NJS

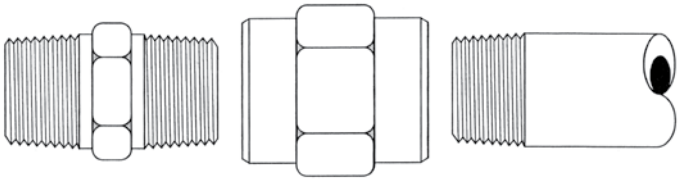
SYSTEMS & CONTROLS

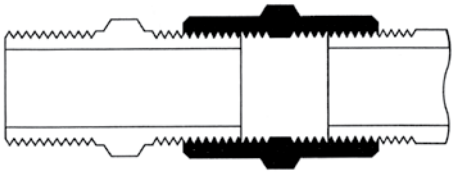
INDUSTRIAL PNEUMATIC & HYDRAULIC COMPONENTS



WWW.NJSCO.COM

Pipe





- **Lead Free Fittings see pages 166-175**
- **For Bronze & Larger Sizes see pages 208-215**
- **For BSPT/ BSPP see pages 116-117**

Pipe Size	1/16	1/8	1/4	3/8	1/2	3/4	1
Thread Size	1/16-27	1/8-27	1/4-18	3/8-18	1/2-14	3/4-14	$1\text{-}11^{1/2}$
Working Pressure	1200	1200	1200	1200	1200	1000	1000
Thread OD	1/4	3/8	1/2	5/8	3/4	1	1-1/4

•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
-65^0F to $+250^0$F (-53^0C to $+121^0$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.

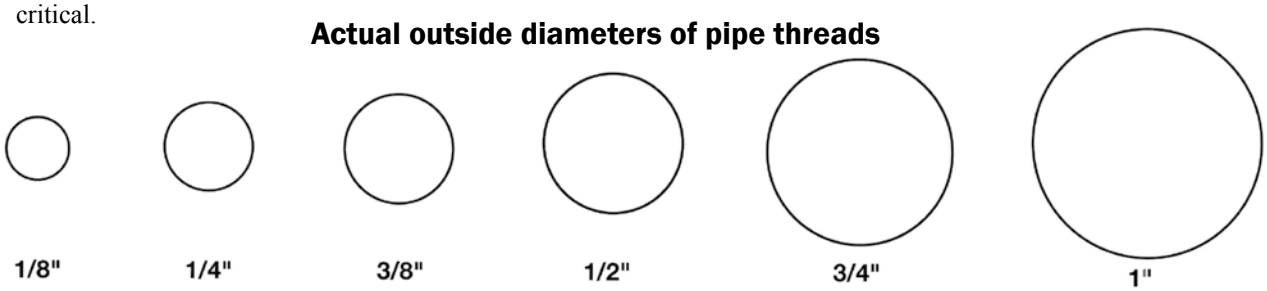
•Conformance
Meets specifications and standards of ASA, ASME and SAE.

• "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.

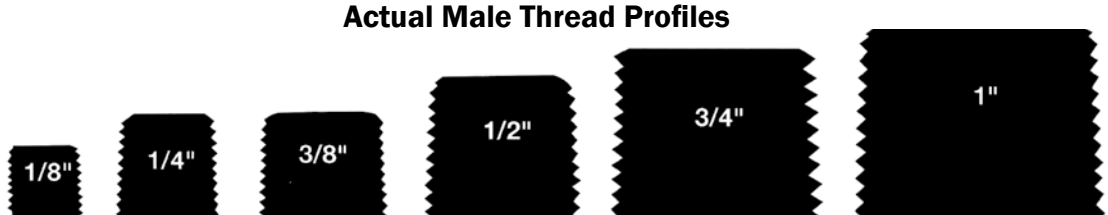
•Assembly Instructions
1- Tighten approximately 2-1/2 turns past hand tight.
2- Fittings with Everseal tighten two turns past hand tight. Brittle materials require special cautions.

- **for larger sizes see bronze fittings on page 208**
- **see page 271 for plastic pipe fittings. - Many new sizes**

Actual outside diameters of pipe threads



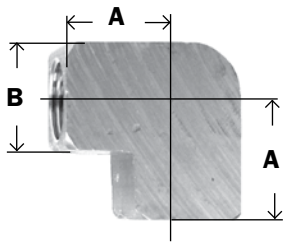
Actual Male Thread Profiles



90⁰ FEMALE ELBOW

SAE# 130238

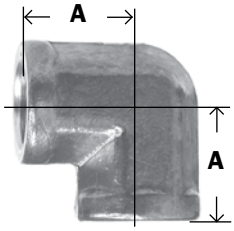
2200P
3500
302
200



Part #	Thread Size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-001	1/8”	0.55	0.56	0.09	2.99
28-002	1/4”	0.78	0.68	0.13	4.55
28-003	3/8”	0.84	0.81	0.16	5.95
28-004	1/2”	1.09	1.00	0.34	8.56
28-005	3/4”	1.16	1.25	0.60	17.69

90⁰ FORGED FEMALE ELBOW

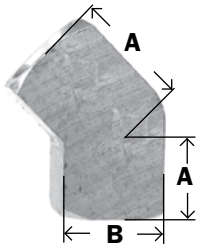
1200P
E7
100AF
100B



Part #	Thread size NPTF	A	Body Width	Approx. Wt. Lbs.	List Price
28-009	1/8”	0.57	0.50	0.04	3.20
28-010	1/4”	0.70	0.68	0.10	4.34
28-011	3/8”	0.81	0.81	0.12	6.21
28-012	1/2”	1.00	1.00	0.23	10.38
28-013	3/4”	1.13	1.25	0.42	22.31
28-014	1/4” x 1/8”	0.72	0.69	0.12	6.84
28-015	3/8” x 1/4”	0.81	0.81	0.15	5.45
28-016	1/2” x 3/8”	1.00	1.00	0.28	14.97
28-017	1"	1.42	1.50	0.75	25.71

45⁰ FEMALE ELBOW

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

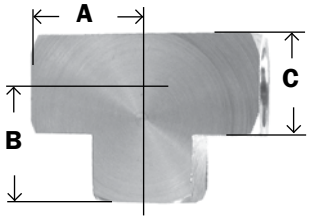


Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-018	1/8”	0.45	0.56	0.06	4.69
28-019	1/4”	0.66	0.68	0.12	6.13
28-020	3/8"	0.69	0.81	0.16	9.07

UNION TEE

SAE# 130438

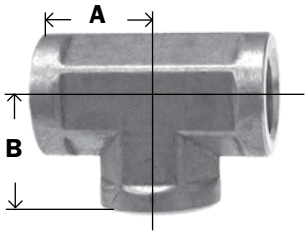
311
101A
322
2203P
3700
203



Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-024	1/8”	0.55	0.55	0.56	0.08	3.38
28-025	1/4”	0.78	0.78	0.68	0.17	4.99
28-026	3/8”	0.84	0.84	0.81	0.22	7.89
28-027	1/2”	1.09	1.09	1.00	0.43	12.67
28-028	3/4”	1.16	1.16	1.25	0.64	23.81

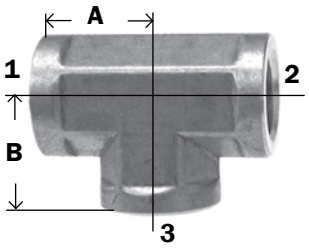
UNION FORGED TEE

1203P
LT7
101AF
101B



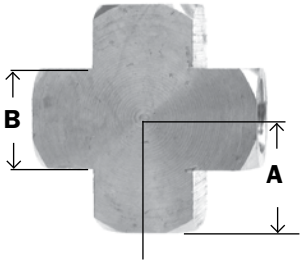
Part #	Thread size NPTF	A & B	Body Width	Approx. Wt. Lbs.	List Price
28-032	1/8”	0.56	0.50	0.06	3.18
28-033	1/4”	0.71	0.68	0.13	5.12
28-034	3/8”	0.81	0.81	0.16	6.06
28-035	1/2”	1.00	1.00	0.27	12.06
28-036	3/4”	1.16	1.25	0.53	18.46
28-023	1”	1.42	1.50	.924	37.15

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	8.61
28-030	1/4”	1/4”	1/8”	0.72	0.69	0.14	6.99
28-031	1/4”	1/4”	3/8”	0.81	0.81	0.21	14.12
28-037	3/8”	3/8”	1/8”	0.81	0.81	0.19	13.74
28-038	3/8”	1/4”	3/8”	0.81	0.81	0.18	12.48
28-039	3/8”	3/8”	1/4”	0.81	0.81	0.18	13.17
28-046	1/2”	1/2”	3/8”	1.00	1.00	0.30	11.10
28-048	3/4”	3/4”	1/2”	1.16	1.25	0.59	34.71

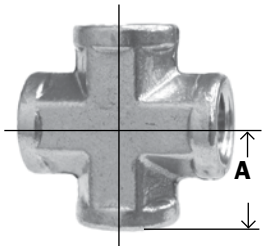
CROSS



2205P
3950
228
102A
102BE

Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-041	1/8”	0.50	0.50	0.10	7.62
28-042	1/4”	0.78	0.68	0.21	7.59
28-043	3/8”	0.84	0.81	0.25	9.19
28-044	1/2”	1.09	1.00	0.51	18.10
28-045	3/4”	1.16	1.25	0.75	26.72

FORGED CROSS

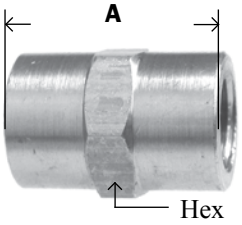


C7
105
102AF
102B

Part #	Thread size NPTF	A	Body Width	Approx. Wt. Lbs.	List Price
28-049	1/8”	0.56	0.50	0.06	6.40
28-050	1/4”	0.72	0.69	0.15	8.06
28-051	3/8”	0.81	0.81	0.18	11.54
28-052	1/2”	1.00	1.00	0.34	18.37

COUPLING

SAE# 130138



207P
371
3300
103AH
103B

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-058L	1/8”	0.75	0.50	0.02	0.88
28-058	1/8”	0.75	0.56	0.03	1.88
28-059L	1/4”	0.88	0.63	0.03	1.32
28-059	1/4”	1.12	0.75	0.09	3.03
28-060L	3/8”	1.00	0.81	0.06	2.22
28-060	3/8”	1.12	0.87	0.10	3.97
28-061L	1/2”	1.19	0.93	0.09	4.00
28-061	1/2”	1.50	1.06	0.19	6.30
28-062L	3/4”	1.19	1.25	0.18	6.25
28-062	3/4”	1.53	1.25	0.24	15.87
28-063	1"	1.89	1.50	.357	18.54

• 1/16" available (28-057) - POR

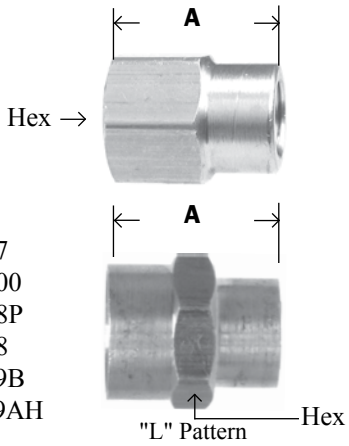
*** For larger sizes, see bronze couplings on pg. 208**

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

BRASS

REDUCING COUPLING

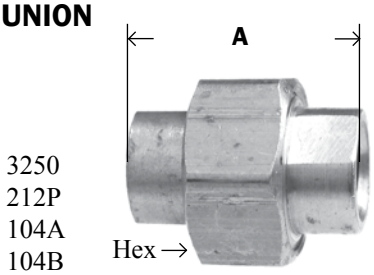
SAE# 130138



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-181L	1/4" x 1/8"	0.83	0.62	0.04	1.93
28-181	1/4" x 1/8"	0.97	0.75	0.08	2.71
28-182	3/8" x 1/8"	0.94	0.87	0.10	5.68
28-183L	3/8" x 1/4"	1.00	0.81	0.06	2.76
28-183	3/8" x 1/4"	1.16	0.87	0.12	4.03
28-180*	1/2" x 1/8"	1.19	0.93	0.15	14.52
28-184L	1/2" x 1/4"	1.11	1.00	0.10	5.86
28-184	1/2" x 1/4"	1.28	1.06	0.20	7.87
28-185L	1/2" x 3/8"	1.19	0.93	0.10	5.26
28-185	1/2" x 3/8"	1.38	1.06	0.20	9.86
28-188*	3/4" x 3/8"	1.32	1.37	0.20	24.45
28-189*	3/4" x 1/2"	1.19	1.18	0.14	10.04

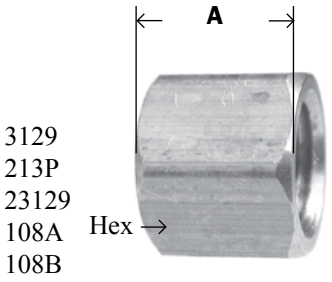
***Not to SAE specs**

UNION



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-067	1/8"	1.19	0.94	0.13	21.89
28-068	1/4"	1.31	1.06	0.18	20.82
28-069	3/8"	1.75	1.25	0.33	44.46
28-070	1/2"	1.79	1.56	0.50	30.35

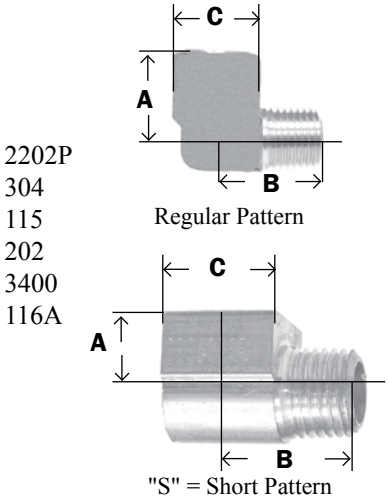
CAP



Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-075	1/8"	0.47	0.56	0.03	0.88
28-076	1/4"	0.60	0.68	0.04	1.83
28-077	3/8"	0.69	0.81	0.06	2.50
28-078	1/2"	0.78	0.93	0.08	4.00
28-079	3/4"	0.94	1.25	0.16	8.63
28-080	1"	1.13	1.50	0.23	12.22

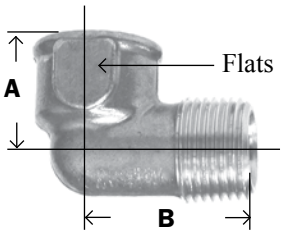
90⁰ STREET ELBOW

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	2.20
28-156S	1/8" short	0.34	0.57	0.50	0.03	1.46
28-157	1/4"	0.72	0.91	0.68	0.09	3.58
28-157S	1/4" short	0.45	0.78	0.68	0.07	2.57
28-158	3/8"	0.78	0.97	0.81	0.16	5.30
28-159	1/2"	1.03	1.25	1.00	0.33	9.17
28-160	3/4"	1.12	1.38	1.25	0.52	17.58

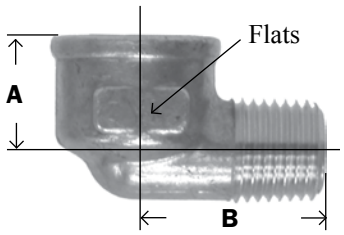
FORGED 90° STREET ELBOW



5E8
1202P
116AF
116B

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	3.50
28-166	1/4”	0.50	0.86	0.72	0.08	3.30
28-167	3/8”	0.70	1.00	0.88	0.10	5.09
28-168	1/2”	0.96	1.43	1.00	0.20	7.63
28-169	3/4”	0.90	1.40	1.25	0.25	12.11

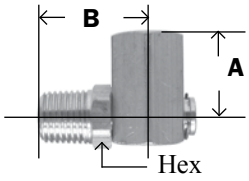
FORGED REDUCING 90° STREET ELBOW



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	4.90
28-261B*	1/4” x 1/8”	0.53	0.72	0.69	0.07	3.44
28-261	1/4” x 1/8”	0.50	0.81	0.72	0.06	4.92
28-262	1/4” x 3/8”	0.93	1.06	0.59	0.12	6.16
28-263	3/8” x 1/4”	0.58	0.94	0.81	0.07	8.11
28-264	3/8” x 1/2”	0.97	1.36	1.00	0.28	12.94
28-265	1/2” x 3/8”	0.96	1.37	1.00	0.22	14.27

*Barstock

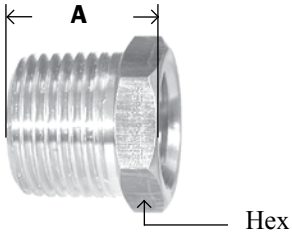
PIPE SWIVEL 90° STREET ELBOW



Part #	Thread size NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
28-430	1/4”	1.18	1.25	.625	0.22	33.92

HEX BUSHING

SAE# 130140



373
3220
209P
110A
110B

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	0.70
28-102	1/4” x 1/8”	0.75	0.56	0.04	1.12
28-103	3/8” x 1/8”	0.75	0.68	0.05	1.83
28-104L	3/8” x 1/4”	0.69	0.68	0.03	1.25
28-104	3/8” x 1/4”	0.75	0.75	0.05	1.98
28-105L	1/2” x 1/8”	0.81	0.81	0.08	4.20
28-105	1/2” x 1/8”	1.00	0.87	0.10	3.71
28-106L	1/2” x 1/4”	0.81	0.81	0.08	2.42
28-106	1/2” x 1/4”	1.00	0.87	0.11	3.44
28-107L	1/2” x 3/8”	0.81	0.81	0.05	1.75
28-107	1/2” x 3/8”	1.00	0.87	0.10	2.60
28-108	3/4” x 1/8”	0.94	1.06	0.20	10.66
28-109L	3/4” x 1/4”	0.94	1.06	0.18	4.33
28-110L	3/4” x 3/8”	0.94	1.06	0.15	5.10
28-111L	3/4” x 1/2”	0.94	1.06	0.11	3.71
28-111	3/4” x 1/2”	1.00	1.12	0.14	4.98
28-112	1” x 1/4”	1.15	1.37	0.32	8.87
28-113	1” x 3/8”	1.12	1.37	0.30	9.64
28-114	1” x 1/2”	1.31	1.44	0.29	9.48
28-115	1” x 3/4”	1.31	1.37	0.20	7.44

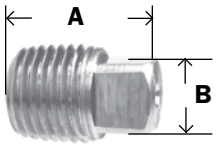
BRASS

FACE BUSHING



Part #	Thread size NPTF MxF	A	Approx. Wt. Lbs.	List Price
28-121	1/4" x 1/8"	0.45	0.01	1.64
28-122	3/8" x 1/8"	0.50	0.03	2.58
28-116	3/8" x 1/4"	0.50	0.02	2.68
28-090	1/2" x 1/8"	0.56	0.06	5.23
28-128	1/2" x 1/4"	0.56	0.05	3.75
28-117	1/2" x 3/8"	0.56	0.03	2.26
28-129	3/4" x 1/4"	0.62	0.11	6.56
28-130	3/4" x 3/8"	0.62	0.08	6.55
28-118	3/4" x 1/2"	0.64	0.03	5.92

SQUARE HEAD PLUG
1/8-1/2 Solid/ 3/4-1 Cored

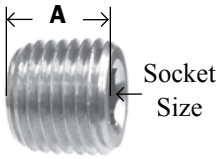


3151
211P
109A
109B

Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-084	1/8"	0.58	0.27	0.02	0.82
28-085	1/4"	0.80	0.37	0.03	1.15
28-086	3/8"	0.80	0.43	0.06	2.03
28-087	1/2"	1.07	0.55	0.13	3.13
28-088*	3/4"	1.11	0.61	0.20	4.77
28-089*	1"	1.24	0.81	0.35	11.06

* not solid

COUNTERSUNK HEX PLUG
3/4" taper thread



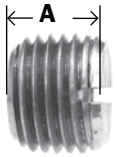
3153
219P
109CS
118

SAE J531

Part #	Thread size NPTF	A	Socket size	Approx. Wt. Lbs.	List Price
28-092	1/16"	0.30	0.12	0.01	1.16
28-093	1/8"	0.30	0.18	0.01	0.93
28-094	1/4"	0.45	0.26	0.02	1.01
28-095	3/8"	0.45	0.31	0.03	1.23
28-096	1/2"	0.61	0.39	0.05	2.39
28-097	3/4"	0.62	0.56	0.10	4.20

See lead free section for flush and square countersunk plugs

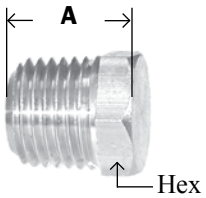
SLOTTED-HEAD PLUG



220P
3150
117A
117B

Part #	Thread size NPTF	A	Approx. Wt. Lbs.	List Price
28-174	1/8"	0.31	0.01	0.99
28-175	1/4"	0.42	0.02	1.22
28-176	3/8"	0.45	0.05	2.38

CORED HEX PLUGS

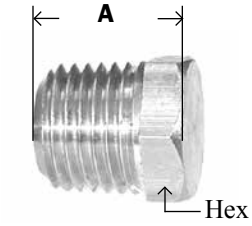


218P
3152
121A
103
121B
PPH
218P

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-201	1/8"	0.55	0.43	0.01	0.65
28-202	1/4"	0.62	0.56	0.02	1.10
28-203	3/8"	0.72	0.68	0.06	1.52
28-204	1/2"	0.81	0.87	0.09	2.85
28-205	3/4"	0.94	1.06	0.16	4.08
28-206	1"	1.16	1.37	0.28	13.67

See our lead free section for more sizes!

SOLID HEX HEAD PLUGS



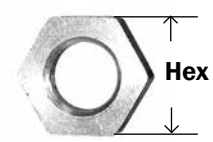
121AS

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-201S	1/8’	0.55	0.43	0.02	1.60
28-202S	1/4”	0.75	0.56	0.05	1.73
28-203S	3/8”	0.66	0.68	0.07	3.13
28-204S	1/2”	0.81	0.87	0.12	3.31
28-205S	3/4”	0.92	1.06	0.24	6.82
28-206S	1”	1.00	1.31	0.38	19.01

LOCKNUT

- **Jam Nuts**
- **Straight pipe thread**

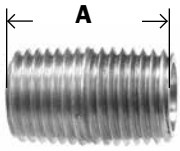
210P
21102
111A
111B



Part #	Thread size NPSL	Hex	Thickness	Approx. Wt. Lbs.	List Price
28-123	1/8”	0.68	0.19	0.02	0.97
28-124	1/4”	0.87	0.25	0.04	1.33
28-125	3/8”	1.00	0.31	0.04	1.62
28-126	1/2”	1.125	0.25	0.04	2.07

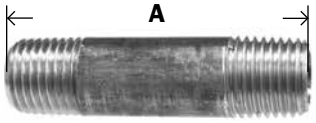
CLOSE NIPPLE

165
215PN
3326
112A
112B



Part #	Thread size NPTF	A	Approx. Wt. Lbs.	List Price
28-131	1/8”	0.75	0.01	0.57
28-132	1/4”	0.88	0.02	1.07
28-133	3/8”	1.00	0.05	1.90
28-134	1/2”	1.12	0.06	2.20
28-135	3/4”	1.31	0.11	4.10

LONG NIPPLE



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

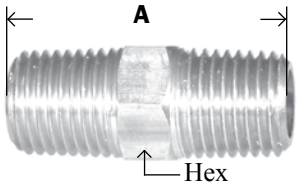
Part #	Thread size NPTF	A Length	Approx. Wt. Lbs.	List Price
28-140	1/8”	1.50	0.03	1.42
28-141	1/8”	2.00	0.04	1.52
28-142	1/8”	2.50	0.06	2.69
28-143	1/8”	3.00	0.06	2.94
28-475	1/8"	3.50	0.07	6.31
28-144	1/4”	1.50	0.03	1.97
28-145	1/4”	2.00	0.05	2.18
28-146	1/4”	2.50	0.08	3.80
28-147	1/4”	3.00	0.10	5.00
28-481	1/4"	3.50	0.12	8.79
28-148	3/8”	1.50	0.06	2.53
28-149	3/8”	2.00	0.10	3.56
28-150	3/8”	2.50	0.10	4.95
28-151	3/8”	3.00	0.13	4.98
28-487	3/8"	3.50	0.17	10.96
28-152	1/2”	1.50	0.08	2.71
28-153	1/2”	2.00	0.12	4.19
28-154	1/2”	2.50	0.16	5.91
28-155	1/2”	3.00	0.20	7.66
28-493	1/2"	3.50	0.24	8.79
28-136	3/4"	1.50	0.12	8.64
28-497	3/4"	2.00	0.18	12.68
28-498	3/4"	2.50	0.23	16.21
28-499	3/4"	3.00	0.28	21.37

• NOTE: For longer lengths and larger diameters, see our red brass nipples section, pg. 205-207

See page 168 for other sizes of lead free long nipples.

HEX NIPPLE

SAE# 130137

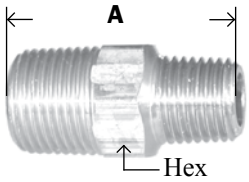


216P
3325
379
122AH
122B

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-211L	1/8”	0.91	0.43	0.02	0.99
28-211	1/8”	0.97	0.43	0.03	0.99
28-212L	1/4”	1.12	0.56	0.04	1.27
28-212	1/4”	1.38	0.56	0.06	1.69
28-213L	3/8”	1.25	0.68	0.07	1.95
28-213	3/8”	1.41	0.68	0.07	2.67
28-214L	1/2”	1.50	0.87	0.11	3.38
28-214	1/2”	1.81	0.87	0.17	4.11
28-215	3/4”	1.96	1.13	0.23	7.69
28-216	1”	2.30	1.37	0.43	12.93

REDUCING HEX NIPPLE

SAE# 130137



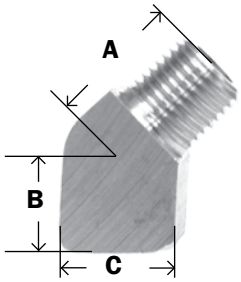
216P
3325
379
122AH
122B

Part #	Thread size NPTF	A	Hex	Approx. Wt. Lbs.	List Price
28-220L	1/4” x 1/8”	1.00	0.56	0.04	1.31
28-220	1/4” x 1/8”	1.19	0.56	0.04	1.69
28-221L	3/8” x 1/8”	1.11	0.68	0.06	3.11
28-221	3/8” x 1/8”	1.22	0.68	0.07	2.99
28-222L	3/8” x 1/4”	1.19	0.68	0.06	1.80
28-222	3/8” x 1/4”	1.41	0.68	0.07	2.50
28-223L	1/2” x 1/4”	1.34	0.87	0.09	3.22
28-223	1/2” x 1/4”	1.62	0.87	0.12	3.50
28-224L	1/2” x 3/8”	1.41	0.87	0.11	3.78
28-224	1/2” x 3/8”	1.62	0.87	0.12	4.15
28-225	3/4” x 1/2”	1.50	1.06	0.15	5.83

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

45° STREET ELBOW

SAE# 130339

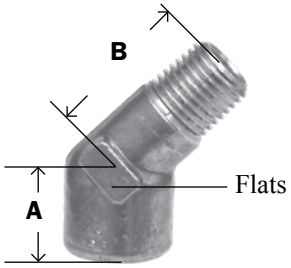


306
3350
2214P
224

Part #	Thread size NPTF	B	A	C	Approx. Wt. Lbs.	List Price
28-230	1/8”	0.38	0.50	0.56	0.03	2.58
28-231	1/4”	0.56	0.72	0.68	0.09	3.43
28-232	3/8”	0.56	0.78	0.81	0.12	5.95
28-233	1/2”	0.75	1.00	1.00	0.20	9.09
28-234	3/4”	0.75	1.06	1.25	0.34	29.77

45⁰ FORGED STREET ELBOW

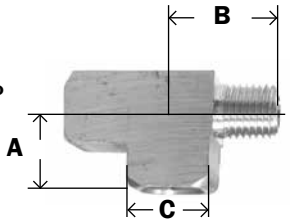
45E8
124B



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	5.13
28-239	1/4”	0.63	1.06	0.81	0.11	6.52
28-240	3/8”	0.72	1.06	0.93	0.17	9.29

STREET TEE/ SERVICE TEE/ MALE RUN TEE

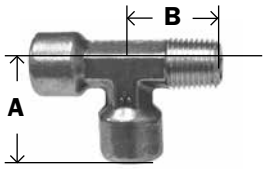
SAE# 130424



225
2225P
3750
326
225
127A

Part #	Thread size NPTF	A	B	C	Approx. Wt. Lbs.	List Price
28-245	1/8”	0.55	0.66	0.56	0.08	3.23
28-246	1/4”	0.78	0.91	0.68	0.17	6.12
28-247	3/8”	0.84	0.97	0.81	0.22	6.79
28-248	1/2”	1.09	1.25	1.00	0.40	12.46
28-249	3/4”	1.16	1.39	1.25	0.60	20.03

FORGED STREET TEE

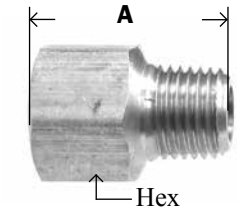


107
T8
127B

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	4.96
28-254	1/4”	1.03	1.00	0.46	0.13	5.51
28-255	3/8”	1.19	1.09	0.68	0.24	10.33
28-256	1/2”	1.52	1.40	0.88	0.45	21.51
28-257	3/4”	1.34	1.73	1.25	0.65	51.66

EXTENDER ADAPTER

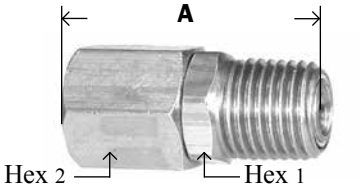
SAE# 130139



375
222P
3200
R1
120AH
120B

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	1.63
28-190	1/8” x 1/8”	0.88	0.56	0.04	1.27
28-191L	1/4” x 1/8”	0.94	0.62	0.04	1.31
28-191	1/4” x 1/8”	1.06	0.75	0.07	3.07
28-192L	1/4” x 1/4”	1.00	0.62	0.04	1.45
28-192	1/4” x 1/4”	1.25	0.75	0.07	2.99
28-198	3/8” x 1/8”	1.00	0.81	0.06	5.00
28-193L	3/8” x 1/4”	1.12	0.81	0.08	2.44
28-193	3/8” x 1/4”	1.25	0.87	0.09	3.96
28-194L	3/8” x 3/8”	1.24	0.81	0.10	3.25
28-194	3/8” x 3/8”	1.25	0.87	0.11	3.62
28-199	1/2” x 1/4”	1.46	1.06	0.08	4.86
28-195L	1/2” x 3/8”	1.19	0.93	0.09	4.53
28-195	1/2” x 3/8”	1.47	1.06	0.18	6.99
28-196	1/2” x 1/2”	1.66	1.06	0.12	6.49
28-207	3/4” x 3/8”	1.59	1.25	0.26	29.35
28-208	3/4” x 1/2”	1.69	1.37	0.14	14.76
28-209	3/4” x 3/4”	1.69	1.37	0.34	20.14

PIPE SWIVEL ADAPTER



344R
3183

*300 PSI
all sizes

Part #	Thread size NPTF FxM	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
28-424	1/8"	1.10	0.43	0.50	0.05	9.58
28-425	1/4”	1.34	0.56	0.62	0.06	12.29
28-426	3/8”	1.36	0.68	0.75	0.08	35.50
28-427	1/2"	1.87	0.87	0.95	0.10	43.85

SWIVEL FITTING

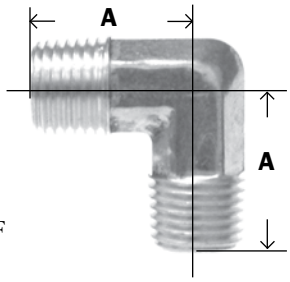
- 360° Turning
- Swivels



Male NPT x Female NPT

Part #	Size	List Price
320-061	1/4	10.99

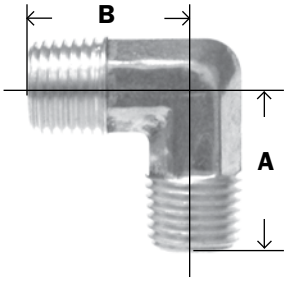
FORGED 90° MALE ELBOW



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	3.23
28-267	1/4”	0.87	0.45	0.06	3.24
28-268	3/8”	1.00	0.59	0.12	6.22
28-269	1/2”	1.38	0.78	0.21	8.65

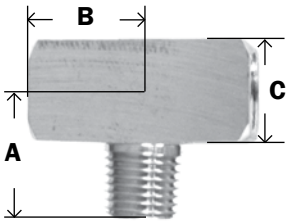
FORGED 90° MALE REDUCING ELBOW



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	4.65
28-275	3/8” x 1/4”	0.90	0.90	0.46	0.06	4.78
28-276	1/2” x 3/8”	1.12	1.00	0.59	0.12	8.57

MALE BRANCH TEE

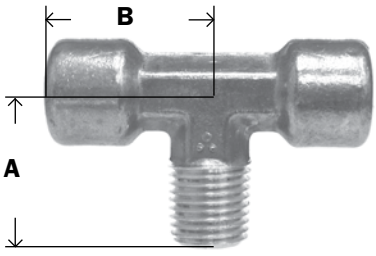
SAE# 130425



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	3.33
28-282	1/4”	0.91	0.78	0.68	0.15	6.06
28-283	3/8”	0.97	0.84	0.81	0.22	7.99
28-284	1/2”	1.25	1.09	1.00	0.40	17.21
28-285	3/4”	1.38	1.16	1.25	0.62	23.47

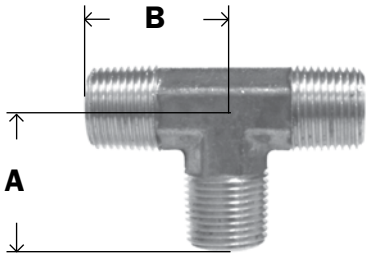
FORGED MALE BRANCH TEE



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	4.50
28-282F	1/4”	1.00	1.03	0.46	0.12	7.36

T9

FORGED ALL MALE TEE

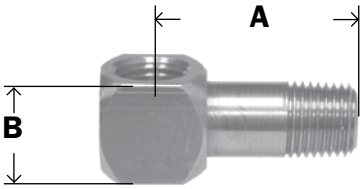


Part #	Thread size NPTF	A	B	Body Width	Approx. Wt. Lbs.	List Price
28-290	1/8”	0.75	0.75	0.43	0.06	4.99
28-291	1/4”	0.86	0.86	0.43	0.08	4.89
28-292	3/8”	1.09	1.09	0.60	0.16	9.92
28-293	1/2”	1.22	1.22	0.68	0.22	9.76
28-294	3/4”	1.43	1.43	0.87	0.38	31.18

T12
M101

LONG STREET ELLS

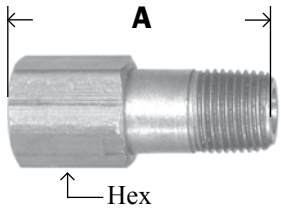
D.O.T. Approved



Part #	Thread size NPTF	A	B	Approx. Wt. Lbs.	List Price
28-440	1/8”	1-3/16”	0.50	0.06	10.30
28-441	1/8”	1-7/16”	0.50	0.06	5.12
28-442	1/8”	1-11/16”	0.50	0.06	8.51
28-443	1/8”	1-7/8”	0.50	0.16	14.95
28-328	1/4”	1-3/16”	0.75	0.12	17.29
28-329	1/4”	1-7/16”	0.75	0.14	14.08
28-330	1/4”	1-11/16”	0.75	0.15	14.05
28-331	1/4"	1-7/8"	0.62	0.09	13.30
28-332	1/4”	2-1/4”	0.75	0.17	19.15
28-333	3/8”	1-3/4”	0.87	0.22	21.93

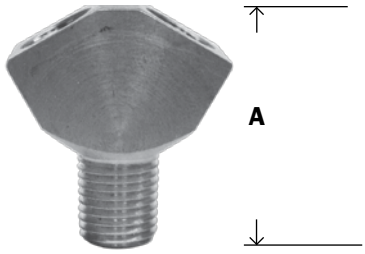
LONG EXTENSION ADAPTERS

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	11.33
28-336	1/8”	1-3/4”	0.50	0.05	12.33
28-337	1/8”	3”	0.50	0.09	22.22
28-338	1/4”	1-9/16”	0.62	0.07	6.80
28-339	1/4”	1-13/16”	0.62	0.08	8.66
28-340	1/4”	2-1/16”	0.62	0.10	8.04

PIPE WYE FIP x MIP

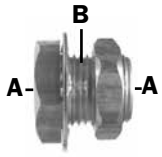


Part #	Thread Size NPT	A	Approx. Wt. Lbs.	List Price
28-295	1/4"	1.56	.15	7.00

Lead Free fittings available on
pgs. 166-175

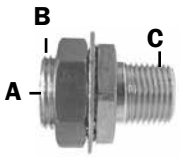
BULKHEAD / ANCHOR / FRAME COUPLINGS

FEMALE PIPE X FEMALE PIPE



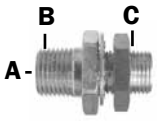
Part #	Terminal Bolts/ Frame A	B	C	Length (in.)	List Price
28-300	1/8-27 NPTF	5/8-18 UNS	----	1-1/2	7.36
28-301	1/4-18 NPTF	3/4-16 UNS	----	15/16	6.85
28-302	1/4-18 NPTF	3/4-16 UNS	----	1-1/2	7.92
28-315*	1/4-18 NPTF	3/4-16 UNS	----	1-1/2	9.80
28-303	3/8-18 NPTF	1-14 UNS	----	1-5/16	10.40
28-304	1/2-14 NPTF	1-1/8-14 UNS	----	1-1/2	13.04
28-311	3/4-14 NPTF	1-5/16-12	----	1-1/2	215.74

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



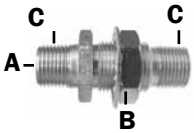
FEMALE PIPE X MALE PIPE

28-317	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2-1/8	26.46
28-318	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-11/16	15.44
28-319	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-29/32	15.39



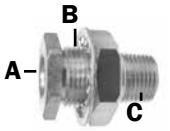
FEMALE PIPE X MALE PIPE

28-325	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	1-11/16	22.45	S612

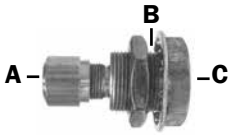


FEMALE PIPE X MALE PIPE

28-313	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2-7/8	29.14

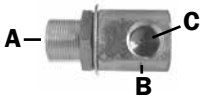


28-346	3/8-18 NPTF	1-14 UNS	1/2-14 NPTF	1-7/8	19.26
28-347	1/2-14 NPTF	1-14 UNS	1/2-14 NPTF	2-3/8	26.86



TUBE X FEMALE PIPE

28-321	1/2-O.D. Tube	7/8-20 UNCF	3/8-18 NPTF	1-5/16	13.34	S608
28-322	3/8-O.D. Tube	7/8-20 UNCF	3/8-18 NPTF	1-3/8	12.70	S609



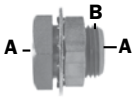
28-348	3/8-18 NPTF	7/8-20 UNCF	3/8-18 NPTF	2-5/16	20.02

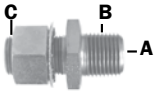
CROSSOVER NUMBERS

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 S611
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 S661 207ACBH-6 50006 55607 S607
28-304: 114-88 207x8 129A-D 1351 ACBH 207-8 207ACBH-8 50007 392F-1&1/2 55807 5807
28-317: 117-84 55615 5615
28-318: 381-86S 55620 5620
28-319: 115-86 035079 1496-DC 381-86L 50001 55646 5646
28-312: 115-88 1342 035021 005730 1342 380-84M 50010 55600
28-346: 50013 55613 5613
28-347: 035029 50012 55629 5629

STEEL BULKHEAD FITTINGS

Part #	Terminal Bolts/ Frame A	B	C	Length (in.)	List
28-306	1/4-18 NPTF	3/4 - 16 UNS		0.94	12.08
28-307	1/4-18 NPTF	3/4 - 16 UNS		1.50	13.01
28-308	3/8-18 NPTF	1 - 14 UNS		1.31	12.54

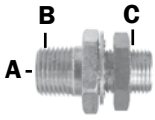




28-309	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	2.16	19.98

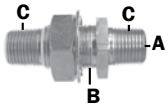
Crossover #: 005498 381-84S 50003 1340 390FC5 55689

28-310	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	2.53	35.92



28-345*	1/4-18 NPTF	3/4 - 16 UNS	1/2-14 NPTF	2-5/32	20.78

* Steel



28-312	1/4-18 NPTF	1-14 UNS	1/2-14 NPTF	2.94	31.47	5664

MARINE BULKHEAD FITTINGS



46-540	5/16 Hose ID	----	----	2.37	12.97
46-541	3/8 Hose ID	----	----	2.37	17.54

BULKHEAD JAM NUTS



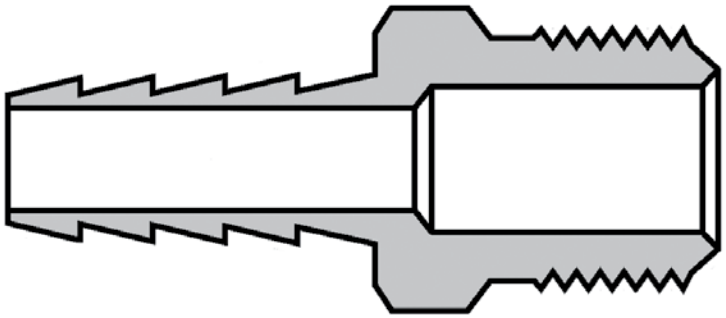
Part #	Size	Material	QTY	Weight	List Price
28-301J	3/4-16UNEF	Brass	10	0.05 ea.	2.40
28-321J	7/8-20UNEF	Brass	10	0.04 ea.	2.93
28-317J	1-14UNS	Brass	10	0.07 ea.	3.91
28-304J	1-1/8-14UNS	Brass	10	0.07 ea.	4.99

BULKHEAD LOCK WASHERS



Part #	Size	Material	QTY	Weight	List Price
28-301W	3/4"	Steel	25	0.70 per 100	0.46
28-321W	7/8"	Steel	25	0.90 per 100	0.74
28-317W	1"	Steel	25	1.4 per 100	1.13
28-304W	1-1/8"	Steel	25	1.7 per 100	1.35

Hose Barb Fittings



• **For Lead Free AB1953 Compliant Fittings**
see pages 166-175

• **Temperature and Working Pressure Ranges**
From -40^{0}F to + 160^{0}F at 150 PSI maximum.

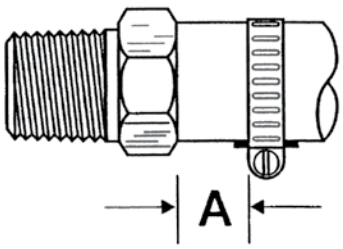
• **Tolerance**
+/- .02 on all dimensions. Dimension Data can change without notice. Please call us when dimensions are critical.

•**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.

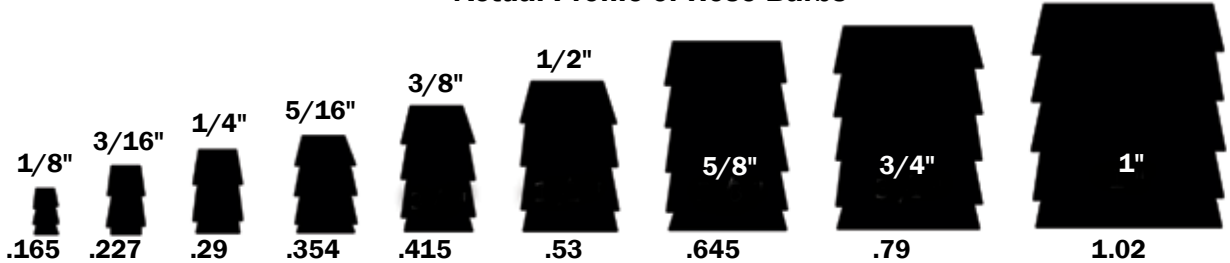
See page 301 for hose ferrules
See page 287-300 for hose clamps
See page 273-275 for plastic hose barb fittings
See page 26 for stainless steel hose barbs
See page 280-281 for Barb Fittings for plastic pipe



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"

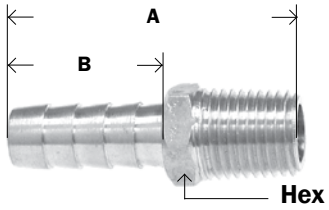
Stainless Steel hose barbs for beverage service available - See beverage fitting section, pg. 324-325

Actual Profile of Hose Barbs



RIGID MALE ADAPTER

• These are not Lead Free



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	12.27
32-001 *	1/8" x 1/8"	1.19	0.69	0.43	0.02	0.99
32-027	1/8" x 1/4"	1.16	0.46	0.56	0.02	1.36
32-002 *	3/16" x 1/8"	1.19	0.75	0.43	0.02	0.94
32-003 *	3/16" x 1/4"	1.37	0.69	0.56	0.04	1.62
32-301	1/4" x 1/16"	1.44	0.88	0.43	0.02	5.15
32-004 *	1/4" x 1/8"	1.47	0.97	0.43	0.02	1.19
32-005 *	1/4" x 1/4"	1.72	0.97	0.56	0.04	1.33
32-006 *	1/4" x 3/8"	1.72	0.97	0.68	0.05	1.98
32-007	1/4" x 1/2"	1.72	0.81	0.87	0.10	3.49
32-008 *	5/16" x 1/8"	1.47	0.97	0.43	0.02	1.12
32-009 *	5/16" x 1/4"	1.72	0.97	0.56	0.04	1.55
32-010 *	5/16" x 3/8"	1.76	0.97	0.68	0.06	2.07
32-390	5/16" x 1/2"	1.88	0.95	0.87	0.10	3.90
32-011 *	3/8" x 1/8"	1.53	0.97	0.56	0.03	1.45
32-012 *	3/8" x 1/4"	1.75	0.97	0.56	0.05	1.35
32-013 *	3/8" x 3/8"	1.72	0.96	0.68	0.06	1.88
32-014 *	3/8" x 1/2"	1.97	0.97	0.87	0.09	3.40
32-026 *	3/8" x 3/4"	1.97	0.97	1.06	0.16	4.55
32-302	1/2" x 1/8"	1.57	0.95	0.56	0.06	3.76
32-015 *	1/2" x 1/4"	1.72	0.97	0.56	0.04	1.94
32-016 *	1/2" x 3/8"	1.76	0.97	0.68	0.07	2.25
32-017 *	1/2" x 1/2"	1.87	0.96	0.87	0.11	2.99
32-018 *	1/2" x 3/4"	1.94	0.97	1.06	0.16	4.54
32-303	1/2" x 1"	2.31	0.99	1.37	0.33	14.05
32-304	5/8" x 1/4"	1.67	0.92	0.68	0.06	4.60
32-019 *	5/8" x 3/8"	1.76	0.97	0.68	0.08	2.59
32-020 *	5/8" x 1/2"	1.87	0.96	0.87	0.11	3.22
32-021 *	5/8" x 3/4"	1.87	0.96	1.06	0.14	4.47
32-305	5/8" x 1"	2.31	0.96	1.37	0.36	17.26
32-306	3/4" x 3/8"	1.65	0.87	0.81	0.12	5.65
32-022 *	3/4" x 1/2"	1.87	0.96	0.87	0.14	4.10
32-023 *	3/4" x 3/4"	1.87	0.96	1.06	0.15	5.39
32-316	3/4" x 1"	2.55	1.15	1.37	0.38	12.44
32-307	1" x 1/2"	1.80	0.87	1.06	0.24	7.52
32-024 *	1" x 3/4"	2.19	1.19	1.06	0.32	6.71
32-025 *	1" x 1"	2.48	1.19	1.37	0.39	10.18
32-029	1-1/4" x 3/4"	2.37	1.19	1.37	0.35	15.77
32-028	1-1/4" x 1"	2.55	1.19	1.37	0.46	14.99

See Bronze insert fittings on pages 280 for larger sizes.

* See page 26 for stainless.

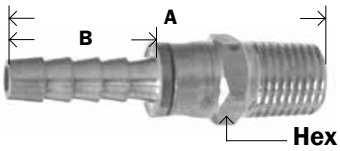
Dimension data can change without notice.
Please call us when dimensions are critical.

BRASS RIGID MALE BSPT BARB ADAPTER



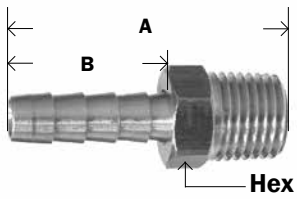
Part #	Hose I.D. x MALE BSPT	List Price
32-450	1/4" x 1/8"	1.40
32-451	1/4" x 1/4"	2.04
32-452	3/8" x 1/4"	2.23
32-453	3/8" x 3/8"	5.63
32-454	3/8" x 1/2"	4.12
32-455	1/2" x 3/8"	2.79
32-456	1/2" x 1/2"	4.57
32-457	3/4" x 3/4"	7.11
32-458	1" x 1"	14.66

SWIVEL MALE ADAPTER



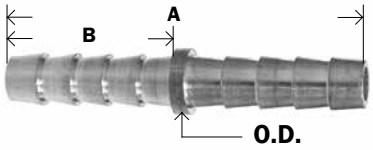
SMS Rotation 360°
103
-68

Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-329	3/16" x 1/8"	1.95	0.78	0.56	0.06	5.44
32-331	3/16" x 1/4"	1.90	0.78	0.56	0.06	5.54
32-332	1/4" x 1/8"	2.19	0.97	0.56	0.06	5.09
32-349	1/4" x 1/4"	2.12	0.97	0.56	0.06	4.73
32-351	3/8" x 1/8"	2.12	0.97	0.56	0.07	5.26
32-201	3/8" x 1/4"	2.12	0.97	0.56	0.07	4.06
32-360	3/8" x 3/8"	2.12	0.97	0.69	0.08	5.58
32-355	1/2" x 3/8"	2.12	0.97	0.68	0.10	6.00
32-356	1/2" x 1/2"	2.33	0.97	0.87	0.14	6.99
32-357	3/4" x 3/4"	2.33	0.97	1.06	0.20	10.58
32-386	1" x 1"	3.43	1.19	1.38	0.40	72.18



Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-200	1/4" x 1/4"	1.65	.89	0.56	0.04	3.96
32-202	3/8" x 3/8"	1.75	1.00	0.68	0.08	4.99

MENDER/ SPLICER

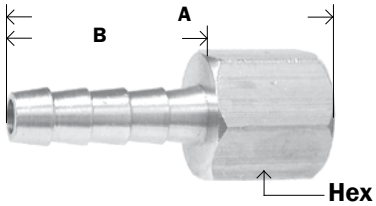


MSB
122HBL
HM
129
178
73
108

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	1.30
32-092	3/16"	1.62	0.77	0.36	0.02	1.73
32-093 *	1/4"	2.00	0.96	0.37	0.02	1.44
32-079 *	1/4" x 1/8"	1.55	0.97	0.56	0.02	3.31
32-094 *	5/16"	2.00	0.96	0.39	0.02	1.37
32-090 *	5/16" x 1/4"	2.00	0.97	0.39	0.03	2.41
32-095 *	3/8"	2.00	0.94	0.51	0.04	1.46
32-080 *	3/8" x 1/4"	2.06	0.97	0.56	0.03	3.98
32-375 *	3/8" x 5/16"	2.00	0.97	0.56	0.03	2.34
32-096 *	1/2"	2.00	0.96	0.62	0.06	2.11
32-087 *	1/2" x 3/8"	2.06	0.97	0.71	0.06	6.01
32-097	5/8"	2.05	0.96	0.75	0.08	2.85
32-088	5/8" x 3/8"	2.06	0.97	0.75	0.06	6.60
32-376	5/8" x 1/2"	2.06	0.97	0.75	0.07	6.78
32-098 *	3/4"	2.50	1.15	0.87	0.10	4.84
32-089	3/4" x 1/2"	2.28	1.19	0.87	0.10	9.40
32-379	3/4" x 5/8"	2.50	1.19	0.87	0.10	5.44
32-380	1" x 3/4"	2.58	1.19	1.12	0.18	5.94
32-099	1"	3.00	1.44	1.02	0.23	12.79

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

RIGID FEMALE ADAPTER



Part #	Hose I.D. x Female NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-050	1/8” x 1/8”	0.96	0.46	0.50	0.02	1.54
32-317	1/8” x 1/4”	1.15	0.46	0.62	0.04	5.14
32-051	3/16” x 1/8”	1.10	0.68	0.50	0.02	1.39
32-062	3/16” x 1/4”	1.44	0.75	0.62	0.04	5.56
32-052	1/4” x 1/8”	1.35	0.93	0.50	0.02	1.69
32-053	1/4” x 1/4”	1.60	0.97	0.62	0.06	1.79
32-054	1/4” x 3/8”	1.65	1.03	0.75	0.04	2.53
32-441	1/4" x 1/2"	1.66	0.97	0.93	0.08	8.17
32-055	5/16” x 1/8”	1.47	0.97	0.56	0.04	4.42
32-056	5/16” x 1/4”	1.66	0.97	0.62	0.04	2.36
32-318	5/16” x 3/8”	1.66	0.97	0.75	0.06	5.47
32-320	5/16” x 1/2”	1.67	0.96	0.93	0.08	6.50
32-057	3/8” x 1/8”	1.47	0.97	0.56	0.04	2.37
32-058	3/8” x 1/4”	1.61	0.97	0.62	0.06	2.10
32-059	3/8” x 3/8”	1.63	1.00	0.81	0.08	2.30
32-063	3/8” x 1/2”	1.72	0.94	0.93	0.12	4.35
32-442	3/8" x 3/4"	1.97	0.97	1.18	0.20	14.65
32-064	1/2” x 1/4”	1.66	0.69	0.62	0.08	2.61
32-060	1/2” x 3/8”	1.66	0.97	0.75	0.08	5.25
32-061	1/2” x 1/2”	1.76	0.96	0.93	0.12	4.18
32-443	1/2" x 3/4"	1.97	0.97	1.18	0.26	14.91
32-444	5/8" x 3/8"	1.66	0.97	0.75	0.08	6.18
32-445	5/8" x 1/2"	1.66	0.97	0.93	0.10	8.27
32-446	5/8" x 3/4"	1.97	0.97	1.18	0.21	14.80
32-447	3/4" x 1/2"	1.88	1.19	0.93	0.13	9.25
32-065	3/4” x 3/4”	2.19	1.21	1.18	0.22	7.14
32-049	1” x 3/4”	2.19	1.19	1.18	0.26	18.83
32-321	1" x 1"	2.32	1.19	1.18	0.35	25.29
32-448	1-1/4" x 1"	2.32	1.19	1.43	0.44	24.67

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

SWIVEL FEMALE ADAPTER NPTF

-68

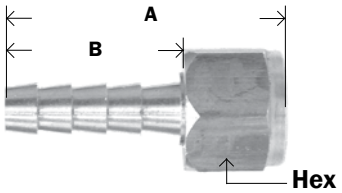


Part #	Hose I.D. x Female NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
32-470	1/4" x 1/4"	1.80	0.97	0.62	0.06	10.20
32-472	3/8" x 1/4"	1.80	0.97	0.62	0.06	10.50
32-473	3/8" x 3/8"	1.82	0.97	0.75	0.09	10.89
32-475	1/2" x 3/8"	1.82	0.97	0.75	0.09	11.31
32-476	1/2" x 1/2"	1.86	0.97	0.93	0.14	12.30

SWIVEL FEMALE ADAPTER - With Gasket

• NPSM Thread

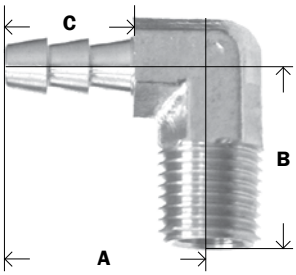
National Pipe Straight Gasket Seal Swivel

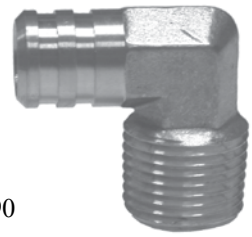


130
126
29FSG
KF-RN
NPSM Gasket

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	6.40
32-132	3/16" x 1/8"	1.19	0.75	0.50	0.03	6.29
32-133	3/16" x 1/4"	1.28	0.75	0.62	0.04	6.93
32-120	1/4” x 1/8”	1.41	0.97	0.50	0.02	7.81
32-121	1/4” x 1/4”	1.50	0.97	0.62	0.02	3.00
32-129	1/4” x 3/8”	1.63	0.97	0.75	0.04	7.93
32-130	5/16” x 1/4”	1.50	0.97	0.62	0.04	9.21
32-122	3/8” x 1/4”	1.54	1.00	0.62	0.06	4.95
32-123	3/8” x 3/8”	1.60	0.97	0.75	0.06	8.35
32-354	3/8” x 1/2”	1.66	0.97	0.93	0.10	10.52
32-124	1/2” x 3/8”	1.60	0.97	0.75	0.08	9.76
32-125	1/2” x 1/2”	1.66	0.97	0.93	0.12	8.07
32-117	1/2” x 3/4”	1.82	1.19	1.18	0.16	11.98
32-118	5/8” x 3/4”	1.82	1.19	1.18	0.18	12.76
32-119	3/4” x 3/4”	1.82	1.19	1.18	0.14	8.29

FORGED HOSE BARB 90° ELBOW





Grooved End Barb



Square Body

129
HBE1
KF-PS90
HE-1
29E
146

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	2.80
32-391	3/16” x 1/4”	1.00	0.84	0.63	0.46	0.10	3.59
32-038 *	1/4” x 1/8”	1.01	0.81	0.71	0.47	0.06	2.40
32-039 *	1/4” x 1/4”	1.01	0.87	0.63	0.47	0.06	3.31
32-309 ***	1/4” x 3/8”	1.08	0.97	0.73	0.69	0.12	4.11
32-036	5/16” x 1/8”	1.01	0.81	0.63	0.47	0.04	2.93
32-040	5/16” x 1/4”	1.01	0.87	0.63	0.47	0.06	3.53
32-310	5/16” x 3/8”	1.06	0.94	0.63	0.50	0.06	6.31
32-046 *	3/8” x 1/8”	1.01	0.81	0.63	0.47	0.06	2.61
32-041 *	3/8” x 1/4”	1.02	0.88	0.65	0.47	0.06	3.33
32-042 *	3/8” x 3/8”	1.09	0.93	0.68	0.50	0.08	4.00
32-047 *	3/8” x 1/2”	1.11	1.09	0.63	0.59	0.10	4.28
32-048	1/2” x 1/4”	1.06	1.00	0.68	0.59	0.10	4.08
32-043 *	1/2” x 3/8”	1.06	1.09	0.69	0.59	0.10	4.70
32-311 *	1/2” x 1/2”	1.31	1.19	0.87	0.56	0.22	6.16
32-044**	5/8” x 3/8”	1.12	1.06	0.61	0.56	0.12	6.69
32-045**	5/8” x 1/2”	1.12	1.12	0.66	0.59	0.14	6.39
32-312	5/8” x 3/4”	1.46	1.26	0.93	1.06	0.32	10.90
32-313	3/4” x 1/2”	1.31	1.28	0.87	0.85	0.22	8.33
32-314 *	3/4” x 3/4”	1.46	1.26	0.91	1.06	0.32	13.36
32-330***	3/4” x 1”	1.57	1.64	0.90	1.34	0.64	25.04
32-315	1” x 3/4”	1.60	1.40	0.95	1.06	0.32	12.29
32-319	1" x 1"	1.69	1.64	0.98	1.34	0.43	50.26

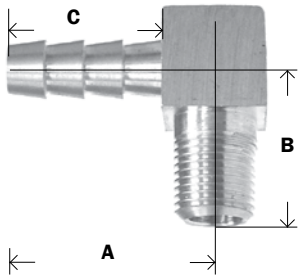
* * Add SS to the end of the part number for Stainless.

** Grooved End Barbs

*** Square Body

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

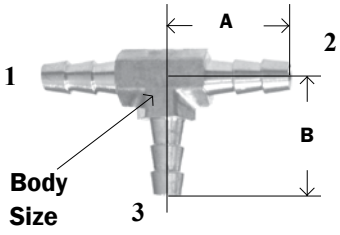
BARSTOCK HOSE BARB 90° ELBOW



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	7.24
32-038B	1/4" X 1/8"	1.00	0.75	0.75	0.50	0.02	5.25
32-039B	1/4" X 1/4"	1.02	0.91	0.74	0.56	0.04	6.00
32-041B	3/8" X 1/4"	1.32	0.89	0.97	0.58	0.08	8.33
32-042B	3/8" X 3/8"	1.50	1.06	0.97	0.75	0.14	14.20
32-043B	1/2" X 3/8"	1.53	1.07	0.97	0.72	0.16	11.91

HOSE BARB TEES



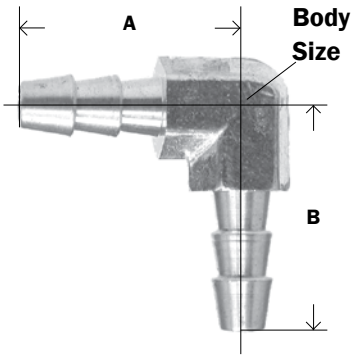


32-128

Part #	Hose Barb Size 1 x 2 x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-367 *	1/8"	0.84	0.83	0.25	0.02	3.81
32-368	3/16"	1.02	1.02	0.37	0.03	7.38
32-365 *	1/4"	1.00	1.00	0.44	0.06	3.21
32-350 *	1/4" x 1/8"	0.94	0.94	0.44	0.04	8.09
32-366	5/16"	1.00	1.00	0.44	0.06	3.99
32-126 *	3/8"	1.01	1.01	0.43	0.06	4.02
32-400 *	1/2"	1.02	1.00	0.43	0.08	4.88
32-352 *	1/2" x 3/8"	1.26	1.26	0.43	0.10	13.81
32-361	5/8"	1.26	1.26	0.75	0.16	18.62
32-363	3/4"	1.26	1.26	0.88	0.18	25.62
32-353	3/4" x 1/2"	1.41	1.41	0.88	0.23	27.07
32-128 *	3/8"HB x 1/4" MIP	1.00	0.94	0.43	0.06	11.27

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

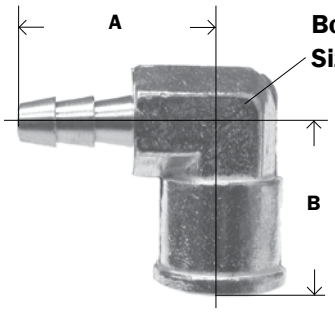
90° HOSE BARB ELBOW



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	7.02
32-433	3/16" x 3/16"	0.90	0.90	0.37	0.03	5.90
32-412	1/4" x 1/8"	1.02	1.02	0.44	0.04	3.00
32-413 *	1/4" x 1/4"	1.01	1.01	0.44	0.04	3.69
32-425	5/16" x 5/16"	1.15	1.15	0.48	0.05	9.03
32-414	3/8" x 1/8"	1.01	1.01	0.44	0.04	5.05
32-415	3/8" x 1/4"	1.00	1.00	0.44	0.04	4.20
32-416 *	3/8" x 3/8"	1.02	1.02	0.44	0.04	6.63
32-417	3/8" x 1/2"	1.24	1.10	0.50	0.06	5.55
32-418	1/2" x 1/4"	1.24	1.08	0.50	0.06	5.31
32-419	1/2" x 3/8"	1.22	1.09	0.50	0.06	5.08
32-420 *	1/2" x 1/2"	1.24	1.24	0.50	0.06	5.56
32-434	5/8" x 5/8"	1.20	1.20	0.75	0.16	20.27
32-435	3/4" x 1/2"	1.41	1.41	0.88	0.21	21.07
32-436	3/4" x 3/4"	1.41	1.41	0.88	0.21	25.22

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

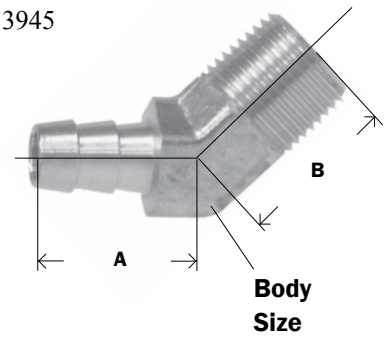
90° FEMALE HOSE BARB ELBOW



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	4.88
32-402	1/4” x 1/4”	1.13	0.91	0.56	0.10	5.95
32-403	3/8” x 1/8”	1.01	0.82	0.47	0.06	4.69
32-404	3/8” x 1/4”	1.15	0.91	0.56	0.10	6.29
32-405	3/8” x 3/8”	1.15	1.11	0.68	0.14	14.02
32-406	3/8” x 1/2”	1.26	1.39	0.75	0.20	10.82
32-407	1/2” x 1/4”	1.26	0.91	0.56	0.10	6.89
32-410	1/2” x 3/8”	1.24	1.11	0.68	0.14	10.15
32-411	1/2” x 1/2”	1.37	1.39	0.75	0.20	10.67
32-409	3/4" x 3/4"	1.52	1.75	0.81	0.50	15.43

45° ELBOW

140
HE145
139HB
KF-PS45
13945





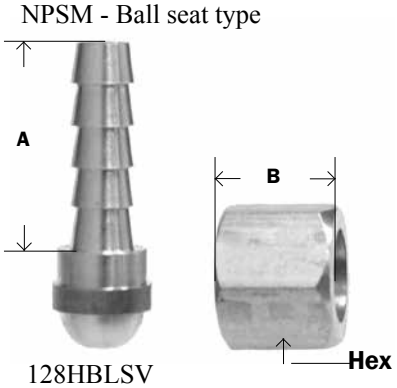
Part #	Hose I.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
32-110	1/4” x 1/8”	0.91	0.62	0.53	0.04	6.72
32-109*	1/4” x 1/4”	1.00	0.62	0.57	0.06	13.57
32-111	3/8” x 1/8”	0.83	0.66	0.53	0.04	5.23
32-112	3/8” x 1/4”	0.82	0.84	0.53	0.06	4.69
32-113	3/8” x 3/8”	0.93	0.87	0.59	0.08	6.00
32-346	1/2” x 1/4”	1.00	0.84	0.59	0.08	9.49
32-114	1/2” x 3/8”	1.00	0.88	0.59	0.08	7.87
32-116	1/2" x 1/2"	1.15	0.94	0.59	0.12	13.61
32-115**	5/8” x 3/8”	0.97	0.88	0.59	0.10	8.37
32-345	3/4" x 1/2"	1.15	0.94	0.81	0.13	24.16

* Barstock

** Flat Barbs

BALL END SWIVEL

NPSM - Ball seat type

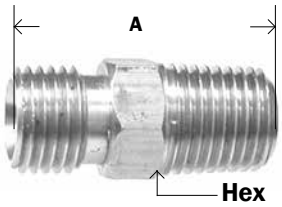


128HBLSV
29FS
209AS
124
131

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	5.19
32-067	3/16" x 1/8"	0.75	0.44	0.50	0.03	4.45
32-068	3/16" x 1/4"	0.75	0.52	0.62	0.04	4.90
32-069	1/4" x 1/8"	0.97	0.44	0.50	0.04	4.31
32-070	1/4" x 1/4"	0.97	0.53	0.62	0.06	2.63
32-078	1/4" x 3/8"	0.97	0.63	0.75	0.06	6.21
32-071	5/16" x 1/4"	0.97	0.52	0.62	0.05	3.33
32-389	5/16" x 3/8"	0.97	0.63	0.75	0.07	6.16
32-072	3/8" x 1/4"	0.97	0.53	0.62	0.06	2.49
32-073	3/8" x 3/8"	0.97	0.59	0.75	0.08	2.99
32-074	3/8" x 1/2"	0.97	0.69	0.94	0.14	9.32
32-075	1/2" x 3/8"	0.97	0.59	0.75	0.08	2.97
32-076	1/2" x 1/2"	0.97	0.69	0.94	0.10	3.99
32-077	3/4" x 3/4"	0.97	0.70	1.12	0.14	6.73

BALLSEAT MALE ADAPTER

Beveled seat

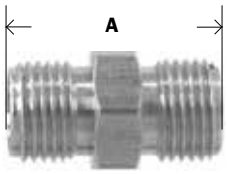


172
134
127HB
122AS

30° Seat

Part #	NPSM x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
32-359	1/8" x 1/8"	0.94	0.43	0.03	4.78
32-034	1/4" x 1/8"	1.06	0.56	0.04	3.76
32-030	1/4" x 1/4"	1.25	0.56	0.06	3.51
32-362	3/8" x 1/4"	1.28	0.68	0.08	4.72
32-031	3/8" x 3/8"	1.30	0.68	0.08	4.90
32-392	3/8" x 1/2"	1.47	0.88	0.13	8.84
32-364	1/2" x 3/8"	1.35	0.87	0.10	8.50
32-032	1/2" x 1/2"	1.53	0.87	0.14	6.54
32-033	3/4" x 3/4"	1.53	1.06	0.20	10.44

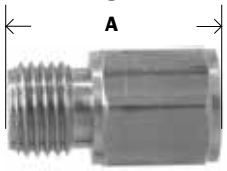
BALLSEAT UNION



30° Seat

Part #	NPSM x NPSM	A	Hex	Approx. Wt. Lbs.	List Price
32-460	1/8"	0.79	0.43	0.02	4.15
32-461	1/4"	1.09	0.56	0.04	5.06
32-462	3/8"	1.19	0.68	0.07	6.68
32-463	1/2"	1.31	0.87	0.10	8.71

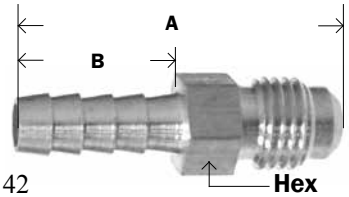
FEMALE BALLSEAT ADAPTER



30° Seat

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	6.96
32-466	3/8" x 3/8"	1.15	0.75	0.07	6.91
32-467	1/2" x 1/2"	1.22	0.94	0.10	9.35

45° FLARE ADAPTER

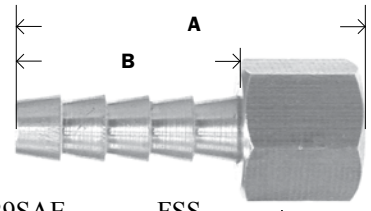


142
201BF
KF-MS
KDS

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	5.93
32-081 *	1/4" x 1/4"	7/16-20	1.72	0.97	0.43	0.03	3.51
32-082 *	1/4" x 3/8"	5/8-18	1.82	0.97	0.62	0.07	4.62
32-083	5/16" x 5/16"	1/2-20	1.75	0.97	0.50	0.08	6.06
32-084 *	3/8" x 3/8"	5/8-18	1.82	0.97	0.62	0.08	5.00
32-085	3/8" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	7.23
32-086	1/2" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	6.99

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

FEMALE 45° FLARE SWIVEL



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

NEW

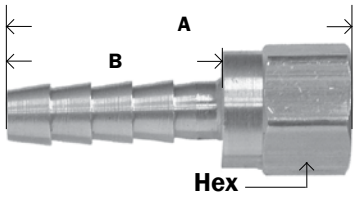


CRIMP STYLE

Part #	Hose I.D. x Female 45° Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-326	3/16” x 3/16”	3/8-24	1.19	0.75	0.43	0.04	6.56
30-295**	3/16" x 3/8"	5/8-18	1.82	0.90	0.75	0.04	4.26
32-101	1/4” x 1/4”	7/16-20	1.57	0.97	0.56	0.04	2.16
32-103	1/4” x 3/8”	5/8-18	1.64	0.97	0.75	0.08	2.60
32-104	5/16” x 5/16”	1/2-20	1.58	0.97	0.62	0.05	4.90
32-327	5/16” x 3/8”	5/8-18	1.64	0.97	0.75	0.08	3.61
32-105*	3/8” x 3/8”	5/8-18	1.64	0.97	0.75	0.08	3.22
32-105C**	3/8" x 3/8"	5/8-18	1.71	0.97	0.75	0.07	4.28
32-106	3/8” x 1/2”	3/4-16	1.81	0.97	0.87	0.10	8.85
32-100	1/2” x 1/2”	3/4-16	1.68	0.97	0.87	0.12	4.14
32-328	3/4" x 3/4"	1-1/16-14	2.00	0.97	1.25	0.20	17.64

** Swivel crimp style

DUAL 45°/ 37° FLARE SWIVEL



KDS

NEW

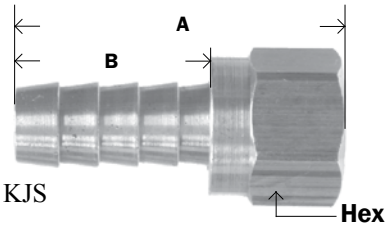


CRIMP STYLE

Part #	Hose ID x Dual Seat	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-107*	3/16” x 1/4”	7/16-20	1.34	0.75	0.56	0.04	3.35
32-107C**	3/16 X 1/4	7/16-20	1.42	0.78	0.56	0.04	3.18
32-337*	1/4” x 1/4”	7/16-20	1.56	0.97	0.56	0.04	2.73
32-337C**	1/4" X 1/4"	7/16-20	1.60	0.97	0.56	0.04	2.66
32-102	1/4” x 5/16”	1/2-20	1.53	0.97	0.62	0.06	2.82
32-339	5/16” x 5/16”	1/2-20	1.60	0.97	0.62	0.06	3.49
32-340	3/8” x 1/2”	3/4-16	1.68	0.97	0.87	0.10	5.52
32-341*	1/2” x 1/2”	3/4-16	1.68	0.97	0.87	0.10	4.69
32-341C**	1/2" X 1/2"	3/4-16	1.75	0.97	0.87	0.09	5.21
32-342	1/2” x 5/8”	7/8-14	1.76	0.97	1.00	0.12	7.07
32-394*	5/8" x 5/8"	7/8-14	1.76	0.97	1.00	0.14	7.57

*Available in swivel crimp style
** Swivel crimp style

FEMALE 37° J.I.C. FLARE SWIVEL



KJS

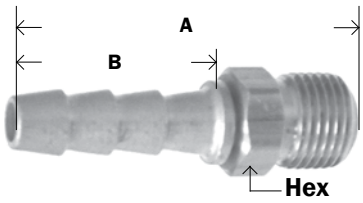


CRIMP STYLE

Part #	Hose ID x Female 37° Flare	Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-334	1/4” x 3/8”	9/16-18	1.60	0.97	0.68	0.06	3.62
32-335	5/16” x 3/8”	9/16-18	1.60	0.97	0.68	0.06	3.75
32-336*	3/8” x 3/8”	9/16-18	1.60	0.97	0.68	0.10	3.26
32-336C**	3/8" X 3/8"	9/16-18	1.66	0.97	0.68	0.06	3.39
32-338*	3/4" x 3/4"	1-1/16-12	2.00	0.97	1.25	0.20	19.56
32-397*	1" x 1"	1-5/16-12	2.54	1.19	1.50	0.33	18.14

*Available in swivel crimp style
** Swivel crimp style

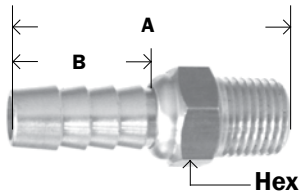
INVERTED FLARE SWIVEL



Part #	Hose ID x Inverted 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	10.07
32-371	3/8” x 3/8”	5/8-18	1.70	0.96	0.62	0.06	15.01
32-372	1/2” x 1/2”	3/4-18	1.80	0.96	0.75	0.08	10.52
32-373	5/8” x 5/8”	7/8-18	2.05	1.17	0.87	0.15	21.58

HIGH PRESURE MALE SWIVEL

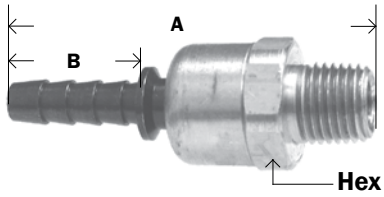
4065



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	17.80

HOSE ID x MALE BALL SWIVEL

300 PSI. Max. Working Pressure

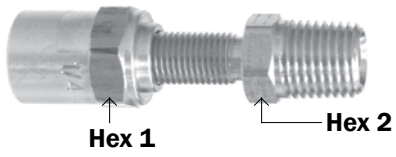


Part #	Hose I.D. x Male ball swivel	A	B	Hex	Approx. Wt. Lbs.	List Price
28-415	1/4" x 1/4"	1.30	0.94	0.81	0.14	35.18
28-417	3/8" x 1/4"	1.30	1.00	0.81	0.14	32.49

1/4" MALE THREAD ID x OD

Reusable Hose Couplings

183



Part #	1/4" Male Thread ID x OD	Length	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
32-725	3/8" x 3/4"(23/32)	1.97	0.87	0.56	0.14	9.08
32-726	1/4" x 5/8"	1.86	0.81	0.56	0.13	8.41
32-727	1/4" x 1/2"	1.86	0.69	0.56	0.11	7.42
32-728	1/4" x 9/16"	1.86	0.75	0.56	0.12	12.27
32-741	5/16" x 5/8"	1.97	0.81	0.56	0.13	9.72
32-742	3/8" x 5/8"	1.97	0.81	0.56	0.14	13.16

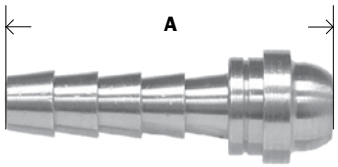
Many more sizes and shapes available...just ask!

"Give me 6 hours to chop a tree, I will spend the first 4 sharpening my axe."

- Abraham Lincoln

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

STEM ONLY - WELDING HOSE CONNECTOR

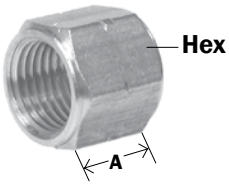


201RWA
WRS
WLS

Part #	Hose I.D.	A	Approx. Wt. Lbs.	List Price
30-410	3/16”	1.43	0.02	1.77
30-411	1/4”	1.43	0.02	1.71
30-412	5/16”	1.43	0.03	2.16
30-413	3/8”	1.43	0.04	2.20

Assemble with nuts below.

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

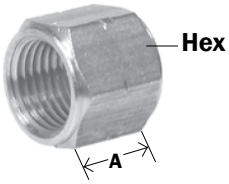


201RWA
WRS
KF-PE
152

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-420	R.H. Nut only	0.63	0.68	0.04	2.04

Assemble with stem above.

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



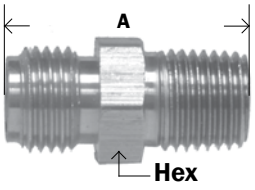
209LWA
WLS
154
KF-RE

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-421	L.H. Nut only	0.63	0.68	0.04	1.90

Assemble with stem above.

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

156

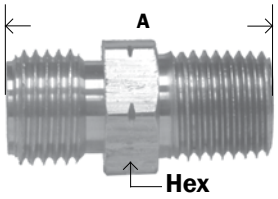


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-401	1/4”-18	1.30	0.62	0.06	5.16
32-437	3/8"-18	1.30	0.68	0.09	5.94
32-438*	9/16"-18	1.25	0.68	0.07	5.65

* Right UNF thread

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

158

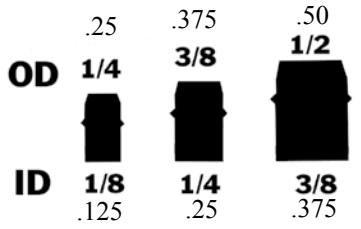


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-406	1/4”-18	1.30	0.62	0.06	5.21
32-439	3/8"-18	1.30	0.68	0.09	6.48
32-440*	9/16"-18	1.25	0.68	0.07	6.11

* Left UNF thread

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)	7.00
21-007	3/8(1/4) x 1/4(1/8)	6.69
21-009	3/8(1/4) x 3/8(1/4)	3.11

MALE ADAPTER

1068
968
688

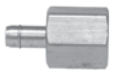


TUBE O.D. (TUBE I.D.) X MALE PIPE

Part #	Size	List Price
21-021	1/4(1/8) x 1/16	5.45
21-023	1/4(1/8) x 1/8	4.26
21-025	1/4(1/8) x 1/4	5.91
21-027	3/8(1/4) x 1/8	4.71

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	13.37

BULKHEAD UNION

1074



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

Part #	Size	List Price
21-082	1/4(1/8)	18.61
21-083	3/8(1/4)	28.68

UNION ELBOW

1065
965



TUBE O.D (I.D.)

Part #	Size	List Price
21-095	1/4(1/8)	9.71
21-097	3/8(1/4)	10.05
21-099	1/2(3/8)	18.78

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	18.55
21-113	1/4(1/8) x 1/8	3.60
21-115	1/4(1/8) x 1/4	6.20
21-117	3/8(1/4) x 1/8	8.29
21-119	3/8(1/4) x 1/4	4.96
21-121	1/2(3/8) x 3/8	32.64

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	12.64

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)	7.15
21-153	3/8(1/4)X 3/8(1/4)X1/4(1/8)	9.07
21-155	3/8(1/4)	1.70
21-159	1/2(3/8)X1/2(3/8)X3/8(1/4)	66.38
21-161	1/2(3/8)	14.67

MALE BRANCH TEE

1072
972
232

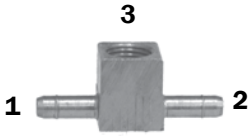


O.D. (I.D.) X O.D. (I.D.) X MALE PIPE

Part #	Size	List Price
21-193	1/4(1/8) x 1/4(1/8) x 1/8	5.60
21-195	3/8(1/4) x 3/8(1/4) x 1/8	10.50
21-197	3/8(1/4) x 3/8(1/4) x 1/4	12.64

FEMALE BRANCH TEE

1077
978

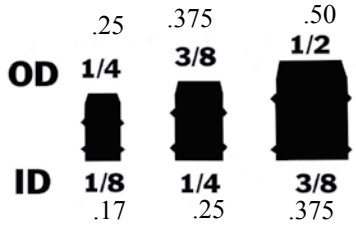


O.D. (I.D.) X O.D. (I.D.) X FEMALE PIPE

Part #	Size	List Price
21-207	1/4(1/8) x 1/4(1/8) x 1/8	13.60

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	4.08
32-151	1/4(1/8) x 1/4	8.70
32-153	3/8(1/4) x 1/4	8.08

UNION TEE



Part #	Tube O.D. (I.D.)	List Price
32-159	1/4(1/8 ID)	6.90
32-160	3/8(1/4 ID)	11.94

90° ELBOW



Part #	Tube O.D. (I.D.)	List Price
32-170	1/4(1/8 ID)	7.20
32-171	3/8(1/4 ID)	13.26

STAINLESS STEEL HOSE BARBS



• Cast

304 STAINLESS STEEL HOSE NIPPLES

Part #	Hose I.D. x Male Pipe	List Price
73-951	1/4"	6.38
73-952	3/8"	9.94
73-953	1/2"	11.92
73-954	3/4"	14.33
73-955	1"	17.01
73-956	1-1/4"	27.73
73-957	1-1/2"	31.31
73-958	2"	44.31
73-959	2-1/2"	104.00
73-960	3"	119.24

304 STAINLESS STEEL REDUCING HOSE NIPPLES

Part #	Hose I.D. x Male Pipe	List Price
73-970	1/4" X 1/8"	6.50
73-971	3/8" X 1/4"	7.51
73-972	1/2" X 3/8"	11.22
73-973	1/2" X 1/4"	11.59
73-974	3/4" X 1/2"	14.81
73-975	1" X 3/4"	16.72
73-976	1" X 1/2"	27.23
73-977	1-1/4" X 1"	26.93
73-979	1-1/2" X 1-1/4"	42.33
73-980	1-1/2" X 1"	32.47
73-981	2" X 1-1/2"	56.00
73-982	2" X 1-1/4"	44.78

316 STAINLESS STEEL HOSE NIPPLES

Part #	Hose I.D. x Male Pipe	List Price
973-951	1/4"	7.14
973-952	3/8"	10.16
973-953	1/2"	16.35
973-954	3/4"	18.89
973-955	1"	20.58
973-956	1-1/4"	27.96
973-957	1-1/2"	48.61
973-958	2"	51.79
973-959	2-1/2"	133.67
973-990	3"	164.69
973-991	4"	204.55

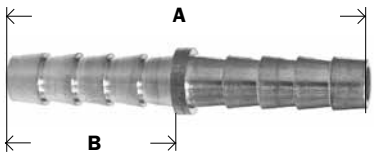
Dimension data can change without notice. Please call us when dimensions are critical.

• NOTE: See Stainless Steel Hose Barbs for beverage on pg. 324-325



316 STAINLESS STEEL MACHINED RIGID MALE ADAPTER

Part #	Hose I.D. x NPT	List Price
32-001SS	1/8" x 1/8"	6.86
32-002SS	3/16" x 1/8"	7.39
32-003SS	3/16" x 1/4"	9.83
32-004SS	1/4" x 1/8"	8.91
32-005SS	1/4" x 1/4"	9.90
32-006SS	1/4" x 3/8"	18.46
32-008SS	5/16" x 1/8"	8.00
32-009SS	5/16" x 1/4"	10.89
32-010SS	5/16" x 3/8"	15.15
32-011SS	3/8" x 1/8"	8.92
32-012SS	3/8" x 1/4"	10.97
32-013SS	3/8" x 3/8"	14.06
32-014SS	3/8" x 1/2"	23.52
32-015SS	1/2" x 1/4"	12.21
32-016SS	1/2" x 3/8"	19.07
32-017SS	1/2" x 1/2"	18.47
32-018SS	1/2" x 3/4"	25.08
32-019SS	5/8" x 3/8"	13.68
32-020SS	5/8" x 1/2"	22.11
32-021SS	5/8" x 3/4"	29.04
32-022SS	3/4" x 1/2"	19.56
32-023SS	3/4" x 3/4"	27.90
32-024SS	1" x 3/4"	28.12



316 STAINLESS STEEL SPLICER

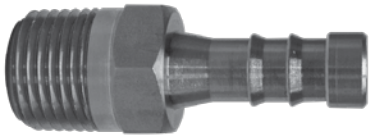
Part #	Hose I.D. x Hose I.D.	A	B	List Price
32-093SS	1/4"	2.03	0.97	5.13
32-095SS	3/8"	2.06	0.97	6.30
32-096SS	1/2"	2.06	0.97	10.23
32-098SS	3/4"	2.50	1.19	15.13



316 STAINLESS STEEL BARB ELBOW

Part #	Size	List Price
32-038SS	1/4 x 1/8	14.92
32-039SS	1/4 x 1/4	14.92
32-041SS	3/8 x 1/4	14.92
32-042SS	3/8 x 3/8	14.92
32-043SS	1/2" x 3/8"	28.85
32-311SS	1/2 x 1/2	17.89
32-314SS	3/4" x 3/4"	80.70

BAND TYPE NIPPLES



STEEL



#304 STAINLESS STEEL

General Specifications

• Dimensions to ANSI 16.3 Pressure to ANSI 16.5 Class 150LB
• Standard Steel Material Specification – C1215 and C12L14 - ASTM A108, ASTM A29

• Steel Parts – Bright Trivalent Plated • ROHS Compliant
ASTM B633 Service Condition I, Type II - (Yellow) Type III – (Clear)
Stainless Steel Parts – (Clean and Dry, No Passivation or Electropolish)
Aluminum Fittings – Clear Conventional Type II Sulfuric Anodize – Colors Available

• Fittings for use with Air, Water, and Oil

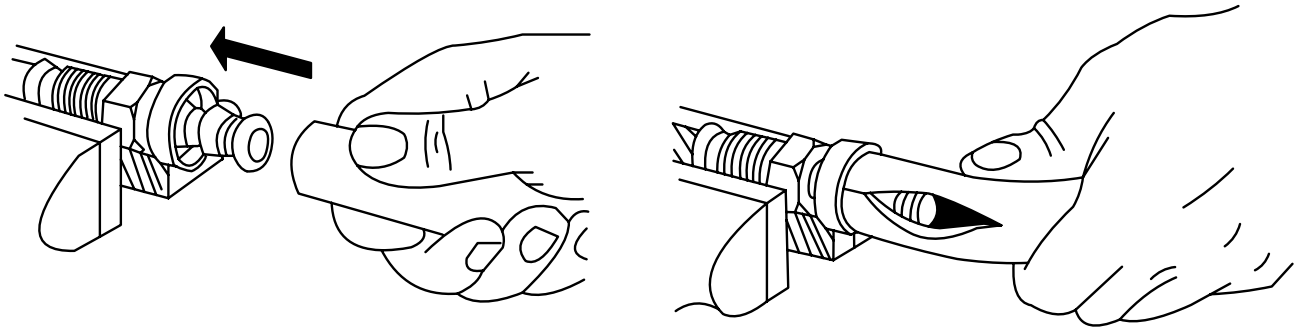
• Maximum Pressure: Fittings - 150PSI @72°F
• Hose to Pipe Temperature Range: -40°F to +350°F (See hose mfg. specifications)
• Hose to Pipe Vacuum Range: 29" Hg @ 72°F (See hose mfg. specifications)

Steel Part #	List Price	Description Hose x Male NPT	Length A	Length B	Dia. C	Stock size	Bore size	Stainless 304 Part #	List Price
34-204	6.23	1/4" x 1/8"	1-11/16"	1.050	.30	9/16" H	.16"	34-204SS	25.16
34-205	6.87	1/4" x 1/4"	1-7/8"	1.050	.30	9/16" H	.16"	34-205SS	27.35
34-206	7.39	1/4" x 3/8"	1-7/8"	1.050	.30	11/16" H	.16"	34-206SS	30.06
34-211	6.35	3/8" x 1/8"	1-11/16"	1.050	.425	9/16" H	.25"	34-211SS	20.71
34-212	6.87	3/8" x 1/4"	1-7/8"	1.050	.425	9/16" H	.25"	34-212SS	21.46
34-213	7.39	3/8" x 3/8"	1-7/8"	1.050	.425	11/16" H	.25"	34-213SS	24.00
34-214	9.29	3/8" x 1/2"	2-1/8"	1.050	.425	7/8" H	.25"	34-214SS	38.49
34-215	6.87	1/2" x 1/4"	1-7/8"	1.050	.550	9/16" H	.38"	34-215SS	21.46
34-216	7.39	1/2" x 3/8"	1-7/8"	1.050	.550	11/16" H	.38"	34-216SS	24.00
34-217	9.41	1/2" x 1/2"	2-1/8"	1.050	.550	7/8" H	.38"	34-217SS	32.02
34-218	11.71	1/2" x 3/4"	2-3/16"	1.050	.550	1-1/8" H	.38"	34-218SS	49.80
34-222	10.67	3/4" x 1/2"	2-5/8"	1.550	.800	1-1/8" H	.56"	34-222SS	36.87
34-223	13.44	3/4" x 3/4"	2-11/16"	1.550	.800	7/8" H	.56"	34-223SS	49.22
34-224	13.44	1" x 3/4"	2-11/16"	1.550	1.050	1-1/8" H	.69"	34-224SS	49.22
34-225	18.35	1" x 1"	2-15/16"	1.550	1.050	1-3/8" H	.75"	34-225SS	72.24

Life is a tragedy when seen in close-up, but a comedy in a long-shot.

- Charlie Chaplin

Push On Barb Fittings



Typical Application: Low Pressure Air, Fuel, Lube, and Oil Lines
Material: CA360 Brass
• Pressure determined by tube material and hardness. Our Parts have been tested to max 150 PSI.
Advantages: Easy assembly. No clamps needed!!

• Assembly Instructions

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

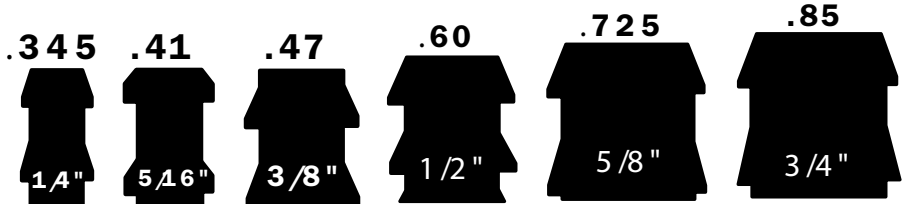
• Disassembling Instructions

1- Split hose 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.

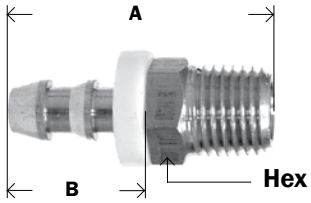
THE WORLD IS A COMEDY TO THOSE THAT THINK; A TRAGEDY TO THOSE THAT FEEL

- HORACE WALPOLE

Actual Profile of Push On Barbs



MALE ADAPTER

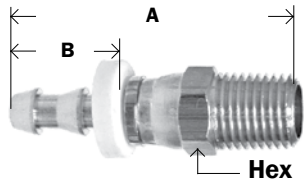


301
P990A
HLM
100B-1
KA-MB
272
29PO
725
625
BPN
941
30182

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	1.36
30-201 *	1/4" x 1/4"	1.66	0.87	0.56	0.06	1.93
30-211	1/4" x 3/8"	1.66	0.87	0.68	0.06	2.80
30-212	5/16" x 1/8"	1.42	0.77	0.43	0.04	5.72
30-213	5/16" x 1/4"	1.66	0.87	0.56	0.06	2.98
30-202	3/8" x 1/8"	1.53	0.97	0.50	0.04	2.08
30-203 *	3/8" x 1/4"	1.69	0.89	0.56	0.07	2.20
30-204 *	3/8" x 3/8"	1.76	0.97	0.68	0.08	2.67
30-205	3/8" x 1/2"	1.97	0.97	0.87	0.10	4.80
30-392	3/8" x 3/4"	1.97	0.92	1.06	0.16	13.26
30-216	1/2" x 1/4"	1.76	0.97	0.68	0.08	2.83
30-206 *	1/2" x 3/8"	1.76	0.97	0.68	0.09	2.79
30-207 *	1/2" x 1/2"	1.97	0.97	0.87	0.14	4.63
30-217	1/2" x 3/4"	1.97	0.97	1.06	0.16	6.25
30-219	5/8" x 3/8"	2.34	1.50	0.75	0.12	10.12
30-209	5/8" x 1/2"	2.45	1.45	0.87	0.16	6.39
30-214	5/8" x 3/4"	2.45	1.45	1.06	0.18	7.60
30-215 *	3/4" x 1/2"	2.45	1.45	0.87	0.21	7.85
30-210 *	3/4" x 3/4"	2.45	1.45	1.06	0.20	7.77
30-238	1" x 3/4"	2.93	1.50	1.25	0.43	27.29
30-239	1" x 1"	3.11	1.50	1.37	0.49	29.94

* See page 34 for stainless

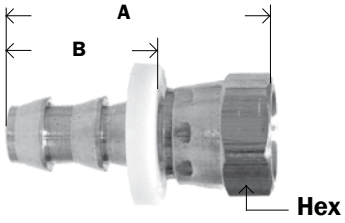
MALE SWIVEL



921
HMS
285
31382

Part #	Hose I.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
30-422	1/4" x 1/8"	2.07	0.87	0.56	0.06	5.35
30-385	1/4" x 1/4"	2.02	0.87	0.56	0.06	5.28
30-423	3/8" x 1/8"	2.12	0.97	0.56	0.07	5.00
30-386	3/8" x 1/4"	2.12	0.97	0.56	0.08	6.08
30-387	3/8" x 3/8"	2.12	0.97	0.68	0.08	6.81
30-388	1/2" x 3/8"	2.12	0.97	0.68	0.10	6.70
30-389	1/2" x 1/2"	2.33	0.97	0.87	0.14	7.96
30-424	5/8" x 1/2	2.80	1.45	0.88	0.18	11.06
30-390	3/4" x 3/4"	2.80	1.45	1.06	0.24	11.13

FEMALE GASKET SEAL SWIVEL - NPSM

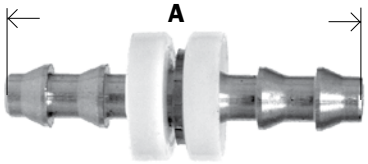


280

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	11.28
30-358	1/4" x 1/4"	1.47	0.82	0.68	0.06	6.17
30-360	3/8" x 1/4"	1.61	1.00	0.68	0.06	6.97
30-361	3/8" x 3/8"	1.77	0.97	0.81	0.08	9.79
30-362	3/8" x 1/2"	1.80	0.92	0.93	0.09	15.12
30-363	1/2" x 1/2"	1.88	1.02	0.93	0.11	12.64
30-366	3/4" x 3/4"	2.36	1.55	1.18	0.32	25.27

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

HOSE SPLICER

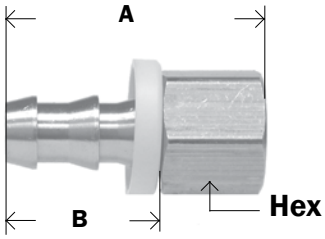


BPM 915 38282
696 100B-Y
29SPO KA-RM
296 MHL
729 296

Part #	Hose I.D.	A	Approx. Wt. Lbs.	List Price
30-300 *	1/4"	1.87	0.04	1.69
30-305	5/16"	1.80	0.04	2.80
30-301 *	3/8"	2.00	0.06	2.10
30-302 *	1/2"	2.01	0.08	3.20
30-303	5/8"	3.03	0.14	7.34
30-304	3/4"	3.03	0.14	7.69
30-306	1"	3.21	0.28	21.22

* See page 34 for stainless

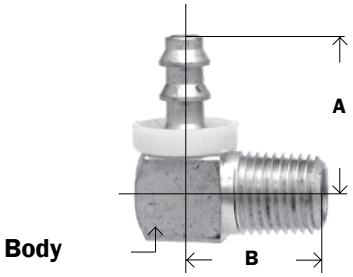
RIGID FEMALE ADAPTER



30282 274
29FPO 726
HLF 940
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	2.44
30-221	1/4" x 1/4"	1.51	0.87	0.62	0.06	2.03
30-384	1/4" x 3/8"	1.51	0.77	0.75	0.06	7.15
30-391	5/16" x 1/8"	1.32	0.77	0.50	0.03	5.63
30-222	5/16" x 1/4"	1.51	0.87	0.62	0.06	3.51
30-393	3/8" x 1/8"	1.47	0.92	0.56	0.06	6.54
30-224	3/8" x 1/4"	1.61	0.97	0.62	0.06	2.42
30-225	3/8" x 3/8"	1.63	0.97	0.75	0.06	3.45
30-394	3/8' x 1/2"	1.66	0.92	0.93	0.12	8.29
30-397	3/8" x 3/4"	1.97	0.97	1.18	0.20	17.57
30-223	1/2" x 1/4"	1.76	1.02	0.68	0.08	12.16
30-226	1/2" x 3/8"	1.63	0.97	0.75	0.08	3.92
30-227	1/2" x 1/2"	1.77	0.97	0.93	0.14	6.72
30-396	1/2" x 3/4"	2.07	1.02	1.18	0.20	17.62
30-398	5/8" x 3/8"	2.24	1.55	0.75	0.10	9.15
30-229	5/8" x 1/2"	2.24	1.48	0.93	0.11	8.48
30-399	3/4" x 1/2"	2.24	1.50	0.93	0.14	11.28
30-395	3/4" x 3/4"	2.55	1.50	1.18	0.24	16.68
30-400	1" x 3/4"	2.55	1.55	1.18	0.25	23.06
30-402	1" x 1"	2.68	1.55	1.43	0.37	30.49

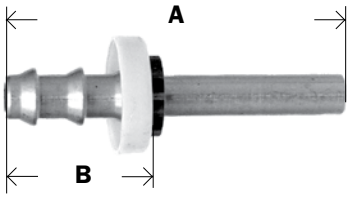
MALE ELBOW



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	7.77
30-373	1/4" x 1/4"	1.04	0.95	0.56	0.06	7.50
30-374	5/16" x 1/8"	1.02	0.94	0.50	0.06	18.11
30-375	5/16" x 1/4"	1.09	0.94	0.56	0.08	20.02
30-370	3/8" x 1/8"	1.11	0.75	0.50	0.10	8.88
30-371	3/8" x 1/4"	1.13	0.90	0.56	0.10	5.02
30-376	3/8" x 3/8"	1.21	0.92	0.70	0.12	5.40
30-377	3/8" x 1/2"	1.30	1.19	0.87	0.22	20.13
30-382	1/2" x 3/8"	1.54			0.13	13.35
30-378	1/2" x 1/2"	1.50	1.19	0.87	0.22	12.00
30-379	5/8" x 1/2"	1.98	1.19	0.87	0.26	27.70
30-380	5/8" x 3/4"	2.07	1.28	1.06	0.32	33.47
30-383	3/4" x 1/2"	2.15			0.25	35.33
30-381	3/4" x 3/4"	2.07	1.28	1.06	0.34	17.25

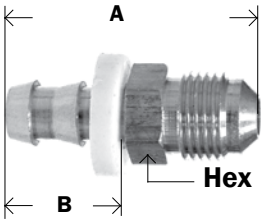
RIGID TUBE ADAPTER



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	6.15
30-291	1/4" x 1/4"	1.88	0.77	0.04	1.95
30-292	1/4" x 5/16"	1.88	0.77	0.04	6.35
30-293	5/16" x 5/16"	1.91	0.79	0.04	4.37
30-294	3/8" x 3/8"	2.03	0.92	0.06	3.38
30-426	3/8" x 1/2	1.81	0.97	0.04	4.90
30-297	1/2" x 1/2"	2.13	1.02	0.06	7.51
30-298	5/8" x 5/8"	2.61	1.50	0.10	10.18
30-299	3/4" x 3/4"	2.61	1.50	0.25	13.84

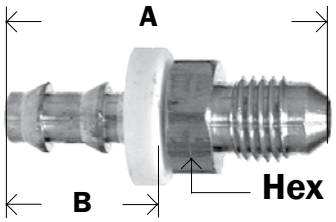
MALE SAE FLARE ADAPTER



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

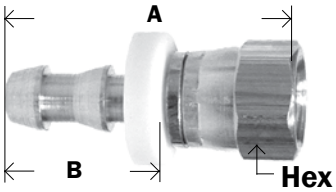
Part #	Hose I.D. x 45° Male Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-240	1/4" x 1/4"	7/16-20	1.45	0.84	0.43	0.04	7.23
30-241	1/4" x 5/16"	1/2-20	1.59	0.84	0.50	0.04	4.85
30-249	5/16" x 5/16"	1/2-20	1.60	0.80	0.50	0.06	3.64
30-271	3/8" x 5/16"	1/2-20	1.64	0.86	0.50	0.08	3.96
30-243	3/8" x 3/8"	5/8-18	1.83	0.92	0.62	0.08	7.07
30-245	1/2" x 1/2"	3/4-16	2.04	1.05	0.75	0.10	10.86
30-246	5/8" x 5/8"	7/8-14	2.73	1.50	0.87	0.19	13.29
30-247	3/4" x 3/4"	1-1/16-14	2.98	1.50	1.06	0.32	19.69

37° MALE JIC FLARE ADAPTER



Part #	Hose I.D. x Male JIC	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
32-900	1/4" x 1/4"	7/16-20	1.57	0.84	0.50	0.04	5.26
32-901	1/4" x 5/16"	1/2-20	1.60	0.83	0.56	0.04	6.18
32-906	1/4" x 3/8"	9/16-18	1.63	0.77	0.62	0.05	7.84
32-902	3/8" x 3/8"	9/16-18	1.78	0.97	0.62	0.06	8.27
32-903	1/2" x 1/2"	3/4-16	1.97	0.97	0.75	0.10	10.27
32-907	5/8" x 5/8"	7/8-14	2.62	1.50	0.93	0.19	10.86
32-905	3/4" x 3/4"	1-1/16-12	2.79	1.50	1.12	0.29	19.79

SAE/JIC DUAL 45°/37° FEMALE SWIVEL



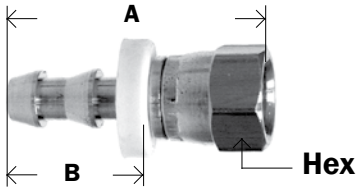
29FDS
287
HDF
309
735
690
P990-K
305
935/ 934

Part #	Hose I.D. x Dual Seat	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-230 *	1/4" x 1/4"	7/16-20	1.53	0.87	0.56	0.06	2.32
30-231	1/4" x 5/16"	1/2-20	1.57	0.87	0.62	0.04	3.37
30-232	5/16" x 5/16"	1/2-20	1.56	0.87	0.62	0.04	3.50
30-427	3/8" x 5/16"	1/2-20		0.87	0.62	0.06	8.66
30-233	3/8" x 1/2"	3/4-16	1.79	0.97	0.87	0.10	4.99
30-234 *	1/2" x 1/2"	3/4-16	1.77	0.97	0.87	0.10	4.57
30-235	1/2" x 5/8"	7/8-14	1.84	0.97	1.00	0.12	7.55
30-236	5/8" x 1/2"	3/4-16	2.27	1.45	0.87	0.18	8.62
30-237	5/8" x 5/8"	7/8-14	2.33	1.45	1.00	0.14	7.85
30-428	3/4" x 5/8"	7/8-14		1.45	1.00	0.20	9.86

* See page 34 for stainless

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

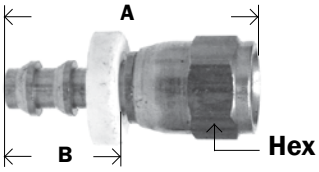
45° SAE FLARE FEMALE SWIVEL



Part #	Hose I.D. x 45° Female Flare	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-250	1/4" x 1/4"	7/16-20	1.54	0.87	0.56	0.04	2.45
30-251	1/4" x 5/16"	1/2-20	1.57	0.87	0.62	0.04	3.79
30-253	1/4" x 3/8"	5/8-20	1.63	0.87	0.75	0.06	4.74
30-254	5/16" x 5/16"	1/2-20	1.58	0.87	0.68	0.06	11.04
30-260	5/16" x 3/8"	5/8-18	1.63	0.87	0.75	0.08	5.20
30-252	3/8" x 3/8"	5/8-18	1.73	0.97	0.75	0.10	3.72
30-257	3/8" x 1/2"	3/4-16	1.85	0.87	0.87	0.10	17.96
30-261	1/2" x 3/8"	5/8-18	1.92	1.05	0.75	0.10	13.18
30-255	1/2" x 1/2"	3/4-16	1.77	0.97	0.87	0.12	6.12
30-258	5/8" x 5/8"	7/8-14	2.35	1.45	1.00	0.14	10.30
30-259	3/4" x 3/4"	1-1/16-14	2.42	1.45	1.25	0.22	10.01

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

FEMALE 37° JIC FLARE SWIVEL

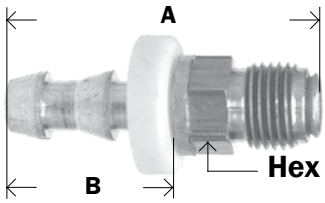


Part #	Hose I.D. x Female JIC	UNF Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
30-265	1/4" x 1/4"	7/16-20	1.54	0.87	0.56	0.04	2.20
30-264	1/4" x 3/8"	9/16-18	1.60	0.87	0.68	0.06	3.96
30-270	5/16" x 3/8"	9/16-18	1.60	0.82	0.68	0.06	3.56
30-266 *	3/8" x 3/8"	9/16-18	1.70	0.97	0.68	0.08	3.47
30-267	1/2" x 1/2"	3/4-16	1.78	0.97	0.87	0.10	5.36
30-268	5/8" x 5/8"	7/8-14	2.33	1.45	1.00	0.14	7.32
30-269 *	3/4" x 3/4"	1-1/16-12	2.40	1.45	1.25	0.22	9.61
30-429	1" x 1"	1-5/16-12		1.45	1.50	0.39	27.59

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

* See page 34 for stainless
• More sizes available

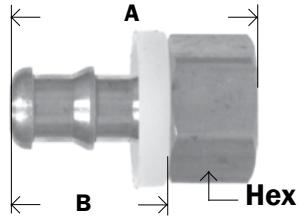
INVERTED FLARE MALE SWIVEL



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	8.47
30-276	1/4" x 1/4"	7/16-24	1.56	0.87	0.43	0.04	4.11
30-277	1/4" x 5/16"	1/2-20	1.62	0.87	0.50	0.04	4.49
30-278	5/16" x 1/4"	7/16-24	1.56	0.87	0.43	0.06	6.31
30-280	5/16" x 5/16"	1/2-20	1.62	0.87	0.50	0.06	5.84
30-283	5/16" x 3/8"	5/8-18	1.63	0.87	0.62	0.06	8.83
30-284	3/8" x 5/16"	1/2-20	1.72	0.97	0.50	0.06	5.45
30-279	3/8" x 3/8"	5/8-18	1.76	0.97	0.62	0.06	5.18
30-281	1/2" x 3/8"	5/8-18	1.86	1.06	0.62	0.08	16.12
30-282	1/2" x 1/2"	3/4-18	1.84	0.97	0.75	0.10	9.01
30-286	5/8" x 5/8"	7/8-18	2.50	1.57	0.87	0.14	18.28

290
100B-B
KA-MF
1MS
947

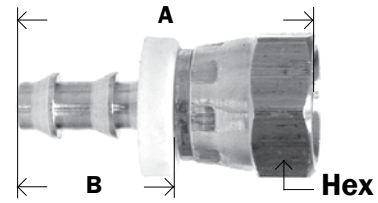
INVERTED FLARE FEMALE ADAPTER



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

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	5.66
30-311	1/4" x 1/4"	1.14	0.84	0.56	0.02	5.45
30-312	1/4" x 5/16"	1.18	0.84	0.62	0.02	8.80
30-316	5/16" x 5/16"	1.25	0.81	0.62	0.04	11.74
30-313	3/8" x 5/16"	1.32	0.87	0.62	0.04	8.38
30-314	3/8" x 3/8"	1.35	0.95	0.75	0.06	7.55
30-315	1/2" x 1/2"	1.73	1.04	0.87	0.12	20.90

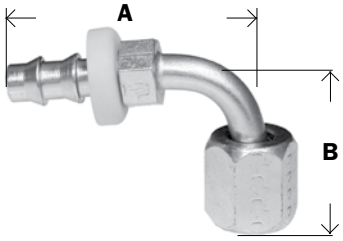
FEMALE BALLSEAT SWIVEL



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	10.30
30-341	1/4" X 1/4"	1.47	0.80	0.68	0.06	7.98
30-342	1/4" x 3/8"	1.40	0.77	0.68	0.09	8.44
30-343	3/8" X 1/4"	1.61	0.97	0.68	0.08	11.51
30-344	3/8" X 3/8"	1.75	0.95	0.81	0.10	10.85
30-430	3/8" x 1/2"	1.79	0.97	0.93	0.11	11.24
30-346	1/2" X 1/2"	1.88	1.09	0.93	0.12	15.54
30-345	1/2" x 3/4"	2.36	1.02	1.18	0.18	18.03
30-349	3/4" X 3/4"	2.36	1.55	1.18	0.22	22.83

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



289

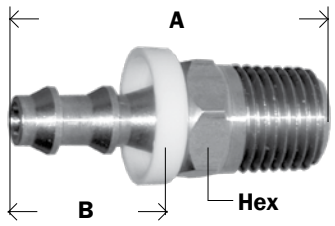
Part #	Hose I.D. x Female 37°/45°	UNF Thread	A	B	Approx. Wt. Lbs.	List Price
30-480	1/4"	7/16-20	1.55	0.83	.064	31.57
30-482	3/8"	9/16-18	1.85	0.91	.095	30.21
30-483*	3/8"	5/8-18	1.98	0.85	.095	39.21
30-484	1/2"	3/4-16	2.33	1.09	.171	43.22
30-486	3/4"	1-1/16-12	3.26	1.81	.281	115.97

*** SAE**

SOMETIMES YOU NEVER REALIZE THE VALUE OF A MOMENT UNTIL IT BECOMES A MEMORY

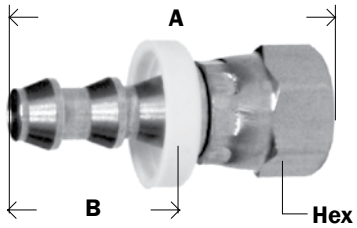
- DR. SEUSS

STAINLESS STEEL MALE ADAPTERS



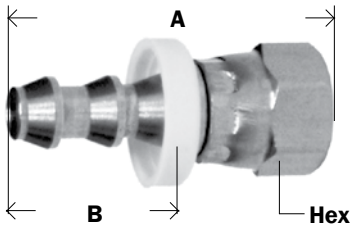
Part #	Hose I.D. x NPT	A	B	Hex	Approx. Wt. Lbs.	List Price
30-200SS	1/4" x 1/8"	1.42	0.77	0.44	0.027	9.99
30-201SS	1/4" x 1/4"	1.61	0.77	0.56	0.043	10.00
30-203SS	3/8" x 1/4"	1.76	0.92	0.56	0.053	11.20
30-204SS	3/8" x 3/8"	1.76	0.92	0.69	0.067	12.25
30-206SS	1/2" x 3/8"	1.86	1.02	0.69	0.071	12.41
30-207SS	1/2" x 1/2"	2.07	1.02	0.88	0.119	27.38
30-215SS	3/4" x 1/2"	2.55	1.50	0.88	0.20	31.30
30-210SS	3/4" x 3/4"	2.55	1.50	1.06	0.194	30.41

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



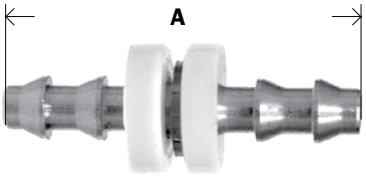
Part #	Hose I.D. x Female 45°/37°	A	B	Hex	Approx. Wt. Lbs.	List Price
30-230SS	1/4" x 1/4"	2.03	0.97	0.56	0.023	27.14
30-234SS	1/2" x 1/2"	2.06	0.97	0.88	0.04	50.50

STAINLESS STEEL FEMALE 37° JIC FLARE SWIVEL



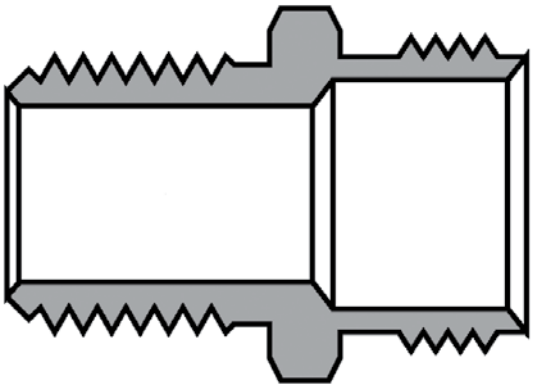
Part #	Hose I.D. x Female 37°	A	B	Hex	Approx. Wt. Lbs.	List Price
30-266SS	3/8" x 3/8"	1.75	.92	1.06	0.065	35.90
30-269SS	3/4" x 3/4"	2.53	1.50	1.25	0.259	80.20

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	46.49
30-301SS	3/8"	2.05	0.051	53.41
30-302SS	1/2"	2.25	0.073	58.92

Garden Hose Fittings



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

See page 275 for Plastic Garden Hose Fittings

- **For AB1953 Compliant Fitting (Lead Free) see pages 166-175**
- **Temperature and Working Pressure Ranges**

From +35^{0}F to +100^{0}F at 75 PSI maximum or the recommended working pressure of the garden hose. (Not to exceed 150 PSI.)

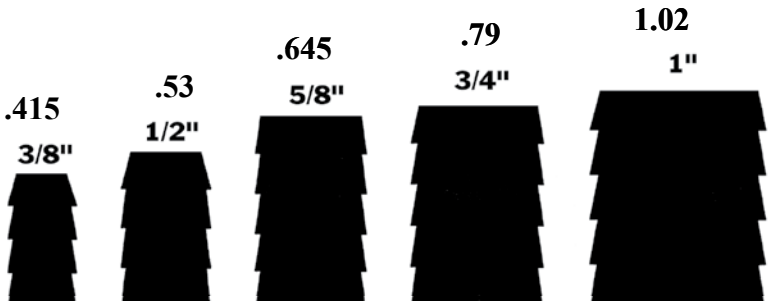
Note: All female connector ends should have a rubber washer inserted prior to usage.

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



Male Garden Hose Profile

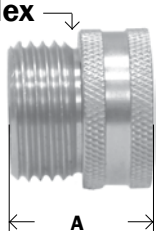
Actual Profile of Garden Hose Barbs



SWIVEL - MGH X FGH

•WASHER INCLUDED

Internal Hex

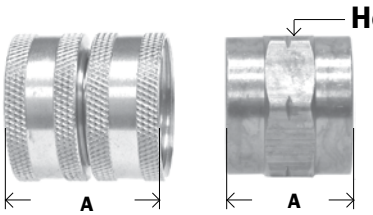


Part #	MGH X FGH	A	Hex	Approx. Wt. Lbs.	List Price
30-000**	3/4" x 3/4"	1.03	0.50*	0.26	5.33

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

SWIVEL - FGH X FGH

•WASHER INCLUDED



30-011 **30-012**

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	4.99
30-012	No Swivel	1.08	1.19	0.24	9.06

HUS	GSU	
91	101GHSV	506
203W	22AS	FS66

SWIVEL - FGH X FEMALE PIPE

•WASHER INCLUDED



Part #	FGH x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-001	3/4" x 1/2"	1.20	1.00	0.11	5.61
30-006	3/4" x 3/4"	1.11	1.12	0.11	5.23

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

RIGID - FGH X FEMALE PIPE

•WASHER INCLUDED

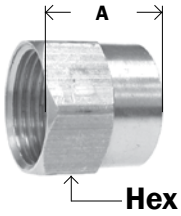


Part #	FGH x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
30-016	3/4" x 1/8"	1.02	1.18	0.08	11.41
30-017	3/4" x 1/4"	0.65	1.12	0.07	4.60
30-018	3/4" x 3/8"	1.19	1.18	0.11	11.72

95GH	
501	

" IT IS THE MARK OF AN EDUCATED MIND, TO ENTERTAIN A THOUGHT WITHOUT ACCEPTING IT"
- ARISTOTLE

RIGID - FGH X FEMALE PIPE

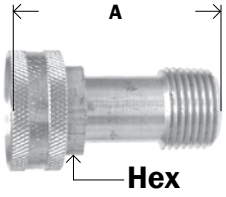


FS67
198
HU11
21507
501
99GH
5A
H15PP

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	4.10
30-083	3/4” x 3/4”	1.06	1.18	0.12	5.36

SWIVEL - FGH X MALE PIPE

•WASHER INCLUDED

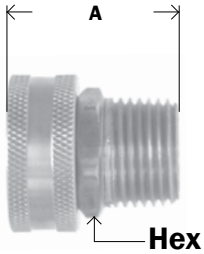


504
89GH
W1
62H4
88GH
W1

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	6.00
30-048	3/4” x 3/8”	2.06	0.75	0.14	5.10
30-049	3/4” x 1/2”	2.06	0.87	0.18	6.81

SWIVEL - FGH X MALE PIPE

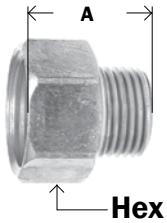
•WASHER INCLUDED



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	5.40
30-184	3/4" x 3/8"	1.43	1.18	0.15	5.02
30-183	3/4” x 1/2”	1.32	0.81	0.11	7.27
30-182*	3/4" x 3/4"	1.43	1.18	0.14	15.35

* available in swivel crimp style

RIGID - FGH X MALE PIPE

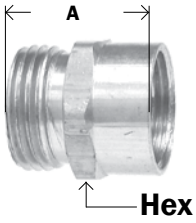


21505
503
83GH
20A
HU21
199
H7

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	4.76
30-088	3/4” x 1/2”(1/2”SWT)**	1.06	1.18	0.09	6.45
30-093	3/4” x 3/4”	1.06	1.18	0.11	4.62
30-094	3/4” x 3/4”(1/2” FIP)	1.17	1.18	0.11	5.75
30-093L*	3/4” x 3/4”	1.22	1.18	0.14	14.59

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

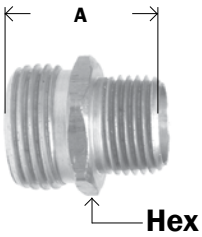
RIGID - MGH X FEMALE PIPE



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

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	5.39
30-067	3/4” x 3/8”	1.09	1.06	0.12	6.60
30-068	3/4” x 1/2”	0.81	1.06	0.10	3.40
30-073	3/4” x 3/4”	1.12	1.18	0.10	4.20

RIGID - MGH X MALE PIPE

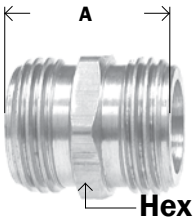


19R
196
H530
21501
508
HU22
514
71GH
19A

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	3.73
30-058*	3/4” x 1/2”	1.31	1.06	0.12	3.92
30-063**	3/4” x 3/4” x 1/2”	1.31	1.06	0.13	4.46
30-063BE***	3/4” x 3/4”	1.31	1.06	0.15	6.72
30-063S	3/4” x 3/4” Short	1.10	1.06	0.10	3.56
30-064	3/4" x 1"	1.62	1.37	0.35	11.93

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

RIGID - MGH X MGH

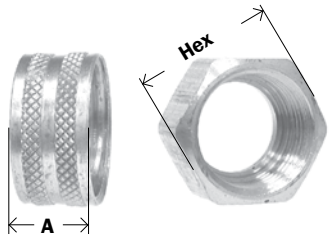


21500
509
75GH
23A
H8
19R

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	4.88
30-100*	1" x 3/4"	1.31	1.37	0.21	7.30

* 1-11-1/2

GARDEN HOSE NUT



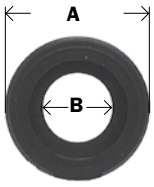
30-021 **30-022**

94GH
GHN1
HNR
21514

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
30-021	Knurled	0.61	1.37 O.D.	0.08	2.91
30-022	Hex Nut	0.51	1.12	0.08	3.90

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

GARDEN HOSE WASHERS



30-149



30-150

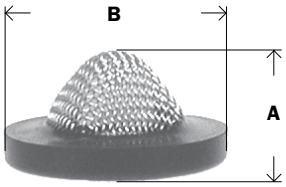
NEW

GHW
901GH

Part #	Size	A	B	Thickness	Approx. Wt. Lbs.	List Price
30-149	recessed washer	1.02	0.49	0.18	0.01	0.37
30-150	black*	0.98	0.68	0.13	0.01	0.21
30-150R	red	1.00	0.68	0.13	0.01	0.19
30-150B	black rubber	1.00	0.68	0.13	0.01	0.28
30-151	1"	1.27	0.86	0.16	0.01	0.53

* plasticized rubber

GARDEN HOSE FILTER WASHER

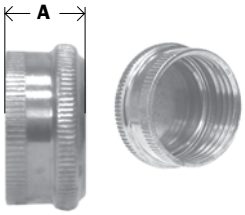


• 300 Series Stainless Steel Screen

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-180	30 Mesh	0.52	1.00	0.02	1.01
30-180F	60 Mesh	0.52	1.00	0.02	1.12

LA662

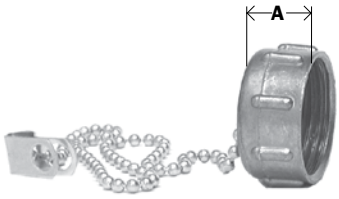
GARDEN HOSE CAP - Die Cast Brass



513
96GH
GHN5
HC1 21518
LA215 200-W

Part #	Size	A	Approx. Wt. Lbs.	List Price
30-103	3/4" Die Cast	0.58	0.04	1.62
30-103B	3/4" Barstock	0.60	0.048	5.04

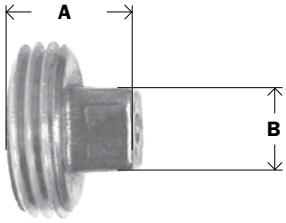
GARDEN HOSE CAP WITH CHAIN



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-142	3/4" w/ 8" Chain	0.58	0.06	8.17

* Zinc die cast

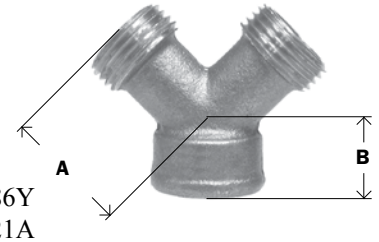
GARDEN HOSE PLUG



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-026	3/4"	0.69	0.61	0.12	9.05

CAST BRASS HOSE - "Y" CONNECTOR

•WASHER INCLUDED



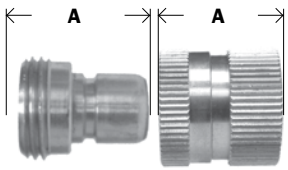
86Y
21A

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-140	3/4”	1.40	0.67	0.22	6.79

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

QUICK DISCONNECT GARDEN HOSE COUPLERS

•WASHER INCLUDED
•No Shutoff

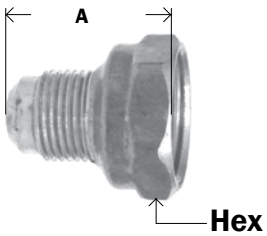


30-452 **30-451**

LA73C

Part #	Size	A	Approx. Wt. Lbs.	List Price
30-450	Complete	-----	0.24	15.69
30-451	Female end	1.14	0.12	8.98
30-452	Male end	1.26	0.12	3.87

MALE FLARE X FGH RIGID

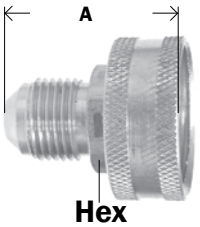


190
46WH
HFU21

Part #	Male Flare x FGH	A	Hex	Approx. Wt. Lbs.	List Price
30-123	3/8” x 3/4”	1.31	1.18	0.10	8.16
30-128	1/2” x 3/4”	1.38	1.18	0.12	7.37
30-133	5/8” x 3/4”	1.53	1.18	0.14	10.64

MALE FLARE x FGH SWIVEL

•WASHER INCLUDED



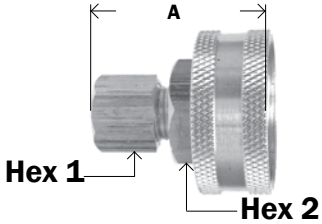
50GHSV
51GHSV 68H
W1 191

Part #	Male Flare x FGH	A	Hex	Approx. Wt. Lbs.	List Price
30-052	1/4” x 3/4”	1.24	0.75	0.10	4.87
30-138	3/8” x 3/4”	1.25	0.25*	0.12	13.16
30-139	1/2” x 3/4”	1.49	0.81	0.14	5.34

* Internal Hex

COMPRESSION X FGH

•WASHER INCLUDED

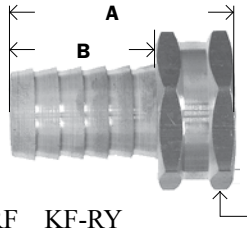


Part #	Compression x FGH	A	Hex 1	Hex 2	Approx. Wt. Lbs.	List Price
30-050	1/4” x 3/4”	1.02	0.50	0.75	0.09	8.38
30-051	3/8” x 3/4”	1.04	0.62	0.75	0.12	7.72

BARSTOCK BRASS GARDEN HOSE COUPLINGS

FEMALE SWIVEL ONLY

•WASHER INCLUDED



22RF KF-RY
591 HU126
GHF 195

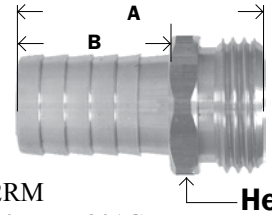
BRASS

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	4.64
30-032	1/2” x 3/4"	1.82	1.19	1.18	0.12	4.60
30-033	5/8” x 3/4"	1.82	1.19	1.18	0.13	4.91
30-034	3/4” x 3/4"	1.82	1.19	1.18	0.15	5.16
30-044	1" x 3/4"	2.10	1.19	1.18	0.18	7.63
30-035	1” x 1"	2.28	1.47	1.50	0.18	14.92

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	27.41
30-034SS	3/4" x 3/4"	1.82	1.19	1.18	0.15	27.99

MALE END ONLY



22RM
590 201GH
GHM 193
KF-PY HU125

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	4.21
30-040	1/2” x 3/4"	1.88	1.19	1.06	0.12	3.78
30-041	5/8” x 3/4"	1.88	1.19	1.06	0.12	4.17
30-042	3/4” x 3/4"	1.88	1.19	1.06	0.13	4.09
30-045	1" x 3/4"	1.94	1.19	1.06	0.21	6.22
30-043	1” x 1"	2.34	1.47	1.37	0.26	14.29

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	23.10

GARDEN HOSE COUPLING

•WASHER INCLUDED



GHS 22R
92GH 592
936H
202GHS

See page 16 for Menders

BRASS

Part #	Hose Barb	List Price
30-025	3/8”	8.90
30-027	1/2”	9.86
30-028	5/8”	10.24
30-029	3/4”	9.44
30-046	1"(3/4" threads)	30.04
30-030	1”	29.03

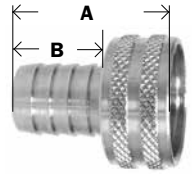
STAINLESS STEEL 316

30-027SS	1/2"	55.34
30-028SS	5/8"	55.34
30-029SS	3/4"	59.21

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

These are NOT Lead Free
See pages 166-175 for Lead Free products

FEMALE SWIVEL ONLY - Short Shank Knurled Nut



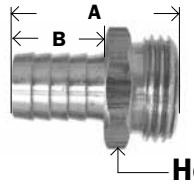
Part #	Hose Barb x FGH	A	B	Approx. Wt. Lbs.	List Price
30-466	1/2” x 3/4"	1.50	0.88	0.08	5.41
30-467	5/8” x 3/4"	1.50	0.88	0.09	4.46
30-468	3/4” x 3/4"	1.47	0.88	0.10	4.80

FEMALE END ONLY - Short Shank w/ hex



Part #	Hose x FGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-453	1/2” x 3/4"	1.63	1.00	1.18	0.11	4.19
30-454	5/8” x 3/4"	1.63	1.00	1.18	0.11	4.38
30-455	3/4” x 3/4"	1.63	1.00	1.18	0.13	4.83

MALE END ONLY - Short Shank



Part #	Hose Barb x MGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-471	1/2” x 3/4"	1.55	0.88	1.06	0.11	5.65
30-472	5/8” x 3/4"	1.56	0.88	1.06	0.12	4.68
30-473	3/4” x 3/4"	1.56	0.88	1.06	0.13	5.56

GARDEN HOSE COUPLING SETS - Short Shank with Knurled Nut



Part #	Hose Barb	List Price
30-461	1/2"	10.68
30-462	5/8"	10.68
30-463	3/4"	10.89

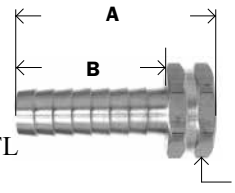
GARDEN HOSE COUPLING SETS - Short Shank w/ hex nut



Part #	Hose Barb	List Price
30-457	1/2"	9.26
30-458	5/8"	9.26
30-459	3/4"	9.90

FEMALE SWIVEL ONLY - 2" SHANK

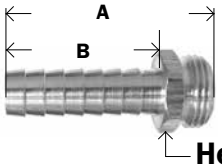
•WASHER INCLUDED



GHFL
594

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	6.58
30-506	5/8” x 3/4"	2.56	2.04	1.18	0.16	6.34
30-507	3/4” x 3/4"	2.56	2.04	1.18	0.17	9.50
30-508	1" x 1"	2.84	2.03	1.43	0.29	9.90

MALE END ONLY - 2" SHANK



GHML
593

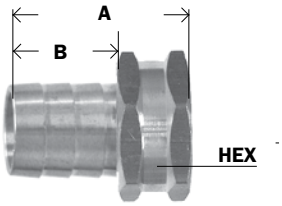
Part #	Hose Barb x MGH	A	B	Hex	Approx. Wt. Lbs.	List Price
30-510	1/2” x 3/4"	2.72	2.04	1.06	0.16	7.22
30-511	5/8” x 3/4"	2.72	2.04	1.06	0.17	6.30
30-512	3/4” x 3/4"	2.72	2.04	1.06	0.20	6.82
30-513	1" x 1"	2.90	2.03	1.37	0.28	10.79

GARDEN HOSE COUPLING SETS - 2" SHANK



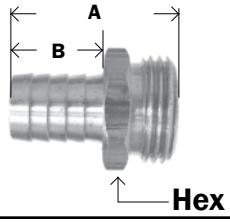
Part #	Hose x FGH	List Price
30-516	1/2"	13.64
30-517	5/8"	13.64
30-518	3/4"	17.01
30-519	1"	49.62

NPSM FEMALE SHORT SHANK



Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-545	1/2	3/4"	1.45	0.88	1.18	4.62
30-546	5/8	3/4"	1.47	0.88	1.18	4.69
30-547	3/4	3/4"	1.47	0.88	1.18	5.67
30-548	1	1"	1.50	1.00	1.50	9.90

NPSM MALE SHORT SHANK



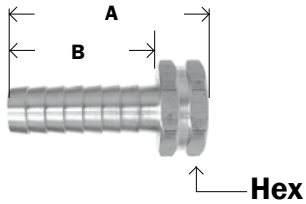
Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-550	1/2	3/4"	1.56	0.88	1.06	4.88
30-551	5/8	3/4"	1.56	0.88	1.06	4.55
30-552	3/4	3/4"	1.56	0.88	1.06	4.69
30-553	1	1"	1.77	0.98	1.30	9.64

NPSM SHORT SHANK SETS



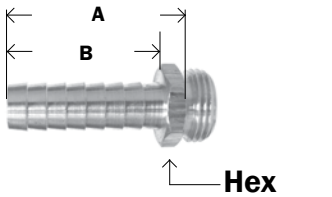
Part #	Size	List Price
30-540	1/2"	9.11
30-541	5/8"	9.31
30-542	3/4"	9.50
30-543	1"	19.60

NPSM FEMALE LONG SHANK



Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-565	1/2	1/2"	2.09	1.50	0.94	3.97
30-566	5/8	3/4"	2.09	1.50	1.18	6.67
30-567	3/4	3/4"	2.09	1.50	1.18	6.11
30-568	1	1"	2.12	1.53	1.50	15.38

NPSM MALE LONG SHANK



Part #	Hose ID	NPSM Thread	A	B	Hex	List Price
30-570	1/2	1/2"	2.18	1.50	0.87	4.42
30-571	5/8	3/4"	2.18	1.50	1.06	5.94
30-572	3/4	3/4"	2.18	1.50	1.06	6.34
30-573	1	1"	2.28	1.53	1.30	13.66

NPSM LONG SHANK SETS

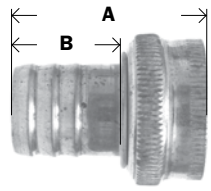


Part #	Size	List Price
30-560	1/2"	8.58
30-561	5/8"	12.61
30-562	3/4"	12.74
30-563	1"	29.04

WROUGHT BRASS

WROUGHT BRASS - Female end only

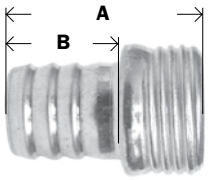
•WASHER INCLUDED



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	4.66
30-527	3/4” x 3/4"	1.50	0.84	0.06	4.68

WROUGHT BRASS COUPLINGS - Male end only

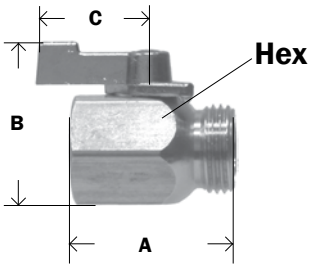


85M

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	4.49
30-531	5/8” x 3/4"	1.50	0.88	0.02	2.82

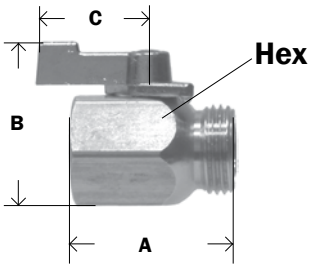
GARDEN HOSE VALVES

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	53.63

ONE WAY BRASS BALL VALVE - Female x Pipe MGH



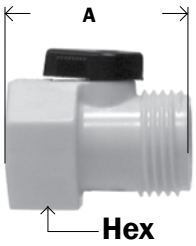
Part #	Female NPTF x MGH	A	B	C	Hex	Approx. Wt. Lbs.	List Price
30-162	3/4” x 3/4"	1.55	1.89	1.31	1.06	0.42	56.52

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	4.47

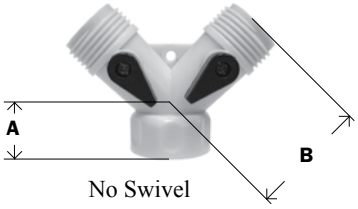
PLASTIC GARDEN HOSE VALVE • CYCOLAC BODY & BALL



LA45OC

Part #	FGH x MGH	A	Hex	Approx. Wt. Lbs.	List Price
30-163	3/4" x 3/4"	1.75	1.25	0.04	4.80

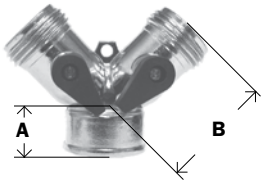
PLASTIC, NON-CORROSIVE, 2-WAY HOSE SHUT-OFF "Y"



No Swivel

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-160	3/4"	0.74	1.87	0.08	3.48

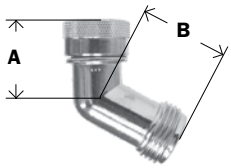
"Y" SHAPE ZINC ALLOY CONNECTOR W/ TWO LEVERS



No Swivel

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-626	3/4"	0.60	1.66	0.10	8.34

ZINC ALLOY SWIVEL HOSE CONNECTOR



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
30-629	3/4"	1.31	1.50	0.08	4.68

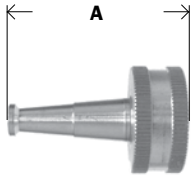
"Y" SHAPE BRASS CONNECTOR W/ 2-WAY SHUT OFF



Part #	Size	Description	Approx. Wt. Lbs.	List Price
30-627	3/4"	3/4 Double Y valve, swivel inlet	0.56	54.07

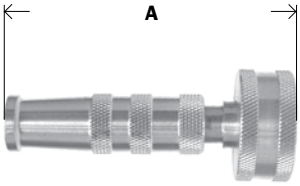
Dimension data can change without notice.
Please call us when dimensions are critical.

BRASS NOZZLE



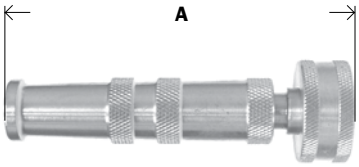
Part #	Size	A	Approx. Wt. Lbs.	List Price
30-637	3/4"	1.87	0.14	6.67

3" CROSSED PATTERN BRASS NOZZLE



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-640	3/4"	2.89	0.25	9.68

4" CROSSED PATTERN BRASS NOZZLE



Part #	Size	A	Approx. Wt. Lbs.	List Price
30-638	3/4"	3.80	0.50	12.74



Lead Free
Adjustable Spray

Part #	Size	Zinc Alloy spray nozzle with insulated handle soft grip and front thread protector	List Price
30-600	5-1/2"		17.27



Lead Free

Part #	Size	Zinc Alloy spray nozzle	List Price
30-620	4-1/4"		6.69



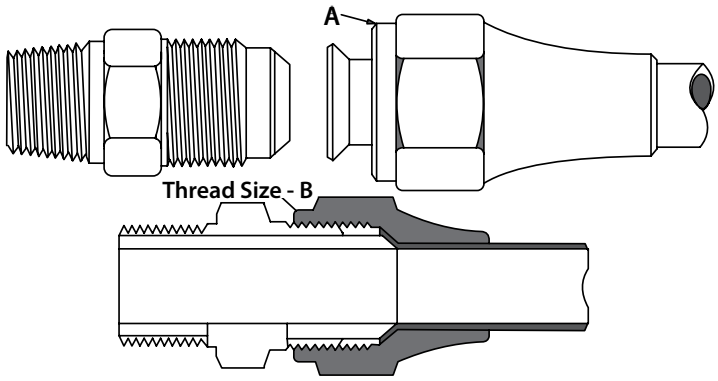
Lead Free
Adjustable Spray

Part #	Size	Zinc Alloy spray nozzle with easily adjustable brass head and plastic grip	List Price
30-609	5-1/4"		17.71



Part #	Size	Plastic spray nozzle	List Price
30-630	4-1/2"		3.31

SAE 45^0 Flare



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

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

•Working Pressure Ranges
Temperature and type of tubing used are important factors. However, the following table is a good guide for proper selection. Temperature 73^{0}F with copper tubing:

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

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

•Temperature Range
-65^{0}F to +250^{0}F (-53^{0}C to +121^{0}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).

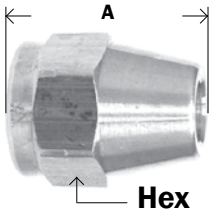
Assembly Instructions
1- Cut tubing to desired length. Make sure all burrs are removed and ends are cut square.
2- Slide nut on tube. Threaded end "A" of nut must face out.
3- Flare end of tube with a 45^0 flaring tool.
a-Measure flare diameter.
b- Examine flare for excessive thin out.
4- Lubricate threads 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

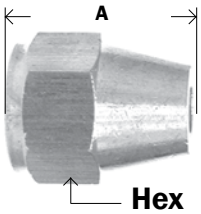
SAE# 010110



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	2.09
10-014	3/16”	3/8-24	0.62	0.43	0.02	1.56
10-015	1/4”	7/16-20	0.75	0.56	0.03	1.40
10-015L	1/4"	7/16-20	0.75	0.50	0.03	1.16
10-016	5/16”	1/2-20	0.88	0.62	0.04	2.30
10-017L	3/8”	5/8-18	0.88	0.75	0.05	1.65
10-017	3/8”	5/8-18	1.00	0.75	0.04	2.30
10-018	7/16”	11/16-16	1.06	0.81	0.06	9.27
10-019L	1/2”	3/4-16	0.93	0.87	0.06	3.27
10-019	1/2”	3/4-16	1.12	0.87	0.09	2.95
10-020L	5/8”	7/8-14	1.08	1.00	0.10	4.59
10-020	5/8”	7/8-14	1.31	1.06	0.15	8.42
10-021	3/4”	1-1/16-14	1.50	1.25	0.24	7.79
10-022	7/8”	1-1/4-12	1.62	1.50	0.36	15.52
10-026	1”	1-3/8-12	1.81	1.62	0.44	21.76

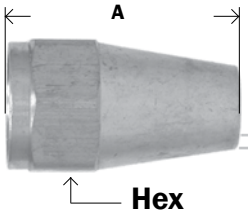
REDUCING SHORT ROD NUT



Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-023	3/8” x 1/4”	0.74	0.81	0.06	7.81
10-024	1/2” x 3/8”	0.86	0.94	0.10	11.94
10-025	5/8” x 1/2”	0.99	1.06	0.12	16.49

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	6.30
10-002	3/16”	0.81	0.43	0.02	1.96
10-003	1/4”	0.94	0.56	0.03	2.29
10-004	5/16”	1.12	0.62	0.04	4.08
10-005	3/8”	1.31	0.75	0.06	4.09
10-006	1/2”	1.62	0.87	0.12	8.33
10-007	5/8”	1.88	1.06	0.20	10.29
10-008	3/4”	2.19	1.25	0.34	39.29

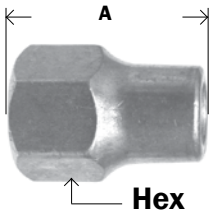
"L" means light pattern.

-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.

Lead Free fittings available on
pgs. 166-175

LONG FORGED NUT

SAE# 010167

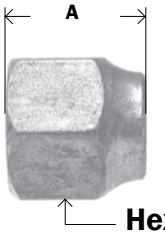


41FF
39
N4
14FL
641

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-028	1/4”	0.94	0.62	0.05	4.18
10-030	3/8”	1.06	0.81	0.08	6.34
10-031	1/2”	1.19	0.94	0.12	6.74
10-032	5/8”	1.44	1.06	0.26	11.88
10-033	3/4”	1.75	1.31	0.35	15.75

SHORT FORGED NUT

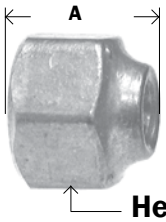
SAE# 010166



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	5.27
10-039	1/4”	0.60	0.62	0.04	1.70
10-040	5/16”	0.66	0.69	0.04	3.23
10-041	3/8”	0.70	0.81	0.06	2.27
10-042	1/2”	0.82	0.94	0.08	3.20
10-043	5/8”	0.95	1.06	0.12	5.15
10-044	3/4”	1.16	1.31	0.22	10.71
10-045	7/8”	1.18	1.38	0.30	13.84

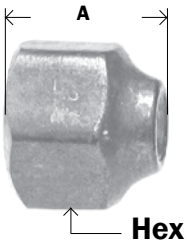
EXTRA HEAVY SHORT FORGED NUT



NSA

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-046	1/4”	0.63	0.75	0.04	3.28
10-047	3/8”	0.72	0.88	0.06	3.63
10-048	1/2”	0.88	1.00	0.08	4.43
10-049	5/8”	0.98	1.12	0.12	6.76

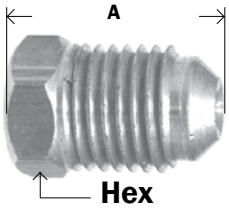
FORGED REDUCING NUT



NSR4
14FS
41FRS
40R
662-S

Part #	Female Flare x OD	A	Hex	Approx. Wt. Lbs.	List Price
10-051	5/16” x 1/4”	0.66	0.75	0.06	11.59
10-052	3/8” x 1/4”	0.72	0.81	0.06	4.98
10-053	3/8” x 5/16”	0.72	0.81	0.08	4.70
10-054	1/2” x 3/8”	0.81	0.94	0.08	4.19
10-055	5/8” x 3/8”	0.96	1.12	0.15	12.15
10-056	5/8” x 1/2”	0.97	1.06	0.12	7.20
10-058	3/4” x 5/8”	1.17	1.31	0.30	16.65

FLARED PLUG

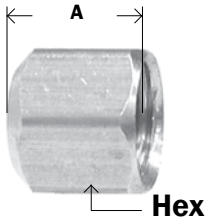


Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-063	3/16”	0.59	0.50	0.02	4.95
10-064 *	1/4”	0.69	0.43	0.02	1.81
10-065 *	5/16”	0.78	0.50	0.04	5.00
10-066 *	3/8”	0.88	0.62	0.06	2.22
10-067	1/2”	1.06	0.75	0.10	3.72
10-068	5/8”	1.19	0.87	0.14	4.01
10-069	3/4"				28.80

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

58 57 439
639F P2
PF 2229

FLARED CAP



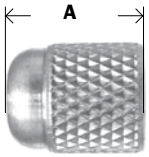
Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-074	3/16”	0.47	0.50	0.02	3.52
10-075 *	1/4”	0.48	0.50	0.02	0.77
10-076	5/16”	0.62	0.62	0.04	2.68
10-077 *	3/8”	0.58	0.75	0.03	1.92
10-078	1/2”	0.69	0.81	0.14	1.97
10-079	5/8”	0.81	0.94	0.20	2.94
10-080	3/4”	1.17	1.37	0.30	15.48

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

640F N5 440
41FC 2129
56 54

FINGER TIGHTENING CAP

• O-Ring Included

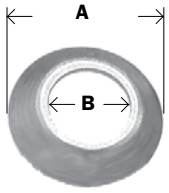


Part #	Thread Size UNF	A	Approx. Wt. Lbs.	List Price
10-081	1/4"	0.62	0.02	1.52

NFT5

COPPER GASKET

SAE# 010113

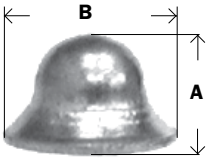


Part #	Size	A	B	Approx. Wt. Lbs.	List Price
10-084	3/16”	0.31	0.12	0.01	1.27
10-085	1/4”	0.36	0.19	0.01	0.63
10-086	5/16”	0.42	0.22	0.01	0.98
10-087	3/8”	0.55	0.28	0.01	0.75
10-088	1/2”	0.66	0.41	0.01	1.02
10-089	5/8”	0.77	0.50	0.01	1.33
10-090	3/4”	0.95	0.62	0.01	1.56

B2
2GF
6251
FG
157
59
463

COPPER BONNET

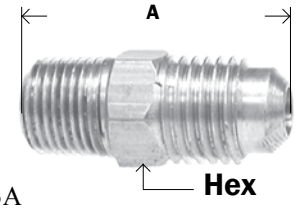
SAE# 010114



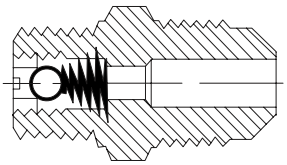
B1 156
3GF FB
64C 695
57 464

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
10-094	3/16”	0.16	0.31	0.01	2.46
10-095	1/4”	0.22	0.36	0.01	2.10
10-097	3/8”	0.34	0.55	0.01	2.22
10-098	1/2”	0.41	0.66	0.01	2.89
10-099	5/8”	0.44	0.77	0.01	2.71
10-100	3/4”	0.56	0.95	0.01	6.30

MALE BALL CHECK CONNECTOR



43A

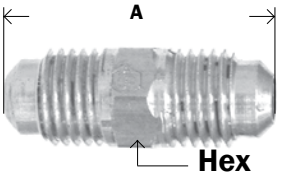


Note: Ball & Spring position may be reversed to change flow/check position. Min working pressure 3 PSI.

Part #	Male UNF x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10256WC	1/4” x 1/4”	1.24	0.6	0.04	2.94
10-133	3/8” x 1/4”	1.31	0.62	0.08	27.26

UNION

SAE# 010101



42F
U2

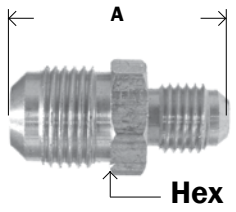
Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-104	1/8”	0.91	0.31	0.02	7.10
10-105	3/16”	1.06	0.37	0.02	4.47
10-106L	1/4”	1.19	0.43	0.03	1.33
10-106 *	1/4”	1.19	0.43	0.03	2.47
10-107	5/16”	1.34	0.50	0.05	4.37
10-108L	3/8”	1.50	0.62	0.09	4.43
10-108 *	3/8’	1.50	0.62	0.09	3.11
10-109L	1/2”	1.67	0.75	0.12	5.60
10-109	1/2”	1.81	0.75	0.14	6.20
10-110L	5/8”	2.00	0.87	0.20	6.36
10-110	5/8”	2.12	0.87	0.20	10.90
10-111	3/4”	2.44	1.06	0.35	19.44
10-112	7/8”	2.72	1.25	0.52	37.80

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

"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.

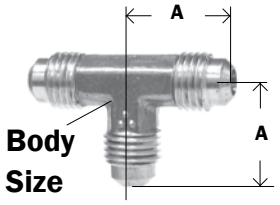
REDUCING UNION



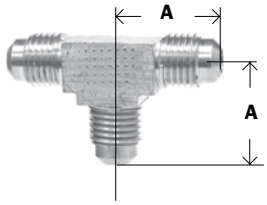
656F
UR2
42-R

Part #	Thread Size UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-117	5/16" x 1/4"	1.28	0.50	0.04	6.04
10-118	3/8" x 1/4"	1.38	0.62	0.06	4.51
10-119	3/8" x 5/16"	1.44	0.62	0.08	8.28
10-120	1/2" x 1/4"	1.53	0.75	0.10	7.26
10-121	1/2" x 3/8"	1.69	0.75	0.10	6.62
10-122	5/8" x 3/8"	1.88	0.87	0.17	12.00
10-123	5/8" x 1/2"	1.87	0.87	0.14	5.89

UNION TEE



Forged Tee



244F
T2
144F

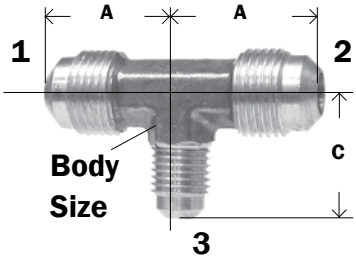
Barstock Tee

SAE# 010401

Part #	Thread Size UNF	A	Body Size	Approx. Wt. Lbs.	List Price
10-157	1/8"	0.67	0.36	0.04	7.65
10-158	3/16"	0.75	0.36	0.06	4.41
10-159 **	1/4"	0.78	0.36	0.06	4.88
10-159B*	1/4"	0.88	0.50	0.08	9.64
10-160 **	5/16"	0.91	0.44	0.10	6.55
10-161 **	3/8"	1.00	0.44	0.12	6.64
10-162	1/2"	1.16	0.59	0.19	6.84
10-163	5/8"	1.41	0.69	0.30	12.55
10-164	3/4"	1.64	0.88	0.53	26.68
10-165	7/8"	1.75	1.25	0.93	54.22

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

REDUCING TEE 1 x 2 x 3

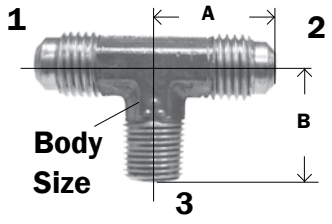


144F
TR2
659F
684F
44R

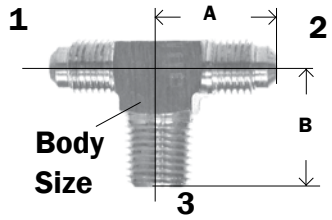
Part #	Thread Size UNF 1x2x3	A	C	Body Size	Approx. Wt. Lbs.	List Price
10-170	1/4" x 1/4" x 3/8"	0.91	1.00	0.44	0.10	7.22
10-171	5/16" x 5/16" x 1/4"	0.94	0.94	0.44	0.12	10.80
10-172	3/8" x 1/4" x 1/4"	0.91	1.00	0.44	0.10	8.63
10-173	3/8" x 1/4" x 3/8"	1.00	0.91	0.44	0.12	10.76
10-174	3/8" x 3/8" x 1/4"	1.00	0.88	0.44	0.11	7.75
10-175	3/8" x 3/8" x 1/2"	1.00	1.19	0.59	0.14	10.80
10-176	3/8" x 3/8" x 5/8"	1.16	1.44	0.69	0.16	20.85
10-178	1/2" x 3/8" x 3/8"	1.16	1.12	0.59	0.18	8.36
10-179	1/2" x 3/8" x 1/2"	1.16	1.09	0.59	0.18	10.01
10-180	1/2" x 1/2" x 1/4"	1.16	0.97	0.59	0.18	13.85
10-181	1/2" x 1/2" x 3/8"	1.16	1.12	0.59	0.19	9.07
10-182	1/2" x 1/2" x 5/8"	1.28	1.41	0.69	0.28	13.20
10-187	5/8" x 1/2" x 5/8"	1.44	1.33	0.69	0.27	20.46
10-188	5/8" x 5/8" x 3/8"	1.38	1.16	0.69	0.30	17.82
10-189	5/8" x 5/8" x 1/2"	1.38	1.28	0.69	0.28	25.43
10-197	3/4" x 3/4" x 5/8"	1.66	1.50	0.88	0.36	44.43

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	5.21
10-204	1/4" x 1/8"	0.78	0.75	0.36	0.05	5.21
10-204B*	1/4" x 1/8"	0.82	0.81	0.47	0.08	31.79
10-205	1/4" x 1/4"	0.88	0.88	0.44	0.08	5.52
10-206	1/4" x 3/8"	0.92	1.00	0.47	0.10	8.94
10-207	5/16" x 1/8"	0.89	0.78	0.44	0.08	6.36
10-208	5/16" x 1/4"	0.94	0.94	0.44	0.08	7.31
10-209	3/8" x 1/8"	1.00	0.91	0.44	0.14	10.63
10-210	3/8" x 1/4"	1.00	0.94	0.44	0.12	7.02
10-211 **	3/8" x 3/8"	1.00	1.00	0.47	0.13	8.49
10-212 **	3/8" x 1/2"	1.12	1.22	0.69	0.22	12.70
10-213	1/2" x 1/4"	1.16	1.00	0.59	0.20	18.71
10-214	1/2" x 3/8"	1.16	1.14	0.59	0.19	13.23
10-215	1/2" x 1/2"	1.22	1.22	0.69	0.24	12.52
10-216	1/2" x 3/4"	1.38	1.41	0.88	0.22	24.95
10-217	5/8" x 3/8"	1.38	1.25	0.69	0.24	21.25
10-218	5/8" x 1/2"	1.41	1.31	0.69	0.29	16.65
10-219	5/8" x 3/4"	1.41	1.41	0.88	0.36	25.10
10-220	3/4" x 1/2"	1.63	1.59	0.88	0.49	31.46
10-221	3/4" x 3/4"	1.63	1.44	0.88	0.48	32.35

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

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

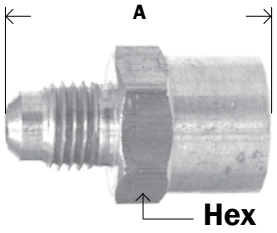
THE TEST OF A FIRST RATE INTELLIGENCE IS THE ABILITY TO HOLD TWO OPPOSED IDEAS IN THE MIND AT THE SAME TIME, AND STILL RETAIN THE ABILITY TO FUNCTION.

- F. SCOTT FITZGERALD

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

FEMALE ADAPTER

SAE# 010103



46
U3

Part #	Male Flare x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-227	3/16" x 1/8"	0.97	0.56	0.03	4.60
10-228L	1/4" x 1/8"	1.03	0.56	0.03	1.44
10-228	1/4" x 1/8"	1.03	0.56	0.04	2.98
10-229L	1/4" x 1/4"	1.06	0.68	0.06	3.61
10-229	1/4" x 1/4"	1.23	0.68	0.07	4.61
10-230	1/4" x 3/8"	1.18	0.81	0.08	6.61
10-231	1/4" x 1/2"	1.31	0.94	0.06	9.48
10-232	5/16" x 1/8"	1.06	0.56	0.05	16.77
10-233	5/16" x 1/4"	1.28	0.68	0.08	6.07
10-234	3/8" x 1/8"	1.09	0.62	0.08	4.17
10-235L	3/8" x 1/4"	1.25	0.68	0.08	3.08
10-235	3/8" x 1/4"	1.31	0.81	0.08	4.71
10-236L	3/8" x 3/8"	1.25	0.81	0.08	4.03
10-236	3/8" x 3/8"	1.25	0.81	0.10	10.83
10-237L	3/8" x 1/2"	1.31	0.94	0.08	3.51
10-237	3/8" x 1/2"	1.60	1.00	0.16	9.87
10-238	3/8" x 3/4"	1.41	1.18	0.11	9.49
10-239	1/2" x 1/4"	1.37	0.75	0.10	4.75
10-240L	1/2" x 3/8"	1.38	0.81	0.12	4.22
10-240	1/2" x 3/8"	1.50	0.81	0.14	8.30
10-241L	1/2" x 1/2"	1.42	0.87	0.10	6.02
10-241	1/2" x 1/2"	1.75	1.00	0.12	11.10
10-242	1/2" x 3/4"	1.60	1.12	0.16	5.83
10-243	5/8" x 3/8"	1.24	0.87	0.12	9.58
10-244	5/8" x 1/2"	1.62	0.94	0.12	5.74
10-245	5/8" x 3/4"	1.65	1.12	0.17	7.50
10-246	3/4" x 1/2"	1.74	1.18	0.32	19.86
10-247	3/4" x 3/4"	1.75	1.18	0.22	20.42
10-248	7/8" x 3/4"	1.94	1.31	0.26	20.08

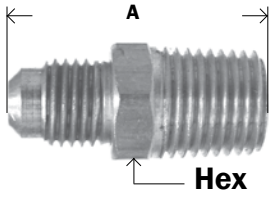
Dimension data can change without notice.
Please call us when dimensions are critical.

"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.

A SHIP IN HARBOR IS SAFE, BUT THAT'S NOT WHY SHIPS ARE BUILT.
- JOHN AUGUSTUS SHEDD

MALE ADAPTER



U1
48

SAE# 010102

Part #	Male Flare x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
10-253	1/8" x 1/8"	0.92	0.43	0.02	5.48
10-254	3/16" x 1/8"	1.00	0.43	0.03	1.96
10-255L	1/4" x 1/8"	1.06	0.43	0.03	1.33
10-255 *	1/4" x 1/8"	1.06	0.43	0.04	1.22
10-256L	1/4" x 1/4"	1.15	0.56	0.03	1.59
10-256 *	1/4" x 1/4"	1.25	0.56	0.04	1.60
10-257 *	1/4" x 3/8"	1.31	0.68	0.06	2.44
10-258	1/4" x 1/2"	1.44	0.87	0.11	5.73
10-259L	5/16" x 1/8"	1.15	0.50	0.04	3.18
10-259	5/16" x 1/8"	1.16	0.50	0.04	2.59
10-260L	5/16" x 1/4"	1.31	0.56	0.06	3.99
10-260	5/16" x 1/4"	1.34	0.56	0.06	3.04
10-261 *	5/16" x 3/8"	1.38	0.68	0.08	5.77
10-262	3/8" x 1/8"	1.25	0.62	0.07	2.13
10-263L	3/8" x 1/4"	1.31	0.62	0.06	2.42
10-263 *	3/8" x 1/4"	1.44	0.62	0.08	2.29
10-264L	3/8" x 3/8"	1.37	0.68	0.09	2.89
10-264 *	3/8" x 3/8"	1.44	0.68	0.09	2.70
10-265L	3/8" x 1/2"	1.44	0.89	0.12	3.19
10-265 *	3/8" x 1/2"	1.69	0.87	0.14	5.83
10-266	3/8" x 3/4"	1.81	1.06	0.18	7.39
10-267	1/2" x 1/4"	1.60	0.75	0.11	3.55
10-268L	1/2" x 3/8"	1.46	0.75	0.10	3.26
10-268	1/2" x 3/8"	1.62	0.75	0.12	3.65
10-269L	1/2" x 1/2"	1.62	0.87	0.13	3.47
10-269	1/2" x 1/2"	1.79	0.87	0.15	5.12
10-270	1/2" x 3/4"	1.75	1.06	0.22	6.86
10-271	5/8" x 1/4"	1.81	0.87	0.14	10.33
10-272L	5/8" x 3/8"	1.67	0.87	0.14	4.80
10-272	5/8" x 3/8"	1.81	0.87	0.18	7.87
10-273L	5/8" x 1/2"	1.80	0.87	0.11	4.92
10-273	5/8" x 1/2"	2.00	0.87	0.20	8.05
10-274	5/8" x 3/4"	1.85	1.06	0.21	5.70
10-275	3/4" x 1/2"	2.19	1.06	0.28	13.01
10-276	3/4" x 3/4"	2.08	1.06	0.28	8.46
10-277	7/8" x 1/2"	2.22	1.25	0.52	33.69
10-278	7/8" x 3/4"	2.35	1.25	0.41	22.35
10-279	1" x 3/4"	2.44	1.43	0.53	25.42
10-280	1" x 1"	2.44	1.43	0.53	31.21

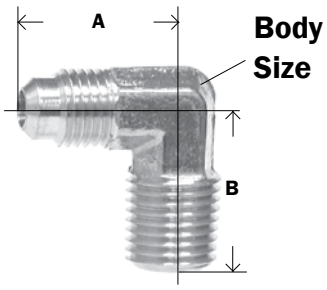
* Available in Stainless Steel. Add SS to the part#

"L" means light pattern.

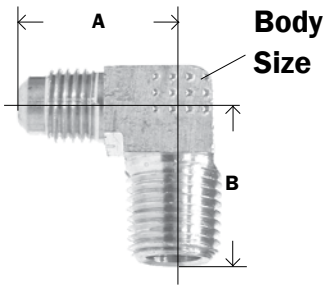
-These fittings are completely interchangeable with full pattern fittings, but have been modified in some way. This modification is usually in the length of the pipe threads. Used in plumbing and light industrial applications.

90° MALE ELBOW

SAE# 010202



Forged Elbow



Barstock Elbow

249F
49
E1
149F

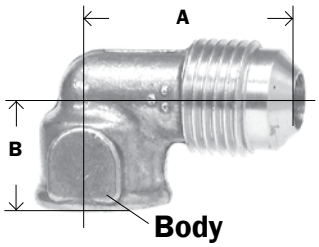
Part #	Male Flare x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-283	1/8" x 1/8"	0.63	0.73	0.37	0.04	9.40
10-283B*	1/8" x 1/8"	0.62	0.69	0.43	0.04	25.06
10-284	3/16" x 1/8"	0.75	0.75	0.44	0.04	7.98
10-284B*	3/16" x 1/8"	0.75	0.75	0.43	0.06	5.28
10-285	3/16" x 1/4"	0.81	0.88	0.44	0.08	6.04
10-286	1/4" x 1/8"	0.84	0.78	0.38	0.04	3.30
10-286B*	1/4" x 1/8"	0.81	0.78	0.47	0.05	2.36
10-287 **	1/4" x 1/4"	0.81	0.88	0.44	0.05	3.00
10-287B*	1/4" x 1/4"	0.91	0.93	0.59	0.08	3.81
10-288 **	1/4" x 3/8"	0.91	0.91	0.47	0.08	5.24
10-289	1/4" x 1/2"	1.03	1.09	0.59	0.10	6.59
10-290	5/16" x 1/8"	0.91	0.88	0.44	0.06	5.26
10-290B*	5/16" x 1/8"	0.91	0.78	0.52	0.06	8.11
10-291	5/16" x 1/4"	0.98	0.96	0.44	0.08	5.36
10-291B*	5/16" x 1/4"	0.95	0.92	0.62	0.08	12.33
10-292	5/16" x 3/8"	1.06	1.09	0.59	0.08	6.01
10-293	3/8" x 1/8"	1.00	0.91	0.53	0.08	6.07
10-293B*	3/8" x 1/8"	1.03	0.91	0.65	0.08	8.30
10-294	3/8" x 1/4"	1.01	0.89	0.48	0.08	3.52
10-294B*	3/8" x 1/4"	0.97	1.04	0.68	0.11	6.00
10-295 **	3/8" x 3/8"	1.00	0.88	0.47	0.10	3.66
10-295B*	3/8" x 3/8"	1.06	1.09	0.69	0.12	7.38
10-296 **	3/8" x 1/2"	1.10	1.09	0.59	0.12	5.23
10-297	3/8" x 3/4"	1.25	1.31	0.81	0.12	13.64
10-298	1/2" x 1/4"	1.19	1.00	0.59	0.12	5.06
10-298B*	1/2" x 1/4"	1.22	1.19	0.81	0.12	13.44
10-299	1/2" x 3/8"	1.10	1.00	0.59	0.13	5.02
10-299B*	1/2" x 3/8"	1.22	1.12	0.77	0.18	9.67
10-300	1/2" x 1/2"	1.16	1.13	0.59	0.14	5.80
10-300B*	1/2" x 1/2"	1.26	1.36	0.94	0.26	12.00
10-301	1/2" x 3/4"	1.42	1.25	0.81	0.24	10.52
10-311	5/8" x 1/4"	1.34	1.13	0.72	0.28	10.98
10-302	5/8" x 3/8"	1.35	1.22	0.72	0.20	9.50
10-302B*	5/8" x 3/8"	1.41	1.25	0.94	0.20	24.76
10-303	5/8" x 1/2"	1.35	1.22	0.72	0.20	7.81
10-303B*	5/8" x 1/2"	1.41	1.38	0.94	0.20	16.43
10-304	5/8" x 3/4"	1.44	1.31	0.81	0.25	13.19
10-305	3/4" x 1/2"	1.67	1.50	0.88	0.34	16.27
10-306	3/4" x 3/4"	1.67	1.63	0.88	0.30	14.77
10-306B*	3/4" x 3/4"	1.60	1.62	0.91	0.32	27.88
10-307	7/8" x 3/4"	1.75	1.68	1.00	0.44	43.22
10-308	1" x 3/4"	1.94	1.69	1.31	0.75	50.02
10-309	1" x 1"	1.94	1.75	1.25	0.78	44.48

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

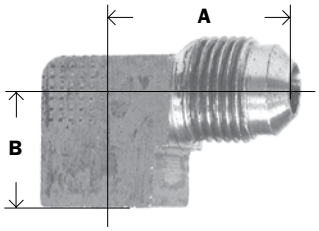
Dimension data can change without notice.
Please call us when dimensions are critical.

90° FEMALE ELBOW

SAE# 010203



Forged Elbow



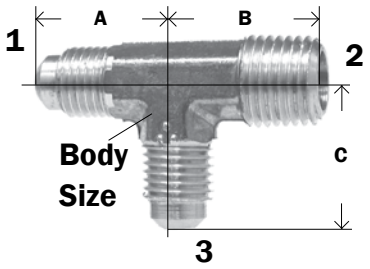
Barstock Elbow

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	6.80
10-313	1/4" x 1/8"	0.90	0.46	0.56	0.06	4.13
10-313B*	1/4" x 1/8"	0.88	0.47	0.56	0.06	5.47
10-314	1/4" x 1/4"	0.97	0.59	0.75	0.08	5.81
10-315	1/4" x 3/8"	1.03	0.57	0.81	0.09	8.11
10-333	1/4" x 1/2"	1.08	0.66	1.00	0.12	10.39
10-316	5/16" x 1/8"	0.94	0.88	0.45	0.08	7.16
10-317	5/16" x 1/4"	1.03	0.58	0.75	0.06	11.64
10-318	3/8" x 1/8"	1.00	0.88	0.47	0.10	7.57
10-319	3/8" x 1/4"	1.06	0.59	0.75	0.09	3.53
10-319B*	3/8" x 1/4"	1.09	0.69	0.75	0.10	25.27
10-320	3/8" x 3/8"	1.06	0.57	0.81	0.10	5.33
10-321	3/8" x 1/2"	1.16	0.66	1.00	0.14	6.68
10-322	3/8" x 3/4"	1.28	0.72	1.25	0.12	11.58
10-323	1/2" x 1/4"	1.25	0.70	0.88	0.13	10.10
10-324	1/2" x 3/8"	1.25	0.70	0.88	0.12	7.51
10-325	1/2" x 1/2"	1.29	0.72	1.00	0.18	7.91
10-326	1/2" x 3/4"	1.41	0.72	1.25	0.20	10.78
10-327	5/8" x 3/8"	1.35	1.22	0.72	0.22	13.46
10-328	5/8" x 1/2"	1.38	0.75	1.00	0.20	11.79
10-329	5/8" x 3/4"	1.50	0.76	1.25	0.28	11.92
10-330	3/4" x 1/2"	1.63	1.06	1.06	0.42	22.52
10-331	3/4" x 3/4"	1.88	1.06	1.31	0.40	35.30

* Barstock

FORGED MALE RUN TEE



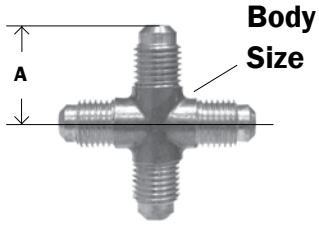
T3
151F
51

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	5.57
10-343	3/16" x 1/8"	0.75	0.75	0.75	0.37	0.05	6.71
10-344	1/4" x 1/8"	0.78	0.75	0.78	0.37	0.06	5.78
10-345	1/4" x 1/4"	0.88	0.88	0.88	0.44	0.08	7.09
10-347	5/16" x 1/8"	0.88	0.80	0.88	0.44	0.08	6.18
10-348	5/16" x 1/4"	0.94	0.94	0.94	0.44	0.08	9.07
10-350	3/8" x 1/4"	1.00	0.94	1.00	0.44	0.12	9.07
10-351	3/8" x 3/8"	1.00	1.00	1.00	0.47	0.10	12.57
10-340	3/8" x 1/2" x 3/8"	1.09	1.09	1.16	0.59	0.18	11.65
10-352	3/8" x 1/2"	1.12	1.22	1.12	0.69	0.12	17.65
10-353	1/2" x 3/8" x 1/2"	1.22	1.22	1.15	0.69	0.22	13.82
10-354	1/2" x 3/8"	1.16	1.09	1.16	0.59	0.18	15.27
10-355	1/2" x 1/2"	1.22	1.22	1.22	0.69	0.22	14.27
10-357	5/8" x 1/2"	1.41	1.31	1.41	0.69	0.28	18.93
10-359	3/4" x 1/2"	1.63	1.59	1.63	0.88	0.48	37.27
10-360	3/4" x 3/4"	1.62	1.44	1.62	0.88	0.48	32.92

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

FORGED FLARE CROSS

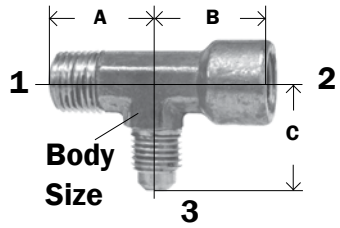
SAE# 010501



455
C1
147F
52

Part #	Thread Size UNF	A	Body Size	Approx. Wt. Lbs.	List Price
10-373	1/4”	0.88	0.44	0.10	13.64
10-374	5/16”	0.92	0.44	0.10	13.36
10-375	3/8”	1.00	0.44	0.16	12.75
10-376	1/2”	1.16	0.59	0.24	15.02

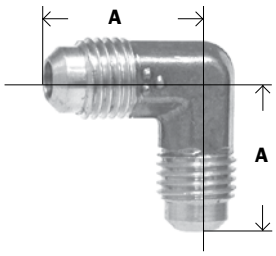
FORGED ADAPTER TEE / SERVICE TEE



T17
53

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	7.02
10-383	1/4” x 1/4” x 1/4”	0.88	1.00	0.91	0.47	0.11	8.88

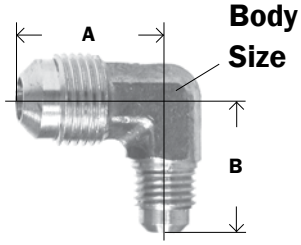
FORGED 90° FLARE ELBOW



E2
155F

Part #	Thread Size UNF	A	Approx. Wt. Lbs.	List Price
10-404	1/8”	0.64	0.04	16.39
10-405	3/16”	0.75	0.06	10.91
10-406	1/4”	0.81	0.08	3.95
10-407	5/16”	0.91	0.10	5.96
10-408	3/8”	1.00	0.10	5.01
10-409	1/2”	1.16	0.14	7.57
10-410	5/8”	1.41	0.22	12.29
10-411	3/4”	1.66	0.68	24.66
10-412	7/8”	1.81	0.82	45.16

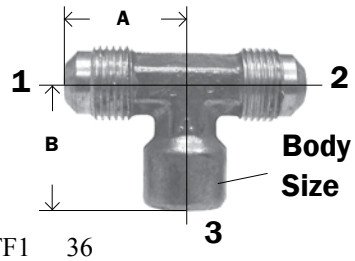
FORGED REDUCING ELBOW



ER2
657F
55R

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	6.07
10-419	1/2” x 3/8”	1.19	1.02	0.59	0.14	7.71
10-421	5/8” x 1/2”	1.34	1.23	0.72	0.21	12.33

FORGED FEMALE BRANCH TEE

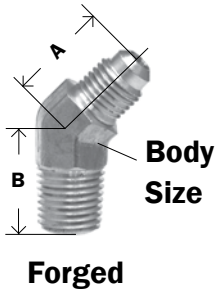


TF1 36
136 58FP
T4

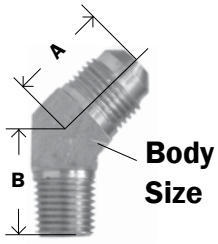
Part #	Male Flare x Female NPTF (1&2) x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-429	1/4" x 1/4"	0.97	0.75	0.69	0.12	10.38
10-430	3/8" x 1/4"	1.00	1.03	0.47	0.14	9.69
10-431	3/8" x 3/8"	1.17	0.69	1.05	0.22	14.99
10-432	3/8" x 1/2"	1.16	0.69	1.05	0.19	13.47
10-434	1/2" x 1/2"	1.31	0.69	1.06	0.22	22.52

45° ELBOW

SAE# 010302



Forged



Barstock

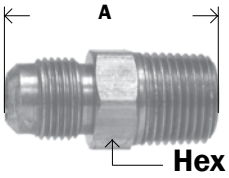
E145 654F 47
54 59FF 4945
159F 254

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	3.14
10-448B*	1/4" x 1/8"	0.67	0.64	0.44	0.04	10.71
10-449	1/4" x 1/4"	0.75	0.86	0.53	0.07	6.35
10-450	5/16" x 1/8"	0.78	0.64	0.53	0.06	6.32
10-451	5/16" x 1/4"	0.81	0.86	0.53	0.07	6.68
10-452	3/8" x 1/4"	0.91	0.86	0.53	0.09	5.95
10-452B*	3/8" x 1/4"	0.89	0.86	0.64	0.12	14.48
10-453	3/8" x 3/8"	0.93	0.94	0.59	0.11	6.16
10-454	3/8" x 1/2"	0.99	1.17	0.75	0.19	8.94
10-455	1/2" x 3/8"	1.07	0.88	0.59	0.12	7.01
10-455B*	1/2" x 3/8"	1.06	0.94	0.76	0.18	21.37
10-456	1/2" x 1/2"	1.12	1.18	0.75	0.20	10.18
10-460	5/8" x 3/8"	1.13	0.95	0.81	0.22	14.78
10-457	5/8" x 1/2"	1.12	1.17	0.78	0.18	11.09
10-458	3/4" x 1/2"	1.28	1.16	0.88	0.26	17.72
10-459	3/4" x 3/4"	1.41	1.20	0.88	0.31	18.16

* Barstock

BRASS GAS RANGE FITTINGS

BRASS MALE ADAPTERS

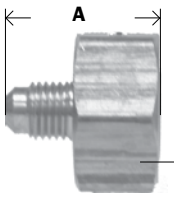


Part #	Male Flare x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
35-132	1/2" x 1/2" (3/8" FIP TAP)	1.88	0.87	0.16	6.60
35-134	15/16" x 1/2"	1.90	0.94	0.14	6.33

DRUM ADAPTERS

SAE# 010165

• Straight Thread



RD
IF
K1

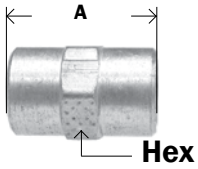
Part #	Male Flare x FIP	A	Hex	Approx. Wt. Lbs.	List Price
50-011	1/4" x 1/2"	1.12	1.12	0.12	28.35
50-001	1/4" x 3/4"	1.16	1.25	0.14	13.73

FEMALE 45° FLARE FITTINGS

• Use with Copper Gasket

UNION

SAE# 010107

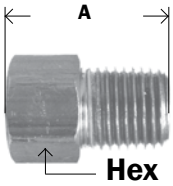


2310
U4
660HD
32

Part #	Female Flare x Female Flare	A	Hex	Approx. Wt. Lbs.	List Price
10-135	1/4”	1.00	0.62	0.06	11.14
10-136	3/8”	1.25	0.81	0.14	19.52
10-137	1/2”	1.43	0.94	0.18	24.93

FEMALE FLARE ADAPTER

SAE# 010106

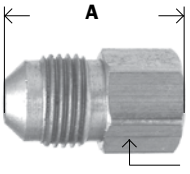


U5
664FHD
33
48-FF

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	6.56
10-441	1/4” x 1/4”	1.01	0.62	0.06	6.91
10-442	3/8” x 1/4”	1.28	0.81	0.10	10.42
10-443	1/2” x 3/8”	1.36	0.94	0.14	25.04
10-444	1/2” x 1/2”	1.46	0.94	0.14	11.64

FLARE REDUCER

SAE# 010105



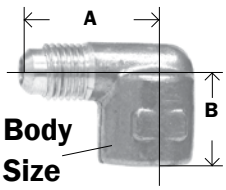
UR3
661FHD
227
46-FF

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	6.80
10-461	1/4” x 1/2”	1.36	0.94	0.14	21.80
10-463 *	3/8” x 1/4”	1.12	0.62	0.06	8.07
10-464	3/8” x 1/2”	1.44	0.94	0.14	7.71
10-473	3/8” x 5/8”	1.63	1.12	0.16	16.95
10-467	1/2” x 3/8”	1.41	0.81	0.13	6.78
10-468	1/2” x 5/8”	1.68	1.06	0.20	33.83
10-469	5/8” x 1/2”	1.63	1.00	0.17	19.92
10-470	5/8” x 3/4”	1.97	1.31	0.31	20.34
10-471	3/4” x 5/8”	1.75	1.18	0.32	22.20

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

90° ELBOW

• Use with Copper Gasket



E4
669F

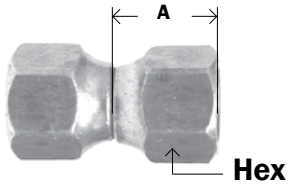
Part #	Male Flare x Female Flare	A	B	Body Size	Approx. Wt. Lbs.	List Price
10-500	1/4” x 1/4”	0.97	0.69	0.75	0.56	8.13
10-495	1/2” x 1/2”	1.41	1.12	0.81	0.72	19.21

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

BRASS FLARE SWIVEL FITTINGS

FORGED SWIVEL

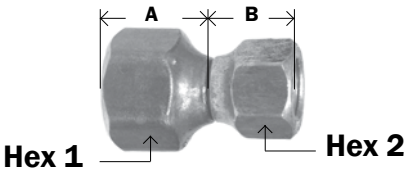
SAE# 010108



1350
US4
14FSV
34

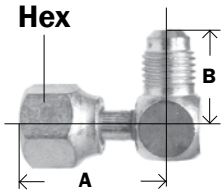
Part #	Female Flare UNF	A	Hex	Approx. Wt. Lbs.	List Price
10-481	1/4”	0.59	0.62	0.04	6.14
10-482	5/16”	0.62	0.68	0.06	8.79
10-483	3/8”	0.69	0.81	0.10	6.54
10-484	1/2”	0.81	0.94	0.16	8.98
10-485	5/8”	0.94	1.06	0.24	11.05
10-486	3/4”	1.12	1.31	0.34	35.52

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	13.37
10-488	1/2” x 3/8”	0.84	0.70	0.94	0.81	0.12	16.33
10-489	5/8” x 1/2”	0.98	0.82	1.03	0.94	0.22	19.96

FORGED SWIVEL ELBOWS



ES4

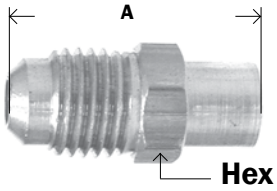
Part #	Male Flare x Female Flare	A	B	Hex	Approx. Wt. Lbs.	List Price
10-493	1/4”	0.81	1.15	0.62	0.12	10.21

*** 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	5.88
10-611	1/2” x 5/8”	1.56	0.75	0.12	20.90
10-615	3/4” x 3/4”	2.06	1.06	0.32	20.24

Lead Free fittings available on
pgs. 166-175

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

FTXB



Part #	JIC Thread	Pipe Size	List Price
28-701	7/16-20	1/8	2.98
28-702	7/16-20	1/4	6.03
28-703	7/16-20	3/8	15.90
28-704	1/2-20	1/8	46.20
28-705	1/2-20	1/4	20.91
28-706	9/16-18	1/8	6.98
28-707	9/16-18	1/4	6.21
28-708	9/16-18	3/8	4.98
28-709	9/16-18	1/2	9.90
28-710	3/4-16	1/4	12.35
28-711	3/4-16	3/8	9.73
28-712	3/4-16	1/2	13.32
28-713	3/4-16	3/4	28.86
28-714	7/8-14	3/8	21.78
28-715	7/8-14	1/2	20.19
28-716	7/8-14	3/4	22.28
28-717	1-1/16-12	3/4	21.58
NEW 28-748	1-1/16-1/2		28.64
NEW 28-749	1-1/16-1		45.84
28-718	1-5/16-12	1	40.56

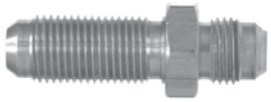
45° FORGED ELBOW

VTXB



Part #	JIC Thread	Pipe Size	List Price
28-722F	7/16-20	1/8	8.52
28-724F	7/16-20	1/4	11.41
28-728F	1/2-20	1/4	4.65
28-729F	9/16-18	1/8	28.62
28-731F	9/16-18	1/4	8.84
28-733F	9/16-18	3/8	8.01
28-734F	9/16-18	1/2	17.23
28-736F	3/4-16	3/8	11.96
28-738F	3/4-16	1/2	37.05
28-740F	7/8-14	1/2	19.53
28-742F	1-1/16-12	3/4	64.52

BULKHEAD TUBE UNION



Part #	JIC Thread	List Price
28-797	9/16-18	56.60
28-955	1-1/16-12	60.32

90° FORGED ELBOW

CTXB



Part #	JIC Thread	Pipe Size	List Price
28-760F	7/16-20	1/8	7.74
28-762F	7/16-20	1/4	7.00
28-766F	1/2-20	1/4	12.65
28-768F	9/16-18	1/8	20.00
28-770F	9/16-18	1/4	7.10
28-772F	9/16-18	3/8	13.66
28-773F	9/16-18	1/2	23.10
28-774F	3/4-16	3/8	19.92
28-777F	3/4-16	1/2	17.02
28-778F	3/4-16	3/4	34.33
28-780F	7/8-14	1/2	28.15
28-781F	1-1/16-12	1/2	57.38
28-783F	1-1/16-12	3/4	31.13
28-784F	1-5/16-12	3/4	43.78
28-786F	1-5/16-12	1	48.38

For Steel 37° Flare JIC fittings see page 332

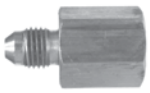
STRAIGHT SWIVEL ADAPTER



Part #	JIC Thread	Pipe Size	List Price
28-753	9/16-18	1/4	12.77
28-754	9/16-18	3/8	19.44
28-756	3/4-16	1/2	20.33

FEMALE STRAIGHT ADAPTER

GTXB



Part #	JIC Thread	Pipe Size	List Price
28-957	7/16-20	1/8	8.04
28-958	7/16-20	1/4	10.19
28-959	9/16-18	1/4	22.98
28-960	9/16-18	3/8	16.75
28-961	3/4-16	3/8	8.94
28-962	3/4-16	1/2	25.27
28-963	7/8-14	1/2	18.61
28-964	1-1/16-12	3/4	44.20

STRAIGHT TUBE UNION

HTXB



Part #	JIC Thread	List Price
28-966	7/16-20	8.37
28-969	9/16-18	10.59
28-970	3/4-16	12.85
28-971	1-1/16-12	63.05
28-972	1-5/16-12	38.42

TUBE TEE

JTXB



Part #	JIC Thread	List Price
28-981	7/16-20	61.93
28-982	9/16-18	68.99

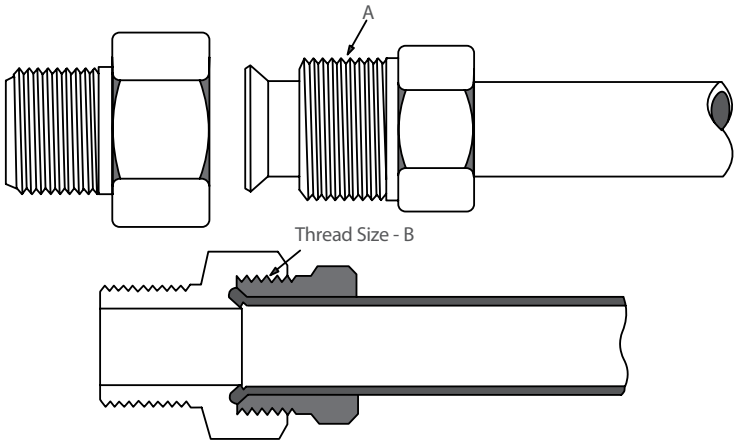
FEMALE ELBOW (FORGED BODY)

DTXB



Part #	JIC Thread	Pipe Size	List Price
28-973	7/16-20	1/8	14.33
28-974	7/16-20	1/4	21.86
28-975	9/16-18	1/4	20.83

Inverted Flare



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

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

•Working Pressure Ranges
Temperature and type of tubing used are important factors. However, the following table is a good guide for proper selection. Temperature 73^{0}F with copper tubing:

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

•Vibration
Excellent resistance.

•Temperature Range
-65^{0}F to +250^{0}F (-53^{0}C to +121^{0}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.

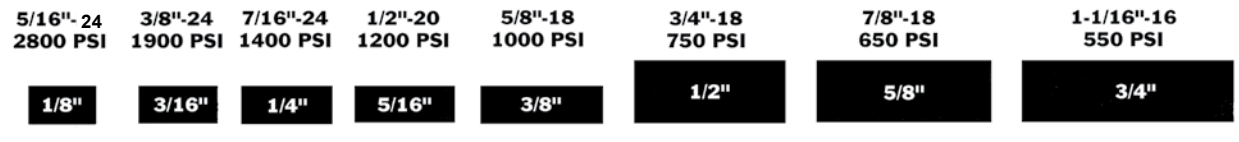
• Tolerance
+/- .03 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical

•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 45^0 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.

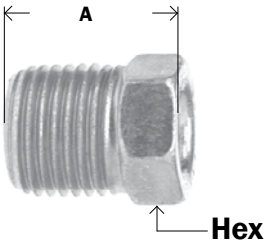
Note: Do not over-torque as it may damage the fitting or split the tubing at the flare.

Actual O.D. of male inverted flare threads



ZINC CHROMATE STEEL NUT

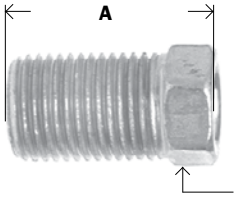
SAE# 040110



2105
411FS
105
41W

Part #	Size	Thread	A	Hex	Approx. Wt. Lbs.	List Price
12-001	1/8”	5/16-24	0.52	0.31	0.01	1.44
12-002	3/16”	3/8-24	0.56	0.37	0.02	0.41
12-003	1/4”	7/16-24	0.56	0.43	0.02	0.46
12-004	5/16”	1/2-20	0.62	0.50	0.02	0.53
12-005	3/8”	5/8-18	0.66	0.62	0.03	0.89
12-000	7/16”	11/16-18	0.68	0.68	0.04	3.00
12-011	3/8"	11/16-18	0.66	0.68	0.05	6.06
12-006	1/2”	3/4-18	0.74	0.75	0.08	2.94
12-007	5/8”	7/8-18	0.80	0.87	0.10	3.19
12-008	3/4”	1-1/16-16	0.88	1.06	0.10	5.62

LONG STEEL NUT

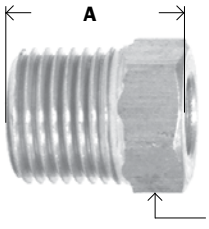


7896

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-009	3/16”	0.84	0.37	0.02	1.43
12-010	1/4”	0.81	0.43	0.02	1.64

INVERTED FLARE BRASS NUT

SAE# 040110



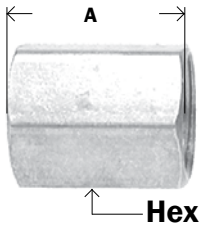
2100
41IF
100
41IB

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-012	1/8”	0.52	0.31	0.01	2.90
12-013	3/16”	0.56	0.37	0.01	1.78
12-014	1/4”	0.56	0.43	0.02	0.62
12-015	5/16”	0.62	0.50	0.03	1.25
12-016	3/8”	0.66	0.62	0.04	1.63
12-017	1/2”	0.74	0.75	0.05	4.41

EVERYONE WANTS TO SAVE THE WORLD, BUT NO ONE WANTS TO HELP MOM DO THE DISHES.
- P.J. O'ROURKE

UNION INTERNAL

SAE# 040101

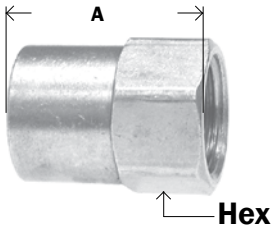


302
2300
42IFHD

Part #	Inv. Flare X Inv. Flare	A	Hex	Approx. Wt. Lbs.	List Price
12-022	1/8”	0.59	0.40	0.02	5.66
12-023	3/16”	0.62	0.47	0.02	0.80
12-024	1/4”	0.62	0.50	0.03	2.71
12-025	5/16”	0.70	0.56	0.04	2.50
12-026	3/8”	0.80	0.75	0.08	3.02
12-027	1/2”	0.91	0.90	0.10	8.18

FEMALE ADAPTER

SAE# 040103

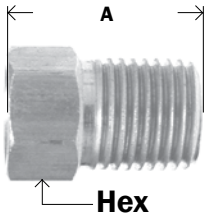


46IFHD
252
46W

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	3.37
12-033	1/4” x 1/8”	0.75	0.53	0.02	1.89
12-034	5/16” x 1/8”	0.78	0.59	0.04	12.36
12-035	3/8” x 1/4”	1.03	0.75	0.08	9.60
12-036	1/2” x 3/8”	1.10	0.90	0.12	12.29

MALE ADAPTER

SAE# 040102



2200
48IFHD
202
48W
200

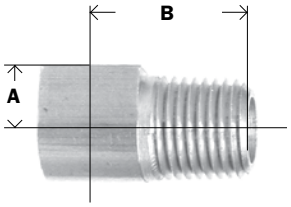
Part #	Inv. Flare X Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
12-041	1/8” x 1/8”	0.63	0.40	0.02	4.59
12-042	3/16” x 1/8”	0.70	0.43	0.02	1.25
12-043	1/4” x 1/8”	0.74	0.50	0.03	1.25
12-044	1/4” x 1/4”	0.89	0.56	0.04	1.50
12-045	5/16” x 1/8”	0.79	0.56	0.03	3.00
12-046	5/16” x 1/4”	0.98	0.56	0.05	2.05
12-047	3/8” x 1/8”	0.88	0.72	0.05	4.43
12-048	3/8” x 1/4”	1.02	0.75	0.06	2.27
12-049	3/8” x 3/8”	1.02	0.75	0.08	4.58
12-038	1/2” x 1/4”	0.97	0.87	0.10	9.13
12-050	1/2” x 3/8”	1.06	0.87	0.08	6.24
12-051	1/2” x 1/2”	1.06	0.87	0.11	9.88
12-052	5/8” x 1/2”	1.32	1.06	0.15	5.25
12-040	3/4” x 3/4”	1.39	1.25	0.24	23.08

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

A MAN WHO WANTS TO LEAD THE ORCHESTRA MUST TURN HIS BACK ON THE CROWD.
- MAX LUCADO

ELBOW

SAE# 040202



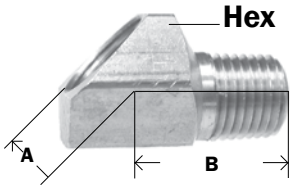
Part #	Inv. Flare X Male NPTF	A	B	Approx. Wt. Lbs.	List Price
12-057	1/8" x 1/8"	0.26	0.59	0.03	18.02
12-058	3/16" x 1/8"	0.26	0.61	0.03	2.81
12-059	1/4" x 1/8"	0.33	0.65	0.04	1.60
12-054*	1/4" x 1/8"	0.33	0.65	0.04	22.90
12-060	1/4" x 1/4"	0.28	0.82	0.06	3.20
12-061	5/16" x 1/8"	0.47	0.68	0.05	2.20
12-062	5/16" x 1/4"	0.45	0.85	0.08	3.20
12-063	3/8" x 1/8"	0.54	0.76	0.14	7.51
12-064	3/8" x 1/4"	0.53	0.92	0.14	7.54
12-065	3/8" x 3/8"	0.50	0.94	0.12	13.24
12-066	1/2" x 3/8"	0.59	1.03	0.16	11.83
12-067	1/2" x 1/2"	0.66	1.22	0.25	15.33
12-056	5/8" x 3/8"	0.67	1.09	0.20	34.25
12-068	5/8" x 1/2"	0.67	1.29	0.18	16.21
12-069	3/4" x 1/2"	0.80	1.39	0.42	51.34
12-080	7/8" x 3/4"	0.94	1.43	0.48	71.86
12-081	1" x 1"	1.02	1.69	0.60	83.14

*** Restricted pipe end .062**

400
2400
249IFHD 249IF
402 49W

45° ELBOW

SAE# 040302

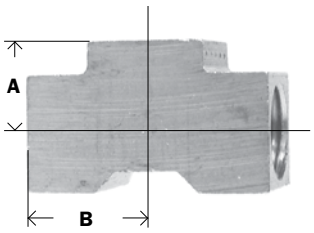


Part #	Inv. Flare X Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
12-072	3/16" x 1/8"	0.25	0.55	0.53	0.02	18.25
12-073	1/4" x 1/8"	0.27	0.58	0.56	0.04	4.99
12-074	5/16" x 1/8"	0.36	0.56	0.62	0.06	6.03
12-075	5/16" x 1/4"	0.23	0.83	0.62	0.06	30.35
12-076	3/8" x 1/4"	0.51	0.84	0.78	0.09	12.67
12-077	1/2" x 3/8"	0.38	0.91	0.84	0.11	13.14
12-079	5/8" x 1/2"	0.44	1.00	1.06	0.21	23.77

154
2352
259IFHD
352 94W

UNION TEE

SAE# 040401



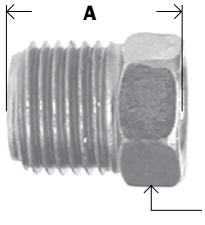
Part #	Size	A	B	Approx. Wt. Lbs.	List Price
12-085	1/8"	0.33	0.47	0.04	14.87
12-086	3/16"	0.39	0.55	0.04	4.12
12-087	1/4"	0.42	0.56	0.08	6.63
12-088	5/16"	0.45	0.63	0.09	9.01
12-089	3/8"	0.56	0.74	0.17	17.04
12-090	1/2"	0.67	0.88	0.24	28.86

244IFHD
702
44I

STEEL PLUG

• cored

SAE# 040109

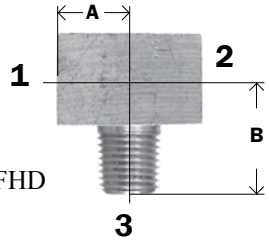


106
41IP
131
2131

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
12-091	3/16”	0.53	0.37	0.01	0.83
12-092	1/4”	0.54	0.43	0.02	1.04
12-093	5/16”	0.59	0.50	0.03	1.15
12-094	3/8”	0.66	0.62	0.04	3.60

MALE BRANCH TEE

SAE# 040425

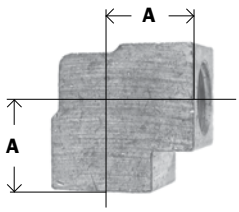


145
245IFHD
602
2600
600

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	8.16
12-101	1/4” x 1/8”	0.42	0.64	0.06	6.56
12-102	5/16” x 1/8”	0.47	0.68	0.07	10.38
12-103	3/8” x 1/4”	0.58	0.93	0.15	34.17

FEMALE ELBOW

SAE# 040203

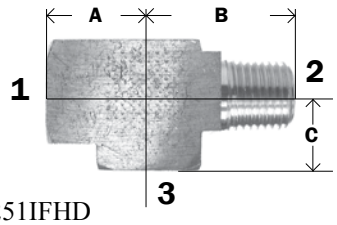


450

Part #	Inv. Flare x Female NPTF	A	Approx. Wt. Lbs.	List Price
12-110	1/4” x 1/8”	0.55	0.07	20.19
12-111	5/16” x 1/8”	0.51	0.08	19.03
12-112	3/8” x 1/4”	0.68	0.10	12.12

MALE RUN TEE

SAE# 040424

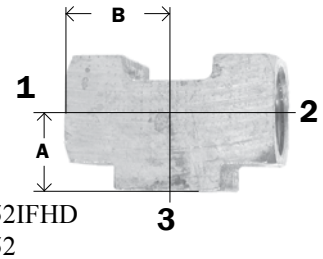


251IFHD
752
550
151

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	36.97
12-119	1/4” x 1/8”	0.56	0.75	0.42	0.08	35.38
12-120	5/16” x 1/8”	0.62	0.85	0.45	0.10	19.50
12-121	3/8” x 1/4”	0.75	1.08	0.56	0.14	21.65

FEMALE BRANCH TEE

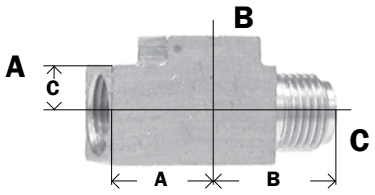
SAE# 040427



252IFHD
652
136

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	20.61
12-129	5/16" x 1/8"	0.45	0.63	0.12	20.03
12-130	3/8" x 1/4"	0.56	0.74	0.17	25.25

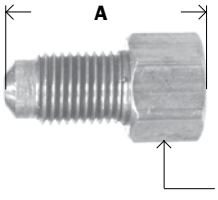
TOWED TRAILER BRAKE TEE



Part #	A	B	C	Reference #	Approx. Wt. Lbs.	List Price
12-147	3/16" 0.57	3/16" 0.76	3/16" 0.42	7900	0.08	12.09
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	29.18
12-148	3/16" (9/16-18)	3/16" (3/8-24)	3/16" (9/16/18)	7933	0.10	11.71
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	30.00
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	24.54
12-150	1/4" 0.56	3/16" 0.77	1/4" 0.43	7901	0.10	15.39
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	44.20
12-151	1/4" 0.56	1/4" 0.77	1/4" 0.43	7898	0.12	15.97

INVERTED FLARE AUTO FITTINGS

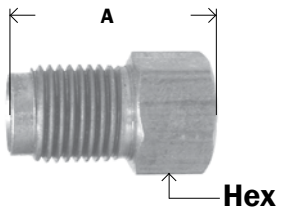
DUAL MASTER CYLINDER ADAPTER



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	3.89
12-202	5/16" x 3/16"	0.96	0.68	7897	0.07	6.00

I THOROUGHLY DISAPPROVE OF DUELS. IF A MAN SHOULD CHALLENGE ME, I WOULD TAKE HIM KINDLY AND FORGIVINGLY BY THE HAND AND LEAD HIM TO A QUIET PLACE AND KILL HIM
- MARK TWAIN

DUAL MASTER CYLINDER ADAPTER



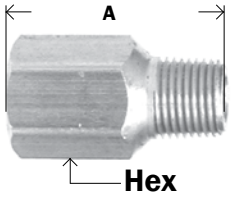
• Other sizes available

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	4.57
12-212	1/4" x 3/16"	0.84	0.50	7818	0.04	4.67
12-214*	7/16-20 x 1/4"	0.87	0.68	7732	0.06	7.73
12-216	5/16" x 3/16"	0.94	0.50	7909	0.04	4.75
12-218*	5/16" x 1/4"	0.93	0.62	7727	0.06	6.34
12-220	5/16" x 1/4"	0.95	0.68	7829	0.07	5.21
12-222*	5/16" x 5/16"	0.95	0.68	1074	0.06	19.32
12-224	3/8" MPT x 5/16"	0.87	0.75	7771	0.08	16.55

*** Seals on hex face**

47W

CARBURETOR TO FUEL LINE ADAPTER - FORD

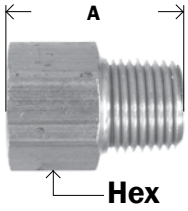


Part #	Size	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-230	1/4"(1/2-20) x 1/8"MPT	1.06	0.56	1513	0.04	17.18

1513

RESTRICTION PIPE ADAPTER

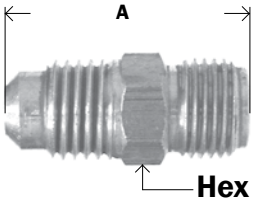
(.0625 ORIFICE)



Part #	Size FIP x MIP	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-310	1/8"	0.75	0.50	1512	0.02	6.58

1510

SAE FLARE X INVERTED FLARE



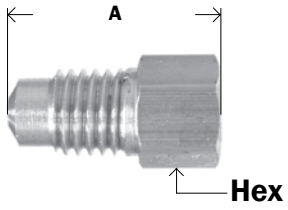
Part #	SAE Flare x Inv. Flare	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-250	1/4" x 3/16"	1.03	0.43	1518	0.02	31.68
12-252	1/4" x 1/4"	1.03	0.43	1522	0.03	5.86
12-254	3/8" x 5/16"	1.34	0.63	1553	0.08	28.35
12-256	3/8" x 3/8"	1.37	0.63	1563	0.09	20.85
12-257	3/8" x 7/16"	1.40	0.68	1554	0.10	17.96

4205

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

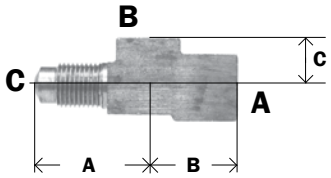
METRIC HYDRAULIC BRAKE FITTINGS

METRIC ADAPTER



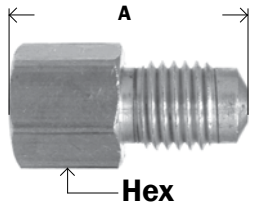
Part #	Male	O.D.	A	Hex	Ref #	Approx. Wt. Lbs.	List Price
12-335	M10x1.0	3/16"(3/8-24)	1.02	0.50	1442	0.02	3.72
12-326	M11x1.5	3/16"(M10x1.0)	1.06	0.50	7935	0.02	16.78
12-327	M12x1.0	3/16"(M10x1.0)	1.02	0.53	7936	0.04	15.96
12-328	M16x1.5	3/16"(M10x1.0)	1.02	0.56	7937	0.06	16.78

METRIC TOWED TRAILER BRAKE TEE



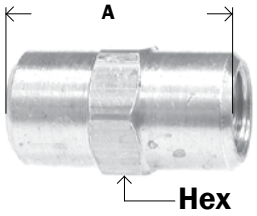
Part #	A	B	C	Ref #	Approx. Wt. Lbs.	List Price
12-333	3/16" (M12x1.0) 1.03	3/16" (3/8-24) 0.75	3/16" (M12x1.0) 0.49	7921	0.16	39.78

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	19.86
12-339	3/16" (3/8-24)	13x1.5	1.03	0.56	7972	0.04	20.61
12-341	3/16" (3/8-24)	12x1.0	1.02	0.53	7974	0.04	17.29

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	15.73

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	34.25

TAILPIECE WITH FLATS

1001AUL
21605



POL-LPT
POL-LTPH
M-2001-A

1/4 NPT

Part #	Length	List Price
34-011	2.34 w/ wrench Flats	19.10
34-012	2.13 w/ Hex	8.47

STANDARD NUT

7/8" Hex



1001BUL
POL-N
21601
M-2001-B

Part #	Pipe Size	List Price
34-016	.880-14 LH	4.32

TAILPIECE & NUT ASSEMBLY



2002AB

Part #	Pipe Size	List Price
34-022	1/4	21.53

POL CAP

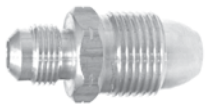


POL-N5
2004
1004A
M-2004

Part #	Pipe Size	List Price
34-031	.880-14LH	12.13

ADAPTERS

POL 2005
POL 2006
POL 2007



21607
POL-U2
1015

Part #	Pipe Size	List Price
34-041	3/8 Flare x .880-14LH	17.59
34-046	1/2 Flare x .880-14LH	17.49
34-051	5/8 Flare x .880-14LH	22.28

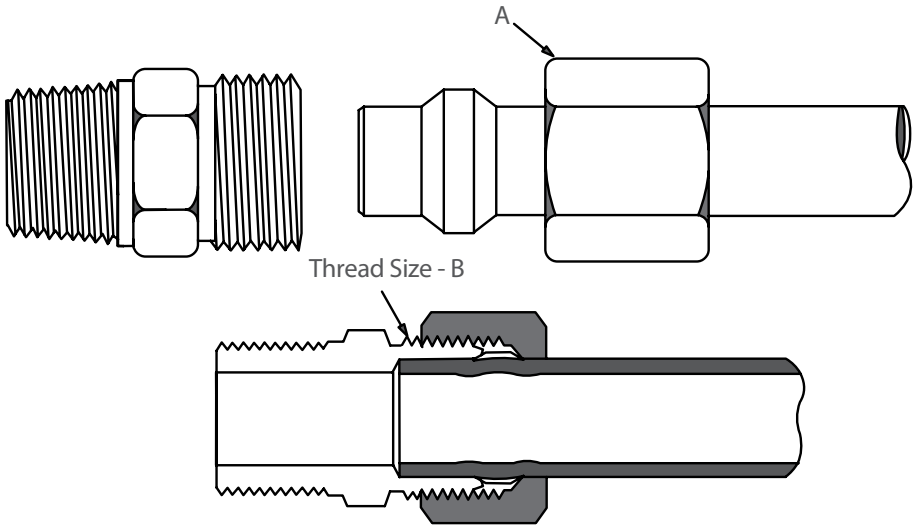
POL X 1/4 FPT



2008
POL-U3B

Part #	Pipe Size	List Price
34-056	.880-14LH POL x 1/4 FPT	33.56

Compression Fittings



Tube O.D.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8
Thread Size-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
Working Pressure	400	400	300	300	200	200	200	150	100	75

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

•Pressure
See table above for working pressures at 73°F.

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

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

•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.

These are NOT Lead Free
See pages 166-175 for Lead Free products

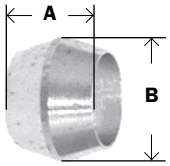
Actual Profile of Compression Threads



BRASS SLEEVE

SAE# 060115

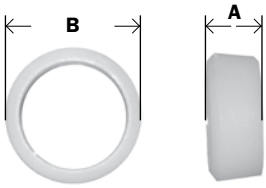
• FERRULES



60
260

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-001	1/8”	0.19	0.19	0.01	0.28
18-002	3/16”	0.22	0.27	0.01	0.20
18-003	1/4”	0.25	0.34	0.01	0.24
18-004	5/16”	0.25	0.41	0.01	0.19
18-005	3/8”	0.25	0.47	0.02	0.23
18-006	7/16”	0.31	0.53	0.02	0.56
18-007	1/2”	0.38	0.59	0.02	0.57
18-008	5/8”	0.38	0.71	0.03	0.61
18-009	3/4”	0.44	0.87	0.03	1.60
18-010	7/8”	0.41	0.99	0.03	1.02

DELRIN SLEEVE

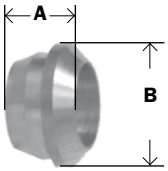


60-P

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-015	1/4”	0.19	0.37	0.01	0.19
18-016	5/16”	0.19	0.43	0.01	0.92
18-017	3/8”	0.19	0.50	0.02	0.28
18-018	1/2”	0.25	0.63	0.02	0.33
18-019	5/8”	0.22	0.74	0.02	0.35

SELF-ALIGN SLEEVE - See page 88 for self-align sleeve assemblies

601



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
27-001	1/8”	0.19	0.25	0.01	0.30
27-002	3/16”	0.20	0.31	0.01	0.93
27-003	1/4”	0.21	0.37	0.02	0.36

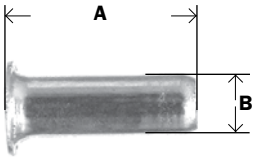


Part #	Size	A	B	Approx. Wt. Lbs.	List Price
27-005	3/8”	0.23	0.50	0.03	0.69
27-006	1/2”	0.35	0.62	0.03	2.06

* 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

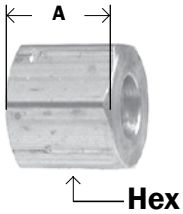


63-BI
60AE
2030
63PT

Part #	Size	A	B	Approx. Wt. Lbs.	Wall	List Price
22-008	1/8”	0.46	0.080	0.01	.016	0.69
22-009	3/16”	0.45	0.135	0.01	.025	0.67
22-009A	3/16”	0.52	0.095	0.01	.040	0.78
22-010	1/4”	0.50	0.163	0.02	.04	0.39
22-010A	1/4”	0.59	0.125	0.02		1.10
22-010B	1/4”	0.53	0.172	0.02		1.72
22-011A	5/16”	0.50	0.232	0.02	.04	1.67
22-011	5/16”	0.53	0.187	0.02	.062	0.69
22-012	3/8”	0.56	0.250	0.03	.062	0.61
22-013	1/2”	0.72	0.370	0.03	.062	0.79
22-014	5/8”	0.72	0.483	0.03	.062	1.60
22-015	3/4”	1.03	0.563	0.03		4.54

BRASS NUT

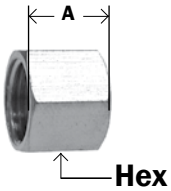
SAE# 060110



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	0.88
18-034	3/16”	3/8-24	0.41	0.43	0.01	0.51
18-035L	1/4”	7/16-24	0.44	0.50	0.02	0.57
18-035	1/4”	7/16-24	0.44	0.50	0.02	0.77
18-036	5/16”	1/2-24	0.44	0.56	0.02	0.83
18-037L	3/8”	9/16-24	0.47	0.62	0.04	0.86
18-037	3/8”	9/16-24	0.47	0.62	0.04	1.27
18-038	7/16”	5/8-24	0.50	0.68	0.04	3.87
18-039L	1/2”	11/16-20	0.56	0.75	0.04	1.75
18-039	1/2”	11/16-20	0.62	0.81	0.04	2.26
18-040L	5/8”	13/16-18	0.56	0.87	0.06	1.80
18-040	5/8”	13/16-18	0.62	0.94	0.06	3.10
18-041	3/4”	1-18	0.68	1.12	0.08	3.86
18-042	7/8”	1-1/8 - 18	0.62	1.25	0.10	4.75

NICKEL PLATED NUT

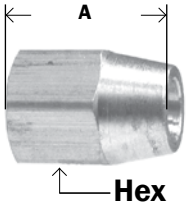


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-054	1/4”	0.44	0.50	0.02	0.72
18-055	3/8”	0.45	0.62	0.02	0.72
18-056	1/2”	0.56	0.75	0.04	1.74
18-057	5/8”	0.56	0.94	0.04	1.75

These are NOT Lead Free
See pages 166-175 for Lead Free products

LONG NUT COMPRESSION - Can be assembled on any compression fitting

161

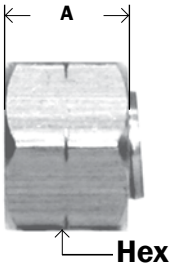


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
24-003	1/4”	0.75	0.50	0.02	1.85
24-004	5/16”	0.84	0.56	0.02	1.34
24-005	3/8”	0.97	0.62	0.04	2.79
24-006	1/2”	1.06	0.81	0.06	7.20
24-007	5/8"	1.19	0.94		7.15

• More sizes available

* 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 - See captive sleeve fittings on page 86-87

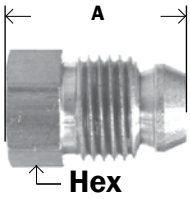


Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
26-001	1/8”	0.38	0.37	0.02	1.50
26-002	3/16”	0.40	0.43	0.02	1.57
26-003	1/4”	0.40	0.50	0.04	1.27
26-004	5/16”	0.44	0.56	0.04	1.63
26-005	3/8”	0.46	0.62	0.06	1.50
26-007	1/2”	0.50	0.81	0.08	3.01
26-008	5/8”	0.51	0.94	0.10	5.87

* 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



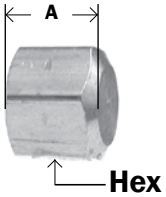
• 1-Piece Fiting

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
16-090	3/16”	0.57	0.37	0.02	7.98
16-010	1/4”	0.62	0.43	0.02	1.98

* Threaded sleeve fittings on page 84.

CAP

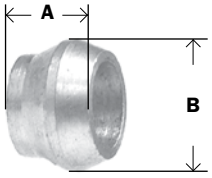
61-CC
N5CT



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-047	1/4”	0.44	0.50	0.02	1.39
18-048	3/8”	0.40	0.62	0.04	1.58
18-049	1/2”	0.48	0.75	0.06	2.74
18-050	5/8”	0.56	0.94	0.10	6.16

COMPRESSION PLUG

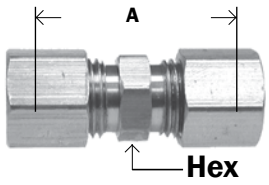
CSP



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
18-029	3/8”	0.31	0.47	0.04	1.90
18-030	1/2”	0.34	0.59	0.06	2.52

UNION

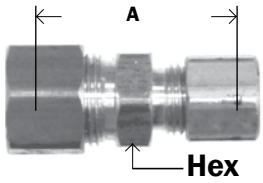
SAE# 060101BA



M-62

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-062	1/8”	0.64	0.31	0.03	4.59
18-063	3/16”	0.75	0.37	0.04	2.28
18-064L	1/4”	0.79	0.43	0.06	2.40
18-064	1/4”	0.81	0.43	0.06	2.76
18-065	5/16”	0.88	0.50	0.06	3.54
18-066L	3/8”	0.96	0.56	0.09	3.55
18-066	3/8”	0.98	0.56	0.10	3.38
18-067	7/16”	1.02	0.62	0.12	19.44
18-068L	1/2”	1.06	0.68	0.16	7.30
18-068	1/2”	1.25	0.68	0.16	8.73
18-069L	5/8”	1.43	0.81	0.24	8.16
18-069	5/8”	1.25	0.81	0.26	10.26
18-070	3/4”	1.41	1.00	0.35	20.69
18-071L	7/8”	1.03	1.12	0.34	17.33
18-071	7/8”	1.00	1.12	0.36	17.12

REDUCING UNION

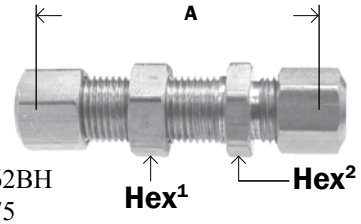


62-R

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-076	1/4” x 1/8”	0.73	0.44	0.04	4.20
18-077	1/4” x 3/16”	0.78	0.44	0.06	7.99
18-078	5/16” x 1/4”	0.81	0.50	0.06	4.75
18-079	3/8” x 1/4”	0.90	0.56	0.10	7.20
18-080	3/8” x 5/16”	0.94	0.56	0.10	7.13
18-081	1/2” x 3/8”	1.03	0.68	0.12	8.12
18-082	5/8” x 3/8”	1.03	0.81	0.15	8.00
18-083	5/8” x 1/2”	1.10	0.81	0.15	9.20
18-084	7/8” x 5/8”	1.23	1.18	0.20	29.44

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	8.21
18-090	3/8”	1.76	0.68	0.68	0.14	22.16

BULKHEAD NUTS

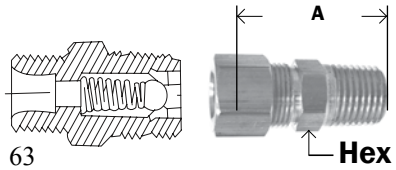


20102

Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
18-097	1/4”	0.25	0.56	0.02	5.01
18-099	3/8”	0.25	0.68	0.04	5.59
18-100	1/2”	0.38	0.94	0.06	16.72

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

BALL CHECK VALVE - Min. Working pressure 3 psi.

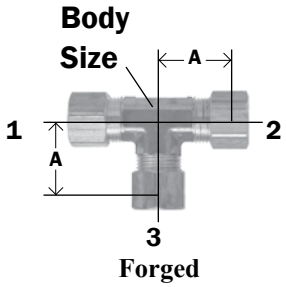


63
263
63A

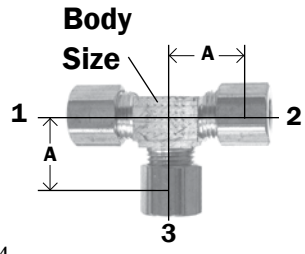
Part #	Tube OD x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
18-092	1/8" x 1/8"	0.78	0.44	0.04	11.63
18-094	1/4" x 1/8"	0.88	0.44	0.04	12.20
18-096	3/8" x 1/4"	1.16	0.56	0.08	16.11

TEE

SAE# 060401



Forged



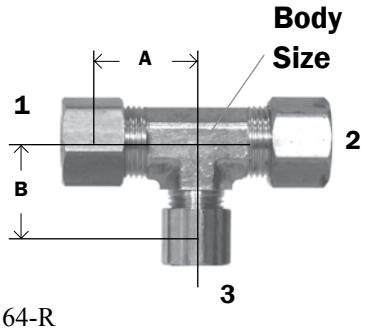
Barstock

64
264C

Part #	Size	A	Body Size	Approx. Wt. Lbs.	List Price
18-101	1/8"	0.61	0.37	0.04	12.96
18-101B*	1/8"	0.62	0.33	0.04	11.29
18-102	3/16"	0.59	0.36	0.08	5.80
18-102B*	3/16"	0.60	0.38	0.08	8.20
18-103	1/4"	0.63	0.36	0.10	5.35
18-103B*	1/4"	0.62	0.49	0.10	10.20
18-104	5/16"	0.72	0.50	0.13	8.49
18-104B*	5/16"	0.60	0.50	0.14	13.33
18-105	3/8"	0.75	0.50	0.16	6.27
18-105B*	3/8"	0.73	0.59	0.16	12.84
18-106	1/2"	0.94	0.59	0.22	13.61
18-106B*	1/2"	0.94	0.69	0.24	29.29
18-107	5/8"	1.06	0.69	0.28	14.51
18-108	3/4"	1.22	0.88	0.32	47.28
18-109	7/8"	1.25	0.94	0.34	37.98

* Barstock

FORGED REDUCING TEE

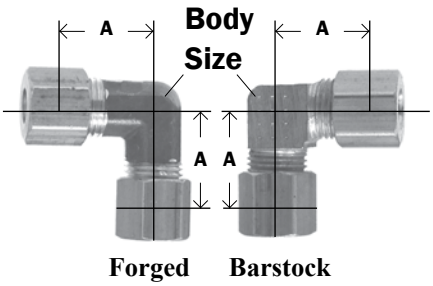


64-R

Part #	Size 1 x 2 x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-114	1/4" x 1/4" x 1/8"	0.62	0.59	0.38	0.09	7.28
18-110	1/4" x 1/4" x 3/8"	0.69	0.75	0.50	0.14	16.10
18-111	3/8" x 1/4" x 1/4"	0.75	0.69	0.50	0.12	9.90
18-115	3/8" x 3/8" x 1/4"	0.75	0.69	0.50	0.14	7.27
18-116	1/2" x 1/2" x 1/4"	0.94	0.81	0.59	0.16	13.74
18-117	1/2" x 1/2" x 3/8"	0.94	0.81	0.59	0.24	14.79
18-118	5/8" x 5/8" x 3/8"	1.06	0.94	0.69	0.28	17.69
18-119	5/8" x 5/8" x 1/2"	1.06	1.06	0.69	0.30	19.58

UNION ELBOW

SAE# 060201

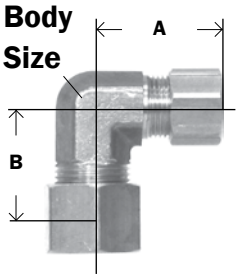


65
BSE2
165C Forged
265C Barstock

Part #	Size	A	Body Size	Approx. Wt. Lbs.	List Price
18-122B*	1/8”	0.62	0.35	0.04	7.89
18-123	3/16”	0.61	0.37	0.06	7.05
18-123B*	3/16”	0.62	0.41	0.06	7.14
18-124	1/4”	0.66	0.38	0.08	4.55
18-124B*	1/4”	0.60	0.48	0.08	7.89
18-125	5/16”	0.69	0.47	0.09	7.50
18-125B*	5/16”	0.62	0.52	0.09	10.08
18-126	3/8”	0.72	0.43	0.12	6.00
18-127	1/2”	0.94	0.59	0.19	9.67
18-127B*	1/2”	0.94	0.71	0.19	19.50
18-128	5/8”	1.06	0.72	0.26	10.15
18-129	3/4”	1.19	0.94	0.48	25.67
18-130	7/8”	1.25	0.94	0.44	28.44

* Barstock

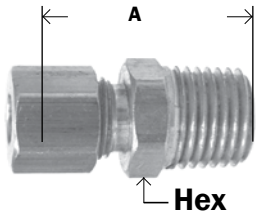
REDUCING ELBOW - Forged



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	10.02
18-136	1/2” x 3/8”	0.88	0.94	0.59	0.15	11.02
18-137	5/8” x 3/8”	0.88	0.97	0.56	0.18	15.26

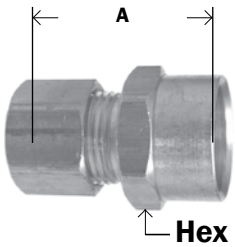
TANK ADAPTER DRILLED THRU (NO STOP)



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	3.17
18-209	1/4” x 1/4”	0.99	0.56	0.05	2.38
18-210	3/8” x 1/4”	1.16	0.56	0.05	4.44
18-211	3/8” x 3/8”	1.09	0.68	0.08	3.68
18-212	3/8” x 1/2”	1.19	0.87	0.10	5.90
18-213	1/2” x 3/8”	1.22	0.68	0.12	7.96
18-214	1/2” x 1/2”	1.09	0.81	0.14	6.44
18-215	5/8” x 1/2”	1.12	0.81	0.18	7.59

COMP X SWEAT ADAPTER



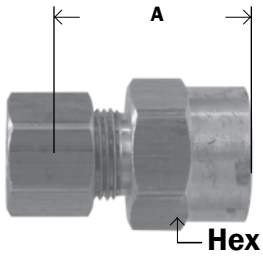
66-S

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	6.24

Lead Free fittings available on
pgs. 166-175

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	3.25
18-143	3/16" x 1/8"	0.78	0.56	0.04	4.22
18-144	3/16" x 1/4"	0.96	0.68	0.04	9.88
18-145L	1/4" x 1/8"	0.84	0.50	0.05	1.86
18-145	1/4" x 1/8"	0.78	0.56	0.05	2.67
18-146L	1/4" x 1/4"	0.88	0.62	0.09	3.69
18-146	1/4" x 1/4"	1.03	0.68	0.09	6.07
18-147	1/4" x 3/8"	1.00	0.81	0.10	4.21
18-148	1/4" x 1/2"	1.02	0.87	0.12	5.09
18-149	5/16" x 1/8"	0.81	0.56	0.05	3.74
18-150	5/16" x 1/4"	0.91	0.62	0.06	5.53
18-152	3/8" x 1/8"	0.88	0.56	0.06	3.69
18-153L	3/8" x 1/4"	0.97	0.62	0.08	4.70
18-153	3/8" x 1/4"	1.06	0.68	0.08	4.98
18-154L	3/8" x 3/8"	1.03	0.75	0.08	3.14
18-154	3/8" x 3/8"	1.06	0.81	0.10	7.08
18-155	3/8" x 1/2"	1.12	1.00	0.08	5.30
18-156	3/8" x 3/4"	1.19	1.16	0.14	16.01
18-157	1/2" x 1/4"	1.09	0.68	0.10	9.82
18-158L	1/2" x 3/8"	0.94	0.81	0.12	8.01
18-158	1/2" x 3/8"	1.12	0.81	0.12	8.01
18-159L	1/2" x 1/2"	1.19	1.00	0.12	6.36
18-159	1/2" x 1/2"	1.31	1.00	0.12	13.09
18-160	1/2" x 3/4"	1.25	1.16	0.18	15.31
18-161	5/8" x 3/8"	1.03	0.81	0.12	12.55
18-162L	5/8" x 1/2"	1.20	0.94	0.18	6.99
18-162	5/8" x 1/2"	1.38	1.00	0.18	11.43
18-163	5/8" x 3/4"	1.20	1.12	0.22	10.03
18-164	3/4" x 1/2"	1.25	1.06	0.26	18.10
18-165	3/4" x 3/4"	1.28	1.19	0.28	26.19
18-167	7/8" x 1/2"	1.28	1.19	0.32	17.43
18-166	7/8" x 3/4"	1.31	1.12	0.34	12.21

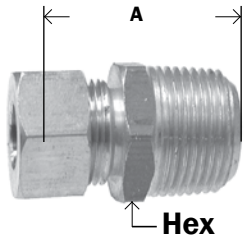
SILENCE IS HOLY. IT DRAWS PEOPLE TOGETHER BECAUSE ONLY THOSE WHO ARE COMFORTABLE WITH EACH OTHER CAN SIT WITHOUT SPEAKING.

- NICHOLAS SPARKS

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

MALE ADAPTER

SAE# 060102



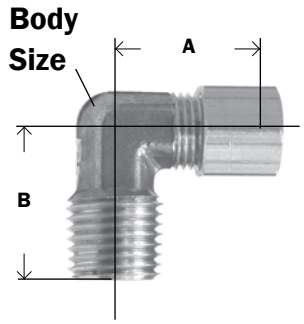
68

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	8.05
18-176	1/8" x 1/8"	0.78	0.43	0.04	2.13
18-177	3/16" x 1/8"	0.84	0.43	0.04	2.04
18-178	3/16" x 1/4"	0.94	0.56	0.06	4.74
18-179L	1/4" x 1/8"	0.88	0.56	0.04	1.96
18-179	1/4" x 1/8"	0.88	0.43	0.04	1.91
18-180L	1/4" x 1/4"	0.94	0.56	0.05	1.68
18-180	1/4" x 1/4"	1.06	0.56	0.06	3.11
18-181	1/4" x 3/8"	1.03	0.68	0.08	3.06
18-182	1/4" x 1/2"	1.09	0.81	0.10	4.23
18-183	5/16" x 1/8"	0.91	0.50	0.05	2.60
18-184L	5/16" x 1/4"	1.01	0.56	0.06	3.36
18-184	5/16" x 1/4"	1.09	0.56	0.06	3.11
18-185	5/16" x 3/8"	1.06	0.68	0.07	5.65
18-186	5/16" x 1/2"	1.14	0.87	0.10	8.82
18-187L	3/8" x 1/8"	0.94	0.56	0.06	2.91
18-187	3/8" x 1/8"	0.97	0.56	0.06	4.01
18-188L	3/8" x 1/4"	1.03	0.56	0.06	3.16
18-188	3/8" x 1/4"	1.16	0.56	0.07	3.38
18-189L	3/8" x 3/8"	1.09	0.68	0.08	3.26
18-189	3/8" x 3/8"	1.14	0.69	0.08	4.35
18-190L	3/8" x 1/2"	1.19	0.88	0.12	5.24
18-190	3/8" x 1/2"	1.34	0.87	0.13	6.57
18-191	3/8" x 3/4"	1.29	1.06	0.16	10.96
18-192	7/16" x 1/4"	1.06	0.62	0.10	10.30
18-204	7/16" x 3/8"	1.10	0.68	0.12	8.42
18-193L	1/2" x 1/4"	1.09	0.69	0.11	6.00
18-193	1/2" x 1/4"	1.22	0.68	0.11	6.80
18-194L	1/2" x 3/8"	1.16	0.68	0.12	5.41
18-194	1/2" x 3/8"	1.16	0.69	0.12	5.55
18-195L	1/2" x 1/2"	1.09	0.81	0.12	5.41
18-195	1/2" x 1/2"	1.41	0.87	0.19	7.67
18-196	1/2" x 3/4"	1.38	1.06	0.22	7.67
18-197	5/8" x 3/8"	1.22	0.87	0.24	6.03
18-198	5/8" x 1/2"	1.12	0.81	0.24	6.90
18-199	5/8" x 3/4"	1.31	1.06	0.26	7.11
18-200	3/4" x 1/2"	1.44	1.00	0.26	11.36
18-201	3/4" x 3/4"	1.50	1.06	0.26	11.39
18-202	7/8" x 1/2"	1.18	1.12	0.26	17.87
18-203	7/8" x 3/4"	1.22	1.12	0.28	10.11
18-205	7/8" x 1"	1.67	1.37	0.32	25.30

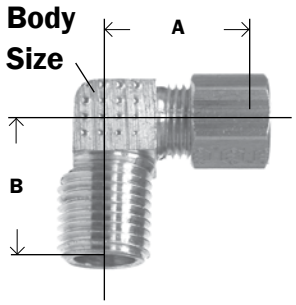
IN THREE WORDS I CAN SUM UP EVERYTHING I'VE LEARNED ABOUT LIFE: IT GOES ON.
- ROBERT FROST

MALE ELBOW

SAE# 060202



Forged



Barstock

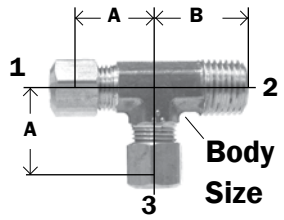
69
269C
BSE1
169C

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	4.90
18-220B*	1/8" x 1/8"	0.60	0.67	0.43	0.04	3.42
18-221	3/16" x 1/8"	0.63	0.72	0.34	0.04	4.28
18-221B*	3/16" x 1/8"	0.62	0.69	0.43	0.06	3.24
18-223	3/16" x 1/4"	0.60	0.81	0.39	0.05	4.92
18-224	1/4" x 1/8"	0.60	0.75	0.37	0.06	3.50
18-224B*	1/4" x 1/8"	0.62	0.75	0.43	0.06	2.86
18-225	1/4" x 1/4"	0.65	0.94	0.36	0.08	3.95
18-225B*	1/4" x 1/4"	0.61	0.81	0.56	0.08	3.42
18-226	1/4" x 3/8"	0.75	0.91	0.47	0.08	4.57
18-227	1/4" x 1/2"	0.81	1.13	0.56	0.12	7.39
18-228	5/16" x 1/8"	0.66	0.75	0.47	0.06	4.85
18-228B*	5/16" x 1/8"	0.62	0.75	0.42	0.06	4.10
18-229	5/16" x 1/4"	0.66	0.81	0.47	0.07	4.81
18-229B*	5/16" x 1/4"	0.69	0.84	0.57	0.08	6.31
18-230	5/16" x 3/8"	0.75	0.91	0.47	0.10	5.66
18-231	5/16" x 1/2"	0.84	1.12	0.56	0.12	9.08
18-232	3/8" x 1/8"	0.72	0.66	0.39	0.06	3.88
18-232B*	3/8" x 1/8"	0.69	0.69	0.57	0.06	6.65
18-233	3/8" x 1/4"	0.75	0.82	0.46	0.08	5.11
18-233B*	3/8" x 1/4"	0.75	0.94	0.57	0.08	5.13
18-234	3/8" x 3/8"	0.81	0.94	0.46	0.10	5.36
18-234B*	3/8" x 3/8"	0.71	0.83	0.69	0.10	9.04
18-235	3/8" x 1/2"	0.87	1.12	0.56	0.14	11.01
18-235B*	3/8" x 1/2"	0.88	1.16	0.94	0.14	17.83
18-248	3/8" x 3/4"	1.03	1.19	0.81	0.18	11.48
18-247	7/16" x 1/4"	0.84	1.00	0.56	0.14	9.75
18-236	1/2" x 1/4"	0.88	0.97	0.56	0.14	7.87
18-237	1/2" x 3/8"	0.88	1.03	0.56	0.19	7.24
18-237B*	1/2" x 3/8"	0.94	1.12	0.70	0.19	10.09
18-238	1/2" x 1/2"	0.94	1.13	0.59	0.17	7.51
18-238B*	1/2" x 1/2"	0.94	1.31	0.86	0.17	16.01
18-239	1/2" x 3/4"	1.16	1.25	0.81	0.18	13.95
18-240	5/8" x 3/8"	1.06	1.12	0.68	0.18	8.58
18-241	5/8" x 1/2"	1.06	1.16	0.68	0.20	10.32
18-241B*	5/8" x 1/2"	1.06	1.31	0.86	0.20	16.06
18-242	5/8" x 3/4"	1.16	1.31	0.81	0.24	14.76
18-243	3/4" x 1/2"	1.19	1.31	0.94	0.26	15.91
18-245	3/4" x 3/4"	1.19	1.38	0.94	0.30	18.22
18-246	7/8" x 3/4"	1.25	1.38	0.94	0.35	27.58

* Barstock

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

FORGED MALE RUN TEE

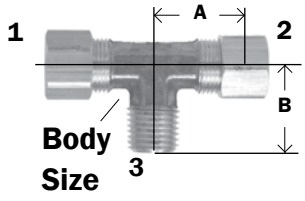


71
171C
BST3

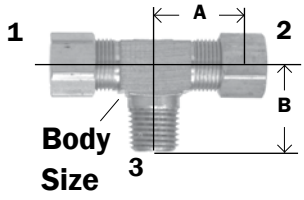
Part #	Comp. X Male NPTF (1&3) X 2	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-272	1/8" x 1/8"	0.63	0.69	0.36	0.06	6.30
18-273	3/16" x 1/8"	0.63	0.69	0.36	0.07	6.30
18-274	1/4" x 1/8"	0.63	0.75	0.36	0.08	5.43
18-275	1/4" x 1/4"	0.69	0.88	0.44	0.10	6.43
18-276	5/16" x 1/8"	0.72	0.75	0.50	0.10	8.46
18-277	5/16" x 1/4"	0.75	0.88	0.44	0.10	8.22
18-278	3/8" x 1/8"	0.75	0.75	0.50	0.14	9.10
18-279	3/8" x 1/4"	0.79	0.87	0.44	0.18	8.11
18-280	3/8" x 3/8"	0.88	1.00	0.47	0.20	10.85
18-281	1/2" x 3/8"	0.94	1.09	0.59	0.24	13.21
18-282	1/2" x 1/2"	0.97	1.19	0.69	0.26	17.24
18-283	5/8" x 1/2"	1.06	1.31	0.69	0.28	16.09
18-284	3/4" x 1/2"	1.22	1.34	0.88	0.30	38.16

MALE BRANCH TEE

SAE# 060203



Forged



Barstock

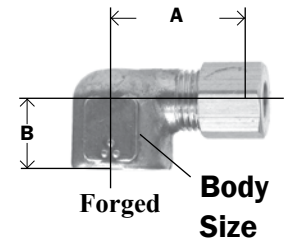
72
BST1
172C

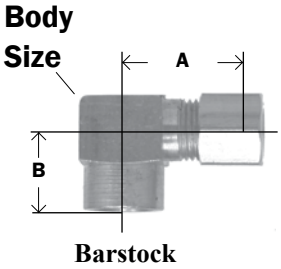
Part #	Comp. X Male NPTF (1&2) X 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-290	3/16" x 1/8"	0.63	0.69	0.36	0.08	8.21
18-291	1/4" x 1/8"	0.62	0.75	0.36	0.10	5.88
18-291B*	1/4" x 1/8"	0.64	0.73	0.45	0.10	10.06
18-292	1/4" x 1/4"	0.69	0.86	0.44	0.10	6.81
18-293	5/16" x 1/8"	0.72	0.75	0.50	0.11	6.81
18-294	5/16" x 1/4"	0.75	0.88	0.44	0.12	7.61
18-295	3/8" x 1/8"	0.75	0.75	0.50	0.14	9.09
18-296	3/8" x 1/4"	0.78	0.88	0.44	0.16	7.83
18-296B*	3/8" x 1/4"	0.78	0.91	0.62	0.16	12.98
18-297	3/8" x 3/8"	0.78	0.97	0.47	0.18	10.21
18-298	3/8" x 1/2"	0.88	1.22	0.69	0.20	15.63
18-304	1/2" x 1/4"	0.94	0.97	0.59	0.22	13.52
18-299B*	1/2" x 3/8"	0.96	1.09	0.70	0.24	25.38
18-299	1/2" x 3/8"	0.94	1.12	0.59	0.24	12.94
18-300	1/2" x 1/2"	0.97	1.19	0.69	0.30	16.35
18-301	5/8" x 1/2"	1.06	1.31	0.69	0.32	18.42
18-302	3/4" x 1/2"	1.22	1.34	0.88	0.50	40.93
18-303	3/4" x 3/4"	1.25	1.50	0.88	0.54	38.54

* Barstock

FEMALE ELBOW

SAE# 060203



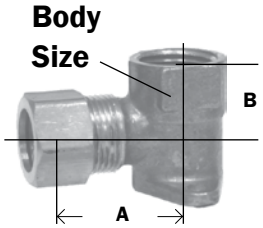


70
270C
BSE3
170C

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	8.02
18-252	3/16" x 1/8"	0.69	0.47	0.56	0.04	4.75
18-253	1/4" x 1/8"	0.69	0.47	0.56	0.06	4.72
18-253B*	1/4" x 1/8"	0.69	0.56	0.56	0.06	5.69
18-254	1/4" x 1/4"	0.75	0.50	0.72	0.08	5.35
18-267	1/4" x 3/8"	0.81	0.58	0.81	0.08	7.57
18-268	1/4" x 1/2"	0.89	0.66	1.00	0.10	10.02
18-255	5/16" x 1/8"	0.72	0.84	0.47	0.08	8.73
18-256	5/16" x 1/4"	0.78	0.50	0.72	0.09	6.81
18-257	3/8" x 1/8"	0.75	0.84	0.47	0.10	5.63
18-258	3/8" x 1/4"	0.84	0.59	0.75	0.10	6.00
18-259	3/8" x 3/8"	0.88	0.58	0.81	0.12	6.93
18-260	3/8" x 1/2"	0.97	0.66	1.00	0.14	7.95
18-250	3/8" x 3/4"	1.09	0.72	1.25	0.18	12.68
18-261	1/2" x 1/4"	1.06	0.70	0.88	0.18	11.05
18-262	1/2" x 3/8"	1.00	0.70	0.88	0.16	9.22
18-263	1/2" x 1/2"	1.03	0.72	1.00	0.20	9.52
18-270	1/2" x 3/4"	1.16	0.72	1.25	0.23	13.67
18-269	5/8" x 3/8"	1.09	0.77	1.00	0.20	13.99
18-264	5/8" x 1/2"	1.09	0.77	1.00	0.22	10.88
18-265	5/8" x 3/4"	1.22	0.77	1.25	0.24	14.93
18-266	3/4" x 1/2"	1.25	1.25	0.94	0.28	24.45

* Barstock

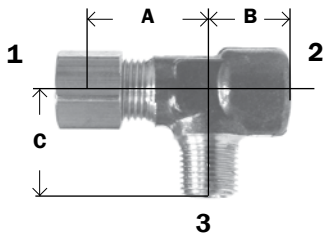
FORGED DROP-EAR ELBOW



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	20.32

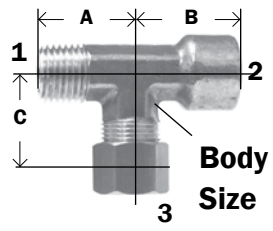
FORGED TEE



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	7.33

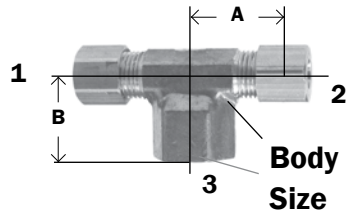
ADAPTER TEE



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	8.11
18-316	3/8” x 1/4”	0.84	0.97	0.81	0.47	0.10	9.45

76
176C

FEMALE BRANCH FORGED TEE

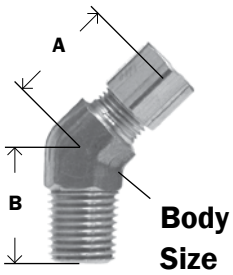


Part #	Comp. X Female NPTF (1&2)x3	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-321	1/4” x 1/8”	0.78	0.75	0.45	0.10	6.99
18-328	1/4” x 1/4”	0.78	0.75	0.44	0.12	10.91
18-325	3/8” x 1/8”	0.75	0.63	0.50	0.12	9.07
18-322	3/8” x 1/4”	0.81	0.97	0.47	0.14	10.99
18-323	3/8” x 3/8”	0.97	0.69	1.05	0.16	16.42
18-326	1/2” x 1/8”	0.94	0.75	0.59	0.20	14.38
18-324	1/2” x 3/8”	1.00	0.72	0.88	0.22	21.62
18-327	5/8” x 1/8”	1.06	0.81	0.69	0.26	19.50

78 2908
BST4
77
177C

45° ELBOW

SAE# 060302



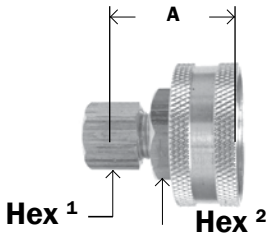
Part #	Comp. X Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
18-329	3/16” x 1/8”	0.40	0.63	0.41	0.04	5.42
18-330	1/4” x 1/8”	0.40	0.61	0.41	0.04	4.99
18-336	1/4” x 1/4”	0.59	0.84	0.53	0.06	7.31
18-331	5/16” x 1/8”	0.59	0.65	0.53	0.06	8.03
18-332	5/16” x 1/4”	0.59	0.83	0.53	0.08	8.49
18-333	3/8” x 1/4”	0.62	0.83	0.53	0.08	6.53
18-338	3/8” x 3/8”	0.75	0.95	0.59	0.10	17.77
18-334	1/2” x 3/8”	0.75	0.88	0.59	0.14	8.08
18-339	1/2” x 1/2”	0.94	1.14	0.75	0.14	15.68
18-335	5/8” x 1/2”	0.78	1.14	0.78	0.14	16.68

6945 273
45BSE1 77
74
179C

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

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	8.38
30-051	3/8" x 3/4"	1.04	0.62	0.75	0.12	7.72

DOUBLE COMPRESSION THREADED SLEEVE FITTINGS

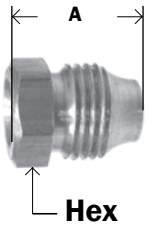
- Use with aluminum and copper tubing or plastic tubing with internal tube support. Not recommended for steel tubing.
- Easy to assemble, no flaring, two piece construction.
- For use on oil, air, water and grease lubrication systems.
- When design makes a dimension critical, contact us for information.

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 75.

NUT

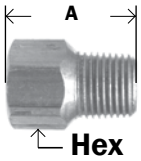
181
6100
11



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
16-001	1/8"	0.50	0.37	0.02	1.07
16-002	3/16"	0.53	0.43	0.02	1.75
16-003	1/4"	0.56	0.50	0.04	2.42
16-004	5/16"	0.61	0.56	0.04	2.10
16-005	3/8"	0.61	0.62	0.04	3.00

MALE ADAPTER

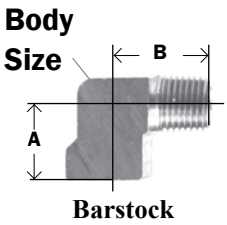
188
6200
12



Part #	THRD Sleeve x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
16-117	1/8" x *	0.62	0.43	0.02	11.42
16-118	1/8" x 1/8"	0.62	0.43	0.02	2.31
16-119	3/16" x 1/8"	0.69	0.43	0.02	3.13
16-121	1/4" x 1/8"	0.75	0.50	0.04	2.60
16-122	5/16" x 1/8"	0.89	0.56	0.04	5.42
16-123	3/8" x 1/4"	0.84	0.62	0.06	5.60

* 1/4 - 28 Male Thread Tapered.

90° ELBOW



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	8.95
16-128	1/8" x 1/8"	0.50	0.66	0.43	0.02	13.52
16-129	3/16" x 1/8"	0.56	0.62	0.44	0.02	25.77
16-130	1/4" x 1/8"	0.52	0.62	0.50	0.04	22.33

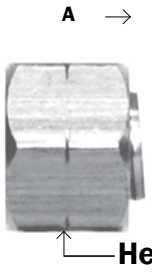
* 1/4 - 28 Male Thread Tapered

189
6400
15

CAPTIVE SLEEVE COMPRESSION — BRASS FITTINGS

CAPTIVE SLEEVE NUT

CS61
61CA



Part #	Size	List Price
26-001	1/8”	1.50
26-002	3/16”	1.57
26-003	1/4”	1.27
26-004	5/16”	1.63
26-005	3/8”	1.50
26-007	1/2”	3.01
26-008	5/8”	5.87

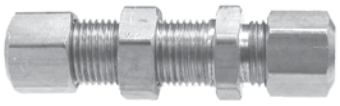
UNION

CS62
62CA



Part #	Size	List Price
26-062	1/8”	4.59
26-063	3/16”	2.40
26-064	1/4”	3.05
26-077	1/4” x 3/16”	8.94
26-065	5/16”	3.54
26-066	3/8”	3.54
26-079	3/8” x 1/4”	7.30
26-068	1/2”	8.73
26-069	5/8”	11.26
26-082	5/8” x 3/8”	8.20

BULKHEAD UNIONS



C262L
62CABA

Part #	Size	List Price
26-088	1/4”	8.20
26-090	3/8”	22.16

BALL CHECK VALVE

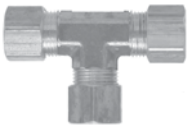
CS863



Part #	Tube OD x Male NPTF	List Price
26-092	1/8” x 1/8”	12.05

TEE

CS64
164CA



Part #	Size	List Price
26-101	1/8”	13.25
26-102	3/16”	6.76
26-103	1/4”	6.76
26-104	5/16”	8.49
26-105	3/8”	7.30
26-115	3/8"x3/8"x1/4"	7.58
26-106	1/2”	14.05
26-107	5/8”	15.89

UNION ELBOW

CS65
165CA



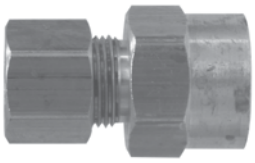
Part #	Size	List Price
26-123	3/16”	7.45
26-124	1/4”	5.31
26-125	5/16”	7.50
26-126	3/8”	6.00
26-127	1/2”	9.67
26-128	5/8”	11.15

Interchangeable with compress-align fittings.

These are NOT Lead Free
See pages 166-175 for Lead Free products

FEMALE ADAPTER

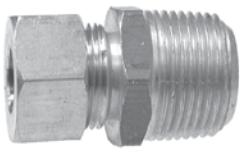
CS66
66CA



Part #	Comp. X Female NPTF	List Price
26-142	1/8” x 1/8”	3.54
26-143	3/16” x 1/8”	4.62
26-144	3/16” x 1/4”	10.50
26-145	1/4” x 1/8”	3.18
26-146	1/4” x 1/4”	6.54
26-149	5/16” x 1/8”	4.15
26-150	5/16” x 1/4”	5.78
26-152	3/8” x 1/8”	3.89
26-153	3/8” x 1/4”	5.50
26-154	3/8” x 3/8”	7.74
26-155	3/8” x 1/2”	5.87
26-156	3/8” x 3/4”	16.01
26-157	1/2” x 1/4”	10.20
26-158	1/2” x 3/8”	8.25
26-159	1/2” x 1/2”	13.56

MALE ADAPTER

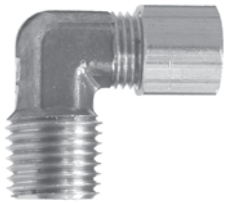
CS68
68CA



Part #	Comp. X Male NPTF	List Price
26-175	1/8” x 1/16”	8.43
26-176	1/8” x 1/8”	2.40
26-177	3/16” x 1/8”	2.64
26-178	3/16” x 1/4”	4.82
26-179	1/4” x 1/8”	2.51
26-180	1/4” x 1/4”	3.42
26-180L	1/4" x 1/4"	2.40
26-181	1/4” x 3/8”	3.30
26-182	1/4” x 1/2”	4.42
26-183	5/16” x 1/8”	3.18
26-184	5/16” x 1/4”	3.24
26-187	3/8” x 1/8”	4.25
26-188	3/8” x 1/4”	3.66
26-189	3/8” x 3/8”	4.32
26-190	3/8” x 1/2”	5.70
26-193	1/2” x 1/4”	7.20
26-194	1/2” x 3/8”	5.55
26-195	1/2” x 1/2”	7.67
26-196	1/2” x 3/4”	7.67
26-197	5/8” x 3/8”	6.76
26-198	5/8” x 1/2”	6.90

MALE ELBOW

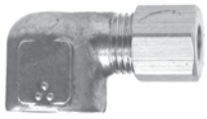
CS69
169CA



Part #	Comp. X Male NPTF	List Price
26-220	1/8" x 1/8"	5.46
26-221	3/16" x 1/8"	4.56
26-221B	3/16" x 1/8"	3.34
26-223	3/16" x 1/4"	5.23
26-224B	1/4" x 1/8"	2.71
26-224	1/4" x 1/8"	3.42
26-225	1/4" x 1/4"	4.25
26-226	1/4" x 3/8"	4.68
26-228	5/16" x 1/8"	4.95
26-229	5/16" x 1/4"	4.81
26-230	5/16" x 3/8"	5.66
26-232	3/8" x 1/8"	3.88
26-233	3/8" x 1/4"	5.11
26-234	3/8" x 3/8"	5.76
26-235	3/8" x 1/2"	11.01
26-236	1/2" x 1/4"	7.87
26-237	1/2" x 3/8"	7.68
26-238	1/2" x 1/2"	7.51
26-240	5/8" x 3/8"	9.06
26-241	5/8" x 1/2"	10.86

FEMALE ELBOW

CS70
170CA



Part #	Comp. X Female NPTF	List Price
26-251	1/8" x 1/8"	9.25
26-252	3/16" x 1/8"	5.35
26-253	1/4" x 1/8"	5.35
26-254	1/4" x 1/4"	5.96
26-258	3/8" x 1/4"	6.10
26-270	1/2" x 3/4"	13.67
26-269	5/8" x 3/8"	13.99

MALE BRANCH TEE

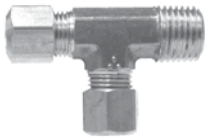
CS72
172CA



Part #	Comp. X Male NPTF (1&2) X 3	List Price
26-291	1/4" x 1/8"	6.45
26-292	1/4" x 1/4"	7.56
26-293	5/16" x 1/8"	7.56
26-294	5/16" x 1/4"	8.56
26-295	3/8" x 1/8"	9.89
26-296	3/8" x 1/4"	8.52
26-297	3/8" x 3/8"	10.80
26-299	1/2" x 3/8"	13.74

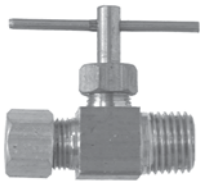
FORGED MALE RUN TEE

CS71
171CA



Part #	Comp. X Male NPTF (1&3) X 2	List Price
26-272	1/8" x 1/8"	6.74
26-274	1/4" x 1/8"	6.83
26-275	1/4" x 1/4"	7.02
26-279	3/8" x 1/4"	9.20
26-280	3/8" x 3/8"	11.45
26-281	1/2" x 3/8"	14.04

CAPTIVE SLEEVE x MALE PIPE NEEDLE VALVE



Part #	Comp X Male Pipe	List Price
26-031	3/16" x 1/8"	26.60
26-032X	1/4" x 1/8"	16.45

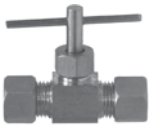
* Heavy Pattern

CAPTIVE SLEEVE x MALE PIPE ANGLE NEEDLE VALVE



Part #	Comp X Male Pipe	List Price
26-010	3/16" x 1/8"	23.76
26-011	1/4" x 1/8"	6.76
26-011X	Heavy Pattern	18.90
26-012	1/4" x 1/4"	17.02
26-013	5/16" x 1/8"	19.56
26-014	5/16" x 1/4"	46.38

CAPTIVE SLEEVE x CAPTIVE SLEEVE NEEDLE VALVE



Part #	Comp X Comp	List Price
26-020	3/16"	25.19
26-021	1/4"	6.80
26-022	5/16"	18.84
26-023	3/8"	11.10

SELF-ALIGN SLEEVE

860
601



Part #	Size	List Price
27-001	1/8"	0.30
27-002	3/16"	0.93
27-003	1/4"	0.36

860



Part #	Size	List Price
27-005	3/8"	0.69
27-006	1/2"	2.06

862
621

UNION



Part #	Size	List Price
27-062	1/8”	4.98
27-063	3/16”	4.28
27-064	1/4”	3.76
27-066	3/8”	4.56
27-068	1/2”	9.73
27-081	1/2” x 3/8"	10.12

BALL CHECK VALVE

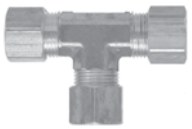
863
631



Part #	Tube OD x Male NPTF	List Price
27-092	1/8” x 1/8”	12.84
27-094	1/4” x 1/8”	13.20
27-096	3/8” x 1/4”	17.11

TEE

864
641



Part #	Size	List Price
27-102	3/16”	6.80
27-103	1/4”	6.35
27-105	3/8”	11.28
27-115	3/8”x3/8"x1/4"	10.27
27-116	1/2"x1/2"x1/4"	16.86
27-117	1/2"x1/2"x3/8"	17.79

UNION ELBOW

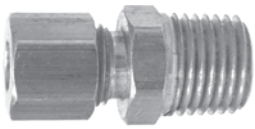
865
651



Part #	Size	List Price
27-126	3/8”	7.74
27-127	1/2”	12.00

TANK ADAPTER DRILLER THRU (NO STOP)

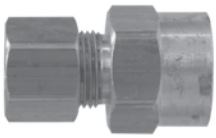
863
631



Part #	Size	List Price
27-208	1/4"x1/8"	3.25
27-209	1/4"x1/4"	2.56
27-211	3/8"x3/8"	4.98
27-213	1/2"x3/8"	9.00

FEMALE ADAPTER

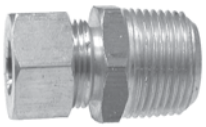
866
661



Part #	Comp. X Female NPTF	List Price
27-142	1/8” x 1/8”	3.56
27-145	1/4” x 1/8”	2.98
27-147	1/4” x 3/8”	4.21
27-148	1/4" x 1/2"	5.09
27-153	3/8” x 1/4”	6.56
27-158	1/2” x 3/8”	9.01

MALE ADAPTER

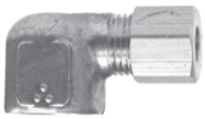
868
681



Part #	Comp. X Male NPTF	List Price
27-175	1/8” x 1/16”	8.56
27-176	1/8” x 1/8”	2.70
27-177	3/16” x 1/8”	3.30
27-179	1/4” x 1/8”	1.91
27-180	1/4” x 1/4”	3.36
27-187	3/8” x 1/8”	5.01
27-188	3/8” x 1/4”	4.50
27-189	3/8” x 3/8”	5.22
27-190	3/8” x 1/2”	6.70
27-193	1/2” x 1/4”	7.80
27-194	1/2” x 3/8”	6.55
27-195	1/2” x 1/2”	8.67
27-196	1/2” x 3/4”	8.67

FEMALE ELBOW

870
201



Part #	Comp. X Female NPTF	List Price
27-253	1/4” x 1/8”	7.68
27-254	1/4” x 1/4”	6.52
27-258	3/8” x 1/4”	7.00
27-262	1/2" x 3/8"	10.85
27-263	1/2" x 1/2"	11.05

MALE ELBOW

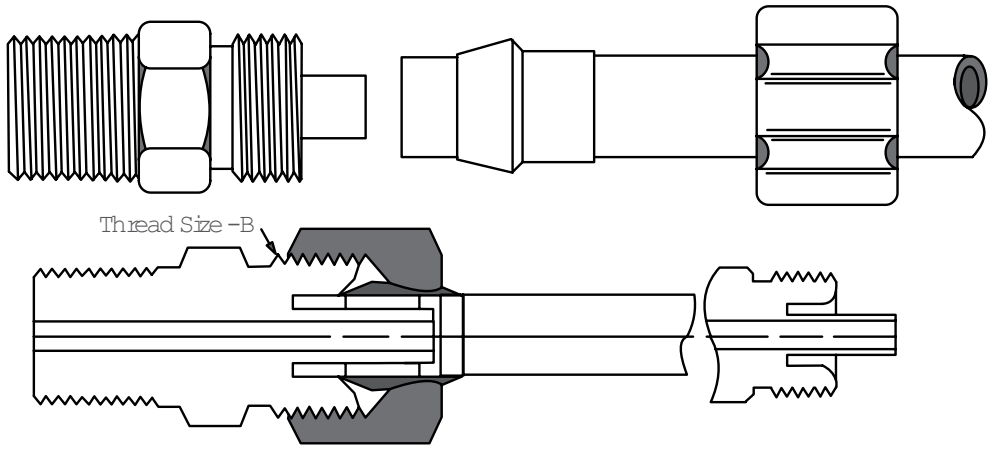
869
691



Part #	Comp. X Male NPTF	List Price
27-220	1/8” x 1/8”	5.25
27-221	3/16” x 1/8”	6.00
27-224	1/4” x 1/8”	3.34
27-225	1/4” x 1/4”	4.51
27-226	1/4” x 3/8”	4.57
27-232	3/8” x 1/8”	4.88
27-233	3/8” x 1/4”	6.42
27-234	3/8” x 3/8”	6.72
27-235	3/8” x 1/2”	9.04
27-236	1/2” x 1/4”	8.88
27-237	1/2” x 3/8”	8.24
27-238	1/2” x 1/2”	9.00
27-239	1/2” x 3/4”	15.30

Flareless

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



Built-in
Tube Support

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

•Typical Application
Pneumatic instrumentation circuits, lubricant and cooling lines.

•Working Pressure and Temperature Ranges
Up to 150 PSI from 0°F to + 150°F with thermoplastic tubing. Up to 300 PSI from 0°F to + 175°F with soft metal tubing.

•Maximum allowable metal tube wall thickness for use with Poly-Tite fittings:
1/8", 3/16" O.D. --no limitation,
1/4" O.D.--.035 5/16", 3/8",1/2" O.D.--.049

•Vibration
Excellent Resistance.

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

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

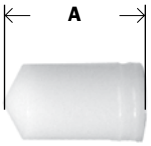
•Used With
Aluminum & copper tubing. Hard plastic tubing requires brass sleeve. Not recommended for steel tubing.

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

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

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

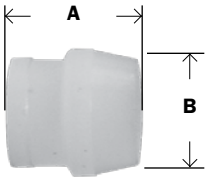
PLASTIC CAP



1229
59P
259P

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-201	1/4”	0.50	0.01	1.99
20-203	3/8”	0.56	0.01	1.60
20-204	1/2”	0.59	0.01	2.65

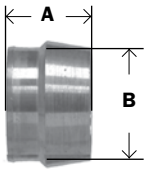
PLASTIC SLEEVE



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	0.31
20-206	5/16”	0.39	0.32	0.01	0.35
20-207	3/8”	0.41	0.38	0.01	0.74
20-208	1/2”	0.44	0.51	0.01	1.07

BRASS SLEEVE



260FB

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-380	1/8”	0.19	0.12	0.01	2.14
20-382	1/4”	0.32	0.25	0.01	1.25
20-384	3/8”	0.37	0.38	0.02	1.96

NUT AND PLASTIC SLEEVE ASSEMBLY



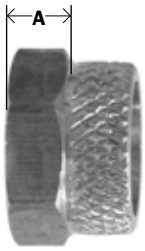
261PF
1261
61PN
261U

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	1.44
20-212	5/16”	7/16-24	0.45	0.50	0.02	2.58
20-213	3/8”	1/2-24	0.49	0.56	0.04	1.89
20-214	1/2”	11/16-20	0.42	0.81	0.04	3.37

Lead Free fittings available on
pgs. 166-175

NUT

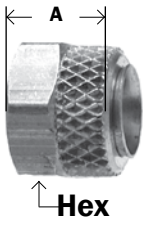
61PN
1261
261FPN



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	1.33
20-219	3/16”	3/8-24	0.41	0.44	0.01	1.20
20-220	1/4”	3/8-24	0.34	0.44	0.02	1.40
20-221	5/16”	7/16-24	0.34	0.50	0.02	0.98
20-222	3/8”	1/2-24	0.38	0.56	0.04	2.00
20-223	1/2”	11/16-20	0.42	0.81	0.06	2.55

UNIVERSAL NUT AND BRASS SLEEVE ASSEMBLY

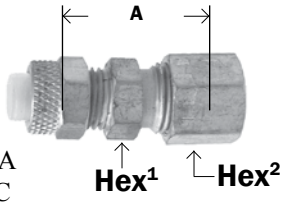
261PFB
1261B
61PB
261UB



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	1.84
20-228	3/16”	3/8-24	0.41	0.44	0.02	2.20
20-229	1/4”	3/8-24	0.34	0.43	0.02	2.01
20-230	5/16”	7/16-24	0.34	0.50	0.02	2.16
20-231	3/8”	1/2-24	0.37	0.56	0.04	3.08
20-232	1/2”	11/16-20	0.42	0.81	0.04	4.18

UNION TUBE #M62C - FLARELESS X STANDARD COMPRESSION

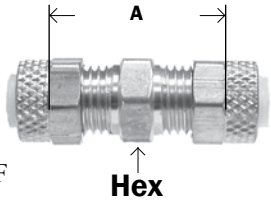
262S
62PCA
262PC



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	9.14
20-237	3/8”	0.84	0.62	0.62	0.08	9.55

UNION

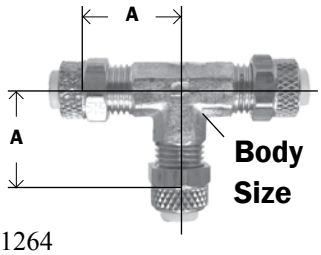
262PF
1262
62P
262P



Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-240	1/8”	0.66	0.31	0.02	7.85
20-241	3/16”	0.75	0.37	0.04	8.59
20-242	1/4”	0.69	0.37	0.04	3.39
20-243	5/16”	0.69	0.44	0.04	10.03
20-244	3/8”	0.72	0.50	0.10	10.08
20-200	3/8” x 1/4”	0.72	0.50	0.08	14.63
20-245	1/2”	0.84	0.69	0.14	14.69

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

UNION TEE

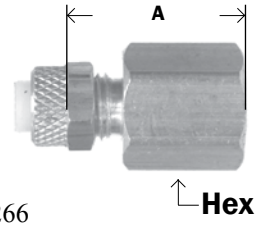


1264
164P
264P

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-248	1/8”	0.62	0.31	0.02	14.56
20-249	3/16”	0.62	0.31	0.04	12.69
20-250	1/4”	0.73	0.44	0.06	10.00
20-251	5/16”	0.62	0.37	0.08	14.50
20-252	3/8”	0.86	0.56	0.08	11.25
20-330*	3/8” x 1/4”	0.72	0.44	0.08	21.48
20-253	1/2”	0.81	0.62	0.24	31.03

* Reducing Branch

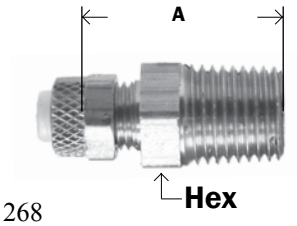
FEMALE CONNECTOR



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	6.99
20-257	3/16” x 1/8”	0.78	0.56	0.05	7.08
20-258	3/16” x 1/4”	0.97	0.69	0.05	20.58
20-259	1/4” x 1/8”	0.76	0.50	0.04	8.06
20-260	1/4” x 1/4”	1.08	0.62	0.05	7.21
20-261	5/16” x 1/8”	0.75	0.50	0.03	7.62
20-265	3/8” x 1/8”	0.77	0.56	0.05	14.67
20-262	3/8” x 1/4”	0.94	0.62	0.05	8.23
20-263	1/2” x 3/8”	1.00	0.81	0.12	12.45

MALE CONNECTOR

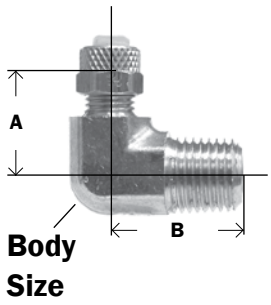


1268
68P
268P

Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-267	1/8” x 10-32*	0.59	0.37	0.02	18.25
20-268	1/8” x 1/8”	0.80	0.34	0.04	4.92
20-269	3/16” x 1/8”	0.86	0.44	0.04	4.52
20-280	1/4” x 1/16”	0.81	0.43	0.03	13.40
20-270	1/4” x 10-32*	0.75	0.37	0.02	8.53
20-271	1/4” x 1/8”	0.82	0.44	0.03	3.49
20-272	1/4” x 1/4”	1.00	0.56	0.05	4.23
20-273	1/4” x 3/8”	1.03	0.69	0.08	7.88
20-274	5/16” x 1/8”	0.81	0.44	0.04	4.86
20-275	5/16” x 1/4"	1.00	0.56	0.05	5.44
20-276	3/8” x 1/8”	0.84	0.50	0.06	5.26
20-277	3/8” x 1/4”	1.03	0.56	0.08	6.48
20-278	3/8” x 3/8”	1.03	0.69	0.10	7.76
20-279	1/2” x 3/8”	1.09	0.69	0.16	7.25
20-282	1/2” x 1/2”	1.33	0.88	0.18	14.46

* Furnished with gasket.

MALE ELBOW

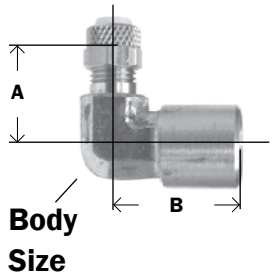


1269
169P
269P

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	5.27
20-288	3/16" x 1/8"	0.62	0.69	0.37	0.04	5.31
20-289*	1/4" x 1/8"	0.53	0.73	0.50	0.04	4.43
20-290	1/4" x 1/4"	0.66	0.94	0.37	0.06	6.93
20-291	1/4" x 3/8"	0.75	1.03	0.50	0.10	11.54
20-292	5/16" x 1/8"	0.62	0.75	0.41	0.04	5.57
20-293	3/8" x 1/8"	0.91	0.81	0.56	0.08	7.18
20-294	3/8" x 1/4"	0.72	0.94	0.44	0.10	8.28
20-295	3/8" x 3/8"	0.78	1.03	0.50	0.14	10.54
20-296	1/2" x 3/8"	1.09	1.10	0.73	0.16	8.50

* Barstock

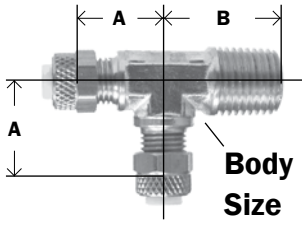
FEMALE ELBOW



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	7.98
20-301	3/16" x 1/8"	0.72	0.55	0.56	0.02	9.03
20-302	1/4" x 1/8"	0.62	0.75	0.37	0.08	8.62
20-303	1/4" x 1/4"	0.72	0.88	0.50	0.10	9.49
20-304	3/8" x 1/4"	0.72	0.88	0.50	0.12	9.13
20-305	1/2" x 3/8"	0.91	0.94	0.63	0.16	18.46

MALE RUN TEE

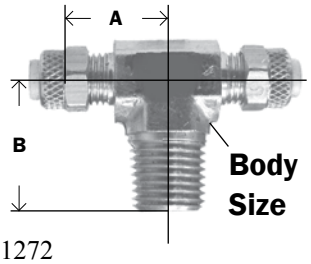


1271
171P
271P

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	11.61
20-309	3/16" x 1/8"	0.62	0.69	0.31	0.04	11.22
20-310	1/4" x 1/8"	0.62	0.75	0.37	0.08	10.45
20-311	1/4" x 1/4"	0.66	0.94	0.37	0.10	13.94
20-312	5/16" x 1/8"	0.62	0.75	0.37	0.08	11.49
20-313	3/8" x 1/4"	0.66	0.94	0.44	0.10	14.66
20-314	1/2" x 3/8"	0.81	1.06	0.63	0.16	19.18

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

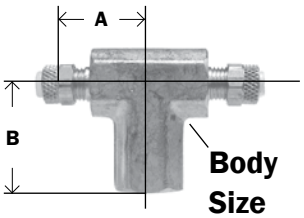
MALE BRANCH TEE



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	16.04
20-318	3/16" x 1/8"	0.63	0.69	0.31	0.04	11.32
20-319	1/4" x 1/8"	0.63	0.75	0.37	0.07	10.18
20-320	1/4" x 1/4"	0.66	0.94	0.37	0.09	13.07
20-321	5/16" x 1/8"	0.63	0.75	0.37	0.10	11.75
20-322	3/8" x 1/8"	0.63	0.75	0.44	0.08	18.05
20-323	3/8" x 1/4"	0.66	0.94	0.44	0.11	14.53
20-324	1/2" x 3/8"	0.81	1.06	0.63	0.21	30.76

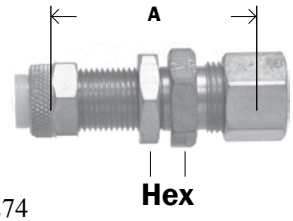
FEMALE BRANCH TEE



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	21.24
20-328	1/4" x 1/4"	0.84	1.16	0.56	0.16	17.79

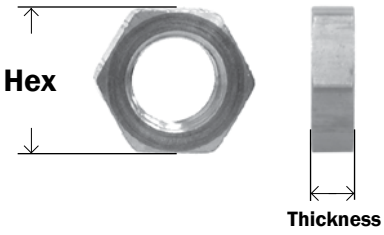
BULKHEAD UNION - FLARELESS X COMPRESSION



1274

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-333	1/4"	1.31	0.56	0.07	12.15
20-334	3/8"	1.44	0.69	0.12	15.54

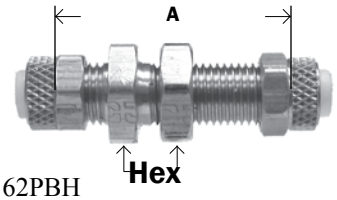
BULKHEAD NUT



Part #	Tube O.D.	Hex	Thickness	Approx. Wt. Lbs.	List Price
20-370	1/8"	0.31	0.25	0.01	3.37
20-372	5/16"	0.62	0.19	0.02	2.98

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

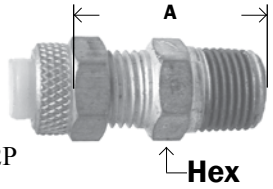
BULKHEAD UNION



62PBH
329P
282P

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-337	1/4”	1.25	0.56	0.06	11.45
20-338	5/16”	1.25	0.62	0.08	14.11
20-339	3/8”	1.31	0.69	0.10	16.01

QUICK DISCONNECT FITTING

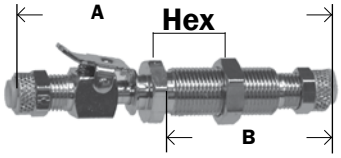


292P

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	30.40

QUICK DISCONNECT COUPLERS

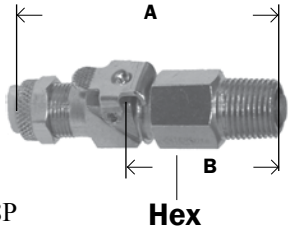
TUBE X TUBE



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	85.88
20-403	3/8”	3.56	1.92	0.81	0.10	84.71

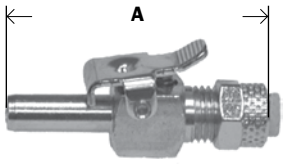
TUBE TO MALE THREAD - Single end Shut-Off, Connector, Quick Coupler.



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	62.36
20-411	1/4” x 1/4”	2.31	1.28	0.56	0.14	74.09
20-413	3/8” x 1/4”	2.63	1.42	0.62	0.18	85.78

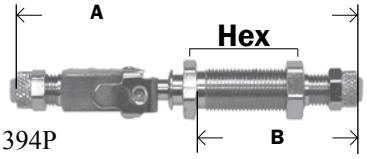
INSERT ONLY - Thru type insert. No Shut-Off.



393P

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-417	1/4”	1.69	0.04	30.21
20-419	3/8”	1.93	0.06	34.41

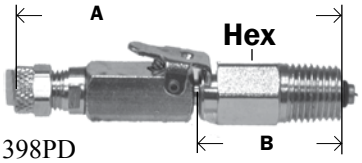
TUBE TO TUBE - Double end Shut-Off Type.



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	99.99
20-427	3/8"	3.82	1.97	0.81	0.26	110.15

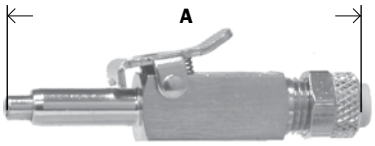
TUBE X MALE PIPE - Double End Shut-Off, Connector, Quick coupler.



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	84.47
20-437	1/4" x 1/4"	2.91	1.27	0.56	0.18	96.99
20-439	3/8" x 1/4"	3.02	1.40	0.62	0.24	97.63

INSERT ONLY - Double End Shut-Off



393PD

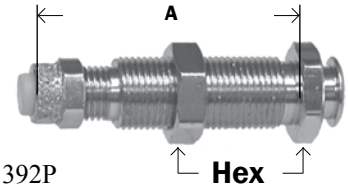
Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-445	1/4"	2.40	0.08	50.25

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	2.02
20-453	3/8"	0.38	0.56	0.01	2.80

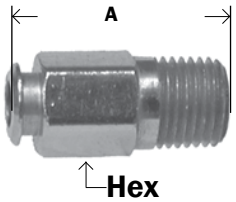
TUBE CONNECTION - Single end or Double end Shut-Off Type body only.



392P

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-455	1/4"	1.79	0.62	0.10	53.59
20-457	3/8"	1.97	0.81	0.16	68.15

MALE PIPE CONNECTION - Internal Shut-Off



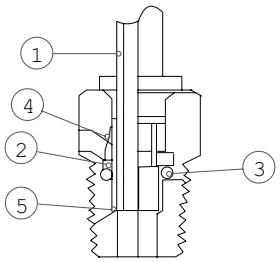
391P

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	35.39
20-463	1/4" x 1/4"	1.27	0.56	0.08	42.33
20-465	3/8" x 1/4"	1.40	0.62	0.08	51.36

BRASS PUSH-IN FITTINGS

PAGES 97-102 **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.

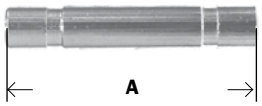


When tubing (1) is inserted into the fitting, it first passes through the gripping teeth (2). Just beyond the gripping teeth is the o-ring (3) which provides the leak proof seal against the OD of the tube. The gripping teeth grab the tube, which expands the insert. Pulling back on the tube only tightens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

• **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^{0}F to 200^{0}F (other ranges available on request).
• **PIPE THREAD**: NPTF with Teflon ® based sealant pre-applied.

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

DOUBLE MALE UNION - NICKEL PLATED

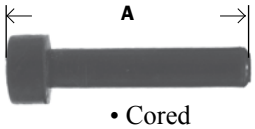


AQ34

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
20-004	1/8"	1.28	0.01	7.37
20-005	5/32"	1.28	0.01	16.94
20-006	1/4"	1.40	0.02	9.46
20-007	5/16"	1.59	0.02	9.10
20-008	3/8"	1.81	0.02	10.18
20-000	1/2"	1.89	0.03	22.70

(For polyurethane or other soft plastic tubing)

PLASTIC PLUG

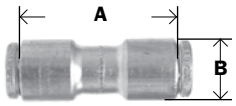


• Cored

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	1.46
20-010	1/4"	1.40	0.01	1.81
20-011	3/8"	1.40	0.02	3.52
20-013	1/2"	1.50	0.02	4.55

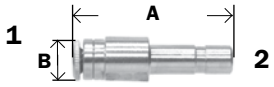
UNION CONNECTOR



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	10.19
20-018	5/32”	1.07	0.38	0.03	7.26
20-019	1/4”	1.50	0.44	0.05	6.91
20-022	3/8” x 1/4”	1.46	0.56	0.05	9.33
20-020	3/8”	1.44	0.56	0.06	9.60
20-021	1/2”	1.63	0.81	0.18	14.05

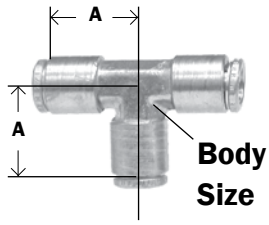
REDUCER - NICKEL PLATED - TUBE OD X STUD



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	15.02
20-511	5/32” x 1/4”	1.33	0.35	0.02	15.39
20-512	1/4” x 3/8”	1.50	0.51	0.04	18.26

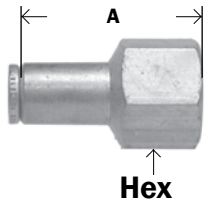
UNION TEE



KQT 1164
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	14.65
20-026	5/32”	0.67	0.31	0.04	12.47
20-027	3/16”	0.75	0.37	0.06	14.19
20-028	1/4”	0.92	0.37	0.09	9.57
20-031	5/16”	0.89	0.49	0.10	25.76
20-029	3/8”	0.98	0.50	0.13	13.15
20-030	1/2”	1.16	0.62	0.24	20.19

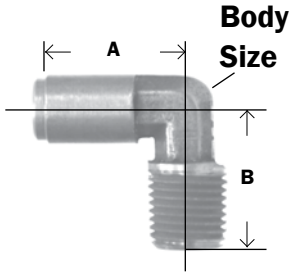
FEMALE CONNECTOR



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	16.26
20-038	1/8” x 1/4”	1.04	0.67	0.04	23.71
20-012	5/32" x 1/8"	1.09	0.56	0.05	14.45
20-034	1/4” x 1/8”	1.23	0.56	0.06	10.82
20-035	1/4” x 1/4”	1.42	0.75	0.09	14.99
20-036	3/8” x 1/4”	1.32	0.75	0.09	16.96
20-037	3/8” x 3/8”	1.31	0.87	0.12	21.67

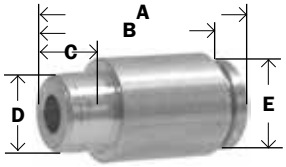
FIXED MALE ELBOW



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

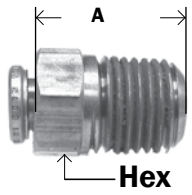
Part #	Tube O.D. x Male NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-065	1/8" x 1/8"	0.69	0.69	0.31	0.03	7.32
20-066	5/32" x 1/8"	0.68	0.68	0.31	0.03	11.46
20-067	3/16" x 1/8"	0.75	0.71	0.37	0.04	8.15
20-068	1/4" x 1/8"	0.89	0.75	0.37	0.06	5.99
20-069	1/4" x 1/4"	0.95	0.96	0.37	0.08	5.83
20-070	1/4" x 3/8"	1.00	0.98	0.50	0.10	11.66
20-071	3/8" x 1/8"	0.99	0.80	0.50	0.06	9.89
20-072	3/8" x 1/4"	0.98	0.98	0.50	0.09	7.85
20-073	3/8" x 3/8"	0.97	0.98	0.50	0.12	14.57
20-074	1/2" x 1/4"	1.15	1.05	0.62	0.15	12.57
20-075	1/2" x 3/8"	1.18	1.05	0.62	0.22	12.24
20-064	1/2" x 1/2"	1.16	1.66	0.62	0.20	14.39

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	9.59
20-041	5/32"	0.67	0.59	0.20	0.30	0.38	3.17
20-043	1/4"	0.93	0.85	0.26	0.38	0.50	5.89
20-044	3/8"	1.21	1.13	0.26	0.38	0.63	9.97

MALE CONNECTOR



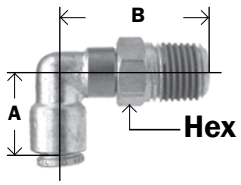
268PP KQH
AQ68 12-425
6510 50-568
3115 268-OF
68PL 1168

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	6.44
20-045	1/8" x 1/16"	0.68	0.37	0.02	11.03
20-048	1/8" x 1/8"	0.61	0.43	0.02	5.00
20-023	1/8" x 1/4"	0.98	0.56	0.04	5.57
20-049	5/32" x 10-32"*	0.67	0.37	0.02	10.29
20-050	5/32" x 1/8"	0.67	0.43	0.03	4.62
20-046	5/32" x 1/4"	0.85	0.56	0.05	9.77
20-051	3/16" x 10-32"*	0.80	0.37	0.02	9.00
20-052	3/16" x 1/8"	0.93	0.43	0.03	5.74
20-053	1/4" x 10-32"*	0.87	0.43	0.03	8.22
20-039	1/4" x 1/16"	0.92	0.43	0.06	10.49
20-054	1/4" x 1/8"	0.93	0.43	0.06	4.44
20-055	1/4" x 1/4"	0.93	0.56	0.10	5.24
20-056	1/4" x 3/8"	0.94	0.68	0.08	7.47
20-530	5/16" x 1/8"	1.07	0.56	0.05	17.71
20-531	5/16" x 1/4"	0.98	0.56	0.10	18.64
20-532	5/16" x 3/8"	1.06	0.75	0.08	19.37
20-057	3/8" x 1/8"	1.10	0.56	0.06	7.31
20-058	3/8" x 1/4"	1.11	0.56	0.05	6.79
20-059	3/8" x 3/8"	1.02	0.68	0.08	7.25
20-062	3/8"x 1/2"	1.02	0.87	0.08	12.50
20-060	1/2" x 1/4"	1.36	0.81	0.11	9.41
20-061	1/2" x 3/8"	1.30	0.81	0.12	10.82
20-063	1/2" x 1/2"	1.23	0.87	0.14	13.65

* Furnished with gaskets

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

SWIVEL MALE ELBOW

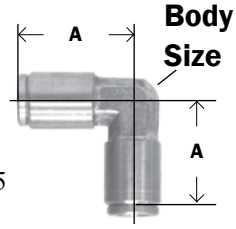


Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
20-079	1/8" x 1/8"	0.69	0.98	0.43	0.07	7.15
20-535*	1/8" x 1/4"	0.76	0.87	0.56	0.06	20.35
20-076	5/32" x 10-32"*	0.67	0.71	0.37	0.04	15.07
20-080	5/32" x 1/8"	0.68	0.89	0.43	0.05	7.85
20-077	5/32" x 1/4"	0.68	1.08	0.56	0.07	11.77
20-078	1/4" x 10-32"*	0.86	0.79	0.31	0.05	10.91
20-081	1/4" x 1/8"	0.90	0.93	0.37	0.08	6.98
20-082	1/4" x 1/4"	0.90	0.99	0.56	0.10	7.90
20-086	1/4" x 3/8"	0.98	1.14	0.68	0.09	15.26
20-538*	5/16" x 1/4"	0.91	0.85	0.56	0.07	23.79
20-539*	5/16" x 3/8"	0.91	0.87	0.75	0.08	33.67
20-087	3/8" x 1/8"	0.94	1.08	0.50	0.09	12.74
20-083	3/8" x 1/4"	0.99	1.15	0.56	0.10	9.72
20-084	3/8" x 3/8"	1.00	1.24	0.68	0.20	11.12
20-088	3/8" x 1/2"	1.00	1.54	0.87	0.19	18.12
20-085	1/2" x 3/8"	1.16	1.34	0.62	0.18	14.00
20-092	1/2" x 1/2"	1.16	1.61	0.62	0.24	20.91

* Nickel Plated * Furnished with gaskets

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

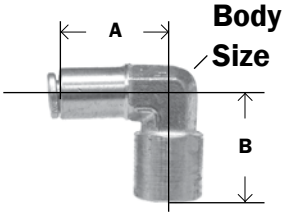
UNION ELBOW



Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-150	1/8"	0.65	0.31	0.02	11.66
20-151	5/32"	0.67	0.31	0.04	10.55
20-152	1/4"	0.87	0.37	0.06	10.41
20-155	5/16"	0.91	0.47	0.08	30.19
20-153	3/8"	0.97	0.50	0.09	13.09
20-154	1/2"	1.15	0.62	0.18	18.51

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

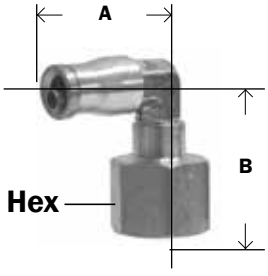
FEMALE ELBOW



Part #	Tube O.D. x Female NPTF	A	B	Body Size	Approx. Wt. Lbs.	List Price
20-192	1/8" x 1/8"	0.78	0.82	0.31	0.02	8.38
20-094	5/32" x 1/8"	0.68	0.82	0.37	0.02	9.93
20-089	1/4" x 1/8"	0.91	0.75	0.37	0.06	11.26
20-090	1/4" x 1/4"	1.03	1.03	0.50	0.11	13.35
20-091	3/8" x 1/4"	0.98	0.95	0.50	0.16	20.39

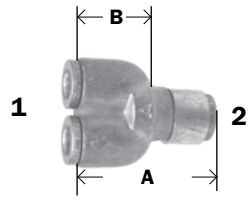
AQ70-P
3009

FEMALE SWIVEL ELBOW



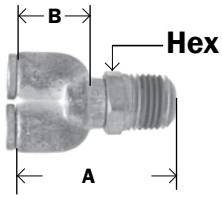
Part #	Tube O.D. x Female NPTF	A	B	Hex	List Price
20-094S	5/32" x 1/8"	0.76	1.06	0.56	15.59
20-089S	1/4" x 1/8"	0.98	1.08	0.56	15.32
20-090S	1/4" x 1/4"	0.98	1.26	0.75	13.82
20-091S	3/8" x 1/4"	1.07	1.48	0.75	20.22

UNION "Y"



Part #	Tube O.D. 1 X 2	A	B	Approx. Wt. Lbs.	List Price
20-551	5/32" x 5/32"	1.36	0.81	0.11	57.95
20-552	1/4" x 1/8"	1.61	1.06	0.12	40.05
20-553	1/4" x 1/4"	1.81	1.16	0.14	37.39

MALE "Y"



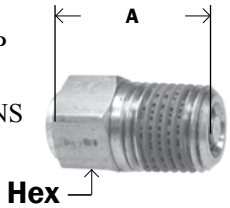
12-445
50-569
1169

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	49.40

QUICK DISCONNECT

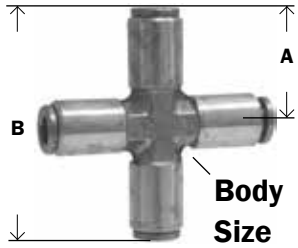
When tube is disconnected, flow shuts off automatically.

AQ92-P
6500
169PLNS



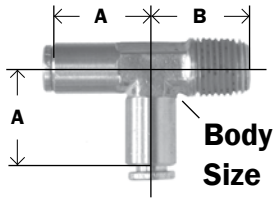
Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-133	1/4" x 1/8"	0.92	0.43	0.10	36.22
20-134	1/4" x 1/4"	0.92	0.56	0.12	25.86

CROSS



Size	Size	A	B	Body Size	List Price
20-142	1/4"	1.03	2.06	0.37	25.94
20-143	3/8"	1.06	2.12	0.50	25.41

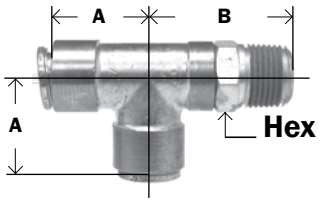
FIXED MALE RUN TEE



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	13.01
20-097	3/16" x 1/8"	0.75	0.73	0.37	0.06	16.74
20-098	1/4" x 1/8"	0.92	0.74	0.37	0.08	12.29
20-093	1/4" x 1/4"	0.92	0.92	0.43	0.10	13.99
20-099	3/8" x 1/8"	0.94	0.82	0.50	0.14	15.04
20-100	3/8" x 1/4"	0.98	0.98	0.50	0.12	17.97
20-101	3/8" x 3/8"	1.05	1.05	0.62	0.10	18.13
20-102	1/2" x 3/8"	1.14	1.05	0.62	0.18	25.92

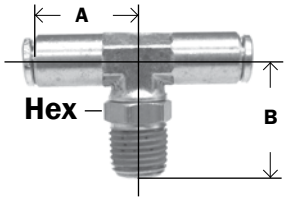
SWIVEL MALE RUN TEE



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
20-160	1/8" x 1/8"	0.65	0.86	0.43	0.08	11.29
20-161	5/32" x 1/8"	0.67	1.04	0.43	0.09	13.50
20-162	1/4" x 1/8"	0.92	1.04	0.44	0.09	12.56
20-163	1/4" x 1/4"	0.92	1.13	0.56	0.11	14.10
20-164	3/8" x 1/4"	0.94	1.19	0.56	0.11	15.04
20-165	3/8" x 3/8"	0.96	1.24	0.50	0.12	23.42
20-174	1/2" x 1/4"	1.12	1.18	0.51	0.16	57.08
20-166	1/2" x 3/8"	1.14	1.31	0.68	0.14	26.77
20-167	1/2" x 1/2"	1.14	1.61	0.87	0.16	33.76

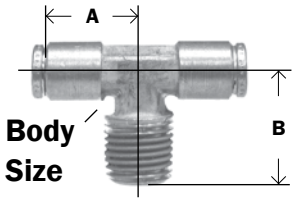
SWIVEL MALE BRANCH TEE



Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
20-103	1/8" x 1/8"	0.65	0.81	0.31	0.04	18.87
20-104	5/32" x 10-32"*	0.65	0.71	0.31	0.04	24.76
20-109	5/32" x 1/8"	0.67	0.94	0.37	0.06	15.54
20-105	1/4" x 1/8"	0.92	0.97	0.37	0.08	15.33
20-106	1/4" x 1/4"	0.92	1.09	0.37	0.10	11.51
20-107	3/8" x 1/4"	0.96	1.14	0.56	0.18	15.83
20-108	3/8" x 3/8"	0.96	1.23	0.69	0.16	21.46
20-110	1/2" x 3/8"	1.16	1.34	0.69	0.24	27.42
20-111	1/2" x 1/2"	1.16	1.64	0.87	0.28	31.20

* Furnished with gaskets

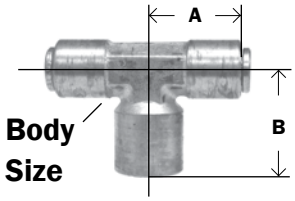
FIXED MALE BRANCH TEE



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	12.64
20-113	5/32" x 1/8"	0.69	0.65	0.31	0.04	14.44
20-115	1/4" x 1/8"	0.92	0.74	0.37	0.12	13.07
20-116	1/4" x 1/4"	0.91	0.93	0.37	0.10	14.06
20-117	3/8" x 1/8"	0.98	0.80	0.50	0.08	16.72
20-118	3/8" x 1/4"	0.98	0.97	0.50	0.12	17.71
20-119	3/8" x 3/8"	0.98	0.97	0.50	0.14	18.39
20-120	1/2" x 3/8"	1.16	1.05	0.62	0.18	25.54

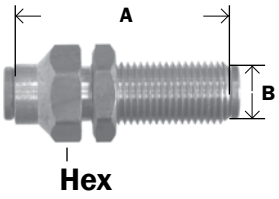
FEMALE BRANCH TEE



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	18.43
20-132	3/8" x 1/4"	0.96	0.98	0.50	0.12	23.89

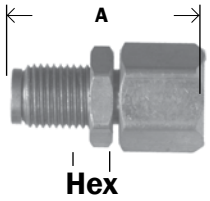
BULKHEAD UNION



Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
20-124	1/8"	1.12	0.62	0.03	27.41
20-125	5/32"	1.12	0.62	0.03	30.03
20-126	3/16"	1.27	0.68	0.04	27.24
20-127	1/4"	1.69	0.68	0.06	18.10
20-128	3/8"	1.69	0.81	0.13	22.79
20-129	1/2"	1.85	1.12	0.16	36.84

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

FEMALE BULKHEAD UNION



Part #	Tube O.D. x Female NPTF	A	Hex	Approx. Wt. Lbs.	List Price
20-170	1/4" x 1/8"	1.19	0.68	0.08	15.79
20-171	1/4" x 1/4"	1.36	0.75	0.10	52.59
20-172	3/8" x 1/4"	1.71	0.75	0.14	24.49

AQ86-P
1166BH

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

NICKEL PLATED PUSH-IN FITTINGS

PAGES 103-111

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

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

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.

GLOBAL THREAD

Works With Inch or Metric Threads

GLOBAL THREAD
NPT • BSPT • RC • NPTF • BSPP • G

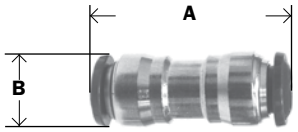
Look for this Logo

"Global Thread" fittings can be assembled with female threads produced to the following standards: **Tapered NPTF**
Parrallel (BSPP, BSP, ISO 7)
Tapered (BSPT, PT, ISO 7, ISO 228)

Lead Free fittings available on
pgs. 166-175

NICKEL PLATED PUSH-IN FITTINGS

UNION CONNECTOR

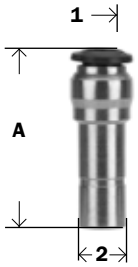


62PL
88040

NEW

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
20-017N	1/8”	1.06	0.34	0.03	7.54
20-018N	5/32”	1.20	0.41	0.03	7.62
20-016N	5/32" x 1/4"	1.20	0.40	0.04	8.13
20-019N	1/4”	1.38	0.49	0.05	7.32
20-015N	5/16"	1.46	0.57	0.06	8.22
20-020N	3/8”	1.69	0.69	0.06	10.90
20-022N	3/8" x 1/4"	1.69	0.68	0.06	10.98
20-021N	1/2”	1.93	0.81	0.18	15.09
20-024N	1/2" x 3/8"	1.84	0.80	0.17	13.01

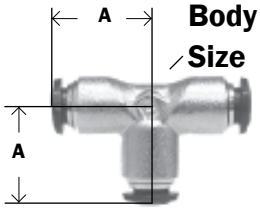
REDUCER



67PPL
88700

Part #	Tube O.D. 2	Tube O.D. 1	A	List Price
20-510N	1/4"	1/8"	1.142	5.39
20-511N	1/4"	5/32"	1.181	5.63
20-512N	3/8"	1/4"	1.496	7.30
20-513N	1/2"	1/4"	1.693	7.30
20-514N	1/2"	3/8"	1.693	9.26

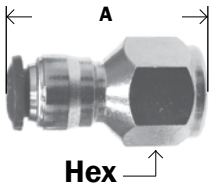
UNION TEE



164PL
88230

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-025N	1/8”	0.67	0.35	0.04	11.10
20-026N	5/32”	0.67	0.35	0.04	21.26
20-028N	1/4”	0.83	0.43	0.09	11.77
20-031N	5/16”	0.87	0.51	0.10	16.22
20-029N	3/8”	1.04	0.63	0.13	16.21
20-030N	1/2”	1.20	0.74	0.24	22.46

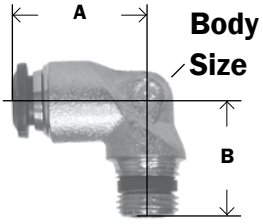
FEMALE CONNECTOR



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	12.42
20-038N	1/8” x 1/4”	1.14	0.63	0.04	11.28
20-034N	1/4” x 1/8”	1.06	0.51	0.06	9.94
20-035N	1/4” x 1/4”	1.26	0.63	0.09	10.90
20-036N	3/8” x 1/4”	1.38	0.71	0.09	18.60
20-037N	3/8” x 3/8”	1.38	0.79	0.12	18.24

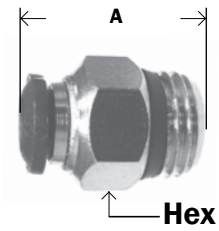
FIXED MALE ELBOW



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	6.30
20-069N	1/4” x 1/4”	0.83	0.91	0.43	0.08	6.89
20-072N	3/8” x 1/4”	1.04	1.04	0.63	0.09	10.88
20-073N	3/8” x 3/8”	1.04	1.00	0.63	0.12	11.77

MALE CONNECTOR

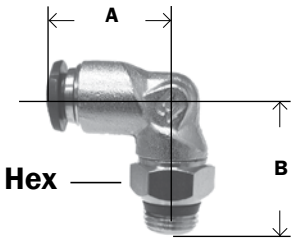


GLOBAL THREAD
NPT • BSPT • RC • NPTF • BSPP • G

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	6.02
20-048N	1/8" x 1/8"	0.77	0.43	0.02	5.48
20-023N	1/8" x 1/4"	0.97	0.55	0.04	5.36
20-049N	5/32" x 10-32"	0.83	0.39	0.02	5.91
20-050N	5/32" x 1/8"	0.83	0.43	0.03	4.58
20-046N	5/32" x 1/4"	0.98	0.55	0.05	7.14
20-053N	1/4" x 10-32"	0.97	0.51	0.03	6.73
20-054N	1/4" x 1/8"	0.98	0.51	0.06	4.71
20-055N	1/4" x 1/4"	0.98	0.55	0.10	5.39
20-056N	1/4" x 3/8"	0.98	0.71	0.08	6.89
20-530N	5/16" x 1/8"	0.98	0.55	0.05	7.87
20-531N	5/16" x 1/4"	1.08	0.55	0.10	7.82
20-532N	5/16" x 3/8"	1.08	0.71	0.08	9.60
20-057N	3/8" x 1/8"	1.38	0.67	0.06	7.82
20-058N	3/8" x 1/4"	1.32	0.67	0.05	7.28
20-059N	3/8" x 3/8"	1.32	0.71	0.08	8.11
20-062N	3/8"x 1/2"	1.32	0.87	0.08	14.58
20-060N	1/2" x 1/4"	1.54	0.79	0.11	10.52
20-061N	1/2" x 3/8"	1.42	0.79	0.12	12.80
20-063N	1/2" x 1/2"	1.58	0.87	0.14	15.69

SWIVEL MALE ELBOW

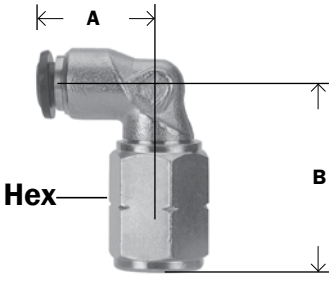


W169PL
87110

GLOBAL THREAD
NPT • BSPT • RC • NPTF • BSPP • G

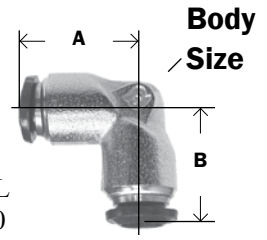
Part #	Tube O.D. x Male Global Thread	A	B	Hex	Approx. Wt. Lbs.	List Price
20-079N	1/8" x 1/8"	0.67	0.78	0.51	0.07	7.96
20-535N	1/8" x 1/4"	0.67	0.95	0.59	0.06	10.04
20-076N	5/32" x 10-32"	0.67	0.95	0.59	0.04	9.17
20-080N	5/32" x 1/8"	0.67	0.79	0.51	0.05	8.49
20-081N	1/4" x 1/8"	0.83	0.87	0.51	0.08	7.81
20-082N	1/4" x 1/4"	0.83	0.98	0.59	0.10	8.71
20-086N	1/4" x 3/8"	0.83	1.10	0.67	0.09	14.49
20-538N	5/16" x 1/4"	0.89	1.02	0.59	0.07	11.28
20-539N	5/16" x 3/8"	0.87	1.10	0.67	0.08	13.65
20-087N	3/8" x 1/8"	1.04	1.02	0.51	0.09	13.38
20-083N	3/8" x 1/4"	1.04	1.10	0.59	0.10	11.31
20-084N	3/8" x 3/8"	1.04	1.18	0.67	0.20	14.06
20-088N	3/8" x 1/2"	1.04	1.30	0.83	0.19	19.11
20-085N	1/2" x 3/8"	1.20	1.24	0.59	0.18	17.77
20-092N	1/2" x 1/2"	1.20	1.42	0.83	0.24	19.97

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	9.97
20-089N	1/4" x 1/8"	0.826	1.023	0.433	11.80
20-090N	1/4" x 1/4"	0.826	1.200	0.433	11.62
20-762N	3/8" x 1/8"	0.885	1.082	0.511	12.69
20-091N	3/8" x 1/4"	0.885	1.240	0.511	13.45

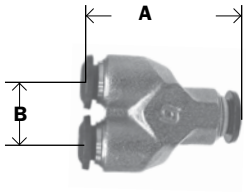
UNION ELBOW



165PL
88130

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
20-150N	1/8”	0.67	0.35	0.02	10.26
20-151N	5/32”	0.67	0.35	0.04	8.51
20-152N	1/4”	0.83	0.43	0.06	8.79
20-155N	5/16”	0.87	0.51	0.08	10.80
20-153N	3/8”	1.04	0.63	0.09	13.12
20-154N	1/2”	1.20	0.75	0.18	18.93

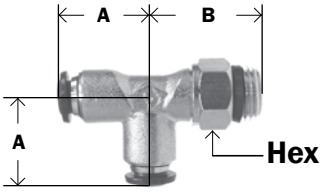
UNION "Y"



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	24.94

SWIVEL MALE RUN TEE

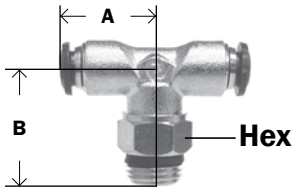


W171PL
87222

GLOBAL THREAD
NPT • BSPT • RC • NPTF • BSPP • G

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	12.99
20-163N	1/4” x 1/4”	0.83	0.98	0.59	0.11	13.85
20-164N	1/4" x 3/8"	0.83	1.10	0.59	0.11	15.04
20-165N	3/8” x 3/8”	1.04	1.18	0.67	0.12	22.54
20-174N	1/2” x 1/4”	1.20	1.24	0.59	0.16	28.51
20-166N	1/2” x 3/8”	1.20	1.30	0.67	0.14	27.08

SWIVEL MALE BRANCH TEE

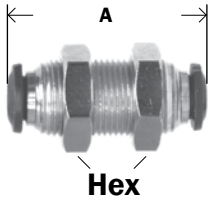


W172PL
87210

GLOBAL THREAD
NPT • BSPT • RC • NPTF • BSPP • G

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	11.89
20-104N	5/32” x 10-32”	0.67	0.79	0.31	0.04	12.64
20-105N	1/4” x 1/8”	0.83	0.87	0.51	0.08	12.99
20-106N	1/4” x 1/4”	0.83	0.98	0.59	0.10	12.99
20-156N	1/4" x 3/8"	1.043	1.10	0.59	0.18	15.05
20-107N	3/8” x 1/4”	1.04	1.10	0.59	0.18	17.88
20-108N	3/8” x 3/8”	1.04	1.18	0.67	0.16	21.25
20-110N	1/2” x 3/8”	1.20	1.30	0.67	0.24	27.08
20-111N	1/2” x 1/2”	1.20	1.42	0.82	0.28	28.44

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	13.48
20-123N	5/16”	1.45	0.74	0.08	17.11
20-128N	3/8”	1.69	0.94	0.13	19.28

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"	33.46
28-401	1/4"	38.14
28-402	3/8"	44.07



BALL VALVE MALE NPTF PUSH-FIT CONNECTIONS

Part #	NPTF	Tube	List Price
28-403	1/8"	5/32"	25.69
28-404	1/4"	1/4"	27.10
28-405	3/8"	3/8"	30.55

Nothing in this world can take the place of persistence.

Talent will not: nothing is more common than unsuccessful men with talent.

Genius will not; unrewarded genius is almost a proverb.

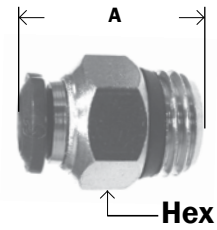
Education will not: the world is full of educated derelicts.

Persistence and determination alone are omnipotent.

- Calvin Coolidge

NICKEL PLATED METRIC PUSH-IN FITTINGS

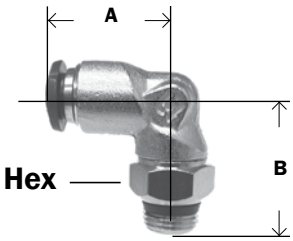
METRIC TUBE STRAIGHT MALE



GLOBAL THREAD
NPT • BSPT • RC • NPTF • BSPP • G

Part #	Tube O.D. (mm)	Global Thread	A	Hex	List Price
20-630N	4	1/8"	0.702	0.429	4.51
20-631N	4	1/4"	0.760	0.546	5.87
20-700N	5	1/8"	0.78	0.429	5.27
20-701N	5	1/4"	0.78	0.546	5.65
20-632N	6	1/8"	0.78	0.546	5.27
20-633N	6	1/4"	0.819	0.546	5.65
20-702N	8	1/8"	0.955	0.546	5.84
20-634N	8	1/4"	0.858	0.546	5.91
20-635N	8	3/8"	0.897	0.663	6.53
20-703N	8	1/2"	0.897	0.663	7.87
20-636N	10	1/4"	1.092	0.663	7.68
20-637N	10	3/8"	1.092	0.663	7.87
20-704N	10	1/2"	1.014	0.663	8.95
20-801N	12	1/4"	1.267	0.78	9.21
20-638N	12	3/8"	1.267	0.78	9.97
20-705N	12	1/2"	1.209	0.78	10.09
20-706N	14	3/8"	1.287	0.858	11.74
20-707N	14	1/2"	1.248	0.858	12.69

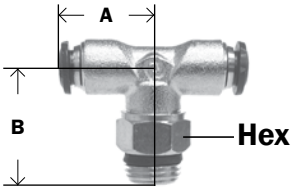
METRIC TUBE SWIVEL MALE ELBOW



GLOBAL THREAD
NPT • BSPT • RC • NPTF • BSPP • G

Part #	Tube O.D. (mm)	Global Thread	A	B	Hex	List Price
20-708N	4	1/8"	0.663	0.780	0.507	9.14
20-709N	4	1/4"	0.663	0.936	0.585	9.97
20-710N	5	1/8"	0.780	0.858	0.507	9.21
20-642N	6	1/8"	0.819	0.858	0.507	8.73
20-803N	6	1/4"	0.819	0.975	0.585	9.97
20-711N	8	1/8"	0.878	0.917	0.507	10.17
20-805N	8	1/4"	0.878	1.014	0.585	11.13
20-655N	8	3/8"	0.878	1.092	0.663	14.48
20-712N	8	1/2"	0.878	1.404	0.819	15.68
20-656N	10	1/4"	1.034	1.092	0.585	14.03
20-657N	10	3/8"	1.034	1.170	0.663	15.68
20-713N	10	1/2"	1.034	1.287	0.819	18.22
20-658N	12	3/8"	1.190	1.287	0.663	18.08
20-659N	12	1/2"	1.190	1.404	0.819	20.63
20-714N	14	3/8"	1.268	1.404	0.663	21.77
20-715N	14	1/2"	1.268	1.443	0.819	23.10

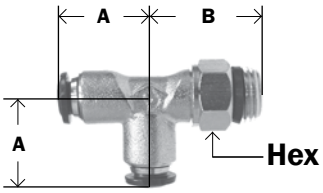
METRIC TUBE SWIVEL MALE BRANCH TEE





Part #	Tube O.D. (mm)	Global Thread	A	B	Hex	List Price
20-680N	4	1/8"	0.663	0.780	0.507	12.76
20-716N	4	1/4"	0.663	0.936	0.585	13.90
20-717N	5	1/8"	0.78	0.858	0.507	12.76
20-682N	6	1/8"	0.819	0.858	0.507	12.76
20-683N	6	1/4"	0.819	0.975	0.585	13.90
20-809N	8	1/8"	0.877	0.917	0.507	15.49
20-684N	8	1/4"	0.877	1.014	0.585	15.81
20-686N	10	1/4"	1.033	1.092	0.585	20.56
20-687N	10	3/8"	1.033	1.170	0.663	21.77
20-810N	10	1/2"	1.033	1.287	0.819	23.10
20-688N	12	3/8"	1.189	1.287	0.663	24.12
20-689N	12	1/2"	1.189	1.404	0.819	26.08
20-718N	14	3/8"	1.267	1.404	0.663	30.15
20-719N	14	1/2"	1.267	1.443	0.819	32.49

METRIC TUBE SWIVEL MALE RUN TEE

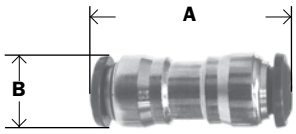




Part #	Tube O.D. (mm)	Global Thread	A	B	Hex	List Price
20-670N	4	1/8"	0.663	0.780	0.507	12.76
20-720N	4	1/4"	0.663	0.936	0.585	13.90
20-721N	5	1/8"	0.780	0.858	0.507	12.76
20-672N	6	1/8"	0.819	0.858	0.507	12.76
20-673N	6	1/4"	0.819	0.975	0.585	13.90
20-811N	8	1/8"	0.819	0.917	0.507	15.49
20-674N	8	1/4"	0.878	1.014	0.585	15.81
20-676N	10	1/4"	0.878	1.092	0.585	20.56
20-677N	10	3/8"	1.034	1.170	0.663	21.77
20-722N	10	1/2"	1.034	1.287	0.819	23.10
20-678N	12	3/8"	1.190	1.287	0.663	24.12
20-679N	12	1/2"	1.190	1.404	0.819	26.08

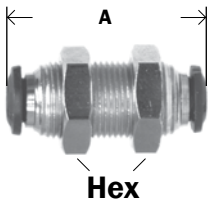
I USED TO THINK THE WORST THING IN LIFE WAS TO END UP ALL ALONE, IT'S NOT. THE WORST THING IN LIFE IS TO END UP WITH PEOPLE WHO MAKE YOU FEEL ALL ALONE.
- ROBIN WILLIAMS

BULKHEAD UNION



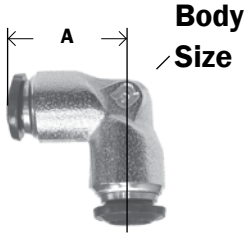
Part #	Tube O.D. (mm)	Tube O.D. (mm)	A	B	List Price
20-723N	3		1.014	0.332	11.87
20-600N	4		1.190	0.410	8.32
20-724N	5		1.287	0.449	8.64
20-725N	6	4	1.248	0.488	8.64
20-601N	6		1.326	0.488	8.64
20-726N	8	6	1.365	0.566	9.46
20-727N	8		1.404	0.566	9.46
20-728N	10	8	1.638	0.683	11.87
20-603N	10		1.638	0.683	11.87
20-729N	12	10	1.833	0.800	14.03
20-604N	12		1.833	0.800	14.03
20-730N	14		1.911	0.839	21.01

BULKHEAD



Part #	Tube O.D. (mm)	M	A	Hex	List Price
20-731N	3	M10x1	1.014	0.546	19.29
20-732N	4	MI2x1	1.229	0.663	12.76
20-733N	5	M14x1	1.287	0.663	14.16
20-734N	6	M14x1	1.365	0.663	14.16
20-735N	8	M16x1	1.443	0.741	15.49
20-736N	10	M20x1	1.677	0.936	20.50
20-737N	12	M22x1	1.872	1.014	24.56

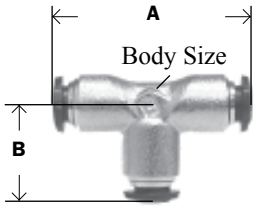
UNION ELBOW



Part #	Tube O.D. (mm)	A	Body Size	List Price
20-738N	3	0.663	0.51	11.87
20-206N	4	0.663	0.351	9.21
20-739N	5	0.780	0.429	9.33
20-660N	6	0.780	0.429	9.33
20-661N	8	0.878	0.507	10.98
20-807N	10	1.034	0.624	13.52
20-808N	12	1.190	0.741	17.78
20-740N	14	1.268	0.741	21.90

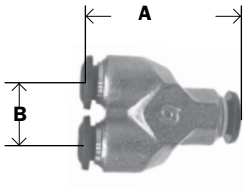
LIFE ISN'T ABOUT FINDING YOURSELF. LIFE IS ABOUT CREATING YOURSELF.
- GEORGE BERNARD SHAW

UNION TEE



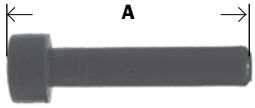
Part #	Tube O.D. (mm)	A	B	Body Size	List Price
20-741N	3	1.326	0.663	0.351	16.50
20-610N	4	1.326	0.663	0.351	12.69
20-742N	5	1.560	0.780	0.429	13.39
20-611N	6	1.638	0.819	0.429	13.39
20-612N	8	1.755	0.878	0.507	15.49
20-613N	10	2.067	1.034	0.624	20.12
20-614N	12	2.379	1.190	0.741	24.95
20-743N	14	2.379	2.535	0.741	32.06

UNION Y



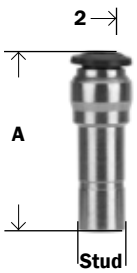
Part #	Tube O.D. (mm)	B	A	List Price
20-744N	3	0.390	1.131	23.35
20-813N	4	0.429	1.248	17.52
20-745N	5	0.527	1.365	18.54
20-814N	6	0.527	1.424	18.54
20-815N	8	0.605	1.599	21.01
20-746N	10	0.728	1.890	29.65

PLUG



Part #	Tube O.D. (mm)	A	List Price
20-748N	4	0.917	1.14
20-749N	5	0.956	1.14
20-750N	6	0.956	1.14
20-751N	8	1.014	1.40
20-752N	10	1.112	1.42
20-753N	12	1.190	1.43

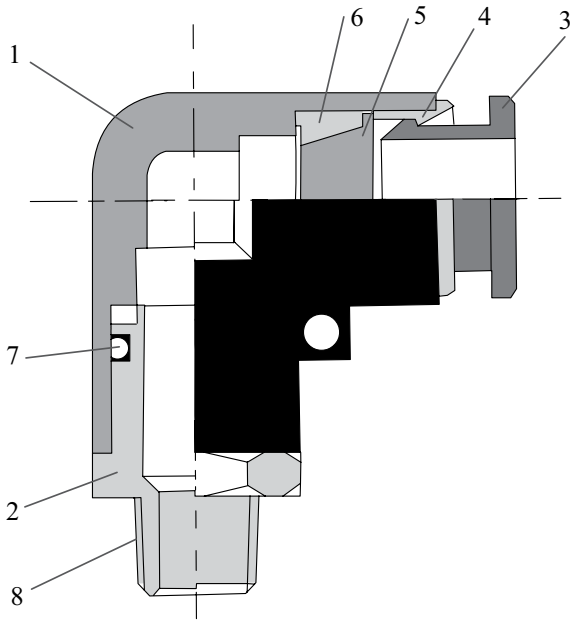
REDUCER



Part #	Stud (mm)	Tube O.D. 2 (mm)	A	List Price
20-754N	4	3	1.053	10.09
20-755N	5	4	1.131	5.27
20-756N	6	4	1.170	5.27
20-757N	6	5	1.248	5.27
20-758N	8	6	1.326	5.59
20-759N	10	8	1.482	5.91
20-760N	12	8	1.521	6.35

Composite Body Push-In Fittings

• For Food Grade, see page 279



Specifications

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

Materials of Construction:

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

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

• **Tolerance**

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

UNION



PQ62P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-019C	1/4”	0.01	3.44
20-020C	3/8”	0.02	4.40
20-021C	1/2"	0.03	7.55

UNION TEE



PQ64P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-028C	1/4”	0.02	4.47
20-029C	3/8”	0.02	5.46
20-030C	1/2"	0.08	10.39

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	6.89
20-035C	1/4” x 1/4”	0.04	6.23
20-036C	3/8” x 1/4”	0.04	4.10
20-037C	3/8” x 3/8”	0.06	4.08

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	3.59
20-055C	1/4” x 1/4”	0.02	2.21
20-056C	1/4” x 3/8”	0.04	4.46
20-058C	3/8” x 1/4”	0.06	3.51
20-059C	3/8” x 3/8”	0.06	3.63
20-062C	3/8” x 1/2”	0.08	6.69
20-060C	1/2” x 1/4”	0.06	6.72
20-061C	1/2” x 3/8”	0.08	6.01
20-063C	1/2” x 1/2”	0.10	6.48

SWIVEL MALE ELBOW

• Swivels for installation only.
• Not a live swivel



PQ69PS

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-081C	1/4” x 1/8”	0.02	3.94
20-082C	1/4” x 1/4”	0.04	3.75
20-086C	1/4” x 3/8”	0.06	4.79
20-087C	3/8” x 1/8’	0.04	4.98
20-083C	3/8” x 1/4”	0.08	5.20
20-084C	3/8” x 3/8”	0.10	4.96
20-088C	3/8” x 1/2”	0.12	8.65
20-085C	1/2" x 3/8"	0.16	10.42

SWIVEL MALE BRANCH TEE

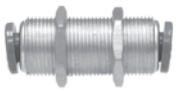
• Swivels for installation only.
• Not a live swivel



PQ72PS

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-105C	1/4" x 1/8"	0.04	9.13
20-106C	1/4" x 1/4"	0.06	11.48
20-121C	1/4" x 3/8"	0.08	6.11
20-107C	3/8" x 1/4"	0.10	10.45
20-108C	3/8" x 3/8"	0.12	10.07

BULKHEAD UNION



PQ82P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-127C	1/4"	0.04	7.56
20-128C	3/8"	0.06	6.67

90° UNION ELBOW



PQ65P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-152C	1/4"	0.02	5.13
20-153C	3/8"	0.02	6.03

SWIVEL MALE RUN TEE

• Swivels for installation only.
• Not a live swivel



PQ71PS

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-162C	1/4" x 1/8"	0.04	9.06
20-163C	1/4" x 1/4"	0.04	5.16
20-099C	3/8" x 1/8"	0.06	6.22
20-100C	3/8" x 1/4"	0.08	5.77
20-165C	3/8" x 3/8"	0.10	6.86

UNION "Y" CONNECTOR



PQ89P

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-553C	1/4"	0.02	7.41
20-555C	3/8"	0.02	9.55

SWIVEL "Y" CONNECTOR

• Swivels for installation only. • Not a live swivel



PQ88PS

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-557C	1/4" x 1/4"	0.02	10.89

IN-LINE NEEDLE VALVE



PQ310C

Part #	Tube O.D.	Approx. Wt. Lbs.	List Price
20-487C	1/4"	0.04	26.80

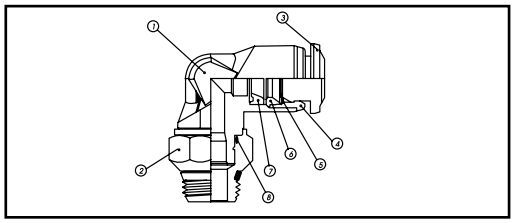
RIGHT ANGLE FLOW CONTROL METER IN



JPQ

Part #	Tube O.D. x Male NPT	Approx. Wt. Lbs.	List Price
20-728C	1/4" x 1/4"	0.04	23.33

Technical Characteristics



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

Operating Range
Pressure: 0 to 220 PSI (15 bar)
Vacuum: 0 to 29hg (-.99 bar)

Temperature
-5^0 F to + 175^0 F (-20^0 C to + 80^0 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

3175



Nickel Plated

Part #	Tube OD (mm)	BSPT Thread	List Price
20-630	4	1/8”	5.90
20-631	4	1/4”	6.82
20-632	6	1/8”	6.69
20-633	6	1/4”	6.21
20-634	8	1/4”	7.64
20-635	8	3/8”	8.40
20-636	10	1/4”	8.88
20-637	10	3/8”	9.70
20-801	12	1/4”	11.41
20-638	12	3/8”	12.33

UNION

3106



Part #	Tube O.D. (mm)	List Price
20-600	4	10.38
20-601	6	7.78
20-602	8	6.00
20-603	10	11.43
20-604	12	17.18

SWIVEL MALE 90⁰ ELBOW



Part #	Tube OD (mm)	BSPT Thread	List Price
20-642	6	1/8”	7.45
20-803	6	1/4”	11.88
20-805	8	1/4”	14.35
20-655	8	3/8"	18.42
20-656	10	1/4"	13.27
20-657	10	3/8"	18.88
20-658	12	3/8"	21.83
20-659	12	1/2"	24.09

UNION 90⁰ ELBOW

3102



Part #	Tube O.D. (mm)	List Price
20-806	4	12.03
20-660	6	11.82
20-661	8	14.12
20-807	10	16.76
20-808	12	22.21

SWIVEL MALE BRANCH TEE



Part #	Tube OD (mm)	BSPT Thread	List Price
20-680	4	1/8”	12.41
20-682	6	1/8”	12.03
20-683	6	1/4”	14.01
20-809	8	1/8"	14.55
20-684	8	1/4"	20.50
20-685	8	3/8"	24.27
20-686	10	1/4"	19.66
20-687	10	3/8"	28.88
20-810	10	1/2"	28.89
20-688	12	3/8"	21.58
20-689	12	1/2"	25.99

UNION TEE

3104



Part #	Tube O.D. (mm)	List Price
20-610	4	16.31
20-611	6	12.84
20-612	8	19.18
20-613	10	25.20
20-614	12	25.63

SWIVEL MALE RUN TEE



Part #	Tube OD (mm)	BSPT Thread	List Price
20-670	4	1/8”	12.29
20-672	6	1/8”	13.31
20-673	6	1/4”	12.35
20-811	8	1/8"	14.95
20-674	8	1/4"	14.61
20-675	8	3/8"	16.04
20-676	10	1/4"	27.14
20-677	10	3/8"	28.89
20-678	12	3/8"	23.03
20-679	12	1/2"	25.08

UNION Y CONNECTOR



Part #	Tube OD (mm)	List Price
20-813	4	21.43
20-814	6	14.55
20-815	8	25.65

MALE BSPP NIPPLE



Part #	Size	List Price
28-800	1/8 X 1/8	12.93
28-801	1/4 X 1/8	14.60
28-802	1/4 X 1/4	17.18
28-803	3/8 X1/8	18.47
28-804	3/8 X 1/4	15.41
28-805	3/8 X 3/8	15.59
28-806	1/2 X 1/4	28.94
28-807	1/2 X 3/8	28.94
28-808	1/2 X 1/2	32.31
28-810	3/4 X 1/2	42.87
28-811	3/4 X 3/4	53.98

MALE NIPPLE



BSPT X MALE NPT

Part #	Size	List Price
28-815*	1/8 X 1/8	33.53
28-816*	1/4 X 1/4	29.37
28-817*	3/8 X 3/8	33.43
28-818*	1/2 X 1/2	47.22
28-819*	3/4 X 3/4	106.06

MALE BSPT NIPPLE



Part #	Size	List Price
28-820	1/8 X 1/8	11.15
28-821	1/4 X 1/8	10.13
28-822	1/4 X 1/4	11.89
28-823	3/8 X 1/8	14.17
28-824	3/8 X 1/4	18.07
28-825	3/8 X 3/8	16.10
28-826	1/2 X 1/8	37.54
28-827	1/2 X 1/4	23.39
28-828	1/2 X 3/8	28.69
28-829	1/2 X 1/2	29.13
28-832	3/4 X 1/2	32.27
28-833	3/4 X 3/4	54.26

BSPP COUNTERSUNK SEALED PLUG



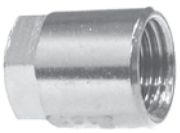
Part #	Size	List Price
28-835	1/8	12.04
28-836	1/4	16.78
28-837	3/8	12.05
28-838	1/2	32.00

BSPT HEX COUNTERSUNK PLUG



Part #	Size	List Price
28-840*	1/8	4.79
28-841*	1/4	8.88
28-842*	3/8	21.44
28-843*	1/2	27.59
28-844*	3/4	53.80

FEMALE BSPP CAP



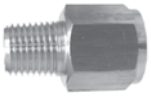
Part #	Size	List Price
28-855	1/8	8.17
28-856	1/4	10.63
28-857	3/8	16.44
28-858	1/2	29.69

BSPT MALE X FEMALE NPT



Part #	Size	List Price
28-860*	1/8 X 1/8	12.76
28-861*	1/4 X 1/4	25.61
28-862*	3/8 X 3/8	37.99
28-863*	1/2 X 1/2	99.97
28-864*	3/4 X 3/4	97.31

NPT MALE X FEMALE BSPP



Part #	Size	List Price
28-867*	1/8 X 1/8	16.14
28-868*	1/4 X 1/4	23.22
28-869*	3/8 X 3/8	52.75
28-870*	1/2 X 1/2	81.00
28-871*	3/4 X 3/4	114.38

BUSHING BSPT MALE X BSPP FEMALE



Part #	Size	List Price
28-873	1/4 X 1/8	9.59
28-874	3/8 X1/8	15.30
28-875	3/8 X 1/4	14.92
28-876	1/2 X 1/4	17.87
28-877	1/2 X 3/8	22.28
28-878	3/4 X 1/2	32.43

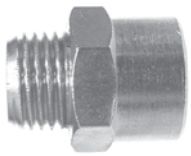
All Fittings are Nickel Plated except (*) which are Yellow Brass

BRASS RIGID MALE BARB ADAPTER



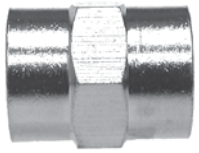
Part #	Hose I.D. x BSPT	List Price
32-450*	1/4" x 1/8"	1.40
32-451*	1/4" x 1/4"	2.04
32-452*	3/8" x 1/4"	2.23
32-453*	3/8" x 3/8"	5.63
32-454*	3/8" x 1/2"	4.12
32-455*	1/2" x 3/8"	2.79
32-456*	1/2" x 1/2"	4.57
32-457*	3/4" x 3/4"	7.11
32-458*	1" x 1"	14.66

MALE BSPP X FEMALE BSPP ADAPTER



Part #	Size	List Price
28-880	1/8 X 1/8	13.58
28-881	1/8 X 1/4	12.58
28-882	1/4 X 1/8	11.02
28-883	1/4 X 1/4	18.16
28-884	1/4 X 3/8	20.43
28-885	3/8 X 1/8	13.34
28-886	3/8 X 1/4	12.19
28-887	3/8 X 3/8	30.36
28-888	3/8 X 1/2	30.44
28-889	1/2 X 1/4	25.44
28-890	1/2 X 3/8	23.39
28-891	1/2 X 1/2	55.17

FEMALE BSPP COUPLING



Part #	Size	List Price
28-894	1/8 X 1/8	15.87
28-895	1/4 X 1/8	19.31
28-896	1/4 X 1/4	16.29
28-897	3/8 X 1/8	29.47
28-898	3/8 X 1/4	37.67
28-899	3/8 X 3/8	20.78
28-900	1/2 X 1/4	35.60
28-901	1/2 X 3/8	33.51
28-902	1/2 X 1/2	43.79

All Fittings are Nickel Plated

90° BSPT MALE ELBOW



Part #	Size	List Price
28-905	1/8 X 1/8	20.82
28-906	1/4 X 1/4	27.64
28-907	3/8 X 3/8	43.54
28-908	1/2 X 1/2	84.60

MALE BSPT X FEMALE BSPP 90° ELBOW



Part #	Size	List Price
28-911	1/8 X 1/8	21.76
28-912	1/4 X 1/4	33.14

BSPP FEMALE 90° ELBOW



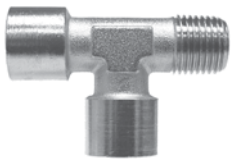
Part #	Size	List Price
28-917	1/8 X 1/8	23.93
28-918	1/4 X 1/4	28.60
28-919	3/8 X 3/8	35.42
28-920	1/2 X 1/2	64.90

BSPP FEMALE TEE



Part #	Size	List Price
28-930	1/8	28.69
28-931	1/4	31.91
28-932	3/8	75.32
28-933	1/2	100.85

BSPP MALE RUN TEE



Part #	Size	List Price
28-947	1/8	23.66
28-948	1/4	31.91
28-949	3/8	52.43
28-950	1/2	79.95

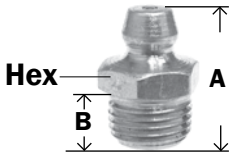
It's so hard to forget pain, but it's even harder to remember sweetness. We have no scar to show for happiness. We learn so little from peace

- Chuck Palahniuk

Meets SAE #J-534C
Many types available on special order.

PIPE THREAD — BALL CHECK

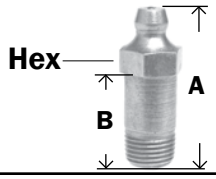
#610
1610
2800
1720
5000



	Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
	36-110	1/8" -27 NPTF	0.68	0.29	0.43	0.01	0.88
NEW	36-110SS	303 SS	0.68	0.29	0.43	0.01	4.04
	36-111	Thread Forming	0.62	0.23	0.43	0.01	1.18

PIPE THREAD — BALL CHECK

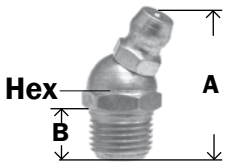
#607
1607
2800
1669
5003



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-112	1/8" -27 NPTF	1.25	0.78	0.43	0.02	2.47
36-113	1/8" -27 NPTF	1.75	1.26	0.43	0.02	2.70

PIPE THREAD — 30° ANGLE BALL CHECK

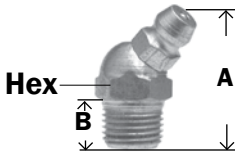
#611
1611
2830
5100



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-114	1/8" -27 NPTF	0.90	0.29	0.43	0.01	1.44

PIPE THREAD — 45° ANGLE BALL CHECK

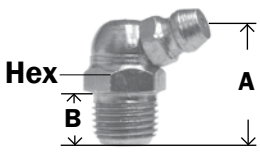
#688
1688
2845
5200



	Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
	36-116	1/8" -27 NPTF	0.95	0.29	0.43	0.01	1.57
NEW	36-116SS	303 SS	0.95	0.29	0.43	0.01	5.77

PIPE THREAD — 65° ANGLE BALL CHECK

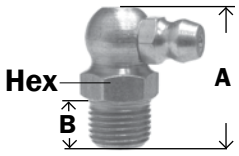
#612
1612
2865
5300



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-118	1/8" -27 NPTF	0.84	0.29	0.43	0.01	1.42

PIPE THREAD — 90° ANGLE BALL CHECK

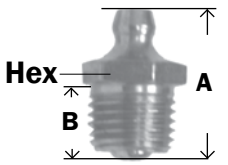
#613
1613
2890
5400
5407



	Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
	36-120	1/8" -27 NPTF	0.84	0.29	0.43	0.01	1.40
NEW	36-120SS	303 SS	0.84	0.29	0.43	0.01	5.82
	36-121	1/8" -27 NPTF	1.81	1.25	0.43	0.01	4.74

PIPE THREAD — BALL CHECK

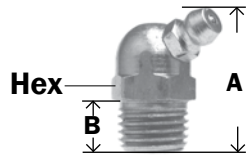
#627
1627
2900K
5050



	Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
	36-130	1/4" -18 NPTF	0.87	0.42	0.56	0.02	1.53
NEW	36-130SS	303 SS	0.87	0.42	0.56	0.02	11.31

PIPE THREAD

#629
1629
2965
5350

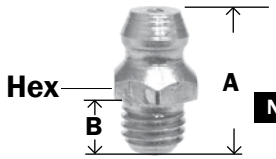


65° ANGLE BALL CHECK

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-132	1/4"-18 NPTF	0.96	0.34	0.56	0.02	2.24

1/4-28 TAPER THREAD

#641
1641
2400
3038
5010

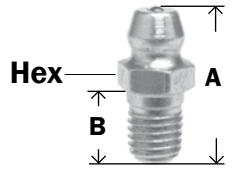


SHORT BALL CHECK

Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-140	1/4"-28 NPTF	0.54	0.18	0.31	0.01	0.49
NEW 36-140SS	303 SS	0.54	0.18	0.31	0.01	1.62
36-141	Thread Forming	0.57	0.20	0.31	0.01	0.53

1/4-28 TAPER THREAD

#652
1652
2400
5013

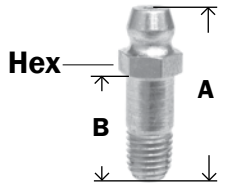


LONG BALL CHECK

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	0.63

1/4-28 TAPER THREAD

#680
1680
2400
5014

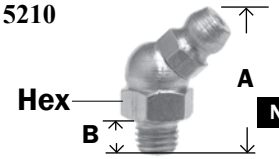


EXTRA LONG BALL CHECK

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	0.95

1/4-28 TAPER THREAD

#637 5210
1637
2445
1665
2465
3010

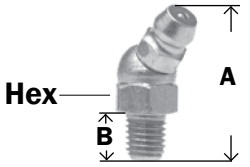


SHORT 45° BALL CHECK

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	1.25
NEW 36-146SS	303 SS	45°	0.81	0.20	0.37	0.02	5.17
36-147	1/4"-28 Taper Thread	65°	0.78	0.20	0.37	0.02	1.32

1/4-28 TAPER THREAD

#636
1630
2445



LONG 45° BALL CHECK

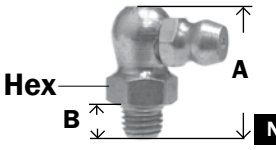
Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-148	1/4"-28 Taper Thread	0.90	0.29	0.37	0.02	1.80

1/4-28 TAPER THREAD

90° ANGLE BALL CHECK

SAE# A515002

#911
1911
2490
3054
5410



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	1.06
NEW 36-150SS	303 SS	0.75	0.20	0.37	0.02	5.17
36-152	Thread Forming	0.75	0.20	0.37	0.02	2.07

DRIVE TYPE — BALL CHECK

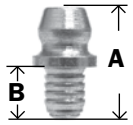
#608
1608
5021



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-160	5/16"	0.54	0.25	0.01	0.79

DRIVE TYPE — BALL CHECK

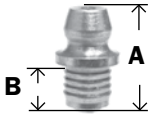
#728
1728
2316
5033



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-164	3/16"	0.51	0.25	0.01	0.71
NEW 36-164SS	303 SS	0.51	0.25	0.01	2.58

DRIVE TYPE — BALL CHECK

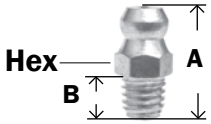
#743
1743
214
5029



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
36-166	1/4"	0.55	0.23	0.01	0.59
NEW 36-166SS	303 SS	0.55	0.23	0.01	2.58

METRIC

#711
6000
2106
2M6
5175

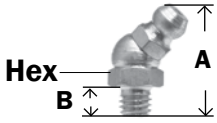


Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-168	6MM x 1	16	6	7	0.01	0.92

(Diameter x Pitch)

METRIC — 45° ANGLE

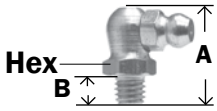
#712
6045
2107
5176



Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-170	6MM x 1	21	5.5	9	0.02	1.24

METRIC — 90° ANGLE

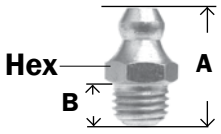
#713
6090
2108
ZM906
5177



Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-172	6MM x 1	18	5.5	9	0.02	1.30

METRIC

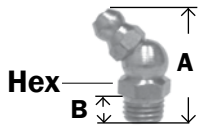
#811
8000
2103
ZM58
5178



Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-174	8MM x 1	17	6	9	0.02	0.78

METRIC — 45° ANGLE

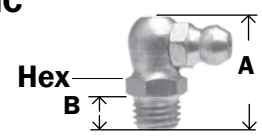
#812
8045
2104
ZM458
5179



Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-176	8MM x 1	21	5.5	9	0.02	1.30

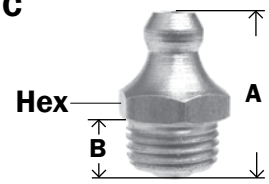
METRIC — 90° ANGLE

#813
8090
2105
ZM908
5180



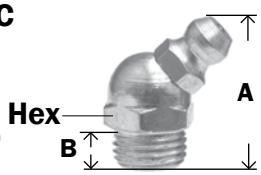
Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-178	8MM x 1	18	5.5	9	0.02	1.45

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	1.17

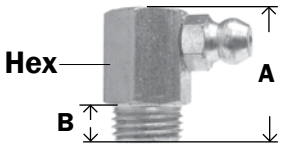
METRIC
#912
9045
2110
ZM4510



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	1.71

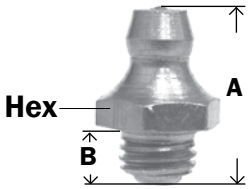
METRIC
#913
9090
2111
ZM9010
5183



90° ANGLE

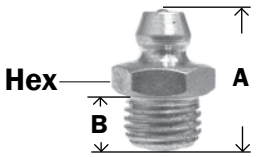
Part #	Size	A (mm)	B (mm)	Hex (mm)	Approx. Wt. Lbs.	List Price
36-184	10MM x 1	18	5.5	11	0.02	1.52

#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	0.92

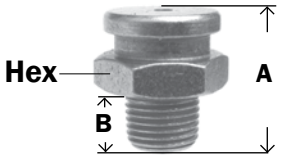
#710-B
1710
2600



Part #	Size	A	B	Hex	Approx. Wt. Lbs.	List Price
36-188	3/8"-24	0.65	0.25	0.43	0.01	1.55

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	3.67
36-205	1/4"-18 NPT	0.82	0.42	0.62	0.03	3.98

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

10,000 PSI Burst Pressure Rubber Hose



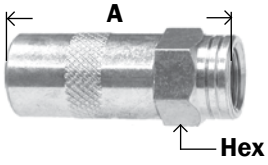
3/16" ID 1/8" NPT Solid Base

3,000 PSI Working pressure

Part #	Length	List Price
36-210	12" RUBBER	36.93
36-212	18" RUBBER	24.68
36-214	24" RUBBER	30.79
36-216	36" RUBBER	46.72

4 JAW GREASE GUN COUPLER

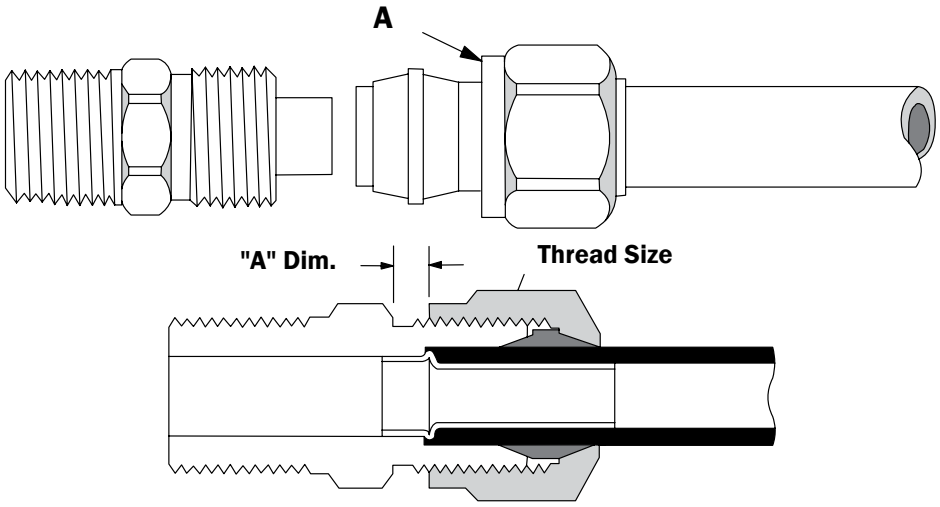
Provides quick, positive, leakproof connection w/ grease fittings.



1/8" NPTF

Part #	A	Hex	Approx. Wt. Lbs.	List Price
36-220	1.50	0.56	0.05	13.05

D.O.T. Air Brake - Nylon Tubing



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

•Typical Application
Air brake systems except where temperatures exceed +200^{0}F or where battery acid can drip on tubing.

•Pressure
Maximum operating pressure of 150 PSI.

•Vibration
Fair resistance.

•Temperature Range
-40^{0}F to +200^{0}F (-40^{0}C to +93^{0}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. May be used with copper tubing by replacing nut, sleeve and insert with long nut and spherical sleeve. Insert should be removed for copper tubing use.

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

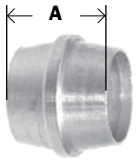
•Assembly Instructions
1- Cut tubing to desired length.
2-Slide nut and then sleeve on tubing. Threaded end of nut “A” must face toward fitting body.
3-Insert tubing into the preassembled fitting. Be sure tubing is bottomed in fitting.
4- Tighten nut to required torque as indicated on chart.

Disassembling: Remove nut and pull tubing out of fitting body. Insert will remain in tubing.
Reassembly: Push tubing and insert into fitting body until it bottoms. Thread nut onto fitting body and torque as in step 4.

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

SLEEVE

SAE# 100115

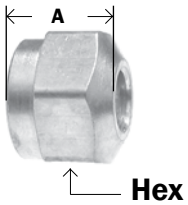


60NAB
60NTA
1460

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-001	1/4”	0.30	0.01	0.39
38-002	3/8”	0.39	0.02	0.52
38-003	1/2”	0.43	0.02	0.72
38-004	5/8”	0.48	0.03	1.20
38-005	3/4”	0.53	0.04	2.15

NUT

SAE# 100110

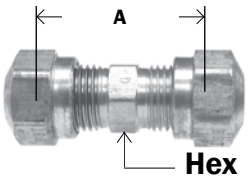


61NAB
61NTA
1461

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-010	1/4”	0.45	0.56	0.02	0.84
38-011	3/8”	0.63	0.62	0.02	1.07
38-012	1/2”	0.72	0.81	0.04	2.62
38-013	5/8”	0.77	0.94	0.04	2.78
38-014	3/4”	0.81	1.12	0.06	4.68

UNION

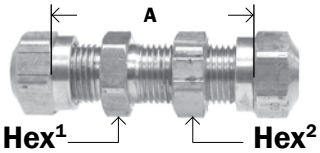
SAE# 100101BA



62NAB
62NTA
1462

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-019	1/4”	0.85	0.43	0.08	5.65
38-020	3/8”	1.10	0.56	0.18	6.83
38-021	1/2”	1.31	0.68	0.20	11.00
38-022	5/8”	1.43	0.81	0.26	22.99
38-023	3/4”	1.60	1.00	0.48	34.88

BULKHEAD UNION

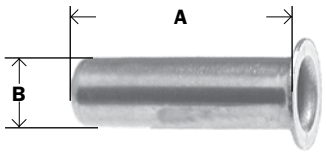


62NBH
1474
475

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	15.05
38-029	3/8”	1.61	0.69	0.75	0.16	18.50
38-030	1/2”	1.88	0.81	0.87	0.26	29.98

STAINLESS STEEL INSERT

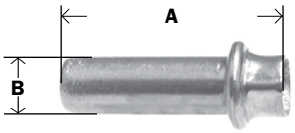
- For SAE# J844 TUBING



59A
63NTA

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
38-035	1/4”	0.53	0.16	0.01	1.04
38-036	3/8”	0.64	0.24	0.02	0.79
38-037	1/2”	0.81	0.37	0.02	1.37
38-038	5/8”	0.86	0.43	0.03	3.35
38-039	3/4”	1.04	0.56	0.03	3.99

BRASS INSERT

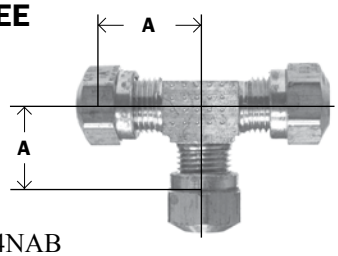


1484
463

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
38-040	1/4”	0.64	0.16	0.01	0.78
38-041	3/8”	0.76	0.24	0.02	0.78
38-042	1/2”	0.94	0.37	0.02	1.64
38-043	5/8”	1.06	0.43	0.02	1.77
38-048	3/4”	1.21	0.56	0.04	2.82

TEE

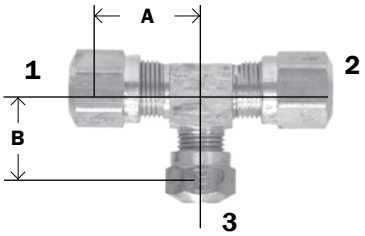
SAE# 100401BA



64NAB
264NTA
1464

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-044	1/4”	0.61	0.14	12.24
38-045	3/8”	0.78	0.18	11.76
38-046	1/2”	0.92	0.36	18.65
38-047	5/8”	1.09	0.46	40.20

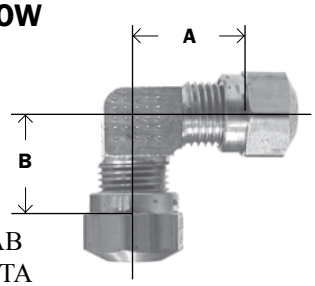
REDUCING BRANCH TEE



Part #	Tube O.D. (1&2) x 3	A	B	Approx. Wt. Lbs.	List Price
38-049	3/8” x 1/4”	0.72	0.69	0.24	42.64
38-057	1/2” x 3/8”	0.92	0.85	0.30	23.72

ELBOW

SAE# 100201BA

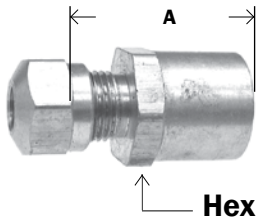


65NAB
265NTA
1465

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-052	1/4”	0.61	0.10	11.99
38-053	3/8”	0.78	0.12	9.99
38-054	1/2”	0.92	0.26	24.42
38-055	5/8”	1.09	0.34	29.00

FEMALE ADAPTER

SAE# 100103BA



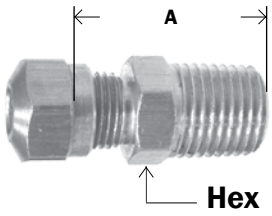
66NAB
66NTA
1466
66NBH

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	4.76
38-061	1/4” x 1/4”	1.06	0.68	0.08	6.58
38-062	3/8” x 1/8”	1.00	0.56	0.10	6.36
38-063	3/8” x 1/4”	1.18	0.68	0.10	7.98
38-064	3/8” x 3/8”	1.18	0.87	0.12	9.00
38-065	1/2” x 3/8”	1.27	0.87	0.16	12.35
38-066	1/2” x 1/2”	1.43	1.06	0.26	18.46
38-067	5/8” x 3/8”	1.31	0.87	0.28	19.76
38-068	5/8” x 1/2”	1.50	1.06	0.28	23.30

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

MALE ADAPTER

SAE# 100102BA

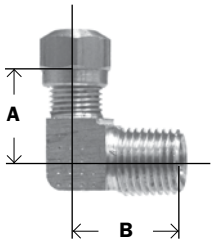


68NAB
68NTA
1468

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	12.60
38-073	1/4" x 1/8"	0.88	0.43	0.05	3.81
38-074	1/4" x 1/4"	1.09	0.56	0.07	6.50
38-075	1/4" x 3/8"	1.13	0.68	0.09	7.98
38-076	3/8" x 1/8"	1.03	0.56	0.08	4.33
38-077	3/8" x 1/4"	1.20	0.56	0.10	4.58
38-078	3/8" x 3/8"	1.24	0.68	0.10	5.12
38-079	3/8" x 1/2"	1.43	0.87	0.16	7.45
38-080	1/2" x 1/4"	1.32	0.68	0.13	7.57
38-081	1/2" x 3/8"	1.32	0.68	0.14	6.54
38-082	1/2" x 1/2"	1.51	0.87	0.21	8.45
38-087	1/2" x 3/4"	1.57	1.06	0.23	29.91
38-083	5/8" x 3/8"	1.39	0.81	0.17	16.02
38-084	5/8" x 1/2"	1.57	0.87	0.20	13.69
38-088	5/8" x 3/4"	1.71	1.06	0.25	19.46
38-085	3/4" x 1/2"	1.68	1.00	0.28	19.00
38-086	3/4" x 3/4"	1.71	1.06	0.33	22.26

MALE ELBOW

SAE# 100202BA

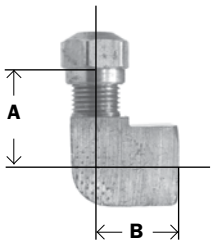


1469

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	4.82
38-092	1/4" x 1/4"	0.67	0.86	0.09	6.07
38-093	1/4" x 3/8"	0.72	0.85	0.12	6.53
38-094	3/8" x 1/8"	0.72	0.73	0.09	6.77
38-095	3/8" x 1/4"	0.80	0.93	0.11	6.44
38-090	3/8" x 1/4" LONG	0.80	1.44	0.14	19.36
38-101	3/8" x 3/8"	0.83	0.90	0.14	7.46
38-102	3/8" x 1/2"	0.93	1.09	0.21	9.69
38-103	1/2" x 1/4"	0.85	0.98	0.18	9.39
38-104	1/2" x 3/8"	0.92	0.98	0.19	10.26
38-109	1/2" x 3/8" LONG	0.94	1.38	0.26	33.67
38-105	1/2" x 1/2"	1.02	1.17	0.28	11.01
38-106	5/8" x 3/8"	1.00	1.05	0.24	18.66
38-107	5/8" x 1/2"	1.10	1.25	0.28	17.59
38-110	5/8" x 3/4"	1.09	1.24	0.38	27.52
38-108	3/4" x 1/2"	1.19	1.33	0.41	27.99

FEMALE ELBOW

SAE# 100203BA

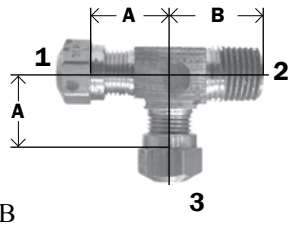


70NAB
1470
270NTA

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	7.30
38-114	1/4" x 1/4"	0.77	0.70	0.12	14.60
38-115	3/8" x 1/8"	0.82	0.58	0.14	19.88
38-116	3/8" x 1/4"	0.88	0.76	0.10	12.98
38-117	3/8" x 3/8"	0.93	0.76	0.12	16.93
38-118	1/2" x 3/8"	1.02	0.81	0.23	18.50
38-119	1/2" x 1/2"	1.13	1.01	0.36	28.04
38-120	5/8" x 1/2"	1.19	1.07	0.38	36.89

MALE RUN TEE

SAE# 100424BA

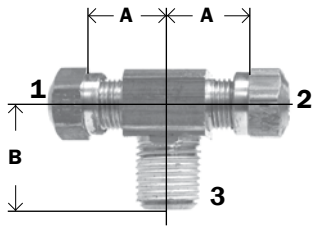


71NAB
271NTA
1471

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	13.80
38-126	1/4" x 1/4" x 1/4"	0.68	0.86	0.14	11.42
38-124	3/8" x 1/4" x 1/4"	0.72	0.69	0.14	28.61
38-127	3/8" x 1/4" x 3/8"	0.78	0.91	0.16	11.56
38-128	3/8" x 3/8" x 3/8"	0.83	0.90	0.20	10.00
38-129	1/2" x 3/8" x 1/2"	0.92	0.98	0.30	13.05

MALE BRANCH TEE

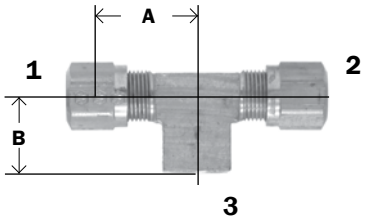
SAE# 100425BA



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	9.60
38-137	1/4" x 1/4" x 1/4"	0.67	0.86	0.13	16.14
38-138	3/8" x 3/8" x 1/8"	0.71	0.73	0.14	16.11
38-132	3/8" x 1/4" x 1/4"	0.80	0.93	0.15	41.91
38-139	3/8" x 3/8" x 1/4"	0.78	0.91	0.16	11.24
38-133	1/2" x 1/2" x 1/4"	0.87	1.00	0.26	28.69
38-140	3/8" x 3/8" x 3/8"	0.83	0.90	0.20	11.65
38-134	1/2" x 3/8" x 3/8"	0.94	1.00	0.26	35.82
38-141	1/2" x 1/2" x 3/8"	0.92	0.98	0.30	14.76
38-142	1/2" x 1/2" x 1/2"	1.02	1.17	0.38	23.35
38-143	5/8" x 5/8" x 1/2"	1.09	1.24	0.44	52.50

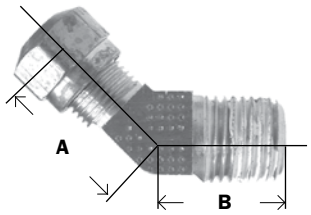
FEMALE BRANCH TEE



Part #	Tube O.D. x Tube O.D. x Female NPTF 1x2x3	A	B	Approx. Wt. Lbs.	List Price
38-144	3/8" x 3/8" x 1/4"	0.90	0.78	0.21	36.78
38-146	5/8" x 5/8" x 1/4"	1.04	0.89	0.48	65.75

45° ELBOW

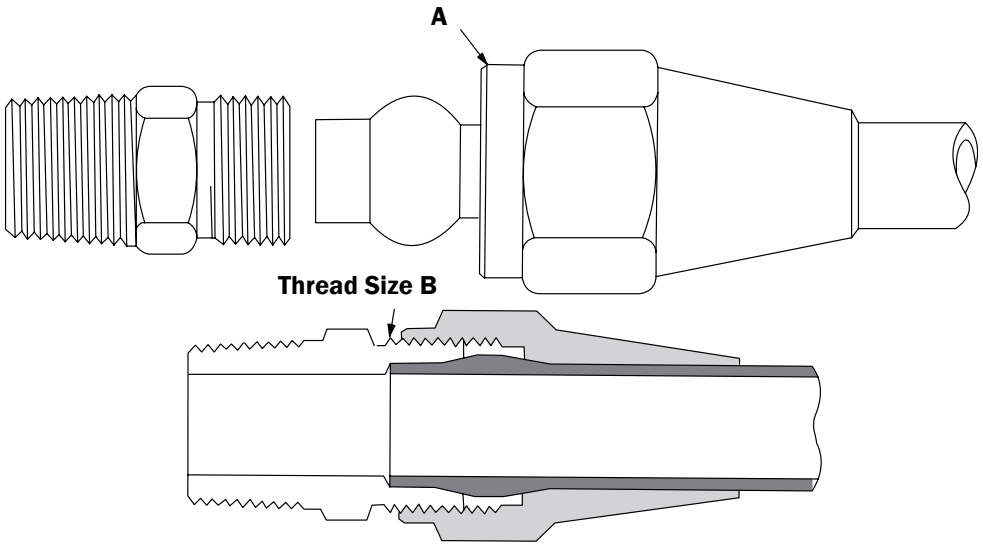
SAE# 100302BA



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	10.09
38-149	1/4" x 1/4"	0.60	0.85	0.08	11.24
38-150	3/8" x 1/8"	0.71	0.67	0.10	22.46
38-151	3/8" x 1/4"	0.72	0.86	0.10	8.19
38-152	3/8" x 3/8"	0.76	0.95	0.14	11.59
38-153	3/8" x 1/2"	0.78	1.20	0.24	19.03
38-157	1/2" x 1/4"	0.85	0.95	0.20	13.25
38-154	1/2" x 3/8"	0.84	0.94	0.20	13.35
38-155	1/2" x 1/2"	0.87	1.16	0.24	18.27
38-156	5/8" x 1/2"	1.00	1.20	0.28	21.33
38-158	3/4" x 1/2"	1.10	1.18	0.38	44.04

D.O.T. Air Brake - Copper Tubing



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

•Typical Application
Air brake systems.

•Pressure
Maximum operating pressure of 150 PSI.

•Vibration
Fair resistance.

•Temperature Range
-65^{0}F to +250^{0}F (-53^{0}C to +121^{0}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.

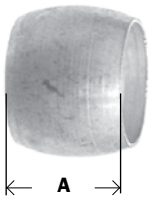
•Conformance
Meets specifications and standards of SAE and DOT.

•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

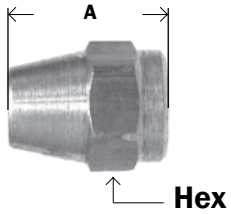


60AB
1360

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-161	1/4”	0.25	0.01	0.52
38-162	3/8”	0.31	0.02	0.66
38-163	1/2”	0.38	0.02	0.78
38-164	5/8”	0.44	0.02	1.33
38-165	3/4”	0.50	0.04	3.37

NUT

SAE# 120111BA

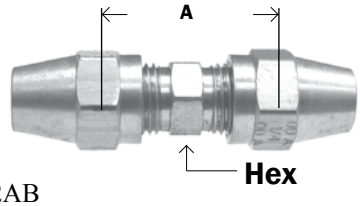


20961
61AB
1361

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-170	1/4”	0.75	0.56	0.02	1.79
38-171	3/8”	1.13	0.62	0.04	2.10
38-172	1/2”	1.25	0.81	0.08	4.51
38-173	5/8”	1.38	0.94	0.12	4.70
38-174	3/4”	1.56	1.12	0.18	10.04

UNION

SAE# 120101BA

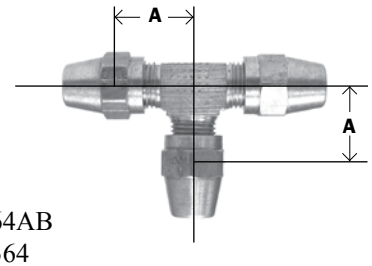


62AB
1362

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
38-179	1/4”	0.81	0.44	0.08	6.18
38-180	3/8”	1.10	0.56	0.14	7.76
38-181	1/2”	1.07	0.69	0.24	15.71
38-182	5/8”	1.41	0.81	0.34	20.35
38-183	3/4”	1.59	1.00	0.54	42.57

TEE

SAE# 120401BA



264AB
1364

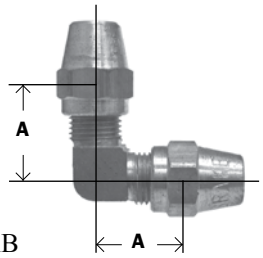
Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-188	1/4”	0.62	0.16	12.53
38-189	3/8”	0.82	0.24	15.19
38-190	1/2”	0.94	0.48	28.41
38-191	5/8”	1.09	0.60	38.76

THE UNIVERSITY OF ALASKA SPANS FOUR TIME ZONES

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

ELBOW

SAE# 120201BA



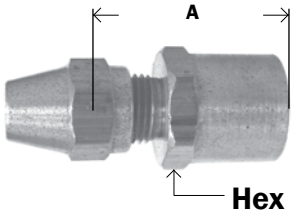
265AB
1365

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
38-196	1/4”	0.62	0.10	16.03
38-197*	3/8”	0.78	0.16	11.61
38-198	1/2”	0.92	0.28	33.35
38-199	5/8”	1.10	0.42	92.72

* Forged

FEMALE ADAPTER

SAE# 120103BA

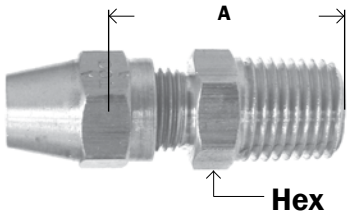


66AB
1366

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	5.69
38-205	1/4” x 1/4”	1.07	0.68	0.10	9.50
38-206	3/8” x 1/8”	1.00	0.56	0.10	7.85
38-207	3/8” x 1/4”	1.19	0.68	0.12	7.31
38-208	3/8” x 3/8”	1.18	0.87	0.16	8.28
38-209	1/2” x 3/8”	1.27	0.87	0.18	25.07
38-210	1/2” x 1/2”	1.44	1.06	0.20	17.39
38-211	5/8” x 3/8”	1.31	0.87	0.24	17.34
38-212	5/8” x 1/2”	1.50	1.06	0.26	25.84

MALE ADAPTER

SAE# 120102BA

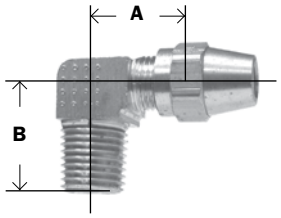


68AB
1368

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	3.68
38-218	1/4” x 1/4”	0.97	0.56	0.08	5.19
38-219	1/4” x 3/8”	1.14	0.68	0.10	6.36
38-220	3/8” x 1/8”	1.02	0.56	0.08	7.78
38-221	3/8” x 1/4”	1.09	0.56	0.10	5.82
38-222	3/8” x 3/8”	1.19	0.69	0.12	6.25
38-223	3/8” x 1/2”	1.45	0.87	0.18	6.67
38-224	1/2” x 1/4”	1.32	0.69	0.16	12.04
38-225	1/2” x 3/8”	1.35	0.69	0.18	9.44
38-226	1/2” x 1/2”	1.51	0.87	0.24	13.80
38-227	5/8” x 3/8”	1.39	0.81	0.22	16.08
38-228	5/8” x 1/2”	1.57	0.87	0.24	17.76
38-229	3/4” x 1/2”	1.67	1.00	0.34	19.85
38-230	3/4” x 3/4”	1.71	1.06	0.40	28.15

90° MALE ELBOW

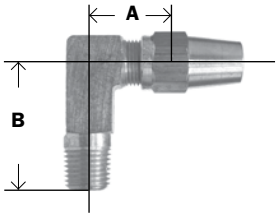
SAE# 120202BA



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	5.96
38-236	1/4" x 1/4"	0.69	0.88	0.10	7.74
38-237	1/4" x 3/8"	0.73	0.86	0.14	10.02
38-238	3/8" x 1/8"	0.73	0.75	0.12	9.54
38-239	3/8" x 1/4"	0.80	0.93	0.12	8.65
38-240	3/8" x 3/8"	0.83	0.90	0.16	9.52
38-241	3/8" x 1/2"	0.95	1.11	0.24	10.52
38-242	1/2" x 1/4"	0.85	0.98	0.24	14.07
38-243	1/2" x 3/8"	0.92	0.98	0.22	12.47
38-244	1/2" x 1/2"	1.04	1.19	0.30	18.43
38-245	5/8" x 3/8"	1.01	1.06	0.34	20.05
38-246	5/8" x 1/2"	1.10	1.25	0.36	22.37
38-247	3/4" x 1/2"	1.19	1.32	0.44	28.95

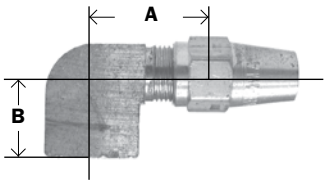
LONG PATTERN ELBOW



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	19.13

90° FEMALE ELBOW

SAE# 120203BA

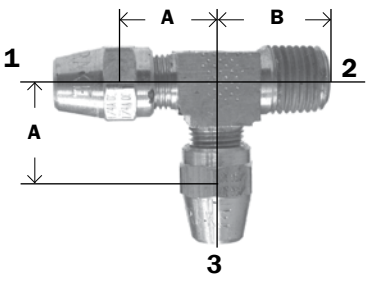


270AB
1370

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	26.95
38-253	1/4" x 1/4"	0.78	0.71	0.14	14.15
38-255	3/8" x 1/4"	0.84	0.78	0.16	8.10
38-256	3/8" x 3/8"	0.93	0.77	0.18	9.38
38-257	1/2" x 3/8"	1.03	0.82	0.26	35.78
38-259	5/8" x 1/2"	1.19	1.07	0.44	31.22

MALE RUN TEE

SAE# 120424BA

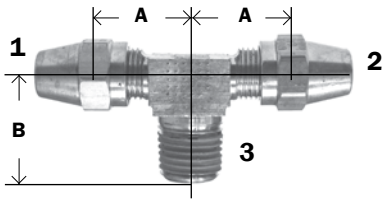


271AB
1371

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	20.21
38-265	1/4" x 1/4"	0.68	0.87	0.16	19.02
38-266	3/8" x 1/4"	0.79	0.92	0.20	17.80
38-267	3/8" x 3/8"	0.83	0.90	0.24	15.38
38-269	1/2" x 1/2"	1.03	1.18	0.42	20.37

MALE BRANCH TEE

SAE# 120425BA

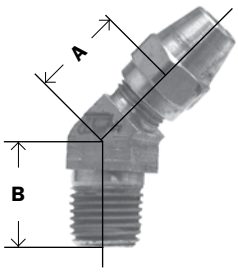


Part #	Tube O.D. x Male NPTF (1&2)x3	A	B	Approx. Wt. Lbs.	List Price
38-278	3/8" x 1/4"	0.78	0.91	0.18	19.63
38-279	3/8" x 3/8"	0.85	0.92	0.24	12.09
38-280	1/2" x 3/8"	0.91	0.98	0.36	16.04
38-281	1/2" x 1/2"	1.03	1.18	0.42	36.48

272AB
1372

45° MALE ELBOW

SAE# 120302BA



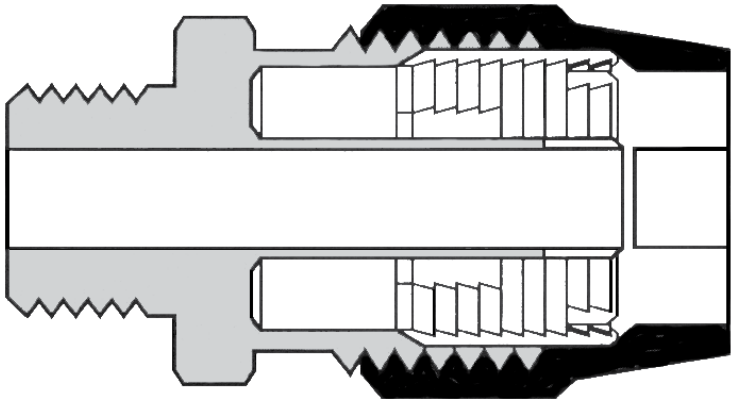
Part #	Tube O.D. x Male NPTF	A	B	Approx. Wt. Lbs.	List Price
38-287	1/4" x 1/8"	0.49	0.63	0.08	8.41
38-288	1/4" x 1/4"	0.60	0.85	0.10	15.48
38-290	3/8" x 1/4"	0.72	0.86	0.18	7.57
38-291	3/8" x 3/8"	0.75	0.94	0.20	14.13
38-292	3/8" x 1/2"	0.78	1.16	0.22	23.96
38-293*	1/2" x 3/8"	0.82	0.94	0.18	20.13
38-294	1/2" x 1/2"	0.87	1.16	0.24	16.16

* Forged

279AB
1380

THERE IS NOTHING NOBLE IN BEING SUPERIOR TO YOUR FELLOW MAN. TRUE NOBILITY IS IN BEING SUPERIOR TO YOUR FORMER SELF.
- ERNEST HEMINGWAY

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



•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^{0}F to + 120^0 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.

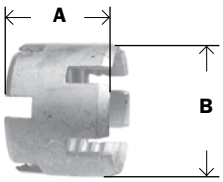
• Tolerance
+/- .02 on all dimensions. Dimension data can change without notice. Please call us when dimensions are critical.

•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

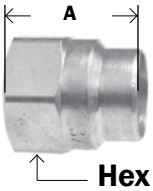
#60HC
3380-A
0903610
367
60RB



Part #	Hose I.D. Size	A	B	Approx. Wt. Lbs.	List Price
38-300	3/8”	0.69	0.90	0.02	2.16
38-301	1/2”	0.64	1.03	0.02	3.74

NUT

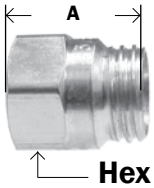
61RB
#61HC
369
3380-B
0903624



Part #	Hose I.D. Size	A	Hex	Approx. Wt. Lbs.	List Price
38-306	3/8”	1.26	1.03	0.04	6.83
38-307	1/2”	1.20	1.25	0.06	5.87

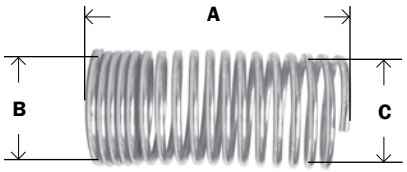
SPRING NUT

#61HCS
0903613
3380-D
61RBSG



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	4.59
38-313	1/2”	1-3/32-20	1.20	1.25	0.06	6.01

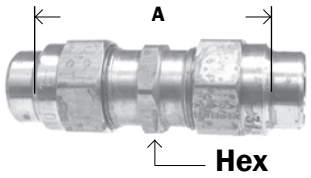
SPRING



Part #	Hose I.D.	A	B	C	Approx. Wt. Lbs.	List Price
38-351	3/8”	2.75	0.84	0.78	0.20	1.86
38-352	1/2”	2.75	1.10	1.10	0.22	2.89

#60SG 3380-C
0901045 377

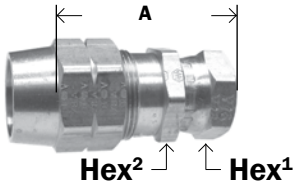
UNION



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	29.10
38-319	1/2”	1-1/8-20	2.55	1.12	0.48	46.79

#62HC 362
3380B-Y0

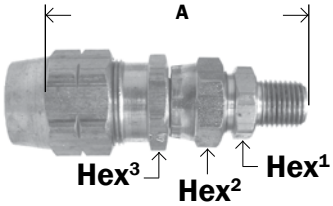
FEMALE CONNECTOR HOSE



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	32.85
38-358	1/2” x 7/8-20	2.1	1.06	1.12	0.38	44.23

#66ABS 3380B-Y7
66RBSV 386

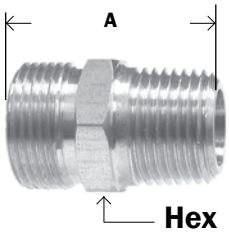
MALE CONNECTOR



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	33.81
38-364	1/2” x 3/8”	2.96	0.87	1.06	1.12	0.46	69.10

#68ABS 3380B-Y8
09155 387

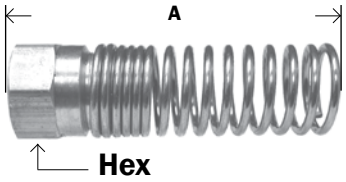
ADAPTER



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	3.63
38-368	3/8” x 3/8”	3/4-20	1.14	0.75	0.08	3.38
38-372	3/8” x 1/2”	3/4-20	1.37	0.87	0.12	5.47
38-370	1/2” x 3/8”	7/8-20	1.18	0.87	0.10	6.81
38-371	1/2” x 1/2”	7/8-20	1.38	0.87	0.12	11.22

#68ABS 76RB
1390 388

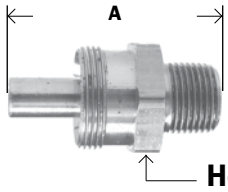
NUT AND SPRING ASSEMBLY



Part #	Hose I.D. Size	A	Hex	Approx. Wt. Lbs.	List Price
38-015	3/8”	3.55	1.03	0.18	4.90
38-016	1/2”	3.50	1.25	0.24	8.54

379
67RBSG
0999999

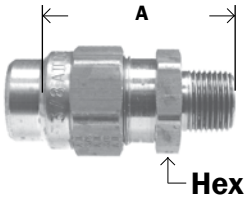
ADAPTER BODY



#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	5.56
38-325	3/8” x 3/8”	1.92	0.97	0.14	5.66
38-326	3/8” x 1/2”	2.02	1.00	0.20	6.12
38-327	1/2” x 3/8”	2.07	1.12	0.18	16.31
38-328	1/2” x 1/2”	2.06	1.12	0.20	9.34

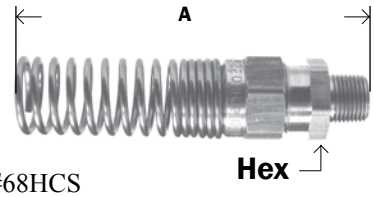
MALE ADAPTER



#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	11.32
38-334	3/8” x 3/8”	1.94	0.97	0.24	12.80
38-335	3/8” x 1/2”	2.12	0.97	0.26	14.51
38-336	1/2” x 3/8”	2.07	1.12	0.33	17.25
38-337	1/2” x 1/2”	2.07	1.12	0.36	18.77

MALE ADAPTER



#68HCS
3380B-Y3
68RBSG
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	13.31
38-343	3/8” x 3/8”	4.96	1.00	0.34	13.53
38-344	3/8” x 1/2”	5.53	1.00	0.38	15.01
38-345	1/2” x 3/8”	4.75	1.12	0.48	18.99
38-346	1/2” x 1/2”	4.88	1.12	0.52	21.97

D.O.T. PUSH-IN TUBE FITTINGS

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

Benefits for Cost Savings & Engineering Project

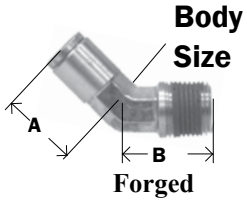
- **Fast assembly:** No tools required. Simply push tubing in. Saves up to 75% of assembly time compared to standard air compression fittings. No loose parts to handle.
- **Fast disconnect:** Hold the collet collar with two fingers and pull out tube. No tools required.
- **Reusable:** Can be connected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

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

- **Materials:**
  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)

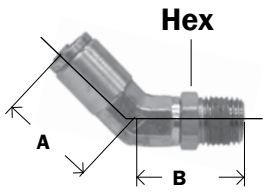
MALE 45° ELBOW



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	11.44
540404	1/4" x 1/4"	0.91	0.89	0.37	0.06	12.88
540602	3/8" x 1/8"	0.75	0.89	0.51	0.08	12.46
540604	3/8" x 1/4"	0.95	0.98	0.49	0.10	14.41
540606	3/8" x 3/8"	0.89	0.98	0.50	0.10	16.33
540608	3/8" x 1/2"	1.15	1.13	0.87	0.15	18.10
540804	1/2" x 1/4"	1.00	1.24	0.82	0.13	24.93
540806	1/2" x 3/8"	1.05	1.10	0.62	0.16	17.90
540808	1/2" x 1/2"	1.20	1.20	0.62	0.18	25.62
541006	5/8" x 3/8"	1.46	1.02	1.06	0.22	48.70
541008	5/8" x 1/2"	1.22	1.31	0.68	0.21	26.92
541208	3/4" x 1/2"	1.36	1.08	0.93	0.28	34.59
541212	3/4" x 3/4"	1.36	1.08	0.94	0.32	40.98

MALE 45° SWIVEL ELBOW

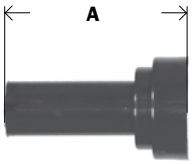


AQ54DOTS
179PMT
1880
DQ54DOTS

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	17.75
540404S	1/4" x 1/4"	1.10	0.89	0.56	0.09	17.90
540602S	3/8" x 1/8"	1.07	0.98	0.43	0.10	16.47
540604S	3/8" x 1/4"	1.07	0.98	0.56	0.11	16.55
540606S	3/8" x 3/8"	1.23	0.97	0.68	0.14	17.37
540804S	1/2" x 1/4"	1.22	1.12	0.56	0.14	31.38
540806S	1/2" x 3/8"	1.32	1.10	0.68	0.16	27.72
540808S	1/2" x 1/2"	1.61	1.10	0.88	0.18	24.39
541008S	5/8" x 1/2"	1.69	1.23	0.87	0.24	37.07

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

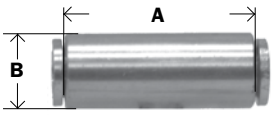
PLUG



1829
DQ59DOT
639PMT

Part #	Tube O.D.	A	Approx. Wt. Lbs.	List Price
595320	5/32”	1.16	0.01	1.16
590400	1/4”	0.81	0.02	2.31
590600	3/8”	0.99	0.02	2.25
590800	1/2”	0.99	0.04	3.97

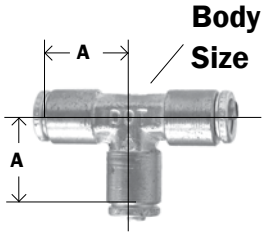
UNION



AQ62DOT
62PMT
1862
DQ62DOT

Part #	Tube O.D.	A	B	Approx. Wt. Lbs.	List Price
620532	5/32”	1.18	.37	0.06	9.05
620400	1/4”	1.40	.51	0.08	11.27
620600	3/8”	1.82	.66	0.14	10.98
620604	3/8" x 1/4"	1.70	.67	0.18	20.95
620800	1/2”	2.02	.78	0.19	10.87
621000	5/8”	1.84	.94	0.30	22.92
621200	3/4”	2.38	1.18	0.44	45.76

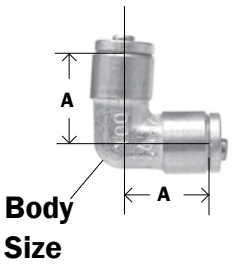
UNION TEE



AQ64DOT
164 PMT
1864
DQ64DOT

Part #	Tube O.D.	A	Body Size	Approx. Wt. Lbs.	List Price
640400	1/4”	0.94	0.37	0.11	16.51
640600	3/8”	1.08	0.50	0.22	20.26
640800	1/2”	1.26	0.62	0.25	27.81
641000	5/8"	1.44	0.69	0.32	43.10

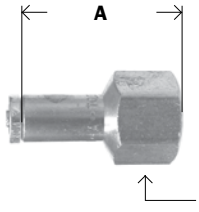
UNION ELBOW



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	22.85
650400	1/4”	0.94	0.37	0.06	11.60
650600	3/8”	0.98	0.50	0.10	15.93
650800	1/2”	1.26	0.62	0.18	21.41

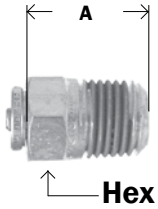
FEMALE CONNECTOR



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	10.25
660404	1/4" x 1/4"	1.42	0.75	0.10	13.89
660602	3/8" x 1/8"	1.37	0.68	0.09	32.95
660604	3/8" x 1/4"	1.30	0.75	0.11	12.53
660606	3/8" x 3/8"	1.56	0.87	0.14	22.56
660804	1/2" x 1/4"	1.56	0.81	0.14	28.99
660806	1/2" x 3/8"	1.51	0.87	0.16	27.49
660808	1/2" x 1/2"	2.01	0.68	0.25	31.16

AQ66DOT
66PMT
1866
DQ66DOT

MALE CONNECTOR

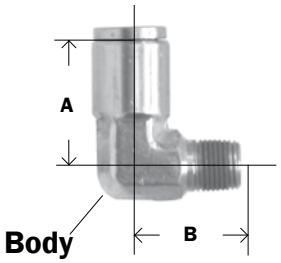


Part #	Tube O.D. x Male NPTF	A	Hex	Approx. Wt. Lbs.	List Price
685320	5/32" x 10/32"	0.69	0.37	0.02	11.75
685321	5/32" x 1/16"	0.67	0.37	0.02	8.15
685322	5/32" x 1/8"	0.67	0.43	0.02	9.07
680302	3/16" x 1/8"	1.82	0.50	0.02	10.54
680421	1/4" x 1/16"	1.17	0.44	0.02	12.44
680402	1/4" x 1/8"	0.94	0.44	0.04	5.16
680404	1/4" x 1/4"	0.90	0.56	0.05	5.55
680406	1/4" x 3/8"	1.10	0.68	0.08	9.75
680602	3/8" x 1/8"	1.17	0.68	0.04	7.83
680604	3/8" x 1/4"	1.15	0.68	0.08	7.06
680606	3/8" x 3/8"	1.12	0.68	0.08	7.68
680608	3/8" x 1/2"	1.02	0.87	0.14	13.57
680804	1/2" x 1/4"	1.46	0.81	0.11	16.55
680806	1/2" x 3/8"	1.28	0.81	0.12	9.81
680808	1/2" x 1/2"	1.23	0.87	0.14	10.16
681006	5/8" x 3/8"	1.44	.94	0.18	18.75
681008	5/8" x 1/2"	1.59	.94	0.18	20.38
681208	3/4" x 1/2"	1.65	1.06	0.20	26.11
681212	3/4" x 3/4"	1.38	1.06	0.20	32.31

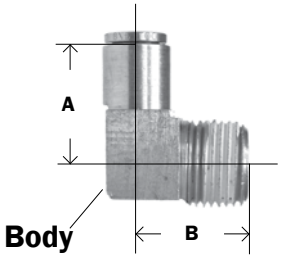
AQ68DOT
68PM
1868
DQ68DOT
68PMT

A PERSON IS A PERSON NO MATTER HOW SMALL.
- DR. SEUSS

MALE ELBOW



Forged



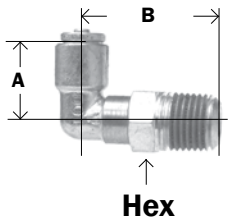
Barstock

AQ69DOT
169 PMTNS
1869
DQ69DOT

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	13.86
695322	5/32" x 1/8"	0.78	0.69	0.32	0.03	9.82
690302	3/16" x 1/8"	0.71	0.75	0.47	0.03	19.00
690402	1/4" x 1/8"	0.91	0.75	0.37	0.05	8.65
690404	1/4" x 1/4"	1.05	0.84	0.37	0.06	9.09
690406	1/4" x 3/8"	1.00	0.98	0.50	0.11	11.49
690602	3/8" x 1/8"	0.97	0.80	0.49	0.14	12.47
690604	3/8" x 1/4"	1.10	0.98	0.50	0.14	10.86
690606	3/8" x 3/8"	1.08	0.98	0.50	0.15	11.95
690608	3/8" x 1/2"	1.04	1.19	0.62	0.20	20.01
690804	1/2" x 1/4"	1.15	1.05	0.62	0.22	17.13
690806	1/2" x 3/8"	1.15	1.05	0.62	0.22	17.02
690808	1/2" x 1/2"	1.25	1.26	0.62	0.24	22.21
691006	5/8" x 3/8"	1.25	1.26	0.62	0.30	24.66
691008	5/8" x 1/2"	1.34	1.29	0.68	0.32	25.61
691208	3/4" x 1/2"	1.32	1.36	0.94	0.32	34.44
691212	3/4" x 3/4"	1.22	1.40	0.93	0.34	41.60

* Barstock

MALE SWIVEL ELBOW



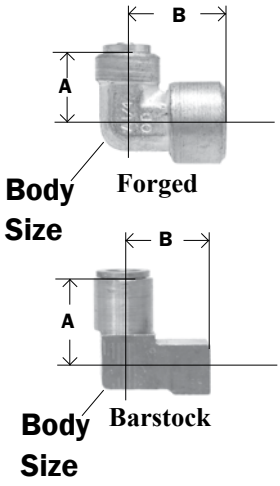
Forged

AQ69DOTS
169PMT
1869
DQ69DOTS

Part #	Tube O.D. x Male NPTF	A	B	Hex	Approx. Wt. Lbs.	List Price
695322S	5/32" x 1/8"	0.79	0.88	0.44	0.07	11.99
690402S	1/4" x 1/8"	0.89	0.88	0.43	0.07	11.07
690404S	1/4" x 1/4"	0.99	1.09	0.56	0.10	15.69
690406S	1/4" x 3/8"	1.02	1.03	0.68	0.10	20.01
690602S	3/8" x 1/8"	0.98	1.08	0.43	0.10	12.47
690604S	3/8" x 1/4"	0.98	1.14	0.56	0.10	14.27
690606S	3/8" x 3/8"	0.98	1.19	0.68	0.14	14.77
690608S	3/8" x 1/2"	0.98	1.52	0.87	0.19	21.75
690804S	1/2" x 1/4"	1.16	1.26	0.56	0.16	39.00
690806S	1/2" x 3/8"	1.16	1.34	0.68	0.18	18.41
690808S	1/2" x 1/2"	1.25	1.61	0.87	0.26	24.09
691006S	5/8" x 3/8"	1.23	1.41	0.68	0.28	24.08
691008S	5/8" x 1/2"	1.54	1.71	0.87	0.30	28.71
691208S	3/4" x 1/2"	1.40	2.04	1.06	0.50	92.84
691212S	3/4" x 3/4"	1.22	2.30	1.06	0.56	51.47

THE ONLY THING NECESSARY FOR THE TRIUMPH OF EVIL IS FOR GOOD MEN TO DO NOTHING.
- EDMUND BURKE

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	9.95
700404	1/4" x 1/4"	1.02	1.02	0.50	0.10	12.39
700406	1/4" x 3/8"	1.11	0.98	0.62	0.16	15.68
700602	3/8" x 1/8"	0.96	0.67	0.71	0.15	45.72
700604	3/8" x 1/4"	0.96	0.94	0.48	0.12	12.44
700606	3/8" x 3/8"	0.98	0.91	0.68	0.17	17.30
700804*	1/2" x 1/4"	1.15	1.11	0.82	0.22	42.90
700806*	1/2" x 3/8"	1.12	1.11	0.82	0.26	25.15
700808	1/2" x 1/2"	1.05	1.22	1.06	0.30	50.78

* Barstock

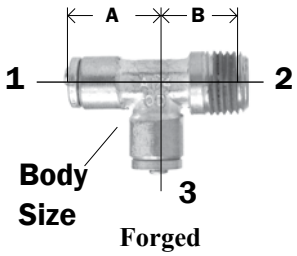
AQ70DOTS
1870
DQ70DOTS
170PMTNS

FEMALE SWIVEL ELBOW



Part #	Size	List Price
700404S	1/4" x 1/4"	9.86

MALE RUN TEE

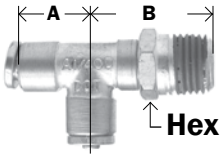


Part #	Tube O.D. x Male NPTF (1 x 3) x 2	A	B	Body Size	Approx. Wt. Lbs.	List Price
710402	1/4" x 1/8"	0.74	0.92	0.37	0.06	13.99
71040604	(1/4" x 3/8") x 1/4"	0.89	0.96	0.71	0.20	40.51
710404	1/4" x 1/4"	0.92	1.24	0.37	0.08	14.94
710604	3/8" x 1/4"	1.00	1.14	0.50	0.20	18.41
71060404	(3/8" x 1/4") x 1/4"	1.09	0.96	0.71	0.20	50.95
710606	3/8" x 3/8"	0.98	0.98	0.49	0.12	17.60
71060406	(3/8" x 1/4") x 3/8"	1.14	1.10	0.87	0.20	34.79
710608	3/8" x 1/2"	1.12	1.42	0.94	0.14	35.66
710806	1/2" x 3/8"	1.14	1.05	0.62	0.28	28.58
71080804	1/2" x 1/4"	1.30	1.14	0.87	0.28	84.40

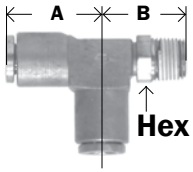
AQ71DOT
171PMTNS
1871
DQ71DOT

THERE IS ONLY ONE WAY TO AVOID CRITICISM: DO NOTHING, SAY NOTHING, AND BE NOTHING
- ELBERT HUBBARD

MALE SWIVEL RUN TEE



Forged



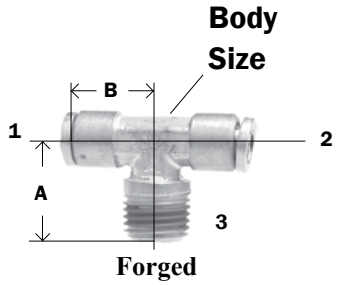
Barstock

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	15.69
710404S	1/4" x 1/4"	0.92	1.24	0.56	0.11	17.61
710604S	3/8" x 1/4"	1.00	1.14	0.56	0.15	21.07
710606S	3/8" x 3/8"	0.98	1.18	0.68	0.14	22.04
710804S*	1/2" x 1/4"	1.18	1.22	0.56	0.24	55.17
710806S	1/2" x 3/8"	1.14	1.31	0.68	0.24	35.74
710808S	1/2" x 1/2"	1.14	1.61	0.62	0.30	37.48

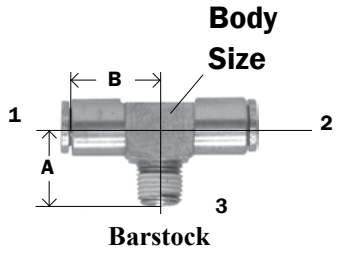
* Barstock

AQ71DOTS
171PMT
1871
DQ71DOTS

MALE BRANCH TEE



Forged



Barstock

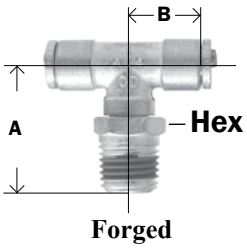
Part #	Tube O.D. x Male NPTF (1 x 2) x 3	A	B	Body Size	Approx. Wt. Lbs.	List Price
720302*	3/16" x 1/8"	0.64	0.75	0.41	0.07	22.63
720402	1/4" x 1/8"	0.74	0.92	0.37	0.10	14.20
720404	1/4" x 1/4"	0.92	0.92	0.43	0.10	14.73
720604	3/8" x 1/4"	0.99	1.08	0.50	0.20	20.14
72060404	(3/8" x 1/4") x 1/4"	0.96	0.89	0.71	0.20	58.93
720606	3/8" x 3/8"	0.98	0.99	0.50	0.10	28.00
720804	1/2" x 1/4"	1.14	1.12	0.87	0.20	30.92
720806	1/2" x 3/8"	1.05	1.16	0.62	0.24	27.09
720808	1/2" x 1/2"	1.42	1.24	0.94	0.32	39.58
72100808	(5/8" x 1/2") x 1/2"	1.46	1.30	1.18	0.20	72.89

* Barstock

AQ72DOT
172PMTNS
1872
DQ72DOT

"TREAT THE EARTH WELL. IT WAS NOT GIVEN TO YOU BY YOUR PARENTS, IT WAS LOANED TO YOU BY YOUR CHILDREN."
- KENYAN PROVERB

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	15.63
720404S	1/4" x 1/4"	1.16	0.92	0.56	0.14	16.93
720602S	3/8" x 1/8"	1.06	0.96	0.43	0.19	17.97
720604S	3/8" x 1/4"	1.16	0.99	0.56	0.20	22.39
720606S	3/8" x 3/8"	1.21	0.98	0.68	0.18	22.12
720804S	1/2" x 1/4"	1.26	1.16	0.56	0.30	27.96
720806S	1/2" x 3/8"	1.34	1.16	0.68	0.34	29.26
720808S	1/2" x 1/2"	1.64	1.16	0.87	0.22	31.05

FEMALE BRANCH TEE



Part #	(1 & 2) x 3	List Price
770402	1/4" x 1/8"	17.91
770404	1/4" x 1/4"	22.59
770604	3/8" x 1/4"	17.68

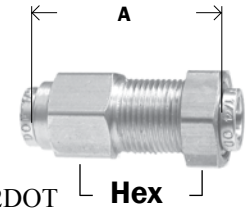
GLADHAND BULKHEAD CONNECTOR



TUBE OD x MALE NPTF

Part #	Size	List Price
830808	1/2" x 1/2"	55.94

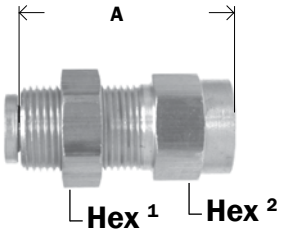
BULKHEAD UNION



AQ82DOT
62PMTBH
1874
DQ82DOT

Part #	Tube O.D.	A	Hex	Approx. Wt. Lbs.	List Price
820400	1/4"	1.90	0.68	0.16	20.88
820600	3/8"	1.85	0.94	0.21	35.89
820800	1/2"	2.05	0.94	0.14	39.32
821000	5/8"	1.85	1.25	0.30	47.15

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	13.44
860404	1/4 x 1/4"	1.53	0.68	0.75	0.10	13.64
860604	3/8" x 1/4"	1.87	0.94	0.94	0.14	15.13
860606	3/8" x 3/8"	1.84	0.81	0.87	0.16	21.01
860808	1/2" x 1/2"	2.54	1.31	1.06	0.32	35.52

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"	1.56
25-001	1/8"	1.57

NUT



Part #	Tube O.D.	List Price
38-732	5/32"	1.88
25-033	1/8"	1.65

DOUBLE END UNION



Part #	Tube O.D.	List Price
38-761	5/32"	14.36
25-062	1/8"	8.38

CONNECTOR



Part #	Tube O.D.	Pipe Thread	List Price
38-769	5/32"	1/16"	9.49
38-770	5/32"	1/8"	8.99
25-175	1/8"	1/16"	9.48
25-176	1/8"	1/8"	8.59

ELBOW



Part #	Tube O.D.	Pipe Thread	List Price
38-718	5/32"	1/8"	8.45
25-220	1/8"	1/8"	8.42

• See Page 306 for Air Brake - Tubing 634 4510

AIR BRAKE TUBING

•SAE J844, Type 3 A & B & DOT FMVSS 106
•Nylon inner tube with open ply nylon fiber reinforcement and nylon cover.
•-40^0 F to +200^0 F temperature range.
•150 P.S.I. max. working pressure.
• More colors available.



TYPE A NON-REINFORCED

Part #	Type A	Color	Length	List Price
38-950	1/8”	Black	100'	POR
38-952	1/4”	Black	100'	POR
38-952R	1/4”	Red	100'	POR
38-952U	1/4”	Blue	100'	POR
38-952-2	1/4”	Black	500'	POR
38-952-3	1/4”	Black	1000'	POR

TYPE B REINFORCED

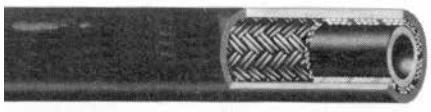
Part #	Type B	Color	Length	List Price
38-960	3/8”	Black	100'	POR
38-960U	3/8”	Blue	100'	POR
38-960B5	3/8”	Black	500'	POR
38-965	1/2”	Black	100'	POR
38-965R	1/2”	Red	100'	POR
38-965B5	1/2”	Black	500'	POR
38-970	5/8”	Black	100'	POR
38-975	3/4”	Black	100'	POR

• Reinforced
• Available in black, blue, green, red, yellow

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

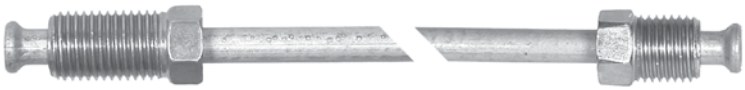
Any other 5/32 DOT tubing used, tubing or fitting manufacturer should be contacted for proper torque requirements.

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
•-40^0 F to + 257^0 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'	POR
38-926	5/16	9/16	25'	POR
38-923	1/4	1/2	25'	POR
38-927	3/8	5/8	50'	POR



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	6.75						
8"	38-931	7.49						
10"	38-932	8.50						
12"	38-933	7.51					38-985	10.37
20"	38-934	8.63					38-986	13.46
30"	38-935	9.56	38-943	11.14				
40"	38-936	11.67	38-944	14.56			38-988	18.01
51"	38-937	13.49	38-945	15.55	38-984	----	38-989	22.80
60"	38-938	17.76	38-946	16.96			38-990	24.24
72"	38-939	20.04						

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

Part #	connects only to service	List Price
38-712		17.12

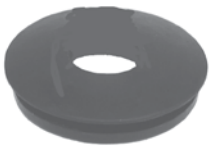
EMERGENCY (Supply Line) Red

Part #	connects only to emergency	List Price
38-714		17.12

UNIVERSAL - Gold

Part #	connects to both styles	List Price
38-716		18.48

GLADHAND SEAL



Part #		List Price
38-720	Full Face	2.00

HEX BALL FOOT CHUCK



Part #		List Price
46-600	1/4" Female Pipe	3.51

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



Part #		List Price
46-607	1/4" I.D. Hex	3.50

DUAL FOOT CHUCKS

6999
693
108
DFG-1



99941
50-065
6569

Standard straight-on chuck with 30⁰ reverse angle chuck.

Part #		List Price
320-000	1/4" NPT Female Thread	32.13

ANGLE CHUCK

690
6172



For inner dual wheels with tilted valves.

Has 6” extension and 1/4” NPT female thread.

Part #		List Price
320-005	1/4" NPT Female Thread	10.48

AIR BRAKE HOSES

AIR BRAKE HOSE



•Spiral synthetic cord reinforcement with neoprene cover.
•-40^0 F to +200^0 F temperature range.
•Max opperating pressure 255 psi
•Max burst pressure 900 psi
• Meets SAE J1402

Part #	ID	OD	Length	List Price
38-910	3/8	3/4	50'	120.44
38-915	1/2	7/8	50'	180.48

REMOTE CONTROL DRAIN VALVES

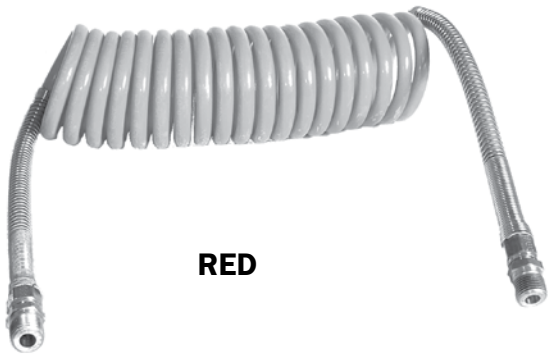
REMOTE CONTROL DRAIN VALVES



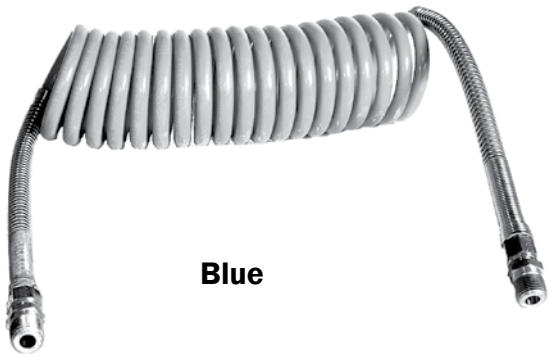
•Brass Body and stainless steel spring.
•Steel cable, nylon coated, certified to 200lbs pull test.
•Low profile to minimize accidental hits and damages.
•Pipe thread 1/4” NPTF.

Part #	Length	List Price
46-492	Standard 48"	27.54
46-493	Standard 60"	28.19

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 -40^0 F to 200^0 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.

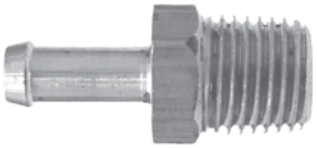
Each contains 1 red, 1 blue.

Part #	Working Length	Pigtail Length	List Price
38-700	12'	6"	166.91
38-705	12'	12"	211.79
38-710	15'	12"	186.52

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.

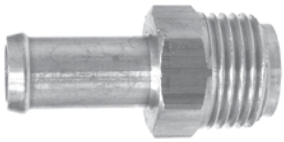
MALE CONNECTOR



HOSE BARB X MALE PIPE

Part #	Hose ID	Size	Ind #	List Price
38-800	3/16	1/8	1541	2.42
38-802	1/4	1/8	1537	2.08
32-377	1/4	1/4	1581	2.11
38-806	5/16	1/8	1551	2.76
38-808	5/16	1/4	1555	2.57
38-810	3/8	1/8	1565	3.51
32-381	3/8	1/4	1564	2.39
32-382	3/8	3/8	1566	4.70
32-383	1/2	3/8		3.36
32-384	1/2	1/2		5.31
32-182	5/8	3/8	1411	6.17
32-385	5/8	1/2	1431	7.32
32-387	3/4	1/2	1430	6.08
32-388	3/4	3/4		8.45
32-185	1	3/4		16.22

INVERTED FLARE MALE CONNECTOR



HOSE BARB X INVERTED FLARE

Part #	Hose ID	Inv. Flare	Ind #	List Price
38-828	5/16	1/4	1598	4.01
38-830	5/16	5/16	1560	2.95
38-832	5/16	3/8	1561	5.00
38-834	3/8	5/16	1568	4.41
38-836	3/8	3/8	1570	6.89

See Hose Clamps starting on page 287

90⁰ MALE ELBOW



HOSE BARB X MALE PIPE

Part #	Hose ID	Size	Ind #	List Price
38-860	1/4	1/8	1582	5.92
38-862	5/16	1/8	1556	5.43
38-864	5/16	1/4	1557	6.37
38-866	3/8	1/8	1572	6.76
38-868	3/8	1/4	1571	6.08
32-186	3/8	3/8		9.43
32-187	1/2	3/8		14.54
32-191	1/2	1/2		19.68
32-188	5/8	3/8		10.56
32-189	5/8	1/2		11.80
32-190	3/4	1/2		17.32

INVERTED FLARE MALE SWIVEL 90⁰ ELBOW



HOSE BARB X TUBE O.D.

Part #	Hose ID	Inv. Flare	Ind #	List Price
38-873	5/16	5/16	1405	35.81
38-874	3/8	3/8	1407	12.34

LONG STREET ELLS



Part #	Size	Length	List Price
28-440	1/8	1-3/16"	10.30
28-441	1/8	1-7/16"	5.12
28-442	1/8	1-11/16"	8.51
28-328	1/4	1-3/16"	17.29
28-329	1/4	1-7/16"	14.08
28-330	1/4	1-11/16"	14.05
28-332	1/4	2-1/4"	19.15
28-333	3/8	1-3/4"	21.93

EXTENSION ADAPTERS D.O.T.



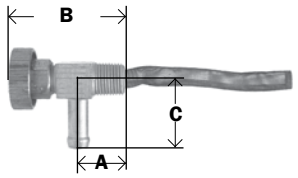
Part #	Size	Length	List Price
28-335	1/8	1-1/4"	11.33
28-336	1/8	1-3/4"	12.33
28-338	1/4	1-9/16"	6.80
28-339	1/4	1-13/16"	8.66
28-340	1/4	2-1/16"	8.04

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

827



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	77.94

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

150 PSI

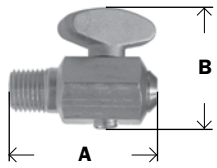
1421



Part #	Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
46-065	1/4"	1.74	0.75	0.16	61.67

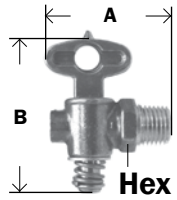
DRAIN COCK 150 PSI - Trunk Air Tank

DCR601-4



Part #	Male Pipe	A	B	Approx. Wt. Lbs.	List Price
46-066	1/4"	1.73	1.41	0.22	26.18

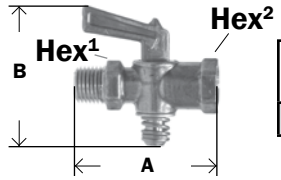
TRUCK DRAIN - 125 P.S.I.G



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	18.94
46-068	1/4"	W15310	1.53	1.95	0.62	0.18	18.95

SHUT OFF - 150 P.S.I max.

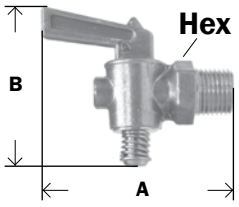
#60HC
3380-A
0903610
367



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	29.77

LEVER HANDLE

840
41D
DC601

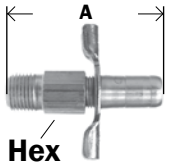


Part #	Male Pipe	Industry Number	A	B	Hex	Approx. Wt. Lbs.	List Price
46-070	1/8"	M-41-P	1.99	1.80	0.62	0.04	15.12
46-071	1/4"	M-42-P	2.06	1.81	0.62	0.06	15.12
46-072	3/8"	M-43-P	2.30	2.29	0.81	0.08	18.48
46-073	1/2"	M-44-P	3.00	2.50	0.87	0.16	51.45

*Valve is closed when handle is in the position of the picture

INTERNAL SEAT

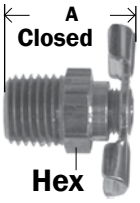
DC602
808
400A
1800A



Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-079	1/8”	6783	1.63	0.40	0.02	14.89

INTERNAL SEAT

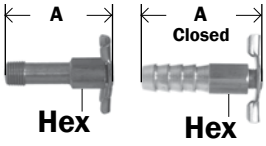
HB - 5/16
803
305A



Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-074	1/8”	130	0.92	0.40	0.04	10.54
46-075	1/4”	140	0.94	0.56	0.06	6.00
46-077	3/8”	230	1.34	0.68	0.08	13.14

LONG INTERNAL SEAT

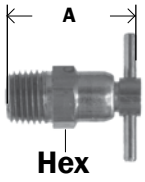
809



Part #	Size	Ind #	A	Hex	Approx. Wt. Lbs.	List Price
46-078	1/8” MIP	185	1.72	0.43	0.02	33.37
46-076	3/8” Hose I.D.		1.65	0.43	0.02	13.31

TEE HANDLE - Internal Seat

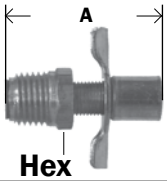
DC603
802



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	16.30
46-081	1/4”	M-201-P	1.31	0.56	0.06	11.75
46-082	3/8”	M-202-P	1.69	0.68	0.12	22.10

EXTERNAL SEAT w/ SPOUT

200A
239
DC606
807

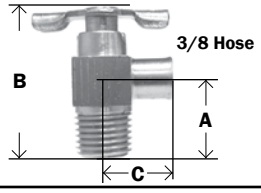


Part #	Male Pipe	Industry Number	A	Hex	Approx. Wt. Lbs.	List Price
46-084*	1/4”	6788	1.56	0.56	0.02	4.60

* Replaces GM # 511771 & Chrysler #836015

BIBB NEEDLE VALVE

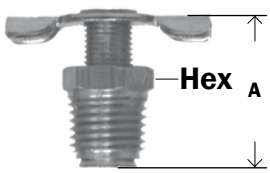
804
DC607
2019
201DH



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	23.78
46-089	1/4”	120	0.82	1.76	0.66	0.06	15.65
46-089A	1/4”	6660	0.55	1.34	0.66	0.06	8.15

RADIATOR TYPE - External Seat

320D
240
DC604
801

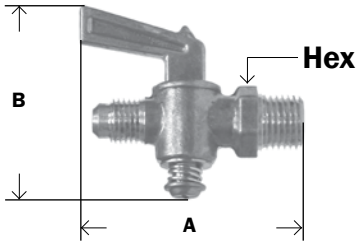


Part #	Male Pipe	Industry Number	Ind #	A	Hex	Approx. Wt. Lbs.	List Price
46-085	1/8”	M-320-P	135	0.90	0.43	0.02	3.43
46-086	1/4”	M-321-P	145	1.00	0.56	0.04	3.43
46-087	3/8”	M-322-P	270	1.25	0.68	0.08	10.45
46-083	1/2”		108	1.52	0.87	0.12	30.55

• 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 360^0 rotation.
• Not good for gasoline.

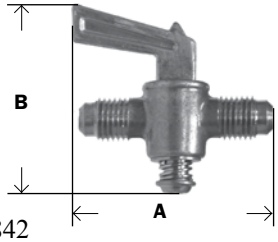
FLARE X MALE PIPE



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	15.58
46-101	1/4" x 1/4"	**227SAE**	2.19	1.84	0.62	0.16	20.16
46-102	5/16" x 1/8"	**29SAE**	2.06	1.88	0.50	0.14	17.14
46-103	5/16" x 1/4"	**229SAE**	2.12	1.82	0.69	0.16	20.81
46-104	3/8" x 1/4"	**57SAE**	2.27	1.84	0.62	0.17	19.29
46-107	1/2" x 3/8"	**67SAE**	2.36	2.27	0.82	0.20	19.49

FLARE X FLARE

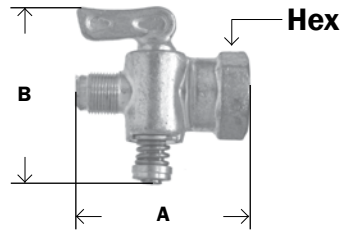


842
V203F
136C

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	17.70
46-116	5/16"	**30SAE**	2.00	1.90	0.16	32.05
46-117	3/8"	**58SAE**	2.20	1.83	0.18	18.57
46-118	1/2"	**68SAE**	2.50	2.31	0.50	22.62
46-119	5/8"	**1010SAE**	3.05	2.59	0.70	20.63

* Please request AGA valves

FLARE X FEMALE PIPE



138C
2046

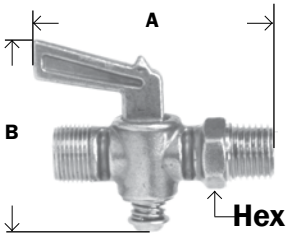
Part #	Male Flare X Female Pipe	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-127	3/8" x 3/8"	**163SAE**	2.28	2.38	1.03	0.40	57.50
46-125	3/8" x 1/2"	**161SAE**	2.45	2.31	1.03	0.32	54.87
46-126*	3/8" x 1/2"	**161SAE**	2.26	2.32	1.03	0.28	37.00
46-128	1/2" x 1/2"	**164SAE**	2.52	2.19	1.03	0.34	42.46
46-123	5/8" x 1/2"	**164SAE**	2.61	2.12	1.25	0.54	66.08

* Heater Valve

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

COMPRESSION X MALE PIPE

* See pg. 72-73 to order nut and sleeve separately.

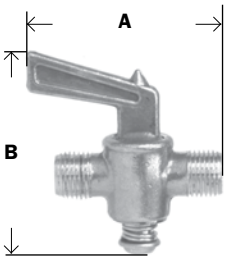


868 133C
V304C VC206
2068

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	17.08
46-131	1/4" x 1/4"	227-C	2.05	1.86	0.62	0.15	21.52
46-132	5/16" x 1/8"	29-C	2.05	1.90	0.50	0.16	17.08
46-134	3/8" x 1/4"	57-C	2.05	1.83	0.62	0.15	18.06

COMPRESSION X COMPRESSION

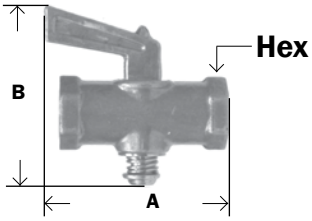
* See pg. 72-73 to order nut and sleeve separately.



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	19.29
46-141	5/16"	30-C	1.84	1.88	0.14	20.19
46-142	3/8"	58-C	1.87	1.80	0.14	19.86
46-143	1/2"	68-C	2.21	2.32	0.22	30.08

FEMALE X FEMALE PIPE

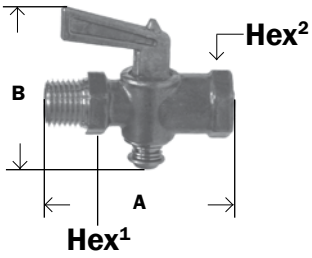


V403P
132C
875

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	15.18
46-152	1/4"	2.28	1.82	0.69	0.20	16.04
46-152T*	1/4"	2.28	2.00	0.68	0.20	23.92
46-153	3/8"	2.44	2.28	0.81	0.30	25.89

* 150 PSI

MALE PIPE X FEMALE

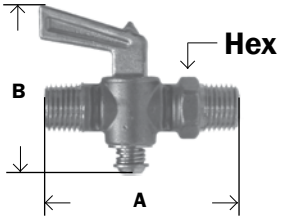


880
V402P
130C

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	15.34
46-161	1/4"	49-P	2.26	1.84	0.69	0.69	0.18	16.04
46-161T*	1/4"		2.26	1.98	0.69	0.69	0.20	21.75
46-162	3/8"	50-P	2.33	2.28	0.82	0.82	0.28	25.89

* 150 PSI

MALE PIPE X MALE PIPE



1V401P
890

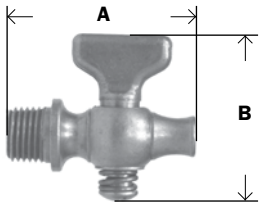
Part #	Male Pipe X Male Pipe	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-165	1/8"	76-P	2.09	1.77	0.50	0.12	16.24
46-166	1/4"	77-P	2.22	1.84	0.70	0.17	17.19
46-166T*	1/4"		2.23	2.00	0.68	0.18	22.44
46-167	3/8"	78-P	2.43	2.24	0.82	0.22	30.15

* 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.

MIB X BIBB

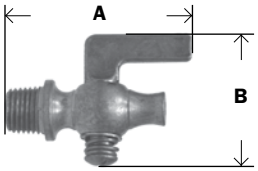
- tee handle
- no hex



Part #	MIP x BIBB	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-300	1/8”	**6**	1.53	1.55	0.12	21.82
46-301	1/4”	**7**	1.61	1.54	0.14	29.57

MIP X BIBB

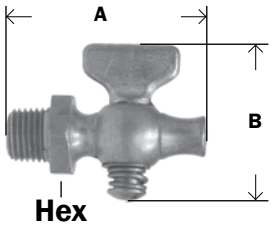
- lever handle
- no hex



Part #	MIP x BIBB	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-305	1/8”	**12**	2.01	1.71	0.14	21.33
46-306	1/4”	**13**	2.09	1.66	0.14	27.01

MIP X BIBB

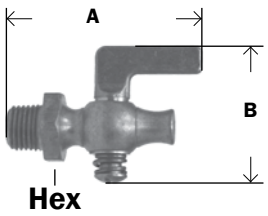
- tee handle
- hex



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	29.93
46-311	1/4”	**64**	1.69	1.54	0.62	0.14	26.92
46-312	3/8”	**8**	1.75	1.48	0.75	0.17	23.22

MIP X BIBB

- lever handle
- hex

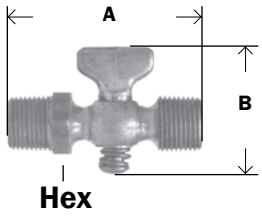


Part #	MIP x BIBB	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-315	1/8”	**65**	2.11	1.71	0.62	0.14	29.04
46-316	1/4”	**66**	2.16	1.71	0.62	0.16	29.85
46-317	3/8”	**14**	2.26	1.71	0.75	0.18	30.64
46-318	1/2”	**15**	2.32	1.46	0.87	0.26	35.99

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

MIP X MIP

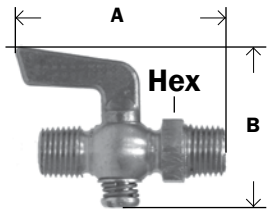
- tee handle
- hex



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	23.81
46-321	1/4"	**19**	1.92	1.55	0.62	0.16	37.47
46-322	3/8"	**20**	2.34	1.55	0.75	0.19	24.95
46-323	1/2"	**21**	2.18	1.50	0.87	0.26	29.55

MIP X MIP

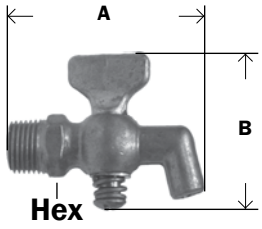
- lever handle
- hex



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	32.52
46-325	1/4"	**23**	2.18	1.69	0.62	0.16	34.73
46-326	3/8"	**24**	2.26	1.72	0.75	0.20	27.76
46-327	1/2"	**25**	2.57	1.81	0.91	0.36	34.67

MIP X BIBB NOSE

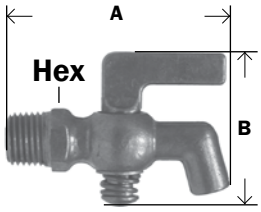
- tee handle
- hex



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	36.73
46-331	1/4"	**27**	2.11	1.57	0.56	0.16	38.06

MIP X BIBB NOSE

- lever handle
- hex

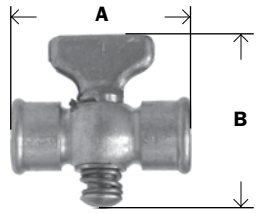


Part #	MIP X BIBB NOSE	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-335	1/8"	**29**	2.25	1.68	0.56	0.14	42.79
46-336	1/4"	**30**	2.20	1.67	0.56	0.17	33.50
46-337	3/8"	**31**	2.25	1.72	0.87	0.20	53.55
46-338	1/2"	**32**	2.31	1.71	0.87	0.22	68.82

Lead Free fittings available on
pgs. 166-175

FIP X FIP

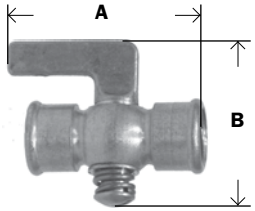
- tee handle
- no hex



Part #	FIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-340	1/8”	**37**	1.62	1.50	0.14	21.04
46-341	1/4”	**38**	1.93	1.56	0.16	26.50
46-342	3/8”	**39**	2.00	1.55	0.20	31.40

FIP X FIP

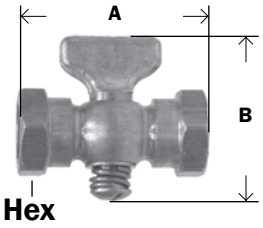
- lever handle
- no hex



Part #	FIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-345	1/8”	**43**	1.94	1.68	0.14	30.13
46-346	1/4”	**44**	2.10	1.71	0.16	29.03
46-347	3/8”	**45**	2.14	1.69	0.20	35.19

FIP X FIP

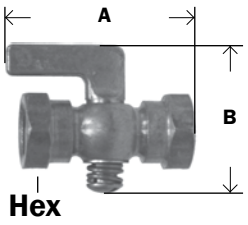
- tee handle
- hex



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	25.52
46-351	1/4”	**56**	1.94	1.55	0.75	0.18	36.65
46-352	3/8”	**57**	1.99	1.58	0.81	0.20	29.82

FIP X FIP

- lever handle
- hex

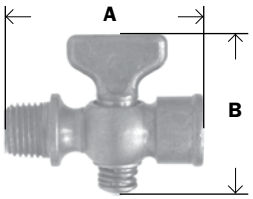


Part #	FIP X FIP	Ind. #	A	B	Hex	Approx. Wt. Lbs.	List Price
46-355	1/8”	**58**	1.97	1.70	0.56	0.15	31.18
46-356	1/4”	**59**	2.10	1.71	0.75	0.18	26.49
46-357	3/8”	**60**	2.10	1.69	0.81	0.20	44.61
46-358	1/2”	**60A**	2.50	2.02	1.00	0.36	49.61

NO ONE CAN MAKE YOU FEEL INFERIOR WITHOUT YOUR CONSENT.
- ELEANOR ROOSEVELT

MIP X FIP

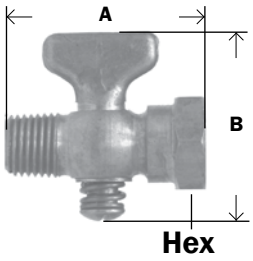
- tee handle
- no hex



Part #	MIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-360	1/8”	**40**	1.70	1.55	0.14	24.60
46-361	1/4”	**41**	1.94	1.55	0.16	27.44
46-362	3/8”	**42**	2.06	1.50	0.20	33.45

MIP X FIP

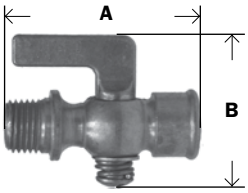
- tee handle
- hex



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	36.25
46-371	1/4”	**50**	2.06	1.55	0.75	0.20	29.98
46-372	3/8”	**51**	2.12	1.53	0.81	0.22	30.22
46-373	1/2”	**51A**	2.13	1.62	1.00	0.30	49.66

MIP X FIP

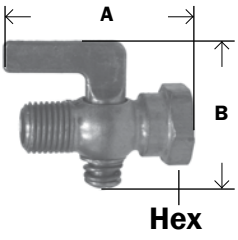
- lever handle
- no hex



Part #	MIP X FIP	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-365	1/8”	**46**	1.94	1.72	0.14	27.66
46-366	1/4”	**47**	2.10	1.65	0.16	30.87
46-367	3/8”	**48**	2.20	1.81	0.24	41.12
46-368	1/2”	**48A**	2.50	1.95	0.42	39.36

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	26.49
46-376	1/4”	**53**	2.06	1.76	0.75	0.20	37.81
46-377	3/8”	**54**	2.13	1.71	0.81	0.22	44.86
46-378	1/2”	**54A**	2.65	1.96	1.00	0.28	53.02

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

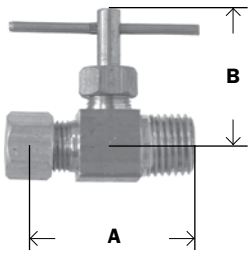
NEEDLE VALVES

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.

These are NOT Lead Free
See pages 166-175 for Lead Free products

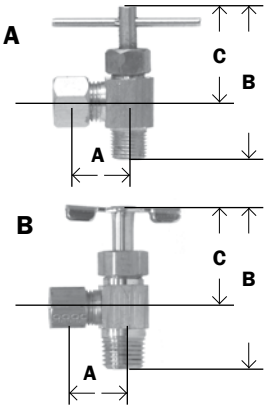
COMP X MALE PIPE



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	60.17
46-002	1/4" x 1/8"	**M-101-C**	1.29	1.12	0.07	20.36
46-002X	Heavy Pattern	**M-101-C**	1.19	0.88	0.09	51.50
46-003	1/4" x 1/4"	**M-101-C**	1.27	1.14	0.10	9.36
46-004	5/16" x 1/8"	**M-102-C**	1.50	1.25	0.14	18.35
46-005	3/8" x 1/4"	**M-143-C**	1.53	1.22	0.18	18.97

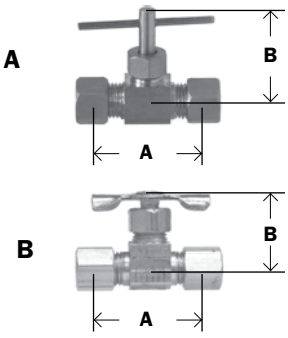
COMP X MALE PIPE-ANGLE



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	41.97
46-011	1/4" x 1/8"	A	**M-103-C**	0.56	1.48	0.93	0.08	6.36
46-011X	Heavy Pattern	B	**M-103-C**	0.53	1.53	0.83	0.08	18.70
46-012	1/4" x 1/4"	B	**M-104-C**	0.62	1.67	0.90	0.13	16.91
46-013	5/16" x 1/8"	B	**M-104-C**	0.63	1.63	0.95	0.10	22.49
46-014	5/16" x 1/4"	B	**M-104-C**	0.69	1.73	0.92	0.14	67.36
46-016	3/8" x 1/4"	A	**M-303-C**	0.65	1.71	0.92	0.16	14.02

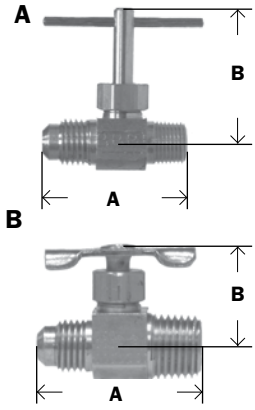
COMP X COMP



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	50.95
46-021	1/4"	A	**M-106-C**	1.17	1.12	0.10	7.27
46-022	5/16"	A	**M-107-C**	1.22	1.08	0.12	16.27
46-023	3/8"	B	**M-113-C**	1.31	1.15	0.13	11.88

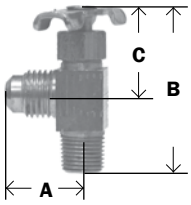
FLARE X MALE PIPE



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	18.65
46-029	1/4" x 1/4"	B	**M-1040-SAE**	1.38	0.88	0.09	25.62
46-031	3/8" x 1/4"	B	**M-108-SAE**	1.73	1.22	0.18	77.02

NV103F
2405
823
3048

FLARE X MALE PIPE

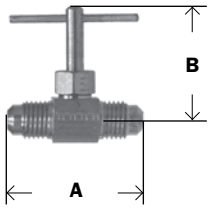


Part #	Male Flare X Male Pipe	Ind. #	A	B	C	Approx. Wt. Lbs.	List Price
46-036	1/4" x 1/8"	**M-103-SAE**	0.68	1.54	0.86	0.08	13.84
46-038	5/16" x 1/8"	**M-203-SAE**	0.88	1.59	0.94	0.11	42.55
46-039	5/16" x 1/4"	**M-204-SAE**	0.90	1.94	1.00	0.14	20.68
46-040	3/8" x 1/4"	**M-303-SAE**	0.97	1.84	0.90	0.17	69.50

NV101F 824
2403 3049

FLARE X FLARE

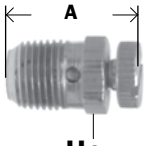
NV102F
3042
825
2401



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	5.39
46-046	3/8"	**M-115-SAE**	1.79	1.19	0.20	23.63

MULTI-PURPOSE AIR VENT

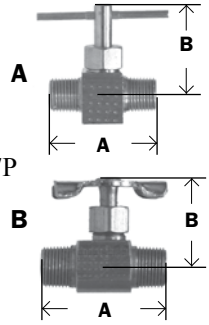
705



Part #	Male Pipe	A	Hex	Approx. Wt. Lbs.	List Price
46-048	1/8"	0.78	0.43	0.02	3.56

MALE PIPE TO MALE PIPE

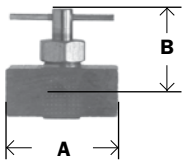
NV107P
2301
826
3122



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	23.24
46-051	1/4"	B	**M-110-P**	1.69	1.00	0.16	17.81

FEMALE PIPE X FEMALE PIPE

6800
NV109P
2304
817
3103

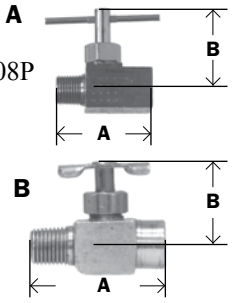


Part #	Female Pipe X Female Pipe	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-055*	1/8"	**M-304-P**	1.12	0.88	0.18	45.00
46-056	1/4"	**M-3044-P**	1.60	1.24	0.21	9.66
46-056P*	1/4" Heavy	**M-3044-P**	1.62	2.53	0.20	14.83

* Pressed on handle

MALE X FEMALE PIPE

NV108P
2305
818
3120

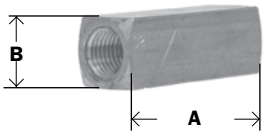


Part #	Male Pipe X Female Pipe	Handle	Ind. #	A	B	Approx. Wt. Lbs.	List Price
46-060	1/8"	A	**M-305-P**	1.18	1.09	0.10	6.68
46-061	1/4'	A	**M-3055-P**	1.60	1.14	0.18	10.26
46-061L	1/4" Light Pattern	B	**M-3055-P**	1.88	1.09	0.21	24.79

FLOW CONTROL NEEDLE & CHECK VALVES

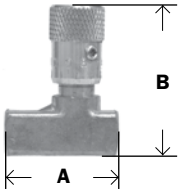
- Precision calibrated dial to determine and allow a return to required flow settings.
- Safe positive stop for needle travel.
- Positive no-leak stem seal.
- 2PSI cracking pressure.
- 1000 PSI maximum operating pressure.
- One piece forged housing.
- Nickel Plated available.
- Suitable for natural gas.

CHECK VALVE



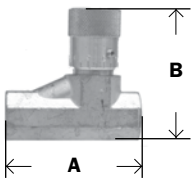
Part #	Size	A	B	Approx. Wt. Lbs.	List Price
20-473	1/4"	1.94	0.68	0.20	97.74

FLOW CONTROL



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
20-485	1/8"	1.47	1.48	0.18	129.83
20-487	1/4"	1.94	1.92	0.27	130.99

NEEDLE VALVE



Part #	Size	A	B	Approx. Wt. Lbs.	List Price
20-501	1/8"	1.47	1.80	0.18	102.39
20-503	1/4"	1.94	2.00	0.28	122.24

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 (37^0) 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 -40^0 to 250^0 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	50.78
46-769	1/8 Male x 1/8 Female	Panel	0.141	67.94
46-770	1/4 Male x 1/4 Female	Regular	0.188	50.71
46-771	1/4 Male x 1/4 Female	Panel	0.188	66.27

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	46.72
46-781	1/8 Female x 1/8 Female	Panel	0.172	65.01
46-782	1/4 Female x 1/4 Female	Regular	0.188	48.71
46-783	1/4 Female x 1/4 Female	Panel	0.188	63.76

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.



MIP X FIP ANGLE
(Bottom = Male, Side = Female)

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-786	1/8 Male x 1/8 Female	Regular	0.188	51.04
46-787	1/8 Male x 1/8 Female	Panel	0.188	66.00
46-788	1/4 Male x 1/4 Female	Regular	0.281	51.26

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	60.19
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	54.09
46-795	1/4 Male x 1/4 Male	Panel	0.281	67.28

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	43.08
46-799	1/8 Female x 1/8 Female	Panel	0.188	63.16
46-800	1/4 Female x 1/4 Female	Regular	0.281	48.10
46-801	1/4 Female x 1/4 Female	Panel	0.281	64.41

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	5.97

MICRO-METERING VALVES

MICRO-METERING VALVES offer PRECISE FLUID CONTROL through a full metering tip (5^0) and lubricated micrometer threads. Our O-ring seal arrangement eliminates contamination of system media by the thread lubricant.

The standard constuction 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 -40^0 to 150^0 F.

Many variations and modifications have been made in these valves to accomodate 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	53.38
46-742	1/8 Male x 1/8 Female	Panel	0.102	71.18
46-743	1/4 Male x 1/4 Female	Regular	0.172	61.90
46-744	1/4 Male x 1/4 Female	Panel	0.175	67.94

MIP X MIP STRAIGHT

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-747	1/4 Male x 1/4 Male	Regular	0.172	64.38
46-748	1/4 Male x 1/4 Male	Panel	0.172	72.46

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	54.51
46-753	1/8 Female x 1/8 Female	Panel	0.141	71.18
46-754	1/4 Female x 1/4 Female	Regular	0.172	60.37
46-755	1/4 Female x 1/4 Female	Panel	0.172	70.66

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



MIP X FIP ANGLE

(Bottom = Male, Side = Female)

Part #	Pipe Thread Inlet Outlet	Style	Maximum Orifice	List Price
46-756	1/8 Male x 1/8 Female	Regular	0.182	56.18
46-757	1/8 Male x 1/8 Female	Panel	0.182	69.32
46-758	1/4 Male x 1/4 Female	Regular	0.182	62.65

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	76.43
46-766	1/4 Female x 1/4 Female	Regular	0.182	55.42
46-767	1/4 Female x 1/4 Female	Panel	0.182	65.37

Some valves only available on made-to-order basis.

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	83.52
46-832	1/4 x 1/4	88.82
46-833	3/8 x 3/8	185.43
46-834	1/2 x 1/2	210.88

FEMALE X MALE

Part #	Size	List Price
46-835	1/8 x 1/8	90.36
46-838	1/4 x 1/4	90.51
46-840	1/2 x 1/2	229.22

MALE X MALE

Part #	Size	List Price
46-841	1/8 x 1/8	104.86
46-843	1/4 x 1/4	97.33
46-845	3/8 x 3/8	195.10
46-846	1/2 x 1/2	239.75

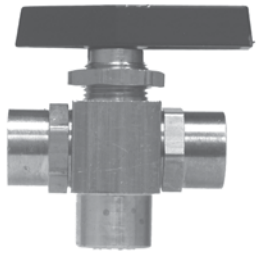
INDUSTRIAL INSTRUMENTATION ANGLE BALL VALVES



FEMALE X FEMALE

Part #	Size	List Price
46-875	1/8 x 1/8	84.71
46-876	1/8 x 1/4	94.11
46-877	1/4 x 1/8	94.31
46-878	1/4 x 1/4	79.88

INDUSTRIAL INSTRUMENTATION 3-WAY BALL VALVES



Part #	Size	List Price
46-951	1/8 FPT	81.83
46-956	1/4 FPT	86.16
46-959	3/8 FPT	216.45
46-960	1/2 FPT	224.32

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

"I have noticed that people who claim everything is predestined, and we can do nothing to change it, look both ways before crossing the road"

- Stephen Hawking

“Life is short, break the rules, forgive quickly, kiss slowly, love truly, laugh uncontrollably, and never regret anything that made you smile. 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. Discover.”

- H. Jackson Brown

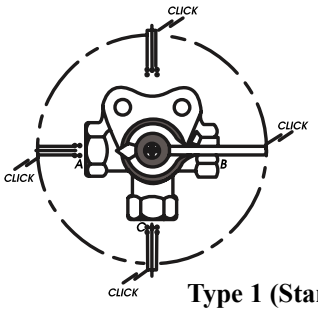
"Sometimes I think the surest sign that intelligent life exists elsewhere in the universe is that none of it has tried to contact us."

Calvin, Calvin and Hobbes

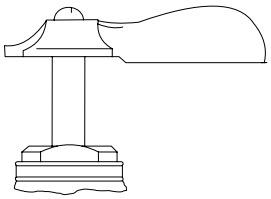
THREE AND FOUR-WAY SELECTOR VALVES

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 40^0 to 180^0F, 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).**

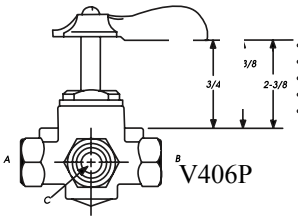


Type 1 (Standard)
A pronounced "click" may be felt at each position. Handle travel is not restricted.



PANEL MOUNTING AVAILABLE

THREE-WAY VALVES (Side Outlet)



V406P



- 1-3/8" Stem
- Side Outlet
- Bracket Mounting
- O-Ring Sealed
- 4-way celcon roter standard

LESS CLICK

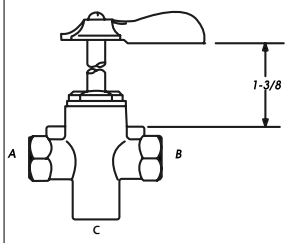
Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-247	1/4	1-3/8"	35.71
46-248	3/8	1-3/8"	42.08

M-108-MID WITH CLICK 360⁰

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-250	1/8	1-3/8"	37.19
46-251	1/4	1-3/8"	36.35
46-252	3/8	1-3/8"	42.78

Openings:
Handle Pointer over A.....Valve Open A-C
Handle Pointer over C.....Valve Open B-C
Handle Pointer over B.....Valve "OFF"
Handle Pointer over Bracket.....Valve "OFF"

THREE-WAY VALVES (Bottom Outlet)





- 1-3/8" Stem
- Side Outlet
- Bracket Mounting
- O-Ring Sealed
- 4-way celcon roter standard

LESS CLICK

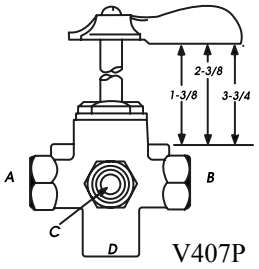
Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-241	1/4	1-3/8"	37.25

WITH CLICK 360⁰

Part #	A-B-C Female Pipe Thread	Length of Stem	List Price
46-243	1/8	1-3/8"	43.35
46-244	1/4	1-3/8"	38.96

Openings:
Handle *Pointer* over A ..... Valve Open A-C
Handle *Pointer* over C ..... Valve Open B-C

FOUR-WAY VALVES



V407P



- Side Outlet
- Bracket Mounting
- O-Ring Sealed
- 4-way celcon roter standard

LESS CLICK

Part #	A-B-C-D Female Pipe Thread	Length of Stem	List Price
46-257	1/4	1-3/8"	33.57

M-114-MID WITH CLICK (360⁰)

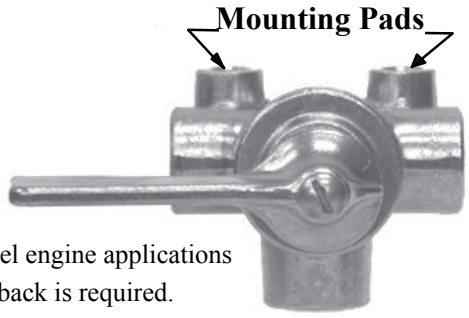
Part #	A-B-C-D Female Pipe Thread	Length of Stem	List Price
46-255	1/4	1-3/8"	39.50
46-256	3/8	1-3/8"	47.15

WITH 2-3/8" LONG STEM M-115-MID

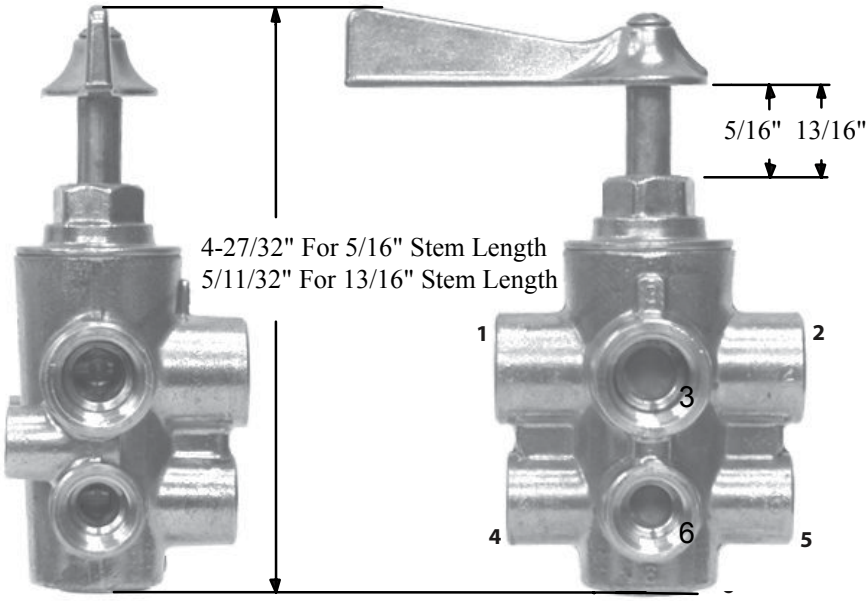
Part #	A-B-C-D Female Pipe Thread	Length of Stem	List Price
46-260	1/4	2-3/8"	39.93

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



- 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	731.87

MARINE FITTINGS

- Calibrated to support 30" column of gasoline.
- Flo direction <-



ANTI-SIPHON VALVES

NPT X NPT

Part #	Size	List Price
46-520	1/4 x 1/4	18.56
46-521	3/8 x 3/8	30.97



ANTI-SIPHON VALVES

BARB X NPT

Part #	Size	List Price
46-530	5/16 x 1/4	17.93
46-531	3/8 x 1/4	16.37
46-532	3/8 x 3/8	30.05
46-533	1/2 x 3/8	30.05

BRASS TRUCK VALVES

200 PSI

404V



HOSE TO MALE PIPE

Part #	Size	List Price
46-450	3/8 x 3/8	17.90
46-451	5/8 x 3/8	17.89

404V



HOSE TO MALE PIPE

Part #	Size	List Price
46-455	5/8 x 1/2	35.78
46-457	3/4 x 3/8	44.59
46-456	3/4 x 1/2	37.69

405V



FEMALE TO MALE PIPE

Part #	Size	List Price
46-465	3/8 x 3/8	22.46
46-466	3/8 x 1/2	45.32
46-467	1/2 x 1/2	30.00

409V



FLARE TO MALE PIPE

Part #	Size	List Price
46-475	1/2 x 1/2	63.80
46-476	5/8 x 1/2	30.07

412V



MALE PIPE TO FLARE

Part #	Size	List Price
46-485	1/2 x 5/8	24.24

SOLID BOTTOM VALVES

- Designed for instantaneous on-off operation.
- 360^0 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	29.19
46-401	1/4	26.78
46-402	3/8	29.60

- Good for Propane

8875



#M-72-SBV
FIP x FIP

Part #	Size	List Price
46-411	1/4	31.71



#M-75-SBV
MIP x FLARE

Part #	Size	List Price
46-429	1/4 x 3/8	29.25

SOLID BOTTOM FUEL VALVES

- Approved for use on Motorcraft fuel lines.
- Pointer lever.
- 90^0 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	49.23
46-401M	1/4 x 1/4	36.40
46-402M	3/8 x 3/8	43.20

8990



PIPE
MALE x MALE

Part #	Size	List Price
46-406M	1/4 x 1/4	44.95

- Good for Propane

8975



PIPE
FEMALE X FEMALE

Part #	Size	List Price
46-411M	1/4 x 1/4	43.79

8948



MALE PIPE X FLARE

Part #	Size	List Price
46-429M	1/4 x 3/8	41.00
46-430M	3/8 x 3/8	66.28

BRASS DOMESTIC MINIATURE BALL VALVES

- Working Pressure up to 1000 P.S.I.G.
- ASTM B-16 Corrosion Resistant Brass Body.
- Non-Adjusting Viton O-Ring Stem Seal Design Never Needs Tightening.
- Highly Inert Teflon Seats.
- Long Life Nickel Plated Brass Ball.
- Blow-Out Proof Stem for Safety.
- Temperature: -40°F to 300°F
- 1/4 Turn Instantaneous On-Off Operation.
- Quarter Turn Handle Design.
- Water, Oil, and Air Pressure Systems.
- Ideal for tight, confined areas, or when routing aesthetics are desired. Applications include instrumentation, gas sampling systems, high pressure gauges, test stands, hydraulic and pneumatic service lines on capital equipment.
- Not good for steam.
- Good for propane, gas and diesel.



MALE X FEMALE

Part #	Size	List Price
46-900	1/8 x 1/8	25.15
46-903	1/4 x 1/4	25.13



MALE X MALE

Part #	Size	List Price
46-910	1/8 x 1/8	27.86
46-912	1/4 x 1/4	27.19



MALE PIPE X HOSE BARB

Part #	Size	List Price
47-042	1/8 x 1/4	31.36
46-980	1/4 x 1/4	25.36
46-981	1/4 x 3/8	23.77

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	25.78
46-921	1/8 x 1/4	29.04
46-922	1/4 x 1/4	25.01
46-922A	1/4 x 1/4	18.89
46-923	3/8 x 3/8	31.13
46-924	1/2 x 1/2	50.10
46-925	3/4 x 3/4	51.50

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	24.97



U.L. TWO WAY VALVES
MNPT X FNPT

Part #	Size	List Price
46-443	1/4 x 1/4	25.97

MINI BALL VALVES

• See p. 184 for specifications



FEMALE X FEMALE

Part #	Size	List Price
46-920 I	1/8	15.16
46-922 I	1/4	15.16
46-923 I	3/8	15.16
46-924 I	1/2	17.52

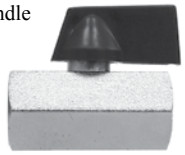


MALE X FEMALE

Part #	Size	List Price
46-900 I [5]	1/8	14.84
46-903 I	1/4	14.84
46-904 I [5]	3/8	14.84
46-905 I [3]	1/2	16.45

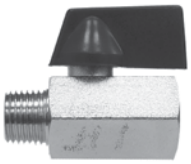
ECONOMY MINI BALL VALVES

- 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
46-934	1/8	7.56
46-935	1/4	7.56
46-936	3/8	8.27
46-937	1/2	8.57



MALE X FEMALE

Part #	Size	List Price
46-930	1/8	6.87
46-931	1/4	7.56
46-932	3/8	7.11
46-933	1/2	8.50

See more mini valves on page 184

For Stainless Steel see page 197

BRASS CHECK VALVES

- 500 PSI
- 1 PSI Cracking Pressure
- Buna-N Seal for water, air and inert gas
- **Viton Seal for oil, gas and diesel fuel (add V to part#)**



FIP X FIP

Part #	Size	Buna-N List	List Price
46-560	1/8"	26.66	26.66
46-561	1/4"	29.68	29.68
46-562	3/8"	43.10	43.10
46-563	1/2"	52.62	52.62
46-564	3/4"	84.87	84.87



FEMALE X MALE

- **Viton Seal - (add V to part#)**

Part #	Size	Buna-N List	List Price
46-565	1/8"	26.66	26.66
46-566	1/4"	25.53	25.53
46-567	3/8"	31.91	31.91
46-568	1/2"	38.91	38.91
46-569	3/4"	91.56	91.56



MALE X MALE

- **Viton Seal - (add V to part#)**

Part #	Size	Buna-N List	List Price
46-570	1/8"	26.66	26.66
46-571	1/4"	25.53	25.53
46-572	3/8"	31.91	31.91
46-573	1/2"	38.91	38.91



MALE X FEMALE

- **Viton Seal - (add V to part#)**

Part #	Size	Buna-N List	List Price
46-575	1/8"	26.66	26.66
46-576	1/4"	25.53	25.53
46-577	3/8"	31.91	31.91
46-578	1/2"	38.91	38.91

MAX. 2500 PSI
Cracking Pressure 1/3-3 PSI

- Opening diameter .187
- 180^0 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	23.88

MAX. 2500 PSI

- Flo direction ->
- Opening diameter .187
- 180^0 max operating temp.
- Buna Seal
- •SS ball and spring



MNPT X FNPT

Part #	Size	Opening Dia.	List Price
46-505	1/4 x 1/4	0.187	22.79

MAX. 1200 PSI

- O-Ring poppet seal Bubble tight operation
- 180°F max operating temp.



FNPT X FNPT

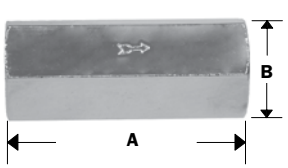
Part #	Size	Opening Dia.	List Price
46-510	1/4 x 1/4	0.25	26.56
46-511	3/8 x 3/8	0.375	32.01
46-512	1/2 x 1/2	0.437	41.96

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	18.03
46-201	3/8	1.97	0.83	18.75
46-202	1/2	2.48	0.98	38.69

HIGH PRESSURE CHECK VALVES

- Operates in any position, and is available in mixed or matched end combinations.
- Standard cracking pressure 1 p.s.i with a maximum operating pressure of 3000 p.s.i. and a maximum operating temperature of 180°F using Buna-N seals.
- Buna-N seals standard, other seals available.
- Guided 316 stainless steel ball + spring.
- Fixed ringed seat prevents extrusion of seal.
- Opening diameter .28
- Approximate CV 1.2 • Brass
- Water G.P.M. @ 10 p.s.i. is 4.0
- Good for air



FEMALE X FEMALE

Part #	Size	List Price
46-513	1/4	50.41
46-517	3/8	56.04

- Flo direction ->



FEMALE X MALE

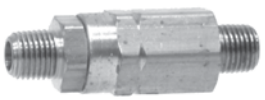
Part #	Size	List Price
46-514	1/4	50.41
46-518	3/8	56.04

- Flo direction ->



MALE X FEMALE

Part #	Size	List Price
46-516	1/4	50.41
46-539	3/8	53.88



MALE X MALE

Part #	Size	List Price
46-515	1/4	48.47
46-519	3/8	56.04

See page 200 for Stainless Steel

What is the Reduction of Lead in Drinking Water Act?
The Reduction of Lead in Drinking Water Act is a federal law that amends the Safe Drinking Water Act (SDWA) and sets new, lower standards for the amount of lead permissible in plumbing products that come into contact with potable (drinkable) water. The U.S. Environmental Protection Agency (EPA) has primary responsibility for interpreting the SDWA with individual states using health or plumbing codes or other standards consistent with the SDWA and EPA regulations to enforce those standards.

What does the law mandate, exactly?
The new law reduces the permissible levels of lead in the wetted surfaces of pipes, pipe fittings, plumbing fittings and fixtures to a weighted average of not more than 0.25%. In addition, the law retains the 0.20% lead limit for solders and flux first implemented in 1986 and stipulates a method for calculating the weighted average lead content. Products that meet this standard are referred to in the law as "Lead Free."

When does the law go into effect?
The Reduction of Lead in Drinking Water Act goes into effect on January 4, 2014. However, new lead content restrictions are already in effect in California and Vermont since January 1, 2010 and in Maryland since January 2012. They will go into effect in Louisiana starting January 1, 2013.

What is the driving force behind the new law?
Regulatory efforts at the state and federal level to minimize the lead content in drinking water are currently focused on reducing the lead content in drinking water system components and all other products that come in contact with potable water.

Are there any exceptions to the law?
The new standard does not apply to pipes, pipe fittings, plumbing fittings or fixtures that are used exclusively for nonpotable services such as manufacturing, industrial processing, irrigation, outdoor watering, or any other uses where water is not anticipated to be used for human consumption. The law also specifically excludes toilets, bidets, urinals, fill valves, flushometer valves, tub fillers, shower valves, service saddles, or water distribution main gate valves that are 2 inches in diameter or larger.

How does the law affect me?
The law makes it illegal to sell or install pipes, fittings valves, and fixtures in applications providing water for human consumption which exceeds the 0.25% weighted average limit for wetted surfaces. That means whether you sell or install these products, you will need to supply products compliant with the new law.

So, what happens on January 4, 2014?
It will be illegal to sell or install products for use in potable water applications that are not Lead Free*. This will dramatically reduce the available market for products made with traditional materials. Manufacturers are quickly working to bring their products into compliance, and obtaining the product certifications necessary to comply with specific federal and state regulations.

Who enforces this law?
The U.S. EPA is tasked with implementing this law, but primary responsibility for enforcing the law is left to the states. Most states pass responsibility to cities, towns, and municipal utilities, which use health and plumbing codes to drive enforcement.

Do Lead Free products need to be third-party certified?
California requires product certification by an independent third-party laboratory and certifying to NSF 61 standards is becoming common. As of today, Vermont, Maryland, Louisiana and the Federal Legislation do not require third-party certification.

How can I tell if a product is Lead Free*?
There is currently no industry standardization regarding the marking of Lead Free* products. Manufacturers may vary in the ways in which they mark their products. Check the product nameplate, hang tag, body casting, part number and/or product packaging for a Lead Free* designation. If in doubt, please consult the manufacturer for further clarification.

What if I don't comply?
Failure to comply with the new law and these codes can result in fines or lawsuits.

Why is there lead in brass products?
In standard traditional brass and bronze, lead has been added to act as an alloying material, to prevent porosity, and enhance machinability.

What is replacing lead in the new material?
There are a variety of new material formulations that have been developed that use silicon, bismuth, antimony, tin, nickel, or special heat treatments as alloying elements.

*Lead Free refers to the wetted surface of pipe, fittings and fixtures in potable water systems that have a weighted average lead content <=0.25% per the Safe Drinking Water Act (Sec. 1417) amended 1-4-2011 and other equivalent state regulations.

For more information see http://www.gettheleadoutplumbing.com

90⁰ FORGED FEMALE ELBOW



Part #	Thread size NPTF	List Price
28-010LF	1/4"	8.10
28-011LF	3/8”	7.99
28-012LF	1/2”	9.21
28-013LF	3/4”	15.36

UNION FORGED TEE



Part #	Thread size NPTF	List Price
28-032LF	1/8"	4.56
28-033LF	1/4"	5.78
28-034LF	3/8”	7.77
28-035LF	1/2”	12.05
28-036LF	3/4”	24.14

90⁰ STREET ELBOW



Part #	Thread size NPTF	List Price
28-165LF	1/8”	2.57
28-166LF	1/4”	3.04
28-167LF	3/8"	4.36
28-168LF	1/2”	8.63

COUPLING



Part #	Thread size NPTF	List Price
28-058LF	1/8"	2.18
28-059LF	1/4”	2.38
28-061LF	1/2”	5.94

REDUCING COUPLING



Part #	Thread size NPTF	List Price
28-185LF	1/2” x 3/8”	5.21
28-189LF	3/4” x 1/2”	6.92

HEX BUSHING



Part #	Thread size NPTF MxF	List Price	
28-102LF	1/4” x 1/8”	1.68	
28-103LF	3/8" x 1/8"	3.72	
28-104LF	3/8” x 1/4”	2.48	
28-105LF	1/2" x 1/8"	4.44	
28-106LF	1/2” x 1/4”	3.65	
28-107LF	1/2” x 3/8”	4.70	
28-108LF	3/4" x 1/8"	11.93	NEW
28-109LF	3/4" x 1/4"	8.08	NEW
28-110LF	3/4" x 3/8"	8.58	
28-111LF	3/4” x 1/2”	6.64	
28-119LF	1" x 1/8"	21.93	NEW
28-112LF	1" x 1/4"	27.42	NEW
28-113LF	1" x 3/8"	18.91	NEW
28-114LF	1" x 1/2"	17.19	NEW
28-115LF	1" x 3/4"	15.58	NEW

FACE BUSHING

NEW



Part #	Thread size NPTF MxF	List Price
28-121LF	1/4” x 1/8”	2.08
28-122LF	3/8" x 1/8"	6.92
28-116LF	3/8” x 1/4”	2.68
28-090LF	1/2" x 1/8"	4.60
28-128LF	1/2” x 1/4”	4.50
28-117LF	1/2” x 3/8”	6.30
28-129LF	3/4" x 1/4"	7.43
28-130LF	3/4" x 3/8"	7.05
28-118LF	3/4" x 1/2"	6.51

HEX CAP



Part #	Thread size NPTF	List Price	
28-075LF	1/8"	3.11	NEW
28-076LF	1/4"	3.36	NEW
28-077LF	3/8”	1.73	
28-078LF	1/2"	4.15	NEW
28-079LF	3/4”	5.06	
28-080LF	1"	22.50	NEW

SOLID SQUARE HEAD PLUG



Part #	Thread size NPTF	List Price	
28-084LF	1/8"	1.26	
28-085LF	1/4"	1.13	NEW
28-086LF	3/8"	4.85	NEW
28-087LF	1/2"	3.55	NEW
28-088LF	3/4”	4.15	
28-089LF	1"	22.45	NEW

COUNTERSUNK HEX PLUG



Part #	Thread size NPTF	List Price	
28-092LF	1/16"	0.77	NEW
28-093LF	1/8"	0.81	NEW
28-094LF	1/4"	1.92	NEW
28-095LF	3/8”	3.58	
28-096LF	1/2”	4.58	
28-097LF	3/4"	8.31	NEW
28-098LF	1"	15.52	NEW
28-099LF	1-1/4"	21.93	NEW

COUNTERSUNK SQUARE PLUG



NEW

Part #	Thread size NPTF	List Price
28-092SLF	1/16"	0.77
28-093SLF	1/8"	0.81
28-094SLF	1/4"	1.85
28-095SLF	3/8”	2.77
28-096SLF	1/2”	5.48
28-097SLF	3/4"	8.31
28-098SLF	1"	15.52
28-099SLF	1-1/4"	21.93

CORED HEX PLUGS



Part #	Thread size NPTF	List Price
28-201LF	1/8”	1.89
28-202LF	1/4”	2.87

7/8 TAPER HEX SOCKET (FLUSH)

NEW



Part #	Pipe Size inches	List Price
28-092TLF	1/16"	1.15
28-093TLF	1/8"	1.15
28-094TLF	1/4"	1.85
28-095TLF	3/8”	2.71
28-096TLF	1/2”	5.48
28-097TLF	3/4"	8.31
28-098TLF	1"	14.92
28-099TLF	1-1/4"	23.08

HEX HEAD PLUGS (SOLID)

NEW



Part #	Pipe Size inches	List Price
28-201SLF	1/8"	1.85
28-202SLF	1/4"	2.60
28-203SLF	3/8”	3.98
28-204SLF	1/2”	6.85
28-205SLF	3/4"	11.93
28-206SLF	1"	21.06

CLOSE NIPPLE



Part #	Thread size NPTF	List Price
28-131LF	1/8"	1.05
28-132LF	1/4”	1.70
28-133LF	3/8”	2.11
28-134LF	1/2”	2.94
28-135LF	3/4”	4.09

LONG NIPPLE



Part #	Thread size NPTF	List Price
28-143LF	1/8" x 3"	3.14
28-476LF	1/8" x 4"	3.93
28-480LF	1/8" x 6"	6.35
28-144LF	1/4" x 1-1/2"	1.92
28-145LF	1/4" x 2"	2.80
28-147LF	1/4" x 3"	3.86
28-482LF	1/4" x 4"	5.29
28-485LF	1/4" x 5-1/2"	8.88
28-486LF	1/4" x 6"	7.81
28-148LF	3/8” x 1-1/2"	2.72
28-149LF	3/8" x 2"	4.09
28-150LF	3/8" x 2-1/2"	5.76
28-151LF	3/8" x 3"	5.74
28-488LF	3/8" x 4"	9.07
28-489LF	3/8" x 4-1/2"	10.11
28-490LF	3/8" x 5"	9.46
28-491LF	3/8" x 5-1/2"	12.25
28-492LF	3/8" x 6"	13.50
28-152LF	1/2” x 1-1/2"	3.41

HEX NIPPLE



Part #	Thread size NPTF	List Price
28-211LF	1/8"	2.31
28-212LF	1/4”	4.20
28-214LF	1/2”	10.05

EXTENDER ADAPTER



Part #	Thread size NPTF FxM	List Price
28-191LF	1/4” X 1/8”	4.65
28-192LF	1/4" x 1/4"	6.34
28-196LF	1/2” X 1/2”	13.09
28-209LF	3/4” X 3/4”	17.19

MALE BRANCH TEE



Part #	Thread size NPTF	List Price
28-283LF	3/8”	11.96

STREET TEE/ SERVICE TEE



Part #	Thread size NPTF	List Price
28-246LF	1/4”	8.99

HOSE BARBS

RIGID MALE ADAPTER



Part #	Hose I.D. x Male NPTF	List Price
32-002LF	3/16” x 1/8”	3.24
32-004LF	1/4” x 1/8”	3.15
32-005LF	1/4” x 1/4”	1.86
32-008LF	5/16” x 1/8”	4.01
32-009LF	5/16” x 1/4”	4.09
32-011LF	3/8” x 1/8”	3.92
32-012LF	3/8” x 1/4”	3.68
32-013LF	3/8” x 3/8”	5.51
32-014LF	3/8” x 1/2”	10.22
32-015LF	1/2” x 1/4”	6.23
32-016LF	1/2” x 3/8”	5.94
32-017LF	1/2” x 1/2”	8.23
32-020LF	5/8” x 1/2”	10.26
32-022LF	3/4” x 1/2”	11.87
32-023LF	3/4” x 3/4”	17.21

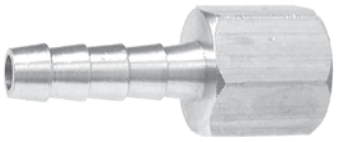
LEADFREE

MENDER/ SPLICER



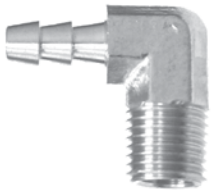
Part #	Hose I.D. x Hose I.D.	List Price
32-093LF	1/4”	4.56
NEW 32-096LF	1/2"	5.19

RIGID FEMALE ADAPTER



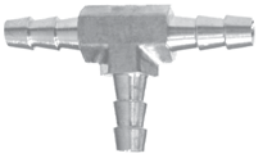
Part #	Hose I.D. x Female NPTF	List Price
32-053LF	1/4” x 1/4”	6.02
32-058LF	3/8” x 1/4”	7.07
32-059LF	3/8” x 3/8”	9.68
32-063LF	3/8” x 1/2”	13.26
32-061LF	1/2” x 1/2”	13.97

FORGED HOSE BARB 90° ELBOW



Part #	Hose I.D. x Male NPTF	List Price
32-039LF	1/4” x 1/4”	4.59
32-036LF	5/16” x 1/8”	3.92
32-040LF	5/16” x 1/4”	4.13
32-041LF	3/8” x 1/4”	3.78
32-042LF	3/8” x 3/8”	3.82

HOSE BARB TEES



Part #	Hose Barb Size	List Price
32-365LF	1/4”	2.81
32-126LF	3/8”	2.96

DUAL 45°/ 37° FLARE SWIVEL



Part #	Hose I.D. x Dual Seat	List Price
32-337LF	1/4” x 1/4”	2.96

PUSH-ON

MALE ADAPTER



Part #	Hose I.D. x Male NPTF	List Price
30-200LF	1/4” x 1/8”	2.45
30-201LF	1/4” x 1/4”	3.29
30-203LF	3/8” x 1/4”	3.40
30-204LF	3/8” x 3/8”	4.64
30-206LF	1/2” x 3/8”	5.35
30-207LF	1/2” x 1/2”	8.83

SAE/JIC DUAL 45°/37° FEMALE SWIVEL



Part #	Hose I.D. x Female 45°/37°	List Price
30-230LF	1/4" x 1/4"	3.37

GARDEN HOSE

SWIVEL - FGH X FGH

•WASHER INCLUDED



Part #	FGH X FGH	List Price
30-011LF	3/4” x 3/4”	14.89

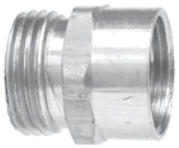
SWIVEL - FGH X FEMALE PIPE

•WASHER INCLUDED



Part #	FGH x Female NPTF	List Price
30-001LF	3/4” x 1/2”	11.95

RIGID - MGH X FEMALE PIPE



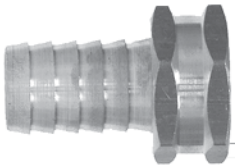
Part #	MGH x Female NPTF	List Price
30-073LF	3/4” x 3/4”	11.75

RIGID - MGH X MALE PIPE



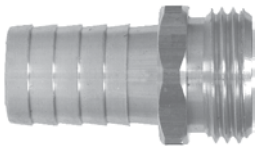
Part #	MGH x Male NPTF	List Price
30-053LF	3/4” x 3/8”	6.24
30-063LF	3/4” x 3/4” x 1/2”	10.10

FEMALE SWIVEL ONLY



Part #	Hose Barb x FGH	List Price
30-031LF	3/8” x 3/4”	6.06
30-032LF	1/2” x 3/4"	10.67

MALE END ONLY



Part #	Hose Barb x MGH	List Price
30-040LF	1/2” x 3/4"	11.12

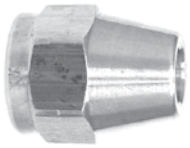
GARDEN HOSE CAP



Part #	Size	List Price
30-103LF	3/4 Die cast	4.39

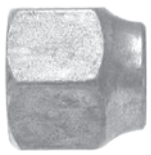
SAE 45° FLARE

SHORT ROD NUT



Part #	Thread Size UNF	List Price
10-015LF	1/4"	2.16
10-017LF	3/8”	4.13
10-019LF	1/2”	4.20

SHORT FORGED NUT



Part #	Thread Size UNF	List Price
10-041LF	3/8”	4.20
10-042LF	1/2”	6.04

FLARED CAP



Part #	Thread Size UNF	List Price
10-075LF	1/4”	1.54
10-077LF	3/8”	2.49
10-078LF	1/2”	3.56
10-079LF	5/8”	6.06

UNION



Part #	Thread Size UNF	List Price
10-106LF	1/4”	2.89
10-108LF	3/8”	5.66
10-109LF	1/2”	7.99
10-110LF	5/8”	11.74

FEMALE ADAPTER



Part #	Male Flare x Female NPTF	List Price
10-236LF	3/8” x 3/8”	5.23
10-237LF	3/8” x 1/2”	5.63
10-240LF	1/2” x 3/8”	6.41
10-241LF	1/2” x 1/2”	6.32
10-242LF	1/2” x 3/4”	9.43

MALE ADAPTER



Part #	Male Flare x Male NPTF	List Price
10-255LF	1/4” x 1/8”	3.13
10-256LF	1/4” x 1/4”	2.89
10-258LF	1/4” x 1/2”	10.35
10-262LF	3/8” x 1/8”	4.56
10-263LF	3/8” x 1/4”	4.46
10-264LF	3/8” x 3/8”	5.18
10-265LF	3/8” x 1/2”	7.50
10-268LF	1/2” x 3/8”	7.34
10-269LF	1/2” x 1/2”	7.03
10-270LF	1/2” x 3/4”	11.61
10-276LF	3/4” x 3/4”	22.33

90° MALE ELBOW



Forged Elbow

Part #	Male Flare x Male NPTF	List Price
10-286LF	1/4” x 1/8”	5.65
10-287LF	1/4” x 1/4”	9.63
10-288LF	1/4” x 3/8”	9.70
10-294LF	3/8” x 1/4”	10.02
10-295LF	3/8” x 3/8”	10.37
10-296LF	3/8” x 1/2”	15.00
10-299LF	1/2” x 3/8”	15.59
10-300LF	1/2” x 1/2”	16.41
10-301LF	1/2” x 3/4”	27.43

FORGED MALE RUN TEE



Part #	Male Flare x Male NPTF (1&3) x 2	List Price
10-355LF	1/2” x 1/2”	9.48

FORGED SWIVEL



Part #	Female Flare UNF	List Price
10-483LF	3/8”	12.86
10-484LF	1/2”	16.01
10-485LF	5/8”	39.50

COMPRESSION

BRASS SLEEVE



- FERRULES

Part #	Size	List Price
18-002LF	3/16”	0.16
18-003LF	1/4”	0.53
18-004LF	5/16”	0.19
18-005LF	3/8”	1.06
18-007LF	1/2”	1.94
18-008LF	5/8”	0.38
18-010LF	7/8”	0.87

LEADFREE

BRASS NUT



Part #	Size	List Price
18-035LF	1/4”	2.06
18-037LF	3/8”	1.69
18-039LF	1/2”	2.85

INSERT



Part #	Size	List Price
22-010LF	1/4”	1.24
22-011LF	5/16”	0.23
22-012LF	3/8”	2.06
22-013LF	1/2”	2.94
22-014LF	5/8”	4.89

CAP



Part #	Size	List Price
18-047LF	1/4”	4.65
18-048LF	3/8”	3.15
18-049LF	1/2”	5.70
18-050LF	5/8”	6.75

UNION



Part #	Size	List Price
18-064LF	1/4”	5.78
18-066LF	3/8”	7.46
18-068LF	1/2”	11.48
18-069LF	5/8”	12.70
18-071LF	7/8”	40.52

REDUCING UNION



Part #	Size	List Price
18-079LF	3/8” x 1/4”	4.27
18-081LF	1/2” x 3/8”	7.25
18-082LF	5/8” x 3/8”	8.14
18-083LF	5/8” x 1/2”	8.14

TEE



Forged

Part #	Size	List Price
18-103LF	1/4”	11.48
18-105LF	3/8”	16.41
18-106LF	1/2”	32.23
18-107LF	5/8”	46.92

UNION ELBOW



Forged

Part #	Size	List Price
18-124LF	1/4”	7.07
18-126LF	3/8”	12.02
18-127LF	1/2”	23.09
18-128LF	5/8”	29.10
18-137LF	5/8” x 3/8”	14.51
18-129LF	3/4”	29.55

FEMALE ADAPTER



Part #	Comp. X Female NPTF	List Price
18-146LF	1/4” x 1/4”	6.75
18-147LF	1/4” x 3/8”	7.15
18-148LF	1/4” x 1/2”	7.63
18-153LF	3/8” x 1/4”	6.75
18-154LF	3/8” x 3/8”	6.84
18-155LF	3/8” x 1/2”	8.59
18-158LF	1/2” x 3/8”	12.86
18-159LF	1/2” x 1/2”	11.55
18-162LF	5/8” x 1/2”	13.58
18-163LF	5/8” x 3/4”	19.53
18-166LF	7/8” x 3/4”	45.69

MALE ADAPTER



Part #	Comp. X Male NPTF	List Price
18-179LF	1/4" x 1/8"	3.84
18-180LF	1/4" x 1/4"	4.65
18-181LF	1/4" x 3/8"	7.74
18-182LF	1/4" x 1/2"	14.70
18-188LF	3/8" x 1/4"	7.21
18-189LF	3/8" x 3/8"	7.15
18-190LF	3/8" x 1/2"	8.46
18-194LF	1/2" x 3/8"	8.21
18-195LF	1/2" x 1/2"	10.70
18-196LF	1/2" x 3/4"	7.76
18-198LF	5/8" x 1/2"	12.34
18-199LF	5/8" x 3/4"	11.27
18-203LF	7/8" x 3/4"	25.82
18-171LF	3/8" x 1/2" SWT	10.58

MALE ELBOW



Part #	Comp. X Male NPTF	List Price
18-224LF	1/4" x 1/8"	6.17
18-225LF	1/4" x 1/4"	7.01
18-226LF	1/4" x 3/8"	3.74
18-232LF	3/8" x 1/8"	8.72
18-233LF	3/8" x 1/4"	8.93
18-234LF	3/8" x 3/8"	24.57
18-235LF	3/8" x 1/2"	23.09
18-237LF	1/2" x 3/8"	23.25
18-238LF	1/2" x 1/2"	28.05
18-241LF	5/8" x 1/2"	23.52

NEEDLE VALVES

COMP X MALE PIPE



Part #	Comp x Male Pipe	List Price
46-003LF	1/4" x 1/4"	15.96
46-005LF	3/8" x 1/4"	10.05

FEMALE PIPE X FEMALE PIPE



Part #	Female x Female	List Price
46-056LF	1/4" FIP x 1/4" FIP	12.81

MALE X FEMALE PIPE



Part #	Male x Female	List Price
46-061LF	1/4" x 1/4" MIP	12.59

COMP X MALE PIPE-ANGLE



Part #	Comp x Male Pipe	List Price
46-011LF	1/4" x 1/8"	15.36
46-012LF	1/4" x 1/4"	26.29

COMP X COMP



Part #	Comp x Comp	List Price
46-021LF	1/4"	20.98
46-023LF	3/8"	29.94

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	10.75

#M-302-BSV1.60

LEAD FREE MINI BALL VALVES BARB x BARB



Part #	H.B. x H.B.	List Price
944-142LF	1/4"	12.73
944-134LF	3/8"	12.88

LEADFREE

LEAD FREE BRASS BALL VALVE NPT

1/2" - 2" Sizes Gas Approved

C US

UL FM

UL842, UL258, UL125,FM

ISO 9002 Manufacturer

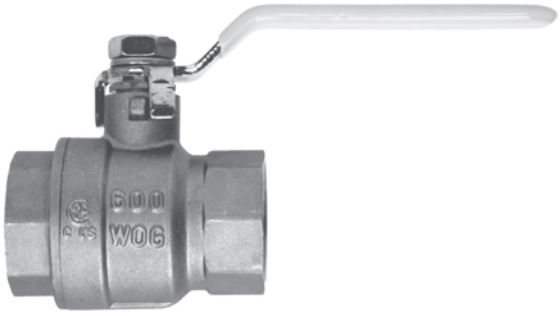
1/4-2" 600 PSI non-shock cold water, gas, oil - 150 PSI saturated steam

2-1/2"- 4" 400 PSI non-shock cold water, gas, oil

FEATURES

- Leadfree Brass Ball valve NPT, Female * Female
- Lead free and dezincification resistant (DZR) material
- Size 1-1/4" thru 4" with Stainless steel ball
- IAMPO listed to cUPC, NSF/ ANSI 61 & 372, IGC 157
- CSA - 1/4" thru 2": ANSI Z21.15/ CSA 9.1 for 1/2 psig valves
  ASME B16.44, CGA CR91-002 for 2 & 5 psig valves;
  CAN/ CGA-3.16, ASME B16.33 (1/2"-2") for 125 psig valves
- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-2" at 600psi (42 bars) and 2-1/2"-4" at 400 psi WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- White vinyl insulator on heavy duty plated carbon steel handles
- Fast 1/4 turn open or close operation
- Low operating torque
- **Adjustable stem packing gland**
- Maximum operating temperature: 302^{0}F (150^0 C)
- Minimum operating temperature: -22^{0}F (-30^{0}C)

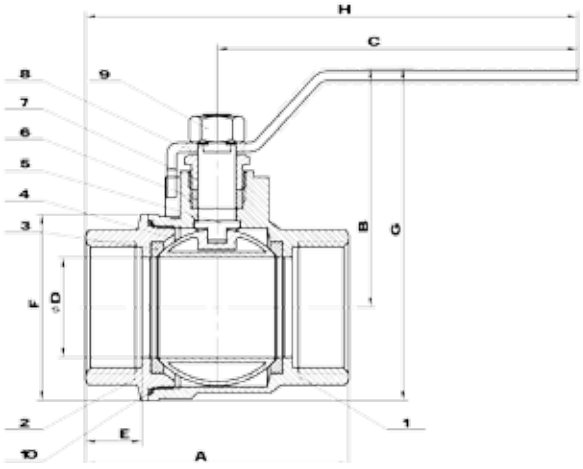
- UL 125, UL 1477, UL 842 - for size 1/4" thru 4", 250 psig
- UL 258 - for size 1/4" thru 2", 175 psig
- FM - for size 1/4" thru 2"



MADE IN CHINA

- 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

Part#	Size	DIMENSIONS								List Price
		A	B	C	D	E	F	G	H	
940-171LF	1/4"	1.756	1.732	3.543	0.394	0.457	1.012	2.238	4.421	12.24
940-172LF	3/8"	1.756	1.732	3.543	0.394	0.457	1.012	2.238	4.421	11.28
940-173LF	1/2"	2.047	2.040	3.543	0.583	0.520	1.240	2.559	4.567	15.78
940-174LF	3/4"	2.362	2.260	3.780	0.748	0.563	1.492	2.854	4.961	23.94
940-175LF	1"	2.756	2.579	4.528	0.945	0.630	1.791	3.476	5.906	38.40
940-176LF	1-1/4"	3.307	3.050	4.528	1.260	0.709	2.343	4.134	6.181	64.86
940-177LF	1-1/2"	3.661	3.366	5.420	1.575	0.717	2.835	4.783	7.343	96.96
940-178LF	2"	4.181	3.701	6.160	1.969	0.748	3.425	5.413	7.602	135.42
940-179LF	2-1/2"	4.181	4.650	8.870	2.520	1.024	4.331	6.969	11.350	313.80
940-180LF	3"	6.039	4.970	8.870	2.913	1.102	4.921	7.579	11.681	379.68
940-181LF	4"	7.386	6.130	10.85	3.898	1.220	6.430	9.055	13.299	831.60



POS	Components	Materials
1	Body	Lead Free Brass
2	End Cap	Lead Free Brass
3	Ball Seat	PTFE
4	Ball	1/4-1:Lead Free Brass 1 1/4-4:SS316 Hollowball
5	Stem	Brass
6	Stem Padding	PTFE
7	Padding Nut	Brass
8	Lever Handle	Nickel plating steel
9	Stem Nut	Brass plating steel
10	Seal	PTFE

LEAD FREE FORGED BRASS BALL VALVE F X F AND SWT X SWT

5 PSIG C US

UL842, UL258, UL125,FM

CSA AGA 3.88 5 PSIG

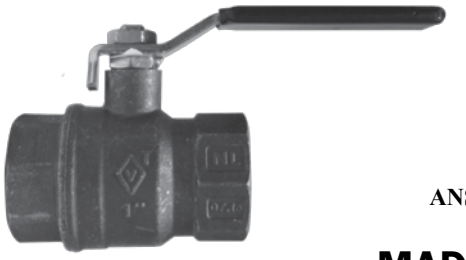
IAMPO IGC 157 - 2004b

ISO 9002 Manufacturer

FEATURES

600 PSI non-shock cold water, gas, oil - 150 PSI saturated steam

- **SOLID CHROME PLATED BRASS BALL**
- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated at 600psi (42 bars) WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin TFE stem packing seal, thrust washer and seats.
- Blue vinyl insulator on heavy duty plated carbon steel handles.
- Fast 1/4 turn open or close operation
- Low operating torque
- Flow can go both directions
- Adjustable stem packing gland
- Maximum operating temerature: 248^{0}F (120^0 C) at 600 PSI
- Minimum operating temperature: -20^{0}F (-40^{0}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



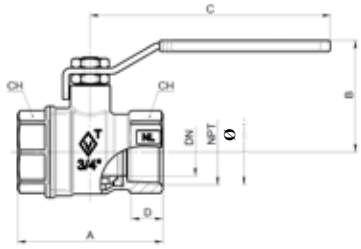
FIP X FIP

ANSI/INSF 61-8

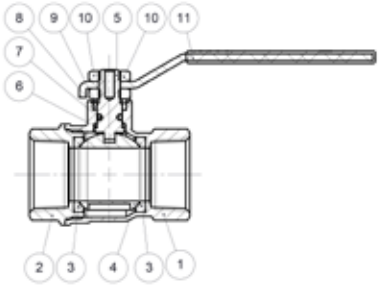
MADE IN ITALY



SWT X SWT



POS	Components	Materials
1	Body	CW510L
2	End Connection	CW510L
3	Ball Seal	PTFE
4	Seal	CW510L
5	Stem	CW614N
6	Lower Stem	PTFE
7	O-Ring	NBR70sh
8	Upper Seal	PTFE
9	Brass Ring	CW614N
10	Nut	Steel
11	Handle	Steel P10



FIP X FIP LEAD FREE FORGED BRASS BALL VALVE

Part #	NPT	DN	A	B	C	D	CH	Weight (lbs)	Box Qty	Case	List Price
943-233LF	1/2"	**0.57**	2.09	1.57	3.35	0.46	0.98	0.39	20	80	17.05
943-234LF	3/4"	**0.75**	2.28	1.77	3.80	0.49	1.22	0.56	14	56	25.50
943-235LF	1"	**0.94**	2.80	2.03	3.80	0.59	1.50	0.89	6	24	42.45
943-236LF	1-1/4"	**1.24**	3.23	2.32	4.72	0.62	1.85	1.44	4	16	67.89
943-237LF	1-1/2"	**1.49**	3.70	2.60	4.72	0.64	2.13	2.19	2	8	105.16
943-238LF	2"	**1.96**	4.13	3.27	6.38	0.65	2.64	3.62	2	8	141.12

SWT X SWT LEAD FREE FORGED BRASS BALL VALVE

Part #	SWT	Ø	DN	A	B	C	D	CH	Weight (lbs)	Box Qty	Case	List Price
940-212LF	1/2"	0.63	**0.57**	2.25	1.57	3.35	0.42	0.79	0.39	20	80	16.45
940-213LF	3/4"	0.866	**0.75**	3.05	1.77	3.80	0.61	1.06	0.56	10	40	24.50
940-214LF	1"	1.102	**0.94**	3.68	2.03	3.80	0.73	1.34	0.89	6	24	37.45
940-215LF	1-1/4"	1.377	**1.24**	4.18	2.32	4.72	0.91	1.61	1.44	6	24	61.74
940-216LF	1-1/2"	1.61	**1.49**	4.96	2.60	4.72	1.06	1.89	2.19	2	8	87.15
940-217LF	2"	2.125	**1.96**	5.87	3.27	6.38	1.26	2.40	3.62	1	4	141.12



BRASS BALL VALVES

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MxF FP 600 WOG 182
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STAINLESS STEEL

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1,000lb Full Port 195-196
Mini Ball Valve..... 197
Check 198
In-Line Check 199
Spring Check - 1500# 200
Y-Spring Check 201
Barrel Spring Check 201

NEW STAINLESS VALVES

COMING SOON!

- Gate
- Globe
- 3-Piece ball valves
- Swing Check
- Y-Strainers

Carbon Steel Ball..... 202
PVC Ball Valves..... 203
Pl. Drum Faucets 203

For Lead Free Valves see pages 173-174

FULL PORT 600WOG FORGED BRASS BALL VALVE

1/2" - 2" Sizes Gas Approved

C US

UL842, UL258, UL125,FM

ISO 9002 Manufacturer

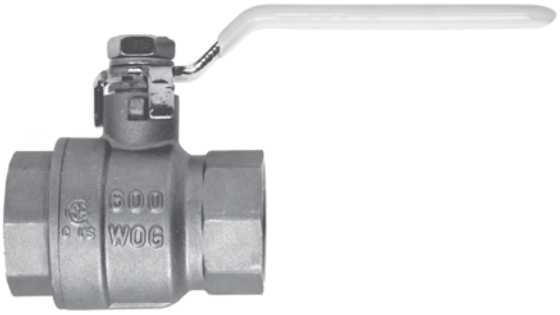
FEATURES

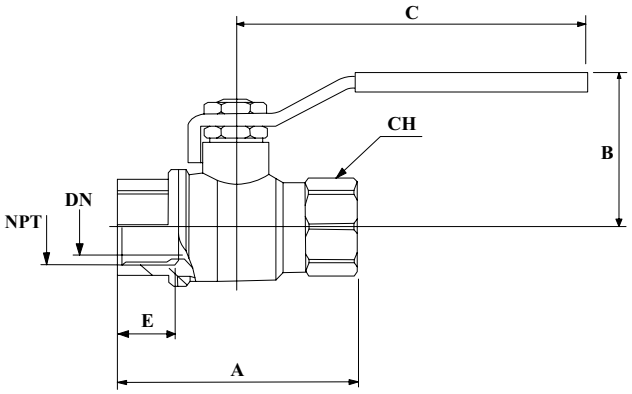
1/4-2" 600 PSI non-shock cold water, gas, oil - 150 PSI saturated steam

2-1/2"- 4" 400 PSI non-shock cold water, gas, oil

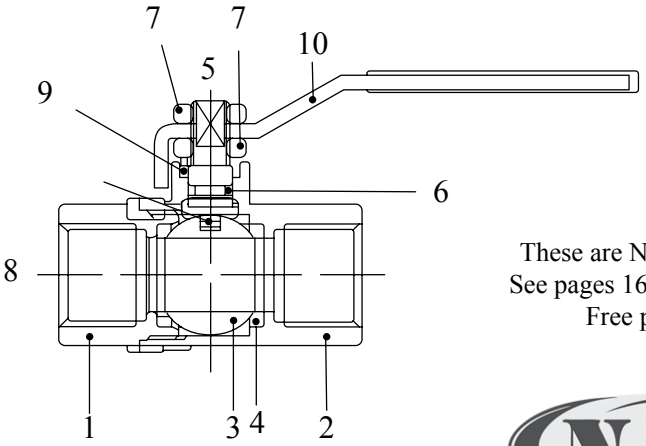
Made in China

- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-2" at 600psi (42 bars) and 2-1/2"-4" at 400 psi WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- Yellow vinyl insulator on heavy duty plated carbon steel handles
- Fast 1/4 turn open or close operation
- Not Lead Free
- Low operating torque
- Adjustable stem packing gland
- Maximum operating temperature: 302^{0}F (150^0 C)
- Minimum operating temperature: -22^{0}F (-30^{0}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





Part#	Size	Dimension Inches						Min. Order		
	NPT	DN	A	B	C	E	CH	Box	Case	List Price
940-171	1/4"	0.39	1.75	1.27	3.54	0.46	0.78	70	140	9.08
940-172	3/8"	0.41	1.75	1.27	3.54	0.46	0.78	70	140	9.08
940-173	1/2"	0.58	2.05	1.92	3.54	0.52	0.98	50	100	10.89
940-174	3/4"	0.75	2.36	2.08	3.78	0.56	1.20	30	60	15.95
940-175	1"	0.94	2.75	2.56	4.52	0.66	1.50	20	40	24.82
940-176	1-1/4"	1.26	3.30	2.95	4.52	0.70	1.82	12	24	36.53
940-177	1-1/2"	1.57	3.66	3.34	5.51	0.72	2.09	9	18	54.16
940-178	2"	1.97	4.18	3.68	5.51	0.74	2.62	6	12	84.72
940-179	2-1/2"	2.52	5.38	4.76	8.66	1.01	3.36	4	8	213.21
940-180	3"	2.95	6.04	5.08	8.66	1.11	3.86	2	4	249.34
940-181	4"	3.89	7.38	5.86	9.00	1.22	4.89	1	2	471.55



These are NOT Lead Free
See pages 166-175 for Lead Free products

POS	Components	Materials	N
1	Body	Forged Brass	1
2	End Connection	Forged Brass	1
3	Ball	CP Brass	1
4	Ball Seat	P.T.F.E.	2
5	Stem	Brass	1
6	Gland	Brass	1
7	Nut	Steel	1
8	Spring Inseat	Steel	1
9	Stem Seal	P.T.F.E.	1
10	Handle	Steel	1

• Not Lead Free AB1953 Compliant

LOCKING HANDLE BALL VALVE

• BRASS • 600WOG • FULL PORT

1/2" - 2" Sizes Gas Approved

5 PSIG

C US

UL842, UL258, UL125,FM

ISO 9002 Manufacturer

FEATURES

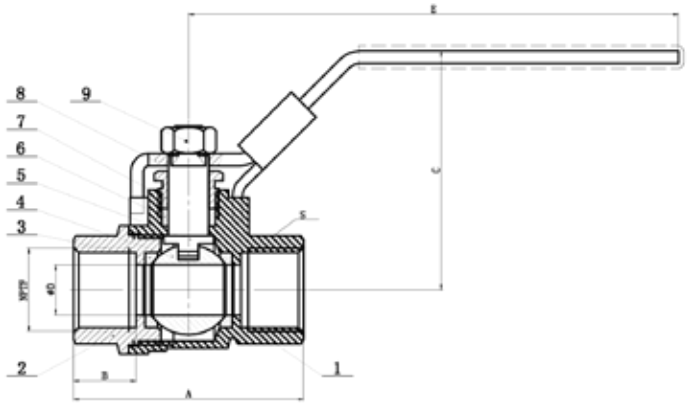
1/4-2" 600 PSI non-shock cold water, gas, oil - 150 PSI saturated steam

2-1/2"- 4" 400 PSI non-shock cold water, gas, oil

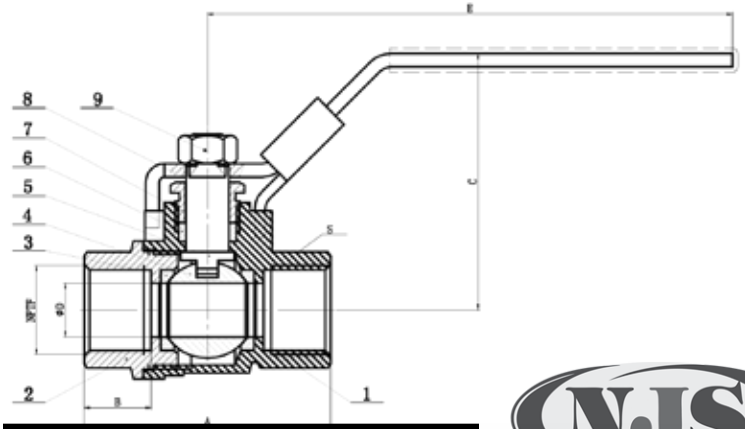
Made in China

- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-2" at 600psi (42 bars) and 2-1/2"-4" at 400 psi WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- Yellow vinyl insulator on heavy duty plated carbon steel handles
- Fast 1/4 turn open or close operation
- Not Lead Free
- Low operating torque
- Adjustable stem packing gland
- Maximum operating temperature: 302^{0}F (150^0 C)
- Minimum operating temperature: -22^{0}F (-30^{0}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





Part#	Size	Dimension Inches						Min. Order		
	NPTF	DN	A	B	C	E	CH	Box	Case	List Price
940-171L	1/4"	0.31	1.73	1.84	3.15	0.49	0.71	70	140	10.50
940-172L	3/8"	0.39	1.81	1.88	3.86	0.49	0.79	70	140	10.50
940-173L	1/2"	0.58	2.23	2.09	3.86	0.61	0.98	50	100	12.24
940-174L	3/4"	0.75	2.48	2.24	4.06	0.62	1.20	30	60	18.60
940-175L	1"	0.94	2.95	2.67	4.73	0.73	1.50	20	40	27.80
940-176L	1-1/4"	1.26	3.42	3.05	4.73	0.77	1.81	12	24	42.30
940-177L	1-1/2"	1.57	3.78	3.51	5.71	0.78	2.09	9	18	64.92
940-178L	2"	1.97	4.18	3.84	5.71	0.75	2.60	6	12	93.00



POS	Components	Materials	N
1	Body	Forged Brass	1
2	End Connection	Forged Brass	1
3	Ball	CP Brass	1
4	Ball Seat	P.T.F.E.	2
5	Stem	Brass	1
6	Gland	Brass	1
7	Nut	Steel	1
8	Spring Inseat	Steel	1
9	Stem Seal	P.T.F.E.	1
10	Handle	Steel	1

• Not Lead FreeAB1953 Compliant

FULL PORT FEMALE X FEMALE 600WOG FORGED BRASS BALL VALVE

1/2" - 3/4" Sizes Gas Approved

5 PSIG

UL842, UL258, UL125,FM

ISO 9002 Manufacturer

1/4-3/4" 600 PSI non-shock cold water, gas, oil - 150 PSI saturated steam

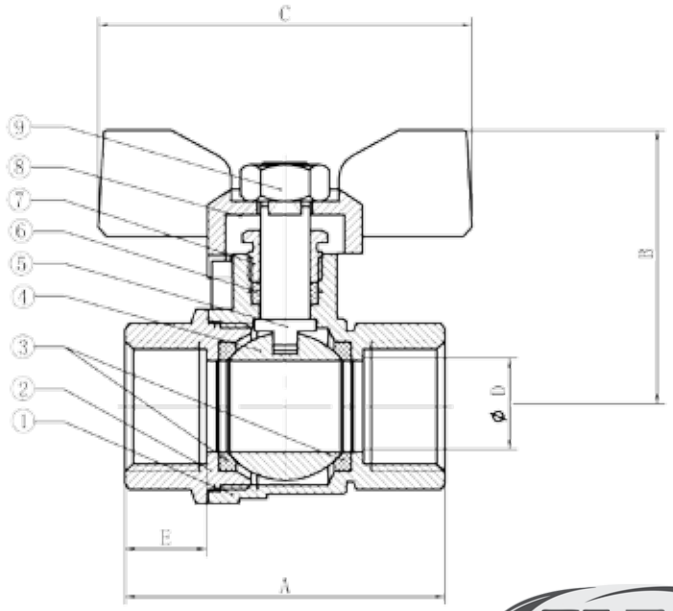
Made in China

FEATURES

- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated for 1/4"-3/4" at 600psi (42 bars) and 150 WSP (10.34 bars) saturated steam. Virgin PTFE stem packing seal, thrust washer and seats
- Fast 1/4 turn open or close operation
- Low operating torque
- Adjustable stem packing gland
- Maximum operating temperature: 302^{0}F (150^0 C)
- Minimum operating temperature: -22^{0}F (-30^{0}C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections
- Not Lead Free



Part#	Size						Min. Order		
	NPT	A	B	C	D	E	Box	Case	List Price
940-171T	1/4"	1.677	1.488	1.831	0.315	0.457	70	140	10.50
940-172T	3/8"	1.756	1.488	1.831	0.394	0.457	70	140	10.50
940-173T	1/2"	2.047	1.756	2.394	0.583	0.520	50	100	12.24
940-174T	3/4"	2.362	1.921	2.394	0.748	0.563	30	60	18.60



POS	Components	Materials
1	Body	C37700
2	End Cap	C37700
3	Ball Seat	PTFE
4	Ball	C37700
5	Stem	C37700
6	Stem Packing	PTFE
7	Packing Nut	C37700
8	Lever Handle	ZL102
9	Stem Nut	A570

• Not Lead Free AB1953 Compliant

FULL PORT 600WOG FORGED BRASS BALL VALVE

5 PSIG C US

UL842, UL258, UL125,FM

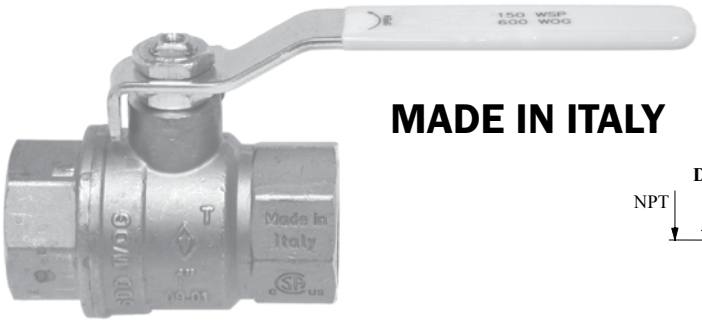
CSA AGA 3.88 5 PSIG

IAMPO IGC 157 - 2004b

ISO 9002 Manufacturer

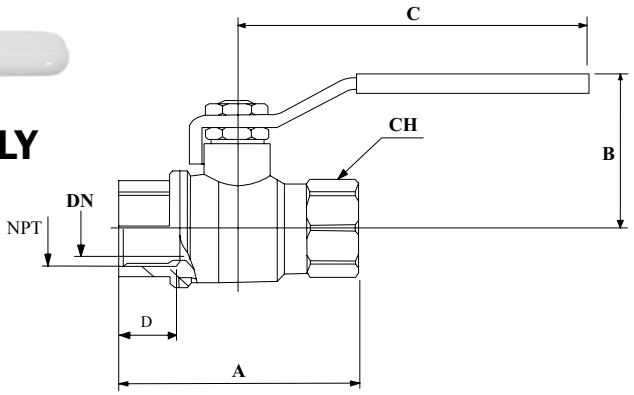
FEATURES

- **SOLID CHROME PLATED BRASS BALL**
- Suitable for full range of liquids and gases
- Minimal pressure drop due to large full size ports
- Bottom loaded, pressure retaining stem
- Pressure rated at 600psi (42 bars) WOG (non-shock) and 150 WSP (10.34 bars) saturated steam. Virgin TFE stem packing seal, thrust washer and seats.
- Yellow vinyl insulator on heavy duty plated carbon steel handles.
- Fast 1/4 turn open or close operation
- Low operating torque
- Flow can go both directions
- **Adjustable stem packing gland**
- Maximum operating temerature: 248^{0}F (120^0 C) at 600 PSI
- Minimum operating temperature: -20^{0}F (-40^{0}C)
- Each valve individually tested
- Forged Brass - for more strength
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem
- Deeper threads - for better connections
- **REVERSIBLE HANDLES**



MADE IN ITALY

Female x Female



Part#	Size	Dimension Inches								
	NPT	DN	A	B	C	D	CH	Box	Case	List Price
943-200	1/4"	.31	1.96	1.57	3.43	.43	.74	24	96	16.37
943-201	3/8"	.39	1.97	1.54	3.33	.41	.83	20	80	16.70
943-202*	1/2"	.57	2.09	1.57	3.35	.46	.98	20	80	13.99
943-203*	3/4"	.75	2.28	1.77	3.80	.49	1.22	14	56	22.22
943-204*	1"	.94	2.80	2.03	3.80	.59	1.50	6	24	35.22
943-205*	1-1/4"	1.24	3.23	2.32	4.72	.62	1.85	4	16	55.12
943-206*	1-1/2"	1.49	3.70	2.60	4.72	.64	2.13	2	8	82.18
943-207*	2"	1.96	4.13	3.27	6.38	.65	2.64	2	8	120.28
942-208	2-1/2"	2.48	5.94	4.17	7.48	1.06	3.30	---	5	341.12
942-209	3"	2.99	6.85	5.47	9.84	1.14	3.89	---	3	408.19
942-210	4"	3.54	7.67	5.88	9.84	1.50	4.80	---	1	840.99

*Dimensions on these parts have changed.

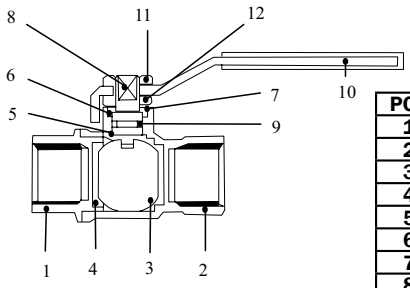
HANDLE OPTIONS

TEE HANDLES

Part #	Valve Size	List Price
43-200T	1/4" - 3/4"	2.51
43-204T	1"	4.07

LOCKING HANDLES

Part #	Valve Size	List Price
43-200L	1/4" - 3/4"	16.05
43-204L	1" - 1 1/4"	28.75
43-206L	1 1/2" - 2"	48.31



POS	Components	Materials	N
1	Body	Forged Brass	1
2	End Connection	Forged Brass	1
3	Ball	CP Brass	1
4	Ball Stems	P.T.F.E.	2
5	Stem Antif. Seat	P.T.F.E.	1
6	Stem Seat	P.T.F.E.	1
7	Brass Ring	Brass	1
8	Stem	Brass	1
9	O-Ring	NBR 80	1
10	Handle	Steel	1
11	Nut	Steel	1
12	Nut	Brass	1

- **Not Lead Free AB1953 Compliant**

FULL PORT 600WOG FORGED BRASS BALL VALVE

Gas Approved

UL842, UL258, UL125,FM

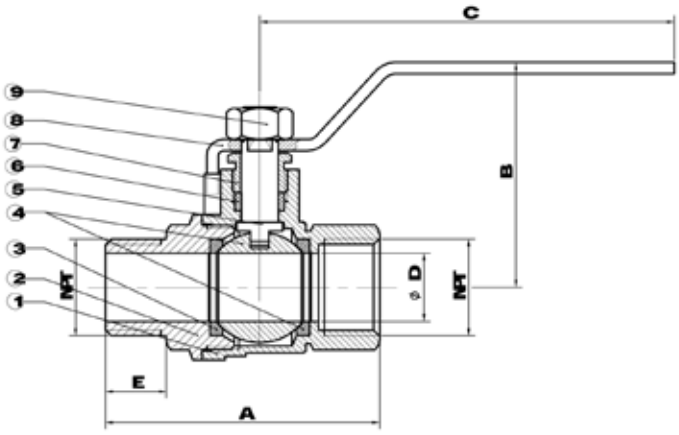
CSA AGA 3.88 5 PSIG

Made in China

- 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^{0}F (120^{0}C)
- Minimum operating temperature: -20^{0}F (-40^{0}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





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	9.75
948-171	3/8	3/8 - 18	2.094	1.732	3.543	0.394	0.457	70	140	10.01
948-172	1/2	1/2 - 14	2.343	1.941	3.543	0.583	0.520	50	100	12.17
948-173	3/4	3/4 - 14	2.618	2.106	3.780	0.748	0.563	30	60	18.13
948-174	1	1 - 11.5	3.000	2.579	4.528	0.945	0.630	20	40	26.81
948-175	1-1/4	1-1/4 - 11.5	3.563	2.953	4.528	1.260	0.709	12	24	39.24
948-176	1-1/2	1-1/2 - 11.5	3.965	3.346	5.512	1.575	0.717	9	18	58.37
948-177	2	2 - 11.5	4.496	3.681	5.512	1.969	0.748	6	12	84.55

Note: Locking and Tee handles available in case quantity and extended delivery.

• Not Lead Free

FULL PORT 600WOG FORGED BRASS BALL VALVE

Gas Approved

5 PSIG C US

CSA AGA 3.88 5 PSIG

UL842, UL258, UL125,FM

Made in Italy

ISO 9002 Manufacturer

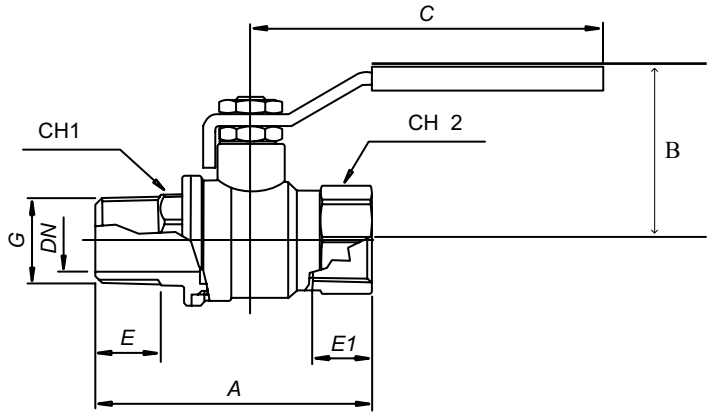
FEATURES

- 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^{0}F (120^{0}C) at 600 p.s.i
- Minimum operating temperature: -20^{0}F (-40^{0}C)
- KV: Pressure drop m^3/h.
- Each valve individually tested.
- Forged Brass - for more strength.
- Threaded ends to ANSI B1.20.1
- Hard chromium plated solid ball
- Bottom entry, blow-out proof stem.
- Deeper threads - for better connections.

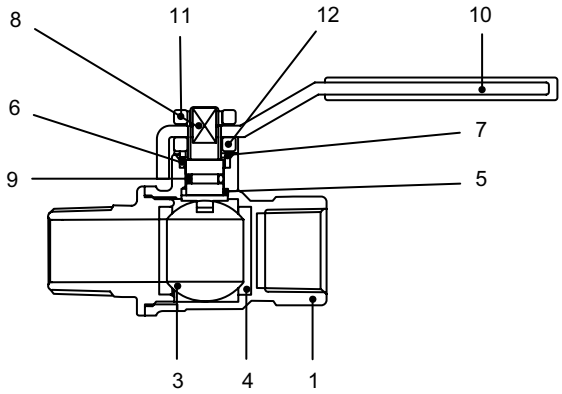


MIP x FIP

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	16.73
948-102	3/8	.39	2.37	1.57	3.35	.46	.51	.71	.86	24	96	18.20
948-103	1/2	.57	2.62	1.64	3.33	.54	.53	.87	.98	14	56	17.89
948-104	3/4	.74	2.83	1.79	3.33	.55	.55	1.10	1.22	12	48	27.44
948-105	1	.94	3.39	2.13	4.72	.69	.66	1.38	1.50	6	24	41.99
948-106	1-1/4	1.24	3.88	2.35	4.72	.71	.68	1.69	1.89	4	16	69.78
948-107	1-1/2	1.49	4.19	2.97	6.36	.72	.68	2.13	2.12	2	8	95.50
948-108	2	1.85	4.90	3.25	6.36	.76	.69	2.40	2.63	1	4	153.78



POS	Components	Materials	N
1	Body	CW617N Forged Brass	1
2	End Connection	CW617N Forged Brass	1
3	Ball	CW617N CP Brass	1
4	Ball Stems	P.T.F.E.	2
5	Stem Antif. Seat	P.T.F.E.	1
6	Stem Seat	P.T.F.E.	1
7	Brass Ring	CW617N Brass	1
8	Stem	CW617N Brass	1
9	O-Ring	NBR 80	1
10	Handle	UNI EN 10025 Steel	1
11	Nut	UN 5771 Steel	1
12	Nut	CW617N Brass	1

• Not Lead Free

GAS BALL VALVES

ISO 9002 Manufacturer

5 PSIG
C US
CSA AGA 3.88 5 PSIG

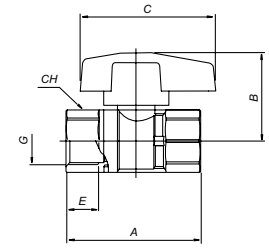
Manual Valve
LISTED
Threaded NPT
UL 842, UL 258, UL 125

FEATURES

Made in Italy

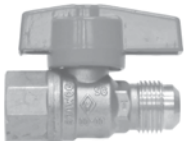
- Solid chrome plated brass ball
- Bottom entry
- Blow out proof design.
- Double viton o-rings stem seals
- Teflon seats for durability.
- Forged construction for greater strength.
- Larger ports for increased flow capacity.
- For use with natural, manufactured, mixed liquified. petroleum and LP gas-air 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.

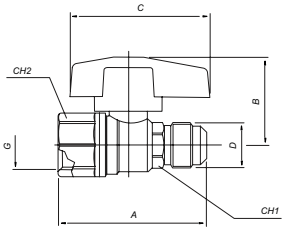




GAS BALL VALVES
FEMALE x FEMALE

Part#	Size	Dimension Inches									List
	G	DN	A	B	C	E	CH	PN in psi	Box	Case	Price
943-212	1/2"	.31	1.96	1.57	3.43	.43	.98	600	20	80	13.57
943-213	3/4"	.39	1.96	1.57	3.43	.43	1.22	600	10	40	19.69

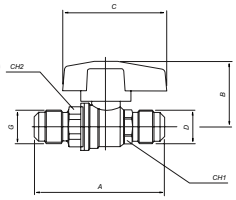




APPLIANCE CONNECTOR VALVES
FEMALE X FLARE

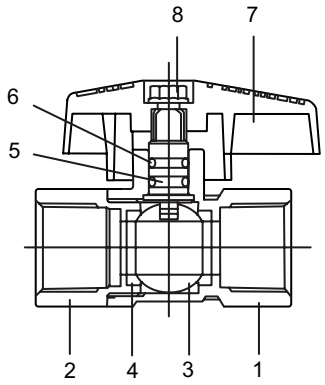
Part#	Size	Dimension Inches								List
	G	DN	A	B	C	CH1	CH2	Box	Case	Price
935-122	1/2 x 3/8	0.27	2.41	1.45	2.28	0.67	0.98	20	80	17.51
935-123	1/2 x 1/2	0.39	2.44	1.45	2.28	0.67	0.98	20	80	19.48
935-124	3/4 x 5/8	0.47	2.50	1.48	2.28	-	1.22	20	80	21.74





FLARE x FLARE

Part#	Size	Dimension Inches									List
	G	DN	A	B	C	CH1	CH2	PN in psi	Box	Case	Price
935-129	3/8 x 3/8	0.27	2.79	1.45	2.28	0.67	0.83	363	20	80	23.58
935-130	1/2 x 1/2	0.39	2.87	1.45	2.28	0.67	0.83	363	20	80	20.37



	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

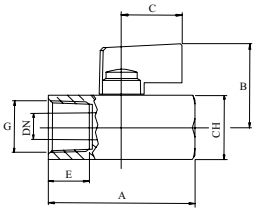
Made in Italy **ISO 9002 Manufacturer**

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!
- Also available in Stainless Steel.

Female x Female



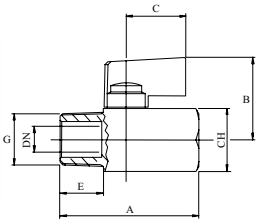


Part#	Size		Dimension Inches							
	G	DN	A	B	C	E	CH	BOX	CASE	List Price
46-920 I	1/8"	0.24	1.51	1.2	0.9	0.31	0.83	50	200	15.16
46-922 I	1/4"	0.31	1.88	1.2	0.9	0.51	0.83	50	200	15.16
46-923 I	3/8"	0.31	1.88	1.2	0.9	0.51	0.83	50	200	15.16
46-924 I	1/2"	0.39	2.18	1.28	0.9	0.61	0.96	40	160	17.52

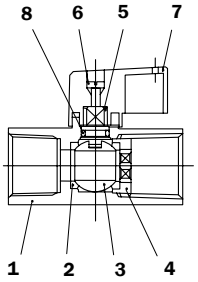
Made in Italy

Male x Female

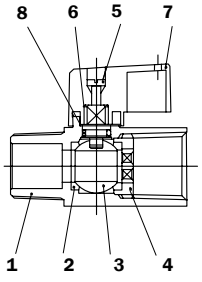




Part#	Size		Dimension Inches							
	G	DN	A	B	C	E	CH	BOX	CASE	List Price
46-900 I	1/8"	0.24	1.5	1.2	0.9	0.34	0.83	50	200	14.84
46-903 I	1/4"	0.31	1.77	1.2	0.9	0.48	0.83	50	200	14.84
46-904 I	3/8"	0.31	1.81	1.2	0.9	0.49	0.83	50	200	14.84
46-905 I	1/2"	0.39	2.15	1.28	0.9	0.65	0.96	40	160	16.45



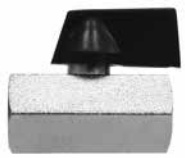
POS	Components	Materials	N
1	Body	CW517N Forged Brass	1
2	Ball Seats	P.T.F.E	2
3	Ball	CW517N CP Brass	1
4	Ring Unit	CW614N Brass	1
5	Stem	CW614N Brass	1
6	Screw	UNI 5771 Steel	1
7	Handle	Nylon	1
8	O-Ring	NBR 80	1



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!



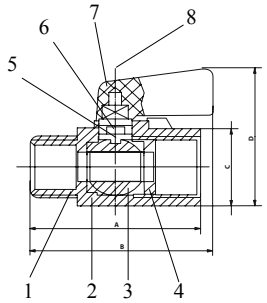


FEMALE X FEMALE

Part #	Size	Dimensions (In)				List Price
		A	B	C	D	
46-934	1/8	1.57	1.69	0.78	1.46	7.56
46-935	1/4	1.57	1.69	0.78	1.46	7.56
46-936	3/8	1.57	1.69	0.78	1.46	8.27
46-937	1/2	1.77	1.77	0.94	1.56	8.57

MALE X FEMALE

Part #	Size	Dimensions (In)				List Price
		A	B	C	D	
46-930	1/8	1.67	1.69	0.78	1.46	6.87
46-931	1/4	1.57	1.69	0.78	1.46	7.56
46-932	3/8	1.57	1.69	0.78	1.46	7.11
46-933	1/2	1.77	1.77	0.94	1.56	8.50



Pos	Components	Materials	N
1	Body	CP Forged Brass	1
2	Ball Seats	P.T.F.E.	2
3	Ball	CP Brass	1
4	Ring Unit	Brass	1
5	Stern	Brass	1
6	O-Ring	NBR 80	1
7	Handle	Alumzinc	1
8	Screw	Steel	1

See page 197 for stainless steel mini ball valves

FORGED BRASS MINI-BALL VALVES

• 180⁰ operational handle, blow out proof stem. Stem with double "O" Rings
• 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	10.81
944-118	1/4X1/2	10.12



MALE x FEMALE

Part #	Size	List Price
944-106	1/8X1/8	10.12
944-100	1/8X1/4	13.70
944-101	1/4X1/4	11.99
944-102	1/4X3/8	10.12



MALE x MALE

Part #	Size	List Price
944-111	1/4X1/2	10.12
944-112	1/2X1/2	12.87



HOSE BARB x MALE

Part #	Size	List Price
944-138	1/4X1/4	8.00
944-128	3/8X1/4	7.51



HOSE BARB x HOSE BARB

Part #	Size	List Price
944-142	1/4X1/4	10.73
944-134	3/8X3/8	10.88



FEMALE x HOSE BARB

Part #	Size	List Price
944-135	1/8X1/8	10.30
944-121	1/4X5/16	10.30
944-136	1/4X1/4	9.53

NP MINI BALL VALVES

• With and without internal check valve.
* Nickel Plated



BARB x MALE PIPE w/ CHECK

Part #	Size	List Price
944-051	1/4 x 1/4	14.78
944-052	3/8 x 1/4	15.89

BARB x MALE PIPE WITHOUT CHECK

Part #	Size	List Price
944-012	3/8 x 1/4	14.29



MIP x FLARE w/ CHECK VALVE

Part #	Size	List Price
944-060	1/4 x 1/4	15.51

FLARE x MIP WITHOUT CHECK VALVE

Part #	Size	List Price
944-026	1/4 x 1/4	17.74



BARB x BARB NO CHECK

Part #	Size	List Price
944-005	1/4	14.99
944-013	3/8	15.74

• Plain Brass



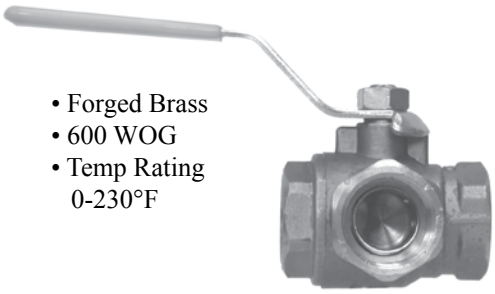
MIP x FLARE WITH CHECK

Part #	Size	List Price
10-256WC	1/4 x 1/4	2.94

VALVES

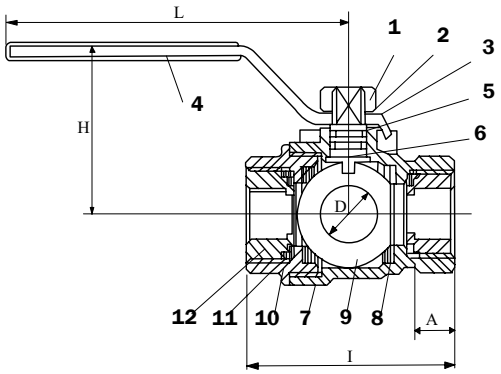
SIDE OUTLET 3 WAY BALL VALVE

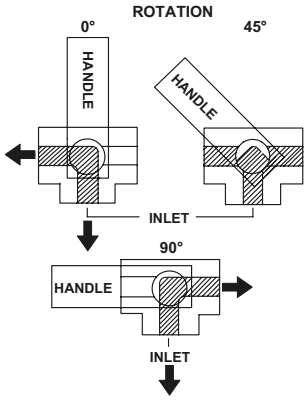
• 600 WOG



- Forged Brass
- 600 WOG
- 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	42.45
940-465	3/8"	1.89	1.73	0.39	3.35	0.47	50	100	44.17
940-461	1/2"	2.11	1.80	0.50	3.35	0.51	30	60	35.20
940-462	3/4"	2.56	2.16	0.74	4.41	0.55	20	40	57.18

BOTTOM OUTLET 3 WAY BALL VALVE

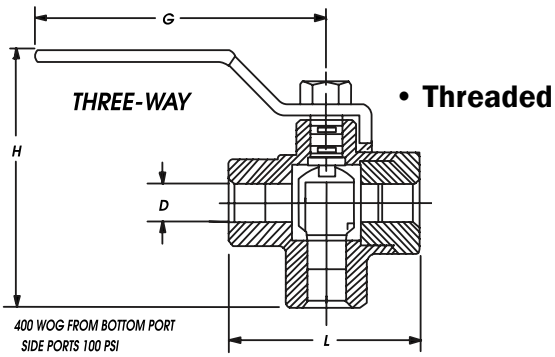
- Forged Brass
  Bottom Port is inlet 400 psi
  Side Ports are inlet 100 psi

• 90° Handle Rotation



- Double O-Ring Seal
- Blow out proof stem
- Made in USA
- Threaded ports
- Good for propane

• Bottom outlet



• Threaded

Part#	Size	D	G	H	L	Cv	List Price
940-121	1/4"	.44	3.50	3.12	2.25	5.2	58.45
940-122	3/8"	.50	3.50	3.12	2.25	5.5	54.10
940-123	1/2"	.50	3.50	3.12	2.25	5.5	61.36

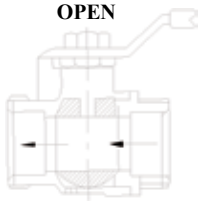
EXHAUST VALVES

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.

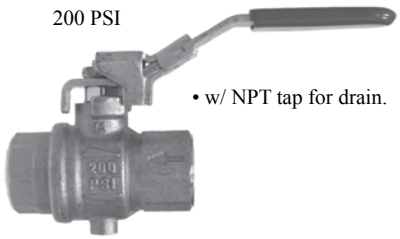
- Maximum working pressure: 200 PSI (CWP).
- Temperature rating: -4°F through +350°F.

OPEN



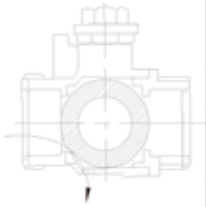
Valve - open position.
Drain vent shut off.

200 PSI



- w/ NPT tap for drain.

CLOSED



Part#	Size	List Price
948-131	1/4"	54.96
948-132	3/8"	58.30
948-133	1/2"	60.87
948-134	3/4"	83.43
948-135	1"	92.11

Valve - closed and draining occurs. Upstream seat prevents air flow. Downstream system is vented to atmosphere.

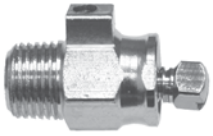
VACUUM BREAKER

- *Male hose and female hose threads can be broken off for permanent attachment*
- *Set screw*
- *Vandal proof*
- *Rough brass construction*
- *Prevents back-siphonage on hoses to prevent potable water from getting contaminated*
- *Certified under ASSE Std. 1011*
- *UPC*
- *IAMPO*



VACUUM BREAKER

Part #	Size	List Price
947-055	3/4" x 3/4"	11.34



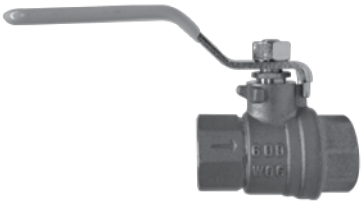
RADIATOR AIR VALVE

COIN SLOT

Part #	Size	List Price
943-284	1/8" MIP	2.23

SAFETY EXHAUST BALL VALVE

- Threaded - Two Piece Body - Full Port
- Blow-out Proof Stem - PTFE Seats
- 400 PSI WOG
- To Exhaust and Downstream Air in the Closed Position w/ locking lever handle.
- Vented





Part #	Size	List Price
948-141	1/4"	11.34
948-142	3/8"	10.38
948-143	1/2"	14.88
948-144	3/4"	22.98

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	17.25

HOSE BIBBS
3/4" Hose Thread Outlet



IPS

Part #	Size	Box	List Price
942-170	1/2 (1/2"C)	12	20.15
942-171	3/4	12	16.10

DRUM & BARREL FAUCET VALVE



- Die cast body w/ nylon seat and steel spring.
- For use with all petroleum products except trichlorethylene.

G261N

Not suitable for potable water

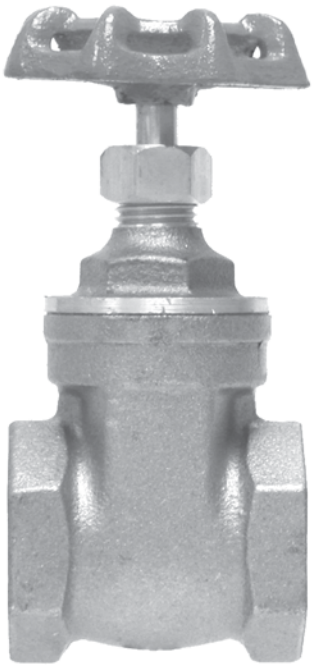
SELF-CLOSING DRUM & BARREL FAUCET

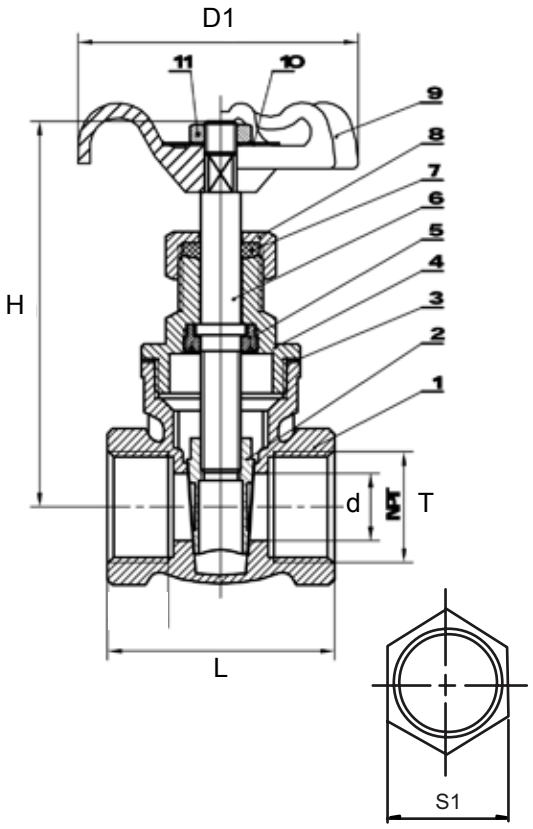
Part #	Size	List Price
46-270	3/4"	12.87

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.
- Good for diesel fuel.

• NOT LEAD FREE





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

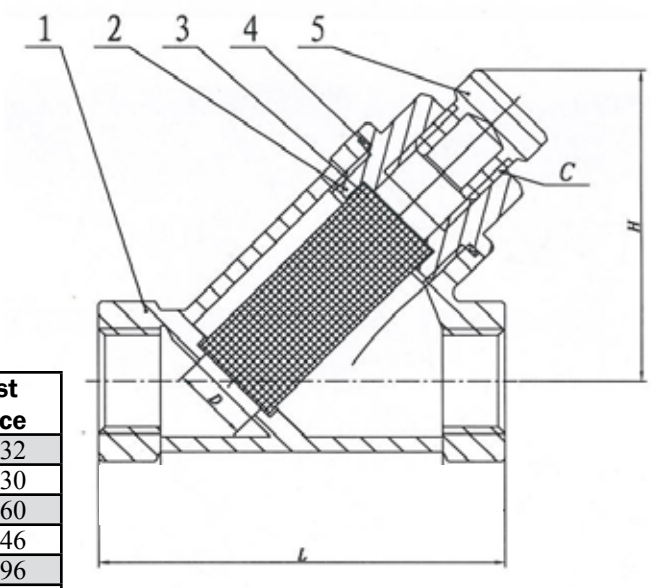
BRASS GATE VALVES IPS

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	21.10
940-131	3/8	1.61	2.91	2.09	.39	3/8-18 NPT	.85	10	120	22.00
940-132	1/2	1.575	2.874	2.087	0.50	1/2-14 NPT	1.03	10	100	15.13
940-133	3/4	1.752	3.228	2.087	0.748	3/4-14 NPT	1.26	5	60	20.33
940-134	1	1.984	3.661	2.283	0.984	1-11.5 NPT	1.51	5	40	27.86
940-135	1-1/4	2.165	4.567	2.835	1.22	1-1/4-11.5 NPT	1.89	5	30	50.50
940-136	1-1/2	2.283	4.98	3.11	2.496	1-1/2-11.5 NPT	2.17	4	24	64.64
940-137	2	2.677	5.846	3.819	1.85	2-11.5 NPT	2.60	2	16	85.05
940-138	2-1/2	3.661	7.638	4.252	2.48	2-1/2-8 NPT	3.27	2	8	147.72
940-139	3	3.819	8.839	4.961	2.835	3-8 NPT	3.86	1	6	220.69
940-140	4	4.567	10.189	4.961	3.661	4-8 NPT	4.88	1	3	355.33

CLASS 150 BRASS Y-PATTERN STRAINER

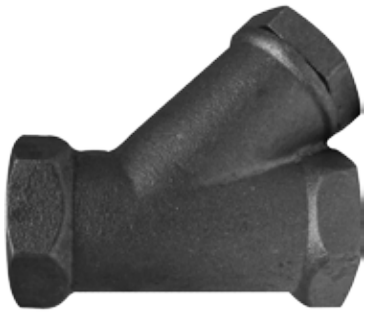
- Forged Brass body, size 1/4"-3".
- Pressure rating: 150 WOG (water, oil, gas)/PN25
  150 WSP (Saturated Stem)
- NPT Threaded ends to ANSI B1.20.1
- Protects regulators, pumps, meters and other controls from damage due to sediment scale, metal chips or other foreign materials.
- Screwed cap is threaded & gasketed.
- Tapped drain plug opening in cap.
- 304 stainless steel screen #20 mesh.
- Self cleaning.
- Self cleaning can be accomplished by opening the valve or plug connected to the blow-off outlet.
- NOT LEAD FREE

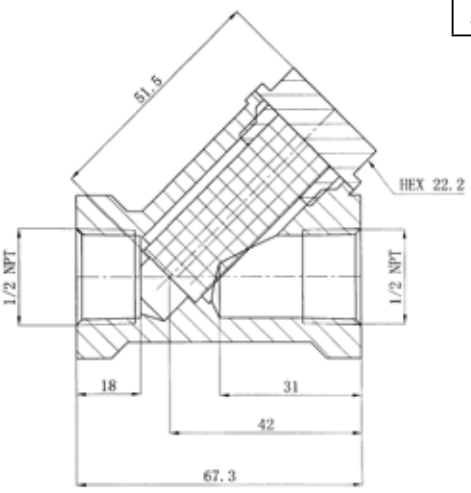




Part#	Size	L	H	C	List Price
940-521	1/4"	2.60	1.67	NPT 1/4	36.32
940-522	3/8"	2.60	1.67	NPT 1/4	38.30
940-523	1/2"	3.13	2.33	NPT 1/4	28.60
940-524	3/4"	3.43	2.17	NPT 1/4	41.46
940-525	1"	4.09	2.66	NPT 1/2	71.96
940-526	1-1/4"	4.90	3.24	NPT 1/2	98.67
940-527	1-1/2"	5.59	3.51	NPT 1/2	130.54
940-528	2"	6.69	4.34	NPT 1/2	215.16
940-529	2-1/2"	8.26	5.61	NPT 3/4	500.00
940-530	3"	9.37	6.69	NPT 3/4	716.11

NO	Name	Material
1	BODY	BRASS
2	BONNET	BRASS
3	STRAINER	S.S.
4	SPRING SEAL	PTFE
5	END CAP	BRASS





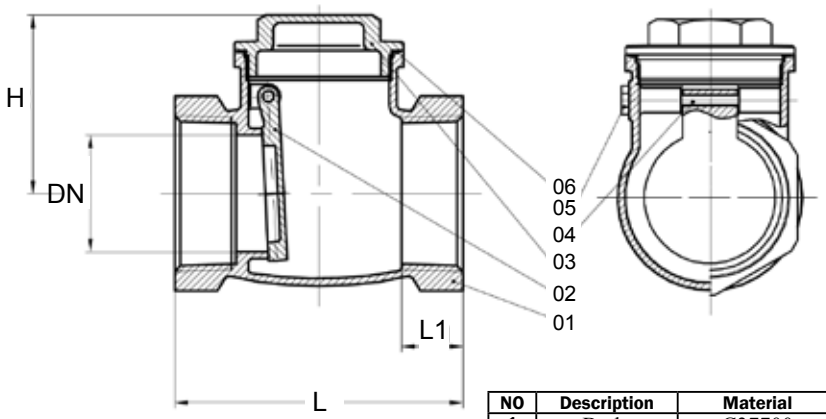
LEAD-FREE

Part#	Size	L	H	C	List Price
940-523LF	1/2"	2.65	2.75	1.00	38.36

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.
- 90^0 Straight Pattern.
- Used to prevent reverse flow in commercial and industrial applications.
- Threaded ends to ANSI B1.20.1
- Integral seat.
- Temp range -5° - 150F°
- NOT LEAD FREE





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

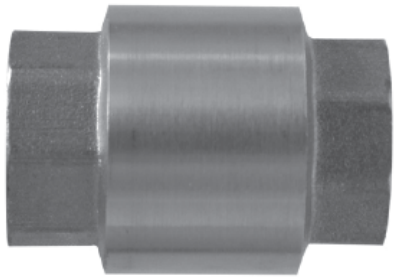
Part #	Size	L	H	L1	DN	Box	Case	List Price
940-352	1/2	2.071	1.299	0.531	0.512	10	120	17.25
940-353	3/4	2.382	1.417	0.579	0.728	10	80	19.41
940-354	1	2.835	1.614	0.748	0.925	5	60	27.81
940-355	1-1/4	3.228	1.969	0.748	1.201	4	36	43.88
940-356	1-1/2	3.740	2.244	0.846	1.417	4	24	60.54
940-357	2	4.212	2.638	0.886	1.772	4	16	90.90
940-358	2-1/2	5.591	3.346	1.063	2.224	2	8	171.93
940-359	3	6.024	3.504	1.102	2.579	1	6	241.83
940-360	4	7.008	4.212	1.102	3.602	1	4	392.81

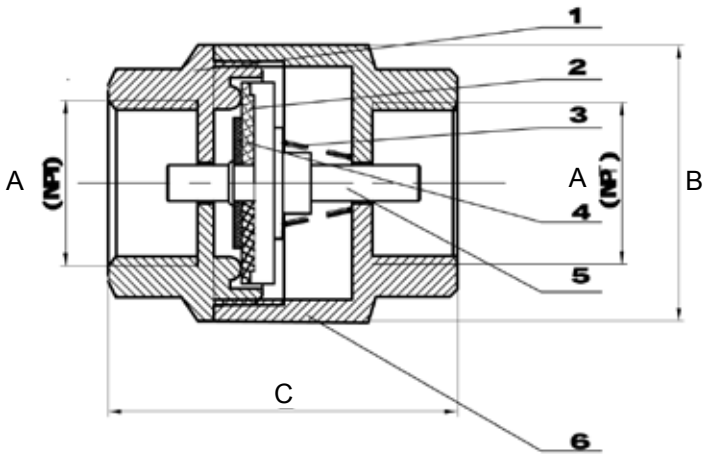
BRASS CHECK VALVES

S.S. SPRING LOADED BRONZE POPPET
For positive sealing & self-cleaning.
Insures against leakage.

- Inline Lift Type - Resilient Discs - Spring Actuated - Threaded.
- Presure rating: 200 WOG (water, oil, gas)
  125 WSP (Saturated Steam)
- Spring in stainless steel AISI 304.
- Resilient washer hold/ disc in brass.
- Forged Brass Body for 1/2"-2"
- Corrosion resistant material.
- Can be used vertically or horizontally.
- Opens & Closes with flow of media.
- No cracking pressure.
- NOT LEAD FREE

Temp Range
-10°C - 110°C
14°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	17.97
944-429	3/8"	-	3/8"	1.50	2.28	21	168	21.04
944-430	1/2"	1-1/4"	1/2"	1.299	1.89	10	100	16.49
944-431	3/4"	1-1/4"	3/4"	1.594	2.126	10	100	24.51
944-432	1"	2"	1"	1.85	2.303	10	60	32.85
944-433	1-1/4"	2-1/2"	1-1/4"	2.205	2.52	10	40	47.91
944-434	1-1/2"	3"	1-1/2"	2.618	2.717	5	30	59.15
944-435	2"	3-1/2"	2"	3.091	3.071	2	20	92.54

LEAD-FREE

NEW

Part #	Size	List Price
944-430LF	1/2	27.72
944-431LF	3/4	37.42
944-432LF	1	52.07
944-433LF	1-1/4	70.50
944-434LF	1-1/2	99.00
944-435LF	2	170.28

NO	Part	Material
1	Cap	C37700
2	Gasket	NBR
3	Spring	Stainless Steel
4	Positioning Seat	BRASS
5	Screw	BRASS
6	Body	C37700

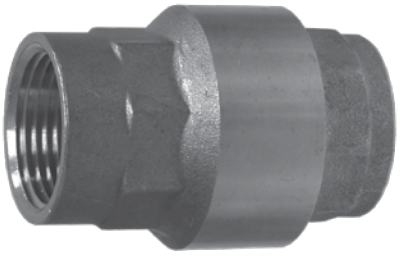
BRASS IN-LINE CHECK VALVES

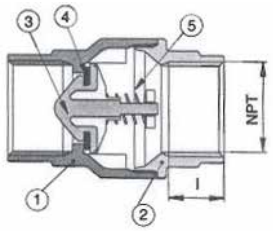
High Capacity, Size 1/4"-2" 400 WOG, 2 1/2"-4" 175 WOG

- Soft Seat for Bubble Tight Shutoff, Spring Loaded for Fast Seating Action.
- Compact design.
- Low Cracking Pressure 1/2 psi.
- Flow Profile Designed to Minimize Head Loss.
- Perfect Seating both at High and Low Pressure, Wide Temperature Range: +10° to 210°F.
- Polyethermide Disc to ensure the Best Resistance For Corrosion and Abrasion.
- Patented Disc Guide to Prevent Any Side Loading.
- Connection: FNPT x FNPT.

NBR for water, oils and general purpose.
With VITON® Seal for fuels and hydrocarbons. Max working TEMPERATURE 325°F/125 psi steam

Add V to part# for Viton®





Brass In-Line Check

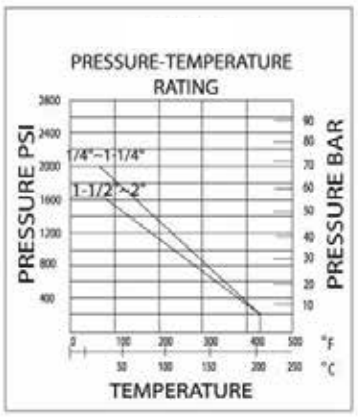
Part#	Size	l	psi	Lbs	NBR List	Viton Part#	Viton List
944-401	1/4"	0.39	400	0.22	20.27		
944-402	3/8"	0.40	400	0.37	20.27	944-402V	20.88
944-403	1/2"	0.53	400	0.32	22.37	944-403V	23.28
944-404	3/4"	0.55	400	0.49	30.52	944-404V	32.70
944-405	1"	0.66	400	0.68	40.12	944-405V	42.17
944-406	1-1/4"	0.68	400	1.13	63.05	944-406V	67.25
944-407	1-1/2"	0.68	400	1.61	94.90	944-407V	99.81
944-408	2"	0.69	400	2.28	128.37	944-408V	133.88
944-409	2-1/2"	0.93	175	4.83	293.75	944-409V	304.59
944-410	3"	1.01	175	6.70	397.82	944-410V	411.02
944-411	4"	1.09	175	12.43	640.09	944-411V	648.12

NO	Part	Material	PCS
1	BODY	BRASS	1
2	END CONNECTION	BRASS	1
3	DISC	POLYETHERIMIDE	1
4	SEAT	100002 NBR	1
		100003 Viton	1
5	SPRING	STAINLESS STEEL	1

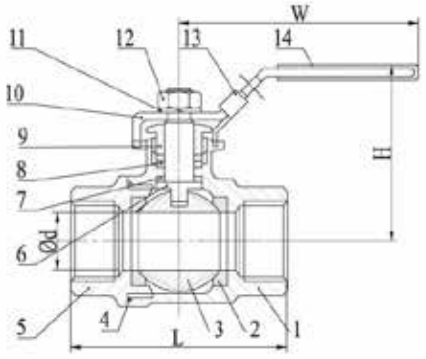
2-PC BALL VALVE, FULL PORT, THREADED END, 2000 WOG

- Investment Castings for body and cap.
- Internal Entry blow-out proof stem.
- Pressure rating: 2000PSI.
- Threaded Ends: ANSI B2,1
- Material: CF8M, CF8, CF3M, WCB
- Pressure test: API 598





NO	Part	Material	QTY
1	BODY	CF8M	1
2	BALL SEAT	PTFE	2
3	BALL	CF8M	1
4	BODY SEAL	PTFE	1
5	CAP	CF8M	1
6	STEM	SS316	1
7	THRUST WASHER	PTFE	1
8	PACKING	PTFE	1
9	GLAND NUT	SS304	1
10	HANDLE	SS304	1
11	WASHER	SS304	1
12	NUT	SS304	1
13	LOCK DEVICE	SS304	1
14	HANDLE COVER	PLASTIC	1

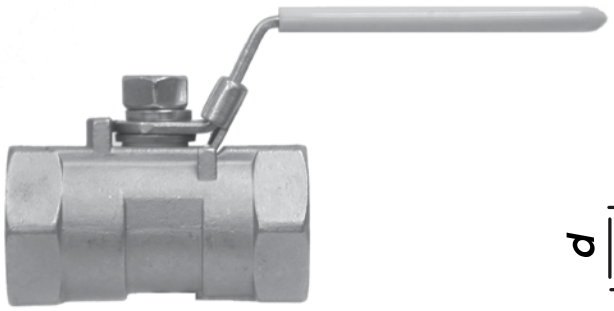


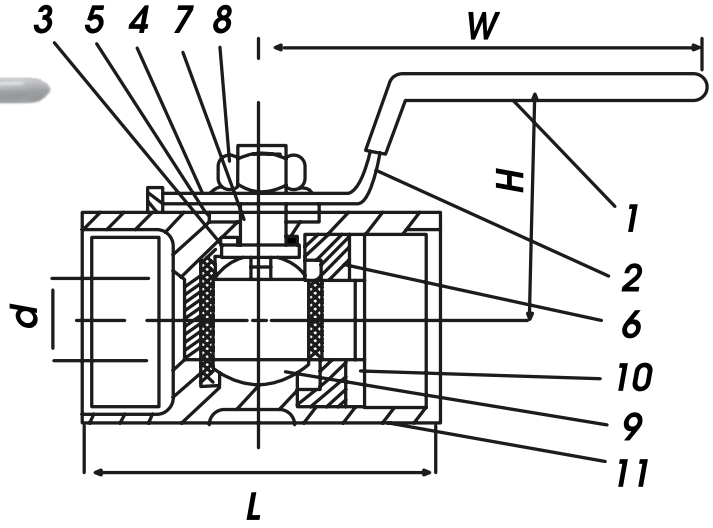
Part#	Size	D	L	H	W	N.M	lbs/ pc	List Price
949-171	1/4"	.492	2.224	1.89	4.134	.157	.616	34.14
949-172	3/8"	.492	2.224	1.89	4.134	.157	.616	34.14
949-173	1/2"	.591	2.579	2.087	4.331	.197	.946	43.92
949-174	3/4"	.787	3.051	2.441	5.315	.315	1.298	60.48
949-175	1"	.984	3.504	2.953	5.906	.394	2.332	90.72
949-176	1-1/4"	1.26	4.094	2.854	5.906	.551	3.30	134.64
949-177	1-1/2"	1.496	4.803	3.583	6.969	.709	5.258	187.32
949-178	2"	1.969	4.901	4.016	7.205	.984	7.48	260.46

ONE PIECE STANDARD PORT BALL VALVE

316 Stainless Steel

1000 PSI





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	32.68
949-102	3/8"	.27	2.24	1.73	3.15	33.15
949-103	1/2"	.36	2.48	2.20	3.62	36.82
949-104	3/4"	.49	2.95	2.32	3.62	43.10
949-105	1"	.59	3.50	2.80	4.13	55.21
949-106	1-1/4"	.79	4.13	3.07	4.13	96.48
949-107	1-1/2"	.98	4.65	3.27	5.08	98.29
949-108	2"	1.26	5.35	3.94	5.08	139.91

Larger sizes available on special order basis

Dimensions may change.

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

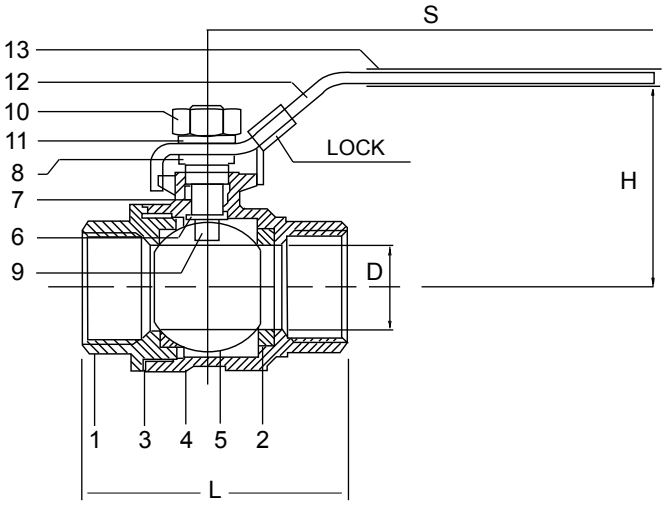
1000 PSI 2 PC FULL PORT STAINLESS STEEL VALVE

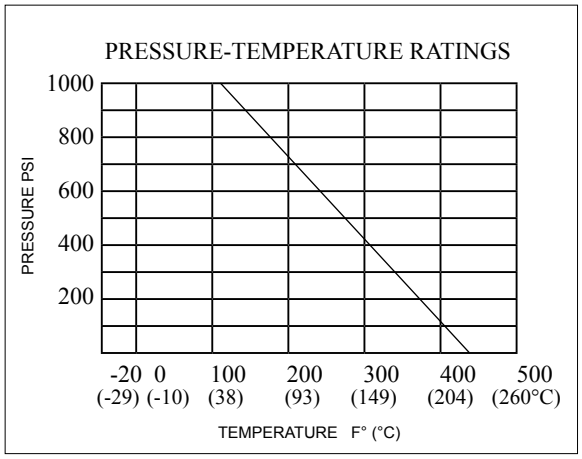
Materials: CFM8M (SS316), DIN 1.4408

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
- 125 Steam rated







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	37.81
949-182	3/8"	0.46	1.91	1.89	4.06	0.55	38.45
949-183	1/2"	0.59	2.28	1.89	4.06	0.66	41.79
949-184	3/4"	0.79	2.56	2.05	4.84	0.77	49.75
949-185	1"	0.98	3.03	2.45	4.84	1.43	74.23

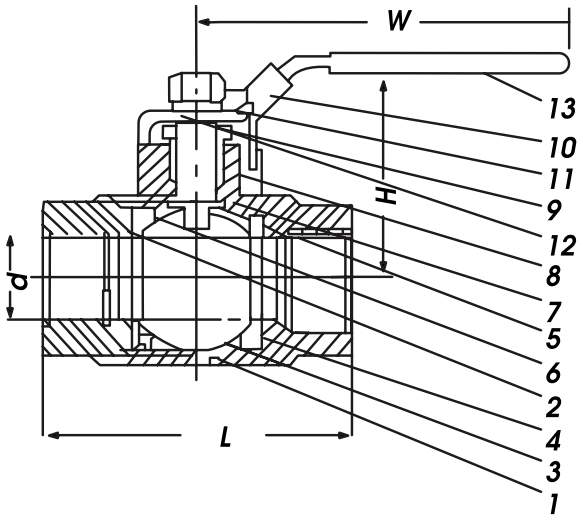
TWO PIECE FULL PORT BALL VALVE

316 Stainless Steel

1000 PSI

• Locking Handle





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	57.03
949-162	3/8"	.50	2.24	1.93	4.13	47.93
949-163	1/2"	.59	2.48	2.01	4.13	64.71
949-164	3/4"	.78	2.95	2.28	5.12	68.66
949-165	1"	.98	3.50	2.76	5.71	86.86
949-166	1-1/4"	1.26	4.13	2.87	5.71	133.89
949-167	1-1/2"	1.50	4.65	3.29	7.48	176.42
949-168	2"	2	5.35	3.62	7.48	211.07
949-169	2-1/2"	2.56	5.79	4.96	9.92	292.71
949-170	3"	2.99	6.81	5.43	9.92	383.71
949-180	4"	3.70	8.74	6.22	11.14	720.56

Larger sizes available on special order basis

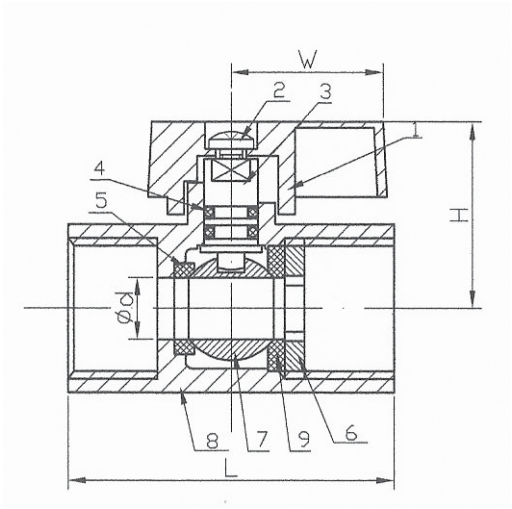
Dimensions may change without notice. Please contact us if they are critical.

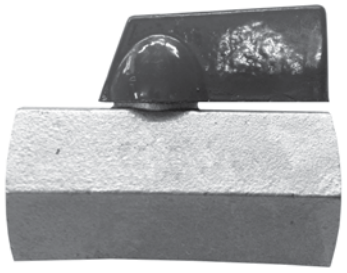
Item	Parts	Material
1	Body	316SS ASTM-A351 CF8M
2	Body Cap	316SS ASTM-A351 CF8M
3	Ball	316SS ASTM-A351 CF8M
4	Seat	Reinforced PTFE
5	Stem	AISI 316 SS
6	Seal	Reinforced PTFE
7	Thrust Washer	Reinforced PTFE
8	Packing	Reinforced PTFE
9	Gland Nut	AISI 304SS
10/11	Nut & Washer	AISI 304SS
12	Handle	AISI 304SS
13	Plastic Cover	Plastic

SS = Stainless Steel

- 316 Stainless Steel
- Working pressure 400PSI
- Working Temperature -10°C to 150°C

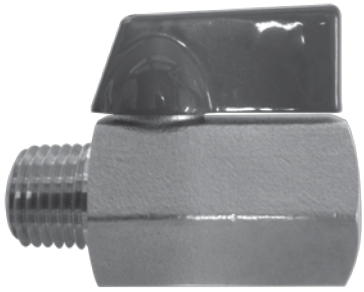
NO	Part	Material	QTY
1	LEVER	ALUMINIUM ALLOY	1
2	BOLT	304	1
3	STEM	304/ 316	1
4	"O" RING	NBR	1~2
5	BALL SEAT (A)	PTFE	1
6	CAP	CF8/ CF8M	1
7	BALL	CF8/ CF8M	1
8	BODY	CF8/ CF8M	1
9	BALL SEAT (B)	PTFE	1





FEMALE PIPE x FEMALE PIPE

Part#	Size	W	D	H	L	List Price
46934SS	1/8"	.898	.197	.985	1.693	19.50
46935SS	1/4"	.898	.276	.984	1.693	19.50
46936SS	3/8"	.898	.276	.984	1.693	20.46
46937SS	1/2"	.898	.362	1.114	1.811	25.19



MALE PIPE x FEMALE PIPE

Part#	Size	W	D	H	L	List Price
46930SS	1/8"	.898	.197	.985	1.693	18.53
46931SS	1/4"	.898	.276	.984	1.693	18.53
46932SS	3/8"	.898	.276	.984	1.693	19.44
46933SS	1/2"	.898	.362	1.114	1.811	24.56

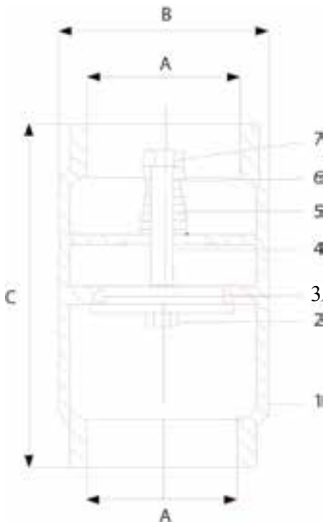
NEW STAINLESS STEEL COMING SOON!

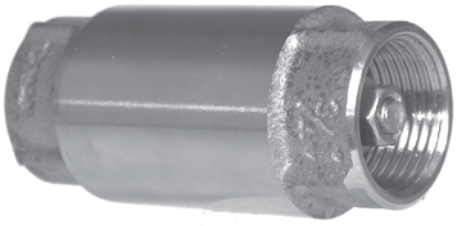
• Gate • Globe • Y-Strainers • Swing Checks • 3 Piece Ball Valves • Flanges

#304 STAINLESS STEEL

CHECK VALVE

- No Lead.
- Water wells need a check valve installed above the pumps between lengths of drop pipes.
- Opens & Closes with flow of media.
- **No cracking pressure.**
- **Working pressure unavailable.**

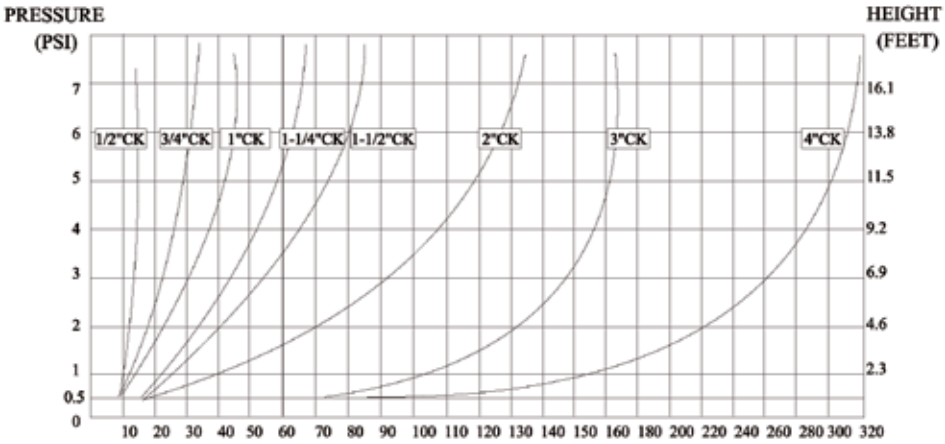




Dimensions (Inches)

Part#	Size	A NPT	B	C	Box	Case	List Price
949-430	1/2"	1/2"	1.26	2.43	10	100	37.68
949-431	3/4"	3/4"	1.50	2.72	10	80	52.04
949-432	1"	1"	1.77	3.23	10	60	65.24

More sizes available on a special order basis.



FLOW RATE GALLONS PER MINUTE

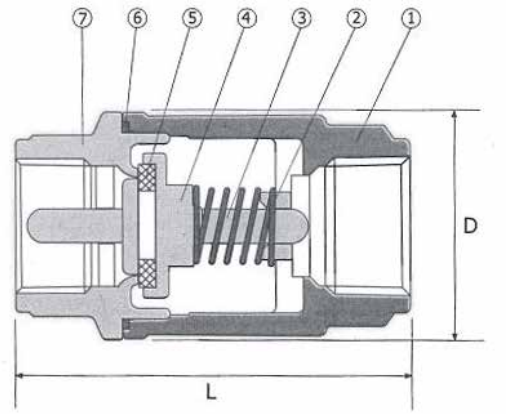
NO	Part	Material
1	Body	S.S 304
2	Stopper	S.S 304
3	O-Ring	Viton
4	Washer	PE
5	Spring	S.S 304
6	Cap	S.S 304
7	Nut	S.S 304

STAINLESS STEEL IN-LINE CHECK VALVE

High Capacity, Size 1/4"-2" 800 WOG

- Soft PTFE Seat for Bubble Tight Shutoff, Spring Loaded for Fast Seating Action
- Low Cracking Pressure 1/2 psi.
- Flow Profile Designed to Minimize Head Loss.
- Perfect Seating both at High and Low Pressure, Wide Temperature Range: +10° to 450°F.
- Corrosion Resistant-Excellent for use on Chemicals.
- ASTM A351-CF8M Investment Casting.
- Connectioin: FNPT x FNPT.
- 125WSP Saturated Steam.
- ANSI B1.20.1 Threads.
- Dual Guided Stem & Disc.





Stainless Steel In-Line Check

Part#	Size	D	L	psi	Lbs	List
949-401	1/4"	1.35	2.31	800	0.42	145.00
949-402	3/8"	1.35	2.31	800	0.42	145.00
949-403	1/2"	1.35	2.31	800	0.40	157.50
949-404	3/4"	1.81	2.87	800	0.85	215.00
949-405	1"	2.13	3.50	800	1.30	248.75
949-406	1-1/4"	2.46	4.18	800	2.50	496.88
949-407	1-1/2"	2.88	4.93	800	3.40	690.63
949-408	2"	3.56	6.00	800	6.0	1012.75

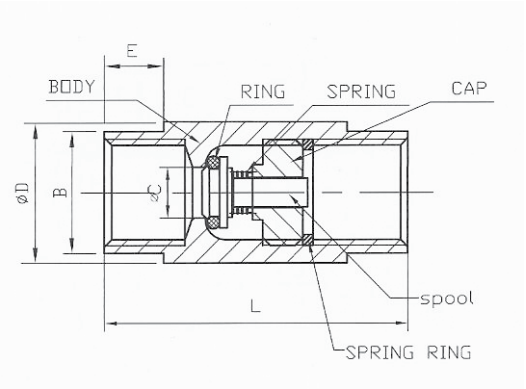
NO	Part	Material	PCS
1	BODY	ASTM A351-CF8M	1
2	SPRING	SS316	1
3	CENTER GUIDE	ASTM A351-CF8M	1
4	DISC	ASTM A351-CF8M	1
5	SEAT	PTFE	1
6	GASKET	PTFE	1
7	END CAP	ASTM A351-CF8M	1

"IF YOU'RE GOING THROUGH HELL, KEEP GOING."
- WINSTON CHURCHILL

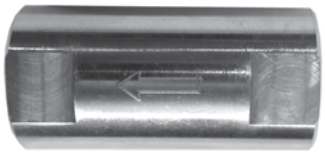
SPRING CHECK VALVE

- Working Pressure: 1500PSI (PN100)
- Working Temperature: -10 -150°C
- Opening Pressure: 2~3PSI
- Suitable Medium: W.O.G.
- Threaded End: NPT

NO	Part	Material	QTY
1	BODY	316	1
2	RING	VITON	1
3	SPRING	304	1
4	CAP	CF8M	1
5	SPOOL	316	1
6	SPRING RING	304	1

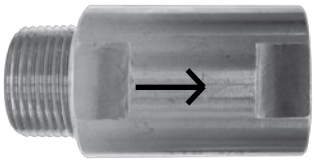


FEMALE PIPE x FEMALE PIPE



Part#	Size	L	C	D	B	E	lbs/ pc	List Price
949-451	1/4"	2.165	.217	.748	.699	.394	.176	30.24
949-452	3/8"	2.165	.295	.866	.787	.394	.22	30.24
949-453	1/2"	2.165	.413	1.063	.945	.472	.286	34.92
949-454	3/4"	2.677	.591	1.417	1.26	.472	.638	50.70
949-455	1"	3.268	.787	1.693	1.496	.591	1.056	68.28

MALE PIPE x FEMALE PIPE



Part#	Size	L	C	D	B	E	lbs/ pc	List Price
949-471	1/4"	2.165	.217	.748	.699	.394	.176	30.24
949-472	3/8"	2.165	.295	.866	.787	.394	.22	30.24
949-473	1/2"	2.165	.413	1.063	.945	.472	.286	34.92
949-474	3/4"	2.677	.591	1.417	1.26	.472	.638	50.70
949-475	1"	3.268	.787	1.693	1.496	.591	1.056	68.28

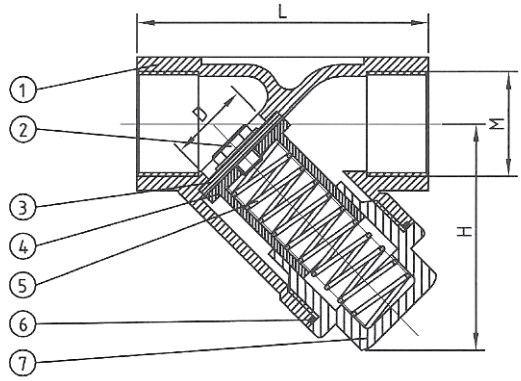
FLOWS MALE -> FEMALE

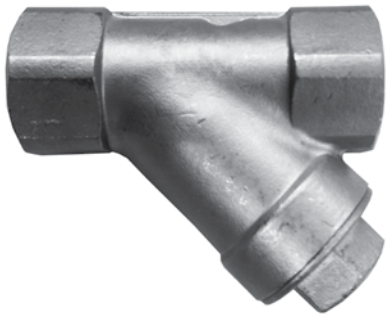
WE ARE WHAT WE REPEATEDLY DO. EXCELLENCE, THEN, IS NOT AN ACT, BUT A HABIT.
- ARISTOTLE

Y-SPRING CHECK VALVE

- Working Pressure: 800PSI (PN55)
- Working Temperature: -10 -150°C
- Opening Pressure: 1.5PSI
- Suitable Medium: W.O.G.

NO	Part	Material	QTY
1	BODY	CF8M/ CF8	1
2	BOLT	304	1
3	SEAT	PTFE	1
4	DISC	304	1
5	SPRING	316/ 304	1
6	GASKET	PTFE	1
7	CAP	CF8M/ CF8	1



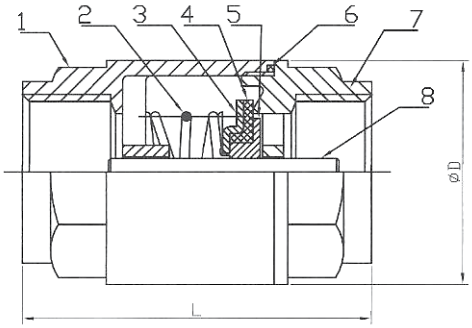


Part#	Size	L	H	D	lbs/ pc	Case	List Price
949-481	1/4"	2.559	1.661	.472	.572	200	35.10
949-482	3/8"	2.559	1.661	.472	.528	200	35.10
949-483	1/2"	2.559	1.634	.591	.528	300	39.00
949-484	3/4"	3.15	2.067	.787	.946	300	63.42
949-485	1"	3.543	2.657	.984	1.76	200	102.42
949-486	1-1/4"	4.134	2.795	1.26	2.20	100	117.06
949-487	1-1/2"	4.724	3.169	1.575	2.234	100	156.06
949-488	2"	5.512	3.74	1.969	5.214	100	224.34

2PC BARREL TYPE SPRING CHECK VALVE

- Working Pressure: 300PSI (PN20)
- Working Temperature: -10 -120°C
- Opening Pressure: 2PSI
- Suitable Medium: W.O.G.
- Threaded end: NPT

NO	Part	Material	QTY
1	BODY	CF8M/ CF8	1
2	BOLT	304	1
3	SEAT	PTFE	1
4	DISC	304	1
5	SPRING	316/ 304	1
6	GASKET	PTFE	1
7	CAP	CF8M/ CF8	1





Part#	Size	L	D	Case	List Price
949-441	1/4"	2.008	1.142	200	30.24
949-442	3/8"	2.008	1.142	200	30.24
949-443	1/2"	2.244	1.28	300	34.92
949-444	3/4"	2.441	1.594	300	45.84
949-445	1"	2.953	1.89	200	66.30
949-446	1-1/4"	3.228	2.362	100	81.90
949-447	1-1/2"	3.465	2.756	100	113.16
949-448	2"	3.937	3.425	100	175.56

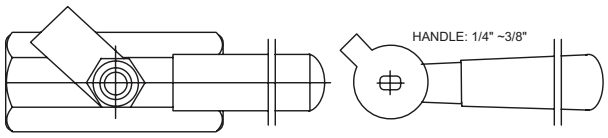
STANDARD PORT CARBON STEEL BALL VALVE

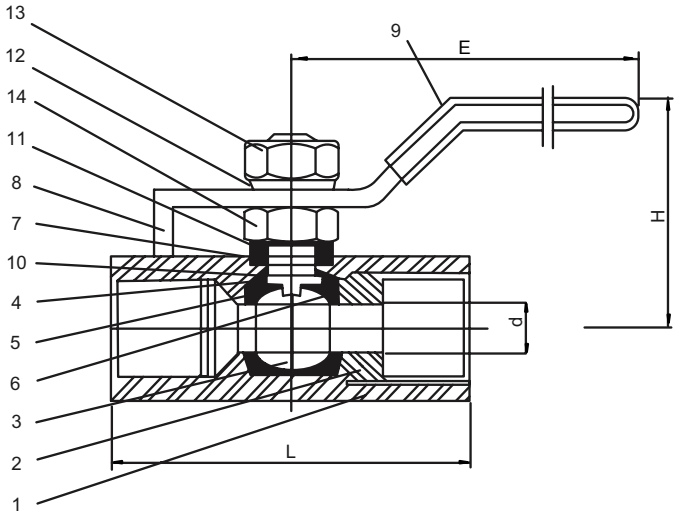
- For chemical and industrial applications.
- Blow-out proof stem design.
- 100% air tested under water, at 100 psi, open and closed positions.

SPECIFICATIONS

- Working Pressure: 1/4" ~ 1" 2000 psi WOG,
  1-1/4" ~ 2" 1500 psi WOG,
- Temperature Range: -60^0 to 450^{0}F
- End types: Threaded
- 1 piece ball valve reducing bore
- Reinforced PTFE seat

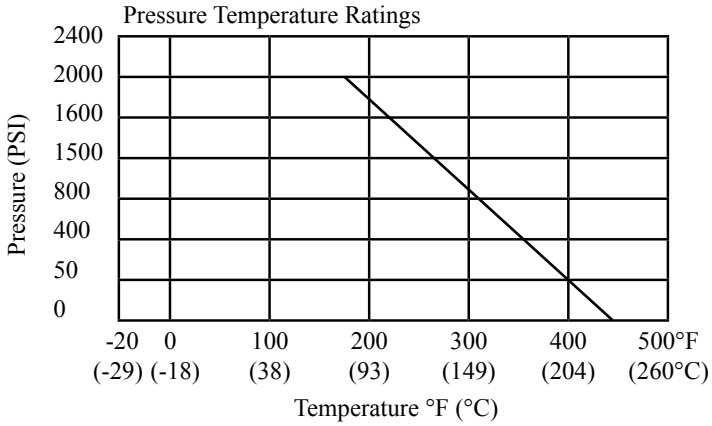






2000 PSI STANDARD PORT

Part #	Size	d	H	E	L	Box	Case	List Price
949-121	1/4	.20	1.14	2.40	1.71	10	100	65.21
949-122	3/8	.28	1.38	3.55	1.87	10	100	60.81
949-123	1/2	.36	2.60	4.08	2.20	5	75	58.64
949-124	3/4	.49	2.72	4.21	2.58	5	60	65.76
949-125	1	.59	2.95	4.65	3.19	6	36	84.43
949-126	1-1/4	.78	3.07	5.83	3.62	4	20	137.33
949-127	1-1/2	1.02	3.39	5.83	3.78	3	15	158.13
949-128	2	1.26	3.86	5.90	4.49	3	12	226.37



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

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	260	4.61
940-285	3/4"	5	160	7.37
940-286	1"	5	80	10.36
940-287	1-1/4"	5	60	21.45
940-288	1-1/2"	4	44	18.16
940-289	2"	4	24	33.61
940-291	3"	3	10	136.07
940-292	4"	2	6	193.12



WHITE SOCKET

SLIP X SLIP

Part #	Size	Box	Case	List Price
940-294	1/2"	10	100	5.47
940-295	3/4"	5	60	7.66
940-296	1"	5	40	11.24
940-297	1-1/4"	5	30	20.55
940-298	1-1/2"	4	24	24.52
940-299	2"	4	16	27.34

COMPACT BALL VALVES

FEATURES

- Sizes range from 1/2" to 4"
- Excellent flow characteristics
- Leak-tight shut-off
- EPPM O-Ring
- Test pressure: 225 psi @ 73°F
- Working Pressure: 150 psi @ 73°F



SLIP X SLIP BALL VALVE

Part #	Size	List Price
899050	1/2"	15.03
899051	3/4"	17.28
899052	1"	20.60
899053	1-1/4"	25.04
899054	1-1/2"	51.00
899055	2"	57.02
899056	2-1/2"	241.25
899057	3"	358.96
899058	4"	719.51



FIP X FIP THREADED BALL VALVE

Part #	Size	List Price
899000	1/2"	15.93
899001	3/4"	14.69
899002	1"	20.60
899003	1-1/4"	25.76
899004	1-1/2"	47.71
899005	2"	60.02
899006	2-1/2"	241.25
899007	3"	317.17
899008	4"	603.96

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"	13.32

"FLO-KING" DRUM FAUCET

Part #	Size	List Price
46-278	2	125.55

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		
	O.D.	I.D.	Wall Thickness
1/8"	.405	.281	.062
1/4"	.540	.376	.082
3/8"	.675	.495	.090
1/2"	.840	.626	.107
3/4"	1.050	.822	.114
1"	1.315	1.063	.126
1-1/4"	1.660	1.368	.146
1-1/2"	1.900	1.600	.150
2"	2.375	2.063	.156
2-1/2"	2.875	2.501	.187
3"	3.500	3.062	.219
3-1/2"	4.000	3.500	.250
4"	4.500	4.000	.250
4-1/2"	5.000	4.500	.250
5"	5.563	5.063	.250
6"	6.625	6.125	.250

Allowable Pressure POUNDS PER SQUARE INCH				
Standard Size (Inches)	@ 100° F	@ 200° F	@ 300° F	@ 400° F
1/8"	370	370	320	140
1/4"	870	870	760	330
3/8"	890	890	780	340
1/2"	900	900	790	340
3/4"	810	810	710	310
1"	630	630	560	240
1-1/4"	690	690	610	260
1-1/2"	630	630	560	240
2"	540	540	480	210
2-1/2"	450	450	390	170
3"	510	510	450	190
3-1/2"	570	570	500	220
4"	510	510	440	190
5"	410	410	360	160
6"	340	340	300	130

LEAD FREE

EXTRA HEAVY RED BRASS 85%
PIPE WITH THREADED ENDS SPECIFICATIONS:

Pipe Size in Inches	Dimension in Inches		
	O.D.	I.D.	Wall Thickness
1/8"	.405	.205	.100
1/4"	.540	.294	.123
3/8"	.675	.421	.127
1/2"	.840	.542	.149
3/4"	1.050	.736	.157
1"	1.315	.951	.182
1-1/4"	1.660	1.272	.194
1-1/2"	1.900	1.494	.203
2"	2.375	1.933	.221
3"	2.875	2.315	.280
3-1/2"	3.500	2.892	.304
4"	4.000	3.358	.321
4-1/2"	4.500	3.818	.341
5"	5.562	4.812	.375
6"	6.625	5.751	.437

Allowable Pressure POUNDS PER SQUARE INCH				
Standard Size (Inches)	@ 100° F	@ 200° F	@ 300° F	@ 400° F
1/8"	1960	1960	1960	1240
1/4"	2210	2210	2210	1340
3/8"	1840	1840	1840	1150
1/2"	1760	1760	1760	1100
3/4"	1510	1510	1510	950
1"	1340	1340	1340	850
1-1/4"	1160	1160	1160	730
1-1/2"	1090	1090	1090	680
2"	1000	1000	1000	630
2-1/2"	970	970	970	620
3"	910	910	910	570
3-1/2"	860	860	860	550
4"	840	840	840	530
5"	770	770	770	480
6"	800	800	800	500

Approximate weight per 100 pieces.

Standard Brass Nipples.

NIPPLE WEIGHT CHART												
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

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")	3.97
40-002	x 1-1/2"	4.49
40-003	x 2"	4.81
40-004	x 2-1/2"	5.46
40-005	x 3"	5.89
40-006	x 3-1/2"	6.36
40-007	x 4"	7.14
40-008	x 4-1/2"	8.06
40-009	x 5"	8.73
40-010	x 5-1/2"	9.44
40-011	x 6"	10.12
40-012	x 7"	12.02
40-013	x 8"	13.26
40-014	x 9"	16.30
40-015	x 10"	17.83
40-016	x 11"	19.34
40-017	x 12"	20.59

3/8" Diameter



Part #	Size	List Price
40-040	Close (1")	4.81
40-041	x 1-1/2"	5.69
40-042	x 2"	6.91
40-043	x 2-1/2"	7.48
40-044	x 3"	9.16
40-045	x 3-1/2"	9.88
40-046	x 4"	11.76
40-047	x 4-1/2"	12.53
40-048	x 5"	13.73
40-049	x 5-1/2"	14.93
40-050	x 6"	16.16
40-051	x 7"	19.61
40-052	x 8"	21.98
40-053	x 9"	26.00
40-054	x 10"	26.19
40-055	x 11"	28.59
40-056	x 12"	31.01

1/4" Diameter



Part #	Size	List Price
40-020	Close (7/8")	4.63
40-021	x 1-1/2"	5.36
40-022	x 2"	6.07
40-023	x 2-1/2"	6.58
40-024	x 3"	7.72
40-025	x 3-1/2"	8.40
40-026	x 4"	9.88
40-027	x 4-1/2"	10.74
40-028	x 5"	11.69
40-029	x 5-1/2"	12.68
40-030	x 6"	14.26
40-031	x 7"	16.25
40-032	x 8"	17.81
40-033	x 9"	19.79
40-034	x 10"	21.73
40-035	x 11"	23.71
40-036	x 12"	25.66

1/2" Diameter



Part #	Size	List Price
40-060	Close (1-1/8")	6.40
40-061	x 1-1/2"	7.41
40-062	x 2"	8.71
40-063	x 2-1/2"	10.36
40-064	x 3"	12.17
40-065	x 3-1/2"	13.88
40-066	x 4"	15.91
40-067	x 4-1/2"	17.28
40-068	x 5"	19.03
40-069	x 5-1/2"	20.91
40-070	x 6"	23.17
40-071	x 7"	26.84
40-072	x 8"	30.07
40-073	x 9"	33.37
40-074	x 10"	36.92
40-075	x 11"	40.39
40-076	x 12"	43.91

Chrome Plated Brass Nipples Available upon request

BRASS NIPPLES

3/4" Diameter



Part #	Length	List Price
40-080	Close (1- 3/8")	9.24
40-081	x 1-1/2"	9.85
40-082	x 2"	11.63
40-083	x 2-1/2"	13.49
40-084	x 3"	15.55
40-085	x 3-1/2"	17.47
40-086	x 4"	20.31
40-087	x 4-1/2"	22.07
40-088	x 5"	24.37
40-089	x 5-1/2"	26.62
40-090	x 6"	29.65
40-091	x 7"	34.74
40-092	x 8"	39.13
40-093	x 9"	43.32
40-094	x 10"	47.74
40-095	x 11"	52.10
40-096	x 12"	56.82

1" Diameter



Part #	Length	List Price
40-100	Close (1-1/2")	13.62
40-101	x 2"	16.81
40-102	x 2-1/2"	19.61
40-103	x 3"	22.57
40-104	x 3-1/2"	26.14
40-105	x 4"	29.41
40-106	x 4-1/2"	32.79
40-107	x 5"	36.25
40-108	x 5-1/2"	39.71
40-109	x 6"	43.30
40-110	x 7"	50.57
40-111	x 8"	57.73
40-112	x 9"	64.42
40-113	x 10"	71.46
40-114	x 11"	77.09
40-115	x 12"	85.20

1-1/4" Diameter



Part #	Length	List Price
40-120	Close (1-5/8")	20.55
40-121	x 2"	23.47
40-122	x 2-1/2"	26.54
40-123	x 3"	31.42
40-124	x 3-1/2"	36.76
40-125	x 4"	41.37
40-126	x 4-1/2"	45.82
40-127	x 5"	50.53
40-128	x 5-1/2"	55.26
40-129	x 6"	60.37
40-130	x 7"	71.20
40-131	x 8"	80.65
40-132	x 9"	95.66
40-133	x 10"	99.74
40-134	x 11"	114.18
40-135	x 12"	119.32

1-1/2" Diameter



Part #	Length	List Price
40-140	Close (1-3/4")	26.73
40-141	x 2"	28.75
40-142	x 2-1/2"	34.44
40-143	x 3"	39.58
40-144	x 3-1/2"	45.46
40-145	x 4"	51.56
40-146	x 4-1/2"	57.94
40-147	x 5"	64.10
40-148	x 5-1/2"	70.14
40-149	x 6"	76.19
40-150	x 7"	89.03
40-151	x 8"	101.16
40-152	x 9"	113.23
40-153	x 10"	125.32
40-154	x 11"	137.41
40-155	x 12"	149.48

BRASS NIPPLES

2" Diameter



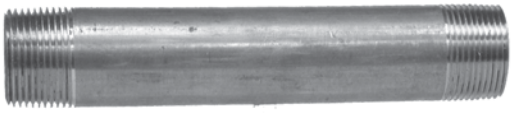
Part #	Length	List Price
40-160	Close (2")	40.70
40-161	x 2-1/2"	43.93
40-162	x 3"	50.71
40-163	x 3-1/2"	58.37
40-164	x 4"	66.33
40-165	x 4-1/2"	73.96
40-166	x 5"	82.02
40-167	x 5-1/2"	89.96
40-168	x 6"	97.93
40-169	x 7"	114.55
40-170	x 8"	130.64
40-171	x 9"	145.67
40-172	x 10"	161.81
40-173	x 11"	174.85
40-174	x 12"	192.98

2-1/2" Diameter



Part #	Length	List Price
40-180	Close (2-1/2")	107.40
40-181	x 3"	112.29
40-182	x 3-1/2"	127.23
40-183	x 4"	141.43
40-184	x 4-1/2"	151.73
40-185	x 5"	166.91
40-186	x 5-1/2"	179.77
40-187	x 6"	196.81
40-188	x 7"	224.21
40-189	x 8"	257.51
40-190	x 9"	285.82
40-191	x 10"	315.82
40-192	x 11"	340.31
40-193	x 12"	373.36

3" Diameter



Part #	Length	List Price
40-200	Close (2-5/8")	146.05
40-201	x 3"	151.78
40-202	x 3-1/2"	171.69
40-203	x 4"	193.39
40-204	x 4-1/2"	212.59
40-205	x 5"	233.89
40-206	x 5-1/2"	254.14
40-207	x 6"	276.27
40-208	x 7"	350.36
40-209	x 8"	367.25
40-210	x 9"	402.16
40-211	x 10"	446.14
40-212	x 11"	485.16
40-213	x 12"	534.38

Class 125 (150) For steam, water, gas, oil and air service

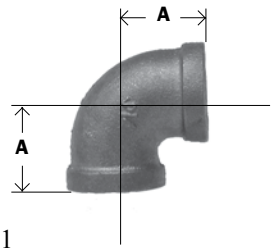
Standard specifications

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
- 1S0 9001:2000
- Not Lead Free

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 then 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.

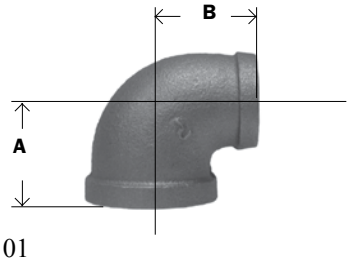
90° ELBOWS



X101

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-100	1/8”	0.55	0.08	6.52
44-101	1/4”	0.72	0.10	6.52
44-102	3/8”	0.83	0.17	6.52
44-103	1/2”	1.03	0.24	9.92
44-104	3/4”	1.19	0.35	13.34
44-105	1”	1.43	0.59	20.60
44-106	1-1/4”	1.71	0.96	32.76
44-107	1-1/2”	1.87	1.33	40.91
44-108	2”	2.14	2.34	66.61
44-109	2-1/2”	2.74	3.79	130.64
44-110	3”	3.10	5.21	200.40
44-112	4”	3.80	8.59	483.30

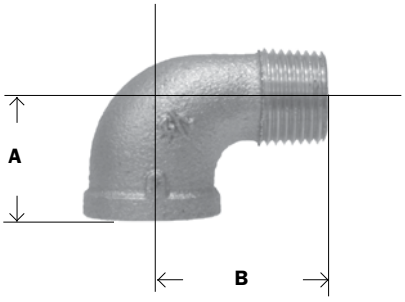
90° REDUCING ELBOWS



X101

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
44-120	1/4” x 1/8”	0.67	0.60	0.10	10.10
44-124	1/2” x 3/8”	0.93	0.90	0.22	10.71
44-127	3/4” x 1/2”	1.08	1.11	0.31	14.61
44-131	1” x 3/4”	1.30	1.31	0.56	25.65
44-134	1-1/4” x 1”	1.52	1.60	0.81	40.05
44-137	1-1/2” x 1”	1.56	1.72	1.02	50.61

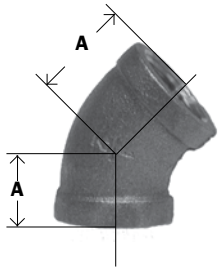
90° STREET ELLS



X103

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
44-160	1/8”	0.55	0.92	0.07	9.92
44-161	1/4”	0.72	1.11	0.11	9.92
44-162	3/8”	0.83	1.24	0.16	9.92
44-163	1/2”	1.03	1.51	0.21	12.32
44-164	3/4”	1.19	1.66	0.34	17.40
44-165	1”	1.43	1.98	0.65	26.37
44-166	1-1/4”	1.71	2.26	1.11	44.04
44-167	1-1/2”	1.87	2.46	1.16	57.38
44-168	2”	2.14	2.98	2.09	97.28
44-169	2-1/2”	2.74	3.92	3.79	153.80
44-170	3”	3.10	4.45	6.38	230.67

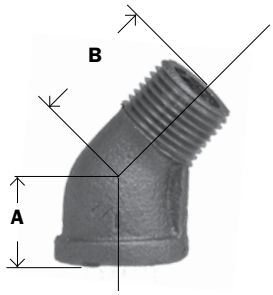
45° ELBOWS



X102

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-180	1/8”	0.43	0.05	7.15
44-181	1/4”	0.55	0.08	7.15
44-182	3/8”	0.63	0.12	7.15
44-183	1/2”	0.79	0.22	9.06
44-184	3/4”	0.91	0.34	13.34
44-185	1”	1.07	0.57	22.56
44-186	1-1/4”	1.23	0.90	36.06
44-187	1-1/2”	1.31	1.08	45.19
44-188	2”	1.47	1.54	73.25
44-189	2-1/2"	1.95	3.25	144.03

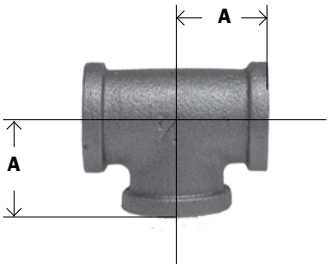
45° STREET ELBOWS



X103A

Part #	Size	A	B	Approx. Wt. Lbs.	List Price
44-200	1/8”	0.26	0.43	0.06	10.10
44-201	1/4”	0.35	0.56	0.11	10.10
44-202	3/8”	0.37	0.63	0.13	10.10
44-203	1/2”	0.45	0.79	0.18	12.32
44-204	3/4”	0.52	0.91	0.28	24.24
44-205	1”	0.60	1.07	0.52	28.77
44-206	1-1/4”	0.67	1.23	0.77	44.04
44-207	1-1/2”	0.70	1.31	0.97	59.16
44-208	2”	0.76	1.47	2.04	100.27

TEES



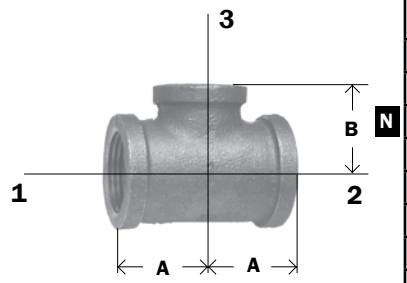
X106

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-250	1/8”	0.55	0.09	9.06
44-251	1/4”	0.72	0.16	9.06
44-252	3/8”	0.83	0.25	9.06
44-253	1/2”	1.03	0.31	11.41
44-254	3/4”	1.19	0.48	16.41
44-255	1”	1.43	0.84	29.17
44-256	1-1/4”	1.71	1.18	40.91
44-257	1-1/2”	1.87	1.69	56.29
44-258	2”	2.14	2.69	92.20
44-259	2-1/2”	2.74	4.70	179.30
44-260	3”	3.10	6.69	274.21

BRONZE FITTINGS

REDUCING TEES

REDUCING ON THE BRANCH

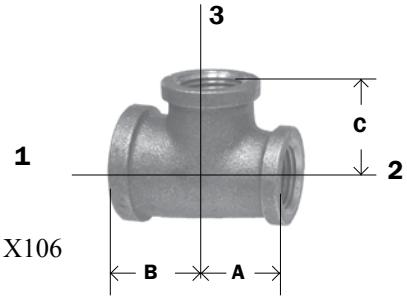


X106

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	13.85
44-279	1/2" x 3/8"	0.93	0.90	0.40	15.84
44-280	1/2" x 3/4"	2.42	1.155	0.415	21.63
44-282	3/4" x 1/4"	1.05	1.08	0.38	19.66
44-283	3/4" x 3/8"	1.00	1.00	0.46	19.66
44-286	3/4" x 1/2"	1.08	1.11	0.40	19.66
44-291	1" x 1/2"	1.20	1.24	0.73	35.95
44-298	1" x 3/4"	1.30	1.31	0.71	35.95
44-301	1-1/4" x 1/2"	1.34	1.53	1.18	50.61
44-303	1-1/4" x 3/4"	1.30	1.31	1.08	50.61
44-306	1-1/4" x 1"	1.58	1.67	1.23	50.61

REDUCING TEES

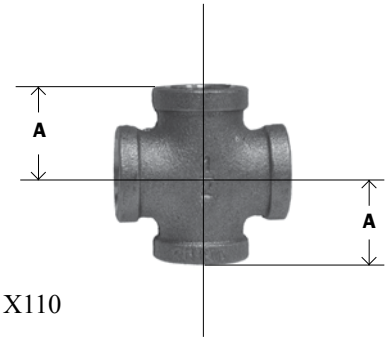
REDUCING ON THE RUN



X106

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	21.63
44-296	1" x 3/4" x 3/4"	1.31	1.37	1.45	0.71	39.15

CROSSES



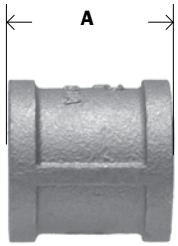
X110

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-391	1/4"	0.72	0.20	15.16
44-392	3/8"	0.83	0.29	15.16
44-393	1/2"	1.03	0.43	18.41
44-394	3/4"	1.19	0.59	26.60
44-395	1"	1.19	1.15	42.19
44-396	1-1/4"	1.71	1.70	66.04
44-397	1-1/2"	1.87	1.97	84.36
44-398	2"	2.14	2.52	175.84

"THE REASON WE STRUGGLE WITH INSECURITY IS BECAUSE WE COMPARE OUR BEHIND-THE-SCENES WITH EVERYONE ELSE'S HIGHLIGHT REEL."

- STEVE FURTICK

COUPLINGS



X111

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-410	1/8”	0.80	0.06	6.52
44-411	1/4”	0.80	0.08	6.52
44-412	3/8”	1.05	0.14	6.52
44-413	1/2”	1.29	0.21	8.20
44-414	3/4”	1.43	0.29	10.81
44-415	1”	1.68	0.45	16.41
44-416	1-1/4”	1.86	0.80	25.65
44-417	1-1/2”	1.92	0.98	34.87
44-418	2”	2.20	1.56	57.38
44-419	2-1/2"	2.88	2.75	95.35
44-420	3”	3.18	3.63	131.81

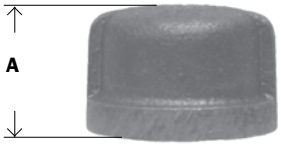
REDUCING COUPLINGS



X112

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-430	1/4” x 1/8”	0.88	0.08	7.00
44-431	3/8” x 1/8”	0.92	0.10	7.00
44-432	3/8” x 1/4”	0.92	0.12	7.00
44-433	1/2” x 1/8”	1.17	0.14	10.10
44-434	1/2” x 1/4”	1.17	0.17	8.72
44-435	1/2” x 3/8”	1.17	0.17	8.72
44-436	3/4” x 1/4”	1.35	0.24	14.43
44-437	3/4” x 3/8”	1.35	0.24	12.99
44-438	3/4” x 1/2”	1.35	0.27	12.99
44-440	1” x 3/8”	1.56	0.40	24.35
44-441	1” x 1/2”	1.56	0.36	21.60
44-442	1” x 3/4”	1.56	0.45	21.60
44-444	1-1/4” x 1/2”	1.77	0.60	41.38
44-445	1-1/4” x 3/4”	1.77	0.67	34.87
44-446	1-1/4” x 1”	1.77	0.65	34.87
44-447	1-1/2” x 1/2”	1.80	0.77	49.59
44-448	1-1/2” x 3/4”	1.80	0.70	49.59
44-449	1-1/2” x 1”	1.80	0.74	44.04
44-450	1-1/2” x 1-1/4”	1.80	0.83	44.04
44-458	2” x 1/2”	2.03	1.07	73.77
44-451	2” x 3/4”	2.03	1.25	73.77
44-452	2” x 1”	2.03	1.32	73.77
44-453	2” x 1-1/4”	2.03	1.37	65.46
44-454	2” x 1-1/2”	2.03	1.74	65.46
44-461	2-1/2” x 1-1/2”	3.15	1.94	115.96
44-462	2-1/2” x 2”	3.15	2.37	115.96
44-456	3” x 2”	3.69	2.40	153.69
44-463	3” x 2-1/2”	3.69	3.82	153.69

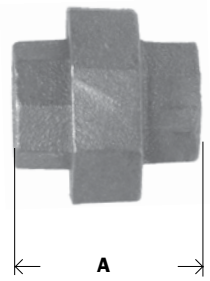
CAPS



X116

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-470	1/8”	0.53	0.03	4.88
44-471	1/4”	0.58	0.06	4.88
44-472	3/8”	0.66	0.09	4.88
44-473	1/2”	0.75	0.13	6.52
44-474	3/4”	0.87	0.20	8.62
44-475	1”	1.03	0.29	13.51
44-476	1-1/4”	1.10	0.47	20.54
44-477	1-1/2”	1.12	0.61	27.73
44-478	2”	1.35	1.10	47.06
44-480	3”	1.83	2.64	142.90

UNIONS



X187

Part #	Size	A	Approx. Wt. Lbs.	List Price
44-600	1/8”	1.18	0.13	23.12
44-601	1/4”	1.26	0.22	23.12
44-602	3/8”	1.50	0.39	23.12
44-603	1/2”	1.57	0.47	25.15
44-604	3/4”	1.89	0.69	34.87
44-605	1”	2.13	1.01	46.18
44-606	1-1/4”	2.36	1.48	67.64
44-607	1-1/2”	2.68	1.92	79.82
44-608	2”	2.99	3.04	122.85
44-609	2-1/2”	3.35	4.80	241.76
44-610	3”	3.74	6.49	373.51

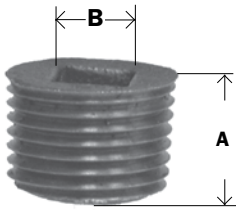
HEX BUSHINGS



X114

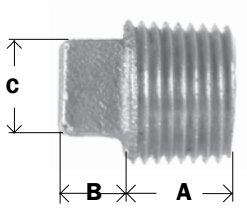
Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
44-500	1/4" x 1/8"	0.58	0.66	0.03	4.41
44-501	3/8" x 1/8"	0.64	0.72	0.06	4.41
44-502	3/8" x 1/4"	0.64	0.75	0.06	4.41
44-503	1/2" x 1/8"	0.75	0.92	0.11	6.18
44-504	1/2" x 1/4"	0.75	0.93	0.10	5.19
44-505	1/2" x 3/8"	0.75	0.92	0.09	5.19
44-506	3/4" x 1/8"	0.87	1.15	0.17	8.62
44-507	3/4" x 1/4"	0.85	1.14	0.17	8.62
44-508	3/4" x 3/8"	0.85	1.14	0.16	7.15
44-509	3/4" x 1/2"	0.85	1.15	0.14	7.15
44-510	1" x 1/4"	1.05	1.43	0.30	13.12
44-511	1" x 3/8"	1.05	1.50	0.26	13.12
44-512	1" x 1/2"	1.00	1.40	0.27	10.81
44-513	1" x 3/4"	1.00	1.43	0.22	10.81
44-514	1-1/4" x 1/4"	1.22	1.10	0.34	22.23
44-515	1-1/4" x 3/8"	1.19	1.84	0.29	23.16
44-516	1-1/4" x 1/2"	1.14	1.33	0.47	22.23
44-517	1-1/4" x 3/4"	1.08	1.75	0.46	18.41
44-518	1-1/4" x 1"	1.08	1.76	0.33	18.41
44-519	1-1/2" x 1/4"	1.09	2.12	0.29	28.77
44-520	1-1/2" x 3/8"	1.35	2.16	0.44	28.77
44-521	1-1/2" x 1/2"	1.20	2.10	0.51	28.77
44-522	1-1/2" x 3/4"	1.20	2.12	0.51	28.77
44-523	1-1/2" x 1"	1.14	2.08	0.61	23.52
44-524	1-1/2" x 1-1/4"	1.14	2.12	0.40	23.52
44-527	2" x 1/2"	1.27	1.32	1.10	42.00
44-528	2" x 3/4"	1.27	1.62	0.77	42.00
44-529	2" x 1"	1.29	1.95	0.88	42.00
44-530	2" x 1-1/4"	1.22	2.47	0.97	34.87
44-531	2" x 1-1/2"	1.22	2.50	0.77	34.87
44-532	2-1/2" x 1"	1.53	1.94	1.19	86.47
44-534	2-1/2" x 1-1/2"	1.50	2.38	1.15	69.71
44-535	2-1/2" x 2"	1.43	2.97	1.12	69.71
44-537	3" x 1-1/2"	1.61	2.68	2.44	137.04
44-538	3" x 2"	1.61	3.70	1.82	105.41
44-539	3" x 2-1/2"	1.53	3.70	2.11	105.41
44-543	4" x 3"	2.01	4.62	3.30	242.66

BRONZE COUNTERSUNK PLUGS



Part #	Size	A	Socket Size	Approx. Wt. Lbs.	List Price
44-633	1/2”	0.57	0.43	0.06	5.34
44-634	3/4”	0.58	0.47	0.11	6.12
44-635	1”	0.75	0.59	0.22	11.43
44-636	1-1/4”	0.74	0.72	0.33	19.03
44-637	1-1/2”	0.79	0.72	0.50	28.58
44-638	2”	0.80	0.85	0.88	46.52

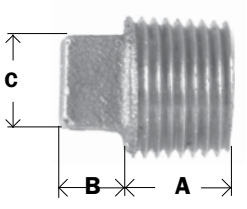
CORED SQUARE HEAD PLUGS



X117

Part #	Size	A	B	C	Approx. Wt. Lbs.	List Price
44-650	1/8”	0.27	0.24	0.28	0.02	4.88
44-651	1/4”	0.41	0.28	0.37	0.04	4.88
44-652	3/8”	0.41	0.31	0.43	0.07	4.88
44-653	1/2”	0.54	0.38	0.56	0.11	6.82
44-654	3/4”	0.55	0.44	0.62	0.17	7.81
44-655	1”	0.69	0.50	0.81	0.25	10.30
44-656	1-1/4”	0.71	0.56	0.93	0.39	15.32
44-657	1-1/2”	0.73	0.62	1.12	0.51	19.54
44-658	2”	0.76	0.68	1.31	0.83	30.84
44-659	2-1/2”	1.07	0.74	1.50	1.26	52.78
44-660	3”	1.13	0.80	1.68	1.49	84.36
44-662	4”	1.22	0.92	2.25	3.20	164.80

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	5.19
44-671	1/4”	0.41	0.28	0.37	0.05	5.19
44-672	3/8”	0.41	0.31	0.43	0.08	4.33
44-673	1/2”	0.54	0.38	0.56	0.12	8.20
44-674	3/4”	0.55	0.44	0.62	0.18	10.69
44-675	1”	0.69	0.50	0.81	0.28	18.22
44-676	1-1/4”	0.71	0.56	0.93	0.40	32.82
44-677	1-1/2”	0.73	0.62	1.12	0.56	42.66
44-678	2”	0.76	0.68	1.31	0.90	67.64

HEX LOCKNUTS

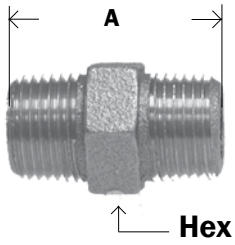


X119

• Straight Thread

Part #	Size	A	Thickness	Approx. Wt. Lbs.	List Price
44-700	1/8”	0.50	0.19	0.02	3.23
44-701	1/4”	0.66	0.25	0.03	3.23
44-702	3/8”	0.77	0.28	0.04	3.23
44-703	1/2”	0.97	0.31	0.10	5.19
44-704	3/4”	1.23	0.34	0.13	6.18
44-705	1”	1.50	0.38	0.20	9.22
44-706	1-1/4”	1.86	0.42	0.28	14.98
44-707	1-1/2”	2.12	0.47	0.52	19.43
44-708	2”	2.63	0.53	0.64	30.87

HEX NIPPLES



Part #	Size	A	Hex	Approx. Wt. Lbs.	List Price
44-720	1/8”	1.25	0.50	0.05	7.60
44-721	1/4”	1.25	0.61	0.06	12.60
44-723	1/2”	1.65	1.03	0.18	12.95
44-724	3/4”	1.77	1.21	0.24	13.60
44-725	1”	2.06	1.46	0.36	14.66
44-726	1-1/4”	2.12	1.81	0.47	30.45
44-727	1-1/2”	2.25	2.07	0.76	46.52
44-728	2”	2.50	2.41	1.50	56.29
44-729	2-1/2”	2.80	3.10	2.10	57.99

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	2.19	X Close (3/4")	49-001	2.73
48-002	2.88	x 1-1/2"	49-002	3.82
48-003	3.43	x 2"	49-003	4.65
48-004	3.97	x 2-1/2"	49-004	5.47
48-005	4.52	x 3"	49-005	6.31
48-006	5.07	x 3-1/2"	49-006	7.14
48-007	5.64	x 4"	49-007	7.98
48-008	6.18	x 4-1/2"	49-008	8.81
48-009	6.73	x 5"	49-009	9.66
48-010	7.30	x 5-1/2"	49-010	10.49
48-011	7.84	x 6"	49-011	11.33



1/4" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-020	2.49	X Close (7/8")	49-020	3.07
48-021	3.08	x 1-1/2"	49-021	3.93
48-022	3.70	x 2"	49-022	4.78
48-023	4.38	x 2-1/2"	49-023	5.70
48-024	5.06	x 3"	49-024	6.72
48-025	5.74	x 3-1/2"	49-025	7.55
48-026	6.47	x 4"	49-026	8.55
48-027	7.16	x 4-1/2"	49-027	9.46
48-028	7.84	x 5"	49-028	10.40
48-029	8.53	x 5-1/2"	49-029	11.32
48-030	9.21	x 6"	49-030	12.24
48-032	12.11	x 8"		
48-034	14.83	x 10"		
48-036	17.56	x 12"		



3/8" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-040	2.98	X Close (1")	49-040	3.78
48-041	3.61	x 1-1/2"	49-041	4.73
48-042	4.38	x 2"	49-042	5.80
48-043	5.21	x 2-1/2"	49-043	6.95
48-044	6.04	x 3"	49-044	8.12
48-045	6.89	x 3-1/2"	49-045	9.27
48-046	7.72	x 4"	49-046	10.43
48-047	8.55	x 4-1/2"	49-047	11.58
48-048	9.38	x 5"	49-048	12.75
48-049	10.21	x 5-1/2"	49-049	13.89
48-050	11.06	x 6"	49-050	15.06



1/2" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-060	3.84	X Close (1")	49-060	5.04
48-061	4.63	x 1-1/2"	49-061	6.20
48-062	5.55	x 2"	49-062	7.58
48-063	6.66	x 2-1/2"	49-063	9.17
48-064	7.75	x 3"	49-064	10.75
48-065	8.86	x 3-1/2"	49-065	12.34
48-066	10.00	x 4"	49-066	13.10
48-067	11.09	x 4-1/2"	49-067	15.55
48-068	12.19	x 5"	49-068	16.96
48-069	13.28	x 5-1/2"	49-069	18.72
48-070	14.40	x 6"	49-070	20.31
48-071	16.78	x 7"		
48-072	18.98	x 8"		
48-073	21.18	x 9"		
48-074	23.39	10"		
48-075	25.59	x 11"		
48-076	27.78	x 12"		

* Stainless Steel Nipples available in SCH80 seamless beginning on page 219



3/4" Diameter

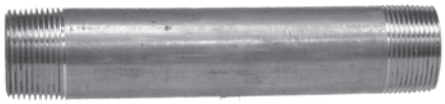
Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-080	5.19	X Close (1-3/8")	49-080	6.57
48-081	5.52	x 1-1/2"	49-081	7.01
48-082	6.62	x 2"	49-082	8.57
48-083	7.95	x 2-1/2"	49-083	10.36
48-084	9.27	x 3"	49-084	12.15
48-085	10.61	x 3-1/2"	49-085	13.95
48-086	11.93	x 4"	49-086	15.74
48-087	13.26	x 4-1/2"	49-087	17.55
48-088	14.60	x 5"	49-088	19.33
48-089	15.93	x 5-1/2"	49-089	21.14
48-090	17.25	x 6"	49-090	22.94
48-091	20.06	x 7"		
48-092	22.72	x 8"		
48-094	28.05	x 10"	49-094	37.44
48-096	33.37	x 12"		



1" Diameter

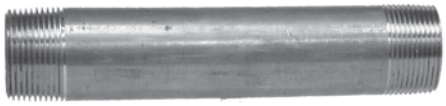
Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-100	6.81	X Close (1-1/2")	49-100	9.11
48-101	8.54	x 2"	49-101	11.56
48-102	10.13	x 2-1/2"	49-102	13.87
48-103	11.85	x 3"	49-103	16.32
48-104	13.56	x 3-1/2"	49-104	18.75
48-105	15.27	x 4"	49-105	21.21
48-106	16.99	x 4-1/2"	49-106	23.65
48-107	18.70	x 5"	49-107	26.08
48-108	20.42	x 5-1/2"	49-108	28.53
48-109	22.13	x 6"	49-109	30.96
48-110	25.91	x 7"		
48-111	29.35	x 8"		
48-113	36.21	x 10"		

* Stainless Steel Nipples available in SCH80 seamless beginning on page 219



1-1/4" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-120	9.16	X Close (1-5/8")	49-120	12.47
48-121	10.78	x 2"	49-121	14.85
48-122	12.78	x 2-1/2"	49-122	17.79
48-123	14.96	x 3"	49-123	20.94
48-124	17.13	x 3-1/2"	49-124	24.09
48-125	19.30	x 4"	49-125	27.24
48-126	21.47	x 4-1/2"	49-126	30.38
48-127	23.65	x 5"	49-127	33.53
48-128	25.82	x 5-1/2"	49-128	36.68
48-129	27.98	x 6"	49-129	39.83
48-131	36.80	x 8"		
48-135	54.17	x 12"		



1-1/2" Diameter

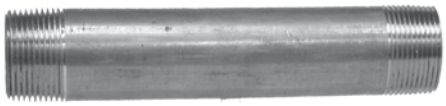
Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-140	11.21	x 1-3/4"	49-140	15.40
48-141	12.29	x 2"	49-141	17.05
48-142	14.86	x 2-1/2"	49-142	20.77
48-143	17.42	x 3"	49-143	24.49
48-144	19.99	x 3-1/2"	49-144	28.20
48-145	22.55	x 4"	49-145	31.92
48-146	25.13	x 4-1/2"	49-146	35.65
48-147	27.69	x 5"	49-147	39.35
48-148	30.25	x 5-1/2"	49-148	43.07
48-149	32.81	x 6"	49-149	46.79
48-151	43.35	x 8"		
48-152	48.49	x 9"		

"There are two rules for success:
1) Never tell everything you know."
- Roger H. Lincoln



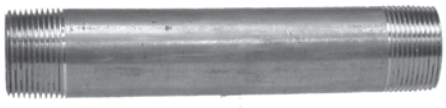
2” Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-160	17.41	X Close (2")	49-160	23.93
48-161	19.39	x 2-1/2"	49-161	27.37
48-162	22.44	x 3"	49-162	31.97
48-163	25.79	x 3-1/2"	49-163	36.87
48-164	29.13	x 4"	49-164	41.78
48-165	32.47	x 4-1/2"	49-165	46.67
48-166	35.82	x 5"	49-166	51.59
48-167	39.15	x 5-1/2"	49-167	56.48
48-168	42.50	x 6"	49-168	61.37
48-169	49.82	x 7"	49-169	71.87
48-170	56.51	x 8"		
48-171	63.20	x 9"		
48-172	69.88	x 10"		
NEW 48-174	80.28	x 12"		



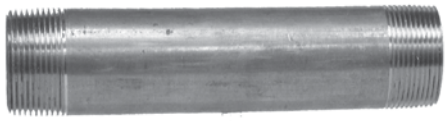
2-1/2” Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
48-180	35.30	X Close (2-1/2")		



3” Diameter

Part #	Length	List Price
48-200	X Close (2-5/8")	49.67
48-201	x 3"	54.84
48-203	x 4"	68.65
48-205	x 5"	78.63
48-207	x 6"	92.44
48-209	x 8"	124.47
48-213	x 12"	179.71



4” Diameter

Part # 304 S.S.	Length	List Price
48-220	X Close (2-7/8")	63.47
48-227	x 6"	118.65

* Stainless Steel Nipples available in SCH80 seamless beginning on page 219

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-resisteant bond.

• Roller cut



Part #	Size	List Price
48-021T	1/4" x 1-1/2"	8.26
48-022T	1/4" x 2"	8.73
48-041T	3/8" x 1-1/2"	9.41
48-042T	3/8" x 2"	10.80
48-061T	1/2" x 1-1/2"	10.82
48-062T	1/2" x 2"	12.33
48-081T	3/4" x 1-1/2"	13.92
48-082T	3/4" x 2"	14.89
48-101T	1" x 2"	18.66
48-102T	1" x 2-1/2"	21.15
48-121T	1-1/4" x 2"	22.01
48-122T	1-1/4" x 2-1/2"	23.51
48-141T	1-1/2" x 2"	24.91
48-142T	1-1/2" x 2-1/2"	25.82
48-160T	2" x 2"	33.45
48-161T	2" x 2-1/2"	34.71

Reamed & Chamfer or Saw Cut available upon request.

- SEAMLESS FOR UNRESTRICTED FLOW
- USE WITH AIR, WATER, OIL, NATURAL GAS, STEAM
- FITTINGS: USE THREADED CLASS 3000 HIGH-PRESSURE STAINLESS STEEL.
- ASTM A733 • ASTM A312 • ANSI/ ASME B1.20.1
- PSI 3000



Sch 80
1/8" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-001	6.73	X Close (3/4")	52-001	8.34
51-002	9.45	X 1-1/2"	52-002	11.70
51-003	10.35	X 2"	52-003	14.27
51-004	12.17	X 2-1/2"	52-004	17.92
51-005	13.85	X 3"	52-005	19.32
51-006	15.56	X 3-1/2"	52-006	25.23
51-007	17.25	X 4"	52-007	28.21
51-008	18.94	X 4-1/2"	52-008	27.02
51-009	20.65	X 5"	52-009	29.58
51-010	22.37	X 5-1/2"	52-010	37.07
51-011	24.05	X 6"	52-011	34.72

Sch 80
1/4" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-020	7.30	X Close (7/8")	52-020	9.37
51-021	9.05	X 1-1/2"	52-021	12.86
51-022	10.88	X 2"	52-022	15.75
51-023	12.89	X 2-1/2"	52-023	18.75
51-024	14.90	X 3"	52-024	21.79
51-025	16.89	X 3-1/2"	52-025	26.67
51-026	19.08	X 4"	52-026	30.21
51-027	21.09	X 4-1/2"	52-027	33.48
51-028	23.10	X 5"	52-028	31.86
51-029	25.11	X 5-1/2"	52-029	39.99
51-030	31.32	X 6"	52-030	37.51

Sch 80
3/8" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-040	9.14	X CLOSE (1")	52-040	12.43
51-041	11.09	X 1-1/2"	52-041	14.47
51-042	13.41	X 2"	52-042	19.07
51-043	15.97	X 2-1/2"	52-043	24.61
51-044	18.51	X 3"	52-044	24.86
51-045	21.09	X 3-1/2"	52-045	32.91
51-046	27.24	X 4"	52-046	36.87
51-047	26.20	X 4-1/2"	52-047	40.95
51-048	28.73	X 5"	52-048	39.06
51-049	36.11	X 5-1/2"	52-049	49.13
51-050	33.85	X 6"	52-050	46.15



Sch 80
1/2" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-060	11.33	X Close (1-1/8)	52-060	15.42
51-061	13.66	X 1-1/2"	52-061	18.96
51-062	16.37	X 2"	52-062	24.90
51-063	19.61	X 2-1/2"	52-063	32.44
51-064	22.85	X 3"	52-064	32.94
51-065	26.09	X 3-1/2"	52-065	43.65
51-066	29.43	X 4"	52-066	42.81
51-067	32.69	X 4-1/2"	52-067	54.96
51-068	35.92	X 5"	52-068	59.94
51-069	45.19	X 5-1/2"	52-069	66.18
51-070	42.40	X 6"	52-070	71.79

Sch 80
3/4" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-080	18.31	X Close (1-3/8")	52-080	21.54
51-081	16.91	X 1-1/2"	52-081	21.50
51-082	20.28	X 2"	52-082	28.12
51-083	24.34	X 2-1/2"	52-083	36.66
51-084	28.41	X 3"	52-084	39.96
51-085	32.50	X 3-1/2"	52-085	49.34
51-086	42.21	X 4"	52-086	55.66
51-087	46.92	X 4-1/2"	52-087	53.77
51-088	44.72	X 5"	52-088	59.26
51-089	56.34	X 5-1/2"	52-089	64.77
51-090	60.99	X 6"	52-090	70.29

Sch 80
1" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-100	20.09	X Close (1-1/2")	52-100	27.94
51-101	25.16	X 2"	52-101	35.43
51-102	29.86	X 2-1/2"	52-102	49.07
51-103	34.91	X 3"	52-103	53.54
51-104	39.96	X 3-1/2"	52-104	66.32
51-105	45.01	X 4"	52-105	64.97
51-106	50.05	X 4-1/2"	52-106	72.43
51-107	63.57	X 5"	52-107	79.93
51-108	60.19	X 5-1/2"	52-108	87.41
51-109	65.23	X 6"	52-109	109.50



Sch 80
1-1/4" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-120	30.07	X Close (1-5/8")	52-120	38.23
51-121	33.05	X 2"	52-121	45.47
51-122	39.15	X 2-1/2"	52-122	54.51
51-123	45.82	X 3"	52-123	64.18
51-124	52.48	X 3-1/2"	52-124	73.80
51-125	59.14	X 4"	52-125	96.47
51-126	65.79	X 4-1/2"	52-126	93.10
51-127	72.44	X 5"	52-127	102.75
51-128	79.10	X 5-1/2"	52-128	129.66
51-129	85.76	X 6"	52-129	122.03

Sch 80
1-1/2" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-140	33.04	X Close (1-3/4")	52-140	47.21
51-141	36.23	X 2"	52-141	52.24
51-142	43.77	X 2-1/2"	52-142	73.46
51-143	51.32	X 3"	52-143	75.03
51-144	58.92	X 3-1/2"	52-144	99.72
51-145	66.45	X 4"	52-145	97.82
51-146	74.03	X 4-1/2"	52-146	125.99
51-147	81.57	X 5"	52-147	120.60
51-148	89.13	X 5-1/2"	52-148	138.47
51-149	96.69	X 6"	52-150	119.49

Sch 80
2" Diameter

Part # 304 S.S.	List Price	Length	Part # 316 S.S.	List Price
51-160	61.55	X Close (2")	52-160	73.33
51-161	59.41	X 2-1/2"	52-161	96.82
51-162	73.72	X 3"	52-162	97.98
51-163	79.02	X 3-1/2"	52-163	130.35
51-164	102.99	X 4"	52-164	128.01
51-165	99.49	X 4-1/2"	52-165	165.01
51-166	109.74	X 5"	52-166	158.07
51-167	119.98	X 5-1/2"	52-167	199.71
51-168	130.24	X 6"	52-168	217.05

THE ROAD NOT TAKEN

"TWO ROADS DIVERGED IN A YELLOW WOOD,
AND SORRY I COULD NOT TRAVEL BOTH
AND BE ONE TRAVELER, LONG I STOOD
AND LOOKED DOWN ONE AS FAR AS I COULD
TO WHERE IT BENT IN THE UNDERGROWTH;

THEN TOOK THE OTHER, AS JUST AS FAIR,
AND HAVING PERHAPS THE BETTER CLAIM,
BECAUSE IT WAS GRASSY AND WANTED WEAR;
THOUGH AS FOR THAT THE PASSING THERE
HAD WORN THEM REALLY ABOUT THE SAME,

AND BOTH THAT MORNING EQUALLY LAY
IN LEAVES NO STEP HAD TRODDEN BLACK.
OH, I KEPT THE FIRST FOR ANOTHER DAY!
YET KNOWING HOW WAY LEADS ON TO WAY,
I DOUBTED IF I SHOULD EVER COME BACK.

I SHALL BE TELLING THIS WITH A SIGH
SOMEWHERE AGES AND AGES HENCE:
TWO ROADS DIVERGED IN A WOOD, AND I—
I TOOK THE ONE LESS TRAVELED BY,
AND THAT HAS MADE ALL THE DIFFERENCE."

- ROBERT FROST

- Stainless Casting conform to ASTM A351
- NPT Threads confrom to ASME B1.20.1
- Max pressure: 300 psi WOG; 150 psi saturated steam

90° ELBOWS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-100	5.88	1/8”	63-100	7.54
62-101	5.88	1/4”	63-101	7.54
62-102	7.30	3/8”	63-102	9.15
62-103	7.77	1/2”	63-103	10.11
62-104	11.16	3/4”	63-104	14.66
62-105	15.81	1”	63-105	18.40
62-106	27.74	1-1/4”	63-106	31.54
62-107	36.93	1-1/2”	63-107	42.07
62-108	46.82	2”	63-108	53.19
62-109	106.67	2-1/2”	63-109	86.81
62-110	135.91	3”	63-110	97.15
62-112	265.23	4”	63-112	295.42

90° STREET ELLS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-160	8.40	1/8”	63-160	10.09
62-161	8.40	1/4”	63-161	10.29
62-162	10.11	3/8”	63-162	12.65
62-163	11.90	1/2”	63-163	14.88
62-164	16.51	3/4”	63-164	19.61
62-165	28.56	1”	63-165	31.31
62-166	41.48	1-1/4”	63-166	46.79
62-167	49.07	1-1/2”	63-167	52.12
62-168	66.45	2”	63-168	74.45

45° ELBOWS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-180	7.43	1/8”	63-180	8.98
62-181	7.43	1/4”	63-181	8.98
62-182	8.74	3/8”	63-182	10.96
62-183	9.60	1/2”	63-183	12.03
62-184	14.01	3/4”	63-184	15.80
62-185	17.10	1”	63-185	19.79
62-186	27.39	1-1/4”	63-186	31.14
62-187	32.59	1-1/2”	63-187	37.03
62-188	45.85	2”	63-188	51.78

TEES



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-250	7.89	1/8”	63-250	9.37
62-251	7.89	1/4”	63-251	9.37
62-252	10.05	3/8”	63-252	12.42
62-253	10.54	1/2”	63-253	13.09
62-254	16.78	3/4”	63-254	19.31
62-255	21.37	1”	63-255	24.26
62-256	42.50	1-1/4”	63-256	48.27
62-257	52.83	1-1/2”	63-257	58.56
62-258	67.86	2”	63-258	75.44
62-259	132.31	2-1/2"		
62-260	209.76	3”		

CROSSES



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
		1/8”	63-390	16.95
62-391	13.72	1/4”	63-391	16.95
62-392	16.36	3/8”	63-392	19.94
62-393	20.14	1/2”	63-393	24.74
62-394	34.46	3/4”	63-394	43.23
62-395	51.01	1”	63-395	52.19
62-396	60.56	1-1/4”	63-396	75.44
62-397	75.04	1-1/2”	63-397	94.15
62-398	107.42	2”	63-398	129.72

HEX NIPPLES



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-720	5.73	1/8”	63-720	6.43
62-721	5.39	1/4”	63-721	6.43
62-722	6.36	3/8”	63-722	7.13
62-723	7.55	1/2”	63-723	8.44
62-724	9.28	3/4”	63-724	11.04
62-725	13.59	1”	63-725	15.19
62-726	20.81	1-1/4”	63-726	24.81
62-727	26.30	1-1/2”	63-727	29.44
62-728	42.24	2”	63-728	60.02

* 3000 LB Forged Stainless Steel Fittings available pg. 225

COUPLINGS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-413	6.28	1/2”	63-413	7.27
62-414	9.07	3/4”	63-414	10.50
62-415	13.78	1”	63-415	15.66
62-416	44.19	1-1/4”	63-416	24.87
62-417	26.00	1-1/2”	63-417	29.57
62-418	36.65	2”	63-418	41.62
62-419	80.43	2-1/2”	63-419	97.79
62-420	103.98	3”	63-420	126.32
62-421	161.65	4”	63-421	195.07

REDUCING COUPLINGS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-430	6.14	1/4” x 1/8”	63-430	7.00
62-431	7.77	3/8” x 1/8”	63-431	7.77
62-432	6.83	3/8” x 1/4”	63-432	7.77
62-433	9.32	1/2” x 1/8”	63-433	9.32
62-434	6.51	1/2” x 1/4”	63-434	9.32
62-435	6.51	1/2” x 3/8”	63-435	9.32
62-455	11.56	3/4” x 1/8”	63-455	11.56
62-436	9.81	3/4” x 1/4”	63-436	11.96
62-437	9.81	3/4” x 3/8”	63-437	11.96
62-438	9.81	3/4” x 1/2”	63-438	11.96
62-440	19.73	1” x 3/8”	63-440	19.73
62-441	13.41	1” x 1/2”	63-441	19.73
62-442	13.41	1” x 3/4”	63-442	19.73
62-445	19.55	1-1/4” x 3/4”	63-445	25.76
62-446	19.55	1-1/4” x 1”	63-446	25.76
62-447	28.19	1-1/2” x 1/2”	63-447	34.40
62-448	28.19	1-1/2” x 3/4”	63-448	34.40
62-449	28.19	1-1/2” x 1”	63-449	34.40
62-450	28.19	1-1/2” x 1-1/4”	63-450	34.40
62-452	47.09	2” x 1”	63-452	58.01
62-453	47.09	2” x 1-1/4”	63-453	58.01
62-454	47.09	2” x 1-1/2”	63-454	58.01

OD MACHINED COUPLINGS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-410B	4.92	1/8”	63-410B	5.72
62-411B	4.78	1/4”	63-411B	5.72
62-412B	6.13	3/8”	63-412B	6.24
62-413B	6.60	1/2”	63-413B	8.75
62-414B	9.14	3/4”	63-414B	12.29
62-415B	17.97	1”	63-415B	19.96
62-416B	23.47	1-1/4”	63-416B	27.99
62-417B	31.30	1-1/2”	63-417B	35.00
62-418B	45.40	2”	63-418B	52.47

HALF COUPLINGS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-771	2.55	1/4”	63-771	2.69
62-772	2.76	3/8”	63-772	3.14
62-773	3.83	1/2”	63-773	4.58
62-774	5.12	3/4”	63-774	5.82
62-775	6.57	1”	63-775	8.85
62-776	10.73	1-1/4”	63-776	13.42
62-777	13.76	1-1/2”	63-777	17.86
62-778	18.86	2”	63-778	23.36

UNIONS



- Stainless Steel Seat

Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-600	19.86	1/8”	63-600	22.52
62-601	19.86	1/4”	63-601	22.52
62-602	20.23	3/8”	63-602	22.91
62-603	21.90	1/2”	63-603	24.87
62-604	27.74	3/4”	63-604	31.55
62-605	41.85	1”	63-605	47.63
62-606	72.60	1-1/4”	63-606	82.35
62-607	82.11	1-1/2”	63-607	93.47
62-608	98.30	2”	63-608	111.47
62-610	335.29	3”	63-610	398.32

HEX BUSHINGS



Part # 304 S.S	List Price	Size M x F	Part # 316 S.S.	List Price
62-500	3.83	1/4” x 1/8”	63-500	4.32
62-501	3.83	3/8” x 1/8”	63-501	4.94
62-502	4.19	3/8” x 1/4”	63-502	4.94
62-503	5.30	1/2” x 1/8”		
62-504	5.30	1/2” x 1/4”	63-504	5.80
62-505	5.30	1/2” x 3/8”	63-505	5.80
62-506	7.75	3/4" x 1/8"	63-506	8.62
62-507	4.36	3/4” x 1/4”	63-507	8.62
62-508	7.75	3/4” x 3/8”	63-508	9.74
62-509	7.75	3/4” x 1/2”	63-509	8.62
62-510	10.77	1" x 1/4"	63-510	12.31
62-511	10.77	1" x 3/8"	63-511	12.31
62-512	10.77	1” x 1/2”	63-512	12.31
62-513	10.77	1” x 3/4”	63-513	12.31
62-516	12.16	1-1/4” x 1/2”	63-516	24.05
62-517	19.28	1-1/4” x 3/4”	63-517	24.05
62-518	19.28	1-1/4” x 1”	63-518	24.05
62-521	23.07	1-1/2” x 1/2”	63-521	28.43
62-522	23.07	1-1/2” x 3/4”	63-522	28.43
62-532	28.20	1-1/2” x 1”	63-523	28.43
62-524	23.07	1-1/2” x 1-1/4”	63-524	28.43
62-527	35.19	2” x 1/2”		
62-528	35.19	2” x 3/4”	63-528	40.38
62-529	35.19	2” x 1”	63-529	40.38
62-530	35.19	2” x 1-1/4”	63-530	40.38
62-531	35.19	2” x 1-1/2”	63-531	40.38
62-534	60.30	2-1/2” x 1-1/2”	63-534	68.61
62-535	60.30	2-1/2” x 2”	63-535	68.61
62-538	92.40	3” x 2”	63-538	105.49
62-539	92.40	3” x 2-1/2”		
62-543	168.14	4” x 3”		

HEX LOCKNUTS



- Straight Thead
- Minimum Qty may apply

Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-701	12.09	1/4”	63-701	13.18
62-702	12.09	3/8”	63-702	13.18
62-703	12.09	1/2”	63-703	13.18
62-704	14.74	3/4”	63-704	16.54
62-705	16.72	1”	63-705	18.59
62-706	34.58	1-1/4”	63-706	37.64
62-707	34.62	1-1/2”	63-707	37.64
62-708	38.07	2”	63-708	41.31

CAPS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-470	2.96	1/8”	63-470	3.59
62-471	4.24	1/4”	63-471	4.83
62-472	4.99	3/8”	63-472	5.69
62-473	5.18	1/2”	63-473	6.59
62-474	6.48	3/4”	63-474	7.57
62-475	9.73	1”	63-475	11.59
62-476	17.63	1-1/4”	63-476	22.77
62-477	23.12	1-1/2”	63-477	29.21
62-478	29.48	2”	63-478	37.39
62-479		2-1/2"		
62-480	73.52	3”	63-480	77.06
62-481	122.28	4"		

NEW

HEX CAPS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-075	1.80	1/8”	63-075	3.21
62-076	2.43	1/4”	63-076	3.21
62-077	3.00	3/8”	63-077	3.21
62-078	2.42	1/2”	63-078	3.84
62-079	3.56	3/4”	63-079	4.98
62-080	7.32	1”	63-080	6.79
62-081	11.67	1-1/4”	63-081	15.45
62-082	14.40	1-1/2”	63-082	18.93
62-083	14.23	2”	63-083	28.49

* 3000 LB Forged Stainless Steel Fittings available pg. 225

HEX SOCKET PLUGS



Part # 316 S.S	Size	List Price
63-759	1/16"	3.53
63-760	1/8 "	3.16
63-761	1/4 "	4.50
63-762	3/8 "	6.34
63-763	1/2 "	10.57
63-764	3/4 "	25.33

SQUARE HEAD PLUGS



Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-670	2.54	1/8”	63-670	2.74
62-671	3.00	1/4”	63-671	3.48
62-672	4.02	3/8”	63-672	4.59
62-653	5.74	1/2”	63-653	6.48
62-654	7.00	3/4”	63-654	7.93
62-655	8.85	1”	63-655	9.90
62-656	17.63	1-1/4”	63-656	23.42
62-657	21.01	1-1/2”	63-657	25.87
62-658	24.86	2”	63-658	35.70
62-660	59.56	3”		

SOLID SQUARE HEAD PLUGS



Part # 316 S.S	Size	List Price
63-680	1/8"	5.92
63-681	1/4"	7.96
63-682	3/8"	9.33
63-683	1/2"	14.00
63-684	3/4"	26.65

HOSE NIPPLES



Part # 304 S.S	List Price	Hose I.D. x Male Pipe	Part # 316 S.S.	List Price
73-951	6.38	1/4”	973-951	7.14
73-952	9.94	3/8”	973-952	10.16
73-953	11.92	1/2”	973-953	16.35
73-954	14.33	3/4”	973-954	18.89
73-955	17.01	1”	973-955	20.58
73-956	27.73	1-1/4”	973-956	27.96
73-957	31.31	1-1/2”	973-957	48.61
73-958	44.31	2”	973-958	51.79
73-959	104.00	2-1/2”	973-959	133.67
73-960	119.24	3”	973-990	164.69
73-961	377.81	4”	973-991	204.55

HEX HEAD PLUGS



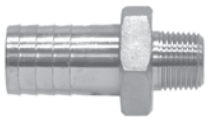
Part # 304 S.S	List Price	Size	Part # 316 S.S.	List Price
62-630	2.81	1/8”	63-630	3.49
62-631	2.81	1/4”	63-631	3.49
62-632	3.48	3/8”	63-632	3.94
62-633	5.49	1/2”	63-633	6.59
62-634	6.90	3/4”	63-634	8.32
62-635	11.90	1”	63-635	13.25
62-636	19.09	1-1/4”	63-636	22.88
62-637	20.90	1-1/2”	63-637	27.09
62-638	28.84	2”	63-638	39.08

SOLID HEX HEAD PLUGS



Part # 316 S.S	Size	List Price
63-660	1/8"	6.51
63-661	1/4"	8.20
63-662	3/8"	12.00
63-663	1/2"	21.33
63-664	3/4"	28.70
63-665	1"	41.65

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”	6.50
73-971	3/8” x 1/4”	7.51
73-972	1/2” x 3/8”	11.22
73-973	1/2” x 1/4”	11.59
73-974	3/4” x 1/2”	14.81
73-975	1” x 3/4”	16.72
73-976	1” x 1/2”	27.23
73-977	1-1/4” x 1”	26.93
73-979	1-1/2” x 1-1/4”	42.33
73-980	1-1/2” x 1”	32.47
73-981	2” x 1-1/2”	56.00
73-982	2” x 1-1/4”	44.78

STAINLESS STEEL 3000 LB THREADED FITTINGS
ASTM A182/ASME SA182 & ANSI B16.11

90⁰ ELBOWS



Part # 304	List Price	Size	Part # 316	List Price
103-100	17.35	1/8"	105-100	24.47
103-101	21.86	1/4"	105-101	24.47
103-102	25.27	3/8"	105-102	32.74
103-103	26.13	1/2"	105-103	41.69
103-104	37.76	3/4"	105-104	65.81
103-105	57.80	1"	105-105	103.82
103-106	85.36	1-1/4"	105-106	133.90
103-107	136.29	1-1/2"	105-107	228.13
103-108	172.87	2"	105-108	336.34
		2-1/2"	105-109	1285.20
		3"	105-110	1408.96

TEES



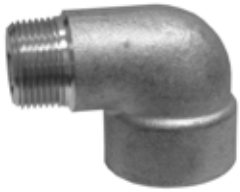
Part # 304	List Price	Size	Part # 316	List Price
103-250	22.30	1/8"	105-250	32.75
103-251	22.90	1/4"	105-251	32.75
103-252	31.24	3/8"	105-252	44.68
103-253	35.40	1/2"	105-253	53.51
103-254	46.76	3/4"	105-254	82.47
103-255	81.00	1"	105-255	139.75
103-256	123.40	1-1/4"	105-256	186.50
103-257	187.17	1-1/2"	105-257	297.90
103-258	217.57	2"	105-258	398.53
		2-1/2"	105-259	1389.92
		3"	105-260	1569.85

45° ELBOWS



Part # 304	List Price	Size	Part # 316	List Price
103-180	38.24	1/8"	105-180	63.13
103-181	38.24	1/4"	105-181	63.13
103-182	38.24	3/8"	105-182	63.13
103-183	38.24	1/2"	105-183	63.13
103-184	52.09	3/4"	105-184	81.45
103-185	71.83	1"	105-185	108.52
103-186	105.78	1-1/4"	105-186	140.53
103-187	127.18	1-1/2"	105-187	189.18
103-188	152.86	2"	105-188	230.08
103-189	662.59	2-1/2"	105-189	1073.86
103-190	1096.70	3"	105-190	1831.65

STREET ELBOWS



Part # 304	Size	List Price
103-160	1/8"	30.65
103-161	1/4"	27.73
103-162	3/8"	39.77
103-163	1/2"	49.63
103-164	3/4"	71.85
103-165	1"	111.06
103-166	1-1/4"	278.67
103-167	1-1/2"	381.66

COUPLINGS



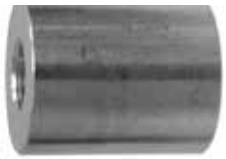
Part # 304	List Price	Size	Part # 316	List Price
103-410	6.17	1/8"	105-410	20.06
103-411	6.72	1/4"	105-411	8.94
103-412	7.83	3/8"	105-412	9.58
103-413	9.43	1/2"	105-413	14.41
103-414	12.57	3/4"	105-414	19.95
103-415	21.31	1"	105-415	33.42
103-416	47.92	1-1/4"	105-416	69.61
103-417	55.69	1-1/2"	105-417	83.32
103-418	79.58	2"	105-418	122.03
103-419	211.34	2-1/2"	105-419	346.53
103-420	300.83	3"	105-420	500.75
103-421		4"		

HALF COUPLINGS



Part # 304	List Price	Size	Part # 316	List Price
103-770	6.34	1/8"	105-770	5.52
103-771	10.73	1/4"	105-771	5.82
103-772	7.86	3/8"	105-772	8.11
103-773	9.05	1/2"	105-773	9.83
103-774	12.57	3/4"	105-774	13.90
103-775	20.75	1"	105-775	23.04
103-776	33.30	1-1/4"	105-776	43.76
103-777	43.79	1-1/2"	105-777	58.32
103-778	61.92	2"	105-778	83.31
103-779	178.98	2-1/2"	105-779	222.77
103-780	224.67	3"	105-780	323.68
103-781	497.44	4"		

REDUCING COUPLINGS



Part # 304	List Price	Size	Part # 316	List Price
103-434	19.47	1/2" x 1/4"	105-434	23.53
103-435	19.47	1/2" x 3/8"	105-435	23.53
103-437	28.19	3/4" x 3/8"	105-437	34.46
103-438	26.87	3/4" x 1/2"	105-438	34.46
103-440	38.70	1" x 3/8"	105-440	59.64
103-441	38.70	1" x 1/2"	105-441	59.64
103-442	38.70	1" x 3/4"	105-442	59.64
103-443	66.11	1-1/4" x 3/8"	105-443	89.47
103-444	66.11	1-1/4" x 1/2"	105-444	89.47
103-445	66.11	1-1/4" x 3/4"	105-445	89.47
103-446	66.11	1-1/4" x 1"	105-446	89.47
103-447	71.43	1-1/2" x 1/2"	105-447	113.90
103-448	71.43	1-1/2" x 3/4"	105-448	113.90
103-449	71.43	1-1/2" x 1"	105-449	113.90
103-450	71.43	1-1/2" x 1-1/4"	105-450	113.90
103-458	102.12	2" x 1/2"	105-458	162.93
103-451	102.12	2" x 3/4"	105-451	162.93
103-452	102.12	2" x 1"	105-452	162.93
103-453	102.12	2" x 1-1/4"	105-453	162.93
103-454	102.12	2" x 1-1/2"	105-454	162.93

UNIONS



Part # 304	List Price	Size	Part # 316	List Price
103-600	46.42	1/8"	105-600	59.14
103-601	47.22	1/4"	105-601	59.14
103-602	49.62	3/8"	105-602	68.49
103-603	50.61	1/2"	105-603	68.58
103-604	60.82	3/4"	105-604	89.42
103-605	98.13	1"	105-605	174.76
103-606	155.79	1-1/4"	105-606	213.15
103-607	166.02	1-1/2"	105-607	268.43
103-608	221.97	2"	105-608	341.30
103-609	428.40	2-1/2"	105-609	677.82
103-610	706.38	3"	105-610	1041.49

CAPS



Part # 304	List Price	Size	Part # 316	List Price
103-470	6.94	1/8"	105-470	21.46
103-471	7.20	1/4"	105-471	10.77
103-472	7.37	3/8"	105-472	11.45
103-473	9.58	1/2"	105-473	15.60
103-474	12.62	3/4"	105-474	20.22
103-475	22.46	1"	105-475	31.05
103-477	40.86	1-1/4"	105-476	46.42
		1-1/2"	105-477	63.79
		2"	105-478	105.26
		2-1/2"	105-479	272.27
		3"	105-480	348.43

HEX BUSHING



Part # 304	List Price	Size M x F	Part # 316	List Price
		1/4" x 1/8"	105-500	11.79
		3/8" x 1/4"	105-502	16.13
103-504	12.02	1/2" x 1/4"	105-504	18.85
103-505	12.02	1/2" x 3/8"	105-505	19.35
103-508	15.19	3/4" x 3/8"	105-508	23.97
103-509	15.19	3/4" x 1/2"	105-509	22.61
103-511	24.64	1" x 3/8"	105-511	35.30
103-512	24.64	1" x 1/2"	105-512	35.30
103-513	24.64	1" x 3/4"	105-513	35.30
103-515	46.76	1-1/4" x 3/8"	105-515	55.56
103-516	46.76	1-1/4" x 1/2"	105-516	55.56
103-517	46.76	1-1/4" x 3/4"	105-517	58.80
103-518	46.76	1-1/4" x 1"	105-518	55.56
103-520	52.67	1-1/2" x 1/2"		
103-521	52.67	1-1/2" x 3/4"	105-521	55.51
103-522	52.67	1-1/2" x 1"	105-522	51.48
103-523	52.67	1-1/2" x 1-1/4"	105-523	52.42
103-524	52.67	2" x 3/8"	105-524	52.42
		2" x 1/2"	105-525	92.71
103-526	75.38	2" x 3/4"		
103-527	75.38	2" x 1"	105-527	92.71
103-528	75.38	2" x 1-1/4"	105-528	92.71
103-529	75.38	2" x 1-1/2"	105-529	92.71
103-530	74.03		105-530	92.71
103-531	75.38		105-531	95.38

HIGH PRESSURE HEX NIPPLES



Part # 316	Size	PSI	List Price
SS54044	1/4 x 1-1/2	5000	7.94
SS540442.0	1/4 x 2	5000	9.40
SS540443.0	1/4 x 3	5000	13.09
SS54046	3/8 x 1-1/2	4000	11.66
SS54048	1/2 x 1-7/8	3000	16.72
SS540482.0	1/2 x 2	3000	19.97
SS540483.0	1/2 x 3	3000	24.19

SQUARE PLUG



Part # 316	Size	List Price
105-650	1/8"	9.61
105-651	1/4"	6.13
105-652	3/8"	8.58
105-653	1/2"	13.47
105-654	3/4"	17.18
105-655	1"	24.93
105-656	1-1/4"	48.40
105-657	1-1/2"	53.39
105-658	2"	84.91

SEE PAGE 252 FOR STAINLESS STEEL FLANGES

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 Compostion

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	1.89	X Close (3/4")	57-001	1.34
56-002	1.95	x 1-1/2"	57-002	1.51
56-003	2.19	x 2"	57-003	1.63
56-004	2.38	x 2-1/2"	57-004	1.81
56-005	2.70	x 3	57-005	2.01
56-006	2.89	x 3-1/2"	57-006	2.19
56-007	3.19	x 4"	57-007	2.54
56-008	4.10	x 4-1/2"	57-008	3.30
56-009	5.38	x 5"	57-009	3.80
56-010	5.80	x 5-1/2"	57-010	4.17
56-011	6.05	x 6"	57-011	4.62

1/4" Diameter



Part # Galv	List Price	Length	Part # Black	List Price
56-020	1.97	X Close (7/8")	57-020	1.62
56-021	2.12	x 1-1/2"	57-021	1.72
56-022	2.46	x 2"	57-022	1.91
56-023	2.84	x 2-1/2"	57-023	2.16
56-024	3.21	x 3	57-024	2.38
56-025	3.45	x 3-1/2"	57-025	2.64
56-026	3.60	x 4"	57-026	2.91
56-027	4.33	x 4-1/2"	57-027	3.53
56-028	5.10	x 5"	57-028	4.17
56-029	5.92	x 5-1/2"	57-029	4.60
56-030	6.18	x 6"	57-030	5.12
56-031	7.44	x 7"	57-031	6.01
56-032	7.58	x 8"	57-032	6.12
56-033	7.96	x 9"	57-033	6.66
56-034	8.99	x 10"	57-034	7.22
56-035	11.45	x 11"	57-035	7.55
56-036	11.66	x 12"	57-036	8.00

More sizes available

3/8" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-040	2.31	X Close (1")	57-040	1.77
56-041	2.67	x 1-1/2"	57-041	1.89
56-042	2.76	x 2"	57-042	2.34
56-043	3.09	x 2-1/2"	57-043	2.31
56-044	3.47	x 3"	57-044	2.75
56-045	4.47	x 3-1/2"	57-045	2.91
56-046	4.47	x 4"	57-046	3.22
56-047	4.71	x 4-1/2"	57-047	3.53
56-048	6.11	x 5"	57-048	4.71
56-049	6.60	x 5-1/2"	57-049	4.99
56-050	6.94	x 6"	57-050	5.29
56-051	7.36	x 7"	57-051	6.34
56-052	7.68	x 8"	57-052	6.94
56-053	9.28	x 9"	57-053	7.39
56-054	9.56	x 10"	57-054	7.85
56-055	9.74	x 11"	57-055	8.30
56-056	10.20	x 12"	57-056	8.53

Black Steel Nipples available in Schedule 80 beginning on page 245.

Other Steel Nipples available upon request:

- Toe Nipples, see pg. 233
- L&R Nipples
- Nipples cut to any lengths

1/2" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-060	1.40	X Close (1-1/8")	57-060	1.25
56-061	1.58	x 1-1/2"	57-061	1.34
56-062	1.74	x 2"	57-062	1.43
56-063	1.83	x 2-1/2"	57-063	1.51
56-064	1.97	x 3"	57-064	1.70
56-065	2.19	x 3-1/2"	57-065	1.87
56-066	2.42	x 4"	57-066	2.12
56-067	2.70	x 4-1/2"	57-067	2.28
56-068	2.92	x 5"	57-068	2.51
56-069	3.10	x 5-1/2"	57-069	2.81
56-070	3.30	x 6"	57-070	3.00
56-071	5.29	x 7"	57-071	4.55
56-072	5.78	x 8"	57-072	4.90
56-073	6.73	x 9"	57-073	5.52
56-074	6.88	x 10"	57-074	5.87
56-075	7.42	x 11"	57-075	6.56
56-076	7.83	x 12"	57-076	9.57
56-240	13.44	x 18"	57-240	15.65
56-241	21.08	x 24"	57-241	19.15
56-242	22.72	x 30"	57-242	23.56
56-243	29.48	x 36"	57-243	25.45
56-244	64.96	x 42"	57-244	54.10
56-245	33.92	x 48"	57-245	30.68
56-246	43.21	x 60"	57-246	35.64
56-247	65.65	x 72"	57-247	45.40

3/4" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-080	1.87	X Close (1-3/8")	57-080	1.70
56-081	1.97	x 1-1/2"	57-081	1.79
56-082	2.12	x 2"	57-082	1.88
56-083	2.29	x 2-1/2"	57-083	2.08
56-084	2.52	x 3"	57-084	2.28
56-085	2.78	x 3-1/2"	57-085	2.53
56-086	3.05	x 4"	57-086	2.77
56-087	3.33	x 4-1/2"	57-087	3.03
56-088	3.85	x 5"	57-088	3.35
56-089	4.40	x 5-1/2"	57-089	3.61
56-090	4.28	x 6"	57-090	3.90
56-091	7.25	x 7"	57-091	5.55
56-092	7.51	x 8"	57-092	6.17
56-093	8.19	x 9"	57-093	7.41
56-094	8.23	x 10"	57-094	7.76
56-095	9.57	x 11"	57-095	7.94
56-096	9.21	x 12"	57-096	8.23
56-250	15.02	x 18"	57-250	13.29
56-251	19.30	x 24"	57-251	15.74
56-252	23.04	x 30"	57-252	20.60
56-253	27.11	x 36"	57-253	23.82
56-254	69.72	x 42"	57-254	60.28
56-255	37.59	x 48"	57-255	30.28
56-256	46.04	x 60"	57-256	38.92
56-257	54.75	x 72"	57-257	44.63

I DON'T COUNT MY SIT-UPS; I ONLY START COUNTING WHEN IT STARTS HURTING
BECAUSE THEY'RE THE ONLY ONES THAT COUNT
- MUHAMMAD ALI

1" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-100	2.75	X Close (1-1/2")	57-100	2.50
56-101	2.89	x 2"	57-101	2.77
56-102	3.15	x 2-1/2"	57-102	2.77
56-103	3.47	x 3"	57-103	3.09
56-104	4.17	x 3-1/2"	57-104	3.41
56-105	4.75	x 4"	57-105	3.78
56-106	4.74	x 4-1/2"	57-106	4.05
56-107	4.97	x 5"	57-107	4.37
56-108	5.54	x 5-1/2"	57-108	4.71
56-109	5.69	x 6"	57-109	5.12
56-110	8.53	x 7"	57-110	6.97
56-111	9.31	x 8"	57-111	7.63
56-112	17.43	x 9"	57-112	8.44
56-113	17.97	x 10"	57-113	9.06
56-114	21.97	x 11"	57-114	12.31
56-115	21.97	x 12"	57-115	10.57
56-260	27.33	x 18"	57-260	23.24
56-261	33.06	x 24"	57-261	26.90
56-262	55.31	x 30"	57-262	40.80
56-263	48.28	x 36"	57-263	38.24
56-264	88.87	x 42"	57-264	79.96
56-265	70.27	x 48"	57-265	68.29
56-266	84.30	x 60"	57-266	74.64
56-267	93.67	x 72"	57-267	104.90

1-1/4" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-120	3.70	X Close (1-5/8")	57-120	3.29
56-121	3.84	x 2"	57-121	3.53
56-122	4.18	x 2-1/2"	57-122	3.79
56-123	4.58	x 3"	57-123	4.16
56-124	5.25	x 3-1/2"	57-124	4.55
56-125	6.05	x 4"	57-125	5.04
56-126	6.72	x 4-1/2"	57-126	5.43
56-127	6.47	x 5"	57-127	5.97
56-128	7.13	x 5-1/2"	57-128	6.17
56-129	7.32	x 6"	57-129	6.60
56-130	13.34	x 7"	57-130	9.16
56-131	12.30	x 8"	57-131	10.15
56-132	19.17	x 9"	57-132	10.94
56-133	19.76	x 10"	57-133	11.71
56-134	19.98	x 11"	57-134	13.97
56-135	24.89	x 12"	57-135	21.32
56-270	32.78	x 18"	57-270	25.27
56-271	42.67	x 24"	57-271	32.78
56-272	49.77	x 30"	57-272	50.97
56-273	64.13	x 36"	57-273	64.11
		x 42"	57-274	75.89
		x 48"	57-275	81.60
		x 60"	57-276	81.96
		x 72"	57-277	116.56

IF YOU COULD KICK THE PERSON IN THE PANTS RESPONSIBLE FOR MOST OF YOUR TROUBLE, YOU WOULDN'T SIT FOR A MONTH
- THEODORE ROOSEVELT

1-1/2" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-140	4.62	X Close (1-3/4")	57-140	3.96
56-141	4.86	x 2"	57-141	4.08
56-142	5.10	x 2-1/2"	57-142	4.53
56-143	5.59	x 3"	57-143	5.10
56-144	6.10	x 3-1/2"	57-144	5.78
56-145	6.66	x 4"	57-145	6.13
56-146	7.49	x 4-1/2"	57-146	6.76
56-147	7.73	x 5"	57-147	6.88
56-148	8.63	x 5-1/2"	57-148	7.29
56-149	8.77	x 6"	57-149	7.63
56-150	13.19	x 7"	57-150	10.61
56-151	14.45	x 8"	57-151	11.61
56-152	18.90	x 9"	57-152	12.99
56-153	18.02	x 10"	57-153	13.73
56-154	23.43	x 11"	57-154	22.85
56-155	23.25	x 12"	57-155	16.02
56-280	35.13	x 18"	57-280	33.21
56-281	50.72	x 24"	57-281	46.44
		x 30"	57-282	59.60
		x 36"	57-283	72.27
		x 42"	57-284	96.35
		x 48"	57-285	111.46
		x 60"	57-286	124.51
		x 72"	57-287	156.56

2" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-160	6.30	X Close (2")	57-160	5.24
56-161	7.27	x 2-1/2"	57-161	6.30
56-162	7.54	x 3"	57-162	6.60
56-163	8.51	x 3-1/2"	57-163	7.76
56-164	9.84	x 4"	57-164	7.68
56-165	10.20	x 4-1/2"	57-165	8.65
56-166	11.71	x 5"	57-166	9.18
56-167	11.21	x 5-1/2"	57-167	9.96
56-168	12.34	x 6"	57-168	10.34
56-169	18.72	x 7"	57-169	14.20
56-170	19.20	x 8"	57-170	16.42
56-171	33.01	x 9"	57-171	18.14
56-172	22.50	x 10"	57-172	20.42
56-173	25.76	x 11"	57-173	22.45
56-174	28.83	x 12"	57-174	26.83
56-290	41.66	x 18"	57-290	44.14
56-291	54.25	x 24"	57-291	61.43
56-292	83.84	x 30"	57-292	68.79
56-293	88.20	x 36"	57-293	78.45
56-294	153.23	x 42"	57-294	127.83
56-295	116.59	x 48"	57-295	133.04
56-296	149.37	x 60"	57-296	154.43
56-297	192.10	x 72"	57-297	189.43

IF TETRIS HAS TAUGHT ME ANYTHING, IT'S THAT ERRORS PILE UP AND ACCOMPLISHMENTS DISAPPEAR
- UNKNOWN

2-1/2" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-180	18.42	X Close (2-1/2")	57-180	17.05
56-181	18.96	x 3"	57-181	17.79
56-182	23.93	x 3-1/2"	57-182	18.77
56-183	20.87	x 4"	57-183	19.34
56-184	23.54	x 4-1/2"	57-184	20.53
56-185	23.25	x 5"	57-185	21.61
56-186	26.00	x 5-1/2"	57-186	23.52
56-187	25.54	x 6"	57-187	23.67
56-188	32.40	x 7"	57-188	39.01
56-189	40.77	x 8"	57-189	32.68
56-190	38.93	x 9"	57-190	42.21
56-191	40.06	x 10"	57-191	32.72
56-192	42.29	x 11"	57-192	41.70
56-193	42.45	x 12"	57-193	39.55



4" DIAMETER

Part # Galv	List Price	Length	Part # Black	List Price
56-220	32.15	X Close (2-7/8")	57-220	31.17
56-221	33.00	3-1/2"		
56-223	35.36	x 4"	57-223	33.85
56-224	42.13	x 4-1/2"	57-224	35.91
56-225	44.48	x 5"	57-225	38.17
56-226	59.27	x 5-1/2"	57-226	40.49
56-227	47.96	x 6"	57-227	41.45
56-330	81.96	x 7"	57-330	72.78
56-229	79.58	x 8"	57-229	73.76
56-331	82.34	x 9"	57-331	84.98
56-332	96.59	x 10"	57-332	83.52
56-228	96.03	x 12"	57-228	115.46



6" DIAMETER

Part # Galv	List Price	6" Dia.	Part # Black	List Price
56-300	198.85	Close (3-1/8")	57-300	120.33
		x 6"	57-301	288.00

3" DIAMETER



Part # Galv	List Price	Length	Part # Black	List Price
56-200	22.49	X Close (2-5/8")	57-200	21.46
56-201	23.70	x 3"	57-201	22.58
56-202	26.09	x 3-1/2"	57-202	23.69
56-203	26.66	x 4"	57-203	25.07
56-204	32.13	x 4-1/2"	57-204	35.18
56-205	32.95	x 5"	57-205	28.31
56-206	35.85	x 5-1/2"	57-206	29.19
56-207	34.70	x 6"	57-207	31.01
56-208	42.60	x 7"	57-208	39.55
56-209	43.03	x 8"	57-209	40.97
56-210	48.33	x 9"	57-210	46.62
56-211	51.79	x 10"	57-211	47.92
56-212	52.53	x 11"	57-212	57.16
56-213	68.90	x 12"	57-213	60.69
		x 24"	57-311	172.06

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-resisteant bond.

- Roller cut • Minimum Quantity may apply
- Reamed and Chamfer or Saw Cut available upon request.



Part #	Size	List Price
57-021T	1/4" x 1-1/2"	5.72
57-022T	1/4" x 2"	5.72
57-041T	3/8" x 1-1/2"	5.91
57-042T	3/8" x 2"	6.25
57-061T	1/2" x 1-1/2"	4.66
57-062T	1/2" x 2"	4.66
57-081T	3/4" x 1-1/2"	5.72
57-082T	3/4" x 2"	5.72
57-101T	1" x 2"	8.49
57-102T	1" x 2-1/2"	8.95
57-121T	1-1/4" x 2"	10.58
57-122T	1-1/4" x 2-1/2"	11.24
57-141T	1-1/2" x 2"	12.53
57-142T	1-1/2" x 2-1/2"	13.99
57-160T	2" x 2"	15.88
57-161T	2" x 2-1/2"	18.17
57-181T*	2-1/2" x 3"	50.80
57-201T*	3" x 3"	64.01
57-223T*	4" x 4"	102.56

* Saw Cut

Product Specifications
Welded steel couplings both galvanized and black in diameters from 1/8" up to 4".

See page 254 for API Line Couplings

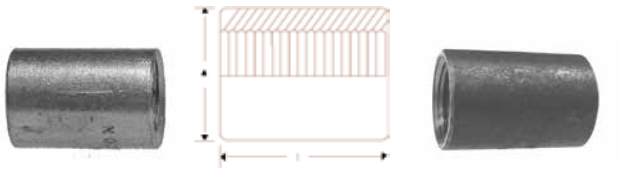
Technical Specifications

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



• Straight threads thru 2"

Part # Galv	List Price	Size	Part # Black	List Price
64-770	3.51	1/8"	65-770	2.19
64-771	4.53	1/4"	65-771	3.09
64-772	4.14	3/8"	65-772	2.60
64-773	3.62	1/2"	65-773	2.53
64-774	5.14	3/4"	65-774	3.72
64-775	8.25	1"	65-775	5.85
64-776	9.81	1-1/4"	65-776	8.08
64-777	12.52	1-1/2"	65-777	8.66
64-778	20.52	2"	65-778	12.31
64-779	43.72	2-1/2"	65-779	37.50
64-780	87.46	3"	65-780	72.39
		3-1/2"	65-782	202.86
64-781	116.65	4"	65-781	92.86
		5"	65-783	208.47
		6"	65-784	142.72

HALF MERCHANT COUPLINGS



• Straight threads thru 2"

Part # Galv	List Price	Size	Part # Black	List Price	
		1/4"	65-771H	3.62	
		3/8"	65-772H	4.19	
64-773H	2.86	1/2"	65-773H	2.80	
64-774H	3.88	3/4"	65-774H	3.71	
64-775H	7.84	1"	65-775H	5.40	
64-776H	6.94	1-1/4"	65-776H	7.00	
64-777H	9.88	1-1/2"	65-777H	8.08	
64-778H	17.35	2"	65-778H	10.97	
		2-1/2"	65-779H	35.56	
64-780H	19.00	3"	65-780H	51.22	NEW
64-781H	35.00	4"	65-781H	69.41	NEW

Also available:
L&R Merchant Coupling
Extra Heavy Merchant Couplings

MERCHANT COUPLINGS SPECIFICATIONS

Size	Outside Diam.	Length Inches	Weight 100 pcs approx. Pounds	Quantity per box	Threads per Inch	Threads 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

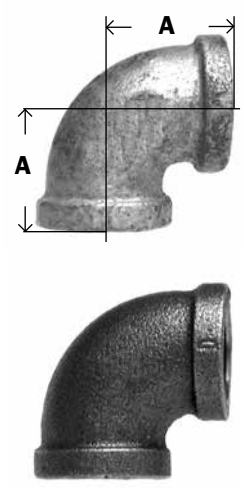
Our quality fittings are made with care and attention to detail. With better molds we can reduce parting lines and rough edges resulting in better fluid flow. By using a low temperature galvanizing process the coating is more durable which means a longer lasting fitting.

(Every fitting is subjected to an underwater fitness test to ensure the highest quality)

SPECIFICATIONS

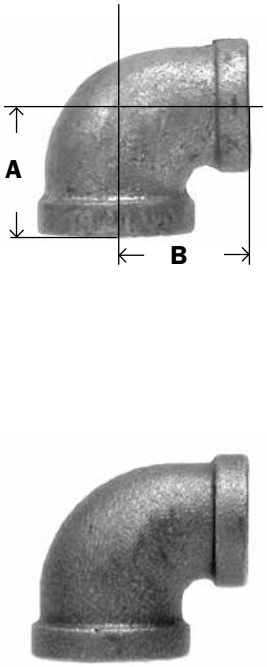
• MATERIAL: ASTM A 197 - Cuppla Malleable Iron, ASTM A 153 - Hot dipped galvanizing
• DIMENSIONS: ANSI B 16.3 - Malleable Iron threaded fittings, ANSI B 16.14 - Ferrous Pipe Plugs, Bushings etc..., ANSI B 16.39 - Malleable Iron threaded pipe unions.
• THREADS: ANSI B 2.1 or BS 21 • PHYSICAL PROPERTIES: Tensile Strength - 28.4kg ./mm. Min. Elongation - 5% min.

ELBOWS 90°



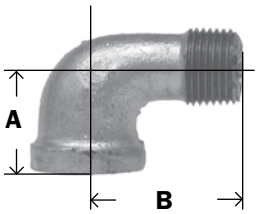
Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-100	3.99	1/8”	0.69	50/600	0.06	65-100	2.68
64-101	3.79	1/4”	0.81	35/420	0.11	65-101	2.44
64-102	3.59	3/8”	0.95	90/360	0.16	65-102	2.44
64-103	2.31	1/2”	1.12	50/200	0.24	65-103	1.94
64-104	3.08	3/4”	1.31	35/105	0.37	65-104	2.65
64-105	5.15	1”	1.50	20/60	0.59	65-105	4.24
64-106	8.68	1-1/4”	1.75	20/40	0.94	65-106	6.38
64-107	11.43	1-1/2”	1.94	15/30	1.15	65-107	8.48
64-108	17.36	2”	2.25	8/16	1.76	65-108	13.56
64-109	47.52	2-1/2”	2.70	12	2.90	65-109	31.06
64-110	79.77	3”	3.08	8	5.41	65-110	43.90
64-112	133.68	4”	3.79	2	9.07	65-112	98.47
64-114	472.31	6”	5.13	1	18.92	65-114	317.41

REDUCING ELBOWS 90°



Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price	
64-121	7.16	3/8” x 1/8”	0.81	0.85	105/420	0.13	65-121	6.53	
64-122	5.65	3/8” x 1/4”	0.88	0.90	90/360	0.14	65-122	3.88	
64-123	4.68	1/2” x 1/4”	0.97	0.98	60/240	0.18	65-123	4.02	
64-124	4.40	1/2” x 3/8”	1.04	1.03	60/240	0.21	65-124	3.54	
64-126	6.30	3/4” x 3/8”	1.12	1.13	40/160	0.28	65-126	5.05	
64-127	5.07	3/4” x 1/2”	1.20	1.22	40/160	0.32	65-127	3.83	
64-130	6.48	1” x 1/2”	1.26	1.40	25/100	0.44	65-130	5.18	
64-131	6.57	1” x 3/4”	1.37	1.45	50/100	0.52	65-131	4.90	
64-133	13.90	1-1/4” x 3/4”	1.45	1.62	15/60	0.70	65-133	9.05	
64-134	10.88	1-1/4” x 1”	1.58	1.67	10/40	0.81	65-134	8.47	
64-136	15.76	1-1/2” x 3/4”	1.52	1.75	10/40	0.74	65-136	13.07	
64-137	16.72	1-1/2” x 1”	1.65	1.80	10/40	0.66	65-137	11.40	
64-138	12.82	1-1/2” x 1-1/4”	1.82	1.88	15/30	1.27	65-138	11.42	
64-139	25.27	2” x 3/4”	1.60	1.97	9/36	1.21	65-139	19.18	
64-140	24.80	2” x 1”	1.73	2.02	14/28	1.22	65-140	20.08	
64-141	23.24	2” x 1-1/4”	1.90	2.10	10/20	1.43	65-141	20.08	
64-142	20.31	2” x 1-1/2”	2.02	2.16	10/20	1.38	65-142	16.53	
64-145	97.16	2-1/2” x 1-1/2”	2.16	2.51	6/12	2.20	65-145	46.25	
64-146	70.62	2-1/2” x 2”	2.39	2.60	6/12	2.70	65-146	45.37	
64-148	111.53	3” x 1-1/2”	2.28	2.83	6/18	4.50	65-148	78.21	
		3” x 2-1/2”	2.83	2.99	8/16	5.00	65-151	78.21	
		3" x 2"					65-150	78.21	NEW
		4" x 3"					65-154	176.31	NEW

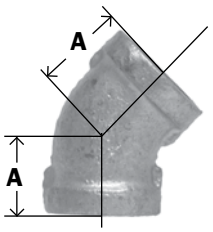
90° STREET ELBOWS





Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-160	4.89	1/8”	0.69	1.00	60/720	0.06	65-160	3.88
64-161	4.97	1/4”	0.80	1.17	35/420	0.10	65-161	3.70
64-162	5.15	3/8”	0.95	1.48	40/260	0.17	65-162	3.70
64-163	5.05	1/2”	1.10	1.59	60/180	0.25	65-163	3.80
64-164	4.87	3/4”	1.28	1.85	35/105	0.42	65-164	3.65
64-165	6.64	1”	1.47	2.10	45/90	0.57	65-165	5.37
64-166	11.89	1-1/4”	1.75	2.57	25/50	1.01	65-166	8.18
64-167	14.63	1-1/2”	1.90	2.63	9/27	1.32	65-167	10.43
64-168	23.12	2”	2.21	3.19	8/16	2.22	65-168	17.69
64-169	68.81	2-1/2”	2.65	3.78	5/10	2.83	65-169	45.09
64-170	103.85	3”	3.02	4.42	8	5.71	65-170	66.57
64-171	171.42	4”	3.72	5.57	4	10.47	65-171	100.42

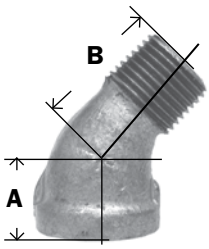
ELBOWS 45°





Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-180	5.69	1/8”	0.63	50/600	0.07	65-180	4.10
64-181	5.07	1/4”	0.73	30/360	0.11	65-181	4.15
64-182	5.07	3/8”	0.80	75/300	0.16	65-182	3.78
64-183	3.88	1/2”	0.88	50/200	0.24	65-183	3.26
64-184	5.41	3/4”	0.98	40/120	0.56	65-184	4.02
64-185	6.24	1”	1.12	20/60	0.35	65-185	5.13
64-186	11.36	1-1/4”	1.29	20/40	0.85	65-186	8.94
64-187	13.58	1-1/2”	1.43	10/30	1.11	65-187	11.08
64-188	20.24	2”	1.68	12/24	1.80	65-188	16.12
64-189	68.56	2-1/2”	1.95	12	2.68	65-189	47.08
64-190	99.68	3”	2.17	10	4.33	65-190	59.13
64-191	167.08	4”	2.61	4	7.54	65-191	118.69
64-192	590.40	6”	3.46	1	12.76	65-192	469.63

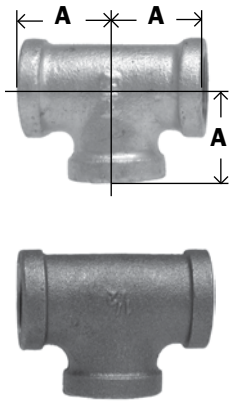
45° STREET ELBOWS





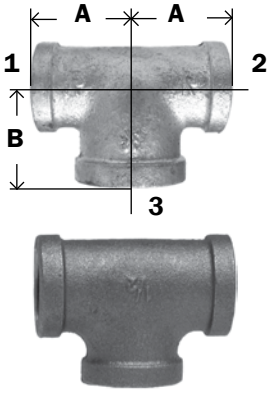
Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-200	7.43	1/8”	0.63	0.83	70/840	0.05	65-200	6.32
64-201	6.32	1/4”	0.73	0.94	40/480	0.13	65-201	4.47
64-202	7.28	3/8”	0.80	1.03	100/400	0.13	65-202	5.35
64-203	5.63	1/2”	0.86	1.30	75/225	0.23	65-203	4.29
64-204	9.05	3/4”	0.96	1.48	40/120	0.33	65-204	6.23
64-205	11.20	1”	1.10	1.69	25/75	0.55	65-205	7.69
64-206	16.80	1-1/4”	1.26	1.87	10/40	0.76	65-206	12.86
64-207	18.21	1-1/2”	1.40	2.05	10/30	1.13	65-207	16.35
64-208	34.99	2”	1.65	2.38	12/24	1.76	65-208	28.98
64-209	82.32	2-1/2”	1.95	2.72	12/24	2.57	65-209	61.54
64-210	133.13	3”	2.17	3.16	3/6	3.52	65-210	90.70
64-211	276.63	4”	2.61	3.90	4	8.29	65-211	168.39

TEES



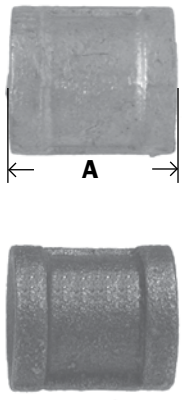
Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-250	5.35	1/8”	0.69	120/480	0.09	65-250	4.14
64-251	4.67	1/4”	0.81	75/300	0.16	65-251	3.69
64-252	4.92	3/8”	0.95	45/180	0.24	65-252	3.69
64-253	2.93	1/2”	1.12	40/120	0.35	65-253 [5]	2.35
64-254	5.12	3/4”	1.31	35/70	0.55	65-254	3.49
64-255	7.58	1”	1.50	20/40	0.84	65-255	5.99
64-256	13.17	1-1/4”	1.75	14/28	1.37	65-256	9.72
64-257	16.43	1-1/2”	1.94	12/24	1.74	65-257	12.09
64-258	27.42	2”	2.26	8/16	2.54	65-258	20.56
64-259	73.63	2-1/2”	2.70	4/8	3.76	65-259	46.48
64-260	86.38	3”	3.08	6	6.36	65-260	63.54
64-261	204.23	4”	3.79	1/2	11.69	65-261	163.86
64-262	629.79	6”	5.13	1	24.55	65-262	469.63

BULLHEAD TEES



Part # Galvanized	List Price	Size (1&2) x 3	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-280	8.05	1/2" x 3/4”	1.22	1.20	30/120	0.43	65-280	6.57
64-733	12.13	1/2” x 1”	1.36	1.26	40/160	0.48	65-733	15.02
64-289	11.89	3/4” x 1”	1.45	1.37	40/80	0.67	65-289	8.33
64-299	18.91	1” x 1-1/4”	1.67	1.58	11/44	0.91	65-299	15.49
64-300	32.14	1” x 1-1/2”	1.80	1.65	9/36	1.16	65-300	24.66
64-317	27.25	1-1/4” x 1-1/2”	1.88	1.82	12/24	1.45	65-317	19.38
64-319	50.79	1-1/2” x 2”	2.12	1.98	16	1.98	65-319	53.46

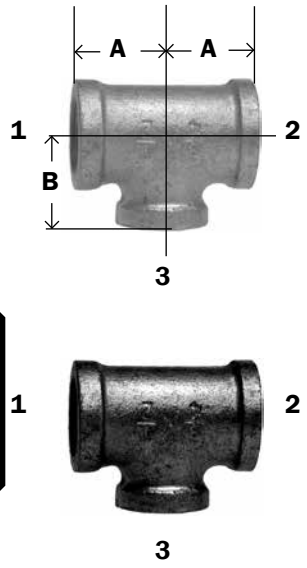
COUPLINGS



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-410	4.73	1/8”	0.96	70/840	0.06	65-410	3.84
64-411	4.40	1/4”	1.06	40/480	0.09	65-411	3.63
64-412	4.40	3/8”	1.16	40/480	0.06	65-412	3.94
64-413	3.49	1/2”	1.34	60/240	0.19	65-413	3.94
64-414	4.07	3/4”	1.52	50/150	0.30	65-414	3.22
64-415	6.70	1”	1.67	25/100	0.45	65-415	4.90
64-416	9.21	1-1/4”	1.93	16/64	0.65	65-416	6.25
64-417	10.52	1-1/2”	2.15	18/36	0.90	65-417	8.39
64-418	15.33	2”	2.54	12/24	1.39	65-418	11.43
64-419	46.86	2-1/2”	2.88	8/16	2.42	65-419	33.16
64-420	62.64	3”	3.18	12	3.40	65-420	44.80
64-421	133.03	4”	3.69	3/6	6.23	65-421	89.41
64-422	347.49	6”	4.23	2	11.22	65-422	239.93

REDUCING TEES

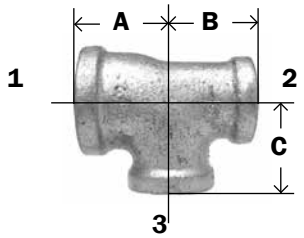
(SAME SIZE ON RUN, REDUCING ON BRANCH)



Part # Galvanized	List Price	Size (1&2) x 3	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-273	7.74	3/8" x 1/4"	0.81	0.90	25	0.20	65-273	7.41
64-276	5.89	1/2" x 1/4"	0.97	0.98	40/160	0.26	65-276	4.46
64-279	6.86	1/2" x 3/8"	1.04	1.03	40/160	0.29	65-279	5.58
64-282	7.29	3/4" x 1/4"	1.05	1.08	125	0.35	65-282	8.04
64-283	7.76	3/4" x 3/8"	1.12	1.13	55/110	0.40	65-283	7.14
64-286	8.25	3/4" x 1/2"	1.20	1.18	50/100	0.47	65-286	5.38
64-268	13.88	1" x 1/4"	1.11	1.22	20/80	0.52	65-268	8.00
64-269	12.12	1" x 3/8"	1.18	1.27	15/60	0.60	65-269	10.35
64-291	9.88	1" x 1/2"	1.26	1.40	15/60	0.70	65-291	7.33
64-298	9.88	1" x 3/4"	1.37	1.45	12/48	0.77	65-298	7.33
64-301	23.12	1-1/4" x 1/2"	1.34	1.45	20/40	0.97	65-301	13.29
64-303	15.26	1-1/4" x 3/4"	1.45	1.62	20/40	1.00	65-303	11.67
64-306	15.26	1-1/4" x 1"	1.58	1.66	20/40	1.10	65-306	12.65
64-316	18.91	1-1/2" x 3/4"	1.41	1.75	15/30	1.25	65-316	14.72
64-318	20.15	1-1/2" x 1"	1.65	1.88	10/30	1.41	65-318	14.72
64-322	24.26	1-1/2" x 1-1/4"	1.65	1.88	12/24	1.58	65-322	19.04
64-327	27.51	2" x 1/2"	1.49	1.88	10/20	1.61	65-327	23.08
64-328	27.51	2" x 3/4"	1.60	1.97	10/20	1.77	65-328	23.08
64-330	27.51	2" x 1"	1.73	2.02	10/20	1.97	65-330	23.08
64-334	34.57	2" x 1-1/4"	1.86	2.06	8/16	1.92	65-334	24.38
64-336	34.57	2" x 1-1/2"	1.98	2.12	8/16	2.08	65-336	24.38
64-343	93.77	2-1/2" x 1-1/2"	2.16	2.51	5/10	3.38	65-343	60.46
64-351	118.86	3" x 2"	2.52	2.89	3/6	4.54	65-351	80.72

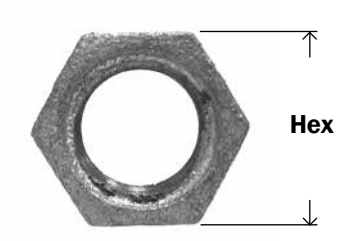
REDUCING TEES

(REDUCING ON RUN)



Part # Black	Size 1 x 2 x 3	A	B	C	Box/Case	Approx. Wt. Lbs.	List Price
65-287	3/4" x 1/2" x 1/2"	1.18	1.18	1.20	30/180	0.45	5.96
65-288	3/4" x 1/2" x 3/4"	1.28	1.20	1.28	20/80	0.52	6.57
65-292	1" x 1/2" x 1/2"	1.31	1.22	1.31	20/120	0.60	9.91
65-296	1" x 3/4" x 3/4"	1.34	1.28	1.42	15/60	0.66	7.72
65-309	1-1/4" x 1"x 1"	1.55	1.47	1.63	18/72	0.98	16.93

LOCKNUTS

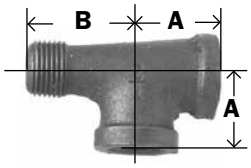


• Minimum Quantity may apply

Part # Galvanized	Size	Hex	Thickness	Box/ Case	Approx. Wt. Lbs.	List Price
64-703	1/2"	1.18	0.32	150/600	0.026	3.00
64-704	3/4"	1.43	0.35	90/360	0.037	3.41
64-705	1"	1.75	0.39	60/240	0.063	6.46
64-706	1-1/4"	2.10	0.43	45/180	0.085	6.29
64-707	1-1/2"	2.35	0.48	45/135	0.113	8.91
64-708	2"	2.88	0.54	25/75	0.175	13.60

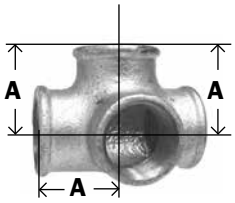
* Black locknuts available on special order basis.

MALLEABLE SERVICE TEE (STREET TEE)



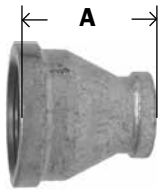
Part # Galvanized	List Price	Size	A	B	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-363	9.67	1/2”	1.12	1.62	40/120	0.31	65-363	6.74
64-364	10.62	3/4”	1.31	1.89	25/75	0.55	65-364	8.94

SIDE OUTLET TEES



Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-383	15.07	1/2”	1.12	25/100	0.38	65-383	11.64
64-384	19.04	3/4”	1.31	15/60	0.58	65-384	14.85
64-385	30.86	1”	1.50	20/40	0.89	65-385	23.81
64-386	51.35	1-1/4”	1.75	12/24	1.39	65-386	37.29

REDUCING COUPLINGS





Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-430	4.07	1/4” x 1/8”	1.00	50/600	0.08	65-430	3.00
64-431	4.13	3/8” x 1/8”	1.13	35/420	0.10	65-431	3.26
64-432	4.13	3/8” x 1/4”	1.13	30/360	0.12	65-432	3.00
64-433	4.62	1/2” x 1/8”	1.25	75/300	0.17	65-433	3.24
64-434	3.76	1/2” x 1/4”	1.25	75/300	0.15	65-434	3.00
64-435	3.49	1/2” x 3/8”	1.25	60/240	0.16	65-435	2.73
64-439	5.07	3/4” x 1/8”	1.44	70/210	0.20	65-439	3.78
64-436	4.68	3/4” x 1/4”	1.44	45/180	0.21	65-436	3.70
64-437	4.68	3/4” x 3/8”	1.44	45/180	0.22	65-437	3.70
64-438	4.13	3/4” x 1/2”	1.44	60/180	0.29	65-438	2.95
64-459	8.26	1” x 1/4”	1.69	45/135	0.32	65-459	5.73
64-440	8.45	1” x 3/8”	1.69	30/120	0.35	65-440	5.82
64-441	6.46	1” x 1/2”	1.69	30/120	0.37	65-441	4.98
64-442	6.32	1” x 3/4”	1.69	25/100	0.40	65-442	4.87
64-460	17.23	1-1/4” x 3/8”	2.06	25/75	0.49	65-460	13.22
64-444	10.78	1-1/4” x 1/2”	2.06	25/75	0.55	65-444	7.20
64-445	8.73	1-1/4” x 3/4”	2.06	25/75	0.60	65-445	6.25
64-446	8.73	1-1/4” x 1”	2.06	15/60	0.66	65-446	6.86
64-443	20.24	1-1/2” x 3/8”	2.31	15/120	0.61	65-443	11.69
64-447	12.71	1-1/2” x 1/2”	2.31	20/60	0.77	65-447	9.17
64-448	12.71	1-1/2” x 3/4”	2.31	15/60	0.77	65-448	10.34
64-449	11.24	1-1/2” x 1”	2.31	25/50	0.84	65-449	9.17
64-450	10.64	1-1/2” x 1-1/4”	2.31	12/48	0.86	65-450	7.92
64-458	29.31	2” x 1/2”	2.81	12/36	1.12	65-458	14.91
64-451	18.36	2” x 3/4”	2.81	12/36	1.11	65-451	13.14
64-452	15.33	2” x 1”	2.81	12/36	1.28	65-452	12.40
64-453	16.21	2” x 1-1/4”	2.81	9/27	1.30	65-453	13.14
64-454	15.33	2” x 1-1/2”	2.81	9/27	1.41	65-454	11.47
64-461	48.35	2-1/2” x 1-1/2”	3.25	7/14	1.74	65-461	34.17
64-462	47.44	2-1/2” x 2”	3.25	7/14	1.79	65-462	29.31
64-486	70.03	3” x 1-1/2”	3.69	16/32	2.18	65-486	45.72
64-456	61.28	3” x 2”	3.69	6/12	2.26	65-456	34.53
64-463	63.07	3” x 2-1/2”	3.69	5/10	3.52	65-463	45.72
64-464	136.45	4” x 2”	4.38	3/6	4.96	65-464	91.61
64-465	125.13	4” x 2-1/2”	4.38	3/6	4.00	65-465	91.61
64-457	136.45	4” x 3”	4.38	3/6	4.07	65-457	86.23
		6” x 4”	4.24	1/8	9.84	65-491	347.44

HEX BUSHING

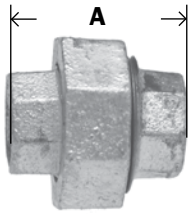




Part # Galvanized	List Price	Size M x F	A	Hex	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
		*1/4" x 1/8"	} Use steel fittings for smaller sizes - See page 241					
		*3/8" x 1/8"						
		*3/8" x 1/4"						
64-503	5.65	1/2" x 1/8"	0.84	1.03	150/600	0.10	65-503	3.73
		*1/2" x 1/4"						
64-505	5.65	1/2" x 3/8"	0.75	1.03	150/600	0.07	65-505	3.49
64-506	6.02	3/4" x 1/8"	0.85	1.15	75/300	0.17	65-506	3.65
64-507	5.82	3/4" x 1/4"	0.85	1.15	75/300	0.16	65-507	3.60
64-508	6.15	3/4" x 3/8"	0.85	1.15	75/300	0.14	65-508	3.65
64-509	5.26	3/4" x 1/2"	0.93	1.15	75/300	0.10	65-509	3.09
64-510	6.30	1" x 1/4"	1.13	1.12	50/200	0.19	65-510	4.29
64-511	9.88	1" x 3/8"	1.13	1.12	50/200	0.24	65-511	4.41
64-512	5.69	1" x 1/2"	1.10	1.42	50/200	0.21	65-512	3.02
64-513	5.07	1" x 3/4"	1.10	1.42	50/200	0.17	65-513	3.02
64-514	8.56	1-1/4" x 1/4"	1.24	1.12	30/120	0.31	65-514	5.53
64-515	8.56	1-1/4" x 3/8"	1.24	1.12	30/120	0.43	65-515	4.92
64-516	7.99	1-1/4" x 1/2"	1.24	1.24	30/120	0.29	65-516	4.75
64-517	7.29	1-1/4" x 3/4"	1.08	1.76	30/120	0.35	65-517	4.24
64-518	7.29	1-1/4" x 1"	1.08	1.76	30/120	0.29	65-518	4.24
64-519	18.52	1-1/2" x 1/4"	1.30	1.12	25/75	0.64	65-519	6.56
64-520	18.52	1-1/2" x 3/8"	1.30	1.12	25/75	0.64	65-520	6.56
64-521	10.62	1-1/2" x 1/2"	1.30	1.34	25/75	0.40	65-521	5.21
64-522	10.62	1-1/2" x 3/4"	1.30	1.44	25/75	0.39	65-522	5.21
64-523	9.53	1-1/2" x 1"	1.23	2.00	25/75	0.46	65-523	4.98
64-524	8.80	1-1/2" x 1-1/4"	1.23	2.00	25/75	0.32	65-524	4.98
64-525	75.13	2" x 3/8"	1.28	1.12	20/60	0.95	65-525	8.16
64-527	13.21	2" x 1/2"	1.39	1.34	20/60	0.84	65-527	8.16
64-528	12.31	2" x 3/4"	1.39	1.63	20/60	0.63	65-528	6.90
64-529	11.64	2" x 1"	1.39	1.77	20/60	0.67	65-529	6.90
64-530	11.64	2" x 1-1/4"	1.50	2.48	20/60	0.73	65-530	6.90
64-531	9.89	2" x 1-1/2"	1.50	2.48	20/60	0.70	65-531	6.90
64-546	29.00	2-1/2" x 1/2"	1.51	1.34	15/30	1.57	65-546	11.69
64-547	19.16	2-1/2" x 3/4"	1.51	1.63	15/30	1.54	65-547	11.69
64-532	27.41	2-1/2" x 1"	1.51	1.95	15/30	1.51	65-532	11.69
64-533	18.72	2-1/2" x 1-1/4"	1.51	2.39	15/30	1.41	65-533	11.69
64-534	18.76	2-1/2" x 1-1/2"	1.51	2.98	15/30	1.37	65-534	11.69
64-535	16.71	2-1/2" x 2"	1.54	2.98	15/30	1.11	65-535	11.69
64-550	25.25	3" x 1"	1.61	1.95	12/24	1.46	65-550	15.57
64-549	29.65	3" x 1-1/4"	1.61	2.39	12/24	2.22	65-549	17.00
64-537	22.49	3" x 1-1/2"	1.61	2.68	12/24	1.96	65-537	17.00
64-538	23.77	3" x 2"	1.61	3.86	12/24	1.91	65-538	17.00
64-539	45.23	3" x 2-1/2"	1.61	3.86	12/24	1.50	65-539	15.97
64-551	86.85	4" x 3/4"	2.15	4.90	5/10	4.50	65-551	40.53
64-553	56.53	4" x 1"	2.00	4.75	5/10	4.00	65-553	34.99
64-540	62.87	4" x 1-1/2"	1.82	2.68	5/10	3.91	65-540	34.03
64-541	46.70	4" x 2"	1.82	3.31	5/10	2.89	65-541	33.34
64-542	52.97	4" x 2-1/2"	2.06	3.87	5/10	2.77	65-542	29.16
64-543	47.89	4" x 3"	2.17	4.96	5/10	3.03	65-543	31.82
		5" x 4"					65-544	80.00
64-545		6" x 4"	2.33	5.79	2/4	5.69	65-545	89.08

UNIONS

• Brass Seat

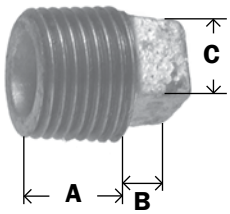




Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-600	17.55	1/8”	1.26	60/240	0.19	65-600	14.60
64-601	17.00	1/4”	1.44	20/240	0.20	65-601	13.44
64-602	11.33	3/8”	1.61	40/160	0.35	65-602	10.85
64-603	10.78	1/2”	1.72	50/100	0.43	65-603	8.16
64-604	11.83	3/4”	1.94	35/70	0.63	65-604	10.62
64-605	14.77	1”	2.06	20/40	0.91	65-605	12.73
64-606	22.90	1-1/4”	2.26	15/30	1.35	65-606	17.00
64-607	28.27	1-1/2”	2.41	10/20	1.75	65-607	22.27
64-608	36.64	2”	2.75	6/12	2.62	65-608	31.50
64-609	110.79	2-1/2”	3.22	4/8	4.40	65-609	80.96
64-610	155.07	3”	3.50	4/8	5.63	65-610	93.84
64-611	335.90	4”	3.85	2/4	10.31	65-611	246.54

SQUARE HEAD PLUGS

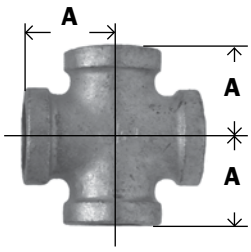
• Cored





Part # Galvanized	List Price	Size	A	B	C	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
		*1/8”	} Use steel fittings for smaller sizes - see p. 243						
		*1/4”							
		*3/8”							
64-653	2.53	1/2”	0.58	0.38	0.56	50/600	0.09	65-653	1.51
64-654	3.93	3/4”	0.65	0.44	0.63	30/360	0.13	65-654	1.68
64-655	3.60	1”	0.75	0.50	0.82	20/240	0.22	65-655	2.35
64-656	6.03	1-1/4”	0.82	0.56	0.94	40/120	0.40	65-656	3.60
64-657	8.18	1-1/2”	0.85	0.62	1.13	30/90	0.46	65-657	4.35
64-658	10.12	2”	0.91	0.68	1.31	20/60	0.74	65-658	5.57
64-659	19.97	2-1/2”	1.26	0.74	1.50	16/32	1.24	65-659	13.14
64-660	27.48	3”	1.16	0.80	1.69	16/32	1.69	65-660	18.64
64-661	35.43	4”	1.22	1.00	2.28	6/12	2.70	65-661	38.84
		6"						65-662	41.56

CROSSES





Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
64-390	16.85	1/8”	0.65	---	0.12	65-390	13.27
64-391	16.85	1/4”	0.80	60/240	0.18	65-391	11.35
64-392	16.85	3/8”	0.95	50/150	0.27	65-392	11.35
64-393	16.85	1/2”	1.12	30/90	0.45	65-393	11.35
64-394	18.75	3/4”	1.31	20/60	0.69	65-394	12.96
64-395	21.18	1”	1.50	15/30	1.06	65-395	14.40
64-396	30.66	1-1/4”	1.75	10/20	1.56	65-396	23.38
64-397	37.22	1-1/2”	1.94	8/16	1.91	65-397	28.95
64-398	71.01	2”	2.25	5/10	3.24	65-398	47.94
64-399	177.43	2-1/2”	2.71	3/6	5.55	65-399	107.77
64-400	239.01	3”	3.06	1/8	8.00	65-400	171.80
		4"				65-401	364.91

CAPS

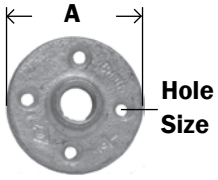




Part # Galvanized	List Price	Size	A	Box/ Case	Approx. Wt. Lbs.	Part # Black	List Price
		1/4"	0.62	80/960	0.05	65-471	1.56
64-472	3.55	3/8”	0.74	60/720	0.08	65-472	1.93
64-473	2.72	1/2”	0.87	75/300	0.13	65-473	2.00
64-474	3.90	3/4”	0.97	40/160	0.22	65-474	2.64
64-475	4.32	1”	1.16	25/100	0.37	65-475	2.92
64-476	6.27	1-1/4”	1.28	20/80	0.49	65-476	3.97
64-477	7.99	1-1/2”	1.33	18/54	0.64	65-477	5.64
64-478	10.10	2”	1.45	12/36	1.00	65-478	6.69
64-479	32.13	2-1/2”	1.70	20/40	1.45	65-479	17.31
64-480	38.92	3”	1.80	24	2.20	65-480	27.35
64-481	77.28	4”	2.08	6/12	3.75	65-481	42.70
64-482	281.34	6”	2.55	2/4	8.86	65-482	171.81

* Use steel fittings for smaller sizes. See page 243 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	16.57	1/2”	3.50	0.50	0.25	25/50	0.63	65-692	7.64
64-693	18.49	3/4”	3.50	0.63	0.25	15/45	0.75	65-693	7.92
64-694	20.35	1”	4.00	0.69	0.25	15/30	1.06	65-694	11.42
64-695	23.18	1-1/4”	4.00	0.75	0.25	10/30	1.08	65-695	12.73
64-696	28.92	1-1/2”	4.50	0.87	0.31	8/24	1.43	65-696	13.98
64-697	38.09	2”	5.50	1.00	0.31	8/16	2.23	65-697	18.05

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.

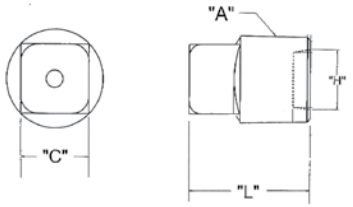
These abrasive, ferrous metal particles appear in lubricating or hydraulic systems as a result of the following conditions:
- The constant flaking effect of normal wear of moving parts.
- Particles not removed by flushing operations after boring or machining.
- Chipping due to sub-surface casting flaws.
- Minute component breakdown caused by stress usage.



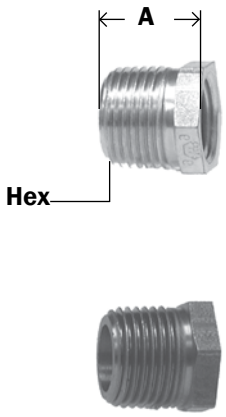
Magnetic Drain Plugs prevent excessive wear to the system's components.

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	3.37
28-997	1/2 - 14	.553 - 565	.560 - .570	.970 -1.04	4.03
28-998	3/4 - 14	.615 - .627	.725 - .735	1.120 - 1.170	5.10
28-999	1-11 1/2	.803 - 815	.895 - .905	1.25 - 1.33	7.39

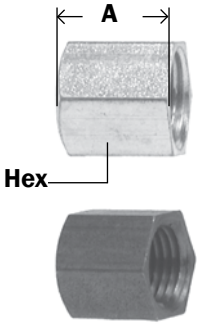


HEX BUSHINGS



Part # Galvanized	List Price	Size M x F	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-500	1.32	1/4" x 1/8"	0.63	0.62	0.02	67-500	1.61
66-501	1.79	3/8" x 1/8"	0.66	0.68	0.04	67-501	2.11
66-502	1.56	3/8" x 1/4"	0.66	0.68	0.02	67-502	2.11
66-503	2.60	1/2" x 1/8"	0.80	0.87	0.10	67-503	2.27
66-504	2.43	1/2" x 1/4"	0.80	0.87	0.08	67-504	2.27
66-505	2.43	1/2" x 3/8"	0.80	0.87	0.06	67-505	2.27
66-506	3.82	3/4" x 1/8"	0.94	1.06	0.18	67-506	3.47
66-507	4.18	3/4" x 1/4"	0.94	1.06	0.14	67-507	3.64
66-508	4.20	3/4" x 3/8"	0.94	1.06	0.14	67-508	3.47
66-509	3.82	3/4" x 1/2"	0.94	1.06	0.10	67-509	3.47
66-510	7.18	1" x 1/4"	1.00	1.31	0.16	67-510	6.10
66-511	7.18	1" x 3/8"	1.00	1.31	0.26	67-511	6.10
66-512	7.18	1" x 1/2"	1.00	1.31	0.22	67-512	6.10
66-513	7.18	1" x 3/4"	1.00	1.31	0.14	67-513	6.10

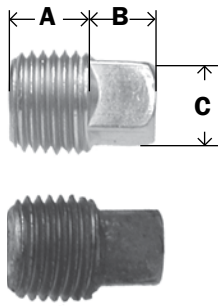
CAPS



Part # Galvanized	List Price	Size NPTF	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-470	1.23	1/8"	0.53	0.56	0.02	67-470	1.09
66-471	1.34	1/4"	0.63	0.62	0.04	67-471	1.31
66-472	2.17	3/8"	0.69	0.81	0.06	67-472	2.04
66-473	4.63	1/2"	0.87	1.00	0.12	67-473	3.18
66-474	5.15	3/4"	0.97	1.18	0.16	67-474	4.64
66-475	7.88	1"	1.16	1.50	0.30	67-475	6.64
66-476	38.38	1-1/4"	1.28	2.00	0.68	67-476	31.88
66-477	48.27	1-1/2"	1.35	2.25	0.83	67-477	47.34
66-478	101.38	2"	1.45	2.625	1.36		

SQUARE HEAD PLUGS

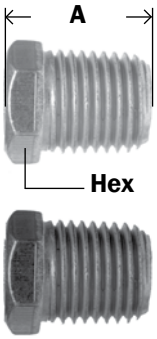
• Solid



Part # Galvanized	List Price	Size NPTF	A	B	C	Approx. Wt. Lbs.	Part # Black	List Price
		1/16"	0.33	0.18	0.22	0.01	67-669	0.50
66-670	0.56	1/8"	0.33	0.24	0.28	0.01	67-670	0.50
66-671	0.60	1/4"	0.45	0.28	0.37	0.02	67-671	0.48
66-672	0.95	3/8"	0.50	0.31	0.43	0.04	67-672	0.76
66-653	1.45	1/2"	0.59	0.38	0.55	0.12	67-653	1.31
66-654	2.14	3/4"	0.63	0.44	0.62	0.18	67-654	1.91
66-655	8.22	1"	0.75	0.5	0.81	0.34	67-655	6.87
66-656	13.86	1-1/4"	0.80	0.56	0.93	0.62	67-656	11.73
66-657	23.19	1-1/2"	0.83	0.62	1.12	0.82	67-657	17.77
66-658	28.75	2"	0.88	0.68	1.31	1.36	67-658	24.17

HEX HEAD PLUGS

• Solid



Part # Galvanized	List Price	Size NPTF	A	Hex	Approx. Wt. Lbs.	Part # Black	List Price
66-770	0.50	1/8"	0.55	0.43	0.01	67-770	0.38
66-771	0.85	1/4"	0.74	0.56	0.04	67-771	0.72
66-772	1.44	3/8"	0.67	0.68	0.06	67-772	1.31
66-773	2.44	1/2"	0.80	0.70	0.12	67-773	2.17
66-774	4.40	3/4"	0.94	1.06	0.18	67-774	3.47
66-775	7.92	1"	1.00	1.31	0.22	67-775	6.10
66-776	11.37	1-1/4"	1.17	1.75	0.7	67-776	10.37
66-777	39.60	1-1/2"	1.51	2.00	1.2	67-777	21.83
66-778	60.98	2"	1.65	2.50	2.06	67-778	40.18

• 1010 Carbon Steel, 3/4 taper threads (see hydraulic section for 7/8 taper threads.)

COUNTERSUNK PLUG - Square Socket



Galvanized						Black	
Part #	List Price	Size NPTF	A	Socket Size	Approx. Wt. Lbs.	Part #	List Price
66-630	0.38	1/8”	0.29	0.19	0.01	67-630	0.36
66-631	0.53	1/4”	0.45	0.25	0.02	67-631	0.50
66-632	0.76	3/8”	0.45	0.31	0.04	67-632	0.64
66-633	1.11	1/2”	0.59	0.38	0.08	67-633	0.96
66-634	1.87	3/4”	0.60	0.50	0.12	67-634	1.56
66-635	4.17	1”	0.75	0.50	0.16	67-635	3.77
66-636	7.18	1-1/4"	0.80	0.75	0.32	67-636	6.69
66-637	16.34	1-1/2"	0.83	0.75	0.45	67-637	13.48
66-638	35.57	2"	0.88	0.875	2.06	67-638	24.94

COUNTERSUNK PLUG - Hex Socket



Galvanized						Black	
Part #	List Price	Size NPTF	A	Socket Size	Approx. Wt. Lbs.	Part #	List Price
66-760	0.53	1/16”	0.29	0.15	0.01	67-760	0.50
66-761	0.38	1/8”	0.29	0.18	0.01	67-761	0.50
66-762	0.50	1/4”	0.44	0.25	0.02	67-762	0.50
66-763	0.64	3/8”	0.44	0.31	0.04	67-763	0.64
66-764	0.98	1/2”	0.59	0.37	0.08	67-764	0.96
66-765	1.81	3/4”	0.60	0.56	0.14	67-765	1.54
66-766	4.32	1”	0.75	0.625	0.22	67-766	3.15
66-767	6.77	1-1/4"	0.80	0.75	0.37	67-767	5.46
66-768	15.41	1-1/2"	0.83	1.0	0.45	67-768	13.70
66-769	27.97	2"	0.88	1.0	0.86	67-769	23.75

• Flush plugs available upon request

FACE BUSHING



Galvanized					Black	
Part #	List Price	Size M x F	A	Approx. Wt. Lbs.	Part #	List Price
66-700	1.31	1/4” x 1/8”	0.44	0.01	67-700	1.35
66-701	1.61	3/8” x 1/8”	0.48	0.02	67-701	1.44
66-702	2.43	3/8” x 1/4”	0.48	0.02	67-702	1.44
		1/2” x 1/8”	0.56	0.04	67-703	2.17
66-704	2.27	1/2” x 1/4”	0.56	0.04	67-704	2.17
66-705	2.43	1/2” x 3/8”	0.56	0.04	67-705	2.17
		3/4” x 1/4”	0.62	0.12	67-707	2.86
66-708	3.51	3/4” x 3/8”	0.62	0.10	67-708	2.86
66-709	3.72	3/4” x 1/2”	0.62	0.10	67-709	2.94
		1” x 3/8”	0.75	0.18	67-711	5.27
66-712	5.99	1” x 1/2”	0.75	0.16	67-712	5.27
66-713	6.26	1” x 3/4”	0.75	0.16	67-713	5.27

STANDARDS & SPECIFICATIONS

• DIMENSIONAL: ASTM A733 • MATERIAL: ASTM A53 Type F or Type E • GALVANIZING: Hot dip galvanizing
• THREADING: ASME B 1.20.1

SCHEDULE 80 EXTRA HEAVY NIPPLES 1/8" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-001	6.10	Close (3/4")	59-001	3.83
58-002	7.30	1-1/2"	59-002	4.43
58-003	7.30	2"	59-003	4.34
58-004	8.65	2-1/2"	59-004	4.84
58-005	9.46	3"	59-005	5.15
58-006	10.58	3-1/2"	59-006	6.61
58-007	10.93	4"	59-007	7.28
58-008	15.80	4-1/2"	59-008	13.33
58-009	20.34	5"	59-009	14.59
58-010	19.50	5-1/2"	59-010	13.32
58-011	21.90	6"	59-011	14.42
		7"	59-012	28.74
		8"	59-013	18.30
		9"	59-014	19.34
		10"	59-015	20.42
		11"	59-016	21.50
		12"	59-017	22.32

SCHEDULE 80 EXTRA HEAVY NIPPLES 3/8" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-040	7.08	Close (1")	59-040	4.16
58-041	8.35	1-1/2"	59-041	5.20
58-042	8.78	2"	59-042	5.24
58-043	10.90	2-1/2"	59-043	6.30
58-044	10.57	3"	59-044	6.24
58-045	13.69	3-1/2"	59-045	7.70
58-046	14.12	4"	59-046	7.45
58-047	16.80	4-1/2"	59-047	10.08
58-048	17.75	5"	59-048	9.80
58-049	19.04	5-1/2"	59-049	12.62
58-050	19.37	6"	59-050	11.96
		7"	59-051	22.56
		8"	59-052	33.81
		9"	59-053	25.25
		10"	59-054	26.05
		11"	59-055	26.86
		12"	59-056	28.90

SCHEDULE 80 EXTRA HEAVY NIPPLES 1/4" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-020	6.58	Close (3/4")	59-020	3.71
58-021	7.57	1-1/2"	59-021	4.64
58-022	7.57	2"	59-022	4.70
58-023	9.86	2-1/2"	59-023	6.05
58-024	9.91	3"	59-024	6.24
58-025	8.08	3-1/2"	59-025	6.44
58-026	11.48	4"	59-026	6.65
58-027	13.46	4-1/2"	59-027	10.69
58-028	16.75	5"	59-028	10.54
58-029	18.88	5-1/2"	59-029	11.24
58-030	18.36	6"	59-030	11.95
		7"	59-031	19.14
		8"	59-032	21.50
		9"	59-033	22.56
		10"	59-034	22.85
		11"	59-035	24.19
		12"	59-036	25.25

SCHEDULE 80 EXTRA HEAVY NIPPLES 1/2" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-060	6.47	Close (1-1/8")	59-060	3.80
58-061	7.21	1-1/2"	59-061	3.92
58-062	7.08	2"	59-062	4.15
58-063	7.79	2-1/2"	59-063	4.54
58-064	9.48	3"	59-064	4.92
58-065	10.61	3-1/2"	59-065	5.44
58-066	10.02	4"	59-066	5.94
58-067	11.48	4-1/2"	59-067	6.55
58-068	12.31	5"	59-068	6.82
58-069	13.14	5-1/2"	59-069	7.22
58-070	13.10	6"	59-070	7.66
		7"	59-071	13.09
		8"	59-072	15.06
		9"	59-073	16.13
		10"	59-074	17.20
		11"	59-075	18.79
		12"	59-076	18.50

SCHEDULE 80 EXTRA HEAVY NIPPLES 3/4" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-080	7.07	Close (1-3/8")	59-080	3.96
58-081	7.19	1-1/2"	59-081	4.84
58-082	7.76	2"	59-082	4.34
58-083	9.50	2-1/2"	59-083	4.99
58-084	9.20	3"	59-084	5.45
58-085	11.29	3-1/2"	59-085	6.05
58-086	11.00	4"	59-086	6.54
58-087	13.69	4-1/2"	59-087	7.63
58-088	18.39	5"	59-088	8.02
58-089	15.70	5-1/2"	59-089	9.53
58-090	15.41	6"	59-090	9.56
		7"	59-091	15.34
		8"	59-092	18.55
		9"	59-093	25.92
		10"	59-094	20.79
		11"	59-095	22.72
		12"	59-096	24.68

SCHEDULE 80 EXTRA HEAVY NIPPLES 1-1/4" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-120	13.19	Close (1-5/8")	59-120	7.73
58-121	13.44	2"	59-121	7.99
58-122	15.54	2-1/2"	59-122	9.70
58-123	16.63	3"	59-123	10.36
58-124	17.78	3-1/2"	59-124	11.95
58-125	18.49	4"	59-125	12.16
58-126	23.41	4-1/2"	59-126	15.06
58-127	26.00	5"	59-127	14.96
58-128	28.10	5-1/2"	59-128	17.00
58-129	32.22	6"	59-129	16.81
		7"	59-130	26.53
		8"	59-131	28.02
		9"	59-132	32.45
		10"	59-133	36.25
		11"	59-134	38.38
		12"	59-135	37.24

SCHEDULE 80 EXTRA HEAVY NIPPLES 1" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-100	11.51	Close (1-1/2")	59-100	5.86
58-101	11.72	2"	59-101	6.14
58-102	13.14	2-1/2"	59-102	7.15
58-103	13.00	3"	59-103	7.73
58-104	14.94	3-1/2"	59-104	8.69
58-105	15.06	4"	59-105	9.37
58-106	18.26	4-1/2"	59-106	10.92
58-107	20.89	5"	59-107	11.15
58-108	21.46	5-1/2"	59-108	17.93
58-109	21.74	6"	59-109	13.14
		7"	59-110	22.72
		8"	59-111	23.69
		9"	59-112	27.02
		10"	59-113	25.60
		11"	59-114	30.83
		12"	59-115	30.90

SCHEDULE 80 EXTRA HEAVY NIPPLES 1-1/2" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-140	16.61	Close (1-3/4")	59-140	9.04
58-141	20.72	2"	59-141	10.12
58-142	19.82	2-1/2"	59-142	12.12
58-143	18.78	3"	59-143	12.07
58-144	25.88	3-1/2"	59-144	15.55
58-145	29.00	4"	59-145	14.48
58-146	26.39	4-1/2"	59-146	17.00
58-147	39.26	5"	59-147	16.91
58-148	30.79	5-1/2"	59-148	19.58
58-149	40.16	6"	59-149	19.31
		7"	59-150	32.45
		8"	59-151	33.96
		9"	59-152	37.84
		10"	59-153	41.63
		11"	59-154	46.51
		12"	59-155	50.28

SCHEDULE 80 EXTRA HEAVY NIPPLES 2" DIAMETER



Galvanized			Black	
Part #	List Price	Length	Part #	List Price
58-160	27.38	Close (2")	59-160	13.28
58-161	25.91	2-1/2"	59-161	15.19
58-162	26.03	3"	59-162	15.95
58-163	35.35	3-1/2"	59-163	17.16
58-164	32.32	4"	59-164	18.35
58-165	35.45	4-1/2"	59-165	29.77
58-166	39.26	5"	59-166	31.26
58-167	44.72	5-1/2"	59-167	33.79
58-168	46.72	6"	59-168	38.63
		7"	59-169	59.24
		8"	59-170	64.36
		9"	59-171	69.53
		10"	59-172	78.43
		11"	59-173	89.22
		12"	59-174	97.36

SCHEDULE 80 EXTRA HEAVY BLACK NIPPLES 3" DIAMETER



Part #	Length	List Price
59-200	Close (2-5/8")	49.51
59-201	3"	58.73
59-202	3-1/2"	67.19
59-203	4"	64.80
59-204	4-1/2"	73.38
59-205	5"	75.55
59-206	5-1/2"	85.64
59-207	6"	77.16

SCHEDULE 80 EXTRA HEAVY BLACK NIPPLES 2-1/2" DIAMETER



Part #	Length	List Price
59-180	Close (2-1/2")	61.49
59-181	3"	45.19
59-182	3-1/2"	54.25
59-183	4"	52.63
59-184	4-1/2"	64.63
59-185	5"	62.87
59-186	5-1/2"	73.38
59-187	6"	69.53

SCHEDULE 80 EXTRA HEAVY BLACK NIPPLES 4" DIAMETER



Part #	Length	List Price
59-220	Close (2-7/8")	110.50
59-221	4"	95.30
59-222	4-1/2"	112.52
59-223	5"	114.12
59-224	5-1/2"	114.86
59-225	6"	118.20

STANDARDS & SPECIFICATIONS

- DIMENSIONAL: ASTM A733
- MATERIAL: ASTM A 106 Grade B
- THREADING: ASME B 1.20.1
- Thicker walls
- Excellent leak protection

SCHEDULE 80 SEAMLESS NIPPLES 1/8" DIAMETER



Part #	Length	List Price
72-001	X Close (3/4")	9.32
72-002	x 1-1/2"	9.88
72-003	x 2"	10.66
72-004	x 2-1/2"	11.56
72-005	x 3"	12.83
72-006	x 3-1/2"	14.00
72-007	x 4"	15.55
72-008	x 4-1/2"	16.87
72-009	x 5"	23.18
72-010	x 5-1/2"	24.83
72-011	x 6"	26.66

SCHEDULE 80 SEAMLESS NIPPLES 1/4" DIAMETER



Part #	Length	List Price
72-020	X Close (7/8")	10.25
72-021	x 1-1/2"	11.22
72-022	x 2"	12.41
72-023	x 2-1/2"	13.51
72-024	x 3"	15.04
72-025	x 3-1/2"	16.70
72-026	x 4"	17.28
72-027	x 4-1/2"	20.12
72-028	x 5"	28.55
72-029	x 5-1/2"	30.12
72-030	x 6"	30.05

SCHEDULE 80 SEAMLESS NIPPLES 3/8" DIAMETER



Part #	Length	List Price
72-040	X Close (1")	11.87
72-041	x 1-1/2"	12.36
72-042	x 2"	13.51
72-043	x 2-1/2"	15.19
72-044	x 3"	17.06
72-045	x 3-1/2"	18.77
72-046	x 4"	20.46
72-047	x 4-1/2"	22.48
72-048	x 5"	29.96
72-049	x 5-1/2"	32.02
72-050	x 6"	34.09

SCHEDULE 80 SEAMLESS NIPPLES 1/2" DIAMETER



Part #	Length	List Price
72-060	X Close (1-1/8)	5.65
72-061	x 1-1/2"	6.43
72-062	x 2"	6.61
72-063	x 2-1/2"	7.82
72-064	x 3"	8.60
72-065	x 3-1/2"	9.76
72-066	x 4"	10.72
72-067	x 4-1/2"	11.80
72-068	x 5"	13.60
72-069	x 5-1/2"	14.81
72-070	x 6"	16.01

SCHEDULE 80 SEAMLESS NIPPLES 3/4" DIAMETER



Part #	Length	List Price
72-080	X Close (1-3/8")	6.37
72-081	x 1-1/2"	7.28
72-082	x 2"	7.64
72-083	x 2-1/2"	8.63
72-084	x 3"	9.60
72-085	x 3-1/2"	10.96
72-086	x 4"	12.04
72-087	x 4-1/2"	13.14
72-088	x 5"	14.99
72-089	x 5-1/2"	16.09
72-090	x 6"	17.30

SCHEDULE 80 SEAMLESS NIPPLES 1" DIAMETER



Part #	Length	List Price
72-100	X Close (1-1/2")	9.01
72-101	x 2"	10.25
72-102	x 2-1/2"	10.96
72-103	x 3"	12.82
72-104	x 3-1/2"	14.20
72-105	x 4"	15.88
72-106	x 4-1/2"	17.27
72-107	x 5"	19.99
72-108	x 5-1/2"	21.38
72-109	x 6"	22.81

SCHEDULE 80 SEAMLESS NIPPLES 1-1/4" DIAMETER



Part #	Length	List Price
72-120	X Close (1-5/8")	11.32
72-121	x 2"	11.76
72-122	x 2-1/2"	13.86
72-123	x 3"	16.10
72-124	x 3-1/2"	17.59
72-125	x 4"	19.68
72-126	x 4-1/2"	21.41
72-127	x 5"	24.83
72-128	x 5-1/2"	26.71
72-129	x 6"	28.55

SCHEDULE 80 SEAMLESS NIPPLES 1-1/2" DIAMETER



Part #	Length	List Price
72-140	X Close (1-3/4")	14.57
72-141	x 2"	15.42
72-142	x 2-1/2"	16.74
72-143	x 3"	19.28
72-144	x 3-1/2"	21.05
72-145	x 4"	23.56
72-146	x 4-1/2"	25.75
72-147	x 5"	29.80
72-148	x 5-1/2"	31.68
72-149	x 6"	33.50

SCHEDULE 80 SEAMLESS NIPPLES 2" DIAMETER



Part #	Length	List Price
72-160	X Close (2")	17.30
72-161	x 2-1/2"	19.42
72-162	x 3"	22.58
72-163	x 3-1/2"	24.29
72-164	x 4"	27.12
72-165	x 4-1/2"	29.27
72-166	x 5"	34.26
72-167	x 5-1/2"	37.00
72-168	x 6"	39.13

SCHEDULE 80 SEAMLESS NIPPLES 2-1/2" DIAMETER



Part #	Length	List Price
72-180	X Close (2-1/2")	57.49
72-181	x 3"	60.22
72-182	x 3-1/2"	64.85
72-183	x 4"	67.25
72-184	x 4-1/2"	70.88
72-185	x 5"	75.70
72-186	x 5-1/2"	79.49
72-187	x 6"	82.90

SCHEDULE 80 SEAMLESS NIPPLES 3" DIAMETER



Part #	Length	List Price
72-200	X Close (2-5/8")	72.52
72-201	x 3"	76.69
72-202	x 3-1/2"	81.92
72-203	x 4"	86.74
72-204	x 4-1/2"	91.54
72-205	x 5"	97.92
72-206	x 5-1/2"	102.88
72-207	x 6"	107.63

SCHEDULE 80 SEAMLESS NIPPLES 4" DIAMETER



Part #	Length	List Price
72-220	X Close (2-7/8")	103.30
72-223	x 4"	116.96
72-224	x 4-1/2"	123.76
72-225	x 5"	134.21
72-226	x 5-1/2"	139.55
72-227	x 6"	146.20

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

90⁰ ELBOWS



Part #	Size	List Price
69-101	1/4"	18.89
69-102	3/8"	16.78
69-103	1/2"	9.30
69-104	3/4"	10.67
69-105	1"	15.83
69-106	1-1/4"	24.48
69-107	1-1/2"	32.91
69-108	2"	79.42

45⁰ ELBOWS



Part #	Size	List Price
69-181	1/4"	29.51
69-182	3/8"	31.79
69-183	1/2"	31.30
69-184	3/4"	34.79
69-185	1"	41.14
69-186	1-1/4"	61.69
69-187	1-1/2"	79.69
69-188	2"	121.49

90⁰ STREET ELBOWS



Part #	Size	List Price
69-161	1/4"	22.39
69-162	3/8"	26.83
69-163	1/2"	15.34
69-164	3/4"	21.62
69-165	1"	23.52
69-166	1-1/4"	26.91
69-167	1-1/2"	37.61
69-168	2"	128.74

TEES



Part #	Size	List Price
69-252	3/8"	25.18
69-253	1/2"	16.17
69-254	3/4"	17.42
69-255	1"	22.52
69-256	1-1/4"	35.55
69-257	1-1/2"	47.40
69-258	2"	73.65

COUPLINGS



Part #	Size	List Price
69-411	1/4"	15.79
69-412	3/8"	15.79
69-413	1/2"	9.57
69-414	3/4"	11.89
69-415	1"	14.49
69-416	1-1/4"	28.93
69-417	1-1/2"	44.53
69-418	2"	68.39

REDUCING COUPLING



Part #	Size	List Price
69-432	3/8 x 1/4"	25.74
69-434	1/2 x 1/4"	26.36
69-435	1/2 x 3/8"	25.10
69-438	3/4 x 1/2"	25.66
69-441	1 x 1/2"	36.60
69-442	1 x 3/4"	40.27

CAPS



Part #	Size	List Price
69-471	1/4"	17.45
69-472	3/8"	19.62
69-473	1/2"	19.81
69-474	3/4"	21.85
69-475	1"	28.69
69-476	1-1/4"	31.78
69-477	1-1/2"	46.45
69-478	2"	64.49

UNIONS



• Brass Seat

Part #	Size	List Price
69-600	1/8"	50.56
69-601	1/4"	50.56
69-602	3/8"	53.92
69-603	1/2"	50.56
69-604	3/4"	52.01
69-605	1"	54.29
69-606	1-1/4"	85.19
69-607	1-1/2"	115.96
69-608	2"	102.59

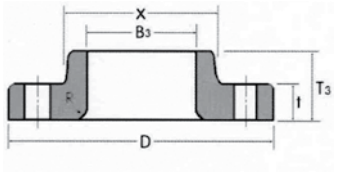
ASTMA105
ASME SA105
ANSI B16.5

Forged Steel Flanges

- **A105 Forged Steel**
- **CLASS 150**

(1-1/2 thru 6" available in #316 Stainless Steel add SS to part#)

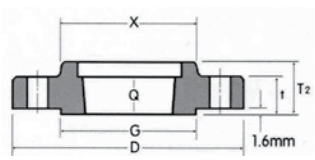




SLIP-ON 1/16" RAISED FACE FORGED STEEL FLANGE

Part #	Size	List Price
107-020	1/2"	20.56
107-021	3/4"	20.59
107-022	1"	20.59
107-023	1-1/4"	20.59
107-024	1-1/2"	20.59
107-025	2"	22.88
107-026	2-1/2"	39.16
107-027	3"	31.08
107-029	4"	38.95
107-031	6"	64.05
107-032	8"	97.25
107-033	10"	167.84
107-034	12"	248.89





THREADED 1/16" RAISED FACE FORGED STEEL FLANGE

Part #	Size	List Price
107-060	1/2"	31.02
107-061	3/4"	31.02
107-062	1"	31.02
107-063	1-1/4"	31.02
107-064	1-1/2"	31.02
107-065	2"	34.75
107-066	2-1/2"	42.59
107-067	3"	42.85
107-069	4"	49.80
107-071	6"	86.14
107-072	8"	147.84
107-073	10"	268.71
107-074	12"	375.03

Nominal Pipe Size	Depth of Socket in.	DRILLING			BOLTING				APPROXIMATE WEIGHT		
		Bolt Circle Diameter	Number of Holes	Diameter of Holes	Diameter of Bolts (inch)	Machine Bolt Length	Stud Bolt Length		Welding Neck	Slip-on and Threaded	Blind
						Raised Face	Raised Face	Ring Joint			
	Y								LBS	LBS	LBS
1/2 3/4 1	.382 .441 .500	2.382 2.752 3.118	4 4 4	.618 .618 .618	1/2 1/2 1/2	2.00 2.00 2.252	2.252 2.50 2.50	- - 3.00	1.146 2.028 2.425	1.036 1.653 1.893	1.036 1.389 2.094
1-1/4 1-1/2 2	.559 .618 .689	3.50 3.882 4.752	4 4 4	.618 .618 .752	1/2 1/2 5/8	2.252 2.50 2.752	2.752 2.752 3.252	3.252 3.252 3.752	3.086 3.99 6.173	3.086 3.109 4.982	3.086 3.571 5.82
2-1/2 3	.752 .811	5.5 6.0	4 4	.752 .752	5/8 5/8	3.00 3.00	3.50 3.50	4.00 4.00	9.436 11.42	7.562 8.818	8.951 11.023
4 6	.941 1.059	7.50 9.50	8 8	.752 .882	5/8 3/4	3.00 3.252	3.50 4.00	4.00 4.50	16.138 24.824	12.677 17.196	16.535 26.455
8 10 12	1.252 1.311 1.559	11.752 14.252 17	8 12 12	.882 1.00 1.00	3/4 7/8 7/8	3.50 4.00 4.00	4.252 4.50 4.752	4.752 5.00 5.252	39.683 55.116 85.936	28.66 37.699 61.024	44.092 66.139 97.003

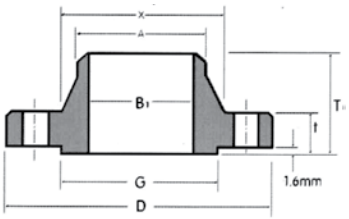
ASTMA105
ASME SA105
ANSI B16.5

Forged Steel Flanges

- **A105 Forged Steel**
- **CLASS 150**

(1-1/2 thru 6" available in #316 Stainless Steel add SS to part#)

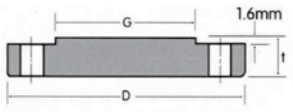




WELD NECK FORGED STEEL FLANGE

Part #	Size	List Price
107-000	1/2"	30.11
107-001	3/4"	30.11
107-002	1"	30.11
107-003	1-1/4"	30.11
107-004	1-1/2"	30.11
107-005	2"	34.48
107-006	2-1/2"	37.49
107-007	3"	40.92
107-009	4"	49.67
107-011	6"	75.03
107-012	8"	132.55
107-013	10"	212.29
107-014	12"	308.50





BLIND 1/16" RAISED FACE FORGED STEEL FLANGE

Part #	Size	List Price
107-040	1/2"	24.71
107-041	3/4"	24.71
107-042	1"	24.71
107-043	1-1/4"	24.71
107-044	1-1/2"	24.71
107-045	2"	27.58
107-046	2-1/2"	41.96
107-047	3"	35.16
107-049	4"	49.28
107-051	6"	75.03
107-052	8"	123.11
107-053	10"	237.10
107-054	12"	357.10

Nominal Pipe Size	Outside Diameter	O.D of Raised Face	Diameter at Base of Hub	Thickness	BORE	LENGTH THRU HUB	
					Welding Neck Socket Welding	Welding Neck	Slip-on Threaded Socket Welding
	D	G	X	T	B1	T1	T2
1/2 3/4 1	3.504 3.898 4.252	1.382 1.689 2.00	1.189 1.50 1.941	.441 .50 .559	.618 .819 1.051	1.882 2.059 2.189	.618 .618 .689
1-1/4 1-1/2 2	4.606 5.00 5.984	2.50 2.882 3.618	2.311 2.559 3.059	.618 .689 .752	1.382 1.610 2.071	2.252 2.441 2.50	.811 .882 1.00
2-1/2 3	7.008 7.52	4.118 5.00	3.559 4.252	.882 .941	2.469 3.071	2.752 2.752	1.118 1.189
4 6	9.016 10.984	6.189 8.50	5.311 7.559	.941 1.00	4.031 6.071	3.00 3.50	1.311 1.559
8 10 12	13.504 15.984 19.016	10.618 12.752 15.00	9.689 12.00 14.382	1.118 1.189 1.252	7.980 10.02 12.00	4.00 4.00 4.50	1.752 1.941 2.189

STANDARD BULL PLUG



Part #	Description	List Price
91-008	2"	34.20
91-009	2-1/2"	49.14
91-010	3"	60.33
91-011	4"	126.00

XH BULL PLUG



Part #	Description	List Price
90-001	1/4"	9.43
90-002	3/8"	8.59
90-003	1/2"	9.36
90-004	3/4"	16.95
90-005	1"	16.96
90-006	1-1/4"	15.64
90-007	1-1/2"	32.86
90-008	2"	36.00
90-212	2" w/ 1/2" TAP	32.87
90-009	2-1/2"	55.16
90-010	3"	60.67
90-011	4"	153.13

STANDARD SCH. 40 SWAGE



MIP X MIP

Part #	Description	List Price
93-113	1-1/4" x 1"	24.66
93-121	2" x 1"	35.33
93-122	2" x 1-1/4"	43.23
93-123	2" x 1-1/2"	54.61
93-124	2-1/2" x 2"	50.91
93-125	3" x 1"	119.81
93-127	3" x 1-1/2"	80.66
93-128	3" x 2"	75.00
93-129	3" x 2-1/2"	75.00
93-130	4" x 2"	126.00
93-131	4" x 3"	105.00

SCH 80 XH SWAGES

MIP X MIP

Part #	Description	List Price
90-100	1/4" x 1/8"	10.50
90-102	1/2" x 1/4"	8.90
90-103	1/2" x 3/8"	8.39
90-104	3/8" x 1/4"	10.65
90-105	3/4" x 1/4"	12.88
90-106	3/4" x 3/8"	13.86
90-107	3/4" x 1/2"	14.40
90-108	1" x 1/4"	16.60
90-109	1" x 3/8"	19.33
90-110	1" x 1/2"	20.10
90-111	1" x 3/4"	20.69
90-140	1-1/4" x 3/4"	27.55
90-141	1-1/4" x 1"	29.44
90-114	1-1/2" x 1/2"	24.18
90-115	1-1/2" x 3/4"	33.49
90-116	1-1/2" x 1"	36.86
90-117	1-1/2" x 1-1/4"	40.19
90-118	2" x 1/4"	44.20
90-119	2" x 1/2"	44.60
90-120	2" x 3/4"	46.16
90-121	2" x 1"	36.16
90-122	2" x 1-1/4"	38.30
90-123	2" x 1-1/2"	48.14
90-124	2-1/2" x 2"	55.15
90-125	3" x 1"	65.99
90-126	3" x 1-1/4"	69.49
90-127	3" x 1-1/2"	73.24
90-128	3" x 2"	76.01
90-129	3" x 2-1/2"	83.91
90-130	4" x 2"	104.59
90-131	4" x 3"	109.93
90-132	6" x 4"	533.40

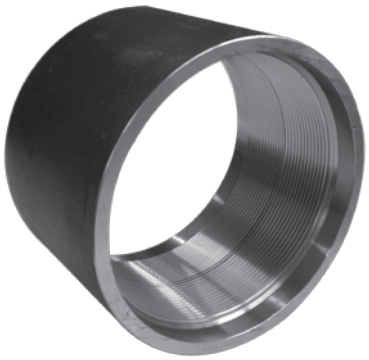
XXH SWAGE

Part #	Description	List Price
92-102	1/2" x 1/4"	15.83
92-107	3/4" x 1/2"	24.11
92-108	1" x 1/4"	25.88
92-109	1" x 3/8"	25.88
92-110	1" x 1/2"	24.66
92-111	1" x 3/4"	24.66
92-114	1-1/2" x 1/2"	28.13
92-115	1-1/2" x 3/4"	28.13
92-116	1-1/2" x 1"	35.44
92-119	2" x 1/2"	42.09
92-120	2" x 3/4"	42.09
92-121	2" x 1"	51.28
92-122	2" x 1-1/4"	51.28
92-123	2" x 1-1/2"	51.28
92-128	3" x 2"	85.19

Product Specifications

These couplings are manufactured in accordance with American Petroleum Institute specifications 5L & 5B.
All couplings are phosphated.
All sizes are taper tapped 3/4" per foot on the diameter.

A105
• Black Steel



• Each end has a short, unthreaded space before the threads start.
• Use with sch 80 & sch. 160 nipples & pipe.
• Max. pressure: 300PSI

API LINE PIPE COUPLINGS

Part #	NPT Size	Threads per Inch	Outside Diameter	Length	Unit Weight	List Price
65770API	1/8"	27	0.563	1-1/16	0.04	3.19
65771API	1/4"	18	0.719	1-5/8	0.10	3.36
65772API	3/8"	18	0.875	1-5/8	0.13	4.16
65773API	1/2"	14	1.063	2-1/8	0.24	7.37
65774API	3/4"	14	1.313	2-1/8	0.35	7.60
65775API	1"	11.5	1.576	2-5/8	0.52	9.24
65776API	1-1/4"	11.5	2.054	2-3/4	1.00	12.50
65777API	1-1/2"	11.5	2.200	2-3/4	0.88	12.95
65778API	2"	11.5	2.875	2-7/8	1.83	24.53
65779API	2-1/2"	8	3.375	4-1/8	3.28	48.64
65780API	3"	8	4.000	4-1/4	4.09	63.51
65781API	4"	8	5.200	4-1/2	7.59	103.32
65783API	6"		7.390	4-5/8	12.92	196.56

ON PARTICULARLY ROUGH DAYS WHEN I'M SURE I CAN'T POSSIBLY ENDURE, I LIKE TO REMIND MYSELF THAT MY TRACK RECORD FOR GETTING THROUGH BAD DAYS SO FAR, IS 100% AND THAT'S PRETTY GOOD
- UNKOWN

"IF YOU CAN DREAM IT, YOU CAN DO IT."

- WALT DISNEY

ALL OUR DREAMS CAN COME TRUE, IF WE HAVE THE COURAGE TO PURSUE THEM.

- WALT DISNEY

"LAUGHTER IS TIMELESS. IMAGINATION HAS NO AGE. AND DREAMS ARE FOR-EVER."

- WALT DISNEY

"THE WAY TO GET STARTED IS TO QUIT TALKING AND BEGIN DOING. "

- WALT DISNEY

- Water, oil and steam in the chemical, petrochemical, pulp, paper, shipbuilding, waste incineration and semiconductor industries.
- Max pressure determined by the fittings threaded into.
- 6,000 PSI use with sch 160 pipe.

FORGED BUSHING



Part #	Size	List Price
107-500	1/4" x 1/8"	2.87
107-501	3/8" x 1/8"	2.87
107-502	3/8" x 1/4"	1.75
107-503	1/2" x 1/8"	3.24
107-504	1/2" x 1/4"	1.75
107-505	1/2" x 3/8"	1.75
107-508	3/4" x 3/8"	3.98
107-509	3/4" x 1/2"	2.35
107-510	1" x 1/4"	6.47
107-511	1" x 3/8"	5.78
107-512	1" x 1/2"	3.70
107-513	1" x 3/4"	3.16
107-515	1-1/4" x 3/8"	9.42
107-516	1-1/4" x 1/2"	10.55
107-517	1-1/4" x 3/4"	10.55
107-518	1-1/4" x 1"	9.42
107-521	1-1/2" x 1/2"	12.16
107-522	1-1/2" x 3/4"	12.16
107-523	1-1/2" x 1"	4.82
107-524	1-1/2" x 1-1/4"	10.85
107-527	2" x 1/2"	18.23
107-528	2" x 3/4"	11.76
107-529	2" x 1"	18.23
107-530	2" x 1-1/4"	16.28
107-531	2" x 1-1/2"	10.45
107-532	2-1/2" x 1"	51.06
107-533	2-1/2" x 1-1/4"	51.06
107-534	2-1/2" x 1-1/2"	51.06
107-535	2-1/2" x 2"	51.06
107-550	3" x 1"	78.98
107-537	3" x 1-1/2"	78.98
107-538	3" x 2"	78.98
107-539	3" x 2-1/2"	78.98

The moon moves about two inches away from the Earth each year

HEX HEAD FORGED PLUG



Part #	Size	List Price
107-630	1/8"	1.96
107-631	1/4"	1.96
107-632	3/8"	2.03
107-633	1/2"	1.81
107-634	3/4"	3.77
107-635	1"	5.31
107-636	1-1/4"	8.04
107-637	1-1/2"	12.82
107-638	2"	17.75
107-639	2-1/2"	40.03
107-640	3"	73.12
107-641	4"	120.34

SQUARE HEAD FORGED PLUG

- Solid



Part #	Size	List Price
107-670	1/8"	2.08
107-671	1/4"	2.08
107-672	3/8"	2.10
107-673	1/2"	2.65
107-674	3/4"	2.70
107-675	1"	4.16
107-676	1-1/4"	10.06
107-677	1-1/2"	9.75
107-678	2"	15.35
107-679	2-1/2"	41.64
107-680	3"	69.69

2000 LB FORGED STEEL THREADED FITTINGS
ASTM: A105 ANSI: B16.11

90⁰ ELBOWS



Part #	Size	List Price
100-100	1/8"	11.79
100-101	1/4"	6.02
100-102	3/8"	7.67
100-103	1/2"	6.04
100-104	3/4"	7.06
100-105	1"	8.09
100-106	1-1/4"	27.29
100-107	1-1/2"	22.91
100-108	2"	26.75
100-109	2-1/2"	83.10
100-110	3"	130.62
100-111	4"	436.80

45⁰ ELBOWS



Part #	Size	List Price
100-181	1/4"	18.10
100-182	3/8"	14.84
100-183	1/2"	12.89
100-184	3/4"	14.44
100-179	1"	16.89
100-186	1-1/4"	26.72
100-187	1-1/2"	33.63
100-188	2"	52.45
100-189	2-1/2"	103.32
100-190	3"	178.20
100-191	4"	436.80

TEES



Part #	Size	List Price
100-251	1/4"	7.47
100-252	3/8"	12.49
100-253	1/2"	7.47
100-254	3/4"	14.55
100-255	1"	13.91
100-256	1-1/4"	35.76
100-257	1-1/2"	43.23
100-258	2"	36.47
100-259	2-1/2"	102.36
100-260	3"	175.86
100-261	4"	468.42

CROSS



Part #	Size	List Price
100-392	3/8"	34.05
100-393	1/2"	33.70
100-394	3/4"	37.49
100-395	1"	44.02
100-396	1-1/4"	80.43
100-397	1-1/2"	98.65
100-398	2"	135.06

FORGED STEEL 3000# FITTINGS

90⁰ ELBOWS



Part #	Size	List Price
101-100	1/8"	12.52
101-101	1/4"	19.98
101-102	3/8"	18.07
101-103	1/2"	10.11
101-104	3/4"	12.12
101-105	1"	17.57
101-106	1-1/4"	51.00
101-107	1-1/2"	44.11
101-108	2"	53.62
101-109	2-1/2"	165.54
101-110	3"	183.48
101-111	4"	637.74

***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"	20.52
101-162	3/8"	18.07
101-163	1/2"	18.18
101-164	3/4"	23.48
101-165	1"	31.29
101-166	1-1/4"	82.76
101-167	1-1/2"	100.03
101-168	2"	100.80

45⁰ ELBOWS



Part #	Size	List Price
101-180	1/8"	15.89
101-181	1/4"	15.89
101-182	3/8"	15.89
101-183	1/2"	14.96
101-184	3/4"	27.16
101-185	1"	36.98
101-186	1-1/4"	32.45
101-187	1-1/2"	73.39
101-188	2"	101.27
101-189	2-1/2"	165.54
101-190	3"	210.12

TEES



Part #	Size	List Price
101-250	1/8"	15.21
101-251	1/4"	10.71
101-252	3/8"	10.28
101-253	1/2"	14.62
101-254	3/4"	18.94
101-255	1"	26.38
101-256	1-1/4"	41.74
101-257	1-1/2"	54.91
101-258	2"	79.96
101-259	2-1/2"	226.80
101-260	3"	287.88
101-261	4"	494.88

3000 LB FORGED STEEL THREADED FITTINGS
ASTM A105/ASME SA105 & ANSI B16.11

CROSS



Part #	Size	List Price
101-390	1/8"	65.67
101-391	1/4"	57.48
101-392	3/8"	57.48
101-393	1/2"	58.06
101-394	3/4"	76.62
101-395	1"	118.09
101-396	1-1/4"	142.83
101-397	1-1/2"	190.31
101-398	2"	256.55
101-399	2-1/2"	322.20
101-400	3"	456.54
101-401	4"	650.40

CAPS



Part #	Size	List Price
101-470	1/8"	4.64
101-471	1/4"	5.15
101-472	3/8"	4.40
101-473	1/2"	4.87
101-474	3/4"	7.64
101-475	1"	14.35
101-476	1-1/4"	25.88
101-477	1-1/2"	27.61
101-478	2"	39.74
101-479	2-1/2"	78.30
101-480	3"	144.30
101-481	4"	182.10

HALF COUPLINGS



Part #	Size	List Price
101-770	1/8"	2.49
101-771	1/4"	2.79
101-772	3/8"	2.89
101-773	1/2"	3.58
101-774	3/4"	5.14
101-775	1"	7.04
101-776	1-1/4"	14.29
101-777	1-1/2"	13.96
101-778	2"	22.79
101-779	2-1/2"	33.42
101-780	3"	59.16
101-781	4"	103.32

COUPLINGS



Part #	Size	List Price
101-410	1/8"	3.16
101-411	1/4"	3.16
101-412	3/8"	3.16
101-413	1/2"	4.12
101-414	3/4"	5.36
101-415	1"	9.32
101-416	1-1/4"	15.53
101-417	1-1/2"	19.73
101-418	2"	25.07
101-419	2-1/2"	26.82
101-420	3"	94.20
101-421	4"	177.72

REDUCING COUPLINGS

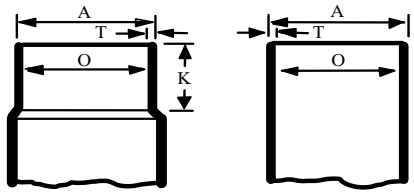
Part #	Size	List Price
101-431	1/4" x 1/8"	7.48
101-432	3/8" x 1/8"	7.81
101-433	3/8" x 1/4"	7.81
101-434	1/2" x 1/4"	11.70
101-435	1/2" x 3/8"	11.70
101-437	3/4" x 3/8"	13.89
101-438	3/4" x 1/2"	8.85
101-440	1" x 3/8"	18.09
101-441	1" x 1/2"	18.09
101-442	1" x 3/4"	20.26
101-443	1-1/4" x 3/8"	31.67
101-444	1-1/4" x 1/2"	31.67
101-445	1-1/4" x 3/4"	31.67
101-446	1-1/4" x 1"	35.47
101-447	1-1/2" x 1/2"	38.53
101-449	1-1/2" x 1"	34.40
101-450	1-1/2" x 1-1/4"	34.40
101-451	2" x 3/4"	55.87
101-452	2" x 1"	55.87
101-453	2" x 1-1/4"	55.87
101-454	2" x 1-1/2"	55.87
101-458	2" x 1/2"	49.88
101-459	2-1/2" x 1-1/2"	148.22
101-460	2-1/2" x 2"	132.34
101-461	3" x 1-1/2"	175.02
101-462	3" x 2"	180.33
101-463	3" x 2-1/2"	175.02
101-464	4" x 1-1/2"	267.97
101-465	4" x 2"	267.97
101-466	4" x 2-1/2"	267.97
101-467	4" x 3"	267.97

UNIONS

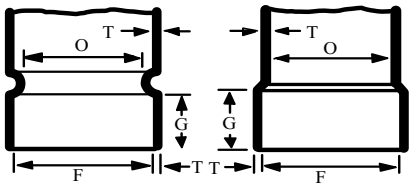


Part #	Size	List Price
101-600	1/8"	18.25
101-601	1/4"	18.06
101-602	3/8"	18.60
101-603	1/2"	17.32
101-604	3/4"	21.38
101-605	1"	27.94
101-606	1-1/4"	44.32
101-607	1-1/2"	52.86
101-608	2"	71.67
101-609	2-1/2"	181.62
101-610	3"	135.66
101-611	4"	396.54

EVERYONE YOU WILL EVER MEET KNOWS
SOMETHING YOU DON'T
- BILL NYE



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		4-1/8	4-1/8	2-1/8	4-1/8		4-1/8	4-1/8	2-1/8	1/8	3-4/8
5	5-1/8	0.08	1-1/8	5-1/8	2-6/8	5-1/8	0.08	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		8-1/8	8-1/8	4-1/8	8-1/8		8-1/8	8-1/8	3-7/8	1/8	7-4/8
10	10-1/8	0.35	10-1/8	10-1/8	4-4/8	10-2/8	0.35	10-1/8	10-2/8	4-3/8	2/8	9-2/8

- NSF - 61 certified
- Temp range 32° to 200°F

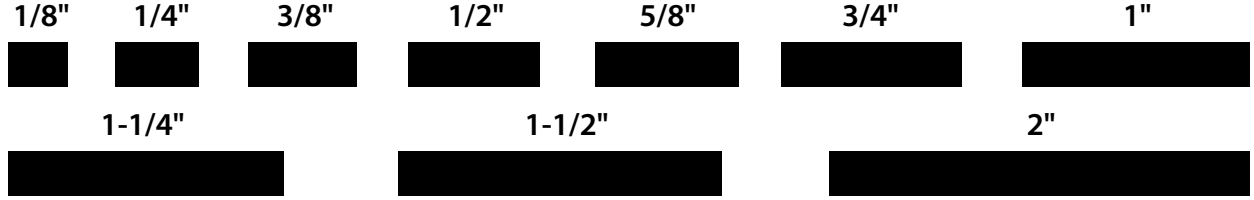
Pressure @100° - 1/8-1 : 500 PSI
- 1-1/4-2 : 400 PSI
- 2-1/2 - 3: 300 PSI

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.



90° Ell C x C



WE-500-R
607-R
107-C

Part#	Nominal (ID)	OD	Approx Net Wt.	Ind #	List Price
77-100	1/8"	1/4"	0.01	W 02003	4.74
77-101	1/4"	3/8"	0.01	W 02009	4.99
77-102	3/8"	1/2"	0.03	W 02017	4.74
77-104	1/2"	5/8"	0.04	W 02022	1.58
77-107	5/8"	3/4"	0.07	W 02028	9.62
77-108	3/4"	7/8"	0.09	W 02034	3.56
77-110	1"	1-1/8"	0.17	W 02047	8.73
77-113	1-1/4"	1-3/8"	0.27	W 02077	13.18
77-114	1-1/2"	1-5/8"	0.41	W 02085	20.55
77-116	2"	2-1/8"	0.73	W 02086	37.46
77-118	2-1/2"	2-5/8"	1.16	W 02087	74.95
77-119	3"	3-1/8"	1.87	W 02088	100.18
77-120	4"	4-1/8"	3.79	W 02090	256.42
77-103	3/8" x 1/4"		0.03	W 02019	8.21
77-105	1/2"x3/8"		-	W 02023	13.25
77-109	3/4" x 1/2"		0.12	W 02036	9.20
77-112	1"x1/2"		0.23	W 02051	18.84
77-111	1"x3/4"		0.23	W 02049	16.86
77-117	2"x1 -1/2"		0.73	W 02078	76.05

90° Street Ell Ftg. x C



77-124	1/4"		0.01	W 02312	8.75
77-125	3/8"		0.03	W 02321	6.04
77-126	1/2"		0.05	W 01652	2.42
77-127	5/8"		0.07	W 02330	9.94
77-128	3/4"		0.12	W 01654	5.13
77-129	1"		0.22	W 02344	13.26
77-130	1-1/4"		0.33	W 02384	20.10
77-131	1-1/2"		0.45	W 02385	26.33
77-132	2"		0.87	W 02386	57.35
77-134	3"		1.93	W 02388	145.96

90° Long Turn Ell C x C



WE-500-L
607-LT
107-L

77-139	1/8"		0.01	W 02715	8.89
77-140	1/4"		0.02	W 02716	6.70
77-141	5/16"		0.03		8.31
77-142	3/8"		0.04	W 02717	8.44
77-143	1/2"		0.06	W 02722	7.20
77-144	5/8"		0.10	W 02728	7.29
77-145	3/4"		0.15	W 02734	9.32

90° Long Turn Street Ell Ftg. x C



WE-503-L
607-2LT

77-152	1/8"		0.01		9.97
77-153	1/4"		0.22	W 02809	7.93
77-154	3/8"		0.04	W 02817	15.50
77-155	1/2"		0.06	W 02822	10.84
77-156	5/8"		0.11	W 02828	12.81
77-157	3/4"		0.15	W 02834	12.95

Cast Fittings available upon request

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	11.91
77-162	1/4"	0.01	W 03012	8.89
77-163	3/8"	0.02	W 03021	7.61
77-164	1/2"	0.04	W 03026	2.91
77-165	5/8"	0.06	W 03030	13.78
77-166	3/4"	0.10	W 03034	5.08
77-167	1"	0.19	W 03044	12.78
77-168	1-1/4"	0.27	W 03050	17.28
77-169	1-1/2"	0.39	W 03055	20.81
77-170	2"	0.75	W 03059	34.76
77-171	2-1/2"	1.23	W 03063	74.05

Street 45° Ftg. x C

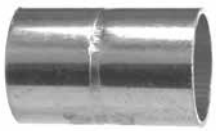
WE-505
606-2



77-177	1/4"	0.01	W 03312	13.25
77-178	3/8"	0.02	W 03321	10.39
77-179	1/2"	0.06	W 03326	3.47
77-180	5/8"	0.06	W 03330	21.91
77-181	3/4"	0.10	W 03334	5.13
77-182	1"	0.18	W 03344	16.86
77-183	1-1/4"	0.27	W 03350	21.27
77-184	1-1/2"	0.38	W 03355	26.01
77-185	2"	0.75	W 03359	41.36

Coupling (Socket) w/Rolled Tube Stop C x C

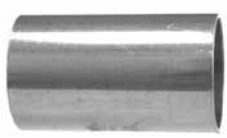
WC-400
100



77-201	1/8"	0.01	W 01003	1.41
77-202	1/4"	0.01	W 01009	1.17
77-203	3/8"	0.02	W 01017	1.53
77-204	1/2"	0.03	W 01022	1.20
77-205	5/8"	0.04	W 01028	3.45
77-206	3/4"	0.06	W 01034	2.41
77-207	1"	0.10	W 01047	4.81
77-208	1-1/4"	0.15	W 01055	8.53
77-209	1-1/2"	0.22	W 01063	11.28
77-210	2"	0.39	W 01072	18.84
77-211	2-1/2"	0.71	W 01082	42.39
77-212	3"	0.98	W 01092	16.44
77-214	4"	2.01	W 10107	139.74

Coupling (Socket) Less Tube Stop C x C

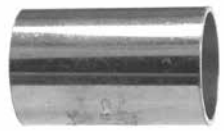
WC-400NS
601



77-219	1/8"	0.01	W 01900	2.29
77-220	1/4"	0.01	W 01901	1.25
77-222	1/2"	0.03	W 01903	1.58
77-223	3/4"	0.06	W 01905	4.07
77-224	1"	0.10	W 01906	6.95
77-225	1-1/4"	0.15	W 01907	10.48
77-226	1-1/2"	0.22	W 01908	14.16
77-227	2"	0.39	W 01909	23.94

Cast Fittings available upon request

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		1.73
77-240	3/4"	0.06		3.68
77-241	1"	0.10		6.82
77-242	1-1/4"	0.15		12.72
77-244	2"	0.39		23.26
77-247	4"	2.01		126.12

Reducer Coupling w/ Stop C x C



WC-400R
600-R

77-252	1/4" x 1/8"	0.01	W 01011	8.10
77-253	3/8" x 1/4"	0.02	W 01019	2.57
77-256	1/2" x 1/4"	0.03	W 01023	3.04
77-255	1/2" x 3/8"	0.03	W 01021	2.50
77-258	5/8" x 1/2"	0.04	W 01025	6.12
77-263	3/4" x 3/8"	0.06	W 01036	5.40
77-262	3/4" x 1/2"	0.06	W 01029	4.27
77-267	1"x1/2"	0.10	W 01049	9.36
77-265	1"x3/4"	0.12	W 01038	7.92
77-270	1 -1/4" x 1/2"	0.14	W 01058	19.21
77-269	1 -1/4" x 3/4"	0.17	W 01056	11.11
77-268	1-1/4" x 1"	0.17	W 01051	11.11
77-274	1-1/2" x 1/2"	0.19	W 01067	19.54
77-273	1 -1/2" x 3/4"	0.25	W 01065	18.40
77-272	1-1/2" x1"	0.24	W 01064	18.40
77-271	1-1/2" x 1-1/4"	0.24	W 01060	18.40
77-277	2" x 1"	0.48	W 01074	30.00
77-276	2 x 1-1/4"	0.46	W 01073	28.45
77-275	2" x 1-1/2"	0.42	W 01069	28.45
77-280	2-1/2"x2"	0.79	W 01075	62.91
77-284	3" x 2-1/2"	1.15	W 01093	78.42

Fitting Reducer

Ftg. x C



WC-403
600-2

77-292	3/8" x 1/8"	0.01	W 01314	4.29
77-291	3/8" x 1/4"	0.02	W 01312	3.49
77-294	1/2" x 1/4"	0.03	W 01317	3.13
77-293	1/2" x 3/8"	0.03	W01315	2.55
77-295	5/8" X 1/2"	0.03	W 01320	6.80
77-298	3/4" x 3/8"	0.05	W 01327	5.60
77-297	3/4" x 1/2"	0.06	W 01326	6.02
77-296	3/4" x 5/8"	0.08	W 01325	4.34
77-352	1" x 1/2"	0.10	W 01265	8.60
77-300	1"x3/4"	0.11	W 01337	6.60
77-356	1 -1/4" x 1/2"	0.14	W 01347	12.41
77-355	1 -1/4" x 3/4"	0.15	W 01345	12.41
77-354	1-1/4" x1"	0.17	W 01343	14.94
77-360	1 -1/2" x 1/2"	0.21	W 01355	15.80
77-359	1 -1/2" x 3/4"	0.21	W 01353	15.80
77-358	1-1/2"x1"	0.22	W 01351	22.00
77-357	1 -1/2" X 1-1/4"	0.21	W 01350	21.14
77-365	2" x 1/2"	0.44	W 01364	33.28
77-364	2" x 3/4"	0.39	W 01362	31.36
77-363	2" x 1"	0.40	W 01360	31.36
77-362	2" x 1 -1/4"	0.38	W 01359	29.75
77-361	2" x 1-1/2"	0.39	W 01358	29.75
77-370	3" x 2-1/2"	0.93	W 01376	76.05

Flush Bushing
Ftg. x C

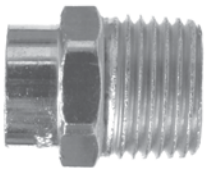
WC-106
618



Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-382	3/4" x 1/2"	0.08	W 01726	6.12
77-383	3/4" x 5/8"	0.04	W 01725	6.39
77-385	1" x 3/4"	0.13	W 01737	9.38
77-387	1" x 1/2"	0.22	W 01739	10.55

Male Adapter
C x M

WC-401
604

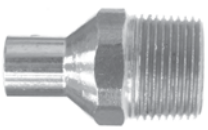


77-398	3/8"	0.06	W 01125	10.09
77-401	1/2"	0.08	WB01131	4.69
77-306	3/4"	0.14	WB01146	5.56
77-309	1"	0.24	WB01163	14.36
77-314	1-1/4"	0.41	W 01171	21.27
77-318	1-1/2"	0.50	W 01179	24.42
77-322	2"	0.87	W 01187	41.36
77-323	2-1/2"	0.87	W 01187	41.36
77-395	1/4" x 1/2"	0.09	W 01113	9.66
77-303	1/2" x 3/4"	0.16	W 01130	12.29
77-304	1/2" x 1 "	0.16	W 01130	13.00
77-307	3/4" x 1"	0.29	W 01145	21.27
77-312	1" x 3/4"	0.18	W 01164	21.27
77-320	1-1/2" x 1-1/4"	0.44	W 01180	49.46

• 14 more reducing sizes available

Fitting Male Adapters
Ftg. x M

WC-404
604-2



77-331	1/2"	0.09	W 01431	14.63
77-332	1/2" x 3/4"	0.15		33.82
77-333	3/4"	0.15	W 01446	18.84
77-334	1"	0.15	W 01463	16.39
77-335	1-1/4"	0.41	W 01471	73.99
77-336	1-1/2"	0.41	W 0147X9	77.59
77-337	2"	0.86	W 01487	144.90

Female Adapters
C x F
WC402
603
WC402R
603R



• More sizes available

Part#	Nominal	Approx Net Wt.	Ind #	List Price
77-340	3/8"	0.06	W 01225	13.86
77-343	1/2"	0.10	WB01231	6.88
77-349	3/4"	0.14	WB01246	12.83
77-402	1"	0.24	WB01263	16.69
77-406	1-1/4"	0.43	W 01271	24.42
77-410	1-1/2"	0.58	W 01279	38.21
77-413	2"	0.74	W 01287	51.89
77-416	3"	1.83	W 01297	286.49
77-341	3/8" x 1/2"	0.10	W 01224	10.75
77-347	1/2" x 1/4"	0.05	W 01233	8.19
77-346	1/2"x3/8"	0,70	W 01232	8.19
77-345	1/2" x 3/4"	0.15	WB01230	11.40
77-351	3/4" x 1/2"	0.11	W 01247	11.40
77-405	1"x 1/2"	0.29	W 01265	30.56
77-404	1"x3/4"	0.22	W 01264	24.42
77-411	1-1/4" x 1"	0.47	W01297	19.27
77-407	1-1/4" x 1-1/2"	0.52	W 01270	52.18

Fitting Female Adapt. Ftg. x F



WC405
603-2

WC405R
603R

77-419	3/8"	0.05	W 01525	14.42
77-420	1/2"	0.11	W 01531	10.48
77-423	3/4"	0.19	W 01546	13.55
77-424	1"	0.25	W 01563	24.20
77-426	1-1/2"	0.55	W 01579	51.34
77-427	2"	0.68	W 01587	68.22

Cap
WC-415
617



77-429	1/4"	0.01	W 07004	1.46
77-430	3/8"	0.01	W 07006	2.31
77-431	1/2"	0.02	WB07007	1.15
77-432	5/8"	0.03	W 07008	2.76
77-433	3/4"	0.04	WB07009	2.15
77-434	1"	0.08	WB07011	5.08
77-435	1-1/4"	0.11	W 07012	6.80
77-436	1-1/2"	0.18	W 07013	9.99
77-437	2"	0.30	W 07014	18.37
77-438	2-1/2"	0.78	W07015	52.81

Unions C x C
WC-407



77-453	1/4"	0.11	W 08001	88.14
77-454	3/8"	0.11	W 08002	44.82
77-455LF	1/2"	0.17	W 08003	19.83
77-456LF	3/4"	0.37	W 08004	32.38
77-457LF	1"	0.51	W 08005	54.52
77-606LF	1-1/4"	0.98	W08006	55.33
77-607LF	1-1/2"	1.21	W08007	101.09
77-608LF	2"		W08008	180.36

U-Type Strap
WS-1100



77-461	1/2"	0.03	A 02529	0.90
77-462	3/4"	0.03	A 02574	1.52
77-463	1"	0.04	A 02614	1.61
77-464	1-1/4"	0.04	A 02650	1.94
77-465	1-1/2"	0.05	A 02675	2.31
77-466	2	0.06	A 02708	2.58

Tee
C x C x C



WT-600
611

Part#	Nominal 1 x 2 x 3	Approx Net Wt.	Ind #	List Price
77-467	1/8"	0.02	W 40306	9.45
77-468	1/4"	0.03	W 04000	9.97
77-470	3/8"	0.05	W 04001	8.00
77-473	1/2"	0.08	WB04006	2.71
77-481	5/8"	0.12	W 04017	17.40
77-483	3/4"	0.18	WB04031	6.52
77-490	1"	0.35	WB04048	20.15
77-504	1-1/4"	0.58	W 04068	27.53
77-519	1-1/2"	0.72	W 04084	42.46
77-543	2"	1.35	W 40102	66.21
77-563	2-1/2"	2.21	W 40123	133.59
77-560	3"	2.75	W 40152	133.59
77-474	1/2"x1/2"x1"	0.13	W 04067	26.75
77-489	3/4"x1/2"x1/2"	0.15	WB04043	7.69
77-488	3/4" x 1/2" x 3/4"	0.19	WB04041	7.69
77-486	3/4" x 3/4" x 1/2"	0.15	WB04033	6.27
77-485	3/4"x3/4"x1"	0.25	W 04065	21.91
77-502	1"x1/2"x3/4"	0.34	W 04062	25.32
77-501	1"x1/2"x1"	0.34	W 04061	24.00
77-500	1"x3/4"x1/2"	0.27	W 04058	24.00
77-499	1"x3/4"x3/4"	0.31	W 04056	24.04
77-498	1"x3/4"x1"	0.38	W 04055	24.04
77-496	1"x1"x1/2"	0.24	WB04051	20.23
77-493	1"x1"x3/4"	0.29	WB04049	20.23
77-492	1"x1"x 1-1/4"	0.64	W 04082	44.98
77-518	1 -1 /4"x 1/2" x 1-1/4"	0.58	W 04083	39.10
77-516	1-1/4"x3/4"x3/4"	0.60	W 04080	38.21
77-514	1 -1/4" x 3/4" x 1-1/4"	0.63	W 04078	38.21
77-511	1-1/4" x 1"x1"	0.50	W 04074	38.21
77-510	1-1/4" x 1"x 1-1/4"	0.62	W 04073	39.10
77-509	1-1/4"x1-1/4"x1/2"	0.33	W 04071	29.76
77-508	1-1/4" x 1-1/4" x 3/4"	0.39	W 04070	29.76
77-507	1-1/4"x1-1/4"x1"	0.47	W 04069	29.76
77-506	1 -1/4" x1 -1/4" x 1-1/2"	0.79	W 40100	64.48
77-524	1 -1/2" x 1 -1/2" x 1/2"	0.46	W 04088	31.60
77-523	1 -1/2" x 1-1/2" x 3/4"	0.51	W 04087	31.60
77-522	1-1/2" x 1-1/2" x1"	0.60	W 04086	31.60
77-521	1-1/2"x1-1/2"x 1-1/4"	0.72	W 04085	30.55
77-560	2"x1"x1"	0.98	W 40247	86.08
77-559	2"x1"x2"	1.34	W 40245	86.08
77-556	2" x 1-1/4" x 1-1/4"	1.14	W 40117	93.37
77-554	2" x 1 -1/2" x 3/4"	1.40	W 40113	86.08
77-549	2"x2"x1/2"	0.77	W 40107	50.01
77-548	2" x 2" x 3/4"	0.90	W 40106	50.01
77-547	2"x2"x1"	0.99	W 40105	51.60
77-546	2" x 2" x 1-1/4"	1.01	W 40104	57.25
77-545	2" x 2" x 1-1/2"	1.17	W 40103	51.60
77-588	3"x3"x1"	2.14	W 04075	171.51
77-587	3" x 3" x 1-1/4"	2.18	W 04074	171.51
77-585	3"x 3" x 2"	2.53	W 40150	171.51

Cast Fittings available upon request

PVC SCHEDULE 80 NIPPLES

Machined Schedule 80 PVC nipples comply fully with ASTM D2464, threads conform to ASTM F1498, and the pipe is extruded from PVC 1120-1220 meeting ASTM D1784 and meets ASTM D1785, products standard 21-70



- Dark Grey
- NSF-61 Cert.

1/2" DIAMETER

Part #	Length	List Price
55-060	X Close (1-1/8")	0.74
55-061	1-1/2"	0.87
55-062	2"	0.74
55-063	2-1/2"	0.92
55-064	3"	0.84
55-065	3-1/2"	0.94
55-066	4"	1.19
55-067	4-1/2"	1.19
55-068	5"	1.19
55-069	5-1/2"	1.31
55-070	6"	1.23
55-072	8"	1.87
55-076	12"	1.90
55-241	24"	3.70
55-243	36"	6.09

3/4" DIAMETER

Part #	Length	List Price
55-080	X Close (1-3/8")	0.75
55-081	1-1/2"	0.82
55-082	2"	0.85
55-083	2-1/2"	0.82
55-084	3"	0.84
55-085	3-1/2"	1.02
55-086	4"	1.12
55-087	4-1/2"	1.39
55-088	5"	1.28
55-089	5-1/2"	1.44
55-090	6"	1.73
55-250	18"	4.58
55-253	36"	11.08

1" DIAMETER

Part #	Length	List Price
55-100	X Close (1-1/2")	1.23
55-101	2"	1.38
55-102	2-1/2"	1.39
55-103	3"	1.95
55-104	3-1/2"	1.44
55-105	4"	1.55
55-106	4-1/2"	1.81
55-107	5"	1.93
55-108	5-1/2"	2.01
55-109	6"	2.56
55-111	8"	3.03
55-115	12"	3.56

1-1/4" DIAMETER

Part #	Length	List Price
55-120	X Close (1-5/8")	2.06
55-121	2"	1.76
55-122	2-1/2"	1.96
55-123	3"	2.68
55-124	3-1/2"	2.44
55-125	4"	2.94
55-126	4-1/2"	2.80
55-127	5"	2.82
55-128	5-1/2"	3.47
55-129	6"	3.51

1-1/2" DIAMETER

Part #	Length	List Price
55-140	X Close (1-5/8")	2.14
55-141	2"	2.04
55-142	2-1/2"	4.13
55-143	3"	2.90
55-144	3-1/2"	2.95
55-145	4"	2.91
55-146	4-1/2"	3.29
55-147	5"	3.52
55-148	5-1/2"	3.72
55-149	6"	4.26

2" DIAMETER

Part #	Length	List Price
55-160	X Close (2")	3.27
55-161	2-1/2"	2.81
55-162	3"	3.64
55-163	3-1/2"	3.66
55-164	4"	3.80
55-165	4-1/2"	4.27
55-166	5"	4.55
55-167	5-1/2"	4.95
55-168	6"	5.11
55-174	12"	8.84
55-292	30"	18.79

More sizes available...just ask!

See page 268 for sch 80 fittings

PVC SCHEDULE 40 FITTINGS

• NSF 61 certified for use with drinking (potable) water • Max Temperature: 140°F • Max Pressure: Not Rated

Resistant to corrosion, strong and rigid - commonly used in low pressure plumbing applications. ASTM D1784 and D2466.

SLIP TEES



Part #	Size	List Price
55-710	1/2"	0.93
55-711	3/4"	0.95
55-712	3/4" x 3/4" x 1/2"	1.22
55-713	1"	1.74
55-714	1" x 1" x 1/2"	1.75
55-715	1" x 1" x 3/4"	1.92
55-716	1-1/4"	2.74
55-717	1-1/2"	3.32
55-718	2"	5.49
55-719	2-1/2"	16.99

SLIP COUPLING



Part #	Size	List Price
55-736	1/2"	0.41
55-737	3/4"	0.60
55-738	1"	1.04
55-739	1-1/4"	1.54
55-740	1-1/2"	1.52
55-741	2"	2.33
55-742	2-1/2"	5.52
55-743	3"	7.70

THREADED COUPLING



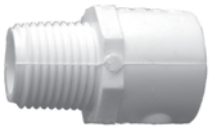
Part #	Size	List Price
55-950	1/2"	0.94
55-951	3/4"	1.44

SLIP X FEMALE ADAPTER



Part #	Size	List Price
55-744	1/2"	0.74
55-812	1/2" x 1/4"	1.25
55-813	1/2" x 3/8"	1.25
55-745	3/4"	0.95
55-746	1"	1.02
55-747	1-1/4"	1.60
55-748	1-1/2"	1.92
55-749	2"	2.57
55-807	2-1/2"	7.37
55-804	3"	8.33

MIP X SLIP ADAPTER



Part #	Size	List Price
55-750	1/2"	0.64
55-751	3/4"	0.65
55-752	1"	1.26
55-753	1-1/4"	1.54
55-754	1-1/2"	1.92
55-755	2"	2.52
55-808	2-1/2"	7.90
55-811	3"	10.35

90° SLIP ELBOW



Part #	Size	List Price
55-720	1/2"	0.65
55-721	3/4"	0.74
55-722	1"	1.48
55-723	1-1/4'	2.32
55-724	1-1/2"	3.13
55-725	2"	3.93
55-726	2-1/2"	11.36
55-727	3"	13.60

SLIP CAP



Part #	Size	List Price
55-756	1/2"	0.60
55-757	3/4"	0.64
55-758	1"	1.07
55-759	1-1/4'	1.73
55-760	1-1/2"	1.68
55-761	2"	2.02
55-762	2-1/2"	7.29
55-801	3"	7.02

THREADED PIPE CAP



Part #	Size	List Price
55-763	1/2"	1.41
55-764	3/4"	1.64

SLIP X FIP BUSHING



Part #	Size	List Price
55-805	1/2" x 1/4"	1.37
55-806	1/2" x 3/8"	1.37
55-781	3/4" x 1/2"	1.22
55-782	1" x 1/2"	1.74
55-783	1" x 3/4"	1.65
55-784	1-1/4" x 1/2"	2.56
55-785	1-1/4" x 3/4"	2.56
55-786	1-1/4" x 1"	2.56
55-803	1-1/2" x 1/2"	2.95
55-787	1-1/2" x 3/4"	2.95
55-788	1-1/2" x 1"	2.95
55-809	1-1/2" x 1-1/4"	2.95
55-810	2" x 1/2"	4.15
55-789	2" x 3/4"	3.95
55-790	2" x 1"	3.95
55-791	2" x 1-1/4"	3.95
55-792	2" x 1-1/2"	4.70
55-798	2-1/2" x 1-1/2"	5.72
55-796	2-1/2" x 2"	5.72
55-816	3" x 2"	6.59
55-780	3" x 2-1/2"	6.59

45° SLIP ELBOW



Part #	Size	List Price
55-728	1/2"	1.22
55-729	3/4"	1.68
55-730	1"	2.29
55-731	1-1/4'	3.20
55-732	1-1/2"	4.00
55-733	2"	4.59
55-734	2-1/2"	11.99
55-735	3"	17.66

SLIP BUSHING



Part #	Size	List Price
55-765	3/4" x 1/2"	0.72
55-766	1" x 1/2"	1.41
55-767	1" x 3/4"	1.24
55-768	1-1/4" x 1/2"	1.60
55-769	1-1/4" x 3/4"	1.90
55-770	1-1/4" x 1"	1.60
55-815	1-1/2" x 1/2"	1.69
55-771	1-1/2" x 3/4"	2.02
55-772	1-1/2" x 1"	1.69
55-773	1-1/2" x 1-1/4"	1.78
55-774	2" x 1/2"	2.79
55-775	2" x 3/4"	3.31
55-776	2" x 1"	2.93
55-777	2" x 1-1/4"	3.31
55-778	2" x 1-1/2"	2.93
55-814	2-1/2" x 1-1/2"	4.48
55-779	2-1/2" x 2"	4.48
55-797	3" x 2"	6.59
55-802	3" x 2-1/2"	6.59

You can tell how smart people are by what they laugh at.

- Tina Fey

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"	4.15
806-003	3/8"	4.15
806-005	1/2"	4.38
806-007	3/4"	5.94
806-010	1"	9.01
806-012	1-1/4"	11.46
806-015	1-1/2"	12.27
806-020	2"	15.62
806-025	2-1/2"	34.71
806-030	3"	46.50
806-040	4"	59.30
806-060	6"	168.81



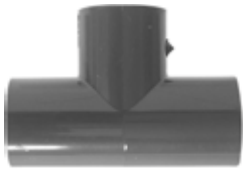
FIP X FIP 90° ELBOW

Part #	Size	List Price
808-002	1/4"	10.86
808-003	3/8"	10.31
808-005	1/2"	10.14
808-007	3/4"	12.62
808-010	1"	15.09
808-012	1-1/4"	16.25
808-015	1-1/2"	24.27
808-020	2"	30.96
808-025	2-1/2"	101.09
808-030	3"	163.03
808-040	4"	341.74



SLIP X SLIP 45° ELBOW

Part #	Size	List Price
817-002	1/4"	14.93
817-003	3/8"	15.71
817-005	1/2"	7.84
817-007	3/4"	12.60
817-010	1"	17.93
817-012	1-1/4"	24.05
817-015	1-1/2"	21.77
817-020	2"	36.84
817-025	2-1/2"	73.49
817-030	3"	89.44
817-040	4"	191.90
817-060	6"	202.85



SLIP X SLIP TEE

Part #	Size	List Price
801-002	1/4"	11.72
801-003	3/8"	11.72
801-005	1/2"	11.72
801-007	3/4"	12.94
801-010	1"	15.37
801-012	1-1/4"	44.45
801-015	1-1/2"	42.22
801-020	2"	59.13
801-025	2-1/2"	57.40
801-030	3"	71.74
801-040	4"	83.14
801-060	6"	283.88



FIP X FIP TEE

Part #	Size	List Price
805-002	1/4"	13.55
805-003	3/8"	13.55
805-005	1/2"	14.27
805-007	3/4"	15.09
805-010	1"	33.30
805-012	1-1/4"	35.30
805-015	1-1/2"	42.79
805-020	2"	46.01
805-025	2-1/2"	167.49
805-030	3"	174.92
805-040	4"	284.30



SLIP X SLIP COUPLING

Part #	Size	List Price
829-002	1/4"	12.03
829-003	3/8"	12.03
829-005	1/2"	7.54
829-007	3/4"	11.40
829-010	1"	11.01
829-012	1-1/4"	15.95
829-015	1-1/2"	18.08
829-020	2"	19.42
829-025	2-1/2"	45.43
829-030	3"	54.90
829-040	4"	77.82
829-060	6"	140.57



FIP X FIP COUPLING

Part #	Size	List Price
830-002	1/4"	9.50
830-003	3/8"	10.11
830-005	1/2"	8.86
830-007	3/4"	12.01
830-010	1"	12.89
830-012	1-1/4"	15.95
830-015	1-1/2"	37.35
830-020	2"	39.20
830-030	3"	104.24
830-040	4"	180.49



SLIP X SLIP REDUCING COUPLING

Part #	Size	List Price
829-101	3/4" x 1/2"	9.21
829-130	1" x 1/2"	14.39
829-131	1" x 3/4"	14.12
829-168	1-1/4" x 1"	28.68
829-211	1-1/2" x 1	28.55
829-212	1-1/2" x 1-1/4"	35.26
829-251	2 x 1-1/2"	32.18
829-338	3" x 2"	94.17
829-422	4" x 3"	148.89
829-532	6" x 4"	303.69



FIP X FIP REDUCING COUPLING

Part #	Size	List Price
830-052	3/8" x 1/4"	13.20
830-073	1/2" x 3/8"	15.44
830-101	3/4" x 1/2"	11.19
830-130	1" x 1/2"	14.89
830-131	1" x 3/4"	14.18
830-167	1-1/4" x 3/4"	31.92
830-168	1-1/4" x 1"	22.79
830-211	1-1/2" x 1"	47.36
830-212	1-1/2" x 1-1/4"	50.66
830-251	2" x 1-1/2"	62.90



MIP X SLIP ADAPTER

Part #	Size	List Price
836002	1/4"	8.79
836003	3/8"	9.25
836005	1/2"	9.25
836007	3/4"	10.22
836010	1"	17.68
836012	1-1/4"	19.61
836015	1-1/2"	29.67
836020	2"	42.91
836025	2-1/2"	46.35
836030	3"	54.15
836040	4"	91.52



MIP X FIP BUSHING

Part #	Size	List Price
839041	1/4" x 1/8"	18.07
839050	3/8" x 1/8"	15.16
839052	3/8" x 1/4"	15.16
839072	1/2" x 1/4"	15.16
839073	1/2" x 3/8"	15.95
839099	3/4" x 3/8"	11.90
839101	3/4" x 1/2"	9.31
839130	1" x 1/2"	14.59
839131	1" x 3/4"	16.33
839166	1-1/4" x 1/2"	18.42
839167	1-1/4" x 3/4"	17.31
839168	1-1/4" x 1"	15.47
839209	1-1/2" x 1/2"	21.84
839210	1-1/2" x 3/4"	19.30
839211	1-1/2" x 1"	19.30
839212	1-1/2" x 1-1/4"	21.84
839247	2" x 1/2"	32.01
839248	2" x 3/4"	26.86
839249	2" x 1"	26.86
839250	2" x 1-1/4"	26.86
839251	2" x 1-1/2"	26.86
839338	3" x 2"	49.41
839420	4" x 2"	101.86
839422	4" x 3"	130.10



SLIP X SLIP UNION

Part #	Size	List Price
897002	1/4"	28.45
897003	3/8"	29.95
897005	1/2"	17.02
897007	3/4"	20.37
897010	1"	23.31
897012	1-1/4"	43.89
897015	1-1/2"	52.29
897020	2"	70.94
897025	2-1/2"	107.13
897030	3"	125.39
897040	4"	173.45



FIP X FIP THREADED UNION

Part #	Size	List Price
898002	1/4"	36.54
898003	3/8"	30.66
898005	1/2"	18.60
898007	3/4"	24.71
898010	1"	34.62
898012	1-1/4"	62.77
898015	1-1/2"	92.57
898020	2"	119.58
898025	2-1/2"	160.13
898030	3"	303.36
898040	4"	354.79



MIP THREADED PLUG

Part #	Size	List Price
850002	1/4"	7.94
850003	3/8"	7.94
850005	1/2"	7.45
850007	3/4"	7.76
850010	1"	10.11
850012	1-1/4"	13.28
850015	1-1/2"	19.26
850020	2"	16.60
850025	2-1/2"	46.35
850030	3"	64.42
850040	4"	105.28



SLIP CAP

Part #	Size	List Price
847002	1/4"	10.07
847003	3/8"	10.70
847005	1/2"	7.76
847007	3/4"	8.18
847010	1"	13.78
847012	1-1/4"	16.64
847015	1-1/2"	16.64
847020	2"	32.84
847025	2-1/2"	67.06
847030	3"	78.45
847040	4"	132.31
847060	6"	329.16



FIP THREADED CAP

Part #	Size	List Price
848002	1/4"	9.21
848003	3/8"	9.21
848005	1/2"	9.21
848007	3/4"	12.28
848010	1"	15.48
848012	1-1/4"	15.47
848015	1-1/2"	17.67
848020	2"	36.53
848025	2-1/2"	69.42
848030	3"	97.37
848040	4"	171.44

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^{0}F to 200^0 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 temeratures. Polyethylene is NSF approved for potable water.

Temperature Range: -65^{0}F to 190^{0}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. Black Color

- **NSF-approved materials**
- **FDA-approved materials**

Note: Do not use with compressed air or gas.

- 10% Fiberglass fill for extra strength

NEW ITEMS ARE BOLDED

MANY NEW SIZES

ELBOW



Part #	Size	List Price P	List Price W
28-701	1/4"		6.85
28-702	3/8"	9.30	
28-703	1/2"		6.72
28-704	3/4"	7.22	7.61
28-705	1"		13.48
28-706	1-1/4"		15.27
28-707	1-1/2"		17.57
28-708	2"	23.23	23.73
28-709	3"	118.84	

TEE



Part #	Size	List Price P	List Price W
28-741	1/4"	6.47	5.38
28-742	3/8"	10.80	
28-743	1/2"	6.40	8.15
28-744	3/4"	8.28	9.38
28-745	1"		18.33
28-746	1-1/4"		18.33
28-747	1-1/2"		27.48
28-748	2"	28.85	29.64
28-749	3"	139.05	

STREET ELBOW



Part #	Size	List Price P	List Price W
28-819	1/8"	3.25	3.36
28-720	1/4"		5.20
28-721	3/8"		7.26
28-723	1/2"	5.12	4.96
28-724	3/4"		6.89
28-725	1"		15.11
28-726	1-1/4"		16.70
28-820	2"	15.14	17.29
28-821	3"	123.29	

HEX HEAD PLUGS

- Cored



Part #	Size	List Price B	List Price P	List Price W
28-601	1/8"	0.64	0.83	0.93
28-602	1/4"	0.68	0.73	0.98
28-603	3/8"	0.70	0.92	0.92
28-604	1/2"	0.81		2.02
28-605	3/4"	1.28		1.18
28-606	1"			1.86
28-607	1-1/4"			2.34
28-608	1-1/2"			3.63
28-609	2 "			5.66
28-610	3"		38.86	

HEX BUSHING



Part #	Size	List Price P	List Price W
28-659	1/4 x 1/8"	2.52	2.42
28-660	3/8 x 1/8"	2.52	1.68
28-661	3/8 x 1/4"	2.38	2.40
28-811	1/2" x 1/8"	2.05	
28-663	1/2 x 1/4"	2.47	1.98
28-664	1/2 x 3/8"	2.18	2.48
28-665	3/4 x 1/8"		3.06
28-666	3/4 x 1/4"	2.75	1.94
28-667	3/4 x 3/8"		2.63
28-668	3/4 x 1/2"	2.97	2.09
28-812	1" x 3/8"	2.53	3.12
28-671	1 x 1/2"	2.89	3.07
28-672	1 x 3/4"	3.49	2.42
28-813	1-1/4" x 1/2"	3.38	3.62
28-674	1-1/4 x 3/4"		4.64
28-675	1-1/4 x 1"		4.08
28-814	1-1/2" x 1/2"	6.70	6.93
28-678	1-1/2 x 3/4"	4.80	5.38
28-679	1-1/2 x 1"		5.92
28-680	1-1/2 x 1-1/4"	3.78	4.52
28-815	2" x 1/2"	10.64	11.17
28-682	2 x 3/4"		13.39
28-683	2 x 1"		11.90
28-816	2" x 1-1/4"	5.32	5.43
28-685	2 x 1-1/2"		5.77
28-817	3" x 1-1/2"	37.22	
28-818	3" x 2"	15.83	15.49

HEX NIPPLES



		List Price		
Part #	Size	B	P	W
28-611	1/8"	0.78		0.83
28-612	1/4"	0.78	0.96	1.42
28-613	3/8"	0.78	0.99	0.78
28-614	1/2"	1.08	1.06	1.10
28-615	3/4"		1.56	1.36
28-616	1"			2.38
28-617	1 1/4 "			5.08
28-618	1 1/2"			4.98
28-619	2"		6.21	6.33
28-800	3"		28.52	
28-801	4"		44.55	

COUPLING



		List Price	
Part #	Size	P	W
28-761	1/4"	5.16	6.16
28-762	3/8"	5.39	6.78
28-763	1/2"	5.95	5.70
28-764	3/4"	6.12	5.84
28-765	1"		7.36
28-803	1-1/4"	5.23	6.30
28-767	1-1/2"		10.01
28-768	2"		12.37
28-804	3"	73.52	

PLASTIC BULKHEAD FITTINGS



20% Glass Filled Polypropylene w/ Santropene Gasket

Part #	Fpt	Hole	List Price
28-693P	1/2"	1-3/8"	30.02
28-694P	3/4"	1-3/8"	30.02
28-695P	1"	1-3/4"	39.03
28-696P	1-1/4"	2"	42.39
28-697P	1-1/2"	3"	60.49
28-698P	2"	3"	56.43
28-699P	3"	4-1/2"	149.48

REDUCING COUPLINGS

		List Price	
Part #	Size	P	W
28-774	1/4" x 1/8"	4.58	4.73
28-775	3/8" x 1/4"	4.58	4.73
28-776	1/2" x 3/8"	4.58	4.73
28-777	3/4" x 3/8"	4.82	4.82
28-778	3/4" x 1/2"	4.82	4.82
28-779	1" x 3/4"	13.22	
28-805	1-1/2" x 1"	22.44	
28-806	1-1/2" x 1-1/4"	22.44	
28-807	2" x 1"	23.84	
28-808	2" x 1-1/4"	23.84	
28-809	2" x 1-1/2"	23.84	
28-810	3" x 2"	84.57	

REDUCER NIPPLES



		List Price		
Part #	Size	B	P	W
28-620	1/4 x 1/8"			1.19
28-621	3/8 x 1/8"			0.94
28-622	3/8 x 1/4"			0.99
28-627	1/2" x 1/8"			
28-623	1/2 x 1/4"	0.92		1.17
28-624	1/2 x 3/8"	0.91		1.10
28-628	3/4 x 3/8"	1.15		1.00
28-625	3/4 x 1/2"	1.32		1.32
28-626	1" x 1/2"		6.17	
28-629	1 x 3/4"		7.13	
28-631	1-1/4 x 3/4"		7.26	
28-633	1-1/4" x 1"		5.95	3.93
28-802	1-1/2" x 1"		7.13	
28-632	1-1/2" x 1-1/4"		6.33	
28-634	2 x 1-1/4"		10.61	
28-630	2" x 1-1/2"		6.98	
28-635	3 x 2"		29.73	

PIPE CAP



		List Price
Part #	Size	W
28-640	1/4"	0.83
28-641	3/8"	1.12
28-642	1/2"	1.12
28-643	3/4"	1.08

Available in 3 types of plastic

Add **W** at the end of the part number for White Nylon.

Add **B** for Black Polyethylene.

Add **P** for Polypropylene.

MALE ADAPTERS



Hose ID x MIP

		List Price		
Part #	Size	B	P	W
33-002	3/16 x 1/8"	0.80		0.77
33-003	3/16 x 1/4"	0.59		0.92
33-004	1/4 x 1/8"	0.68		0.89
33-005	1/4 x 1/4"	0.76		0.80
33-006	1/4 x 3/8"	0.78		1.06
33-007	1/4 x 1/2"	0.77		1.11
33-380	1/4 x 3/4"			1.31
33-008	5/16 x 1/8"	0.69		0.85
33-009	5/16 x 1/4"	0.82		0.91
33-010	5/16 x 3/8"			0.95
33-011	3/8 X 1/8"			0.89
33-012	3/8 x 1/4"	0.72	0.99	1.36
33-013	3/8 x 3/8"	0.82		1.01
33-014	3/8 x 1/2"	0.85	1.22	1.11
33-026	3/8 x 3/4"	0.76		1.31
33-317	3/8" x 1"			1.68
33-015	1/2 x 1/4"	0.72	0.94	0.89
33-016	1/2 x 3/8"	0.82	1.00	0.97
33-017	1/2 x 1/2"	0.91	0.97	0.99
33-018	1/2 x 3/4"	1.13	1.28	1.53
33-303	1/2" x 1"		1.94	1.92
33-019	5/8 x 3/8"	0.98		0.85
33-020	5/8 x 1/2"	0.90	0.94	1.27
33-021	5/8 x 3/4"	1.09		1.46
33-306	3/4" x 3/8"		1.83	1.42
33-022	3/4 x 1/2"	0.94	1.12	1.41
33-023	3/4 x 3/4"	1.11	1.34	1.39
33-000	3/4 x 1"			1.80
33-318	3/4" x 1-1/4"		2.94	2.86
33-319	3/4" x 1-1/2"		4.53	5.45
33-307	1" x 1/2"		2.66	2.34
33-024	1 x 3/4"	3.29	1.76	1.57
33-025	1 x 1"	2.13	1.74	2.05
33-029	1 x 1-1/4"			3.99
33-320	1" x 1-1/2"		4.71	5.45
33-349	1-1/4" x 3/4"		4.53	4.01
33-028	1-1/4 x 1"			3.10
33-030	1-1/4 x 1-1/4"			3.60
33-032	1-1/4 x 1-1/2"			3.28
33-321	1-1/2" x 1-1/4"		5.14	3.56
33-033	1-1/2 x 1-1/2"			4.09
33-322	2" x 1-1/2"		11.87	15.95
33-035	2 x 2"			7.01
33-323	3" x 3"		29.83	
33-324	4" x 4"		62.59	

Available in 3 types of plastic

Add **W** at the end of the part number for White Nylon.

Add **B** for Black Polyethylene.

Add **P** for Polypropylene.

ELBOWS



Hose ID x Male Pipe

		List Price		
Part #	Size	B	P	W
33-308	3/16 x 1/8	1.30		
33-381	3/16 x 1/4			1.82
33-038	1/4 x 1/8	1.32		1.49
33-039	1/4 x 1/4	1.26		1.12
33-309	1/4 x 3/8	0.97		1.82
33-351	1/4 x 1/2	1.24	1.28	1.39
33-352	1/4 x 3/4	1.46	1.48	1.62
33-036	5/16 x 1/8	1.11		1.44
33-040	5/16 x 1/4	1.12		1.70
33-310	5/16 x 3/8	1.60		2.18
33-046	3/8 x 1/8	1.26		1.68
33-041	3/8 x 1/4	1.51		1.52
33-042	3/8 x 3/8	2.48		1.34
33-047	3/8 x 1/2	1.68		1.74
33-384	3/8 x 3/4	2.41		2.35
33-048	1/2 x 1/4		1.56	1.70
33-043	1/2 x 3/8	1.54		1.66
33-311	1/2 x 1/2	1.42	1.70	1.65
33-385	1/2 x 3/4	3.10	2.54	2.16
33-327	1/2" x 1"		2.51	2.59
33-328	5/8 x 1/4		2.07	1.96
33-044	5/8 x 3/8	1.80		1.81
33-045	5/8 x 1/2	2.18		2.17
33-312	5/8 x 3/4	2.55		2.42
33-329	5/8" x 1"		2.79	2.33
33-313	3/4 x 1/2	2.34	1.97	2.21
33-314	3/4 x 3/4	2.43	2.12	2.18
33-315	3/4 x 1			2.40
33-330	3/4 x 1-1/4		5.10	5.45
33-331	3/4 x 1-1/2		5.10	5.65
33-332	1 x 1/2	2.42	2.71	2.51
33-386	1x3/4			2.99
33-316	1 x 1	3.38	2.84	2.73
33-460	1 x 1-1/4			4.70
33-333	1 x 1-1/2		5.21	6.02
33-334	1-1/4 x 1		5.91	
33-461	1-1/4 x 1-1/4		4.42	5.34
33-335	1-1/4 x 1-1/2		5.65	6.36
33-462	1-1/2 x 1-1/4		5.02	6.04
33-463	1-1/2 x 1-1/2		7.03	6.73
33-336	1-1/2 x 2		18.53	
33-464	2 x 2			8.23
33-337	3 x 3		90.57	

HOSE BARB X FE ADAPTERS



Hose ID x FIP

Part #	Size	List Price B	List Price P	List Price W
33-052	1/4 x 1/8"		3.12	3.27
33-053	1/4 x 1/4"	3.69		5.71
33-054	1/4 x 3/8"		3.16	3.21
33-350	1/4 x 1/2"		3.25	3.21
33-325	1/4 x 3/4"		3.66	3.82
33-057	3/8 x 1/8"		3.12	3.12
33-058	3/8 x 1/4"	5.08		1.92
33-059	3/8 x 3/8"			4.27
33-060	3/8 x 1/2"			5.86
33-442	3/8 x 3/4"		3.68	3.90
33-066	1/2 x 1/4"		3.01	3.01
33-062	1/2 x 3/8"		4.66	
33-061	1/2 x 1/2"			3.79
33-067	1/2 x 3/4"		3.80	4.10
33-444	5/8 x 3/8"		3.16	3.16
33-068	5/8 x 1/2"		3.31	3.34
33-063	5/8 x 3/4"			5.93
33-326	3/4 x 3/8"		3.29	3.38
33-064	3/4 x 1/2"			4.64
33-065	3/4 x 3/4"			15.97
33-049	1 x 3/4"		7.00	

Available in 3 types of plastic

Add **W** at the end of the part number for White Nylon.

Add **B** for Black Polyethylene.

Add **P** for Polypropylene.

HOSE BARB X FE ELBOW



Hose ID x Female Pipe

Part #	Size	List Price P	List Price W
33-338	1/4 x 1/8	3.41	3.36
33-467	1/4 x 1/4	3.41	3.62
33-339	1/4 x 3/8	3.40	3.56
33-340	1/4 x 1/2	3.78	3.77
33-341	3/8 x 1/8	3.41	3.36
33-468	3/8 x 1/4	3.27	3.40
33-469	3/8 x 3/8	3.53	3.56
33-342	3/8 x 1/2	3.64	3.77
33-402	1/2 x 3/8		5.37
33-343	1/2 x 1/2	2.80	2.38
33-403	1/2 x 3/4		4.60
33-470	5/8 x 1/2	3.64	3.77
33-344	5/8 x 3/4	3.17	3.10
33-345	3/4 x 1/2	3.78	4.06
33-471	3/4 x 3/4	3.17	6.08

UNION ELBOWS



Part #	Size	List Price B	List Price P	List Price W
33-390	1/4	1.35		1.59
33-391	3/8	1.77		1.59
33-394	1/2	1.37		1.59
33-395	5/8	2.00	1.35	2.10
33-396	3/4	2.05	2.22	2.11
33-397	1			3.13
33-398	1-1/4			9.10
33-399	1-1/2			11.95
33-389	2			18.83

REDUCING UNION ELBOWS

Part #	Size	List Price W
33-353	3/8 x 1/4	2.07
33-392	1/2 x 1/4	2.46
33-419	1/2 x 3/8	1.31
33-346	3/4 x 5/8	2.22

SPLICERS



Part #	Size	List Price B	List Price P	List Price W
33-091	1/8	0.68		0.78
33-092	3/16	0.61		1.08
33-093	1/4	0.70		0.82
33-094	5/16			1.11
33-095	3/8	0.76	0.91	0.80
33-096	1/2	0.72	0.88	0.86
33-097	5/8	0.97		1.07
33-098	3/4	2.34	1.45	1.56
33-099	1		1.78	2.24
33-480	1-1/4			4.07
33-481	1-1/2			4.05
33-482	2			15.16

REDUCING SPLICERS

Part #	Size	List Price B	List Price W
33-079	1/4 x 1/8		0.68
33-347	1/4 x 3/16		0.70
33-406	3/8 x 1/4	0.74	0.91
33-348	3/8 x 5/16		0.76
33-407	1/2 x 1/4	0.77	0.83
33-408	1/2 x 3/8	0.77	0.92
33-409	5/8 x 3/8		1.07
33-410	5/8 x 1/2	0.78	1.02
33-089	3/4 x 1/2		1.92

ALL HOSE BARB "Y"



Part #	Size	List Price P*	List Price W
33-300*	1/4"	7.08	
33-301*	3/8"	4.19	3.45
33-302*	1/2"	7.85	

**Natural Polypro*

TEES BARBED ON ALL SIDES



		List Price		
Part #	Size	B	P	W
33-415	1/8	1.30		1.77
33-417	5/32			3.32
33-418*	3/16	1.22		2.54
33-420	3/16	1.13		1.45
33-422	1/4	1.27		1.76
33-426	5/16	2.83		1.58
33-429	3/8	1.33	1.93	1.53
33-433	1/2	1.37		1.77
33-436	5/8	1.72		1.80
33-437	3/4	1.77		2.05
33-438	1	2.07		3.51
33-439	1-1/4			5.53
33-440	1-1/2		5.06	6.13
33-441	2			21.10

** single barb*

REDUCING TEES

		List Price	
Part #	Size 3 x 1 x 2	B	W
33-416*	1/8 x 5/32 x 5/32		1.52
33-423	1/4 x 3/8 x 3/8	1.55	
33-424	1/4 x 1/2 x 1/2	1.51	1.62
33-430	3/8 x 1/2 x 1/2	1.71	1.90
33-431	3/8 x 5/8 x 5/8		1.80
33-432	1/2 x 3/8 x 3/8	1.88	2.11
33-434	1/2 x 1/2 x 5/8	1.83	
33-435	1/2 x 3/4 x 3/4	1.87	2.50

** single barb*

MALE BRANCH TEE



		List Price	
Part #	Size 1 & 2 x 3	B	W
33-448	1/4 x 1/4	1.42	1.66
33-450	3/8 x 1/4		2.04
33-451	3/8 x 3/8		2.62
33-453	1/2 x 1/4		2.71
33-454	1/2 x 3/8		1.83
33-455	1/2 x 1/2		1.67
33-456	3/4 x 3/4		2.40

More sizes available

PLASTIC GARDEN HOSE FITTINGS

FITTINGS WITH GARDEN HOSE THREAD

GARDEN HOSE CAP

• Washer not included



• White Nylon

Part #	Size	List Price
30-103P	3/4"	1.22

GARDEN HOSE NUT



• White Nylon

Part #	Size	List Price
31-022	3/4"	1.02

GARDEN HOSE ADAPTER INSERTS

• for assembly with 31-022



• White Nylon

Part #	Size	List Price
31-030	1/4"	
31-031	3/8"	0.33
31-032	1/2"	0.90
31-033	5/8"	0.92
31-034	3/4"	0.85
31-035	1/2" MPT	2.53

GARDEN HOSE THREAD ADAPTERS



• White Nylon

Part #	Size	List Price
31-038	1/4"	1.15
31-039	3/8"	0.95
31-040	1/2"	1.90
31-041	5/8"	1.48
31-042	3/4"	1.13

MALE GARDEN HOSE X FEMALE PIPE



• White Nylon

Part #	Size	List Price
31-067	MGH X 1/4	3.38
31-068	MGH X 1/2 FIP	4.02
31-069	MGH X 3/4	2.95

FEMALE GARDEN HOSE X MALE PIPE



• White Nylon

Part #	Size	List Price
31-093	FGH X 3/4 MPT	4.21
31-095	FGH X 3/4 MGH	2.95

FEMALE GARDEN HOSE X FEMALE PIPE



• White Nylon

Part #	Size	List Price
31-096	FGH X 1/2 FIP	3.91
31-097	FGH X 3/4 FIP	4.82

ADAPTERS GARDEN TO PIPE THREAD



• White Nylon

Part #	Size	List Price
31-055	GHT X 3/8 MPT	0.91
31-058	GHT X 1/2 MPT	1.33
31-063	GHT X 3/4 MPT	1.56
31-064	GHT X 1	1.37

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.

FDA and NSF Listed

UNION & REDUCING UNION CONNECTORS



Part #	Size	List Price P	List Price N
17-064	1/4"	4.16	3.91
17-065	5/16"	4.03	3.99
17-078	5/16" x 1/4"		4.41
17-066	3/8"	7.00	5.79
17-079	3/8" x 1/4"	5.47	7.77
17-068	1/2"	6.86	9.62
17-081	1/2" x 3/8"	6.42	

BULKHEAD UNIONS



Part #	Size	List Price
17-088N	1/4"	6.51
17-090N	3/8"	9.04
17-091N	1/2"	9.19

UNION TEES



Part #	Size	List Price P	List Price N
17-103	1/4"	9.36	6.97
17-105	3/8"	11.94	13.65
17-106	1/2"	10.82	10.26

UNION ELBOWS



Part #	Size	List Price P	List Price N
17-124	1/4"	4.70	5.20
17-126	3/8"	6.87	6.82
17-127	1/2"	8.97	

FEMALE CONNECTORS



Part #	Tube x Female Pipe	List Price P	List Price N
17-145	1/4 x 1/8	3.45	
17-146	1/4 x 1/4		3.54
17-153	3/8 x 1/4	6.00	3.84
17-154	3/8 x 3/8	4.49	4.45
17-158	1/2 x 3/8	5.99	
17-159	1/2 x 1/2	4.93	

MALE CONNECTORS



Part #	Tube x Male Pipe	List Price P	List Price N
17-176	1/8 x 1/8		2.13
17-179	1/4 x 1/8	2.51	2.79
17-180	1/4 x 1/4	3.06	2.91
17-181	1/4 x 3/8	2.87	2.87
17-184	5/16 x 1/4		3.04
17-187	3/8 x 1/8	2.95	3.10
17-188	3/8 x 1/4	4.04	4.67
17-189	3/8 x 3/8	3.83	4.13
17-190	3/8 x 1/2	5.29	5.57
17-193	1/2 x 1/4	8.41	5.57
17-194	1/2 x 3/8	6.06	4.86
17-195	1/2 x 1/2	8.37	5.91

FEMALE ELBOWS



Part #	Tube x Female Pipe	List Price P	List Price N
17-254	1/4 x 1/4	6.38	
17-258	3/8 x 1/4	5.42	6.39
17-259	3/8 x 3/8	7.44	7.44
17-262	1/2 x 3/8	9.78	
17-263	1/2 x 1/2	10.10	

MALE ELBOWS



Part #	Tube x Male Pipe	List Price P	List Price N
17-224	1/4 x 1/8	4.18	4.37
17-225	1/4 x 1/4	4.22	5.15
17-226	1/4 x 3/8		4.54
17-229	5/16 x 1/4		4.71
17-233	3/8 x 1/4	5.77	6.44
17-234	3/8 x 3/8	5.77	8.61
17-237	1/2 x 3/8	6.36	5.49
17-238	1/2 x 1/2	8.88	6.00

MALE BRANCH TEES



Part #	Tube x Male Pipe	List Price P	List Price N
17-291	1/4 x 1/8	7.75	
17-292	1/4 x 1/4	6.41	8.99
17-296	3/8 x 1/4	7.13	8.20
17-297	3/8 x 3/8	8.14	
17-299	1/2 x 3/8	11.93	

Minimum QTYs may apply

PLASTIC PUSH-IN TUBE FITTINGS

Fitting Working Specifications

Operating Temperature
33^{0}F to 140^{0}F (1^{0}C to 60^{0}C)

Operating Pressure
Air: 0 - 150 lbs. psi.
Liquid: 0 - 150 lbs. psi.
Suitable for Vacuum

Material Specifications

Bodies: Food Grade, Polypropylene
O'Rings: Food Grade Nitrile Rubber or EPDM
Collet: Food Grade Acetal Copolymer, stainless steel teeth

Fitting Tube Types

Plastic Tube:
Polyethylene, nylon, polyurethane (for soft tubing or thin wall tube, tube supports are recommended).

Braided Tube:
For Braided Tube, the use of Tube to Hose Stems and Elbows is required. To retain braided tube on barbs, the use of clamps is also recommended.

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"	3.50
20-046P	5/32"	1/4"	3.39
20-052P	3/16"	1/8"	3.06
20-054P	1/4"	1/8"	3.50
20-055P	1/4"	1/4"	3.64
20-531P	5/16"	1/4"	4.58
20-056P	1/4"	3/8"	5.05
20-532P	5/16"	3/8"	5.77
20-057P	3/8"	1/8"	6.90
20-058P	3/8"	1/4"	5.06
20-059P	3/8"	3/8"	5.15
20-062P	3/8"	1/2"	9.78
20-061P	1/2"	3/8"	7.49
20-063P	1/2"	1/2"	8.76

More sizes available upon request

UNION CONNECTOR



Part #	Tube OD	List Price
20-018P	5/32"	4.22
20-702P	3/16"	4.20
20-019P	1/4"	4.16
20-703P	5/16"	5.40
20-020P	3/8"	5.76
20-021P	1/2"	6.96

CROSS



Part #	Tube OD	List Price
20-143P	3/8"	16.99

REDUCING UNION



Part #	Tube OD	Tube OD	List Price
20-750P	1/4"	3/16"	7.81
20-751P	5/16"	5/32"	7.71
20-752P	5/16"	3/16"	9.46
20-753P	5/16"	1/4"	7.89
20-754P	3/8"	3/16"	11.55
20-755P	3/8"	1/4"	7.28
20-756P	3/8"	5/16"	9.83
20-757P	1/2"	5/16"	15.26
20-758P	1/2"	3/8"	8.81

UNION ELBOW



Part #	Tube OD	List Price
20-704P	3/16"	5.00
20-152P	1/4"	5.32
20-155P	5/16"	6.84
20-153P	3/8"	8.75
20-154P	1/2"	9.67

REDUCING ELBOW



Part #	Tube OD	Tube OD	List Price
20-730P	5/16"	5/32"	12.66
20-731P	5/16"	3/16"	6.41
20-732P	5/16"	1/4"	8.31
20-733P	3/8"	3/16"	16.81
20-734P	3/8"	1/4"	8.68
20-735P	3/8"	5/16"	10.79
20-736P	1/2"	3/8"	12.42

FIXED ELBOW



Part #	Tube OD	Thread NPTF	List Price
20-068P	1/4"	1/8"	5.02
20-069P	1/4"	1/4"	5.33
20-070P	1/4"	3/8"	6.05
20-072P	3/8"	1/4"	6.92
20-073P	3/8"	3/8"	9.39

PLUG-IN ELBOW

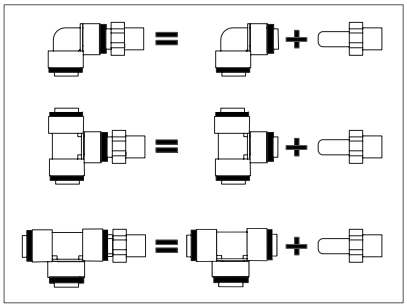


Part #	Stem OD	Tube OD	List Price
20-740P	5/32"	5/32"	5.22
20-741P	3/16"	3/16"	6.54
20-742P	1/4"	1/4"	7.13
20-743P	5/16"	5/16"	8.49
20-744P	3/8"	3/16"	9.28
20-745P	3/8"	1/4"	8.33
20-746P	3/8"	5/16"	9.28
20-747P	3/8"	3/8"	10.21
20-748P	1/2"	1/2"	11.98

More sizes available upon request

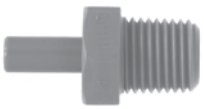
Adaptability

Products can be coupled together to form new, intergral fittings.



Use to get reducing swivel sizes you need!

STEM ADAPTER



Part #	Stem OD	Thread NPTF	List Price
20-522P	5/32"	1/8"	1.99
20-523P	5/32"	1/4"	1.90
20-700P	3/16"	1/8"	2.44
20-524P	1/4"	1/8"	1.87
20-526P	5/16"	1/8"	2.41
20-525P	1/4"	1/4"	1.87
20-527P	5/16"	1/4"	2.41
20-701P	5/16"	3/8"	3.91
20-528P	3/8"	1/4"	2.23
20-529P	3/8"	3/8"	2.82
20-530P	1/2"	3/8"	4.22
20-533P	1/2"	1/2"	4.98

REDUCER



Part #	Stem OD	Tube OD	List Price
20-760P	5/16"	3/16"	5.76
20-761P	5/16"	1/4"	6.22
20-762P	3/8"	3/16"	7.10
20-512P	3/8"	1/4"	8.01
20-763P	3/8"	5/16"	7.21
20-764P	1/2"	5/16"	8.73
20-514P	1/2"	3/8"	11.86

UNION TEE



Part #	Tube OD	List Price
20-026P	5/32"	6.90
20-027P	3/16"	10.07
20-028P	1/4"	6.36
20-031P	5/16"	6.57
20-029P	3/8"	7.38
20-030P	1/2"	9.11

REDUCING BRANCH TEE



Part #	Tube OD Ends	Tube OD Branch	List Price
20-724P	1/2"	3/8"	15.44
20-725P	3/8"	1/4"	12.98

BULKHEAD UNION



Part #	Tube OD	List Price
20-125P	5/32"	11.06
20-126P	3/16"	9.91
20-127P	1/4"	8.89
20-123P	5/16"	16.92
20-128P	3/8"	10.68
20-129P	1/2"	16.12

FEMALE CONNECTOR



Part #	Tube OD	Thread NPTF	List Price
20-993P	1/4"	1/8"	8.07
20-035P	1/4"	1/4"	6.98
20-944P	3/8"	1/8"	9.22
20-036P	3/8"	1/4"	9.01

2-WAY DIVIDER



Part #	Tube OD	List Price
20-776P	5/16"	11.28
20-777P	3/8"	9.88

TUBE TO HOSE STEM



Part #	Stem OD	Hose OD	List Price
20-853P	1/4"	3/16"	3.04
20-854P	1/4"	1/4"	3.22
20-855P	5/16"	5/16"	4.58
20-856P	1/4"	5/16"	3.68
20-857P	5/16"	3/16"	4.09
20-858P	5/16"	1/4"	4.43
20-859P	5/16"	3/8"	5.82
20-860P	3/8"	1/4"	4.62
20-861P	3/8"	5/16"	5.82
20-862P	3/8"	3/8"	5.68
20-863P	3/8"	1/2"	6.13
20-864P	1/2"	3/8"	6.91
20-865P	1/2"	1/2"	10.00

PLUG



Part #	Stem OD	List Price
20-876P	5/32"	1.37
20-877P	3/16"	1.43
20-878P	1/4"	1.44
20-879P	5/16"	2.36
20-880P	3/8"	2.33
20-881P	1/2"	3.68

TUBE SUPPORT



Part #	Tube OD	Tube ID	List Price
20-836P	5/16"	1/4"	0.68
20-837P	3/8"	5/16"	0.75
20-838P	1/2"	3/8"	0.75

Propylene push-in shut off valves for potable water

Technical Specifications

- Operating Pressure: 0 to 150 psi (0 to 10 bar)
- Operating Temp. (water): 33^0 F to 150^0 F ($+1^0$C to 65^0C)

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"	15.47
20-901P	3/8"	16.69

CHECK VALVE



Part #	Tube OD	List Price
20-779P	3/8"	55.78

PL X MALE NPTF



Part #	Tube OD	Thread NPTF	List Price
20-904P	1/4"	1/4"	13.77
20-905P	3/8"	3/8"	17.72

BRONZE INSERT FITTINGS

150 PSI Genuine red brass
- for plastic pipe

• Lead Free available

HEX MALE ADAPTERS



(Barb x Male Pipe)

Part #	Barb x Male	List Price
973-927	1" x 1"	29.89
973-930	1" x 1-1/4"	25.13
973-928	1-1/4" x 1-1/4"	28.18
973-929	1-1/4" x 1"	27.89
973-948	1-1/2" x 1-1/2"	36.35
973-949	2" x 2"	52.37

BRONZE TEES ALL BARB



Part #	Size	List Price
973-965	3/4"	20.61
973-966	1"	35.71
973-967	1-1/4"	62.84

ELBOWS



(BARB X MALE PIPE)

Part #	Size	List Price
973-980	3/4" x 3/4"	18.09
973-981	1" x 3/4"	24.02
973-982	1" x 1"	29.61

ELBOWS



(Barb x Barb)

Part #	Hose Size	List Price
973-975	3/4"	21.78
973-976	1"	24.14
973-977	1-1/4" x 1"	42.31
973-978	1-1/4"	48.17
973-979	1-1/2"	113.93

STEEL INSERT FITTINGS FOR PLASTIC PIPE

MALE ADAPTER



(BARB X MALE PIPE)

Part #	Size	Box/ Case	List Price
973-906	1/2"	25/100	3.66
973-907	3/4"	25/10	4.74
973-908	1"	16/48	5.05
973-909	1-1/4"	12/36	7.30
973-910	1-1/2"	6/36	10.62
973-911	2"	5/25	16.42
973-912	2-1/2"	1/3	52.03
973-877	3"	1/3	57.12
973-914	4"	1/3	65.05

STEEL INSERT FITTINGS FOR PLASTIC PIPE CONT.

REDUCING ADAPTER



(INSERT X NPT)

Part #	Size	List Price
974-264	3/4 x 1/2	6.30
974-265	1 x 3/4	5.65
974-266	1-1/4 x 1	22.01
974-267	1-1/2 x 1-1/4	26.64

COUPLINGS



Part #	Size	Box/Case	List Price
973-900	1/2	30/120	3.00
973-901	3/4	20/100	4.35
973-902	1	20/100	5.07
973-903	1-1/4	16/64	7.38
973-904	1-1/2	12/48	10.43
973-905	2	5/25	14.57

THE BEST WAY TO FIND YOURSELF IS TO LOSE YOURSELF IN THE SERVICE OF OTHERS.

- MAHATMA GANDHI

• For Lead Free bronze insert fittings - add LF at the end of the part# when ordering.

STEEL HOSE NIPPLES



(Barb x Male Pipe)

Part #	Hose Size	List Price
973-850	1/2"	8.84
973-851	3/4"	4.20
973-852	1"	7.50
973-853	1-1/4"	9.71
973-854	1-1/2"	10.86
973-855	2"	9.87
973-856	2-1/2"	29.81
973-857	3"	36.31
973-858	4"	72.04

PLATED STEEL



Part #	Size	List Price
973-870	1/2"	4.90
973-871	3/4"	5.68
973-872	1"	6.65
973-873	1-1/4"	8.84
973-874	1-1/2"	10.63
973-875	2"	11.88
973-876	2-1/2"	29.33
973-877	3"	57.12
973-878	4"	48.00
973-879	5"	165.53
973-880	6"	126.45
973-881	8"	385.94

316 STAINLESS STEEL



Part #	Size	List Price
973-700	1/2"	42.17
973-701	3/4"	40.46
973-702	1"	42.29
973-703	1-1/4"	49.68
973-704	1-1/2"	60.97
973-705	2"	89.79
973-706	2-1/2"	165.55
973-707	3"	241.36
973-708	4"	335.60

BRASS

• Lead Free



Part #	Size	List Price
973-600	1/2"	28.01
973-601	3/4"	44.23
973-602	1"	40.50
973-603	1-1/4"	51.37
973-604	1-1/2"	69.52
973-605	2"	99.39
973-606	2-1/2"	166.15
973-607	3"	197.49

ALUMINUM



Part #	Size	List Price
973-620	1/2"	26.02
973-621	3/4"	24.68
973-622	1"	24.68
973-623	1-1/4"	31.61
973-624	1-1/2"	29.61
973-625	2"	37.00
973-626	2-1/2"	82.26
973-627	3"	82.26
973-628	4"	131.58

LOVE ISN'T A STATE OF PERFECT CARING. IT IS AN ACTIVE NOUN LIKE "STRUGGLE." TO LOVE SOMEONE IS TO STRIVE TO ACCEPT THAT PERSON EXACTLY THE WAY HE OR SHE IS, RIGHT HERE AND NOW - AND TO GO ON CARING EVEN THROUGH TIMES THAT MAY BRING US PAIN.

- MR. ROGERS

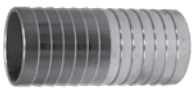
MENDERS

STEEL HOSE MENDERS



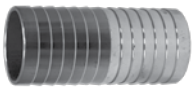
Part #	Hose Size	List Price
973-890	1/2"	12.61
973-891	3/4"	8.90
973-892	1"	10.48
973-893	1-1/4"	16.04
973-894	1-1/2"	15.71
973-895	2"	19.86

PLATED STEEL MENDER



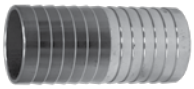
Part #	Size	List Price
973-650	3/8"	13.98
973-651	1/2"	11.55
973-652	3/4"	10.37
973-653	1"	9.55
973-654	1-1/4"	9.50
973-655	1-1/2"	14.30
973-656	2"	19.00
973-657	2-1/2"	38.84
973-658	3"	36.55
973-659	4"	74.24

316 STAINLESS STEEL HOSE MENDER



Part #	Size	List Price
73-670	3/4"	107.33
73-671	1"	119.56
73-672	1-1/4"	128.79
73-673	1-1/2"	158.08
73-674	2"	160.26

BRASS HOSE MENDER



• Lead Free

Part #	Size	List Price
73-983	3/4"	26.93
73-984	1"	28.97
73-985	1-1/4"	46.92
73-986	1-1/2"	76.12
73-987	2"	82.59

• Non Locking
Brass levers



TYPE A
Plug x FIP



TYPE B
Socket x MIP



TYPE C
Barb x Socket



TYPE D
Socket x FIP

ALUMINUM

Type	A		B		C		D	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	61-911	7.28	61-921	13.72	61-931	16.75	61-941	16.57
1"	61-912	7.87	61-922	20.28	61-932	15.08	61-942	20.28
1-1/4"	61-913	10.85	61-923	23.81	61-933	21.84	61-943	22.96
1-1/2"	61-914	8.55	61-924	22.67	61-934	19.99	61-944	25.61
2"	61-915	11.33	61-925	24.33	61-935	25.00	61-945	26.00
2-1/2"	61-916	22.39	61-926	42.53	61-936	32.59	61-946	47.54
3"	61-917	19.43	61-927	39.97	61-937	42.18	61-947	41.83
4"	61-918	34.08	61-928	55.59	61-938	63.65	61-948	70.01

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	25.61	63-921	44.22	63-931	41.24	63-941	46.40
1"	63-912	33.51	63-922	65.63	63-932	59.10	63-942	68.47
1-1/4"	63-913	49.34	63-923	84.88	63-933	71.86	63-943	79.29
1-1/2"	63-914	51.34	63-924	95.87	63-934	91.43	63-944	78.52
2"	63-915	60.47	63-925	103.90	63-935	113.37	63-945	101.96
2-1/2"	63-916	103.60	63-926	149.17	63-936	159.09	63-946	151.50
3"	63-917	124.61	63-927	181.97	63-937	204.33	63-947	207.54

• Compatible w/
PT Coupling
Dixon
Andrews
Evertite



TYPE E
Plug x Hose Barb



TYPE F
Plug x Male Pipe



TYPE DC
Cap



TYPE DP
Plug

ALUMINUM

Type	E		F		DC		DP	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
3/4"	61-951	7.21	61-961	8.61	61-971	15.95	61-981	8.46
1"	61-952	9.34	61-962	9.70	61-972	17.95	61-982	6.79
1-1/4"	61-953	13.04	61-963	15.94	61-973	29.32	61-983	8.91
1-1/2"	61-954	9.12	61-964	11.30	61-974	17.96	61-984	7.61
2"	61-955	12.41	61-965	13.39	61-975	21.15	61-985	9.06
2-1/2"	61-956	26.26	61-966	23.90	61-976	30.06	61-986	17.38
3"	61-957	28.71	61-967	27.95	61-977	34.51	61-987	18.46
4"	61-958	43.69	61-968	41.56	61-978	45.59	61-988	31.28

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	24.97	63-961	31.04	63-971	38.76	63-981	19.58
1"	63-952	37.30	63-962	43.35	63-972	52.33	63-982	30.24
1-1/4"	63-953	52.87	63-963	73.98	63-973	63.86	63-983	39.32
1-1/2"	63-954	70.89	63-964	87.62	63-974	70.64	63-984	41.99
2"	63-955	86.84	63-965	125.70	63-975	87.81	63-985	53.53
2-1/2"	63-956	113.64	63-966	175.05	63-976	119.79	63-986	79.49
3"	63-957	172.18	63-967	186.72	63-977	155.80	63-987	92.41
4"	63-958	265.86	63-968	272.57	63-978	194.79	63-988	140.78



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	19.47	44-921	38.86	44-931	34.80	44-941	33.08
1"	44-912	24.30	44-922	54.40	44-932	43.58	44-942	55.78
1-1/4"	44-913	31.94	44-923	58.25	44-933	54.88	44-943	67.36
1-1/2"	44-914	31.69	44-924	54.30	44-934	44.62	44-944	62.37
2"	44-915	39.86	44-925	78.44	44-935	89.83	44-945	91.09
2-1/2"	44-916	135.97	44-926	82.11	44-936	78.54	44-946	159.53
3"	44-917	57.72	44-927	104.33	44-937	130.36	44-947	102.43

POLYPROPLYENE

Type	A		B		C		D	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
1/2"	35-910	6.89	35-920	19.85	35-930	19.17	35-940	19.17
3/4"	35-911	7.53	35-921	18.26	35-931	19.98	35-941	20.90
1"	35-912	7.91	35-922	27.13	35-932	21.12	35-942	20.30
1-1/4"	35-913	9.11	35-923	23.01	35-933	24.97	35-943	29.40
1-1/2"	35-914	8.60	35-924	25.98	35-934	22.05	35-944	21.13
2"	35-915	11.18	35-925	30.39	35-935	32.28	35-945	32.28
3"	35-917	28.41	35-927	54.45	35-937	52.60	35-947	52.60



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	24.39	44-961	24.52	44-971	30.82	44-981	17.12
1"	44-952	35.53	44-962	33.46	44-972	32.52	44-982	18.24
1-1/4"	44-953	35.83	44-963	33.61	44-973	40.75	44-983	21.20
1-1/2"	44-954	38.24	44-964	46.04	44-974	42.83	44-984	19.62
2"	44-955	55.81	44-965	67.97	44-975	76.19	44-985	39.93
2-1/2"	44-956	58.13	44-966	60.67	44-976	149.95	44-986	39.29
3"	44-957	85.18	44-967	103.30	44-977	122.74	44-987	117.92
4"	44-958	136.47	44-968	330.28	44-978	123.37	44-988	73.01

POLYPROPLYENE

Type	E		F		DC		DP	
Size	Part#	List Price	Part#	List Price	Part#	List Price	Part#	List Price
1/2"	35-950	8.38	35-960	8.38	35-970	18.10	35-980	8.19
3/4"	35-951	9.42	35-961	10.00	35-971	19.01	35-981	7.91
1"	35-952	11.21	35-962	9.65	35-972	27.02	35-982	8.00
1-1/4"	35-953	10.66	35-963	9.81	35-973	22.36	35-983	9.52
1-1/2"	35-954	11.01	35-964	9.41	35-974	30.16	35-984	9.85
2"	35-955	13.79	35-965	13.59	35-975	30.33	35-985	11.61
3"	35-957	35.56	35-967	36.81	35-977	52.60	35-987	35.32

MALE NPT ENDS

• Twist claw/ universal/ chicago



• Malleable iron
• ISO PSI

* Safety clip included

Part #	Size	List Price
66005	3/8"	7.39
66006	1/2"	6.15
66007	3/4"	6.53
66008	1"	7.34

WASHER



Part #	List Price
66000	0.60

FEMALE NPT ENDS



* Safety clip included

Part #	Size	List Price
66009	3/8"	7.39
66010	1/2"	6.15
66011	3/4"	6.53
66012	1"	8.21

HOSE END



* Safety clip included

Part #	Size	List Price
66001	3/8"	8.58
66002	1/2"	5.58
66003	3/4"	5.64
66004	1"	7.39

TRIPLE CONNECTIONS



Part #	List Price
66013	19.24

The two hardest things to say in life are hello for the first time and goodbye for the last
- Moira Rogers

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"	40.25
73-004	3/4"	42.78
73-005	1"	43.30
73-006	1-1/4"	74.18
73-007	1-1/2"	74.18
73-008	2"	102.29
73-009	2-1/2"	277.21
73-010	3"	294.06
73-011	4"	580.92

Hose Stem Only



Part #	Size	List Price
73-023	1/2"	11.44
73-024	3/4"	13.92
73-025	1"	13.97
73-026	1-1/4"	23.75
73-027	1-1/2"	25.76
73-028	2"	33.24
73-029	2-1/2"	89.76
73-030	3"	414.00
73-031	4"	208.90

Wing Nut Only



Part #	Size	List Price
73-033	1/2"	13.00
73-035	1"	16.22
73-036	1-1/4"	27.49
73-037	1-1/2"	29.21
73-038	2"	37.84
73-039	2-1/2"	102.58
73-040	3"	108.73
73-041	4"	238.74

Female Spud Only



Part #	Size	List Price
73-063	1/2"	19.09
73-064	3/4"	23.12
73-065	1"	23.40
73-066	1-1/4"	40.19
73-067	1-1/2"	42.55
73-068	2"	55.32
73-069	2-1/2"	145.65
73-070	3"	159.10
73-071	4"	349.14

Male Pipe Stem Only (NPT)



Part #	Size	List Price
73-043	1/2"	9.09
73-044	3/4"	14.20
73-045	1"	21.85
73-046	1-1/4"	19.90
73-047	1-1/2"	23.75
73-048	2"	38.87
73-049	2-1/2"	65.32
73-050	3"	81.31
73-051	4"	141.85

2, 4, 6 Bolt Clamps



Part #	Size	List Price
73-056	3/4"	9.60
73-057	1"	16.50
73-058	1-1/2"	31.57
73-059	2"	40.54
73-060	3"	91.94

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	49.31
444-000	2-1/2" NST x 3/4" GHT	49.31
444-001	2-1/2" NST x 3/4" NPT	49.31
444-003	2-1/2" NST x 1" NPSH	43.56
444-002	2-1/2" NST x 1" NPT	43.56
444-004	2-1/2" NST x 1-1/2" NPSH	43.56
444-005	2-1/2" NST x 1-1/2" NPT	50.08
444-007	2-1/2" NST x 2" NPSH	49.33
444-008	2-1/2" NST x 2" NPT	53.08
444-006	2-1/2" NST x 1-1/2" NST	43.56
444-009	3" NPSH x 2-1/2" NST	125.27
444-010	3" NST x 2-1/2" NST	105.65

FEMALE TO MALE HEX ADAPTER - BRASS



FEMALE X MALE

Part #	Description	List Price
444-021	1-1/2" NST x 1-1/2" NPSH	47.86
444-023	1-1/2" NPT x 1-1/2" NPSH	47.86
444-027	2-1/2" NST x 2-1/2" NPSH	90.89
444-028	2-1/2" NPT x 2-1/2" NPSH	90.89
444-024	1-1/2" NPSH x 1-1/2" NST	49.33
444-020	1-1/2" NST x 1-1/2" NPT	29.02
444-026	2-1/2" NST x 2-1/2" NPT	97.61

DOUBLE MALE HEX NIPPLE - BRASS



Part #	Description	List Price
444-042	1-1/2" NPT x 1-1/2" NPSH	44.43
444-047	2-1/2" NPT x 2-1/2" NPSH	72.41
444-040	1-1/2" NPT x 1-1/2" NST	35.83
444-048	2" NPT x 2-1/2" NST	106.44
444-045	2-1/2" NPT x 2-1/2" NST	86.77
444-049	3" NPT x 2-1/2" NST	182.41

MALE SWIVEL ADAPTER - BRASS



Part #	Description Female x Male	List Price
444-110	1-1/2" NST x 1-1/2" NPT	180.90
444-111	2-1/2" NST x 2" NPT	272.63
444-112	2-1/2" NST x 2-1/2" NPT	210.34
444-113	2-1/2" NST x 3" NPT	348.77

CAP - BRASS



Part #	Description	List Price
444-061	1-1/2" NPSH	45.19
444-060	1-1/2" NST	45.19
444-062	2-1/2" NST	65.44

1/2" BAND CLAMPS

57
62
HS
H
HF
015
100
500



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

- No PSI Rating
- 50lb/ Inch Torque Rating Die Set Function

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	1.57	611-006	1.58
8	7/16"	1"	600-008	1.56	611-008	1.67
10	9/16"	1-1/16"	600-010	1.47	611-010	1.43
12	9/16"	1-1/4"	600-012	1.55	611-012	1.69
16	11/16"	1-1/2"	600-016	1.46	611-016	1.86
20	3/4"	1-3/4"	600-020	1.47	611-020	1.83
24	1-1/16"	2"	600-024	1.56	611-024	1.58
28	1-5/16"	2-1/4"	600-028	1.72	611-028	2.41
32	1-9/16"	2-1/2"	600-032	1.52	611-032	2.41
36	1-13/16"	2-3/4"	600-036	1.53	611-036	1.53
40	2-1/16"	3"	600-040	1.75	611-040	1.74
44	2-5/16"	3-1/4"	600-044	2.41	611-044	2.88
48	2-9/16"	3-1/2"	600-048	2.05	611-048	1.97
52	2-13/16"	3-3/4"	600-052	3.41	611-052	2.16
56	3-1/16"	4"	600-056	3.04	611-056	2.51
60	3-5/16"	4-1/4"	600-060	2.24	611-060	2.24
64	2-1/2"	4-1/2"	600-064	2.33	611-064	2.46
72	3"	5"	600-072	2.40	611-072	3.15
80	3-1/2"	5-1/2"	600-080	2.44	611-080	3.67
88	4"	6"	600-088	3.06	611-088	3.22
96	4-1/2"	6-1/2"	600-096	3.34	611-096	3.22
104	5"	7"	600-104	3.62	611-104	2.94
116	5-3/4"	7-3/4"			611-116	4.90
128	6-1/2"	8-1/2"			611-128	4.18
152	2"	10"			611-152	4.80
164	1-3/4"	10-3/4"			611-164	6.07
176	9-1/4"	11-1/4"			611-176	4.58
188	2-1/16"	12-1/4"			611-188	5.28
200	11"	13"			611-200	5.75
212	11-3/4"	13-3/4"			611-212	7.46
224	12-1/2"	14-1/2"			611-224	5.46
248	10-3/4"	16"			611-248	5.71
270	15-3/8"	17-3/8"			611-270	8.31
312	18"	20"			611-312	8.47
332	19-1/8"	21-1/4"			611-332	6.22
390	22-7/8"	24-7/8"			611-390	9.34

67-5
63
HSS
HF-SS
035
HAS-X
300

1/2" WIDE BAND CLAMPS (12.70mm)

- 60mm Thickness
- Use for marine, underground and other high corrosive applications.

NEW



620 Series
- 5/16" Hex Slotted 305 Stainless Steel Screw
- 1/2" Wide 301 Stainless Steel Band
- 301 Stainless Steel Housing

620SS Series
- 5/16" Hex Slotted 316 Stainless Steel Screw
- 1/2" Wide 316 Stainless Steel Band
- 316 Stainless Steel Housing

#	Part #	List Price	Dia. Range		All 316SS Part #	List Price
			Min.	Max.		
6	620-006	1.71	3/8"	7/8"	620-006SS	1.59
8	620-008	1.93	7/16"	1"	620-008SS	1.62
10	620-010	1.93	9/16"	1-1/16"	620-010SS	1.67
12	620-012	2.34	9/16"	1-1/4"	620-012SS	1.73
16	620-016	1.95	11/16"	1-1/2"	620-016SS	1.82
20	620-020	1.97	3/4"	1-3/4"	620-020SS	1.90
24	620-024	1.76	1-1/16"	2"	620-024SS	2.02
28	620-028	1.77	1-5/16"	2-1/4"	620-028SS	2.13
32	620-032	1.90	1-9/16"	2-1/2"	620-032SS	2.22
36	620-036	1.96	1-13/16"	2-3/4"	620-036SS	2.31
40	620-040	2.56	2-1/16"	3"	620-040SS	2.42
44	620-044	3.16	2-5/16"	3-1/4"	620-044SS	2.51
48	620-048	2.44	2-9/16"	3-1/2"	620-048SS	2.63
52	620-052	2.54	2-13/16"	3-3/4"	620-052SS	2.71
56	620-056	2.54	3-1/16"	4"	620-056SS	2.83
60	620-060	4.38	3-5/16"	4-1/4"	620-060SS	2.89
64	620-064	2.68	2-1/2"	4-1/2"	620-064SS	2.89
72	620-072	2.82	3"	5"	620-072SS	3.17
80	620-080	4.62	3-1/2"	5-1/2"		
88	620-088	3.21	4"	6"		
96	620-096	4.48	4-1/2"	6-1/2"		
104	620-104	3.50	5"	7"		
116	620-116	7.50	5-3/4"	7-3/4"		
128	620-128	4.85	6-1/2"	8-1/2"		
152	620-152	6.73	2"	10"		
164	620-164	12.06	1-3/4"	10-3/4"		
176	620-176	5.50	9-1/4"	11-1/4"		
188	620-188	7.39	2-1/16"	12-1/4"		
200	620-200	6.03	11"	13"		
212	620-212	7.80	11-3/4"	13-3/4"		
224	620-224	6.53	12-1/2"	14-1/2"		
248	620-248	7.81	10-3/4"	16"		
270	620-270	7.35	15-3/8"	17-3/8"		
312	620-312	7.55	18"	20"		
332	620-332	7.50	19-1/8"	21-1/4"		
390	620-390	13.26	22-7/8"	24-7/8"		

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"	300-0004	1.36
7/16"	11/16"	300-005	1.19
5/16"	7/8"	300-0006	1.15
7/16"	1"	300-0008	1.31
1/2"	1-1/16"	300-010	1.47
9/16"	1-1/4"	300-012	1.25
11/16"	1-1/2"	300-016	1.53
7/8"	1-3/4"	300-0020	1.63

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	1.07
7/16"	11/16"	325-005	1.17
5/16"	7/8"	325-006	0.94
7/16"	1"	325-008	1.24
1/2"	1-1/16"	325-010	1.46
9/16"	1-1/4"	325-012	1.38
11/16"	1-1/2"	325-016	2.61
7/8"	1-3/4"	325-020	1.76

350 Series
- 1/4" Hex Slotted 410 Stainless Steel Screw
- 5/16" Wide 301 Stainless Steel Band
- 301 stainless Steel Housing
- 6mm thick



350SS Series
- 1/4" Hex Slotted 316 Stainless Steel Screw
- 316 Stainless Steel Band
- 8mm wide
- 60 mm thick
- 316 stainless Steel Housing

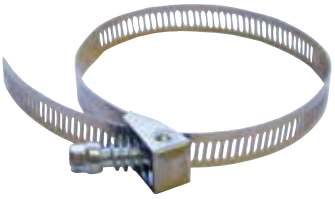
NEW

Part #	List Price	Dia. Range		Part #	List Price
		Min.	Max.		
350-004	0.96	7/32"	5/8"	350-004SS	0.72
350-005	1.72	7/16"	11/16"	350-005SS	0.75
350-006	0.96	5/16"	7/8"	350-006SS	0.78
350-008	1.08	7/16"	1"	350-008SS	0.84
350-010	1.36	1/2"	1-1/16"	350-010SS	0.84
350-012	1.36	9/16"	1-1/4"	350-012SS	0.89
350-016	2.07	11/16"	1-1/2"	350-016SS	0.95
350-020	1.85	7/8"	1-3/4"	350-020SS	1.01

QUICK RELEASE 500/550 SERIES

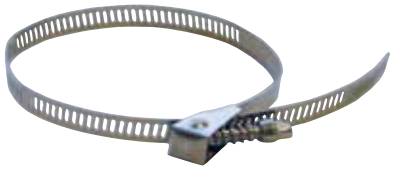
These clamps feature a unique quick release design between the one piece housing and band allowing for quick and easy installation in restricted or difficult areas.

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 Min.	Dia. Range Max.	Part #	List Price	Part #	List Price
12	1/2"	1-1/4"	500-012	2.41	550-012	3.26
20	3/4"	1-3/4"	500-020	2.45	550-020	2.59
28	1"	2-1/4"	500-028	2.51	550-028	2.78
36	1"	2-3/4"	500-036	1.90	550-036	2.88
48	1-1/2"	3-1/2"	500-048	3.20	550-048	3.41
56	1"	4"	500-056	3.65	550-056	4.95
72	2"	5"	500-072	3.08	550-072	5.70
88	2-1/16"	6"	500-088	4.58	550-088	5.91
104	1-3/4"	7"	500-104	4.82	550-104	6.95
128	1-3/4"	8-9/16"	500-128	4.28	550-128	6.13
152	2"	10"	500-152	4.53	550-152	6.66
188	2-1/16"	12-5/16"	500-188	5.04	550-188	8.49
216	10-3/16"	14"	500-216	5.43	550-216	10.23
248	10-3/4"	16"	500-248	5.61	550-248	9.45
280	14-1/4"	18"	500-280	6.79	550-280	9.08
312	14"	20"			550-312	10.78

HOSE CLAMP KITS

Shipped without Clamps

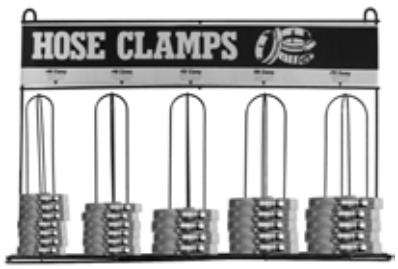
DISPLAY RACK

600-000 231.00



DISPLAY RACK

600-001 231.00



KIT# 600-100 LIST 563.45

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

KIT# 611-100 LIST 548.91

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

KIT# 620-100 LIST 662.57

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# 600-101 LIST 113.64

Qty	Part#
10	600-040
10	600-048
10	600-052
10	600-056
10	600-072

KIT# 611-101 LIST 115.18

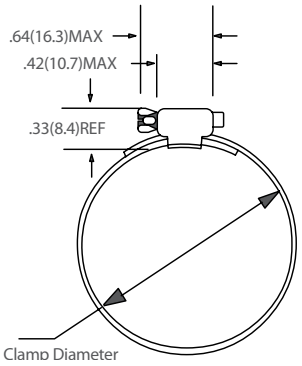
Qty	Part#
10	611-040
10	611-048
10	611-052
10	611-056
10	611-072

KIT# 620-101 LIST 125.65

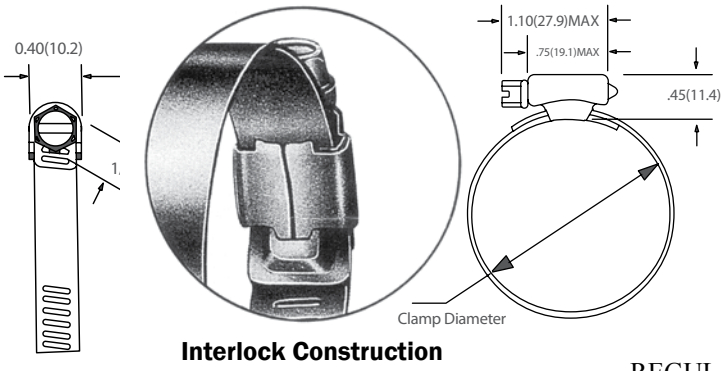
Qty	Part#
10	620-040
10	620-048
10	620-052
10	620-056
10	620-072

NOTE: Kits do not include display racks.

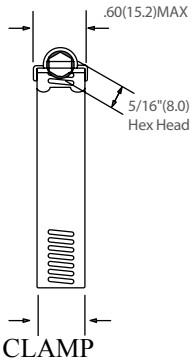
WORM GEAR HOSE CLAMPS
830 Series



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

NEW DIMENSIONS

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
Mini Clamp with 8 mm wide Band (5/16")						
4	7/32"-5/8"	6-16	830-185	0.75	830-185S	0.91
6	7/16"-3/4"	11-20	830-184	0.78	830-184S	0.89
8	1/2"-7/8"	13-23	830-183	0.70	830-183S	0.92
Regular Clamp with 12.7 mm (1/2") wide Band						
10	33/64"-1-1/16"	13-27	830-188	1.21	830-188S	1.32
12	33/64"-1-1/4"	13-32	830-189	0.86	830-189S	1.41
16	23/32"-1-1/2"	18-38	830-190	1.22	830-190S	1.25
20	3/4"-1-3/4"	19-44	830-192	0.91	830-192S	1.52
24	63/64"-2"	25-51	830-193	1.22	830-193S	1.64
28	1-17/64"-2-1/4"	32-57	830-194	0.99	830-194S	1.52
32	1-1/2"-2-1/2"	38-63	830-132	1.00	830-132S	1.58
36	1-47/64"-2 3/4"	44-70	830-195	0.98	830-195S	1.82
40	2-1/64"-3"	51-76	830-182	1.18	830-182S	1.65
44	2-1/4"-3-1/4"	57-82	830-196	1.10	830-196S	2.13
48	2-17/32"-3-3/4"	64-89	830-197	1.25	830-197S	1.66
52	2-49/64"-3-3/4"	70-95	830-152	1.25	830-152S	2.16
56	3"-4"	76-101	830-198	1.05	830-198S	1.69
60	3-9/32"-4-1/4"	83-108	830-060	1.45	830-060S	1.87
64	2-17/32"-4-1/2"	64-114	830-064	1.81	830-064S	2.74
72	3"-5"	76-127	830-072	1.75	830-072S	1.85
80	3-33/64"-5-1/2"	89-140	830-080	1.49	830-080S	2.75
88	4-4/32"-6"	102-152	830-288	1.41	830-288S	2.04
96	4-1/2"-6-1/2"	114-165	830-096	2.20	830-096S	2.37

T-Bolt Clamps

- All designs meet SAE J1508 specifications.
- .025” Band Thickness
- 3/4” Wide Band
- Band Material: 301 Series Stainless Steel
- Bolt Material: 304 Series Stainless Steel
- Nut Material: 304 Series Stainless Steel
- Nuts are Self-locking
- Torque Rating 75 in/lb



Opens 1/16" above and tightens 1/8" smaller then 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 then nominal I.D. for clamps sizes 256 through 750.

Purpose: To provide a quick, yet effective means of clamping a variety of fittings to a wide range of hose. T-Bolts can be applied with a standard 7/16” socket wrench. They provide 360^0 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 fluid lines.

30010

Nominal Size	O.D. Range		Part#	List Price
	From:	To:		
1-1/4	1-5/32"	1-15/32"	840-131	5.06
1-1/2	1-3/8"	1-9/16"	840-150	4.63
1-3/4	1-5/8"	1-13/16"	840-175	4.40
1-7/8	1-3/4"	1-15/16"	840-188	4.80
2	1-7/8"	2-1/16"	840-200	4.88
2-1/4	2-1/8"	2-5/16"	840-225	5.67
2-3/8	2-1/4"	2-7/16"	840-238	4.84
2-1/2	2-3/8"	2-9/16"	840-250	4.73
2-9/16	2-11/32"	2-5/8"	840-256	6.77
2-5/8	2-13/32"	2-11/16"	840-263	4.82
2-3/4	2-17/32"	2-13/16"	840-275	5.78
2-7/8	2-21/32"	2-15/16"	840-288	5.35
3	2-25/32"	3-1/16"	840-300	5.47
3-1/8	2-29/32"	3-3/16"	840-312	6.72
3-1/4	3-1/32"	3-5/16"	840-325	5.45
3-1/2	3-9/32"	3-9/16"	840-350	5.40
3-3/4	3-17/32"	3-13/16"	840-375	6.38
3-53/64	3-19/32"	3-7/8"	840-382	7.15
4	3-25/32"	4-1/16"	840-400	5.80
4-1/4	4-1/32"	4-5/16"	840-425	5.85
4-1/2	4-9/32"	4-9/16"	840-450	6.24
4-3/4	4-17/32"	4-13/16"	840-475	6.34
5	4-25/32"	5-1/16"	840-500	7.04
5-1/4	5-1/32"	5-5/16"	840-525	8.15
5-1/2	5-9/32"	5-9/16"	840-550	7.26
5-3/4	5-17/32"	5-13/16"	840-575	8.18
6	5-25/32"	6-1/16"	840-600	8.32
6-1/4	6-1/32"	6-5/16"	840-625	8.56
6-1/2	6-9/32"	6-9/16"	840-650	8.68
6-3/4	6-17/32"	6-13/16"	840-675	8.80
7	6-25/32"	7-1/16"	840-700	8.92
7-1/2	7-9/32"	7-9/16"	840-750	10.39
8	7-25/32"	8-1/16"	840-800	9.43
8-1/4	8-9/32"	8-9/16"	840-850	12.09
8-7/8	8-21/32"	8-15/16"	840-888	12.54

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	0.48
1050001	113	7/16"	0.381	0.444	0.51
1050002	123	15/32"	0.394	0.486	0.51
1050003	133	1/2"	0.453	0.524	0.51
1050006	140	35/64"	0.472	0.551	0.55
1050007	145	9/16"	0.496	0.571	0.59
1050008	157	5/8"	0.543	0.618	0.56
1050009	170	11/16"	0.594	0.669	0.53
1050010	185	23/32"	0.618	0.728	0.56
1050011	198	3/4"	0.669	0.779	0.53
1050012	210	13/16"	0.716	0.827	0.58
1050013	226	7/8"	0.779	0.890	0.53
1050014	241	15/16"	0.839	0.949	0.70
1050015	256	1"	0.898	1.008	0.72
1050016	271	1-1/16"	0.945	1.067	0.81
1050017	286	1-1/8"	1.004	1.126	0.62
1050018	301	1-3/16"	1.063	1.185	0.69
1050020	331	1-5/16"	1.181	1.303	0.88
1050021	346	1-3/8"	1.240	1.362	0.75
1050023	376	1-15/32"	1.358	1.480	0.80
1050025	396	1-9/16"	1.437	1.559	0.78
1050026	410	1-5/8"	1.492	1.614	0.84
1050027	425	1-11/16"	1.551	1.673	0.83
1050028	440	1-23/32"	1.610	1.732	0.91
1050029	455	1-3/4"	1.669	1.791	0.91
1050030	470	1-16/16"	1.728	1.850	0.92
1050031	485	1-7/8"	1.787	1.909	0.97
1050032	500	1-15/16"	1.846	1.968	0.98
1050033	515	2"	1.905	2.028	1.02

Minimum QTYs may apply

"EDUCATION IS WHAT REMAINS AFTER ONE HAS FORGOTTEN WHAT ONE HAS LEARNED IN SCHOOL."

- ALBERT EINSTEIN

"THE TWO MOST POWERFUL WARRIORS ARE PATIENCE AND TIME."

– LEO TOLSTOY

"MOTIVATION IS WHAT GETS YOU STARTED. HABIT IS WHAT KEEPS YOU GOING."

- JIM ROHN

"ROCK BOTTOM BECAME THE SOLID FOUNDATION UPON WHICH I REBUILT MY LIFE."

- JK ROWLING

"I WONDER WHY WE THINK FASTER THAN WE SPEAK. PROBABLY SO WE CAN THINK TWICE."

- BILL WATTERSON

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 maintenace 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	1.27
1010008	5/16"	0.276	0.354	1.48
1010011	3/8"	0.319	0.433	1.12
1010016	1/2"	0.425	0.512	0.89
1010019	9/16"	0.492	0.591	1.29
1010022	19/32"	0.551	0.669	1.46
1010024	5/8"	0.591	0.709	1.01
1010027	3/4"	0.638	0.787	1.13

STAINLESS STEEL

Part #	Nominal Size	Inches		List Price
		Close	Open	
1510003	1/4"	0.197	0.276	1.38
1510004	5/16"	0.276	0.354	1.75
1510023	3/8"	0.319	0.433	0.97
1510006	1/2"	0.425	0.512	1.38
1510007	9/16"	0.492	0.591	2.09
1510008	19/32"	0.551	0.669	2.19
1510009	5/8"	0.591	0.709	0.99
1510010	3/4"	0.638	0.787	1.88
1510011	13/16"	0.709	0.866	2.83
1510012	7/8"	0.748	0.906	1.54
1510013	15/16"	0.827	0.984	2.53
1510014	1"	0.886	1.063	2.93
1510016	1-1/8"	1.035	1.221	2.76
1510019	1-9/16"	1.260	1.457	4.15
1510020	1-1/2"	1.378	1.575	3.43

Minimum QTYs may apply

GAPLESS EAR CLAMPS

Features



- Assured clamping seal
- For low durometer and/ or thin-walled hose/ tubing
- Perfect for silicon, vinyl, polyurethane or other high tech materials used in all industries.
- Once installed, smooth inner 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	1.17
16700004	3/8"	5mm	0.307	0.374	1.29
16700007	7/16"	5mm	0.378	0.445	1.64
16700010	1/2"	7mm	0.425	0.524	1.08
16700012	35/64"	7mm	0.453	0.551	1.45
16700013	9/16"	7mm	0.472	0.571	1.78
16700016	5/8"	7mm	0.520	0.618	1.66
16700017	11/16"	7mm	0.571	0.669	1.25
16700022	3/4"	7mm	0.654	0.780	1.55
16700024	13/16"	7mm	0.701	0.827	0.81

PINCERS

Model 1098 I
Standard Jaw Pincers



Part #	List Price
1410118	188.01

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 #		List Price
1410083	Model 1099 I	184.21

TO ORDER the correct size Fast Lok Clamps, measure the outside diameter of the hose or article and then select the next larger inside diameter clamp by catalog number.
• Minimum Qty may apply



Preformed Clamps are double wrapped and formed to a given diameter. Used primarily where one end of the hose or article is free to allow the clamps to be slid over the hose end before the fitting is inserted. All clamps may be pulled down to a smaller diameter but cannot be adjusted to a larger diameter.

PREFORMED CLAMPS
(3/8" AND 5/8" (NOMINAL) WIDTH)

Catalog Number	Band Width & Thickness	List Price	Clamp I.D. Inches	Catalog Number	Band Width & Thick-ness	List Price
F-3	3/8 x .025	1.35	13/16	FS-3	3/8 x .020	2.08
F-311	3/8 x .025	1.67	1 3/8	FS-311	3/8 x .020	2.19
F-4	5/8 x .025	1.23	1	FS-4	5/8 x .022	2.69
F-5	5/8 x .025	1.42	1 1/4	FS-5	5/8 x .022	2.99
HEAVY DUTY BANDS						
F-6	5/8 x .031	1.75	1 1/2	FS-6	5/8 x .022	2.95
F-7	5/8 x .031	1.44	1 3/4	FS-7	5/8 x .022	3.73
F-8	5/8 x .031	1.49	2	FS-8	5/8 x .022	3.44
F-9	5/8 x .031	1.70	2 1/4	FS-9	5/8 x .022	3.83
F-10	5/8 x .031	1.84	2 1/2	FS-10	5/8 x .022	3.85
F-11	5/8 x .031	2.14	2 3/4	FS-11	5/8 x .022	4.75
F-12	5/8 x .031	2.28	3	FS-12	5/8 x .022	4.00
F-14	5/8 x .031	2.11	3 1/2	FS-14	5/8 x .022	4.71
F-16	5/8 x .031	2.57	4	FS-16	5/8 x .022	5.23
F-18	5/8 x .031	2.89	4 1/2	FS-18	5/8 x .022	5.75
F-20	5/8 x .031	2.86	5	FS-20	5/8 x .022	5.91
F-24	5/8 x .031	3.50	6	FS-24	5/8 x .022	7.20
F-28	5/8 x .031	4.05	7	FS-28	5/8 x .022	7.42
F-32	5/8 x .031	7.32	8	FS-32	5/8 x .022	10.84

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.

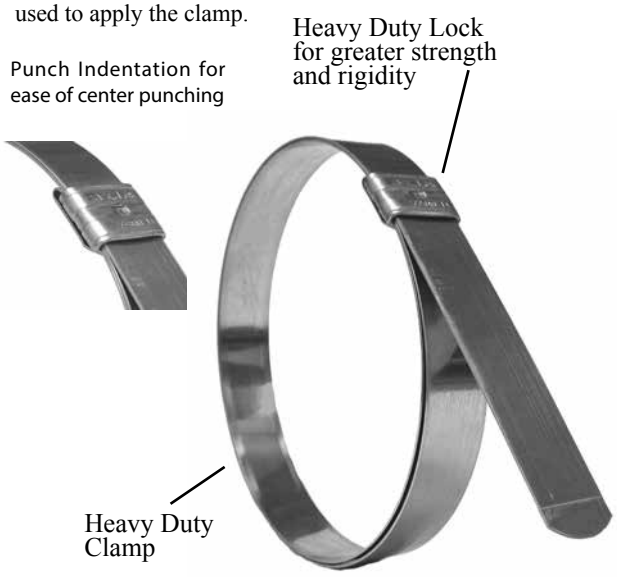
APPLICATION TOOLS

For 3/8", 5/8" F-38, F-40, F-100

See page 298 for these tools.

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.

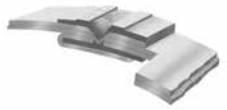


K-Clamps may be secured by either a punch or fold-up method. (See cross sectioned views)

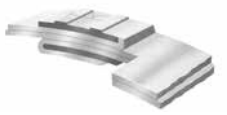
• Minimum Qty may apply

Center Punched

Less tension loss. Patented hole in inner band gives better internal mechanical locking after punching



Fold-up



PREFORMED CLAMPS
(3/8" AND 5/8" (NOMINAL) WIDTH)

GALVANIZED STEEL | **STAINLESS STEEL TYPE 301**

Catalog Number	List Price	Clamp I.D. Inches	Band Width & Thickness	Catalog Number	List Price
K-3	1.34	13/16"	3/8" x .025	KS-3	2.03
K-311	1.33	1-3/8"	3/8" x .025	KS-311	2.05
K-4	1.72	1"	5/8" x .030	KS-4	3.33
K-5	2.01	1-1/4"	5/8" x .030	KS-5	3.25
K-6	1.93	1-1/2"	5/8" x .030	KS-6	3.50
K-7	2.19	1-3/4"	5/8" x .030	KS-7	3.45
K-8	2.11	2"	5/8" x .030	KS-8	4.08
K-9	2.39	2-1/4"	5/8" x .030	KS-9	4.10
K-10	2.30	2-1/2"	5/8" x .030	KS-10	4.74
K-11	2.40	2-3/4"	5/8" x .030	KS-11	4.78
K-12	2.83	3"	5/8" x .030	KS-12	5.55
K-14	2.99	3-1/2"	5/8" x .030	KS-14	6.74
K-16	2.87	4"	5/8" x .030	KS-16	6.23
K-18	3.09	4-1/2"	5/8" x .030	KS-18	7.33
K-20	3.26	5"	5/8" x .030	KS-20	7.76
K-24	3.69	6"	5/8" x .030	KS-24	8.14
K-28	4.85	7"	5/8" x .030	KS-28	11.13
K-32	5.54	8"	5/8" x .030	KS-32	11.51

TO ORDER the correct size Fast Lok Clamps, measure the outside diameter of the hose or article and then select the next larger inside diameter clamp by catalog number.

• Minimum Qty may apply

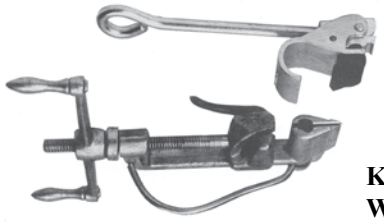
FLJ-Clamp

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
A001

KS001
WIND-UP TOOL

List Price:
360.13

STAINLESS STEEL TYPE 301

3/8" (NOMINAL WIDTH)

Catalog Number	Clamp I.D. Inches	Band Width & Thickness	List Price
FLJ-301	13/16"	3/8" x .025	2.16
FLJ-343	1"	3/8" x .025	2.06
FLJ-302	1-3/8"	3/8" x .025	2.06
FLJ-345	2"	3/8" x .025	2.34
FLJ-346	3"	3/8" x .025	3.27
N/A	3-1/4"	3/8" x .025	3.95
5/8" (NOMINAL WIDTH)			
FLJ-303	1"	5/8" x 0.30	4.23
FLJ-304	1-1/4"	5/8" x 0.30	3.83
FLJ-305	1-1/2"	5/8" x 0.30	4.05
FLJ-306	1-3/4"	5/8" x 0.30	4.53
FLJ-307	2"	5/8" x 0.30	4.63
FLJ-308	2-1/4"	5/8" x 0.30	4.71
FLJ-309	2-1/2"	5/8" x 0.30	5.07
3/4" (NOMINAL WIDTH)			
FLJ-327	2"	3/4" x 0.30	6.39
FLJ-310	2-3/4"	3/4' x 0.30	7.00
FLJ-311	3"	3/4" x 0.30	8.55
FLJ-312	3-1/2"	3/4" x 0.30	8.13
FLJ-313	4"	3/4' x 0.30	9.71
FLJ-314	4-1/2"	3/4' x 0.30	10.42
FLJ-315	5"	3/4" x 0.30	10.81
FLJ-316	6"	3/4' x 0.30	12.31
FLJ-318	7"	3/4" x 0.30	14.36
FLJ-319	8"	3/4" x 0.30	15.66

TO ORDER the correct size Fast Lok Clamps, measure the outside diameter of the hose or article and then select the next larger inside diameter clamp by catalog number.

FLJS-Clamp
SMOOTH I.D. CLAMPS

• Minimum Qty may apply

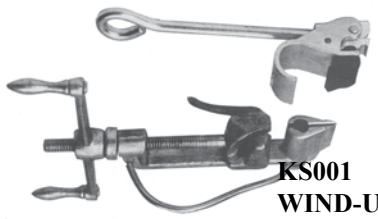
FLJS - Clamps are double wrapped clamps with a more smooth inside diameter, intended for your thermo-plastic and other thinner wall hose clamping applications. The JS series clamps slide on the hose prior to inserting the fitting.

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.



KA001
FOLD-UP ADAPTER



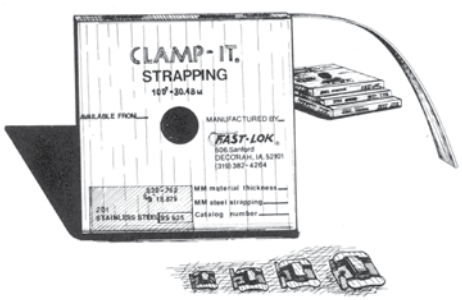
List Price
A001

KS001
WIND-UP TOOL

List Price:
360.13

STAINLESS STEEL

	5/8" (NOMINAL WIDTH)		
Catalog Number	**Clamp I.D. Inches**	**Band Width & Thickness**	**List Price**
FLJS-203	1"	5/8" x .030	3.61
FLJS-204	1-1/4"	5/8" x .030	4.19
FLJS-205	1-1/2"	5/8" x .030	3.87
FLJS-206	1-3/4"	5/8" x .030	5.28
FLJS-207	2"	5/8" x .030	4.42
FLJS-208	2-1/4"	5/8" x .030	5.07
FLJS-209	2-1/2"	5/8" x .030	4.94
3/4" (NOMINAL WIDTH)			
FLJS-227	2"	3/4" x .030	6.07
FLJS-210	2-3/4"	3/4" x .030	7.00
FLJS-211	3"	3/4" x .030	6.94
FLJS-212	3-1/2"	3/4" x .030	8.09
FLJS-213	4"	3/4" x .030	8.85
FLJS-214	4-1/2"	3/4" x .030	9.78
FLJS-215	5"	3/4" x .030	10.13
FLJS-216	6"	3/4" x .030	11.99
FLJS-218	7"	3/4" x .030	14.04
FLJS-219	8"	3/4" x .030	15.33



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	128.06
SS-5001	1/2"	.030	301 Stainless	194.08
SS-6251	5/8"	.030	301 Stainless	226.27
SS-7501	3/4"	.030	301 Stainless	275.10
SG-3750	3/8"	.025	Galvanized	74.94
SG-5000	1/2"	.030	Galvanized	86.09
SG-6250	5/8"	.030	Galvanized	109.17
SG-7500	3/4"	.030	Galvanized	122.32

CLAMPS (BUCKLES)

Catalog Number	Width	Material 100'/ CTN.	List Price Each pc.
CS-3751	3/8"	301 Stainless	1.04
CS-5001	1/2"	301 Stainless	1.07
CS-6251	5/8"	301 Stainless	1.60
CS-7501	3/4"	301 Stainless	1.94
CG-3750	3/8"	Galvanized	0.47
CG-5000	1/2"	Galvanized	0.60
CG-6250	5/8"	Galvanized	0.79
CG-7500	3/4"	Galvanized	1.09

F-38 Loking Tool



List Price: $121.75

Portable hand tool used to apply punch Type 3/8 & 5/8 Clamps

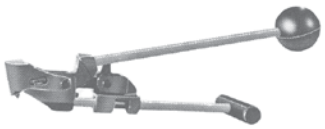
F-40 Loking Tool



List Price: $205.74

Used to apply Punch Type 3/8 & 5/8 clamps. Order mallet separately

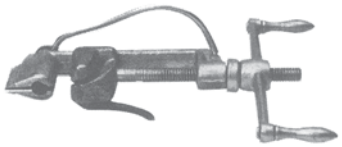
F-100 Loking Tool



List Price: $496.06

Used to apply Punch Type 3/8 & 5/8 clamps. Order mallet separately

KS001 Wind-up Tool



List Price: $360.13

Used to apply fold-up clamps and continuous strapping up to 3/4" width

- All designs exceed SAE J1508 specifications
- Smooth inside surface
- Even tightening torque for 360° seal
- Rolled-up band edge

*** Non-perforated band prevents hose damage ***



GENERAL PURPOSE EMBOSSED WORM-GEAR HOSE CLAMPS

Features unique one-piece housing, rolled-up band edges and a non-perforated (embossed) band that protects the hose. For added corrosion resistance, the band in the 12mm Standard is made of Aluzinc which gives three times the protection offered by conventional galvanized steel.

- Features high clamping force and high durability torque.
- Stainless: All parts in AISI 304 Stainless Steel.

A non-perforated band with rolled up edges eliminates hose damage while incrdasing clamping force.

Per SAE standard J1508 Type "FEO"

Part #	List Price	SAE Size	Clamping Range		Part# 304 SS	List Price
			Inches	mm		
88-024	3.05	8	5/8-1	15-24	89-024	6.29
88-028	3.44	10	3/4-1-1/8	19-28	89-028	7.58
88-032	4.17	12	7/8-1-1/4	22-32	89-032	8.58
88-038	3.57	16	1-1/16-1-1/2	26-38	89-038	6.73
		20	1-1/4-1-3/4	32-44	89-044	7.56
88-050	4.05	24	1-1/2-2	38-50	89-050	8.29
		28	1-3/4-2-1/4	44-56	89-056	7.98
88-065	5.79	32	2-2-9/16	50-65	89-065	8.94
88-075	5.78	40	2-5/16-3	58-75	89-075	10.32
88-085	5.48	44	2-11/16-3-3/8	68-85	89-085	11.81
		52	3-3-3/4	77-95	89-095	13.65
88-112	7.49	64	3-7/16-4-7/16	87-112	89-112	12.99
		80	4-1/8-5-7/16	104-138	89-138	18.15

- Minimum Qty may apply

- Precision thread pitch for high vibration applications
- Design allows reuse
- Provides a strong seal
- Tolerates corrosive environments
- Minimum qty may apply



- marine

ULTRA

The overwhelmingly preferred 316 SS embossed design clamp for the marine market.

Made of al AISI 316 high tensile strength stainless steel, the ULTRA has one of the highest clamping force ratings of all worm-gear style clamps due to the final thread pitch and riveted housing.

ULTRA Stainless Steel: All parts are made of AISI 316 Stainless steel. 12 mm bandwidth unless other wise indicated.

A non-perforated band with rolled up edges eliminates hose damage while increasing clamping force.

Per SAE standard J1508 Type "FEO"

Part #	SAE Size	Clamping Range		List Price
		Inches	mm	
90-014	3	5/16-9/16	8-14	6.89
90-017	4	7/16-11/16	11-17	7.77
90-020	6	1/2-13/16	13-20	8.23
90-024	8	5/8-1	15-24	8.01
90-028	10	3/4-1-1/8	19-28	8.44
90-032	12	7/8-1-1/4	22-32	8.61
90-038	16	1-1/16-1-1/2	26-38	8.45
90-044	20	1-1/4-1-3/4	32-44	10.68
90-050	24	1-1/2-2	38-50	8.30
90-056	28	1-1/4-2-1/4	35-57	10.83
90-065	32	1-1/2-2-1/2	38-64	9.61
90-075	40	2-3	51-76	11.11
90-085	44	2-1/4-3-1/4	57-83	10.39
90-095	52	2-3/4-3-3/4	70-95	13.18
90-112	64	3-1/2-4-1/2	89-114	20.85
90-138	80	4-5-1/2	102-140	13.77
90-165	96	5-6-1/2	127-165	12.03
90-180	104	5-1/2-7	140-178	12.87
90-205	120	6-1/2-8	165-203	13.87
90-231	138	7-5/8-9-1/8	194-232	14.58
90-256	154	8-5/8-10-1/8	219-257	16.29
90-282	170	9-5/8-11-1/8	244-283	16.63
90-307	186	10-5/8-12-1/8	270-308	17.50

MINI CLAMPS



Sure seal for small, thin walled hoses. The nut is secured to the clamp, making installation easier and the hexagonal head can be tightened with a socket wrench or screw driver.
Bandwidth is 9mm.

PAINTED ALUZINC STANDARD MINI CLAMPS

Part # Aluzinc	Clamping Range		List Price
	Inches	mm	
92-007	.26-.30	6.5-7.5	0.97
92-008	.28-.34	7-8.5	1.68
92-009	.32-.37	8-9.5	1.41
92-010	.36-.41	9-10.5	1.32
92-011	.37-.45	9.5-11.5	1.22
92-012	.41-.49	10.5-12.5	1.59
92-013	.45-.53	11.5-13.5	1.53
92-014	.49-.57	12.5-14.5	1.26
92-015	.53-.61	13.5-15.5	1.47
92-016	.55-.65	14-16.5	1.57
92-017	.59-.69	15-17.5	1.35

304 SS MINI CLAMPS

Part # 304 SS	Clamping Range		List Price
	Inches	mm	
93-008	.30-.34	7.5-8.5	3.49
93-009	.34-.37	8.5-9.5	4.11
93-010	.37-.43	9.5-11	3.06
93-011	.41-.47	10.5-12	4.24
93-012	.45-.51	11.5-13	4.19
93-013	.49-.55	12.5-14	4.36
93-014	.53-.59	13.5-15	3.59
93-015	.57-.63	14.5-16	2.95
93-016	.59-.67	15-17	4.52
93-017	.63-.71	16-18	3.68



RUBBER LINED CLAMPS

Multiple uses for holding cable, wire, pipe and hose. The rubber cushion absorbs vibration, provides protection against scratching and is made of black EPDM type rubber.

Rubber cushion clamps are used in a variety of industries and applications including automotive, truck, hydraulics and pneumatics, ship building, refrigeration, large equipmetnt packaging etc.

Bandwidths and mounting hose sizes vary by diameter and material.

- Aluzinc clamps have a .26 hole diameter
- Stainless Steel .20 diameter

Part # Aluzinc	List Price	Clamping Range		Part# 304 SS	List Price
		Inches	mm		
95-300	1.33	1/8	3		
95-301	1.50	3/16	5	96-301	2.41
95-302	1.31	1/4	6	96-302	2.34
95-303	1.39	5/16	8	96-303	2.31
95-304	1.25	3/8	10	96-304	2.66
95-305	1.28	7/16	11	96-305	2.51
95-306	1.52	1/2	13	96-306	2.62
95-307	1.61	9/16	14	96-307	3.17
95-308	1.47	5/8	16	96-308	3.16
95-309	1.70	11/16	18		
95-310	1.59	3/4	19	96-310	3.20
95-311	2.03	13/16	21		
95-312	2.08	7/8	22	96-312	3.27
95-313	2.23	15/16	24		
95-314	1.87	1	25	96-314	4.08
95-315	2.53	1-1/16	27		
95-316	2.31	1-1/8	29	96-316	5.47
95-317	3.21	1-3/16	30		
95-318	3.56	1-1/4	32	96-318	5.78
95-319	3.76	1-5/16	33		
95-320	3.87	1-3/8	35	96-320	7.24
95-321	3.69	1-7/16	36		
95-322	4.11	1-1/2	38	96-322	7.10
95-326	6.45	1-5/8	41		
95-323	4.96	1-3/4	45	96-323	7.71
95-328	6.57	1-7/8	47		
95-324	5.11	2	51		
95-325	5.57	2-1/8	54		
95-329	6.74	2-3/8	60		
95-327	6.37	2-1/2	65		
95-330	6.63	2-15/16	74		
95-331	10.66	4-5/16	110		

SMOOTH BRASS HOSE FERRULES

- ASTMB36 Alloy 268
- 12 New sizes!



***Available in Stainless Steel, add SS to end of part**

	Part #	Ferrule #	I.D.	Length	Pierce	Gauge	List Price
	32-500	6231	0.330	0.49	0.250	0.020	0.38
	32-501	833	0.358	0.500	0.265	0.020	0.39
NEW	32-503	833B	0.375	0.718	0.265	0.025	0.42
	32-502	622	0.380	0.500	0.265	0.020	0.36
	32-550	619	0.400	0.47	0.27	0.020	0.45
	32-504	620	0.410	0.500	0.265	0.020	0.39
	32-551	769R	0.450	0.562	0.343	0.020	0.40
	32-552 *	4750	0.478	0.687	0.328	0.025	0.45
	32-553	624R	0.500	0.500	0.343	0.020	0.43
NEW	32-506	7322A	0.500	1.000	0.343	0.025	0.61
	32-554	7322	0.500	1.000	0.328	0.025	0.59
	32-555	625	0.525	0.47	0.36	0.020	0.43
	32-517	625A	0.525	0.56	0.360	0.020	0.42
	32-556	7323	0.525	1.000	0.375	0.025	0.81
	32-521	9974	0.525	1.000	0.437	0.025	0.79
	32-557 *	7324	0.531	1.000	0.375	0.025	0.70
	32-558	626	0.550	0.484	0.375	0.020	0.53
NEW	32-507	3588	0.56	0.75	0.375	0.020	0.51
	32-559 *	7325	0.56	1.000	0.437	0.025	0.77
	32-561 *	7326	0.593	1.000	0.437	0.025	0.65
	32-562	JJ	0.600	0.484	0.437	0.016	0.80
	32-563	JJ	0.600	0.500	0.500	0.020	0.52
	32-526	II	0.625	0.500	0.500	0.020	0.58
	32-564 *	7327	0.625	1.000	0.437	0.025	0.69
	32-565	HH	0.650	0.500	0.500	0.020	0.63
	32-566 *	7328	0.656	1.000	0.437	0.025	0.80
	32-567	GG	0.675	0.515	0.500	0.020	0.75
	32-568 *	7329	0.69	1.000	0.500	0.025	0.82
	32-570 *	7330	0.718	1.000	0.500	0.025	0.79
NEW	32-508	7330A	0.718	1.000	0.625	0.025	0.85
	32-571	EE	0.725	0.530	0.500	0.020	0.65

	Part #	Ferrule #	I.D.	Length	Pierce	Gauge	List Price
	32-572	DD	0.750	0.531	0.500	0.020	0.64
NEW	32-510	7331B	0.75	1.00	0.500	0.025	0.89
	32-573 *	7331	0.750	1.000	0.625	0.025	1.25
	32-574	CC	0.775	0.531	0.500	0.020	0.74
	32-533	7332B	0.781	1.000	0.500	0.025	1.20
	32-575 *	7332	0.781	1.000	0.625	0.025	0.87
	32-576	BB	0.800	0.546	0.562	0.020	0.76
	32-577 *	7333	0.812	1.000	0.625	0.025	0.92
	32-578	AA	0.825	0.546	0.562	0.020	0.76
NEW	32-535		0.85	0.968	0.687	0.025	0.86
	32-579	7244	0.875	0.843	0.687	0.025	1.07
NEW	32-539	5029A	0.900	0.875	0.687	0.025	1.07
	32-580	7113	0.925	0.968	0.750	0.025	1.14
NEW	32-543	5028A	0.975	0.843	0.687	0.025	1.29
	32-545	5235A	1.000	0.843	0.687	0.025	1.20
	32-549	7145A	1.050	0.843	0.687	0.025	1.51
	32-584	5027	1.100	0.843	0.812	0.025	1.24
N	32-586	7104A	1.15	0.843	0.875	0.025	1.05
	32-588 *	7088	1.175	0.875	0.875	0.025	1.45
	32-590	875L	1.200	0.843	0.875	0.025	1.75
	32-591	7291	1.225	0.968	0.875	0.025	1.97
N	32-592	7255	1.25	0.968	1.000	0.04	2.40
N	32-596	8000	1.425	0.875	1.062	0.025	1.98
N	32-597	1500	1.50	0.875	1.125	0.025	1.63

HOSE CRIMPER

• Provides production capability and "big tool" crimping advantages at just a fraction of the cost of other tools offering comparable results.



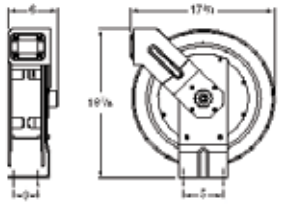
HOSE CRIMPER COMES WITH 5 DIES

 # 308-071 THRU # 308-075

Part #		List Price
308-070	Hose Crimper	61.84
308-071	5/8" Die	61.84
308-072	37/64" Die	61.84
308-073	12/32" Die	61.84
308-074	31/64" Die	61.84
308-075	11/16" Die	61.84

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.
- Retractable w/ hose

Part #	Operating Pressure	Capacity Hose ID		Shipping Weight	List Price
		I.D.	Length		
940-350	300	3/8	50	41	658.21
940-250	300	1/4	50	44	986.58

940350 - Air/ Water
940250 - Oxygen/ Acetylene

CORROSION RESISTANCE VALUES
for Plastic Tubing

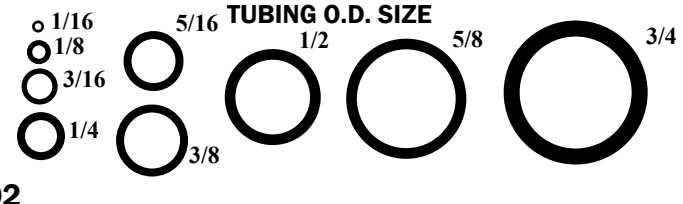
Ratings based on tests at 70^{0}F and should not be exposed to higher temperature without testing

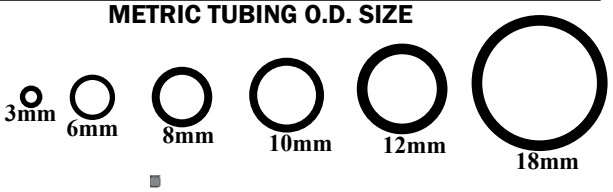
F-5000 Poly Vinyl Chloride
U-2000 Polyurethane
E-1000 Low Density Polyethylene
N-6000 Nylon
P-1100 Polypropylene
D-4000 EVA
T-7000 Teflon
U-8000 Special Plasticizers PVC

G-Good
L-Limited
P-Poor
N-Not Tested

FUELS:	F	U	E	N	P	D	T	U
Butane (1)	G	G	L	G	L	G	G	N
Diesel Fuel	L	G	L	G	L	P	N	G
Gasoline (regular)	L	G	P	G	L	N	G	G
Kerosene	L	G	P	G	G	P	G	G
Methane (nat. gas)(1)	G	G	L	G	G	N	N	N
Propane (1)	G	G	L	G	L	N	N	N
OTHERS:								
Acetylene	N	G	G	G	G	N	N	N
Ammonia gas	P	G	G	G	G	G	N	N
Ammonium salts	G	G	G	G	G	G	N	N
Amyl acetate	P	P	L	G	P	P	G	N
Aniline	P	P	L	L	G	P	G	N
Animal oils	G	G	P	G	G	N	G	G
Bleach, 7%	G	P	G	L	L	N	N	G
Bromine	L	G	P	P	P	P	G	N
Butandiol	G	G	G	G	G	N	N	N
Calcium salts incl. Chloride	G	G	G	G	G	N	G	G
Chlorine gas, dry	G	G	P	P	P	P	N	N
Dibutyl phthalate	N	P	L	G	L	P	N	G
Glucose	G	G	G	G	G	G	G	G
Glycerine	G	G	G	G	G	G	N	G
Hydrogen peroxide 10%	G	G	G	G	G	G	G	G
Hydrogen peroxide 25%	L	G	G	P	G	G	G	G
Hydrogen sulfide	G	P	G	L	G	N	G	N
Isocyanates	N	G	G	G	N	P	N	N
Lead salts (3)	G	G	G	G	G	N	N	N
Magnesium salts	G	G	G	G	G	N	G	N
Mercury	G	G	G	G	G	G	N	N
Milk	G	G	G	G	G	G	N	G
Mineral Oil	G	G	L	G	L	P	G	G
Nitrous Oxide (1)	G	G	L	G	G	N	N	N
Oxygen (1)	G	G	G	G	G	G	G	G
Ozone, ambient	G	G	L	G	L	N	N	G
Paint, oil base	L	G	L	G	G	N	N	G
Polyglycols	G	G	G	G	G	N	N	N
Potassium salts	G	G	G	G	G	N	G	N
Pydraul	P	P	P	G	N	N	N	N
Pyridine	P	L	G	L	G	N	G	N
Salt Water	G	G	G	G	G	G	G	G
Silver Nitrate	G	G	G	G	G	G	G	N
Skydrol	P	P	P	G	N	N	N	N
Soap solution (conc.)	G	G	L	G	G	N	G	G
Sodium salts	G	G	G	G	G	N	G	G
Sodium thiosulphate	G	G	G	G	G	N	G	G
Styrene	P	G	P	G	N	N	N	G
Trisodium phosphate	G	G	N	G	G	G	N	G
Ucon oil	G	G	G	G	N	N	N	N
Urea	G	G	G	G	G	N	G	G
Vegetable oils (1)	G	G	G	G	G	P	N	G
Water at 730F	G	G	G	G	G	G	G	G
Water at 1400F	L	G	G	G	G	G	G	G
Water at 1700F	P	L	N	L	G	P	N	G
Whiskey, wine (1)	N	G	G	G	G	G	N	G
Zinc Chloride	G	G	G	G	G	G	G	N

ACIDS & BASES	F	U	E	N	P	D	T
Acetic, 50%	G	P	P	L	G	P	G
Boric	G	G	G	G	G	G	G
Carbolic (phenol)	P	P	G	P	G	P	N
Fatty	G	G	P	G	G	N	G
Formic, 90%	G	P	G	P	G	G	G
Hydrochloric, 10%	G	G	G	L	G	G	G
Hydrochloric, 25%	G	L	G	P	G	L	G
Hydrochloric, 50%	G	L	G	P	G	L	G
Hydrocyanic, 50%	L	P	G	P	G	G	G
Maleic	G	P	G	G	G	N	N
Nitric, 10%	G	P	G	L	G	L	G
Nitric, 30%	G	P	G	P	L	L	G
Oleic	L	G	L	G	G	P	N
Phosphoric, 25%	G	L	G	G	G	G	N
Sulfuric, 30%	G	L	G	L	G	L	G
Sulfuric, 70%	L	P	P	P	G	P	G
Sulfuric, 98%	P	P	P	P	G	P	G
Sulfurous, 30%	G	P	G	L	G	N	G
Tannic	G	P	G	G	G	N	G
Ammonium hydroxide, 25%	P	G	L	G	G	G	N
Potassium hydroxide, 25%	L	G	G	G	G	G	G
Sodium hydroxide, 50%	G	G	G	G	G	L	G
SOLVENTS:							
Acetone	P	P	G	G	L	P	G
Benzene	P	L	P	G	P	P	G
Carbon tetrachloride	P	L	L	L	P	P	G
Chloroform	P	P	P	L	P	P	G
Cyclohexanone	P	P	P	G	L	P	G
Dimethylformamide	P	P	L	N	G	N	N
Dioxane	N	N	P	G	L	N	N
Ethyl acetate	P	L	G	G	L	P	G
Ethyl alcohol (1)	L	G	G	L	G	G	G
Ethyl ether	L	L	G	G	L	P	N
Ethylene glycol	G	G	G	G	G	G	N
Formaldehyde	G	G	G	G	G	L	N
Freon - 12'	L	L	G	G	L	N	G
Methyl alcohol	L	G	G	L	G	N	N
Methylene chloride	P	P	L	G	L	P	N
Methyl ethyl ketone	P	P	G	G	L	P	N
Naphthas (2)	P	G	P	G	L	P	G
Tolulene	P	G	P	G	L	P	N
Triclorethylene	P	P	P	L	P	P	G
Turpentine	G	G	P	G	L	P	G
Xylene	P	G	P	G	L	P	N
HYDRAULIC FLUIDS:							
Diester base grease	N	G	P	G	L	P	N
Petroleum base grease	G	G	L	G	L	P	N
Phosphate ester	L	P	P	G	G	N	N
Polyol ester	P	N	P	G	G	N	N
Water-glycol	G	G	G	G	G	N	N
SAE motor oils	G	G	G	G	G	N	N
Machine oil	G	G	L	G	L	N	N
MIL-L-7808 H	G	G	L	G	G	N	N
Brake Fluid	N	N	N	N	N	N	N





LINEAR LOW DENSITY POLYETHYLENE TUBING (LLDPE)



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
Pneumatic Tools
Pneumatic Piping
Electrical Jacketing
Drain Lines
Instrumentation
Chemical Transfer
Process Control
Laboratories

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.

• Burst PSI is 3x working pressure

ID = Wall Thickness x2 - Tube O.D.

100' LENGTH

Part #	Tube O.D.	Tube Wall	Working Pressure	List Price
973-200	1/8"	0.020	400	23.54
973-201	5/32"	0.025	400	24.40
973-202	3/16"	0.030	400	26.77
973-203	1/4"	0.040	400	22.81
973-204	1/4"	0.062	600	30.50
973-205	5/16"	0.062	800	43.25
973-206	3/8"	0.062	400	49.87
973-207	1/2"	0.062	300	62.78
973-208	5/8"	0.062	250	78.99
973-211	3/4"	0.062	150	115.52
973-209	3/4"	0.094	200	143.59
973-210	1"	0.125	300	228.26

500' LENGTH

Part #	Tube O.D.	Tube Wall	Working Pressure	List Price
73-200N5	1/8"	0.020	400	103.17
73-203N5	1/4"	0.040	400	137.47
73-204N5	1/4"	0.062	800	148.45
73-206N5	3/8"	0.062	400	244.62
73-207N5	1/2"	0.062	300	308.89

1000' LENGTH

Part #	Tube O.D.	Tube Wall	Working Pressure	List Price
73-203N1	1/4"	0.040	400	218.11
73-204N1	1/4"	0.062	800	262.83
73-206N1	3/8"	0.062	400	428.64

100' BLACK POLYETHYLENE TUBING

Part #	O.D.	List Price
73-200B	1/8"	23.54
73-201B	5/32"	26.87
73-202B	3/16"	26.77
73-203B	1/4"	27.81
73-204B	1/4"	28.50
73-205B	5/16"	43.25
73-206B	3/8"	47.54
73-207B	1/2"	64.45
73-208B	5/8"	78.99

100' BLUE POLYETHYLENE TUBING

Part #	O.D.	List Price
73-200U	1/8"	23.54
73-201U	5/32"	26.87
73-202U	3/16"	28.09
73-203U	1/4"	27.81
73-204U	1/4"	28.50
73-205U	5/16"	43.25
73-206U	3/8"	47.54
73-207U	1/2"	64.45

100' GREEN POLYETHYLENE TUBING

Part #	O.D.	List Price
73-201G	5/32"	26.87
73-203G	1/4"	27.01
73-204G	1/4"	28.50
73-205G	5/16"	43.25
73-206G	3/8"	47.54
73-207G	1/2"	64.45

100' RED POLYETHYLENE TUBING

Part #	O.D.	List Price
73-203R	1/4"	27.81
73-205R	5/16"	43.25
73-206R	3/8"	47.54

100' WHITE POLYETHYLENE TUBING

Part #	O.D.	List Price
73-203W	1/4"	27.81
73-206W	3/8"	47.54
73-207W	1/2"	64.45

100' YELLOW POLYETHYLENE TUBING

Part #	O.D.	List Price
73-203Y	1/4"	27.81
73-205Y	5/16"	43.25
73-206Y	3/8"	47.54

100' ORANGE POLYETHYLENE TUBING

Part #	O.D.	List Price
73-203O	1/4"	27.01

100' GRAY POLYETHYLENE TUBING

Part #	O.D.	List Price
73-206A	3/8"	47.54

500' BLACK REEL

Part #	O.D.	List Price
73-203B5	1/4"	131.51
73-205B5	5/16"	187.98
73-206B5	3/8"	225.35
73-207B5	1/2"	308.89

500' BLUE REEL

Part #	O.D.	List Price
73-203U5	1/4"	111.96
73-206U5	3/8"	225.35

500' GREEN REEL

Part #	O.D.	List Price
73-203G5	1/4"	111.96

500' RED REEL

Part #	O.D.	List Price
73-203R5	1/4"	123.87

500' WHITE REEL

Part #	O.D.	List Price
73-207W5	1/2"	308.89

1000' BLACK REEL

Part #	O.D.	List Price
73-206B1	3/8"	428.64

1000' BLUE REEL

Part #	O.D.	List Price
73-203U1	1/4"	218.11

1000' GREEN REEL

Part #	O.D.	List Price
73-203G1	1/4"	218.11

1000' RED REEL

Part #	O.D.	List Price
73-203R1	1/4"	218.11



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 absorbtioin rate compared to other nylons. By not absorbing moisture, Nylon 12 remains more flexible, which in turn extends it's service life. Nylon 12 tubing can be used with standard push-to-connect fittings and compression fittings for simple installation.

Because of it's 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
Pneumatic Piping
Instrumentation
Lube Lines
Coolants
Refrigeration
Chemical Transfer
Vacuum
Process Control
Fuel Lines
Paint Supply Lines
Laboratories

Part #'s shown are for natural. 500' and 1000' reels available on request.

100' LENGTH

Part #	Tube O.D.	Tube Wall	Working Pressure	List Price
973-230	1/8"	.017	400	29.93
973-231	5/32"	.025	400	42.24
973-229	3/16"	.024	400	57.73
973-232	1/4"	.035	400	106.51
973-238	1/4"	.050	800	131.58
973-226	5/16"	.040	250	144.89
973-233	3/8"	.050	240	177.89
973-234	1/2"	.062	150	400.30

BLACK TUBING & MISC.

Part #	O.D.	Wall	Working Pressure	List Price
73-231B	5/32	0.025	400	45.50
73-232B	1/4	0.035	400	106.51
73-233B	3/8	0.05	300	240.00
73-232N5*	1/4	0.035	400	479.30
73-238U**	1/4	0.04	800	110.19

• 500' Natural **Blue

METRIC LENGTH - 100 ft. coils

Part #	MM O.D.	MM I.D.	MM Wall	Working Pressure	List Price
973-323	4	2.3	0.85	1800	51.65
973-325	6	4	1	1200	93.00
973-327	8	6	1	800	106.70
973-329	10	8	1	600	234.62
973-332	12	10	1	480	312.55
973-334	14	12	1	950	273.02

**** Metric Sizes Natural color only****

ENDURE™ AIR BRAKE TUBING



Applications

• Truck, Bus & Commercial vehicle air brake systems.
• Trailer air brake systems.
• Auxiliary air systems.

Features

• Flexible - Retains its flexibility longer.
• Leading impact strength & vibration cracking resistance
• Exceeds Industry Performance Standards.

Service Temp. Range:

-85°F (-65°C) to + 200°F (+93°C)

Compliances:

• Meets DOT FMVSS 106.
• Meets requirements of SAE J844 Type B.

Construction

• Uses DuPont™ Hytrel®
• Tube: Polyester elastomer
• Reinforcemennt: Poly. yarn
• Cover: Poly. elastomer (colored)

Available in Black, Blue, Green, Orange, Red & Yellow.

Add suffix 'B' = Black, 'U' = Blue, 'G' = Green, 'O' = Orange, 'R' = Red, 'Y' = Yellow

Part #	Nominal O.D.	Nominal I.D.	Nominal Wall	Minimum Burst Pressure (PSI @ 70°F)	Standard Lengths		Standard Lengths		List Price CTN	List Price Spool
					Ctn/Spool	Ctn/Coil	Ctn/Spool	Ctn/Coil		
38604	3/8	0.251	0.062	1,400	500 ft.	100 ft.	17.0 lbs.	3.2 lbs.	233.60	1168.00
38605	1/2	0.376	0.062	950	500 ft.	100 ft.	23.0 lbs.	4.4 lbs.	312.32	1561.58
38606	5/8	0.441	0.094	900	250 ft.	100 ft.	22.0 lbs.	8.0 lbs.	605.71	1443.49
38607	3/4	0.566	0.094	850	250 ft.	100 ft.	27.0 lbs.	10.0 lbs.	802.16	2005.39

Add a '5' to the end of the part # for 500 ft. & 250 spools

AIR BRAKE TUBING

•SAE J844, Type 3 A & B & DOT FMVSS 106
•Nylon inner tube with open ply nylon fiber reinforcement and nylon cover.
•-40^0 F to +200^0 F temperature range.
•150 P.S.I. max. working pressure.
• More colors available.



• Reinforced
• Available in black, blue, green, red, yellow

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.

TYPE A NON-REINFORCED

Part #	Type A	Color	Length	List Price
38-950	1/8”	Black	100'	POR
38-952	1/4”	Black	100'	POR
38-952R	1/4”	Red	100'	POR
38-952U	1/4”	Blue	100'	POR
38-952-2	1/4”	Black	500'	POR
38-952-3	1/4”	Black	1000'	POR

TYPE B REINFORCED

Part #	Type B	Color	Length	List Price
38-960	3/8”	Black	100'	POR
38-960U	3/8”	Blue	100'	POR
38-960B5	3/8”	Black	500'	POR
38-965	1/2”	Black	100'	POR
38-965R	1/2”	Red	100'	POR
38-965B5	1/2”	Black	500'	POR
38-970	5/8”	Black	100'	POR
38-975	3/4”	Black	100'	POR



PVC POLYVINYLCHLORIDE TUBING

PVC is suited for general, low-pressure, industrial applications for the conveyance of liquids and solids of suitable granlar 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	34.35
973-224	1/8	1/4	1/16	400	39.90
973-223	3/16	5/16	1/16	250	41.14
973-215	1/4	3/8	1/16	200	56.56
973-252	5/16	7/16	1/16	150	68.79
973-253	5/16	1/2	3/32	250	93.23
973-216	3/8	1/2	1/16	125	72.85
973-255	3/8"	5/8"	1/8"	250	155.50
973-262	3/8	9/16	3/32	200	135.63
973-217	1/2	5/8	1/16	100	139.64
973-219	3/4	1	1/8	120	248.89
973-221	1	1-1/4	1/8	100	373.97

ALUMINUM TUBING

Alloy 3003-0 ASTM B-483



Material to ASTM B-483

POR

900 PSI max
3700 Burst PSI

ALUMINUM VERSATUBE 50' COILS

Part #	O.D.	Wall Thick	50' Coils
972-190	1/8	.025	POR
972-191	3/16	.028	POR
972-192	1/4	.032	POR
972-193	5/16	.035	POR
972-194	3/8	.035	POR
972-195	1/2	.035	POR

COPPER TUBING

ASTMB280



POR

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

COPPER TUBING

For residential water lines



POR

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

* Add 1/8" to Nom OD to get the Actual OD

POR = Price On Request

TUBING ACCESSORIES

MINI-TUBING CUTTER

• Great for tight places



Part #	Size	List Price
990-571	3mm-22mm (1/8"-7/8")	6.38

TUBING CUTTER



Part #	Size	List Price
990-570	1/8"-1-1/8"	12.04

PLASTIC TUBE CUTTER

Range: 1/8" - 3/8" I.D. (3mm-10mm)



Part #	Description	List Price
91-707	Cutter w/Blade	9.20



• 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	3.15
28-989	1/4	adhesive	10	4.33
28-990	3/8	non-adhesive	7	10.19
28-991	1/2	non-adhesive	5	16.60

"WHY SPEND A DOLLAR ON A BOOKMARK? ... WHY NOT USE THE DOLLAR AS A BOOKMARK?"

- STEVEN SPIELBERG

"I JUST THINK IT'S GOOD TO BE CONFIDENT. IF I'M NOT ON MY TEAM WHY SHOULD ANYBODY ELSE BE?"

- ROBERT DOWNEY JR.

"MOST PEOPLE OVERESTIMATE WHAT THEY CAN DO IN ONE YEAR AND UNDERESTIMATE WHAT THEY CAN DO IN TEN YEARS."

- BILL GATES

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: -4^0 to $+176^0$F

Industrial
Parker
ARO



Accepts all 3 styles of plugs!

MALE COUPLER



BRASS

Part #	Size	List Price
28-579	1/4" NPTF	10.61
28-589	3/8" NPTF	10.16

FEMALE COUPLER



BRASS

Part #	Size	List Price
28-560	1/4" NPTF	13.54

HOSE BARB COUPLER



BRASS

Part #	Hose I.D. Size	List Price
28-690	1/4"	12.25
28-691	3/8"	11.52

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"	7.16
28-553	3/8"	7.69

STEEL

28552S	1/4"	5.46
28553S	3/8"	5.78

MALE PLUG

STEEL

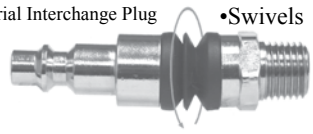


Part #	NPT Size	List Price
28-545	1/8	1.79
28-546	1/4	1.49
28-547	3/8	2.51

360° TURNING SWIVEL PLUG

1/4" Basic size
Industrial Interchange Plug

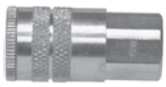
•360° Turning
•Swivels



Part #	Size	List Price
320-065	1/4"	11.04

FEMALE PIPE COUPLER

BRASS



Part #	NPT Size	List Price
28-540	1/4"	7.23
28-541	3/8"	7.80

STEEL

28540S	1/4"	5.34
28541S	3/8"	6.01

FEMALE PLUG

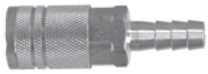
STEEL



Part #	NPT Size	List Price
28-533	1/8"	1.48
28-534	1/4"	1.33
28-535	3/8"	2.54

HOSE ID COUPLER

BRASS



Part #	Hose ID	List Price
28-562	1/4"	9.36
28-564	3/8"	9.42
28-565	1/4(Push on)	10.51
28-566	3/8(Push on)	11.40

STEEL

28-562S	1/4"	5.51
28-564S	3/8"	6.04
28-565S	1/4(Push on)	6.01
28-566S	3/8(Push on)	6.55

HOSE ID PLUG

STEEL



Part #	Hose ID	List Price
28-557	1/4"	1.43
28-559	3/8"	1.83
28-558	1/4(Push on)	1.87
28-561	3/8(Push on)	2.06

PNEUMATICS

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"	10.82
98-824	3/8"	12.88
98-825	1/2"	16.17

FEMALE COUPLER

STEEL



Part #	NPT Size	List Price
98-810	1/4"	12.01
98-811	3/8"	11.47
98-812	1/2"	13.41

HOSE ID COUPLER

STEEL



Part #	Hose ID	List Price
98-840	1/4"	15.17
98-841	3/8"	15.36
98-842	3/8"(Push on)	15.66

MALE PLUG

STEEL



Part #	NPT Size	List Price
98-814	1/4"	2.79
98-815	3/8"	3.11

FEMALE PLUG

STEEL



Part #	NPT Size	List Price
98-801	1/4"	2.01
98-802	3/8"	2.61

HOSE ID PLUG

STEEL



Part #	Hose I.D. Size	List Price
98-828	3/8"	4.15
98-830	3/8"(Push on)	4.37

1/2" BASIC SIZE — INDUSTRIAL INTERCHANGE — 1/2" BASIC SIZE

Specifications

Body Size (in.)	1/2
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 8 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.

MALE PIPE COUPLER

STEEL



Part #	NPT Size	List Price
99-825	1/2"	15.84
99-826	3/4"	22.92

FEMALE PIPE COUPLER

STEEL



Part #	NPT Size	List Price
99-812	1/2"	16.68
99-813	3/4"	21.71

HOSE ID COUPLER

STEEL



Part #	Hose ID	List Price
99-841	3/8"	21.63
99-843	1/2"	18.90

MALE PLUG

STEEL



Part #	NPT Size	List Price
99-816	1/2"	4.26
99-817	3/4"	7.83

FEMALE PLUG

STEEL



Part #	NPT Size	List Price
99-803	1/2"	5.31
99-804	3/4"	9.36

HOSE ID PLUG

STEEL



Part #	Hose ID	List Price
99-828	3/8"	5.55
99-830	1/2"	5.10

1/4" BASIC SIZE — ARO 210 INTERCHANGE — 1/4" BASIC SIZE

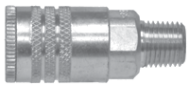
Specifications

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

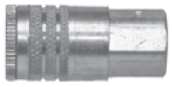
BRASS



Part #	NPT Size	List Price
28-592	1/8"	21.39
28-593	1/4"	9.89
28-594	3/8"	14.32

FEMALE PIPE COUPLER

BRASS



Part #	NPT Size	List Price
28-583	1/8"	19.46
28-584	1/4"	9.00
28-585	3/8"	26.02

HOSE ID COUPLER

BRASS



Part #	Hose ID	List Price
28-601	1/4"	10.01
28-603	3/8"	14.13

MALE PLUG

STEEL



Part #	NPT Size	List Price
28-586	1/8"	4.07
28-587	1/4"	1.83

FEMALE PLUG

STEEL



Part #	NPT Size	List Price
28-578	1/4"	2.14

HOSE ID PLUG

STEEL



Part #	Hose ID	List Price
28-595	1/4"	4.39
28-597	3/8"	7.83

ST SERIES...HIGH FLOW

Specifications

Brass - Coupler & Steel Plug		
Temperature Range	-40° to 250°	
Rated Pressure	4650	2350

- 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).

MALE PIPE COUPLER

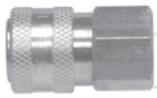
BRASS



Part #	Body & Thread Size	List Price
28-667	1/8"	20.63
28-665	1/4"	14.25
28-666	3/8"	16.10
28-668	1/2"	19.29
28-669	3/4"	50.80
28-670	1"	79.14

FEMALE PIPE COUPLER

BRASS



Part #	Body & Thread Size	List Price
28-671	1/8"	12.81
28-651	1/4"	14.68
28-652	3/8"	15.87
28-672	1/2"	24.16
28-673	3/4"	44.90

MALE PLUG

STEEL



Part #	Size	List Price
28-675	1/8"	8.88
28-639	1/4"	6.88
28-640	3/8"	4.98
28-676	1/2"	5.97
28-677	3/4"	18.26

FEMALE PLUG

STEEL



Part #	Size	List Price
28-688	1/8"	5.71
28-619	1/4"	6.93
28-620	3/8"	5.37
28-679	1/2"	9.00
28-680	3/4"	17.32
28-681	1"	46.18

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"	19.88
28-516	1/4"	7.83
28-517	3/8"	18.10

1/4" Body Size

FEMALE PIPE COUPLER

BRASS



Part #	NPT Size	List Price
28-507	1/4"	7.88
28-508	3/8"	17.54

HOSE ID COUPLER

BRASS



Part #	Hose ID	List Price
28-528	1/4"	23.34
28-530	3/8"	23.32
28-531	1/4"(Push on)	22.21
28-532	3/8"(Push on)	22.21

MALE PLUG

STEEL



Part #	NPT Size	List Price
28-509	1/8"	1.93
28-510	1/4"	1.43
28-511	3/8"	2.74

FEMALE PLUG

STEEL



Part #	NPT Size	List Price
28-500	1/8"	4.78
28-501	1/4"	1.61
28-502	3/8"	2.65

HOSE ID PLUG

STEEL



Part #	Hose ID	List Price
28-518	1/4"	2.46
28-520	3/8"	7.21
28-521	1/4"(Push on)	12.63
28-522	3/8"(Push on)	13.43

HAWAII.... HAWAIIANS LIVE, ON AVERAGE, FIVE YEARS LONGER THAN RESIDENTS OF ANY OTHER STATE.

IDAHO ....TV WAS INVENTED IN RIGBY, IDAHO, IN 1922.

ILLINOIS ..... HAS A GOVERNOR IN JAIL, ONE PENDING JAIL, AND IS THE MOST CORRUPT STATE IN THE UNION!

INDIANA .....HOME TO SANTA CLAUS, INDIANA, WHICH GETS A HALF MILLION LETTERS FOR SANTA EVERY YEAR.

IOWA .... WINNEBAGO R.V.S GET THEIR NAME FROM WINNEBAGO COUNTY ... ALSO, IT IS THE ONLY STATE NAME THAT BEGINS WITH 2 VOWELS.

KANSAS ....LIBERAL, KANSAS HAS AN EXACT REPLICA OF THE HOUSE IN "THE WIZARD OF OZ".

KENTUCKY ..... HAS MORE THAN $6 BILLION IN GOLD UNDERNEATH FORT KNOX.

LOUISIANA ..... HAS PARISHES INSTEAD OF COUNTIES BECAUSE THEY WERE ORIGINALLY SPANISH CHURCH UNITS.

MAINE .....IT IS SO LARGE THAT IT COVERS AS MANY SQUARE MILES AS THE OTHER FIVE NEW ENGLAND STATES COMBINED.

MARYLAND .....THE OUIJA BOARD WAS CREATED IN BALTIMORE IN 1892

MINI TYPE QUICK DISCONNECTS

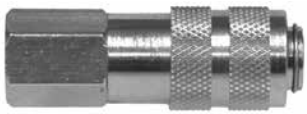
Working Range: 0-145 psi
Material: Chrome Plated Brass

MALE COUPLER



Part #	Size	List Price
28-605	1/8"	7.55

FEMALE COUPLER



Part #	Size	List Price
28-606	1/8"	7.55

MALE PLUG



Part #	Size	List Price
28-607	1/8"	2.53

FEMALE PLUG



Part #	Size	List Price
28-608	1/8"	2.02

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
28-683	1/4"	23.50

FEMALE PIPE COUPLER



Part #	Size	List Price
28-684	1/4"	30.16

MALE PLUG

Steel



Part #	Size	List Price
28-685	1/8"	5.97
28-686	1/4"	5.62

FEMALE PLUG

Steel



Part #	Size	List Price
28-687	1/4"	5.27

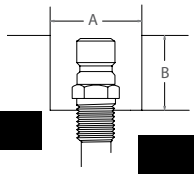
MOLD COOLANT-LINE QUICK COUPLERS

OPERATING PRESSURE:
200 PSIG (14.06 Kg/sq. cm)
Standard Seal:
SILICONE: -90°F to 400°F (-68°C to + 205°C)

- Our 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	3.16
29-901	1/4"	0.84	0.94	3.78
29-902	3/8"	1.00	0.97	3.35

3/8" BASIC SIZE

Part #	Size	A	B	List Price
29-906	1/4"	1.00	0.94	5.07
29-907	3/8"	1.00	1.13	4.92
29-908	1/2"	1.81	1.25	8.36

1/2" BASIC SIZE

Part #	Size	A	B	List Price
29-911	1/2"	1.25	1.50	9.89
29-912	3/4"	1.50	1.56	15.21

FEMALE PLUG (STEEL)

1/4" BASIC SIZE

Part #	Size	List Price
29-903	1/8"	3.26
29-904	1/4"	3.41
29-905	3/8"	5.12

3/8" BASIC SIZE

Part #	Size	List Price
29-909	1/4"	4.25
29-910	3/8"	5.74

1/2" BASIC SIZE

Part #	Size	List Price
29-913	1/2"	13.72
29-914	3/4"	25.40

THREAD TO CONNECT, DRYBREAK NO-SPILL QUICK CONNECT



- Brass Body
- Steel Wing Nut
- Buna-Seal (-40° to +250°F)

Aeroquip 5100
Parker 6100
Snaptite B78



- Bonded Face Seal
- External ORing Alleviates Full Connection

Part #	Body Size	Female NPT	Max PSI	List Price
61-150	3/4	1/2	3000	80.39
61-152	3/4	3/4	3000	69.52
61-153	1	1	3000	66.31
61-154	1-1/4	1-1/4	2750	98.74
NEW 61-155	1-1/2	1-1/2	2500	164.67

Part #	Body Size	Female NPT	Max PSI	List Price
61-050	3/4	1/2	3000	58.55
61-052	3/4	3/4	3000	66.30
61-053	1	1	3000	69.53
61-054	1-1/4	1-1/4	2750	98.74
61-055	1-1/2	1-1/2	2500	151.28 NEW

FEATURES
- Poppet valves to prevent uncoupled leakage
- Critical parts are induction hardened for durability
- Dependable ball-locking mechanism holds the maling halves together
- Socket and plug are precision machined from solid barstock
- Standard nitrile seals temp range -40°F to +250°F

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

INTERCHANGE DATA:
- Parker 6600, Aeroquip/ Eaton FD56, Dixon 'K' Series.
- Hansen HA 15000, Safeway S56



FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
ANV-14-F	1/4"	1/4"	10.43
ANV-38-F	3/8"	3/8"	11.75
ANV-12-F	1/2"	1/2"	15.81
ANV-34-F	3/4"	3/4"	33.06
ANV-1-F	1"	1"	42.86



FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
ANV-14-M	1/4"	1/4"	4.69
ANV-38-M	3/8"	3/8"	6.38
ANV-12-M	1/2"	1/2"	7.34
ANV-34-M	3/4"	3/4"	10.95
ANV-1-M	1"	1"	18.65

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
1/4"	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

SS
- Ball
- Retaining ring
- All internal parts

SUFFIX 'B' = BRASS MATERIAL



FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
HNV-14-F	1/4"	1/4"	11.46
HNV-14-F-B	1/4"	1/4"	19.05
HNV-38-F	3/8"	3/8"	12.00
HNV-38-F-B	3/8"	3/8"	26.00
HNV-12-F	1/2"	1/2"	17.39
HNV-12-F-B	1/2"	1/2"	34.77
HNV-34-F	3/4"	3/4"	28.00
HNV-34-F-B	3/4"	3/4"	62.00
HNV-1-F	1"	1"	44.73
HNV-1-F-B	1"	1"	93.25



FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
HNV-14-M	1/4"	1/4"	5.27
HNV-14-M-B	1/4"	1/4"	9.01
HNV-38-M	3/8"	3/8"	6.64
HNV-38-M-B	3/8"	3/8"	13.33
HNV-12-M	1/2"	1/2"	7.81
HNV-12-M-B	1/2"	1/2"	22.61
HNV-34-M	3/4"	3/4"	13.75
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

FLUSH FACE				
Body Size	Steel Coupler/ Plug Coupled			
	Maximum Working		Burst	
	PSI	Bar	PSI	Bar
1/4"	5,000	345	18,270	1,200
3/8"	4,000	275	18,270	1,200
1/2"	4,000	275	16,500	1,100
5/8"	4,000	275	14,800	1,000
3/4"	4,000	275	12,400	850
1"	3,000	200	12,600	850

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 servere service conditions.
- Durable ball-locking mechanism assures reliable connection everytime.
- Temp Rating - 65° to 250°
- **ISO 16028**

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	3/8"	1/2"	71.00
FF-34-F	1/2"	3/4"	122.00
FF-1-F	3/4"	1"	169.27

FF Series
HTMN
74N



PLUG

Part #	Body Size	NPT	List Price
FF-14-M	1/4"	1/4"	32.02
FF-38-M	3/8"	3/8"	31.00
FF-12-M	3/8"	1/2"	25.00
FF-34-M	1/2"	3/4"	69.90
FF-1-M	3/4"	1"	101.20

- SAE O-Ring Thread available upon request

AG - Series Agricultural Interchange (Connected)				
Nominal Size	Steel Coupler/ Plug			
	Maximum Working		Burst	
	PSI	Bar	PSI	Bar
1/4"	4,000	275	21,000	1,500
3/8"	4,000	275	23,100	1,600
1/2"	4,000	275	16,500	1,100
3/4"	3,000	200	10,300	700
1"	3,000	200	13,000	900

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"	10.43
NV-38-F	3/8"	3/8"	11.75
NV-12-F	1/2"	1/2"	32.14
NV-34-F	3/4"	3/4"	76.52
NV-1-F	1"	1"	102.95



PLUG

Part #	Body Size	NPT	List Price
NV-14-M	1/4"	1/4"	4.69
NV-38-M	3/8"	3/8"	6.38
NV-12-M	1/2"	1/2"	14.62
NV-34-M	3/4"	3/4"	37.57
NV-1-M	1"	1"	60.88

BRASS MUFFLERS

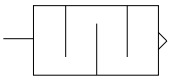


Materials:
Body: Brass
Element: Sintered Bronze
Max Operating Pressure: 300PSI
Temperature: 35° to 300°F

Part #	Size	List Price
300-020	10/32"	2.31
300-021	1/8"	2.54
300-022	1/4"	4.02
300-023	3/8"	5.39
300-024	1/2"	7.83
300-026	3/4"	15.95
300-028	1"	43.95

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
300-032	1/8"	18.15
300-033	1/4"	18.45
300-034	3/8"	22.04
300-035	1/2"	31.16
300-036	3/4"	91.67

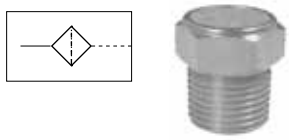
BRASS BREATHER VENT



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"	3.03
300-001	1/8"	2.41
300-002	1/4"	3.55
300-003	3/8"	4.38
300-004	1/2"	5.87
300-006	3/4"	16.36
300-008	1"	28.48

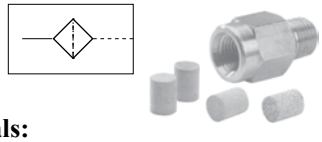
STAINLESS BREATHER VENT



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"	10.02
300-015	1/4"	15.65
300-017	3/8"	23.59
300-018	1/2"	29.72
300-019	3/4"	72.01
300-007	1"	92.63

PRESSURE SNUBBER



Materials:
Body: Brass
Element: Sintered Bronze
Max Operating Pressure: 9000PSI
Temperature: 35° to 300°F

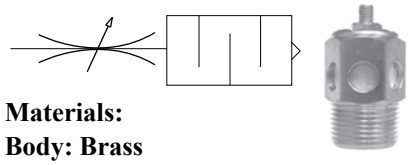
Part #	Size	Porosity	List Price
28-354	1/4"	40 um	17.26
28-353	1/4"	30 um	16.24
28-352	1/4"	25 um	14.95
28-351	1/4"	20 um	16.24
28-350	1/4"	10 um	14.62

Part #	Size	Porosity	List Price
28-359	3/8"	40 um	16.24
28-358	3/8"	30 um	15.69
28-357	3/8"	25 um	14.94
28-356	3/8"	20 um	16.24
28-355	3/8"	10 um	16.24

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 & LT. Oils (30 to 25 ssu)
20 um	Green	Low Viscosity Fluids Fluids (under 30 ssu)
10 um	Red	Air and Other Gases
5 um	Purple	

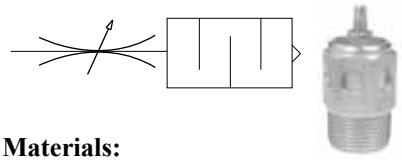
SPEED CONTROL VALVE



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"	9.04
940-801	1/4"	10.63
940-803	3/8"	15.05
940-804	1/2"	19.38
940-805	3/4"	35.77
940-806	1"	58.11

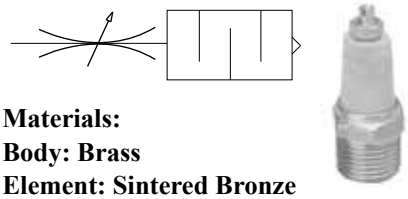
STAINLESS SPEED CONTROL VALVE



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"	48.32
940-811	1/4"	53.09
940-812	3/8"	58.06
940-813	1/2"	76.01
940-814	3/4"	109.05
940-815	1"	148.39

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"	7.62
28-380	1/4"	9.09
28-381	3/8"	13.27
28-382	1/2"	14.16

HIGH FLOW ALUMINUM MUFFLER

• hole pattern

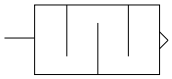




Materials:
Body: Aluminum
Element: 50 Mesh Stainless Steel
Max Operating Pressure: 300PSI
Temperature: 35° to 160°F

Part #	Size	List Price
940-822	1/8"	13.64
940-823	1/4"	6.29
940-824	3/8"	8.51
940-825	1/2"	9.98
940-826	3/4"	17.29
940-827	1"	20.36

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"	6.11
28-374	1/4"	7.50
28-375	3/8"	10.27
28-376	1/2"	12.19
28-377	3/4"	21.37
28-378	1"	23.72

ALUMINUM HIGH FLOW MUFFLER

• slit pattern

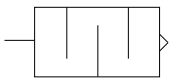




Materials:
Body: Aluminum
Element: 50 Mesh Stainless Steel
Max Operating Pressure: 300PSI
Temperature: 35° to 160°F

Part #	Size	List Price
28-367	1/8"	20.42
28-368	1/4"	18.57
28-369	3/8"	26.46
28-370	1/2"	24.32
28-371	3/4"	50.13
28-372	1"	51.84

PLASTIC HIGH FLOW MUFFLER

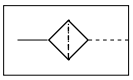




Materials:
Body: Black Nylon
Element:50 Mesh Stainless Steel
Max Operating Pressure: 150PSI
Temperature: 35° to 120°F

Part #	Size	List Price
28-363	1/8"	7.23
28-364	1/4"	7.22
28-365	3/8"	15.03
28-366	1/2"	15.03

NIPPLE INLINE FILTER

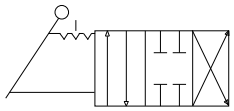




Materials:
Body: Brass
Element: 40 Micron Sintered Bronze
Max Operating Pressure: 300PSI
Temperature: 35° to 300°F

Part #	Size	List Price
940-845	1/8"	14.17
940-846	1/4"	13.54
940-847	3/8"	21.18
940-848	1/2"	20.38

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

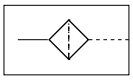
Body: Zinc

Part #	Size	List Price
28-360	1/4"	167.62

Body: Aluminum

28-361	3/8"	158.37
28-362	1/2"	182.16

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"	21.95
940-841	1/4"	18.54
940-842	3/8"	29.34
940-843	1/2"	68.57
940-844	3/4"	68.57

Materials:

Aluminum with black anodizing for corrosion resistance.

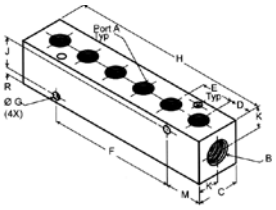
Specifications:

Max Operating Pressure: 1000PSI

Temperature: -10° to 200°F

Media: Air and liquids compatible with materials of construction.

• Ports column = # of ports in top of manifold



THREADED PORTS

Part #	Ports	List Price	A - out NPT	B - in NPT	C	D	E	F	G	H	J	K	M	R
28-448	2	57.48	1/8"	1/4"	1.00	0.50	0.75	N/A	0.17	1.75	0.70	0.50	0.88	0.15
28-449	3	44.99						0.75		2.50				
28-450	4	19.27						1.5		3.25				
28-451	5	52.94						2.25		4.00				
28-452	6	62.45						3.00		4.75				
28-453	7	59.13						3.75		5.50				
28-454	8	62.18						4.50		6.25				
28-455	9	64.47						5.25		7.00				
28-456	10	25.96						6.00		7.75				
28-457	2	17.57	1/4"	3/8"	1.25	0.63	0.88	N/A	0.20	2.13	0.89	0.63	1.06	0.18
28-458	3	19.13						0.88		3.00				
28-459	4	20.52						1.75		3.88				
28-460	5	22.08						2.63		4.75				
28-461	6	23.49						3.50		5.63				
28-462	7	73.73						4.38		6.50				
28-463	8	77.95						5.25		7.38				
28-464	9	27.37						6.13		8.25				
28-465	10	28.29						7.00		9.13				
28-466	2	67.39	3/8"	3/8"	1.25	1.00	1.13	N/A	0.20	3.13	0.89	0.63	1.56	0.18
28-467	3	28.92						1.13		4.25				
28-468	4	30.48						2.25		5.38				
28-469	5	31.87						3.38		6.50				
28-470	6	65.00						4.50		7.63				
28-471	7	102.25						5.63		8.75				
28-472	8	111.25						6.75		9.88				
28-473	9	113.74						7.88		N/A				
28-474	10	133.08						9.00		N/A				

3 IN 1 ALUMINUM AIR MANIFOLD

No need to connect and disconnect every time you want to change tools. Supply 3 air tools from one outlet. These manifolds have one inlet with three 1/4 outlets.



S685-4
S685-6
S685-8
D3404
D3406
D3408
3104
3106

Part #	Size	List Price
320-120	1/4" Inlet	10.94
320-121	3/8" Inlet	28.00
320-122	1/2" Inlet	42.90
three 1/4" Outlets		

SAFETY BLOW GUN

•N/P steel handle with plastic sleeve
•Brass Valve
•Zinc body
•Aluminum nozzle

90 PSI



20430AD
S148
D204-30
6475
5114
51-124
401

1/8" Outlet

Part #	Size	List Price
320-050	1/4" Inlet	9.29

PISTOL GRIP BLO-GUN

Material

- Body: POM (engineering plastic)
- Nozzle: nickel plated carbon steel
- Blue Handle Color

Features

- Simple construction, economic
- Global thread connection
- Durable and versatile applications
- 4 inch nozzle

150 PSI



Part #	Size	List Price
320-035	1/4"	8.92

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	9.42

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	2.98

MULTI-PURPOSE AIR VENT

705



Part #	Size	List Price
46-048	1/8"	3.56

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"	3.62

INFLATOR



Part #	Size	List Price
32-783	3/16"	3.49

360° Turning Swivel Fitting

1/4" Basic size
Industrial Interchange Plug

•360° Turning
•Swivels

Flexible Bend



Part #	Size	List Price
320-065	1/4"	11.04

SWIVEL FITTING

Flexible Bend

•360° Turning
•Swivels

Male NPT x Female NPT



Part #	Size	List Price
320-061	1/4"	10.99

AIR CHUCKS

HEX BALL FOOT CHUCK



Part #		List Price
46-600	1/4 FPT Live Air	3.51

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



Part #		List Price
46-607	1/4 ID Live Air	3.50

DUAL FOOT CHUCKS

6999 DTC-02 99941
693 50-065
108 6569



Part #	List Price
320-000	32.13

ANGLE CHUCK

690
6172



Part #	List Price
320-005	10.48

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.

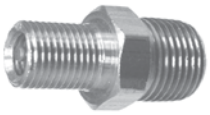
REGULAR: 300 PSI and cracking pressure 80 PSI

1/8" NPT, .9" LONG SPRING CORD

Thread - .302 x 32

w/ Black cap

7/16" Hex

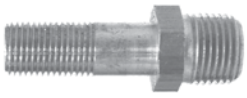


Part #		List Price
46-620	REGULAR	7.51

1/8" NPT 1.207"LONG SPRING CORD

7/16" Hex

w/ Black cap



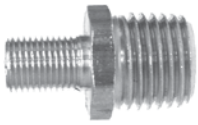
Part #		List Price
46-621	REGULAR	5.84

1/4" NPT 1"LONG SPRING CORD

1.46 Long

w/ Black cap

9/16" Hex



Part #		List Price
46-622	REGULAR	7.85

TANK VALVE ACCESSORIES

BLACK PLASTIC CAP

No Gasket



Part #	List Price
46-630	0.22

SHORT NICKEL PLATED DOME CAP

Dome skirted type



Part #	List Price
46-631	1.14

PNEUMATICS

DUAL ANGLE-FOOT TRUCK PENCIL GAUGE



High pressure 20-120 PSI, in 2lb unit

Part #	List Price
320-023	30.12

DUAL STRAIGHT-FOOT PENCIL GAUGE



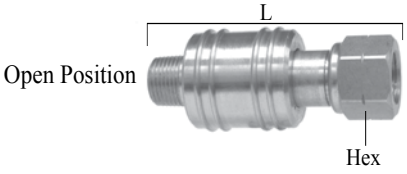
Identical to above except has straight chuck with 30^0 reverse angle chuck.

Part #	List Price
320-027	69.43

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"	9.27

TEFLON TAPE

Chemical Properities: Min. of 99% Polytrafluoroethelene
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"	1.34
982-108	1/2" x 520"	1.50
982-109	3/4" x 260"	2.50
982-110	3/4" x 520"	2.50

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"	4.26
990-541	1/2"	4.40
990-542	3/4"	6.06
990-543	1"	5.24

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	30.36
980-101	72 Scrubs™/container	59.13

STANDARD DRY GAUGES

STEEL CASE



All the gauges supplied by us are designed for long, reliable service under rugged conditions.
Typical applications include compressors, filter regulators, water pumps, beverage dispensing equipment, hydraulic and pneumatic systems, and other applications, where the media does not corrode brass

1-1/2" FACE 1/8" NPT LOWER MOUNT

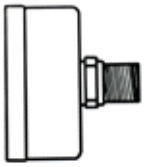
Part #	PSI	List Price
80-501	0-15	9.40
80-502	0-30	9.40
80-503	0-60	9.40
80-504	0-100	9.40
80-505	0-160	9.40
80-506	0-200	9.40

2" FACE 1/4" LOWER MOUNT

Part #	PSI	List Price
80-001	0-15	10.45
80-002	0-30	9.50
80-003	0-60	10.45
80-004	0-100	10.45
80-005	0-160	10.45
80-006	0-200	10.45
80-007	0-300	9.50
80-020	30-0 Vacuum	16.00

2-1/2" FACE 1/4" LOWER MOUNT

Part #	PSI	List Price
80-031	0-15	13.48
80-032	0-30	13.48
80-033	0-60	11.84
80-034	0-100	13.48
80-035	0-160	11.55
80-036	0-200	10.50



CENTER BACK MOUNT

1-1/2" FACE 1/8" NPT CENTER BACK MOUNT

Part #	PSI	List Price
80-511	0-15	9.45
80-512	0-30	9.45
80-513	0-60	9.45
80-514	0-100	9.45
80-515	0-160	9.45
80-516	0-200	9.45

2" FACE 1/4" CENTER BACK MOUNT

Part #	PSI	List Price
80-301	0-15	10.85
80-302	0-30	10.85
80-303	0-60	10.85
80-304	0-100	10.85
80-305	0-160	10.85
80-306	0-200	10.85
80-307	0-300	10.85

2-1/2" FACE 1/4" CENTER BACK MOUNT

Part #	PSI	List Price
80-331	0-15	12.15
80-332	0-30	12.15
80-333	0-60	12.15
80-334	0-100	12.15
80-335	0-160	12.15
80-336	0-200	12.15

LIQUID FILLED GAUGES

STAINLESS CASE



- Liquid Filled Gauges with a stainless case are used for protection in harsh environments.
- Stainless Steel Case
- Copper Alloy Wetted parts
- Polycarbonate window
- ± 1.5% of span accuracy
- Temp. Range -104°F to 158°F

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.

1-1/2" FACE 1/8" LOWER MOUNT

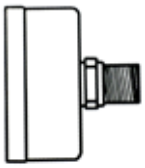
Part #	PSI	List Price
80-601	0-15	24.95
80-602	0-30	24.95
80-603	0-60	24.95
80-604	0-100	24.95
80-605	0-160	24.95
80-606	0-200	24.95

2-1/2" FACE 1/4" LOWER MOUNT

Part #	PSI	List Price
80-061	0-15	28.05
80-062	0-30	28.05
80-063	0-60	28.05
80-064	0-100	28.05
80-065	0-160	28.05
80-066	0-200	28.05
80-067	0-300	28.05
80-068	0-400	28.05
80-069	0-600	28.05
80-100	0-1000	28.05
80-101	0-1500	28.05
80-102	0-2000	28.05
80-103	0-3000	28.05
80-104	0-5000	28.05
80-080	30-0 Vacuum	28.05
80-081	-30 to +30	28.05

4" FACE 1/4" LOWER MOUNT

Part #	PSI	List Price
80-463	0-100	75.35



CENTER BACK MOUNT

1-1/2" FACE 1/8" CENTER BACK MOUNT

Part #	PSI	List Price
80-611	0-15	25.05
80-612	0-30	25.05
80-613	0-60	25.05
80-614	0-160	25.05
80-615	0-100	25.05
80-616	0-200	25.05

2-1/2" FACE 1/4" CENTER BACK MOUNT

Part #	PSI	List Price
80-201	0-15	29.43
80-202	0-30	29.43
80-204	0-60	29.43
80-203	0-160	26.75
80-205	0-100	29.43
80-206	0-200	29.43
80-207	0-300	29.43
80-208	0-400	29.43
80-209	0-600	29.43

SPECIFICATIONS

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

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

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

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

SWIVEL NUT (NICKEL PLATED BRASS)



Part #	Size	List Price
34-500	1/4"	1.22
34-512	3/8"	2.05
34-513	1/2"	2.80

SWIVEL HOSE STEM FOR 1/4" SWIVEL NUT

• 1/4" Barb

STAINLESS STEEL



Part #	Size	List Price
34-503	1/4"	2.47
34-515	3/8"	3.00
34-516	1/2"	5.20

SWIVEL ELBOWS

90° SWIVEL ELBOW

STAINLESS STEEL



HOSE ID x FEMALE 45° FLARE

Part #	Size	List Price
34-525	1/4" x 1/4"	5.44
34-529	3/8" x 3/8"	11.06

BARB SPLICERS

HOSE SPLICER (STRAIGHT)

STAINLESS STEEL



ID HOSE

Part #	Size	List Price
34-533	1/4"	3.84
34-535	3/8"	4.67
34-543	3/8" x 1/4"	4.67

90° BARB SPLICER

STAINLESS STEEL



Part #	Size	List Price
34-551	1/4"	4.54
34-552	3/8"	7.22

TEES

BARB HOSE TEES

STAINLESS STEEL



Part #	Size	List Price
34-562	1/4"	12.59
34-563	3/8"	14.12

MISC

ADAPTERS

MALE FLARE TO BARB ADAPTER



STAINLESS STEEL

HOSE ID x 45° FLARE

Part #	Size	List Price
34-579	1/4" x 1/4"	5.12
34-583	3/8" x 1/4"	7.99
34-584	1/4" x 3/8"	5.63
34-585	3/8" x 3/8"	7.92

NPT TO BARB ADAPTER



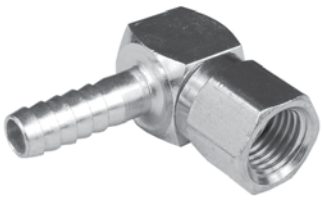
STAINLESS STEEL

HOSE ID x MALE NPT

Part #	Size	List Price
34-587	1/4" x 1/8"	7.15
34-588	1/4" x 1/4"	6.78
34-589	1/4" x 3/8"	9.15
34-590	3/8" x 1/8"	9.19
34-591	3/8" x 1/4"	7.42
34-592	3/8" x 3/8"	9.15
34-595	3/8" x 1/2"	14.44
34-597	1/2" x 3/4"	21.03

SWIVEL ELBOWS

SWIVEL TO BARB ELBOW



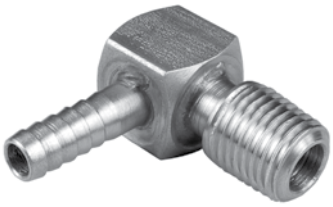
STAINLESS STEEL

HOSE ID x FEMALE 45° FLARE

Part #	Size	List Price
34-600	1/4" x 1/4"	11.83

ADAPTERS

NPT ELBOWS



STAINLESS STEEL

HOSE ID x MALE NPTF

Part #	Size	List Price
34-610	1/4" x 1/8"	14.41
34-611	3/8" x 1/4"	14.41
34-612	3/8" x 3/8"	16.05
34-613	1/2" x 1/2"	33.10

PLEASE CALL US FOR ANY STAINLESS STEEL BEVERAGE FITTINGS

If you don't see what you need, ask us!





HYDRAULIC FITTINGS & ACCESSORIES



STEEL ADAPTERS

Steel Pipe Swivels 327
37° JIC Flare Straights..... 331
37° JIC Flare Shapes 334
Bulkhead Adapters 337
Steel Pipe Fittings..... 340
O-Ring Adapters 346
Flange Adapter Pads 357
O-Ring Face Seal 362
BSPT/ BSPP Adapters..... 367
Metric Adapters..... 369
3000 PSI Live Swivels..... 371
Beaded Hose Inserts..... 373

HYDRAULIC QUICK DISCONNECTS

Thread to Connect - Wing 379
ISO A Interchange 379
ISO B Interchange..... 379
Flush Face ISO..... 380
VEP Series..... 380
AG Interchange 381
Hydraulic Jack Q/D..... 381
Dust Caps & Plugs 381

HYDRAULIC VALVES & ACCESSORIES

Carbon Ball Valves 382
Flow Counter Valve 383
Needle Valve..... 383
Variable Flow Counter 384
Hydraulic Motor 385
Hydraulic Gear Pump 386
Carbon Steel Check Valve..... 388
Spiral Hose Wrap..... 388
Air Breathers..... 389
Nylon Hose Cover..... 389

"I CHOOSE A LAZY PERSON TO DO A HARD JOB. BECAUSE A LAZY PERSON WILL FIND AN EASY WAY TO DO IT."

- BILL GATES

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^{0}F to +400^{0}F

MATERIALS

- Steel - Carbon steel trivalent zinc 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.
Step2. 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

Step1. 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.

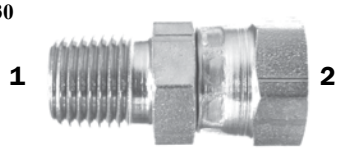
WHY WET TORQUE?

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 SWIVEL ADAPTERS

MALE PIPE SWIVEL ADAPTER

SAE 140130



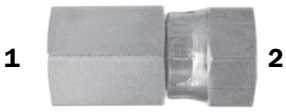
1404
2045R
1210
9205R
0107

Part #	Male Pipe 1	Female NPSM 2	List Price
1404-2-2	1/8	1/8	1.68
1404-2-4	1/8	1/4	2.64
1404-4-2	1/4	1/8	2.27
1404-4-4	1/4	1/4	1.77
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	3.33
1404-6-6	3/8	3/8	3.55
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	5.03
1404-8-8	1/2	1/2	3.13
1404-8-12	1/2	3/4	7.11
1404-12-6	3/4	3/8	8.52
1404-12-8	3/4	1/2	5.53
1404-12-12	3/4	3/4	4.72
1404-12-16	3/4	1	11.83
1404-16-12	1	3/4	11.36
1404-16-16	1	1	8.38
1404-16-20	1	1-1/4	21.06
1404-20-16	1-1/4	1	18.92
1404-20-20	1-1/4	1-1/4	15.35
1404-24-24	1-1/2	1-1/2	22.29
1404-32-32	2	2	36.66

-4, -6, -8, -12 Available in a Restrictor

FEMALE PIPE SWIVEL ADAPTER

SAE 140131



1405
2046R
1212
9255
C207

Part #	Female Pipe 1	Female NPSM 2	List Price
1405-2-2	1/8	1/8	1.97
1405-2-4	1/8	1/4	3.24
1405-4-2	1/4	1/8	3.24
1405-4-4	1/4	1/4	2.45
1405-4-6	1/4	3/8	4.26
1405-6-4	3/8	1/4	2.90
1405-6-6	3/8	3/8	3.25
1405-6-8	3/8	1/2	3.72
1405-8-4	1/2	1/4	5.06
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	13.10
1405-16-16	1	1	7.53
1405-20-20	1-1/4	1-1/4	12.84
1405-24-24	1-1/2	1-1/2	19.81
1405-32-32	2	2	41.52

MALE PIPE ELBOW SWIVEL ADAPTER

SAE 140230



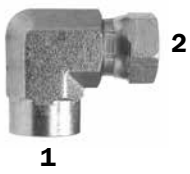
1501
2047R
1218
9405
2107

Part #	Male Pipe 1	Female NPSM 2	List Price
1501-2-2	1/8	1/8	2.69
1501-2-4	1/8	1/4	5.53
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	4.44
1501-6-4	3/8	1/4	6.56
1501-6-6	3/8	3/8	3.45
1501-6-8	3/8	1/2	4.38
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	4.34
1501-8-12	1/2	3/4	9.52
1501-12-6	3/4	3/8	11.36
1501-12-8	3/4	1/2	7.76
1501-12-12	3/4	3/4	7.20
1501-12-16	3/4	1	18.21
1501-16-8	1	1/2	19.81
1501-16-12	1	3/4	17.20
1501-16-16	1	1	11.96
1501-20-12	1-1/4	3/4	41.68
1501-20-16	1-1/4	1	41.61
1501-20-20	1-1/4	1-1/4	26.64
1501-20-24	1-1/4	1-1/2	60.92
1501-24-20	1-1/2	1-1/4	57.45
1501-24-24	1-1/2	1-1/2	38.03
1501-32-32	2	2	77.49

-4, -6, -8 Available in a Restrictor

FEMALE UNION ELBOW SWIVEL ADAPTER

SAE 140231



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	6.62
1502-4-4	1/4	1/4	3.80
1502-4-6	1/4	3/8	7.88
1502-6-4	3/8	1/4	6.14
1502-6-6	3/8	3/8	4.79
1502-6-8	3/8	1/2	13.15
1502-8-4	1/2	1/4	13.84
1502-8-6	1/2	3/8	5.47
1502-8-8	1/2	1/2	6.00
1502-12-8	3/4	1/2	12.79
1502-12-12	3/4	3/4	9.26
1502-12-16	3/4	1	19.55
1502-16-12	1	3/4	27.94
1502-16-16	1	1	24.44
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	88.62

MALE 45° PIPE ELBOW SWIVEL ADAPTER

SAE 140330

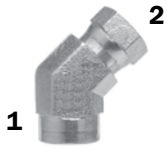


1503
2049R
3107
1214
9355R

Part #	Male Pipe 1	Female NPSM 2	List Price
1503-2-2	1/8	1/8	2.38
1503-4-4	1/4	1/4	2.74
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	3.76
1503-6-8	3/8	1/2	7.22
1503-8-4	1/2	1/4	6.71
1503-8-6	1/2	3/8	4.88
1503-8-8	1/2	1/2	4.82
1503-8-12	1/2	3/4	15.46
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	13.21
1503-16-20	1	1-1/4	42.04
1503-20-16	1-1/4	1	27.19
1503-20-20	1-1/4	1-1/4	20.63
1503-24-24	1-1/2	1-1/2	41.50
1503-32-32	2	2	81.02

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	4.09
1504-4-4	1/4	1/4	5.09
1504-6-4	3/8	1/4	9.42
1504-6-6	3/8	3/8	5.56
1504-8-6	1/2	3/8	8.70
1504-8-8	1/2	1/2	8.01
1504-12-12	3/4	3/4	10.67
1504-16-16	1	1	15.98
1504-20-20	1-1/4	1-1/4	36.30
1504-24-24	1-1/2	1-1/2	65.69

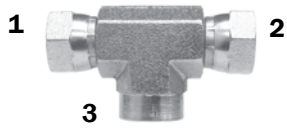
MALE SWIVEL BRANCH TEE



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	3/8	1/4	10.78
1601-6-6	3/8	3/8	10.35
1601-8-4	1/4	1/2	12.78
1601-8-6	3/8	1/2	9.95
1601-8-8	1/2	1/2	11.86
1601-12-8	1/2	3/4	21.68
1601-12-12	3/4	3/4	26.91
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

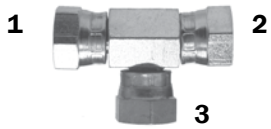
FEMALE SWIVEL TEE



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	5.63
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	14.68
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

FEMALE SWIVEL UNION TEE



1603
2255
1223
9705R

Part #	Female NPSM 1,2 & 3	List Price
1603-4-4	1/4	8.06
1603-6-6	3/8	9.33
1603-8-8	1/2	13.61
1603-12-12	3/4	19.14
1603-16-16	1	43.41
1603-20-20	1-1/4	88.44

37⁰ 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: -65⁰F to +400⁰F

MATERIALS

- Carbon Steel trivalent zinc plating

WORKING PRESSURES

The following table lists the recommended working pressures for steel 37⁰ 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

37⁰ 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.
Step2. 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.

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

ALTERNATE ASSEMBLY METHOD

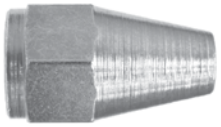
Step1. If torque method not possible, follow steps 1-3 above, then proceed to the steps below.
Step 2. Lightly wrench tighten the nut until there is firm resistance.
Step 3. Place a wrench on wrench pad next to nut as near the 6 o'clock position as possible.
Step 4. Place second wrench on nut as near 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.

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.

LONG JIC TUBE NUT

SAE 070111

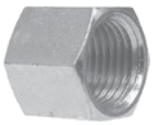


304
221000
0304

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	1.11
0304-6	3/8	9/16-18	1.94
0304-8	1/2	3/4-16	1.71
0304-10	5/8	7/8-14	2.78
0304-12	3/4	1-1/16-12	3.49
0304-14	7/8	1-3/16-12	17.69
0304-16	1	1-5/16-12	4.07
0304-20	1-1/4	1/5/8-12	7.14

JIC TUBE NUT (SLEEVE REQUIRED)

SAE 070110
MS 51531

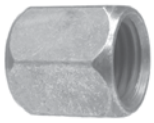


318
1290
BTX
1311
C5105

Part #	Tube O.D	JIC Thread Size	List Price
0318-2	1/8	5/16-24	0.64
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	0.65
0318-6	3/8	9/16-18	0.74
0318-8	1/2	3/4-16	1.06
0318-10	5/8	7/8-14	1.39
0318-12	3/4	1-1/16-12	2.40
0318-14	7/8	1-3/16-12	2.47
0318-16	1	1-5/16-12	3.33
0318-20	1-1/4	1-5/8-12	6.99
0318-24	1-1/2	1-7/8-12	10.46
0318-32	2	2-1/2-12	29.06

JIC CAP

SAE 070112
MS 51532



820
304
210292
FNTX
1329
C5129

Part #	Tube O.D.	JIC Thread Size	List Price
0304-C-2	1/8	5/16-24	1.15
0304-C-3	3/16	3/8-24	1.15
0304-C-4	1/4	7/16-20	0.78
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	1.53
0304-C-12	3/4	1-1/16-12	1.69
0304-C-14	7/8	1-3/16-12	3.15
0304-C-16	1	1-5/16-12	2.96
0304-C-20	1-1/4	1-5/8-12	6.03
0304-C-24	1-1/2	1-7/8-12	10.66
0304-C-32	2	2-1/2-12	20.83

Some 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	0.51
0319-3	3/16	0.51
0319-4	1/4	0.42
0319-5	5/16	0.42
0319-6	3/8	0.46
0319-8	1/2	0.60
0319-10	5/8	0.72
0319-12	3/4	0.95
0319-14	7/8	1.80
0319-16	1	1.94
0319-20	1-1/4	2.86
0319-24	1-1/2	5.59
0319-32	2	9.63

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	2.06
2403-3	3/8-24	3/8-24	1.34
2403-4	7/16-20	7/16-20	1.02
2403-5	1/2-20	1/2-20	1.91
2403-6	9/16-18	9/16-18	1.63
2403-6-4	9/16-18	7/16-20	1.97
2403-6-5	9/16-18	1/2-20	5.35
2403-8	3/4-16	3/4-16	1.80
2403-8-4	3/4-16	7/16-20	4.14
2403-8-6	3/4-16	9/16-18	1.98
2403-10	7/8-14	7/8-14	2.85
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	3.00
2403-12-6	1-1/16-12	9/16-18	4.90
2403-12-8	1-1/16-12	3/4-16	4.00
2403-12-10	1-1/16-12	7/8-14	4.98
2403-14	1-3/16-12	1-3/16-12	8.16
2403-16	1-5/16-12	1-5/16-12	4.23
2403-16-12	1-5/16-12	1-1/16-12	8.14
2403-20	1-5/8-12	1-5/8-12	10.61
2403-20-16	1-5/8-12	1-5/16-12	10.53
2403-24	1-7/8-12	1-7/8-12	14.35
2403-24-20	1-7/8-12	1-5/8-12	19.54
2403-32	2-1/2-12	2-1/2-12	46.62

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	12.30
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

More Sizes Available

JIC MALE CONNECTOR

SAE 070102
MS 51500



2404
2021R
FTX
1202R
C5205
816

Part #	JIC Thread Size 1	MalePipe Thread 2	List Price
2404-2-2	5/16-24	1/8	2.16
2404-2-4	5/16-24	1/4	1.68
2404-3-2	3/8-24	1/8	1.38
2404-4-2	7/16-20	1/8	0.83
2404-4-4	7/16-20	1/4	1.38
2404-4-6	7/16-20	3/8	1.53
2404-4-8	7/16-20	1/2	3.00
2404-5-2	1/2-20	1/8	1.84
2404-5-4	1/2-20	1/4	2.01
2404-5-6	1/2-20	3/8	2.54
2404-6-2	9/16-18	1/8	1.65
2404-6-4	9/16-18	1/4	1.09
2404-6-6	9/16-18	3/8	1.57
2404-6-8	9/16-18	1/2	1.67
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	1.55
2404-8-12	3/4-16	3/4	2.59
2404-8-16	3/4-16	1	3.98
2404-10-4	7/8-14	1/4	3.92
2404-10-8	7/8-14	1/2	2.66
2404-10-12	7/8-14	3/4	3.93
2404-10-16	7/8-14	1	7.01
2404-12-6	1-1/16-12	3/8	3.97
2404-12-8	1-1/16-12	1/2	2.67
2404-12-12	1-1/16-12	3/4	5.05
2404-12-16	1-1/16-12	1	5.66
2404-12-20	1-1/16-12	1-1/4	7.96
2404-14-12	1-3/16-12	3/4	6.24
2404-16-12	1-5/16-12	3/4	4.27
2404-16-16	1-5/16-12	1	5.38
2404-16-20	1-5/16-12	1-1/4	7.36
2404-16-24	1-5/16-12	1-1/2	51.84
2404-20-12	1-5/8-12	3/4	21.18
2404-20-16	1-5/8-12	1	16.99
2404-20-20	1-5/8-12	1-1/4	6.23
2404-20-24	1-5/8-12	1-1/2	23.59
2404-24-16	1-7/8-12	1	45.80
2404-24-20	1-7/8-12	1-1/4	15.76
2404-24-24	1-7/8-12	1-1/2	11.00
2404-24-32	1-7/8-12	2	41.09
2404-32-20	2-1/2-12	1-1/4	62.35
2404-32-24	2-1/2-12	1-1/2	60.68
2404-32-32	2-1/2-12	2	33.11
2404-40-40	3-12	2-1/2	77.27

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 end-end	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"	26.10
2404-L-12-12	1-1/16-12	3/4"	3.50"	29.69
2404-L-16-16	1-5/16-12	1"	4"	46.98

Also available in extra long lengths

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	1.77
2405-3-2	3/8-24	1/8	1.95
2405-4-2	7/16-20	1/8	1.48
2405-4-4	7/16-20	1/4	1.81
2405-5-2	1/2-20	1/8	4.00
2405-5-4	1/2-20	1/4	3.23
2405-6-2	9/16-18	1/8	4.39
2405-6-4	9/16-18	1/4	1.67
2405-6-6	9/16-18	3/8	2.04
2405-6-8	9/16-18	1/2	6.13
2405-8-4	3/4-16	1/4	3.71
2405-8-6	3/4-16	3/8	1.87
2405-8-8	3/4-16	1/2	3.79
2405-8-12	3/4-16	3/4	11.16
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	28.44
2405-12-8	1-1/16-12	1/2	6.05
2405-12-12	1-1/16-12	3/4	5.28
2405-12-16	1-1/16-12	1	14.04
2405-14-12	1-3/16-12	3/4	9.21
2405-16-12	1-5/16-12	3/4	18.50
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	17.64
2405-32-32	2-1/2-12	2	72.19

Some sizes available in Stainless Steel

JIC REDUCER/ EXPANDER



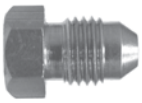
2406
C5015
2215
TRTX
1246

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2406-6-4	9/16-18	7/16-20	2.36
2406-6-8	9/16-18	3/4-16	2.93
2406-8-4	3/4-16	7/16-20	2.84
2406-8-6	3/4-16	9/16-18	2.60
2406-8-12*	3/4-16	1-1/16-12	4.52
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	6.00
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	4.90
2406-14-6	1-3/16-12	9/16-18	8.84
2406-14-8	1-3/16-12	3/4-16	8.84
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	9.95
2406-16-6	1-5/16-12	9/16-18	10.69
2406-16-8	1-5/16-12	3/4-16	7.98
2406-16-12	1-5/16-12	1-1/16-12	8.55
2406-16-20*	1-5/16-12	1-5/8-12	12.24
2406-20-8	1-5/8-12	3/4-16	56.98
2406-20-12	1-5/8-12	1-1/16-12	15.66
2406-20-16	1-5/8-12	1-5/16-12	15.67
2406-24-16	1-7/8-12	1-5/16-12	44.19
2406-24-20	1-7/8-12	1-5/8-12	25.24
2406-32-24	2-1/2-12	1-7/8-12	66.95

***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	1.01
2408-4	1/4	7/16-20	1.06
2408-5	5/16	1/2-20	0.95
2408-6	3/8	9/16-18	0.93
2408-8	1/2	3/4-16	1.20
2408-10	5/8	7/8-14	1.39
2408-12	3/4	1-1/16-12	2.50
2408-14	7/8	1-3/16-12	3.63
2408-16	1	1-5/16-12	3.56
2408-20	1-1/4	1-5/8-12	7.82
2408-24	1-1/2	1-7/8-12	11.81
2408-32	2	2-1/2-12	25.32

Some available in Stainless Steel

JIC UNION ELBOW

SAE 070201
MS 51505



2500
2039
1234
C5505
821

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	3.15
2500-6	9/16-18	9/16-18	2.23
2500-6-4	9/16-18	7/16-20	3.11
2500-8-8	3/4-16	3/4-16	2.96
2500-8-6	3/4-16	9/16-18	3.68
2500-10	7/8-14	7/8-14	6.33
2500-10-8	7/8-14	3/4-16	5.48
2500-12	1-1/16-12	1-1/16-12	6.71
2500-12-8	1-1/16-12	3/4-16	8.15
2500-14	1-3/16-12	1-3/16-12	10.83
2500-16	1-5/16-12	1-5/16-12	15.86
2500-16-12	1-5/16-12	1-1/16-12	17.33
2500-20	1-5/8-12	1-5/8-12	22.96
2500-24	1-7/8-12	1-7/8-12	45.68
2500-32	2-1/2-12	2-1/2-12	78.13

Some available in Stainless Steel
More sizes available

STEEL 37° JIC FLARE SHAPES

JIC MALE ELBOW

SAE 070202
MS 51504



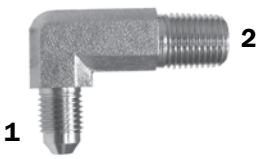
1208R
C5405
2501
2024R
CTX
822

Part #	JIC Thread Size 1	Male Pipe Size 2	List Price
2501-2-2	5/16-24	1/8	4.90
2501-4-2	7/16-20	1/8	1.82
2501-4-4	7/16-20	1/4	1.95
2501-4-6	7/16-20	3/8	3.95
2501-4-8	7/16-20	1/2	4.57
2501-5-2	1/2-20	1/8	3.75
2501-6-2	9/16-18	1/8	2.71
2501-6-4	9/16-18	1/4	2.14
2501-6-6	9/16-18	3/8	2.90
2501-6-8	9/16-18	1/2	3.84
2501-6-12	9/16-18	3/4	7.48
2501-8-4	3/4-16	1/4	3.53
2501-8-6	3/4-16	3/8	3.32
2501-8-8	3/4-16	1/2	3.08
2501-8-12	3/4-16	3/4	6.16
2501-10-6	7/8-14	3/8	4.61
2501-10-8	7/8-14	1/2	3.81
2501-10-12	7/8-14	3/4	7.06
2501-12-6	1-1/16-12	3/8	9.57
2501-12-8	1-1/16-12	1/2	7.15
2501-12-12	1-1/16-12	3/4	5.02
2501-12-16	1-1/16-12	1	8.64
2501-16-12	1-5/16-12	3/4	7.84
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	29.70
2501-20-20	1-5/8-12	1-1/4	16.86
2501-20-24	1-5/8-12	1-1/2	32.20
2501-24-20	1-7/8-12	1-1/4	31.91
2501-24-24	1-7/8-12	1-1/2	26.06
2501-32-24	2-1/2-12	1-1/2	77.73
2501-32-32	2-1/2-12	2	69.71

Some sizes available in Stainless Steel

JIC LONG MALE ELBOW

SAE 071502



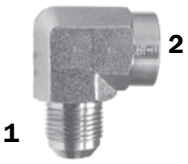
25012
202411R
CCTX
1208-LR
C5425

Part #	JIC Thread 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”	7.73
2501-L-6-4	9/16-18	1/4	1.58”	8.54
2501-L-6-6	9/16-18	3/8	1.83”	5.67
2501-L-8-6	3/4-16	3/8	1.83”	6.17
2501-L-8-8	3/4-16	1/2	2.17”	6.67
2501-L-10-8	7/8-14	1/2	2.17”	16.19
2501-L-12-12	1-1/16-12	3/4	2.44”	11.70
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

**** Length = mid-JIC to end of threads***

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	3.63
2502-4-4	7/16-20	1/4	2.80
2502-4-6	7/16-20	3/8	6.06
2502-5-2	1/2-20	1/8	3.83
2502-6-2	9/16-18	1/8	5.16
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	6.62
2502-8-4	3/4-16	1/4	5.50
2502-8-6	3/4-16	3/8	5.26
2502-8-8	3/4-16	1/2	4.47
2502-8-12	3/4-16	3/4	9.77
2502-10-6	7/8-14	3/8	8.24
2502-10-8	7/8-14	1/2	6.69
2502-12-8	1-1/16-12	1/2	8.52
2502-12-12	1-1/16-12	3/4	8.43
2502-14-12	1-3/16-12	3/4	15.83
2502-16-12	1-5/16-12	3/4	16.94
2502-16-16	1-5/16-12	1	14.60
2502-20-20	1-5/8-12	1-1/4	34.62
2502-24-24	1-7/8-12	1-1/2	60.89
2502-32-32	2-1/2-12	2	143.61

JIC MALE 45° ELBOW

SAE 070302
MS 51508



2503
2023R
VTX
1206R
C5355
823

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	3.06
2503-4-2	7/16-20	1/8	2.34
2503-4-4	7/16-20	1/4	2.64
2503-4-6	7/16-20	3/8	3.80
2503-5-2	1/2-20	1/8	4.07
2503-5-4	1/2-20	1/4	3.75
2503-6-2	9/16-18	1/8	4.30
2503-6-4	9/16-18	1/4	2.70
2503-6-6	9/16-18	3/8	3.34
2503-6-8	9/16-18	1/2	3.99
2503-6-12	9/16-18	3/4	11.11
2503-8-4	3/4-16	1/4	9.05
2503-8-6	3/4-16	3/8	3.43
2503-8-8	3/4-16	1/2	4.59
2503-8-12	3/4-16	3/4	7.94
2503-10-6	7/8-14	3/8	5.29
2503-10-8	7/8-14	1/2	5.09
2503-10-12	7/8-14	3/4	7.64
2503-12-8	1-1/16-12	1/2	6.62
2503-12-12	1-1/16-12	3/4	6.44
2503-12-16	1-1/16-12	1	11.14
2503-14-12	1-3/16-12	3/4	12.82
2503-16-12	1-5/16-12	3/4	13.11
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	30.79
2503-20-20	1-5/8-12	1-1/4	23.80
2503-24-24	1-7/8-12	1-1/2	38.31
2503-32-32	2-1/2-12	2	58.66

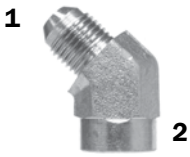
JIC 45° UNION ELBOW



2504

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2504-4	7/16-20	7/16-20	4.15
2504-6	9/16-18	9/16-18	8.88
2504-8	3/4-16	3/4-16	6.34
2504-10	7/8-14	7/8-14	11.94
2504-12	1-1/16-12	1-1/16-12	12.76
2504-16	1-5/16-12	1-5/16-12	14.66

JIC 45° FEMALE ELBOW

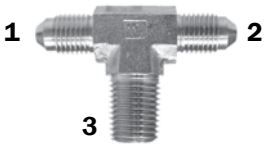


2505
2044-R

Part #	JIC Thread Size 1	Female Pipe Size 2	List Price
2505-4-4	7/16-20	1/4	4.81
2505-6-4	9/16-18	1/4	5.65
2505-8-6	3/4-16	3/8	8.20
2505-8-8	3/4-16	1/2	7.18
2505-10-8	7/8-14	1/2	10.05
2505-12-12	1-1/16-12	3/4	11.62

More sizes available

JIC MALE BRANCH TEE



2601
2030R
STX
1221R
C5605

Part #	JIC Thread Size 1&2	Pipe Thread Size 3	List Price
2601-3-2	3/8-24	1/8	6.09
2601-4-2	7/16-20	1/8	3.81
2601-4-4	7/16-20	1/4	3.78
2601-5-2	1/2-20	1/8	6.53
2601-5-4	1/2-20	1/4	6.53
2601-6-4	9/16-18	1/4	4.22
2601-6-6	9/16-18	3/8	6.10
2601-8-6	3/4-16	3/8	5.57
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	7.59
2601-12-8	1-1/16-12	1/2	15.43
2601-12-12	1-1/16-12	3/4	11.15
2601-14-12	1-3/16-12	3/4	24.94
2601-16-12	1-5/16-12	3/4	22.04
2601-16-16	1-5/16-12	1	18.52
2601-20-20	1-5/8-12	1-1/4	45.62
2601-24-24	1-7/8-12	1-1/2	75.91

JIC FEMALE BRANCH TEE

SAE 070427
MS 51513

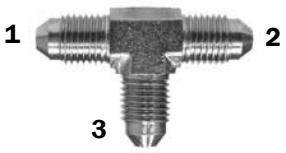


2602
2031R
OTX
1228R
C6566

Part #	JIC Thread Size 1 & 2	Female Pipe Size 3	List Price
2602-4-2	7/16-20	1/8	4.04
2602-4-4	7/16-20	1/4	5.56
2602-6-4	9/16-18	1/4	7.78
2602-6-6	9/16-18	3/8	5.94
2602-8-8	3/4-16	1/2	8.21
2602-12-12	1-1/16-12	3/4	12.13
2602-16-16	1-5/16-12	1	25.79
2602-20-20	1-5/8-12	1-1/4	38.70
2602-24-24	1-7/8-12	1-1/2	86.16

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	3.97
2603-3-3	3/8-24	3/8-24	6.77
2603-4-4	7/16-20	7/16-20	3.24
2603-5-5	1/2-20	1/2-20	4.28
2603-6	9/16-18	9/16-18	3.21
2603-8	3/4-16	3/4-16	4.23
2603-10	7/8-14	7/8-14	6.67
2603-12	1-1/16-12	1-1/16-12	8.72
2603-16	1-5/16-12	1-5/16-12	11.57
2603-20	1-5/8-12	1-5/8-12	40.32
2603-24	1-7/8-12	1-7/8-12	42.69
2603-32	2-1/2-12	2-1/2-12	94.07

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
0306-2	5/16-24	0.46
0306-4	7/16-20	0.65
0306-5	1/2-20	0.56
0306-6	9/16-18	0.56
0306-8	3/4-16	1.05
0306-10	7/8-14	1.02
0306-12	1-1/16-12	1.39
0306-14	1-3/16-12	3.18
0306-16	1-5/16-12	1.85
0306-20	1-5/8-12	2.78
0306-24	1-7/8-12	5.24
0306-32	2-1/2-12	7.08

JIC BULKHEAD UNION

SAE 070601
MS 51520



2700
2041R
WTX
1260
C5325

Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
2700-2-2	5/16-24	5/16-24	2.95
2700-4-4	7/16-20	7/16-20	2.54
2700-5-5	1/2-20	1/2-20	2.60
2700-6-6	9/16-18	9/16-18	2.67
2700-8	3/4-16	3/4-16	3.61
2700-10	7/8-14	7/8-14	4.64
2700-12	1-1/16-12	1-1/16-12	5.03
2700-14	1-3/16-12	1-3/16-12	23.81
2700-16	1-5/16-12	1-5/16-12	9.44
2700-20	1-5/8-12	1-5/8-12	22.14
2700-24	1-7/8-12	1-7/8-12	24.20
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	2.60
2701-5	1/2-20	1/2-20	5.49
2701-6	9/16-18	9/16-18	4.89
2701-8	3/4-16	3/4-16	5.58
2701-10	7/8-14	7/8-14	8.95
2701-12	1-1/16-12	1-1/16-12	14.60
2701-16	1-5/16-12	1-5/16-12	14.81
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*

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	3.30
2702-6	9/16-18	9/16-18	5.90
2702-8	3/4-16	3/4-16	4.97
2702-10	7/8-14	7/8-14	7.05
2702-12	1-1/16-12	1-1/16-12	8.18
2702-16	1-5/16-12	1-5/16-12	15.29
2702-20	1-5/8-12	1-5/8-12	34.58

JIC BULKHEAD BRANCH TEE

SAE 070959
MS 51515

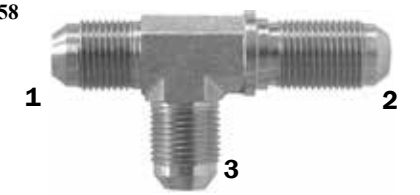


2703
203002
WJT
1283
C5725

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	6.52
2703-8	3/4-16	3/4-16	5.76
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	27.75
2703-20	1-5/8-12	1-5/8-12	127.25

JIC BULKHEAD RUN TEE

SAE 070958
MS 51516



2704
203008
WJJT
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	6.86
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	20.70
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	3.95
2705-4-4	7/16-20	1/4	3.43
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	6.22
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	8.89
2705-16-16	1-5/16-12	1	18.52
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	3.90
2706-4-4	7/16-20	1/4	2.98
2706-6-4	9/16-18	1/4	3.75
2706-6-6	9/16-18	3/8	4.50
2706-8-6	3/4-16	3/8	5.77
2706-8-8	3/4-16	1/2	4.39
2706-10-8	7/8-14	1/2	7.87
2706-12-12	1-1/16-12	3/4	11.25
2706-16-16	1-5/16-12	1	15.49
2706-20-20	1-5/8-12	1-1/4	55.45
2706-24-24	1-7/8-12	1-1/2	38.42

**** Lock Nuts sold separately - pg. 335***

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^{0}F to +400^{0}F

MATERIALS

- Steel- SAE 12L14 carbon steel trivalent zinc plated or bright silver finish.

STYLES

- 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.

Step2. 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

PIPE COUPLING

SAE 140138



5000 910
2096
GG
1273
C3309

Part #	Female Pipe 1	Female Pipe 2	List Price
5000-2	1/8	1/8	1.81
5000-4-2	1/4	1/8	3.28
5000-4	1/4	1/4	1.66
5000-6-4	3/8	1/4	2.45
5000-6-6	3/8	3/8	1.93
5000-8-4	1/2	1/4	4.45
5000-8-6	1/2	3/8	3.16
5000-8	1/2	1/2	3.30
5000-12-6	3/4	3/8	9.14
5000-12-8	3/4	1/2	8.75
5000-12-12	3/4	3/4	3.90
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	12.72
5000-24	1-1/2	1-1/2	29.61
5000-32	2	2	43.45

HEX PIPE NIPPLES

SAE 140137

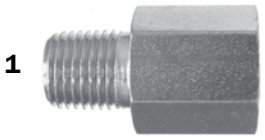


5404 C3069
2083 911
FF
1252

Part #	Male Pipe 1	Male Pipe 2	List Price
5404-2	1/8	1/8	0.93
5404-4-2	1/4	1/8	1.30
5404-4	1/4	1/4	1.34
5404-6-2	3/8	1/8	2.08
5404-6-4	3/8	1/4	1.69
5404-6	3/8	3/8	1.56
5404-8-4	1/2	1/4	2.43
5404-8-6	1/2	3/8	2.22
5404-8	1/2	1/2	1.77
5404-12-6	3/4	3/8	4.88
5404-12-8	3/4	1/2	3.14
5404-12	3/4	3/4	3.28
5404-16-12	1	3/4	10.90
5404-16	1	1	5.79
5404-20-16	1-1/4	1	11.60
5404-20	1-1/4	1-1/4	10.33
5404-24-16	1-1/2	1	23.38
5404-24-20	1-1/2	1-1/4	27.22
5404-24	1-1/2	1-1/2	15.62
5404-32-24	2	1-1/2	45.45
5404-32	2	2	38.69

EXPANDING PIPE ADAPTER

SAE 140139



920
5405
2040
FG-(R)
1274
C3209(R)

Part #	Male Pipe 1	Female Pipe 2	List Price
5405-2-2	1/8	1/8	4.64
5405-2-4	1/8	1/4	1.65
5405-4-2	1/4	1/8	2.39
5405-4-4	1/4	1/4	1.71
5405-4-6	1/4	3/8	2.19
5405-4-8	1/4	1/2	5.97
5405-6-4	3/8	1/4	3.61
5405-6-6	3/8	3/8	2.59
5405-6-8	3/8	1/2	3.10
5405-8-8	1/2	1/2	5.59
5405-8-12	1/2	3/4	5.73
5405-12-6	3/4	3/8	8.67
5405-12-8	3/4	1/2	7.95
5405-12-12	3/4	3/4	8.70
5405-16-16	1	1	14.36
5405-16-20	1	1-1/4	17.05
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	34.05
5405-24-32	1-1/2	2	57.39
5405-32-32	2	2	62.79

HEX REDUCER BUSHING

SAEF1
140140



5406
2081
PTR
1250
C3109
912

Part #	Male Pipe	Female Pipe	List Price
5406-4-2	1/4	1/8	0.92
5406-6-2	3/8	1/8	1.83
5406-6-4	3/8	1/4	2.25
5406-8-2	1/2	1/8	2.10
5406-8-4	1/2	1/4	1.40
5406-8-6	1/2	3/8	2.52
5406-12-2	3/4	1/8	3.02
5406-12-4	3/4	1/4	4.36
5406-12-6	3/4	3/8	2.87
5406-12-8	3/4	1/2	3.99
5406-16-4	1	1/4	6.00
5406-16-6	1	3/8	7.16
5406-16-8	1	1/2	5.89
5406-16-12	1	3/4	6.18
5406-20-4	1-1/4	1/4	9.47
5406-20-6	1-1/4	3/8	8.98
5406-20-8	1-1/4	1/2	10.00
5406-20-12	1-1/4	3/4	11.33
5406-20-16	1-1/4	1	10.87
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	18.71
5406-24-20	1-1/2	1-1/4	17.90
5406-32-6	2	3/8	86.29
5406-32-8	2	1/2	29.93
5406-32-12	2	3/4	38.51
5406-32-16	2	1	28.12
5406-32-20	2	1-1/4	27.25
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



933
5406P
2082
HP
1251
C3159

Part #	Male Pipe	List Price
5406-P-2	1/8	0.64
5406-P-4	1/4	0.96
5406-P-6	3/8	0.93
5406-P-8	1/2	1.53
5406-P-12	3/4	2.85
5406-P-16	1	4.44
5406-P-20	1-1/4	8.75
5406-P-24	1-1/2	15.03
5406-P-32	2	24.61

Also available in Stainless Steel

HOLLOW HEX PLUG

SAE 130109



C3169
2222

Part #	Male Pipe	List Price
5406-HHP-1	1/16	0.36
5406-HHP-2	1/8	0.41
5406-HHP-4	1/4	0.32
5406-HHP-6	3/8	0.43
5406-HHP-8	1/2	0.74
5406-HHP-12	3/4	1.27
5406-HHP-16	1	3.24
5406-HHP-20	1-1/4	7.20
5406-HHP-24	1-1/2	17.58

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	0.42
5406-FLP-4	1/4	0.65
5406-FLP-6	3/8	0.98
5406-FLP-8	1/2	1.27
5406-FLP-12	3/4	3.54

SQUARE HEAD PLUG

SAE 130109A



C3179

Part #	Male Pipe	List Price
5406-SHP-2	1/8	0.50
5406-SHP-4	1/4	0.52
5406-SHP-6	3/8	0.81
5406-SHP-8	1/2	1.32
5406-SHP-12	3/4	1.41
5406-SHP-16	1	5.63
5406-SHP-20	1-1/4	24.19
5406-SHP-24	1-1/2	24.98
5406-SHP-32	2	31.79

PIPE CAP

HPC



Part #	Female Pipe	List Price
5406-C-2	1/8	1.51
5406-C-4	1/4	1.16
5406-C-6	3/8	1.99
5406-C-8	1/2	2.56
5406-C-12	3/4	5.71
5406-C-16	1	6.41
5406-C-24	1-1/2	21.61

Also available in Stainless Steel

MALE ELBOW

SAE 140237

919
5500
2085
CR
1275
C3529



Part #	Male Pipe 1	Male Pipe 2	List Price
5500-2	1/8	1/8	2.73
5500-4-2	1/4	1/8	2.62
5500-4	1/4	1/4	2.45
5500-6-4	3/8	1/4	3.09
5500-6	3/8	3/8	3.19
5500-8-4	1/2	1/4	5.83
5500-8-6	1/2	3/8	4.88
5500-8	1/2	1/2	4.37
5500-12-8	3/4	1/2	6.93
5500-12-12	3/4	3/4	7.15
5500-16	1	1	10.60
5500-16-12	1	3/4	14.78
5500-20-20	1-1/4	1-1/4	21.70
5500-24	1-1/2	1-1/2	33.98
5500-32	2	2	67.83

Also available in Stainless Steel

45° MALE ELBOW

5501
2247

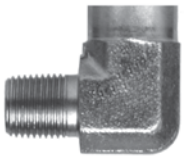


Part #	Male Pipe 1	Male Pipe 2	List Price
5501-2-2	1/8	1/8	4.73
5501-4-4	1/4	1/4	3.39
5501-6-6	3/8	3/8	4.65
5501-8	1/2	1/2	4.60
5501-12-12	3/4	3/4	8.98
5501-16-16	1	1	25.09
5501-20-20	1-1/4	1-1/4	31.44

90° STREET ELBOW

SAE 140239

5502
2089
CD
1234R
C3409
914



Part #	Male Pipe 1	Female Pipe2	List Price
5502-2	1/8	1/8	2.12
5502-4-2	1/4	1/8	2.76
5502-4	1/4	1/4	2.75
5502-4-6	1/4	3/8	4.72
5502-4-8-8	1/4	1/2	30.25
5502-6-2	3/8	1/8	6.27
5502-6-4	3/8	1/4	3.72
5502-6	3/8	3/8	3.84
5502-6-8	3/8	1/2	6.25
5502-8-4	1/2	1/4	7.50
5502-8-6	1/2	3/8	6.00
5502-8-8	1/2	1/2	5.74
5502-8-12	1/2	3/4	9.47
5502-12-8	3/4	1/2	10.43
5502-12	3/4	3/4	6.63
5502-12-16	3/4	1	18.73
5502-16-12	1	3/4	11.77
5502-16-16	1	1	12.44
5502-16-20	1	1-1/4	28.33
5502-20-16	1-1/4	1	37.46
5502-20	1-1/4	1-1/4	21.04
5502-24	1-1/2	1-1/2	73.55
5502-32	2	2	110.32

Also available in Stainless Steel
More sizes available

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	5.42
5503-12-12	3/4	3/4	6.54
5503-16	1	1	16.57
5503-20	1-1/4	1-1/4	33.49
5503-24	1-1/2	1-1/2	46.48

FEMALE ELBOW

SAE 140238



5504
2087
DD
1245
C3509
916

Part #	Female Pipe 1	Female Pipe 2	List Price
5504-2	1/8	1/8	2.59
5504-4-2	1/4	1/8	3.83
5504-4	1/4	1/4	3.15
5504-6-4	3/8	1/4	4.28
5504-6	3/8	3/8	3.93
5504-8-6	1/2	3/8	5.97
5504-8	1/2	1/2	6.41
5504-12-8	3/4	1/2	10.60
5504-12	3/4	3/4	8.17
5504-16-12	1	3/4	16.93
5504-16	1	1	12.08
5504-20	1-1/4	1-1/4	29.76
5504-24	1-1/2	1-1/2	69.76
5504-32	2	2	81.21

More sizes available

45° FEMALE ELBOW

SAE 140338



5505
DD45
1241
C3559

Part #	Female Pipe 1	Female Pipe 2	List Price
5505-2	1/8	1/8	4.50
5505-4	1/4	1/4	4.31
5505-6	3/8	3/8	6.06
5505-8	1/2	1/2	8.89
5505-12	3/4	3/4	10.94
5505-16	1	1	17.53
5505-20	1-1/4	1-1/4	25.34

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	4.54
5600-4-4	1/4	1/4	4.58
5600-6-6	3/8	3/8	6.54
5600-8-8	1/2	1/2	8.05
5600-12	3/4	3/4	14.78
5600-16	1	1	24.23
5600-20	1-1/4	1-1/4	57.84
5600-24	1-1/2	1-1/2	115.95

FEMALE BRANCH PIPE TEE

SAE 140427

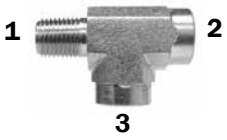


901
5601
2256

Part #	Male Pipe 1 & 2	Female Pipe 3	List Price
5601-2-2	1/8	1/8	4.91
5601-4-4	1/4	1/4	5.70
5601-6-6	3/8	3/8	6.62
5601-8	1/2	1/2	10.19
5601-12	3/4	3/4	15.62
5601-16	1	1	26.15
5601-20	1-1/4	1-1/4	56.62
5601-24	1-1/2	1-1/2	125.56

STREET PIPE TEE

SAE 140424



902
5602
2092
MRO
1276
C3759

Part #	Male Pipe 1	Female Pipe 2 & 3	List Price
5602-2-2	1/8	1/8	3.61
5602-4-4	1/4	1/4	3.92
5602-6-6	3/8	3/8	6.02
5602-8-8	1/2	1/2	8.62
5602-12	3/4	3/4	10.93
5602-16	1	1	22.55
5602-20	1-1/4	1-1/4	35.00
5602-24	1-1/2	1-1/2	108.52

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	5.82
5603-4-4	1/4	1/4	5.11
5603-6-6	3/8	3/8	5.81
5603-8-8	1/2	1/2	9.12
5603-12	3/4	3/4	16.73
5603-16	1	1	21.65
5603-20	1-1/4	1-1/4	62.56
5603-24	1-1/2	1-1/2	79.17

MALE BRANCH PIPE TEE



904
5604
2091
MMS
1278
C3609

Part #	Female Pipe 1 & 2	Male Pipe 3	List Price
5604-2-2	1/8	1/8	4.54
5604-4-4	1/4	1/4	6.51
5604-6-6	3/8	3/8	7.52
5604-8-8	1/2	1/2	9.47
5604-12	3/4	3/4	12.91
5604-16	1	1	24.39
5604-20	1-1/4	1-1/4	48.34
5604-24	1-1/2	1-1/2	75.45

FEMALE PIPE TEE

SAE 140438



917
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	6.02
5605-8	1/2	6.83
5605-12	3/4	11.09
5605-16	1	23.28
5605-20	1-1/4	41.44
5605-24	1-1/2	105.38
5605-32	2	84.66

More sizes available

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 zinc plated or bright silver finish.
- Buna Nitrile O-Ring

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.

Step2. 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

Step1. 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/0-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.

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	0.82
6400-4-2	7/16-20	5/16-24	1.83
6400-4-3	7/16-20	3/8-24	1.89
6400-4-5	7/16-20	1/2-20	2.18
6400-4-6	7/16-20	9/16-18	1.18
6400-4-8	7/16-20	3/4-16	3.31
6400-4-10	7/16-20	7/8-14	3.33
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	2.96
6400-6	9/16-18	9/16-18	1.43
6400-6-4	9/16-18	7/16-20	1.51
6400-6-5	9/16-18	1/2-20	1.90
6400-6-8	9/16-18	3/4-16	1.76
6400-6-10	9/16-18	7/8-14	2.83
6400-6-12	9/16-18	1-1/16-12	4.62
6400-6-16	9/16-18	1-5/16-12	6.85
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	1.76
6400-8-10	3/4-16	7/8-14	2.25
6400-8-12	3/4-16	1-1/16-12	3.06
6400-8-16	3/4-16	1-5/16-12	8.53
6400-10	7/8-14	7/8-14	2.48
6400-10-6	7/8-14	9/16-18	3.45
6400-10-8	7/8-14	3/4-16	2.67
6400-10-12	7/8-14	1-1/16-12	3.80
6400-10-16	7/8-14	1-5/16-12	5.89
6400-12	1-1/16-12	1-1/16-12	3.08
6400-12-6	1-1/16-12	3/8	4.39
6400-12-8	1-1/16-12	3/4-16	5.12
6400-12-10	1-1/16-12	7/8-14	3.48
6400-12-14	1-1/16-12	1-3/16-12	3.77
6400-12-16	1-1/16-12	1-5/16-12	5.32
6400-14	1-3/16-12	1-3/16-12	5.69
6400-16	1-5/16-12	1-5/16-12	4.67
6400-16-8	1-5/16-12	3/4-16	6.16
6400-16-10	1-5/16-12	7/8-14	5.93
6400-16-12	1-5/16-12	1-1/16-12	3.02
6400-16-14	1-5/16-12	1-3/16-12	18.96
6400-16-20	1-5/16-12	1-5/8-12	10.28
6400-16-24	1-5/16-12	1-7/8-12	17.31
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	11.81
6400-20-24	1-5/8-12	1-7/8-12	16.74
6400-24	1-7/8-12	1-7/8-12	17.18
6400-24-20	1-7/8-12	1-5/8-12	18.85
6400-24-32	1-7/8-12	2-1/2-12	74.91
6400-32	2-1/2-12	2-1/2-12	39.91

Some Restrictors available on a special order basis.

LONG JIC TO O-RING CONNECTOR



6400L
202713R
FF50X
1231L0
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"	5.43
6400-L-10	7/8-14	7/8-14	3.00"	7.69
6400-L-12	1-1/16-12	1-1/16-12	3.56"	21.23
6400-L-16	1-5/16-12	1-5/16-12	4.00"	13.13
6400-L-20	1-5/8-12	1-5/8-12	4.62"	18.06

Length= Overall length of fitting

O-RING TO PIPE ADAPTER

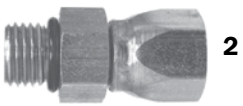


6401
F5X
1264R
C3249

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	1.56
6401-4-6	7/16-20	3/8	2.56
6401-5-2	1/2-20	1/8	5.03
6401-5-4	1/2-20	1/4	2.95
6401-6-4	9/16-18	1/4	1.89
6401-6-6	9/16-18	3/8	1.94
6401-6-8	9/16-18	1/2	2.78
6401-8-6	3/4-16	3/8	2.70
6401-8-8	3/4-16	1/2	2.69
6401-10-6	7/8-14	3/8	5.00
6401-10-8	7/8-14	1/2	2.96
6401-12-6	1-1/16-12	3/8	7.06
6401-12-8	1-1/16-12	1/2	4.10
6401-12-12	1-1/16-12	3/4	4.90
6401-16-12	1-5/16-12	3/4	12.73
6401-16-16	1-5/16-12	1	6.95
6401-20-20	1-5/8-12	1-1/4	14.49
6401-24-24	1-7/8-12	1-1/2	24.00
6401-32-32	2-1/2-12	2	49.49

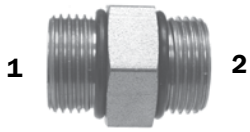
0-RING TO 37° JIC SWIVEL ADAPTER

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	3.31
6402-O-4-6	7/16-20	9/16-18	4.11
6402-O-6-6	9/16-18	9/16-18	2.77
6402-O-6-8	9/16-18	3/4-16	6.86
6402-O-8-8	3/4-16	3/4-16	3.88
6402-O-8-6	3/4-16	9/16-18	4.17
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-16-12	1-5/16-12	1-1/16-12	17.30
6402-O-16-16	1-5/16-12	1-5/16-12	11.38
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	38.83

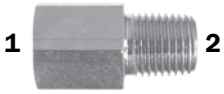
O-RING HEX NIPPLE UNION



Part #	O-Ring Thread 1	O-Ring Thread 2	List Price
6403-O-6	9/16-18	9/16-18	5.12
6403-O-8	3/4-16	3/4-16	4.87
6403-O-10	7/8-14	7/8-14	7.62
6403-O-12	1-1/16-12	1-1/16-12	8.49
6403-O-16	1-5/16-12	1-5/16-12	18.19

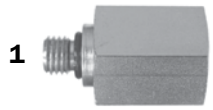
FEMALE O-RING TO MALE PIPE ADAPTER

6404
2246R
1267R
C3239
FHG5



Part #	O-Ring Thread 1	Male Pipe Thread 2	List Price
6404-4-2	7/16-20	1/8	6.41
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	2.88
6404-6-8	9/16-18	1/2	3.92
6404-8-6	3/4-16	3/8	4.45
6404-8-8	3/4-16	1/2	3.81
6404-10-6	7/8-14	3/8	6.61
6404-10-8	7/8-14	1/2	5.46
6404-12-12	1-1/16-12	3/4	7.13
6404-16-16	1-5/16-12	1	21.73
6404-20-20	1-5/8-12	1-1/4	17.96
6404-24-24	1-7/8-12	1-1/2	40.74

O-RING TO FEMALE PIPE ADAPTER

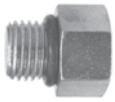


6405
2216R
F50G
1268R
C3269

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	1.86
6405-O-4-4	7/16-20	1/4	2.67
6405-O-4-6	7/16-20	3/8	2.22
6405-O-6-2	9/16-18	1/8	6.63
6405-O-6-4	9/16-18	1/4	2.60
6405-O-6-6	9/16-18	3/8	1.76
6405-O-8-4	3/4-16	1/4	3.20
6405-O-8-6	3/4-16	3/8	2.59
6405-O-8-8	3/4-16	1/2	4.46
6405-O-8-12	3/4-16	3/4	14.68
6405-O-10-4	7/8-14	1/4	3.43
6405-O-10-6	7/8-14	3/8	3.60
6405-O-10-8	7/8-14	1/2	5.69
6405-O-10-12	7/8-14	3/4	6.14
6405-O-12-6	1-1/16-12	3/8	12.63
6405-O-12-8	1-1/16-12	1/2	6.82
6405-O-12-12	1-1/16-12	3/4	5.22
6405-O-12-16	1-1/16-12	1	7.06
6405-O-14-12	1-3/16-12	3/4	10.21
6405-O-16-8	1-5/16-12	1/2	10.43
6405-O-16-12	1-5/16-12	3/4	8.41
6405-O-16-16	1-5/16-12	1	12.05
6405-O-16-20	1-5/16-12	1-1/4	21.55
6405-O-20-20	1-5/8-12	1-1/4	15.66
6405-O-20-24	1-5/8-12	1-1/2	46.10
6405-O-24-16	1-7/8-12	1	35.41
6405-O-24-20	1-7/8-12	1-1/4	26.39
6405-O-24-24	1-7/8-12	1-1/2	30.31
6405-O-32-32	2-1/2-12	2	43.21

O-RING HEX HEAD PLUG

SAE 090109A



6408
900598
P50N
1265
7237

Part #	O-Ring Thread	List Price
6408-O-2	5/16-24	0.78
6408-O-3	3/8-24	0.81
6408-O-4	7/16-20	0.65
6408-O-5	1/2-20	0.81
6408-O-6	9/16-18	0.88
6408-O-8	3/4-16	1.10
6408-O-10	7/8-14	1.54
6408-O-12	1-1/16-12	2.39
6408-O-14	1-3/16-20	3.73
6408-O-16	1-5/16-12	3.27
6408-O-20	1-5/8-12	6.67
6408-O-24	1-7/8-12	9.39
6408-O-32	2-1/2-12	39.26

O-RING HOLLOW HEX HEAD PLUG

SAE 090109B



6408HHP
FF2138
HP50N
1256
7238
6409

Part #	O-Ring Thread	List Price
6408-H-O-2	5/16-24	1.10
6408-H-O-3	3/8-24	0.69
6408-H-O-4	7/16-20	0.70
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	1.85
6408-H-O-12	1-1/16-12	3.32
6408-H-O-14	1-3/16-20	5.81
6408-H-O-16	1-5/16-12	3.95
6408-H-O-20	1-5/8-12	8.24
6408-H-O-24	1-7/8-12	10.55
6408-H-O-32	2-1/2-12	30.92

O-RING PORT REDUCER/EXPANDER



6410
FF1010
F50G5
1270
7033

Part #	O-Ring Thread 1	O-Ring Thread 2	List Price
6410-O-4-4	7/16-20	7/16-20	6.89
6410-O-4-6	7/16-20	9/16-18	3.58
6410-O-6-4	9/16-18	7/16-20	2.73
6410-O-6-8	9/16-18	3/4-16	5.01
6410-O-8-4	3/4-16	7/16-20	2.75
6410-O-8-6	3/4-16	9/16-18	2.54
6410-O-8-8	3/4-16	3/4-16	3.84
6410-O-8-10	3/4-16	7/8-14	5.29
6410-O-8-12	3/4-16	1-1/16-12	6.16
6410-O-10-4	7/8-14	7/16-20	6.02
6410-O-10-6	7/8-14	9/16-18	3.00
6410-O-10-8	7/8-14	3/4-16	3.66
6410-O-12-4	1-1/16-12	7/16-20	2.27
6410-O-12-6	1-1/16-12	9/16-18	10.44
6410-O-12-8	1-1/16-12	3/4-16	5.89
6410-O-12-10	1-1/16-12	7/8-14	9.04
6410-O-12-12	1-1/16-12	1-1/16-12	8.84
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	10.48
6410-O-16-10	1-5/16-12	7/8-14	11.81
6410-O-16-12	1-5/16-12	1-1/16-12	7.91
6410-O-16-20	1-5/16-12	1-5/8-12	18.52
6410-O-20-12	1-5/8-12	1-1/16-12	9.95
6410-O-20-16	1-5/8-12	1-5/16-12	10.27
6410-O-20-24	1-5/8-12	1-7/8-12	20.46
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	15.35
6410-O-24-20	1-7/8-12	1-5/8-12	38.55
6410-O-32-20	2-1/2-12	1-5/8-12	39.91
6410-O-32-24	2-1/2-12	1-7/8-12	39.91

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
6500-4-6	7/16-20	9/16-18	6.56
6500-5	1/2-20	1/2-20	4.56
6500-6	9/16-18	9/16-18	3.56
6500-6-8	9/16-18	3/4-16	6.39
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	7.34
6500-10-8	7/8-14	3/4-16	11.42
6500-12	1-1/16-12	1-1/16-12	7.59
6500-12-8	1-1/16-12	3/4-16	13.39
6500-12-10	1-1/16-12	7/8-14	25.29
6500-14	1-3/16-12	1-3/16-12	14.40
6500-16	1-5/16-12	1-5/16-12	13.38
6500-20	1-5/8-12	1-5/8-12	29.30
6500-24	1-7/8-12	1-7/8-12	50.75
6500-32	2-1/2-12	2-1/2-12	79.38

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	4.24
6501-4-4	7/16-20	1/4	3.96
6501-6-4	9/16-18	1/4	3.99
6501-6-6	9/16-18	3/8	5.84
6501-8-6	3/4-16	3/8	5.39
6501-8-8	3/4-16	1/2	6.95
6501-10-8	7/8-14	1/2	7.57
6501-12-12	1-1/16-12	3/4	8.99
6501-16-16	1-5/16-12	1	12.91
6501-20-20	1-5/8-12	1-1/4	38.57
6501-24-24	1-7/8-12	1-1/2	59.41
6501-32-32	2-1/2-12	2	101.44

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	4.26
6502-8	3/4-16	3/4-16	5.01
6502-10	7/8-14	7/8-14	5.93
6502-12	1-1/16-12	1-1/16-12	6.91
6502-16	1-5/16-12	1-5/16-12	14.40
6502-20	1-5/8-12	1-5/8-12	24.63
6502-24	1-7/8-12	1-7/8-12	43.61
6502-32	2-1/2-12	2-1/2-12	112.33

JIC SWIVEL TO FEMALE PIPE ELBOW



Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
6503-4-4	7/16-20	1/4	11.00
6503-6-4	9/16-18	1/4	12.25
6503-6-6	9/16-18	3/8	10.56
6503-8-6	3/4-16	3/8	12.58
6503-8-8	3/4-16	1/2	11.43
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	3.81
6504-6-4	9/16-18	7/16-20	3.70
6504-6-6	9/16-18	9/16-18	3.81
6504-8-6	3/4-16	9/16-18	5.84
6504-8-8	3/4-16	3/4-16	4.59
6504-10-10	7/8-14	7/8-14	5.69
6504-12-12	1-1/16-12	1-1/16-12	6.98
6504-16-16	1-5/16-12	1-5/16-12	10.27
6504-20-20	1-5/8-12	1-5/8-12	29.05
6504-24-24	1-7/8-12	1-7/8-12	40.22

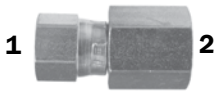
JIC SWIVEL TO MALE PIPE ADAPTER



6505
2018
F6X
1211
9100R

Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
6505-2-4	5/16-24	1/4	1.52
6505-4-2	7/16-20	1/8	3.71
6505-4-4	7/16-20	1/4	2.32
6505-5-4	1/2-20	1/4	8.58
6505-6-4	9/16-18	1/4	2.70
6505-6-6	9/16-18	3/8	3.32
6505-8-6	3/4-16	3/8	4.91
6505-8-8	3/4-16	1/2	4.26
6505-10-8	7/8-14	1/2	4.51
6505-12-8	1-1/16-12	1/2	6.93
6505-12-12	1-1/16-12	3/4	5.74
6505-16-12	1-5/16-12	3/4	11.33
6505-16-16	1-5/16-12	1	10.27
6505-20-20	1-5/8-12	1-1/4	21.75
6505-24-24	1-7/8-12	1-1/2	60.11
6505-32-32	2-1/2-12	2	73.19

JIC SWIVEL TO FEMALE PIPE ADAPTER

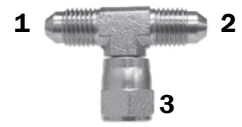


6506
2242
1215

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
6506-4-6	7/16-20	3/8	4.56
6506-6-4	9/16-18	1/4	4.22
6506-6-6	9/16-18	3/8	4.35
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
6506-12-8	1-1/16-12	1/2	24.22
6506-12-12	1-1/16-12	3/4	9.67
6506-16-16	1-5/16-12	1	12.93
6506-20-20	1-5/8-12	1-1/4	25.31
6506-24-24	1-7/8-12	1-1/2	62.17
6506-32-32	2-1/2-12	2	111.36

JIC SWIVEL BRANCH TEE

SAE 070433
MS 51524



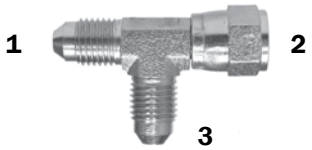
6600
203101R
65X
1227
C5707

Part #	JIC Thread Size 1 & 2	JIC Female Thread 3	List Price
6600-3-3	3/8-24	3/8-24	7.00
6600-4-4	7/16-20	7/16-20	3.78
6600-5-5	1/2-20	1/2-20	8.41
6600-6-6	9/16-18	9/16-18	5.86
6600-8-8	3/4-16	3/4-16	4.78
6600-10	7/8-14	7/8-14	9.69
6600-12	1-1/16-12	1-1/16-12	12.48
6600-14	1-3/16-12	1-3/16-12	28.29
6600-16	1-5/16-12	1-5/16-12	23.66
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
6602-3	3/8-24	3/8-24	7.39
6602-4	7/16-20	7/16 -20	3.46
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	10.69
6602-12	1-1/16-12	1-1/16-12	10.23
6602-14	1-3/16-12	1-3/16-12	19.91
6602-16	1-5/16-12	1-5/16-12	18.66
6602-20	1-5/8-12	1-5/8-12	36.44
6602-24	1-7/8-12	1-7/8-12	39.66

More sizes available

Also available in Stainless Steel

NWO = Nut, Washer & O-Ring

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	3.98
6801-NWO-3	3/8-24	3/8-24	5.46
6801-NWO-4	7/16-20	7/16-20	2.35
6801-NWO-4-5	7/16-20	1/2-20	4.63
6801-NWO-4-6	7/16-20	9/16-18	3.33
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	3.35
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	10.97
6801-NWO-8	3/4-16	3/4-16	4.15
6801-NWO-8-4	3/4-16	7/16-20	6.06
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	9.66
6801-NWO-8-16	3/4-16	1-5/16-12	13.10
6801-NWO-10	7/8-14	7/8-14	5.93
6801-NWO-10-6	7/8-14	9/16-18	6.16
6801-NWO-10-8	7/8-14	3/4-16	5.34
6801-NWO-10-12	7/8-14	1-1/16-12	7.42
6801-NWO-10-16	7/8-14	1-5/16-12	22.65
6801-NWO-12	1-1/16-12	1-1/16-12	7.37
6801-NWO-12-8	1-1/16-12	3/4-16	9.07
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	12.31
6801-NWO-12-20	1-1/16-12	1-5/8-12	30.75
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	14.38
6801-NWO-16	1-5/16-12	1-5/16-12	12.98
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	12.55
6801-NWO-16-20	1-5/16-12	1-5/8-12	29.58
6801-NWO-20	1-5/8-12	1-5/8-12	22.82
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	28.78
6801-NWO-20-24	1-5/8-12	1-7/8-12	43.35
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	36.15
6801-NWO-32	2-1/2-12	2-1/2-12	93.15

LONG JIC TO O-RING ELBOW

1238-L0R



Part #	JIC Thread Size 1	O-Ring Thread Size 2	List Price
6801-L-NWO-4	7/16-20	7/16-20	5.02
6801-L-NWO-6	9/16-18	9/16-18	5.44
6801-L-NWO-8	3/4-16	3/4-16	7.30
6801-L-NWO-8-10	3/4-16	7/8-14	11.74
6801-L-NWO-10	7/8-14	7/8-14	11.61
6801-L-NWO-12	1-1/16-12	1-1/16-12	14.97
6801-L-NWO-16	1-5/16-12	1-5/16-12	24.13
6801-L-NWO-20	1-5/8-12	1-5/8-12	33.67

EXTRA LONG JIC TO O-RING ELBOW

6801-LL
206209R
1238-LLR



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	6.39
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-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
6801-LL-NWO-20	1-5/8-12	1-5/8-12	52.22

JIC TO O-RING 45° ELBOW

SAE 070320
MS 51528

6802
2061
V50X
1240R
C5365



Part #	JIC Thread Size 1	O-Ring Thread Size 2	List Price
6802-NWO-2	5/16-24	5/16-24	5.45
6802-NWO-4	7/16-20	7/16-20	3.33
6802-NWO-4-6	7/16-20	9/16-18	5.95
6802-NWO-4-8	7/16-20	3/4-16	16.24
6802-NWO-5	1/2-20	1/2-20	5.04
6802-NWO-6	9/16-18	9/16-18	3.41
6802-NWO-6-4	9/16-18	7/16-20	4.61
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	6.78
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	6.82
6802-NWO-10-12	7/8-14	1-1/16-12	12.96
6802-NWO-12	1-1/16-12	1-1/16-12	12.83
6802-NWO-12-14	1-1/16-12	1-3/16-12	14.12
6802-NWO-12-16	1-1/16-12	1-5/16-12	15.77
6802-NWO-14	1-3/16-12	1-3/16-12	22.03
6802-NWO-16	1-5/16-12	1-5/16-12	16.14
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	33.22
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	38.23
6802-NWO-32	2-1/2-12	2-1/2-12	106.86

JIC TO O-RING BRANCH TEE

SAE 070429
MS 51529

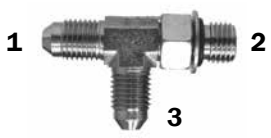
6803
203003X
S50X
1265R
C5715



Part #	JIC Thread Size 1 & 2	O-Ring Thread Size 3	List Price
6803-NWO-2	5/16-24	5/16-24	5.56
6803-NWO-4	7/16-20	7/16-20	5.30
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	15.87
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-16	1-5/16-12	1-5/16-12	22.68
6803-NWO-16-12	1-5/16-12	1-1/16-12	26.02
6803-NWO-20	1-5/8-12	1-5/8-12	33.73
6803-NWO-24	1-7/8-12	1-7/8-12	106.37

JIC TO O-RING RUN TEE

SAE 070428
MS 51530



6804
203005R
R50X
1266R
C5716

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	6.63
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	30.00
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	164.31

O-RING TO FEMALE PIPE ELBOW



6805
206801R
AE0G
1264
C3459

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	4.62
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	7.61
6805-NWO-10-6	7/8-14	3/8	16.50
6805-NWO-10-8	7/8-14	1/2	8.63
6805-NWO-12-8	1-1/16-12	1/2	17.37
6805-NWO-12-12	1-1/16-12	3/4	28.38
6805-NWO-14-12	1-3/16-12	3/4	36.84
6805-NWO-16-16	1-5/16-12	1	21.59
6805-NWO-20-20	1-5/8-12	1-1/4	42.42
6805-NWO-24-24	1-7/8-12	1-1/2	75.97

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	5.09
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	6.90
6806-NWO-8-6	3/4-16	3/8	5.11
6806-NWO-8-8	3/4-16	1/2	5.47
6806-NWO-10-8	7/8-14	1/2	8.19
6806-NWO-12-12	1-1/16-12	3/4	10.00
6806-NWO-16-16	1-5/16-12	1	23.28
6806-NWO-20-20	1-5/8-12	1-1/4	41.81
6806-NWO-24-24	1-7/8-12	1-1/2	64.91
6806-NWO-32-32	2-1/2-12	2	87.31

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	5.79
6809-NWO-8-8	3/4-16	3/4-16	8.92
6809-NWO-10-10	7/8-14	7/8-14	10.09
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
6809-NWO-24-24	1-7/8-12	1-7/8-12	76.77

FEMALE O-RING TO MALE O-RING ELBOW



Part #	O-Ring Thread Size 1	O-Ring Thread Size 2	List Price
6815-NWO-4-4	7/16-20	7/16-20	4.77
6815-NWO-6-6	9/16-18	9/16-18	5.42
6815-NWO-6-8	9/16-18	3/4-16	11.62
6815-NWO-8-8	3/4-16	3/4-16	10.00
6815-NWO-10-10	7/8-14	7/8-14	22.20
6815-NWO-12-12	1-1/16-12	1-1/16-12	15.56
6815-NWO-16-16	1-5/16-12	1-5/16-12	19.40

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-5-4	1/2-20	1/4	3.81
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	4.16
6900-O-8-4	3/4-16	1/4	4.39
6900-O-8-6	3/4-16	3/8	3.01
6900-O-8-8	3/4-16	1/2	2.70
6900-O-8-12	3/4-16	3/4	5.52
6900-O-10-6	7/8-14	3/8	4.49
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	7.25
6900-O-12-8	1-1/16-12	1/2	6.11
6900-O-12-12	1-1/16-12	3/4	5.49
6900-O-12-16	1-1/16-12	1	17.30
6900-O-14-12	1-3/16-12	3/4	12.53
6900-O-16-12	1-5/16-12	3/4	13.19
6900-O-16-16	1-5/16-12	1	13.07
6900-O-16-20	1-5/16-12	1-1/4	32.37
6900-O-20-16	1-5/8-12	1	15.56
6900-O-20-20	1-5/8-12	1-1/4	22.06
6900-O-24-20	1-7/8-12	1-1/4	22.05
6900-O-24-24	1-7/8-12	1-1/2	17.33
6900-O-32-32	2-1/2-12	2	62.92

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	6.51
6901-NWO-5-4	1/2-20	1/4	5.72
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	7.14
6901-NWO-8-6	3/4-16	3/8	4.71
6901-NWO-8-8	3/4-16	1/2	5.90
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	12.75
6901-NWO-12-6	1-1/16-12	3/8	12.22
6901-NWO-12-8	1-1/16-12	1/2	10.26
6901-NWO-12-12	1-1/16-12	3/4	13.38
6901-NWO-12-16	1-1/16-12	1	17.62
6901-NWO-14-12	1-3/16-12	3/4	19.40
6901-NWO-16-12	1-5/16-12	3/4	19.44
6901-NWO-16-16	1-5/16-12	1	20.63
6901-NWO-16-20	1-5/16-12	1-1/4	37.14
6901-NWO-20-12	1-5/8-12	3/4	50.69
6901-NWO-20-16	1-5/8-12	1	29.80
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	93.06

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-4-4	7/16-20	1/4	8.03
6902-NWO-4-6	7/16-20	3/8	17.32
6902-NWO-5-4	1/2-20	1/4	10.67
6902-NWO-6-4	9/16-18	1/4	7.48
6902-NWO-6-6	9/16-18	3/8	6.37
6902-NWO-8-6	3/4-16	3/8	7.13
6902-NWO-8-8	3/4-16	1/2	7.13
6902-NWO-8-12	3/4-16	3/4	15.83
6902-NWO-10-6	7/8-14	3/8	23.05
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-16-12	1-5/16-12	3/4	17.35
6902-NWO-16-16	1-5/16-12	1	20.00
6902-NWO-20-20	1-5/8-12	1-1/4	30.14

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	0.34
4000-6-6	9/16-18	.468	0.34
4000-8-8	3/4-16	.644	0.34
4000-10	7/8-14	.755	0.36
4000-12	1-1/16-12	.924	1.54
4000-14	1-3/16-12	1.048	0.55
4000-16	1-5/16-12	1.171	0.77
4000-20	1-5/8-12	1.475	0.92
4000-24	1-7/8-12	1.720	1.08
4000-32	2-1/2-12	2.337	1.47

O-RINGS

VITON 75 SAE BOSS O-RING

Fluorocarbon



Part #	O-Ring Thread	O-Ring I.D.	List Price
4001-2-2	5/16-24	.239	0.78
4001-3-3	3/8-24	.301	0.59
4001-4-4	7/16-20	.351	0.83
4001-5-5	1/2-20	.414	0.88
4001-6-6	9/16-18	.468	0.89
4001-8-8	3/4-16	.644	1.17
4001-10	7/8-14	.755	1.41
4001-12	1-1/16-12	.924	1.86
4001-16	1-5/16-12	1.171	2.15
4001-20	1-5/8-12	1.475	3.67
4001-24	1-7/8-12	1.720	9.89
4001-32	2-1/2-12	2.337	13.65

STEEL FLANGE ADAPTERS

CONFORMANCE

- SAE J518

MATERIALS

- Steel per SAE J518 with either black phosphate finish or plated zinc 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 Fititngs 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.
Step2. 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.

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

RECOMMENDED SPLIT FOUR-BOLT

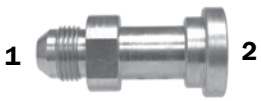
Step1. Follow steps 1 through 3 above, then proceed to the following steps.
Step 2. Position both flanges on port and turn one screw in each flange about three turns.
Step 3. Rotate each flange away from the port for sufficient clearance to position hose or fitting flange head on port.
Step 4. Close 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 preceeding table is achieved.

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.

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	34.35
1700-8-12	3/4-16	3/4	1.50	28.14
1700-12-12	1-1/16-12	3/4	1.50	22.99
1700-12-16	1-1/16-12	1	1.75	22.99
1700-16-16	1-5/16-12	1	1.75	25.92
1700-16-20	1-5/16-12	1-1/4	2.00	43.12
1700-16-24	1-5/16-12	1-1/2	2.37	69.37
1700-20-16	1-5/8-12	1	1.75	35.23
1700-20-20	1-5/8-12	1-1/4	2.00	36.62
1700-20-32	1-5/8-12	2	2.81	106.24
1700-24-24	1-7/8-12	1-1/2	2.37	122.12
1700-32-32	2-1/2-12	2	2.81	85.35
1700-40-40	3-12	2-1/2	3.31	302.39

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	36.39
1703-8-12	3/4-16	3/4	1.50	65.86
1703-12-12	1-1/16-12	3/4	1.50	30.96
1703-12-16	1-1/16-12	1	1.75	82.63
1703-16-16	1-5/16-12	1	1.75	135.28
1703-16-20	1-5/16-12	1-1/4	2.00	74.75
1703-20-16	1-5/8-12	1	1.75	62.00
1703-20-20	1-5/8-12	1-1/4	2.00	68.93
1703-20-24	1-5/8-12	1-1/2	2.37	82.00
1703-32-32	2-1/2-12	2	2.81	175.91

JIC FLANGE 90° ADAPTER CODE 61

6890
504

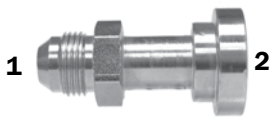


3000 PSI

Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1704-8-8	3/4-16	1/2	1.18	56.62
1704-8-12	3/4-16	3/4	1.50	65.54
1704-10-16	7/8-14	1	1.75	271.81
1704-12-12	1-1/16-12	3/4	1.50	28.58
1704-12-16	1-1/16-12	1	1.75	61.98
1704-12-20	1-1/16-12	1-1/4	2.00	56.22
1704-16-12	1-5/16-12	3/4	1.50	53.53
1704-16-16	1-5/16-12	1	1.75	30.75
1704-16-20	1-5/16-12	1-1/4	2.00	126.69
1704-16-24	1-5/16-12	1-1/2	2.37	105.86
1704-20-16	1-5/8-12	1	1.75	52.91
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	140.86
1704-24-20	1-7/8-12	1-1/4	2.00	121.09
1704-24-32	1-7/8-12	2	2.81	140.59
1704-32-32	2-1/2-12	2	2.81	93.02

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	34.51
1800-12-16	1-1/16-12	1	1.88	50.58
1800-16-16	1-5/16-12	1	1.88	29.14
1800-16-20	1-5/16-12	1-1/4	2.12	54.15
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	90.59
1800-24-24	1-7/8-12	1-1/2	2.50	68.62
1800-32-32	2-1/2-12	2	3.12	171.48

JIC FLANGE 45° ADAPTER
CODE 62

6847
508



6000 PSI

Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1803-12-12	1-1/16-12	3/4	1.62	79.58
1803-12-16	1-1/16-12	1	1.88	104.05
1803-16-16	1-5/16-12	1	1.88	90.76
1803-16-20	1-5/16-12	1-1/4	2.12	75.48
1803-20-16	1-5/8-12	1	1.88	112.48
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	98.07
1803-24-24	1-7/8-12	1-1/2	2.50	151.25
1803-32-32	2-1/2-12	2	3.12	261.48

JIC FLANGE 90° ADAPTER
CODE 62

6842



6000 PSI

Part #	JIC Thread Size 1	Flange Size 2	Flange Head OD	List Price
1804-8-8	3/4-16	1/2	1.25	120.53
1804-12-12	1-1/16-12	3/4	1.62	52.45
1804-12-16	1-1/16-12	1	1.88	45.94
1804-16-16	1-5/16-12	1	1.88	83.18
1804-16-20	1-5/16-12	1-1/4	2.12	66.77
1804-20-16	1-5/8-12	1	1.88	101.29
1804-20-20	1-5/8-12	1-1/4	2.12	60.35
1804-20-24	1-5/8-12	1-1/2	2.50	158.91
1804-24-24	1-7/8-12	1-1/2	2.50	215.29
1804-32-32	2-1/2-12	2	3.12	294.00

BRAZE TO SPLIT FLANGE
CODE 61



3000 PSI

Part #	Flange Size	TubeO.D.	List Price
1861-8	1/2	1/2	10.95
1861-12	3/4	3/4	8.34
1861-16	1	1	25.12
1861-20	1-1/4	1-1/4	13.05
1861-24	1-1/2	1-1/2	17.62
1861-32	2	2	13.88
1861-40	2-1/2	2-1/2	42.52

BRAZE TO SPLIT FLANGE
CODE 62

6862



6000 PSI

Part #	Flange Size	Tube O.D.	List Price
1862-8	1/2	1/2	70.67
1862-12	3/4	3/4	25.29
1862-16	1	1	25.72
1862-20	1-1/4	1-1/4	25.21
1862-24	1-1/2	1-1/2	46.27
1862-32	2	2	59.10

SPLIT FLANGE PLUG
CODE 61

6861P



3000 PSI

Part #	Flange Size	List Price
1961-8	1/2	10.95
1961-12	3/4	11.10
1961-16	1	11.10
1961-20	1-1/4	12.07
1961-24	1-1/2	14.94
1961-32	2	37.41

SPLIT FLANGE PLUG
CODE 62

6862P



6000 PSI

Part #	Flange Size	List Price
1962-8	1/2	50.07
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	72.40

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	1.22
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	26.94
1900-20	1-1/4	29.49
1900-24	1-1/2	21.40
1900-32	2	22.95
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	24.35
1901-12	3/4	1.50	20.46
1901-16	1	1.75	29.31
1901-20	1-1/4	2.00	33.30
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	82.85

SPLIT FLANGE KIT CODE 62

SFXK



6000 PSI

Part #	Flange Size	Flange Head Diameter	List Price
1902-8	1/2	1.25	64.61
1902-12	3/4	1.63	48.22
1902-16	1	1.88	35.78
1902-20	1-1/4	2.12	44.12
1902-24	1-1/2	2.50	63.52
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	9.22
2061-24	1-1/2	2.38	6.14
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

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	29.06
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	101.68
2162-20-20	1-1/4	97.01
2162-24-24	1-1/2	129.62
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	40.41
2261-24-24	1-1/2	38.60
2261-32-32	2	45.89

PIPE THREAD FLANGE PAD
CODE 62

W44



6000 PSI

Part #	Pipe Size	List Price
2262-8-8	1/2	137.97
2262-12-12	3/4	105.77
2262-16-16	1	65.17
2262-20-20	1-1/4	96.05
2262-24-24	1-1/2	111.23
2262-32-32	2	141.88

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	43.31
2361-16-16	1-5/16-12	1	42.45
2361-20-20	1-5/8-12	1-1/4	49.17
2361-24-24	1-7/8-12	1-1/2	57.78

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	64.99
2362-16-16	1-5/16-12	1	84.08
2362-20-20	1-5/8-12	1-1/4	93.02
2362-24-24	1-7/8-12	1-1/2	161.95

O-RING FACE SEAL ADAPTER

CONFORMANCE

- SAE J1453

MATERIALS

- Steel- SAE 12L14 carbon steel trivalent zinc 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 Burst Straight	Adjustble
-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
Step2. 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

Step1. 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.

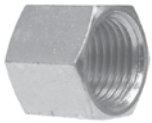
WHY WET TORQUE?

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.

BRAZE TUBE NUT (SLEEVE REQUIRED)

SAE 520110

FF318
FF1311



Part #	Tube O.D.	Braze Tube O.D.	List Price
FSO318-4	1/4	.25	0.83
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	9.37

BRAZE TUBE SLEEVE

SAE 520115

FF319
FF3019



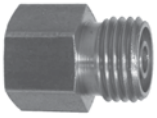
Part #	Tube O.D.	List Price
FSO319-4	1/4	0.68
FSO319-6	3/8	0.83
FSO319-8	1/2	1.00
FSO319-10	5/8	1.09
FSO319-12	3/4	1.68
FSO319-16	1	2.54
FSO319-20	1-1/4	3.76
FSO319-24	1-1/2	4.58

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

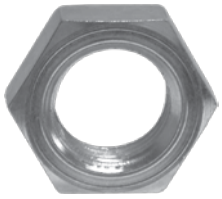
• Two Piece
Nut/ Insert Construction



Part #	Tube O.D.	Flat Face Thread	List Price
FSO304-C-4	1/4	9/16-18	1.46
FSO304-C-6	3/8	11/16-16	2.04
FSO304-C-8	1/2	13/16-16	3.52
FSO304-C-10	5/8	1-14	3.80
FSO304-C-12	3/4	1-3/16-12	4.63
FSO304-C-16	1	1-7/16-12	7.16
FSO304-C-20	1-1/4	1-11/16-12	10.56
FSO304-C-24	1-1/2	2-12	13.43

BULKHEAD LOCKNUT

SAE 520118



Part #	Thread Size	List Price
FSO306-4	9/16-18	0.61
FSO306-6	11/16-16	0.78
FSO306-8	13/16-16	1.23
FSO306-10	1-14	1.34
FSO306-12	1-3/16-12	2.23
FSO306-16	1-7/16-12	3.67
FSO306-20	1-11/16-12	4.39
FSO306-24	2-12	6.17

MALE UNION CONNECTOR

SAE 520102

FF2403
FF1203



Part #	Tube O.D.	Flat Face Thread 1	List Price
FSO2403-4-4	1/4	9/16-18	2.71
FSO2403-6-6	3/8	11/16-16	3.67
FSO2403-8-8	1/2	13/16-16	4.13
FSO2403-12-12	3/4	1-3/16-12	6.95
FSO2403-16-16	1	1-7/16-12	11.96
FSO2403-20-20	1-1/4	1-11/16-12	15.56
FSO2403-24-24	1-1/2	2-12	26.45

MALE O-RING FACE SEAL ADAPTER



FF2404
4205
FLO

Part #	Flat Face Thread 1	Male Pipe Size 2	List Price
FSO2404-4-2	9/16-18	1/8-27	1.90
FSO2404-4-4	9/16-18	1/4-18	1.71
FSO2404-4-6	9/16-18	3/8-18	2.81
FSO2404-4-8	9/16-18	1/2-14	3.71
FSO2404-6-2	11/16-16	1/8-27	2.33
FSO2404-6-4	11/16-16	1/4-18	2.26
FSO2404-6-6	11/16-16	3/8-18	2.94
FSO2404-6-8	11/16-16	1/2-14	2.57
FSO2404-8-4	13/16-16	1/4-18	3.38
FSO2404-8-6	13/16-16	3/8-18	3.18
FSO2404-8-8	13/16-16	1/2-14	2.57
FSO2404-8-12	13/16-16	3/4-14	4.81
FSO2404-10-8	1-14	1/2-14	7.50
FSO2404-10-12	1-14	3/4-14	6.61
FSO2404-12-8	1-3/16-12	1/2-14	5.57
FSO2404-12-12	1-3/16-12	3/4-14	5.91
FSO2404-12-16	1-3/16-12	1-11-1/2	7.39
FSO2404-16-12	1-7/16-12	3/4-14	6.10
FSO2404-16-16	1-7/16-12	1-11-1/2	7.85
FSO2404-16-20	1-7/16-12	1-1/4-11-1/2	13.24
FSO2404-20-16	1-11/16-12	1-11-1/2	14.00
FSO2404-20-20	1-11/16-12	1-1/4-11-1/2	10.38
FSO2404-24-24	2-12	1-1/2-11-1/2	23.00

FEMALE ORFS TO MALE ORFS REDUCER

FF2406
TRLON



Part #	Flat Face Size 1	Flat Face Thread 2	List Price
FSO2406-6-4	11/16-16	9/16-18	4.29
FSO2406-8-4	13/16-16	9/16-18	5.95
FSO2406-8-6	13/16-16	11/16-16	5.29
FSO2406-10-6	1-14	11/16-16	5.48
FSO2406-10-8	1-14	13/16-16	5.48
FSO2406-12-6	1-3/16-12	11/16-16	8.33
FSO2406-12-8	1-3/16-12	13/16-16	8.33
FSO2406-12-10	1-3/16-12	1-14	8.93
FSO2406-16-8	1-7/16-12	13/16-16	12.86
FSO2406-16-12	1-7/16-12	1-3/16-12	12.86
FSO2406-20-12	1-11/16-12	1-3/16-12	21.00
FSO2406-20-16	1-11/16-12	1-7/16-12	23.33
FSO2406-24-20	2-12	1-11/16-12	32.01

PLUG

SAE 520109



FF2408
FF1254
4229
PNLO

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	1.59
FSO2408-8	1/2	13/16-16	1.67
FSO2408-10	5/8	1-14	2.18
FSO2408-12	3/4	1-3/8-12	3.49
FSO2408-16	1	1-7/16-12	5.90
FSO2408-20	1-1/4	1-11/16-12	9.07
FSO2408-24	1-1/2	2-12	9.63

ORFS UNION ELBOW 90°



FF2500
4505
ELO

Part #	Flat Face Thread 1	Flat Face Thread 2	List Price
FS2500-4-4	9/16-18	9/16-18	3.34
FS2500-6-6	11/16-16	11/16-16	4.24
FS2500-8-8	13/16-16	13/16-16	5.05
FS2500-10-10	1-14	1-14	6.86
FS2500-12-12	1-3/16-12	1-3/16-12	10.00
FS2500-16-16	1-7/16-12	1-7/16-12	13.00
FS2500-20-20	1-11/16-12	1-11/16-12	25.29
FS2500-24-24	2-12	2-12	62.75

ORFS TO MALE ELBOW

SAE 520202



FF2501
FF1208
4405
CLO

Part #	Flat Face Thread 1	Male Pipe Thread 2	List Price
FS2501-4-4	9/16-18	1/4	4.07
FS2501-6-4	11/16-16	1/4	4.22
FS2501-6-6	11/16-16	3/8	4.21
FS2501-8-6	13/16-16	3/8	5.14
FS2501-8-8	13/16-16	1/2	5.58
FS2501-8-12	13/16-16	3/4	8.26
FS2501-10-8	1-14	1/2	7.09
FS2501-10-12	1-14	3/4	12.75
FS2501-12-8	1-3/8-12	1/2	8.84
FS2501-12-12	1-3/8-12	3/4	10.39
FS2501-12-16	1-3/8-12	1	12.41
FS2501-16-12	1-7/16-12	3/4	12.41
FS2501-16-16	1-7/16-12	1	14.26
FS2501-20-20	1-11/16-12	1-1/4	25.83
FS2501-24-24	2-12	1-1/2	35.97

More sizes available

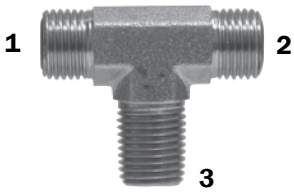
ORFS TO PIPE ELBOW 45°



FF2503
4355
VLO

Part #	Flat Face Thread 1	Male Pipe Thread 2	List Price
FS2503-4-2	9/16-18	1/8	3.76
FS2503-4-4	9/16-18	1/4	4.87
FS2503-6-4	11/16-16	1/4	3.71
FS2503-6-6	11/16-16	3/8	6.94
FS2503-8-6	13/16-16	3/8	5.38
FS2503-8-8	13/16-16	1/2	5.05
FS2503-10-8	1-14	1/2	6.98
FS2503-12-12	1-3/16-12	3/4	8.84
FS2503-16-16	1-7/16-12	1	12.98

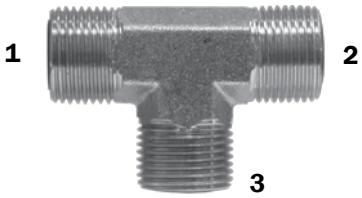
ORFS TO PIPE BRANCH TEE



FF2601

Part #	Flat Face Thread 1+2	Male Pipe 3	List Price
FS2601-4-4	9/16-18	1/4-18	6.86
FS2601-6-6	11/16-16	3/8-18	7.33
FS2601-8-8	13/16-16	1/2-14	7.95
FS2601-12-12	1-3/16-12	3/4-14	15.00
FS2601-16-16	1-7/16-12	1-11-1/2	29.19

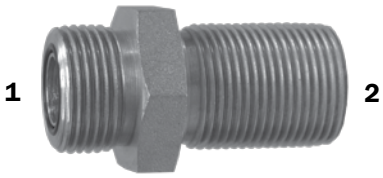
ORFS UNION TEE



FF2603
4705
JLO

Part #	Flat Face Thread 1+2+3	List Price
FS2603-4-4	9/16-18	----
FS2603-6-6	11/16-16	7.05
FS2603-8-8	13/16-16	7.43
FS2603-10-10	1-14	13.49
FS2603-12-12	1-3/16-12	16.14
FS2603-16-16	1-7/16-12	21.14
FS2603-20-20	1-11/16-12	32.29
FS2603-24-24	2-12	70.45

ORFS BULKHEAD UNION

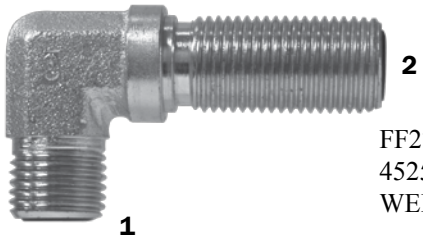


FF2700
WLO

• Locknut not included on Bulkhead fittings

Part #	Flat Face Thread 1+2	List Price
FS2700-4-4	9/16-18	2.10
FS2700-6-6	11/16-16	3.29
FS2700-8-8	13/16-16	4.24
FS2700-10-10	1-14	7.57
FS2700-12-12	1-3/16-12	8.81
FS2700-16-16	1-7/16-12	14.72
FS2700-20-20	1-11/16-12	18.90
FS2700-24-24	2-12	28.10

ORFS BULKHEAD UNION 90°

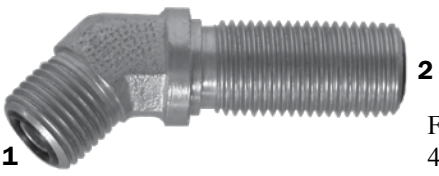


FF2701
4525
WELO

• Locknut not included on Bulkhead fittings

Part #	Flat Face Thread 1+2	List Price
FS2701-4-4	9/16-18	4.19
FS2701-6-6	11/16-16	5.24
FS2701-8-8	13/16-16	6.29
FS2701-10-10	1-14	7.62
FS2701-12-12	1-3/16-12	12.14
FS2701-16-16	1-7/16-12	14.76
FS2701-20-20	1-11/16-12	28.05
FS2701-24-24	2-12	45.29

ORFS BULKHEAD UNION 45°

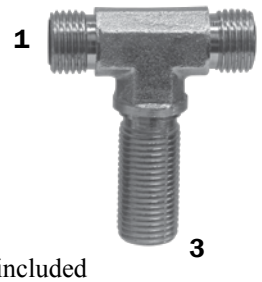


FF2702
4375
WNLO

• Locknut not included on Bulkhead fittings

Part #	Flat Face Thread 1+2	List Price
FS2702-4-4	9/16-18	4.19
FS2702-6-6	11/16-16	5.48
FS2702-8-8	13/16-16	5.95
FS2702-10-10	1-14	14.09
FS2702-12-12	1-3/16-12	11.62
FS2702-16-16	1-7/16-12	17.96
FS2702-20-20	1-11/16-12	28.05

ORFS BULKHEAD UNION BRANCH TEE

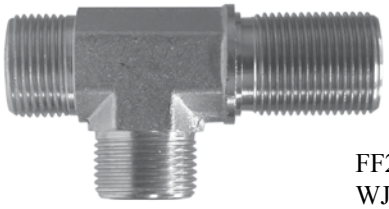


FF2703
WJLO

• Locknut not included

Part #	Flat Face Thread 1+2+3	List Price
FS2703-4	9/16-18	6.38
FS2703-6	11/16-16	8.48
FS2703-8	13/16-16	10.86
FS2703-10	1-14	15.86
FS2703-12	1-3/16-12	19.95
FS2703-16	1-7/16-12	26.57
FS2703-20	1-11/16-12	44.95

ORFS BULKHEAD UNION RUN TEE

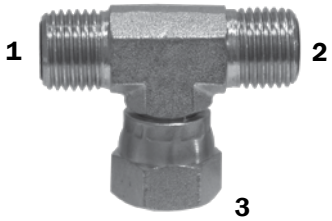


FF2704
WJJLO

• Locknut not included

Part #	Flat Face Thread 1+2+3	List Price
FS2704-4-4	9/16-18	6.38
FS2704-6-6	11/16-16	9.43
FS2704-8-8	13/16-16	10.86
FS2704-10-10	1-14	15.86
FS2704-12-12	1-3/16-12	20.14
FS2704-16-16	1-7/16-12	27.95
FS2704-20-20	1-11/16-12	44.95

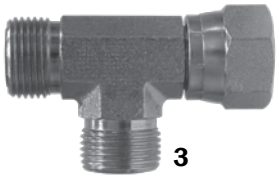
ORFS TO FEMALE SWIVEL BRANCH TEE



FF6600
S6LO

Part #	Flat Face Thread 1+2	Female JIC 3	List Price
FS6600-4-4	9/16-18	9/16-18	7.05
FS6600-6-6	11/16-16	11/16-16	8.38
FS6600-8-8	13/16-16	13/16-16	25.17
FS6600-10-10	1-14	1-14	16.10
FS6600-12-12	1-3/16-12	1-3/16-12	21.38
FS6600-16-16	1-7/16-12	1-7/16-12	30.67
FS6600-20-20	1-11/16-12	1-11/16-12	47.57
FS6600-24-24	2-12	2-12	66.81

ORFS TO JIC SWIVEL RUN TEE

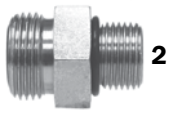


FF6602
R6LO

Part #	Flat Face Thread 1+3	Female Flat Face 2	List Price
FS6602-4-4	9/16-18	9/16-18	6.81
FS6602-6-6	11/16-16	11/16-16	10.11
FS6602-8-8	13/16-16	13/16-16	9.81
FS6602-10-10	1-14	1-14	15.86
FS6602-12-12	1-3/16-12	1-3/16-12	21.33
FS6602-16-16	1-7/16-12	1-7/16-12	31.05
FS6602-20-20	1-11/16-12	1-11/16-12	44.90
FS6602-24-24	2-12	2-12	75.81

STRAIGHT THREAD CONNECTOR

SAE 520120



4315
FF6400
FF1231

Part #	Flat Face Thread 1	O-Ring Thread 2	List Price
FS6400-O-4-4	9/16-18	7/16-20	1.93
FS6400-O-4-6	9/16-18	9/16-18	1.99
FS6400-O-6-4	11/16-16	7/16-20	4.03
FS6400-O-6-6	11/16-16	9/16-18	1.72
FS6400-O-6-8	11/16-16	3/4-16	2.95
FS6400-O-8-6	13/16-16	9/16-18	2.36
FS6400-O-8-8	13/16-16	3/4-16	3.41
FS6400-O-8-10	13/16-16	7/8-14	4.02
FS6400-O-10-8	1-14	3/4-16	3.60
FS6400-O-10-10	1-14	7/8-14	5.76
FS6400-O-10-12	1-14	1-1/16-12	4.66
FS6400-O-12-8	1-3/16-12	3/4-16	5.05
FS6400-O-12-10	1-3/16-12	7/8-14	5.61
FS6400-O-12-12	1-3/16-12	1-1/16-12	4.35
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	8.97
FS6400-O-16-16	1-7/16-12	1-5/16-12	8.19
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	15.35
FS6400-O-20-24	1-11/16-12	1-7/8-12	25.52
FS6400-O-24-20	2-12	1-5/8-12	95.79
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	3.81
FS6402-6-6	11/16-16	9/16-18	4.66
FS6402-8-8	13/16-16	3/4-16	5.61
FS6402-10-10	1-14	7/8-14	7.10
FS6402-12-12	1-3/16-12	1-1/16-12	49.52
FS6402-16-16	1-7/16-12	1-5/16-12	29.58

More sizes available

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	4.97
FS6500-6-6	11/16-16	11/16-16	6.24
FS6500-8-8	13/16-16	13/16-16	7.80
FS6500-10-10	1-14	1-14	10.03
FS6500-12-12	1-3/16-12	1-3/16-12	15.56
FS6500-16-16	1-7/16-12	1-7/16-12	24.23
FS6500-20-20	1-11/16-12	1-11/16-12	34.66
FS6500-24-24	2-12	2-12	50.22

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	6.46
FS6504-10-10	7/8-14	1-14	30.70
FS6504-12-12	1-1/16-12	1-3/16-12	11.07
FS6504-16-16	1-5/16-12	1-7/16-12	53.74

O-RING ELBOW CONNECTOR



FF6801
FF1238
4515

Part #	Flat Face Thread 1	O-Ring Thread 2	List Price
FS6801-4-4	9/16-18	7/16-20	4.23
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	6.46
FS6801-8-6	13/16-16	9/16-18	5.37
FS6801-8-8	13/16-16	3/4-16	5.58
FS6801-8-10	13/16-16	7/8-14	9.44
FS6801-10-8	1-14	3/4-16	9.00
FS6801-10-10	1-14	7/8-14	10.21
FS6801-10-12	1-14	1-1/16-12	15.47
FS6801-12-10	1-3/16-12	7/8-14	10.83
FS6801-12-12	1-3/16-12	1-1/16-12	12.29
FS6801-12-16	1-3/16-12	1-5/16-12	26.51
FS6801-16-12	1-7/16-12	1-1/16-12	18.04
FS6801-16-16	1-7/16-12	1-5/16-12	20.95
FS6801-16-20	1-7/16-12	1-5/8-12	31.67
FS6801-20-16	1-11/16-12	1-5/16-12	27.62
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

ORFS TO O-RING ELBOW 45°



FF6802
4365
V5OLO

Part #	Flat Face Thread 1	O-Ring Size 2	List Price
FS6802-4-4	9/16-18	7/16-20	4.18
FS6802-4-6	9/16-18	9/16-18	4.52
FS6802-6-4	11/16-16	7/16-20	4.76
FS6802-6-6	11/16-16	9/16-18	4.76
FS6802-6-8	11/16-16	3/4-16	5.48
FS6802-8-6	13/16-16	9/16-18	5.48
FS6802-8-8	13/16-16	3/4-16	5.48
FS6802-8-10	13/16-16	7/8-14	9.10
FS6802-10-8	1-14	3/4-16	11.71
FS6802-10-10	1-14	7/8-14	9.14
FS6802-10-12	1-14	1-1/16-12	12.67
FS6802-12-8	1-3/16-12	3/4-16	11.90
FS6802-12-10	1-3/16-12	7/8-14	11.90
FS6802-12-12	1-3/16-12	1-1/16-12	13.34
FS6802-12-16	1-3/16-12	1-5/16-12	16.38
FS6802-16-12	1-7/16-12	1-1/16-12	16.33
FS6802-16-16	1-7/16-12	1-5/16-12	18.00
FS6802-16-20	1-7/16-12	1-5/8-12	24.29
FS6802-20-20	1-11/16-12	1-5/8-12	23.76
FS6802-24-24	2-12	1-7/8-12	38.76

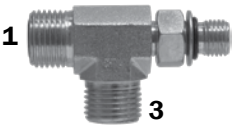
ORFS TO O-RING BRANCH TEE



FF6803
4715
SJOLO

Part #	Face Seal Thread 1 + 2	O-Ring Size 3	List Price
FS6803-4-4	9/16-18	7/16-20	6.62
FS6803-6-6	11/16-16	9/16-18	8.10
FS6803-8-8	13/16-16	3/4-16	9.24
FS6803-10-10	1-14	7/8-14	12.43
FS6803-12-12	1-3/16-12	1-1/16-12	20.13
FS6803-16-16	1-7/16-12	1-5/6-12	28.52
FS6803-20-20	1-11/16-12	1-5/8-12	46.52
FS6803-24-24	2-12	1-7/8-12	70.48

ORFS TO O-RING RUN TEE



FF6804
4716
KJOLO

Part #	Face Seal Thread 1	O-Ring Size 2	Thread Size 3	List Price
FS6804-4-4	9/16-18	9/16-18	7/16-20	6.62
FS6804-6-6	11/16-16	11/16-16	9/16-18	8.10
FS6804-8-8	13/16-16	13/16-16	3/4-16	9.24
FS6804-10-10	1-14	1-14	7/8-14	13.33
FS6804-12-12	1-3/16-12	1-3/16-12	1-1/16-12	21.05
FS6804-16-16	1-7/16-12	1-7/16-12	1-5/6-12	28.52
FS6804-20-20	1-11/16-12	1-11/16-12	1-5/8-12	46.52
FS6804-24-24	2-12	2-12	1-7/8-12	70.40

STEEL BSPT ADAPTERS

STRAIGHT THREAD SWIVEL NUT ELBOW



FF6809
FF1239
4535
AOELC

Part #	O-Ring Thread 1	Flat Face Thread 2	List Price
FS6809-4-4	7/16-20	9/16-18	7.25
FS6809-6-6	9/16-18	11/16-16	8.24
FS6809-8-8	3/4-16	13/16-16	9.72
FS6809-10-10	7/8-14	1-14	16.61
FS6809-12-12	1-1/16-12	1-3/16-12	20.85
FS6809-16-16	1-5/16-12	1-7/16-12	25.13

STEEL BSPT ADAPTERS

JIC MALE CONNECTOR BSPT



3404
3O5

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	8.09
7000-6-4	9/16-18	1/4-19	12.26
7000-6-6	9/16-18	3/8-19	16.28
7000-6-8	9/16-18	1/2-14	22.55
7000-8-6	3/4-16	3/8-19	12.35
7000-8-8	3/4-16	1/2-14	14.91
7000-8-12	3/4-16	3/4-14	50.32
7000-10-8	7/8-14	1/2-14	18.10
7000-10-12	7/8-14	3/4-14	21.77
7000-12-8	1-1/16-12	1/2-14	31.96
7000-12-12	1-1/16-12	3/4-14	24.19
7000-16-16	1-5/16-12	1-11	45.75
7000-20-20	1-5/8-12	1-1/4-11	67.86

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	18.52
7200-6-6	9/16-18	3/8-19	22.76
7200-6-8	9/16-18	1/2-14	41.73
7200-8-6	3/4-16	3/8-19	28.53
7200-8-8	3/4-16	1/2-14	27.71
7200-12-12	1-1/16-12	3/4-14	51.20
7200-16-16	1-5/16-12	1-11	80.86

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	15.00
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	8.26
9508-4	1/4-19	8.70
9508-6	3/8-19	12.65
9508-8	1/2-14	11.11
9508-12	3/4-14	24.18
9508-16	1-11	27.33

More sizes available

STEEL BSPP ADAPTERS

BSPP HEX NIPPLE



3420
MB
9022

Part #	Male BSPP 1	Male BSPP 2	List Price
7420-2-2	1/8-28	1/8-28	14.64
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	14.22
7420-8-6	1/2-14	3/8-19	14.29
7420-8-8	1/2-14	1/2-14	18.19
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	31.42
7420-16-12	1-11	3/4-14	36.04
7420-16-16	1-11	1-11	42.13

BSPP COUPLING

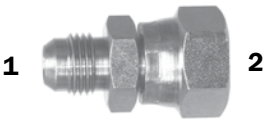


3425
FB

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	40.67
7202-NWO-4-4	7/16-20	1/4-19	31.93
7202-NWO-6-4	9/16-18	1/4-19	23.00
7202-NWO-6-6	9/16-18	3/8-19	36.93
7202-NWO-6-8	9/16-18	1/2-14	32.25
7202-NWO-8-6	3/4-16	3/8-19	33.79
7202-NWO-8-8	3/4-16	1/2-14	45.15
7202-NWO-8-12	3/4-16	3/4-14	75.55
7202-NWO-10-8	7/8-14	1/2-14	40.04
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

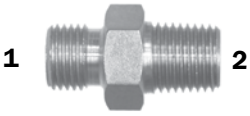
JIC TO BSPP 45° ELBOW



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

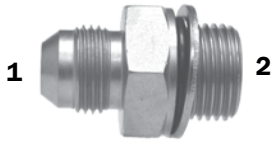


MBMP
3825

Part #	Male BSPP Size 1	Male Pipe Thread Size 2	List Price
7825-2	1/8-28	1/8	10.15
7825-4	1/4-19	1/4	8.00
7825-6	3/8-19	3/8	11.02
7825-8	1/2-14	1/2	12.67
7825-12	3/4-14	3/4	15.92
7825-16	1-11	1	30.57

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	13.13
7002-4-4	7/16-20	1/4-19	8.33
7002-4-6	7/16-20	3/8-19	8.08
7002-4-8	7/16-20	1/2-14	25.62
7002-6-4	9/16-18	1/4-19	8.13
7002-6-6	9/16-18	3/8-19	9.50
7002-6-8	9/16-18	1/2-14	8.73
7002-8-6	3/4-16	3/8-19	10.15
7002-8-8	3/4-16	1/2-14	16.90
7002-8-12	3/4-16	3/4-14	25.95
7002-10-8	7/8-14	1/2-14	19.11
7002-12-12	1-1/16-12	3/4-14	22.79
7002-12-16	1-1/16-12	1-11	31.84
7002-16-16	1-5/16-12	1-11	30.10

More sizes available

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	24.27
7022-6-6	9/16-18	3/8-19	17.67
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	50.15
7022-16-16	1-5/16-12	1-11	89.94

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	7.13
9522-P-8	1/2-14	11.83
9522-P-12	3/4-14	13.34
9522-P-16	1-11	20.39

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	43.58

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	20.95
7042-4-4	1/4	1/4-19	14.53
7042-6-6	3/8	3/8-19	31.56
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	52.97

More sizes available

STEEL METRIC ADAPTERS

MALE CONNECTOR

7400
30J (R)
7011



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	11.37
7005-4-12	7/16-20	12x1.5	13.75
7005-4-14	7/16-20	14x1.5	11.84
7005-4-18	7/16-20	18x1.5	24.94
7005-5-12	1/2-20	12x1.5	12.38
7005-5-14	1/2-20	14x1.5	65.76
7005-6-14	9/16-18	14x1.5	13.06
7005-6-16	9/16-18	16x1.5	17.87
7005-6-18	9/16-18	18x1.5	22.35
7005-8-16	3/4-16	16x1.5	14.38
7005-8-18	3/4-16	18x1.5	15.17
7005-8-22	3/4-16	22x1.5	22.48
7005-10-18	7/8-14	18x1.5	22.72
7005-10-20	7/8-14	20x1.5	20.72
7005-10-22	7/8-14	22x1.5	17.61
7005-12-22	1-1/16-12	22x1.5	30.77
7005-12-27	1-1/16-12	27x2.0	47.91
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

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	36.38
7205-NWO-4-14	7/16-20	14x1.5	23.13
7205NWO-5-12	1/2-20	12x1.5	59.81
7205-NWO-6-14	9/16-18	14x1.5	44.76
7205-NWO-6-16	9/16-18	16x1.5	33.91
7205-NWO-8-16	3/4-16	16x1.5	39.69
7205-NWO-8-18	3/4-16	18x1.5	13.10
7205-NWO-8-22	3/4-16	22x1.5	33.51
7205-NWO-10-18	7/8-14	18x1.5	36.28

STRAIGHT SWIVEL

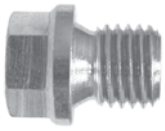
7402
30JS (R)



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	29.75
7025-6-14	9/16-18	14x1.5	29.36
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

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	12.11
8555-P-16	16x1.5	11.14
8555-P-18	18x1.5	20.64
8555-P-20	20x1.5	17.55
8555-P-22	22x1.5	17.91
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	7.56
8555-H-12	12x1.5	16.39
8555-H-14	14x1.5	10.91
8555-H-16	16x1.5	19.81
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	55.65
8555-H-30	30x1.5	35.78

More sizes available

FEMALE ADAPTER

MMFP (R)



Part #	Female Pipe Thread 1	Metric Thread 2	List Price
7045-2-10	1/8	10x1.0	35.12
7045-4-12	1/4	12x1.5	19.89
7045-4-14	1/4	14x1.5	21.77
7045-6-12	3/8	12x1.5	33.06
7045-6-16	3/8	16x1.5	27.21
7045-6-18	3/8	18x1.5	31.73
7045-8-16	1/2	16x1.5	52.96
7045-8-18	1/2	18x1.5	27.65
7045-8-22	1/2	22x1.5	36.54
7045-12-27	3/4	27x2.0	51.88
7045-16-33	1	33x2.0	76.98

More sizes available

HIGH PRESSURE SWIVELS

MALE CONNECTOR



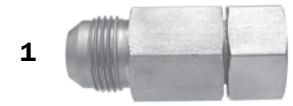
Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
HP2404-6-4	9/16-18	1/4	104.38
HP2404-8-6	3/4-16	3/8	86.49
HP2404-10-8	7/8-14	1/2	94.38
HP2404-12-12	1-1/16-12	3/4	140.45
HP2404-16-16	1-5/16-12	1	189.61
HP2404-20-20	1-5/8-12	1-1/4	362.63
HP2404-24-24	1-7/8-12	1-1/2	761.04

FEMALE CONNECTOR



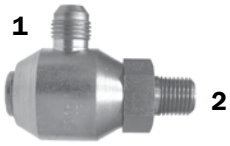
Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
HP2405-6-4	9/16-18	1/4	120.56
HP2405-8-6	3/4-16	3/8	86.12
HP2405-10-8	7/8-14	1/2	98.10
HP2405-12-12	1-1/16-12	3/4	100.63
HP2405-16-16	1-5/16-12	1	189.21
HP2405-20-20	1-5/8-12	1-1/4	362.63
HP2405-24-24	1-7/8-12	1-1/2	1016.92

TUBE ADAPTER



Part #	JIC Thread Size 1	JIC Thread Size 2	List Price
HP2406-6-6	9/16-18	9/16-18	114.38
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	223.65
HP2406-14-14	1-3/16-12	1-3/16-12	181.27
HP2406-16-16	1-5/16-12	1-5/16-12	262.59
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



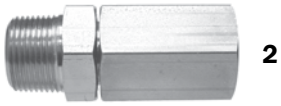
Part #	JIC Thread Size 1	Male Pipe Thread 2	List Price
HP2501-6-4	9/16-18	1/4	142.49
HP2501-6-6	9/16-18	3/8	105.35
HP2501-8-6	3/4-16	3/8	105.35
HP2501-8-8	3/4-16	1/2	150.84
HP2501-10-8	7/8-14	1/2	155.21
HP2501-12-12	1-1/16-12	3/4	239.66
HP2501-16-16	1-5/16-12	1	276.37
HP2501-20-20	1-5/8-12	1-1/4	437.60
HP2501-24-24	1-7/8-12	1-1/2	825.71
HP2501-32-32	2-1/2-12	2	2011.38

FEMALE ELBOW



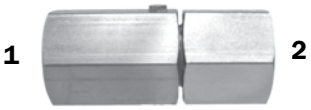
Part #	JIC Thread Size 1	Female Pipe Thread 2	List Price
HP2502-6-4	9/16-18	1/4	104.94
HP2502-6-6	9/16-18	3/8	142.50
HP2502-8-6	3/4-16	3/8	166.24
HP2502-10-8	7/8-14	1/2	112.74
HP2502-12-12	1-1/16-12	3/4	232.97
HP2502-16-16	1-5/16-12	1	262.27
HP2502-20-20	1-5/8-12	1-1/4	437.60
HP2502-24-24	1-7/8-12	1-1/2	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	140.66
HP5405-8-8	1/2	1/2	170.33
HP5405-12-12	3/4	3/4	147.48
HP5405-16-16	1	1	318.45
HP5405-20-20	1-1/4	1-1/4	361.77
HP5405-24-24	1-1/2	1-1/2	1745.04
HP5405-32-32	2	2	1539.55

PIPE COUPLING



Part #	Female Pipe Thread 1	Female Pipe 2	List Price
HP5000-4-4	1/4	1/4	148.77
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	195.58
HP5000-16-16	1	1	275.72
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



• Live Swivel is on Female end

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	236.10
HP1501-8-8	1/2	1/2	229.63
HP1501-12-12	3/4	3/4	235.47
HP1501-16-16	1	1	327.23
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	138.54
HP1502-8-8	1/2	1/2	151.16
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

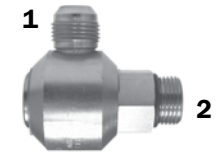
STREET ELBOW



• Live Swivel is on Male end

Part #	Male Pipe Thread 1	Female Pipe Thread 2	List Price
HP5502-4-4	1/4	1/4	171.80
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	142.49
HP5502-8-8	1/2	1/2	207.74
HP5502-12-12	3/4	3/4	275.59
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	171.65
HP6801-6-8	9/16-18	3/4-16	179.61
HP6801-8-8	3/4-16	3/4-16	126.91
HP6801-10-10	7/8-14	7/8-14	189.52
HP6801-12-12	1-1/16-12	1-1/16-12	191.88
HP6801-16-16	1-5/16-12	1-5/16-12	275.46
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	3.95
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	3.86
4404-6-6	3/8	3/8	3.44
4404-8-6	1/2	3/8	5.13
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	6.72
4404-16-12	1	3/4	9.77
4404-16-16	1	1	10.26
4404-20-16	1-1/4	1	19.06
4404-20-20	1-1/4	1-1/4	18.83
4404-24-24	1-1/2	1-1/2	26.67

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	4.76
4501-8-6	1/2	3/8	5.02
4501-8-8	1/2	1/2	7.04
4501-10-8	5/8	1/2	6.25
4501-12-12	3/4	3/4	6.33
4501-16-12	1	3/4	11.26
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	24.88
4501-24-24	1-1/2	1-1/2	40.59
4501-32-32	2	2	100.56

More sizes available

45° PIPE HOSE INSERT

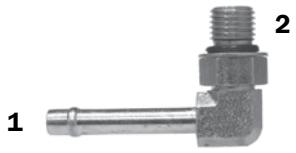
SAE 430360



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	17.73
4503-12-12	3/4	3/4	9.07
4503-16-16	1	1	17.13
4503-20-20	1-1/4	1-1/4	35.79

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	3.25
4601-NWO-8	1/2	3/4-16	6.57
4601-NWO-10	5/8	7/8-14	11.93
4601-NWO-10-8	5/8	3/4-16	11.62
4601-NWO-12	3/4	1-1/16-12	10.83
4601-NWO-16	1	1-5/16-12	14.76
4601-NWO-16-12	1	1-1/16-12	15.91
4601-NWO-20	1-1/4	1-5/8-12	26.92
4601-NWO-24	1-1/2	1-7/8-12	48.47

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	6.43
4603-NWO-6	3/8	9/16-18	6.39
4603-NWO-8	1/2	3/4-16	5.06
4603-NWO-10	5/8	7/8-14	9.55
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	32.14
4603-NWO-24	1-1/2	1-7/8-12	39.21

More sizes available

O-RING HOSE INSERT

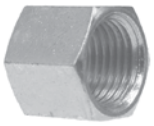


Part #	Hose I.D. 1	O-Ring Thread 2	List Price
4604-O-4	1/4	7/16-20	3.92
4604-O-6	3/8	9/16-18	4.39
4604-O-8	1/2	3/4-16	3.27
4604-O-10	5/8	7/8-14	5.81
4604-O-10-8	5/8	3/4-16	7.11
4604-O-12	3/4	1-1/16-12	12.70
4604-O-16	1	1-5/16-12	7.61
4604-O-16-12	1	1-1/16-12	7.74
4604-O-20	1-1/4	1-5/8-12	19.38
4604-O-20-16	1-1/4	1-5/16-12	20.42
4604-O-24	1-1/2	1-7/8-12	38.52
4604-O-24-20	1-1/2	1-5/8-12	32.16

More sizes available

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	4.20
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	11.80

TUBE SLEEVE

SAE 08011SA



TU-S
7165

Part #	Tube O.D	List Price
C319-2	1/8	2.45
C319-4	1/4	3.92
C319-6	3/8	2.81
C319-8	1/2	3.08
C319-12	3/4	21.63
C319-16	1	8.40

UNION

SAE 080101



7305
HBU-S

Part #	Tube Size	List Price
C2403-2-2	1/8	58.74
C2403-4-4	1/4	13.14
C2403-6-6	3/8	16.94
C2403-8-8	1/2	19.18
C2403-12-12	3/4	24.34
C2403-16-16	1	52.90

- **Fittings are single ferrule**

MALE CONNECTOR

SAE 080102



FBU-S
7205

Part #	Tube Size 1	MalePipe Thread 2	List Price
C2404-2-2	1/8	1/8	9.22
C2404-4-4	1/4	1/4	3.72
C2404-6-4	3/8	1/4	10.43
C2404-6-6	3/8	3/8	5.00
C2404-8-6	1/2	3/8	12.08
C2404-8-8	1/2	1/2	7.50
C2404-12-12	3/4	3/4	26.00
C2404-16-16	1	1	35.12

UNION ELBOW

SAE 080201

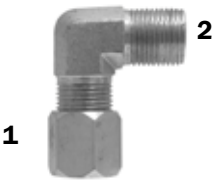


7505
EBU-S

Part #	Tube Size	List Price
C2500-2-2	1/8	26.48
C2500-4-4	1/4	12.95
C2500-6-6	3/8	18.57
C2500-8-8	1/2	20.07
C2500-12-12	3/4	49.31
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
C2501-4-2	1/4	1/8	10.31
C2501-4-4	1/4	1/4	12.73
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	23.39
C2501-8-4	1/2	1/4	17.27
C2501-8-6	1/2	3/8	19.70
C2501-8-8	1/2	1/2	23.59
C2501-12-12	3/4	3/4	38.61
C2501-16-16	1	1	48.42

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

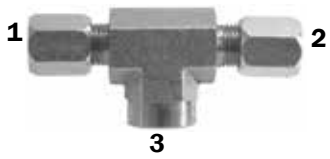


SBU-S
7605

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	18.16
C2601-4-4	1/4	1/4	27.48
C2601-6-4	3/8	1/4	42.77
C2601-6-6	3/8	3/8	52.55
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+2	Female Pipe Size 3	List Price
C2602-4-4	1/4	1/4	28.25
C2602-6-4	3/8	1/4	30.21
C2602-6-6	3/8	3/8	47.48
C2602-8-8	1/2	1/2	35.00
C2602-12-12	3/4	3/4	60.73
C2602-16-16	1	1	200.25

• **Fittings are single ferrule**

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	119.19

MALE O-RING CONNECTOR

SAE 080120

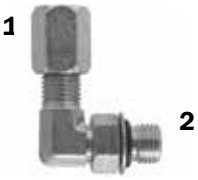


7315
F5B-J

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	19.96
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	33.48
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

- Double Ferule bite-type
- Material 316SS
- Metal to Metal

TUBE NUT



STAINLESS STEEL

Part #	Tube O.D	Thread Size	List Price
SSC318-2	1/8	5/16-24	5.31
SSC318-4	1/4	7/16-20	4.81
SSC318-6	3/8	9/16-18	6.67
SSC318-8	1/2	3/4-16	10.98
SSC318-12	3/4	1-1/16-12	18.15
SSC318-16	1	1-5/16-12	34.61

SLEEVE SET



STAINLESS STEEL

• Front and Back sold as a set

Part #	Tube O.D	List Price
SSC320-2	1/8	7.93
SSC320-4	1/4	3.76
SSC320-6	3/8	5.06
SSC320-8	1/2	5.91
SSC320-12	3/4	12.42
SSC320-16	1	24.82

TUBE UNION



STAINLESS STEEL

Part #	Tube Size	List Price
SSC2403-4-4	1/4	23.95
SSC2403-6-6	3/8	34.43
SSC2403-8-8	1/2	92.13
SSC2403-12-12	3/4	82.82
SSC2403-16-16	1	143.95

• Reducers available upon request

SS = Stainless Steel (316)

MALE CONNECTOR

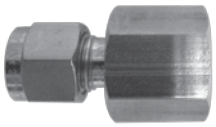
1  2

STAINLESS STEEL

Part #	Tube Size 1	Male Pipe Thread 2	List Price
SSC2404-4-2	1/4	1/8	14.97
SSC2404-4-4	1/4	1/4	20.96
SSC2404-4-8	1/4	1/2	26.72
SSC2404-6-4	3/8	1/4	33.40
SSC2404-6-6	3/8	3/8	48.68
SSC2404-6-8	3/8	1/2	49.48
SSC2404-8-8	1/2	1/2	35.70
SSC2404-12-12	3/4	3/4	54.38
SSC2404-16-16	1	1	95.56

FEMALE CONNECTOR

STAINLESS STEEL

1  2

Part #	Tube O.D. 1	Thread Size 2	List Price
SSC2405-4-2	1/4	1/8	19.96
SSC2405-4-4	1/4	1/4	25.22
SSC2405-6-2	3/8	1/8	26.44
SSC2405-6-6	3/8	3/8	34.20
SSC2405-6-8	3/8	1/2	44.90
SSC2405-8-4	1/2	1/4	71.11
SSC2405-8-6	1/2	3/8	82.18
SSC2405-8-8	1/2	1/2	124.23
SSC2405-12-12	3/4	3/4	175.38
SSC2405-16-16	1	1	143.95

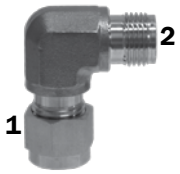
UNION ELBOW



STAINLESS STEEL

Part #	Tube Size	List Price
SSC2500-2-2	1/8	32.70
SSC2500-4-4	1/4	69.10
SSC2500-6-6	3/8	42.91
SSC2500-8-8	1/2	153.18
SSC2500-12-12	3/4	124.22
SSC2500-16-16	1	237.74

MALE ELBOW



STAINLESS STEEL

Part #	Tube Size 1	Male Pipe Size 2	List Price
SSC2501-4-2	1/4	1/8	32.02
SSC2501-4-4	1/4	1/4	29.71
SSC2501-6-2	3/8	1/8	37.92
SSC2501-6-4	3/8	1/4	36.92
SSC2501-6-6	3/8	3/8	44.40
SSC2501-6-8	3/8	1/2	56.88
SSC2501-8-4	1/2	1/4	52.16
SSC2501-8-6	1/2	3/8	52.16
SSC2501-8-8	1/2	1/2	64.86
SSC2501-12-12	3/4	3/4	79.14
SSC2501-16-16	1	1	154.15

FEMALE ELBOW

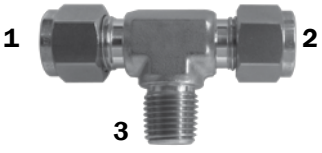
STAINLESS STEEL



Part #	Tube Size 1	Female Pipe Size 2	List Price
SSC2502-4-4	1/4	1/4	36.42
SSC2502-6-4	3/8	1/4	42.91
SSC2502-6-6	3/8	3/8	42.18
SSC2502-8-8	1/2	1/2	78.33
SSC2502-12-12	3/4	3/4	136.97
SSC2502-16-16	1	1	154.63

MALE BRANCH TEE

STAINLESS STEEL



Part #	Tube Size 1&2	Pipe Thread Size 3	List Price
SSC2601-2-2	1/8	1/8	52.88
SSC2601-4-2	1/4	1/8	50.39
SSC2601-4-4	1/4	1/4	60.86
SSC2601-6-4	3/8	1/4	64.36
SSC2601-6-6	3/8	3/8	69.12
SSC2601-8-8	1/2	1/2	104.54

FEMALE BRANCH TEE

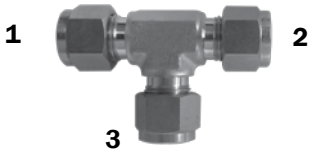
STAINLESS STEEL



Part #	Tube Size 1+2	Female Pipe Size 3	List Price
SSC2602-4-4	1/4	1/4	70.84
SSC2602-12-12	3/4	3/4	204.67

* Additional Sizes Available

UNION TEE



STAINLESS STEEL

Part #	Tube Size	List Price
SSC2603-2-2	1/8	52.88
SSC2603-4-4	1/4	101.55
SSC2603-6-6	3/8	64.36
SSC2603-8-8	1/2	169.55
SSC2603-12-12	3/4	146.44
SSC2603-16-16	1	313.79

O-RING ELBOW CONNECTOR

SAE 080220

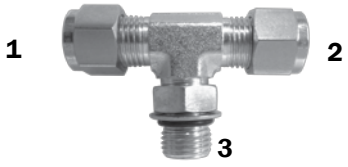
C5BU-SS



STAINLESS STEEL

Part #	Tube Size 1	O-Ring Thread Size 2	List Price
SSC6801-4-4	1/4	7/16-20	63.85
SSC6801-6-6	3/8	9/16-18	63.86
SSC6801-8-8	1/2	3/4-16	97.28
SSC6801-12-12	3/4	1-1/16-12	166.90
SSC6801-16-16	1	1-5/16-12	243.36

MALE O-RING BRANCH TEE



STAINLESS STEEL

Part #	Tube Size Size 1 & 2	O-Ring Thread Size 3	List Price
SSC6803-4-4	1/4	7/16-20	91.57
SSC6803-6-6	3/8	9/16-18	91.57
SSC6803-8-8	1/2	3/4-16	159.41
SSC6803-12-12	3/4	1-1/16-12	199.27

THREAD TO CONNECT, DRYBREAK NO-SPILL QUICK CONNECT



- Brass Body
- Steel Wing Nut
- Buna-Seal (-40° to +250°F)

Aeroquip 5100
Parker 6100
Snaptite B78



- Bonded Face Seal
- External ORing Alleviates Full Connection

Part #	Body Size	Female NPT	Max PSI	List Price
61-150	3/4	1/2	3000	80.39
61-152	3/4	3/4	3000	69.52
61-153	1	1	3000	66.31
61-154	1-1/4	1-1/4	2750	98.74
61-155	1-1/2	1-1/2	2500	164.67

Part #	Body Size	Female NPT	Max PSI	List Price
61-050	3/4	1/2	3000	58.55
61-052	3/4	3/4	3000	66.30
61-053	1	1	3000	69.53
61-054	1-1/4	1-1/4	2750	98.74
61-055	1-1/2	1-1/2	2500	151.28

FEATURES - **ISO A and ISO B**

- Poppet valves to prevent uncoupled leakage
- Critical parts are induction hardened for durability
- Dependable ball-locking mechanism holds the maling halves together
- Socket and plug are precision machined from solid barstock
- Standard nitrile seals temp range -40°F to +250°F

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

INTERCHANGE DATA:

- Parker 6600, Aeroquip/ Eaton FD56, Dixon 'K' Series.
- Hansen HA 15000, Safeway S56



ISO-A FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
ANV-14-F	1/4"	1/4"	10.43
ANV-38-F	3/8"	3/8"	11.75
ANV-12-F	1/2"	1/2"	15.81
ANV-34-F	3/4"	3/4"	33.06
ANV-1-F	1"	1"	42.86



ISO-A FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
ANV-14-M	1/4"	1/4"	4.69
ANV-38-M	3/8"	3/8"	6.38
ANV-12-M	1/2"	1/2"	7.34
ANV-34-M	3/4"	3/4"	10.95
ANV-1-M	1"	1"	18.65

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
1/4"	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



ISO-B FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
HNV-14-F	1/4"	1/4"	11.46
HNV-14-F-B	1/4"	1/4"	19.05
HNV-38-F	3/8"	3/8"	12.00
HNV-38-F-B	3/8"	3/8"	26.00
HNV-12-F	1/2"	1/2"	17.39
HNV-12-F-B	1/2"	1/2"	34.77
HNV-34-F	3/4"	3/4"	28.00
HNV-34-F-B	3/4"	3/4"	62.00
HNV-1-F	1"	1"	44.73
HNV-1-F-B	1"	1"	93.25



ISO-B FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
HNV-14-M	1/4"	1/4"	5.27
HNV-14-M-B	1/4"	1/4"	9.01
HNV-38-M	3/8"	3/8"	6.64
HNV-38-M-B	3/8"	3/8"	13.33
HNV-12-M	1/2"	1/2"	7.81
HNV-12-M-B	1/2"	1/2"	22.61
HNV-34-M	3/4"	3/4"	13.75
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

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 servere service conditions.
• Durable ball-locking mechanism assures reliable connection everytime.
• Temp Range -65° to +250°

ISO 16028

FLUSH FACE

Body Size	Steel Coupler/ Plug Coupled			
	Maximum Working		Burst	
	PSI	Bar	PSI	Bar
1/4"	5,000	345	18,270	1,200
3/8"	4,000	275	18,270	1,200
1/2"	4,000	275	16,500	1,100
5/8"	4,000	275	14,800	1,000
3/4"	4,000	275	12,400	850
1"	3,000	200	12,600	850

FF Series
HTMC
74C



FF Series
HTMN
74N



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	3/8"	1/2"	71.00
FF-34-F	1/2"	3/4"	122.00
FF-1-F	3/4"	1"	169.27

FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
FF-14-M	1/4"	1/4"	32.02
FF-38-M	3/8"	3/8"	31.00
FF-12-M	3/8"	1/2"	25.00
FF-34-M	1/2"	3/4"	69.90
FF-1-M	3/4"	1"	101.20

NEW

FLAT FACE THREAD LOCK - VEP QUICK COUPLING

APPLICATIONS

• Widely used in public equipment
• Portable construction equipment.
• Hydraulic tools
• Vehicles

SPECIFICATIONS

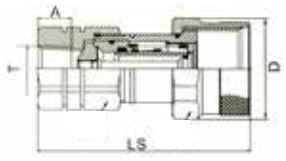
Body Size (in)	1/2(12)	3/4(34)	1(1)	1-1/2(24)
Rated Pressure (PSI)	7000	7000	6000	5000
Rated Flow (GPM)	12	50	88	152
Temperature Range	-20°C +120°C			
Standard seal material is **NBR**				

Test Fluid-Oil = 200 SUS

FEATURES

• New valve design provides better resistance from high flow and the pressure of impulse, thus providing advanced performance.
• Special nipple design for connecting under pressure, allows connection and disconnection with high residual pressures.
• The LSQ-VEP series employs a threaded sleeve locking mechanism, mates with matching male threads on the coupler.
• New plating treatment provides advanced anti-rust performance.
• LSQ-VEP series couplings employ flush valving when connecting or disconnecting, therefore only a small amount of fluid can be lost during disconnecting or air inclusion during reconnection.
• The Anti-Blowout bonded seal is designed to prevent blow-out or damage during severe service conditions.
• Machined form solid steel barstock for durability. Compatible with most other VEP series.

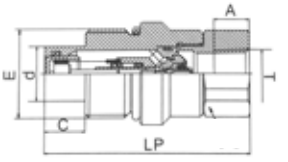




FEMALE COUPLER

Part #	LS	D	A	NPT	List Price
LSQ-VEP-12-SF	4.09	1.13	0.67	1/2	168.37
LSQ-VEP-34-SF	4.49	2.13	0.79	3/4	218.97
LSQ-VEP-1-SF	5.28	2.33	0.83	1	277.48
LSQ-VEP-20-SF	5.71	2.72	0.83	1-1/4	320.85
LSQ-VEP-24-SF	7.41	3.63	0.83	1-1/2	682.91





FEMALE PLUG

Part #	LS	D	A	NPT	List Price
LSQ-VEP-12-PF	4.09	1.13	0.67	1/2	168.37
LSQ-VEP-34-PF	4.49	2.13	0.79	3/4	197.30
LSQ-VEP-1-PF	5.28	2.33	0.83	1	227.63
LSQ-VEP-20-PF	5.71	2.72	0.83	1-1/4	320.85
LSQ-VEP-24-PF	7.41	3.63	0.83	1-1/2	652.73

AG - Series Agricultural Interchange (Connected)				
Nominal Size	*Steel Coupler/ Plug*			
	Maximum Working		*Burst*	
	PSI	Bar	PSI	Bar
1/4"	4,000	275	21,000	1,500
3/8"	4,000	275	23,100	1,600
1/2"	4,000	275	16,500	1,100
3/4"	3,000	200	10,300	700
1"	3,000	200	13,000	900

Snap-Tite 60 Series





FEMALE PIPE COUPLER

Part #	Body Size	NPT	List Price
NV-14-F	1/4"	1/4"	10.43
NV-38-F	3/8"	3/8"	11.75
NV-12-F	1/2"	1/2"	32.14
NV-34-F	3/4"	3/4"	76.52
NV-1-F	1"	1"	102.95

FEMALE PIPE PLUG

Part #	Body Size	NPT	List Price
NV-14-M	1/4"	1/4"	11.48
NV-38-M	3/8"	3/8"	13.91
NV-12-M	1/2"	1/2"	14.62
NV-34-M	3/4"	3/4"	37.57
NV-1-M	1"	1"	60.88

FEATURES

- Heavy duty heat treated poppet: valves are standard with rugged, specially-designed seals made of nitrite for leak-free performance in the toughest application.
- High-strength steel valve guides designed for high flow rates and made extra tough for agricultural service.
- Dependable hardened chrome alloy steel locking balls. Heat treated plugs and sleeves.
- Standard seals temp range -40°F to +250°F

THREAD LOCK HYDRAULIC QUICK COUPLING

NEW

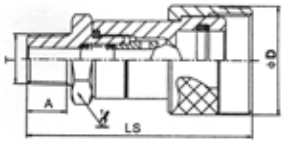
APPLICATIONS

- Thread lock couplings with their threaded union locking system and precision ball-type check valves are designed for extreme high pressure applications such as portable hydraulic jacks.
- **Ball Type.**

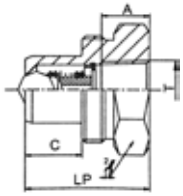
SPECIFICATIONS

Body Size	1/4(14)	3/8(38)
Rated Pressure	10.000	
Rated Flow (GPM)	3	6
Temperature Range	-20°C +120°C	
Standard seal material is **NBR**		









MALE COUPLER

Part #	LS	D	Hex	A	NPT	List Price
KZE-B-14-SM	2.40	1.14	0.87	0.55	1/4	22.60
KZE-B-38-SM	2.91	1.38	0.98	0.57	3/8	23.74

FEMALE COUPLER

Part #	LS	D	Hex	A	NPT	List Price
KZE-B-14-PF	1.30	0.44	0.75	0.51	1/4	10.74
KZE-B-38-PF	1.38	0.63	1.26	0.55	3/8	11.34

HYDRAULIC QUICK DISCONNECT DUST CAPS AND PLUGS



ISO-A INTERCHANGE COUPLER DUST PLUG

Part #	Body Size	Material	Weight Lb	List Price
ANV14PLUG	1/4"	Elastomer	0.02	4.20
ANV38PLUG	3/8"	Elastomer	0.03	4.22
ANV12PLUG	1/2"	Elastomer	0.06	3.82
ANV34PLUG	3/4"	Elastomer	0.09	6.57
ANV1PLUG	1"	Elastomer	0.08	9.29



ISO-B INTERCHANGE COUPLER DUST PLUG

Part #	Body Size	Material	Weight Lb	List Price
HNV14PLUG	1/4"	Santoprene	0.02	4.20
HNV38PLUG	3/8"	Santoprene	0.03	4.22
HNV12PLUG	1/2"	Santoprene	0.06	3.82
HNV34PLUG	3/4"	Santoprene	0.09	7.39
HNV1PLUG	1"	Santoprene	0.08	9.29



ISO-A INTERCHANGE NIPPLE DUST CAP

Part #	Body Size	Material	Weight Lb	List Price
ANV14CAP	1/4"	Elastomer	0.03	4.20
ANV38CAP	3/8"	Elastomer	0.04	4.22
ANV12CAP	1/2"	Elastomer	0.08	3.82
ANV34CAP	3/4"	Elastomer	0.09	6.57
ANV1CAP	1"	Elastomer	0.10	9.29



ISO-B INTERCHANGE NIPPLE DUST CAP

Part #	Body Size	Material	Weight Lb	List Price
HNV14CAP	1/4"	Santoprene	0.03	4.20
HNV38CAP	3/8"	Santoprene	0.04	4.22
HNV12CAP	1/2"	Santoprene	0.08	3.82
HNV34CAP	3/4"	Santoprene	0.09	7.39
HNV1CAP	1"	Santoprene	0.10	9.29

FULL PORT Two-Way



BKH

Part Number	Thread	Working Pressure	List Price
GE2-14-NPT	1/4" NPT	7250 PSI	53.81
GE2-38-NPT	3/8" NPT	7250 PSI	52.65
GE2-12-NPT	1/2" NPT	7250 PSI	66.95
GE2-34-NPT	3/4" NPT	5800 PSI	128.15
GE2-1-NPT	1" NPT	5075 PSI	160.20
GE2-114T-NPT*	1-1/4" NPT	5000 PSI	188.10
GE2-112T-NPT*	1-1/2" NPT	5000 PSI	188.10
GE2-2T-NPT	2" NPT	5000 PSI	428.57

Part Number	Thread	Working Pressure	List Price
GE2-04-SAE	7/16-20 UNF	7250 PSI	53.80
GE2-06-SAE	9/16-18 UNF	7250 PSI	54.82
GE2-08-SAE	3/4-16 UNF	7250 PSI	75.53
GE2-12-SAE	1-1/16-12 UNF	5800 PSI	115.52
GE2-16-SAE	1-5/16-12 UNF	5000 PSI	145.31
GB2-20T-SAE	1-5/8-12 UNF	5000 PSI	251.32
GB2-24T-SAE	1-7/8-12 UNF	5000 PSI	309.52
GB2-32T-SAE	2-1/2-12 UNF	5000 PSI	575.20

*** Reduced Port**

Temp Rating = -22° - 212°F

Construction: Steel Body, Ball, Stem
Zinc Chromate Plate
Buna "O" Rings (Viton on request)
Delrin Ball Seats

FULL PORT Three-Way



BK3

Part Number	Thread	Working Pressure	List Price
GE3L-14-NPT	1/4" NPT	5880 PSI	142.86
GE3L-38-NPT	3/8" NPT	5880 PSI	108.84
GE3L-12-NPT	1/2" NPT	5145 PSI	116.10
GE3L-34-NPT	3/4" NPT	5145 PSI	167.62
GE3L-1-NPT	1" NPT	5145 PSI	203.17
GE3L-114T-NPT	1 1/4" NPT	4500 PSI	1073.92
GE3L-112T-NPT	1 1/2" NPT	4500 PSI	1362.36
GE3L-2T-NPT	2" NPT	4500 PSI	1456.69

Part Number	Thread	Working Pressure	List Price
GE3L-04-SAE	7/16-20 UNF	5880 PSI	177.72
GE3L-06-SAE	9/16-18 UNF	5880 PSI	185.79
GE3L-08-SAE	3/4-16 UNF	5145 PSI	222.15
GE3L-12-SAE	1-1/16-12 UNF	5145 PSI	179.95
GE3L-16-SAE	1-5/16-12 UNF	5145 PSI	214.06
GB3L-20T-SAE	1-5/8-12 UNF	4500 PSI	1654.09
GB3L-24T-SAE	1-7/8-12 UNF	4500 PSI	1630.00
GB3L-32T-SAE	2-1/2-12 UNF	4500 PSI	2054.00

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

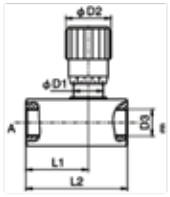
MM-FC SERIES FLOW CONTROL VALVES

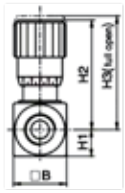
FEATURES:
• Micrometer adjustment knob for accurate valve setting.
• Rugged construction.
TECHNICAL DATA:
• Materials

Body:	Carbon steel w/ black oxide plating
Handle:	Zinc Alloy
Set Screw:	Steel
Packing:	Buna O-Ring/ PTFE stem packing
Maximum Pressure:	5000PSI
Temperature Ratings:	-4°F to 176°F (-20°C to 80°C)
Flow Rate: 0-42 GPM	









Part#	B	D1	D2	D3	H1	H2	H3	L1	L2	WEIGHT (lbs)	List Price
MMFC4NPT	1.10	0.76	1.18	1/4 NPT	0.55	2.41	2.67	1.54	2.52	0.90	65.09
MMFC6NPT	1.10	0.76	1.18	3/8 NPT	0.55	2.41	2.67	1.69	2.75	0.90	58.96
MMFC8NPT	1.50	0.95	1.46	1/2 NPT	0.75	3.07	3.41	2.05	3.27	2.00	65.99
MMFC12NPT	1.50	0.95	1.46	3/4 NPT	0.75	3.08	3.41	2.19	3.50	2.00	76.19
MMFC16NPT	1.89	1.38	1.89	1 NPT	0.94	4.03	4.50	2.79	4.60	4.20	143.52
MMFC20NPT	2.38	1.96	2.28	1-1/4 NPT	1.18	5.25	5.88	3.39	6.07	9.55	249.44

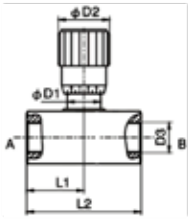
MM-NV SERIES NEEDLE VALVES

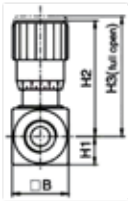
FEATURES:
• Micrometer adjustment knob for accurate valve setting.
• Rugged construction.
TECHNICAL DATA:
• Materials

Body:	Carbon steel w/ black oxide plating
Handle:	Zinc Alloy
Set Screw:	Steel
Packing:	Buna O-Ring/ PTFE stem packing
Maximum Pressure:	5000PSI
Temperature Ratings:	-4°F to 176°F (-20°C to 80°C)
Flow Rate: 0-42 GPM	









Part#	B	D1	D2	D3	H1	H2	H3	L1	L2	WEIGHT (lbs)	List Price
MMNV4NPT	1.10	0.76	1.18	1/4 NPT	0.55	2.41	2.67	1.07	2.13	0.90	54.88
MMNV6NPT	1.10	0.76	1.18	3/8 NPT	0.55	2.41	2.67	1.07	2.13	0.90	72.22
MMNV8NPT	1.50	0.95	1.46	1/2 NPT	0.75	3.07	3.41	1.34	2.38	2.00	83.06
MMNV12NPT	1.50	0.95	1.46	3/4 NPT	0.75	3.08	3.41	1.54	3.09	2.00	73.70
MMNV16NPT	1.89	1.38	1.89	1 NPT	0.94	4.03	4.50	1.81	3.62	4.20	117.24

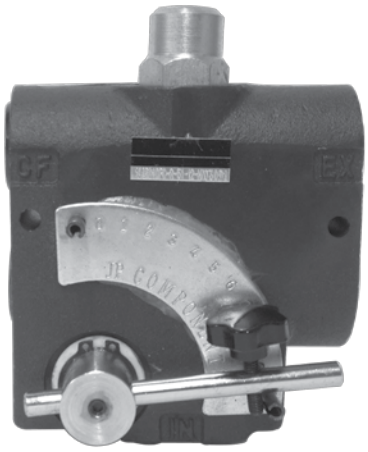
PRESSURE COMPENSATING VARIABLE FLOW CONTROL

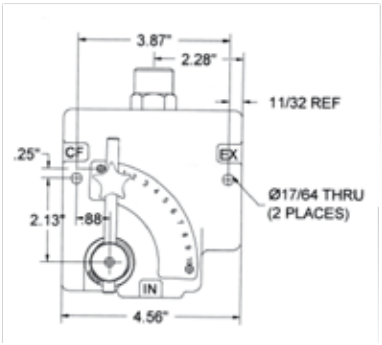
FEATURES:

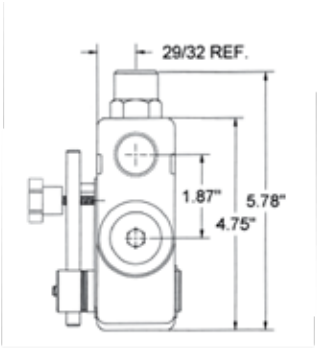
MFC-51 model is a full range pressure compensating variable flow control. It is designed so that the orifice area varies as the lever is rotated. The outlet flw is smooth and constant regardless of the pressure on the control flow or excess flow ports. An adjustable ball spring relief allows for pressure compensated flow up to the pressure setting on the relief. Relief valves are preset at 1500 PSI and field adjustable from 750 to 3000 PSI.

• Materials: Cast Iron Body, Heat Treated Compensator Spool, Stainless Steel Rotary Spool, Buna N "O" Rings (Standard)

• ALL ARE STANDARD FLOW CONTROL
• ALL HAVE ADJUSTABLE BALL SPRING RELIEF
• SAE PORT AVAILABLE. MINIMUM ORDER REQUIRED







Part#	Size	Flow	List Price
MFC-38-N	3/8" - NPT	0-8 gpm	194.11
MFC-12-N	1/2" - NPT	0-16 gpm	194.11
MFC-34-N	3/4" - NPT	0-30 gpm	194.11

STATES AND THEIR CLAIM TO FAME PART 3

RHODE ISLAND ..... THE NATION'S OLDEST BAR, THE WHITE HORSE TAVERN, OPENED HERE IN 1673.

SOUTH CAROLINA ....SUMTER COUNTY IS HOME TO THE WORLD'S LARGEST GINGKO FARM.

SOUTH DAKOTA .... IS THE ONLY STATE THAT'S NEVER HAD AN EARTHQUAKE.

TENNESSEE ...NASHVILLE 'S GRAND OLE OPRY IS THE LONGEST RUNNING LIVE RADIO SHOW IN THE WORLD.

TEXAS .....DR. PEPPER WAS INVENTED IN WACO IN 1885. THE HAMBURGER WAS INVENTED IN ARLINGTON IN 1906.

UTAH .....THE FIRST KENTUCKY FRIED CHICKEN RESTAURANT OPENED HERE IN 1952.

(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 cm3/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** (cu.in/rev)	**MOUNTING FLANGE TYPE**	**DRIVE SHAFT**	**PORT SIZE**
MMPH (GEROTOR)	**MMPH** / **MMRS**	H4 - 4 Bolt	K - 1 Inch Woodruff Key	P - 1/2 NPTF
MMRS (GEROTOR)	50 (3.15) / 50 (3.13)	H2 - SAE "A" 2 Bolt	S - SAE - 6B Spline	S - 7/8-14 SAE "O" Ring
	80 (4.74) / 80 (4.92)	H6 - Magneto	H - 1 Inch parallel 0.40 dia. crosshole	F - Manifold
	100 (5.87) / 100 (6.15)		H1 - 1 Inch parallel 0.31 dia. crosshole	
	125 (7.19) / 125 (7.62)			
	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 cm3/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-F10

- All Aluminium construction.
- 7 Displacement sizes from 0.07 to 0.37 cu. in/rev.
- Mounting flange is SAE AA-2 bolt.
- Ports are SAE-8 inlet and SAE-6 outlet.
- Drive shaft is a 1/2 inch straight shaft with 1/8 key.

Recommended working conditions:

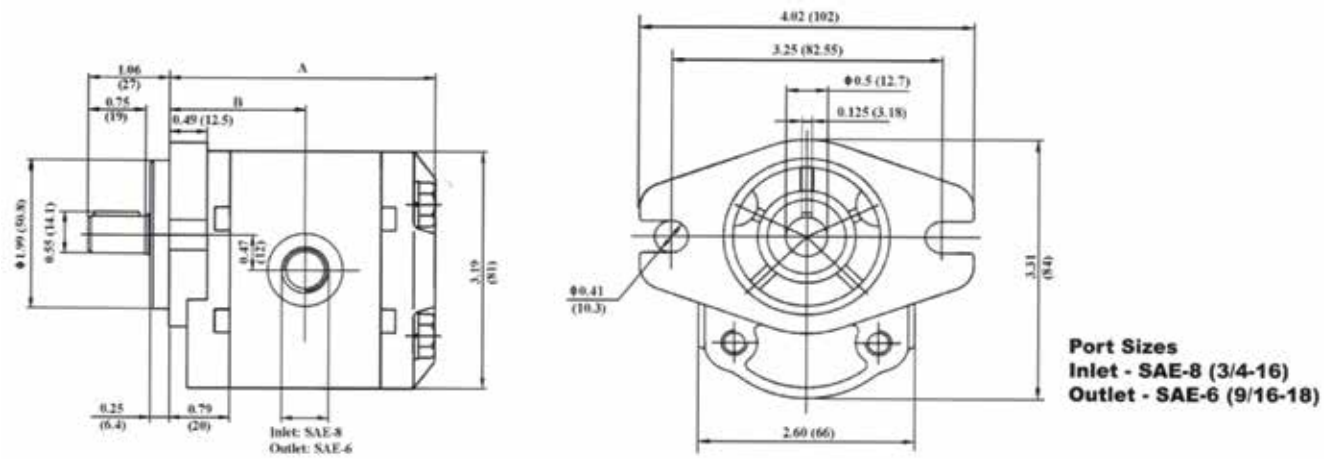
- Filtration 25 micron or better.
- Oil Viscosity 6 to 200 cSt.
- Inlet pressure 12 to 32 psi abs.
- Oil Temperature -25 to 55 degrees C (-12 to 175 F°).
- Ambient -22 to 55 C° (-8 to 130 F°).



Part #	Displacement cu.in/rev	PSI	Speed RPM		Weight Lbs	List Price
			Rated	Max		
MGP-F10-13	0.07	3625	2000	5000	2.02	223.30
MGP-F10-20	0.12	3625	2000	5000	2.31	232.86
MGP-F10-27	0.16	3625	2000	5000	2.68	232.86
MGP-F10-34	0.20	3625	2000	5000	2.99	232.86
MGP-F10-41	0.25	3625	2000	4000	3.34	291.08
MGP-F10-51	0.31	3625	2000	4000	3.78	291.08
MGP-F10-61	0.37	3625	2000	4000	4.18	291.08

- Displacement (cu.in/ rev) x speed (RPM)/ 231 Volumetric efficiency %≥93
- GPM X 231/ RPM = CU.IN

INSTALLATION DATA



Part #	A		B	
	Millimeters	Inches	Millimeters	Inches
MGP-F10-13	82	3.23	42	1.65
MGP-F10-20	84	3.3	43	1.69
MGP-F10-27	86	3.39	44	1.73
MGP-F10-34	88	3.46	45	1.77

Part #	A		B	
	Millimeters	Inches	Millimeters	Inches
MGP-F10-41	90	3.54	46	1.81
MGP-F10-51	93	3.66	47.5	1.87
MGP-F10-61	96	3.78	49	1.93

ORDERING INFORMATION

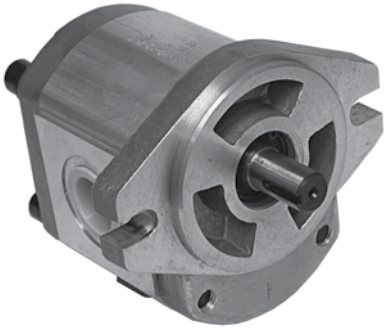
MGP	F10	16	P	C
Aluminum Gear Pump	High Pressure Series	Displacement cm3/rev (see chart) 13/20/27/34 41/51/61	Drive Shaft P-1/2 Dia	Rotation Direction C-Clockwise A-Counter Clockwise (viewed from drive shaft end)

MODEL # MGP-F20

- Aluminium construction.
- 8 Displacement sizes from 0.36 to 1.52 cu. in/rev.
- Mounting flange is SAE A-2 bolt.
- Ports are SAE-12 inlet and SAE-10 outlet.
- Drive shaft is a 5/8 inch diameter straight with 5/32 straight key.

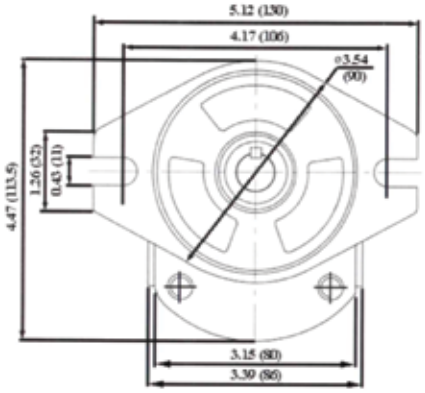
Recommended working conditions:

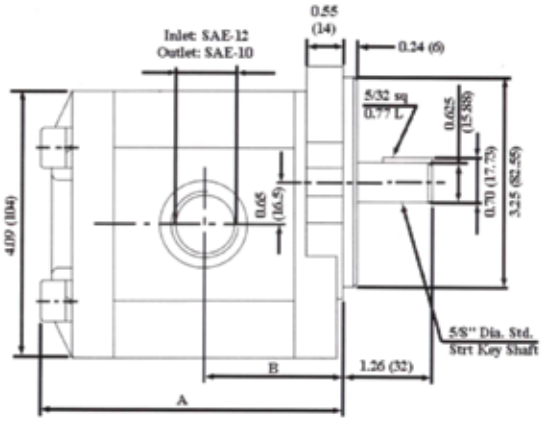
- Filtration 25 micron or better.
- Oil Viscosity 6 to 200 cSt.
- Inlet pressure 12 to 32 psi abs.
- Oil Temperature -25 to 55 degrees C (-12 to 175 F°).
- Ambient -22 to 55 C° (-8 to 130 F°).



Part #	Displacement cu.in/rev	PSI	Speed RPM		Weight Lbs	List Price
			Rated	Max		
MGP-F20-06	0.36	3650	2000	3000	5.35	291.60
MGP-F20-08	0.48	3650	2000	3600	5.61	291.60
MGP-F20-10	0.61	3650	2000	3600	5.72	291.60
MGP-F20-12	0.73	3650	2000	3600	5.91	291.60
MGP-F20-14	0.85	3650	2000	3600	6.00	308.34
MGP-F20-16	0.97	2900	2000	3600	6.27	308.34
MGP-F20-20	1.22	2900	2000	3600	6.73	308.34
MGP-F20-25	1.52	2900	2000	3600	7.19	277.50

INSTALLATION DATA





Port Sizes
Inlet - SAE-12 (1 1/16-12)
Outlet - SAE-10 (7/8-14)

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

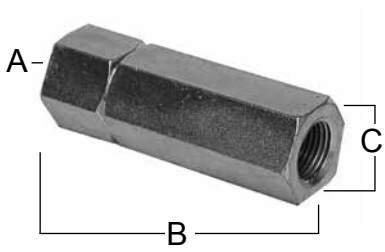
Part #	A		B	
	Millimeters	Inches	Millimeters	Inches
MGP-F20-14	110	4.35	51	2
MGP-F20-16	114	4.50	52.5	2.07
MGP-F20-20	120	4.72	56	2.2
MGP-F20-25	128	5.05	60	2.36

ORDERING INFORMATION

MGP	F20	16	P	C
Aluminum Gear Pump	High Pressure Series	Displacement cm3/rev (see chart) 06/08/10/12/14/16 20/25	Drive Shaft P-5/8 Dia Straight P1-3/4 Dia Straight S9-Spline 9 tooth	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)

• Soft Seat available by special quote

Part #	A Size	B Inches	C Inches	Rated Flow gpm	List Price
1000-2-5 or 65	1/4 NPT	2.44	.87	6	38.52
1000-3-5 or 65	3/8 NPT	2.87	1.00	10	40.95
1000-4-5 or 65	1/2 NPT	3.76	1.26	18	60.35
1000-6-5 or 65	3/4 NPT	4.30	1.50	30	77.14
1000-8-5 or 65	1 NPT	5.12	1.69	36	108.75
1000-10-5 or 65	1-1/4 NPT	5.56	2.40	50	281.14
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	9/16-18 SAE	2.91	.94	10	45.45
1001-8-5 or 65	3/4-16 SAE	3.74	1.18	18	55.16
1001-12-5 or 65	1-1/6-12 SAE	4.29	1.50	30	103.84
1001-16-5 or 65	1-5/16-12 SAE	5.00	1.81	36	113.09
1001-20-5 or 65	1-5/8-12 SAE	5.20	2.41	50	235.83
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

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.

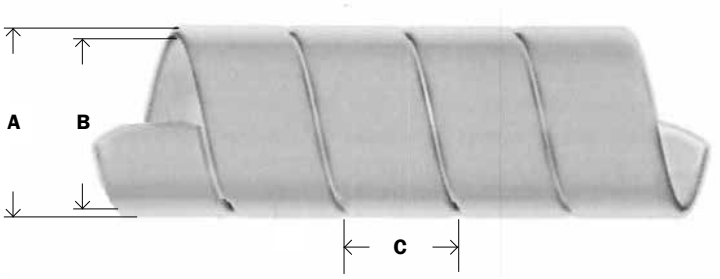
• **COST SAVINGS:** Used effectively on all types of hoses, ropes, wires and cables. Users have realized a dramatic increase in serviceable life and reduction in costly repairs and down time.

• **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.





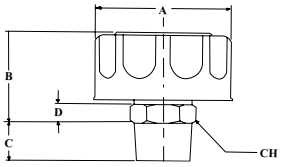
Part #			Pitch	Inches		Coil Wt.	Coil Lgth	List Price
Black	Yellow	Spiral Size	(C)	OD (A)	ID (B)	lbs.	feet	
25C100B	25C100Y	1/4" (#4) HYDRAULIC HOSE	0.47	2/3	0.50	4.0	100	227.51
38C100B	38C100Y	3/8" (#6) HYDRAULIC HOSE	0.78	3/4	0.65	6.0	100	243.80
50C100B	50C100Y	1/2" (#8) & 5/8" (#10) HYDRAULIC HOSE	0.98	1	0.80	10.1	100	253.97
75C100B	75C100Y	3/4" (#12) HYDRAULIC HOSE	0.87	1-1/4	1.10	12.8	100	306.88
100C100B	100C100Y	1" (#16) & 1-1/4" (#20) HYDRAULIC HOSE	1.39	1-3/5	1.40	20.1	100	476.20

* More sizes & colors available.
* Shipped in 100'FT coils only.

SCREW-ON TYPE AIR BREATHERS



- **Chrome Plated Steel**
- **1/4 To 1 Inch NPT**
- **40 Micron Breather**

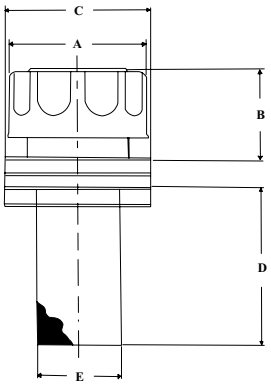


Part Number	Flow cfm	NPT	A	B	C	D	CH	Micron	List Price
MB40-04	10	1/4	1.85	1.60	.50	.30	.63	40	16.96
MB40-06	10	3/8	1.85	1.70	.50	.30	.75	40	22.68
MB40-08	10	1/2	2.54	1.88	.68	.29	.95	40	23.78
MB40-12	25	3/4	3.13	2.00	.82	.35	1.12	40	27.77
MB40-16	25	1	3.13	2.11	.90	.42	1.35	40	36.11

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	36.11

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 250ºF

Packaging: 300ft. rolls. **Only**

Part Number	Flat Width	ID	List Price
MHS-077	1-1/3"	0.79"	328.57
MHS-090	1-1/2"	0.90"	396.83
MHS-100	1-2/3"	1.00"	277.00
MHS-114	1-7/8"	1.06"	380.96
MHS-130	2-1/8"	1.22"	591.00
MHS-138	2-1/4"	1.38"	624.66
MHS-153	2-1/2"	1.42"	503.41
MHS-159	2-5/8"	1.59"	448.22
MHS-175	2-7/8"	1.75"	440.45
MHS-185	3"	1.81"	688.27
MHS-225	3-5/8"	2.19"	727.27
MHS-238	3-7/8"	2.38"	802.73
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"	1460.32

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Material used for Brass Fittings

Straight bodies: Barstock CA 360 or CA 345
Shape bodies: Extruded barstock CA 360 or Forged CA 377
Nuts: Barstock CA 360 or Forged CA 377

MATERIAL COMPOSITION

CA360 Barstock Brass

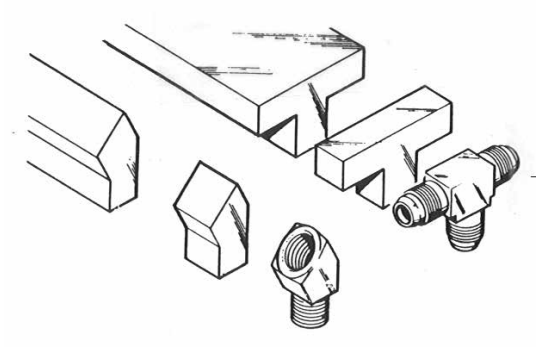
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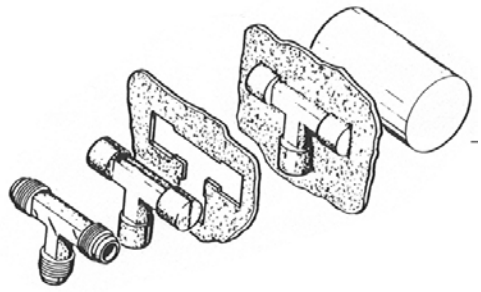
Elements	Nominal	Min	Max
Copper	61.5	60	63
Lead	3.1	2.5	3.7
Iron			.35
Other			.50
Zinc	35.4	Balance	

CA377 Forged Brass

ASTM B 124,283

Elements	Nominal	Min	Max
Copper	59.5	58	61
Lead	2	1.5	2.5
Iron			.30
Zinc	38	Balance	





Extruded Barstock Fittings
Hexagon, round and shaped bars are extruded in the configuration required, drawn to size, cut to length and straightened. First a solid round billet (8 to 12 inches in diameter) is heated to the pliable state and forced by pressure of approximately 80,000 pounds per square inch through a die. The resulting continuous length of bar is cooled and then drawn through dies to the desired external size. (The drawing process also controls the temper). After straightening, the bar is ready for machining.

The process produces a dense, nonporous material somewhat stronger in the longitudinal direction due to an orientated flow of the grain.

Forged Fittings
Material for forging is extruded in round bars, cut to length and straightened. (At this point in the process, forging rod differs from round extruded machinable bars only in temper and chemical properties). After straightening, the bars are cut again into slugs (short lengths), reheated to the pliable state and pressed under a pressure of approximately 25,000 pounds per square inch between upper and lower die cavities. After cooling, the flash is trimmed away and the forging blank is ready for machining.

This process of forming under extreme pressure produces a uniformly dense material of exceptional strength. Because grain flow follows the contour, the fitting has high impact strength and is resistant to mechanical shock and vibration.

Why Brass Fittings?
Brass fittings are popular because they are strong and durable and hence widely used in industrial and residential applications. The use of brass to make various fittings provides a distinct look because of its yellow color. The advantages of brass for fittings include its good corrosive resistance, and also its plating, joining, polishing and finishing characteristics. Brass as a material is easily machined and hence can be given any shapes of the various types of fittings available.

Features of Brass Fittings:
Brass fittings have certain unique features which make them highly demanded. Some of these properties are as follows:

- Brass fittings are characterized by good strength.
- These fittings have excellent high temperature ductility.
- They have reasonable cold ductility.
- Fittings made of brass have good conductivity.
- They are excellent in corrosion resistance.
- Brass fittings have good bearing properties.
- They have low magnetic permeability.