	N	N	N	Formaldehyde .....	G	G	G	G	G	L	N
Potassium salts .....	G	G	G	G	G	N	G	N	Freon - 12' .....	L	L	G	G	L	N	G
Pydraul .....	P	P	P	G	N	N	N	N	Methyl alcohol .....	L	G	G	L	G	N	N
Pyridine .....	P	L	G	L	G	N	G	N	Methylene chloride .....	P	P	L	G	L	P	N
Salt Water.....	G	G	G	G	G	G	G	G	Methyl ethyl ketone .....	P	P	G	G	L	P	N
Silver Nitrate.....	G	G	G	G	G	G	G	N	Naphthas (2).....	P	G	P	G	L	P	G
Skydrol.....	P	P	P	G	N	N	N	N	Tolulene .....	P	G	P	G	L	P	N
Soap solution (conc.) .....	G	G	L	G	G	N	G	G	Triclorethylene.....	P	P	P	L	P	P	G
Sodium salts.....	G	G	G	G	G	N	G	G	Turpentine .....	G	G	P	G	L	P	G
Sodium thiosulphate.....	G	G	G	G	G	N	G	G	Xylene.....	P	G	P	G	L	P	N
Styrene .....	P	G	P	G	N	N	N	G	<b>HYDRAULIC FLUIDS:</b>							
Trisodium phosphate.....	G	G	N	G	G	N	N	G	Diester base grease.....	N	G	P	G	L	P	N
Ucon oil.....	G	G	G	G	N	N	N	N	Petroleum base grease.....	G	G	L	G	L	P	N
Urea.....	G	G	G	G	G	N	G	G	Phosphate ester.....	L	P	P	G	G	N	N
Vegetable oils (1).....	G	G	G	G	G	P	N	G	Polyol ester.....	P	N	P	G	G	N	N
Water at 730F.....	G	G	G	G	G	G	G	G	Water-glycol .....	G	G	G	G	G	N	N
Water at 1400F.....	L	G	G	G	G	G	G	G	SAE motor oils.....	G	G	G	G	G	N	N
Water at 1700F.....	P	L	N	L	G	P	N	G	Machine oil .....	G	G	L	G	L	N	N
Whiskey, wine (1).....	N	G	G	G	G	N	G	N	MIL-L-7808 H .....	G	G	L	G	G	N	N
Zinc Chloride .....	G	G	G	G	G	G	N	N	Brake Fluid.....	N	N	N	N	N	N	N



**TUBING**



**LINEAR LOW DENSITY POLYETHYLENE TUBING**



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.

**Features**

- Chemically Inert
- Chemical Resistant
- Lightweight & Flexible
- Good Dielectric Properties
- Impermeable to Gases
- Meets FDA Requirements
- Multiple Colors Available

**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

**Colors Available: Black=B ,Blue = U, Green = G, Red = R, Yellow = Y, Orange = O.**

*To order colors, delete the 9 prefix and add color suffix. For longer lengths, add length suffix.*

**100' LENGTH**

Part #	Tube O.D.	Tube Wall	Burst PSI	List Price
973-200	1/8"	0.020	400	21.40
973-201	5/32"	0.025	400	17.75
973-202	3/16"	0.030	400	24.34
973-203	1/4"	0.040	400	18.92
973-204	1/4"	0.062	800	25.91
973-205	5/16"	0.062	600	39.32
973-206	3/8"	0.062	400	39.52
973-207	1/2"	0.062	300	57.07
973-208	5/8"	0.062	250	71.81
973-211	3/4"	0.062	150	105.02
973-209	3/4"	0.094	200	130.54
973-210	1"	0.125	300	207.51

**500' LENGTH**

Part #	Tube O.D.	Tube Wall	Burst PSI	List Price
73-200N5	1/8"	0.020	400	93.79
73-203N5	1/4"	0.040	400	101.78
73-204N5	1/4"	0.062	800	134.95
73-206N5	3/8"	0.062	400	204.86
73-207N5	1/2"	0.062	300	280.81

**1000' LENGTH**

Part #	Tube O.D.	Tube Wall	Burst PSI	List Price
73-203N1	1/4"	0.040	400	198.28
73-204N1	1/4"	0.062	800	238.94
73-206N1	3/8"	0.062	400	389.67

## TUBING

### 100' BLACK POLYETHYLENE TUBING

Part #	O.D.	List Price
73-200B	1/8"	21.40
73-201B	5/32"	24.43
73-202B	3/16"	24.34
73-203B	1/4"	24.55
73-204B	1/4"	25.91
73-205B	5/16"	39.32
73-206B	3/8"	43.22
73-207B	1/2"	58.59
73-208B	5/8"	71.81

### 100' BLUE POLYETHYLENE TUBING

Part #	O.D.	List Price
73-200U	1/8"	21.40
73-201U	5/32"	24.43
73-202U	3/16"	24.34
73-203U	1/4"	24.55
73-204U	1/4"	25.91
73-205U	5/16"	39.32
73-206U	3/8"	43.22
73-207U	1/2"	58.59

### 100' GREEN POLYETHYLENE TUBING

Part #	O.D.	List Price
73-201G	5/32"	24.43
73-203G	1/4"	24.55
73-204G	1/4"	25.91
73-205G	5/16"	39.32
73-206G	3/8"	43.22
73-207G	1/2"	58.59

### 100' RED POLYETHYLENE TUBING

Part #	O.D.	List Price
73-203R	1/4"	24.55
73-205R	5/16"	39.32
73-206R	3/8"	43.22

### 100' WHITE POLYETHYLENE TUBING

Part #	O.D.	List Price
73-203W	1/4"	24.55
73-206W	3/8"	43.22
73-207W	1/2"	58.59

### 100' YELLOW POLYETHYLENE TUBING

Part #	O.D.	List Price
73-203Y	1/4"	24.55
73-205Y	5/16"	39.32
73-206Y	3/8"	43.22

### 100' ORANGE POLYETHYLENE TUBING

Part #	O.D.	List Price
73-203O	1/4"	24.55

### 100' GRAY POLYETHYLENE TUBING

Part #	O.D.	List Price
73-206A	3/8"	43.22

### 500' BLACK REEL

Part #	O.D.	List Price
73-203B5	1/4"	110.46
73-205B5	5/16"	170.89
73-206B5	3/8"	204.86
73-207B5	1/2"	280.81

### 500' BLUE REEL

Part #	O.D.	List Price
73-203U5	1/4"	101.78
73-206U5	3/8"	204.86

### 500' GREEN REEL

Part #	O.D.	List Price
73-203G5	1/4"	101.78

### 500' RED REEL

Part #	O.D.	List Price
73-203R5	1/4"	112.61

### 500' WHITE REEL

Part #	O.D.	List Price
73-207WS	1/2"	280.81

### 1000' BLACK REEL

Part #	O.D.	List Price
73-206B1	3/8"	389.67

### 1000' BLUE REEL

Part #	O.D.	List Price
73-203U1	1/4"	198.28

### 1000' GREEN REEL

Part #	O.D.	List Price
73-203G1	1/4"	198.28

### 1000' RED REEL

Part #	O.D.	List Price
73-203R1	1/4"	198.28

## PLASTIC TUBING

### POLYETHYLENE METRIC TUBING



Part #	MM O.D.	MM I.D.	Length meters	List Price
73-200M1	4	2.5	150	100.94
73-201M2	6	4	25	23.94
73-201M1	6	4	150	119.77
73-202M2	8	6	25	34.93
73-202M1	8	6	150	174.51
73-203M2	10	8	25	51.31
73-203M1	10	8	150	256.66

### NSF-61 CERTIFIED POLYETHYLENE TUBING

Exceeds FDA expectations with its NSF-61 Certification for drinking water applications. Manufactured from 100% non-toxic ingredients. Perfect for drinking water, beverage and food applications. With a complete range of sizes, colors and packaged lengths, is the perfect one stop shop tubing option. Include NSF-61 Certified plastic push-in fittings and complete your assembly needs.

- Water Purification
- Water Conditioners
- Ice Makers
- Misting systems

**Colors Available:**  
Black=B, Blue=U, Red=R,  
Yellow=Y, Orange=O.

Part #s are for 100' rolls  
Package Lengths:  
5=500', 1=1000'

*To order colors, delete the 9 prefix and add color suffix. For longer lengths, add length suffix.*

Part #	O.D.	List Price
973-212	1/4"	23.65
973-213	3/8"	49.40
973-214	1/2"	71.34



**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

**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

**Colors Available: Black=B ,Blue = U, Green = G, Red = R, Yellow = Y, Orange = O.**

*Part #'s shown are for natural. For colors, delete 9 prefix and add color. for 500' add a 5 suffix, for 1000' reels add a 1.*

**100' LENGTH**

Part #	Tube O.D.	Tube Wall	Burst PSI	List Price
973-230	1/8"	.017	400	25.90
973-231	5/32"	.025	400	35.00
973-229	3/16"	.024	400	49.97
973-232	1/4"	.035	400	74.20
973-238	1/4"	.040	800	98.15
973-239	1/4"	.062	600	132.25
973-226	5/16"	.040	400	125.41
973-233	3/8"	.050	300	154.00
973-234	1/2"	.062	250	273.00
973-235	5/8"	.062	150	405.24

**METRIC LENGTH - 25 METERS**

Part #	MM O.D.	MM I.D.	MM Wall	Burst PSI	List Price
973-323	4	2.3	0.85	1800	26.70
973-325	6	4	1	1200	55.50
973-327	8	6	1	800	79.50
973-329	10	8	1	600	108.00
973-332	12	10	1	480	129.00
973-334	14	12	1	950	204.00

**TUBING**



**PVC POLYVINYLCHLORIDE TUBING**

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

**Specifications**

Temperature Range: +25°F to +150°F  
 Hardness: Shore A 75 PVC  
 Meets FDA requirements  
 NSF 51 Certified to 100°F(38°C)  
 USP Class VI rated materials

**Applications**

- Beverage Dispensing
- Drain Tubing
- Potable Water
- Laboratory Tubing
- Wine Transfer
- Low Pressure Air Line
- Distilled Water Transfer
- Light Vacuum
- Wire Harness

**Colors Available: Clear**

**Package Lengths: 100'**

**100' LENGTH**

Part #	Tube I.D.	Tube O.D.	Tube Wall	Min. Burst	List Price
973-222	1/8	3/16	1/32	200	28.36
973-224	1/8	1/4	1/16	400	30.22
973-223	3/16	5/16	1/16	250	31.18
973-215	1/4	3/8	1/16	200	42.86
973-252	5/16	7/16	1/16	150	52.09
973-253	5/16	1/2	3/32	250	77.05
973-216	3/8	1/2	1/16	125	55.19
973-255	3/8"	5/8"	1/8"	250	128.50
973-262	3/8	9/16	3/32	200	102.82
973-217	1/2	5/8	1/16	100	105.83
973-219	3/4	1	1/8	120	188.65
973-221	1	1-1/4	1/8	100	283.51

**ALUMINUM TUBING**

Alloy 3003-0  
 ASTM B-483



Material to ASTM B-483

**COPPER TUBING**

ASTMB280



**POR**

**COPPER TUBING**

For residential water lines



**POR**

**ALUMINUM VERSATUBE 50' COILS**

Part #	O.D.	Wall Thick	50' Coils
972-190	1/8	.025	45.11
972-191	3/16	.028	57.93
972-192	1/4	.032	53.39
972-193	5/16	.035	75.14
972-194	3/8	.035	81.54
972-195	1/2	.035	121.70

**REFRIGERATION COPPER TUBE 50' COILS**

Part #	O.D Actual	Wt. 50' Coil	Wall Thick.
972-180	1/8	1.74	.030
972-181	3/16	2.88	.030
972-182	1/4	4.02	.030
972-183	5/16	5.45	.032
972-184	3/8	6.7	.032
972-185	1/2	9.1	.032
972-186	5/8	12.55	.035
972-187	3/4	15.25	.035

**TYPE L SOFT COPPER TUBING 60' COILS**

Part #	O.D Nom	Wt. 50' Coil	Wall Thick.
972-171	1/4	.126	.030
972-172	3/8	.198	.035
972-173	1/2	.285	.040

\* Add 1/8" to Nom OD to get the Actual OD

**POR = Price On Request**

**POLYURETHANE**



Polyurethane (PUR) tubing is made from the highest quality raw materials available. It is etherbased to provide excellent hydrolysis, oil and cold resistance. Polyurethane is strong and flexible and offers superior kink resistance compared to other tubing. It is 5 to 10 times more wear resistant and lighter in weight than any rubber hose.

Polyurethane tubing has an outside diameter made to extremely tight tolerances. It is ideal for use with push-to-connect fittings, as well as barb-type compression fittings for simple installation.

**Features**

- Strong
- Lightweight
- Flexible
- Abrasion Resistant
- Heat & Cold Resistant
- Chemical Resistant
- Meets NSF Requirement
- Kink Resistance

**Specifications**

Temperature Range: -40°F to +160°F  
 Hardness: Shore A 98  
 Vacuum Rating: To 28" Hg  
 Higher Flow Rates & Working Pressure  
 Tolerances: 1/8"-1/2" +/- .005  
 9/16"-3/4" +/- .006

**Applications**

Pneumatic Tools      Instrumentation  
 Pneumatic Piping    Agriculture  
 Vacuum                Ship Piping  
 Laboratories         Chemical Plant  
 Robotics                Lubrication Systems  
 Motion Control        Painting Systems

**Colors Available: Black=B ,Clear Blue = CB, Clear Green = CG, Green = G, Light Green = LG, Red = R, Yellow = Y, White = W.**

*Parts shown are for clear tubing. For colors delete the 9 prefix in part number add color suffix to the end of the part number. Add a 5 to the end of the part # to specify 500' or a 1 for 1000'.*

**100' LENGTH**

Part #	Tube O.D.	I.D.	List Price
973-340	1/8	1/16	36.40
973-341	5/32	3/32	42.77
973-342	3/16	1/8	47.46
973-343	1/4	1/8	75.95
973-345	3/8	1/4	155.12
973-346	1/2	3/8	276.26

**METRIC SIZES**

Part #	Tube O.D.	Tube I.D.	25 Meters
973-350	4	2.5	35.07
973-352	6	4	54.53
973-353	8	6	96.07

**TUBING**

**TUBING ACCESSORIES**

**MINI-TUBING CUTTER**

- Great for tight places



**TUBING CUTTER**

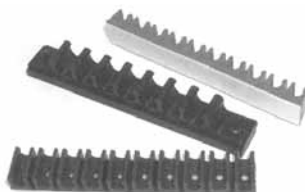


**PLASTIC TUBE CUTTER**

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")	5.54	990-570	1/8"-1-1/8"	9.69	91-707	Cutter w/Blade	8.17



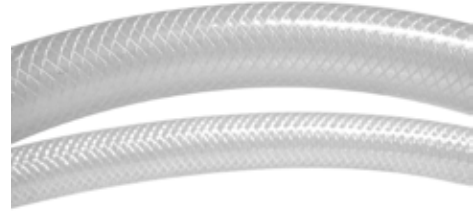
- Route and secure multiple tubing lines
  - Mounting versatility
    - Racks can be easily hand separated down to single holders.
    - Thru holes provided (all sizes)
  - Standard color is BLACK.
- Other colors available on special request.

**NOTE: MOUNTING SCREWS NOT PROVIDED**

Part #	Tubing OD	Description	Channels	List Price
28-988	1/4	non-adhesive	10	2.86
28-989	1/4	adhesive	10	3.84
28-990	3/8	non-adhesive	7	9.26
28-991	1/2	non-adhesive	5	8.82

## CLEARBRAID PVC HOSE ( FDA LISTED )

- **DESCRIPTION:** Food and beverage transfer hose
- **TUBE COMPOUND:** PVC
- **REINFORCEMENT:** 3 Polyester Spirals
- **COVER:** PVC Clear
- **TEMP. RANGE:** +25 to +150F / -5 to +65C°
- **APPLICATIONS:** Food and Beverage Transfer, General Industrial, Water Main and Water Feed Hoses, Air, Pneumatic Applications and Light Vacuum

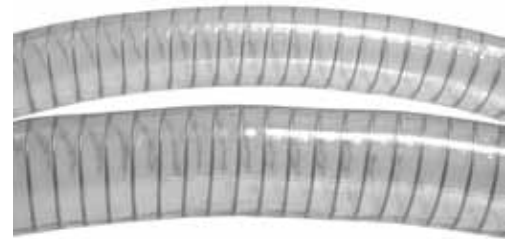


Part Number	ID	Length	Working Pressure	Burst Pressure	Weight	List Price
	Inch		PSI	PSI	Per/ft	
973-430	3/16	300'	250	1000	0.036	504.00
973-431	1/4	300'	250	1000	0.045	576.00
973-432	3/8	300'	225	900	0.09	774.00
973-433	1/2	300'	200	800	0.138	1044.00
973-434	3/4	300'	150	600	0.165	1638.00
973-435	1	200'	125	500	0.219	1644.00
973-436	1-1/4	100'	100	400	0.45	1392.00
973-437	1-1/2	100'	100	400	0.64	1746.00
973-438	2	100'	75	300	0.95	2610.00

## PVC WIRE VACUUM TRANSFER HOSE

CLEAR PVC WIRE REINFORCED VACUUM HOSE  
100' STANDARD LENGTHS

- **DESCRIPTION:** Potable and Pure Water Transfer Hose
- **TUBE COMPOUND:** PVC Clear
- **REINFORCEMENT:** Multiple Polyester Spirals
- **COVER:** UV Resistant Opaque Blue Flexible PVC
- **TEMP. RANGE:** -13 to +150F / -25 to +65C°
- **APPLICATIONS:** Potable and pure water transfer, temporary municipal water supply connections, bottled water plants, collection of water of analysis.



## 100' LENGTHS

Part Number	ID	OD	Working Pressure	Weight	List Price
	Inch	Inch	PSI	lb/ft	516.00
973-400	1/2	0.72	90	0.12	612.00
973-401	5/8	0.88	90	0.17	768.00
973-402	3/4	1.06	75	0.24	768.00
973-404	1	1.3	75	0.35	1080.00
973-405	1-1/4	1.62	60	0.44	1416.00
973-406	1-1/2	1.85	60	0.54	1974.00
973-407	2	2.36	60	0.85	2586.00

**GENERAL PURPOSE PVC HOSE**

- **150' LENGTHS**
- **TUBE:** Black PVC
- **REINFORCEMENT:** 2 Polyester Spirals
- **COVER:** PVC ( Red, Yellow, Blue and Black )
- **TEMP. RANGE:** +25 to +150F / -5 to +65C°
- **APPLICATIONS:** Air and water lines, light vacuum, mold machine water cooling, water soluble chemical spray.



*Parts shown are for black. For Blue add U to part #, Yellow add Y and red add R.*

Part #	ID	OD	Working Pressure	Burst Pressure	Weight	List Price
	Inch	Inch	PSI	PSI	lb/ft	
973-420	1/4	0.5	300	1200	0.084	342.00
973-421	5/16	0.562	300	1200	0.098	378.00
973-422	3/8	0.625	300	1200	0.113	432.00
973-423	1/2	0.75	300	1200	0.144	486.00
973-424	3/4	1.03	200	800	0.233	828.00
973-425	1	1.312	175	700	0.341	1116.00

**HEAVY DUTY PVC SPRAY HOSE**



- **HEAVY DUTY SPRAY HOSE 600PSI ( YELLOW ) AND 800PSI ( GREEN )**
- **5 PLY BONDED CONSTRUCTION**
- **SPECIALLY FORMULATED COMPOUND SUITABLE FOR HARSH FIELDWORK ENVIRONMENT**
- **SUPERB ABRASION RESISTANCE**
- **LONG LASTING FLEXIBILITY**
- **RESISTANT TO FUNGICIDES, INSECTICIDES, FERTILIZERS AND MORE**

**300' ROLLS**

Part #	ID	COLOR	WP	Weight Per/ft	List Price
973-450	3/8"	Yellow	600PSI	0.12	1278.00
973-451	1/2"	Yellow	600 PSI	0.18	1782.00
973-460	3/8"	Green	800 PSI		1296.00
973-461	1/2"	Green	800 PSI		1800.00

**1/4" BASIC SIZE**

**UNIVERSAL SERIES COUPLERS**

**1/4" BASIC SIZE**

**For ARO, TRU-FLATE, INDUSTRIAL INTERCHANGE**

**1/4" BASIC SIZE**

- Automatic Coupler
- Brass body, NBR Seal, Stainless Steel spring, Steel locking balls.
- Good for low pressure fluid lines.

**Working range:**

Maximum operating Pressure  
To 220 psi

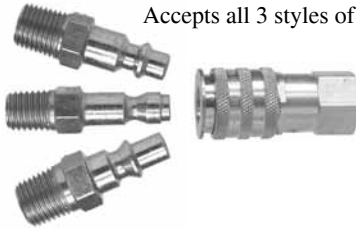
**Temperature:** -4° to +176°F

Industrial

Accepts all 3 styles of plugs!

Parker

ARO



**MALE COUPLER**

**FEMALE COUPLER**

**HOSE BARB COUPLER**



**BRASS**



**BRASS**



**BRASS**

Part #	Size	List Price
28-579	1/4" NPTF	9.15
28-589	3/8" NPTF	8.80

Part #	Size	List Price
28-560	1/4" NPTF	11.82

Part #	Hose I.D. Size	List Price
28-690	1/4"	10.61
28-691	3/8"	9.97

**1/4" BASIC SIZE**

**INDUSTRIAL INTERCHANGE**

**1/4" BASIC SIZE**

**Specifications**

Body Size (in.)	1/4
Rated Pressure (PSI)	250
Temperature Range	-4° to +176°

- Sleeve type couplings are widely used to connect compressed air and low pressure fluid lines.

Their compact and economical design uses a ball locking mechanism consisting of captive steel balls that engage the locking groove on the mating nipple. The sliding spring loaded sleeve on the coupler must be manually retracted in order to connect or disconnect the nipple. It is easy to do, but two hands are normally required.

**Common applications include:** compressed air, water, grease, paint, limited vacuum and limited gases.

- The standard is a brass coupler and valve with steel locking balls, NBR seat, and stainless steel springs.

**MALE PIPE COUPLER**

**BRASS**



Part #	NPT Size	List Price
28-552	1/4"	6.20
28-553	3/8"	6.97

**STEEL**

28552S	1/4"	4.73
28553S	3/8"	5.00

**MALE PLUG**

**STEEL**



Part #	NPT Size	List Price
28-545	1/8	1.50
28-546	1/4	1.29
28-547	3/8	2.08

**360° TURNING SWIVEL PLUG**

1/4" Basic size

Industrial Interchange Plug

•360° Turning

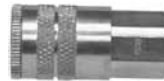
•Swivels



Part #	Size	List Price
320-065	1/4"	10.01

**FEMALE PIPE COUPLER**

**BRASS**



Part #	NPT Size	List Price
28-540 <sup>3,5</sup>	1/4"	6.56
28-541 <sup>5</sup>	3/8"	7.08

**STEEL**

28540S	1/4"	4.85
28541S	3/8"	5.20

**FEMALE PLUG**

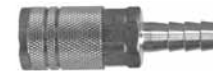
**STEEL**



Part #	NPT Size	List Price
28-533	1/8"	1.28
28-534	1/4"	1.15
28-535	3/8"	2.20

**HOSE ID COUPLER**

**BRASS**



Part #	Hose ID	List Price
28-562	1/4"	8.10
28-564	3/8"	8.54
28-565	1/4(Push on)	9.10
28-566	3/8(Push on)	9.87

**STEEL**

28-562S	1/4"	5.00
28-564S	3/8"	5.23
28-565S	1/4(Push on)	5.20
28-566S	3/8(Push on)	5.67

**HOSE ID PLUG**

**STEEL**



Part #	NPT Size	List Price
28-557	1/4"	1.24
28-559	3/8"	1.50
28-558	1/4(Push on)	1.62
28-561	3/8(Push on)	1.78





# QUICK DISCONNECTS

# PNEUMATIC ACCESSORIES

3/8" BASIC SIZE

INDUSTRIAL INTERCHANGE

3/8" BASIC SIZE

**Specifications**

Body Size (in.)	3/8
Rated Pressure (PSI)	250
Temperature Range	-4° to +176°

• Sleeve type couplings are widely used to connect compressed air and low pressure fluid lines.

Their compact and economical design uses a ball locking mechanism consisting of captive steel balls that engage the locking groove on the mating nipple. The sliding spring loaded sleeve on the coupler must be manually retracted in order to connect or disconnect the nipple. It is easy to do, but two hands are normally required.

**Common applications include:** compressed air, water, grease, paint, limited vacuum and limited gases.

- The standard is a Steel coupler with a Steel valve, NBR seat, and stainless steel springs. Brass coupler avail. on request.
- 3/8" Basic size.

**MALE COUPLER  
STEEL**



Part #	NPT Size	List Price
98-823	1/4"	9.36
98-824	3/8"	11.15
98-825	1/2"	14.00

**FEMALE COUPLER  
STEEL**



Part #	NPT Size	List Price
98-810	1/4"	10.40
98-811	3/8"	10.40
98-812	1/2"	11.61

**HOSE ID COUPLER  
STEEL**



Part #	NPT Size	List Price
98-840	1/4"	13.14
98-841	3/8"	13.30
98-842	3/8" (Push on)	13.55

**MALE PLUG  
STEEL**



Part #	NPT Size	List Price
98-814	1/4"	2.42
98-815	3/8"	2.69

**FEMALE PLUG  
STEEL**



Part #	NPT Size	List Price
98-801	1/4"	1.74
98-802	3/8"	2.37

**HOSE ID PLUG  
STEEL**



Part #	Hose I.D. Size	List Price
98-828	3/8"	3.59
98-830	3/8" (Push on)	3.78

1/4" BASIC SIZE

PARKER INTERCHANGE (TRU-FLATE)

1/4" BASIC SIZE

**Specifications**

Body Size (in.)	1/4
Rated Pressure (PSI)	250
Temperature Range	-4° to +176°

• The standard is a brass coupler and valve with steel locking balls, NBR seat, and stainless steel springs.

• Unique design has been field proven as a long lasting, high performance coupling especially when used with pneumatic tools.

• Marval connect and disconnect.

**MALE PIPE COUPLER**

BRASS



Part #	NPT Size	List Price
28-515	1/8"	15.52
28-516	1/4"	7.10
28-517	3/8"	15.67

**FEMALE PIPE COUPLER**

BRASS



Part #	NPT Size	List Price
28-506	1/8"	16.79
28-507	1/4"	7.14
28-508	3/8"	15.18

**HOSE ID COUPLER**

BRASS



Part #	Size	List Price
28-528	1/4"	18.04
28-530	3/8"	17.32
28-531	1/4" (Push on)	15.89
28-532	3/8" (Push on)	16.10

**MALE PLUG  
STEEL**



Part #	NPT Size	List Price
28-509	1/8"	1.67
28-510	1/4"	1.24
28-511	3/8"	2.37

**FEMALE PLUG  
STEEL**



Part #	NPT Size	List Price
28-500	1/8"	4.31
28-501	1/4"	1.39
28-502	3/8"	2.29

**HOSE ID PLUG  
STEEL**

STEEL



Part #	Size	List Price
28-518	1/4"	1.68
28-520	3/8"	6.17
28-521	1/4" (Push on)	11.46
28-522	3/8" (Push on)	12.18

PNEUMATICS



**1/4" BASIC SIZE**

**ARO 210 INTERCHANGE**

**1/4" BASIC SIZE**

**Specifications**

Body Size (in.)	1/4
Rated Pressure (PSI)	250
Temperature Range	-4° to +176°

- Brass bodies and valves, steel locking balls, NBR seat, and stainless steel springs.
- Couplings have a full opening tubular valve for maximum flow and a built-in sleeve guard to minimize accidental disconnect.
- Marval connect and disconnect.

**MALE PIPE COUPLER**

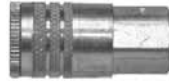
**BRASS**



Part #	NPT Size	List Price
28-592	1/8"	18.52
28-593	1/4"	8.56
28-594	3/8"	12.40

**FEMALE PIPE COUPLER**

**BRASS**



Part #	NPT Size	List Price
28-583	1/8"	14.46
28-584	1/4"	8.16
28-585	3/8"	22.53

**HOSE ID COUPLER**

**BRASS**



Part #	Size	List Price
28-601	1/4"	9.10
28-603	3/8"	11.62

**MALE PLUG**

**STEEL**



Part #	NPT Size	List Price
28-586	1/8"	3.53
28-587	1/4"	1.58

**FEMALE PLUG**

**STEEL**



Part #	NPT Size	List Price
28-577	1/8"	4.56
28-578	1/4"	1.85

**HOSE ID PLUG**

**STEEL**



Part #	Size	List Price
28-595	1/4"	3.53
28-597	3/8"	6.78

**ST SERIES...HIGH FLOW**

**Specifications**

Brass - Coupler & Steel Plug		
Temperature Range	-40° to 250°	
Rated Pressure	4650	2350

**MALE PIPE COUPLER**

**BRASS**



Part #	Body & Thread Size	List Price
28-667	1/8"	18.75
28-665	1/4"	12.95
28-666	3/8"	14.92
28-668	1/2"	17.54
28-669	3/4"	43.98
28-670	1"	68.52

**FEMALE PIPE COUPLER**

**BRASS**



Part #	Body & Thread Size	List Price
28-671	1/8"	11.54
28-651	1/4"	12.71
28-652	3/8"	13.96
28-672	1/2"	21.96
28-673	3/4"	37.42
28-674	1"	52.34

**MALE PLUG**

**STEEL**



Part #	Size	List Price
28-675	1/8"	6.12
28-639	1/4"	5.95
28-640	3/8"	4.35
28-676	1/2"	5.17
28-677	3/4"	15.81
28-678	1"	32.25

**FEMALE PLUG**

**STEEL**



Part #	Size	List Price
28-688	1/8"	4.90
28-619	1/4"	6.29
28-620	3/8"	4.80
28-679	1/2"	6.16
28-680	3/4"	15.58
28-681	1"	39.98

- Non-valved couplings for applications where maximum flow is required. Ideal for applications such as high pressure water and steam washers, carpet cleaners and mold coolant lines. They are often used in food processing, on fluid and dye transfer lines.

- Standard seals are Buna-N (Nitrile).

PNEUMATICS



**MINI TYPE QUICK DISCONNECTS**

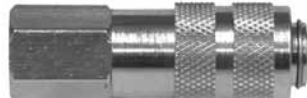
Working Range: 0-145 psi  
Material: Chrome Plated Brass

**MALE COUPLER**



Part #	Size	List Price
28-605	1/8"	6.86

**FEMALE COUPLER**



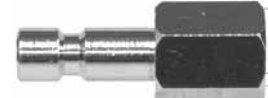
Part #	Size	List Price
28-606	1/8"	6.86

**MALE PLUG**



Part #	Size	List Price
28-607	1/8"	2.30

**FEMALE PLUG**



Part #	Size	List Price
28-608	1/8"	1.89

**LINCOLN INTERCHANGE**

• 1/4" Basic Size

**Specifications**

Body Size (in.)	1/4
Rated Pressure (PSI)	250
Temperature Range	-40° to +250°

• Brass body with steel sleeve and backnut. Valve material is Acetal and seal is Nitrile.

**MALE PIPE COUPLER**



Part #	Size	List Price
28-682	1/8"	24.13
28-683	1/4"	21.36

**FEMALE PIPE COUPLER**



Part #	Size	List Price
28-684	1/4"	26.11

**MALE PLUG**

Steel



Part #	Size	List Price
28-685	1/8"	5.43
28-686	1/4"	4.56

**FEMALE PLUG**

Steel



Part #	Size	List Price
28-687	1/4"	4.56

**MOLD COOLANT-LINE QUICK COUPLERS**

**OPERATING PRESSURE:**

200 PSIG (14.06 Kg/sq. cm)

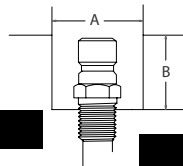
**Standard Seal:**

**SILICONE:** -90°F to 400°F (-68°C to +205°C)

• Coolant couplers are engineered for optimum speed and performance in connecting coolant lines to molds used for thermoplastic, thermosetting, blow molding, diecasting and on other types of tooling and equipment utilizing a constant fluid flow pumped through cooling channels.



BRASS



STEEL

**MALE PLUG (BRASS)**

**1/4" BASIC SIZE**

Part #	Size	A	B	List Price
29-900	1/8"	0.69	0.69	2.00
29-901	1/4"	0.84	0.94	2.73
29-902	3/8"	1.00	0.97	2.90

**3/8" BASIC SIZE**

Part #	Size	A	B	List Price
29-906	1/4"	1.00	0.94	3.11
29-907	3/8"	1.00	1.13	3.37
29-908	1/2"	1.81	1.25	6.05

**1/2" BASIC SIZE**

Part #	Size	A	B	List Price
29-911	1/2"	1.25	1.50	8.56
29-912	3/4"	1.50	1.56	13.17

**FEMALE PLUG (STEEL)**

**1/4" BASIC SIZE**

Part #	Size	List Price
29-903	1/8"	2.77
29-904	1/4"	2.94
29-905	3/8"	4.44

**3/8" BASIC SIZE**

Part #	Size	List Price
29-909	1/4"	3.67
29-910	3/8"	4.96

**1/2" BASIC SIZE**

Part #	Size	List Price
29-913	1/2"	11.76
29-914	3/4"	21.99

**MOLD COOLANT-LINE QUICK COUPLERS**

D-M-E, PARKER and FOSTER INTERCHANGE

**Straight Stem**



**90° Stem**



**45° Stem**



**Body Only**



**1/4" BASIC SIZE, BRASS**

**STRAIGHT THROUGH (Non-Valved)**

Hose ID Size	Straight Stem		90° Stem		45° Stem		Body Only	
	Part #	List Price	Part #	List Price	Part #	List Price	Part #	List Price
1/4"	98-915	14.36	98-920	21.01	98-925	20.30	98-930	12.69
1/4" (Push On)	98-916	14.67	98-921	21.99	98-926	21.99	(1/8" Female Pipe)	
5/16"	98-917	14.36	98-922	21.01	98-927	21.01		
3/8"	98-918	13.48	98-923	19.29	98-928	20.30		
3/8" (Push On)	98-919	17.48	98-924	22.25	98-929	22.25		

**1/4" BASIC SIZE, BRASS**

**VALVED**

Hose ID Size	Straight Stem		90° Stem		45° Stem		Body Only	
	Part #	List Price	Part #	List Price	Part #	List Price	Part #	List Price
1/4"	98-931	21.44	98-936	27.64	98-941	27.93	98-946	20.82
1/4" (Push On)	98-932	24.27	98-937	28.55	98-942	28.64	(1/8" Female Pipe)	
5/16"	98-933	22.86	98-938	27.64	98-943	27.93		
3/8"	98-934	23.66	98-939	27.64	98-944	27.93		
3/8" (Push On)	98-935	25.00	98-940	28.99	98-945	28.99		

**3/8" BASIC SIZE, BRASS**

**STRAIGHT THROUGH (Non-Valved)**

Hose ID Size	Straight Stem		90° Stem		45° Stem		Body Only	
	Part #	List Price	Part #	List Price	Part #	List Price	Part #	List Price
3/8"	98-947	25.69	98-952	27.49	98-957	27.49	98-962	18.47
3/8" (Push On)	98-948	19.57	98-953	26.98	98-958	30.21	(1/4" Female Pipe)	
1/2"	98-949	19.94	98-954	24.63	98-959	27.49	98-986	18.00
1/2" (Push On)	98-951	23.66	98-956	23.66	98-961	30.21		

**3/8" BASIC SIZE, BRASS**

**VALVED**

Hose ID Size	Straight Stem		90° Stem		45° Stem		Body Only	
	Part #	List Price	Part #	List Price	Part #	List Price	Part #	List Price
3/8"	98-963	32.44	98-967	37.09	98-971	41.29	98-975	27.93
3/8" (Push On)	98-964	32.44	98-968	42.35	98-972	43.26	(1/4" Female Pipe)	
1/2"	98-965	27.81	98-969	40.95	98-973	41.29		

**1/2" BASIC SIZE, BRASS**

**STRAIGHT THROUGH (Non-Valved)**

Hose ID Size	Straight Stem		90° Stem		45° Stem		Body Only	
	Part #	List Price	Part #	List Price	Part #	List Price	Part #	List Price
1/2"	98-976	50.34	98-979	64.12	98-982	73.02	98-985	45.28
1/2" (Push On)	98-977	50.59	98-980	65.92	98-983	74.97	(1/2" Female Pipe)	
3/4"	98-978	47.85	98-981	66.11	98-984	75.41		

PNEUMATICS



# QUICK DISCONNECT

# HYDRAULIC COUPLINGS

THREAD TO CONNECT, DRYBREAK NO-SPILL QUICK CONNECT - 3000 PSI MAX



- Brass Body
- Steel Wing Nut
- Buna-Seal ( -40° to +250°F)

Aeroquip S100  
Parker 6100  
Snaptite B78



- Bonded Face Seal
- External ORing ensures Full Connection

Part #	Body Size	Female NPT	List Price
61-150	3/4	1/2	70.29

Part #	Body Size	NPT	List Price
61-050	3/4	1/2	65.76

\* More sizes available, just ask.

## FEATURES

- 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



## FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
ANV-14-F	1/4"	1/4"	10.99
ANV-38-F	3/8"	3/8"	11.75
ANV-12-F	1/2"	1/2"	13.69
ANV-34-F	3/4"	3/4"	33.06
ANV-1-F	1"	1"	42.86

ISO 7241-1 ISO-A Interchange ( Connected )				
Body Size	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
1-1/4"	3,000	200	12,600	850
1-1/2"	3,000	200	12,600	850
2"	1,450	100	5,800	400



## FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
ANV-14-M	1/4"	1/4"	5.95
ANV-38-M	3/8"	3/8"	6.39
ANV-12-M	1/2"	1/2"	7.34
ANV-34-M	3/4"	3/4"	17.94
ANV-1-M	1"	1"	20.28

## INTERCHANGE DATA:

- Parker 6600, Aeroquip/ Eaton FD56, Dixon 'K' Series.
- Hansen HA 15000, Safeway S56

PNEUMATICS

ISO 7241-1 Series B ISO-B Interchange ( Connected )								
Body Size	Steel Coupler/ Plug				Brass Coupler/ Plug			
	Max. Working		Burst		Max. Working		Burst	
	PSI	Bar	PSI	Bar	PSI	Bar	PSI	Bar
1/8"	4,000	275	14,500	1,000	3,000	200	16,500	1,100
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



SUFFIX 'B' = BRASS MATERIAL

## FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
HNV-14-F	1/4"	1/4"	13.06
HNV-14-F-B	1/4"	1/4"	19.05
HNV-38-F	3/8"	3/8"	12.18
HNV-38-F-B	3/8"	3/8"	26.47
HNV-12-F	1/2"	1/2"	15.92
HNV-12-F-B	1/2"	1/2"	34.77
HNV-34-F	3/4"	3/4"	34.33
HNV-34-F-B	3/4"	3/4"	48.29
HNV-1-F	1"	1"	58.87
HNV-1-F-B	1"	1"	93.25

## PLUG

Part #	Body Size	NPT	List Price
HNV-14-M	1/4"	1/4"	6.80
HNV-14-M-B	1/4"	1/4"	9.01
HNV-38-M	3/8"	3/8"	6.39
HNV-38-M-B	3/8"	3/8"	13.33
HNV-12-M	1/2"	1/2"	7.26
HNV-12-M-B	1/2"	1/2"	15.72
HNV-34-M	3/4"	3/4"	17.94
HNV-34-M-B	3/4"	3/4"	26.71
HNV-1-M	1"	1"	23.63
HNV-1-M-B	1"	1"	40.95

Body Size	<b>FLUSH FACE</b>			
	<i>Steel Coupler/ Plug Coupled</i>			
	<i>Maximum Working</i>		<i>Burst</i>	
	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

**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.

FF Series  
HTMC  
74C



**FEMALE PIPE COUPLER**

Part #	Body Size	NPT	List Price
FF-14-F	1/4"	1/4"	46.21
FF-38-F	3/8"	3/8"	55.87
FF-12-F	1/2"	1/2"	80.59
FF-34-F	3/4"	3/4"	148.57
FF-1-F	1"	1"	234.48

FF Series  
HTMN  
74N



**PLUG**

Part #	Body Size	NPT	List Price
FF-14-M	1/4"	1/4"	23.09
FF-38-M	3/8"	3/8"	23.71
FF-12-M	1/2"	1/2"	37.28
FF-34-M	3/4"	3/4"	67.68
FF-1-M	1"	1"	145.38

Nominal Size	<b>AG - Series Agricultural Interchange ( Connected )</b>			
	<i>Steel Coupler/ Plug</i>			
	<i>Maximum Working</i>		<i>Burst</i>	
	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

**FEATURES**

- Heavy duty heat treated poppet: valves are standard with rugged, specially-designed seals made of nitrile 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

**Snap-Tite 60 Series**



**FEMALE PIPE COUPLER**

Part #	Body Size	NPT	List Price
NV-14-F	1/4"	1/4"	24.08
NV-38-F	3/8"	3/8"	35.69
NV-12-F	1/2"	1/2"	30.10
NV-34-F	3/4"	3/4"	71.29
NV-1-F	1"	1"	72.80



**PLUG**

Part #	Body Size	NPT	List Price
NV-14-M	1/4"	1/4"	11.61
NV-38-M	3/8"	3/8"	19.92
NV-12-M	1/2"	1/2"	13.64
NV-34-M	3/4"	3/4"	36.64
NV-1-M	1"	1"	36.64

PNEUMATICS



# PNEUMATICS

# PNEUMATIC ACCESSORIES

## BRASS MUFFLERS



**Materials:**  
**Body: Brass**  
**Element: Sintered Bronze**  
**Max Operating Pressure: 300PSI**  
**Temperature: 35° to 300°F**

Part #	Size	List Price
300-020	10/32"	1.54
300-021	1/8"	2.31
300-022	1/4"	3.65
300-023	3/8"	4.90
300-024	1/2"	7.36
300-026	3/4"	14.70
300-028	1"	39.95

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
300-031	10-32 NF	16.50
300-032	1/8"	16.50
300-033	1/4"	16.77
300-034	3/8"	20.84
300-035	1/2"	26.68
300-036	3/4"	83.34
300-037	1"	110.02

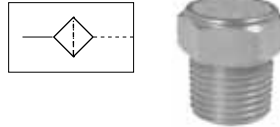
## BRASS BREATHER VENT



**Materials:**  
**Body: Brass**  
**Element: Sintered Bronze**  
**Max Operating Pressure: 150PSI**  
**Temperature: 35° to 300°F**  
 40 Micron element

Part #	Size	List Price
300-000	10-32"	2.75
300-001	1/8"	2.19
300-002	1/4"	3.23
300-003	3/8"	3.98
300-004	1/2"	5.34
300-006	3/4"	14.87
300-008	1"	27.12

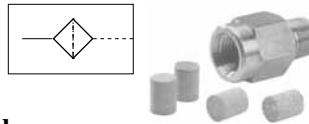
## STAINLESS BREATHER VENT



**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"	9.11
300-015	1/4"	14.23
300-017	3/8"	19.30
300-018	1/2"	27.02
300-019	3/4"	65.46
300-007	1"	84.21

## PRESSURE SNUBBER



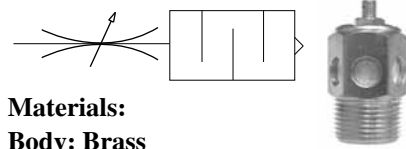
**Materials:**  
**Body: Brass**  
**Element: Sintered Bronze**  
**Max Operating Pressure: 9000PSI**  
**Temperature: 35° to 300°F**

Part #	Size	Porosity	List Price
28-354	1/4"	40 um	14.26
28-353	1/4"	30 um	14.76
28-352	1/4"	25 um	13.59
28-351	1/4"	20 um	14.76
28-350	1/4"	10 um	13.29

Part #	Size	Porosity	List Price
28-359	3/8"	40 um	14.76
28-358	3/8"	30 um	14.26
28-357	3/8"	25 um	13.58
28-356	3/8"	20 um	14.76
28-355	3/8"	10 um	14.76

Recommended Element Porosity Rating		
Porosity Rating	Color Code	Recommended Application
40 um	None	Viscous Fluids (over 500 ssu)
30 um	Black	Med. Type Oils (225 to 500 ssu)
25 um	Brown	Water & L.T. Oils (30 to 25 ssu)
20 um	Green	Low Viscosity Fluids (under 30 ssu)
10 um	Red	
5 um	Purple	Air and Other Gases

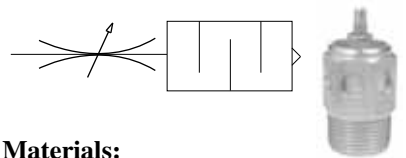
## SPEED CONTROL VALVE



**Materials:**  
**Body: Brass**  
**Element: 40 Micron Sintered Bronze**  
**Max Operating Pressure: 300PSI**  
**Temperature: 35° to 300°F**

Part #	Size	List Price
940-800	1/8"	8.22
940-801	1/4"	9.66
940-803	3/8"	12.44
940-804	1/2"	17.62
940-805	3/4"	32.52
940-806	1"	52.83

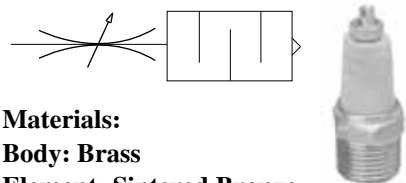
## STAINLESS SPEED CONTROL VALVE



**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"	43.93
940-811	1/4"	48.26
940-812	3/8"	52.78
940-813	1/2"	69.10
940-814	3/4"	99.14
940-815	1"	134.90

## 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"	6.49
28-380	1/4"	8.53
28-381	3/8"	11.31
28-382	1/2"	13.27

PNEUMATICS



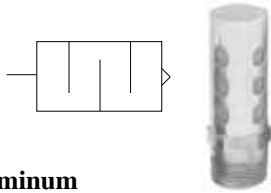
**GLOBAL HOSE**  
 & INDUSTRIAL SALES CO

Phone: 1-888-504-2620

www.global-hose.com



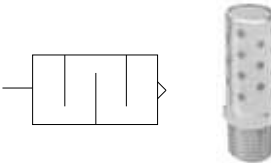
**HIGH FLOW ALUMINUM MUFFLER**



**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"	12.40
940-823	1/4"	5.77
940-824	3/8"	7.83
940-825	1/2"	9.15
940-826	3/4"	16.47
940-827	1"	19.39

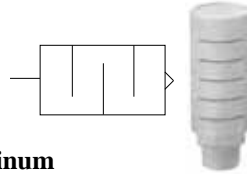
**HIGH FLOW STEEL MUFFLER**



**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"	5.55
28-374	1/4"	6.00
28-375	3/8"	8.40
28-376	1/2"	11.38
28-377	3/4"	18.38
28-378	1"	21.57

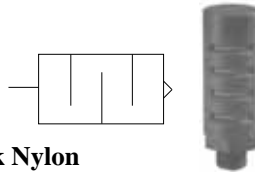
**ALUMINUM HIGH FLOW MUFFLER**



**Materials:**  
**Body: Aluminum**  
**Element: 50 Mesh Stainless Steel**  
**Max Operating Pressure: 300PSI**  
**Temperature: 35° to 160°F**

Part #	Size	List Price
28-367	1/8"	15.82
28-368	1/4"	15.82
28-369	3/8"	23.16
28-370	1/2"	23.16
28-371	3/4"	47.13
28-372	1"	47.13

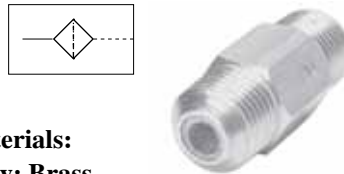
**PLASTIC HIGH FLOW MUFFLER**



**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"	6.89
28-364	1/4"	6.56
28-365	3/8"	13.66
28-366	1/2"	13.66

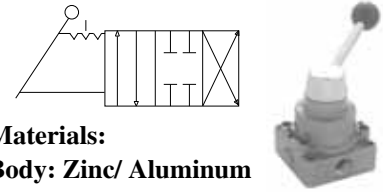
**NIPPLE INLINE FILTER**



**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"	12.88
940-846	1/4"	12.31
940-847	3/8"	19.25
940-848	1/2"	18.53

**SLIDING HAND VALVES**



**Materials:**  
**Body: Zinc/ Aluminum**  
**Cover: Zinc**  
**Rotary Disk: Teflon**  
**Pressure Range: 0 to 140PSI**  
**Proof Pressure: 213 PSI**  
**Temperature: 41°F to 140°F**  
**Media: Air**  
**Valve Function: 4-Way, 3 Position**  
**Operation Method: Manually operated 90°, Rotary Disk, Direct-Acting type**

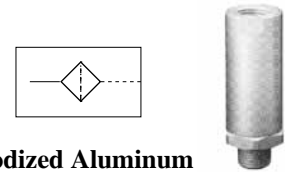
**Body: Zinc**

Part #	Size	List Price
28-360	1/4"	138.48

**Body: Aluminum**

28-361	3/8"	130.87
28-362	1/2"	150.53

**REPAIRABLE AIR/ OIL INLINE FILTER**



**Materials:**  
**Body: Anodized Aluminum**  
**Element: 40 Micron Sintered Bronze**  
**Max Operating Pressure: 300PSI**  
**Temperature: 35° to 200°F**

Part #	Size	List Price
940-840	1/8"	16.85
940-841	1/4"	16.85
940-842	3/8"	26.67
940-843	1/2"	62.34
940-844	3/4"	62.34

If the lessons of history teach us anything it is that nobody learns the lessons that history teaches us.

- Anon.





# MANIFOLDS

# PNEUMATIC ACCESSORIES

## Materials:

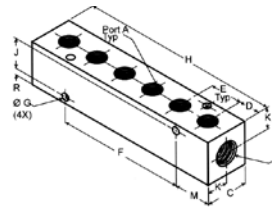
Aluminum with black anodizing for corrosion resistance.

## Specifications:

Max Operating Pressure: 1000PSI

Temperature: -10° to 200°F

Media: Air and liquids compatible with materials of construction.



## RIGHT ANGLE MANIFOLD

## THREADED PORTS

Part #	Ports	List Price	A NPT	B NPT	C	D	E	F	G	H	J	K	M	R	Part #	List Price
28-448	2	36.46	1/8"	1/4"	1.00	0.50	0.75	N/A	0.17	1.75	0.70	0.50	0.88	0.15	28-448R	36.46
28-449	3	40.90						0.75		2.50					28-449R	40.90
28-450	4	17.52						1.5		3.25					28-450R	61.66
28-451	5	48.13						2.25		4.00					28-451R	48.13
28-452	6	46.95						3.00		4.75					28-452R	45.21
28-453	7	53.75						3.75		5.50					28-453R	65.28
28-454	8	56.53						4.50		6.25					28-454R	45.21
28-455	9	58.61						5.25		7.00					28-455R	48.61
28-456	10	23.60						6.00		7.75					28-456R	67.51
28-457	2	15.97						1/4"		3/8"					1.25	0.63
28-458	3	17.39	0.88	3.00	28-458R	49.66										
28-459	4	18.65	1.75	3.88	28-459R	70.13										
28-460	5	20.07	2.63	4.75	28-460R	45.08										
28-461	6	21.35	3.50	5.63	28-461R	52.86										
28-462	7	22.61	4.38	6.50	28-462R	75.08										
28-463	8	23.88	5.25	7.38	28-463R	51.60										
28-464	9	24.88	6.13	8.25	28-464R	55.93										
28-465	10	25.72	7.00	9.13	28-465R	84.34										
28-466	2	61.26	3/8"	3/8"	1.25	1.00	1.13		N/A		0.20	3.13	0.89	0.63		
28-467	3	26.29						1.13	4.25	28-467R		81.11				
28-468	4	27.71						2.25	5.38	28-468R		103.24				
28-469	5	28.97						3.38	6.50	28-469R		57.45				
28-470	6	30.53						4.50	7.63	28-470R		84.82				
28-471	7	92.95						5.63	8.75	28-471R		105.55				
28-472	8	101.14						6.75	9.88	28-472R		58.14				
28-473	9	103.40						7.88	N/A	28-473R		63.53				
28-474	10	120.98						9.00	N/A	28-474R		107.93				

## 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.

S685-4		D3406
S685-6		D3408
S685-8		3104
D3404		3106

Part #	Size	List Price
320-120	1/4" Inlet	8.93
320-121	3/8" Inlet	25.45
320-122	1/2" Inlet	38.22
three 1/4" Outlets		

## SAFETY BLOW GUN

- N/P steel handle with plastic sleeve
  - Brass Valve
  - Zinc body
  - Aluminum nozzle
- 90 PSI**
- 20430AD  
5114 S148  
51-124 D204-30  
401 6475

1/8" Outlet

Part #	Size	List Price
320-050	1/4" Inlet	7.67

## PISTOL GRIP BLO-GUN

### Material

- Body: POM (engineering plastic)
- Nozzle: nickel plated carbon steel

### Features

- Simple construction, economic
- Global thread connection
- Durable and versatile applications
- 4 inch nozzle

150 PSI



Part #	Size	List Price
320-035	1/4"	8.11

## RUBBER TIPPED NOZZLE



51-521  
2058  
D201RT  
411R

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	8.56

## HIGH FLOW SAFETY NOZZLE



51-338  
SST10  
411BT  
2056

Meets OSHA regulations of 30 PSI maximum outlet pressure when line pressure is 150 PSI or less. Has an air pressure bypass which prevent build up of tip pressure even if nozzle is blocked. Adapts to any blow gun with a 1/8" NPT nozzle port

Part #	List Price
320-075	2.32

PNEUMATICS

**MULTI-PURPOSE AIR VENT**



705

Part #	Size	List Price
46-048	1/8"	2.99

**BRASS BICYCLE PUMP FITTING**

Screw on swivel chuck for most hand operated tire pumps.

Buna-N-Seal • Deflator



Part #	Size	List Price
32-782	3/16"	2.88

**INFLATOR**



Part #	Size	List Price
32-783	3/16"	3.17

**360° Turning Swivel Fitting**

1/4" Basic size Industrial Interchange Plug

•360° Turning  
•Swivels



Part #	Size	List Price
320-065	1/4"	10.01

**SWIVEL FITTING**

•360° Turning  
•Swivels

**Male NPT x Female NPT**



Part #	Size	List Price
320-061	1/4"	9.99

**AIR CHUCKS**

**HEX BALL FOOT CHUCK**



Part #	Size	List Price
46-600	1/4 FPT Live	3.07

**BALL FOOT CHUCK WITH 1/4 I.D. HOSE BARB**



Part #	Size	List Price
46-607	1/4 ID Live Air	3.14

**DUAL FOOT CHUCKS**

6999	DTC-02	99941
693		50-065
108		6569



Part #	List Price
320-000	29.21

**ANGLE CHUCK**



690  
6172

Part #	List Price
320-005	9.53

**TANK & VENT VALVES**

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 CORD**

Thread - .302 x 32 w/ Black cap



7/16" Hex

Part #	Size	List Price
46-620	REGULAR	5.83

**1/8" NPT 1.207" LONG SPRING CORD**

7/16" Hex w/ Black cap



Part #	Size	List Price
46-621	REGULAR	5.24

**1/4" NPT 1" LONG SPRING CORD**

9/16" Hex w/ Black cap



Part #	Size	List Price
46-622	REGULAR	7.45

**TANK VALVE ACCESSORIES**

**BLACK PLASTIC CAP**

No Gasket



Part #	List Price
46-630	0.20

**SHORT NICKEL PLATED DOME CAP**



Dome skirted type

Part #	List Price
46-631	1.04



**INTEGRAL FILTER REGULATOR**

- Combines air filter and pressure regulator into one compact unit.
- Non-rising, push-lock pressure adjustment knob provides easy hand adjustment at any pressure.
- Adjustment knob can be removed to provide tamper-resistance.
- Aluminum bowl guard standard.
- 20 micron sintered bronze filter.
- Pressure gauge and auto-drain are included.
- Convenient see-through bowl guard.
- Auto-drain will automatically dispense contaminants collected by the filter, prevents overflow. Because manual draining of filters is often overlooked in the normal industrial environment.
- Float type auto-drain has built-in filter screen to prevent clogging Internal float-type auto-drain.

**TECHNICAL DATA**

Model Number		I280	I380	I480
Port Size	NPTF	1/4"	3/8"	1/2"
Max. Air supply	210.0 PSI (15 kgf/cm <sup>2</sup> )			
Max. Operating pressure	140 PSI (9.9 kgf/cm <sup>2</sup> )			
Regulating range	7.0~120.0 PSI (0.5~8.5 kgf/cm <sup>2</sup> )			
Pressure gauge port size	NPTF	1/8"	1/4"	
Auto-drain port size	NPT	1/8"M	1/8"F	
Nominal filtration rating	20UM			
Construction	Relieving Type			
Operating temperature range	41°~140° F( 5~60°C )			
Material	Body	Aluminum		
	Bonnet	Poly Aceta	Diecast Aluminum	
	Filter Element	Sintered Bronze		
	Bowl	Polycarbonate		
	Bowl Guard	Aluminum		
Weight	LBS	1.5	3	3
Included accessory ( standard )	Auto drain, Pressure gauge, Mounting bracket			



Part #	Size	Description	List Price
I280	1/4"	Integral Filter Regulator	152.15
I380	3/8"	Integral Filter Regulator	165.15
I480	1/2"	Integral Filter Regulator	165.15

**PARTS & ACCESSORIES**

Part #	Description	List Price
MB280	Mounting Bracket (I280)	6.30
MB380	Mounting Bracket (I280/480)	6.30
RN280	Retaining Nut (I280)	5.50
RN380	Retaining Nut (I280/480)	5.50
G280	Pressure Gauge (I280)	15.00
G380	Pressure Gauge (I280/480)	15.75
RF280	Replacement Filter Element (I280)	21.65
RF380	Replacement Filter Element (I280/480)	21.65

Part #	Description	List Price
B280	Replacement Bowl (I280)	16.80
B380	Replacement Bowl (I380)	16.80
B480	Replacement Bowl (I480)	21.00
BG280	Replacement Bowl & Guard (I280)	25.55
BG380	Replacement Bowl & Guard (I380)	25.55
BG480	Replacement Bowl & Guard (I480)	29.75
BGA280	Replacement Bowl, Guard, Auto Drain (I280)	77.00
BGA380	Replacement Bowl, Guard, Auto Drain (I380)	77.00
BGA480	Replacement Bowl, Guard, Auto Drain (I480)	82.25



**DUAL ANGLE-FOOT TRUCK  
PENCIL GAUGE**



High pressure 20-120 PSI, in 2lb unit

Part #	List Price
320-023	24.38

**DUAL STRAIGHT-FOOT  
PENCIL GAUGE**



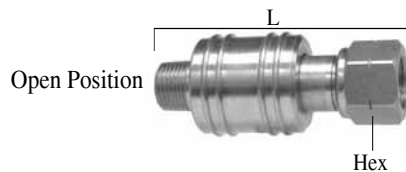
Identical to above except has straight chuck with 30° reverse angle chuck.

Part #	List Price
320-027	63.12

**PNEUMATIC SLIDE VALVES**

- 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.



**MALE X FEMALE**

Part #	Size	L	Hex	List Price
20-780	1/8"	2.15	9/16"	8.43

**STANDARD DRY GAUGES**

**STEEL CASE**



**LOWER PRICES**

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

**2" FACE  
1/4" LOWER MOUNT**

Part #	PSI	List Price
80-001	0-15	9.50
80-002	0-30	9.00
80-003	0-60	9.50
80-004	0-100	9.50
80-005	0-160	9.50
80-006	0-200	9.50
80-007	0-300	8.50



**LOWER PRICES**

**2-1/2" FACE  
1/4" LOWER MOUNT**

Part #	PSI	List Price
80-031	0-15	12.25
80-032	0-30	12.25
80-033	0-60	10.76
80-034	0-100	12.25
80-035	0-160	10.50
80-036	0-200	9.10

**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.



**LOWER PRICES**

- 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

**2-1/2" FACE  
1/4" LOWER MOUNT**

Part #	PSI	List Price
80-061	0-15	25.50
80-062	0-30	25.50
80-063	0-60	25.50
80-064	0-100	25.50
80-065	0-160	25.50
80-066	0-200	25.50
80-067	0-300	25.50
80-068	0-400	25.50
80-069	0-600	25.50
80-100	0-1000	25.50
80-101	0-1500	25.50
80-102	0-2000	25.50
80-103	0-3000	25.50
80-104	0-5000	25.50
80-080	30-0 Vacuum	25.50

**2-1/2" FACE  
1/4" CENTER BACK MOUNT**

**LOWER PRICES**

Part #	PSI	List Price
80-201	0-15	26.75
80-202	0-30	26.75

1-1/2" & 2" ABS also available

**4" FACE  
1/4" LOWER MOUNT**

Part #	PSI	List Price
80-463	0-100	68.50

*Other Gauges available upon request...Just Ask!*



## ACCESSORIES

### TEFLON TAPE

**Chemical Properties:** Min. of 99% Poly-tetrafluoroethylene  
**Thickness:** .0035", +0.001 or -0.0005"  
**Elongation:** Min. of 50% (most times it far exceeds)  
**Width:** Nominal width +0.02, -0.02  
**Length:** Nominal length + 20", -0"  
**Density:** -0.35 to 0.40  
**Incompatibility:** Avoid using on Moten Alkali, certain Halogen products & Flourine at high temperatures and pressures  
**Temperature:** When heated to over 260 degrees Centigrade, it will thermally degrade and decompose and produce toxic fumes.  
**Government standard:** Meets military specification T-27730a  
**Usage:** To be used on all types of threaded fittings for passage of water; potable and non-potable, most chemicals, oxygen, gas, hydraulic and high pressure lines.

### TEFLON TAPE



### Thread Sealant

Part #	Size	List Price
982-107	1/2" x 260"	0.79
982-108	1/2" x 520"	0.95
982-109	3/4" x 260"	1.52
982-110	3/4" x 520"	1.92

POP OUT COVERED SPOOL

### COPPER FITTING BRUSHES

- Extra thick mass of steel wire insures perfect cleaning job with minimum effort. Twisted wire handle - for copper fittings. Carbon steel brush
- Sold in boxes of 12 only



Part #	Size	List Price
990-540	3/8"	4.00
990-541	1/2"	4.00
990-542	3/4"	4.00
990-543	1"	4.76

### SCRUBS IN A BUCKET



Truly portable Scrubs in a Bucket® provide, fast, easy and effective hand cleaning. Can be used anywhere, anyplace, anytime on the toughest soils, greases, tar, etc. Each dispensing canister contains 10-1/2" x 12-1/4" perforated absorbent cleaning towels. Containing a germ-fighting chemical known as Triclosan. No rinsing, no drying, no residue. Also can be used for cleaning tools and spills. On-the-spot hand cleaning when there is no sink around.

Part #	PSI	List Price
980-100	30 Scrubs™/container	26.47
980-101	72 Scrubs™/container	51.32

## ACCESSORIES

If you don't make mistakes, you're not working on hard enough problems. And that's a big mistake.

- Frank Wilczek

The bad news is time flies. The good news is you're the pilot.

- Michael Althsuler

You can tell whether a man is clever by his answers. You can tell whether a man is wise by his questions.

- Naguib Mahfouz





## STAINLESS FITTINGS

**1/4"**

**SWIVEL NUT (NICKEL PLATED BRASS)**



Part #	List Price
34-500	1.05

**SWIVEL HOSE STEM FOR 1/4" SWIVEL NUT**



Part #	List Price
34-503	2.19

**3/8"**

**SWIVEL NUT (NICKEL PLATED BRASS)**



Part #	List Price
34-512	1.86

**SWIVEL HOSE STEM FOR 3/8" SWIVEL NUT**



Part #	List Price
34-515	2.73

## BEVERAGE FITTINGS

**SWIVEL ELBOWS**

**90° SWIVEL ELBOW**



**HOSE ID x FEMALE 45° FLARE**

Part #	Size	List Price
34-525	1/4" x 1/4"	4.83
34-529	3/8" x 3/8"	10.05

**BARB SPLICERS**

**HOSE SPLICER (STRAIGHT)**



**ID HOSE**

Part #	Size	List Price
34-533	1/4"	3.37
34-535	3/8"	4.13
34-543	3/8" x 1/4"	4.13

**90° BARB SPLICER**



**ID HOSE**

Part #	Size	List Price
34-551	1/4"	4.01
34-552	3/8"	6.39

**TEES & CROSSES**

**BARB HOSE TEES**



**ID HOSE**

Part #	Size	List Price
34-562	1/4"	11.10
34-563	3/8"	12.49

MISC



# BEVERAGE FITTINGS

# STAINLESS FITTINGS

## ADAPTERS

### MALE FLARE TO BARB ADAPTER



HOSE ID x 45° FLARE

Part #	Size	List Price
34-579	1/4" x 1/4"	4.65
34-583	1/4" x 3/8"	7.03
34-584	3/8" x 1/4"	5.12
34-585	3/8" x 3/8"	7.20

### NPT TO BARB ADAPTER



HOSE ID x MALE NPTF

Part #	Size	List Price
34-587	1/4" x 1/8"	6.33
34-588	1/4" x 1/4"	5.99
34-589	1/4" x 3/8"	8.08
34-590	3/8" x 1/8"	8.12
34-591	3/8" x 1/4"	6.57
34-592	3/8" x 3/8"	8.08
34-595	3/8" x 1/2"	12.72
34-597	1/2" x 3/4"	18.54

## SWIVEL ELBOWS

### SWIVEL TO BARB ELBOW



HOSE ID x FEMALE 45° FLARE

Part #	Size	List Price
34-600	1/4" x 1/4"	10.75

## ADAPTERS

### NPT ELBOWS



HOSE ID x MALE NPTF

Part #	Size	List Price
34-610	1/4" x 1/8"	12.69
34-611	3/8" x 1/4"	12.69
34-612	3/8" x 3/8"	14.18
34-613	1/2" x 1/2"	29.22

**PLEASE CALL US FOR ANY STAINLESS STEEL BEVERAGE FITTINGS**

*If you don't see what you need, ask us!*



MISC





### CONFORMANCE

- SAE J514
- 30-Degree Chamfers - Most NPSM pipe swivel union fittings have 30-degree chamfers on NPTF male end of fittings. This chamfer is optional per SAE J514. If chamfer is mandatory, consult with our customer service department to verify chamfer exists on items you are requesting.
- Temperature Range: -65°F to +400°F

### MATERIALS

- Steel - Carbon steel trivalent chrome plating per ASTM B633-98 (Type II SC-2).

**Torque Values:** The torque values provide benchmarks that we believe give optimum results for leak free connections. Actual torque values should be based on individual applications.

**Caution: NPSM pipe swivel unions are not designed to provide structural support for other components**

### WORKING PRESSURES

The following table lists the recommended working pressures for steel NPSM pipe swivel union hydraulic fittings made in accordance with SAE standard J514. Many factors such as impulsing, vibration, mechanical shock and overtightening may affect the integrity of the fitting and swivel union connection. For these reasons, the recommended working pressures are actually lower than the capacity of the fittings. SAE recommends sufficient testing to be conducted to assure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions. When using fittings with different size or thread type, use the lower pressure rating of the two threads.

### SAE J514 NPSM PRESSURE RATINGS

Dash Size	NPSM Thread Size	4 TO 1 Minimum Burst PSI
-2	1/8-27	5000
-4	1/4-18	5000
-6	3/8-18	4000
-8	1/2-14	3500
-12	3/4-14	2250
-16	1-11 1/2	2000
-20	1 1/4-11 1/2	1625
-24	1 1/2-11 1/2	1250
-32	2-11 1/2	1125

## STEEL PIPE SWIVEL ASSEMBLY INSTRUCTIONS

### RECOMMENDED

- Step 1.** Inspect male pipe fitting connecting to swivel and confirm that it has an internal 30-degree chamfer. Do not install into union if chamfer is missing.
- Step 2.** Lubricate the threads and the entire chamfered area of male fitting with hydraulic fluid or other light weight lubricant.
- Step 3.** Install lubricated pipe fitting into swivel nut and turn nut until finger tight.
- Step 4.** Place wrench on hex of male fitting to prevent male fitting from turning, and torque swivel nut to the values in the following table.

**Caution:** When torquing swivel nut on straight swivel union fittings, it may be necessary to also place a wrench on the fitting wrench pad to prevent the fitting from backing out of its port while torquing the swivel nut.

Dash Size	NPSM Thread Size	Torque Foot/LBS
-2	1/8-27	13
-4	1/4-18	20
-6	3/8-18	25
-8	1/2-14	47
-12	3/4-14	84
-16	1-11 1/2	129
-20	1 1/4-11 1/2	152
-24	1 1/2-11 1/2	152
-32	2-11 1/2	300

### ALTERNATE ASSEMBLY METHOD

- Step 1.** If torque method not possible, follow steps 1-3 above, then proceed to the steps below.
- Step 2.** Place wrench on hex of male pipe fitting and consider this wrench in the 12 o'clock position.
- Step 3.** Lightly wrench tighten the swivel union nut so that the wrench is as near the 3 o'clock position as possible.
- Step 5.** Rotate wrench in 3 o'clock position counterclockwise to no less than the 1 o'clock position, but no more than the 12 o'clock position.

### WHY WET TORQUE?

Due to the difference in plating types and thickness, materials, and thread quality of different components, the coefficient of friction varies greatly on any given assembly. Lubrication not only produces a more consistent coefficient of friction, it increases clamping force on sealing area with less torque on the threads. Overtightening causes threads to yield, deform and lose their ability to maintain an adequate load or clamping force on the seating area. Extended operation and severe conditions cause further yielding which results in leaks. Overtightening is the single greatest cause for leaks in metal to metal seat hydraulic connections. It is our firm position, that to not wet torque, is to compromise consistency and quality for convenience.



# STEEL PIPE SWIVELS NPSM

# HYDRAULIC ADAPTERS

## STEEL PIPE SWIVEL ADAPTERS

### MALE PIPE SWIVEL ADAPTER

SAE 140130



1404  
2045R  
1210  
9205R  
0107

Part #	Male Pipe 1	Female NPSM 2	List Price
1404-2-2	1/8	1/8	1.47
1404-2-4	1/8	1/4	2.00
1404-4-2	1/4	1/8	4.29
1404-4-4	1/4	1/4	1.63
1404-4-6	1/4	3/8	2.95
1404-4-8	1/4	1/2	3.58
1404-6-4	3/8	1/4	2.95
1404-6-6	3/8	3/8	2.53
1404-6-8	3/8	1/2	3.49
1404-8-4	1/2	1/4	3.60
1404-8-6	1/2	3/8	3.49
1404-8-8	1/2	1/2	2.91
1404-8-12	1/2	3/4	5.62
1404-12-6	3/4	3/8	7.67
1404-12-8	3/4	1/2	4.75
1404-12-12	3/4	3/4	4.44
1404-12-16	3/4	1	11.83
1404-16-8	1	1/2	25.17
1404-16-12	1	3/4	8.00
1404-16-16	1	1	7.56
1404-16-20	1	1-1/4	17.83
1404-20-16	1-1/4	1	18.92
1404-20-20	1-1/4	1-1/4	12.66
1404-24-24	1-1/2	1-1/2	17.25

*Also available in Stainless Steel*  
*More sizes available*  
**-Available in a Restrictor-**

Watch your thoughts; they become words.  
Watch your words; they become actions.  
Watch your actions; they become habits.  
Watch your habits; they become character.  
Watch your character; it becomes your destiny.

- Lao-Tze

### FEMALE PIPE SWIVEL ADAPTER

SAE 140131



1405  
2046R  
1212  
9255R  
C207

Part #	Female Pipe 1	Female NPSM 2	List Price
1405-2-2	1/8	1/8	1.77
1405-2-4	1/8	1/4	5.75
1405-4-2	1/4	1/8	24.75
1405-4-4	1/4	1/4	2.09
1405-4-6	1/4	3/8	3.85
1405-6-4	3/8	1/4	2.90
1405-6-6	3/8	3/8	2.57
1405-6-8	3/8	1/2	3.72
1405-8-4	1/2	1/4	31.47
1405-8-6	1/2	3/8	3.72
1405-8-8	1/2	1/2	3.40
1405-12-12	3/4	3/4	4.88
1405-16-12	1	3/4	13.49
1405-16-16	1	1	7.53
1405-20-20	1-1/4	1-1/4	11.97
1405-32-32	2	2	33.21

*Also available in Stainless Steel*  
*More sizes available...just ask!*

The third-rate mind is only happy when it is thinking with the majority. The second-rate mind is only happy when it is thinking with the minority. The first-rate mind is only happy when it is thinking.

—A. A. Milne



## HYDRAULIC ADAPTERS

## STEEL PIPE SWIVELS NPSM

### MALE PIPE ELBOW SWIVEL ADAPTER

SAE 140230



2

1501  
2047R  
1218  
9405R  
2107

Part #	Male Pipe 1	Female NPSM 2	List Price
1501-2-2	1/8	1/8	2.35
1501-2-4	1/8	1/4	3.81
1501-4-2	1/4	1/8	2.79
1501-4-4	1/4	1/4	2.26
1501-4-6	1/4	3/8	3.76
1501-6-4	3/8	1/4	3.43
1501-6-6	3/8	3/8	3.02
1501-6-8	3/8	1/2	5.61
1501-6-12	3/8	3/4	42.63
1501-8-4	1/2	1/4	4.54
1501-8-6	1/2	3/8	4.10
1501-8-8	1/2	1/2	4.07
1501-8-12	1/2	3/4	8.73
1501-12-6	3/4	3/8	10.37
1501-12-8	3/4	1/2	7.76
1501-12-12	3/4	3/4	6.48
1501-12-16	3/4	1	15.10
1501-16-8	1	1/2	30.19
1501-16-12	1	3/4	17.20
1501-16-16	1	1	11.02
1501-16-20	1	1-1/4	26.19
1501-20-12	1-1/4	3/4	51.84
1501-20-16	1-1/4	1	38.19
1501-20-20	1-1/4	1-1/4	26.64
1501-20-24	1-1/4	1-1/2	129.57
1501-24-20	1-1/2	1-1/4	53.22
1501-24-24	1-1/2	1-1/2	35.33
1501-32-32	2	2	77.49

*Also available in Stainless Steel*

*More sizes available*

**-Available in a Restrictor-**

### EXTRA LONG MALE PIPE ELBOW



2

Part #	Male Pipe 1	Female NPSM 2	List Price
1501-LL-4-4	1/4	1/4	11.16
1501-LL-6-6	3/8	3/8	15.74
1501-LL-8-8	1/2	1/2	16.69
1501-LL-12-12	3/4	3/4	31.88
1501-LL-16-16	1	1	64.54

### FEMALE UNION ELBOW SWIVEL ADAPTER

SAE 140231



2

1502  
2207  
1216  
94SSR

Part #	Female Pipe 1	Female NPSM 2	List Price
1502-2-2	1/8	1/8	3.60
1502-2-4	1/8	1/4	15.42
1502-4-2	1/4	1/8	11.56
1502-4-4	1/4	1/4	2.70
1502-4-6	1/4	3/8	13.34
1502-6-4	3/8	1/4	6.14
1502-6-6	3/8	3/8	4.37
1502-6-8	3/8	1/2	13.15
1502-8-4	1/2	1/4	13.29
1502-8-6	1/2	3/8	5.47
1502-8-8	1/2	1/2	4.63
1502-8-12	1/2	3/4	11.52
1502-12-8	3/4	1/2	11.52
1502-12-12	3/4	3/4	9.26
1502-12-16	3/4	1	42.77
1502-16-12	1	3/4	25.85
1502-16-16	1	1	15.22
1502-20-20	1-1/4	1-1/4	28.66
1502-24-24	1-1/2	1-1/2	57.61
1502-32-32	2	2	192.80

*Also available in Stainless Steel*

*More sizes available*

The butcher backed into the meat grinder and got a little behind in his work.

No matter how much you push the envelope, it'll still be stationary.

A dog gave birth to puppies near the road and was cited for littering.

A grenade thrown into a kitchen in France resulted in linoleum blownpart.



# STEEL PIPE SWIVELS NPSM

# HYDRAULIC ADAPTERS

## MALE 45° PIPE ELBOW SWIVEL ADAPTER

SAE 140330



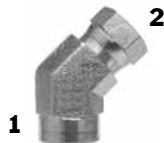
1503  
2049R  
3107  
1214  
9355R

Part #	Male Pipe 1	Female NPSM 2	List Price
1503-2-2	1/8	1/8	2.38
1503-2-4	1/8	1/4	10.02
1503-4-2	1/4	1/8	4.40
1503-4-4	1/4	1/4	2.48
1503-4-6	1/4	3/8	7.18
1503-6-4	3/8	1/4	3.78
1503-6-6	3/8	3/8	3.59
1503-6-8	3/8	1/2	6.19
1503-8-4	1/2	1/4	9.67
1503-8-6	1/2	3/8	4.70
1503-8-8	1/2	1/2	4.79
1503-8-12	1/2	3/4	15.46
1503-12-6	3/4	3/8	22.68
1503-12-8	3/4	1/2	10.42
1503-12-12	3/4	3/4	6.63
1503-12-16	3/4	1	21.45
1503-16-12	1	3/4	13.11
1503-16-16	1	1	11.71
1503-16-20	1	1-1/4	38.91
1503-20-16	1-1/4	1	24.63
1503-20-20	1-1/4	1-1/4	20.63
1503-24-24	1-1/2	1-1/2	49.66
1503-32-32	2	2	79.17

Also available in Stainless Steel  
More sizes available

## FEMALE 45° UNION ELBOW SWIVEL ADAPTER

SAE 140331



1504  
2050R  
1249  
9385R

Part #	Female Pipe 1	Female NPSM 2	List Price
1504-2-2	1/8	1/8	5.83
1504-4-4	1/4	1/4	4.60
1504-6-4	3/8	1/4	5.78
1504-6-6	3/8	3/8	5.56
1504-8-6	1/2	3/8	25.71
1504-8-8	1/2	1/2	6.80
1504-12-12	3/4	3/4	9.53
1504-16-16	1	1	15.98
1504-20-20	1-1/4	1-1/4	30.42
1504-24-24	1-1/2	1-1/2	52.24

Also available in Stainless Steel  
More sizes available

## MALE SWIVEL BRANCH TEE



1601  
2254R  
1258  
9406R

Part #	Female NPSM 1 & 2	Male Pipe 3	List Price
1601-2-2	1/8	1/8	6.89
1601-4-4	1/4	1/4	6.83
1601-6-4	1/4	3/8	9.96
1601-6-6	3/8	3/8	8.89
1601-6-8	1/2	3/8	28.39
1601-8-4	1/4	1/2	12.78
1601-8-6	3/8	1/2	10.07
1601-8-8	1/2	1/2	10.74
1601-12-8	1/2	3/4	20.09
1601-12-12	3/4	3/4	19.48
1601-16-12	3/4	1	80.00
1601-16-16	1	1	38.55
1601-20-20	1-1/4	1-1/4	50.64
1601-24-24	1-1/2	1-1/2	87.48

## FEMALE SWIVEL TEE

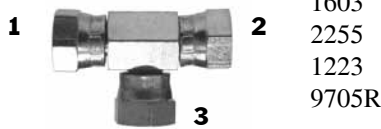


1602  
2253R  
1259  
9456R

Part #	Female NPSM 1 & 2	Female Pipe 3	List Price
1602-2-2	1/8	1/8	7.78
1602-4-4	1/4	1/4	7.00
1602-6-4	1/4	3/8	13.42
1602-6-6	3/8	3/8	9.41
1602-8-6	3/8	1/2	13.78
1602-8-8	1/2	1/2	10.67
1602-12-8	1/2	3/4	18.96
1602-12-12	3/4	3/4	19.37
1602-16-12	3/4	1	44.85
1602-16-16	1	1	32.44
1602-20-20	1-1/4	1-1/4	64.89
1602-24-24	1-1/2	1-1/2	132.56



**FEMALE SWIVEL UNION TEE**



- 1603
- 2255
- 1223
- 9705R

Part #	Female NPSM 1,2 & 3	List Price
1603-2-2	1/8	8.37
1603-4-4	1/4	6.14
1603-6-6	3/8	9.33
1603-8-8	1/2	11.81
1603-12-12	3/4	18.30
1603-16-16	1	43.41
1603-20-20	1-1/4	88.44

**WHY GOD MADE MOMS**

Answers given by 2nd grade school children to the following questions:

Why did God make mothers?

1. She's the only one who knows where the scotch tape is.
2. Mostly to clean the house.
3. To help us out of there when we were getting born.

How did God make mothers?

1. He used dirt, just like for the rest of us.
2. Magic plus super powers and a lot of stirring.
3. God made my mom just the same like he made me. He just used bigger parts.

What ingredients are mothers made of?

1. God makes mothers out of clouds and angel hair and everything nice in the world and one dab of mean.
2. They had to get their start from men's bones. Then they mostly use string, I think.

Why did God give you your mother and not some other mom?

1. We're related.
2. God knew she likes me a lot more than other people's mom like me.

What kind of a little girl was your mom?

1. My mom has always been my mom and none of that other stuff.
2. I don't know because I wasn't there, but my guess would be pretty bossy.
3. They say she used to be nice.

What did mom need to know about dad before she married him?

1. His last name.
2. She had to know his background. Like is he a crook? Does he get drunk on beer?
3. Does he make at least \$800 a year? Did he say NO to drugs and YES to chores?

Why did your mom marry your dad?

1. My dad makes the best spaghetti in the world. And my mom eats a lot.
2. She got too old to do anything else with him.
3. My grandma says that mom didn't have her thinking cap on.

Who's the boss at your house?

1. Mom doesn't want to be boss, but she has to because dad's such a goof ball.
2. Mom. You can tell by room inspection. She sees the stuff under the bed.
3. I guess mom is, but only because she has a lot more to do than dad.

What's the difference between moms and dads?

1. Moms work at work and work at home and dads just go to work at work.
2. Moms know how to talk to teachers without scaring them.
3. Dads are taller and stronger, but moms have all the real power 'cause that's who you got to ask if you want to sleep over at your friends.
4. Moms have magic, they make you feel better without medicine.

What does your mom do in her spare time?

1. Mothers don't do spare time.
2. To hear her tell it, she pays bills all day long.

What would it take to make your mom perfect?

1. On the inside she's already perfect. Outside, I think some kind of plastic surgery.
2. Diet. You know, her hair. I'd diet, maybe blue.

If you could change one thing about your mom, what would it be?

1. She has this weird thing about me keeping my room clean. I'd get rid of that.
2. I'd make my mom smarter. Then she would know it was my sister who did it not me.
3. I would like for her to get rid of those invisible eyes on the back of her head.

**HYDRAULIC**



**37° JIC ADAPTERS**

Straights Pg. 283-285  
 Shapes Pg. 285-290  
 Bulkheads Pg. 290-291  
 Female Swivels Pg. 304-306  
 O-Ring Fittings Pg. 307-312

**Caution: 37-Degree flared fittings are not designed to provide structural support for other components.**

**CONFORMANCE**

- SAE J514
- MS51500-MS51534
- Temperature Range: -65°F to +400°F

**MATERIALS**

- Carbon Steel trivalent zinc plating

**WORKING PRESSURES**

The following table lists the recommended working pressures for steel 37° flare hydraulic tube fittings manufactured in accordance with SAE standard J514. Many factors such as impulsing, vibration, mechanical shock, and overtightening may affect the integrity of the fitting connection. For these reasons, the recommended working pressures are actually lower than the capacity of the fittings. SAE recommends sufficient testing to be conducted to assure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions. When using fittings with different size or thread type, use the lower pressure rating of the two threads.

**SAE J514 37-DEGREE FLARED FITTINGS PRESSURE RATING**

Dash Size	Flared Thread Size	4 TO 1 Minimum Burst PSI
-2	5/16-24	5000
-3	3/8-24	5000
-4	7/16-20	5000
-5	1/2-20	5000
-6	9/16-18	5000
-8	3/4-16	4500
-10	7/8-14	3500
-12	1-1/16-12	3500
-14	1-3/16-12	3000
-16	1-5/16-12	3000
-20	1-5/8-12	2500
-24	1-7/8-12	2000
-32	2-1/2-12	1500

**37° FLARED FITTING ASSEMBLY INSTRUCTIONS**

**RECOMMENDED**

- Step 1.** Inspect for possible contamination or damage from shipping or handling. Sealing surface should be smooth. Annular tool marks of (100uin) concentric with thread permissible.
- Step 2.** Lubricate the threads and the entire surface of the cone with hydraulic fluid or a light lubricant.
- Step 3.** Align mating components for hand connection and turn flare nut until sealing surfaces make full contact.
- Step 4.** Torque nut to the values shown on the following table. If a wrench pad is provided next to nut, place a second wrench on pad to prevent flare from rotating while being torqued.
- Step 5.** When torquing nut onto a straight flared fitting, it may be necessary to also place a wrench on the flared fitting wrench pad to prevent it from turning during assembly.

**ALTERNATE ASSEMBLY METHOD**

- Step 1.** If torque method not possible, follow steps 1-3 above, then proceed to the steps below.
- Step 2.** Lightly wrench tighten the nut until there is firm resistance.
- Step 3.** Place a wrench on wrench pad next to nut as near the 6 o'clock position as possible.
- Step 4.** Place second wrench on nut as near the 3 o'clock position as possible.
- Step 5.** Turn nut clockwise to no less than the 4 o'clock position and no more than the 6 o'clock position. Required rotation generally decreases as size increases.

Dash Size	Flared Thread Size	Torque Foot/Lbs.
-2	5/16-24	6-7
-3	3/8-24	6-9
-4	7/16-20	9-12
-5	1/2-20	14-15
-6	9/16-18	18-20
-8	3/4-16	27-39
-10	7/8-1/4	36-63
-12	1-1/16-12	65-88
-14	1-3/16-12	75-103
-16	1-5/16-12	85-113
-20	1-5/8-12	115-133
-24	1-7/8-12	125-167
-32	2-1/2-12	190-258

**WHY WET TORQUE?**

Due to the difference in plating types and thickness, materials, and thread quality of different components, the coefficient of friction varies greatly on any given assembly. Lubrication not only produces a more consistent coefficient of friction, it increases clamping force on sealing area with less torque on the threads. Overtightening causes threads to yield, deform and lose their ability to maintain an adequate load or clamping force on the seating area. Extended operation and severe conditions cause further yielding which results in leaks. Overtightening is the single greatest cause for leaks in metal to metal seat hydraulic connections. It is our firm position, that to not wet torque, is to compromise consistency and quality for convenience.





**STEEL 37° JIC FLARE  
TUBE FITTINGS**

**JIC SHORT TUBE NUT**



303  
302  
1326

Part #	Tube O.D	JIC Thread Size	List Price
0302-4	1/4	7/16-20	1.12
0302-6	3/8	9/16-18	1.21
0302-8	1/2	3/4-16	1.12
0302-10	5/8	7/8-14	1.20
0302-12	3/4	1-1/16-12	3.21
0302-16	1	1-5/16-12	6.40
0302-20	1-1/4	1-5/8-12	12.31
0302-24	1-1/2	1-7/8-12	61.69

**LONG JIC TUBE NUT**

SAE 070111

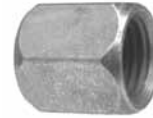


304  
221000  
0304

Part #	Tube O.D	JIC Thread Size	List Price
0304-4	1/4	7/16-20	1.09
0304-5	5/16	1/2-20	1.00
0304-6	3/8	9/16-18	1.03
0304-8	1/2	3/4-16	1.19
0304-10	5/8	7/8-14	2.78
0304-12	3/4	1-1/16-12	4.52
0304-14	7/8	1-3/16-12	7.18
0304-16	1	1-5/16-12	9.52
0304-20	1-1/4	1-5/8-12	10.96
0304-24	1-1/2	1-7/8-12	23.49
0304-32	2	2-1/2-12	101.15

**JIC CAP**

SAE 070112  
MS 51532



304  
210292  
FNTX  
1329  
C5129

Part #	Tube O.D.	JIC Thread Size	List Price
0304-C-2	1/8	5/16-24	2.65
0304-C-3	3/16	3/8-24	2.36
0304-C-4	1/4	7/16-20	0.49
0304-C-5	5/16	1/2-20	0.75
0304-C-6	3/8	9/16-18	0.97
0304-C-8	1/2	3/4-16	0.85
0304-C-10	5/8	7/8-14	1.16
0304-C-12	3/4	1-1/16-12	1.69
0304-C-14	7/8	1-3/16-12	2.75
0304-C-16	1	1-5/16-12	3.00
0304-C-20	1-1/4	1-5/8-12	5.37
0304-C-24	1-1/2	1-7/8-12	7.49
0304-C-32	2	2-1/2-12	17.73

*Some available in Stainless Steel*

The roundest knight at King Arthur's round table was Sir Circumference. He acquired his size from too much pi.

I thought I saw an eye doctor on an Alaskan island, but it turned out to be an optical Aleutian.

She was only a whiskey maker, but he loved her still.

A rubber band pistol was confiscated from algebra class because it was a weapon of math disruption.





# STRAIGHTS STEEL 37° JIC FLARE

# HYDRAULIC ADAPTERS

## JIC TUBE NUT (SLEEVE REQUIRED)

SAE 070110  
MS 51531



318  
1290  
BTX  
1311  
C5105

Part #	Tube O.D	JIC Thread Size	List Price
0318-2	1/8	5/16-24	1.13
0318-3	3/16	3/8-24	0.64
0318-4	1/4	7/16-20	0.44
0318-5	5/16	1/2-20	0.47
0318-6	3/8	9/16-18	0.59
0318-8	1/2	3/4-16	0.75
0318-10	5/8	7/8-14	0.97
0318-12	3/4	1-1/16-12	1.66
0318-14	7/8	1-3/16-12	2.47
0318-16	1	1-5/16-12	2.56
0318-20	1-1/4	1-5/8-12	5.16
0318-24	1-1/2	1-7/8-12	7.53
0318-32	2	2-1/2-12	26.91

*Also available in Stainless Steel*

## JIC TUBE SLEEVE

SAE 070115  
MS 51533



319  
900605  
TX  
1253  
C5165

Part #	Tube O.D	List Price
0319-2	1/8	0.83
0319-3	3/16	0.54
0319-4	1/4	0.25
0319-5	5/16	0.28
0319-6	3/8	0.30
0319-8	1/2	0.44
0319-10	5/8	0.72
0319-12	3/4	0.60
0319-14	7/8	1.39
0319-16	1	1.34
0319-20	1-1/4	2.86
0319-24	1-1/2	5.59
0319-32	2	16.68

*Also available in Stainless Steel*

## JIC BRAZE TUBE UNION



403  
73014  
1403

Part #	Braze Port 1	JIC Thread Size 2	List Price
0403-4	1/4	7/16-20	1.27
0403-6	3/8	9/16-18	1.36
0403-8	1/2	3/4-16	1.95
0403-10	5/8	7/8-14	2.54
0403-12	3/4	1-1/16-12	4.63
0403-14	7/8	1-3/16-12	9.06
0403-16	1	1-5/16-12	5.76
0403-20	1-1/4	1-5/8-12	8.38
0403-24	1-1/2	1-7/8-12	20.36
0403-32	2	2-1/2-12	65.49

“Everything you want should be yours: the type of work you want; the relationships you need; the social, mental, and aesthetic stimulation that will make you happy and fulfilled; the money you require for the lifestyle that is appropriate to you; and any requirement that you may (or may not) have for achievement or service to others. If you don’t aim for it all, you’ll never get it all. To aim for it requires that you know what you want”

- Richard Koch



# HYDRAULIC ADAPTERS

# STRAIGHTS STEEL 37° JIC FLARE

## JIC TUBE UNION

SAE 070101  
MS 51501



2403  
2027  
HTX  
1204  
C5305

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2403-2	5/16-24	5/16-24	1.90
2403-3	3/8-24	3/8-24	7.57
2403-4	7/16-20	7/16-20	0.77
2403-5	1/2-20	1/2-20	1.91
2403-6	9/16-18	9/16-18	1.27
2403-6-4	9/16-18	7/16-20	1.59
2403-6-5	9/16-18	1/2-20	5.35
2403-8	3/4-16	3/4-16	1.43
2403-8-4	3/4-16	7/16-20	4.14
2403-8-6	3/4-16	9/16-18	1.70
2403-10	7/8-14	7/8-14	2.22
2403-10-4	7/8-14	7/16-20	16.61
2403-10-6	7/8-14	9/16-18	5.55
2403-10-8	7/8-14	3/4-16	2.50
2403-12	1-1/16-12	1-1/16-12	2.73
2403-12-6	1-1/16-12	9/16-18	4.40
2403-12-8	1-1/16-12	3/4-16	4.00
2403-12-10	1-1/16-12	7/8-14	4.85
2403-14	1-3/16-12	1-3/16-12	5.49
2403-16	1-5/16-12	1-5/16-12	4.06
2403-16-10	1-5/16-12	7/8-14	27.07
2403-16-12	1-5/16-12	1-1/16-12	8.14
2403-20	1-5/8-12	1-5/8-12	7.27
2403-20-12	1-5/8-12	1-1/16-12	48.52
2403-20-16	1-5/8-12	1-5/16-12	10.53
2403-24	1-7/8-12	1-7/8-12	12.97
2403-24-20	1-7/8-12	1-5/8-12	29.77
2403-32	2-1/2-12	2-1/2-12	32.86

*Some sizes available in Stainless Steel  
More jump sizes available*

## JIC LARGE HEX TUBE UNION



2403-LH  
202712  
LHTX  
1204-LH  
C5306

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2403-LH-4	7/16-20	7/16-20	4.15
2403-LH-6	9/16-18	9/16-18	4.00
2403-LH-8	3/4-16	3/4-16	5.16
2403-LH-10	7/8-14	7/8-14	7.93
2403-LH-12	1-1/16-12	1-1/16-12	10.49
2403-LH-16	1-5/16-12	1-5/16-12	16.64
2403-LH-20	1-5/8-12	1-5/8-12	45.44

## JIC MALE CONNECTOR

SAE 070102  
MS 51500



2404  
2021R  
FTX  
1202R  
C5205

Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
2404-2-2	5/16-24	1/8	2.16
2404-2-4	5/16-24	1/4	2.38
2404-3-2	3/8-24	1/8	1.22
2404-3-4	3/8-24	1/4	38.55
2404-4-2	7/16-20	1/8	0.70
2404-4-4	7/16-20	1/4	0.73
2404-4-6	7/16-20	3/8	1.12
2404-4-8	7/16-20	1/2	2.54
2404-5-2	1/2-20	1/8	1.59
2404-5-4	1/2-20	1/4	1.78
2404-5-6	1/2-20	3/8	2.16
2404-6-2	9/16-18	1/8	1.65
2404-6-4	9/16-18	1/4	0.95
2404-6-6	9/16-18	3/8	1.10
2404-6-8	9/16-18	1/2	1.53
2404-6-12	9/16-18	3/4	4.22
2404-8-4	3/4-16	1/4	2.48
2404-8-6	3/4-16	3/8	2.10
2404-8-8	3/4-16	1/2	1.47
2404-8-12	3/4-16	3/4	2.35
2404-8-16	3/4-16	1	14.97
2404-10-4	7/8-14	1/4	15.10
2404-10-6	7/8-14	3/8	2.86
2404-10-8	7/8-14	1/2	1.84
2404-10-12	7/8-14	3/4	3.49
2404-10-16	7/8-14	1	8.22
2404-12-6	1-1/16-12	3/8	3.97
2404-12-8	1-1/16-12	1/2	2.59
2404-12-12	1-1/16-12	3/4	2.60
2404-12-16	1-1/16-12	1	3.61
2404-12-20	1-1/16-12	1-1/4	9.31
2404-14-12	1-3/16-12	3/4	4.50
2404-14-16	1-3/16-12	1	8.10
2404-16-12	1-5/16-12	3/4	3.98
2404-16-16	1-5/16-12	1	3.41
2404-16-20	1-5/16-12	1-1/4	6.89
2404-16-24	1-5/16-12	1-1/2	51.84
2404-20-12	1-5/8-12	3/4	19.59
2404-20-16	1-5/8-12	1	7.41
2404-20-20	1-5/8-12	1-1/4	5.62
2404-20-24	1-5/8-12	1-1/2	14.97
2404-24-16	1-7/8-12	1	45.80
2404-24-20	1-7/8-12	1-1/4	13.98
2404-24-24	1-7/8-12	1-1/2	11.00
2404-24-32	1-7/8-12	2	68.66
2404-32-16	2-1/2-12	1	117.05
2404-32-20	2-1/2-12	1-1/4	68.28
2404-32-24	2-1/2-12	1-1/2	60.68
2404-32-32	2-1/2-12	2	30.63
2404-40-40	3-12	2-1/2	343.72

*Some sizes available in Stainless Steel*

**-Available in a Restrictor-**



**JIC LONG MALE CONNECTOR**

SAE 070102  
MS 51500

2404L  
202113R  
1202L0R



Part #	JIC Thread Size 1	Male Pipe Size 2	Length	List Price
2404-L-4-2	7/16-20	1/8"	1.81"	16.50
2404-L-4-4	7/16-20	1/4"	2.35"	21.77
2404-L-6-4	9/16-18	1/4"	2.35"	23.40
2404-L-6-6	9/16-18	3/8"	2.50"	16.46
2404-L-8-6	3/4-16	3/8"	2.75"	21.45
2404-L-8-8	3/4-16	1/2"	3.13"	29.48
2404-L-10-8	7/8-14	1/2"	3.13"	32.97
2404-L-12-12	1-1/16-12	3/4"	3.50"	27.48
2404-L-16-16	1-5/16-12	1"	4"	46.98

*Also available in extra long lengths*

**Five (5) lessons about the way we treat people**

Third Important Lesson - Always remember those who serve.

In the days when an ice cream sundae cost much less, A 10-year-old boy entered a hotel coffee shop and sat at a table. A waitress put a glass of water in front of him.

"How much is an ice cream sundae?" he asked. "Fifty cents," replied the waitress. The little boy pulled his hand out of his pocket and studied the coins in it.

"Well, how much is a plain dish of ice cream?" he inquired. By now more people were waiting for a table and the waitress was growing impatient..

"Thirty-five cents," she brusquely replied. The little boy again counted his coins. "I'll have the plain ice cream," he said. The waitress brought the ice cream, put the bill on the table and walked away The boy finished the ice cream, paid the cashier and left.. When the waitress came back, she began to cry as she wiped down the table. There, placed neatly beside the empty dish, Were two nickels and five pennies..

You see, he couldn't have the sundae, because he had to have enough left to leave her a tip.

**JIC FEMALE CONNECTOR**

SAE 070103  
MS 51503

2405  
2022R  
GTX  
1230R  
C5255



Part #	JIC Thread Size 1	Female Pipe Size 2	List Price
2405-2-2	5/16-24	1/8	6.21
2405-3-2	3/8-24	1/8	1.72
2405-3-4	3/8-24	1/4	22.02
2405-4-2	7/16-20	1/8	1.21
2405-4-4	7/16-20	1/4	1.62
2405-4-6	7/16-20	3/8	10.61
2405-5-2	1/2-20	1/8	4.00
2405-5-4	1/2-20	1/4	2.67
2405-6-2	9/16-18	1/8	3.99
2405-6-4	9/16-18	1/4	1.40
2405-6-6	9/16-18	3/8	2.04
2405-6-8	9/16-18	1/2	4.80
2405-8-4	3/4-16	1/4	9.45
2405-8-6	3/4-16	3/8	1.87
2405-8-8	3/4-16	1/2	2.92
2405-8-12	3/4-16	3/4	10.34
2405-10-6	7/8-14	3/8	4.79
2405-10-8	7/8-14	1/2	5.40
2405-10-12	7/8-14	3/4	26.35
2405-12-8	1-1/16-12	1/2	6.05
2405-12-12	1-1/16-12	3/4	4.25
2405-12-16	1-1/16-12	1	17.19
2405-14-12	1-3/16-12	3/4	9.21
2405-16-12	1-5/16-12	3/4	17.14
2405-16-16	1-5/16-12	1	7.78
2405-16-20	1-5/16-12	1-1/4	22.03
2405-20-20	1-5/8-12	1-1/4	11.37
2405-24-24	1-7/8-12	1-1/2	22.46
2405-32-32	2-1/2-12	2	72.19

*Some sizes available in Stainless Steel*

**JIC TWO PIECE TUBE REDUCER**



Part #	JIC Female Tube O.D 1	JIC Male Thread 2	List Price
2407-6-4	3/8	7/16-20	4.40
2407-8-4	1/2	7/16-20	8.39
2407-8-6	1/2	9/16-18	6.91
2407-12-6	3/4	9/16-18	13.51
2407-12-8	3/4	3/4-16	10.21
2407-16-12	1	1-1/16-12	12.65
2407-20-16	1-1/4	1-5/16-12	7.44
2407-24-20	1-1/2	1-5/8-12	57.64



# HYDRAULIC ADAPTERS

# STRAIGHTS STEEL 37° JIC FLARE

## JIC REDUCER/ EXPANDER



2406  
C5015  
2215  
TRTX  
1246

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2406-6-4	9/16-18	7/16-20	1.43
2406-6-5	9/16-18	1/2-20	14.74
2406-8-4	3/4-16	7/16-20	2.33
2406-8-6	3/4-16	9/16-18	1.90
2406-8-12*	3/4-16	1-1/16-12	4.36
2406-10-4	7/8-14	7/16-20	5.15
2406-10-6	7/8-14	9/16-18	4.48
2406-10-8	7/8-14	3/4-16	2.90
2406-12-4	1-1/16-12	7/16-20	5.43
2406-12-6	1-1/16-12	9/16-18	5.46
2406-12-8	1-1/16-12	3/4-16	3.48
2406-12-10	1-1/16-12	7/8-14	3.92
2406-12-16*	1-1/16-12	1-5/16-12	8.39
2406-14-6	1-3/16-12	9/16-18	22.63
2406-14-8	1-3/16-12	3/4-16	15.95
2406-14-10	1-3/16-12	7/8-14	12.59
2406-14-12	1-3/16-12	1-1/16-12	7.98
2406-16-4	1-5/16-12	7/16-20	14.96
2406-16-6	1-5/16-12	9/16-18	21.43
2406-16-8	1-5/16-12	3/4-16	8.44
2406-16-10	1-5/16-12	7/8-14	15.56
2406-16-12	1-5/16-12	1-1/16-12	6.07
2406-16-14	1-5/16-12	1-3/16-12	9.09
2406-16-20*	1-5/16-12	1-5/8-12	12.24
2406-20-8	1-5/8-12	3/4-16	36.10
2406-20-12	1-5/8-12	1-1/16-12	12.94
2406-20-16	1-5/8-12	1-5/16-12	10.73
2406-24-16	1-7/8-12	1-5/16-12	44.19
2406-24-20	1-7/8-12	1-5/8-12	24.67
2406-32-24	2-1/2-12	1-7/8-12	61.98

**\*Tube Expander**  
*More expanding sizes available*

## PLUG

SAE 070109  
MS 51518



2408  
430549  
PNTX  
1254  
C5229

Part #	Tube O.D.	JIC Thread Size	List Price
2408-2	1/8	5/16-24	2.32
2408-3	3/16	3/8-24	3.29
2408-4	1/4	7/16-20	0.61
2408-5	5/16	1/2-20	1.08
2408-6	3/8	9/16-18	0.74
2408-8	1/2	3/4-16	1.02
2408-10	5/8	7/8-14	1.30
2408-12	3/4	1-1/16-12	2.04
2408-14	7/8	1-3/16-12	3.63
2408-16	1	1-5/16-12	2.92
2408-20	1-1/4	1-5/8-12	5.56
2408-24	1-1/2	1-7/8-12	11.81
2408-32	2	2-1/2-12	32.78

*Some available in Stainless Steel*

## JIC UNION ELBOW

SAE 070201  
MS 51505



2500  
2039  
1234  
C5505

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2500-2-2	5/16-24	5/16-24	4.73
2500-4-4	7/16-20	7/16-20	1.81
2500-5-5	1/2-20	1/2-20	3.04
2500-6	9/16-18	9/16-18	2.23
2500-6-4	9/16-18	7/16-20	2.89
2500-8-8	3/4-16	3/4-16	3.19
2500-8-4	3/4-16	7/16-20	24.62
2500-8-6	3/4-16	9/16-18	3.68
2500-10	7/8-14	7/8-14	4.73
2500-10-8	7/8-14	3/4-16	5.48
2500-12	1-1/16-12	1-1/16-12	5.50
2500-12-8	1-1/16-12	3/4-16	8.15
2500-14	1-3/16-12	1-3/16-12	13.41
2500-16	1-5/16-12	1-5/16-12	10.16
2500-16-12	1-5/16-12	1-1/16-12	16.04
2500-20	1-5/8-12	1-5/8-12	22.96
2500-24	1-7/8-12	1-7/8-12	42.09
2500-32	2-1/2-12	2-1/2-12	78.13

*Some available in Stainless Steel*  
*More sizes available*



# SHAPES STEEL 37° JIC FLARE

# HYDRAULIC ADAPTERS

## STEEL 37° JIC FLARE SHAPES

SAE 070202  
MS 51504

### JIC MALE ELBOW



1208R  
C5405  
2501  
2024R  
CTX

Part #	JIC Size 1	Male Pipe Size 2	List Price
2501-2-2	5/16-24	1/8	3.88
2501-2-4	5/16-24	1/4	68.19
2501-3-2	3/8-24	1/8	5.02
2501-3-4	3/8-24	1/4	36.79
2501-4-2	7/16-20	1/8	1.78
2501-4-4	7/16-20	1/4	1.95
2501-4-6	7/16-20	3/8	2.88
2501-4-8	7/16-20	1/2	4.13
2501-5-2	1/2-20	1/8	2.48
2501-5-4	1/2-20	1/4	2.61
2501-5-6	1/2-20	3/8	4.90
2501-6-2	9/16-18	1/8	2.32
2501-6-4	9/16-18	1/4	2.03
2501-6-6	9/16-18	3/8	2.53
2501-6-8	9/16-18	1/2	2.76
2501-6-12	9/16-18	3/4	5.97
2501-8-4	3/4-16	1/4	3.53
2501-8-6	3/4-16	3/8	3.12
2501-8-8	3/4-16	1/2	3.08
2501-8-12	3/4-16	3/4	5.08
2501-8-16	3/4-16	1	11.80
2501-10-6	7/8-14	3/8	4.15
2501-10-8	7/8-14	1/2	3.33
2501-10-12	7/8-14	3/4	6.34
2501-10-16	7/8-14	1	13.33
2501-12-6	1-1/16-12	3/8	8.88
2501-12-8	1-1/16-12	1/2	5.81
2501-12-12	1-1/16-12	3/4	5.02
2501-12-16	1-1/16-12	1	6.68
2501-12-20	1-1/16-12	1-1/4	61.75
2501-14-12	1-3/16-12	3/4	16.82
2501-14-16	1-3/16-12	1	22.22
2501-16-12	1-5/16-12	3/4	8.08
2501-16-16	1-5/16-12	1	7.27
2501-16-20	1-5/16-12	1-1/4	19.21
2501-20-16	1-5/8-12	1	20.81
2501-20-20	1-5/8-12	1-1/4	16.86
2501-20-24	1-5/8-12	1-1/2	27.83
2501-24-20	1-7/8-12	1-1/4	28.06
2501-24-24	1-7/8-12	1-1/2	26.06
2501-24-32	1-7/8-12	2	256.83
2501-32-24	2-1/2-12	1-1/2	61.69
2501-32-32	2-1/2-12	2	69.71
2501-40-40	3-12	2-1/2	375.78

## JIC ELBOW RESTRICTOR



Part #	JIC Size 1	Male Pipe Size 2	Restriction	List Price
2501-RS-4-4	7/16-20	1/4	.062	17.47
2501-RS-6-6	9/16-18	3/8	.062	11.20
2501-RS-6-8	9/16-18	1/2	.062	11.70

## LONG MALE ELBOW

SAE 071502



25012  
202411R  
CCTX  
1208-LR  
C5425

Part #	JIC Size 1	Male Pipe Size 2	Length*	List Price
2501-L-4-2	7/16-20	1/8	1.17"	5.08
2501-L-4-4	7/16-20	1/4	1.58"	5.90
2501-L-5-2	1/2-20	1/8	1.22"	5.44
2501-L-5-4	1/2-20	1/4	1.55"	6.30
2501-L-6-2	9/16-18	1/8	1.58"	15.92
2501-L-6-4	9/16-18	1/4	1.58"	6.54
2501-L-6-6	9/16-18	3/8	1.83"	5.67
2501-L-8-4	3/4-16	1/4	1.83"	13.83
2501-L-8-6	3/4-16	3/8	1.83"	6.17
2501-L-8-8	3/4-16	1/2	2.17"	5.90
2501-L-10-8	7/8-14	1/2	2.17"	15.01
2501-L-12-8	1-1/16-12	1/2	2.24"	23.99
2501-L-12-12	1-1/16-12	3/4	2.44"	10.84
2501-L-14-12	1-3/16-12	3/4	2.66"	18.87
2501-L-16-16	1-5/16-12	1	3.02"	20.27
2501-L-20-20	1-5/8-12	1-1/4	3.69"	39.27
2501-L-24-24	1-7/8-12	1-1/2	4.11"	112.65

\* Length = mid-JIC to end of threads  
Also available in Stainless Steel

Some sizes available in Stainless Steel

HYDRAULIC



# HYDRAULIC ADAPTERS

# SHAPES STEEL 37° JIC FLARE

## JIC EXTRA-LONG MALE ELBOW

SAE 071602



2501LL  
202413R  
CCCTX  
1208-LLR  
C5435

Part #	JIC Size 1	Male Pipe Size 2	Length*	List Price
2501-LL-4-2	7/16-20	1/8	1.56"	6.48
2501-LL-4-4	7/16-20	1/4	2.11"	6.54
2501-LL-5-4	1/2-20	1/4	2.04"	6.76
2501-LL-6-2	9/16-18	1/8	2.04"	56.73
2501-LL-6-4	9/16-18	1/4	2.08"	4.67
2501-LL-6-6	9/16-18	3/8	2.44"	5.03
2501-LL-8-4	3/4-16	1/4	2.42"	17.69
2501-LL-8-6	3/4-16	3/8	2.42"	6.80
2501-LL-8-8	3/4-16	1/2	2.88"	10.29
2501-LL-10-8	7/8-14	1/2	2.88"	9.52
2501-LL-12-8	1-1/16-12	1/2	3.25"	20.95
2501-LL-12-12	1-1/16-12	3/4	3.28"	14.74
2501-LL-14-12	1-3/16-12	3/4	3.63"	18.46
2501-LL-16-16	1-5/16-12	1	4.05"	22.27
2501-LL-20-20	1-5/8-12	1-1/4	5.00"	97.96
2501-LL-24-24	1-7/8-12	1-1/2	5.50"	270.39

## JIC EXTRA EXTRA LONG MALE ELBOW

2501LLL  
202414R



Part #	JIC Size 1	Male Pipe Size 2	Length*	List Price
2501-LLL-4-2	7/16-20	1/8	2.31"	9.52
2501-LLL-4-4	7/16-20	1/4	3.00"	17.84
2501-LLL-6-4	9/16-18	1/4	3.06"	21.32
2501-LLL-6-6	9/16-18	3/8	3.06"	18.14
2501-LLL-8-6	3/4-16	3/8	3.75"	19.09
2501-LLL-8-8	3/4-16	1/2	3.75"	24.49
2501-LLL-10-8	7/8-14	1/2	4.50"	26.44
2501-LLL-12-12	1-1/16-12	3/4	5.03"	33.92
2501-LLL-16-16	1-5/16-12	1	6.34"	46.67

\* Length = mid-JIC to end of threads

## JIC MALE ELBOW SWIVEL



• swivel for installation only

Part #	JIC Thread Size 1	Male Pipe Size 2	List Price
2501-S-4-4	7/16-20	1/4	17.32
2501-S-6-4	9/16-18	1/4	21.13
2501-S-6-6	9/16-18	3/8	33.02
2501-S-8-6	3/4-16	3/8	24.58
2501-S-8-8	3/4-16	1/2	40.77
2501-S-10-8	7/8-14	1/2	66.98
2501-S-12-12	1-1/16-12	3/4	21.09

## JIC FEMALE ELBOW

SAE 070203  
MS 51506



2502  
2025R  
DTX  
1240R  
C5455

Part #	JIC Thread Size 1	Female Pipe Size 2	List Price
2502-4-2	7/16-20	1/8	3.26
2502-4-4	7/16-20	1/4	2.80
2502-4-6	7/16-20	3/8	3.26
2502-5-2	1/2-20	1/8	3.83
2502-5-4	1/2-20	1/4	3.49
2502-6-2	9/16-18	1/8	3.68
2502-6-4	9/16-18	1/4	3.12
2502-6-6	9/16-18	3/8	3.78
2502-6-8	9/16-18	1/2	5.56
2502-8-4	3/4-16	1/4	5.46
2502-8-6	3/4-16	3/8	3.87
2502-8-8	3/4-16	1/2	5.72
2502-8-12	3/4-16	3/4	12.06
2502-10-6	7/8-14	3/8	13.18
2502-10-8	7/8-14	1/2	6.00
2502-12-8	1-1/16-12	1/2	8.52
2502-12-12	1-1/16-12	3/4	9.33
2502-14-12	1-3/16-12	3/4	22.04
2502-16-12	1-5/16-12	3/4	29.57
2502-16-16	1-5/16-12	1	11.94
2502-20-20	1-5/8-12	1-1/4	19.18
2502-24-24	1-7/8-12	1-1/2	60.89
2502-32-32	2-1/2-12	2	132.97

Also available in Stainless Steel





## SHAPES STEEL 37° JIC FLARE

SAE 070302  
MS 51508

### JIC MALE 45° ELBOW



2503  
2023R  
VTX  
1206R  
C5355

Part #	JIC Thread Size 1	Male Pipe Size 2	List Price
2503-2-2	5/16-24	1/8	2.58
2503-3-2	3/8-24	1/8	2.46
2503-4-2	7/16-20	1/8	2.24
2503-4-4	7/16-20	1/4	2.19
2503-4-6	7/16-20	3/8	3.05
2503-5-2	1/2-20	1/8	2.75
2503-5-4	1/2-20	1/4	2.82
2503-6-2	9/16-18	1/8	3.97
2503-6-4	9/16-18	1/4	2.70
2503-6-6	9/16-18	3/8	3.05
2503-6-8	9/16-18	1/2	3.99
2503-6-12	9/16-18	3/4	10.29
2503-8-4	3/4-16	1/4	3.27
2503-8-6	3/4-16	3/8	3.43
2503-8-8	3/4-16	1/2	4.19
2503-8-12	3/4-16	3/4	7.94
2503-10-6	7/8-14	3/8	5.49
2503-10-8	7/8-14	1/2	4.78
2503-10-12	7/8-14	3/4	5.71
2503-12-6	1-1/16-12	3/8	68.03
2503-12-8	1-1/16-12	1/2	5.66
2503-12-12	1-1/16-12	3/4	9.38
2503-12-16	1-1/16-12	1	11.14
2503-14-12	1-3/16-12	3/4	11.21
2503-16-12	1-5/16-12	3/4	5.48
2503-16-16	1-5/16-12	1	8.60
2503-16-20	1-5/16-12	1-1/4	24.91
2503-20-16	1-5/8-12	1	20.18
2503-20-20	1-5/8-12	1-1/4	18.06
2503-24-24	1-7/8-12	1-1/2	34.48
2503-32-32	2-1/2-12	2	58.66
2503-40-40	3-12	2-1/2	1142.86

*Some sizes available in Stainless Steel*

### JIC 45° UNION ELBOW



2504

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2504-6	9/16-18	9/16-18	8.88
2504-8	3/4-16	3/4-16	8.88
2504-10	7/8-14	7/8-14	11.94
2504-12	1-1/16-12	1-1/16-12	15.43
2504-16	1-5/16-12	1-5/16-12	17.14
2504-20	1-5/8-12	1-5/8-12	79.64

## HYDRAULIC ADAPTERS

### JIC 45° FEMALE ELBOW

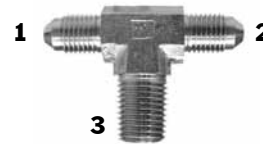


2505  
2044-R

Part #	JIC Thread Size 1	Female Pipe Size 2	List Price
2505-6-4	9/16-18	1/4	18.00
2505-8-6	3/4-16	3/8	14.06
2505-10-8	7/8-14	1/2	29.84
2505-12-12	1-1/16-12	3/4	31.25

*More sizes available*

### JIC MALE BRANCH TEE



2601  
2030R  
STX  
1221R  
C5605

Part #	JIC Thread Size 1&2	Pipe Thread Size 3	List Price
2601-2-2	5/16-24	1/8	67.94
2601-3-2	3/8-24	1/8	5.46
2601-4-2	7/16-20	1/8	2.99
2601-4-4	7/16-20	1/4	3.62
2601-5-2	1/2-20	1/8	4.64
2601-5-4	1/2-20	1/4	4.86
2601-6-4	9/16-18	1/4	3.56
2601-6-6	9/16-18	3/8	4.76
2601-8-6	3/4-16	3/8	4.48
2601-8-8	3/4-16	1/2	5.54
2601-10-6	7/8-14	3/8	33.33
2601-10-8	7/8-14	1/2	7.11
2601-12-8	1-1/16-12	1/2	11.94
2601-12-12	1-1/16-12	3/4	8.67
2601-14-12	1-3/16-12	3/4	21.72
2601-16-12	1-5/16-12	3/4	22.04
2601-16-16	1-5/16-12	1	15.59
2601-20-20	1-5/8-12	1-1/4	32.12
2601-24-24	1-7/8-12	1-1/2	75.91
2601-32-32	2-1/2-12	2	76.54

*Also available in Stainless Steel*

HYDRAULIC





## HYDRAULIC ADAPTERS

### JIC FEMALE BRANCH TEE

SAE 070427  
MS 51513

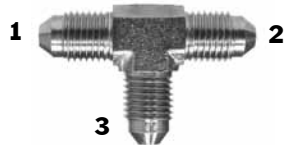


2602  
2031R  
OTX  
1228R  
C6566

Part #	JIC Thread Size 1 & 2	Female Pipe Size 3	List Price
2602-3-2	3/8-24	1/8	34.68
2602-4-2	7/16-20	1/8	4.04
2602-4-4	7/16-20	1/4	5.08
2602-5-2	1/2-20	1/8	7.61
2602-6-4	9/16-18	1/4	5.31
2602-6-6	9/16-18	3/8	5.94
2602-8-8	3/4-16	1/2	7.75
2602-12-8	1-1/16-12	1/2	30.88
2602-12-12	1-1/16-12	3/4	12.13
2602-16-16	1-5/16-12	1	21.33
2602-20-20	1-5/8-12	1-1/4	32.01
2602-24-24	1-7/8-12	1-1/2	60.83
2602-32-32	2-1/2-12	2	302.35

### JIC UNION TEE

SAE 070401  
MS 51510



2603  
2033  
JTX  
1220  
C5705

Part #	JIC Thread Size 1 & 2	JIC Thread Size 3	List Price
2603-2-2	5/16-24	5/16-24	3.49
2603-3-3	3/8-24	3/8-24	6.77
2603-4-4	7/16-20	7/16-20	2.38
2603-5-5	1/2-20	1/2-20	3.83
2603-6	9/16-18	9/16-18	2.88
2603-8	3/4-16	3/4-16	3.81
2603-10	7/8-14	7/8-14	5.94
2603-12	1-1/16-12	1-1/16-12	7.15
2603-14	1-3/16-12	1-3/16-12	18.57
2603-16	1-5/16-12	1-5/16-12	11.57
2603-20	1-5/8-12	1-5/8-12	29.53
2603-24	1-7/8-12	1-7/8-12	39.43
2603-32	2-1/2-12	2-1/2-12	340.77

## SHAPES STEEL 37° JIC FLARE

### STEEL BULKHEAD FITTINGS

SAE 070118  
MS 51860



1306  
894  
210212  
WLN  
1332  
C5624

\* Lock Nut no longer included on fittings

Part #	Thread Size	List Price
0306-4	7/16-20	0.41
0306-5	1/2-20	0.43
0306-6	9/16-18	0.68
0306-8	3/4-16	0.68
0306-10	7/8-14	0.91
0306-12	1-1/16-12	1.68
0306-14	1-3/16-12	1.70
0306-16	1-5/16-12	2.49
0306-20	1-5/8-12	2.58
0306-24	1-7/8-12	4.24
0306-32	2-1/2-12	15.22

### JIC BULKHEAD UNION

SAE 070601  
MS 51520



2700  
2041R  
WTX  
1260  
C5325

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2700-4-4	7/16-20	7/16-20	1.90
2700-5-5	1/2-20	1/2-20	2.60
2700-6-6	9/16-18	9/16-18	2.29
2700-8	3/4-16	3/4-16	2.93
2700-10	7/8-14	7/8-14	4.64
2700-12	1-1/16-12	1-1/16-12	5.72
2700-14	1-3/16-12	1-3/16-12	9.08
2700-16	1-5/16-12	1-5/16-12	8.64
2700-20	1-5/8-12	1-5/8-12	19.30
2700-24	1-7/8-12	1-7/8-12	28.44
2700-32	2-1/2-12	2-1/2-12	92.39

\* Lock Nuts sold separately

### JIC BULKHEAD UNION ELBOW

SAE 070701  
MS 51507



2701  
2043R  
WETX  
1262  
C5525

Part #	JIC Thread Size 1	JIC Bulkhead Thread 2	List Price
2701-4	7/16-20	7/16-20	3.49
2701-5	1/2-20	1/2-20	5.08
2701-6	9/16-18	9/16-18	4.38
2701-8	3/4-16	3/4-16	6.92
2701-10	7/8-14	7/8-14	8.95
2701-12	1-1/16-12	1-1/16-12	13.14
2701-16	1-5/16-12	1-5/16-12	16.00
2701-20	1-5/8-12	1-5/8-12	25.65
2701-24	1-7/8-12	1-7/8-12	53.21

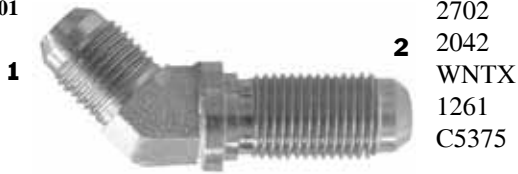
\* Lock Nuts sold separately

# SHAPES STEEL 37° JIC FLARE

# HYDRAULIC ADAPTERS

## JIC BULKHEAD UNION 45° ELBOW

SAE 070801  
MS 51509



2702  
2042  
WNTX  
1261  
C5375

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2702-4	7/16-20	7/16-20	3.06
2702-6	9/16-18	9/16-18	5.33
2702-8	3/4-16	3/4-16	4.97
2702-10	7/8-14	7/8-14	7.52
2702-12	1-1/16-12	1-1/16-12	10.15
2702-16	1-5/16-12	1-5/16-12	14.00
2702-20	1-5/8-12	1-5/8-12	24.83

## JIC BULKHEAD BRANCH TEE

SAE 070959  
MS 51515



2703  
203002  
WJT  
1283  
C5725

Part #	JIC Thread Size 1&2	JIC Thread Size 3	List Price
2703-4	7/16-20	7/16-20	4.97
2703-6	9/16-18	9/16-18	6.34
2703-8	3/4-16	3/4-16	9.01
2703-10	7/8-14	7/8-14	12.76
2703-12	1-1/16-12	1-1/16-12	18.48
2703-16	1-5/16-12	1-5/16-12	25.71
2703-20	1-5/8-12	1-5/8-12	57.52

## JIC BULKHEAD RUN TEE

SAE 070958  
MS 51516



2704  
203008  
WJTT  
1284  
C5726

Part #	JIC Thread Size 1&3	JIC Thread Size 2	List Price
2704-4	7/16-20	7/16-20	4.97
2704-6	9/16-18	9/16-18	6.34
2704-8	3/4-16	3/4-16	9.02
2704-10	7/8-14	7/8-14	12.76
2704-12	1-1/16-12	1-1/16-12	18.48
2704-16	1-5/16-12	1-5/16-12	25.72

## JIC TO FEMALE PIPE BULKHEAD



2705  
2239  
WGTX  
C5275

Part #	JIC Thread Size 1	Female Pipe Size 2	List Price
2705-4-2	7/16-20	1/8	2.93
2705-4-4	7/16-20	1/4	3.11
2705-5-2	1/2-20	1/8	3.94
2705-6-4	9/16-18	1/4	4.64
2705-6-6	9/16-18	3/8	5.02
2705-8-6	3/4-16	3/8	5.40
2705-8-8	3/4-16	1/2	6.73
2705-10-8	7/8-14	1/2	19.41
2705-12-12	1-1/16-12	3/4	10.54
2705-16-16	1-5/16-12	1	17.15
2705-20-20	1-5/8-12	1-1/4	28.45
2705-24-24	1-7/8-12	1-1/2	44.32

## JIC TO MALE PIPE BULKHEAD



2706  
2240

Part #	JIC Thread Size 1	Pipe Thread Size 2	List Price
2706-4-2	7/16-20	1/8	2.80
2706-4-4	7/16-20	1/4	2.98
2706-6-4	9/16-18	1/4	3.87
2706-6-6	9/16-18	3/8	4.06
2706-8-6	3/4-16	3/8	5.34
2706-8-8	3/4-16	1/2	5.84
2706-10-8	7/8-14	1/2	7.11
2706-12-12	1-1/16-12	3/4	10.11
2706-16-16	1-5/16-12	1	15.49
2706-20-20	1-5/8-12	1-1/4	25.72
2706-24-24	1-7/8-12	1-1/2	38.42

\* Lock Nuts sold separately - pg. 327

**STEEL PIPE ADAPTERS**

**CONFORMANCE**

- SAE J514 for hex nipples, expanders, elbows, tees and crosses.
- SAE J514, J530 and J531 for bushings and plugs.
- Temperature Range: -65°F to +400°F

**MATERIALS**

- Steel- SAE 12L14 carbon steel trivalent zinc plated or bright silver finish.

**STYLES**

- Barstock
- Forged
- Chamfered - male ends have an internal 30-degree chamfer to mate with NPSM female swivel union connections. Many pipe fittings do not have this chamfer, as it is not required per SAE J514 standard.

**Caution: Although most pipe fittings have sufficient structural integrity to support the weight of many components, consult our technical support department for guidance in selection of parts for this purpose**

**WORKING PRESSURES**

The following table lists the recommended working pressures for steel NPTF hydraulic pipe fittings manufactured in accordance with SAE standard J514. Many factors such as number of threads engaged, impulsing, vibration, mechanical shock, removal and reassembly, thermal expansion and contraction may affect the integrity of the fitting or fitting connection. For these reasons, the recommended working pressures are actually lower than the capacity of the fittings. SAE recommends sufficient testing to be conducted to assure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions.

**SAE J514 NPTF PIPE WORKING PRESSURES**

Dash Size	NPTF Thread Size	4 TO 1 Minimum Burst PSI
-1	1/16-27	5000
-2	1/8-27	5000
-4	1/4-18	5000
-6	3/8-18	4000
-8	1/2-14	3000
-12	3/4-14	2500
-16	1-11 1/2	2000
-20	1-1/4-11-1/2	1150
-24	1-1/2-11-1/2	1000
-32	2-11-1/2	750

**NPTF DRY SEAL PIPE ASSEMBLY INSTRUCTIONS**

- Step 1.** Inspect port and fitting to ensure that both are free of contaminants and excessive burrs and nicks.
- Step 2.** Apply a stripe of an anaerobic liquid pipe sealant around the male threads leaving the first two threads uncovered. If no liquid sealant is available, wrap Teflon tape 1 1/2 to 2 turns in a clockwise direction, viewed from the pipe end, leaving the first two threads uncovered. **Caution: Teflon tape and some pipe sealants are destructive to hydraulic components. Always use extreme caution and follow manufacturers recommendations for proper application of any sealant in order to prevent contamination**
- Step 3.** Screw finger tight into the port.
- Step 4.** Wrench tighten the fitting to the correct turns past finger tight position. (See following table) When installing elbows or tees, consider final orientation position as to not exceed the recommended TPFT
- Caution: Never back off an installed pipe fitting to achieve proper alignment. Loosening installed pipe fittings will corrupt the seal and contribute to leakage and failure.**

Dash Size	NPTF Thread Size	Turns Past Finger Tight
-1	1/16-27	2.0 - 3.0
-2	1/8-27	2.0 - 3.0
-4	1/4-18	2.0 - 3.0
-6	3/8-18	2.0 - 3.0
-8	1/2-14	2.0 - 3.0
-12	3/4-14	2.0 - 3.0
-16	1-11 1/2	1.5 - 2.5
-20	1-1/4-11-1/2	1.5 - 2.5
-24	1-1/2-11-1/2	1.5 - 2.5
-32	2-11-1/2	1.5 - 2.5

Torque installation of pipe fittings is not a recommended practice. Thread taper and quality, different port and fitting materials, plating thickness and types, varying threads sealants, orientation, and other factors reduce the reliability of a torqued connection. If torque installation is required, refer to the following table for suggested torque values.

Dash Size	NPTF Thread Size	Torque Foot/LBS
-2	1/8-27	12
-4	1/4-18	25
-6	3/8-18	40
-8	1/2-14	54
-12	3/4-14	78
-16	1-11-1/2	112
-20	1-1/4-11-1/2	154
-24	1-1/2-11-1/2	211
-32	2-11-1/2	300

See STRAIGHT THREAD O-RING FITTING SECTION for assembly instructions and torque values for

# STEEL PIPE FITTINGS

## JIC BULKHEAD RUN TEE

SAE 140138



5000  
2096  
GG  
1273  
C3309

Part #	Female Pipe 1	Female Pipe 2	List Price
5000-2	1/8	1/8	1.91
5000-4-2	1/4	1/8	3.28
5000-4	1/4	1/4	1.49
5000-6-4	3/8	1/4	2.22
5000-6-6	3/8	3/8	1.75
5000-8-4	1/2	1/4	4.45
5000-8-6	1/2	3/8	3.16
5000-8	1/2	1/2	4.06
5000-12-6	3/4	3/8	7.24
5000-12-8	3/4	1/2	4.76
5000-12-12	3/4	3/4	3.86
5000-16-12	1	3/4	9.72
5000-16	1	1	6.25
5000-20-16	1-1/4	1	24.64
5000-20-20	1-1/4	1-1/4	10.90
5000-24	1-1/2	1-1/2	21.50
5000-32	2	2	43.45

## HEX PIPE FITTINGS

SAE 140137



5404 C3069  
2083  
FF  
1252

Part #	Male Pipe 1	Male Pipe 2	List Price
5404-2	1/8	1/8	0.93
5404-4-2	1/4	1/8	1.15
5404-4	1/4	1/4	0.90
5404-6-2	3/8	1/8	2.41
5404-6-4	3/8	1/4	1.49
5404-6	3/8	3/8	1.56
5404-8-4	1/2	1/4	2.18
5404-8-6	1/2	3/8	1.69
5404-8	1/2	1/2	1.63
5404-12-6	3/4	3/8	4.88
5404-12-8	3/4	1/2	2.90
5404-12	3/4	3/4	2.95
5404-16-12	1	3/4	5.78
5404-16	1	1	5.21
5404-20-12	1-1/4	3/4	14.66
5404-20-16	1-1/4	1	11.60
5404-20	1-1/4	1-1/4	10.33
5404-24-12	1-1/2	3/4	40.51
5404-24-16	1-1/2	1	27.22
5404-24-20	1-1/2	1-1/4	23.33
5404-24	1-1/2	1-1/2	14.20
5404-32-24	2	1-1/2	45.45
5404-32	2	2	38.69

# HYDRAULIC ADAPTERS

## EXPANDING PIPE ADAPTER

SAE 140139



5405  
2040  
FG-(R)  
1274  
C3209(R)

Part #	Male Pipe 1	Female Pipe 2	List Price
5405-2-2	1/8	1/8	5.29
5405-2-4	1/8	1/4	1.61
5405-2-6	1/8	3/8	4.79
5405-4-4	1/4	1/4	1.66
5405-4-6	1/4	3/8	1.71
5405-4-8	1/4	1/2	4.32
5405-6-6	3/8	3/8	2.31
5405-6-8	3/8	1/2	2.73
5405-8-8	1/2	1/2	4.86
5405-8-12	1/2	3/4	4.93
5405-8-16	1/2	1	13.54
5405-12-12	3/4	3/4	7.84
5405-12-16	3/4	1	10.83
5405-12-20	3/4	1-1/4	30.77
5405-16-16	1	1	12.95
5405-16-20	1	1-1/4	24.84
5405-20-20	1-1/4	1-1/4	24.03
5405-20-24	1-1/4	1-1/2	26.58
5405-24-24	1-1/2	1-1/2	33.94
5405-24-32	1-1/2	2	53.15

Have you ever noticed? Anybody going slower than you is an idiot, and anyone going faster than you is a maniac.

- George Carlin

Man can always be relied upon to exert, with vigour, his ... right to be stupid

- Dean Koontz

## HYDRAULIC ADAPTERS

### HEX REDUCER BUSHING



5406  
2081  
PTR  
1250  
C3109

Part #	Male Pipe	Female Pipe	List Price
5406-4-2	1/4	1/8	0.75
5406-6-2	3/8	1/8	1.02
5406-6-4	3/8	1/4	1.02
5406-8-2	1/2	1/8	1.69
5406-8-4	1/2	1/4	1.40
5406-8-6	1/2	3/8	1.40
5406-12-2	3/4	1/8	2.73
5406-12-4	3/4	1/4	2.83
5406-12-6	3/4	3/8	2.83
5406-12-8	3/4	1/2	2.83
5406-16-4	1	1/4	5.04
5406-16-6	1	3/8	6.00
5406-16-8	1	1/2	3.40
5406-16-12	1	3/4	3.65
5406-20-4	1-1/4	1/4	9.47
5406-20-6	1-1/4	3/8	8.87
5406-20-8	1-1/4	1/2	8.20
5406-20-12	1-1/4	3/4	11.33
5406-20-16	1-1/4	1	7.44
5406-24-6	1-1/2	3/8	19.64
5406-24-8	1-1/2	1/2	17.40
5406-24-12	1-1/2	3/4	13.68
5406-24-16	1-1/2	1	13.95
5406-24-20	1-1/2	1-1/4	12.61
5406-32-12	2	3/4	22.75
5406-32-16	2	1	27.99
5406-32-20	2	1-1/4	22.75
5406-32-24	2	1-1/2	22.75

*Some sizes available in Stainless Steel  
Also available in short pattern*

SAE 130109E

### HEX HEAD PLUG



5406P  
2082  
HP  
1251  
C3159

Part #	Male Pipe	List Price
5406-P-2	1/8	0.43
5406-P-4	1/4	0.87
5406-P-6	3/8	0.79
5406-P-8	1/2	1.18
5406-P-12	3/4	2.21
5406-P-16	1	3.27
5406-P-20	1-1/4	6.60
5406-P-24	1-1/2	14.18
5406-P-32	2	19.68

*Also available in Stainless Steel*

## STEEL PIPE FITTINGS

### HOLLOW HEX PLUG

SAE 130109



Part #	Male Pipe	List Price
5406-HHP-1	1/16	0.63
5406-HHP-2	1/8	0.36
5406-HHP-4	1/4	0.32
5406-HHP-6	3/8	0.38
5406-HHP-8	1/2	0.56
5406-HHP-12	3/4	1.11
5406-HHP-16	1	2.45
5406-HHP-20	1-1/4	6.83
5406-HHP-24	1-1/2	18.47
5406-HHP-32	2	23.97

### FLUSH HOLLOW HEX PLUG W/ 7/8 TAPER



Part #	Male Pipe	List Price
5406-FLP-1	1/16	0.69
5406-FLP-2	1/8	0.37
5406-FLP-4	1/4	0.53
5406-FLP-6	3/8	0.91
5406-FLP-8	1/2	1.11
5406-FLP-12	3/4	3.31

### SQUARE HEAD PLUG

SAE 130109A



Part #	Male Pipe	List Price
5406-SHP-2	1/8	0.36
5406-SHP-4	1/4	0.40
5406-SHP-6	3/8	0.50
5406-SHP-8	1/2	0.99
5406-SHP-12	3/4	1.32
5406-SHP-16	1	5.22
5406-SHP-20	1-1/4	15.24
5406-SHP-24	1-1/2	21.43
5406-SHP-32	2	31.79



# STEEL PIPE FITTINGS

## PIPE CAP



Part #	Female Pipe	List Price
5406-C-2	1/8	0.73
5406-C-4	1/4	0.89
5406-C-6	3/8	1.24
5406-C-8	1/2	2.29
5406-C-12	3/4	3.18
5406-C-16	1	6.41

Also available in Stainless Steel

## MALE ELBOW

SAE 140237



5500  
2085  
CR  
1275  
C3529

Part #	Male Pipe 1	Male Pipe 2	List Price
5500-2	1/8	1/8	2.44
5500-4-2	1/4	1/8	2.32
5500-4	1/4	1/4	2.00
5500-6-4	3/8	1/4	2.80
5500-6	3/8	3/8	2.80
5500-8-4	1/2	1/4	4.38
5500-8-6	1/2	3/8	4.25
5500-8	1/2	1/2	4.00
5500-12-8	3/4	1/2	6.34
5500-12-12	3/4	3/4	7.15
5500-16	1	1	8.74
5500-20-20	1-1/4	1-1/4	17.65
5500-24	1-1/2	1-1/2	29.78
5500-32	2	2	61.06

Also available in Stainless Steel  
More sizes available

## MALE ELBOW SWIVEL



• swivels for installation purpose only

Part #	Male Pipe 1	Male Pipe 2	List Price
5700-S-4-4	1/4	1/4	6.89
5700-S-6-6	3/8	3/8	26.62
5700-S-8-8	1/2	1/2	27.89
5700-S-12-12	3/4	3/4	53.24

# HYDRAULIC ADAPTERS

## 45° MALE ELBOW

5501  
2247



Part #	Male Pipe 1	Male Pipe 2	List Price
5501-2-2	1/8	1/8	4.39
5501-4-4	1/4	1/4	3.45
5501-6-6	3/8	3/8	4.49
5501-8	1/2	1/2	4.60
5501-12-12	3/4	3/4	7.62
5501-16-16	1	1	22.54
5501-20-20	1-1/4	1-1/4	20.09
5501-24-24	1-1/2	1-1/2	87.53

## 90° STREET ELBOW

SAE 140239



5502  
2089  
CD  
1234R  
C3409

Part #	Male Pipe 1	Female Pipe 2	List Price
5502-2	1/8	1/8	2.12
5502-2-6	1/8	3/8	36.28
5502-4-2	1/4	1/8	2.48
5502-4	1/4	1/4	2.48
5502-4-6	1/4	3/8	3.85
5502-4-8-8	1/4	1/2	30.25
5502-6-2	3/8	1/8	19.11
5502-6-4	3/8	1/4	3.72
5502-6	3/8	3/8	3.84
5502-6-8	3/8	1/2	5.23
5502-8-4	1/2	1/4	6.32
5502-8-6	1/2	3/8	4.53
5502-8-8	1/2	1/2	4.51
5502-8-12	1/2	3/4	8.52
5502-12-8	3/4	1/2	9.27
5502-12	3/4	3/4	6.54
5502-16-12	1	3/4	23.75
5502-16-16	1	1	12.44
5502-16-20	1	1-1/4	31.75
5502-20-16	1-1/4	1	23.04
5502-20	1-1/4	1-1/4	18.92
5502-24	1-1/2	1-1/2	44.52
5502-32	2	2	110.32

Also available in Stainless Steel  
More sizes available





# HYDRAULIC ADAPTERS

# STEEL PIPE FITTINGS

## STREET ELBOW SWIVEL



•Swivels for installation only

Part #	Male Pipe 1	Female Pipe 2	List Price
5702-4-4	1/4	1/4	25.67
5702-6-6	3/8	3/8	23.85
5702-8-8	1/2	1/2	31.61
5702-12-12	3/4	3/4	83.45

## SHORT BODY STREET ELBOW



Part #	Male Pipe 1	Female Pipe 2	List Price
5502-X-4	1/4	1/4	8.89
5502-X-6	3/8	3/8	11.84
5502-X-8	1/2	1/2	19.05

## 45° STREET ELBOW

SAE 140339



5503  
CD45  
1244

Part #	Male Pipe 1	Female Pipe 2	List Price
5503-2	1/8	1/8	2.62
5503-4	1/4	1/4	2.65
5503-6	3/8	3/8	4.18
5503-8	1/2	1/2	5.08
5503-12-12	3/4	3/4	6.54
5503-16	1	1	9.99
5503-20	1-1/4	1-1/4	33.49
5503-24	1-1/2	1-1/2	46.48

*More sizes available  
Also available in Stainless Steel*

## FEMALE ELBOW

SAE 140238



5504  
2087  
DD  
1245  
C3509

Part #	Female Pipe 1	Female Pipe 2	List Price
5504-2	1/8	1/8	2.59
5504-4-2	1/4	1/8	3.65
5504-4	1/4	1/4	2.08
5504-6-4	3/8	1/4	3.84
5504-6	3/8	3/8	3.93
5504-8-4	1/2	1/4	4.51
5504-8-6	1/2	3/8	4.96
5504-8	1/2	1/2	3.86
5504-12-8	3/4	1/2	7.88
5504-12	3/4	3/4	7.14
5504-16-12	1	3/4	10.70
5504-16	1	1	10.20
5504-20	1-1/4	1-1/4	18.44
5504-24	1-1/2	1-1/2	53.17
5504-32	2	2	198.73

*More sizes available  
Also available in Stainless Steel*

## 45° FEMALE ELBOW

SAE 140338



5505  
DD45  
1241  
C3559

Part #	Female Pipe 1	Female Pipe 2	List Price
5505-2	1/8	1/8	4.16
5505-4	1/4	1/4	3.87
5505-6	3/8	3/8	5.59
5505-8	1/2	1/2	7.98
5505-12	3/4	3/4	9.05
5505-16	1	1	15.78
5505-20	1-1/4	1-1/4	25.34

*More sizes available*





# STEEL PIPE FITTINGS

# HYDRAULIC ADAPTERS

## MALE PIPE TEE

SAE 140437



5600  
2257  
RRS

Part #	Male Pipe 1 & 2	Male Pipe 3	List Price
5600-2-2	1/8	1/8	4.90
5600-4-4	1/4	1/4	5.36
5600-6-6	3/8	3/8	6.54
5600-8-8	1/2	1/2	8.05
5600-12	3/4	3/4	10.56
5600-16	1	1	21.62
5600-20	1-1/4	1-1/4	57.84

Also available in Stainless Steel

## FEMALE BRANCH PIPE TEE

SAE 140427



5601  
2256

Part #	Male Pipe 1 & 2	Female Pipe 3	List Price
5601-2-2	1/8	1/8	3.02
5601-4-4	1/4	1/4	5.70
5601-6-6	3/8	3/8	6.67
5601-8	1/2	1/2	10.19
5601-12	3/4	3/4	14.08
5601-16	1	1	26.15
5601-20	1-1/4	1-1/4	53.44

## STREET PIPE TEE

SAE 140424



5602  
2092  
MRO  
1276  
C3759

Part #	Male Pipe 1	Female Pipe 2 & 3	List Price
5602-2-2	1/8	1/8	3.02
5602-4-4	1/4	1/4	3.40
5602-6-6	3/8	3/8	4.64
5602-8-8	1/2	1/2	7.24
5602-12	3/4	3/4	13.29
5602-16	1	1	19.62
5602-20	1-1/4	1-1/4	32.08
5602-24	1-1/2	1-1/2	108.52

Also available in Stainless Steel

## FEMALE RUN PIPE TEE

SAE 1404276



5603  
2093  
MMO  
1277

Part #	Male Pipe 1 & 3	Female Pipe 2	List Price
5603-2-2	1/8	1/8	3.75
5603-4-4	1/4	1/4	4.59
5603-6-6	3/8	3/8	5.81
5603-8-8	1/2	1/2	8.28
5603-12	3/4	3/4	12.37
5603-16	1	1	21.65
5603-20	1-1/4	1-1/4	57.93
5603-24	1-1/2	1-1/2	110.51

Some sizes available in Stainless Steel

## MALE BRANCH PIPE TEE



5604  
2091  
KMMOO  
1278  
C3609

Part #	Female Pipe 1 & 2	Male Pipe 3	List Price
5604-2-2	1/8	1/8	3.81
5604-4-4	1/4	1/4	5.29
5604-6-6	3/8	3/8	6.35
5604-8-8	1/2	1/2	9.47
5604-12	3/4	3/4	12.63
5604-16	1	1	18.74
5604-20	1-1/4	1-1/4	36.38
5604-24	1-1/2	1-1/2	75.45

Some sizes available in Stainless Steel

## FEMALE PIPE TEE

SAE 140438



5605  
2090  
1225  
C3709

Part #	Female Pipe	List Price
5605-2-2	1/8	3.97
5605-4-4	1/4	5.24
5605-6-6	3/8	4.53
5605-8	1/2	6.25
5605-12	3/4	10.00
5605-16	1	17.62
5605-20	1-1/4	39.09
5605-24	1-1/2	105.38
5605-32	2	254.17

More sizes available  
All sizes available in Stainless Steel



SAE 140538

**FEMALE CROSS**

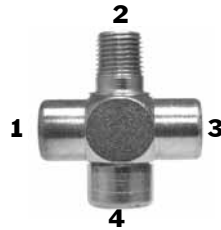


5652  
2080  
1279  
C3959

Part #	Female Pipe 1,2,3 & 4	List Price
5652-2	1/8	7.62
5652-4	1/4	5.82
5652-6	3/8	7.51
5652-8	1/2	9.37
5652-12	3/4	15.03
5652-16	1	27.20
5652-20	1-1/4	83.92

*Also available in Stainless Steel*

**MALE BRANCH CROSS**



5655  
208007

Part #	Pipe Size 1, 2, 3 & 4	List Price
5655-4-4-4-4	1/4	22.53
5655-6-6-6-6	3/8	23.22
5655-8-8-8-8	1/2	29.21
5655-12-12-12-12	3/4	83.27

The uglier a man's legs are, the better he plays golf. It's almost a law.

- H G Wells

I never pray on a golf course. Actually, the Lord answers my prayers everywhere except on the course.

- Billy Graham

**Five (5) lessons about the way we treat people**

4 - Fourth Important Lesson. - The obstacle in Our Path.

In ancient times, a King had a boulder placed on a Roadway. Then he hid himself and watched to see if Anyone would remove the huge rock.

Some of the King's' wealthiest merchants and courtiers came by and simply walked around it.. Many loudly blamed the King for not keeping the roads clear, but none did anything about getting the stone out of the way.

Then a peasant came along carrying a load of vegetables. Upon approaching the boulder, the peasant laid down his burden and tried to move the stone to the side of the road. After much pushing and straining, he finally succeeded. After the peasant picked up his load of vegetables, he noticed a purse lying in the road where the boulder had been. The purse contained many gold coins and a note from the King indicating that the gold was for the person who removed the boulder from the roadway.

The peasant learned what many of us never understand! Every obstacle presents an opportunity to improve our condition.



**STEEL STRAIGHT THREAD O-RING ADAPTERS**

Straights Pg. 283-285  
 Shapes Pg. 285-290  
 Bulkheads Pg. 290-291  
 Female Swivels Pg. 304-306  
 O-Ring Fittings Pg. 307-312

**CONFORMANCE**

- SAE J514
- SAE J1926/1, SAE J1926/3
- ISO 11926-1, ISO 11926-3

**MATERIALS**

- Steel- SAE 12L14 Carbon steel trivalent chrome plated or bright silver finish.

**WORKING PRESSURES**

The following table lists the recommended working pressures for steel O-ring Straight Thread Fittings made in accordance with SAE standard J514. Many factors such as surging, vibration, mechanical shock and over tightening may affect the integrity of the fitting connections. SAE recommends sufficient testing be conducted to assure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions. When using the fittings with different size or thread type, use the lower pressure rating of the two threads.

**Caution: Although most O-ring Straight Thread Fittings have sufficient structural integrity to support the weight of many components, consult with our technical support department for guidance in selection of parts for this purpose.**

**SAE J514 O-RING STRAIGHT THREAD FITTING PRESSURE RATINGS FOR STRAIGHT AND ADJUSTABLE THREAD PORT STUDS**

Dash Size	Straight Thread	4 to 1 Minimum Burst PSI Straight O-ring	4 to 1 Minimum Burst PSI Adjustable O-ring
-2	5/16-24	5000	5000
-3	3/8-24	5000	5000
-4	7/16-20	5000	4500
-5	1/2-20	5000	4000
-6	9/16-16	5000	4000
-8	3/4-16	4500	4000
-10	7/8-14	3500	3000
-12	1-1/16-12	3500	3000
-14	1-3/16-12	3000	2500
-16	1-5/16-12	3000	2500
-20	1-5/8-12	2500	2000
-24	1-7/8-12	2000	1500
-32	2-1/2-12	1500	1125

**STEEL STRAIGHT THREAD O-RING RECOMMENDED ASSEMBLY INSTRUCTIONS**

**NON-ADJUSTABLE STUD**

- Step 1.** Inspect port area to be free of any contaminant.
- Step 2.** Lubricate o-ring and threads on fitting.
- Step 3.** Turn fitting into port finger tight, then torque to the value shown in the following tables.

**J514 & J1926/3 TORQUE VALUES**

Dash Size	Straight Thread	Straight Stud Torque	Adjustable Stud Torque
-2	5/16-24	6	6
-3	3/8-24	6	6
-4	7/16-20	9	8
-5	1/2-20	14	9
-6	9/16-18	18	12
-8	3/4-16	27	20
-10	7/8-14	36	30
-12	1-1/16-12	65	44
-14	1-3/16-12	75	53
-16	1-5/16-12	85	59
-20	1-5/8-12	115	75
-24	1-7/8-12	125	105
-32	2-1/2-12	290	225

**ADJUSTABLE STUD**

- Step 1.** Follow steps 1 and 2 from the foregoing instructions, then proceed to the following steps below.
- Step 2.** Looking at fitting from end with nut/washer/O-ring assembly, turn nut clockwise as far as possible.
- Step 3.** Using wrench pad, turn fitting into port until the washer touches the port spot face. Continue turning fitting until washer touches the thread nearest wrench pad.
- Step 4.** Back off fitting counterclockwise not exceeding one revolution until it is orientated in the correct position.
- Step 5.** Place wrench on the wrench pad of fitting to prevent fitting from turning, and torque nut to the value shown in the following table.

**J1453 & J1926/2 TORQUE VALUES**

Dash Size	Straight Thread	Straight Stud Torque	Adjustable Stud Torque
-2	5/16-24	NA	NA
-3	3/8-24	NA	NA
-4	7/16-20	14	11
-5	1/2-20	18	14
-6	9/16-18	24	18
-8	3/4-16	40	28
-10	7/8-14	55	44
-12	1-1/16-12	95	65
-14	1-3/16-12	105	75
-16	1-5/16-12	120	85
-20	1-5/8-12	160	115
-24	1-7/8-12	175	125

**WHY WET TORQUE?**

Due to the difference in plating types and thickness, materials, and thread quality of different components, the coefficient of friction varies greatly on any given assembly. Lubrication not only produces a more consistent coefficient of friction, it increases clamping force on sealing area with less torque on the threads. Overtightening causes threads to yield, deform and lose their ability to maintain an adequate load or clamping force on the seating area. Extended operation and severe conditions cause further yielding which results in leaks. Overtightening is the single greatest cause for leaks in metal to metal seat hydraulic connections. It is our firm position, that to not wet torque, is to compromise consistency and quality for convenience.

## HYDRAULIC ADAPTERS

### JIC TO O-RING CONNECTOR

SAE 070120  
MS 51525



6400  
202702R  
F50X  
1231  
C5315

Part #	JIC Thread Size 1	O-Ring Thread 2	List Price
6400-2	5/16-24	5/16-24	4.59
6400-3	3/8-24	3/8-24	4.41
6400-4	7/16-20	7/16-20	0.79
6400-4-3	7/16-20	3/8-24	1.89
6400-4-5	7/16-20	1/2-20	2.00
6400-4-6	7/16-20	9/16-18	1.18
6400-4-8	7/16-20	3/4-16	2.16
6400-4-10	7/16-20	7/8-14	4.21
6400-5	1/2-20	1/2-20	1.38
6400-5-4	1/2-20	7/16-20	1.94
6400-5-6	1/2-20	9/16-18	2.67
6400-6	9/16-18	9/16-18	0.93
6400-6-4	9/16-18	7/16-20	0.92
6400-6-5	9/16-18	1/2-20	1.31
6400-6-8	9/16-18	3/4-16	1.38
6400-6-10	9/16-18	7/8-14	2.18
6400-6-12	9/16-18	1-1/16-12	4.06
6400-6-16	9/16-18	1-5/16-12	4.79
6400-8	3/4-16	3/4-16	1.41
6400-8-4	3/4-16	7/16-20	3.05
6400-8-6	3/4-16	9/16-18	1.59
6400-8-10	3/4-16	7/8-14	2.01
6400-8-12	3/4-16	1-1/16-12	2.45
6400-8-16	3/4-16	1-5/16-12	8.53
6400-10	7/8-14	7/8-14	2.41
6400-10-6	7/8-14	9/16-18	3.12
6400-10-8	7/8-14	3/4-16	2.45
6400-10-12	7/8-14	1-1/16-12	3.02
6400-10-16	7/8-14	1-5/16-12	5.27
6400-12	1-1/16-12	1-1/16-12	2.92
6400-12-8	1-1/16-12	3/4-16	5.12
6400-12-10	1-1/16-12	7/8-14	2.92
6400-12-14	1-1/16-12	1-3/16-12	6.98
6400-12-16	1-1/16-12	1-5/16-12	4.79
6400-12-20	1-1/16-12	1-5/8-12	9.99
6400-14	1-3/16-12	1-3/16-12	4.87
6400-16	1-5/16-12	1-5/16-12	4.54
6400-16-10	1-5/16-12	7/8-14	7.59
6400-16-12	1-5/16-12	1-1/16-12	4.32
6400-16-14	1-5/16-12	1-3/16-12	10.23
6400-16-20	1-5/16-12	1-5/8-12	9.24
6400-16-24	1-5/16-12	1-7/8-12	21.50
6400-20	1-5/8-12	1-5/8-12	9.37
6400-20-12	1-5/8-12	1-1/16-12	20.33
6400-20-16	1-5/8-12	1-5/16-12	8.29
6400-20-24	1-5/8-12	1-7/8-12	16.74
6400-24	1-7/8-12	1-7/8-12	15.24
6400-24-20	1-7/8-12	1-5/8-12	17.43
6400-24-32	1-7/8-12	2-1/2-12	74.91
6400-32	2-1/2-12	2-1/2-12	51.07

Also available in Stainless Steel  
Also Available in restrictor

## STEEL O-RING ADAPTERS

### LONG JIC TO O-RING CONNECTOR



6400L  
202713R  
FF50X  
1231LO  
C5316

Part #	JIC Thread Size 1	O-Ring Thread 2	Length*	List Price
6400-L-4	7/16-20	7/16-20	2.12"	3.40
6400-L-6	9/16-18	9/16-18	2.31"	4.81
6400-L-8	3/4-16	3/4-16	2.68"	5.90
6400-L-10	7/8-14	7/8-14	3.00"	6.76
6400-L-12	1-1/16-12	1-1/16-12	3.56"	20.23
6400-L-16	1-5/16-12	1-5/16-12	4.00"	25.31
6400-L-20	1-5/8-12	1-5/8-12	4.62"	49.71

\*Length= Overall length of fitting  
Also available in Stainless Steel

### O-RING TO PIPE ADAPTER



6401  
F5X  
1264R  
C3249

Part #	O-Ring Thread 1	Male Pipe Thread 2	List Price
6401-4-2	7/16-20	1/8	1.59
6401-4-4	7/16-20	1/4	1.39
6401-5-2	1/2-20	1/8	5.03
6401-6-4	9/16-18	1/4	1.57
6401-6-6	9/16-18	3/8	1.60
6401-6-8	9/16-18	1/2	2.76
6401-8-6	3/4-16	3/8	2.49
6401-8-8	3/4-16	1/2	2.39
6401-8-12	3/4-16	3/4	11.06
6401-10-8	7/8-14	1/2	2.96
6401-12-8	1-1/16-12	1/2	4.10
6401-12-12	1-1/16-12	3/4	3.98
6401-16-16	1-5/16-12	1	6.95
6401-20-20	1-5/8-12	1-1/4	13.33
6401-24-24	1-7/8-12	1-1/2	23.94
6401-32-32	2-1/2-12	2	47.30

More sizes available  
Some sizes available in Stainless Steel



# STEEL O-RING ADAPTERS

## O-RING TO 37° JIC SWIVEL ADAPTER



6402  
2266  
F65X  
1213  
9316

Part #	O-Ring Thread 1	JIC Thread Size 2	List Price
6402-O-4-4	7/16-20	7/16-20	2.99
6402-O-6-6	9/16-18	9/16-18	2.68
6402-O-6-8	9/16-18	3/4-16	5.90
6402-O-8-8	3/4-16	3/4-16	3.88
6402-O-8-6	3/4-16	9/16-18	8.05
6402-O-10-10	7/8-14	7/8-14	7.82
6402-O-12-12	1-1/16-12	1-1/16-12	7.05
6402-O-14-14	1-3/16-12	1-3/16-12	16.61
6402-O-16-16	1-5/16-12	1-5/16-12	10.19
6402-O-16-12	1-5/16-12	1-1/16-12	44.35
6402-O-20-20	1-5/8-12	1-5/8-12	25.48
6402-O-24-24	1-7/8-12	1-7/8-12	135.55

*Some sizes available in Stainless Steel  
More sizes available*

## 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	1.90
6403-O-8	3/4-16	3/4-16	2.73
6403-O-10	7/8-14	7/8-14	4.57
6403-O-10-8	7/8-14	3/4-16	5.84
6403-O-12	1-1/16-12	1-1/16-12	8.49
6403-O-12-8	1-1/16-12	3/4-16	10.76
6403-O-12-10	1-1/16-12	7/8-14	10.76
6403-O-16	1-5/16-12	1-5/16-12	22.29

*More sizes available*

# HYDRAULIC ADAPTERS

## ADJUSTABLE O-RING HEX NIPPLE

SAE 090109A



6403NWO  
2220  
F50HAO  
1286

Part #	O-Ring Thread 1	O-Ring Thread 2	List Price
6403-AO-4	7/16-20	7/16-20	4.35
6403-AO-6	9/16-18	9/16-18	4.54
6403-AO-8	3/4-16	3/4-16	6.49
6403-AO-8-6	3/4-16	9/16-18	57.82
6403-AO-10	7/8-14	7/8-14	9.80
6403-AO-10-8	7/8-14	3/4-16	45.35
6403-AO-12	1-1/16-12	1-1/16-12	11.07
6403-AO-12-8	1-1/16-12	3/4-16	61.90
6403-AO-12-10	1-1/16-12	7/8-14	51.84
6403-AO-16	1-5/16-12	1-5/16-12	14.88
6403-AO-16-12	1-5/16-12	1-1/16-12	88.39
6403-AO-20	1-5/8-12	1-5/8-12	19.27
6403-AO-24	1-7/8-12	1-7/8-12	195.33
6403-AO-32	2-1/2-12	2-1/2-12	218.05

*Also available in Stainless Steel*

## FEMALE O-RING TO MALE PIPE ADAPTER



6404  
2246R  
FHGJ  
1267R  
C3239

Part #	O-Ring Thread 1	Male Pipe Thread 2	List Price
6404-4-2	7/16-20	1/8	5.98
6404-4-4	7/16-20	1/4	3.35
6404-6-4	9/16-18	1/4	6.64
6404-6-6	9/16-18	3/8	2.55
6404-6-8	9/16-18	1/2	4.80
6404-8-4	3/4-16	1/4	41.80
6404-8-6	3/4-16	3/8	4.45
6404-8-8	3/4-16	1/2	2.89
6404-10-8	7/8-14	1/2	5.24
6404-10-12	7/8-14	3/4	27.67
6404-10-16	7/8-14	1	57.51
6404-12-12	1-1/16-12	3/4	6.00
6404-16-16	1-5/16-12	1	21.73
6404-20-20	1-5/8-12	1-1/4	22.61

*More sizes available*



# HYDRAULIC ADAPTERS

## O-RING TO FEMALE PIPE ADAPTER



6405  
2216R  
F50G  
1268R  
C3269

Part #	O-Ring Thread 1	Female Pipe Thread 2	List Price
6405-O-2-2	5/16-24	1/8	31.92
6405-O-4-2	7/16-20	1/8	1.61
6405-O-4-4	7/16-20	1/4	2.09
6405-O-5-2	1/2-20	1/8	2.54
6405-O-5-4	1/2-20	1/4	2.60
6405-O-6-2	9/16-18	1/8	6.00
6405-O-6-4	9/16-18	1/4	2.06
6405-O-6-6	9/16-18	3/8	1.60
6405-O-6-8	9/16-18	1/2	10.10
6405-O-6-12	9/16-18	3/4	21.16
6405-O-8-4	3/4-16	1/4	2.51
6405-O-8-6	3/4-16	3/8	2.21
6405-O-8-8	3/4-16	1/2	3.64
6405-O-8-12	3/4-16	3/4	14.68
6405-O-10-4	7/8-14	1/4	3.30
6405-O-10-6	7/8-14	3/8	3.84
6405-O-10-8	7/8-14	1/2	3.33
6405-O-10-12	7/8-14	3/4	5.53
6405-O-12-6	1-1/16-12	3/8	11.85
6405-O-12-8	1-1/16-12	1/2	6.82
6405-O-12-12	1-1/16-12	3/4	4.70
6405-O-12-16	1-1/16-12	1	30.01
6405-O-14-8	1-3/16-12	1/2	23.67
6405-O-14-12	1-3/16-12	3/4	7.33
6405-O-14-16	1-3/16-12	1	44.54
6405-O-16-6	1-5/16-12	3/8	30.84
6405-O-16-8	1-5/16-12	1/2	7.58
6405-O-16-12	1-5/16-12	3/4	8.41
6405-O-16-16	1-5/16-12	1	5.80
6405-O-16-20	1-5/16-12	1-1/4	19.38
6405-O-20-12	1-5/8-12	3/4	45.05
6405-O-20-20	1-5/8-12	1-1/4	10.80
6405-O-20-24	1-5/8-12	1-1/2	46.10
6405-O-24-16	1-7/8-12	1	21.31
6405-O-24-20	1-7/8-12	1-1/4	23.74
6405-O-24-24	1-7/8-12	1-1/2	30.31
6405-O-32-20	2-1/2-12	1-1/4	162.49
6405-O-32-24	2-1/2-12	1-1/2	96.37
6405-O-32-32	2-1/2-12	2	43.21

*Some sizes available in Stainless Steel  
More sizes available*

# STEEL O-RING ADAPTERS

## O-RING HEX HEAD PLUG

SAE 090109A



6408  
900598  
P50N  
1265  
7237

Part #	O-Ring Thread	List Price
6408-O-2	5/16-24	0.84
6408-O-3	3/8-24	0.64
6408-O-4	7/16-20	0.54
6408-O-5	1/2-20	0.81
6408-O-6	9/16-18	0.70
6408-O-8	3/4-16	1.06
6408-O-10	7/8-14	1.54
6408-O-12	1-1/16-12	2.39
6408-O-14	1-3/16-20	3.32
6408-O-16	1-5/16-12	3.27
6408-O-20	1-5/8-12	5.65
6408-O-24	1-7/8-12	8.70
6408-O-32	2-1/2-12	29.06

*Also available in Stainless Steel*

## O-RING HOLLOW HEX HEAD PLUG

SAE 090109B



6408HHP  
FF2138  
HP50N  
1256  
7238

Part #	O-Ring Thread	List Price
6408-H-O-2	5/16-24	0.70
6408-H-O-3	3/8-24	0.64
6408-H-O-4	7/16-20	0.57
6408-H-O-5	1/2-20	1.01
6408-H-O-6	9/16-18	0.74
6408-H-O-8	3/4-16	1.28
6408-H-O-10	7/8-14	1.67
6408-H-O-12	1-1/16-12	2.41
6408-H-O-14	1-3/16-20	5.03
6408-H-O-16	1-5/16-12	3.44
6408-H-O-20	1-5/8-12	6.00
6408-H-O-24	1-7/8-12	8.65
6408-H-O-32	2-1/2-12	26.02

*Also available in Stainless Steel*





# STEEL O-RING ADAPTERS/ SWIVELS

# HYDRAULIC ADAPTERS

## O-RING PORT REDUCER/EXPANDER



6410  
FF1010  
F50G5  
1270  
7033

Part #	O-Ring Thread 1	O-Ring Thread 2	List Price
6410-O-2-4	5/16-24	7/16-20	37.51
6410-O-4-5	7/16-20	1/2-20	37.14
6410-O-4-6	7/16-20	9/16-18	3.19
6410-O-6-4	9/16-18	7/16-20	2.15
6410-O-6-8	9/16-18	3/4-16	4.52
6410-O-8-4	3/4-16	7/16-20	4.85
6410-O-8-6	3/4-16	9/16-18	2.54
6410-O-8-10	3/4-16	7/8-14	4.71
6410-O-8-12	3/4-16	1-1/16-12	23.49
6410-O-10-4	7/8-14	7/16-20	6.02
6410-O-10-6	7/8-14	9/16-18	2.68
6410-O-10-8	7/8-14	3/4-16	3.29
6410-O-10-12	7/8-14	1-1/16-12	11.17
6410-O-12-4	1-1/16-12	7/16-20	18.20
6410-O-12-6	1-1/16-12	9/16-18	10.44
6410-O-12-8	1-1/16-12	3/4-16	5.28
6410-O-12-10	1-1/16-12	7/8-14	8.17
6410-O-12-14	1-1/16-12	1-3/16-12	38.62
6410-O-12-16	1-1/16-12	1-5/16-12	17.02
6410-O-14-8	1-3/16-12	3/4-16	21.40
6410-O-14-10	1-3/16-12	7/8-14	14.07
6410-O-14-12	1-3/16-12	1-1/16-12	7.68
6410-O-16-6	1-5/16-12	9/16-18	15.42
6410-O-16-8	1-5/16-12	3/4-16	7.85
6410-O-16-10	1-5/16-12	7/8-14	9.47
6410-O-16-12	1-5/16-12	1-1/16-12	7.91
6410-O-16-14	1-5/16-12	1-3/16-12	31.46
6410-O-16-20	1-5/16-12	1-5/8-12	47.81
6410-O-20-10	1-5/8-12	7/8-14	30.14
6410-O-20-12	1-5/8-12	1-1/16-12	11.31
6410-O-20-16	1-5/8-12	1-5/16-12	9.26
6410-O-20-24	1-5/8-12	1-7/8-12	50.12
6410-O-24-12	1-7/8-12	1-1/16-12	27.99
6410-O-24-16	1-7/8-12	1-5/16-12	29.33
6410-O-24-20	1-7/8-12	1-5/8-12	38.55
6410-O-32-16	2-1/2-12	1-5/16-12	134.93
6410-O-32-20	2-1/2-12	1-5/8-12	84.42
6410-O-32-24	2-1/2-12	1-7/8-12	52.86

*Some sizes available in Stainless Steel*

*More sizes available*

*Available in an extender*

## FEMALE SWIVELS JIC

### JIC SWIVEL NUT ELBOW

SAE 070221  
MS 51521



6500  
2071R  
C6X  
1236  
G5506

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
6500-4	7/16-20	7/16-20	2.67
6500-5	1/2-20	1/2-20	4.08
6500-6	9/16-18	9/16-18	3.56
6500-8	3/4-16	3/4-16	4.30
6500-8-6	3/4-16	9/16-18	5.55
6500-10	7/8-14	7/8-14	5.48
6500-10-8	7/8-14	3/4-16	11.42
6500-12	1-1/16-12	1-1/16-12	7.59
6500-12-10	1-1/16-12	7/8-14	23.44
6500-14	1-3/16-12	1-3/16-12	14.65
6500-16	1-5/16-12	1-5/16-12	11.79
6500-20	1-5/8-12	1-5/8-12	29.30
6500-24	1-7/8-12	1-7/8-12	63.13
6500-32	2-1/2-12	2-1/2-12	132.70

*More sizes available*

*Some sizes available in Stainless Steel*

### JIC SWIVEL TO MALE PIPE ELBOW



6501  
2250  
1247R  
TF5406

Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
6501-4-2	7/16-20	1/8	3.92
6501-4-4	7/16-20	1/4	3.21
6501-6-4	9/16-18	1/4	3.59
6501-6-6	9/16-18	3/8	3.75
6501-8-6	3/4-16	3/8	5.27
6501-8-8	3/4-16	1/2	5.61
6501-10-8	7/8-14	1/2	7.57
6501-12-12	1-1/16-12	3/4	8.11
6501-14-12	1-3/16-12	3/4	47.98
6501-16-16	1-5/16-12	1	12.91
6501-20-20	1-5/8-12	1-1/4	41.75
6501-24-24	1-7/8-12	1-1/2	52.19
6501-32-32	2-1/2-12	2	255.93

*Also available in Stainless Steel*

*More sizes available*





## HYDRAULIC ADAPTERS

### JIC SWIVEL 45° ELBOW

SAE 070321  
MS 51522



6502  
2070R  
V6X  
1237  
C5356

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
6502-4	7/16-20	7/16-20	3.11
6502-5	1/2-20	1/2-20	6.04
6502-6	9/16-18	9/16-18	3.16
6502-8	3/4-16	3/4-16	3.71
6502-10	7/8-14	7/8-14	5.93
6502-12	1-1/16-12	1-1/16-12	6.91
6502-14	1-3/16-12	1-3/16-12	15.89
6502-16	1-5/16-12	1-5/16-12	12.37
6502-20	1-5/8-12	1-5/8-12	24.63
6502-24	1-7/8-12	1-7/8-12	36.71
6502-32	2-1/2-12	2-1/2-12	104.99

*Some sizes available in Stainless Steel*

### JIC SWIVEL TO FEMALE PIPE ELBOW



Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
6503-6-4	9/16-18	1/4	9.03
6503-6-6	9/16-18	3/8	10.32
6503-8-6	3/4-16	3/8	21.35
6503-8-8	3/4-16	1/2	17.36
6503-10-8	7/8-14	1/2	20.00
6503-12-12	1-1/16-12	3/4	22.68

*Also available in Stainless Steel  
More sizes available*

### JIC SWIVEL CONNECTOR

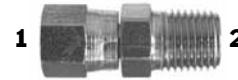


6504  
1205

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
6504-4-4	7/16-20	7/16-20	3.69
6504-6-6	9/16-18	9/16-18	3.81
6504-8-8	3/4-16	3/4-16	4.32
6504-10-10	7/8-14	7/8-14	5.04
6504-12-12	1-1/16-12	1-1/16-12	6.98
6504-16-16	1-5/16-12	1-5/16-12	14.53
6504-20-20	1-5/8-12	1-5/8-12	29.05
6504-24-24	1-7/8-12	1-7/8-12	36.21
6504-32-32	2-1/2-12	2-1/2-12	166.31

## FEMALE SWIVELS

### JIC SWIVEL TO MALE PIPE ADAPTER



6505  
2018  
F6X  
1211  
9100R

Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
6505-4-2	7/16-20	1/8	2.61
6505-4-4	7/16-20	1/4	2.32
6505-5-4	1/2-20	1/4	7.68
6505-6-4	9/16-18	1/4	2.70
6505-6-6	9/16-18	3/8	3.14
6505-8-6	3/4-16	3/8	4.06
6505-8-8	3/4-16	1/2	3.43
6505-10-8	7/8-14	1/2	4.51
6505-10-12	7/8-14	3/4	7.62
6505-12-8	1-1/16-12	1/2	7.58
6505-12-12	1-1/16-12	3/4	5.37
6505-16-12	1-5/16-12	3/4	28.13
6505-16-16	1-5/16-12	1	11.37
6505-20-20	1-5/8-12	1-1/4	19.59
6505-24-24	1-7/8-12	1-1/2	46.22
6505-32-32	2-1/2-12	2	148.57

*Also available in Stainless Steel*

### JIC SWIVEL TO FEMALE PIPE ADAPTER



6506  
2242  
1215

Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
6506-4-2	7/16-20	1/8	4.81
6506-4-4	7/16-20	1/4	3.89
6506-6-4	9/16-18	1/4	4.22
6506-6-6	9/16-18	3/8	3.15
6506-6-8	9/16-18	1/2	7.44
6506-8-6	3/4-16	3/8	4.94
6506-8-8	3/4-16	1/2	4.53
6506-10-6	7/8-14	3/8	7.21
6506-10-8	7/8-14	1/2	5.97
6506-10-12	7/8-14	3/4	23.04
6506-12-8	1-1/16-12	1/2	24.22
6506-12-12	1-1/16-12	3/4	7.48
6506-14-12	1-3/16-12	3/4	40.27
6506-16-16	1-5/16-12	1	12.70
6506-20-20	1-5/8-12	1-1/4	25.31
6506-24-24	1-7/8-12	1-1/2	49.39
6506-32-32	2-1/2-12	2	100.25

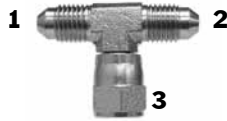
*More sizes available  
Also available in Stainless Steel*



## FEMALE SWIVELS

### JIC SWIVEL BRANCH TEE

SAE 070433  
MS 51524



6600  
203101R  
65X  
1227  
C5707

Part #	JIC Thread Size 1 & 2	JIC Female Thread 3	List Price
6600-4-4	7/16-20	7/16-20	3.62
6600-5-5	1/2-20	1/2-20	5.06
6600-6-6	9/16-18	9/16-18	3.97
6600-8-8	3/4-16	3/4-16	5.19
6600-10	7/8-14	7/8-14	9.69
6600-12	1-1/16-12	1-1/16-12	10.32
6600-14	1-3/16-12	1-3/16-12	19.91
6600-16	1-5/16-12	1-5/16-12	16.80
6600-20	1-5/8-12	1-5/8-12	35.17
6600-24	1-7/8-12	1-7/8-12	54.71

*More sizes available*

### JIC SWIVEL RUN TEE

SAE 070432  
MS 51523



6602  
203102R  
R6X  
1248  
C5706

Part #	JIC Thread Size 1 & 3	JIC Female Thread 2	List Price
6602-4	7/16-20	7/16-20	3.08
6602-5	1/2-20	1/2-20	5.01
6602-6	9/16-18	9/16-18	4.00
6602-8	3/4-16	3/4-16	5.81
6602-10	7/8-14	7/8-14	7.81
6602-12	1-1/16-12	1-1/16-12	10.23
6602-14	1-3/16-12	1-3/16-12	19.75
6602-16	1-5/16-12	1-5/16-12	14.07
6602-20	1-5/8-12	1-5/8-12	31.15
6602-24	1-7/8-12	1-7/8-12	43.28
6602-32	2-1/2-12	2-1/2-12	267.10

*More sizes available*

*Also available in Stainless Steel*

## HYDRAULIC ADAPTERS

### STEEL SAE O-RING FITTINGS

#### JIC TO O-RING ELBOW CONNECTOR

SAE 070220  
MS 51527



6801  
2062R  
C50X  
1238L  
C5515

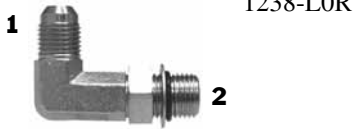
Part #	JIC Thread Size 1	O-Ring Thread Size 2	List Price
6801-NWO-2	5/16-24	5/16-24	9.31
6801-NWO-3	3/8-24	3/8-24	4.96
6801-NWO-4	7/16-20	7/16-20	2.35
6801-NWO-4-3	7/16-20	3/8-24	114.01
6801-NWO-4-5	7/16-20	1/2-20	4.63
6801-NWO-4-6	7/16-20	9/16-18	3.11
6801-NWO-4-8	7/16-20	3/4-16	4.44
6801-NWO-5	1/2-20	1/2-20	3.40
6801-NWO-5-4	1/2-20	7/16-20	4.99
6801-NWO-5-6	1/2-20	8/16-18	4.11
6801-NWO-6	9/16-18	9/16-18	2.19
6801-NWO-6-4	9/16-18	7/16-20	3.11
6801-NWO-6-5	9/16-18	1/2-20	3.81
6801-NWO-6-8	9/16-18	3/4-16	4.56
6801-NWO-6-10	9/16-18	7/8-14	6.96
6801-NWO-6-12	9/16-18	1-1/16-12	10.31
6801-NWO-8	3/4-16	3/4-16	2.95
6801-NWO-8-6	3/4-16	9/16-18	3.70
6801-NWO-8-10	3/4-16	7/8-14	4.96
6801-NWO-8-12	3/4-16	1-1/16-12	8.67
6801-NWO-8-16	3/4-16	1-5/16-12	12.37
6801-NWO-10	7/8-14	7/8-14	5.71
6801-NWO-10-6	7/8-14	9/16-18	5.55
6801-NWO-10-8	7/8-14	3/4-16	5.02
6801-NWO-10-12	7/8-14	1-1/16-12	7.71
6801-NWO-10-16	7/8-14	1-5/16-12	13.31
6801-NWO-12	1-1/16-12	1-1/16-12	7.37
6801-NWO-12-8	1-1/16-12	3/4-16	8.23
6801-NWO-12-10	1-1/16-12	7/8-14	8.22
6801-NWO-12-14	1-1/16-12	1-3/16-12	19.81
6801-NWO-12-16	1-1/16-12	1-5/16-12	15.93
6801-NWO-12-20	1-1/16-12	1-5/8-12	28.47
6801-NWO-14	1-3/16-12	1-3/16-12	17.78
6801-NWO-14-12	1-3/16-12	1-1/16-12	22.77
6801-NWO-14-16	1-3/16-12	1-5/16-12	32.16
6801-NWO-16	1-5/16-12	1-5/16-12	11.21
6801-NWO-16-12	1-5/16-12	1-1/16-12	11.69
6801-NWO-16-14	1-5/16-12	1-3/16-12	29.80
6801-NWO-16-20	1-5/16-12	1-5/8-12	26.60
6801-NWO-20	1-5/8-12	1-5/8-12	22.88
6801-NWO-20-12	1-5/8-12	1-1/16-12	25.85
6801-NWO-20-16	1-5/8-12	1-5/16-12	22.85
6801-NWO-20-24	1-5/8-12	1-7/8-12	39.00
6801-NWO-24	1-7/8-12	1-7/8-12	39.74
6801-NWO-24-20	1-7/8-12	1-5/8-12	36.81
6801-NWO-32	2-1/2-12	2-1/2-12	104.38



# HYDRAULIC ADAPTERS

# STEEL SAE O-RING

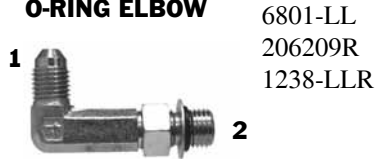
## LONG JIC TO O-RING ELBOW



Part #	JIC Thread Size 1	O-Ring Thread Size 2	List Price
6801-L-NWO-4	7/16-20	7/16-20	4.54
6801-L-NWO-6	9/16-18	9/16-18	5.44
6801-L-NWO-6-8	9/16-18	3/4-16	19.05
6801-L-NWO-8	3/4-16	3/4-16	6.76
6801-L-NWO-8-10	3/4-16	7/8-14	10.88
6801-L-NWO-10	7/8-14	7/8-14	10.75
6801-LNWO-12	1-1/16-12	1-1/16-12	14.97
6801-LNWO-16	1-5/16-12	1-5/16-12	24.13

More sizes available

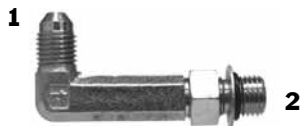
## EXTRA LONG JIC TO O-RING ELBOW



Part #	JIC Thread Size 1	O-Ring Thread Size 2	List Price
6801-LL-NWO-4	7/16-20	7/16-20	5.99
6801-LL-NWO-6	9/16-18	9/16-18	5.35
6801-LL-NWO-6-8	9/16-18	3/4-16	11.25
6801-LL-NWO-8	3/4-16	3/4-16	9.16
6801-LL-NWO-8-10	3/4-16	7/8-14	19.05
6801-LL-NWO-10	7/8-14	7/8-14	12.52
6801-LL-NWO-12	1-1/16-12	1-1/16-12	13.38
6801-LL-NWO-16	1-5/16-12	1-5/16-12	25.94

More sizes available

## EXTRA-EXTRA LONG JIC TO O-RING ELBOW



Part #	JIC Thread Size 1	O-Ring Thread Size 2	List Price
6801-LLL-NWO-6	9/16-18	9/16-18	25.94
6801-LLL-NWO-8	3/4-16	3/4-16	22.63
6801-LLL-NWO-10	7/8-14	7/8-14	83.99

## JIC TO O-RING 45° ELBOW

SAE 070320  
MS 51528



Part #	JIC Thread Size 1	O-Ring Thread Size 2	List Price
6802-NWO-4	7/16-20	7/16-20	3.33
6802-NWO-4-6	7/16-20	9/16-18	5.42
6802-NWO-4-8	7/16-20	3/4-16	15.04
6802-NWO-5	1/2-20	1/2-20	4.22
6802-NWO-6	9/16-18	9/16-18	3.41
6802-NWO-6-8	9/16-18	3/4-16	4.85
6802-NWO-6-10	9/16-18	7/8-14	7.99
6802-NWO-8	3/4-16	3/4-16	4.74
6802-NWO-8-6	3/4-16	9/16-18	5.16
6802-NWO-8-10	3/4-16	7/8-14	6.52
6802-NWO-8-12	3/4-16	1-1/16-12	8.53
6802-NWO-10	7/8-14	7/8-14	7.07
6802-NWO-10-8	7/8-14	3/4-16	6.12
6802-NWO-10-12	7/8-14	1-1/16-12	11.69
6802-NWO-12	1-1/16-12	1-1/16-12	11.37
6802-NWO-12-14	1-1/16-12	1-3/16-12	59.69
6802-NWO-12-16	1-1/16-12	1-5/16-12	14.37
6802-NWO-14	1-3/16-12	1-3/16-12	22.03
6802-NWO-16	1-5/16-12	1-5/16-12	14.52
6802-NWO-16-12	1-5/16-12	1-1/16-12	20.09
6802-NWO-16-20	1-5/16-12	1-5/8-12	33.33
6802-NWO-20	1-5/8-12	1-5/8-12	30.16
6802-NWO-20-16	1-5/8-12	1-5/16-12	41.59
6802-NWO-24	1-7/8-12	1-7/8-12	36.19
6802-NWO-32	2-1/2-12	2-1/2-12	96.19

Some sizes available in Stainless Steel  
More sizes available

"Twenty years from now you will be more disappointed by the things you didn't do than by the ones you did. So throw off the bowlines, Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream."

- Mark Twain



# STEEL SAE O-RING

## JIC TO O-RING BRANCH TEE

SAE 070429  
MS 51529



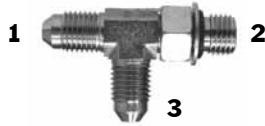
6803  
203003X  
S50X  
1265R  
C5715

Part #	JIC Thread Size 1 & 2	O-Ring Thread Size 3	List Price
6803-NWO-4	7/16-20	7/16-20	4.76
6803-NWO-5	1/2-20	1/2-20	7.48
6803-NWO-6	9/16-18	9/16-18	5.64
6803-NWO-6-8	9/16-18	3/4-16	9.75
6803-NWO-8	3/4-16	3/4-16	7.35
6803-NWO-8-10	3/4-16	7/8-14	14.69
6803-NWO-10	7/8-14	7/8-14	10.57
6803-NWO-12	1-1/16-12	1-1/16-12	12.61
6803-NWO-14	1-3/16-12	1-3/16-12	26.25
6803-NWO-16	1-5/16-12	1-5/16-12	15.83
6803-NWO-16-12	1-5/16-12	1-1/16-12	24.09
6803-NWO-20	1-5/8-12	1-5/8-12	33.73
6803-NWO-24	1-7/8-12	1-7/8-12	77.25
6803-NWO-32	2-1/2-12	2-1/2-12	474.51

*Some sizes available in Stainless Steel  
More sizes available*

## JIC TO O-RING RUN TEE

SAE 070428  
MS 51530



6804  
203005R  
R50X  
1266R  
C3459

Part #	JIC Thread Size 1 & 3	O-Ring Thread Size 2	List Price
6804-NWO-4	7/16-20	7/16-20	5.17
6804-NWO-5	1/2-20	1/2-20	6.80
6804-NWO-6	9/16-18	9/16-18	5.85
6804-NWO-6-8	9/16-18	3/4-16	24.99
6804-NWO-8	3/4-16	3/4-16	7.66
6804-NWO-8-10	3/4-16	7/8-14	25.90
6804-NWO-10	7/8-14	7/8-14	12.83
6804-NWO-12	1-1/16-12	1-1/16-12	12.99
6804-NWO-16	1-5/16-12	1-5/16-12	23.81
6804-NWO-16-12	1-5/16-12	1-1/16-12	41.13
6804-NWO-20	1-5/8-12	1-5/8-12	39.86
6804-NWO-24	1-7/8-12	1-7/8-12	70.52
6804-NWO-32	2-1/2-12	2-1/2-12	302.11

*More sizes available  
Also available in stainless steel*

# HYDRAULIC ADAPTERS

## O-RING TO FEMALE PIPE ELBOW



6805  
206801R  
AE0G  
1264  
C3469

Part #	O-Ring Thread Size 1	Pipe Thread Size 2	List Price
6805-NWO-4-2	7/16-20	1/8	4.09
6805-NWO-4-4	7/16-20	1/4	4.15
6805-NWO-5-2	1/2-20	1/8	7.80
6805-NWO-6-4	9/16-18	1/4	4.63
6805-NWO-6-6	9/16-18	3/8	5.63
6805-NWO-8-6	3/4-16	3/8	8.18
6805-NWO-8-8	3/4-16	1/2	6.35
6805-NWO-10-8	7/8-14	1/2	10.40
6805-NWO-12-12	1-1/16-12	3/4	14.12
6805-NWO-14-12	1-3/16-12	3/4	36.84
6805-NWO-16-16	1-5/16-12	1	17.13
6805-NWO-20-20	1-5/8-12	1-1/4	37.08
6805-NWO-24-24	1-7/8-12	1-1/2	62.45

*More sizes available*

## EXTRA LONG O-RING TO FEMALE PIPE ELBOW



Part #	O-Ring Thread Size 1	Pipe Thread Size 2	List Price
6805-LL-8-6	3/4-16	3/8	103.33
6805-LL-10-8	7/8-14	1/2	22.63
6805-LL-12-12	1-1/16-12	3/4	36.87
6805-LL-16-16	1-5/16-12	1	128.62

Two silk worms had a race. They ended in a tie.



## HYDRAULIC ADAPTERS

## STEEL SAE O-RING

### O-RING TO MALE PIPE ELBOW



6806  
1263  
TF3569

Part #	O-Ring Thread Size 1	Pipe Thread Size 2	List Price
6806-NWO-4-2	7/16-20	1/8	3.56
6806-NWO-4-4	7/16-20	1/4	3.59
6806-NWO-6-4	9/16-18	1/4	3.78
6806-NWO-6-6	9/16-18	3/8	7.27
6806-NWO-8-6	3/4-16	3/8	5.11
6806-NWO-8-8	3/4-16	1/2	5.93
6806-NWO-10-8	7/8-14	1/2	7.21
6806-NWO-12-12	1-1/16-12	3/4	9.16
6806-NWO-16-16	1-5/16-12	1	15.92
6806-NWO-20-20	1-5/8-12	1-1/4	25.31
6806-NWO-24-24	1-7/8-12	1-1/2	48.13
6806-NWO-32-32	2-1/2-12	2	162.18

*More sizes available*

### 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	4.46
6809-NWO-6-6	9/16-18	9/16-18	5.13
6809-NWO-8-8	3/4-16	3/4-16	8.01
6809-NWO-8-10	3/4-16	7/8-16	33.92
6809-NWO-10-10	7/8-14	7/8-14	7.75
6809-NWO-12-12	1-1/16-12	1-1/16-12	13.22
6809-NWO-16-16	1-5/16-12	1-5/16-12	21.55
6809-NWO-20-20	1-5/8-12	1-5/8-12	51.53

"The three great essentials to achieving anything worthwhile are; first, hard work, second, stick-to-it-iveness, and third, common sense."

- Thomas Edison

### FEMALE O-RING TO MALE O-RING ELBOW



Part #	O-Ring Thread Size 1	O-Ring Thread Size 2	List Price
6815-NWO-6-6	9/16-18	9/16-18	6.71
6815-NWO-8-8	3/4-16	3/4-16	7.71
6815-NWO-10-10	7/8-14	7/8-14	22.20
6815-NWO-12-12	1-1/16-12	1-1/16-12	23.78

*More sizes available*

Time flies like an arrow. Fruit flies like a banana.

"In life we all have an unspeakable secret, an irreversible regret, an unreachable dream and an unforgettable love."

- Diego Marchi

## OUR GOAL

- BE ACCESSIBLE
- OFFER SOLUTIONS
- BUILD RELATIONSHIPS



# STEEL SAE O-RING

# HYDRAULIC ADAPTERS

## MALE O-RING SWIVEL ADAPTER

SAE 140157



6900  
2066R  
1235  
9315

Part #	O-Ring Thread Size 1	Female NPSM Size 2	List Price
6900-O-4-2	7/16-20	1/8	5.08
6900-O-4-4	7/16-20	1/4	1.98
6900-O-4-6	7/16-20	3/8	5.17
6900-O-4-8	7/16-20	1/2	24.44
6900-O-5-4	1/2-20	1/4	3.08
6900-O-6-4	9/16-18	1/4	2.18
6900-O-6-6	9/16-18	3/8	2.60
6900-O-6-8	9/16-18	1/2	3.75
6900-O-8-4	3/4-16	1/4	2.83
6900-O-8-6	3/4-16	3/8	2.78
6900-O-8-8	3/4-16	1/2	2.70
6900-O-8-12	3/4-16	3/4	5.52
6900-O-10-4	7/8-14	1/4	29.19
6900-O-10-6	7/8-14	3/8	7.39
6900-O-10-8	7/8-14	1/2	4.22
6900-O-10-12	7/8-14	3/4	6.06
6900-O-12-6	1-1/16-12	3/8	16.11
6900-O-12-8	1-1/16-12	1/2	6.11
6900-O-12-12	1-1/16-12	3/4	6.41
6900-O-12-16	1-1/16-12	1	11.85
6900-O-14-8	1-3/16-12	1/2	73.70
6900-O-14-12	1-3/16-12	3/4	11.29
6900-O-16-8	1-5/16-12	1/2	36.09
6900-O-16-12	1-5/16-12	3/4	8.72
6900-O-16-16	1-5/16-12	1	8.88
6900-O-16-20	1-5/16-12	1-1/4	24.10
6900-O-20-12	1-5/8-12	3/4	42.60
6900-O-20-16	1-5/8-12	1	15.80
6900-O-20-20	1-5/8-12	1-1/4	16.06
6900-O-24-24	1-7/8-12	1-1/2	41.39
6900-O-32-32	2-1/2-12	2	190.97

More sizes available

A hole has been found in the nudist camp wall. The police are looking into it.

## 90° O-RING SWIVEL ADAPTER

SAE 140257



6401  
2068R  
1271  
9515

Part #	O-Ring Thread Size 1	Female NPSM Size 2	List Price
6901-NWO-4-2	7/16-20	1/8	9.32
6901-NWO-4-4	7/16-20	1/4	3.49
6901-NWO-4-6	7/16-20	3/8	8.25
6901-NWO-6-4	9/16-18	1/4	3.66
6901-NWO-6-6	9/16-18	3/8	4.87
6901-NWO-6-8	9/16-18	1/2	7.53
6901-NWO-8-4	3/4-16	1/4	6.74
6901-NWO-8-6	3/4-16	3/8	4.71
6901-NWO-8-8	3/4-16	1/2	5.67
6901-NWO-8-12	3/4-16	3/4	11.31
6901-NWO-10-4	7/8-14	1/4	17.01
6901-NWO-10-6	7/8-14	3/8	6.34
6901-NWO-10-8	7/8-14	1/2	7.08
6901-NWO-10-12	7/8-14	3/4	11.46
6901-NWO-12-6	1-1/16-12	3/8	9.39
6901-NWO-12-8	1-1/16-12	1/2	9.22
6901-NWO-12-12	1-1/16-12	3/4	13.11
6901-NWO-12-16	1-1/16-12	1	38.39
6901-NWO-14-12	1-3/16-12	3/4	35.42
6901-NWO-16-12	1-5/16-12	3/4	19.44
6901-NWO-16-16	1-5/16-12	1	18.07
6901-NWO-16-20	1-5/16-12	1-1/4	50.32
6901-NWO-20-12	1-5/8-12	3/4	42.85
6901-NWO-20-16	1-5/8-12	1	32.88
6901-NWO-20-20	1-5/8-12	1-1/4	29.56
6901-NWO-24-24	1-7/8-12	1-1/2	111.33
6901-NWO-32-32	2-1/2-12	2	393.51

"People are always blaming their circumstances for what they are. I don't believe in circumstances. The people who get on in this world are the people who get up and look for the circumstances they want, and if they can't find them, make them."

- George Bernard Shaw

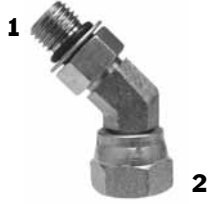




## HYDRAULIC ADAPTERS

### 45° O-RING SWIVEL ADAPTER

SAE 140357



6902  
2067R  
1272  
9365

Part #	O-Ring Thread Size 1	Female NPSM Size 2	List Price
6902-NWO-4-2	7/16-20	1/8	18.00
6902-NWO-4-4	7/16-20	1/4	8.03
6902-NWO-4-6	7/16-20	3/8	15.60
6902-NWO-6-4	9/16-18	1/4	7.48
6902-NWO-6-6	9/16-18	3/8	6.37
6902-NWO-6-8	9/16-18	1/2	10.96
6902-NWO-8-4	3/4-16	1/4	16.81
6902-NWO-8-6	3/4-16	3/8	7.19
6902-NWO-8-8	3/4-16	1/2	8.45
6902-NWO-8-12	3/4-16	3/4	19.59
6902-NWO-10-6	7/8-14	3/8	14.01
6902-NWO-10-8	7/8-14	1/2	12.17
6902-NWO-10-12	7/8-14	3/4	19.00
6902-NWO-12-8	1-1/16-12	1/2	14.20
6902-NWO-12-12	1-1/16-12	3/4	15.00
6902-NWO-12-16	1-1/16-12	1	66.81
6902-NWO-16-12	1-5/16-12	3/4	69.16
6902-NWO-16-16	1-5/16-12	1	20.00
6902-NWO-20-20	1-5/8-12	1-1/4	62.00
6902-NWO-24-24	1-7/8-12	1-1/2	170.22

Atheism is a non-prophet organization.

Two hats were hanging on a hat rack in the hallway. One hat said to the other, "You stay here; I'll go on a head."

I wondered why the baseball kept getting bigger. Then it hit me.

A sign on the lawn at a drug rehab center said: "Keep off the Grass."

## STEEL SAE O-RING

### O-RINGS

#### VITON 90 SAE BOSS O-RING

Fluorocarbon



Part #	O-Ring Thread	O-Ring I.D.	List Price
4001-2-2	5/16-24	.239	0.73
4001-3-3	3/8-24	.301	0.59
4001-4-4	7/16-20	.351	0.76
4001-5-5	1/2-20	.414	1.13
4001-6-6	9/16-18	.468	0.82
4001-8-8	3/4-16	.644	1.09
4001-10	7/8-14	.755	1.33
4001-12	1-1/16-12	.924	1.70
4001-16	1-5/16-12	1.171	2.01
4001-20	1-5/8-12	1.475	3.40
4001-24	1-7/8-12	1.720	9.89
4001-32	2-1/2-12	2.337	13.65

#### NITRILE 90 SAE BOSS O-RING



Part #	O-Ring Thread	O-Ring I.D.	List Price
4000-2-2	5/16-24	.239	0.24
4000-3-3	3/8-24	.301	0.24
4000-4-4	7/16-20	.351	0.27
4000-5-5	1/2-20	.414	0.30
4000-6-6	9/16-18	.468	0.30
4000-8-8	3/4-16	.644	0.33
4000-10	7/8-14	.755	0.32
4000-12	1-1/16-12	.924	0.23
4000-14	1-3/16-12	1.048	0.52
4000-16	1-5/16-12	1.171	0.60
4000-20	1-5/8-12	1.475	0.84
4000-24	1-7/8-12	1.720	0.98
4000-32	2-1/2-12	2.337	1.36

HYDRAULIC





**STEEL FLANGE ADAPTERS**

**CONFORMANCE**

- SAE J518

**MATERIALS**

- Steel per SAE J518 with either black phosphate finish or plated chrome finish or iridite dip. Stainless Steel available upon request.

**WORKING PRESSURES**

The following table lists the recommended working pressures for steel Four-bolt Solid and Split Flange Fittings and Hose Ends manufactured in accordance with SAE standards J518 and J517. SAE recommends sufficient testing to be conducted to assure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions. When using Flanged Fittings that have a threaded connection on one end, use the lower pressure rating of the two.

**Caution: Although many Four-bolt Flanged Fittings have sufficient structural integrity to support the weight of many components, we recommend consulting with our technical support department for guidance in selection of parts for this purpose.**

**SAE J518 FOUR-BOLT CODE 61  
FLANGE PRESSURE RATINGS**

Dash Size	Flange Head OD Inches	4 TO 1 Minimum Burst PSI
-8	1-3/16 - 1.188	5000
-12	1-1/2 - 1.500	5000
-16	1-3/4 - 1.750	5000
-20	2 - 2.000	4000
-24	2-3/8 - 2.375	3000
-32	2-13/16 - 2.812	3000
-40	3-5/16 - 3.312	2500
-48	4 - 4.000	2000
-56	4-1/2 - 4.500	500
-64	5 - 5.000	500
-80	6 - 6.000	500

**SAE J518 FOUR-BOLT CODE 62  
FLANGE PRESSURE RATINGS**

Dash Size	Flange Head OD Inches	4 TO 1 Minimum Burst PSI
-8	1-1/4 - 1.250	6000
-12	1-5/8 - 1.625	6000
-16	1-7/8 - 1.875	6000
-20	2-1/8 - 2.125	6000
-24	2-1/2 - 2.500	6000
-32	3-1/8 - 3.125	6000

**STEEL FLANGE ADAPTERS  
ASSEMBLY INSTRUCTIONS**

**RECOMMENDED SOLID FOUR-BOLT**

- Step 1.** Inspect port area to be smooth and free of nicks, burrs, scratches, or contaminants.
- Step 2.** Lubricate the o-ring and place in flange head groove.
- Step 3.** Lubricate screw threads, slip lock washers onto screws, and insert screws into flange
- Step 4.** Position flange on port and finger tighten all screws.
- Step 5.** Torque the screws in a figure eight sequence, incrementally until the appropriate torque value in the following table is achieved.

**RECOMMENDED SPLIT FOUR-BOLT**

- Step 1.** Follow steps 1 through 3 above, then proceed to the following steps.
- Step 2.** Position both flanges on port and turn one screw in each flange about three turns.
- Step 3.** Rotate each flange away from the port for sufficient clearance to position hose or fitting flange head on port.
- Step 4.** Close each flange until it properly captures flange head. Insert remaining screws and finger tighten.
- Step 5.** Torque the screws in a figure eight sequence incrementally until the appropriate torque value in the preceding table is achieved.

**J518 CODE 61 AND CODE 62  
FLANGE MINIMUM TORQUE VALUES**

Dash Size	Port Size	Code 61 Foot/Lbs.	Code 62 Foot/Lbs.
-8	1/2"	15-19	15-19
-12	3/4"	20-29	25-33
-16	1"	27-35	41-50
-20	1-1/4"	35-46	62-75
-24	1-1/2"	46-58	116-133
-32	2"	53-67	200-217
-40	2-1/2"	79	NA
-48	3"	137	NA
-56	3-1/2"	116	NA
-64	4"	116	NA
-80	5"	116	NA

**WHY WET TORQUE?**

Due to the difference in plating types and thickness, materials, and thread quality of different components, the coefficient of friction varies greatly on any given assembly. Lubrication not only produces a more consistent coefficient of friction, it increases clamping force on sealing area with less torque on the threads. Overtightening causes threads to yield, deform and lose their ability to maintain an adequate load or clamping force on the seating area. Extended operation and severe conditions cause further yielding which results in leaks. Overtightening is the single greatest cause for leaks in metal to metal seat hydraulic connections. It is our firm position, that to not wet torque, is to compromise consistency and quality for convenience.



# HYDRAULIC ADAPTERS

# FLANGE ADAPTERS

## JIC FLANGE ADAPTER CODE 61

6840  
503



3000 PSI

Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1700-8-8	3/4-16	1/2	1.18	17.35
1700-8-12	3/4-16	3/4	1.50	19.12
1700-12-12	1-1/16-12	3/4	1.50	18.20
1700-12-16	1-1/16-12	1	1.75	18.20
1700-16-16	1-5/16-12	1	1.75	22.43
1700-16-20	1-5/16-12	1-1/4	2.00	28.20
1700-16-24	1-5/16-12	1-1/2	2.37	69.37
1700-20-16	1-5/8-12	1	1.75	25.79
1700-20-20	1-5/8-12	1-1/4	2.00	25.87
1700-20-32	1-5/8-12	2	2.81	83.99
1700-24-24	1-7/8-12	1-1/2	2.37	35.85
1700-32-32	2-1/2-12	2	2.81	119.23
1700-40-40	3-12	2-1/2	3.31	240.15

More sizes available

## JIC FLANGE 45° ADAPTER CODE 61

6845  
505



3000 PSI

Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1703-8-8	3/4-16	1/2	1.18	28.07
1703-8-12	3/4-16	3/4	1.50	46.61
1703-12-12	1-1/16-12	3/4	1.50	25.95
1703-12-16	1-1/16-12	1	1.75	46.49
1703-16-16	1-5/16-12	1	1.75	30.92
1703-16-20	1-5/16-12	1-1/4	2.00	47.70
1703-16-24	1-5/16-12	1-1/2	2.37	62.07
1703-20-16	1-5/8-12	1	1.75	37.28
1703-20-20	1-5/8-12	1-1/4	2.00	43.25
1703-20-24	1-5/8-12	1-1/2	2.37	65.69
1703-24-40	1-7/8-12	2-1/2	3.31	186.23
1703-32-24	2-1/2-12	1-1/2	2.37	99.57
1703-32-32	2-1/2-12	2	2.81	121.95

More sizes available

## JIC FLANGE 90° ADAPTER CODE 61

6890  
504



3000 PSI

Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1704-8-8	3/4-16	1/2	1.18	24.34
1704-8-12	3/4-16	3/4	1.50	35.43
1704-10-16	7/8-14	1	1.75	155.00
1704-12-12	1-1/16-12	3/4	1.50	28.58
1704-12-16	1-1/16-12	1	1.75	33.65
1704-12-20	1-1/16-12	1-1/4	2.00	43.75
1704-16-12	1-5/16-12	3/4	1.50	25.56
1704-16-16	1-5/16-12	1	1.75	30.75
1704-16-20	1-5/16-12	1-1/4	2.00	39.79
1704-16-24	1-5/16-12	1-1/2	2.37	75.13
1704-20-16	1-5/8-12	1	1.75	37.94
1704-20-20	1-5/8-12	1-1/4	2.00	41.75
1704-20-24	1-5/8-12	1-1/2	2.37	54.66
1704-24-16	1-7/8-12	1	1.75	73.51
1704-24-20	1-7/8-12	1-1/4	2.00	57.31
1704-24-32	1-7/8-12	2	2.81	94.76
1704-24-40	1-7/8-12	2-1/2	3.31	275.35
1704-32-24	2-1/2-12	1-1/2	2.37	184.49
1704-32-32	2-1/2-12	2	2.81	93.02

More sizes available

## JIC FLANGE ADAPTER CODE 62

6842



6000 PSI

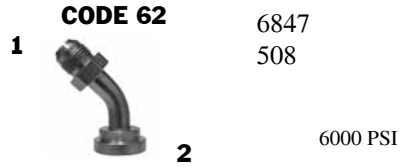
Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1800-8-8	3/4-16	1/2	1.25	34.46
1800-12-12	1-1/16-12	3/4	1.62	24.29
1800-12-16	1-1/16-12	1	1.88	35.20
1800-16-16	1-5/16-12	1	1.88	26.79
1800-16-20	1-5/16-12	1-1/4	2.12	38.47
1800-20-16	1-5/8-12	1	1.88	38.37
1800-20-20	1-5/8-12	1-1/4	2.12	37.78
1800-20-24	1-5/8-12	1-1/2	2.50	58.25
1800-24-24	1-7/8-12	1-1/2	2.50	53.58
1800-32-32	2-1/2-12	2	3.12	62.95

More sizes available



# FLANGE ADAPTERS

## JIC FLANGE 45° ADAPTER



Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1803-12-12	1-1/16-12	3/4	1.62	35.04
1803-12-16	1-1/16-12	1	1.88	41.41
1803-16-16	1-5/16-12	1	1.88	45.15
1803-16-20	1-5/16-12	1-1/4	2.12	40.00
1803-20-16	1-5/8-12	1	1.88	72.98
1803-20-20	1-5/8-12	1-1/4	2.12	80.19
1803-20-24	1-5/8-12	1-1/2	2.50	78.45
1803-24-24	1-7/8-12	1-1/2	2.50	83.42
1803-32-32	2-1/2-12	2	3.12	18.83

More sizes available

## JIC FLANGE 90° ADAPTER



Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1804-8-8	3/4-16	1/2	1.25	35.77
1804-12-12	1-1/16-12	3/4	1.62	24.76
1804-12-16	1-1/16-12	1	1.88	39.21
1804-16-16	1-5/16-12	1	1.88	46.38
1804-16-20	1-5/16-12	1-1/4	2.12	60.34
1804-20-16	1-5/8-12	1	1.88	50.12
1804-20-20	1-5/8-12	1-1/4	2.12	51.43
1804-20-24	1-5/8-12	1-1/2	2.50	68.12
1804-24-24	1-7/8-12	1-1/2	2.50	101.38
1804-32-32	2-1/2-12	2	3.12	169.58

More sizes available

## BRAZE TO SPLIT FLANGE



Part #	Flange Size	Tube O.D.	List Price
1861-8	1/2	1/2	9.70
1861-12	3/4	3/4	7.71
1861-16	1	1	21.74
1861-20	1-1/4	1-1/4	11.48
1861-24	1-1/2	1-1/2	12.22
1861-32	2	2	13.88
1861-40	2-1/2	2-1/2	51.28

# HYDRAULIC ADAPTERS

## BRAZE TO SPLIT FLANGE



Part #	Flange Size	Tube O.D.	List Price
1862-8	1/2	1/2	53.60
1862-12	3/4	3/4	23.58
1862-16	1	1	21.74
1862-20	1-1/4	1-1/4	25.21
1862-24	1-1/2	1-1/2	26.10
1862-32	2	2	44.72

## SPLIT FLANGE PLUG



Part #	Flange Size	List Price
1961-8	1/2	11.39
1961-12	3/4	10.57
1961-16	1	10.57
1961-20	1-1/4	12.07
1961-24	1-1/2	14.94
1961-32	2	37.41

## SPLIT FLANGE PLUG



Part #	Flange Size	List Price
1962-8	1/2	78.10
1962-12	3/4	25.17
1962-16	1	25.78
1962-20	1-1/4	28.57
1962-24	1-1/2	34.10
1962-32	2	79.18

HYDRAULIC



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# HYDRAULIC ADAPTERS

# FLANGE ADAPTERS

## NITRILE 90 FLANGE O-RING



Viton Available upon request  
90DF

Part #	Flange Size	O-Ring Number	List Price
4004-8-8	1/2	210	0.59
4004-12	3/4	214	0.63
4004-16	1	219	0.77
4004-20	1-1/4	222	1.02
4004-24	1-1/2	225	1.04
4004-32	2	228	1.27
4004-40	2-1/2	232	1.90
4004-48	3	237	2.01

## FLANGE CONNECTOR PLATES CODE 61



CP

Part #	Flange Size	List Price
1900-8	1/2	15.24
1900-12	3/4	20.11
1900-16	1	15.14
1900-20	1-1/4	18.66
1900-24	1-1/2	14.60
1900-32	2	16.96
1900-40	2-1/2	17.10

## SPLIT FLANGE KIT CODE 61

SFK



3000 PSI

Part #	Flange Size	Flange Head Dia.	List Price
1901-8	1/2	1.19	20.87
1901-12	3/4	1.50	20.46
1901-16	1	1.75	20.46
1901-20	1-1/4	2.00	27.28
1901-24	1-1/2	2.38	28.28
1901-32	2	2.81	37.41
1901-40	2-1/2	3.31	44.54
1901-48	3	4.00	74.92

## SPLIT FLANGE KIT

SFXX

### CODE 62



6000 PSI

Part #	Flange Size	Flange Head Diameter	List Price
1902-8	1/2	1.25	64.61
1902-12	3/4	1.63	38.28
1902-16	1	1.88	35.78
1902-20	1-1/4	2.12	44.12
1902-24	1-1/2	2.50	49.56
1902-32	2	3.12	141.00

## SPLIT FLANGE HALF CODE 61

SF



3000 PSI

Part #	Flange Size	Flange Head Diameter	List Price
2061-8	1/2	1.19	4.00
2061-12	3/4	1.50	3.67
2061-16	1	1.75	3.32
2061-20	1-1/4	2.00	4.24
2061-24	1-1/2	2.38	5.68
2061-32	2	2.81	7.26
2061-40	2-1/2	3.31	12.00
2061-48	3	4	19.00

## SPLIT FLANGE HALF CODE 62

SFX



6000 PSI

Part #	Flange Size	Flange Head Diameter	List Price
2062-8	1/2	1.25	17.69
2062-12	3/4	1.63	6.67
2062-16	1	1.88	7.84
2062-20	1-1/4	2.12	13.57
2062-24	1-1/2	2.50	17.14
2062-32	2	3.12	35.60



# FLANGE ADAPTERS

# HYDRAULIC ADAPTERS

## PIPE WELD FLANGE PAD CODE 61

W4



3000 PSI

Part #	Pipe Size	List Price
2161-8-8	1/2	33.79
2161-12-12	3/4	26.30
2161-16-16	1	24.94
2161-20-20	1-1/4	34.60
2161-24-24	1-1/2	46.08
2161-32-32	2	71.34

## PIPE WELD FLANGE PAD CODE 62

W42



6000 PSI

Part #	Pipe Size	List Price
2162-8-8	1/2	99.09
2162-12-12	3/4	53.97
2162-16-16	1	92.02
2162-20-20	1-1/4	97.01
2162-24-24	1-1/2	115.56
2162-32-32	2	193.97

## PIPE THREAD FLANGE PAD CODE 61

W43



3000 PSI

Part #	Pipe Size	List Price
2261-8-8	1/2	33.15
2261-12-12	3/4	28.78
2261-16-16	1	29.46
2261-20-20	1-1/4	34.64
2261-24-24	1-1/2	38.60
2261-32-32	2	45.89
2261-40-40	2-1/2	77.33
2261-48-48	3	105.77

## PIPE THREAD FLANGE PAD CODE 62

W44



6000 PSI

Part #	Pipe Size	List Price
2262-8-8	1/2	50.98
2262-12-12	3/4	65.17
2262-16-16	1	96.05
2262-20-20	1-1/4	102.86
2262-24-24	1-1/2	123.13
2262-32-32	2	175.00
2262-40-40	2-1/2	434.92
2262-48-48	3	577.81

## O-RING FLANGE PAD CODE 61

W46



3000 PSI

Part #	O-Ring Thread Size	Pad Size	List Price
2361-12-12	1-1/16-12	3/4	32.61
2361-16-16	1-5/16-12	1	42.29
2361-20-20	1-5/8-12	1-1/4	48.97
2361-24-24	1-7/8-12	1-1/2	64.99

## O-RING FLANGE PAD CODE 62

W48



6000 PSI

Part #	O-Ring Thread Size	Pad Size	List Price
2362-12-12	1-1/16-12	3/4	84.08
2362-16-16	1-5/16-12	1	93.02
2362-20-20	1-5/8-12	1-1/4	93.02
2362-24-24	1-7/8-12	1-1/2	161.95

HYDRAULIC



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**O-RING FACE SEAL ADAPTER**

**CONFORMANCE**

- SAE J1453

**MATERIALS**

- Steel- SAE 12L14 carbon steel trivalent chrome plated or clear silver finish.

**WORKING PRESSURES**

The following table lists the recommended working pressures for steel O-ring Face Seal tube fittings made in accordance with SAE standard J1943. Many factors such as impulsing, vibration, mechanical shock and overtightening may affect the integrity of fitting connections. SAE recommends sufficient testing be conducted to assure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions. When using fittings with different size or thread type, use lower pressure rating of the two threads.

**Caution: O-ring Face Seal fittings are not designed to provide structural support for other components.**

**SAE J1453 O-RING FACE SEAL FITTINGS PRESSURE RATINGS**

Dash Size	Flared Thread Size	4 TO 1 Minimum Burst PSI
-4	9/16-18	6000
-6	11/16-16	6000
-8	13/16-16	6000
-10	1-14	6000
-12	1-3/16-12	6000
-16	1-7/16-12	6000
-20	1-11/16-12	4000
-24	2-12	4000

**SAE J1453 O-RING FACE SEAL PRESSURE RATINGS FOR STRAIGHT THREAD PORT**

Dash Size	Flared Thread Size	4 TO 1 Minimum Straight	Minimum Burst Adjustable
-4	9/16-18	6000	6000
-6	11/16-16	6000	6000
-8	13/16-16	6000	6000
-10	1-14	6000	6000
-12	1-3/16-12	6000	6000
-16	1-7/16-12	6000	5000
-20	1-11/16-12	4000	4000
-24	2-12	4000	3000

**O-RING FACE SEAL ASSEMBLY INSTRUCTIONS**

**RECOMMENDED**

- Step 1.** Lubricate the threads and the entire surface of the face seal o-ring
- Step 2.** Install o-ring into face seal groove.
- Step 3.** Place matting face seal flange against o-ring and finger tighten face seal flange nut.
- Step 4.** Torque flange nut to the value in the following table.

Dash Size	Flared Thread Size	Torque Foot/Lbs.
-4	9/16-20	10
-6	11/16-16	20
-8	13/16-16	32
-10	1-14	46
-12	1-3/16-12	65
-16	1-7/16-12	92
-20	1-7/8-12	125
-24	2-12	150

Torque Values: The torque values provided are to provide benchmarks that we believe give optimum results for leak free connections. Actual torque val-

**ALTERNATE ASSEMBLY METHOD**

- Step 1.** If torque method not possible, follow steps 1-3 above, then proceed to the steps below.
- Step 2.** Lightly wrench tighten the nut until there is firm resistance.
- Step 3.** Place a wrench on wrench pad next to nut as near the 6 o'clock as possible.
- Step 4.** Place second wrench on nut as near the 3 o'clock position as possible.
- Step 5.** Turn nut clockwise to no less than half way to the 4 o'clock position and no more than the 6 o'clock position.

**WHY WET TORQUE?**

Due to the difference in plating types and thickness, materials, and thread quality of different components, the coefficient of friction varies greatly on any given assembly. Lubrication not only produces a more consistent coefficient of friction, it increases clamping force on sealing area with less torque on the threads. Overtightening causes threads to yield, deform and lose their ability to maintain an adequate load or clamping force on the seating area. Extended operation and severe conditions cause further yielding which results in leaks. Overtightening is the single greatest cause for leaks in metal to metal seat hydraulic connections. It is our firm position, that to not wet torque, is to compromise consistency and quality for convenience.





# O-RING FACE SEAL ADAPTERS

# HYDRAULIC ADAPTERS

## BRAZE TUBE NUT (SLEEVE REQUIRED)

SAE 520110



FF318  
FF1311

Part #	Tube O.D.	Braze Tube O.D.	List Price
FSO318-4	1/4	.25	0.73
FSO318-6	3/8	.38	1.45
FSO318-8	1/2	.50	1.18
FSO318-10	5/8	.62	2.77
FSO318-12	3/4	.72	3.99
FSO318-16	1	1.00	5.62
FSO318-20	1 1/4	1.25	5.98
FSO318-24	1 1/2	1.50	19.01

## BRAZE TUBE SLEEVE

SAE 520115



FF319  
FF3019

Part #	Tube O.D.	List Price
FSO319-4	1/4	0.68
FSO319-6	3/8	0.63
FSO319-8	1/2	1.00
FSO319-10	5/8	1.09
FSO319-12	3/4	1.68
FSO319-16	1	2.90
FSO319-20	1-1/4	4.39
FSO319-24	1-1/2	21.01

See Page 320 for JIC Nut and Sleeve

## BRAZE TUBE UNION

SAE 520104



FF403

Part #	Braze Port	Flat Face Thread	List Price
FSO403-4-4	1/4	9/16-18	4.84
FSO403-6-6	3/8	11/16-16	5.77
FSO403-8-8	1/2	13/16-16	6.61
FSO403-10-10	5/8	1-14	10.98
FSO403-12-12	3/4	1-3/8-12	7.94
FSO403-16-16	1	1-7/16-12	8.67
FSO403-20-20	1-1/4	1-11/16-12	28.72
FSO403-24-24	1-1/2	2-12	34.88

More sizes available

## CAP

SAE 520112



FF304C

Part #	Tube O.D.	Flat Face Thread	List Price
FSO304-C-4	1/4	9/16-18	1.32
FSO304-C-6	3/8	11/16-16	2.59
FSO304-C-8	1/2	13/16-16	2.99
FSO304-C-10	5/8	1-14	3.58
FSO304-C-12	3/4	1-3/8-12	4.08
FSO304-C-16	1	1-7/16-12	6.99
FSO304-C-20	1-1/4	1-11/16-12	10.93
FSO304-C-24	1-1/2	2-12	18.82

## MALE UNION CONNECTOR

SAE 520102



FF2403  
FF1203

**NEW**

Part #	Tube O.D.	Flat Face Thread 1	List Price
FSO2403-4-4	1/4	9/16-18	1.90
FSO2403-6-6	3/8	11/16-16	1.90
FSO2403-8-8	1/2	13/16-16	3.67
FSO2403-12-12	3/4	1-3/16-12	5.44
FSO2403-16-16	1	1-7/16-12	5.44
FSO2403-20-20	1-1/4	1-11/16-12	10.37
FSO2403-24-24	1-1/2	2-12	33.62

## PLUG

SAE 520109



FF2408  
FF1254

Part #	Tube O.D.	Flat Face Thread	List Price
FSO2408-4	1/4	9/16-18	1.21
FSO2408-6	3/8	11/16-16	1.24
FSO2408-8	1/2	13/16-16	1.85
FSO2408-10	5/8	1-14	1.95
FSO2408-12	3/4	1-3/8-12	2.72
FSO2408-16	1	1-7/16-12	5.94
FSO2408-20	1-1/4	1-11/16-12	7.76
FSO2408-24	1-1/2	2-12	21.77

HYDRAULIC





## HYDRAULIC ADAPTERS

## O-RING FACE SEAL ADAPTERS

### MALE ELBOW

SAE 520202



FF2501  
FF1208

Part #	Flat Face Thread 1	Male Pipe Thread 2	List Price
FS2501-4-4	9/16-18	1/4	2.78
FS2501-6-4	11/16-16	1/4	4.22
FS2501-6-6	11/16-16	3/8	3.16
FS2501-8-6	13/16-16	3/8	3.47
FS2501-8-8	13/16-16	1/2	5.05
FS2501-8-12	13/16-16	3/4	10.29
FS2501-10-8	1-14	1/2	9.41
FS2501-10-12	1-14	3/4	6.83
FS2501-12-8	1-3/8-12	1/2	7.83
FS2501-12-12	1-3/8-12	3/4	10.39
FS2501-12-16	1-3/8-12	1	10.64
FS2501-16-12	1-7/16-12	3/4	11.45
FS2501-16-16	1-7/16-12	1	24.44
FS2501-20-20	1-11/16-12	1-1/4	25.83
FS2501-24-24	2-12	1-1/2	52.04

*More sizes available*

“Don't cry because it's over. Smile because it happened.”

- Dr. Seuss

“Be who you are and say what you feel because those who mind don't matter and those who matter don't mind.”

- Dr. Seuss

“The more that you read, the more things you will know. The more that you learn, the more places you'll go.”

- Dr. Seuss

### STRAIGHT THREAD CONNECTOR

SAE 520120



FF6400  
FF1231

Part #	Flat Face Thread 1	O-Ring Thread 2	List Price
FS6400-O-4-4	9/16-18	7/16-20	1.77
FS6400-O-4-6	9/16-18	9/16-18	1.78
FS6400-O-6-4	11/16-16	7/16-20	2.95
FS6400-O-6-6	11/16-16	9/16-18	1.54
FS6400-O-6-8	11/16-16	3/4-16	2.95
FS6400-O-8-6	13/16-16	9/16-18	1.78
FS6400-O-8-8	13/16-16	3/4-16	2.95
FS6400-O-8-10	13/16-16	7/8-14	3.04
FS6400-O-10-8	1-14	3/4-16	3.70
FS6400-O-10-10	1-14	7/8-14	3.32
FS6400-O-10-12	1-14	1-1/16-12	5.52
FS6400-O-12-8	1-3/16-12	3/4-16	5.05
FS6400-O-12-10	1-3/16-12	7/8-14	4.59
FS6400-O-12-12	1-3/16-12	1-1/16-12	3.90
FS6400-O-12-16	1-3/16-12	1-5/16-12	8.71
FS6400-O-16-12	1-7/16-12	1-1/16-12	8.03
FS6400-O-16-16	1-7/16-12	1-5/16-12	6.90
FS6400-O-16-20	1-7/16-12	1-5/8-12	23.40
FS6400-O-20-20	1-11/16-12	1-5/8-12	25.02
FS6400-O-20-24	1-11/16-12	1-7/8-12	25.52
FS6400-O-24-20	2-12	1-5/8-12	69.81
FS6400-O-24-24	2-12	1-7/8-12	20.74

### MALE FLAT FACE TO FEMALE 37 ° SWIVEL

FF6402  
FF1294



Part #	Flat Face Thread 1	JIC Thread 2	List Price
FS6402-4-4	9/16-18	7/16-20	28.37
FS6402-6-6	11/16-16	9/16-18	25.09
FS6402-8-8	13/16-16	3/4-16	32.61
FS6402-10-10	1-14	7/8-14	47.30
FS6402-12-12	1-3/16-12	1-1/16-12	49.52
FS6402-16-16	1-7/16-12	1-5/16-12	51.62

*More sizes available*

HYDRAULIC



# O-RING FACE SEAL ADAPTERS

# HYDRAULIC ADAPTERS

## SWIVEL NUT ELBOW



FF6500  
FF1236

Part #	Flat Face Thread 1	Flat Face Thread 2	List Price
FS6500-4-4	9/16-18	9/16-18	4.67
FS6500-6-6	11/16-16	11/16-16	6.08
FS6500-8-8	13/16-16	13/16-16	7.80
FS6500-10-10	1-14	1-14	8.56
FS6500-12-12	1-3/16-12	1-3/16-12	15.56
FS6500-16-16	1-7/16-12	1-7/16-12	18.85
FS6500-20-20	1-11/16-12	1-11/16-12	28.53
FS6500-24-24	2-12	2-12	80.95

*More sizes available*

## MALE JIC 37° FLARE TO FEMALE FLAT FACE SWIVEL



FF6504  
FF1296

Part #	JIC Thread Size 1	Flat Face Thread 2	List Price
FS6504-4-4	7/16-20	9/16-18	6.36
FS6504-6-6	9/16-18	11/16-16	5.22
FS6504-8-8	3/4-16	13/16-16	5.76
FS6504-10-10	7/8-14	1-14	30.70
FS6504-12-12	1-1/16-12	1-3/16-12	40.71
FS6504-16-16	1-5/16-12	1-7/16-12	53.74

*More sizes available*

## O-RING ELBOW CONNECTOR



FF6801  
FF1238

Part #	Flat Face Thread 1	O-Ring Thread 2	List Price
FS6801-4-4	9/16-18	7/16-20	3.09
FS6801-4-6	9/16-18	9/16-18	5.26
FS6801-6-4	11/16-16	7/16-20	4.63
FS6801-6-6	11/16-16	9/16-18	5.44
FS6801-6-8	11/16-16	3/4-16	4.99
FS6801-8-6	13/16-16	9/16-18	6.03
FS6801-8-8	13/16-16	3/4-16	5.58
FS6801-8-10	13/16-16	7/8-14	7.17
FS6801-10-8	1-14	3/4-16	8.62
FS6801-10-10	1-14	7/8-14	9.21
FS6801-10-12	1-14	1-1/16-12	9.91
FS6801-12-10	1-3/16-12	7/8-14	10.83
FS6801-12-12	1-3/16-12	1-1/16-12	11.07
FS6801-12-16	1-3/16-12	1-5/16-12	17.88
FS6801-16-12	1-7/16-12	1-1/16-12	15.04
FS6801-16-16	1-7/16-12	1-5/16-12	17.58
FS6801-16-20	1-7/16-12	1-5/8-12	25.64
FS6801-20-16	1-11/16-12	1-5/16-12	24.17
FS6801-20-20	1-11/16-12	1-5/8-12	24.51
FS6801-24-24	2-12	1-7/8-12	34.58

*More sizes available*

## STRAIGHT THREAD SWIVEL NUT ELBOW



FF6809  
FF1239

Part #	O-Ring Thread 1	Flat Face Thread 2	List Price
FS6809-4-4	7/16-20	9/16-18	5.93
FS6809-6-6	9/16-18	11/16-16	6.43
FS6809-8-8	3/4-16	13/16-16	9.14
FS6809-10-10	7/8-14	1-14	11.91
FS6809-12-12	1-1/16-12	1-3/16-12	17.35
FS6809-16-16	1-5/16-12	1-7/16-12	24.01

*More sizes available*

Your manuscript is both good and original, but the part that is good is not original and the part that is original is not good.

- Samuel Johnson



## HYDRAULIC ADAPTERS

## STEEL BSPT ADAPTERS

### STEEL BSPT ADAPTERS

#### JIC MALE CONNECTOR BSPT



3404  
305

Part #	JIC Thread Size 1	Male BSPT 2	List Price
7000-4-2	7/16-20	1/8-28	7.86
7000-4-4	7/16-20	1/4-19	6.29
7000-6-4	9/16-18	1/4-19	9.64
7000-6-6	9/16-18	3/8-19	12.68
7000-6-8	9/16-18	1/2-14	17.32
7000-8-6	3/4-16	3/8-19	12.35
7000-8-8	3/4-16	1/2-14	11.25
7000-8-12	3/4-16	3/4-14	50.32
7000-10-8	7/8-14	1/2-14	8.67
7000-10-12	7/8-14	3/4-14	21.77
7000-12-8	1-1/16-12	1/2-14	14.66
7000-12-12	1-1/16-12	3/4-14	24.19
7000-16-16	1-5/16-12	1-11	16.99
7000-20-20	1-5/8-12	1-1/4-11	45.20

More sizes available

#### JIC MALE ELBOW BSPT



3501  
315

Part #	JIC Thread Size 1	Male BSPT 2	List Price
7200-4-2	7/16-20	1/8-28	20.35
7200-4-4	7/16-20	1/4-19	24.00
7200-6-4	9/16-18	1/4-19	15.83
7200-6-6	9/16-18	3/8-19	22.76
7200-6-8	9/16-18	1/2-14	29.48
7200-8-6	3/4-16	3/8-19	22.63
7200-8-8	3/4-16	1/2-14	20.41
7200-10-8	7/8-14	1/2-14	38.72
7200-12-12	1-1/16-12	3/4-14	29.75
7200-16-16	1-5/16-12	1-11	62.36
7200-20-20	1-5/8-12	1-1/4-11	137.29

More sizes available

#### BSPT HEX NIPPLE



3520  
MBT

Part #	Male BSPT 1	Male BSPT 2	List Price
7520-2-2	1/8-28	1/8-28	20.86
7520-4-4	1/4-19	1/4-19	21.77
7520-6-6	3/8-19	3/8-19	18.69
7520-8-8	1/2-14	1/2-14	25.40
7520-10-10	5/8-14	5/8-14	39.46
7520-12-12	3/4-14	3/4-14	39.46

More sizes available

#### BSPT PLUG



100B-Y  
KA-RM  
MHL  
296

Part #	BSPT	List Price
9508-2	1/8-28	7.86
9508-4	1/4-19	8.29
9508-6	3/8-19	10.75
9508-8	1/2-14	11.11
9508-12	3/4-14	18.23
9508-16	1-11	27.33

More sizes available

### STEEL BSPP ADAPTERS

#### BSPP HEX NIPPLE



3420  
MB

Part #	Male BSPP 1	Male BSPP 2	List Price
7420-2-2	1/8-28	1/8-28	9.61
7420-4-2	1/4-19	1/8-28	10.88
7420-6-4	3/8-19	1/4-19	10.88
7420-6-6	3/8-19	3/8-19	11.34
7420-8-6	1/2-14	3/8-19	14.29
7420-8-8	1/2-14	1/2-14	14.29
7420-10-8	5/8-14	1/2-14	24.49
7420-12-8	3/4-14	1/2-14	24.04
7420-12-12	3/4-14	3/4-14	24.94
7420-16-12	1-11	3/4-14	36.04
7420-16-16	1-11	1-11	42.18
7420-20-16	1-1/4-11	1-11	81.18
7420-20-20	1-1/4-11	1-1/4-11	90.70

HYDRAULIC



# STEEL BSPT ADAPTERS

## BSPP COUPLING



3425  
FB

Part #	BSPP	List Price
7425-2	1/8-28	21.77
7425-4	1/4-19	13.29
7425-8	1/2-14	16.19
7425-10	5/8-14	27.21
7425-12	3/4-14	38.55
7425-16	1-11	64.63

*Reducing sizes available*

## JIC TO FEMALE BSPP STRAIGHT SWIVEL



3240  
MJFBS

Part #	JIC Thread Size 1	Female BSPP Swivel 2	List Price
7240-4	7/16-20	1/4-19	21.54
7240-6	9/16-18	3/8-19	19.47
7240-8	3/4-16	1/2-14	26.53
7240-10	7/8-14	5/8-14	38.55
7240-12	1-1/16-12	3/4-14	40.59
7240-16	1-5/16-12	1-11	54.42

*More sizes available*

## JIC TO BSPP MALE ELBOW



3801  
315

Part #	JIC Thread Size 1	Male BSPP 2	List Price
7202-NWO-4-2	7/16-20	1/8-28	33.97
7202-NWO-4-4	7/16-20	1/4-19	18.55
7202-NWO-6-4	9/16-18	1/4-19	23.00
7202-NWO-6-6	9/16-18	3/8-19	26.00
7202-NWO-6-8	9/16-18	1/2-14	30.70
7202-NWO-8-6	3/4-16	3/8-19	33.73
7202-NWO-8-8	3/4-16	1/2-14	41.18
7202-NWO-8-12	3/4-16	3/4-14	75.55
7202-NWO-10-8	7/8-14	1/2-14	27.66
7202-NWO-12-12	1-1/16-12	3/4-14	58.32
7202-NWO-12-16	1-1/16-12	1-11	91.43
7202-NWO-16-16	1-5/16-12	1-11	56.92
7202-NWO-20-20	1-5/8-12	1-1/4-11	109.39
7202-NWO-24-24	1-7/8-12	1-1/2-11	205.99

# HYDRAULIC ADAPTERS

## JIC TO BSPP 45° ELBOW



3802  
35J

Part #	JIC Thread Size 1	Male BSPP 2	List Price
7802-4	7/16-20	1/4-19	36.12
7802-6	9/16-18	3/8-19	55.56
7802-8	3/4-16	1/2-14	73.70
7802-12	1-1/16-12	3/4-14	99.77
7802-16	1-5/16-12	1-11	103.40

## BSPP TO MALE PIPE NIPPLE



MBMP  
3825

Part #	Male BSPP Size 1	Male Pipe Thread Size 2	List Price
7825-2	1/8-28	1/8	8.39
7825-4	1/4-19	1/4	8.00
7825-6	3/8-19	3/8	8.93
7825-8	1/2-14	1/2	10.18
7825-12	3/4-14	3/4	12.79
7825-16	1-11	1	30.57
7825-20	1-1/4-11	1-1/4	72.56

*More sizes available*

## JIC TO BSPP MALE CONNECTOR



30J  
3800

Part #	JIC Thread Size 1	Male BSPP 2	List Price
7002-4-2	7/16-20	1/8-28	6.58
7002-4-4	7/16-20	1/4-19	7.02
7002-4-6	7/16-20	3/8-19	7.26
7002-4-8	7/16-20	1/2-14	25.62
7002-6-4	9/16-18	1/4-19	6.71
7002-6-6	9/16-18	3/8-19	6.71
7002-6-8	9/16-18	1/2-14	8.53
7002-8-6	3/4-16	3/8-19	8.26
7002-8-8	3/4-16	1/2-14	15.54
7002-8-12	3/4-16	3/4-14	25.95
7002-10-8	7/8-14	1/2-14	15.54
7002-12-12	1-1/16-12	3/4-14	18.76
7002-12-16	1-1/16-12	1-11	24.72
7002-16-16	1-5/16-12	1-11	22.27
7002-20-20	1-5/8-12	1-1/4-11	72.25
7002-24-24	1-7/8-12	1-1/2-11	79.00

*More sizes available*



## HYDRAULIC ADAPTERS

### JIC TO BSPP STRAIGHT SWIVEL



3402  
3055

Part #	JIC Thread Size 1	Male BSPP 2	List Price
7022-4-2	7/16-20	1/8-28	20.41
7022-4-4	7/16-20	1/4-19	13.61
7022-6-4	9/16-18	1/4-19	20.41
7022-6-6	9/16-18	3/8-19	14.74
7022-8-6	3/4-16	3/8-19	17.46
7022-8-8	3/4-16	1/2-14	17.91
7022-10-8	7/8-14	1/2-14	20.18
7022-12-12	1-1/16-12	3/4-14	24.49
7022-16-16	1-5/16-12	1-11	68.03

More sizes available

### HEX HEAD PLUG BSPP



3408

Part #	Male BSPP	List Price
9522-P-2	1/8-28	5.74
9522-P-4	1/4-19	6.05
9522-P-6	3/8-19	5.90
9522-P-8	1/2-14	8.60
9522-P-12	3/4-14	11.07
9522-P-16	1-11	20.39
9522-P-20	1-1/4-11	29.48

### HOLLOW HEX PLUG BSPP



3408 HHP

Part #	Male BSPP	List Price
9522-H-2	1/8-28	10.20
9522-H-4	1/4-19	9.98
9522-H-6	3/8-19	12.24
9522-H-8	1/2-14	16.60
9522-H-12	3/4-14	20.14
9522-H-16	1-11	28.21
9522-H-20	1-1/4-11	56.92

## STEEL BSPP METRIC ADAPTERS

### FEMALE ADAPTER BSPP



3455  
MMFP

Part #	Female Pipe 1	Male BSPP 2	List Price
7042-2-2	1/8	1/8-28	14.02
7042-4-2	1/4	1/8-28	20.41
7042-4-4	1/4	1/4-19	10.86
7042-6-6	3/8	3/8-19	24.15
7042-8-8	1/2	1/2-14	28.57
7042-12-12	3/4	3/4-14	31.43
7042-16-16	1	1-11	44.90
7042-20-20	1-1/4	1-1/4-11	64.04
7042-24-24	1-1/2	1-1/2-11	96.15

More sizes available

## STEEL METRIC ADAPTERS

### MALE CONNECTOR



7400  
30J (R)

Port-seal crush washer and O-ring included

Part #	JIC Thread Size 1	Metric Thread 2	List Price
7005-4-10	7/16-20	10x1.0	9.99
7005-4-12	7/16-20	12x1.5	12.80
7005-4-14	7/16-20	14x1.5	11.84
7005-4-18	7/16-20	18x1.5	24.94
7005-5-10	1/2-20	10x1.0	46.35
7005-5-12	1/2-20	12x1.5	12.76
7005-5-14	1/2-20	14x1.5	65.76
7005-6-14	9/16-18	14x1.5	10.20
7005-6-16	9/16-18	16x1.5	14.38
7005-6-18	9/16-18	18x1.5	14.51
7005-8-16	3/4-16	16x1.5	14.38
7005-8-18	3/4-16	18x1.5	11.97
7005-8-22	3/4-16	22x1.5	22.48
7005-10-18	7/8-14	18x1.5	18.97
7005-10-20	7/8-14	20x1.5	20.72
7005-10-22	7/8-14	22x1.5	20.72
7005-12-22	1-1/16-12	22x1.5	23.36
7005-12-27	1-1/16-12	27x2.0	45.71
7005-14-26	1-3/16-12	26x1.5	57.10
7005-16-27	1-5/16-12	27x2.0	57.10
7005-16-33	1-5/16-12	33x2.0	18.27
7005-20-42	1-5/8-12	42x2.0	79.59
7005-24-48	1-7/8-12	48x2.0	143.08



# STEEL METRIC ADAPTERS

## MALE ELBOW



7801  
315 (R)

Port-seal crush washer  
and O-ring included

Part #	JIC Thread Size 1	Metric Thread 2	List Price
7205-NWO-4-10	7/16-20	10x1.0	29.93
7205-NWO-4-12	7/16-20	12x1.5	29.48
7205-NWO-4-14	7/16-20	14x1.5	23.13
7205NWO-5-12	1/2-20	12x1.5	40.00
7205-NWO-6-14	9/16-18	14x1.5	33.17
7205-NWO-6-16	9/16-18	16x1.5	28.57
7205-NWO-8-16	3/4-16	16x1.5	39.69
7205-NWO-8-18	3/4-16	18x1.5	11.93
7205-NWO-8-22	3/4-16	22x1.5	33.51
7205-NWO-10-18	7/8-14	18x1.5	36.28
7205-NWO-10-20	7/8-14	20x1.5	41.27
7205-NWO-10-22	7/8-14	22x1.5	39.27
7205-NWO-12-22	1-1/16-12	22x1.5	65.44
7205-NWO-12-27	1-1/16-12	27x2.0	56.24
7205-NWO-16-27	1-5/16-12	27x2.0	68.39
7205-NWO-16-33	1-5/16-12	33x2.0	64.49
7205-NWO-20-42	1-5/8-12	42x2.0	126.08

## STRAIGHT SWIVEL



7402  
30JS (R)

Part #	JIC Thread Size 1	Metric Thread 2	List Price
7025-4-10	7/16-20	10x1.0	24.94
7025-4-12	7/16-20	12x1.5	24.40
7025-5-12	1/2-20	12x1.5	20.63
7025-6-14	9/16-18	14x1.5	23.13
7025-6-16	9/16-18	16x1.5	27.21
7025-8-16	3/4-16	16x1.5	27.30
7025-10-22	7/8-14	22x1.5	61.22
7025-12-27	1-1/16-12	27x2.0	42.36
7025-16-33	1-5/16-12	33x2.0	52.24

# HYDRAULIC ADAPTERS

## HEX HEAD PLUG METRIC PARALLEL



7408

Part #	Metric Thread	List Price
8555-P-10	10x1.0	8.29
8555-P-12	12x1.5	8.69
8555-P-14	14x1.5	9.95
8555-P-16	16x1.5	11.14
8555-P-18	18x1.5	13.28
8555-P-20	20x1.5	15.73
8555-P-22	22x1.5	15.73
8555-P-26	26x1.5	20.72
8555-P-30	30x1.5	56.01

## HOLLOW HEX HEAD PLUG METRIC PARALLEL



7408 HHP

Part #	Metric Thread	List Price
8555-H-10	10x1.0	6.44
8555-H-12	12x1.5	8.46
8555-H-14	14x1.5	9.99
8555-H-16	16x1.5	16.78
8555-H-18	18x1.5	19.14
8555-H-20	20x1.5	17.95
8555-H-22	22x1.5	18.41
8555-H-26	26x1.5	26.76
8555-H-30	30x1.5	29.02

More sizes available

## FEMALE ADAPTER

MMFP (R)



Part #	Female Pipe Thread 1	Metric Thread 2	List Price
7045-2-10	1/8	10x1.0	20.05
7045-4-12	1/4	12x1.5	19.89
7045-4-14	1/4	14x1.5	17.07
7045-6-16	3/8	16x1.5	21.81
7045-6-18	3/8	18x1.5	25.23
7045-8-16	1/2	16x1.5	28.00
7045-8-18	1/2	18x1.5	18.22
7045-8-22	1/2	22x1.5	24.11
7045-12-27	3/4	27x2.0	40.82
7045-16-33	1	33x2.0	76.98
7045-20-42	1-1/4	42x2.0	144.72

More sizes available





# HYDRAULIC ADAPTERS

# HIGH PRESSURE SWIVELS 3000 PSI

## HIGH PRESSURE SWIVELS

### MALE CONNECTOR



Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
HP2404-6-4	9/16-18	1/4	104.38
HP2404-8-6	3/4-16	3/8	86.49
HP2404-10-8	7/8-14	1/2	94.38
HP2404-12-12	1-1/16-12	3/4	140.45
HP2404-16-16	1-5/16-12	1	189.61
HP2404-20-20	1-5/8-12	1-1/4	362.63
HP2404-24-24	1-7/8-12	1-1/2	761.04

### FEMALE CONNECTOR



Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
HP2405-6-4	9/16-18	1/4	120.56
HP2405-8-6	3/4-16	3/8	86.12
HP2405-10-8	7/8-14	1/2	98.10
HP2405-12-12	1-1/16-12	3/4	100.63
HP2405-16-16	1-5/16-12	1	189.21
HP2405-20-20	1-5/8-12	1-1/4	362.63
HP2405-24-24	1-7/8-12	1-1/2	1016.92

### TUBE ADAPTER



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
HP2406-6-6	9/16-18	9/16-18	104.38
HP2406-8-8	3/4-16	3/4-16	89.48
HP2406-10-10	7/8-14	7/8-14	100.86
HP2406-12-12	1-1/16-12	1-1/16-12	121.61
HP2406-14-14	1-3/16-12	1-3/16-12	181.27
HP2406-16-16	1-5/16-12	1-5/16-12	218.05
HP2406-20-20	1-5/8-12	1-5/8-12	362.63
HP2406-24-24	1-7/8-12	1-7/8-12	778.55
HP2406-32-32	2-1/2-12	2-1/2-12	1235.56

### MALE ELBOW



Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
HP2501-6-4	9/16-18	1/4	126.91
HP2501-6-6	9/16-18	3/8	105.35
HP2501-8-6	3/4-16	3/8	105.35
HP2501-8-8	3/4-16	1/2	113.88
HP2501-10-8	7/8-14	1/2	155.21
HP2501-12-12	1-1/16-12	3/4	239.66
HP2501-16-16	1-5/16-12	1	236.19
HP2501-20-20	1-5/8-12	1-1/4	437.60
HP2501-24-24	1-7/8-12	1-1/2	825.71
HP2501-32-32	2-1/2-12	2	1170.48

### FEMALE ELBOW



Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
HP2502-6-4	9/16-18	1/4	104.94
HP2502-6-6	9/16-18	3/8	105.08
HP2502-8-6	3/4-16	3/8	126.89
HP2502-10-8	7/8-14	1/2	112.74
HP2502-12-12	1-1/16-12	3/4	207.50
HP2502-16-16	1-5/16-12	1	262.27
HP2502-20-20	1-5/8-12	1-1/4	437.60
HP2502-24-24	1-7/8-12	1-1/2	839.46
HP2502-32-32	2-1/2-12	2	1685.67

### PIPE ADAPTER



Part #	Male Pipe Thread 1	Female Pipe Thread 2	List Price
HP5405-4-4	1/4	1/4	121.78
HP5405-6-6	3/8	3/8	104.38
HP5405-8-8	1/2	1/2	147.48
HP5405-12-12	3/4	3/4	147.48
HP5405-16-16	1	1	264.43
HP5405-20-20	1-1/4	1-1/4	361.77
HP5405-24-24	1-1/2	1-1/2	804.72
HP5405-32-32	2	2	1539.55





# HIGH PRESSURE SWIVELS 3000 PSI

# HYDRAULIC ADAPTERS

## PIPE COUPLING



Part #	Female Pipe Thread 1	Female Pipe 2	List Price
HP5000-4-4	1/4	1/4	109.62
HP5000-6-6	3/8	3/8	109.62
HP5000-8-8	1/2	1/2	147.48
HP5000-12-12	3/4	3/4	140.45
HP5000-16-16	1	1	218.04
HP5000-20-20	1-1/4	1-1/4	406.63
HP5000-24-24	1-1/2	1-1/2	1067.76
HP5000-32-32	2	2	1539.55

## MALE SWIVEL ELBOW



Part #	Male Pipe Thread 1	Female NPSM 2	List Price
HP1501-4-4	1/4	1/4	126.91
HP1501-4-6	1/4	3/8	103.08
HP1501-6-4	3/8	1/4	105.35
HP1501-6-6	3/8	3/8	105.35
HP1501-8-8	1/2	1/2	134.38
HP1501-12-12	3/4	3/4	235.47
HP1501-16-16	1	1	236.24
HP1501-20-20	1-1/4	1-1/4	437.60
HP1501-24-24	1-1/2	1-1/2	437.60
HP1501-32-32	2	2	1841.59

## FEMALE SWIVEL ELBOW



Part #	Female Pipe Thread 1	Female NPSM 2	List Price
HP1502-4-4	1/4	1/4	105.17
HP1502-4-6	1/4	3/8	108.34
HP1502-6-4	3/8	1/4	126.89
HP1502-6-6	3/8	3/8	126.91
HP1502-8-8	1/2	1/2	134.38
HP1502-12-12	3/4	3/4	183.67
HP1502-16-16	1	1	231.16
HP1502-20-20	1-1/4	1-1/4	435.69
HP1502-24-24	1-1/2	1-1/2	839.46
HP1502-32-32	2	2	1841.59

## STREET ELBOW



Part #	Male Pipe Thread 1	Female Pipe Thread 2	List Price
HP5502-4-4	1/4	1/4	126.91
HP5502-4-6	1/4	3/8	126.89
HP5502-6-4	3/8	1/4	105.35
HP5502-6-6	3/8	3/8	126.91
HP5502-8-8	1/2	1/2	155.21
HP5502-12-12	3/4	3/4	217.76
HP5502-16-16	1	1	275.38
HP5502-20-20	1-1/4	1-1/4	444.28
HP5502-24-24	1-1/2	1-1/2	955.60
HP5502-32-32	2	2	1200.45

## JIC TO O-RING ELBOW CONNECTOR



Part #	JIC Thread Size 1	O-Ring Thread 2	List Price
HP6801-6-6	9/16-18	9/16-18	126.91
HP6801-6-8	9/16-18	3/4-16	105.76
HP6801-8-8	3/4-16	3/4-16	126.91
HP6801-10-10	7/8-14	7/8-14	106.30
HP6801-12-12	1-1/16-12	1-1/16-12	185.08
HP6801-16-16	1-5/16-12	1-5/16-12	236.05
HP6801-20-20	1-5/8-12	1-5/8-12	437.60
HP6801-24-24	1-7/8-12	1-7/8-12	997.73
HP6801-32-32	2-1/2-12	2-1/2-12	1685.67

\* Live swivel is on the 2 side as pictured.



**STEEL BEADED HOSE INSERTS**

**MALE PIPE HOSE INSERT**

SAE 430160



Part #	Hose I.D. 1	Pipe Thread 2	List Price
4404-4-2	1/4	1/8	4.39
4404-4-4	1/4	1/4	2.65
4404-5-2	5/16	1/8	11.34
4404-6-4	3/8	1/4	3.31
4404-6-6	3/8	3/8	3.44
4404-8-6	1/2	3/8	4.22
4404-8-8	1/2	1/2	3.14
4404-10-8	5/8	1/2	6.72
4404-12-12	3/4	3/4	5.08
4404-16-12	1	3/4	7.24
4404-16-16	1	1	6.93
4404-20-20	1-1/4	1-1/4	11.03
4404-24-20	1-1/2	1-1/4	25.87
4404-24-24	1-1/2	1-1/2	19.09

*More sizes available*

**90° PIPE HOSE INSERT**

SAE 430260



Part #	Hose I.D. 1	Pipe Thread 2	List Price
4501-4-4	1/4	1/4	5.24
4501-6-6	3/8	3/8	3.88
4501-8-6	1/2	3/8	5.02
4501-8-8	1/2	1/2	6.88
4501-10-8	5/8	1/2	4.98
4501-12-12	3/4	3/4	7.33
4501-16-12	1	3/4	11.02
4501-16-16	1	1	9.11
4501-20-16	1-1/4	1	20.68
4501-20-20	1-1/4	1-1/4	22.37
4501-24-24	1-1/2	1-1/2	40.59
4501-32-32	2	2	348.80

*More sizes available*

**45° PIPE HOSE INSERT**

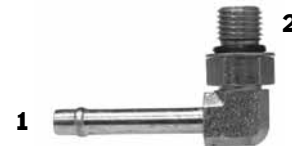
SAE 430360



Part #	Hose I.D. 1	Pipe Thread 2	List Price
4503-8-6	1/2	3/8	8.20
4503-10-8	5/8	1/2	6.98
4503-12-12	3/4	3/4	7.62
4503-16-16	1	1	12.10
4503-20-20	1-1/4	1-1/4	19.11

*More sizes available*

**90° O-RING HOSE INSERT**



Part #	Hose I.D. 1	O-Ring Thread 2	List Price
4601-NWO-4	1/4	7/16-20	4.00
4601-NWO-5	5/16	1/2-20	8.05
4601-NWO-6	3/8	9/16-18	3.94
4601-NWO-8	1/2	3/4-16	4.99
4601-NWO-10	5/8	7/8-14	7.14
4601-NWO-10-8	5/8	3/4-16	8.18
4601-NWO-12	3/4	1-1/16-12	7.11
4601-NWO-16	1	1-5/16-12	12.67
4601-NWO-16-12	1	1-1/16-12	11.33
4601-NWO-20	1-1/4	1-5/8-12	23.13
4601-NWO-24	1-1/2	1-7/8-12	36.88
4601-NWO-24-20	1-1/2	1-5/8-12	47.81

*More sizes available*

**45° O-RING HOSE INSERT**



Part #	Hose I.D. 1	O-Ring Thread 2	List Price
4603-NWO-4	1/4	7/16-20	4.76
4603-NWO-6	3/8	9/16-18	5.74
4603-NWO-8	1/2	3/4-16	5.06
4603-NWO-10	5/8	7/8-14	9.05
4603-NWO-12	3/4	1-1/12-12	9.49
4603-NWO-16	1	1-5/16-12	15.25
4603-NWO-20	1-1/4	1-5/8-12	22.63
4603-NWO-20-16	1-1/4	1-5/16-12	25.66
4603-NWO-24	1-1/2	1-7/8-12	35.47
4603-NWO-24-20	1-1/2	1-5/8-12	32.23

*More sizes available*

**O-RING HOSE INSERT**



Part #	Hose I.D. 1	O-Ring Thread 2	List Price
4604-O-4	1/4	7/16-20	3.92
4604-O-6	3/8	9/16-18	4.39
4604-O-8	1/2	3/4-16	3.27
4604-O-10	5/8	7/8-14	4.15
4604-O-10-8	5/8	3/4-16	6.83
4604-O-12	3/4	1-1/16-12	4.83
4604-O-16	1	1-5/16-12	7.61
4604-O-16-12	1	1-1/16-12	7.74
4604-O-20	1-1/4	1-5/8-12	18.31
4604-O-20-16	1-1/4	1-5/16-12	20.42
4604-O-24	1-1/2	1-7/8-12	32.15
4604-O-24-20	1-1/2	1-5/8-12	32.16

*More sizes available*

A small boy swallowed some coins and was taken to a hospital. When his grandmother telephoned to ask how he was, a nurse said, "No change yet."

A chicken crossing the road is poultry in motion.

The short fortune-teller who escaped from prison was a small medium at large.

The man who survived mustard gas and pepper spray is now a seasoned veteran.

A backward poet writes inverse.

In democracy it's your vote that counts. In feudalism (as in DC) it's your count that votes.

When cannibals ate a missionary, they got a taste of religion and were sanctified.

Don't join dangerous cults: Practice safe sects.



# HYDRAULIC ADAPTERS

# FLARELESS BITE-TYPE STEEL

## TUBE NUT

SAE 080110



7105  
BU-S

Part #	Tube O.D	JIC Thread Size	List Price
C318-2	1/8	5/16-24	2.45
C318-4	1/4	7/16-20	1.28
C318-6	3/8	9/16-18	1.52
C318-8	1/2	3/4-16	2.28
C318-12	3/4	1-1/16-12	4.03
C318-16	1	1-5/16-12	5.20

## TUBE SLEEVE

SAE 08011SA



TU-S  
7165

Part #	Tube O.D	List Price
C319-2	1/8	2.45
C319-4	1/4	1.40
C319-6	3/8	2.33
C319-8	1/2	3.08
C319-12	3/4	5.60
C319-16	1	8.40

## TUBE UNION

SAE 080101



7305  
HBU-S

Part #	Tube Size	List Price
C2403-2-2	1/8	17.62
C2403-4-4	1/4	9.63
C2403-6-6	3/8	14.05
C2403-8-8	1/2	19.18
C2403-12-12	3/4	33.83
C2403-16-16	1	52.90

## MALE CONNECTOR

SAE 080102



FBU-S  
7205

Part #	Tube Size 1	Male Pipe Thread 2	List Price
C2404-2-2	1/8	1/8	9.22
C2404-6-4	3/8	1/4	8.63
C2404-6-6	3/8	3/8	10.78
C2404-8-6	1/2	3/8	12.08
C2404-8-8	1/2	1/2	13.00
C2404-12-12	3/4	3/4	22.30
C2404-16-16	1	1	35.12

## UNION ELBOW

SAE 080201



7505  
EBU-S

Part #	Tube Size	List Price
C2500-2-2	1/8	26.48
C2500-4-4	1/4	12.95
C2500-6-6	3/8	14.89
C2500-8-8	1/2	20.07
C2500-12-12	3/4	40.18
C2500-16-16	1	65.96

## MALE ELBOW

SAE 080202  
ms 51504



7405  
CBU-S

Part #	Tube Size 1	Male Pipe Size 2	List Price
C2501-3-2	1/8	1/8	18.73
C2501-4-2	1/4	1/8	9.33
C2501-4-4	1/4	1/4	11.90
C2501-6-2	3/8	1/8	16.75
C2501-6-4	3/8	1/4	11.27
C2501-6-6	3/8	3/8	15.75
C2501-6-8	3/8	1/2	19.02
C2501-8-4	1/2	1/4	17.27
C2501-8-6	1/2	3/8	15.51
C2501-8-8	1/2	1/2	23.92
C2501-12-12	3/4	3/4	29.65
C2501-16-16	1	1	48.42

# FLARELESS BITE-TYPE STEEL

# HYDRAULIC ADAPTERS

## FEMALE ELBOW

SAE 080203



7455  
DBU-S

Part #	Tube Size 1	Female Pipe Size 2	List Price
C2502-4-4	1/4	1/4	15.05
C2502-6-4	3/8	1/4	18.57
C2502-6-6	3/8	3/8	21.60
C2502-8-8	1/2	1/2	27.30
C2502-12-12	3/4	3/4	41.83
C2502-16-16	1	1	77.88

## MALE BRANCH TEE

SAE 080425



SBU-S  
7605

Part #	Tube Size 1&2	Pipe Thread Size 3	List Price
C2601-2-2	1/8	1/8	33.78
C2601-4-2	1/4	1/8	15.65
C2601-4-4	1/4	1/4	25.08
C2601-6-4	3/8	1/4	24.50
C2601-6-6	3/8	3/8	38.90
C2601-8-8	1/2	1/2	31.80
C2601-12-12	3/4	3/4	55.93
C2601-16-16	1	1	133.53

## FEMALE BRANCH TEE

SAE 080427



7655  
OBU-S

Part #	Tube Size 1	Female Pipe Size 3	List Price
C2602-4-4	1/4	1/4	28.25
C2602-6-4	3/8	3/8	30.21
C2602-6-6	1/2	3/8	47.48
C2602-8-8	1/2	1/2	
C2602-12-12	3/4	3/4	60.73
C2602-16-16	1	1	200.25

## UNION TEE

SAE 080401



7705  
JBU-S

Part #	Tube Size	List Price
C2603-2-2	1/8	55.65
C2603-4-4	1/4	21.86
C2603-6-6	3/8	26.08
C2603-8-8	1/2	34.18
C2603-12-12	3/4	61.78
C2603-16-16	1	98.55

## MALE O-RING CONNECTOR

SAE 080120



7315  
F5B-J

Part #	Tube Size	O-Ring Thread 2	List Price
C6400-4-4	1/4	7/16-20	7.05
C6400-6-6	3/8	9/16-18	11.22
C6400-8-8	1/2	3/4-16	15.86
C6400-8-10	1/2	7/8-14	16.10
C6400-12-12	3/4	1-1/16-12	28.18
C6400-16-16	1	1-5/16-12	54.08

## O-RING ELBOW CONNECTOR

SAE 080220



7515  
C5BU-S

Part #	Tube Size 1	O-Ring Thread Size 2	List Price
C6801-2-2	1/8	5/16-24	10.50
C6801-4-4	1/4	7/16-20	12.43
C6801-6-6	3/8	9/16-18	17.38
C6801-8-8	1/2	3/4-16	17.38
C6801-12-12	3/4	1-1/16-12	34.05
C6801-16-16	1	1-5/16-12	45.80

## MALE O-RING BRANCH TEE

SAE 080429



7715  
S5BU-S

Part #	Tube Size Size 1 & 2	O-Ring Thread Size 3	List Price
C6803-4-4	1/4	7/16-20	26.83
C6803-6-6	3/8	9/16-18	26.43
C6803-8-8	1/2	3/4-16	41.83
C6803-12-12	3/4	1-1/16-12	86.44
C6803-16-16	1	1-5/16-12	95.81

# HYDRAULIC COUPLINGS

# QUICK DISCONNECT

**THREAD TO CONNECT, DRYBREAK NO-SPILL QUICK CONNECT - 3000 PSI MAX**



- Brass Body
- Steel Wing Nut
- Buna-Seal ( -40° to +250°F)

Aeroquip S100  
Parker 6100  
Snaptite B78

**NEW**



- Bonded Face Seal
- External ORing Alleviates Full Connection

Part #	Body Size	Female NPT	List Price
61-150	3/4	1/2	70.29

Part #	Body Size	NPT	List Price
61-050	3/4	1/2	65.76

\* More sizes available, just ask.

FEATURES - ISO A and ISO B (bold)

- 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

**LOWER PRICES**



## FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
ANV-14-F	1/4"	1/4"	10.99
ANV-38-F	3/8"	3/8"	11.75
ANV-12-F	1/2"	1/2"	13.69
ANV-34-F	3/4"	3/4"	33.06
ANV-1-F	1"	1"	42.86

ISO 7241-1 ISO-A Interchange ( Connected )				
Body Size	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
1-1/4"	3,000	200	12,600	850
1-1/2"	3,000	200	12,600	850
2"	1,450	100	5,800	400

INTERCHANGE DATA:

- Parker 6600, Aeroquip/ Eaton FD56, Dixon 'K' Series.
- Hansen HA 15000, Safeway S56



## FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
ANV-14-M	1/4"	1/4"	5.95
ANV-38-M	3/8"	3/8"	6.39
ANV-12-M	1/2"	1/2"	7.34
ANV-34-M	3/4"	3/4"	17.94
ANV-1-M	1"	1"	20.28

**LOWER PRICES**

ISO 7241-1 Series B ISO-B Interchange ( Connected )								
Body Size	Steel Coupler/ Plug				Brass Coupler/ Plug			
	Max. Working		Burst		Max. Working		Burst	
	PSI	Bar	PSI	Bar	PSI	Bar	PSI	Bar
1/8"	4,000	275	14,500	1,000	3,000	200	16,500	1,100
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

**NEW**

**Suffix 'B' = Brass Material**

## FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
HNV-14-F	1/4"	1/4"	13.06
HNV-14-F-B	1/4"	1/4"	19.05
HNV-38-F	3/8"	3/8"	12.18
HNV-38-F-B	3/8"	3/8"	26.47
HNV-12-F	1/2"	1/2"	15.92
HNV-12-F-B	1/2"	1/2"	34.77
HNV-34-F	3/4"	3/4"	34.33
HNV-34-F-B	3/4"	3/4"	48.29
HNV-1-F	1"	1"	58.87
HNV-1-F-B	1"	1"	93.25

## PLUG

Part #	Body Size	NPT	List Price
HNV-14-M	1/4"	1/4"	6.80
HNV-14-M-B	1/4"	1/4"	9.01
HNV-38-M	3/8"	3/8"	6.39
HNV-38-M-B	3/8"	3/8"	13.33
HNV-12-M	1/2"	1/2"	7.26
HNV-12-M-B	1/2"	1/2"	15.72
HNV-34-M	3/4"	3/4"	17.94
HNV-34-M-B	3/4"	3/4"	26.71
HNV-1-M	1"	1"	23.63
HNV-1-M-B	1"	1"	40.95

**HYDRAULIC**

<b>FLUSH FACE</b>				
Body Size	<i>Steel Coupler/ Plug Coupled</i>			
	<i>Maximum Working</i>		<i>Burst</i>	
	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

**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.

FF Series  
HTMC  
74C



**FEMALE PIPE COUPLER**

Part #	Body Size	NPT	List Price
FF-14-F	1/4"	1/4"	46.21
FF-38-F	3/8"	3/8"	55.87
FF-12-F	1/2"	1/2"	80.59
FF-34-F	3/4"	3/4"	148.57
FF-1-F	1"	1"	234.48

FF Series  
HTMN  
74N



**PLUG**

Part #	Body Size	NPT	List Price
FF-14-M	1/4"	1/4"	23.09
FF-38-M	3/8"	3/8"	23.71
FF-12-M	1/2"	1/2"	37.28
FF-34-M	3/4"	3/4"	67.68
FF-1-M	1"	1"	145.38

<b>AG - Series Agricultural Interchange ( Connected )</b>				
Nominal Size	<i>Steel Coupler/ Plug</i>			
	<i>Maximum Working</i>		<i>Burst</i>	
	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

**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

**Snap-Tite 60 Series**



**FEMALE PIPE COUPLER**

Part #	Body Size	NPT	List Price
NV-14-F	1/4"	1/4"	24.08
NV-38-F	3/8"	3/8"	35.69
NV-12-F	1/2"	1/2"	30.10
NV-34-F	3/4"	3/4"	71.29
NV-1-F	1"	1"	72.80



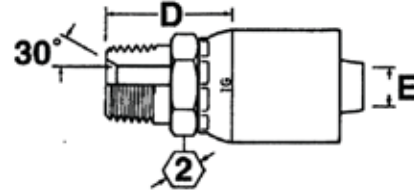
**PLUG**

Part #	Body Size	NPT	List Price
NV-14-M	1/4"	1/4"	11.61
NV-38-M	3/8"	3/8"	19.92
NV-12-M	1/2"	1/2"	13.64
NV-34-M	3/4"	3/4"	36.64
NV-1-M	1"	1"	36.64



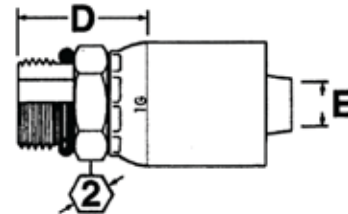


**NPTF SOLID MALE PIPE FITTING - ONE PIECE BITE TYPE**



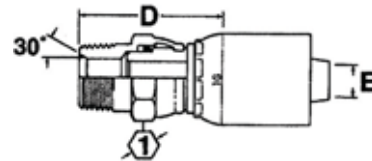
Part #	Thread Size	Hose ID	Overall Length	D Cut-off	E Nipple ID	Hex 2	Price
D1MP 101-0404	1/4-18	1/4	2.06	1.14	.17	.56	4.41
D1MP 101-0606	3/8-18	3/8	2.27	1.28	.26	.69	4.79
D1MP 101-0808	1/2-14	1/2	2.74	1.56	.38	.88	5.52
D1MP 101-1212	3/4-14	3/4	2.84	1.65	.61	1.13	9.43
D1MP 101-1616	1-11 1/2	1	3.22	1.86	.82	1.38	20.41
D1MP 101-2020	1-1/4 - 11-1/2	1-1/4	3.52	1.79	1.05	1.81	34.48
D1MP 101-2424	1-1/2 - 11-1/2	1-1/2	4.18	2.36	1.26	2.00	46.89

**MALE BOSS O-RING - ONE PIECE/ FITTING**



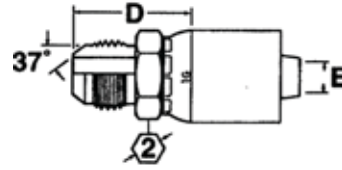
Part #	Thread Size	Hose ID	Overall Length	D Cut-off	E Nipple ID	Hex 2	Price
D1MB 105-0404	7/16-20	1/4	1.84	.92	.17	.56	6.67
D1MB 105-0606	9/16-18	3/8	2.00	1.00	.26	.69	7.08
D1MB 105-0808	3/4-16	1/2	2.36	1.19	.38	.88	8.98
D1MB 105-1212	1-1/16 - 12	3/4	2.44	1.25	.61	1.25	12.70
D1MB 105-1616	1-5/16 - 12	1	2.74	1.39	.82	1.50	25.08
D1MB 105-2020	1-5/8 - 12	1-1/4	3.63	1.90	1.05	1.88	46.03

**NPTF MALE SWIVEL PIPE FITTING - ONE PIECE BITE TYPE**



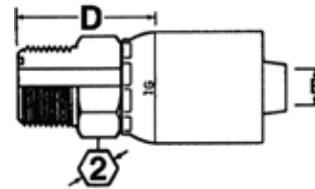
Part #	Thread Size	Hose ID	Overall Length	D Cut-off	E Nipple ID	Hex 1	Price
D1PS 113-0404	1/4 - 18	1/4	2.59	1.62	.17	.56	6.13
D1PS 113-0606	3/8 - 18	3/8	2.66	1.67	.26	.69	7.02
D1PS 113-0808	1/2 - 14	1/2	3.13	1.96	.38	.88	9.34
D1PS 113-1212	3/4 - 14	3/4	3.24	2.05	.61	1.13	15.69
D1PS 113-1616	1 - 11-1/2	1	3.88	2.53	.81	1.38	26.17

**MALE JIC 37° FITTING - ONE PIECE BITE TYPE**



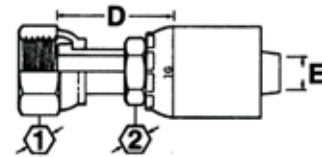
Part #	Thread Size	Hose ID	A Overall	D Cut-Off	E Nipple	Hex Dia. 2	Price
D1MJ 103-0404	7/16-20	1/4	2.00	1.07	.17	.56	4.79
D1MJ 103-0606	9/16-18	3/8	2.16	1.17	.26	.69	5.59
D1MJ 103-0808	3/4-16	1/2	2.57	1.41	.38	.81	6.76
D1MJ 103-1212	1 1/16-12	3/4	2.94	1.75	.61	1.12	9.75
D1MJ 103-1616	1 5/16-12	1	3.25	1.90	.82	1.38	17.05
D1MJ 103-2020	1 5/8-12	1-1/4	3.89	2.16	1.05	1.75	37.56

**MALE O-RING FACE SEAL FITTING - ONE PIECE BITE TYPE**



Part #	Thread Size	Hose ID	A Overall	D Cut-Off	E Nipple	Hex Dia. 2	Price
D1MR 1J0-0404	9/16-18	1/4	1.78	.86	.17	.62	12.92
D1MR 1J0-0606	11/16-16	3/8	1.99	.99	.26	.75	14.70
D1MR 1J0-0808	13/16-16	1/2	2.30	1.13	.38	.88	16.95
D1MR 1J0-1212	1 3/16-12	3/4	2.63	1.44	.61	1.25	24.98
D1MR 1J0-1616	1 7/16-12	1	2.53	1.34	.61	1.50	38.25

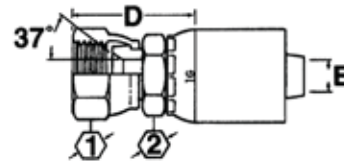
**FEMALE O-RING FACE SEAL FITTING - ONE PIECE BITE TYPE**



Part #	Thread Size	Hose ID	A Overall	D Cut-Off	E Nipple	Hex Dia. 1	Hex Dia. 2	Price
D1FR 1JC-0404	9/16-18	1/4	1.95	1.03	.17	.69	.56	5.52
D1FR 1JC-0606	11/16-16	3/8	2.23	1.24	.26	.81	.69	6.32
D1FR 1JC-0808	13/16-16	1/2	2.67	1.50	.38	.94	.88	8.35
D1FR 1JC-1212	1 3/16-12	3/4	2.91	1.72	.61	1.38	1.12	14.89
D1FR 1JC-1616	1 7/16-12	1	3.29	1.94	.81	1.62	1.38	29.52

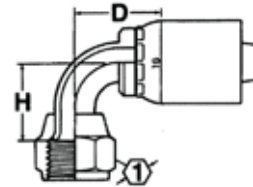


**FEMALE JIC 37° SWIVEL FITTING - ONE PIECE BITE TYPE**



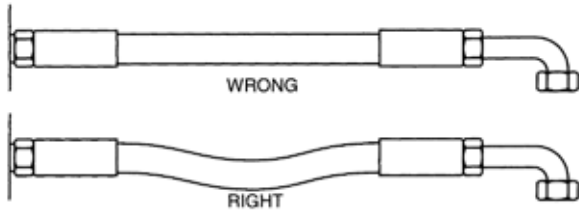
Part #	Thread Size	Hose ID	Overall Length	D Cut-off	E Nipple ID	Hex 1	Hex 2	Price
D1FJ 106-0404	7/16-20	1/4	2.00	1.07	.17	.56	.56	5.05
D1FJ 106-0606	9/16-18	3/8	2.28	1.28	.26	.69	.56	5.76
D1FJ 106-0808	3/4-16	1/2	2.63	1.46	.38	.88	.81	7.40
D1FJ 106-1212	1 1/16-12	3/4	2.84	1.65	.61	1.25	1.12	12.43
D1FJ 106-1616	1 5/16-12	1	3.29	1.93	.81	1.50	1.38	23.36
D1FJ 106-2020	1 5/8-12	5/4	3.61	1.88	1.05	2.00	1.88	44.76
D1FJ 106-2424	1 7/8-12	1-1/2	3.90	2.07	1.26	2.25	2.12	55.37

**FEMALE JIC 37° SWIVEL 90° ELBOW - ONE PIECE BITE TYPE**



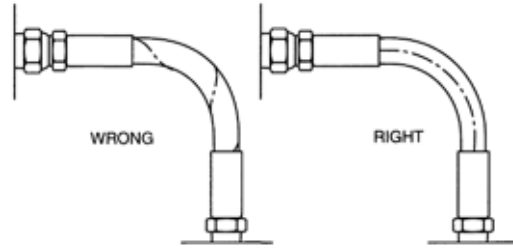
Part #	Thread Size	Hose ID	Overall Length	D Cut-off	H Drop	Hex 1	Price
D1FJB 139-0404	7/16-20	1/4	1.84	.92	.68	.56	12.11
D1FJB 139-0606	9/16-18	3/8	2.21	1.22	.84	.69	13.43
D1FJB 139-0808	3/4-16	1/2	2.59	1.42	1.09	.88	15.75
D1FJB 139-1212	1 1/16-12	3/4	3.36	2.17	1.80	1.25	26.89
D1FJB 139-1616	1 5/16-12	1	3.56	2.20	2.39	1.50	40.29
D1FJB 139-2020	1 5/8-12	1-1/4	4.25	2.52	2.75	2.00	71.84

## 1. Provide for length change.



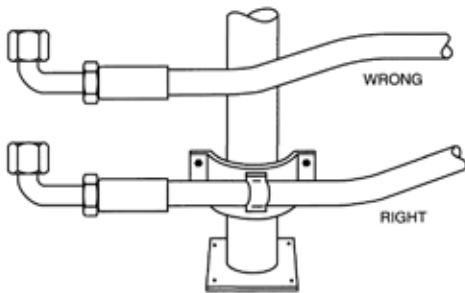
In straight hose installations, allow enough slack in the hose line to provide for changes in length that will occur when pressure is applied. This change in length can be from +2% to -4%.

## 2. Avoid twisting and orient properly.



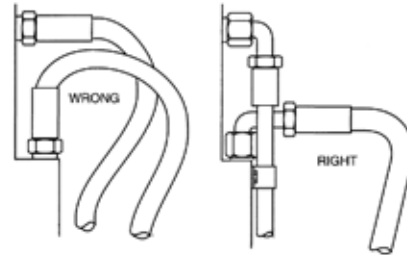
Do not twist hose during installation. This can be determined by the printed layline on the hose. Pressure applied to a twisted hose can cause failure or loosening of connections.

## 3. Protect from hazardous environment



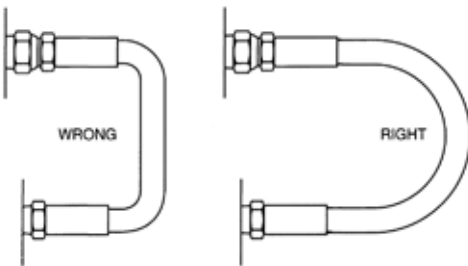
Keep hose away from hot parts. High ambient temperature will shorten hose life. If you can not route it away from the heat source, insulate it.

## 4. Avoid mechanical strain.



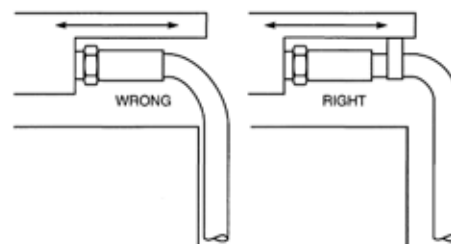
Use elbows and adapters in the installation to relieve strain on the assembly and to provide easier and neater installations that are accessible for inspection and maintenance.

## 5. Use proper bend radius.



Keep the bend radius of the hose as large as possible to avoid collapsing of the hose and restriction of flow. Follow catalog specs on minimum bend radii.

## 6. Secure for protection.



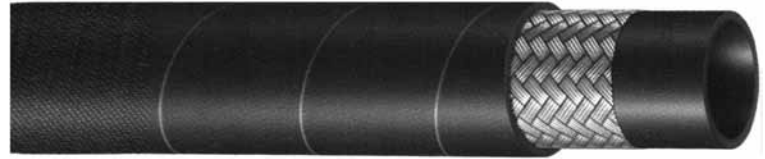
Install hose runs to avoid rubbing or abrasion.

## 8. Avoid improper hose movement



Make sure relative motion of the machine components produces bending rather than twisting of the hose. Hose should be routed so that the flex is in the same plane as the equipment movement.

**SAE100 R1 AT/ 1SN**



**Construction**

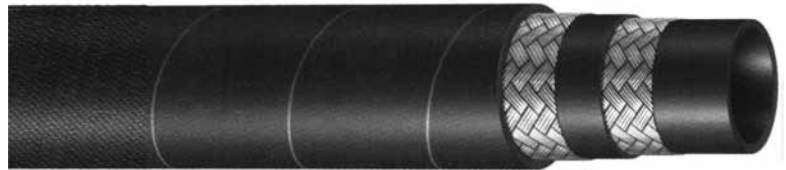
- **Tube:** Oil resistant Synthetic Rubber.
- **Reinforcement:** 1-Wire Braid. High tensile steel wire.
- **Cover:** Oil, weather and abrasion resistant Synthetic Rubber.
- **Hose is shipped in bundles.**
- Reel price available upon request.

**Application and Temperature Range**

- Petroleum base hydraulic fluids and lubricating oils within a temperature range of -40°F to +212°F (-40°C to + 100°C).
- Water, water/ glycol and water/ oil emulsion hydraulic fluids up to +185°F (+85°C).
- Air within a temperature range of -40°F to +158°F (-40°C to + 70°C).
- **Maximum operating temperature:** 125°C (257°F).
- **Air Maximum temperature:** 70°C (160°F).

Part #	I.D.	O.D.	Working Pressure	Burst Pressure	Min. B/ Radius	Weight /FT	Roll Length/ feet	List Price
100R1025	1/4	0.53	3250	13000	3.94	0.15	164	271.25
100R1038	3/8	0.69	2600	10400	5.12	0.23	164	361.32
100R1050	1/2	0.81	2325	9300	7.09	0.28	164	520.64
100R1075	3/4	1.09	1525	6100	9.45	0.42	164	614.35
100R1100	1	1.40	1275	5100	11.81	0.59	65	317.78
100R1125	1-1/4	1.71	625	2500	16.54	0.85	65	507.62
100R1150	1-1/2	1.99	500	2000	19.69	1.01	65	569.52

**SAE100 R2 AT/ 2SN**



**Construction**

- **Tube:** Oil resistant Synthetic Rubber.
- **Reinforcement:** 2-Wire Braid. High tensile steel wire.
- **Cover:** Oil, weather and abrasion resistant Synthetic Rubber.
- **Hose is shipped in bundles.**
- Reel price available upon request.

**Application and Temperature Range**

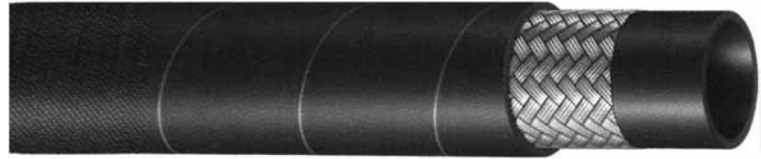
- Petroleum base hydraulic fluids and lubricating oils within a temperature range of -40°F to +212°F (-40°C to + 100°C).
- Water, water/ glycol and water/ oil emulsion hydraulic fluids up to +185°F (+85°C).
- Air within a temperature range of -40°F to +158°F (-40°C to + 70°C).

Part #	I.D.	O.D.	Working Pressure	Burst Pressure	Min. B/ Radius	Weight /FT	Roll Length/ feet	List Price
100R2025	1/4	0.59	5800	23200	3.94	0.22	164	333.21
100R2038	3/8	0.75	4750	19000	5.12	0.36	164	437.33
100R2050	1/2	0.87	4000	16000	7.09	0.41	164	536.25
100R2075	3/4	1.15	3100	12400	9.45	0.60	164	2075
100R2100	1	1.50	2400	9600	11.81	0.89	65	423.02
100R2125	1-1/4	1.90	1625	6500	16.54	1.39	65	600.48
100R2150	1-1/2	2.15	1250	5000	19.69	1.58	65	846.03

**SAE100 R17**

**Construction**

- **Tube:** Oil resistant Synthetic Rubber.
- **Reinforcement:** one (upto 1/2") or two (from 5/8") high tensile steel wire braids.
- **Cover:** Oil, weather and abrasion resistant Synthetic Rubber.
- **Hose is shipped in bundles.**
- Reel price available upon request.



**Application and Temperature Range**

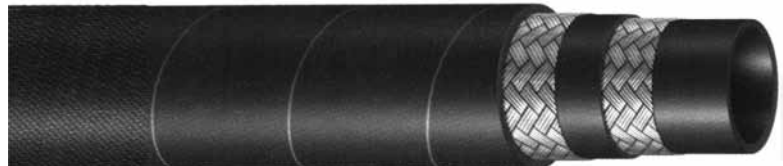
- Petroleum base hydraulic fluids and lubricating oils within a temperature range of -40°F to +257°F (-40°C to + 125°C).
- Water, water/ glycol and water/ oil emulsion hydraulic fluids up to +185°F (+85°C).
- Air within a temperature range of -40°F to +158°F (-40°C to + 70°C).

Part #	I.D.	O.D.	Working Pressure	Burst Pressure	Min. B/ Radius	Weight /FT	Roll Length/ feet	List Price
100R17025	1/4	0.49	3000	12000	1.97	0.14	164	281.14
100R17038	3/8	0.65	3000	12000	2.56	0.20	164	374.86
100R17050	1/2	0.78	3000	12000	3.54	0.34	164	421.71
100R17075	3/4	1.10	3000	12000	4.92	0.57	164	630.49
100R17100	1	1.43	3000	12000	5.91	1.02	65	326.03

**SAE100 R16**

**Construction**

- **Tube:** Oil resistant Synthetic Rubber.
- **Reinforcement:** 2-Wire Braid. High tensile steel wire.
- **Cover:** Oil, weather and abrasion resistant Synthetic Rubber.
- **Hose is shipped in bundles.**
- Reel price available upon request.



**Application and Temperature Range**

- Petroleum base hydraulic fluids and lubricating oils within a temperature range of -40°F to +212°F (-40°C to + 125°C).
- Water, water/ glycol and water/ oil emulsion hydraulic fluids up to +185°F (+85°C).
- Air within a temperature range of -40°F to +158°F (-40°C to + 70°C).

Part #	I.D.	O.D.	Working Pressure	Burst Pressure	Min. B/ Radius	Weight /FT	Roll Length/ feet	List Price
100R16025	1/4	0.57	5000	20000	1.97	0.19	164	343.10
100R16038	3/8	0.74	4000	16000	2.48	0.29	164	449.83
100R16050	1/2	0.86	3500	14000	3.46	0.35	164	553.96
100R16075	3/4	1.14	2250	9000	4.72	0.52	164	827.81
100R16100	1	1.44	2000	8000	5.91	0.73	65	435.40





**Two-Way**

BKH

Part Number	Nominal Size	Thread	Working Pressure	List Price
GE2-14-NPT	1/4"	1/4" NPTF	7250 PSI	53.81
GE2-38-NPT	3/8"	3/8" NPTF	7250 PSI	52.65
GE2-12-NPT	1/2"	1/2" NPTF	7250 PSI	66.95
GE2-34-NPT	3/4"	3/4" NPTF	5800 PSI	128.15
GE2-1-NPT	1"	1" NPTF	5075 PSI	160.20
*GE2-114T-NPT	1"	1-1/4" NPTF	5075 PSI	188.10
*GE2-112T-NPT	1"	1-1/2" NPTF	5075 PSI	188.10
*GE2-2T-NPT	2"	2" NPTF	5075 PSI	692.40

Part Number	Nominal Size	Thread	Working Pressure	List Price
GE2-04-SAE	1/4"	7/16-20 UNF	7250 PSI	53.80
GE2-06-SAE	3/8"	9/16-18 UNF	7250 PSI	54.82
GE2-08-SAE	1/2"	3/4-16 UNF	7250 PSI	75.53
GE2-12-SAE	3/4"	1-1/16-12 UNF	5800 PSI	115.52
GE2-16-SAE	1"	1-5/16-12 UNF	5075 PSI	145.31
*GB2-20T-SAE	1"	1-5/8-12 UNF	5075 PSI	126.67
*GB2-24T-SAE	1"	1-7/8-12 UNF	5075 PSI	126.67
*GB2-32T-SAE	2"	2-1/2-12 UNF	5075 PSI	460.16

\* = Reduced Port Only  
Full Port available by special quote.

**Temp Rating = -22° - 212°F**

**Construction:** Steel Body, Ball, Stem  
Zinc Chromate Plate  
Buna "O" Rings (Viton on request)  
Delrin Ball Seats



**Three-Way**

BK3

Part Number	Nominal Size	Thread	Working Pressure	List Price
GE3L-14-NPT	1/4"	1/4" NPTF	5800 PSI	142.86
GE3L-38-NPT	3/8"	3/8" NPTF	5800 PSI	108.84
GE3L-12-NPT	1/2"	1/2" NPTF	5800 PSI	116.10
GE3L-34-NPT	3/4"	3/4" NPTF	5075 PSI	167.62
GE3L-1-NPT	1"	1" NPTF	5075 PSI	203.17
*GE3L-114T-NPT	1 1/4"	1 1/4" NPTF	5075 PSI	1073.92
*GE3L-112T-NPT	1 1/2"	1 1/2" NPTF	5075 PSI	1362.36
*GE3L-2T-NPT	2"	2" NPTF	5075 PSI	1456.69

Part Number	Nominal Size	Thread	Working Pressure	List Price
GE3L-04-SAE	1/4"	7/16-20 UNF	5800 PSI	177.72
GE3L-06-SAE	3/8"	9/16-18 UNF	5800 PSI	185.79
GE3L-08-SAE	1/2"	3/4-16 UNF	5800 PSI	222.15
GE3L-12-SAE	3/4"	1-1/16-12 UNF	5075 PSI	179.95
GE3L-16-SAE	1"	1-5/16-12 UNF	5075 PSI	214.06
*GB3L-20T-SAE	1 1/4"	1-5/8-12 UNF	5075 PSI	1488.68
*GB3L-24T-SAE	1 1/2"	1-7/8-12 UNF	5075 PSI	1630.00
*GB3L-32T-SAE	2"	2-1/2-12 UNF	5075 PSI	2054.00

\* = Reduced Port Only  
Available in Reduced Port  
Full Port available by special quote.

**Temp Rating = -22° - 212°F**

**Construction:** Steel Body, Ball, Stem  
Zinc Chromate Plate  
Buna "O" Rings (Viton on request)  
Delrin Ball Seats

**Also Available in Stainless Steel**



# ACCESSORIES

# HYDRAULIC MOTOR

(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
List Price		348.39	350.48	362.99	376.55	386.98	395.33	405.76	415.15	449.57
Displacement cm <sup>3</sup> /rev(cu.in/rev)		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)
Max Speed rpm	Cont.	880	740	590	475	370	295	240	190	150
	Int.	975	825	675	595	465	370	295	235	185
Max Torque NW (in.lbs)	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)
Max performance KW/ (HP)	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)
Max Differential Mpa/ (PSI)	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)
Max flow L/min. / (gpm)	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)
Weight	lb.	5.6	5.7	5.9	6	6.2	6.4	6.6	6.9	7.4

## ORDERING INFORMATION

### MMPH

### 50

### H2

### K

### P

#### MODEL SERIES

#### FRAME SIZE

#### MOUNTING FLANGE TYPE

#### DRIVE SHAFT

#### PORT SIZE

MMPH (GEROTOR)

(cu.in/rev)

K - 1 Inch Woodruff Key

P - 1/2 NPTF

MMRS (GEROTOR)

MMPH MMRS

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
List Price		438.10	455.83	460.00	476.69	492.34	499.64	524.67	528.84	559.09
Displacement cm <sup>3</sup> /rev(cu.in/rev)		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)
Max Speed rpm	Rated	755	750	600	475	375	300	240	190	160
	Cont.	970	940	750	600	470	375	300	240	200
Max Torque NW (in.lbs)	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)
Max performance KW/ (HP)	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)
Max Differential Mpa/ (PSI)	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)
Max flow L/min. / (gpm)	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)
Weight	lb.	6.7	6.9	6.9	7.2	7.5	8.0	8.5	9.0	9.3

## 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.

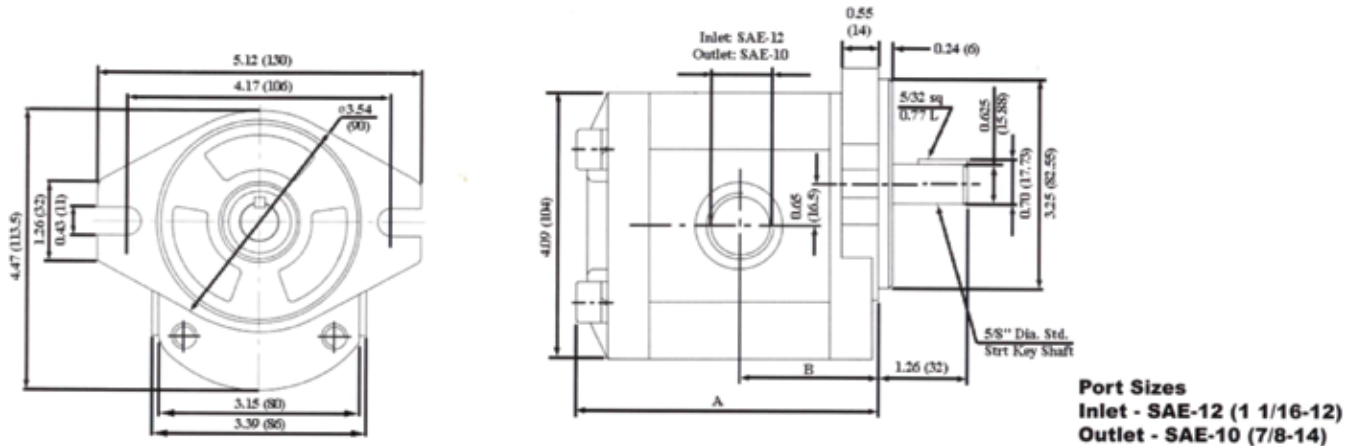
### Recommended working conditions:

- 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	238.10
MGP-F20-08	0.48	3650	2000	3000	5.61	238.10
MGP-F20-10	0.61	3650	2000	3000	5.72	238.10
MGP-F20-12	0.73	3650	2000	3000	5.91	238.10
MGP-F20-14	0.85	3650	2000	3000	6.00	251.70
MGP-F20-16	0.97	2900	2000	3000	6.27	251.70
MGP-F20-20	1.22	2900	2000	3000	6.73	251.70
MGP-F20-25	1.52	2900	2000	3000	7.19	251.70

## 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

### MGP

Aluminum  
Gear Pump

### F20

High  
Pressure  
Series

### 16

Displacement  
cm<sup>3</sup>/rev  
(see chart)  
06/08/10/12/14/16  
20/25

### P

Drive  
Shaft  
P-5/8 Dia  
Straight  
P1-3/4 Dia  
Straight  
S9-Spline 9 tooth

### C

Rotation  
Direction  
C-Clockwise  
A-Counter Clockwise  
(viewed from drive shaft  
end)

**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.

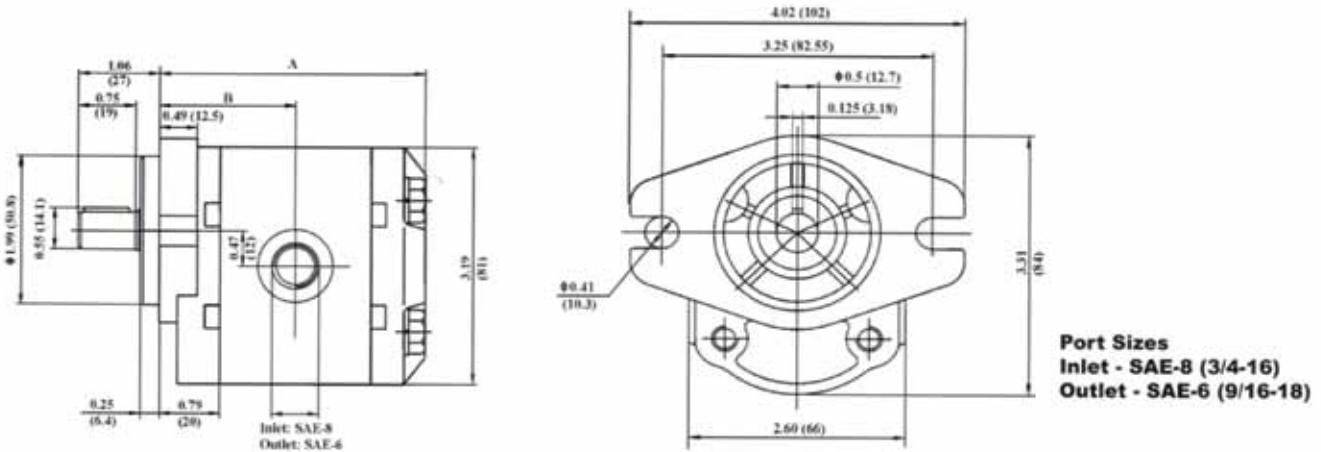
**Recommended working conditions:**

- 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	3000	2.02	175.51
MGP-F10-20	0.12	3625	2000	3000	2.31	175.51
MGP-F10-27	0.16	3625	2000	3000	2.68	175.51
MGP-F10-34	0.20	3625	2000	3000	2.99	175.51
MGP-F10-41	0.25	3625	2000	3000	3.34	190.48
MGP-F10-51	0.31	3625	2000	3000	3.78	190.48
MGP-F10-61	0.37	3625	2000	3000	4.18	190.48

**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**

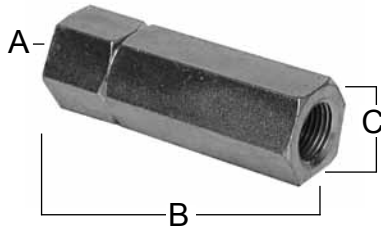
Drive  
Shaft  
P-5/8 Dia  
Straight  
P1-3/4 Dia  
Straight  
S9-Spline 9 tooth

**C**

Rotation  
Direction  
C-Clockwise  
A-Counter Clockwise  
(viewed from drive shaft  
end)

**HARD SEAT CARBON STEEL CONSTRUCTION - 5lb or 65lb Cracking Pressure Available**

- Available w/ NPT or SAE threads



A ( NPT Female both ends )

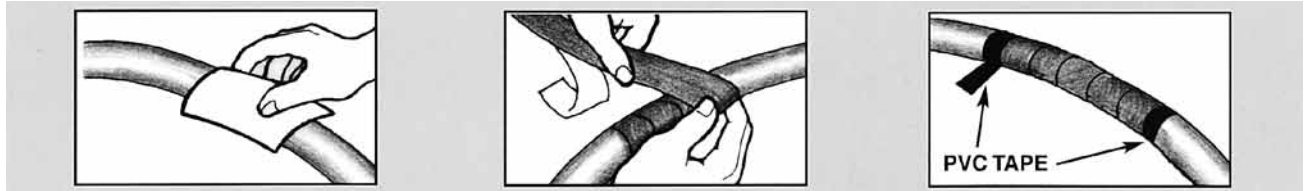
Part #	A Size	B Inches	C Inches	Rated Flow gpm	List Price
1000-2-5 or 65	1/4 NPT	2.44	.87	6	29.30
1000-3-5 or 65	3/8 NPT	2.87	.95	10	40.95
1000-4-5 or 65	1/2 NPT	3.50	1.14	18	50.48
1000-6-5 or 65	3/4 NPT	4.25	1.50	30	75.24
1000-8-5 or 65	1 NPT	5.12	1.69	36	96.00
1000-10-5 or 65	1-1/4 NPT	5.56	2.40	50	135.43
1000-12-5 or 65	1-1/2 NPT	5.56	2.56	60	138.86
1001-4-5 or 65	7/16-20 SAE	2.56	.87	6	32.00
1001-6-5 or 65	9/16-20 SAE	2.91	.94	10	38.00
1001-8-5 or 65	3/4-16 SAE	3.74	1.18	18	48.00
1001-12-5 or 65	1-1/6-12 SAE	4.29	1.50	30	74.57
1001-16-5 or 65	1-5/16-12 SAE	5.00	1.81	36	111.28
1001-20-5 or 65	1-5/8-12 SAE	5.20	2.41	50	150.01
1001-24-5 or 65	1-7/8-12 SAE	5.20	2.56	60	161.96

Rated Pressure: Sizes 2 thru 8 - 5000 psi / Sizes 10 thru 24 - 3000 psi

**HYDRAULIC HOSE PROTECTOR**



- Tough abrasion resistant self-adhering neoprene wrap
- Protects against cuts and abrasions
- Can be easily applied to hoses of varying diameters, even after hose is installed on equipment.
- Covers and protects wear areas
- Chemical resistant neoprene resists oil, gasoline, and solvents
- Flexible self-adhering wrap material allows hoses to flex and bend.
- Wrap can also be used to bundle hoses and cables.
- Performance temperature range -20°F to 200°F



- Step 1:** Clean hose of all dirt, grime and grease in the application area.
- Step 2:** Remove paper backing as Hose Protector is applied. Wrap tightly at a slight angle while overlapping in notched area.
- Step 3:** To finish, wrap both ends of Hydraulic Hose Protector with PVC tape.

Part #	Description	List Price
MHP112	12' Kit	92.33
MHP150	50' Kit	233.15
MHP1300	300' Kit	1607.80

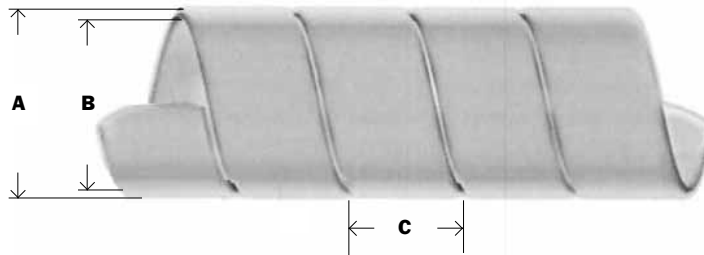
- Stored in GA warehouse.

	MATERIAL COVERAGE CHART		
	12' Roll	50' Roll	300' Roll
3/8" Hydraulic Hose I.D.	52"	217"	1,302"
1/2" Hydraulic Hose I.D.	40"	167"	1,002"
3/4" Hydraulic Hose I.D.	29"	121"	726"
1" Hydraulic Hose I.D.	24"	100"	600"

**SAFEGUARD SPIRALS - PROTECTION FOR HYDRAULIC HOSES**

- **WHAT IS SPIRAL WRAP:** Spiral wrap is the proven way to protect hose, wire, cable , etc... against chaffing, rubbing, crushing, ultraviolet and other environmental hazards that cause premature failure.
- **COST SAVINGS:** Used effectively on all types of hoses, ropes, wires and cables. Users have realized a dramatic increase in serviceable life and reduction in costly repairs and down time.
- **MATERIAL:** Heavy wall, high Grade HDPE, polyethylene resin, high tensile strength, thermal plastic.
- **RESILIENCE:** Has a high resistance against ultra violet weathering and a wide temperature range. (-60 - + 175°F)

Proprietary extrusion method gives the final product smooth round, edges, which are non-abrasive, greater strength & durability.



Part #		Spiral Size	Pitch (C)	Inches		Coil Wt. lbs.	Coil Lgth feet	List Price
Black	Yellow			OD (A)	ID (B)			
25C100B	25C100Y	1/4" (#4) HYDRAULIC HOSE	0.47	2/3	0.50	4.0	100	43.00
38C100B	38C100Y	3/8" (#6) HYDRAULIC HOSE	0.78	3/4	0.65	6.0	100	46.00
50C100B	50C100Y	1/2" (#8) & 5/8" (#10) HYDRAULIC HOSE	0.98	1	0.80	10.1	100	48.00
75C100B	75C100Y	3/4" (#12) HYDRAULIC HOSE	0.87	1-1/4	1.10	12.8	100	58.00
100C100B	100C100Y	1" (#16) & 1-1/4" (#20) HYDRAULIC HOSE	1.39	1-3/5	1.40	20.1	100	90.00

\* More sizes & colors available.  
 \* Shipped in 100'FT coils only.

HYDRAULIC

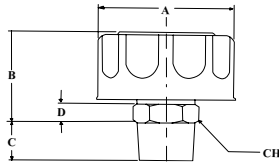




**SCREW-ON TYPE AIR BREATHERS**



- 1/4 To 1 Inch NPT
- Steel Model
- 40 Micron Breather

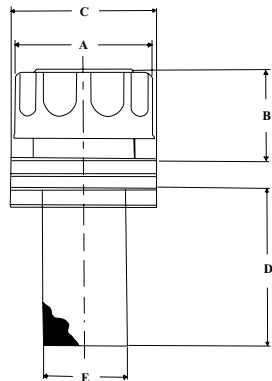


Part Number	Flow cfm	NPT	A	B	C	D	CH	Micron	List Price
MB40-04	10	1/4	1.85	1.60	.50	.30	.63	40	16.96
MB40-06	10	3/8	1.85	1.70	.50	.30	.75	40	22.68
MB40-08	10	1/2	2.54	1.88	.68	.29	.95	40	29.48
MB40-12	25	3/4	3.13	2.00	.82	.35	1.12	40	29.48
MB40-16	25	1	3.13	2.11	.90	.42	1.35	40	29.48

**FILTER FILLER BREATHERS**



- Chrome Plated Cap
- 40 Micron Breather
- 3" Basket Length
- Lockable Options
- Plastic Basket Standard



Part Number	A	B	C	D	E	List Price
MFB40-03	2.95	1.97	1.97	1.97	1.90	29.48

**PROTECTIVE HOSE COVERINGS**



**Material:** Cordura or Anso-tex bulk nylon fiber yarn. Cordura is a registered trademark of Dupont. Anso-tex is a registered trademark of Allied Fibers.

**Thickness:** .090" ± .020"  
Doubled Flat

**Color:** Black

**Flammability:** Passes FMVSS 302 horizontal flame test, MSHA accepted.

**Temperature:** Maximum ambient temperature 250°F

**Packaging:** 300ft. rolls. **Only**

Part Number	Flat Width	ID	List Price
MHS-077	1-1/3"	0.79"	162.00
MHS-090	1-1/2"	0.90"	299.00
MHS-100	1-2/3"	1.00"	277.00
MHS-114	1-7/8"	1.06"	289.00
MHS-130	2-1/8"	1.22"	394.00
MHS-138	2-1/4"	1.38"	435.37
MHS-153	2-1/2"	1.42"	462.59
MHS-159	2-5/8"	1.59"	448.22
MHS-175	2-7/8"	1.75"	440.45
MHS-185	3"	1.81"	585.03
MHS-225	3-5/8"	2.19"	707.48
MHS-238	3-7/8"	2.38"	789.12
MHS-264	4-1/4"	2.63"	870.75
MHS-296	4-3/4"	2.88"	978.12
MHS-366	5-7/8"	3.66"	978.12

**MEETS AB1953**

**90° FORGED FEMALE ELBOW**



Part #	Thread size NPTF	List Price
28-010LF	1/4"	6.32
28-011LF	3/8"	6.65
28-012LF	1/2"	12.28
28-013LF	3/4"	24.48

**UNION FORGED TEE**



Part #	Thread size NPTF	List Price
28-032LF	1/8"	6.08
28-033LF	1/4"	7.71
28-034LF	3/8"	8.98
28-035LF	1/2"	16.06
28-036LF	3/4"	32.18

**COUPLING**



Part #	Thread size NPTF	List Price
28-058LF	1/8"	1.38
28-059LF	1/4"	2.03
28-060LF	3/8"	3.59
28-061LF	1/2"	4.85

**REDUCING COUPLING**



Part #	Thread size NPTF	List Price
28-185LF	1/2" x 3/8"	6.94
28-189LF	3/4" x 1/2"	9.22

**CAP**



Part #	Thread size NPTF	List Price
28-077LF	3/8"	2.31
28-078LF	1/2"	4.15
28-079LF	3/4"	6.75

**90° STREET ELBOW**



Part #	Thread size NPTF	List Price
28-165LF	1/8"	3.43
28-166LF	1/4"	4.05
28-167LF	3/8"	5.81
28-168LF	1/2"	11.50
28-169LF	3/4"	13.72

**HEX BUSHING**



Part #	Thread size NPTF MxF	List Price
28-102LF	1/4" x 1/8"	1.45
28-104LF	3/8" x 1/4"	2.30
28-106LF	1/2" x 1/4"	4.87
28-107LF	1/2" x 3/8"	3.56
28-111LF	3/4" x 1/2"	6.03

**SQUARE HEAD PLUG**



Part #	Thread size NPTF	List Price
28-084LF	1/8"	0.81
28-085LF	1/4"	1.51
28-087LF	1/2"	3.55
28-088LF	3/4"	5.53

**LEAD FREE**



**COUNTERSUNK HEX PLUG**



Part #	Thread size NPTF	List Price
28-095LF	3/8"	2.61
28-096LF	1/2"	4.60

**CORED HEX PLUGS**



Part #	Thread size NPTF	List Price
28-201LF	1/8"	1.15
28-202LF	1/4"	1.98

**CLOSE NIPPLE**



Part #	Thread size NPTF	List Price
28-131LF	1/8"	1.40
28-132LF	1/4"	2.27
28-133LF	3/8"	2.81
28-134LF	1/2"	3.92
28-135LF	3/4"	5.45

**LONG NIPPLE**



Part #	Thread size NPTF	List Price
28-144LF	1/4" x 1-1/2"	2.56
28-148LF	3/8" x 1-1/2"	3.32
28-152LF	1/2" x 1-1/2"	4.55

**HEX NIPPLE**



Part #	Thread size NPTF	List Price
28-211LF	1/8"	1.68
28-212LF	1/4"	2.30

**EXTENDER ADAPTER**



Part #	Thread size NPTF FxM	List Price
28-192LF	1/4" x 1/4"	2.48

**MALE BRANCH TEE**



Part #	Thread size NPTF	List Price
28-283LF	3/8"	15.94

**STREET TEE/ SERVICE TEE**



Part #	Thread size NPTF	List Price
28-246LF	1/4"	11.99
28-247LF	3/8"	15.24

**RIGID MALE ADAPTER**



Part #	Hose I.D. x Male NPTF	List Price
32-002LF	3/16" x 1/8"	1.49
32-004LF	1/4" x 1/8"	1.65
32-005LF	1/4" x 1/4"	2.48
32-008LF	5/16" x 1/8"	1.68
32-009LF	5/16" x 1/4"	2.57
32-011LF	3/8" x 1/8"	2.02
32-012LF	3/8" x 1/4"	2.89
32-013LF	3/8" x 3/8"	3.47
32-014LF	3/8" x 1/2"	4.67
32-015LF	1/2" x 1/4"	3.44
32-016LF	1/2" x 3/8"	4.06
32-017LF	1/2" x 1/2"	5.69
32-020LF	5/8" x 1/2"	6.15
32-022LF	3/4" x 1/2"	6.25
32-023LF	3/4" x 3/4"	8.07

# PIPE

# LEAD FREE BRASS FITTINGS

## MENDER/ SPLICER



Part #	Hose I.D. x Hose I.D.	List Price
32-093LF	1/4"	1.24
32-095LF	3/8"	1.94
32-096LF	1/2"	3.18

## RIGID FEMALE ADAPTER



Part #	Hose I.D. x Female NPTF	List Price
32-053LF	1/4" x 1/4"	2.69
32-058LF	3/8" x 1/4"	2.95
32-059LF	3/8" x 3/8"	3.49
32-063LF	3/8" x 1/2"	4.60
32-061LF	1/2" x 1/2"	4.79

## FORGED HOSE BARB 90° ELBOW



Part #	Hose I.D. x Male NPTF	List Price
32-039LF	1/4" x 1/4"	3.32
32-036LF	5/16" x 1/8"	2.99
32-040LF	5/16" x 1/4"	2.79
32-041LF	3/8" x 1/4"	3.78
32-042LF	3/8" x 3/8"	5.09

## HOSE BARB TEES



Part #	Hose Barb Size	List Price
32-365LF	1/4"	3.74
32-126LF	3/8"	3.94

## DUAL 45°/ 37° FLARE SWIVEL



Part #	Hose I.D. x Dual Seat	List Price
32-337LF	1/4" x 1/4"	3.95

## MALE ADAPTER



Part #	Hose I.D. x Male NPTF	List Price
30-200LF	1/4" x 1/8"	3.27
30-201LF	1/4" x 1/4"	4.38
30-203LF	3/8" x 1/4"	4.53
30-204LF	3/8" x 3/8"	6.19
30-206LF	1/2" x 3/8"	7.13
30-207LF	1/2" x 1/2"	11.77

## SAE/JIC DUAL 45°/37° FEMALE SWIVEL



Part #	Hose I.D. x Female 45°/37°	List Price
30-230LF	1/4" x 1/4"	4.49

# GARDEN HOSE

## SWIVEL - FGH X FGH

•WASHER INCLUDED



Part #	FGH X FGH	List Price
30-011LF	3/4" x 3/4"	5.41

LEAD FREE

**SWIVEL - FGH X FEMALE PIPE**

•WASHER INCLUDED



Part #	FGH x Female NPTF	List Price
30-001LF	3/4" x 1/2"	5.12
30-006LF	3/4" x 3/4"	5.59

**RIGID - MGH X FEMALE PIPE**



Part #	MGH x Female NPTF	List Price
30-073LF	3/4" x 3/4"	5.81

**RIGID - MGH X MALE PIPE**



Part #	MGH x Male NPTF	List Price
30-053LF	3/4" x 3/8"	8.32
30-063LF	3/4" x 3/4" x 1/2"	7.72

**FEMALE SWIVEL ONLY**



Part #	Hose Barb x FGH	List Price
30-032LF	1/2" x 3/4"	14.23

**MALE END ONLY**



Part #	Hose Barb x MGH	List Price
30-040LF	1/2" x 3/4"	14.83

**GARDEN HOSE CAP**



Part #	Size	List Price
30-103LF	3/4 Die cast	4.40

**SAE 45° FLARE**

**SHORT ROD NUT**



Part #	Thread Size UNF	List Price
10-015LF	1/4"	1.55
10-017LF	3/8"	2.94
10-019LF	1/2"	3.09

**SHORT FORGED NUT**



Part #	Thread Size UNF	List Price
10-041LF	3/8"	3.09
10-042LF	1/2"	4.40
10-043LF	5/8"	6.60

**FLARED CAP**



Part #	Thread Size UNF	List Price
10-075LF	1/4"	1.02
10-077LF	3/8"	1.80
10-078LF	1/2"	2.62
10-079LF	5/8"	3.43

**UNION**



Part #	Thread Size UNF	List Price
10-106LF	1/4"	1.89
10-108LF	3/8"	4.62
10-109LF	1/2"	6.60
10-110LF	5/8"	9.58

**FEMALE ADAPTER**



Part #	Male Flare x Female NPTF	List Price
10-236LF	3/8" x 3/8"	3.73
10-237LF	3/8" x 1/2"	4.09
10-240LF	1/2" x 3/8"	4.65
10-241LF	1/2" x 1/2"	4.58
10-242LF	1/2" x 3/4"	6.36

**MALE ADAPTER**



Part #	Male Flare x Male NPTF	List Price
10-255LF	1/4" x 1/8"	1.81
10-256LF	1/4" x 1/4"	2.22
10-258LF	1/4" x 1/2"	4.78
10-262LF	3/8" x 1/8"	3.51
10-263LF	3/8" x 1/4"	3.39
10-264LF	3/8" x 3/8"	3.78
10-265LF	3/8" x 1/2"	5.14
10-268LF	1/2" x 3/8"	4.91
10-269LF	1/2" x 1/2"	5.41
10-270LF	1/2" x 3/4"	8.44
10-276LF	3/4" x 3/4"	11.20

**90° MALE ELBOW**



**Forged Elbow**

Part #	Male Flare x Male NPTF	List Price
10-286LF	1/4" x 1/8"	2.64
10-287LF	1/4" x 1/4"	3.01
10-288LF	1/4" x 3/8"	3.83
10-294LF	3/8" x 1/4"	4.42
10-295LF	3/8" x 3/8"	4.91
10-296LF	3/8" x 1/2"	6.44
10-299LF	1/2" x 3/8"	6.80
10-300LF	1/2" x 1/2"	7.43
10-301LF	1/2" x 3/4"	10.67

**FORGED MALE RUN TEE**



Part #	Male Flare x Male NPTF (1&3) x 2	List Price
10-355LF	1/2" x 1/2"	10.32

**FORGED SWIVEL**



Part #	Female Flare UNF	List Price
10-483LF	3/8"	5.81
10-484LF	1/2"	8.21
10-485LF	5/8"	11.97

**BRASS SLEEVE**

• FERRULES



Part #	Size	List Price
18-003LF	1/4"	0.18
18-005LF	3/8"	0.25
18-007LF	1/2"	0.37

**BRASS NUT**



Part #	Size	List Price
18-035LF	1/4"	0.81
18-037LF	3/8"	1.11
18-039LF	1/2"	1.81

**CAP**



Part #	Size	List Price
18-048LF	3/8"	1.04

**UNION**



Part #	Size	List Price
18-064LF	1/4"	3.72
18-066LF	3/8"	4.92
18-068LF	1/2"	7.14
18-069LF	5/8"	8.61
18-071LF	7/8"	18.29

**REDUCING UNION**



Part #	Size	List Price
18-079LF	3/8" x 1/4"	4.46
18-081LF	1/2" x 3/8"	6.46
18-083LF	5/8" x 1/2"	8.43

**TEE**



Forged

Part #	Size	List Price
18-103LF	1/4"	5.53
18-105LF	3/8"	7.97
18-106LF	1/2"	12.98
18-107LF	5/8"	17.05

**UNION ELBOW**



Forged

Part #	Size	List Price
18-126LF	3/8"	5.36
18-127LF	1/2"	9.06

**FEMALE ADAPTER**



Part #	Comp. X Female NPTF	List Price
18-147LF	1/4" x 3/8"	3.73
18-155LF	3/8" x 1/2"	4.21
18-158LF	1/2" x 3/8"	4.82
18-162LF	5/8" x 1/2"	6.08
18-163LF	5/8" x 3/4"	9.76
18-166LF	7/8" x 3/4"	13.17

**MALE ADAPTER**



Part #	Comp. X Male NPTF	List Price
18-179LF	1/4" x 1/8"	2.51
18-180LF	1/4" x 1/4"	3.00
18-182LF	1/4" x 1/2"	5.64
18-188LF	3/8" x 1/4"	3.47
18-189LF	3/8" x 3/8"	4.19
18-195LF	1/2" x 1/2"	6.95
18-196LF	1/2" x 3/4"	8.94
18-198LF	5/8" x 1/2"	7.25
18-199LF	5/8" x 3/4"	8.55

**MALE ELBOW**



Part #	Comp. X Male NPTF	List Price
18-224LF	1/4" x 1/8"	3.26
18-226LF	1/4" x 3/8"	4.28
18-233LF	3/8" x 1/4"	5.31
18-234LF	3/8" x 3/8"	5.37
18-235LF	3/8" x 1/2"	7.76
18-238LF	1/2" x 1/2"	8.38
18-241LF	5/8" x 1/2"	9.66

**NEEDLE VALVES**

**COMP X MALE PIPE**



Part #	Comp x Male Pipe	List Price
46-002LF	1/4" x 1/8"	9.85
46-003LF	1/4" x 1/4"	11.72

**COMP X MALE PIPE-ANGLE**



Part #	Comp x Male Pipe	List Price
46-011LF	1/4" x 1/8"	9.35

**COMP X COMP**



Part #	Comp x Comp	List Price
46-021LF	1/4"	10.62
46-023LF	3/8"	16.56

**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	11.23

#M-302-BSV1.60



LEAD FREE



Part#	Page	Part#	Page	Part#	Page	Part#	Page	Part#	Page	Part#	Page
0302-4	319	1001-4-5	379	10-064	49	101-104	241	101-431	242	101-777	242
0302-6	319	10-015	47	10-065	49	101-105	241	101-432	242	101-778	242
0302-8	319	10-015LF	47	10-066	49	101-106	241	101-433	242	101-779	242
0304-4	319	10-015LF	385	10-067	49	101-107	241	101-434	242	10-178	51
0304-5	319	10-016	47	10-068	49	101-108	241	101-435	242	101-780	242
0304-6	319	1001-6-5	379	10-074	49	101-109	241	101-437	242	101-781	242
0304-8	319	10-017	47	10-075	49	10-110L	50	101-438	242	10-179	51
0304-C-10	319	100-179	241	10-075LF	386	10-110LF	386	101-440	242	10-180	51
0304-C-12	319	10-017L	47	10-076	49	10-111	50	101-441	242	10-181	51
0304-C-14	319	10-017LF	385	10-077	49	101-110	241	101-442	242	10-182	51
0304-C-16	319	10-018	47	10-077LF	386	101-111	241	101-443	242	10-187	51
0304-C-2	319	100-181	241	10-078	49	10-112	50	101-444	242	10-188	51
0304-C-20	319	100-182	241	10-078LF	386	101-161	241	101-445	242	10-189	51
0304-C-24	319	100-183	241	10-079	49	101-162	241	101-446	242	10-197	51
0304-C-3	319	100-184	241	10-079LF	386	101-163	241	101-447	242	10-203	52
0304-C-32	319	1001-8-5	379	10-080	49	101-164	241	101-449	242	10-204	52
0304-C-4	319	100-186	241	10-081	49	101-165	241	101-450	242	10-204B	52
0304-C-5	319	100-187	241	10-084	49	101-166	241	101-451	242	10-205	52
0304-C-6	319	100-188	241	10-085	49	101-167	241	101-452	242	10-206	52
0304-C-8	319	100-189	241	10-086	49	101-168	241	101-453	242	10-207	52
0306-4	327	10-019	47	10-087	49	10-117	51	101-454	242	10-208	52
0306-5	327	100-190	241	10-088	49	10-118	51	101-458	242	10-209	52
0306-6	327	100-191	241	10-089	49	101-180	241	101-459	242	10-210	52
0306-8	327	10-019L	47	10-090	49	101-181	241	101-460	242	102-101	243
0318-2	320	10-019LF	385	10-094	50	101-182	241	101-461	242	102-102	243
0318-3	320	10-020	47	10-095	50	101-183	241	101-462	242	102-103	243
0318-4	320	10-020L	47	10-097	50	101-184	241	101-463	242	102-104	243
0318-5	320	10-021	47	10-098	50	101-185	241	101-464	242	102-105	243
0318-6	320	10-022	47	10-099	50	101-186	241	101-465	242	102-106	243
0318-8	320	10-023	47	100C100B	380	101-187	241	101-466	242	102-107	243
0319-2	320	10-024	47	100R1025	373	101-188	241	101-467	242	102-108	243
0319-3	320	10-025	47	100R1038	373	101-189	241	101-470	242	10-211	52
0319-4	320	100-251	241	100R1050	373	10-119	51	101-471	242	102-110	243
0319-5	320	100-252	241	100R1075	373	101-190	241	101-472	242	10-212	52
0319-6	320	100-253	241	100R1100	373	10-120	51	101-473	242	10-213	52
0319-8	320	100-254	241	100R1125	373	10-121	51	101-474	242	10-214	52
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HNV-38-F-B.....	302	HP5405-6-6.....	361	KS-7.....	282	RN280.....	308				
HNV-38-M.....	302	HP5405-8-8.....	361	KS-8.....	282	RN380.....	308				
HNV-38-M-B.....	302	HP5502-12-12.....	362	KS-87501.....	282	SG-3750.....	285				
HP1501-12-12.....	362	HP5502-16-16.....	362	KS-9.....	282	SG-5000.....	285				
HP1501-16-16.....	362	HP5502-20-20.....	362	KS-97501.....	282	SG-6250.....	285				
HP1501-20-20.....	362	HP5502-24-24.....	362	MB280.....	308	SG-7500.....	285				
HP1501-24-24.....	362	HP5502-32-32.....	362	MB380.....	308	SS-3751.....	285				
HP1501-32-32.....	362	HP5502-4-4.....	362	MB40-04.....	381	SS-5001.....	285				
HP1501-4-4.....	362	HP5502-4-6.....	362	MB40-06.....	381	SS54044.....	213				
HP1501-4-6.....	362	HP5502-6-4.....	362	MB40-08.....	381	SS540442.0.....	213				
HP1501-6-4.....	362	HP5502-6-6.....	362	MB40-12.....	381	SS540443.0.....	213				
HP1501-6-6.....	362	HP5502-8-8.....	362	MB40-16.....	381	SS54046.....	213				
HP1501-8-8.....	362	HP6801-10-10.....	362	MB40-03.....	381	SS540462.0.....	213				
HP1502-12-12.....	362	HP6801-12-12.....	362	MGP-F10-13.....	378	SS54048.....	213				
HP1502-16-16.....	362	HP6801-16-16.....	362	MGP-F10-20.....	378	SS540482.0.....	213				
HP1502-20-20.....	362	HP6801-20-20.....	362	MGP-F10-27.....	378	SS540483.0.....	213				
HP1502-24-24.....	362	HP6801-24-24.....	362	MGP-F10-34.....	378	SS-6251.....	285				
HP1502-32-32.....	362	HP6801-32-32.....	362	MGP-F10-41.....	378	SS-7501.....	285				
HP1502-4-4.....	362	HP6801-6-6.....	362	MGP-F10-51.....	378	v0318-10.....	320				
HP1502-4-6.....	362	HP6801-6-8.....	362	MGP-F10-61.....	378	v0318-12.....	320				
HP1502-6-4.....	362	HP6801-8-8.....	362	MGP-F20-06.....	377	v0318-16.....	320				
HP1502-6-6.....	362	I280.....	308	MGP-F20-08.....	377	v0318-20.....	320				

**THREAD INFORMATION**

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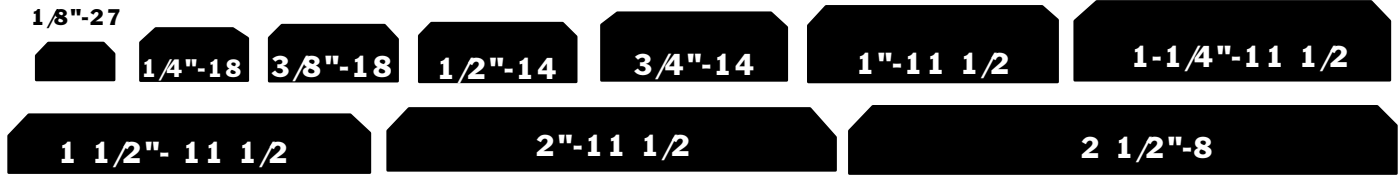
**Thread Chart**

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	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	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						
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	3/8-24	7/16-24	1/2-20	9/16-20		11/16-16									
STEEL																
COMPRESSION (HIGH PRESSURE)	5/16-24	3/8-24	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 FLANGE HEAD O.D	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	
CODE 62 FLANGE HEAD O.D							1.19	1.335	1.50		1.75	2.00	2.38	2.81	3.31	4.00
							1.25		1.62		1.88	2.12	2.50	3.12		

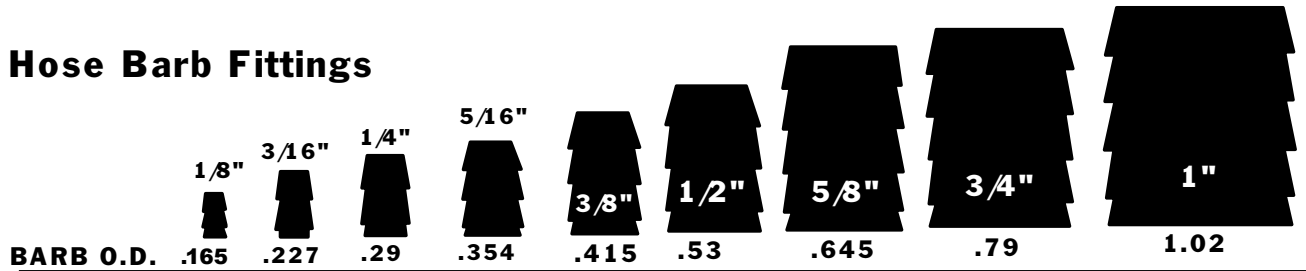
# THREAD PROFILES

# THREAD PROFILES

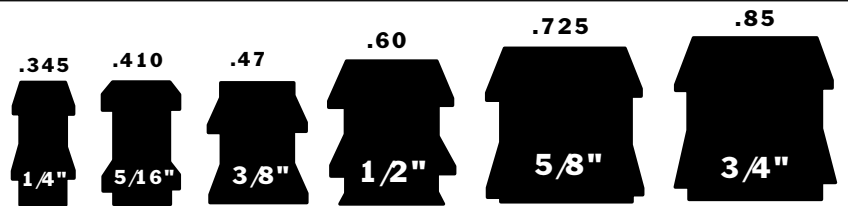
## Pipe Threads



## Hose Barb Fittings

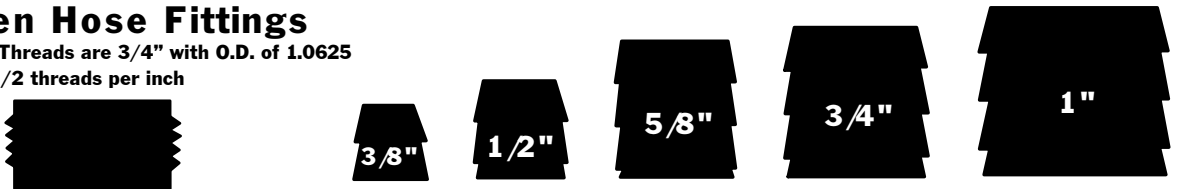


## Push On Fittings

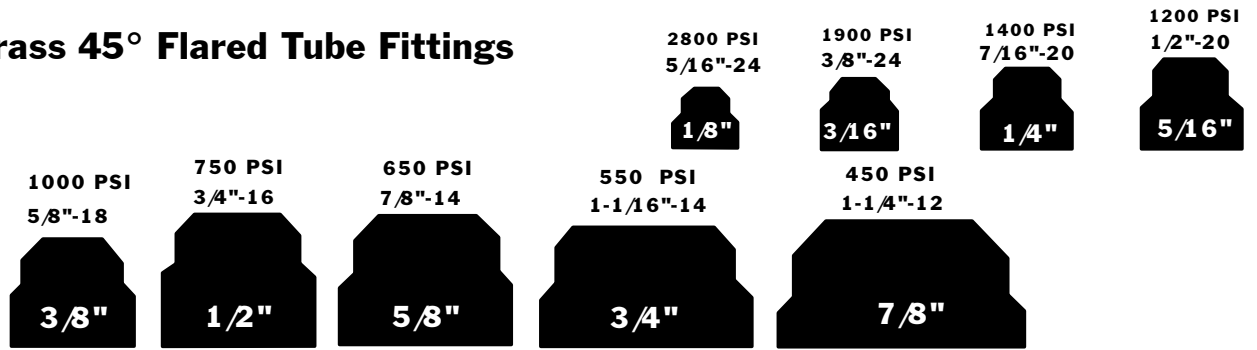


## Garden Hose Fittings

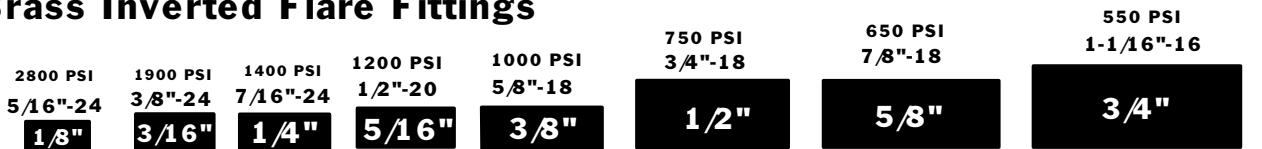
Male Garden Hose Threads are 3/4" with O.D. of 1.0625 and 11-1/2 threads per inch



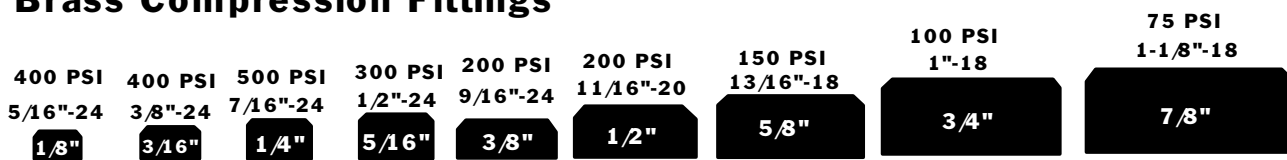
## Brass 45° Flared Tube Fittings



## Brass Inverted Flare Fittings



## Brass Compression Fittings



## Tubing O.D. Size

