

# United Pacific Distributors Supply, Inc.

CALIFORNIA

MARYLAND

TEXAS

Industrial  
Products  
Catalog



2016



Industrial Hose • Hose Couplings • Hose Accessories  
Sheet Rubber • Conveyor Belts • Skirtboard Rubber  
Hydraulic Couplers/Adapters • Warehouse Equipment

[www.updusa.com](http://www.updusa.com)

## WAREHOUSE TERMS

**Payment Terms:** Net 30 days OAC

**Freight:** For shipping point / Collect

<b>Freight Terms:</b>	Couplings & Accessories	<b>\$1,000.00 NET - PREPAID</b>
	Hose, Couplings, Sheet Rubber, Skirtboard - Mixed	<b>\$3,000.00 NET - PREPAID</b> SHIPPED FROM ONE LOCATION ONLY.
	Conveyor Belt	<b>\$8,000.00 NET - PREPAID UP TO 1500 MILES.</b> OVER 1500 MILES CONTACT SALES DEPT.
	Flanges, Hammer Unions	<b>NO FREIGHT ALLOWED</b>

**Note:** Prepaid freight applies only to catalog items purchased at standard discount pricing.

Routing on prepaid shipments will be the option of the shipper.

## WARRANTY

All products are guaranteed against defects in workmanship and materials only. Our liability is limited to replacement goods.

## RETURNED GOODS

For returns, please contact the nearest UPD branch to request a Return Goods Authorization (RGA). Returned goods must have a valid RGA number assigned prior to receipt. Any items returned without a valid RGA number will be rejected at the door. Saleable returned goods are subject to a 15% restocking charge.

Possession of price list does not constitute an offer to sell. Prices subject to change without prior notice.

**\*\*MINIMUM ORDER IS \$50.00 NET\*\***



We now accept Visa, Mastercard, and Discover credit cards.



**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.

# New Items



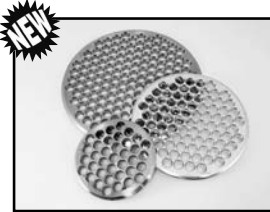
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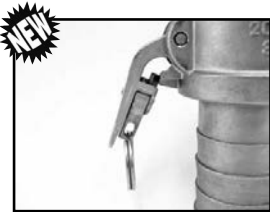
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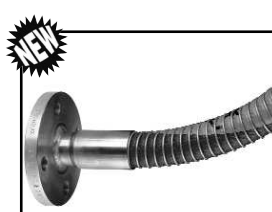
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Cast Iron**

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**Adjustable Tarp Straps**

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## Quick Reference



### **Cam & Groove Fittings**

Aluminum, Brass, Carbon Steel, Polypropylene, Reducing Couplers, Adapters, Replacement Handles, Gaskets, Safety Straps, Auto-Locking Camlocks, Plate Filters, MIL-Spec, Composite Hose Couplings

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### **Shank & Water Couplings**

Pin-Lug Suction Couplings, Nipples, Menders, Long & Short Shank, Fittings, Garden Hose Fittings & Adapters, Water Hose Nozzles, Foot Valves, Strainers, Bauer Type, Pressure Washer Wands, Nozzles & Guns, Plate Filters, Double Bolt & Spiral Clamps

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### **Air Fittings**

Universal, Hose Checks, Whip Socks, Interlocking Clamps, Ground Joint, Blow Guns, Manifolds, Swivels, In-line Lubricators, Gauges, Pneumatic Couplers & Plugs, Straight Thru Couplers, Sandblast Fittings & Nozzles, Recoil Hose

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### **Fire Equipment & Couplings**

Aluminum, Brass, Couplings, Expanders, Washers, Expansion Rings, Hydrant Adapters, Hose Storage Reels, Angle Valves, Wyes, Brass & Thermoplastic Nozzles, Wrenches, Caps, Plugs

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### **Clamps**

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### **Valves**

Ball Valves, Brass, Stainless Steel, Polypropylene, High Pressure, Miniature, Gate Valves

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### **Brass Fittings**

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### **Crimp Fittings**

Heat Treated Full Flow, Ferrules, NPT, Heavy-Duty Raised Ends, Grooved Ends, HD Clamps, Replacement Gaskets

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### **Internal Expansion Fittings**

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### **Sanitary Couplings & Fittings**

Stainless Steel, Tri-Clamp, I-Line, Acme, NPT, Weld Fittings, Clamps, Gaskets, Food & Beverage Fittings, Ferrules, Assembly Equipment

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### **Pipe Fittings**

Flanges, Gaskets, Threaded Pipe, Adapters, Unions, Bushings, Nipples, Grooved Pipe Fittings, Adapters & Couplings, Thread Tape, Nuts & Bolts, Hammer Unions

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### **Plastic Fittings**

Nylon, Menders, Tees, Nipples, Adapters, Garden Hose, Elbows, Cam & Groove

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## Quick Reference



### **Hydraulic Fittings**

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### **Industrial Hose**

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### **Warehouse & Misc. Supplies**

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## Cam & Groove Fittings

### Aluminum, Stainless, Brass, and Carbon Steel Cam & Groove

		ALUMINUM		STAINLESS		BRASS		CARBON STEEL	
Style	Size	Part #	Price	Part #	Price	Part #	Price	Part #	Price
<b>TYPE A</b> 	3/4"	7AA	5.42	7AS	17.28	7AB	12.46	-	-
	1"	10AA	6.30	10AS	21.34	10AB	13.11	-	-
	1 1/4"	12AA	7.32	12AS	28.99	12AB	20.27	-	-
	1 1/2"	15AA	7.32	15AS	35.98	15AB	23.13	15AD	N/A
	2"	20AA	8.35	20AS	40.46	20AB	31.18	20AD	22.76
	2 1/2"	25AA	16.38	25AS	77.12	25AB	46.70	-	-
	3"	30AA	13.25	30AS	90.85	30AB	56.86	30AD	45.03
	4"	40AA	23.28	40AS	138.57	40AB	100.88	40AD	83.85
	5"	50AA	44.36	-	-	50AB	223.69	-	-
	6"	60AA	47.81	60AS	238.37	60AB	229.60	-	-
<b>TYPE B</b> 	3/4"	7BA	9.81	7BS	30.89	7BB	21.49	-	-
	1"	10BA	13.11	10BS	38.57	10BB	29.33	-	-
	1 1/4"	12BA	15.82	12BS	53.40	12BB	40.99	-	-
	1 1/2"	15BA	15.52	15BS	59.74	15BB	42.33	15BD	N/A
	2"	20BA	19.28	20BS	68.01	20BB	51.79	20BD	N/A
	2 1/2"	25BA	28.87	25BS	98.69	25BB	72.98	-	-
	3"	30BA	28.27	30BS	135.72	30BB	89.23	30BD	65.61
	4"	40BA	41.44	40BS	186.60	40BB	133.24	40BD	98.38
	5"	50BA	74.81	-	-	50BB	337.78	-	-
	6"	60BA	80.39	60BS	329.53	60BB	344.91	-	-
<b>TYPE C</b> 	3/4"	7CA	8.71	7CS	26.41	7CB	21.11	-	-
	1"	10CA	10.92	10CS	35.78	10CB	32.91	-	-
	1 1/4"	12CA	17.06	12CS	51.58	12CB	40.85	-	-
	1 1/2"	*15CA	16.38	15CS	53.66	15CB	43.63	15CD	30.83
	2"	*20CA	19.31	20CS	73.73	20CB	53.37	20CD	N/A
	2 1/2"	25CA	29.93	25CS	90.54	25CB	78.18	-	-
	3"	*30CA	31.60	30CS	142.95	30CB	98.85	30CD	68.93
	4"	*40CA	46.34	40CS	196.87	40CB	153.83	40CD	77.53
	5"	50CA	90.56	-	-	50CB	437.25	-	-
	6"	60CA	114.49	60CS	372.43	60CB	414.42	-	-
<b>TYPE D</b> 	3/4"	7DA	10.10	7DS	31.68	7DB	21.34	-	-
	1"	10DA	12.09	10DS	38.33	10DB	29.30	-	-
	1 1/4"	12DA	16.99	12DS	58.24	12DB	40.49	-	-
	1 1/2"	15DA	17.13	15DS	64.41	15DB	42.33	15DD	N/A
	2"	20DA	17.06	20DS	77.24	20DB	53.43	20DD	N/A
	2 1/2"	25DA	31.21	25DS	106.84	25DB	76.28	-	-
	3"	30DA	31.77	30DS	142.19	30DB	90.78	30DD	72.15
	4"	40DA	47.58	40DS	199.41	40DB	145.89	40DD	105.15
	5"	50DA	78.77	-	-	50DB	345.75	-	-
	6"	60DA	82.35	60DS	336.68	60DB	351.75	-	-
	**8"	80DA	329.35	-	-	-	-	-	-

\*\* 8" Camlock interchanges with Neeco

## Cam & Groove Fittings

### Aluminum, Stainless, Brass, and Carbon Steel Cam & Groove

		ALUMINUM		STAINLESS		BRASS		CARBON STEEL	
Style	Size	Part #	Price	Part #	Part #	Part #	Part #	Part #	Price
<b>TYPE E</b>  *Exclusive locking area for crimp ferrule. MALE ADAPTER X HOSE	3/4"	7EA	4.50	7ES	15.74	7EB	11.00	-	-
	1"	10EA	6.22	10ES	23.53	10EB	20.95	-	-
	1 1/4"	12EA	7.84	12ES	32.39	12EB	22.99	-	-
	1 1/2"	*15EA	7.55	15ES	42.35	15EB	28.63	15ED	18.42
	2"	*20EA	10.52	20ES	58.54	20EB	44.00	20ED	N/A
	2 1/2"	25EA	20.22	25ES	77.85	25EB	64.90	-	-
	3"	*30EA	19.91	30ES	111.51	30EB	87.43	30ED	58.23
	4"	*40EA	34.33	40ES	167.22	40EB	150.90	40ED	69.89
	5"	50EA	69.76	-	-	<b>50EB</b>	<b>478.79</b>	-	-
	6"	60EA	86.90	60ES	354.71	60EB	400.27	-	-
	**8"	80EA	286.27	-	-	-	-	-	-
<b>TYPE F</b>  MALE ADAPTER X MALE NPT	3/4"	7FA	6.15	7FS	18.57	7FB	14.07	-	-
	1"	10FA	7.10	10FS	28.18	10FB	19.18	-	-
	1 1/4"	12FA	9.22	12FS	39.77	12FB	32.37	-	-
	1 1/2"	15FA	9.00	15FS	49.29	15FB	30.23	15FD	N/A
	2"	20FA	11.05	20FS	57.81	20FB	40.42	20FD	N/A
	2 1/2"	25FA	21.95	25FS	89.50	25FB	61.78	-	-
	3"	30FA	20.86	30FS	129.74	30FB	76.08	30FD	53.79
	4"	40FA	33.01	40FS	197.35	40FB	117.78	40FD	97.71
	5"	50FA	56.51	-	-	<b>50FB</b>	<b>407.35</b>	-	-
	6"	60FA	74.15	60FS	313.73	60FB	289.74	-	-
	**8"	80FA	252.60	-	-	-	-	-	-
<b>TYPE DC</b>  DUST CAP	3/4"	7DCA	8.50	7DCS	25.04	7DCB	17.80	-	-
	1"	10DCA	9.97	10DCS	31.44	10DCB	27.07	-	-
	1 1/4"	12DCA	13.88	12DCS	45.04	12DCB	37.55	-	-
	1 1/2"	15DCA	14.58	15DCS	50.00	15DCB	39.31	15DCD	N/A
	2"	20DCA	16.70	20DCS	57.76	20DCB	44.36	20DCD	N/A
	2 1/2"	25DCA	22.91	25DCS	77.70	25DCB	57.78	-	-
	3"	30DCA	25.95	30DCS	105.20	30DCB	73.33	30DCD	54.51
	4"	40DCA	35.59	40DCS	171.29	40DCB	105.84	40DCD	57.40
	5"	50DCA	65.96	-	-	<b>50DCB</b>	<b>325.88</b>	-	-
	6"	60DCA	72.55	60DCS	240.22	60DCB	291.10	-	-
	**8"	80DCA	266.45	-	-	-	-	-	-
<b>TYPE DP</b>  DUST PLUG	3/4"	7DPA	3.92	7DPS	10.58	7DPB	10.19	-	-
	1"	10DPA	4.32	10DPS	16.86	10DPB	12.80	-	-
	1 1/4"	12DPA	5.84	12DPS	20.95	12DPB	19.48	-	-
	1 1/2"	15DPA	4.90	15DPS	27.87	15DPB	17.79	15DPD	N/A
	2"	20DPA	7.03	20DPS	37.59	20DPB	25.40	20DPD	N/A
	2 1/2"	25DPA	13.76	25DPS	58.02	25DPB	33.17	-	-
	3"	30DPA	11.71	30DPS	74.87	30DPB	42.14	30DPD	N/A
	4"	40DPA	19.41	40DPS	107.46	40DPB	69.64	40DPD	55.68
	5"	50DPA	39.68	-	-	<b>50DPB</b>	<b>215.29</b>	-	-
	6"	60DPA	46.63	60DPS	256.75	60DPB	187.25	-	-
	**8"	80DPA	155.32	-	-	-	-	-	-



## Cam & Groove Fittings

### Polypropylene Cam & Groove Fittings

		POLY				POLY	
Style	Size	Part #	Price	Style	Size	Part #	Price
 Male Adapter x Female NPT	3/4"	7AP	1.77	 M Adapter x Hose Shank	3/4"	7EP	1.77
	1"	10AP	1.85		1"	10EP	2.08
	1 1/4"	*12AP	3.04		1 1/4"	*12EP	3.19
	1 1/2"	15AP	3.04		1 1/2"	15EP	3.19
	2"	20AP	5.04		2"	20EP	5.20
	3"	30AP	6.84		3"	30EP	9.15
	4"	40AP	14.84		4"	40EP	18.88
Style	Size	Part #	Price	Style	Size	Part #	Price
 Female Coupler x Male NPT	3/4"	7BP	6.19	 Male Adapter x Male NPT	3/4"	7FP	1.77
	1"	10BP	7.88		1"	10FP	2.08
	1 1/4"	*12BP	12.58		1 1/4"	*12FP	3.11
	1 1/2"	15BP	12.07		1 1/2"	15FP	3.11
	2"	20BP	14.15		2"	20FP	5.04
	3"	30BP	22.41		3"	30FP	7.77
	4"	40BP	40.78		4"	40FP	18.49
Style	Size	Part #	Price	Style	Size	Part #	Price
 F Coupler x Hose Shank	3/4"	7CP	6.50	 Dust Cap	3/4"	7DCP	5.34
	1"	10CP	8.69		1"	10DCP	8.34
	1 1/4"	*12CP	12.98		1 1/4"	*12DCP	N/A
	1 1/2"	15CP	12.34		1 1/2"	15DCP	12.00
	2"	20CP	15.15		2"	20DCP	14.42
	3"	30CP	23.63		3"	30DCP	22.95
	4"	40CP	43.81		4"	40DCP	37.79
Style	Size	Part #	Price	Style	Size	Part #	Price
 Female Coupler x Female NPT	3/4"	7DP	6.34	 Dust Plug	3/4"	7DPP	1.38
	1"	10DP	8.69		1"	10DPP	1.61
	1 1/4"	*12DP	12.87		1 1/4"	*12DPP	6.47
	1 1/2"	15DP	12.30		1 1/2"	15DPP	2.58
	2"	20DP	14.42		2"	20DPP	3.11
	3"	30DP	24.49		3"	30DPP	6.04
	4"	40DP	42.91		4"	40DPP	13.76

\*On 1-1/4" size hose shanks are 1-1/4", Coupler & Adapters are 1-1/2" size.

Working Pressure: Poly (3/4, 1" is 125 PSI) (1 1/4" ~ 2" is 100 PSI) (3" is 75 PSI)


## Cam & Groove Fittings

### Special Cam & Groove Couplers & Adapters

ALUMINUM			
Double "A"	Size	Part #	Price
	1"	10AAA	8.73
	1 1/4"	12AAA	23.57
	1 1/2"	15AAA	24.76
	1 1/2" x 2"	1520AAA	33.76
	2"	20AAA	28.57
	2" x 3"	2030AAA	39.56
	3"	30AAA	40.06
	3" x 4"	3040AAA	71.51
	4"	40AAA	61.48
	4" x 6"	4060AAA	113.88
	6" x 6"	60AAA	146.41


316 SS	
Part #	Price
10AAS	39.25
12AAS	65.03
15AAS	85.16
1520AAS	111.15
20AAS	72.55
2030AAS	185.08
25AAS	176.23
2520AAS	159.02
30AAS	148.64
3040AAS	290.43
40AAS	308.54
60AAS	1038.17


Step Size "A"			
Aluminum			
	Size	Part #	Price
	2 x 3	2030AA	38.60
	3 x 2	3020AA	38.64
	3 x 4	3040AA	61.55
	4 x 3	4030AA	62.98
	4 x 6	4060AA	101.05
	6 x 4	6040AA	89.16


Step Size "B"			
Aluminum			
	Size	Part #	Price
	1 1/2 x 1	1510BA	32.14
	2 x 1 1/2	2015BA	36.10
	3 x 2	3020BA	60.78
	3 x 4	3040BA	75.70
	4 x 3	4030BA	78.82

ALUMINUM			
"DA"	Size	Part #	Price
	1 1/2" x 1"	1510DAA	39.60
	1 1/2" x 2"	1520DAA	44.75
	2" x 1 1/2"	2015DAA	45.71
	2" x 3"	2030DAA	58.44
	2" x 4"	2040DAA	74.70
	3" x 1 1/2"	3015DAA	71.13
	3" x 2"	3020DAA	66.36
	3" x 4"	3040DAA	84.51
	4" x 2"	4020DAA	88.04
	4" x 3"	4030DAA	82.24
	4" x 6"	4060DAA	154.02
	6" x 4"	6040DAA	175.62


316 SS	
Part #	Price
2015DAS	120.99
3015DAS	131.77
3020DAS	178.43
3040DAS	343.94
4020DAS	306.54
4030DAS	272.09
6040DAS	741.10

Step Size "C"			
Aluminum			
	Size	Part #	Price
	3 X 2	3020CA	64.51
	3 X 4	3040CA	79.39
	4 X 3	4030CA	85.66

Step Size "D"			
Aluminum			
	Size	Part #	Price
	1 1/2 X 1	1510DA	29.22
	2 X 1 1/2	2015DA	37.83
	3 X 2	3020DA	55.09
	4 X 3	4030DA	80.05

ALUMINUM			
Double "D"	Size	Part #	Price
	1 1/2"	15DDA	44.83
	2"	20DDA	52.44
	3"	30DDA	81.01
	4"	40DDA	100.81

316 SS	
Part #	Price
15DDS	130.53
20DDS	149.25
2030DDS	283.86
30DDS	270.40
3040DDS	499.59
40DDS	393.93

Step Size "F"			
Aluminum			
	Size	Part #	Price
	3 X 1 1/2	3015FA	47.90
	3 X 2	3020FA	41.06
	3 X 4	3040FA	66.55

Note: the first size is the Coupler or Adapter, the second size is the Hose or Pipe size.

## Cam & Groove Fittings

### Replacement Handles With Ring & Pin

Brass		
Size	Part #	Price
3/4"	BH075	2.34
1"	BH100	3.59
1 1/4~1 1/2	BH200	7.11
3" ~ 4"	BH300	9.38
6"	BH600	23.99
8"	BH800	N/A



Stainless		
Size	Part #	Price
3/4"	SH075	3.34
1"	SH100	4.81
1 1/4~2 1/2	SH200	6.18
3" ~ 4"	SH300	11.42
6"	SH600	22.30

### Cam & Groove Gaskets

Buna-N		
Size	Part #	Price
3/4"	BUNA075	0.31
1"	BUNA100	0.46
1 1/4"	BUNA125	0.54
1 1/2"	BUNA150	0.54
2"	BUNA200	0.69
2 1/2"	BUNA250	0.88
3"	BUNA300	0.98
4"	BUNA400	1.37
5"	BUNA500	2.19
6"	BUNA600	2.31
8"	BUNA800	13.92



Viton		
Size	Part #	Price
3/4"	VITON075	3.27
1"	VITON100	3.55
1 1/4"	VITON125	5.32
1 1/2"	VITON150	6.23
2"	VITON200	8.24
2 1/2"	VITON250	13.04
3"	VITON300	16.32
4"	VITON400	21.16
6"	VITON600	48.17

### Safety Straps



Highly visible 1 1/2" wide Florescent Orange gets attention. Use to secure cam arms down on Quick Couplers. Secure bundles of hose & tubing. Numerous applications.

Velcro strap end feeds through a metal loop and fastens to necessary length. High strength nylon material. Available in 19" and 30" lengths.

Size	Part #	Price
19"	VS19	1.90
30"	VS30	2.65

### Auto-Lock Replacement Handles



Replacement arms for auto-locking camlocks. Available in 316 stainless steel.



316 Stainless Steel		
Size	Part #	Price/Ea.
1"	SHL100	9.51
1-1/4"	SHL200	9.94
1-1/2"	SHL200	9.94
2"	SHL200	9.94
3"	SHL300	13.71
4"	SHL300	13.71



## Cam & Groove Fittings



### Auto-Locking Cam & Groove - 316 Stainless



This new cam & groove fitting with automatic locking arms is a variation of the standard cam & groove coupling with an additional level of safety against accidental disconnection. Safety is provided by a special locking mechanism, built into the coupling arms. Such a design ensures that the arms are locked automatically when closed. Opening is a simple matter of tugging the finger rings. Automatic locking arm cam & groove couplings are interchangeable with standard cam & groove couplings. **Grade 316 stainless steel.**



Type B Female Coupler x Male NPT		
Size	Part #	Price
1-1/4"	12BSL	61.96
1-1/2"	15BSL	68.13
2"	20BSL	83.14
3"	30BSL	149.12
4"	40BSL	198.64

Type C Female Coupler x Hose Shank		
Size	Part #	Price
1-1/4"	12CSL	62.91
1-1/2"	15CSL	72.84
2"	20CSL	90.20
3"	30CSL	160.47
4"	40CSL	226.93

Type D Female Coupler x Female NPT		
Size	Part #	Price
1-1/4"	12DSL	68.03
1-1/2"	15DSL	68.24
2"	20DSL	83.92
3"	30DSL	153.20
4"	40DSL	222.85

Type DC Dust Cap		
Size	Part #	Price
1-1/4"	12DCSL	56.68
1-1/2"	15DCSL	59.40
2"	20DCSL	71.27
3"	30DCSL	123.61
4"	40DCSL	169.73

\*Replacement arms/handles are on p.5



### Plate Filter for Cam & Groove Fittings

Protects pumps and other valuable equipment from damage made by large contaminants. The plate filter threads into the bottom of a female NPT threaded coupler. Standard hole size is 1/4". Custom sizes are available with minimum order. Available in aluminum and stainless steel.



ALUMINUM		
Size	Part #	Price
2"	PFA20	40.79
3"	PFA30	42.94
4"	PFA40	58.02

STAINLESS STEEL		
Size	Part #	Price
2"	PFS20	85.26
3"	PFS30	112.64
4"	PFS40	119.67

## Cam & Groove Fittings

### MIL-Spec Cam & Groove Fittings



MIL Spec cam & groove couplings meet requirements as specified in Federal Military standard A-A-59326 (superseding Mil-C-27487). All sizes guarantee interchangeability of couplings designed to the same specification. Aluminum 356-T6, anodized.

Sizes 1-inch through 6-inch are rated for a working pressure of 150 PSI. Male locking ends are rated for a hydrostatic test pressure of 300 PSI.



Type A Male Adapter x Female NPT			Type B Female Coupler x Male NPT			Type C Female Coupler x Hose Shank			Type D Female Coupler x Female NPT		
Size	Part #	Price	Size	Part #	Price	Size	Part #	Price	Size	Part #	Price
4"	40AAMIL	34.14	2"	20BAMIL	23.90	1"	10CAMIL	12.71	2"	20DAMIL	24.52
						1-1/2"	15CAMIL	20.34			
						2"	20CAMIL	23.90			
						3"	30CAMIL	43.24			
						4"	40CAMIL	63.06			



Type E M Adapter x Hose Shank			Type F Male Adapter x Male NPT			Type DC Dust Cap			Type DP Dust Plug		
Size	Part #	Price	Size	Part #	Price	Size	Part #	Price	Size	Part #	Price
1"	10EAMIL	6.90	2"	20FAMIL	15.32	1"	10DCAMIL	11.97	1"	10DPAMIL	8.58
1-1/2"	15EAMIL	13.49				1-1/2"	15DCAMIL	18.09	1-1/2"	15DPAMIL	14.17
2"	20EAMIL	16.84				2"	20DCAMIL	19.66	2"	20DPAMIL	14.85
3"	30EAMIL	38.64				3"	30DCAMIL	33.36	3"	30DPAMIL	25.15
4"	40EAMIL	46.33				4"	40DCAMIL	47.42	4"	40DPAMIL	28.55
						6"	60DCAMIL	95.42	6"	60DPAMIL	60.71

## Composite Hose Cam & Groove Fittings

### Aluminum Composite Hose Couplings

Our aluminum composite hose couplings are made from gravity casting 356 T6.



Male End

Size	Part #	Price
2"	CHAM20	13.48
3"	CHAM30	28.34
4"	CHAM40	44.15



Type C

Size	Part #	Price
2"	CHA203	24.06
3"	CHA303	43.36
4"	CHA403	58.96



Type E

Size	Part #	Price
2"	CHA205	16.90
3"	CHA305	34.30
4"	CHA405	53.62

\*\*\*Please specify:  
**"for composite hose"**  
 when ordering.\*\*\*

### Stainless Steel Composite Hose Couplings

Our stainless steel composite hose couplings are 100% 316.



Male End

Size	Part #	Price
1"	CHSM10	28.85
1-1/2"	CHSM15	50.67
2"	CHSM20	65.57
3"	CHSM30	141.51
4"	CHSM40	218.36



Type C

Size	Part #	Price
1"	CHS103	35.03
1-1/2"	CHS153	63.64
2"	CHS203	92.49
3"	CHS303	160.41
4"	CHS403	222.01



Type E

Size	Part #	Price
1"	CHS105	30.26
1-1/2"	CHS155	52.18
2"	CHS205	81.91
3"	CHS305	144.95
4"	CHS405	214.28

### TTMA Composite Hose Flange Fittings



TTMA flange composite hose coupling. TTMA (Truck Trailer Manufacturers Association) carbon steel flange couplings are available for high-volume bulk transfer of petroleum products for loading and unloading applications. The one-piece design reduces the need for adapters and eliminates two potential leak points.



Size	Part #	Desc.	Price
3"	CHKCFG30	3" x 3" TTMA Flange	179.02
4"	CHKCFG40	4" x 4" TTMA Flange	255.75

### Composite Hose Gaskets



Size	Part #	Price
1"	CHG10	0.60
1-1/2"	CHG15	0.78
2"	CHG20	2.48
3"	CHG30	4.71
4"	CHG40	5.59

### Plated Steel Composite Hose Nipples



#### KC Nipple Type

Size	Part #	Price
2"	CCHKC20	30.49
3"	CCHKC30	52.91
4"	CCHKC40	77.84

## Shank & Water Couplings

### Standard Pin Lug

2 1/2 ~ 6" Have pin lugs on males

Male only use 1/2 set price

Female only use 2/3 set price



		<i>Aluminum with Brass Nut</i>		<i>Malleable Iron Plated</i>		<i>Brass</i>	
Size	Thread	Part #	Price	Part #	Price	Part #	Price
1 1/4	NPSM	-	-	MI12	15.84	-	-
1 1/2	NPSM	AB15	11.23	MI15	15.84	BR15	37.06
1 1/2	NST	AB15NST	23.80	MI15NST	15.84	BR15NST	50.98
2	NPSM	AB20	15.84	MI20	23.84	BR20	52.29
2 1/2	NPSM	AB25	28.80	MI25	40.02	BR25	90.01
2 1/2	NST	AB25NST	47.64	MI25NST	40.02	BR25NST	130.80
3	NPSM	AB30	34.56	MI30	60.44	BR30	136.41
4	NPSM	AB40	67.77	MI40	98.92	BR40	243.79
6	NPSM	AB60	142.86	MI60	177.82	BR60	501.77

### Step Size Pin Lug

Converts odd diameter hose into standard saleable assemblies.



**Sold by sets only!**

			<i>Malleable Iron Plated</i>	
Hose Size	Thread Size	Thread	Part #	Price
1 1/4	1 1/2	NPSM	SS1	18.08
1 3/8	1 1/2	NPSM	SS2	19.54

### Pin Lug Washers



Size	Part #	Price
1"	RW100	0.29
1 1/4"	RW125	0.37
1 1/2"	RW150	0.31
1 1/2"	RW150NST	0.44
2"	RW200	0.37
2 1/2"	RW250	0.59
2 1/2"	RW250NST	0.73
3"	RW300	0.82
4"	RW400	1.19
6"	RW600	1.83

## Shank & Water Couplings

### Combination Nipples

Machined from tube stock. Threaded end is same size as hose I.D.



Glass-filled nylon



	NTP END								VICTAULIC (GROOVED) END			
	Unplated Steel		Plated Steel		Stainless		Nylon		Unplated Steel		Stainless Steel	
Size	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price
1/2"	CN050	2.85	CN050P	2.23	CN050S	11.38	CN050N	4.13	CN050V	2.56		
3/4"	CN075	3.01	CN075P	3.11	CN075S	13.96	CN075N	4.53	CN075V	2.75		
1"	CN100	4.08	CN100P	4.54	CN100S	21.65	CN100N	5.79	CN100V	4.08		
1 1/4"	CN125	5.15	CN125P	5.15	CN125S	27.14	CN125N	6.83	CN125V	5.20	CN125VS	27.14
1 1/2"	CN150	6.04	CN150P	6.31	CN150S	33.06	CN150N	7.44	CN150V	6.41	CN150VS	34.15
2"	CN200	8.06	CN200P	8.92	CN200S	49.47	CN200N	11.31	CN200V	8.06	CN200VS	48.92
2 1/2"	CN250	17.26	CN250P	14.45	CN250S	93.89			CN250V	15.82		
3"	CN300	18.27	CN300P	18.01	CN300S	130.08	CN300N	25.70	CN300V	19.57	CN300VS	127.81
4"	CN400	28.43	CN400P	29.65	CN400S	188.89	CN400N	37.43	CN400V	29.76	CN400VS	188.89
6"	CN600	82.66	CN600P	69.51	CN600S	524.13			CN600V	78.70	CN600VS	524.13
8"	CN800	190.58	CN800P	123.80					CN800V	189.35		
10"	CN1000	382.66	CN1000P	381.08					CN1000V	371.16		
12"	CN1200	490.77	CN1200P	545.17					CN1200V	505.67		

### Hose Menders

Machine steel - Plated



Size	Part #	Price
3/4"	SM075	2.71
1"	SM100	3.67
1 1/4"	SM125	4.65
1 1/2"	SM150	7.12
2"	SM200	7.61
2 1/2"	SM250	14.71
3"	SM300	20.49
4"	SM400	31.45
6"	SM600	64.93
8"	SM800	113.24
10"	SM1000	294.71
12"	SM1200	459.71

### Steel Nipples

Machine steel - Plated - NPT thread



Hose Size	Thread Size	Part #	Price
1/4"	1/4"	SN44	5.36
3/8"	1/4"	SN64	5.36
3/8"	3/8"	SN66	5.36
1/2"	1/4"	SN84	5.61
1/2"	3/8"	SN86	5.61
1/2"	3/4"	SN812	9.88
1/2"	1/2"	GJM050	5.84
3/4"	1/2"	SN1208	9.88
3/4"	3/4"	GJM075	10.01
1"	1"	GJM100	13.44

Can be used with inter-locking clamps.

### Long Shank Nipples

Machine steel - Plated - NPT thread



Size	Part #	Price
1-1/4"	CNL125P	N/A
1-1/2"	CNL150P	12.71
2"	CNL200P	16.16

## Shank & Water Couplings

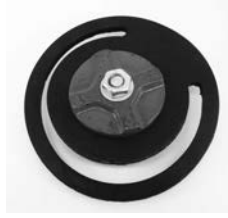
### Footvalves



Complete Valve



Strainer



Flapper Valve



Valve Rubber



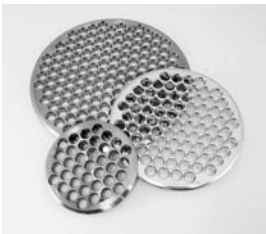
Seat Plate

Size	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price
1 1/2"	FV15	33.37	FVS15	14.23	FVF15	8.47	FVL15	8.47	FVP15	6.26
2"	FV20	59.84	FVS20	24.51	FVF20	13.17	FVL20	13.17	FVP20	11.54
2 1/2"	FV25	92.81	FVS25	33.84	FVF25	18.01	FVL25	15.56	FVP25	15.97
3"	FV30	101.27	FVS30	39.22	FVF30	29.35	FVL30	17.88	FVP30	19.68
4"	FV40	206.90	FVS40	78.70	FVF40	43.76	FVL40	28.77	FVP40	35.11
6"	FV60	505.46	FVS60	171.77	FVF60	82.79	FVL60	64.87	FVP60	95.11
8"	FV80	928.99	FVS80	327.78	FVF80	173.43	FVL80	119.03	FVP80	157.58

All footvalves are painted.



### Plate Filters



ALUMINUM		
Size	Part #	Price
2"	PFA20	40.79
3"	PFA30	42.94
4"	PFA40	58.02

STAINLESS STEEL		
Size	Part #	Price
2"	PFS20	85.26
3"	PFS30	112.64
4"	PFS40	119.67

### Strainers

Strainers are plated steel.



Round Hole



Square Hole



Long Strainer

Size	Part #	Price	Part #	Price	Part #	Price
1-1/2"	RHS150	20.26	SHS150	20.26	LHS150	23.37
2"	RHS200	23.76	SHS200	23.76	LHS200	27.53
2-1/2"	RHS250	29.18	SHS250	N/A		
3"	RHS300	35.64	SHS300	35.64	LHS300	43.01
4"	RHS400	41.79	SHS400	41.79	LHS400	56.76
6"	RHS600	121.80	SHS600	121.80		
8"	RHS800	208.80	-	-		



## Shank & Water Couplings

### Galvanized Shank Type Fittings - Bauer Type

Select from our Bauer Type fittings for your water pumps and irrigation. Each coupler is equipped with a safety pin to prevent accidental opening. The primary applications for these fittings are irrigation and suction lines. No loose parts and an easy hook-and-latch design allow you to quickly attach pipes without tools, even in the dark.

#### Lever Ring



Size	Part #	Price
2"	BAU-LR200	27.15
3"	BAU-LR300	40.04
4"	BAU-LR400	60.23
6"	BAU-LR600	99.64
8"	BAU-LR800	139.08
10"	BAU-LR1000	153.73
12"	BAU-LR1200	227.66

#### Type B Gaskets



Size	Part #	Price
2"	BAU-G200	1.65
3"	BAU-G300	3.37
4"	BAU-G400	5.35
6"	BAU-G600	11.15
8"	BAU-G800	15.96
10"	BAU-G1000	43.70
12"	BAU-G1200	74.88

#### Male with Hose Shank



Size	Part #	Price
2"	BAU-MH200	19.57
3"	BAU-MH300	31.41
4"	BAU-MH400	51.27
6"	BAU-MH600	78.56
8"	BAU-MH800	126.93
10"	BAU-MH1000	255.70
12"	BAU-MH1200	379.80

#### Female with Hose Shank



Size	Part #	Price
2"	BAU-FH200	19.57
3"	BAU-FH300	30.53
4"	BAU-FH400	50.73
6"	BAU-FH600	75.20
8"	BAU-FH800	144.38
10"	BAU-FH1000	328.89
12"	BAU-FH1200	484.12

#### Male with Male NPT



Size	Part #	Price
2"	BAU-MM200	33.16
3"	BAU-MM300*	94.70*
4"	BAU-MM400	92.34
6"	BAU-MM600	135.19
8"	BAU-MM800	196.28

\*3" includes lever ring

#### Female with Male NPT



Size	Part #	Price
2"	BAU-FM200	29.35
3"	BAU-FM300	45.79
4"	BAU-FM400	76.09
6"	BAU-FM600	144.02
8"	BAU-FM800	247.57

## Shank & Water Couplings

### Double Bolt Clamps

Plated  
Cast  
Iron



Part #	Clamp range	Price
022	17-22mm	2.77
029	22-29mm	2.95
034	28-34mm	3.06
040	32-40mm	3.60
049	39-49mm	4.48
060	48-60mm	5.65
076	60-76mm	10.13
094	77-94mm	9.20
115	94-115mm	10.38
400	3-1/2" to 4"	15.38
431	3-25/32" to 4-1/16"	14.23
463	4-1/16" to 4-5/8"	16.22
525	4-11/16" to 5-1/4"	18.42
550	5" to 5-1/2"	20.80
600	5-5/16" to 6-1/16"	22.95
675	6-1/8" to 6-7/8"	23.49
769	6-15/16" to 7-5/8"	31.37
818	7-11/16" to 8-3/16"	41.83
875	8-1/4" to 8-7/8"	44.98
988	8-15/16" to 9-7/8"	51.71
1125	9-15/16" to 11-3/8"	78.59
1275	11-3/16" to 13"	93.96
1450	13-3/16" to 15"	109.36
1700	15-1/16" to 17-1/2"	151.93

### Spiral Clamps

Spiral double bolt clamps for convoluted hose. Check with hose manufacturer to determine direction helix is wound. Specify either clockwise or counterclockwise when ordering.



Size	Part #	Price
1 1/2"	SC150	11.44
2"	SC200	13.67
2 1/2"	SC250	15.78
3"	SC300	16.99
4"	SC400	19.90
5"	SC500	25.74
6"	SC600	28.68
8"	SC800	32.94
10"	SC1000	40.83
12"	SC1200	50.33

### Garden Hose Couplings

Machined brass - Short shank



Size	Part #	Price
3/8"	GHTM	7.87
1/2"	GHTM1	8.76
5/8"	GHTM2	8.76
3/4"	GHTM3	8.76
1"	GHTM4	19.14

Male only = 1/2 set price.  
Female only = 2/3 set price.  
1" thread is NPSM

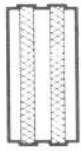
### Washers

Size	Part #	Price
GHT	GHTW	0.17
1"	RW100	0.29

## Shank & Water Couplings

### GARDEN HOSE CAP

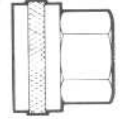
3/4" Female GHT thread  
Brass



Part #	Price
GH-11	2.66

### GHT FEMALE X FEMALE NPT (SWIVEL)

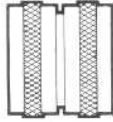
Brass



Female x Female	Part #	Price
GHT X 1/2" NPT	GH1-8	9.23
GHT X 3/4" NPT	GH1-12	8.63

### FEMALE SWIVEL

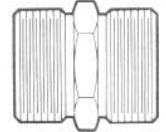
Female GHT x Female GHT  
Brass



Female x Female	Part #	Price
GHT X GHT	GH-2	8.28

### MALE GHT X MALE GHT

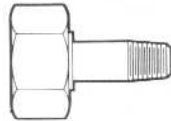
Brass



Male x Male	Part #	Price
GHT X GHT	GH-7	8.16

### FEMALE GHT X NPT MALE (SWIVEL)

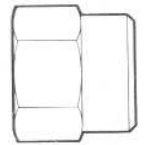
Brass



Female x Male	Part #	Price
GHT X 1/4" NPT	GH9-4	9.96
GHT X 3/8" NPT	GH9-6	9.50
GHT X 1/2" NPT	GH9-8	11.24

### FEMALE GHT X FEMALE NPT (RIGID)

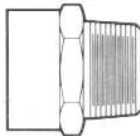
Brass



Female x Female	Part #	Price
GHT X 1/2" NPT	GH5-8	7.44
GHT X 3/4" NPT	GH5-12	8.88

### FEMALE GHT X MALE NPT (NON-SWIVEL)

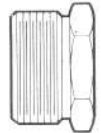
Brass



Female x Male	Part #	Price
GHT X 1/2" NPT	GH6-8	11.47
GHT X 3/4" NPT	GH6-12	7.66

### MALE GHT X FEMALE NPT

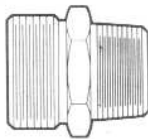
Brass



Male x Female	Part #	Price
GHT X 1/2" NPT	GH4-8	5.68
GHT X 3/4" NPT	GH4-12	6.89

### MALE GHT X MALE NPT

Brass



Male x Male	Part #	Price
GHT X 3/8" NPT	GH3-6	6.17
GHT X 1/2" NPT	GH3-8	8.12
GHT X 3/4" NPT	GH3-12	7.41

### "Y" - CONNECTOR

Zinc die cast, chrome plated.  
2 Male GHT x 2 Male GHT



Part #	Price
GHY	7.12

### SHUT-OFF VALVE

Die cast zinc, chrome plated.  
Hot water to 160° F, 150 PSI  
GHT M x F



Part #	Price
GHV	7.12

### SHUT-OFF "Y" VALVE

Die cast zinc, chrome plated.  
Hot water to 160° F, 150 PSI  
Female GHT in, 2 Male GHT out.



Part #	Price
GHYV	10.71

## Shank & Water Couplings

### Hot Water Spray Nozzle - Industrial Grade

#### FEATURES

- \* **Variable Spray:** Adjusts from soft spray to full stream by simply depressing the lever
- \* **Protective Cover:** Dura-Guard rubber cover is replaceable
- \* **Rating:** 150 psi / 200° F
- \* **Available in Aluminum and Bronze body**
- \* **1/2" Female NPT inlet on handle bottom**



#### Aluminum

Part #	Price
S151AL	410.18

#### Bronze

Part #	Price
S151BR	383.34

Specify color: B=Black, G=Gray, R=Red, BL=Blue

Add color suffix to end of part #. ie; S151AL-R for red color.



Hose Shank



GHT Thread

NPT	Hose I.D.	Part #	Price
1/2"	1/2"	SC-8-8	97.94
1/2"	3/4"	SC-8-12	97.94
1/2"	3/4" FGHT	SC-8-GHT	97.94

Eliminates twisting and kinking of hose. Brass body, stainless shanks with lock ring to hold handle in open position.

## Nozzles

### INSULATED NOZZLE



#### FEATURES

- Hi-impact plastic casing protects hands from excessively hot or cold water.
- Rustproof brass valve spray mechanism.
- Threaded nose for hook-up to sprayers, car washers, etc.

Part #	Price
LN528C	17.22

### BRASS ADJUSTABLE

Heavy Duty 4" long nozzle



Part #	Price
GH1	16.90

### PISTOL GRIP NOZZLE

Heavy Duty - Zinc Plated



Part #	Price
PG1	11.19

### POWER SWEEPER

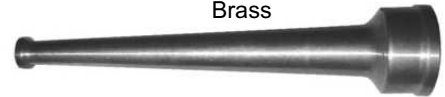
Brass



Part #	Price
SWEEPR	6.01

### TAPERED NOZZLE

Brass



Size	Length	Thread	Part #	Price
3/4"	6"	GHT	TN1	21.18
3/4"	6"	NPSH	TN2	21.18
1"	8"	NPSH	TN3	28.30
1 1/4"	10"	NPSH	TN4	51.47
1 1/2"	10"	NPSH	TN5	55.40
1 1/2"	10"	NST	TN6	55.40
2"	12"	NPSH	TN7	95.77
2 1/2"	12"	NST	TN8	105.96

### 8013 Radiator Bibb

Vinyl spout, 1/4" female pipe thread connection.



Part #	Price
8013	68.63

### 8005 Flex Water Nozzle

Bends for water flow. Shuts off when released. 3/4" female garden hose thread.



Part #	Price
8005	56.54

### ST-1500 Spray Gun

ST1500



#### Applications:

Industry standard, the ST-1500 is well-suited for a variety of industrial pressure washing applications. The ST-1500 Weep version gun is our most popular gun for industrial wash applications.

#### Features:

- Designed to be “universally” comfortable, even for small hands.
- Forged brass housing for maximum strength.
- Unitized valve for easy repair.
- Stainless spring, needle, ball and seat for chemical resistance.
- Special heat and chemical resistant seals for optimum performance, even in the harshest of environments.
- Fully rebuildable. Convenient six-screw access to cartridge-type valve assembly makes this gun easy to rebuild and a wise long-term investment.

Part #	Description	Pressure	Price
ST1500	3/8" inlet - 1/4" outlet	5000 PSI	134.10

### ST-007 Zinc Plated Steel Molded Grip Lances



ST007

#### Applications:

Suitable when using corrosive chemical. Our most popular lances for cold or hot water applications.

#### Features:

- Comfort technology designed molded grip conforms to the curvature of the hand, allowing to comfortably change positions and work longer hours.
- Linear aeration provides continuous air flow between hand and exclusive “star-shaped” grip.
- Grip is directly molded on to lance providing protection and strength.

Part #	Description	End	Price
ST007-24	24" w/ molded grip	1/4" MNPT	37.34
ST007-36	36" w/ molded grip	1/4" MNPT	46.09

### Quick Connect Spray Nozzles



QCMEG

#### Applications:

For applications requiring quick exchange of different degree nozzles. To help choose the correct quick nozzle degree and orifice size, see page 219.

#### Features:

- 4000 PSI maximum pressure, 300°F maximum temperature.
- 1/4" quick connect/disconnect design.
- Spray angles range from high impact solid stream 0° to 40° flat spray.
- QCMEG include color-coded protective nozzle guards identify nozzle degree.

Part #	Description	Price
QCMEG-0	0° Red Size 4.5	25.63
QCMEG-15	15° Yellow Size 4.5	25.63
QCMEG-25	25° Green Size 4.5	25.63
QCMEG-40	40° White Size 4.5	25.63

## Shank & Water Couplings

### MEG Threaded Nozzles



#### Applications:

Ideal for one nozzle applications and quick exchange is not needed. To help choose the correct nozzle degree and orifice size, see page 219.

#### Features:

- 4000 PSI maximum pressure.
- Spray angles range from high impact solid stream 0° to 40° flat spray.
- Produce a uniform distribution of small-to-medium sized drops.

Part #	Description	Price
MEG-0	0° Size 4.5	23.46
MEG-15	15° Size 4.5	23.46
MEG-25	25° Size 4.5	23.46
MEG-40	40° Size 4.5	23.46

For straight thru couplers see p. 179



### ST-357 Turbo Nozzle 3600 PSI



ST357

Part #	Price
ST357	297.42

#### Applications:

The increased tearing action of the rotating spray is ideal for hard surface applications, such as concrete graffiti cleaning or caked mud on heavy equipment. Always start turbo nozzles in a down position.

#### Features:

- The 0° rotation creates a cleaning and tearing action resulting in saving time and money.
- Turbo nozzles increase cleaning efficiency as much as 200% compared to a 25° flat fan nozzle.

#### **Pick orifice size when ordering.**

Orifice sizes available: 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0, 7.0, 8.0

### Adjustable Washjet Nozzle 4.5



23990

Part #	Price
23990	N/A

#### Applications:

For use when different spray patterns from 0° solid stream to 80° flat spray are needed.

#### Features:

- Adjust spray pattern from 0° solid stream to 80° flat spray with a simple twist of the nozzle head.
- Internal guide vane stabilizes liquid turbulence to provide a quick visual reference for spray alignment.
- Hardened stainless steel orifice for wear resistance and long life.
- Outer covering made of nylon for additional protection.
- 1-3/16

**Pick orifice size when ordering.** Orifice sizes available: 3.5, 4.0, 4.5, 5.5

## Universal Couplings

### 2 Lug Type

Hose End



Size	Part #	Price
3/8"	UH037	3.50
1/2"	UH050	3.81
3/4"	UH075	4.10
1"	UH100	4.84

Male End



Size	Part #	Price
3/8"	UM037	4.19
1/2"	UM050	3.99
3/4"	UM075	4.15
1"	UM100	4.84

Female End



Size	Part #	Price
3/8"	UF037	4.04
1/2"	UF050	3.99
3/4"	UF075	4.10
1"	UF100	4.73

Triple Connector



Part #	Price
TC	8.73

2 Lug Washer



Part #	Price
U2W	0.36

### 4 Lug Type

Hose End



Size	Part #	Price
1-1/4"	4L125	13.34
1-1/2"	4L150	15.57
2"	4L200	16.92

Female Adapter



Size	Part #	Price
1-1/4"	4F125	14.30
1-1/2"	4F150	15.57
2"	4F200	17.49

4 Lug Washer



Part #	Price
U4W	0.95

Safety Clip



Part #	Price
SC	0.17

Lanyard



Part #	Price
SL	0.34

Interlocking Hose Clamp



Size	Part #	Size Range	Price
3/8"	CD	11/16" ~ 7/8"	3.30
1/2"	A4	1" ~ 1-3/16"	3.66
3/4"	A9	1-1/8" ~ 1-5/16"	5.56
1"	A14	1-1/2" ~ 1-13/16"	6.95

### Safety clips supplied with all couplings

#### Warning !

Do not use Universal Couplings for steam service. Safety clips should be used on all Universal Couplings to prevent accidental disconnections.



## Hose Checks / Safety Cables

Use of Hose Checks prevent injuries from whipping hose in the event of accidental separation at coupling. Strong steel cables with spring loaded loops attach easily without tools. Max working pressure for air - 200 PSI



**Hose to Hose Safety Cable**

Cable	Size	Length	USA #	Price	Import #	Price
1/8"	1/2"~1 1/4"	20"	HC1D	37.39	HC1	12.65
1/4"	1 1/2"~3"	38"	HC2D	61.18	HC2	28.91
3/8"	4"	44"	HC3D	150.98	-	

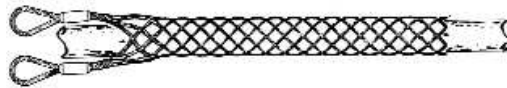
**Hose to Tool Safety Cable**

Cable	Size	Length	Import #	Price
1/8"	1/2"~1 1/4"	20"	HT1	11.57
1/4"	1 1/2"~3"	38"	HT2	26.44



## Heavy Duty Whip Socks

Whip socks are the best restraints available for high-pressure hoses. Using a specially designed woven steel grip, the whip sock securely tightens over the surface of the hose as it restrains the hose that ruptures.



Part #	Hose O.D. (Inches)	Grip Length	Eye Length	Total Length	# Of Plies	Approx Weight	Avg. Break	Price
HCWS-20	2.36" - 3.15"	42"	2.76"	66"	12 x 2	2.91 Lbs.	20,100 Lbs.	N/A

## Air Fittings

### Heavy Duty Couplings - Ground Joint Type, Plated

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.

**Hose Stem with  
Wing Nut & Female Spud**



Size	Part #	Price
1/2	GJF050	26.34
3/4	GJF075	27.72
1	GJF100	28.34
1-1/4	GJF125	48.56
1-1/2	GJF150	49.56
2	GJF200	66.94
2-1/2	GJF250	137.91
3	GJF300	172.40
4	GJF400	318.72

**Hose Stem Only**



Part #	Price
GJS050	5.49
GJS075	6.08
GJS100	7.84
GJS125	13.04
GJS150	13.92
GJS200	16.25
GJS250	28.33
GJS300	42.09
GJS400	82.06

**Wing Nut Only**



Part #	Price
GJW050	6.67
GJW100	7.61
GJW100	7.61
GJW125	14.64
GJW150	15.08
GJW200	23.95
GJW250	50.73
GJW300	50.88
GJW400	92.32

**Female Spud Only**



Part #	Price
GJFS050	11.64
GJFS075	12.22
GJFS100	11.71
GJFS125	20.72
GJFS150	20.79
GJFS200	25.56
GJFS250	46.86
GJFS300	66.99
GJFS400	116.61

**2, 4, \*6 Bolt Clamps**



Male Pipe Stem (NPT)			Male Spud	
Size	Part #	Price	Part #	Price
1/2	GJM050	5.84		
3/4	GJM075	10.01	GJMS075	19.05
1	GJM100	13.44	GJMS100	20.03
1-1/4	GJM125	14.76	GJMS125	44.28
1-1/2	GJM150	15.88	GJMS150	42.68
2	GJM200	26.28	GJMS200	46.31
2-1/2	GJM250	43.41		
3	GJM300	56.60		
4	GJM400	94.87		



Size	Part #	Range	Price
3/8	CD	11/16" ~ 7/8"	3.30
1/2	DD	13/16" ~ 15/16"	3.80
1/2	B-4	15/16" ~ 1-1/16"	3.89
1/2	B-5	1-1/16" ~ 1-3/16"	4.39
3/4	BU-9S	1-5/32" ~ 1-9/32"	6.53
3/4	BU-9	1-3/16" ~ 1-5/16"	7.07
3/4	B-9	1-5/16" ~ 1-1/2"	6.95
3/4	B-10	1-1/2" ~ 1-11/16"	10.83
1	BU-14	1-17/32" ~ 1-23/32"	13.04
1	B-14	1-11/16" ~ 1-15/16"	14.28
1	B-15	1-15/16" ~ 2-1/8"	15.82
1-1/4	B-19	2-1/8" ~ 2-3/8"	23.06
1-1/2	BU-24	2-3/16" ~ 2-3/8"	19.57
2	BU-29	2-1/2" ~ 2-25/32"	26.99
2-1/2	B-34	3-1/2" ~ 3-15/16"	88.64
3	B-35	3-3/16" ~ 4-3/16"	81.78
4	BS-49	4-7/8" ~ 5-1/4"	268.79

**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.

## Sandblast Couplings



Q



NE



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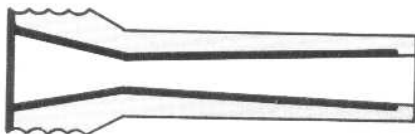


SW

Size	Outside Diameter	ALUMINUM		BRASS		CAST IRON	
		Part #	Price	Part #	Price	Part #	Price
3/4"	1 1/2"	Q1A	8.34	Q1B	36.31	Q1C	10.85
1"	1 7/8"	Q2A	12.08	Q2B	38.96	Q2C	11.24
1 1/4"	2 5/32"	Q3A	13.14	Q3B	59.61	Q3C	19.41
1 1/2"	2 3/8"	Q4A	18.76	Q4B	92.26	Q4C	24.77
3/4"	1 1/2"	NE1A	5.14	NE1B	26.42	NE1C	9.02
1"	1 7/8"	NE2A	7.22	NE2B	37.96	NE2C	12.90
1 1/4"	2 5/32"	NE3A	10.45	NE3B	50.38	NE3C	17.55
1 1/2"	2 3/8"	NE4A	14.37	NE4B	69.12	NE4C	22.81
1 1/4"		FA3A	7.22	FA3B	37.74		
1 1/2"		FA4A	7.22	FA4B	34.22		
WASHER		SW	0.78				

## Sandblast Nozzles

### TUNGSTEN CARBIDE STRAIGHT BORE & VENTURI NOZZLES



**Super-Titan®  
Venturi Type  
Blasting Nozzle**

Let Super-Titan's Venturi Blasting Nozzles be your cost effective way to meet industry's demands for higher production and reduced costs. For lighter weight nozzles specify our urethane combination jackets.

Nozzle design can have a significant effect upon cleaning rate and efficiency of abrasive blast operations. Super-Titan's new Venturi nozzle design, with tapered entry, and flared exit, results in increases in productivity up to 70%, due to an enlarged abrasive pattern, and because abrasive velocity is almost doubled. At 100 psi air pressure the Venturi nozzles generate an outlet velocity of approximately 215 mph.



**1" ENTRY - LONG VENTURI**  
**1 1/4" NPS Thread - Metal Jacket**  
*Specify Aluminum or Urethane Jacket*

Size	Length	Part #	Price
3/16"	4 1/4"	VNLV-3	388.63
1/4"	5 1/4"	VNLV-4	428.17
5/16"	5 3/4"	VNLV-5	434.80
3/8"	6 3/4"	VNLV-6	487.45
7/16"	7 3/4"	VNLV-7	599.48
1/2"	9"	VNLV-8	711.41



**3/4" NPS - STRAIGHT BORE**  
**1 3/4" Long - Metal Jacket**

Size	Part #	Price
1/8"	1000-2	144.26
3/16"	1000-3	144.26
1/4"	1000-4	144.26
5/16"	1000-5	144.26
3/8"	1000-6	144.26
7/16"	1000-7	144.26
1/2"	1000-8	144.26

### Safety Blow Gun



Basic safety lever blow gun with large hang-up hook.  
Designed to fit comfortably in the hand, minimizing fatigue.

- Chrome plated zinc die cast body.
- Meets OSHA safety standards.
- Inlet pressure 150 PSI – maximum nozzle pressure 30 PSI.
- 1/4" female NPT inlet thread.
- Packaged 1 per box.

Item	Price
411-S	35.25

### Standard Rugged Blow Gun



Basic lever type blow gun with large hang-up hook  
Designed to fit comfortably in the hand, minimizing fatigue.

- Chrome plated zinc die cast body.
- Does not meet OSHA safety standards unless inlet pressure is reduced to 30 PSI.
- Inlet pressure 150 PSI – maximum nozzle pressure 30 PSI.
- 1/4" female NPT inlet thread.
- Packaged 1 per box.
- Accepts full range of accessories.

Item	Price
411	25.49

### Rubber Tipped Blow Gun



Basic lever type blow gun with large hang-up hook and rubber tip. Rubber tip provides leak-proof seal between gun and fluid line or other opening.

- Excellent for cleaning molds or other delicate surfaces.
- Designed to fit comfortably in the hand, minimizing fatigue.
- Chrome plated zinc die cast body.
- Does not meet OSHA safety standards unless inlet pressure is reduced to 30 PSI.
- Inlet pressure 150 PSI – maximum nozzle pressure 30 PSI.
- 1/4" female NPT inlet thread.
- Packaged 1 per box.

Item	Price
411R	34.91

### Replacement Rubber Tip



- Rubber non-safety replacement tip for 411R blow gun.
- Neoprene rubber.
- 1/8" male NPT threads.
- Packaged in bulk.

Item	Price
RTIP	7.42

**WARNING: SAFETY GOGGLES OR SHIELD SHOULD BE WORN WHEN USING ANY AIR GUNS**

All safety air guns are engineered to meet the requirements of the Occupational Safety and Health Act (OSHA) as defined in standards 29CFR 1910.242 (B), 1910.95, and CRF 50-204-8

## Air Fittings

### 3 In 1 Manifold



Increase your efficiency and get the most out of your air compressor with this 3-in-1 Air Manifold. Sturdily constructed out of aluminum, the 3-in-1 Air Manifold allows you to run three separate air tools from one source of compressed air. A perfect accessory for projects at home or in the shop.

- Supply 3 air hoses from a single hose.
- Each manifold accepts 3 outlet hoses or couplers.
- Strong, lightweight machined aluminum construction.
- Mount to pipe at workbench or overhead.

Part #	Thread	Price
3404	1/4" NPT	17.88
3406	3/8" NPT	17.88

### Air Tool Swivels



Say goodbye to twisted air hoses. This swivel connector rotates 360° in two separate places, making for unlimited free motion. This great product can be attached to the end of your air line. 1/4" NPT thread mates easily with all of your air hoses, air tools, and quick connectors / couplers.

- 1/4" NPT Thread
- Swivels at 360° at two locations. Avoids hose kinking.

Part #	Size	Price
344U	1/4"	32.94

### Air Inflator Chuck

- 1/4" female NPT
- Zinc plated



Part #	Price
AC250	5.32

### Standard Yellow Recoil Hose



**Standard Yellow Hose.** 200 PSI at 70° F. Includes strain reliefs and swivels at each end.

Size	Part #	Price
1/4" x 25'	RH4-25	21.00
1/4" x 50'	RH4-50	24.08
3/8" x 25'	RH6-25	28.14
3/8" x 50'	RH6-50	44.23

### Polyurethane Blue Recoil Hose



**Polyurethane Blue Hose.** 125 PSI at 70° F. Swivels each end. 18" pigtail with strain relief.

Size	Part #	Price
1/4" x 15'	RP4-15	60.12
1/4" x 25'	RP4-25	79.88
1/4" x 50'	RP4-50	124.46
3/8" x 25'	RP6-25	175.96
3/8" x 50'	RP6-50	273.86

### In-Line Lubricators



- Use lubricators to save money and eliminate repairs.
- Use lubricators to avoid costly downtime.
- All mechanical apparatus need lubrication.
- Absolute must for improved tool life.
- Metering valve for adjusting oil flow.
- Sight disk in housing to visually inspect oil level.

These are heavy-duty in-line lubricators to be installed 6-8 feet from tool. Designed for use with tools being used too far away from compressor to be lubricated by a permanently mounted unit.

NPT Size	Oil Capacity	Maximum W.P.	Air Flow At 70 PSI	Part #	Price
1/2"	1.4 FL. OZ.	500	30 CFM	0L	121.52
3/4"	3.7 FL. OZ.	260	70 CFM	1L	130.85
3/4"	11.0 FL. OZ.	300	70 CFM	2L	157.68
1"	16.0 FL. OZ.	250	150 CFM	3L	245.05

### In-Line Filter Lubricators



- Lubricator filter unit is an integral unit.
- Accepts a 40 micron bronze filter.
- Adjustable metering valve.
- Sight disk in housing to visually inspect oil level.
- Metering valve for adjusting oil flow.
- Sight disk in housing to visually inspect oil level.
- The 40 micron filter can easily be cleaned or replaced.

These filter lubricators can be used on: Pneumatic Hammers, impact Wrenches, Nut Runners, Grinders, Air Screw Drivers.

NPT Size	Oil Capacity	Maximum W.P.	Air Flow At 70 PSI	Part #	Price
1/2"	1.4 FL. OZ.	500	30 CFM	0LF	236.14
3/4"	3.7 FL. OZ.	260	70 CFM	1LF	251.21



## Air Fittings

### Gauges - Steel Dry Cases

#### SERIES: SAD (ACRYLIC LENS)

#### STEEL CASE DRY

#### 1-1/2" DIAL



##### TECHNICAL SPECIFICATIONS:

CASE: Steel, painted black  
DIAL: Aluminum, white background, black and red lettering  
SCALE: Dual (Lb/in2-bar - x 100 kpa)  
BOURDON TUBE: Brass or bronze  
CONNECTION: Brass, 1/8" NPT, back  
WEIGHT: 4.0 ounces  
ACCURACY: ANSI Grade C

##### DIAL RANGE

Part #: SAD 1501

##### PRICE EACH

30HG	0	PSI	11.71
	0-15	PSI	11.71
	0-30	PSI	11.71
	*0-60	PSI	11.71
	0-100	PSI	11.71
	*0-160	PSI	11.71
	0-200	PSI	11.71

#### SERIES: SAD (ACRYLIC LENS)

#### STEEL CASE DRY

#### 1-1/2" DIAL



##### TECHNICAL SPECIFICATIONS:

CASE: Steel, painted black  
DIAL: Aluminum, white background, black and red lettering  
SCALE: Dual (Lb/in2-bar - x 100 kpa)  
BOURDON TUBE: Brass or bronze  
CONNECTION: Brass, 1/8" NPT, bottom  
WEIGHT: 4.0 ounces  
ACCURACY: ANSI Grade C

##### DIAL RANGE

Part #: SAD 1511

##### PRICE EACH

30HG	0	PSI	11.35
	0-15	PSI	11.35
	0-30	PSI	11.35
	*0-60	PSI	11.35
	0-100	PSI	11.35
	*0-160	PSI	11.35

#### SERIES: SAD (ACRYLIC LENS)

#### STEEL CASE DRY

#### 2" DIAL



##### TECHNICAL SPECIFICATIONS:

CASE: Steel, painted black  
DIAL: Aluminum, white background, black and red lettering  
SCALE: Dual (Lb/in2-bar - x 100 kpa)  
BOURDON TUBE: Brass or bronze  
CONNECTION: Brass, 1/4" NPT, back  
WEIGHT: 4.0 ounces  
ACCURACY: ANSI Grade C

##### DIAL RANGE

Part #: SAD 2002

1/4" Conn.

##### PRICE EACH

30HG	0	PSI	13.54
	0-15	PSI	13.54
	0-30	PSI	13.54
	*0-60	PSI	13.54
	0-100	PSI	13.54
	*0-160	PSI	13.54
	0-200	PSI	13.54
	0-300	PSI	13.54
	0-500	PSI	13.54

#### SERIES: SAD (ACRYLIC LENS)

#### STEEL CASE DRY

#### 2" DIAL



##### TECHNICAL SPECIFICATIONS:

CASE: Steel, painted black  
DIAL: Aluminum, white background, black and red lettering  
SCALE: Dual (Lb/in2-bar - x 100 kpa)  
BOURDON TUBE: Brass or bronze  
CONNECTION: Brass, 1/4" NPT, bottom  
WEIGHT: 4.0 ounces  
ACCURACY: ANSI Grade C

##### DIAL RANGE

Part #: SAD 2012

##### PRICE EACH

30HG	0	PSI	12.44
	0-15	PSI	12.44
	0-30	PSI	12.44
	*0-60	PSI	12.44
	0-100	PSI	12.44
	*0-160	PSI	12.44
	0-200	PSI	12.44
	0-300	PSI	12.44

## Air Fittings

### Gauges - Stainless Steel Glycerine Filled Cases

#### SERIES:SSG STAINLESS STEEL CASE GLYCERINE FILLED 2-1/2" DIAL

##### Part #: SSG-2502



##### TECHNICAL SPECIFICATIONS:

**CASE:** 304 Stainless Steel  
**DIAL:** Aluminum, white background, black lettering  
**LENS:** Acrylic  
**SCALE:** Dual (Lb/in<sup>2</sup>-bar - x 100 kpa)  
**BOURDON TUBE:** Brass or bronze  
**CONNECTION:** Brass, 1/4" NPT, back  
**SURGE PROTECTOR:** Standard  
**ACCURACY:** ANSI Grade B  
**WEIGHT:** 8.25 ounces

Range PSI	Price Each	Range PSI	Price Each
0-30	30.75	0-200	30.75
0-60	30.75	0-300	30.75
0-100	30.75	0-600	30.75
0-160	30.75	0-1000	30.75
		0-2000	30.75
		0-3000	30.75
		0-5000	30.75
		0-6000	30.75
		0-10000	38.43

#### SERIES:SSG STAINLESS STEEL CASE GLYCERINE FILLED 2-1/2" DIAL

##### Part #: SSG-2512



##### TECHNICAL SPECIFICATIONS:

**CASE:** 304 Stainless Steel  
**DIAL:** Aluminum, white background, black lettering  
**LENS:** Acrylic  
**SCALE:** Dual (Lb/in<sup>2</sup>-bar - x 100 kpa)  
**BOURDON TUBE:** Brass or bronze  
**CONNECTION:** Brass, 1/4" NPT, bottom  
**SURGE PROTECTOR:** Standard  
**ACCURACY:** ANSI Grade B  
**WEIGHT:** 8.25 ounces

Range PSI	Price Each	Range PSI	Price Each
0-30	29.87	0-200	29.87
0-60	29.87	0-300	29.87
0-100	29.87	0-600	29.87
0-160	29.87	0-1000	29.87
		0-2000	29.87
		0-3000	29.87
		0-5000	29.87
		0-6000	29.87
		0-10000	36.24

#### SERIES:SSG STAINLESS STEEL CASE GLYCERINE FILLED 4" DIAL



##### STAINLESS STEEL

SERIES SSG  
 Glycerine Filled  
Dial Ranges

Vac	0-200	3K
0-15	0-300	5K
0-30	0-600	6K
0-60	1K	10K
0-100	1.5K	15K
0-160	2K	

4" Wet-Bottom Mount - SSG4012

ALL RANGES **\$93.26**

4" Wet-Back Mount - SSG4002

ALL RANGES **\$102.48**

## Pneumatic Couplers and Plugs

### AUTOMOTIVE STANDARD SERIES

Plated steel couplers have hardened steel balls and stainless steel springs. Brass couplers have stainless steel balls and springs. Coupler plugs are heat treated and plated to reduce wear on critical mating surfaces. **Amflo's** Automotive Standard Couplers and Plugs interchange with Tru-Flate 10 and 100 type as well as units produced by many other manufacturers.

**WARNING: Couplers and Plugs on this page are intended for use on compressed air lines only. All have a maximum rated working pressure of 300 PSI.**

#### COUPLERS

##### Male Thread

NPT Size	Plated Steel	Brass
1/4"	C1	C1B
3/8"	C1-03	---

##### Female Thread

NPT Size	Plated Steel	Brass
1/4"	C2	C2B
3/8"	C2-23	---

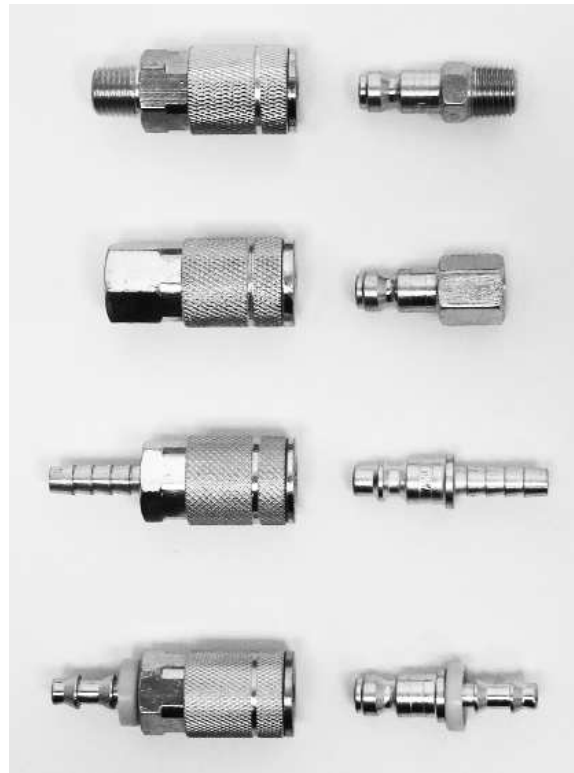
##### Hose Barb

Barb Size	Plated Steel	Brass
1/4"	C2-42	---
3/8"	C2-44	C2-44B

##### Lock-on Hose Barb

Barb Size	Plated Steel
1/4"	C2-42L
3/8"	C2-44L

### 1/4" SERIES



#### PLUGS

##### Male Thread

NPT Size	Plated Steel	Brass
1/4"	CP1	CP1B
3/8"	CP1-03	---

##### Female Thread

NPT Size	Plated Steel	Brass
1/4"	CP2	CP2B
3/8"	CP2-23	---

##### Hose Barb

Barb Size	Plated Steel
1/4"	CP1-42
3/8"	CP1-44

##### Lock-on Hose Barb

Barb Size	Plated Steel
1/4"	CP1-42L
3/8"	CP1-44L

### 1/4" RECAPPER COUPLER & PLUG SERIES

#### COUPLERS

##### Female Thread Raised Sleeve

NPT Size	Plated Steel	Brass
1/4"	C2R	C2RB



#### PLUGS

##### Male Thread

Thread Size	Length	Plated Steel
.302-32	STD	CP12
.482-26	2-3/4"	CP14

##### Female Thread

Thread Size	Length	Plated Steel
1/4"	NPT	---
.302-32	STD	CP1-302

## Pneumatic Couplers and Plugs

### AUTOMOTIVE STANDARD SERIES

**WARNING:** Couplers and Plugs on this page are intended for use on compressed air lines only. All have a maximum rated working pressure of 300 PSI.

## 3/8" SERIES

### COUPLERS

#### Male Thread

NPT Size	Plated Steel
1/4"	C7
3/8"	C5
1/2"	C5-04

#### Female Thread

NPT Size	Plated Steel	Brass
1/4"	C8	---
3/8"	C6	C6B
1/2"	C6-24	---

#### Hose Barb

Barb Size	Plated Steel
1/4"	C6-42
3/8"	C6-44
1/2"	C6-45

#### Lock-on Hose Barb

Barb Size	Plated Steel
1/4"	C6-42L
3/8"	C6-44L

### PLUGS

#### Male Thread

NPT Size	Plated Steel
1/4"	CP7
3/8"	CP5
1/2"	CP5-04

#### Female Thread

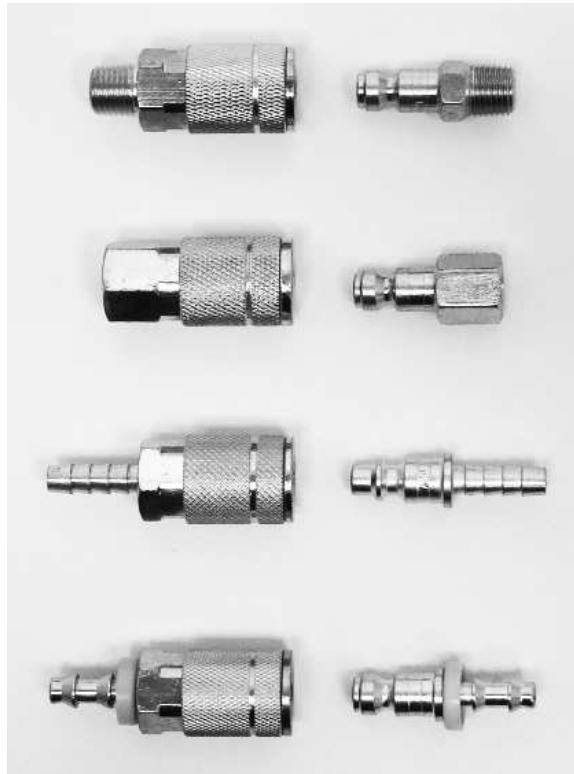
NPT Size	Plated Steel
1/4"	CP8
3/8"	CP6
1/2"	CP6-24

#### Hose Barb

Barb Size	Plated Steel
3/8"	CP5-44

#### Lock-on Hose Barb

Barb Size	Plated Steel
1/4"	CP5-42L
3/8"	CP5-44L



## 1/2" SERIES

### COUPLERS

#### Male Thread

NPT Size	Plated Steel
3/8"	C9-03
1/2"	C9

#### Female Thread

NPT Size	Plated Steel
3/8"	C10-23
1/2"	C10

#### Hose Barb

Barb Size	Plated Steel
1/2"	C10-45

### PLUGS

#### Male Thread

NPT Size	Plated Steel
3/8"	CP9-03
1/2"	CP9

#### Female Thread

NPT Size	Plated Steel
3/8"	CP10-23
1/2"	CP10



## Pneumatic Couplers and Plugs

### INDUSTRIAL INTERCHANGE SERIES

Plated steel couplers have hardened steel balls and stainless steel springs. Brass couplers have stainless steel balls and springs. Coupler plugs are heat treated and plated to reduce wear on critical mating surfaces. **Amflo's** Industrial Interchange Couplers and Plugs interchange with Hansen, Foster, Aro, Parker and others.

**WARNING:** Couplers and Plugs on this page are intended for use on compressed air lines only. All have a maximum rated working pressure of 300 PSI.

## 1/4" SERIES

### COUPLERS

#### Male Thread

NPT Size	Plated Steel	Brass
1/4"	C21	C21B
3/8"	C21-03	---

#### Female Thread

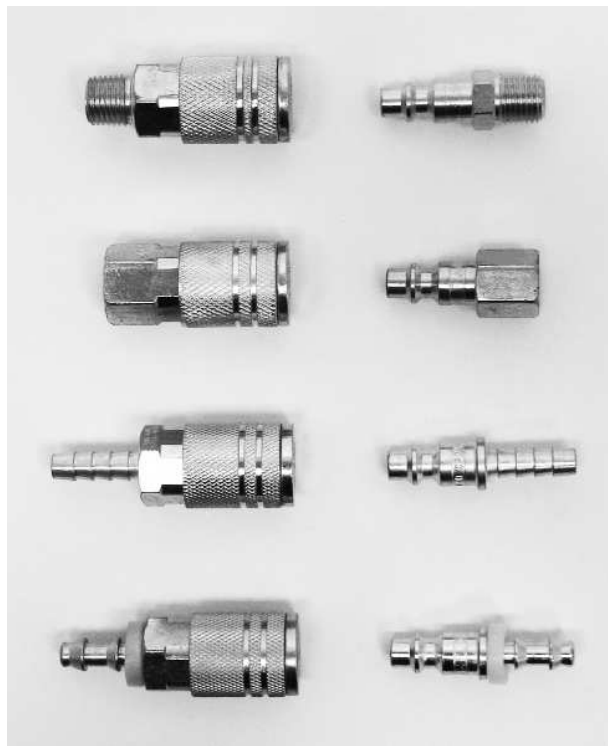
NPT Size	Plated Steel	Brass
1/4"	C20	C20B
3/8"	C20-23	---

#### Hose Barb

Barb Size	Plated Steel	Brass
1/4"	C20-42	C20-42B
3/8"	C20-44	C20-44B

#### Lock-on Hose Barb

Barb Size	Plated Steel
1/4"	C20-42L
3/8"	C20-44L



### PLUGS

#### Male Thread

NPT Size	Plated Steel	Brass
1/4"	CP21	CP21B
3/8"	CP21-03	CP21-03B

#### Female Thread

NPT Size	Plated Steel	Brass
1/4"	CP20	CP20B
3/8"	CP20-23	---

#### Hose Barb

Barb Size	Plated Steel	Brass
1/4"	CP21-42	---
3/8"	CP21-44	CP21-44B

#### Lock-on Hose Barb

Barb Size	Plated Steel
1/4"	CP21-42L
3/8"	CP21-44L

## Pneumatic Couplers and Plugs

### INDUSTRIAL INTERCHANGE SERIES

**WARNING:** Couplers and Plugs on this page are intended for use on compressed air lines only. All have a maximum rated working pressure of 300 PSI.

#### COUPLERS

##### Male Thread

NPT Size	Plated Steel
1/4"	C25-02
3/8"	C25
1/2"	C25-04

##### Female Thread

NPT Size	Plated Steel
1/4"	C26-22
3/8"	C26
1/2"	C26-24

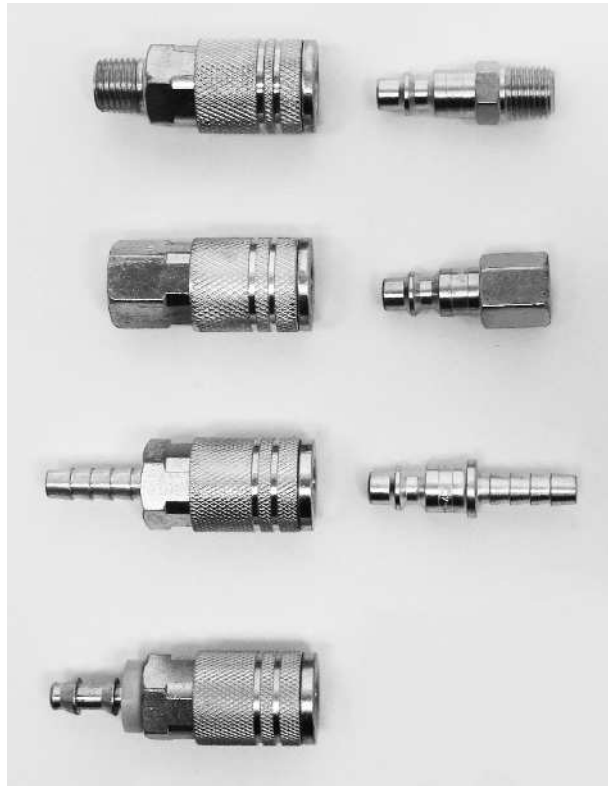
##### Hose Barb

Barb Size	Plated Steel
1/4"	C26-42
3/8"	C26-44
1/2"	C26-45

##### Lock-on Hose Barb

Barb Size	Plated Steel
3/8"	C26-44L

### 3/8" SERIES



#### PLUGS

##### Male Thread

NPT Size	Plated Steel
1/4"	CP25-02
3/8"	CP25
1/2"	CP25-04

##### Female Thread

NPT Size	Plated Steel
1/4"	CP26-22
3/8"	CP26
1/2"	CP26-24

##### Hose Barb

Barb Size	Plated Steel
3/8"	CP25-44
1/2"	CP25-45

#### COUPLERS

##### Male Thread

NPT Size	Plated Steel
3/8"	C9-03
1/2"	C9

##### Female Thread

NPT Size	Plated Steel
3/8"	C10-23
1/2"	C10

##### Hose Barb

Barb Size	Plated Steel
1/2"	C10-45

### 1/2" SERIES



#### PLUGS

##### Male Thread

NPT Size	Plated Steel
3/8"	CP17-03
1/2"	CP17

##### Female Thread

NPT Size	Plated Steel
3/8"	CP18-23
1/2"	CP18

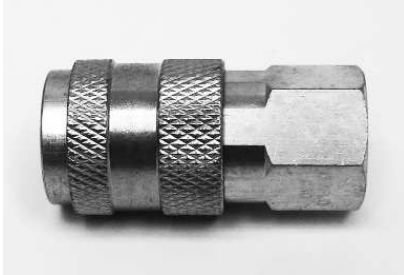
##### Hose Barb

Barb Size	Plated Steel
1/2"	CP17-45

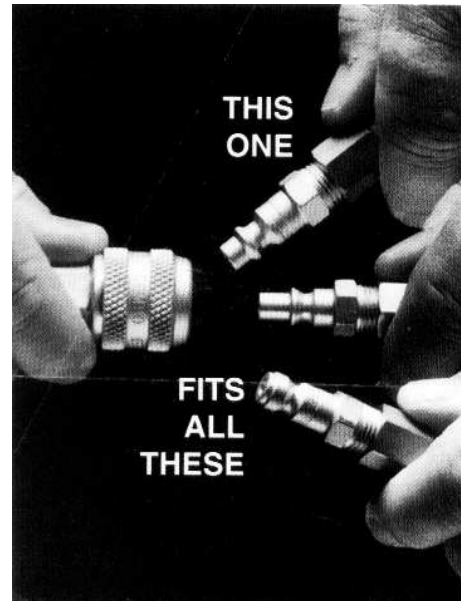
# Pneumatic Couplers and Plugs

## COMBO COUPLERS

**C60** 1/4" Series 1/4" NPT Female



**C61** 1/4" Series 1/4" NPT Male



## LINCOLN SERIES

Plated steel couplers have hardened steel balls and stainless steel springs. Coupler plugs are heat treated and plated to reduce wear on critical mating surfaces. **Amflo's** Lincoln Series of Plugs are easily identified by the very long plug ends. The Lincoln series of coupler bodies are identified with one narrow and one wide groove on the coupler sleeve.

These couplers interchange with Lincoln as well as units produced by other manufacturers.

### COUPLERS

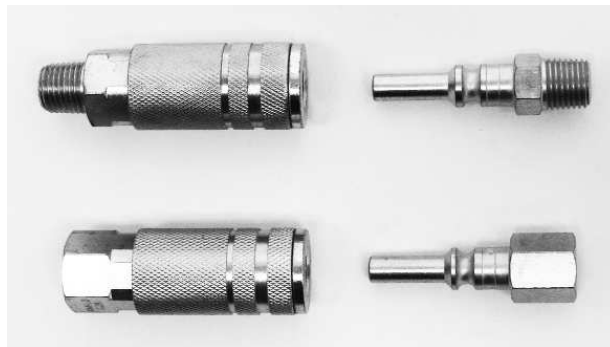
#### Male Thread

NPT Size	Plated Steel
1/4"	C27

#### Female Thread

NPT Size	Plated Steel
1/4"	C28

## 1/4" SERIES



### PLUGS

#### Male Thread

NPT Size	Plated Steel
1/4"	CP27

#### Female Thread

NPT Size	Plated Steel
1/4"	CP28



## Pneumatic Couplers and Plugs

### THE ARO SERIES

Plated steel couplers have hardened steel balls and stainless steel springs. Coupler plugs are heat treated and plated to reduce wear on critical mating surfaces. The Aro Series of Couplers and Plugs are easily identified by a single wide groove on the coupler sleeve and the distinct appearance of the plug. **Amflo's** Aro Series interchanges with the Aro 210 as well as units produced by many other manufacturers.

**WARNING:** Couplers and Plugs on this page are intended for use on compressed air lines only. All have a maximum rated working pressure of 300 PSI.

### 1/4" SERIES

#### COUPLERS

##### Male Thread

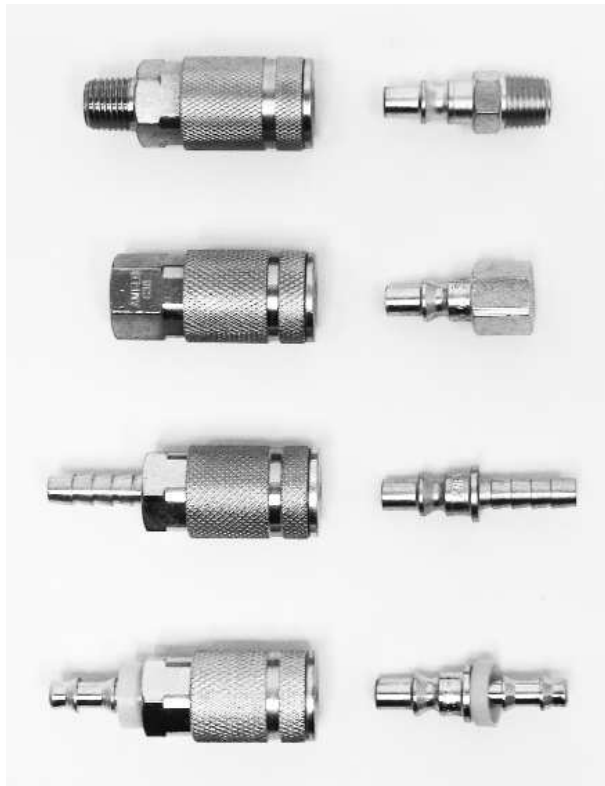
NPT Size	Plated Steel	Brass
1/4"	C37	---
3/8"	C37-03	---

##### Female Thread

NPT Size	Plated Steel	Brass
1/4"	C38	C38B
3/8"	C38-23	---

##### Hose Barb

Barb Size	Plated Steel
1/4"	C38-42
3/8"	C38-44



#### PLUGS

##### Male Thread

NPT Size	Plated Steel	Brass
1/4"	CP37	CP37B
3/8"	CP37-03	---

##### Female Thread

NPT Size	Plated Steel	Brass
1/4"	CP38	CP38B
3/8"	CP38-23	---

##### Hose Barb

Barb Size	Plated Steel	Brass
1/4"	CP37-42	---
3/8"	---	CP37-44B

##### Lock-on Hose Barb

Barb Size	Plated Steel
1/4"	CP37-42L
3/8"	CP37-44L

### 3/8" SERIES

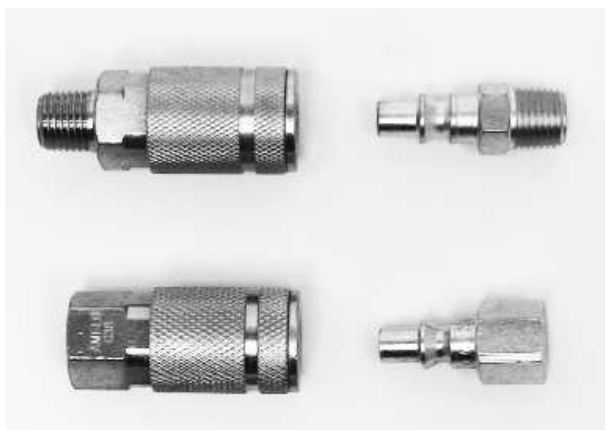
#### COUPLERS

##### Male Thread

NPT Size	Plated Steel
3/8"	C35

##### Female Thread

NPT Size	Plated Steel
3/8"	C36



#### PLUGS

##### Male Thread

NPT Size	Plated Steel
3/8"	CP35

##### Female Thread

NPT Size	Plated Steel
3/8"	CP36

## Pneumatic Couplers and Plugs

### DIAMOND-U

Plated steel couplers have hardened steel balls and stainless steel springs. Coupler plugs are heat treated and plated to reduce wear on critical mating surfaces. **Amflo's** Diamond-U Series of couplers are identified by three narrow grooves on the coupler sleeve, and the short tapered tip of the plug. They interchange with Diamond-U as well as units produced by other manufacturers.

**WARNING: Couplers and Plugs on this page are intended for use on compressed air lines only. All have a maximum rated working pressure of 300 PSI.**

#### COUPLERS

##### Male Thread

NPT Size	Plated Steel
1/4"	C31

##### Female Thread

NPT Size	Plated Steel
1/4"	C30



#### PLUGS

##### Male Thread

NPT Size	Plated Steel
1/4"	CP33

##### Female Thread

NPT Size	Plated Steel
1/4"	CP34

### STRAIGHT THRU COUPLERS

These couplers and plugs have no valves. Smooth, straight through bore gives maximum flow with minimum pressure drop. Couplers are brass, with stainless steel balls and springs

**WARNING: Do not disconnect with pressure in the line.**

### 1/8" - 1/2" SERIES

#### COUPLERS

##### Female Thread

NPT Size	Brass
1/8"	CST2B
1/4"	CST4B
3/8"	CST6B
1/2"	CST8B



#### PLUGS

##### Male Thread

NPT Size	Brass
1/4"	CPST3B
3/8"	CPST5B
1/2"	CPST7B

##### Female Thread

NPT Size	Brass
1/8"	CPST2B
1/4"	CPST4B
3/8"	CPST6B
1/2"	CPST8B

## Pneumatic Couplers and Plugs Pricing

Part #	Pack	Price
CP1	10	2.35
CP1B	10	2.44
CP1-03	10	4.87
CP1-302	10	5.37
CP1-42	10	6.67
CP1-42L	10	5.19
CP1-44	10	5.20
CP1-44L	10	5.35
CP2	10	2.52
CP2B	10	2.72
CP2-23	10	4.96
CP5	10	4.56
CP5-04	10	7.89
CP5-42	10	N/A
CP5-42L	10	7.35
CP5-44	10	6.61
CP5-44L	10	7.23
CP6	10	6.02
CP6-24	10	9.24
CP7	10	4.22
CP8	10	4.29
CP9	10	7.01
CP9-03	10	8.74
CP9-45	10	N/A
CP10	10	7.88
CP10-23	10	7.61
CP12	10	5.77
CP14	10	9.93
CP17	10	7.69
CP17-03	10	7.66
CP17-45	10	9.42
CP18	10	8.11
CP18-23	10	8.06
CP20	10	2.54
CP20B	10	2.72
CP20-23	10	4.60
CP21	10	2.38
CP21B	10	2.34
CP21-03	10	4.05

Part #	Pack	Price
CP21-03B	10	6.29
CP21-42	10	5.24
CP21-42L	10	5.24
CP21-44	10	5.10
CP21-44B	10	N/A
CP21-44L	10	5.24
CP25	10	4.56
CP25-02	10	4.53
CP25-04	10	9.25
CP25-44	10	7.51
CP25-45	10	8.48
CP26	10	5.25
CP26-22	10	5.56
CP26-24	10	6.29
CP27	10	4.11
CP28	10	4.28
CP33	10	4.71
CP34	10	3.79
CP35	10	7.16
CP36	10	7.61
CP37	10	2.49
CP37B	10	2.09
CP37-03	10	5.49
CP37-42	10	5.36
CP37-42L	10	5.69
CP37-44B	10	5.84
CP37-44L	10	6.40
CP38	10	2.71
CP38B	10	2.72
CP38-23	10	7.30
CPST2B	10	4.61
CPST3B	10	4.33
CPST4B	10	4.69
CPST5B	10	7.33
CPST6B	10	6.79
CPST7B	10	8.62
CPST8B	10	10.74



Automotive



Industrial



Lincoln



Aro



Diamond U

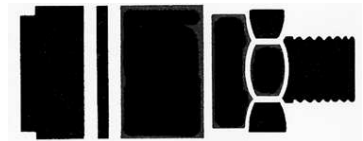
## Pneumatic Couplers & Plugs Pricing

Part #	Pack	Price
C1	10	10.59
C1B	10	11.62
C1-03	10	13.70
C2	10	10.33
C2B	10	11.85
C2R	10	14.21
C2RB	10	14.22
C2-23	10	13.43
C2-42	10	15.15
C2-42B	10	N/A
C2-42L	10	15.27
C2-44	10	15.63
C2-44B	10	14.69
C2-44L	10	15.64
C5	10	22.54
C5-04	10	28.06
C6	10	20.52
C6B	10	34.64
C6-24	10	28.59
C6-42	10	24.51
C6-42L	10	28.50
C6-44	10	25.21
C6-44L	10	21.96
C6-45	10	28.50
C7	10	23.12
C8	10	22.18
C9	10	27.43
C9-03	10	35.77
C10	10	27.16
C10R	10	N/A
C10-23	10	30.37
C10-45	10	33.76
C20	10	9.93
C20B	10	10.23
C20-23	10	13.38
C20-42	10	14.25
C20-42B	10	14.01
C20-42L	10	13.40

Part #	Pack	Price
C20-44	10	14.37
C20-44B	10	15.21
C20-44L	10	13.84
C21	10	10.20
C21B	10	10.63
C21-03	10	13.41
C25	10	22.91
C25-02	10	23.39
C25-04	10	28.85
C26	10	22.35
C26-22	10	23.46
C26-24	10	30.39
C26-42	10	26.44
C26-44	10	25.26
C26-44L	10	27.27
C26-45	10	26.37
C27	10	25.24
C28	10	18.60
C30	10	15.90
C31	10	14.37
C35	10	29.24
C36	10	28.30
C37	10	13.76
C37B	10	N/A
C37-03	10	16.85
C38	10	13.04
C38B	10	13.70
C38-23	10	15.24
C38-42	10	16.31
C38-42L	10	N/A
C38-44	10	16.95
C60	10	24.24
C61	10	24.78
CST2B	10	15.00
CST4B	10	15.11
CST6B	10	15.47
CST8B	10	30.10



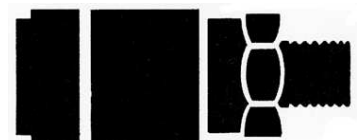
Automotive



Industrial



Lincoln



Aro



Diamond U

## Fire Hose Couplings

Finger expander required to apply these fittings. Supplied with expansion ring, swivel and tail washers.

### BRASS ROCKER LUG

Complete Set - Cast Brass Finish



### ALUMINUM ROCKER LUG

Complete Set - Hard Coat Finish



Rack hose couplings\*

Size	Bowl	Thread	Part #	Price
<b>Single Jacket Hose</b>				
1 1/2"	1 3/4"	NPSH	B15175	104.84
1 1/2"	1 13/16"	NPSH	B15181	104.84
2 1/2"	2 13/16"	NPSH	B25281	236.87
1 1/2"	1 3/4"	NST	B15175N	104.84
1 1/2"	1 13/16"	NST	B15181N	104.84
2 1/2"	2 13/16"	NST	B25281N	236.87
<b>Double Jacket Hose</b>				
1 1/2"	1 15/16"	NPSH	BD15193	104.84
2 1/2"	3"	NPSH	BD253	236.87
1 1/2"	1 15/16"	NST	BD15193N	104.84
2 1/2"	3"	NST	BD253N	236.87

\*No pin lug on male. Other bowl sizes available  
- special order.

Made from Aircraft grade 6061-T6 Aluminum

Size	Bowl	Thread	Part #	Price
<b>Single Jacket Hose</b>				
1"	1 3/16"	NPSH	A10118	54.84
1"	1 1/4"	NPSH	A10125	54.84
1 1/2"	1 3/4"	NPSH	A15175	48.02
1 1/2"	1 13/16"	NPSH	A15181	54.02
2"	2 5/16"	NPSH	A20231	90.04
2 1/2"	2 3/4"	NPSH	A25275	102.25
2 1/2"	2 13/16"	NPSH	A25281	102.25
1"	1 3/16"	NST	A10118N	54.84
1"	1 1/4"	NST	A10125N	54.84
1 1/2"	1 3/4"	NST	A15175N	48.02
1 1/2"	1 13/16"	NST	A15181N	54.02
2 1/2"	2 3/4"	NST	A25275N	102.25
2 1/2"	2 13/16"	NST	A25281N	102.25
<b>Double Jacket Hose</b>				
1 1/2"	1 15/16"	NPSH	AD15193	54.02
2 1/2"	3"	NPSH	AD253	105.85
1 1/2"	1 15/16"	NST	AD15193N	54.02
2 1/2"	3"	NST	AD253N	105.85

Male only = 1/2 set price  
Female only = 2/3 set price

## Washers & Expansion Rings

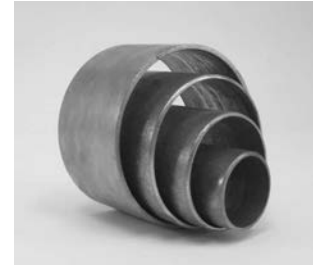


**Swivel Washers**

I.D.	O.D.	Thickness	Part #	Price
1 1/32"	1 7/16"	1/8"	G12005	2.78
1 17/32"	2 1/16"	1/8"	G12011	2.79
2 1/16"	2 5/8"	1/8"	G12038	4.29
2 7/16"	3 3/16"	3/16"	G12042	4.28

**Tail Washers**

I.D.	O.D.	Thickness	Part #	Price
1 1/32"	1 5/16"	3/16"	G12003	2.78
1 9/16"	1 27/32"	3/16"	G12013	N/A
1 5/8"	2 1/32"	3/16"	G12016	2.79
1 9/16"	1 29/32"	3/16"	G12020	2.79
2 9/16"	3 1/32"	1/4"	G12046	4.28
2 5/8"	3 5/32"	1/4"	G12044	4.27



**Expansion Rings**

O.D.	Length	Part #	Price
1"	1 1/4"	R1087	9.00
1 1/2"	1 1/4"	R15125	9.08
2"	1 1/4"	R20125	10.46
2 7/16"	1 1/2"	R27150	15.78

## Finger Expander Assembly



Works on all brands of fire hose coupling machines

\*Does not include drawbar

Size	Part #	Price
1 1/2"	EA15	1063.71
2"	EA20	2908.13
2 1/2"	EA25	1424.69
3"	EA30	1680.32

## Hydrant Adapters - Brass



Female x Male	Part #	Price
1 1/2 NST x 3/4 GHT	09-130-1	23.72
2 1/2 NST x 3/4 GHT	09-130-2	33.37
2 1/2 NST x 3/4 NPT	09-130-3	30.02
2 1/2 NST x 1 NPSH	09-130-4	29.03
2 1/2 NST x 1 NPT	09-130-5	32.77
2 1/2 NST x 1 1/2 NPSH	09-130-6	36.02
2 1/2 NST x 1 1/2 NPT	09-130-7	33.37
2 1/2 NST x 2 NPSH	09-130-8	35.51
2 1/2 NST x 2 NPT	09-130-9	42.55
2 1/2 NST x 1 1/2 NST	09-130-10	33.28
3 NPSH x 2 1/2 NST	09-130-11	83.47
3 NST x 2 1/2 NST	09-130-12	70.40
4 NST x 2 1/2 NST	09-149-1	314.38
4 1/2 NST x 2 1/2 NST	09-149-2	407.23

## Female to Male Hex Nipple - Brass



Female x Male	Part #	Price
1 NPT x 3/4 GHT	14-155-1	7.80
1 1/2 NPT x 3/4 GHT	14-155-15	50.40
1 1/2 NST x 1 1/2 NPSH	14-155-2	19.34
1 1/2 NPT x 1 1/2 NPSH	14-155-3	20.06
2 NPT x 1 1/2 NPT	14-155-16	60.71
2 1/2 NST x 2 1/2 NPSH	14-155-4	61.55
2 1/2 NPT x 2 1/2 NPSH	14-155-5	61.55
1 1/2 NPT x 1 1/2 NST	14-155-6	22.91
2 NPT x 1 1/2 NST	14-155-7	32.41
2 1/2 NPT x 2 1/2 NST	14-155-8	57.09
3 NPT x 2 1/2 NST	14-155-9	91.00
1 1/2 NPSH x 1 1/2 NST	14-155-10	17.80
2 1/2 NPSH x 2 1/2 NST	14-155-11	60.62
1 1/2 NST x 1 1/2 NPT	14-155-12	19.34
2 1/2 NST x 2 NPT	14-155-13	52.17
2 1/2 NST x 2 1/2 NPT	14-155-14	56.32
4 NPT x 4 NST	14-155-17	220.34
4 NST x 4 NPT	14-155-18	220.34
4 1/2 NPT x 4 1/2 NST	14-155-19	494.71
3/4 GHT x 1 NPT	15-216-1	21.60
1 1/2 NST x 2 NPT	15-216-2	47.45
1 1/2 NST x 2 1/2 NST	15-216-3	56.15
2 NPT x 2 1/2 NST	15-216-4	85.29
2 1/2 NST x 3 NPT	15-216-5	120.76
4 NPT x 4 1/2 NST	15-216-6	206.14
3 NST x 3 NPT	15-216-7	N/A
4 1/2 NST x 4 NPT	15-216-8	316.16

## Double Female Hex Coupling - Solid Brass



Female x Female	Part #	Price
1 1/2 NPT x 1 1/2 NST	14-156-1	26.59
2 1/2 NPT x 2 1/2 NST	14-156-2	60.45

## Double Male Hex Nipple - Brass



Male x Male	Part #	Price
1 NPT x 3/4 GHT	14-146-1	13.00
1 NPT x 1 NPSH	14-146-2	13.96
1 1/2 NPT x 1 1/2 NPSH	14-146-3	21.80
2 NPT x 2 NPSH	14-146-4	44.41
2 1/2 NPT x 2 1/2 NPSH	14-146-5	44.07
3 NPT x 3 NPSH	14-146-6	89.61
4 NPT x 4 NPSH	14-146-7	177.85
1 NPT x 1 NST	14-146-8	13.96
1 1/2 NPT x 1 1/2 NST	14-146-9	23.88
2 NPT x 1 1/2 NST	14-146-10	39.10
2 NPT x 2 1/2 NST	14-146-11	58.13
2 1/2 NPT x 2 1/2 NST	14-146-12	59.59
3 NPT x 2 1/2 NST	14-146-13	94.46
4 NPT x 4 NST	14-146-14	180.24
1 1/2 NST x 1 1/2 NST	14-146-15	22.53
1 1/2 NST x 2 1/2 NST	14-146-16	59.32
2 1/2 NST x 2 1/2 NST	14-146-17	63.88
2 1/2 NST x 1 1/2 NPT	14-146-18	N/A
4 NPT x 4 1/2 NST	14-146-19	224.51

## Double Female Swivel - Brass



Female x Female	Part #	Price
1 1/2 NPSH x 1 1/2 NPSH	09-115-1	91.80
2 1/2 NPSH x 2 1/2 NPSH	09-115-2	168.73
1 1/2 NST x 1 1/2 NST	09-115-3	107.54
2 1/2 NST x 2 1/2 NST	09-115-4	181.39
1 1/2 NST x 1 1/2 NPSH	09-115-5	109.53
2 1/2 NST x 2 1/2 NPSH	09-115-6	217.00

## Male Swivel Adapter - Brass



Female Swivel x Male	Part #	Price
1 1/2 NST x 1 1/2 NPT	09-215-3	89.08
2 1/2 NST x 2 NPT	09-215-4	103.37
2 1/2 NST x 2 1/2 NPT	09-215-1	125.70
2 1/2 NST x 3 NPT	09-215-2	176.32



## Female Swivel Adapter - Brass



Female Swivel x Female	Part #	Price
2 1/2 NST x 2 1/2 NPT	23-270	157.50
2 1/2 NST x 3 NPT	23-271	147.62

## Double Male - Brass



Male x Male	Part #	Price
1 1/2 NPSH x 1 1/2 NPSH	09-114-1	45.39
2 1/2 NPSH x 2 1/2 NPSH	09-114-2	70.86
1 1/2 NST x 1 1/2 NST	09-114-3	45.39
2 1/2 NST x 2 1/2 NST	09-114-4	77.23

## Caps and Plugs

### PIN LUG THREADED CAP - BRASS with CHAIN



Size	Thread	Part #	Price
1 1/2"	NPSH	BC150	31.10
1 1/2"	NST	BC150NST	30.60
2 1/2"	NST	BC250NST	41.56
3"	NST	BC300NST	89.43
4"	NST	BC400NST	197.92
4 1/2"	NST	BC450NST	234.76

### PIN LUG THREADED PLUG - BRASS with CHAIN



Size	Thread	Part #	Price
1 1/2"	NST	BP150	38.10
2 1/2"	NST	BP250	47.79

## Fire Equipment & Couplings

### Brass Angle Hose Valve

Underwriters Listed and Factory Mutual approved. New York City Board of Standards and Appeals approved. For pressures up to 300 lbs.



Size	Part #	Price/Ea.
1 1/2 Female NPT X 1 1/2 Female NPT	18-158-1	171.91
1 1/2 Female NPT X 1 1/2 Male NST	18-157-2	171.91
2 1/2 Female NPT X 2 1/2 Male NST	18-157-3	283.80

\* Replacement handles are available. Call for pricing.

### Brass Single Hydrant Gate Valve



Solid Top - For discharge only.

Size	Part #	Price/Ea.
2 1/2 Female NST X 2 1/2 Male NPSH	05-116-1	343.14
2 1/2 Female NST X 2 1/2 Male NST	05-116-2	343.14

### Brass Straight Globe Valve



Maximum pressure 300 PSI.

Size	Part #	Price/Ea.
1 1/2 Female NPT X 1 1/2 Male NST	18-217-1	POR
2 1/2 Female NPT X 2 1/2 Male NST	18-217-2	POR

\* Replacement handles are available. Call for pricing.

### Brass Siamese Gated Wyes



Leader line two-way plug with stop valves built into body.

Size	Part #	Price/Ea.
2 1/2 Female NST X 1 1/2 Male NST	06-175-1	487.46

### Brass Plain Wyes



Divides one stream into two.

Size	Part #	Price/Ea.
1 1/2 Female NST X 1 1/2 Male NST	04-106-1	231.41
2 1/2 Female NST X 1 1/2 Male NST	04-106-2	462.88
2 1/2 Female NST X 2 1/2 Male NST	04-106-3	495.95

## Thermoplastic Nozzles, Caps, & Adapters

All items made of red polycarbonate material. Nozzles are ULC listed.

### Combination Fog Nozzle

Ideal for industrial and commercial installation.  
Full stream to fog.



Size	Thread	Part #	Price
1 1/2"	NPSH	PF1	31.47
1 1/2"	NST	PF2	31.47
2"	NPSH	PF4	66.47

### Combination Fog Nozzle

Ideal for industrial and commercial installation.  
Full stream to fog.



Size	Thread	Part #	Price
2 1/2"	NST	PF3	190.41

\*Washers are available.

### Threaded Caps

Designed to cut the cost of petty theft, while at the same time provide maximum protection.



Size	Thread	Part #	Price
1-1/2"	IPT	1500	18.69
1-1/2"	NST	1500NST	18.69
2-1/2"	NST	2500	22.69
3"	NST	3000	39.64

### Threaded Plug

Designed to cut the cost of petty theft, while at the same time provide maximum protection.



Size	Thread	Part #	Price
1-1/2"	IPT	1503	17.38
1-1/2"	NST	1503NST	17.38
2-1/2"	NST	2503	21.10

### Booster Fog Nozzle

Designed for booster lines.  
Full stream to fog.



Size	Thread	Part #	Price
3/4"	GHT	1030GHT	37.22
1"	IPT	1030IPT	39.64
1"	NST	1030NST	39.64

### Straight Stream Nozzle

1 1/2" x 10"  
1/2" Tip opening



Part #	Price
1510	19.41
1510NST	19.41

### Break Cap

For quick release. Protects swivel inlets on siamese, standpipe and sprinkler connections. It is locked in place by open eyebolts, which attach to pin lugs on swivel connections only. A sharp blow will fracture the cap and clear the connection for action. Supplied in standard red.



Size	Part #	Price
2-1/2"	2502	7.79

### Female to Male Adapter

1 1/2" Female IPT x 1 1/2" Male NST



Part #	Price
1515	24.28

### Reducing Adapter

2 1/2" Female x 1 1/2" Male



Thread	Part #	Price
IPT	2515	28.66
NST	2515NST	28.66

### Universal Hose Cap

No more thread problems! Push-on-pull off. Grips valve or outlet on the inside of water way.



Size	Part #	Price
2-1/2"	2500U	22.69

## Spanner Wrenches

Plated malleable iron for pin lug couplings.



Size	Part #	Price
1 1/2"	S15	6.90
2"	S20	7.07
2 1/2"	S25	8.30
3"	S30	12.03
4"	S40	15.65

## Adj. Hydrant Wrench

Steel handle. Cast iron head. 1 1/4" Max. Pentagon opening. For pin or rocker lug thru 3".



Part #	Price
AW1	21.22

## 5 Hole Hydrant Wrench

Cast iron plated - Fits Pentagon 1", 1 1/8", 1 1/4", 1 1/2" & 1 3/4".



Part #	Price
FH1	17.88

## Universal Wrench

Cast iron plated - For pin or rocker lug 1" ~ 4 1/2".



Part #	Price
UW1	22.03

## Heavy Duty Adj. Hydrant Wrench

Cast iron head, steel handle. For pentagon nuts to 1 3/4" spanner. For pin and rocker lugs 1 1/2" ~ 6".



Part #	Price
HAW	37.75

## Brass Fog Nozzle

Straight Stream, Fog. Water service only. 100 PSI



Size	Thread	Part #	Price
1 1/2"	NPSH	BF1	99.50
1 1/2"	NST	BF2	99.50
2 1/2"	NST	BF3	255.09

## Clamps

### Double Bolt Clamps

Plated Cast Iron



Part #	Clamp range	Price
022	17-22mm	2.77
029	22-29mm	2.95
034	28-34mm	3.06
040	32-40mm	3.60
049	39-49mm	4.48
060	48-60mm	5.65
076	60-76mm	10.13
094	77-94mm	9.20
115	94-115mm	10.38
400	3-1/2" to 4"	15.38
431	3-25/32" to 4-1/16"	14.23
463	4-1/16" to 4-5/8"	16.22
525	4-11/16" to 5-1/4"	18.42
550	5" to 5-1/2"	20.80
600	5-5/16" to 6-1/16"	22.95
675	6-1/8" to 6-7/8"	23.49
769	6-15/16" to 7-5/8"	31.37
818	7-11/16" to 8-3/16"	41.83
875	8-1/4" to 8-7/8"	44.98
988	8-15/16" to 9-7/8"	51.71
1125	9-15/16" to 11-3/8"	78.59
1275	11-3/16" to 13"	93.96
1450	13-3/16" to 15"	109.36
1700	15-1/16" to 17-1/2"	151.93

### Spiral Clamps

Spiral double bolt clamps for convoluted hose. Check with hose manufacturer to determine direction helix is wound. Specify either clockwise or counterclockwise when ordering.



Size	Part #	Price
1 1/2"	SC150	11.44
2"	SC200	13.67
2 1/2"	SC250	15.78
3"	SC300	16.99
4"	SC400	19.90
5"	SC500	25.74
6"	SC600	28.68
8"	SC800	32.94
10"	SC1000	40.83
12"	SC1200	50.33

## Clamps

### Fast-Lok Clamps - K Series

#### K Series

The Universal Clamp that can be secured with either a punch-type or fold-up tool.



3/8" & 5/8" WIDE

3/8" & 5/8" WIDE

GALVANIZED STEEL				
I.D. Size	Width	Part #	Price per Ea.	Pkg. Qty.
13/16"	3/8	K3	1.11	100
1 3/8"	3/8	K311	1.08	100
1"	5/8	K4	1.68	100
1 1/4"	5/8	K5	1.68	100
1 1/2"	5/8	K6	1.78	100
1 3/4"	5/8	K7	1.85	100
2"	5/8	K8	1.88	100
2 1/4"	5/8	K9	2.05	100
2 1/2"	5/8	K10	2.15	50
2 3/4"	5/8	K11	2.36	50
3"	5/8	K12	2.39	50
3 1/2"	5/8	K14	2.52	50
4"	5/8	K16	2.86	25
4 1/2"	5/8	K18	3.06	25
5"	5/8	K20	3.27	25
6"	5/8	K24	3.77	25
7"	5/8	K28	4.31	25
8"	5/8	K32	4.58	25

3/4" WIDE

GALVANIZED STEEL				
I.D. Size	Width	Part #	Price per Ea.	Pkg. Qty.
2"	3/4	K87500	3.57	100
2 1/4"	3/4	K97500	3.20	100
2 1/2"	3/4	K107500	3.30	50
2 3/4"	3/4	K117500	3.37	50
3"	3/4	K127500	3.43	50
3 1/2"	3/4	K147500	3.60	50
4"	3/4	K167500	3.90	25
4 1/2"	3/4	K187500	4.31	25
5"	3/4	K207500	4.78	25
6"	3/4	K247500	5.15	25
7"	3/4	K287500	5.99	25
8"	3/4	K327500	6.18	25

3/8" wide .025 thick, 5/8" and 3/4" .030 thick.

STAINLESS STEEL	
Part #	Price per Ea.
KS3	1.82
KS311	1.95
KS4	2.79
KS5	2.86
KS6	3.10
KS7	3.23
KS8	3.53
KS9	3.77
KS10	4.07
KS11	4.38
KS12	4.68
KS14	5.12
KS16	5.65
KS18	6.19
KS20	6.63
KS24	7.54
KS28	8.62
KS32	9.49

3/4" WIDE

STAINLESS STEEL	
Part #	Price per Ea.
KS87501	5.05
KS97501	5.05
KS107501	5.22
KS117501	5.42
KS127501	5.65
KS147501	6.09
KS167501	6.80
KS187501	7.47
KS207501	7.98
KS247501	9.26
KS287501	10.70
KS327501	11.75

#### F38 Locking Tool



Portable hand tool used to apply 3/8" & 5/8" punch type clamps.

Price \$ 97.77

#### F40 Locking Tool



Intermediate size tool with anti back-lash ratchet. For 3/8" & 5/8" punch type clamps.

Price \$ 170.23

#### F100 Locking Tool



To apply punch type clamps. Comes with 3/8" adapter.

Price \$ 450.34

#### KS001 Wind-Up Tool



To apply fold-up clamps and strapping up to 3/4" wide.

Price \$ 323.14

## Clamps

### Fast-Lok Clamps - F Series

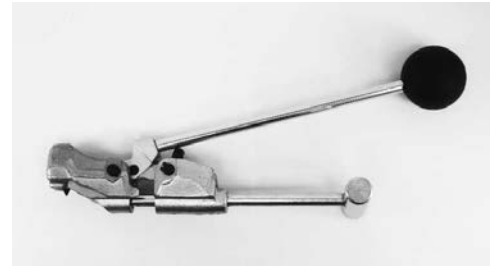
#### F Series

##### Preformed Centerpunch Clamps 3/8" & 5/8" WIDE

GALVANIZED STEEL				
I.D. Size	Width	Part #	Price per Ea.	Pkg. Qty.
13/16"	3/8	F3	1.01	100
1 3/8"	3/8	F311	1.08	100
1"	5/8	F4	1.21	100
1 1/4"	5/8	F5	1.25	100
1 1/2"	5/8	F6	1.45	100
1 3/4"	5/8	F7	1.48	100
2"	5/8	F8	1.55	100
2 1/4"	5/8	F9	1.55	100
2 1/2"	5/8	F10	1.88	50
2 3/4"	5/8	F11	1.88	50
3"	5/8	F12	1.99	50
3 1/2"	5/8	F14	2.09	50
4"	5/8	F16	2.39	25
4 1/2"	5/8	F18	2.49	25
5"	5/8	F20	2.66	25
6"	5/8	F24	3.00	25
7"	5/8	F28	3.64	25
8"	5/8	F32	4.14	25

3/8" & 5/8" WIDE STAINLESS STEEL	
Part #	Price per Ea.
FS3	1.88
FS311	2.12
FS4	2.32
FS5	2.49
FS6	2.63
FS7	2.79
FS8	3.03
FS9	3.16
FS10	3.47
FS11	3.60
FS12	3.77
FS14	4.21
FS16	4.75
FS18	5.05
FS20	5.49
FS24	6.26
FS28	7.10
FS32	7.84

##### F175 Locking Tool



Used for applying 3/4" wide preformed "K" clamps.

**Price \$ 953.65**

##### F225 Mallet



Used for punching all punch type clamps.

**Price \$ 76.93**

#### FO Series

##### Open End Centerpunch Clamps

GALVANIZED STEEL				
I.D. Size	Width	Part #	Price per Ea.	Pkg. Qty.
13/16"	3/8	FO3	3.67	100
1 3/8"	3/8	FO311	3.87	100
2"	3/8	FO316	3.90	100
3 1/8"	3/8	FO325	4.04	100
2"	5/8	FO8	3.16	100
2 1/2"	5/8	FO10	3.33	100
3"	5/8	FO12	3.50	100
3 1/2"	5/8	FO14	3.74	100
4"	5/8	FO16	3.94	50
4 1/2"	5/8	FO18	4.21	50
5"	5/8	FO20	4.84	50
6"	5/8	FO24	4.81	50
7"	5/8	FO28	4.44	25
8"	5/8	FO32	4.91	25
9"	5/8	FO36	5.89	25
10"	5/8	FO40	6.23	25
12"	5/8	FO48	7.17	25
14"	5/8	FO56	9.19	25

STAINLESS STEEL	
Part #	Price per Ea.
FOS3	4.27
FOS311	4.48
FOS316	5.05
FOS325	5.69
FOS8	4.68
FOS10	5.12
FOS12	5.59
FOS14	6.03
FOS16	6.40
FOS18	6.80
FOS20	7.30
FOS24	8.15
FOS28	9.59
FOS32	10.33
FOS36	11.55
FOS40	12.29
FOS48	14.41
FOS56	16.73

##### F550 Clamp Cutter



Used to remove clamps with minimum effort.

**Price \$ 177.52**

##### KA001 Fold-up Adapter



Used with KS001 Wind-up Tool to cut off fold-up preformed clamp.

**Price \$ 278.86**

## Clamps

### Fast-Lok Clamps - FL Series

#### FLJS Series

##### Smooth I.D. Preformed Clamps

Apply with KS001 or any foldup locking tool.

5/8" WIDE STAINLESS			
I.D. Size	Part #	Price /Ea.	Pkg. Qty.
1"	FLJS203	3.33	100
1 1/4"	FLJS204	3.47	100
1 1/2"	FLJS205	3.70	100
1 3/4"	FLJS206	3.94	100
2"	FLJS207	4.01	100
2 1/4"	FLJS208	4.01	100
2 1/2"	FLJS209	4.31	100

3/4" WIDE STAINLESS			
I.D. Size	Part #	Price /Ea.	Pkg. Qty.
2"	FLJS227	4.91	100
2 3/4"	FLJS210	5.59	50
3"	FLJS211	5.96	50
3 1/2"	FLJS212	6.40	50
4"	FLJS213	7.00	25
4 1/2"	FLJS214	7.78	25
5"	FLJS215	8.38	25
6"	FLJS216	9.59	25
7"	FLJS218	11.24	25
8"	FLJS219	12.29	25



#### FL J Series (Same as J Series in Band-it)

##### Regular I.D. Preformed Clamps

Apply with KS001 or any foldup locking tool.

3/8" WIDE GALVANIZED		
I.D. Size	Part #	Price per Ea.
13/16"	FLJ301	1.26
1"	FLJ343	1.28
3"	FJL346	1.88

3/8" WIDE STAINLESS			
I.D. Size	Part #	Price /Ea.	Pkg. Qty.
13/16"	FLJ201	1.88	100
1"	FLJ243	2.02	100
1 3/8"	FLJ202	2.12	100
2"	FLJ245	2.46	100
3"	FLJ246	2.86	100
3 1/4"	FLJ255	3.33	100

5/8" WIDE GALVANIZED		
I.D. Size	Part #	Price per Ea.
1"	FLJ303	2.34
1 1/2"	FLJ305	2.59
1 3/4"	FLJ306	2.69
2"	FLJ307	2.83
2 1/4"	FLJ308	2.83
2 1/2"	FLJ309	2.96

5/8" WIDE STAINLESS			
I.D. Size	Part #	Price /Ea.	Pkg. Qty.
1"	FLJ203	3.57	100
1 1/4"	FLJ204	3.94	100
1 1/2"	FLJ205	4.01	100
1 3/4"	FLJ206	4.21	100
2"	FLJ207	4.44	100
2 1/4"	FLJ208	4.51	100
2 1/2"	FLJ209	4.81	100

3/4" WIDE GALVANIZED		
I.D. Size	Part #	Price per Ea.
2"	FLJ327	2.42
2 3/4"	FLJ310	3.84
3"	FLJ311	3.47
3 1/2"	FLJ312	4.17
4"	FLJ313	4.27
4 1/2"	FLJ314	4.98
5"	FLJ315	5.28
6"	FLJ316	5.49
7"	FLJ318	6.19
8"	FLJ319	6.63

3/4" WIDE STAINLESS		
Part #	Price /Ea.	Pkg. Qty.
FLJ227	5.65	100
FLJ210	6.03	50
FLJ211	6.40	50
FLJ212	6.93	50
FLJ213	7.61	25
FLJ214	8.45	25
FLJ215	9.05	25
FLJ216	10.27	25
FLJ218	11.98	25
FLJ219	13.03	25



## Fast-Lok Strapping & Banding Tools

### CLAMP & BAND TOOLS



#### B-1 CENTER PUNCH TOOL

The ratchet action tension tool is for applying center punch clamps. Made from drop forged and plated tempered steel construction.



Catalog Number	Description	Shipping Wt., Lbs.	Price Each
B1	Center Punch Tool	3	272.24

### CLAMP-IT SYSTEM

#### CLAMP-IT BUCKLES

GALVANIZED				STAINLESS		
Size	Part #	Qty	Price	Part #	Qty	Price
		Per Box	Per Box		Per Box	Per Box
3/8"	CG3750	100	41.47	CS3751	100	85.80
1/2"	CG5000	100	58.06	CS5001	100	102.56
5/8"	CG6250	100	69.37	CS6251	100	125.92
3/4"	CG7500	50	47.49	CS7501	50	88.22

3/8, 1/2, 5/8 have 100 per box. 3/4" has 50 per box.

#### CLAMP-IT STRAPPING

GALVANIZED				STAINLESS		
Size	Part #	Qty	Price	Part #	Qty	Price
		Per Box	Per Box		Per Box	Per Box
3/8"	SG3750	100	64.76	SS3751	100	115.05
1/2"	SG5000	100	79.24	SS5001	100	159.55
5/8"	SG6250	100	96.97	SS6251	100	191.59
3/4"	SG7500	100	115.12	SS7501	100	250.16

100' per box. 3/8" gauge .025", 1/2, 5/8, 3/4 gauge is .030".



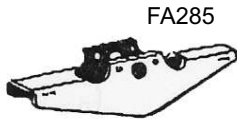
## Clamps

### Fast-Lok Tool & Replacement Parts

#### Replacement parts for F38 Tool

Qty	Description	Part #	Price
1	Frame	FA285	\$27.28
1	Punch and Holder	FA289	\$14.10
1	Winder	FF290	\$16.49
2	Retaining Ring	F292	\$2.52
1	Ratchet Wrench	FA298	\$25.32

### INSTRUCTIONS FOR OPERATING TOOL No. F38



FA285



FA289



FF290

F292



FA298



VIEW 1



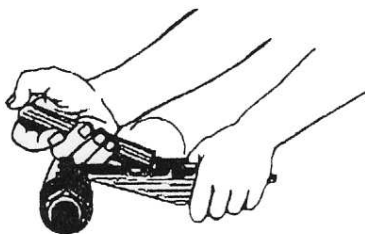
Push end of Clamp completely into slotted end of CLAMP-TOOL. For 3/8" width Clamp use narrow slotted end.

VIEW 2



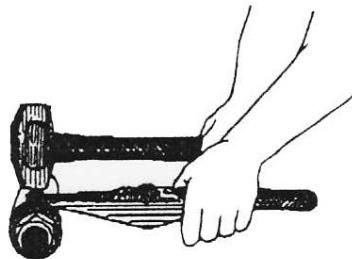
Push Winder into Frame with slot engaging Clamp end. Ratchet wrench attached to winder.

VIEW 3



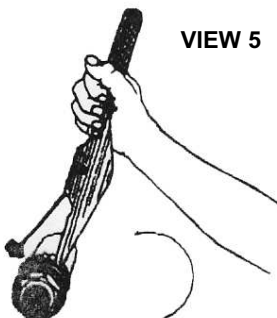
Push forward with sufficient strokes until desired tension is obtained.

VIEW 4



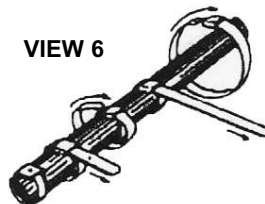
Push punch down on LOK and while holding tension with Wrench, strike firm blow with hammer, thus locking the Clamp.

VIEW 5



Raise punch and while holding tension with Wrench, swing Frame forward and up against edge of LOK, breaking off tail piece. (OPTIONAL) Peen corners of LOK smooth. Twist up tail and when it is free, pull out the Winder. To move punch from one end to other end, squeeze legs of punch holder and reengage in holes at opposite end.

VIEW 6



On applications such as glass, radiator spud or objects where punching would be injurious, pull tension - raise CLAMP-TOOL to bend strip at right angle - remove Winder - clip off 1/4" above the bend - fold end, close over LOK.

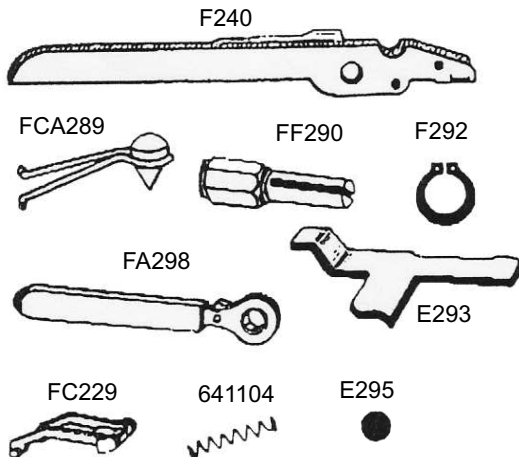
To use Open End Clamp, wrap and lace the Clamp twice around, threading each wrap through the LOK, apply CLAMP-TOOL and use as above.

## Fast-Lok Tool & Replacement Parts

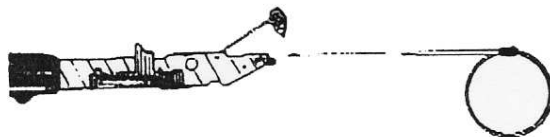
### Replacement parts for F40 Tool

Qty	Description	Part #	Price
1	Frame	F240	\$27.21
1	Punch and Holder	FCA289	\$15.52
1	Winder	FF290	\$16.49
2	Retaining Ring	F292	\$2.52
1	Ratchet Wrench	FA298	\$25.32
1	Lever	E293	\$4.07
1	3/8" Clamp Adapter	FC229	\$25.41
1	Spring	641104	\$2.93
1	Ball	E295	\$2.93

### INSTRUCTIONS FOR OPERATING TOOL No. F40

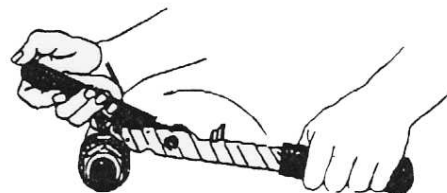


VIEW 1



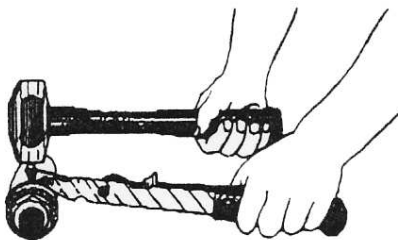
Push end of clamp into slotted end of clamp tool. Rotate ratchet wrench to engage clamp end in slot in winder.

VIEW 2



Push ratchet wrench forward with sufficient strokes until desired tension is obtained.

VIEW 3



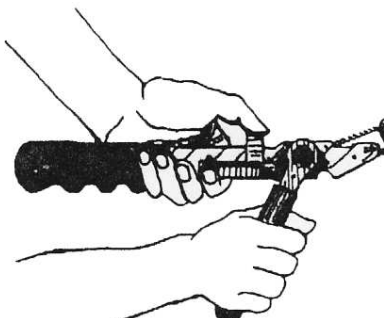
Grip ratchet wrench and tool together. Push punch down on Lok and strike firm blow with hammer, thus locking the clamp tension.

VIEW 4



Raise punch and while holding wrench and tool together, rotate tool forward and up against edge of Lok, breaking off tail piece.

VIEW 5



To remove tail piece, rotate wrench until tail is free from slot in tool. With thumb, slide lever and remove winder and wrench from tool.

VIEW 6



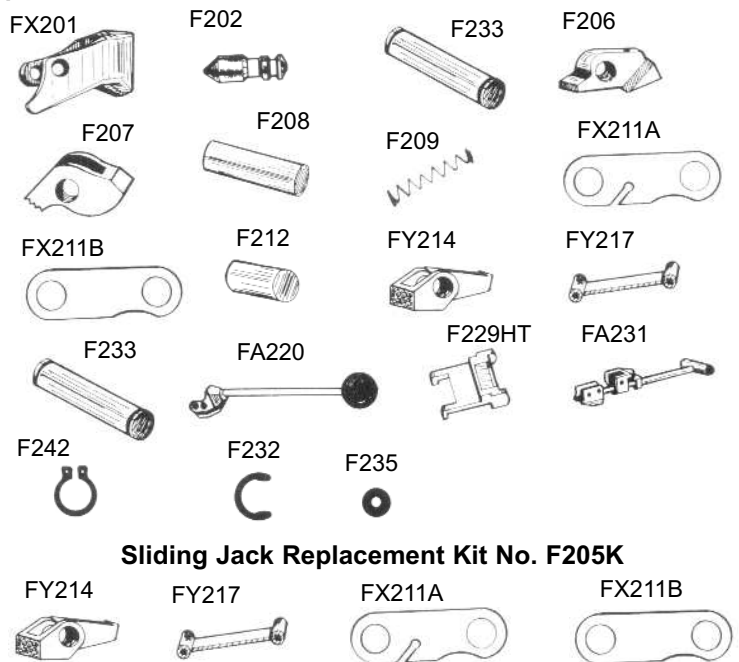
For application of 3/8" wide clamps, swing 3/8" adapter to forward position and follow steps 1 through 5.

## Clamps

### Fast-Lok Tool & Replacement Parts

#### Replacement parts for F100 Tool

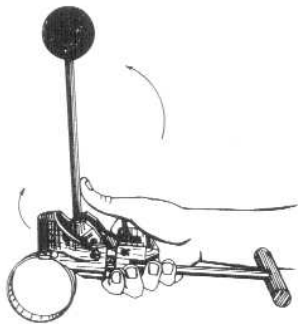
Qty	Description	Part #	Price
1	Punch Head	FX201	\$91.69
1	Punch	F202	\$7.92
1	Punch Head Pin	F233	\$7.71
1	Pusher Nose	F206	\$32.72
1	Holding Dog	F207	\$36.42
1	Pusher Nose Pin	F208	\$7.14
1	Holding Dog Spring	F209	\$3.37
2	Puller Links	FX211A	\$3.37
2	Puller Links	FX211B	\$3.37
1	Puller Link Pin	F212	\$5.28
1	Pulling Dog	FY214	\$48.27
1	Pulling Dog Spring	FY217	\$3.67
1	Ball Handle Assy	FA220	\$84.22
1	3/8" Clamp Adapter	F229HT	\$28.64
1	Pusher Puller Assy	FA231	\$164.73
3	Retaining Rings	F242	\$4.01
1	Crescent Ring	F232	\$3.70
1	Punch Retainer Pin	F235	\$3.47
1	Pulling Dog Spring	FA217	\$4.64



#### Sliding Jack Replacement Kit No. F205K

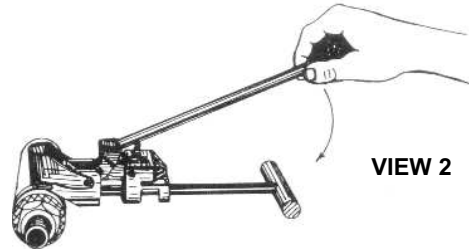
(Kit Fits The F1, F100, F175, & the C2 Tools)

#### INSTRUCTIONS FOR OPERATING TOOL No. F100



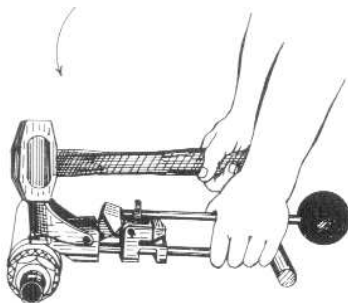
VIEW 1

Hold Loking Tool as shown with ball handle all the way forward. Insert Fast Lok Clamp and push the end entirely into the tool until the Lok is held in pusher housing jaws.



VIEW 2

Slip the hose with nipple inserted into the clamp and locate clamp directly over groove - (position of groove can be laid out on hose with chalk), tighten the clamp with downward strokes of ball handle, using short strokes after initial slack is out so that ball handle finishes in down position.

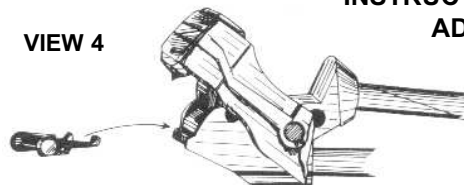


VIEW 3

Hold the tool with clamp resting on Vee block, vise, or other solid surface...swing Punch Head down against Lok and strike hard with the mallet; this "Locks the Clamp." Raise Punch Head to free punch. Hold hose to keep from turning and raise both handles of tool up together which will break off band at Lok. (OPTIONAL) Peen corners of Lok down smooth. To remove cut off end from tool, operate ball handle to work it through holding dog. Then press release lever and pull strip out toward rear of tool.

#### INSTRUCTIONS FOR USING ADAPTER TO APPLY 3/8" WIDTH CLAMPS

VIEW 4



The F100 Loking Tool described above, as shipped, is ready for use in applying all sizes of 5/8" Standard and Heavy Duty hose clamps. To apply the 3/8" wide clamps use the Adapter Part No. F-229.

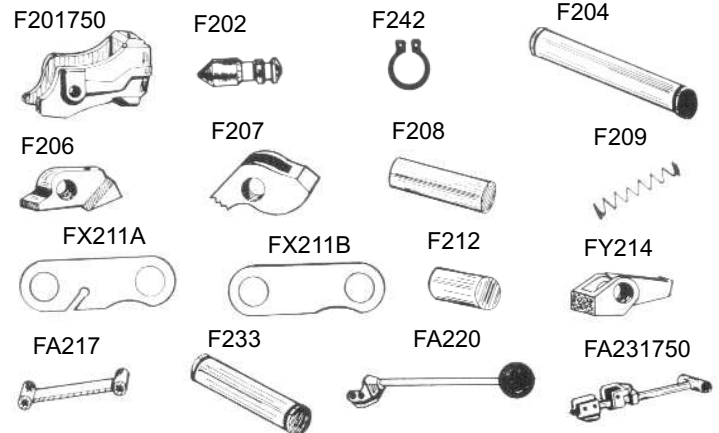
To Insert the Adapter, hold the tool with the Punch Head F-201 raised as shown and place the Adapter under the pusher nose with the bent ends up and push back until shoulder rests against front of pusher nose. The F-229 Clamp Adapter under the pusher nose part F-206 centers the narrower clamp in the tool.

## Clamps

### Fast-Lok Tool & Replacement Parts

#### Replacement parts for F175 Tool

Qty	Description	Part #	Price
1	Punch Head	F201750	\$140.45
1	Punch	F202	\$7.92
1	Punch Head Pin	F204	\$7.11
1	Pusher Nose	F206	\$32.72
1	Holding Dog	F207	\$36.42
1	Pusher Nose Pin	F208	\$7.14
1	Holding Dog Spring	F209	\$3.37
2	Puller Links	FX211A	\$3.37
2	Puller Links	FX211B	\$3.37
1	Puller Links Pin	F212	\$5.28
1	Pulling Dog	FY214	\$48.27
1	Pulling Dog Spring	FA217	\$4.64
1	Pulling Dog Pin	F233	\$7.71
1	Ball Handle Assy	FA220	\$84.22
1	Pusher Puller Assy	FA231750	\$347.45
4	Retaining Rings	F242	\$4.01

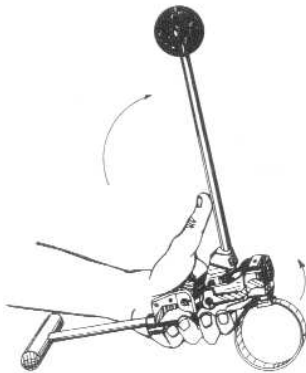


#### Sliding Jack Replacement Kit No. F205K



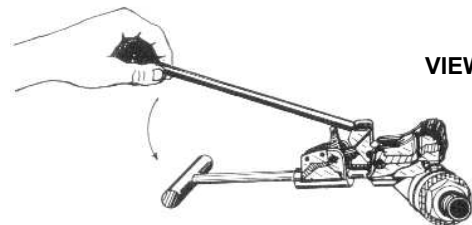
(Kit Fits The F1, F100, F175, & the C2 Tools)

### INSTRUCTIONS FOR OPERATING TOOL No. F175



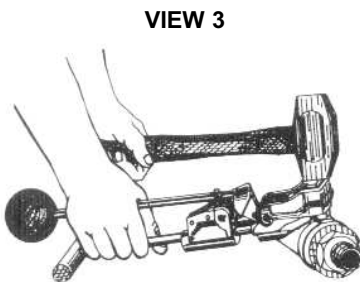
VIEW 1

Hold Loking Tool as shown with ball handle all the way forward. Insert Fast Lok Clamp and push the end entirely into the tool until the Lok is held in pusher housing jaws.



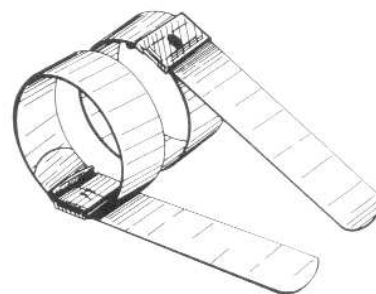
VIEW 2

Slip the hose with nipple inserted into the clamp and locate clamp directly over groove - (position of groove can be laid out on hose with chalk), tighten the clamp with downward strokes of ball handle, using short strokes after initial slack is out so that ball handle finishes in down position.



VIEW 3

Hold the tool with clamp resting on Vee block, vise, or other solid surface...swing Punch Head down against Lok and strike hard with the mallet; this "Locks the Clamp." Raise Punch Head to free punch. Hold hose to keep from turning and raise both handles of tool up together which will break off band at Lok. (OPTIONAL) Peen corners of Lok down smooth. To remove cut off end from tool, operate ball handle to work it through holding dog. Then press release lever and pull strip out toward rear of tool.



VIEW 4

The F-175 Loking Tool to be used for applying 3/4" wide pre-formed "K" clamps.

# Clamps

## Ultra-Lok Clamps

**Caution:** The following data has been compiled from generally available sources and should not be relied upon without consulting and following the specific recommendations of the manufacturer regarding particular coupling materials.

### Revolutionary Strength, Versatility and Reliability

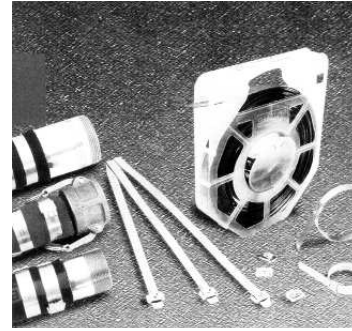
Ultra-Lok is the ultimate band clamping system. It includes a complete selection of convenient preformed clamps, a series of versatile free-end lengths and a choice of fast, powerful application tools.

Whatever your requirements, Ultra-Lok provides a fast, accurate, consistent clamp made from 1/4 hard, high-tensile 201 stainless steel for unequalled strength and reliability.

Preformed or free-end, the powerful, portable UL9010 tool lets you apply clamps anywhere there's an AC outlet and our new IT9000 bench tool has no equal when it comes to accuracy and repeatability.

For the ultimate in portability, the rechargeable, battery-powered UL2000 tool is ideal for municipal applications.

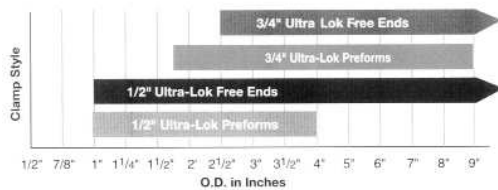
Ultra-Lok's smooth I.D. seals assemblies tight with a gap-free, 360° seal and the electric tools quickly form the patented Ultra-Lok for consistent, reliable clamping.



### Ultra-Lok Smooth I.D. Preformed Clamps\*

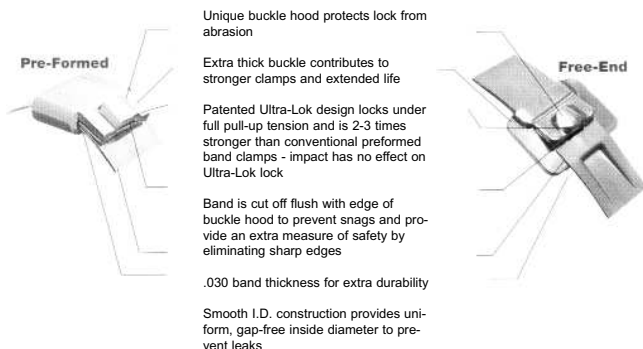
Type 201 1/4 Hard Stainless Steel Band. Thickness: .030" (.76mm)

Cat. No.	Clamp I.D.		Band Width		Pkg. Wt.		Pkg. Qty.	Price/Ea
	In.	mm.	In.	mm.	Lbs.	Kg.		
UL279	1 1/2	38.1	1/2	12.7	9.1	4.1	100	7.20
UL283	2	50.8	1/2	12.7	10.6	4.8	100	7.70
UL286	2 3/4	69.9	1/2	12.7	12.7	5.8	100	8.55
UL291	4	101.6	1/2	12.7	16.7	7.6	100	10.60
UL227	2	50.8	3/4	19.1	14.9	6.8	100	9.87
UL210	2 3/4	69.9	3/4	19.1	9.2	4.2	50	10.82
UL211	3	76.2	3/4	19.1	9.7	4.4	50	11.74
UL212	3 1/2	88.9	3/4	19.1	10.8	4.9	50	12.51
UL213	4	101.6	3/4	19.1	6.1	2.8	25	14.37
UL214	4 1/2	114.3	3/4	19.1	6.7	3.0	25	15.39
UL215	5	127.0	3/4	19.1	7.2	3.3	25	16.69
UL270	5 1/4	139.7	3/4	19.1	7.3	3.3	25	17.29
UL216	6	152.4	3/4	19.1	8.2	3.7	25	19.12
UL217	6 1/2	165.1	3/4	19.1	10.2	4.6	25	21.08
UL218	7	177.8	3/4	19.1	10.6	4.8	25	23.05
UL219	8	203.2	3/4	19.1	11.0	5.0	25	26.00
UL228	9	228.6	3/4	19.1	5.5	2.5	10	28.79



### Patented, Smooth I.D. Buckle Design

Ultra-Lok clamps made of Type 201, 1/4 hard stainless steel for superior strength and corrosion resistance



### Ultra-Lok Free End Buckles

Type 201 Stainless Steel

Cat. No.	Description	Pkg. Qty.	Lbs.	Kg.	Price Ea.
UB2569	Used to form 3/4" Ultra-Lok Free-End Clamps	100	3.7	1.7	2.22
UB2549	Used to form 1/2" Ultra-Lok Free-End Clamps	100	2.4	1.1	2.71

### Ultra-Lok Free End Clamps\*

Type 201 1/4 Hard Stainless Steel Band. Band Width: 3/4" (19.1 mm)

Cat. No.	Sgl. Wrap		Dbl. Wrap		Length Bands/Tote			Weight		Price/Ea
	In.	mm.	In.	mm.	In.	mm.	mm.	Lbs.	Kg.	
UL2020	4.8	121.9	2.3	58.4	20	508	30	4.3	2.0	6.87
UL2024	5.5	139.7	2.6	66.0	24	610	25	4.3	2.0	7.64
UL2028	6.0	152.4	3.5	88.9	28	711	21	4.2	2.0	9.79
UL2036	9.9	251.5	4.8	121.9	36	914	33	8.1	3.7	16.61
UL2052	15.0	381.0	7.3	185.4	52	1321	23	8.2	3.7	23.84

Sizes above 36" are in 100' rolls. Smaller sizes are in 50' rolls. Other sizes available up to 120" Band Width: 1/2" (12.7mm)

					Length Bands/Tote					Price/Ea
UL1018	3.0	76.2	-	-	18	457	50	4.1	1.9	5.16
UL1024	5.0	127.0	-	-	24	610	50	5.3	2.4	6.87
UL1028	6.0	152.4	3.0	76.2	28	711	50	6.4	2.9	8.00
UL1032	7.0	177.8	3.5	88.9	32	813	50	7.2	3.3	9.13
UL1036	8.0	203.2	4.0	101.6	36	914	50	8.0	3.6	10.31
UL1046	11.0	279.4	5.5	139.7	46	1168	25	5.9	2.7	13.17
UL1056	14.0	355.6	7.0	177.8	56	1422	25	7.1	3.2	16.02
UL1070	18.0	457.2	9.0	228.6	70	1778	25	8.5	3.9	20.04
UL1086	22.0	558.8	11.0	279.4	86	2184	25	10.2	4.6	24.57
UL1096	25.0	635.0	12.5	317.5	96	2438	25	11.2	5.1	27.41
UL1106	28.0	711.2	14.0	355.6	106	2692	25	12.7	5.8	30.25
UL1116	31.0	787.4	15.5	393.7	116	2946	25	13.3	6.0	33.08

\*1/2" bands require #ULK910 for UL9010 tool  
1/2" bands require #ULK2000 for UL2000 tool

## Clamps

### Ultra-Lok Tools



#### UL9010 Portable Electric Tool

Ideal for hose clamping, this powerful hand-held tool can apply 1/2" and 3/4" Ultra-Lok clamps, either preformed or free-end anywhere you can plug into an AC outlet.

Adjustable speed and torque controls guarantee consistent tensioning and one-person operation saves on labor expenses.

Part #	Price
UL9010	10,312.73



#### UL4000 Rechargeable Ultra-Lok Tool

Designed for municipal applications, the UL4000 allows you to install patented Ultra-Lok Free End clamps virtually anywhere. Without generators...without compressors...without unwieldy cords or hoses.

The UL4000's unique design allows consistent, repeatable tensioning and locking under full tension. This insures that each and every clamp will have the same strength and holding characteristics.

Is installation time critical? Field tests show that Ultra-Lok clamps can be applied four times faster than conventional band clamps. Not suitable for hose clamping. Use the UL9010.



Part #	Price
UL4000	10,312.73

## Clamps

### T-Bolt Clamps

A strong, positive method of assembling hose, duct connections, tubing, and component parts. They are used for high torque applications where ordinary hose clamps fail. They provide a 360° sealing surface by using a shoe or formed bridge. Nuts are self-locking, vibration resistant with nylon inserts.

#### PARTIAL STAINLESS

3/4" wide - .025" thick  
300 Series Stainless Steel  
band. Carbon steel bolt.



#### ALL STAINLESS

3/4" wide - .025" thick  
300 Series Stainless Steel  
band. Stainless steel bolt.

Nominal Size	Part #	Price	Size Range	Part #	Price
1 1/2"	700-150	8.43	1.37" - 1.62"	853-150	11.81
1 3/4"	700-175	8.43	1.62" - 1.87"	853-175	11.81
1 7/8"	700-188	8.43	1.75" - 2.00"	853-188	11.81
2"	700-200	8.43	1.87" - 2.12"	853-200	11.81
2 1/4"	700-225	8.43	2.06" - 2.37"	853-225	11.81
2 3/8"	700-238	8.43	2.19" - 2.50"	853-238	11.81
2 1/2"	700-250	8.75	2.31" - 2.62"	853-250	12.12
2 9/16"	700-256	8.75	2.37" - 2.68"	853-256	12.12
2 5/8"	700-263	8.75	2.41" - 2.72"	853-263	12.12
2 3/4"	700-275	9.10	2.56" - 2.87"	853-275	12.12
2 7/8"	700-288	9.10	2.66" - 2.97"	853-288	12.47
3"	700-300	9.10	2.78" - 3.09"	853-300	12.47
3 1/8"	700-312	9.10	2.90" - 3.21"	853-312	12.47
3 1/4"	700-325	9.10	3.03" - 3.34"	853-325	12.47
3 1/2"	700-350	9.52	3.28" - 3.59"	853-350	12.90
3 3/4"	700-375	9.52	3.53" - 3.84"	853-375	12.90
3 53/64"	700-382	9.52	3.60" - 3.91"	853-382	12.90
4"	700-400	9.52	3.78" - 4.09"	853-400	12.90
4 1/4"	700-425	9.52	4.03" - 4.34"	853-425	13.14
4 1/2"	700-450	9.52	4.28" - 4.59"	853-450	13.14
4 3/4"	700-475	9.52	4.53" - 4.84"	853-475	13.14
5"	700-500	10.72	4.78" - 5.09"	853-500	14.44
5 1/4"	700-525	10.72	5.03" - 5.34"	853-525	15.00
5 1/2"	700-550	11.07	5.28" - 5.59"	853-550	15.00
5 3/4"	700-575	11.07	5.53" - 5.84"	853-575	15.00
6"	700-600	11.07	5.78" - 6.09"	853-600	15.67
6 1/4"	700-625	11.07	6.03" - 6.34"	853-625	15.67
6 1/2"	700-650	11.00	6.28" - 6.59"	853-650	15.67
6 3/4"	700-675	11.00	6.53" - 6.84"	853-675	15.67
7"	700-700	12.05	6.78" - 7.09"	853-700	15.67
7 1/4"	700-725	12.05	7.04" - 7.34"	853-725	16.48
7 1/2"	700-750	13.63	7.28" - 7.59"	853-750	15.88
7 3/4"	700-775	13.63	7.54" - 7.84"	853-775	16.59
8"	700-800	13.63	7.78" - 8.09"	853-800	18.20
8 1/4"	700-825	13.63	8.03" - 8.34"	853-825	18.20
8 7/8"	700-888	15.04	8.66" - 8.97"	853-888	22.10
10 7/8"	700-1088	16.09	10.66" - 10.97"	853-1088	22.31
12 7/8"	700-1288	16.87	12.66" - 12.97"	853-1288	22.52

All clamps open 3/32" above and tighten 7/32" smaller than nominal I.D. for a total of 5/16" range.



## Clamps

### Oetiker Clamps

#### Single Ear



Zinc plated .276" Wide Band .076" Thick

Size	Closed	Open	Part #	Price /100
3/8"	.350	.414	105	54.80
7/16"	.381	.444	113	55.18
15/32"	.394	.486	123	56.31
1/2"	.453	.524	133	56.73
35/64"	.472	.551	140	57.45
9/16"	.496	.571	145	58.20
5/8"	.543	.618	157	59.27
11/16"	.594	.669	170	60.78
23/32"	.618	.728	185	61.89
3/4"	.669	.779	198	59.00
13/16"	.716	.827	210	66.77
7/8"	.779	.890	226	67.87
15/16"	.839	.949	241	69.01
1"	.898	1.008	256	70.83
1 1/16"	.945	1.067	271	72.76
1 1/8"	1.004	1.126	286	73.82
1 3/16"	1.063	1.185	301	75.71
1 5/16"	1.181	1.303	331	79.05
1 3/8"	1.240	1.362	346	81.66
1 15/32"	1.358	1.480	376	84.31
1 9/16"	1.437	1.559	396	88.41
1 5/8"	1.492	1.614	410	89.89
1 11/16"	1.551	1.673	425	91.74
1 23/32"	1.610	1.732	440	93.60
1 3/4"	1.669	1.791	455	90.72
1 13/16"	1.728	1.850	470	96.97
1 15/16"	1.846	1.968	500	100.31

Sold by 100 pc bag only.

#### Double Ear



Size	Closed	Open	Part #	Price /100
5/32"	.122	.161	0041	92.47
11/64"	.138	.177	0045	92.47
3/16"	.118	.197	0305	92.47
1/4"	.197	.276	0507	97.35
5/16"	.276	.354	0709	97.35
3/8"	.315	.433	0811	97.70
1/2"	.433	.512	1113	99.97
9/16"	.512	.591	1315	153.97
19/32"	.591	.669	1517	107.77
5/8"	.591	.708	1518	107.77

Size	Closed	Open	Part #	Price /100
3/4"	.669	.787	1720	117.48
13/16"	.748	.866	1922	235.71
7/8"	.787	.905	2023	134.30
15/16"	.866	.984	2225	276.06
1"	.905	1.063	2327	159.24
1 1/16"	.984	1.102	2528	169.32
1 5/64"	1.035	1.220	2731	184.04
1 5/16"	1.220	1.339	3134	310.70
1 7/16"	1.339	1.457	3437	195.05
1 1/2"	1.457	1.575	3740	375.78
1 5/8"	1.575	1.693	4043	221.19
1 3/4"	1.693	1.811	4346	398.62

Sold by 100 pc bag only.

#### CLAMPING TOOLS



#1098 Standard Jaw  
Price \$ 90.51



#1099 Side Jaw  
Price \$ 110.66

When installing Oetiker Ear Type Clamps, please note that each ear must be crimped as recommended to obtain a proper seal. An incorrectly made installation may impair the best connection. If a clamp ear can be closed all the way, the clamp size selected is probably too big and the next smaller clamp should be ordered.

#### OETIKER CLAMP KIT



Part # OEKIT  
Price \$ 285.14

##### Features:

- 123 clamps - 5/16" to 1"
- Pincher tool
- Compact plastic travel case

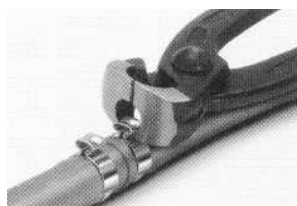
##### Oetiker Clamp Kit

Oetiker 2 ear clamps are especially suited for industrial use and with heavily vibrating equipment. Widely used for maintenance and OEM applications. Rubber hose, plastic tubing, coaxial and electrical cable, rope, etc. are all easily clamped. Used on air, fluid, and gaslines. Also suitable for low pressure hydraulic applications.

#### How to Apply:



Position clamp on hose as illustrated.



Give each ear a firm squeeze with your OETIKER Pincers.

## Clamps

### Ideal Worm Gear Lined Clamps

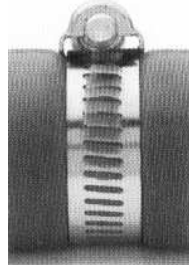
Lined clamps are specially designed for use with silicone rubber and other soft hose applications. The extended band or liner protects the hose surface and prevents it from extruding or shearing through the band notches as the clamp is tightened.

#### Partial Stainless

##### 53 Series

Band: 1/2" wide Stainless  
Housing: Stainless  
Screw: 5/16" hex-head, Zinc plated, yellow dichromate, carbon steel.

Dia. Range	Part #	Price	Box/Qty.
5/8" ~ 1"	53-08	2.73	10
3/4" ~ 1 1/16"	53-10	2.73	10
7/8" ~ 1 1/4"	53-12	2.80	10
1" ~ 1 1/2"	53-16	2.80	10
1 1/8" ~ 1 3/4"	53-20	2.87	10
1 1/4" ~ 2"	53-24	2.87	10
1 5/16" ~ 2 1/4"	53-28	2.90	10
1 9/16" ~ 2 1/2"	53-32	2.90	10
1 13/16" ~ 2 3/4"	53-36	3.01	10
2 1/16" ~ 3"	53-40	3.60	10
2 5/16" ~ 3 1/4"	53-44	3.95	10
2 9/16" ~ 3 1/2"	53-48	3.95	10
2 13/16" ~ 3 3/4"	53-52	4.26	10
3 1/16" ~ 4"	53-56	4.26	10
3 9/16" ~ 4 1/2"	53-64	4.65	10
4 1/16" ~ 5"	53-72	4.96	10



Hose installed with unlined clamp.



Hose installed with lined clamp.

#### All 316 Stainless

##### 67M Series

Band: 1/2" wide 316 Stainless  
Housing: 316 Stainless  
Screw: 5/16" hex-head.

#### Marine Grade

Dia. Range	Part #	Price	Box/Qty.
1/2" ~ 1"	67M-08	5.10	10
1 1/16" ~ 1 1/8"	67M-10	5.10	10
1 1/16" ~ 1 1/4"	67M-12	5.24	10
3/4" ~ 1 1/2"	67M-16	5.24	10
13/16" ~ 1 3/4"	67M-20	5.28	10
1 1/16" ~ 2"	67M-24	5.28	10
1 1/4" ~ 2 1/4"	67M-28	5.28	10
1 9/16" ~ 2 1/2"	67M-32	5.28	10
1 13/16" ~ 2 3/4"	67M-36	5.38	10
2 1/16" ~ 3"	67M-40	5.84	10
2 5/16" ~ 3 1/4"	67M-44	6.82	10
2 9/16" ~ 3 1/2"	67M-48	6.82	10
2 13/16" ~ 3 3/4"	67M-52	7.20	10
3 1/16" ~ 4"	67M-56	7.20	10
3 5/16" ~ 4 1/4"	67M-60	8.07	10
3 9/16" ~ 4 1/2"	67M-64	8.07	10
4 1/16" ~ 5"	67M-72	8.25	10
5 1/16" ~ 6"	67M-88	8.56	10
6 9/16" ~ 6 1/2"	67M-96	8.84	10



### SURELOCK QUICK-ENGAGE

#### 48 Series

- \* Surelock's bind-free pull-through design makes installation quick and easy. No fumbling with screws engaging prematurely during take up.
- \* Captured screw design makes engagement and final tensioning trouble-free, even under the most difficult conditions or confined areas.
- \* All 300 grade stainless steel construction for superior corrosion resistance, even in underground applications
- \* Push button for quick release. 9/16" band width and 5/16" hex-head screw.

Dia. Range	Part #	Price	Box/Qty.
1/2" ~ 1 1/4"	48-12	11.72	10
3/4" ~ 1 3/4"	48-20	11.93	10
3/4" ~ 2"	48-24	12.17	10
1" ~ 2 1/4"	48-28	12.36	10
1" ~ 2 1/2"	48-32	12.48	10
7/8" ~ 2 3/4"	48-36	12.64	10
1" ~ 3 1/2"	48-48	13.23	10
1" ~ 4"	48-56	13.39	10
2" ~ 5"	48-72	14.02	10
2" ~ 6"	48-88	15.83	10
2" ~ 7"	48-104	16.62	10
1 3/4" ~ 7 3/4"	48-116	14.96	10
4" ~ 10"	48-152	18.97	10
6 1/4" ~ 12 1/4"	48-188	21.07	10
8 1/2" ~ 14 1/2"	48-224	24.43	10
9" ~ 15"	48-232	21.71	10
11" ~ 17"	48-272	25.73	10
12 1/2" ~ 18 1/2"	48-288	25.59	10
15 1/4" ~ 21 1/4"	48-332	27.19	10

## Clamps

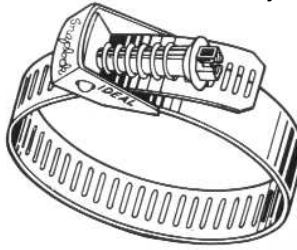
### Snaplock - Quick Release Clamps

Snaplock worm drive clamps are indispensable for installation in "closed" systems where the clamp must be disengaged to be applied.

#### Partial Stainless

##### 56 Series

Band: Stainless  
Housing: Stainless  
Screw: 5/16" Slotted Hex, Zinc plated, Dichromate, carbon steel.  
Bridge: Zinc plated, Dichromate carbon steel



#### All Stainless

##### 58 Series

Band: Stainless Steel  
Housing: Stainless Steel  
Screw: 3/8" Slotted Hex  
410 Stainless Steel  
Bridge: Stainless Steel

Width	Dia. Range	Part #	Price	Box/Qty.
9/16"	1/2" ~ 1 1/4"	56-12	2.59	10
9/16"	3/4" ~ 1 3/4"	56-20	2.59	10
9/16"	1" ~ 2"	-	-	-
9/16"	1" ~ 2 1/4"	56-28	2.62	10
9/16"	7/8" ~ 2 3/4"	56-36	2.69	10
9/16"	1 5/8" ~ 3 1/2"	56-48	3.32	10
9/16"	1" ~ 4"	56-56	3.60	10
9/16"	2" ~ 5"	56-72	3.87	10
9/16"	2" ~ 6"	56-88	4.82	10
9/16"	2" ~ 7"	56-104	4.86	10
9/16"	2" ~ 7 3/4"	56-116	4.68	Bulk
9/16"	2 5/16" ~ 8 1/2"	56-128	6.64	Bulk
9/16"	2 5/16" ~ 10"	56-152	5.73	Bulk
9/16"	2 5/16" ~ 12"	56-188	6.25	Bulk

Width	Part #	Price	Box/Qty.
9/16"	58-12	3.43	10
9/16"	58-20	3.50	10
9/16"	58-24	3.70	10
9/16"	58-28	3.70	10
9/16"	58-36	3.77	10
9/16"	58-48	4.51	10
9/16"	58-56	4.82	10
9/16"	58-72	5.70	10
9/16"	58-88	6.08	10
9/16"	58-104	7.06	10
9/16"	58-116	7.65	Bulk
9/16"	58-128	7.90	Bulk
9/16"	58-152	8.39	Bulk
9/16"	58-188	9.19	Bulk

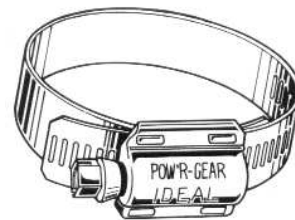
### Pow'r-Gear - High Torque Clamps

POW'R-GEAR clamps deliver over 800 lbs of band tension at 150 in-lbs of screw torque. More than twice the band tension of conventional clamps.

#### 60 Series

Band: 304 SS, 5/8" Wide, .027" thick  
Housing: 304 SS, 5/8" Wide, .060" thick  
Screw: 5/16" Slotted Hex  
410 Grade Stainless steel

Dia. Range	Part #	Price	Box/Qty.
1" ~ 1 3/4"	60-175	6.78	10
1 1/4" ~ 2 1/8"	60-200	6.78	10
1 3/4" ~ 2 5/8"	60-250	6.89	10
2 1/4" ~ 3 1/8"	60-300	7.17	10
2 3/4" ~ 3 5/8"	60-350	7.30	10
3 1/4" ~ 4 1/8"	60-400	7.51	10
3 3/4" ~ 4 5/8"	60-450	7.76	10
4 1/4" ~ 5 1/8"	60-500	7.93	10
4 3/4" ~ 5 5/8"	60-550	8.49	10
5 1/4" ~ 6 1/8"	60-600	8.77	10
5 3/4" ~ 6 5/8"	60-650	8.84	10
6 1/4" ~ 7 1/8"	60-700	9.19	10
6 3/4" ~ 7 5/8"	60-750	9.93	10
7 1/4" ~ 8 1/8"	60-800	9.30	10
7 3/4" ~ 8 5/8"	60-850	10.28	10
8 1/4" ~ 9 1/8"	60-900	10.49	10



#### 60X Series

#### EXTENDED RANGE CLAMPS

Specifications same as 60 Series

From	To	Part #	Price
1 1/4"	2 5/8"	6X-200	6.89
2 1/8"	4 1/8"	6X-300	6.78
4"	6 1/8"	6X-400	8.77
6 1/8"	9 1/8"	6X-500	10.49

## Clamps

### Ideal Worm Gear Clamps

Completely mechanical design locks the one piece housing directly to the band using the full strength of the material to provide maximum anti-shear protection. No spot welds to rupture under stress or corrosion. One piece housing cannot come apart under high loading.

#### Partial Stainless

**Band:** Stainless  
**Housing:** Stainless  
**Screw:** 5/16" Slotted Hex,  
 Dichromate, Carbon Steel.



#### All Stainless

**Band:** 300 Series Marine Grade SS  
**Housing:** 300 Series Marine Grade SS  
**Screw:** 5/16" Slotted Hex 300  
 Series Marine Grade SS

Width	Dia. Range	Part #	Price	Box/Qty.
1/2"	3/8" ~ 7/8"	57-06	1.92	10
1/2"	7/16" ~ 1"	57-08	1.92	10
1/2"	1/2" ~ 1 1/16"	57-10	1.92	10
1/2"	1/2" ~ 1 1/4"	57-12	1.99	10
1/2"	3/4" ~ 1 1/2"	57-16	1.99	10
1/2"	3/4" ~ 1 3/4"	57-20	1.99	10
1/2"	1" ~ 2"	57-24	1.99	10
1/2"	1 5/16" ~ 2 1/4"	57-28	2.03	10
1/2"	1 9/16" ~ 2 1/2"	57-32	2.03	10
1/2"	7/8" ~ 2 3/4"	57-36	2.20	10
1/2"	1 1/8" ~ 3"	57-40	2.62	10
1/2"	1 5/16" ~ 3 1/4"	57-44	2.90	10
1/2"	1 5/8" ~ 3 1/2"	57-48	2.90	10
1/2"	1 7/8" ~ 3 3/4"	57-52	3.22	10
1/2"	2 1/8" ~ 4"	57-56	3.22	10
1/2"	3 1/4" ~ 4 1/4"	57-60	3.25	10
1/2"	2 5/8" ~ 4 1/2"	57-64	3.32	10
1/2"	3 1/8" ~ 5"	57-72	3.50	10
1/2"	3 5/8" ~ 5 1/2"	57-80	3.77	10
1/2"	4 1/4" ~ 6"	57-88	4.12	10
1/2"	4 3/4" ~ 6 1/2"	57-96	4.16	10
1/2"	4" ~ 7"	57-104	4.37	10
	2 1/2" ~ 8 1/2"			
	2 1/2" ~ 10"			
	2 1/2" ~ 12 1/4"			
	2 1/2" ~ 13 1/4"			
	2 1/2" ~ 14 1/2"			
	2 1/2" ~ 15 1/4"			
	2 1/2" ~ 16"			
	18 1/16" ~ 20"			
	1 3/4" ~ 24"			

Width	Part #	Price	Box/Qty.
1/2"	67-06	2.59	10
1/2"	67-08	2.59	10
1/2"	67-10	2.59	10
1/2"	67-12	2.62	10
1/2"	67-16	2.62	10
1/2"	67-20	2.66	10
1/2"	67-24	2.66	10
1/2"	67-28	2.69	10
1/2"	67-32	2.69	10
1/2"	67-36	2.87	10
1/2"	67-40	3.04	10
1/2"	67-44	3.50	10
1/2"	67-48	3.50	10
1/2"	67-52	3.77	10
1/2"	67-56	3.77	10
1/2"	67-60	3.98	10
1/2"	67-64	4.16	10
1/2"	67-72	4.19	10
1/2"	67-80	4.40	10
1/2"	67-88	4.54	10
1/2"	67-96	5.14	10
1/2"	67-104	5.14	10
9/16"	63-128	8.75	Bulk/50
9/16"	63-152	9.91	Bulk/50
9/16"	63-188	10.67	Bulk/50
9/16"	63-208	11.09	Bulk/50
9/16"	63-224	11.73	Bulk/50
9/16"	63-236	11.87	Bulk/50
9/16"	63-248	12.56	Bulk/50
9/16"	63-312	19.29	Bulk/50
9/16"	63-380	22.13	Bulk/50

### Micro-Gear - Miniature Clamps

Micro-Gear clamps are tiny, tough and precision engineered for use in small hose applications. Their slim 5/16" band and low profile makes them easy to install in confined areas.

**Band:** Stainless  
**Housing:** Stainless  
**Screw:** 1/4" Slotted Hex  
 Dichromate, Carbon Steel



**Band:** 300 Series Marine Grade SS  
**Housing:** 300 Series Marine Grade SS  
**Screw:** 1/4" Slotted Hex 300  
 Series Marine Grade SS

Diameter Range	Part #	Price	Box Qty
1/4" ~ 5/8"	62-02	1.57	10
5/16" ~ 7/8"	62-03	1.57	10
1/2" ~ 1"	62P-08	1.68	10
5/8" ~ 1 1/4"	62P-12	1.85	10
5/8" ~ 1 1/2"	62P-16	1.92	10
3/4" ~ 1 3/4"	62P-20	1.92	10

Part #	Price	Box Qty
626-02	1.92	10
626-06	1.92	10
62M-08	2.17	10
62M-12	2.27	10
62M-16	2.27	10
62M-20	2.38	10

## Valves

### Polypropylene Ball Valves

Fiberglass reinforced polypropylene. All valves have self-lubricating plastic bearings and seats. Cadmium plated steel bolts and nuts. Viton O-ring seals. Rated to 75 psi.

#### STANDARD PORT



Size	Part #	Desc.	Price
1"	4011C-20	Small 4 Bolt	65.25
2"	4011E-20	Std. 4 Bolt	91.36
3"	4011F-20	6 Bolt	183.11

#### REPLACEMENT HANDLES

Size	Part #	Desc.	Price
1/2", 3/4"	4L100	Full Port	4.69
1"	4L100	Std. Port	4.69
1"	4H722	Full Port	5.60
1 1/4"	4L101	Full Port	12.76
1 1/2"	4L101	Full Port	12.76
2"	4L101	Std. Port	12.76
2"	4L102	Full Port	19.05
3"	4L102	Std. Port	19.05
3"	4L102	Full Port	19.05

#### FULL PORT



Size	Part #	Desc.	Price
1/2"	4011A-20	Small 4 Bolt	65.25
3/4"	4011B-20	Small 4 Bolt	62.47
1"	4011Y-20	4 Bolt	70.62
1 1/4"	4011X-20	4 Bolt	86.67
1 1/2"	4011D-20	4 Bolt	90.01
2"	4011N-20	6 Bolt	130.36
3"	4011Z-20	6 Bolt	316.05



### High Pressure Ball Valves

- Rugged carbon steel
- Blow-out proof stems
- Buna-n seals
- Full port - Female x Female
- Low Cost



Part #	Thread	Working Pressure	Price
BKH-14-NPT	1/4"	7500	68.37
BKH-38-NPT	3/8"	7500	74.38
BKH-12-NPT	1/2"	5000	81.37
BKH-34-NPT	3/4"	5000	148.76
BKH-1-NPT	1"	5000	164.71
BKH-114-NPT**	1 1/4"	5000	210.16
BKH-112-NPT**	1 1/2"	5000	224.51
SKH-2-NPT	2"	5000	790.59

\*\* Avail in Full Port

\*\* Avail in Full Port

## Valves

### Brass Ball Valves



» Not for potable water

» Replacement handles for ball valves are also available!

**BRASS**  
**Standard Port**  
Female x Female NPT

**BRASS**  
**Full Port**  
Female x Female NPT

**BRASS**  
**Full Port**  
Female x Female NPT

**STAINLESS**  
**Standard Port**  
Female x Female NPT

**STAINLESS**  
**Full Port**  
Female x Female NPT

	125# Steam 400 ~ 600 WOG Teflon seat Chrome plated ball ASTM C3700		Forged 150# Steam 600 WOG Teflon seat & seals UL-FM-CSA		150# Steam 600 WOG Teflon seat Chrome plated ball 2 Piece		316 Stainless 1000 WOG Teflon seat 1 Piece		316 Stainless 1000 WOG Teflon seat 2 Piece	
Size	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price
1/4"	-	-	171N-025	36.21	BVB025	8.15	BVSR025	47.22	BVS025	78.27
3/8"	-	-	171N-037	36.21	BVB037	9.30	BVSR037	47.91	BVS037	69.23
1/2"	BVBR050	9.03	171N-050	21.64	BVB050	11.73	BVSR050	53.18	BVS050	93.50
3/4"	BVBR075	12.53	171N-075	34.52	BVB075	18.15	BVSR075	62.27	BVS075	99.19
1"	BVBR100	21.99	171N-100	50.54	BVB100	27.60	BVSR100	92.52	BVS100	127.94
1 1/4"	BVBR125	38.99	171N-125	92.82	BVB125	42.02	BVSR125	139.41	BVS125	193.46
1 1/2"	BVBR150	42.87	171N-150	114.99	BVB150	61.98	BVSR150	142.03	BVS150	254.90
2"	BVBR200	76.12	171N-200	179.86	BVB200	84.01	BVSR200	202.14	BVS200	326.96
2 1/2"	BVBR250	146.41	171N-250	677.36	BVB250	197.04				
3"	BVBR300	227.57	171N-300	894.42	BVB300	254.94				
4"	BVBR400	345.83	171N-400	1885.27	BVB400	412.65				

## Valves

### Miniature Ball Valves

Applications for miniature ball valves are pneumatics, low pressure hydraulics, air, hot water gasoline, fuel oil, lubricating oil, general industrial process.



#### Specifications:

- \* 450 PSI
- \* Body Nickel Plated Forged Brass
- \* Ball Hard Chrome Plated Forged Brass
- \* Stem Forged Brass
- \* Stem Seal Viton "O" Rings
- \* Ball Seal Teflon Rings
- \* Handle Molded Nylon (Black Wedge)
- \* Blow out proof stem

Size	Part #	Desc.	Price
1/4"	BVF025	F x F	25.01
3/8"	BVF037	F x F	25.23
1/4"	BVM025	F x M	24.67
3/8"	BVM037	F x M	24.62



### Brass Gate Valves

Our new brass gate valves are applicable for steam, water, oil & gas. Female to female with non-rising stem. Working temperature is 0° - 300° F. Pressure rate is 200 WOG/125 WSP.



#### Features:

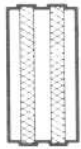
- Brass forged body
- Non rising stem
- Cast iron handle
- Suitable for full range of liquids and gas
- Flow can go both directions
- Each valve is individually tested
- NPT threaded ends to ANSI B1.20.1
- Standard Port

Size	Part #	Price
1/2"	GV050	14.15
3/4"	GV075	19.89
1"	GV100	28.81
1 1/4"	GV125	43.16
1 1/2"	GV150	53.93
2"	GV200	79.15
2 1/2"	GV250	152.88
3"	GV300	220.12
4"	GV400	358.73

## Brass Fittings

### GARDEN HOSE CAP

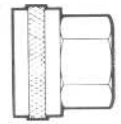
3/4" Female GHT thread  
Brass



Part #	Price
GH-11	2.66

### GHT FEMALE X FEMALE NPT (SWIVEL)

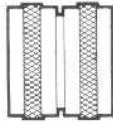
Brass



Female x Female	Part #	Price
GHT X 1/2" NPT	GH1-8	9.23
GHT X 3/4" NPT	GH1-12	8.63

### FEMALE SWIVEL

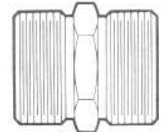
Female GHT x Female GHT  
Brass



Female x Female	Part #	Price
GHT X GHT	GH-2	8.28

### MALE GHT X MALE GHT

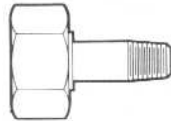
Brass



Male x Male	Part #	Price
GHT X GHT	GH-7	8.16

### FEMALE GHT X NPT MALE (SWIVEL)

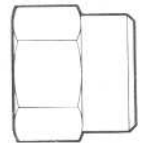
Brass



Female x Male	Part #	Price
GHT X 1/4" NPT	GH9-4	9.96
GHT X 3/8" NPT	GH9-6	9.50
GHT X 1/2" NPT	GH9-8	11.24

### FEMALE GHT X FEMALE NPT (RIGID)

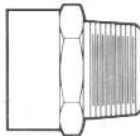
Brass



Female x Female	Part #	Price
GHT X 1/2" NPT	GH5-8	7.44
GHT X 3/4" NPT	GH5-12	8.88

### FEMALE GHT X MALE NPT (NON-SWIVEL)

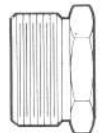
Brass



Female x Male	Part #	Price
GHT X 1/2" NPT	GH6-8	11.47
GHT X 3/4" NPT	GH6-12	7.66

### MALE GHT X FEMALE NPT

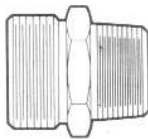
Brass



Male x Female	Part #	Price
GHT X 1/2" NPT	GH4-8	5.68
GHT X 3/4" NPT	GH4-12	6.89

### MALE GHT X MALE NPT

Brass



Male x Male	Part #	Price
GHT X 3/8" NPT	GH3-6	6.17
GHT X 1/2" NPT	GH3-8	8.12
GHT X 3/4" NPT	GH3-12	7.41



## Hot Water Spray Nozzle - Industrial Grade

### FEATURES

- \* **Variable Spray:** Adjusts from soft spray to full stream by simply depressing the lever
- \* **Protective Cover:** Dura-Guard rubber cover is replaceable
- \* **Rating:** 150 psi / 200° F
- \* **Available in Aluminum and Bronze body**
- \* **1/2" Female NPT inlet on handle bottom**



### Aluminum

Part #	Price
S151AL	410.18

### Bronze

Part #	Price
S151BR	383.34

Specify color: B=Black, G=Gray, R=Red, BL=Blue

Add color suffix to end of part #. ie; S151AL-R for red color.



Hose Shank



GHT Thread

NPT	Hose I.D.	Part #	Price
1/2"	1/2"	SC-8-8	97.94
1/2"	3/4"	SC-8-12	97.94
1/2"	3/4" FGHT	SC-8-GHT	97.94

Eliminates twisting and kinking of hose. Brass body, stainless shanks with lock ring to hold handle in open position.

## Nozzles

### INSULATED NOZZLE



#### FEATURES

- Hi-impact plastic casing protects hands from excessively hot or cold water.
- Rustproof brass valve spray mechanism.
- Threaded nose for hook-up to sprayers, car washers, etc.

Part #	Price
LN528C	17.22

### BRASS ADJUSTABLE

Heavy Duty 4" long nozzle



Part #	Price
GH1	16.90

### PISTOL GRIP NOZZLE

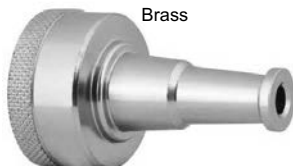
Heavy Duty - Zinc Plated



Part #	Price
PG1	11.19

### POWER SWEEPER

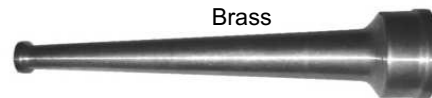
Brass



Part #	Price
SWEEPR	6.01

### TAPERED NOZZLE

Brass



Size	Length	Thread	Part #	Price
3/4"	6"	GHT	TN1	21.18
3/4"	6"	NPSH	TN2	21.18
1"	8"	NPSH	TN3	28.30
1 1/4"	10"	NPSH	TN4	51.47
1 1/2"	10"	NPSH	TN5	55.40
1 1/2"	10"	NST	TN6	55.40
2"	12"	NPSH	TN7	95.77
2 1/2"	12"	NST	TN8	105.96

### 8013 Radiator Bibb

Vinyl spout, 1/4" female pipe thread connection.



Part #	Price
8013	68.63

### 8005 Flex Water Nozzle

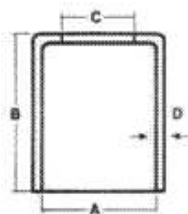
Bends for water flow. Shuts off when released. 3/4" female garden hose thread.



Part #	Price
8005	56.54

## Brass Fittings

### Brass Ferrules for Air & Water Hose



***\*Sold by 50 piece bag only***

A	B	C	D
Inside Diameter	Length	Hole Diameter	Metal Thickness

#### Air Hose Type - Medium Weight

Part #	A I.D.	B Length	C Perforation	Metal Thickness	Price Per 50
4750	.478"	11/16"	21/64"	.025"	21.10
9974	.527"	1"	7/16"	.025"	30.45
7325	.562"	1"	7/16"	.025"	33.18
7326	.593"	1"	7/16"	.025"	33.97
7327	.625"	1"	7/16"	.025"	34.62
7328	.656"	1"	7/16"	.025"	34.98
7329	.687"	1"	1/2"	.025"	35.52
7330	.718"	1"	1/2"	.025"	40.33
7331B	.750"	1"	1/2"	.025"	40.33
7332B	.781"	1"	1/2"	.025"	42.99
7333	.812"	1"	5/8"	.025"	45.19

#### Water Hose Type - Medium Weight

Part #	A I.D.	B Length	C Perforation	Metal Thickness	Price Per 50
7244A	.875"	11/16"	11/16"	.025"	41.77
5029A	.900"	1"	11/16"	.025"	42.60
7242A	.937"	1"	11/16"	.025"	46.05
5028A	.975"	1"	11/16"	.025"	44.43
5235A	1.000"	1"	11/16"	.025"	50.04
7114A	1.025"	1"	.693"	.025"	44.43
7145A	1.050"	1"	.693"	.025"	56.29
5027A	1.100"	1"	.812"	.025"	69.67
7104A	1.150"	1"	7/8"	.025"	49.36
7088A	1.175"	1"	7/8"	.025"	52.38

\*Other sizes available by special order.

## Brass Fittings

### Model 710



- High strength ductile iron casting.
- Five hardened steel dies.

Comes with 5 dies for 1/4" - 1 braid through 3/8" - 2 braid.

Item	Price
710	325.88

### Model 3042

For crimping larger hoses from 11/16" to 1 1/2" O.D.



Order separate dies for each hose diameter.

Item	Price
3042	489.02

#### Dies for 3042

Die Part #	O.D. Hose	Price	Die Part #	O.D. Hose	Price
3042-01	11/16"	64.92	3042-11	1"	64.92
3042-02	23/32"	64.92	3042-12	1 1/32"	64.92
3042-03	3/4"	64.92	3042-13	1 1/16"	64.92
3042-04	25/32"	64.92	3042-14	1 1/8"	64.92
3042-05	13/16"	64.92	3042-15	1 3/16"	64.92
3042-06	27/32"	64.92	3042-16	1 1/4"	64.92
3042-07	7/8"	64.92	3042-17	1 5/16"	64.92
3042-08	29/32"	64.92	3042-18	1 3/8"	64.92
3042-09	15/16"	64.92	3042-19	1 7/16"	64.92
3042-10	31/32"	64.92	3042-20	1 1/2"	64.92

### Push-On Hose Assembly Tool - Model 845



Simplifies the coupling of push-on hose and fittings. Hose is placed in the self-tightening clamp while light pressure on the handle easily presses the fitting into the hose. Works well on regular air and water hose. Adapters for 1/4" and 3/8" fittings are included.

Item	Price
845	479.41

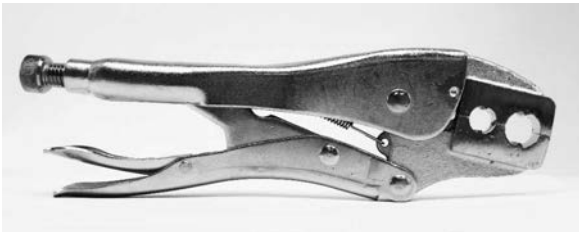
### Crimping Tool 3045



- Vice-grip style hand held crimping tool.
- Used for crimping brass ferrules on small diameter hose.
- Can crimp 11/16" & 5/8" hose O.D.
- Heavy-duty construction
- Packaged 1 per box

Item	Price
3045	N/A

### Crimping Tool 3047



- Vice-grip style hand held crimping tool.
- Used for crimping brass ferrules on small diameter hose.
- Can crimp 7/16" & 9/16" hose O.D.
- Heavy-duty construction
- Packaged 1 per box

Item	Price
3047	45.31

### Tire Inflator Gauge 6025



Double chuck tire inflator gauge. 12" hose with swivel double chuck. 1/4" female pipe thread inlet. 10 to 120 lbs in 2 lb increments.

- 12" hose with swivel double chuck
- Rustproof
- Shockproof
- Weatherproof

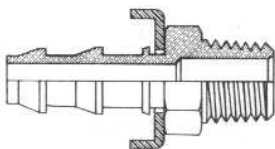
Item	Price
6025	123.83

## Brass Fittings

### PUSH-ON

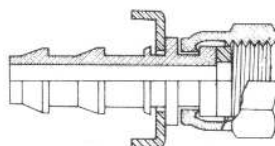
Low pressure, self-grip brass hose fittings. No ferrule or clamp required when used on push-on type hose.

#### Male Pipe



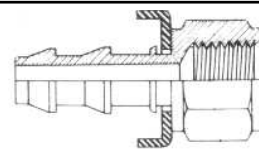
Part #	Hose I.D.	NPT Thread	Price
PM0402	1/4	1/8	2.64
PM0404	1/4	1/4	3.16
PM0406	1/4	3/8	5.14
PM0502	5/16	1/8	3.76
PM0504	5/16	1/4	3.44
PM0602	3/8	1/8	3.53
PM0604	3/8	1/4	3.83
PM0606	3/8	3/8	4.39
PM0608	3/8	1/2	8.08
PM0612	3/8	3/4	12.03
PM0804	1/2	1/4	5.46
PM0806	1/2	3/8	5.01
PM0808	1/2	1/2	7.63
PM0812	1/2	3/4	10.28
PM1006	5/8	3/8	11.91
PM1008	5/8	1/2	9.12
PM1012	5/8	3/4	11.74
PM1208	3/4	1/2	10.21
PM1212	3/4	3/4	11.22

#### Female Pipe Swivel



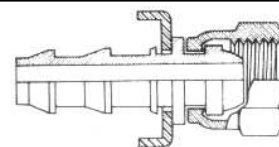
Part #	Hose I.D.	NPT Thread	Price
FPS0402	1/4	1/8	N/A
FPS0404	1/4	1/4	9.21
FPS0406	1/4	3/8	N/A
FPS0604	3/8	1/4	11.36
FPS0606	3/8	3/8	12.53
FPS0608	3/8	1/2	11.86
FPS0808	1/2	1/2	20.54
FPS0812	1/2	3/4	18.56
FPS1212	3/4	3/4	37.81

#### Female Pipe - Solid



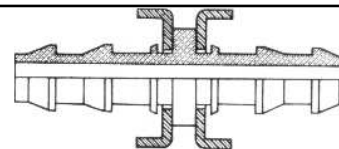
Part #	Hose I.D.	NPT Thread	Price
FP0402	1/4	1/8	4.12
FP0404	1/4	1/4	3.84
FP0406	1/4	3/8	6.41
FP0502	5/16	1/8	5.79
FP0504	5/16	1/4	N/A
FP0602	3/8	1/8	5.95
FP0604	3/8	1/4	4.28
FP0606	3/8	3/8	5.69
FP0608	3/8	1/2	10.37
FP0804	1/2	1/4	10.01
FP0806	1/2	3/8	8.41
FP0808	1/2	1/2	9.24
FP0812	1/2	3/4	16.60
FP1008	5/8	1/2	13.30
FP1012	5/8	3/4	19.55
FP1212	3/4	3/4	20.23

#### Ball Seat - Swivel



Part #	Hose I.D.	NPT Thread	Price
BSS0402	1/4	1/8	N/A
BSS0404	1/4	1/4	11.81
BSS0406	1/4	3/8	10.07
BSS0604	3/8	1/4	8.81
BSS0606	3/8	3/8	11.42
BSS0608	3/8	1/2	22.36
BSS0808	1/2	1/2	16.16
BSS0812	1/2	3/4	22.44
BSS1012	5/8	3/4	31.99
BSS1212	3/4	3/4	36.10

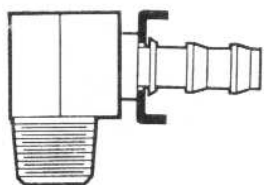
#### Hose Splicer



Part #	Hose I.D.	NPT Thread	Price
UN04	1/4	1/8	3.29
UN05	5/16	1/4	4.60
UN06	3/8	3/8	4.15
UN08	1/2	1/8	5.25
UN10	5/8	1/4	11.10
UN12	3/4	1/8	13.59

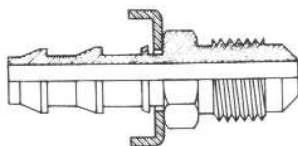
## Brass Fittings

### Male Pipe Push-On 90°



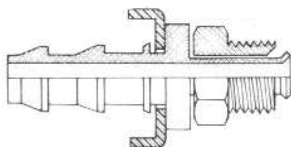
Part #	Hose I.D.	NPT Thread	Price
PM90-4X2	1/4	1/8	12.85
PM90-4X4	1/4	1/4	12.30
PM90-6X2	3/8	1/8	14.54
PM90-6X4	3/8	1/4	10.53
PM90-6X6	3/8	3/8	10.91
PM90-6X8	3/8	1/2	27.23
PM90-8X6	1/2	3/8	23.51
PM90-8X8	1/2	1/2	20.83
PM90-10X8	5/8	1/2	28.37
PM90-10X12	5/8	3/4	53.56
PM90-12X12	3/4	3/4	35.89

### Male SAE 45°



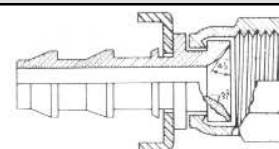
Part #	Hose I.D.	Male Thread	Price
SM0404	1/4	4	3.68
SM0405	1/4	5	4.14
SM0606	3/8	6	10.39
SM0808	1/2	8	7.48
SM1010	5/8	10	N/A
SM1212	3/4	12	N/A

### SAE Male Inverted Swivel



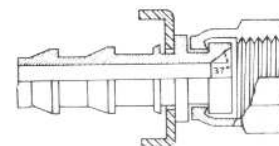
Part #	Hose I.D.	NPT Thread	Price
IM0403	1/4	3	7.24
IM0404	1/4	4	6.57
IM0405	1/4	5	6.98
IM0504	5/16	4	7.39
IM0505	5/16	5	7.45
IM0506	5/16	6	8.27
IM0605	3/8	5	7.46
IM0606	3/8	6	7.61
IM0608	3/8	8	9.49
IM0806	1/2	6	19.64
IM0808	1/2	8	10.44
IM1010	5/8	10	20.32

### SAE 45° Swivel



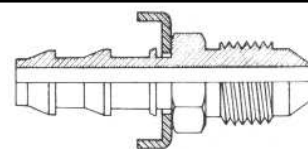
Part #	Hose I.D.	Tube O.D.	Price
SF0404	1/4	4	4.01
SF0405	1/4	5	4.21
SF0406	1/4	6	6.47
SF0505	5/16	5	5.66
SF0506	5/16	6	7.41
SF0606	3/8	6	6.11
SF0608	3/8	8	8.48
SF0806	1/2	6	12.18
SF0808	1/2	8	8.32
SF0810	1/2	10	10.55
SF1008	5/8	8	11.73
SF1010	5/8	10	12.04
SF1210	3/4	10	13.30
SF1212	3/4	12	17.07

### (JIC) 37° Swivel



Part #	Hose I.D.	Tube O.D.	Price
JF0404	1/4	4	4.01
JF0405	1/4	5	4.21
*JF0406	1/4	6	6.04
JF0505	5/16	5	5.66
*JF0606	3/8	6	5.99
JF0608	3/8	8	8.48
*JF0808	1/2	8	8.83
JF0810	1/2	10	10.55
JF1008	5/8	8	11.73
JF1010	5/8	10	12.04
JF1210	3/4	10	13.30
*JF1212	3/4	12	17.07

### Male (JIC) 37°



Part #	Hose I.D.	Male Thread	Price
JM0404	1/4	4	6.70
JM0405	1/4	5	3.99
JM0606	3/8	6	5.11
JM0808	1/2	8	7.90
JM1010	5/8	10	10.76
JM1212	3/4	12	15.94

Same as SF except for one with \*

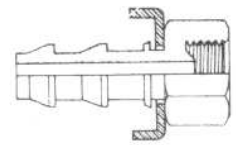
## Brass Fittings

### Male Pipe - Swivel



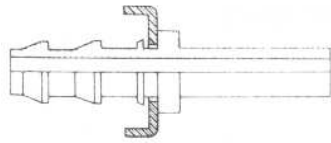
Part #	Hose I.D.	NPT Thread	Price
PMS0404	1/4	1/4	9.37
PMS0604	3/8	1/4	10.75
PMS0606	3/8	3/8	12.45
PMS0806	1/2	3/8	12.23
PMS0808	1/2	1/2	12.91
PMS1212	3/4	3/4	18.43

### (SAE) Female - Inverted



Part #	Hose I.D.	Straight Tube	Price
IF0403	1/4	3	7.24
IF0404	1/4	4	5.99
IF0405	1/4	5	4.00
IF0605	3/8	5	9.40
IF0606	3/8	6	9.29
IF0808	3/8	6	12.57

### Straight Tube



Part #	Hose I.D.	Straight Tube	Price
ST0403	1/4	3	5.92
ST0404	1/4	4	4.13
ST0405	1/4	5	6.41
ST0606	3/8	6	5.13
ST0808	1/2	8	6.01
ST1010	5/8	10	N/A

## Brass Welding Hose Fittings

### Left Hand Thread for Acetylene Line



Part #	Hose I.D.	L.H.M. Thread	Price
WHLH-3-6	3/16	3/8 - 24	5.51
WHLH-3-9	3/16	9/16 - 18	5.63
WHLH-4-9	1/4	9/16 - 18	5.63
WHLH-5-9	5/16	9/16 - 18	5.36
WHLH-6-9	3/8	9/16 - 18	5.36

### Right Hand Thread for Oxygen Line



Part #	Hose I.D.	R.H.M. Thread	Price
WHRH-3-6	3/16	3/8 - 24	5.45
WHRH-3-9	3/16	9/16 - 18	5.63
WHRH-4-9	1/4	9/16 - 18	5.39
WHRH-5-9	5/16	9/16 - 18	5.36
WHRH-6-9	3/8	9/16 - 18	5.59

### Welding Hose Adapter Left Hand Thread



Part #	L.H. Thread	Male Pipe	Price
WALH-9-2	9/16-18	1/8	5.92
WALH-9-4	9/16-18	1/4	5.92
WALH-9-6	9/16-18	3/8	5.92
WALH-9-9	9/16-18	9/16 - 18	6.43

### Welding Hose Adapter Right Hand Thread



Part #	R.H. Thread	Male Pipe	Price
WARH-9-2	9/16-18	1/8	5.92
WARH-9-4	9/16-18	1/4	6.65
WARH-9-6	9/16-18	3/8	6.33
WARH-9-9	9/16-18	9/16 - 18	5.92

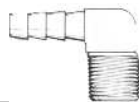
## Brass Fittings

### Male Pipe Tapered



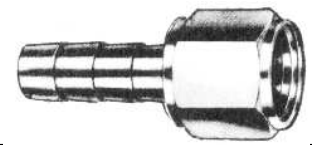
Part #	Hose I.D.	NPT Thread	Price
MPT0202	1/8	1/8	2.30
MPT0204	1/8	1/4	2.92
MPT0302	3/16	1/8	1.99
MPT0304	3/16	1/4	3.29
MPT0402	1/4	1/8	2.16
MPT0404	1/4	1/4	2.20
MPT0406	1/4	3/8	3.50
MPT0408	1/4	1/2	7.24
MPT0502	5/16	1/8	2.16
MPT0504	5/16	1/4	2.64
MPT0506	5/16	3/8	4.08
MPT0602	3/8	1/8	2.38
MPT0604	3/8	1/4	1.93
MPT0606	3/8	3/8	3.09
MPT0608	3/8	1/2	5.58
MPT0612	3/8	3/4	9.02
MPT0804	1/2	1/4	3.29
MPT0806	1/2	3/8	3.77
MPT0808	1/2	1/2	5.18
MPT0812	1/2	3/4	8.30
MPT1004	5/8	1/4	8.36
MPT1006	5/8	3/8	4.52
MPT1008	5/8	1/2	5.91
MPT1012	5/8	3/4	8.20
MPT1204	3/4	1/4	28.77
MPT1206	3/4	3/8	10.36
MPT1208	3/4	1/2	7.62
MPT1212	3/4	3/4	8.96
MPT1216	3/4	1	28.51
MPT1608	1	1/2	13.93
MPT1612	1	3/4	11.07
MPT1616	1	1	17.40

### 90° Hose Barb



Part #	Hose Size	Pipe Size	Price
MPT900302	3/16	1/8	5.32
MPT900402	1/4	1/8	5.94
MPT900404	1/4	1/4	7.79
MPT900502	5/16	1/8	6.31
MPT900504	5/16	1/4	6.69
MPT900506	5/16	3/8	12.83
MPT900602	3/8	1/8	5.94
MPT900604	3/8	1/4	6.86
MPT900606	3/8	3/8	8.13
MPT900608	3/8	1/2	8.78
MPT900804	1/2	1/4	9.92
MPT900806	1/2	3/8	10.91
MPT900808	1/2	1/2	16.23
MPT901008	5/8	1/2	12.52
MPT901006	5/8	3/8	13.14
MPT901208	3/4	1/2	17.91
MPT901212	3/4	3/4	28.82
MPT901612	1	3/4	26.46

### Female Pipe Solid



Part #	Hose I.D.	NPT Female	Price
FS0202	1/8	1/8	3.29
FS0204	1/8	1/4	8.65
FS0302	3/16	1/8	3.16
FS0304	3/16	1/4	9.06
FS0402	1/4	1/8	3.09
FS0404	1/4	1/4	3.67
FS0406	1/4	3/8	4.91
FS0502	5/16	1/8	6.54
FS0504	5/16	1/4	4.50
FS0506	5/16	3/8	6.22
FS0602	3/8	1/8	4.62
FS0604	3/8	1/4	3.50
FS0606	3/8	3/8	4.70
FS0608	3/8	1/2	7.38
FS0804	1/2	1/4	5.22
FS0806	1/2	3/8	5.63
FS0808	1/2	1/2	7.65
FS1212	3/4	3/4	14.38
FS1612	1	3/4	18.35

### Mender



Part #	Hose I.D.	Price
UNB03	3/16	2.82
UNB04	1/4	2.44
UNB05	5/16	2.44
UNB06	3/8	2.64
UNB08	1/2	3.53
UNB10	5/8	4.91
UNB10X8	5/8 x 1/2	8.31
UNB12	3/4	7.98
UNB12X10	3/4 x 5/8	10.33

### 45° Hose Barb



Part #	Hose I.D.	Pipe Size	Price
MPT450402	1/4	1/16	12.94
MPT450404	1/4	1/4	22.39
MPT450502	5/16	1/8	10.00
MPT450504	5/16	1/4	12.19
MPT450602	3/8	1/8	10.43
MPT450604	3/8	1/4	9.30
MPT450606	3/8	3/8	12.63
MPT450804	1/2	1/4	15.76
MPT450806	1/2	3/8	14.75
MPT451006	5/8	3/8	14.24



## Brass Fittings

### Male Pipe Swivel



Part #	Hose I.D.	NPT Thread	Price
MPS0404	1/4	1/4	8.54
MPS0604	3/8	1/4	7.93
MPS0606	3/8	3/8	9.92
MPS0806	1/2	3/8	10.36
MPS0808	1/2	1/2	14.14
MPS1212	3/4	3/4	18.84

### Female SAE 45° Swivel



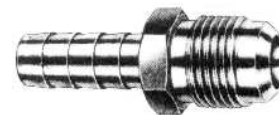
Part #	Hose I.D.	NPT Thread	Price
SFB0303	3/16	3	5.66
SFB0304	3/16	4	5.64
SFB0404	1/4	4	4.29
SFB0405	1/4	5	4.82
SFB0406	1/4	6	4.99
SFB0505	5/16	5	4.74
SFB0506	5/16	6	5.86
SFB0606	3/8	6	6.93
SFB0608	3/8	8	7.41
SFB0808	1/2	8	7.45
SFB0810	1/2	10	8.96
SFB1010	5/8	10	14.06
SFB1012	3/4	12	18.99
SFB1212	3/4	12	26.68

### National Pipe Straight Gasket Seal - Swivel



Part #	Hose Size	NPSM Thread	Price
GSS0202	1/8	1/8	5.95
GSS0302	3/16	1/8	5.20
GSS0304	3/16	1/4	11.55
GSS0402	1/4	1/8	5.95
GSS0404	1/4	1/4	5.21
GSS0406	1/4	3/8	6.44
GSS0504	5/16	1/4	7.13
GSS0506	5/16	3/8	6.67
GSS0604	3/8	1/4	7.39
GSS0606	3/8	3/8	13.75
GSS0608	3/8	1/2	9.90
GSS0806	1/2	3/8	7.97
GSS0808	1/2	1/2	12.81
GSS1212	3/4	3/4	13.52

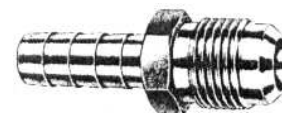
### Male JIC



Part #	Hose I.D.	Tube OD Fem.	Price
MS0303	3/16	3	2.89
MS0404	1/4	4	5.04
MS0505	5/16	5	4.13
*N-MJ0606	3/8	6	5.34
MS0808	1/2	8	10.10

Same as MS except the one with \*

### Male SAE



Part #	Hose I.D.	Tube OD Fem.	Price
MS0303	3/16	3	2.89
MS0404	1/4	4	5.04
MS0505	5/16	5	4.13
MS0606	3/8	6	5.11
MS0808	1/2	8	10.10

### Female JIC 37° Swivel



Part #	Hose I.D.	Female Tube	Price
SFB0303	3/16	3	4.40
SFB0304	3/16	4	5.60
SFB0404	1/4	4	4.10
SFB0405	1/4	5	4.66
*JS0406	1/4	6	4.95
SFB0505	5/16	5	4.74
*JS0506	5/16	5	5.00
SFB0608	3/8	6	6.88
*JS0606	3/8	8	7.04
SFB0808	1/2	8	7.10
SFB0810	1/2	10	8.96
SFB1010	5/8	10	14.06
*JS1212	3/4	12	27.54
*JS1616	1	1	46.89

Same as SFB except the ones with \*

## Brass Fittings

### Female Ball Seat - Swivel



Part #	Hose I.D.	NPSM Thread	Price
BS0202	1/8	1/8	3.27
BS0302	3/16	1/8	3.83
BS0304	3/16	1/4	8.36
BS0402	1/4	1/8	3.86
BS0404	1/4	1/4	4.49
BS0406	1/4	3/8	6.65
BS0504	5/16	1/4	5.87
BS0604	3/8	1/4	4.11
BS0606	3/8	3/8	5.04
BS0608	3/8	1/2	12.18
BS0806	1/2	3/8	5.37
BS0808	1/2	1/2	7.41
BS1212	3/4	3/4	11.10

### Ball Seat to Male Pipe



Part #	NPSM	Male	Price
BSM0202	1/8	1/8	5.76
BSM0402	1/4	1/8	4.92
BSM0404	1/4	1/4	5.87
BSM0406	1/4	3/8	N/A
BSM0602	3/8	1/8	N/A
BSM0604	3/8	1/4	5.20
BSM0606	3/8	3/8	7.20
BSM0608	3/8	1/2	9.55
BSM0806	1/2	3/8	12.51
BSM0808	1/2	1/2	12.03
BSM1212	3/4	3/4	16.99

### Ball Seat Union



Part #	NPSM Thread	Price
UM02	1/8	4.82
UM04	1/4	6.10
UM06	3/8	7.35
UM08	1/2	8.37
UM12	3/4	12.63

## Stainless Steel

### Male Pipe Tapered



Part #	Hose Size	Male Pipe	Price
MPT0404SS	1/4	1/4	36.31
MPT0604SS	3/8	1/4	36.76
MPT0606SS	3/8	3/8	41.44



## Stainless Steel Sleeve & Ferrule



STAINLESS STEEL FERRULES				SLEEVES	
Hose Size	Ferrule Part #	Ferrules I.D.	List	Sleeve Part #	List
1"	100-116SCF	1.500"	8.82	100-116SCS	7.84
1"	100-118SCF	1.563"	8.82	100-118SCS	7.84
1"	100-120SCF	1.625"	8.82	100-120SCS	7.84
1-1/2"	150-130SCF	1.938"	13.01	150-130SCS	9.48
1-1/2"	150-200SCF	2"	13.01	150-200SCS	9.48
1-1/2"	150-202SCF	2.063"	13.01	150-202SCS	9.48
1-1/2"	150-204SCF	2.125"	13.01	150-204SCS	9.48
1-1/2"	150-206SCF	2.188"	13.01	150-206SCS	9.48
2"	200-216SCF	2.500"	16.27	200-216SCS	15.03
2"	200-218SCF	2.563"	16.27	200-218SCS	15.03
2"	200-220SCF	2.625"	16.27	200-220SCS	15.03
2"	200-222SCF	2.688"	16.27	200-222SCS	15.03
2"	200-224SCF	2.750"	16.27	200-224SCS	15.03
2"	200-226SCF	2.813"	16.27	200-226SCS	15.03
2"	200-228SCF	2.875"	16.27	200-228SCS	15.03
2"	200-230SCF	2.938"	16.27	200-230SCS	15.03
3"	300-320SCF	3.625"	32.94	300-320SCS	27.55
3"	300-322SCF	3.688"	32.94	300-322SCS	27.55
3"	300-324SCF	3.750"	32.94	300-324SCS	27.55
3"	300-326SCF	3.183"	32.94	300-326SCS	27.55
3"	300-328SCF	3.875"	32.94	300-328SCS	27.55
3"	300-330SCF	3.938"	32.94	300-330SCS	27.55
3"	300-400SCF	4"	32.94	300-400SCS	27.55
3"	300-402SCF	4.063"	32.94	300-402SCS	27.55
4"	400-416SCF	4.500"	61.27	400-416SCS	38.24
4"	400-420SCF	4.625"	61.27	400-420SCS	38.24
4"	400-422SCF	4.688"	61.27	400-422SCS	38.24
4"	400-424SCF	4.750"	61.27	400-424SCS	38.24
4"	400-426SCF	4.813"	61.27	400-426SCS	38.24
4"	400-428SCF	4.875"	61.27	400-428SCS	38.24
4"	400-430SCF	4.938"	61.27	400-430SCS	38.24
4"	400-500SCF	5"	61.27	400-500SCS	38.24
4"	400-502SCF	5.063"	61.27	400-502SCS	38.24
4"	400-504SCF	5.125"	61.27	400-504SCS	38.24

6" Ferrules are available upon request.

## Carbon Steel Sleeve & Ferrule



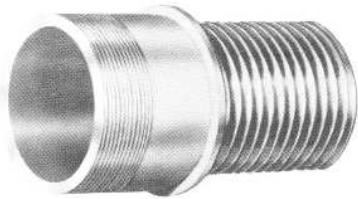
CARBON STEEL FERRULES				SLEEVES	
Hose Size	Ferrule Part #	Ferrules I.D.	List	Sleeve Part #	List
1"	100-116CCF	1.500"	8.50	100-116CCS	4.87
1"	100-118CCF	1.563"	8.50	100-118CCS	4.87
1"	100-120CCF	1.625"	8.50	100-120CCS	4.87
1-1/2"	150-130CCF	1.938"	9.64	150-130CCS	5.10
1-1/2"	150-200CCF	2"	9.64	150-200CCS	5.10
1-1/2"	150-202CCF	2.063"	9.64	150-202CCS	5.10
1-1/2"	150-204CCF	2.125"	9.64	150-204CCS	5.10
1-1/2"	150-206CCF	2.188"	9.64	150-206CCS	5.10
2"	200-216CCF	2.500"	12.06	200-216CCS	6.18
2"	200-218CCF	2.563"	12.06	200-218CCS	6.18
2"	200-220CCF	2.625"	12.06	200-220CCS	6.18
2"	200-222CCF	2.688"	12.06	200-222CCS	6.18
2"	200-224CCF	2.750"	12.06	200-224CCS	6.18
2"	200-226CCF	2.813"	12.06	200-226CCS	6.18
2"	200-228CCF	2.875"	12.06	200-228CCS	6.18
2"	200-230CCF	2.938"	12.06	200-230CCS	6.18
3"	300-320CCF	3.625"	16.27	300-320CCS	11.76
3"	300-322CCF	3.688"	16.27	300-322CCS	11.76
3"	300-324CCF	3.750"	16.27	300-324CCS	11.76
3"	300-326CCF	3.183"	16.27	300-326CCS	11.76
3"	300-328CCF	3.875"	16.27	300-328CCS	11.76
3"	300-330CCF	3.938"	16.27	300-330CCS	11.76
3"	300-400CCF	4"	16.27	300-400CCS	11.76
3"	300-402CCF	4.063"	16.27	300-402CCS	11.76
4"	400-416CCF	4.500"	24.02	400-416CCS	19.41
4"	400-420CCF	4.625"	24.02	400-420CCS	19.41
4"	400-422CCF	4.688"	24.02	400-422CCS	19.41
4"	400-424CCF	4.750"	24.02	400-424CCS	19.41
4"	400-426CCF	4.813"	24.02	400-426CCS	19.41
4"	400-428CCF	4.875"	24.02	400-428CCS	19.41
4"	400-430CCF	4.938"	24.02	400-430CCS	19.41
4"	400-500CCF	5"	24.02	400-500CCS	19.41
4"	400-502CCF	5.063"	24.02	400-502CCS	19.41
4"	400-504CCF	5.125"	24.02	400-504CCS	19.41

6" Ferrules are available upon request.

## Crimp Fittings

### Heat Treated Full Flow Couplings

For use with swaged or crimped ferrules. Hose stems are oversize so coupling inside diameter is the same as hose diameter. For concrete pumping or any application where a full flow coupling would improve capacity.



Male



Groove



HD Raised End

Size	Description	Part #	Price
1 1/4"	Male Thread	125THT	POR
	Groove	125VHT	POR
1 1/2"	Male Thread	150THT	POR
	Groove	150VHT	POR
	Male Thread	200THT	POR
	Groove	200VHT	POR
2"	Groove	200VHT	POR
	HD Raised	200HDRE	POR
	Male Thread	250THT	POR
	Groove	250VHT	POR
2 1/2"	Groove	250VHT	POR
	HD Raised	250HDRE	POR

Size	Description	Part #	Price
	Male Thread	300THT	POR
	Groove	300VHT	POR
3"	Groove	300VHT	POR
	HD Raised	300HDRE	POR
	Male Thread	400THT	POR
	Groove	400VHT	POR
4"	Groove	400VHT	POR
	HD Raised	400HDRE	POR
	Male Thread	500THT	POR
	Groove	500VHT	POR
5"	Groove	500VHT	POR
	HD Raised	500HDRE	POR

### Clamps for Heavy Duty Ends

Stronger, safer drop-forged steel coupling clamp. These clamps are used to connect the ends of pipe or hose that use the Heavy Duty Raised or California style ends.

Clamp supplied with double-lipped gasket and safety pin

Size	Part #	Price
2"	GF20R	128.20
2 1/2"	GF25R	139.22
3"	GF30R	174.99
4"	GF40R	201.32



Adjustable

Size	Part #	Price
3"	GF30RA	261.18
4"	GF40RA	300.48

Double lipped Buna-N gasket

Size	Part #	Price
2"	GV20R	21.08
2 1/2"	GV25R	24.60
3"	GV30R	28.11
4"	GV40R	28.11

## Internal Expansion Fittings

### Steel Full Flow Permanent Couplings

Internally expandable full-flow heavy duty couplings. Ferrules have deep, wide serrations to assure greater holding strength and prevents rubber flow back. For concrete pumping, or any application where a medium high pressure full flow hose coupling would improve capacity and insure greater coupling to hose retention.



Male Thread



Groove End



Plain End (weld)



HD Raised End



Ferrule

Size	Description	Part #	Price
1"	Male Thread	100-TIX	59.15
	Groove	100-VIX	59.15
1 1/4"	Male Thread	125-TIX	55.66
	Groove	125-VIX	55.66
1 1/2"	Male Thread	150-TIX	55.66
	Groove	150-VIX	55.66
	Heavy Duty End	150HDCIX	111.84
2"	Male Thread	200-TIX	55.66
	Groove	200-VIX	55.66
	Heavy Duty End	200HDCIX	111.84
2 1/2"	Male Thread	250-TIX	88.99
	Groove	250-VIX	88.99
	Heavy Duty End	250HDCIX	138.90

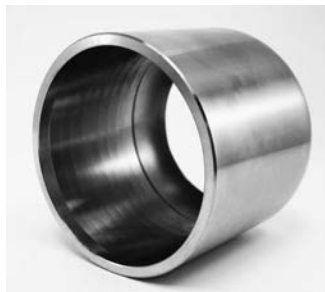
Size	Description	Part #	Price
3"	Male Thread	300-TIX	88.99
	Groove	300-VIX	88.99
	Heavy Duty End	300-HDCIX	175.47
4"	Male Thread	400-TIX	163.37
	Groove	400-VIX	163.37
	Heavy Duty End	400-HDCIX	286.34

#### APPROXIMATE WORKING PRESSURE

1" ~ 2 1/2" 800 PSI

3" ~ 4" 600 PSI

### Ferrules



Size	Part #	Price
1"	100 - (Size) - IX	48.37
1 1/4"	125 - (Size) - IX	47.25
1 1/2"	150 - (Size) - IX	45.75
2"	200 - (Size) - IX	42.69
2 1/2"	250 - (Size) - IX	73.20

Size	Part #	Price
3"	300 - (Size) - IX	89.22
4"	400 - (Size) - IX	149.02
5"	500 - (Size) - IX	243.14
6"	600 - (Size) - IX	366.01
8"	800 - (Size) - IX	607.32

Ferrules are manufactured in increments of 1/32"

Example: To order ferrules for a 3" I.D. x 3 1/2" O.D. hose the part # would be 300-316-IX

## Internal Expansion Fittings

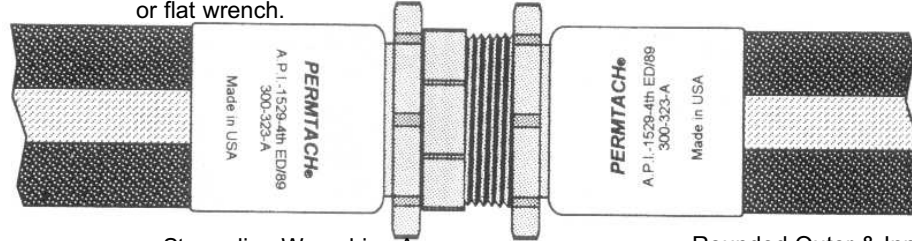
### PermTach Fittings

Permanently attached coupling with tremendous holding power for fuel oil, aviation tank trucks, gasoline tank trucks, tank cars, jet hydrant fueling, and any application where non-ferrous hose couplings are necessary.

High tensile ferrule with serrations on ferrule I.D. assures maximum end pull & greater holding power.

High quality brass swivel for maximum strength and ease of threading into mating parts with spanner or flat wrench.

Seamless brass body- ease of expansion and threading to mating parts.



No Ferrule Bulge  
No Flow Back

Streamline Wrenching Area  
Flat and Compact

Rounded Outer & Inner  
Edge of Ferrule

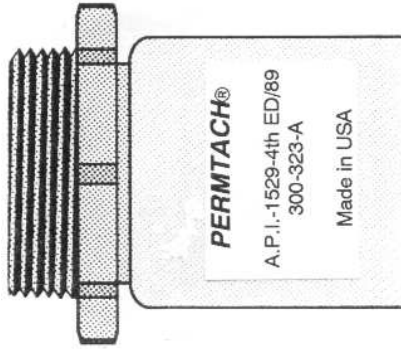
**Note: 1 1/2, 2, 2 1/2, 3" available with NH thread - Add 7%**

Size	Description	Part #	Dixon Part #	Price
1"	MALE BODY	100BTIX	H-5212	42.90
	FEMALE BODY	100BFI	H-5211	73.75
	FERRULE	100-XXX-B	R1AAS ~ R1ES	15.62
	WASHER	100BW	H-5072	2.30
1 1/4"	MALE BODY	125BTIX	H-5222	57.76
	FEMALE BODY	125BFI	H-5221	80.77
	FERRULE	125-XXX-B	R125AAS ~ R125ES	22.50
	WASHER	125BW	H-5073	2.61
1 3/8"	MALE BODY	137BTIX	H-5272	67.49
	FEMALE BODY	137BFI	H-5271	128.59
	FERRULE	137-XXX-B	R1375BS ~ R1375ES	29.51
	WASHER	137BW	H-5074	2.71
1 1/2"	MALE BODY	150BTIX	H-5232	69.97
	FEMALE BODY	150BFI	H-5231	132.44
	FERRULE	150-XXX-B	R15AAAS ~ R15GS	27.57
	WASHER	150BW	H-5074	2.86
2"	MALE BODY	200BTIX	H-5242	134.40
	FEMALE BODY	200BFI	H-5241	210.94
	FERRULE	200-XXX-B	R2AAS ~ R2FS	56.34
	WASHER	200BW	H-5075	3.47
2 1/2"	MALE BODY	250BTIX	H-5252	227.31
	FEMALE BODY	250BFI	H-5251	351.63
	FERRULE	250-XXX-B	R25AA ~ R25FS	79.19
	WASHER	250BW	H-5076	4.61
3"	MALE BODY	300BTIX	H-5262	305.74
	FEMALE BODY	300BFI	H-5261	465.53
	FERRULE	300-XXX-B	R3AAAS ~ R3E	105.31
	WASHER	300BW	H-5077	8.84
4"	MALE BODY	400BTIX	H-5282	537.22
	FEMALE BODY	400BFI	H-5281	677.57
	FERRULE	400-XXX-B	R4AAAS ~ R4HS	205.33
	WASHER	400BW	H-5077	9.63

**All sizes have been tested and comply with API 1529, Section 7, PARA 7.1.1 - 7.4**

# PermTach Cross Reference Sheet

## UPD/ DIXON 520-H SERIES CROSS REFERENCE CHART



## BRASS FERRULES

Ferrule Size	UPD Part #	Inside Dimension	Dixon Part #
1"	100-115B	1.468"	R1AAS
	100-117B	1.531"	R1AS
	100-118B	1.563"	R1BS
	100-119B	1.593"	R1CS
	100-121B	1.656"	R1D
	100-122B	1.688"	R1E
	100-124B	1.750"	
	100-126B	1.831"	
	100-128B	1.875"	
1 1/4"	125-122B	1.688"	R125AAS
	125-124B	1.750"	R125AS
	125-126B	1.813"	R125BS
	125-128B	1.875"	R125CS
	125-129B	1.906"	R125DS
	125-131B	1.969"	R125ES
	125-200B	2.000"	
	125-201B	2.031"	
	125-203B	2.094"	
1 3/8"	137-126B	1.813"	R1275BS
	137-128B	1.875"	R1375CS
	137-129B	1.906"	R1375DS
	137-131B	1.969"	R1275ES
	137-200B	2.000"	
	137-201B	2.031"	
1 1/2"	150-129B	1.906"	R15AAAS
	150-131B	1.969"	R15AAS
	150-201B	2.031"	R15AS
	150-203B	2.094"	R15BS
	150-205B	2.156"	R15CS
	150-207B	2.219"	R15DS
	150-210B	2.313"	R15ES
	150-212B	2.375"	R15F
	150-214B	2.438"	R15G

Ferrule Size	UPD Part #	Inside Dimension	Dixon Part #
2"	200-215B	2.469"	R2AAS
	200-217B	2.531"	R2AS
	200-219B	5.594"	R2BS
	200-221B	2.656"	R2CS
	200-223B	2.719"	R2DS
	200-225B	2.781"	R2E
	200-227B	2.844"	R2F
	200-229B	2.906"	
	200-231B	2.969"	
2 1/2"	250-231B	2.969"	R25AA
	250-301B	3.031"	R25AS
	250-304B	3.125"	R25BS
	250-306B	3.188"	R25CS
	250-308B	3.250"	R25DS
	250-311B	3.344"	R25ES
	250-313B	3.406"	R25FS
	250-316B	3.500"	
	250-318B	3.563"	
3"	300-318B	3.563"	R3AAAS
	300-320B	3.625"	R3AAS
	300-323B	3.719"	R3AS
	300-325B	3.781"	R3BS
	300-327B	3.843"	R3CS
	300-330B	3.938"	R3D
	300-400B	4.000"	R3E
4"	400-418B	4.563"	R4AAAS
	400-419B	4.594"	R4AAS
	400-420B	4.625"	R4AS
	400-421B	4.656"	R4BS
	400-422B	4.688"	R4CS
	400-423B	4.719"	R4DS
	400-424B	4.750"	R4ES
	400-425B	4.781"	R4FS
	400-427B	4.844"	R4HS



## Sanitary Couplings & Fittings

### Sanitary Coupling Accessories



	TC WELD FERRULE - SHORT		TC WELD FERRULE - LONG		I-LINE WELD FERRULE/FEMALE		I-LINE WELD FERRULE/MALE	
Size	Part #	Price	Part #	Price	Part #	Price	Part #	Price
1"	TCFS-100	16.44	TCFL-100	22.89	ILF100	38.95	ILM100	33.38
1 1/2"	TCFS-150	18.73	TCFL-150	22.89	ILF150	26.44	ILM150	27.09
2"	TCFS-200	19.59	TCFL-200	23.50	ILF200	59.88	ILM200	52.78
2 1/2"	TCFS-250	25.69	TCFL-250	31.64	ILF250	105.69	ILM250	95.75
3"	TCFS-300	29.06	TCFL-300	37.65	ILF300	151.96	ILM300	124.15
4"	TCFS-400	46.29	TCFL-400	53.99	ILF400	223.38	ILM400	231.41



	TC SOLID CAP		TC CLAMP HEAVY		I-LINE CLAMP		TC GASKET WHITE BUNA-N	
Size	Part #	Price	Part #	Price	Part #	Price	Part #	Price
1"			TCH150	32.68			TCGB-100	2.56
1 1/2"	TCC-150	18.67	TCH150	32.68	ILC150	65.75	TCGB-150	2.03
2"	TCC-200	21.79	TCH200	38.40	ILC200	81.44	TCGB-200	3.20
2 1/2"	TCC-250	30.50	TCH250	43.99	ILC250	94.64	TCGB-250	2.56
3"	TCC-300	38.20	TCH300	50.55	ILC300	112.22	TCGB-300	3.30
4"	TCC-400	62.39	TCH400	63.04	ILC400	134.78	TCGB-400	5.31



	TC GASKET TEFLON		BS GASKET BUNA-N		BS GASKET TEFLON	
Size	Part #	Price	Part #	Price	Part #	Price
1"	TCGT-100	6.22	BSGB-100	3.73	BSGT-100	4.03
1 1/2"	TCGT-150	5.86	BSGB-150	2.56	BSGT-150	4.03
2"	TCGT-200	6.22	BSGB-200	3.11	BSGT-200	4.77
2 1/2"	TCGT-250	8.05	BSGB-250	8.04	BSGT-250	9.15
3"	TCGT-300	9.88	BSGB-300	8.04	BSGT-300	10.62
4"	TCGT-400	12.81	BSGB-400	20.13	BSGT-400	11.71

All clamps & accessories are 304 Stainless.  
All weld ferrules are  
Tube size.

BS = Bevel Seat  
TC = Sanitary End

## Sanitary Couplings & Fittings

### Food And Beverage Couplings

Internally expandable full flow permanent couplings for sanitary requirements. Exceed 3A standards for surface finish. All bodies and ferrules are Type 304 Stainless Steel. Requires a mandrel/ball type expander. Available in 316 and 316L. Call for quotation.



	* TE TUBE END		TC SANITARY END		BS(cow) FEMALE BEVEL SEAT		BSM MALE BEVEL SEAT		FTT FLARED TUBE TIP		NPT MALE PIPE		ACME NUT	
Size	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price	Part #	Price
1"			100TC	250.92	100BSF	208.32	BSM100	255.90	100FTT	131.18	100NPT	145.36	SAN100	30.46
1 1/2"	150TE	191.31	150TC	210.13	150BSF	168.37	BSM150	315.26	150FTT	166.94	150NPT	202.88	SAN150	41.48
2"	200TE	284.22	200TC	220.85	200BSF	221.67	BSM200	389.97	200FTT	206.76	200NPT	228.50	SAN200	57.84
2 1/2"	250TE	336.41	250TC	376.55	250BSF	297.87	BSM250	490.72	250FTT	319.10	250NPT	265.10	SAN250	93.69
3"	300TE	532.97	300TC	481.22	300BSF	421.80	BSM300	737.81	300FTT	N/A	300NPT	411.76	SAN300	109.58
4"	400TE	741.73	400TC	713.73	400BSF	666.67	BSM400	1287.63	400FTT	647.42	400NPT	556.60	SAN400	170.81

\* Tube end requires a finger expander.

### Sanitary Ferrules

#### TC SANITARY END

Ferrules are manufactured in increments of 1/32"  
Example: To order ferrules for a 3 1/2" O.D. hose, the  
Part # would be 300-316-SS. (16/32" = 1/2")

Important! Always measure hose. It is not recommended  
that you use catalog data, since this information often  
varies from actual measurement.



Size	Part #	Price
3/4"	075-XXX-SS	84.92
1"	100-XXX-SS	84.92
1 1/2"	150-XXX-SS	122.61
2"	200-XXX-SS	162.09
2 1/2"	250-XXX-SS	198.86
3"	300-XXX-SS	221.65
4"	400-XXX-SS	302.63

## The 245 Internal Expansion Unit



### The 245 Specifications

- 145 lbs
- 22" x 14" x 14-1/2"
- Glycerin Filled Gauges 5000psi
- Traveling Regulator

Motor operates at 3600 rpm  
 115/208-230 volts  
 2 h/p  
 Air cooled  
 55 ton double acting cylinder  
 Warranty: 1 year  
 Couples 3/4" to 6"

Material:  
 Aluminum  
 Brass  
 Steel  
 Fire Hose  
 Food Grade Hose

### The 245 Features

The **245** is one of the most precise and accurate expansion units in the industry! New features have been added to make coupling metal, steel, and aluminum a simple operation. It contains a pressure gauge and a newly designed measuring component to give you precise and automated measuring. This new age module allows you to accurately set your measurements without any miscomputations or having to repeat unnecessary steps which is sure to save you time. This instrument comes equipped with an aluminum diamond plate table top for an accessible work area. Made to order with selected accessories. Priced on request.



### Machine Mate Stand

Sold Separately. Priced on Request.

### **Drawbars & Pull Mandrels (Price POR)**

Size	Part #	Part #
3/4"	PMP0501	3/4" Pull Mandrel Punch
1"	PMP0502	1" Pull Mandrel Punch
1-1/4"	PMP0503	1-1/4" Pull Mandrel Punch
3/4"	DB0504	3/4" Drawbar
1-1/4"	DB0505	1-1/4" Drawbar
6"	DB0506	6" Drawbar
1-1/2"	M0501	1-1/2" Mandrel
2"	M0502	2" Mandrel
2-1/2"	M0503	2-1/2" Mandrel
3"	M0504	3" Mandrel
4"	M0505	4" Mandrel

### **Backing Plates Brass (Price POR)**

Size	Part #	Part #
3/4"	BPBR0501	3/4" Brass Backing Plate
1"	BPBR0502	1" Brass Backing Plate
1-1/4"	BPBR0503	1-1/4" Brass Backing Plate
1-1/2"	BPBR0504	1-1/2" Brass Backing Plate
2"	BPBR0505	2" Brass Backing Plate
2-1/2"	BPBR0506	2-1/2" Brass Backing Plate
3"	BPBR0507	3" Brass Backing Plate
4"	BPBR0508	4" Brass Backing Plate

### **Backing Plates Steel (Price POR)**

Size	Part #	Part #
3/4"	BPST0501	3/4" Steel Backing Plate
1"	BPST0502	1" Steel Backing Plate
1-1/4"	BPST0503	1-1/4" Steel Backing Plate
1-1/2"	BPST0504	1-1/2" Steel Backing Plate
2"	BPST0505	2" Steel Backing Plate
2-1/2"	BPST0506	2-1/2" Steel Backing Plate
3"	BPST0507	3" Steel Backing Plate
4"	BPST0508	4" Steel Backing Plate
**5"	BPST0509	5" Steel Backing Plate
**6"	BPST0510	6" Steel Backing Plate

\*\*Special order only.

## Forged Carbon Steel Flanges - 150 Lbs.

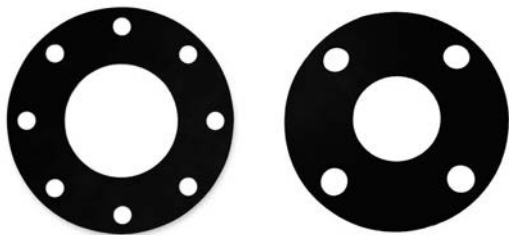
**RAISED FACE - THREADED**  
Conforms to ASTM A-105 ANSI B 16.5



Size	Part #	Weight	Price
1-1/2"	CSF150	3	POR
2"	CSF200	5	POR
2-1/2"	CSF250	7	POR
3"	CSF300	8	POR
4"	CSF400	13	POR
5"	CSF500	15	POR
6"	CSF600	19	POR
8"	CSF800	30	POR
10"	CSF1000	43	POR
12"	CSF1200	64	POR

**No Paid Freight.  
Order Separate.**


## Flange Gaskets - Neoprene




Size	Part #	Price
1-1/2"	CSFG150	2.61
2"	CSFG200	3.91
2-1/2"	CSFG250	5.21
3"	CSFG300	6.52
4"	CSFG400	10.43
5"	CSFG500	11.73
6"	CSFG600	10.14
8"	CSFG800	12.05
10"	CSFG1000	15.68
12"	CSFG1200	17.25

## Pipe Fittings

### 90° Elbows

	Size	Part No. (Black)	Price
	1/8"	350-000	4.70
	1/4"	350-001	4.50
	3/8"	350-002	4.50
	1/2"	350-003	3.35
	3/4"	350-004	4.03
	1"	350-005	7.22
	1-1/4"	350-006	11.58
	1-1/2"	350-007	15.22
	2"	350-008	26.22


### 45° Elbows

	Size	Part No. (Black)	Price
	1/8"	350-020	6.81
	1/4"	350-021	6.97
	3/8"	350-022	6.30
	1/2"	350-023	5.53
	3/4"	350-024	6.70
	1"	350-025	8.61
	1-1/4"	350-026	14.95
	1-1/2"	350-027	18.41
	2"	350-028	27.86


### Reducing Elbows

	Size	Part No. (Black)	Price
	1/4" x 1/8"	350-100	8.92
	3/8" x 1/4"	350-102	6.46
	1/2" x 1/4"	350-104	6.30
	1/2" x 3/8"	350-105	6.21
	3/4" x 1/4"	350-107	8.43
	3/4" x 3/8"	350-108	8.37
	3/4" x 1/2"	350-109	8.37
	1" x 1/2"	350-112	8.69
	1" x 3/4"	350-113	8.21
	1-1/4" x 1/2"	350-114	14.38
	1-1/4" x 3/4"	350-115	14.38
	1-1/4" x 1"	350-116	14.38
	1-1/2" x 1/2"	350-118	21.80
	1-1/2" x 3/4"	350-119	21.35
	1-1/2" x 1"	350-120	21.35
	1-1/2" x 1-1/4"	350-121	21.35
	2" x 1/2"	350-122	31.42
	2" x 3/4"	350-123	31.42
	2" x 1"	350-124	30.79
	2" x 1-1/4"	350-125	30.79
	2" x 1-1/2"	350-126	27.06


### Side Outlet Elbows

	Size	Part No. (Black)	Price
	1/2"	350-053	13.19
	3/4"	350-054	13.37
	1"	350-055	31.21


### 90° Street Elbows

	Size	Part No. (Black)	Price
	1/8"	350-040	6.81
	1/4"	350-041	6.81
	3/8"	350-042	6.81
	1/2"	350-043	6.97
	3/4"	350-044	6.81
	1"	350-045	9.80
	1-1/4"	350-046	15.02
	1-1/2"	350-047	19.97
	2"	350-048	32.40

### 45° Street Elbows

	Size	Part No. (Black)	Price
	1/8"	350-060	10.56
	1/4"	350-061	7.84
	3/8"	350-062	8.93
	1/2"	350-063	7.21
	3/4"	350-064	11.04
	1"	350-065	12.79
	1-1/4"	350-066	22.08
	1-1/2"	350-067	27.50
	2"	350-068	46.47

### Tees

	Size	Part No. (Black)	Price
	1/8"	350-150	7.21
	1/4"	350-151	6.82
	3/8"	350-152	6.82
	1/2"	350-153	4.42
	3/4"	350-154	6.26
	1"	350-155	11.00
	1-1/4"	350-156	17.85
	1-1/2"	350-157	22.20
	2"	350-158	37.78

### Banded Couplings

	Size	Part No. (Black)	Price
	1/8"	350-500	5.39
	1/4"	350-501	5.58
	3/8"	350-502	5.58
	1/2"	350-503	4.58
	3/4"	350-504	5.35
	1"	350-505	8.23
	1-1/4"	350-506	10.44
	1-1/2"	350-507	13.91
	2"	350-508	20.37
	3"	350-510	74.65
	4"	350-511	148.85

## Pipe Fittings

### Reducing Tees

	Size	Part No. (Black)	Price
	1/2" x 1/4"	350-204	6.41
	1/2" x 3/8"	350-205	9.37
	3/4" x 1/4"	350-206	10.32
	3/4" x 3/8"	350-207	11.03
	3/4" x 1/2"	350-208	9.44
	1" x 1/4"	350-209	13.19
	1" x 3/8"	350-210	15.91
	1" x 1/2"	350-211	11.96
	1" x 3/4"	350-212	11.96
	1-1/4" x 1/2"	350-214	21.76
	1-1/4" x 3/4"	350-215	19.03
	1-1/4" x 1"	350-216	19.03
	1-1/2" x 1/2"	350-218	25.48
	1-1/2" x 3/4"	350-219	24.13
	1-1/2" x 1"	350-220	24.16
	1-1/2" x 1-1/4"	350-221	24.13
	2" x 1/2"	350-223	37.73
	2" x 3/4"	350-224	37.73
	2" x 1"	350-225	37.73
	2" x 1-1/4"	350-226	39.90
	2" x 1-1/2"	350-227	39.90
	2-1/2" x 2"	350-233	98.92
	3/4" x 1/2" x 1/2"	350-250	9.78
	3/4" x 1/2" x 3/4"	350-251	10.73
	3/4" x 1/2" x 1"	350-252	13.67
	1" x 1/2" x 1/2"	350-253	13.67
	1" x 1/2" x 3/4"	350-254	15.91
	1" x 1/2" x 1"	350-255	13.67
	1" x 3/4" x 1/2"	350-256	13.54
	1" x 3/4" x 3/4"	350-257	12.65
	1" x 3/4" x 1"	350-258	13.67
	1-1/4" x 1/2" x 1-1/4"	350-262	24.89
	1-1/4" x 3/4" x 3/4"	350-264	24.89
	1-1/4" x 3/4" x 1-1/4"	350-266	22.57
	1-1/4" x 1" x 3/4"	350-268	21.89
	1-1/4" x 1" x 1"	350-269	21.89
	1-1/4" x 1" x 1-1/4"	350-270	25.36
	1-1/4" x 1" x 1-1/2"	350-267	29.99
	1-1/2" x 3/4" x 1-1/2"	350-279	29.71
	1-1/2" x 1" x 1"	350-282	29.71
	1-1/2" x 1" x 1-1/2"	350-284	29.71
	1-1/2" x 1-1/4" x 1"	350-287	25.49
	1-1/2" x 1-1/4" x 1-1/4"	350-288	40.18
	1-1/2" x 1-1/4" x 1-1/2"	350-285	40.18
	2" x 1/2" x 2"	350-291	46.37
	2" x 1" x 2"	350-297	46.37
	2" x 1-1/4" x 1-1/4"	350-299	46.37
	2" x 1-1/2" x 1"	350-303	45.54
	2" x 1-1/2" x 1-1/4"	350-304	46.37
	2" x 1-1/2" x 1-1/2"	350-305	45.54



### Bull Head Tees

	Size	Part No. (Black)	Price
	1/2" x 1/2" x 3/4"	350-259	10.96
	1/2" x 1/2" x 1"	350-247	15.96
	3/4" x 3/4" x 1"	350-248	13.91
	3/4" x 3/4" x 1-1/4"	350-249	25.59
	1" x 1" x 1-1/4"	350-260	25.79
	1" x 1" x 1-1/2"	350-261	38.72
	1" x 1" x 2"	350-263	47.45
	1-1/4" x 1-1/4" x 1-1/2"	350-273	30.38
	1-1/4" x 1-1/4" x 2"	350-274	47.45
	1-1/2" x 1-1/2" x 2"	350-290	47.45
	2" x 2" x 2-1/2"	350-308	108.72



### Side Outlet Tees

	Size	Part No. (Black)	Price
	1/2"	350-313	19.46
	3/4"	350-314	24.71
	1"	350-315	34.99



### Crosses

	Size	Part No. (Black)	Price
	1/8"	350-370	16.30
	1/4"	350-371	13.85
	3/8"	350-372	14.10
	1/2"	350-373	15.94
	3/4"	350-374	19.53
	1"	350-375	24.03
	1-1/4"	350-376	39.10
	1-1/2"	350-377	48.22
	2"	350-378	79.79




### Square Head Plugs

	Size	Part No. (Black)	Price
	1/8"	350-400	3.07
	1/4"	350-401	3.07
	3/8"	350-402	3.07
	1/2"	350-403	3.07
	3/4"	350-404	3.08
	1"	350-405	3.87
	1-1/4"	350-406	4.86
	1-1/2"	350-407	6.74
	2"	350-408	9.64




## Pipe Fittings


### Unions

	Size	Part No. (Black)	Price
	1/8"	350-440	24.40
	1/4"	350-441	23.15
	3/8"	350-442	15.58
	1/2"	350-443	14.91
	3/4"	350-444	17.81
	1"	350-445	23.27
	1-1/4"	350-446	30.73
	1-1/2"	350-447	37.54
	2"	350-448	56.91

### Reducing Couplings

	Size	Part No. (Black)	Price
	1/4" x 1/8"	350-520	5.46
	3/8" x 1/8"	350-521	5.46
	3/8" x 1/4"	350-522	5.46
	1/2" x 1/8"	350-523	5.46
	1/2" x 1/4"	350-524	4.98
	1/2" x 3/8"	350-525	4.70
	3/4" x 1/8"	350-526	6.32
	3/4" x 1/4"	350-527	6.18
	3/4" x 3/8"	350-528	6.18
	3/4" x 1/2"	350-529	5.42
	1" x 1/4"	350-530	9.54
	1" x 3/8"	350-531	9.72
	1" x 1/2"	350-532	8.37
	1" x 3/4"	350-533	8.44
	1-1/4" x 1/2"	350-535	12.03
	1-1/4" x 3/4"	350-536	10.44
	1-1/4" x 1"	350-537	10.44
	1-1/2" x 1/2"	350-539	15.30
	1-1/2" x 3/4"	350-540	17.30
	1-1/2" x 1"	350-541	15.30
	1-1/2" x 1-1/4"	350-542	13.23
	2" x 1/2"	350-544	24.87
	2" x 3/4"	350-545	22.00
	2" x 1"	350-546	20.76
	2" x 1-1/4"	350-547	21.92
	2" x 1-1/2"	350-548	19.21
	3" x 1"	350-556	77.89
	3" x 1-1/4"	350-557	77.98
	3" x 1-1/2"	350-558	76.50
	3" x 2"	350-559	63.33
	3" x 2-1/2"	350-560	76.32
	4" x 2"	350-564	153.12
	4" x 2-1/2"	350-565	153.12
	4" x 3"	350-566	153.12

### Hex Bushings

	Size	Part No. (Black)	Price
	1/4" x 1/8"	350-600	6.02
	3/8" x 1/8"	350-601	6.02
	3/8" x 1/4"	350-602	6.02
	1/2" x 1/8"	350-603	6.02
	1/2" x 1/4"	350-604	6.02
	1/2" x 3/8"	350-605	6.02
	3/4" x 1/8"	350-606	5.90
	3/4" x 1/4"	350-607	5.90
	3/4" x 3/8"	350-608	5.90
	3/4" x 1/2"	350-609	5.46
	1" x 1/4"	350-610	7.29
	1" x 3/8"	350-611	7.49
	1" x 1/2"	350-612	5.62
	1" x 3/4"	350-613	5.62
	1-1/4" x 1/4"	350-614	8.43
	1-1/4" x 3/8"	350-615	8.43
	1-1/4" x 1/2"	350-616	8.43
	1-1/4" x 3/4"	350-617	7.25
	1-1/4" x 1"	350-618	7.25
	1-1/2" x 1/4"	350-619	11.12
	1-1/2" x 1/2"	350-621	9.17
	1-1/2" x 3/4"	350-622	9.17
	1-1/2" x 1"	350-623	8.19
	1-1/2" x 1-1/4"	350-624	9.21
	2" x 1/2"	350-626	13.91
	2" x 3/4"	350-627	11.72
	2" x 1"	350-628	11.00
	2" x 1-1/4"	350-629	11.00
	2" x 1-1/2"	350-630	12.27
	3" x 1"	350-637	27.58
	3" x 1-1/4"	350-638	27.58
	3" x 1-1/2"	350-639	27.02
	3" x 2"	350-640	25.35
	3" x 2-1/2"	350-641	25.71
	4" x 2"	350-647	50.22
	4" x 2-1/2"	350-648	50.22
	4" x 3"	350-649	50.22

### Caps

	Size	Part No. (Black)	Price
	1/8"	350-480	4.41
	1/4"	350-481	3.90
	3/8"	350-482	4.12
	1/2"	350-483	3.39
	3/4"	350-484	4.58
	1"	350-485	5.54
	1-1/4"	350-486	7.19
	1-1/2"	350-487	9.76
	2"	350-488	12.79

## Pipe Fittings

### Steel Pipe Nipples - Black

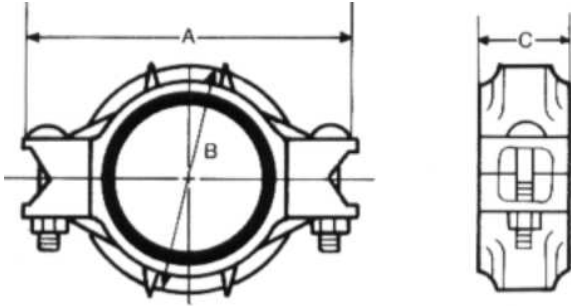


Diameter Inches	Length in Inches																
	Close	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	7"	8"	9"	10"	11"	12"
1/8"	355-000 2.61	355-001 2.97	355-002 2.54	355-003 2.79	355-004 3.16	355-005 3.41	355-006 4.94	355-007 4.97	355-008 5.84	355-009 6.53	355-010 7.25	355-011 8.23	355-012 11.99	355-013 9.07	355-014 9.47	355-015 10.81	355-016 10.81
1/4"	355-020 3.19	355-021 3.35	355-022 3.76	355-023 3.34	355-024 3.70	355-025 4.10	355-026 5.64	355-027 5.51	355-028 6.53	355-029 7.22	355-030 10.01	355-031 9.10	355-032 9.47	355-033 9.83	355-034 10.45	355-035 11.64	355-036 16.45
3/8"	355-040 3.43	355-041 3.59	355-042 4.17	355-043 3.66	355-044 4.28	355-045 4.57	355-046 6.25	355-047 5.51	355-048 7.33	355-049 7.76	355-050 10.33	355-051 9.50	355-052 9.90	355-053 10.48	355-054 11.06	355-055 11.93	355-056 12.66
1/2"	355-060 2.52	355-061 2.03	355-062 2.74	355-063 2.25	355-064 3.23	355-065 3.59	355-066 4.00	355-067 3.41	355-068 4.62	355-069 5.27	355-070 5.72	355-071 7.29	355-072 7.87	355-073 8.34	355-074 11.15	355-075 9.47	355-076 13.44
3/4"	355-080 3.23	355-081 3.39	355-082 3.59	355-083 3.96	355-084 4.29	355-085 4.82	355-086 5.27	355-087 4.61	355-088 6.25	355-089 5.51	355-090 7.39	355-091 8.89	355-092 12.25	355-093 10.59	355-094 11.14	355-095 12.01	355-096 12.51
1"	355-100 4.70		355-102 4.94	355-103 5.27	355-104 5.84	355-105 5.15	355-106 7.15	355-107 6.13	355-108 8.29	355-109 7.15	355-110 9.72	355-111 10.95	355-112 15.24	355-113 13.53	355-114 14.11	355-115 15.53	355-116 16.87
1-1/4"	355-120 6.45		355-122 5.48	355-123 5.91	355-124 8.13	355-125 7.11	355-126 9.68	355-127 8.47	355-128 9.07	355-129 9.69	355-130 12.95	355-131 14.80	355-132 20.96	355-133 18.06	355-134 19.26	355-135 20.82	355-136 22.24
1-1/2"	355-140 9.24		355-142 7.97	355-143 7.04	355-144 9.84	355-145 8.60	355-146 11.60	355-147 10.01	355-148 10.59	355-149 11.39	355-150 14.95	355-151 17.48	355-152 23.86	355-153 20.39	355-154 22.64	355-155 23.51	355-156 26.01
2"	355-160 10.25			355-163 9.25	355-164 12.75	355-165 11.43	355-166 14.99	355-167 13.39	355-168 14.15	355-169 15.60	355-170 20.18	355-171 22.03	355-172 33.74	355-173 29.75	355-174 31.70	355-175 34.28	355-176 36.38
2-1/2"	355-180 33.37				355-184 34.76	355-185 29.38	355-186 30.33	355-187 32.10	355-188 33.77	355-189 35.91	355-190 46.20	355-191 42.59	355-192 46.32	355-193 50.17	355-194 53.90	355-195 57.75	355-196 61.45
3"	355-200 41.99				355-204 44.16	355-205 37.04	355-206 49.02	355-207 41.35	355-208 43.67	355-209 45.63	355-210 59.76	355-211 57.20	355-212 61.92	355-213 66.78	355-214 71.86	355-215 76.14	355-216 81.04
4"	355-220 59.40						355-226 53.00	355-227 56.19	355-228 59.71	355-229 61.23	355-230 81.09	355-231 123.29	355-232 83.21	355-233 90.03	355-234 96.67	355-235 103.31	355-236 110.06



## Pipe Fittings

### GT-402 Lightweight Coupling



A lightweight coupling should be used where weight and lower pressure are a consideration. Painted orange. Other sizes available.

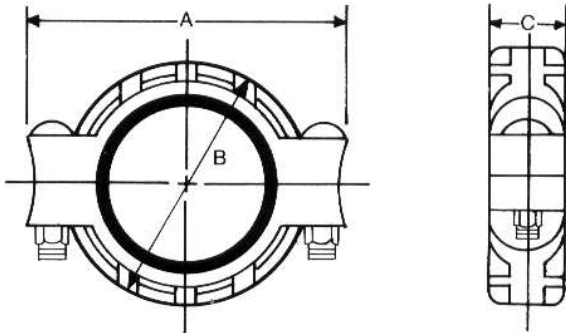


Specify gasket type when ordering  
EPDM or Nitrile



Pipe		Coupling Dimensions			Bolt		Max. Working Pressure PSI	Approx. Weight Each Lb.	EPDM		Nitrile	
Size Inches	O.D. Inches	A Inches	B Inches	C Inches	No.	Size Length Inches			Part No.	Price	Part No.	Price
1-1/2	1.900	4.500	2.835	1.750	2	3/8 x 1 7/8	500	1.5	402-020	14.51	402-020N	15.28
2	2.375	5.130	3.347	1.750	2	3/8 x 1 7/8	300	1.7	402-030	15.82	402-030N	16.86
2 1/2	2.875	5.780	3.796	1.750	2	3/8 x 1 7/8	300	2.5	402-040	21.21	402-040N	22.69
3	3.500	6.550	4.418	1.750	2	3/8 x 1 7/8	300	2.8	402-050	22.82	402-050N	24.44
4	4.500	8.085	5.591	1.937	2	1/2 x 2 1/2	300	4.0	402-060	31.67	402-060N	33.90
5	5.563	9.500	6.750	2.000	2	5/8 x 3 1/4	300	5.5	402-070	52.78	402-070N	61.36
6	6.625	10.866	7.866	2.000	2	5/8 x 3 1/4	300	7.3	402-080	55.88	402-080N	59.78
8	8.625	13.875	10.205	2.375	2	3/4 x 4 1/4	300	12.8	402-090	95.46	402-090N	90.38

### GT-402H Standard Coupling



A grooved coupling to provide ease of installation. Is faster and easier than threading, welding, or using flanges. Painted orange. Other sizes available.



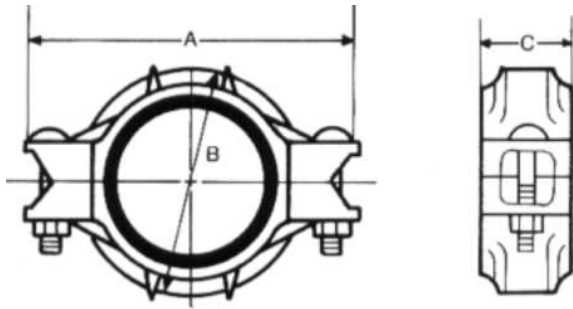
Specify gasket type when ordering  
EPDM or Nitrile



Pipe		Coupling Dimensions			Bolt		Max. Working Pressure PSI	Approx. Weight Each Lb.	EPDM		Nitrile	
Size Inches	O.D. Inches	A Inches	B Inches	C Inches	No.	Size Length Inches			Part No.	Price	Part No.	Price
2	2.375	5.625	3.625	1.750	2	1/2 x 2 1/2	1000	2.7	402-H30	28.14	402-H30N	30.09
2 1/2	2.875	6.250	4.250	1.750	2	1/2 x 2 1/2	1000	3.7	402-H40	38.71	402-H40N	37.76
3	3.500	7.000	5.000	1.750	2	1/2 x 2 1/2	1000	4.1	402-H50	42.24	402-H50N	45.17
4	4.500	8.500	6.375	2.065	2	5/8 x 3 1/4	1000	6.7	402-H60	60.76	402-H60N	65.00
5	5.563	10.250	7.625	2.065	2	5/8 x 3 1/4	1000	11.0	402-H70	87.99	402-H70N	79.17
6	6.625	11.500	8.875	2.065	2	3/4 x 4 1/4	1000	12.0	402-H80	96.81	402-H80N	103.57
8	8.625	14.250	11.250	2.375	2	7/8 x 5	800	19.1	402-H90	158.40	402-H90N	161.31

## Pipe Fittings

### GT-402R Rigid Coupling



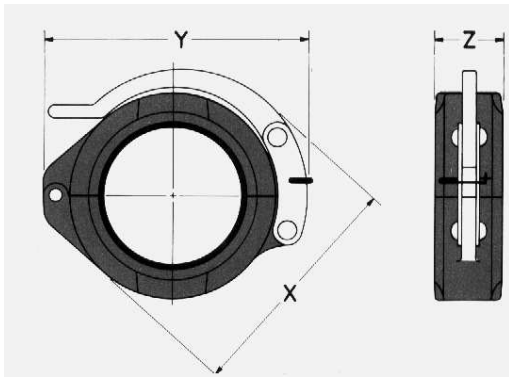
Designed to give secure rigidity in grooved piping systems. The housings firmly grip the pipe grooves and lock together to reduce vertical and lateral movement.

Specify gasket type when ordering  
EPDM or Nitrile



Pipe		Coupling Dimensions			Bolt		Max. Working Pressure PSI	Approx. Weight Each Lb.	EPDM		Nitrile	
Size Inches	O.D. Inches	A Inches	B Inches	C Inches	No.	Size Length Inches			Part No.	Price	Part No.	Price
2	2.375	5.000	3.236	1.750	2	3/8 x 2	175	1.5	402-R30	15.82	402-R30N	16.90
2 1/2	2.875	5.625	3.700	1.750	2	1/2 x 2 3/8	175	1.7	402-R40	20.36	402-R40N	21.49
3	3.500	6.450	4.315	1.750	2	1/2 x 2 3/8	175	2.5	402-R50	21.41	402-R50N	22.70
4	4.500	7.830	5.535	2.000	2	1/2 x 2 7/8	175	3.6	402-R60	30.77	402-R60N	34.00
6	6.625	10.450	7.693	2.000	2	1/2 x 2 7/8	175	5.8	402-R80	55.88	402-R80N	58.51

### 7003 Hingelok Coupling



Designed for applications requiring a quick connection and/or disconnection. A locking pin through the handle prevents accidental opening of the coupling.



Specify gasket type when ordering  
EPDM or Nitrile

Pipe		Coupling Dimensions			Bolt		Max. Working Pressure PSI	Approx. Weight Each Lb.	EPDM		Nitrile	
Size Inches	O.D. Inches	A Inches	B Inches	C Inches	No.	Size Length Inches			Part No.	Price	Part No.	Price
1 1/2	1.900	3.500	4.750	1.875			300	2.0	700315	129.19	700315N	129.94
2	2.375	4.125	4.875	1.875			300	2.4	700320	100.00	700320N	101.07
2 1/2	2.875	4.750	5.875	1.875			300	3.2	700325	118.42	700325N	119.53
3	3.500	5.625	6.500	1.875			300	4.2	700330	138.51	700330N	139.81
4	4.500	6.875	7.750	2.000			300	6.4	700340	177.12	700340N	180.36
5	5.563	7.875	9.500	2.000			300	12.5	700350	332.83	700350N	337.80
6	6.625	9.875	10.625	2.000			300	13.7	700360	364.71	700360N	367.61
8	8.625	12.500	13.250	2.375			300	20.0	700380	555.29	700380N	558.20

## Pipe Fittings

### Ductile Iron Grooved Fittings

Maximum working pressure to 1000 psi.

#### 90 Deg. Elbow



Size	Wt.	Part #	Price
1 1/2"	1.2	602-020	18.51
2"	2.1	602-030	15.42
2 1/2"	3.0	602-040	25.18
3"	4.7	602-050	30.93
4"	7.3	602-060	40.46
5"	12.0	602-070	108.77
6"	17.4	602-080	123.60
8"	31.9	602-090	265.71

#### Tees



Size	Wt.	Part #	Price
1 1/2"	1.8	611-020	28.51
2"	3.2	611-030	23.76
2 1/2"	4.5	611-040	37.33
3"	5.9	611-050	52.07
4"	11.0	611-060	75.40
5"	16.3	611-070	178.41
6"	24.0	611-080	202.73
8"	40.0	611-090	428.43

#### Adapter Nipples



Size	Wt.	Part #	Price
1 1/2"	1.0	75122	25.18
2"	1.2	75123	29.42
2 1/2"	1.9	75124	33.56
3"	2.5	75125	47.06
4"	5.5	75126	77.22

#### 45 Deg. Elbow



Size	Wt.	Part #	Price
1 1/2"	1.0	604-020	18.50
2"	1.9	604-030	15.05
2 1/2"	2.7	604-040	26.15
3"	4.2	604-050	29.92
4"	6.6	604-060	45.00
6"	15.7	604-080	127.20

## Nuts, Bolts, and Gaskets

#### EPDM Gasket



Color code: **Green**

For water service, dilute acids, alkalis, oil-free air and many chemical services. **Not for use in petroleum services.**  
-40° F to +230° F

Size	Part #	Price
1 1/2"	EPDM-G2	8.75
2"	EPDM-G3	8.75
2 1/2"	EPDM-G4	10.50
3"	EPDM-G5	12.29
4"	EPDM-G6	17.54
5"	EPDM-G7	28.14
6"	EPDM-G8	30.80
8"	EPDM-G9	48.34

#### NITRILE Gasket



Color code: **Orange**

For petroleum products, air with oil vapor and vegetable and mineral oils. **Not for use in hot water or hot air services.**  
-40° F to +230° F

Size	Part #	Price
1 1/2"	NBR-G2	9.66
2"	NBR-G3	10.50
2 1/2"	NBR-G4	11.38
3"	NBR-G5	14.04
4"	NBR-G6	21.98
5"	NBR-G7	28.17
6"	NBR-G8	35.14
8"	NBR-G9	48.30

#### Nuts & Bolts



Bolts: Heat-treated, oval neck. Track head.  
Nuts: Heavy hex nuts, plated.

Size	Part #	Price
3/8 x 1 7/8	B2	2.69
1/2 x 2 1/2	B3	4.02
1/2 x 2 7/8	B4	4.85
5/8 x 3 1/4	B6	8.62
3/4 x 4 1/4	B8	16.66
7/8 x 6	ML-B10	31.10

### Hammer Unions



Hammer Unions can be used for cementing trucks, oil field applications, for quick connections on tank trucks and rail cars, all kinds of manifolds and other high pressure equipment and pipes. Hammer Unions play an important role in the transporting of oil, water, fracturing fluid, mixed fluid, etc. These items are made of high quality steel either by forging or casting with a good finishing cut according to on-site applications. Our Hammer Unions are interchangeable with other name brand manufacturers that adhere to industry standards.



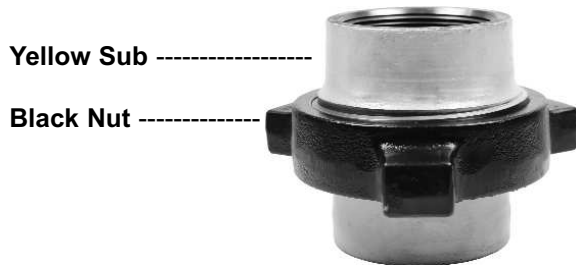
- The material for the Hammer Union conforms to the requirements of ASTM A536 Grade 65-45-12, ASTM A-105 ASTM A29
- Our Hammer Union conforms to the following standards: NACE, ISO, DNV, and API  
Contact us for exact dimensional/technical information
- The NPT threads conform to ASME B1.20.1



- Do not make up or break out Unions in pressurized lines.
- Do not mix Standard Service and Sour Gas Service Unions or parts.
- Our Union parts of the same figure number, size, and pressure rating are interchangeable, making it easy to match male and female subs that are frequently made-up and broken-out.

## Figure 100 - 1,000 PSI Hammer Union -Threaded

For low pressure service. Female threaded ends.



Size	Part #	Weight	Qty	Price
2	HU100-20	5.50	12	44.23
3	HU100-30	12.99	5	115.18
4	HU100-40	20.04	3	167.77
6	HU100-60	48.00	1	463.24
8	HU100-80	69.50	1	781.25

## Figure 200 - 2,000 PSI Hammer Union -Threaded

These unions are available for general purposes.



Size	Part #	Weight	Qty	Price
1	HU200-10	1.98	30	27.54
2	HU200-20	5.28	12	44.23
3	HU200-30	12.78	5	167.77
4	HU200-40	19.83	3	230.37
6	HU200-60	48.00	1	801.28
8	HU200-80	69.50	1	1477.37

## Figure 206 - 2,000 PSI Hammer Union -Threaded

For improved sealing, the Fig 206 has an O-ring in the male sub.



Size	Part #	Weight	Qty	Price
2	HU206-20	5.28	12	79.67
3	HU206-30	12.78	5	192.81
4	HU206-40	19.83	3	250.40

## Figure 400 - 4,000 PSI Hammer Union -Threaded

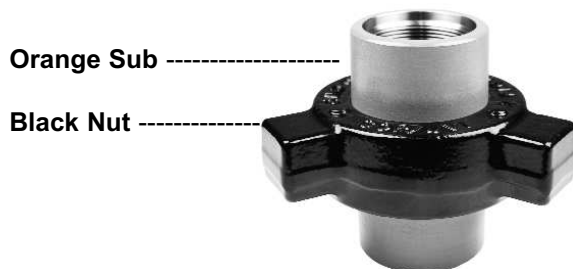
For medium pressure service.



Size	Part #	Weight	Qty	Price
2	HU400-20	11.00	12	145.23
3	HU400-30	19.75	5	325.52
4	HU400-40	29.50	3	413.16

## Figure 602 - 6,000 PSI Hammer Union

Specially designed lip-type elastomer seal protects the metal to metal seal and reduces the line turbulence.  
Compact design is best suited for manifold service.  
Threaded and weld end options are available.



### THREADED

Size	Part #	Weight	Qty	Price
1	HU602-10	3.75	30	90.14
2	HU602-20	13.21	4	175.28
3	HU602-30	22.03	3	388.12
4	HU602-40	32.60	2	575.92



### BUTT WELD

Size	Part #	Weight	Qty	Price
2	HU602BW-20	13.43	4	250.40
3	HU602BW-30	22.25	3	500.80
4	HU602BW-40	33.04	2	726.16

## Pipe Fittings

### Figure 1002 - 10,000 PSI Hammer Union

Specially designed field replaceable lip-type elastomer seal protects the metal to metal seal.  
Alloy steel forgings in high-pressure manifold and treating iron connections.  
Threaded and weld ends options are available.

Blue Sub -----

Red Nut -----



#### THREADED

Size	Part #	Weight	Qty	Price
2	HU1002-20	13.21	4	237.88
3	HU1002-30	22.03	3	463.24
4	HU1002-40	32.60	2	600.96

Red Nut -----



#### BUTT WELD

Size	Part #	Weight	Qty	Price
2	HU1002BW-20	13.42	4	363.08
3	HU1002BW-30	22.25	3	638.52
4	HU1002BW-40	33.04	2	819.86

### Figure 1502 - 15,000 PSI Hammer Union

Specially designed field replaceable lip-type elastomer seal protects the metal to metal seal.  
Alloy steel forgings in high-pressure manifold and treating iron connections.  
Threaded and weld ends options are available.

Red Sub -----

Blue Nut -----



#### THREADED

Size	Part #	Weight	Qty	Price
2	HU1502-20	19.60	4	225.36
3	HU1502-30	30.84	2	701.12
4	HU1502-40	67.85	1	1189.41

Blue Nut -----



#### BUTT WELD

Size	Part #	Weight	Qty	Price
2	HU1502BW-20	19.60	4	363.08
3	HU1502BW-30	28.64	2	776.24
4	HU1502BW-40	77.10	1	1934.60

## Plastic Fittings

### Polypropylene Cam & Groove Fittings

		POLY				POLY	
Style	Size	Part #	Price	Style	Size	Part #	Price
 Male Adapter x Female NPT	3/4"	7AP	1.77	 M Adapter x Hose Shank	3/4"	7EP	1.77
	1"	10AP	1.85		1"	10EP	2.08
	1 1/4"	*12AP	3.04		1 1/4"	*12EP	3.19
	1 1/2"	15AP	3.04		1 1/2"	15EP	3.19
	2"	20AP	5.04		2"	20EP	5.20
	3"	30AP	6.84		3"	30EP	9.15
	4"	40AP	14.84		4"	40EP	18.88
Style	Size	Part #	Price	Style	Size	Part #	Price
 Female Coupler x Male NPT	3/4"	7BP	6.19	 Male Adapter x Male NPT	3/4"	7FP	1.77
	1"	10BP	7.88		1"	10FP	2.08
	1 1/4"	*12BP	12.58		1 1/4"	*12FP	3.11
	1 1/2"	15BP	12.07		1 1/2"	15FP	3.11
	2"	20BP	14.15		2"	20FP	5.04
	3"	30BP	22.41		3"	30FP	7.77
	4"	40BP	40.78		4"	40FP	18.49
Style	Size	Part #	Price	Style	Size	Part #	Price
 F Coupler x Hose Shank	3/4"	7CP	6.50	 Dust Cap	3/4"	7DCP	5.34
	1"	10CP	8.69		1"	10DCP	8.34
	1 1/4"	*12CP	12.98		1 1/4"	*12DCP	N/A
	1 1/2"	15CP	12.34		1 1/2"	15DCP	12.00
	2"	20CP	15.15		2"	20DCP	14.42
	3"	30CP	23.63		3"	30DCP	22.95
	4"	40CP	43.81		4"	40DCP	37.79
Style	Size	Part #	Price	Style	Size	Part #	Price
 Female Coupler x Female NPT	3/4"	7DP	6.34	 Dust Plug	3/4"	7DPP	1.38
	1"	10DP	8.69		1"	10DPP	1.61
	1 1/4"	*12DP	12.87		1 1/4"	*12DPP	6.47
	1 1/2"	15DP	12.30		1 1/2"	15DPP	2.58
	2"	20DP	14.42		2"	20DPP	3.11
	3"	30DP	24.49		3"	30DPP	6.04
	4"	40DP	42.91		4"	40DPP	13.76

\*On 1-1/4" size hose shanks are 1-1/4", Coupler & Adapters are 1-1/2" size.

Working Pressure: Poly (3/4, 1" is 125 PSI) (1 1/4" ~ 2" is 100 PSI) (3" is 75 PSI)



## Plastic Fittings

### Nylon Fittings

#### MENDERS



Part #	Hose I.D.	Price
TC7022	1/8"	0.71
TC7044	1/4"	0.77
TC7066	3/8"	0.84
TC7088	1/2"	0.91
TC701010	5/8"	1.01
TC701212	3/4"	1.45
TC701616	1"	1.79
TC702020	1 1/4"	2.90
TC702424	1 1/2"	5.36
TC703232	2"	13.51

#### TEE-MALE THREAD



Part #	Hose Size	NPT Thread	Price
TT3244	1/4 x 1/4	1/8"	1.34
TT3444	1/4 x 1/4	1/4"	1.33
TT3466	3/8 x 3/8	1/4"	1.68
TT3488	1/2 x 1/2	1/4"	1.58
TT3644	1/4 x 1/4	3/8"	1.68
TT3666	3/8 x 3/8	3/8"	1.55
TT3688	1/2 x 1/2	3/8"	1.72
TT3866	3/8 x 3/8	1/2"	1.82
TT3888	1/2 x 1/2	1/2"	1.68
TT3121212	3/4 x 3/4	3/4"	2.19
TT3121616	1 x 1	3/4"	2.73

#### TEE - ALL HOSE



Part #	Hose Size	Price
TT9444	1/4 x 1/4 x 1/4	1.25
TT9555	5/16 x 5/16 x 5/16	1.54
TT9666	3/8 x 3/8 x 3/8	1.55
TT9888	1/2 x 1/2 x 1/2	1.65
TT9101010	5/8 x 5/8 x 5/8	1.75
TT9121212	3/4 x 3/4 x 3/4	1.89
TT9161616	1 x 1 x 1	2.53

#### NPT CLOSE NIPPLE



Part #	MPT	MPT	Price
TN5022	1/8"	1/8"	0.81
TN5044	1/4"	1/4"	0.84
TN5066	3/8"	3/8"	0.91
TN5088	1/2"	1/2"	0.98
TN501212	3/4"	3/4"	1.21
TN501616	1"	1"	1.99
TN502020	1 1/4"	1 1/4"	0.98
TN502424	1 1/2"	1 1/2"	4.99
TN503232	2"	2"	7.24

#### FEMALE PIPE x MALE GHT



Part #	Male GHT	Female Pipe	Price
GFA124	MGHT	1/4"	3.23
GFA128	MGHT	1/2"	2.83
GFA1212	MGHT	3/4"	3.27

#### MALE GHT x MALE PIPE



Part #	Male GHT	Male Pipe	Price
GPN6	MGHT	3/8"	1.08
GPN8	MGHT	1/2"	1.08
GPN12	MGHT	3/4"	1.28

## Plastic Fittings

### Nylon Fittings



#### MALE INSERTS

Part #	Hose I.D.	NPT Thread	Price
TA1024	1/4"	1/8"	0.74
TA1044	1/4"	1/4"	0.74
TA1064	1/4"	3/8"	0.81
TA1084	1/4"	1/2"	0.81
TA10124	1/4"	3/4"	1.04
TA1026	3/8"	1/8"	0.74
TA1046	3/8"	1/4"	0.84
TA1066	3/8"	3/8"	0.88
TA1086	3/8"	1/2"	0.98
TA10126	3/8"	3/4"	1.08
TA1048	1/2"	1/4"	0.88
TA1068	1/2"	3/8"	0.91
TA1088	1/2"	1/2"	1.00
TA10128	1/2"	3/4"	1.18

Part #	Hose I.D.	NPT Thread	Price
TA10610	5/8"	3/8"	0.84
TA10810	5/8"	1/2"	1.04
TA101210	5/8"	3/4"	1.21
TA10812	3/4"	1/2"	1.08
TA101212	3/4"	3/4"	1.25
TA101612	3/4"	1"	1.55
TA101216	1"	3/4"	1.62
TA101616	1"	1"	1.82
TA102016	1"	1 1/4"	3.20
TA101620	1 1/4"	1"	2.43
TA102020	1 1/4"	1 1/4"	3.71
TA102420	1 1/4"	1 1/2"	3.98
TA102024	1 1/2"	1 1/4"	3.94
TA102424	1 1/2"	1 1/2"	4.45
TA103232	2"	2"	6.13



#### 90° MALE ELBOWS

Part #	Hose I.D.	NPT Thread	Price
TE2024	1/4"	1/8"	1.43
TE2044	1/4"	1/4"	1.28
TE2064	1/4"	3/8"	1.35
TE2025	5/16"	1/8"	1.52
TE2045	5/16"	1/4"	1.55
TE2065	5/16"	3/8"	1.62
TE2026	3/8"	1/8"	1.34
TE2046	3/8"	1/4"	1.39
TE2066	3/8"	3/8"	1.56
TE2086	3/8"	1/2"	1.48
TE20126	3/8"	3/4"	1.95

Part #	Hose I.D.	NPT Thread	Price
TE2048	1/2"	1/4"	1.31
TE2068	1/2"	3/8"	1.44
TE2088	1/2"	1/2"	1.55
TE20128	1/2"	3/4"	2.02
TE20168	1/2"	1"	2.32
TE20610	5/8"	3/8"	1.38
TE20810	5/8"	1/2"	1.82
TE201210	5/8"	3/4"	1.92
TE20812	3/4"	1/2"	1.89
TE201212	3/4"	3/4"	2.09
TE201612	3/4"	1"	2.16
TE201216	1"	3/4"	2.22
TE201616	1"	1"	2.56



#### GARDEN HOSE SETS

Part #	Hose I.D.	Thread	Price
GHC44	1/4"	GHT	2.86
GHC66	3/8"	GHT	2.99
GHC88	1/2"	GHT	3.06
GHC1010	5/8"	GHT	3.13
GHC1212	3/4"	GHT	3.07



#### FEMALE BARB (SOLID)

Part #	Hose I.D.	Thread	Price
TAF1044	1/4"	GHT	2.99
TAF1046	3/8"	GHT	2.88
TAF1088	1/2"	GHT	2.39
TAF101212	3/4"	GHT	3.74

## Industrial Interchange

### S10 Series

Coupler and plugs have poppet shut off valves to prevent fluid loss when disconnected. Interchanges with Hansen HK, Parker 60 & Aeroquip FD45 series. All fittings have female NPT threads. S10 series couplers meet ISO 7241-1 Series B dimensional requirements. Call for working pressure.



Body Half



Male Tip

	Steel		Brass		Stainless	
Size	Part #	Price	Part #	Price	Part #	Price
1/4	S105-2	33.82	BS105-2	88.67	SS105-2	123.88
3/8	S105-3	45.31	BS105-3	95.73	SS105-3	165.49
1/2	S105-4	57.98	BS105-4	168.63	SS105-4	249.70
3/4	S105-6	92.82	BS105-6	261.63	SS105-6	417.65
1	S105-8	128.54	BS105-8	325.58	SS105-8	682.55

	Steel		Brass		Stainless	
Size	Part #	Price	Part #	Price	Part #	Price
1/4	S101-2	15.08	BS101-2	28.38	SS101-2	48.15
3/8	S101-3	18.30	BS101-3	30.26	SS101-3	71.96
1/2	S101-4	20.07	BS101-4	50.81	SS101-4	123.88
3/4	S101-6	38.87	BS101-6	91.92	SS101-6	190.76
1	S101-8	56.27	BS101-8	127.67	SS101-8	314.52

### S10 Series Rubber Dust Cap and Dust Plug

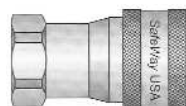
Also available in aluminum.



Size	Dust Cap	Price	Dust Plug	Price
1/4	S10DC-2	4.59	S10DP-2	4.59
3/8	S10DC-3	5.26	S10DP-3	5.26
1/2	S10DC-4	5.26	S10DP-4	5.26
3/4	S10DC-6	11.34	S10DP-6	11.34
1	S10DC-8	14.47	S10DP-8	14.47

### S56 Series

Meets ISO 724101. Interchanges with Aeroquip FD56 (5600) series and Parker 6000 series. The S56's smaller design envelope and lighter weight make it ideal for applications where space is minimal. With poppet checks.



Body Half



Male Tip

Size	Part #	Pressure	Price
1/4	S565-2	5000	31.18
3/8	S565-3	4000	36.90
1/2	S565-4	4000	40.20
3/4	S565-6	4000	74.45
1	S565-8	4000	112.00

Size	Part #	Price
1/4	S561-2	15.16
3/8	S561-3	16.99
1/2	S561-4	16.84
3/4	S561-6	35.59
1	S561-8	56.67

### S56 Series Rubber Dust Cap and Dust Plug

Also available in aluminum.



Size	Dust Cap	Price	Dust Plug	Price
1/4	S56DC-2	3.66	S56DP-2	3.66
3/8	S56DC-3	3.66	S56DP-3	3.66
1/2	S56DC-4	3.66	S56DP-4	3.66
3/4	S56DC-6	14.47	S56DP-6	14.47
1	S56DC-8	19.29	S56DP-8	19.29

## Hydraulic Fittings

### S30 Series

Hi-pressure interchange for Rams/Jacks/Power Packs. S30 series couplers offer significantly less pressure drop than other brands, allowing for quicker ram response in piston-operated machines. Unique poppet valving eliminates leakage and allows trouble-free mating with ball-style interchanges, such as the Parker 3000 and Enerpac C-604.



Body Half

Size	Part #	Pressure	Price
1/4	S35-2	10000	44.80
3/8	S35-3	10000	50.07



Male Tip

Size	Part #	Price
1/4	S31-2	29.51
3/8	S31-3	28.99

### INDUSTRIAL INTERCHANGE

#### FF49 Series

Self-cleaning flush face design. Interchanges with Aeroquip FD49 and Parker FF series.



Body Half

Size	Part #	Pressure	Price
3/8	FF495-3	2500	132.53
1/2	FF495-4	2500	136.60

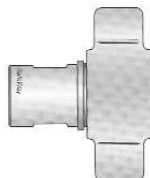


Male Tip

Size	Part #	Price
3/8	FF491-3	45.39
1/2	FF491-4	51.11

#### S78 Series

Heavy-duty brass coupler with iron wing nut. Interchanges with Aeroquip 5100, Parker 6100 and Dixon 7800 series.



Body Half



Male Plug

Size	Body Size	Part #	Pressure	Price
1/2	3/4	S78-8	5000	153.21
3/4	3/4	S78-12	4000	153.21
1	1	S78-16	4000	152.26
1 1/4	1 1/4	S78-20	4000	340.60
1 1/2	1 1/2	S78-24	4000	452.12

Size	Part #	Price
1/2	P78-8	128.73
3/4	P78-12	106.51
1	P78-16	126.11
1 1/4	P78-20	279.31
1 1/2	P78-24	414.94

### AGRICULTURAL INTERCHANGE

#### 20 Series

Meets or exceeds ISO specifications and interchangeability. Interchanges with Pioneer 4000 series. One way sleeve. All fittings have poppet valves.



Body Half

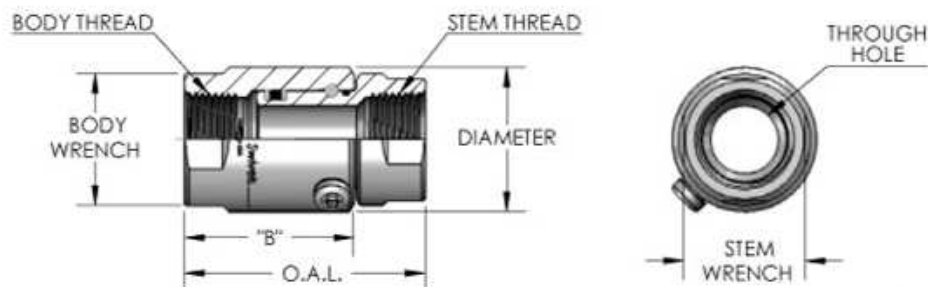
Size	Part #	Pressure	Price
1/4	S25A-2P	4000	34.26
3/8	S45-3P	4000	44.02
1/2	S25-4P	3000	39.54
3/4	S25F-6	4000	121.99
1	S25-8P	3000	131.76



Male Tip

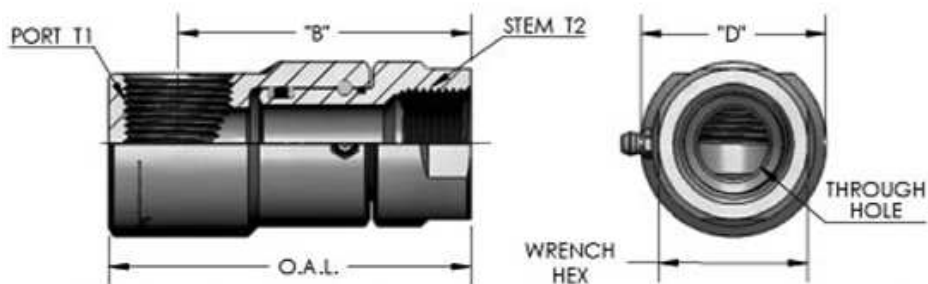
Size	Part #	Price
1/4	S41-2P	17.13
3/8	S41-3P	19.08
1/2	S71-4P	16.84
3/4	S21F-6	54.74
1	S21-8P	68.53

## FEMALE PIPE (NPT) x FEMALE PIPE (NPT) ZINC PLATED STEEL, VITON SEALS INLINE SWIVEL



Part Number	O.A.L.	Dim. B	Stem Thread	Body Thread	Dia.	Wrench	Max PSIG	Through Hole	Price
1000	2.320	1.470	1/4-18 NPT	1/4-18 NPT	0.992	0.875	5000	0.250	179.91
1010	2.535	1.290	3/8-18 NPT	3/8-18 NPT	1.292	1.125	5000	0.530	186.20
1020	2.685	1.700	1/2-14 NPT	1/2-14 NPT	1.480	1.250	5000	0.530	198.02
1030	2.685	1.700	3/4-14 NPT	3/4-14 NPT	1.675	1.500	4500	0.689	246.82
1040	3.425	2.250	1-11 1/2 NPT	1-11 1/2 NPT	1.917	1.750	4000	0.906	336.00
1050	3.680	2.300	1 1/4-11 1/2 NPT	1 1/4-11 1/2 NPT	2.357	2.125	4000	1.181	574.67
1063	4.380	3.000	1 1/2-11 1/2 NPT	1 1/2-11 1/2 NPT	2.547	2.375	4000	1.312	1354.24
1073	4.856	3.475	2-11 1/2 NPT	2-11 1/2 NPT	3.052	2.875	3000	1.781	2560.23

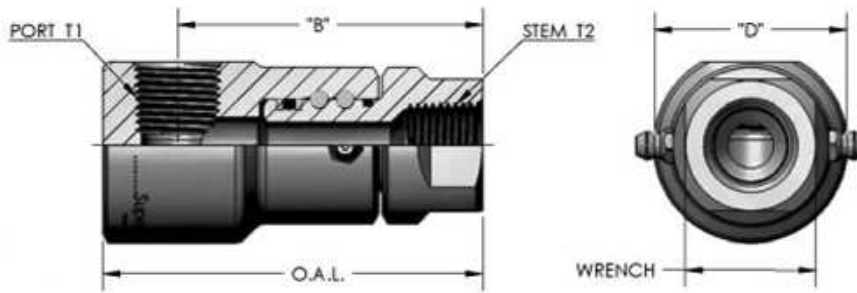
## FEMALE PIPE (NPT) x FEMALE PIPE (NPT) ZINC PLATED STEEL, VITON SEALS 90° SWIVELS



Part Number	O.A.L.	Dim. B	Dim. D O	Wrench /Hex	Port T1	Stem T2	SWG Radius	Max PSIG	Through Hole	Price
5000	2.460	2.100	1.192	0.750	1/4-18 NPT	1/4-18 NPT	0.525	5000	0.250	199.24
5010	2.670	2.125	1.495	0.875	3/8-18 NPT	3/8-18 NPT	0.588	5000	0.530	207.74
5020	2.820	2.275	1.495	1.125	1/2-14 NPT	1/2-14 NPT	0.588	5000	0.530	207.74
5030	3.030	2.365	1.710	1.375	3/4-14 NPT	3/4-14 NPT	0.662	4500	0.609	314.46
5040	4.000	3.190	2.162	1.625	1-11 1/2 NPT	1-11 1/2 NPT	0.824	4000	0.827	370.68
5050	4.365	3.395	2.702	2.000	1 1/4-11 1/2 NPT	1 1/4-11 1/2 NPT	1.049	4000	1.181	579.94
5063	5.605	4.375	2.917	2.375	1 1/2-11 1/2 NPT	1 1/2-11 1/2 NPT	1.076	4000	1.312	1354.28
5073	6.420	5.050	3.667	2.875	2-11 1/2 NPT	2-11 1/2 NPT	1.386	3000	1.781	2675.24

## 10,000 PSI FEMALE PIPE (NPT) x FEMALE PIPE (NPT)

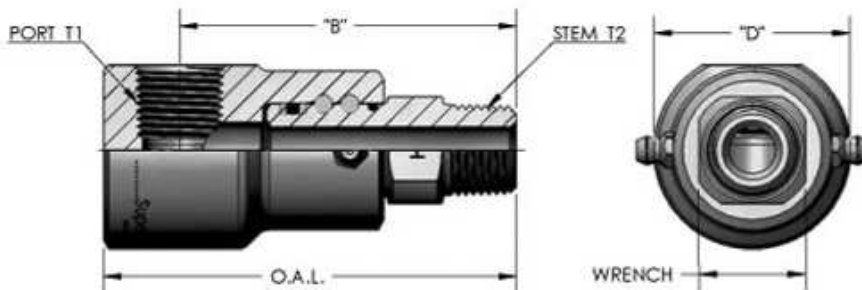
90° HIGH PRESSURE SWIVELS  
CARBON STEEL



Part Number	O.A.L.	Dim. B	Dim. D O	Wrench /Hex	Port T1	Stem T2	SWG Radius	Max PSIG	Through Hole	Price
5923	3.470	2.895	1.842	1.125	1/2-14 NPT	1/2-14 NPT	1.048	10,000	0.437	512.66

## 10,000 PSI MALE PIPE (NPT) x FEMALE PIPE (NPT)

90° HIGH PRESSURE SWIVELS  
CARBON STEEL

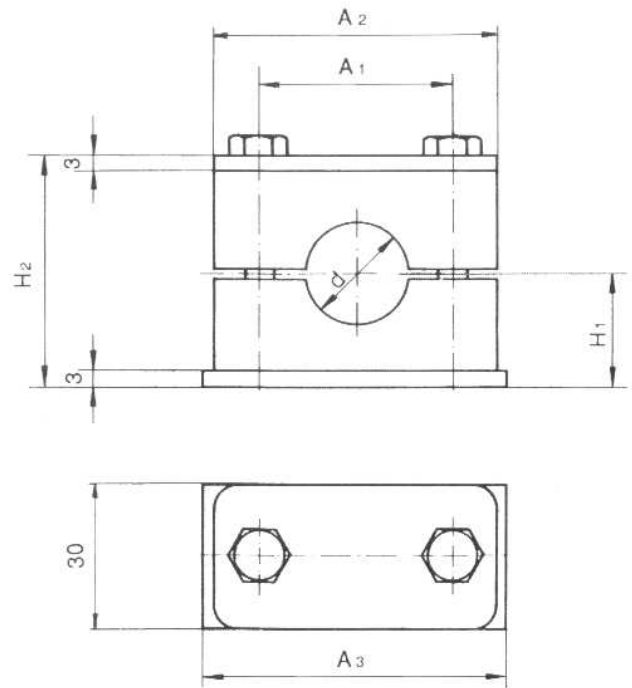


Part Number	O.A.L.	Dim. B	Dim. D O	Wrench /Hex	Port T1	Stem T2	SWG Radius	Max PSIG	Through Hole	Price
6023	3.855	3.145	1.842	1.000	1/2-14 NPT	1/2-14 NPT	1.048	10,000	0.437	716.42

## Beta Clamps - Standard Series

Beta Standard Series - For standard hydraulics, general pipe construction and electric cables.

Beta Standard Series clamps are ideal for general-duty applications subject to moderate levels of shock and vibration.

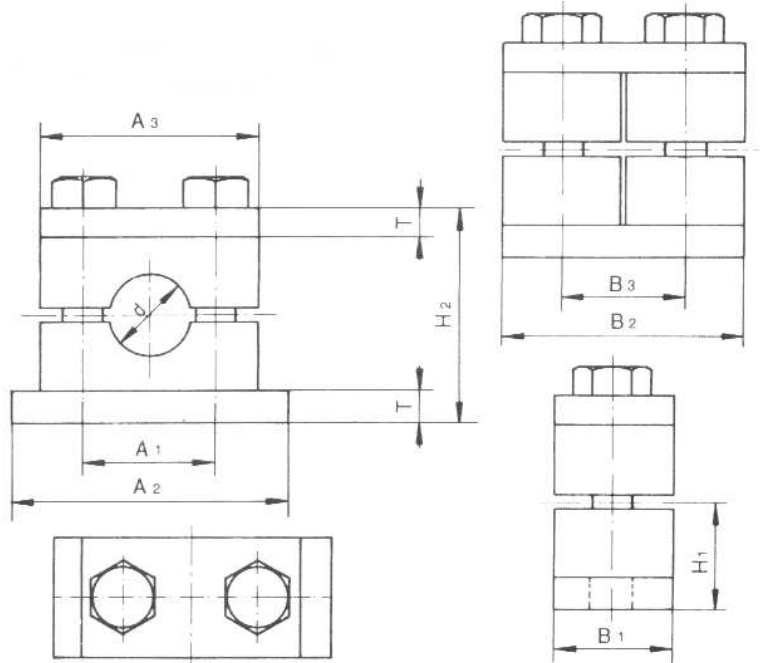
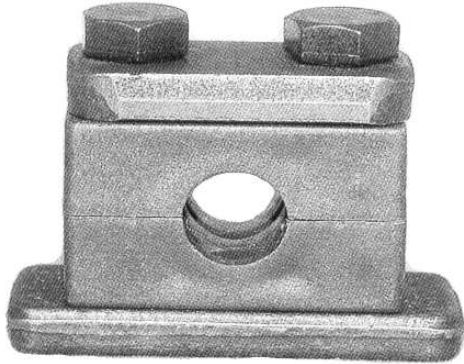


ZSI Group	WT/ 100	Cushion P.N.	Size	D	A1	A2	A3	H1	H2	Bolt	Price
S1	17	S-1004	1/4"T	.250	20mm	34mm	36mm	16mm	32mm	1/4"-20	7.10
	17	S-1006	3/8"T	.375	.78	1.34	1.41	.62	1.25	x 1 1/4"	7.10
	17	S-1007	1/8"P	.405							7.10
S2	20	S-2008	1/2"T	.500	26mm	40mm	42mm	19.5mm	39mm	1/4"-20	7.31
	20	S-2009	1/4"P	.540	1.02	1.57	1.65	.76	1.535	x 1 3/8"	7.31
	20	S-2010	5/8"T	.625							7.31
	20	S-2011	3/8"P	.675							7.31
S3	24	S-3012	3/4"T	.750	33mm	50mm	52mm	20.5mm	41mm	1/4"-20	8.41
	25	S-3014	1/2"P	.840	1.29	1.96	2.04	.80	1.61	x 1 1/2"	8.41
	25	S-3015	7/8"T	.875							8.41
	24	S-3016	1"T	1.00							8.41
S4	29	S-4017	3/4"P	1.050	40mm	58mm	60mm	24mm	48mm	1/4"-20	9.30
	30	S-4018	1 1/8"T	1.125	1.57	2.28	2.36	.94	1.88	x 1 3/4"	9.30
S5	40	S-5020	1 1/4"T	1.250	52mm	70mm	72mm	32mm	64mm	1/4"-20	10.84
	39	S-5021	1"P	1.315	2.04	2.75	2.83	1.25	2.52	x 2 1/2"	10.84
	38	S-5024	1 1/2"T	1.500							10.84
	37	S-5027	1 1/4"P	1.660							10.84
S6	47	S-6028	1 3/4"T	1.750	66mm	86mm	88mm	36mm	72mm	1/4"-20	14.75
	47	S-6030	1 1/2"P	1.900	2.59	3.38	3.46	1.41	2.83	x 2 3/4"	14.75
	46	S-6032	2"T	2.000							14.75
S7	97	S-7038	2"P	2.375	94mm	121mm	122mm	51mm	103mm	1/4"-20	40.39
					3.70	4.75	4.81	2.00	4.05	x 4"	

## Beta Clamps - Heavy Series

Beta Heavy Series - For high pressure hydraulics, heavy duty operation, intermittent load and high oil speeds.

Beta Heavy Series clamps tame the toughest jobs and harshest environments, absorbing high levels of shock, noise and vibration.



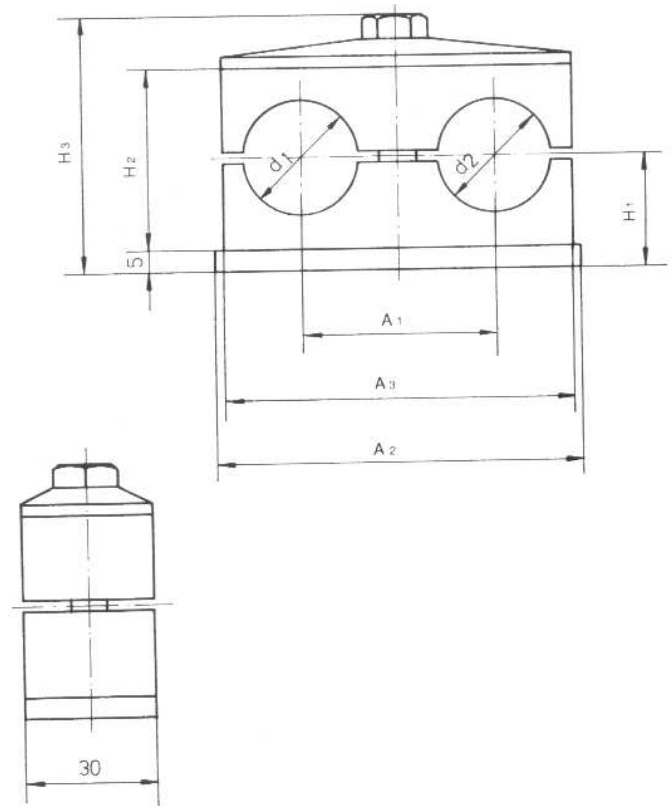
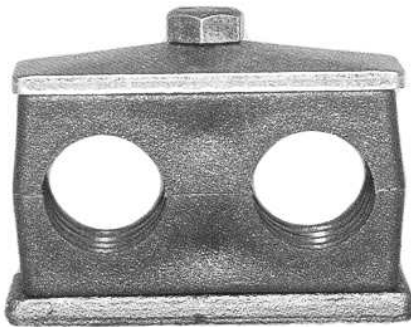
ZSI Group	WT/ 100	Cushion P.N.	Size	D	A1	A2	A3	B1	B2	B3	H1	H2	T	Bolt	Price
	65	H-3004	1/4"T	.250	33mm	73mm	55mm	30mm	60mm	30mm	24mm	48mm	8mm	3/8"-16	18.19
	65	H-3006	3/8"T	.375	1.29	2.87	2.16	1.18	2.36	1.18	.94	1.88	.31	x 1 3/4"	18.19
	65	H-3007	1/8"P	.405											18.19
H3	65	H-3008	1/2"T	.500											18.19
	65	H-3009	1/4"P	.540											18.19
	65	H-3010	5/8"T	.625											18.19
	65	H-3011	3/8"P	.675											18.19
	83	H-4012	3/4"T	.750	45mm	85mm	70mm	30mm	60mm	30mm	32mm	64mm	8mm	3/8"-16	20.83
	82	H-4014	1/2"P	.840	1.77	3.34	2.75	1.18	2.36	1.18	1.25	2.51	.31	x 2 1/4"	20.83
H4	83	H-4015	7/8"T	.875											20.83
	83	H-4016	1"T	1.00											20.83
	83	H-4017	3/4"P	1.050											20.83
	104	H-5020	1 1/4"T	1.250	60mm	100mm	84mm	30mm	60mm	30mm	38mm	76mm	8mm	3/8"-16	22.96
H5	104	H-5021	1"P	1.315	2.36	3.93	3.30	1.18	2.36	1.18	1.49	2.99	.31	x 2 3/4"	22.96
	103	H-5024	1 1/2"T	1.50											22.96
	103	H-5027	1 1/4"P	1.660											22.96
	266	H-6028	1 3/4"T	1.75	90mm	150mm	115mm	45mm	90mm	45mm	55mm	110mm	10mm	1/2"-13	46.29
	276	H-6030	1 1/2"P	1.90	3.54	5.90	4.52	1.77	3.54	1.77	2.16	4.33	.39	x 4"	46.29
H6	267	H-6032	2"T	2.00											46.29
	266	H-6034	2 1/4"T	2.25											46.29
	267	H-6038	2"P	2.375											46.29
	264	H-6040	2 1/2"T	2.50											46.29
	510	H-7044	2 3/4"T	2.75	122mm	180mm	152mm	60mm	120mm	60mm	70mm	140mm	10mm	5/8"-11	113.68
H7	525	H-7046	2 1/2"P	2.87	4.80	7.08	5.98	2.36	4.72	2.36	2.75	5.51	.39	x 5 1/4"	113.68
	506	H-7050	3"T	3.00											113.68
	495	H-7056	3"P	3.50											113.68



## Beta Clamps - Twin Series

Beta Twin Series - For high pressure hydraulics, heavy duty operation, intermittent load and high oil speeds.

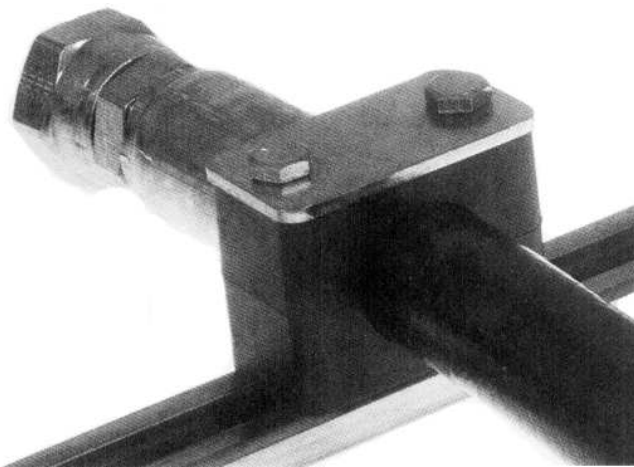
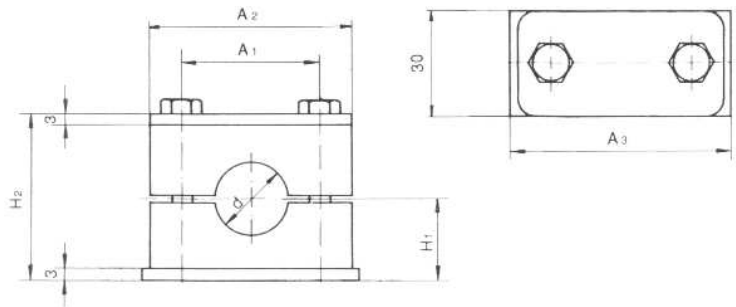
Beta Twin Series clamps tame the toughest jobs and harshest environments, absorbing high levels of shock, noise and vibration.



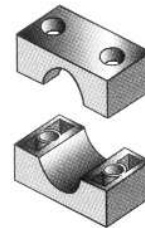
ZSI Group	WT/ 100	Cushion P.N.	Size	D	A1	A2	A3	H1	H2	H3	Bolt	Price
1	21	T-1004	1/4"T	.250	20mm	37mm	36mm	18.5mm	27mm	43mm	1/4"-20	9.68
	21	T-1006	3/8"T	.375	.78	1.45	1.41	.72	1.06	1.69	x 1 3/8"	9.68
	21	T-1007	1/8"P	.405								9.68
2	31	T-2008	1/2"T	.500	29mm	55mm	53mm	18mm	26mm	43.5mm	5/16"-18	10.50
	31	T-2009	1/4"P	.540	1.14	2.16	2.08	.70	1.02	1.71	x 1 3/8"	10.50
	31	T-2010	5/8"T	.625								10.50
	31	T-2011	3/8"P	.675								10.50
3	40	T-3012	3/4"T	.750	36mm	70mm	67mm	23.5mm	37mm	54.5mm	5/16"-18	12.04
	39	T-3014	1/2"P	.840	1.14	2.75	2.63	.92	1.45	2.14	x 1 3/4"	12.04
	39	T-3015	7/8"T	.875								12.04
	39	T-3016	1"T	1.00								12.04
4	49	T-4017	3/4"P	1.050	45mm	85mm	82mm	26mm	42mm	59.5mm	5/16"-18	13.21
	49	T-4018	1 1/8"T	1.125	1.77	3.34	3.22	1.02	1.65	2.34	x 2"	13.21
5	65	T-5020	1 1/4"T	1.250	56mm	110mm	106mm	32mm	54mm	71.5mm	5/16"-18	17.23
	65	T-5021	1"P	1.315	2.20	4.33	4.17	1.25	2.12	2.81	x 2 3/8"	17.23
	64	T-5024	1 1/2"T	1.500								17.23
	62	T-5027	1 1/4"P	1.660								17.23

## Beta Clamps - "Smoothie" Standard Series

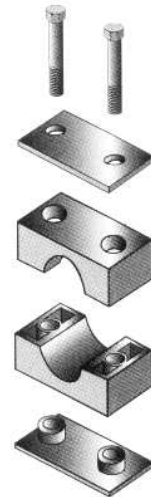
- \* Reduces wear on hose connection caused by vibration and surge
- \* Chamfered and smooth core protects hose cover
- \* Extends hose life
- \* Uses Standard Beta hardware
- \* Organizes installation



### CUSHION ONLY



### ASSEMBLY



ZSI Group	WT/ 100	Cushion P.N.	100R1 Size	D	A1	A2	A3	H1	H2	Bolt	Price
S2	20	S-2004H	1/4"	.53	1.02	1.57	1.65	.76	1.535	1/4 - 20	8.20
	20	S-2006H	3/8"	.69	1.02	1.57	1.65	.76	1.535	x 1 3/8	8.20
S3	25	S-3008H	1/2"	.81	1.29	1.96	2.04	.80	1.61	1/4 - 20	9.68
	25	S-3010H	5/8"	.93	1.29	1.96	2.04	.80	1.61	x 1 1/2	9.68
S4	29	S-4012H	3/4"	1.10	1.57	2.28	2.36	.94	1.88	1/4-20 x 1 3/4	10.57
S5	39	S-5016H	1"	1.42	2.05	2.75	2.83	1.25	2.52	1/4-20 x 1 3/4	13.52

## R5 Reusable Hydraulic Couplings

### NPTF Male Solid



Hose I.D.	Pipe Size	Thread Size	Part #	Price
3/16" (#4)	1/8"	1/8-27"	4R5-2MP	14.90
3/16" (#4)	1/4"	1/4-18"	4R5-4MP	11.46
1/4" (#5)	1/4"	1/4-18"	5R5-4MP	12.02
5/16" (#6)	1/4"	1/4-18"	6R5-4MP	13.79
5/16" (#6)	3/8"	3/8-18"	6R5-6MP	22.77
13/32" (#8)	3/8"	3/8-18"	8R5-6MP	23.85
13/32" (#8)	1/2"	1/2-14"	8R5-8MP	21.72
1/2" (#10)	1/2"	1/2-14"	10R5-8MP	26.85
5/8" (#12)	3/4"	3/4-14"	12R5-12MP	40.24

### Solid Male



Hose I.D.	Thread Size	Tube O.D.	Part #	Price
<b>JIC 37° FLARE</b>				
3/16" (#4)	7/16-20"	1/4"	4R5-4MJ	19.55
1/4" (#5)	1/2-20"	5/16"	5R5-5MJ	24.50
5/16" (#6)	9/16-18"	3/8"	6R5-6MJ	22.65
13/32" (#8)	3/4-16"	1/2"	8R5-8MJ	28.32
<b>SAE 45° FLARE</b>				
5/16" (#6)	5/8-18"	3/8"	6R5-6MS	23.09

### JIC 37° Swivel Female



Hose I.D.	Thread Size	Tube O.D.	Part #	Price
3/16" (#4)	7/16-20"	1/4"	4R5-4FJ	16.96
1/4" (#5)	1/2-20"	5/16"	5R5-5FJ	18.76
5/16" (#6)	9/16-18"	3/8"	6R5-6FJ	21.68
13/32" (#8)	3/4-16"	1/2"	8R5-8FJ	27.95
1/2" (#10)	7/8-14"	5/8"	10R5-10FJ	45.92
5/8" (#12)	1-1/16-12"	3/4"	12R5-12FJ	51.07
7/8" (#16)	1-5/16-12"	1"	16R5-16FJ	65.28
1-1/8" (#20)	1-5/8-12"	1-1/4"	20R5-20FJ	115.88

### SAE 45° Swivel Female



Hose I.D.	Thread Size	Tube O.D.	Part #	Price
5/16" (#6)	5/8-18"	3/8"	6R5-6FS	18.28

### 90° Bend JIC 37° Swivel Female



### 90° Bend SAE 45° Swivel Female



Hose I.D.	Thread Size	Tube O.D.	Drop Inches	Part #	Price
3/16" (#4)	7/16-20"	1/4"	.690	4R5-4FJ90*	49.73
5/16" (#6)	9/16-18"	3/8"	.840	6R5-6FJ90*	36.06
5/16" (#6)	5/8-18"	3/8"	.840	6R5-6FS90**	46.44
13/32" (#8)	3/4-16"	1/2"	1.090	8R5-8FJ90*	59.04

\* - JIC Thread Only

\*\* - SAE Thread Only

- R5 reusable hydraulic couplings are made of plated steel.

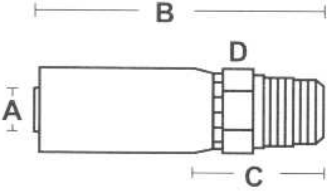
### Assembly Instructions

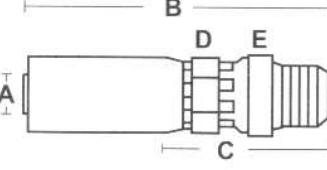
#### Reusable Hose Ends:

1. Screw socket onto hose (left hand thread) until hose bottoms. Back out 1/4 turn.
2. Lubricate insert threads and I.D. of hose. Screw insert into socket until insert hex touches socket.

## Hydraulic Fittings

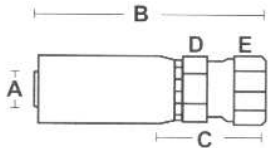
### Steel Hydraulic Couplings

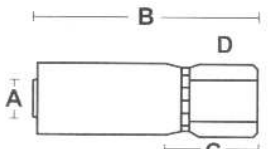
MALE PIPE NPTF RIGID	Hose I.D.	Pipe Size	Thread Size	Hex Size	New Part No.	Old Part No.	Price
	3/16"	1/4"	1/4-18	5/8"	<b>303V</b>		8.89
	1/4"	1/8"	1/8-27	5/8"	<b>400V</b>	MP0402	8.58
	1/4"	1/4"	1/4-18	5/8"	<b>403V</b>	MP0404	7.36
	1/4"	3/8"	3/8-18	3/4"	<b>415V</b>	MP0406	8.38
	1/4"	1/2"	1/2-14	7/8"	<b>439V</b>	MP0408	13.28
	3/8"	1/4"	1/4-18	3/4"	<b>600V</b>	MP0604	8.40
	3/8"	3/8"	3/8-18	3/4"	<b>603V</b>	MP0606	7.82
	3/8"	3/8"	3/8-18 LN	3/4"	<b>603VLN</b>	MP0606LN	11.09
	3/8"	1/2"	1/2-14	7/8"	<b>615V</b>	MP0608	9.91
	1/2"	1/4"	1/4-18	7/8"	<b>866V</b>	MP0804	13.62
	1/2"	3/8"	3/8-18	7/8"	<b>800V</b>	MP0806	10.13
	1/2"	1/2"	1/2-14	7/8"	<b>803V</b>	MP0808	9.41
	1/2"	3/4"	3/4-14	1-1/8"	<b>854V</b>	MP0812	16.70
	5/8"	1/2"	1/2-14	15/16"	<b>1000V</b>	MP1008	26.73
	5/8"	3/4"	3/4-14	1-1/8"	<b>1003V</b>	MP1012	25.91
	3/4"	1/2"	1/2-14	1-1/8"	<b>1200V</b>	MP1208	28.07
	3/4"	3/4"	3/4-14	1-1/8"	<b>1203V</b>	MP1212	17.25
	3/4"	1"	1-11 1/2	1-3/8"	<b>1254V</b>	MP1216	27.62
	1"	3/4"	3/4-14	1-3/8"	<b>1603V</b>	MP1612	30.15
	1"	1"	1-11 1/2	1-3/8"	<b>1600V</b>	MP1616	24.51
	1-1/4"	1-1/4"	1 1/4-11 1/2	1-11/16"	<b>2000V</b>	MP2020	27.60

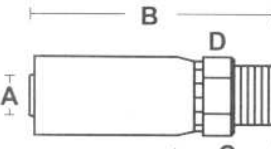
MALE PIPE NPTF SWIVEL	Hose I.D.	Pipe Size	Thread Size	Hex Size	Hex Nut	New Part No.	Old Part No.	Price
	1/4"	1/8"	1/8-27	5/8"	5/8"	<b>462V</b>	MPX0402	15.08
	1/4"	1/4"	1/4-18	5/8"	5/8"	<b>406V</b>	MPX0404	13.14
	1/4"	3/8"	3/8-18	5/8"	3/4"	<b>466V</b>	MPX0406	18.11
	3/8"	1/4"	1/4-18	3/4"	3/4"	<b>666V</b>	MPX0604	15.08
	3/8"	3/8"	3/8-18	3/4"	3/4"	<b>609V</b>	MPX0606	13.15
	3/8"	1/2"	1/2-14	7/8"	7/8"	<b>651V</b>	MPX0608	17.57
	1/2"	3/8"	3/8-18	7/8"	3/4"	<b>857V</b>	MPX0806	18.07
	1/2"	1/2"	1/2-14	7/8"	7/8"	<b>809V</b>	MPX0808	16.06
	3/4"	3/4"	3/4-14	1-1/8"	1-1/4"	<b>1209V</b>	MPX1212	25.62
	1"	1"	1-11 1/2	1-3/8"	1-3/8"	<b>1609V</b>	MPX1616	47.52

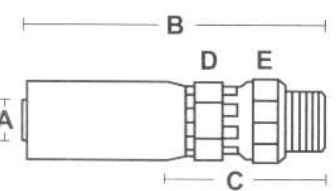
## Hydraulic Fittings

### Steel Hydraulic Couplings

NPSM FEMALE PIPE SWIVEL	Hose I.D.	Pipe Size	Thread Size	Hex Size	Hex Nut	New Part No.	Old Part No.	Price
	1/4"	1/4"	1/4-18	5/8"	11/16"	<b>409V</b>	FPX0404	11.36
	3/8"	3/8"	3/8-18	3/4"	7/8"	<b>606V</b>	FPX0606	13.39
	3/8"	1/2"	1/2-14	7/8"	1"	<b>648V</b>	FPX0608	16.49
	1/2"	1/2"	1/2-14	7/8"	1"	<b>806V</b>	FPX0808	20.86
	3/4"	3/4"	3/4-14	1-1/8"	1-1/4"	<b>1206V</b>	FPX1212	28.90
	1"	1"	1-11 1/2	1-3/8"	1-1/2"	<b>1606V</b>	FPX1616	42.89
	1-1/4"	1-1/4"	1 1/4-11 1/2	1-11/16"	1-7/8"	<b>2008V</b>	FPX2020	80.42

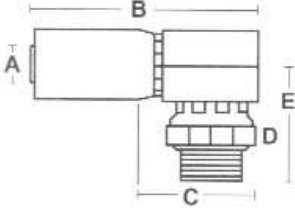
NPSM FEMALE PIPE RIGID	Hose I.D.	Pipe Size	Thread Size	Hex Size	New Part No.	Old Part No.	Price
	1/4"	1/8"	1/8-27	5/8"	<b>436V</b>	HM-FP0402	9.23
	1/4"	1/4"	1/4-18	3/4"	<b>412V</b>	HM-FP0404	11.48
	3/8"	1/4"	1/4-18	3/4"	<b>663V</b>	HM-FP0602	11.93
	3/8"	3/8"	3/8-18	7/8"	<b>612V</b>	HM-FP0606	12.92
	3/8"	1/2"	1/2-14	1"	<b>688V</b>	HM-FP0608	14.52
	1/2"	1/2"	1/2-14	1"	<b>812V</b>	HM-FP0808	14.95
	3/4"	3/4"	3/4-14	1-1/4"	<b>1212V</b>	HM-FP1212	22.34

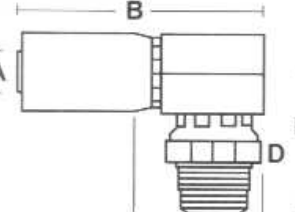
MALE BOSS O-RING RIGID	Hose I.D.	Thread Size	Tube O.D.	Hex Size	New Part No.	Old Part No.	Price
	1/4"	7/16x20	1/4"	5/8"	<b>451V</b>	MB0404	9.33
	1/4"	1/2x20	5/16"	5/8"	<b>454V</b>	MB0405	11.03
	1/4"	9/16x18	3/8"	11/16"	<b>448V</b>	MB0406	9.51
	3/8"	9/16x18	3/8"	3/4"	<b>636V</b>	MB0606	12.61
	3/8"	3/4x16	1/2"	7/8"	<b>639V</b>	MB0608	9.95
	3/8"	7/8x14	5/8"	1"	<b>642V</b>	MB0610	16.49
	1/2"	3/4x16	1/2"	7/8"	<b>830V</b>	MB0808	11.39
	1/2"	7/8x14	5/8"	1"	<b>833V</b>	MB0810	13.00
	1/2"	1-1/16x12	3/4"	1-1/4"	<b>860V</b>	MB0812	19.25
	5/8"	3/4x16	1/2"	15/16"	<b>1030V</b>	MB1008	21.00
	5/8"	7/8x14	5/8"	1"	<b>1033V</b>	MB1010	21.27
	3/4"	7/8x14	5/8"	1-1/8"	<b>1248V</b>	MB1210	33.43
	3/4"	1-1/16x12	3/4"	1-1/4"	<b>1227V</b>	MB1212	20.65
	1"	1-5/16x12	1"	1-1/2"	<b>1630V</b>	MB1616	37.03

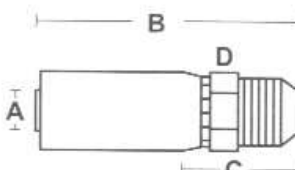
MALE BOSS O-RING SWIVEL	Hose I.D.	Thread Size	Tube O.D.	Hex Size	Hex Nut	New Part No.	Old Part No.	Price
	1/4"	7/16x20	1/4"	5/8"	5/8"	<b>457V</b>	MBX0404	18.63
	3/8"	9/16x18	3/8"	3/4"	3/4"	<b>678V</b>	MBX0606	15.98
	3/8"	3/4x16	1/2"	3/4"	7/8"	<b>645V</b>	MBX0608	19.08
	1/2"	3/4x16	1/2"	7/8"	7/8"	<b>836V</b>	MBX0808	15.75
	1/2"	7/8x14	5/8"	7/8"	1"	<b>839V</b>	MBX0810	16.55
	3/4"	1-1/16x12	3/4"	1-1/8"	1-1/4"	<b>1239V</b>	MBX1212	43.55

## Hydraulic Fittings

### Steel Hydraulic Couplings

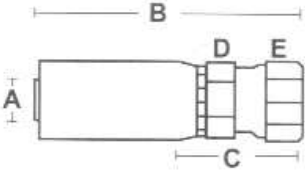
MALE BOSS O-RING SWIVEL 90	Hose I.D.	Thread Size	Tube O.D.	Hex Nut	New Part No.	Old Part No.	Price
	3/8"	9/16x18	3/8"	7/8"	6278V		23.35
	3/8"	3/4x16	1/2"	7/8"	6245V	MBX900608	24.49
	1/2"	3/4x16	1/2"	7/8"	8236V	MBX900808	35.14
	1/2"	7/8x14	5/8"	1"	8239V	MBX900810	36.61
	3/4"	1-1/16x12	3/4"	1-1/4"	12239V	MBX901212	65.96

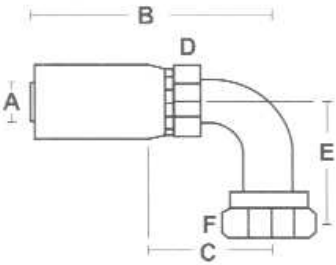
MALE PIPE SWIVEL 90	Hose I.D.	Pipe Size	Thread Size	Hex Nut	New Part No.	Old Part No.	Price
	1/4"	1/4"	1/4-18	5/8"	4206V	MPX900404	25.84
	3/8"	3/8"	3/8-18	3/4"	6209V	MPX900606	27.35
	3/8"	1/2"	1/2-14	7/8"	6251V	MPX900608	35.51
	1/2"	1/2"	1/2-14	7/8"	8209V	MPX900808	26.11
	3/4"	3/4"	3/4-14	1-1/4"	12209V	MPX901212	55.09

37 JIC MALE RIGID	Hose I.D.	Thread Size	Tube O.D.	Hex Size	New Part No.	Old Part No.	Price
	1/4"	7/16x20	1/4"	5/8"	418V	MJ0404	8.68
	1/4"	1/2x20	5/16"	5/8"	421V	MJ0405	7.94
	1/4"	9/16x18	3/8"	5/8"	430V	MJ0406	8.66
	3/8"	9/16x18	3/8"	3/4"	618V	MJ0606	9.70
	3/8"	3/4x16	1/2"	3/4"	621V	MJ0608	10.15
	3/8"	7/8x14	5/8"	7/8"	669V	MJ0610	13.28
	1/2"	3/4x16	1/2"	7/8"	815V	MJ0808	11.70
	1/2"	7/8x14	5/8"	7/8"	818V	MJ0810	14.31
	1/2"	1-1/16x12	3/4"	1-1/8"	848V	MJ0812	16.32
	5/8"	3/4x16	1/2"	15/16"	1012V	MJ1008	27.74
	5/8"	7/8x14	5/8"	15/16"	1018V	MJ1010	17.70
	5/8"	1-1/16x12	3/4"	1-1/8"	1015V	MJ1012	20.65
	3/4"	7/8x14	5/8"	1-1/8"	1218V	MJ1210	34.75
	3/4"	1-1/16x12	3/4"	1-1/8"	1215V	MJ1212	18.39
	3/4"	1-3/16x12	7/8"	1-3/8"	1260V	MJ1211	25.27
	3/4"	1-5/16x12	1"	1-3/8"	1233V	MJ1216	30.44
	1"	1-3/16x12	7/8"	1-3/8"	1615V	MJ1611	74.79
	1"	1-5/16x12	1"	1-3/8"	1612V	MJ1616	30.17
	1-1/4"	1-5/8x12	1-1/4"	1-11/16"	2015V	MJ2020	57.86

## Hydraulic Fittings

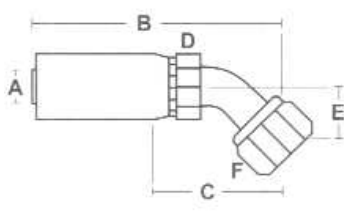
### Steel Hydraulic Couplings

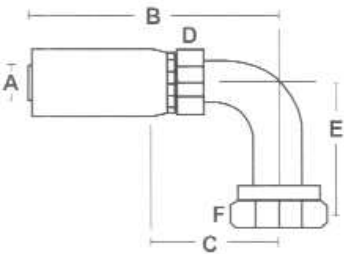
37 JIC FEMALE SWIVEL	Hose I.D.	Thread Size	Tube O.D.	Hex Size	Hex Nut	New Part No.	Old Part No.	Price
	3/16"	7/16x20	1/4"	5/8"	9/16"	<b>324V</b>	FJX0304	10.27
	1/4"	7/16x20	1/4"	5/8"	9/16"	<b>424V</b>	FJX0404	9.02
	1/4"	1/2x20	5/16"	5/8"	5/8"	<b>427V</b>	FJX0405	9.68
	1/4"	9/16x18	3/8"	5/8"	11/16"	<b>433V</b>	FJX0406	9.13
	3/8"	7/16x20	1/4"	3/4"	9/16"	<b>675V</b>	FJX0604	10.58
	3/8"	9/16x18	3/8"	3/4"	11/16"	<b>627V</b>	FJX0606	10.03
	3/8"	3/4x16	1/2"	3/4"	7/8"	<b>630V</b>	FJX0608	11.75
	3/8"	7/8x14	5/8"	7/8"	1"	<b>657V</b>	FJX0610	14.45
	3/8"	1-1/16x12	3/4"	1"	1-1/4"	<b>691V</b>	FJX0612	32.53
	1/2"	9/16x18	3/8"	7/8"	11/16"	<b>842V</b>	FJX0806	14.86
	1/2"	3/4x16	1/2"	7/8"	7/8"	<b>824V</b>	FJX0808	13.14
	1/2"	7/8x14	5/8"	7/8"	1"	<b>827V</b>	FJX0810	16.57
	1/2"	1-1/16x12	3/4"	1-1/8"	1-1/4"	<b>845V</b>	FJX0812	20.87
	1/2"	1-5/16x12	1"	1-1/4"	1-1/2"	<b>863V</b>	FJX0816	39.11
	5/8"	3/4x16	1/2"	15/16"	7/8"	<b>1024V</b>	FJX1008	32.87
	5/8"	7/8x14	5/8"	15/16"	1"	<b>1027V</b>	FJX1010	23.06
	5/8"	1-1/16x12	3/4"	1-1/8"	1-1/4"	<b>1021V</b>	FJX1012	24.44
	3/4"	7/8x14	5/8"	1-1/8"	1"	<b>1230V</b>	FJX1210	24.49
	3/4"	1-1/16x12	3/4"	1-1/8"	1-1/4"	<b>1221V</b>	FJX1212	21.65
	3/4"	1-3/16x12	7/8"	1-3/8"	1-1/2"	<b>1245V</b>	FJX1211	28.81
	3/4"	1-5/16x12	1"	1-3/8"	1-1/2"	<b>1236V</b>	FJX1216	32.12
	1"	1-1/16x12	3/4"	1-3/8"	1-1/4"	<b>1621V</b>	FJX1612	36.08
	1"	1-5/16x12	1"	1-3/8"	1-1/2"	<b>1618V</b>	FJX1616	32.36
	1"	1-5/8x12	1-1/4"	1-11/16	2"	<b>1624V</b>	FJX1620	58.24
	1-1/4"	1-5/8x12	1-1/4"	1-11/16	2"	<b>2005V</b>	FJX2020	92.00

37 JIC FEMALE 90 TUBE SWIVEL	Hose I.D.	Thread Size	Tube O.D.	A-Drop Inches	Hex Nut	New Part No.	Old Part No.	Price
	1/4"	7/16x20	1/4"	.810	9/16"	<b>4130V</b>	FJX900404	23.07
	1/4"	1/2x20	5/16"	1.000	5/8"	<b>4157V</b>	FJX900405	22.45
	1/4"	9/16x20	3/8"	1.125	11/16"	<b>4160V</b>	FJX900406	24.44
	3/8"	7/16x20	1/4"	.680	9/16"	<b>6187V</b>	FJX900604	27.17
	3/8"	1/2x20	5/16"	1.000	5/8"	<b>6133V*</b>	FJX900605	24.11
	3/8"	9/16x18	3/8"	1.125	11/16"	<b>6160V</b>	FJX900606	23.26
	3/8"	3/4x16	1/2"	1.375	7/8"	<b>6163V</b>	FJX900608	27.65
	1/2"	3/4x16	1/2"	1.375	7/8"	<b>8133V</b>	FJX900808	28.31
	1/2"	7/8x14	5/8"	1.625	1"	<b>8160V</b>	FJX900810	33.93
	5/8"	7/8x14	5/8"	1.230	1"	<b>1060V</b>	FJX901010	36.30
	5/8"	1-1/16x12	3/4"	2.312	1-1/4"	<b>1066V*</b>	FJX901012	38.83
	3/4"	7/8x14	5/8"	1.230	1"	<b>12660V</b>	FJX901210	58.47
	3/4"	1-1/16x12	3/4"	2.312	1-1/4"	<b>12651V*</b>	FJX901212	48.28
	1"	1-5/16x12	1"	2.656	1-1/2"	<b>16651V*</b>	FJX901616	72.13
	1-1/4"	1-5/8x12	1-1/4"	3.310	2"	<b>20677V</b>	FJX902020	151.50

## Hydraulic Fittings

### Steel Hydraulic Couplings

37 JIC FEMALE 45 TUBE SWIVEL	Hose I.D.	Thread Size	Tube O.D.	A-Drop Inches	Hex Nut	New Part No.	Old Part No.	Price
	1/4"	7/16x20	1/4"	.467	9/16"	<b>4127V</b>	FJX450404	19.36
	1/4"	1/2x20	5/16"	.526	5/8"	<b>4154V</b>	FJX450405	21.27
	3/8"	7/16x20	1/4"	.470	9/16"	<b>6184V</b>	FJX450604	23.30
	3/8"	1/2x20	5/16"	.526	5/8"	<b>6130V</b>	FJX450605	22.73
	3/8"	9/16x18	3/8"	.588	11/16"	<b>6157V*</b>	FJX450606	23.51
	3/8"	3/4x16	1/2"	.713	7/8"	<b>6169V</b>	FJX450608	25.12
	1/2"	3/4x16	1/2"	.713	7/8"	<b>8130V</b>	FJX450808	26.63
	1/2"	7/8x14	5/8"	.839	1"	<b>8157V</b>	FJX450810	33.66
	5/8"	7/8x14	5/8"	.680	1"	<b>1057V</b>	FJX451010	39.40
	5/8"	1-1/16x12	3/4"	.780	1-1/4"	<b>1063V*</b>	FJX451012	40.52
	3/4"	1-1/16x12	3/4"	1.118	1-1/4"	<b>12612V*</b>	FJX451212	47.60
	1"	1-5/16x12	1"	1.146	1-1/2"	<b>16612V*</b>	FJX451616	85.06

37 JIC FEMALE 90 TUBE SWIVEL LONG DROP	Hose I.D.	Thread Size	Tube O.D.	A-Drop Inches	Hex Nut	New Part No.	Old Part No.	Price
	1/4"	7/16x20	1/4"	1.80	9/16"	<b>4163V</b>	FJX90L0404	27.09
	1/4"	9/16x18	3/8"	2.18	11/16"	<b>4178V*</b>	FJX90L0406	21.72
	3/8"	7/16x20	1/4"	1.80	9/16"	<b>6190V</b>	FJX90L0604	23.64
	3/8"	9/16x18	3/8"	2.18	11/16"	<b>6166V*</b>	FJX90L0606	27.62
	1/2"	3/4x16	1/2"	2.43	7/8"	<b>8163V</b>	FJX90L0808	32.29
	1/2"	7/8x14	5/8"	2.57	1"	<b>8166V</b>	FJX90L0810	28.64
	3/4"	1-1/16x12	3/4"	3.73	1-1/4"	<b>12657V*</b>	FJX90L1212	48.37
	1"	1-5/16x12	1"	3.37	1-1/2"	<b>16657V*</b>	FJX90L1616	64.27

### High Pressure Ball Valves

- Rugged carbon steel
- Blow-out proof stems
- Buna-n seals
- Full port - Female x Female
- Low Cost



Part #	Thread	Working Pressure	Price
BKH-14-NPT	1/4"	7500	68.37
BKH-38-NPT	3/8"	7500	74.38
BKH-12-NPT	1/2"	5000	81.37
BKH-34-NPT	3/4"	5000	148.76
BKH-1-NPT	1"	5000	164.71
BKH-114-NPT**	1 1/4"	5000	210.16
BKH-112-NPT**	1 1/2"	5000	224.51
SKH-2-NPT	2"	5000	790.59

\*\* Avail in Full Port

\*\* Avail in Full Port



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## Air & Water Hose Red Rubber | Quality Import

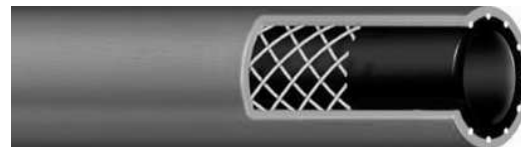


**Service:** Heavy duty - Air & Water Service  
**Tube:** SBR  
**Cover:** SBR  
**Reinforcement:** Synthetic yarns  
**Package:** Reels

Inside Diameter	Outside Diameter	Part Number	Working Pressure	Weight lbs./c	* Pack	Price/Ft
1/4"	0.47"	HSWI-25300	300	10	600	0.88
3/8"	0.67"	HSWI-38300	300	18	600	1.35
1/2"	0.83"	HSWI-50300	300	23	600	2.08

\* Maximum per reel. Reels can consist of 2 pieces.

## Air Tool Hose - Rubber Coupled Lengths

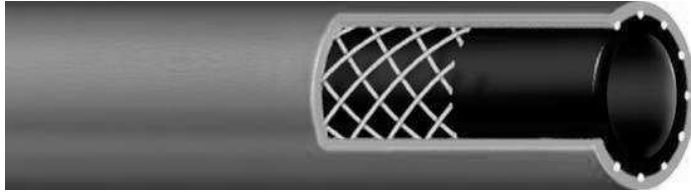


**Service:** General service air. Available in Red.  
**Tube:** SBR  
**Cover:** SBR  
**Reinforcement:** Synthetic yarns  
**Package:** Coils -Coupled with 1/4" Male IPT

Inside Diameter	Outside Diameter	Part Number	Braid	Working Pressure	Weight lbs/ea.	Length	Price/Ea
1/4"	0.47"	HSWI-25-25CP	1	300	3.20	25'	30.75
1/4"	0.47"	HSWI-25-50CP	1	300	6.48	50'	52.81
1/4"	0.47"	HSWI-25-75CP	1	300	9.72	75'	74.86
1/4"	0.47"	HSWI-25-100CP	1	300	12.96	100'	96.92
3/8"	0.67"	HSWI-38-25CP	1	300	4.40	25'	42.06
3/8"	0.67"	HSWI-38-50CP	1	300	8.80	50'	75.55
3/8"	0.67"	HSWI-38-75CP	1	300	13.20	75'	109.05
3/8"	0.67"	HSWI-38-100CP	1	300	18.01	100'	142.55

# Air & Water Hose

## Red Rubber

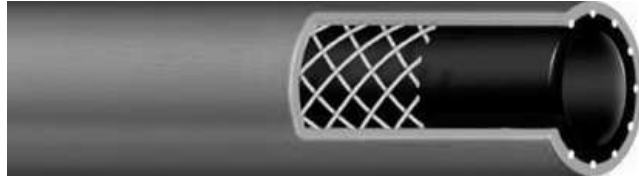


**Service:** General service air and water  
**Tube:** EPDM  
**Cover:** EPDM  
**Reinforcement:** Synthetic yarns  
**Package:** Reels

Inside Diameter	Outside Diameter	Part Number	Spiral	Working Pressure	Weight lbs./c	* Pack	Price/Ft
1/4"	1/2"	HSW-25200	2	200	9	700	1.41
5/16"	19/32"	HSW-31200	2	200	13	700	1.96
3/8"	11/16"	HSW-38200	2	200	14	700	1.99
1/2"	13/16"	HSW-50200	2	200	21	700	2.40
5/8"	15/16"	HSW-63200	2	200	24	700	3.02
3/4"	1-1/8"	HSW-75200	2	200	32	700	3.43
1"	1-3/8"	HSW-100200	2	200	44	700	5.46
1/4"	19/32"	HSW-25300	4	300	12	700	1.72
5/16"	5/8"	HSW-31300	4	300	13	700	2.19
3/8"	23/32"	HSW-38300	4	300	17	700	2.13
1/2"	7/8"	HSW-50300	4	300	25	700	2.57
5/8"	1"	HSW-63300	4	300	34	700	3.47
3/4"	1-5/32"	HSW-75300	4	300	37	700	3.95
1"	1-1/2"	HSW-100300	4	300	53	700	6.45
1-1/4"	1-25/32"	HSW-125150	4	150	81	500	11.83
1-1/2"	2-1/32"	HSW-150150	4	150	94	400	14.23
2"	2-1/2"	HSW-200150	4	150	125	300	18.85

\* Maximum per reel. Reels can consist of 2 pieces.

# Air & Water Hose - Multi-purpose Rubber



**Service:** Heavy duty - Maximum oil resistance / Non-Conductive  
**Tube:** Nitrile  
**Cover:** Nitrile/PVC  
**Reinforcement:** Synthetic cords  
**Package:** Reels

Inside Diameter	Outside Diameter	Part Number	Spiral	Working Pressure	Weight /ft.	* Pack	Price/Ft
1/4"	19/32"	HSW-7094-25300	4	300	0.12	700	3.09
3/8"	23/32"	HSW-7094-38300	4	300	0.17	700	3.55
1/2"	7/8"	HSW-7094-50300	4	300	0.26	700	4.48
3/4"	1-5/32"	HSW-7094-75300	4	300	0.39	700	5.86
1"	1-7/16"	HSW-7094-100300	4	300	0.54	700	11.86

\* Maximum per reel. Reels can consist of 2 pieces.

# Jackhammer Hose

**Rubber | Import**



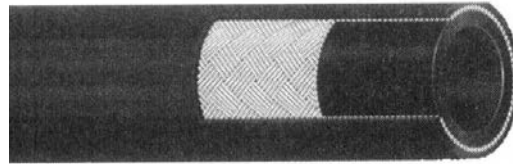
**Service:** Jackhammer  
**Tube:** SBR  
**Cover:** SBR Red, Blue, Yellow. (Default is Red. Specify otherwise.)  
**Reinforcement:** Braided synthetic yarns  
**Package:** Coils

COUPLED							
Inside Diameter	Outside Diameter	Part Number	Spiral	Working Pressure	Weight lbs/ea.	Length	Price/Ea
3/4"	1-5/32"	HJKCT070	4	300	23	50'	114.31

Coupled hose comes assembled with universal couplings and crimped sleeves.

# Push-On Hose

## Nitrile

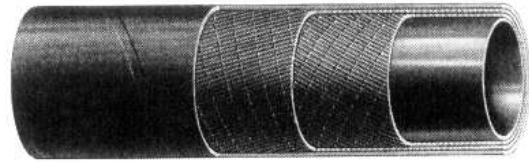


**Service:** Multipurpose  
**Tube:** Nitrile  
**Cover:** Neoprene  
**Reinforcement:** Braided synthetic yarns  
**Package:** Reels

Inside Diameter	Outside Diameter	Part Number	Braid	W.P.	Weight lbs/ft.	Length	Price/Ft
1/4"	1/2"	HPON025	1	300	10	700'	2.80
3/8"	5/8"	HPON038	1	300	14	700'	3.45

# Air Hose

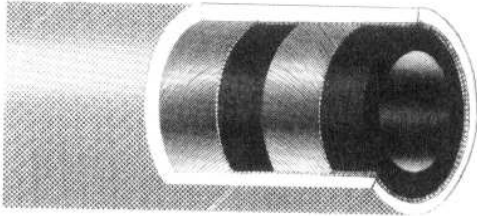
## Textile Mandrel Built



**Service:** Heavy duty air applications  
**Tube:** SBR, Resistant to oil-laden air  
**Cover:** Abrasion resistant yellow  
**Reinforcement:** Hi-strength synthetic cords  
**Package:** Coil  
**Temperature:** -30° F to 185° F

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft.	Length	Price/Ft
1/2"	0.92"	HTAR05	2	300	0.32	50-100'	4.35
3/4"	1.20"	HTAR07	2	300	0.65	50-100'	6.08
1"	1.48"	HTAR10	4	300	0.77	50-100'	7.54
1-1/4"	1.84"	HTAR12	4	300	1.01	50-100'	9.39
1-1/2"	2.00"	HTAR15	4	300	1.08	50-100'	10.61
2"	2.68"	HTAR20	4	300	1.42	50-100'	13.47
3"	3.84"	HTAR30	4	300	2.38	50-100'	23.07
4"	4.88"	HTAR40	4	300	2.96	50-100'	30.26

## Air Hose Wire Reinforced



**Service:** Bull hose for high pressure compressors  
**Tube:** Black, smooth oil mist resistant rubber up to 1 1/2" included.  
 Black NBR over 1 1/2"  
**Cover:** Yellow smooth abrasion and weather resistant rubber  
**Reinforcement:** High tensile spiraled steel wire  
**Package:** Coil  
**Temperature:** -30° F to 185° F

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft.	Length	Price/Ft
3/4"	1.26"	HWBR07	2	900	0.55	50-100'	7.29
1"	1.50"	HWBR10	2	800	0.69	50-100'	9.33
1-1/4"	1.81"	HWBR12	2	700	0.91	50-100'	13.12
1-1/2"	2.05"	HWBR15	2	650	1.07	50-100'	15.52
2"	2.60"	HWBR20	2	600	1.56	50-100'	18.74
2-1/2"	3.15"	HWBR25	2	600	2.13	50'	29.42
3"	3.70"	HWBR30	2	600	2.70	50'	32.80



## Recoil Hose

### Standard Yellow

**Standard Yellow Hose.** 200 PSI at 70° F.  
Includes strain reliefs and swivels at each end.



Size	Part #	Price
1/4" x 25'	RH4-25	21.00
1/4" x 50'	RH4-50	24.08
3/8" x 25'	RH6-25	28.14
3/8" x 50'	RH6-50	44.23

## Recoil Hose

### Polyurethane Blue

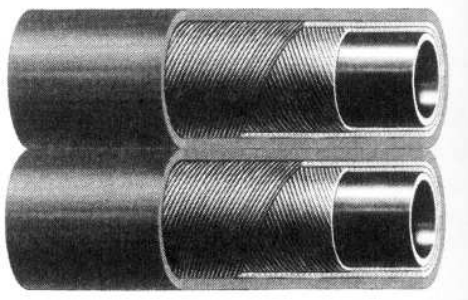
**Polyurethane Blue Hose.** 125 PSI at 70° F.  
Swivels each end. 18" pigtail with strain relief.



Size	Part #	Price
1/4" x 15'	RP4-15	60.12
1/4" x 25'	RP4-25	79.88
1/4" x 50'	RP4-50	124.46
3/8" x 25'	RP6-25	175.96
3/8" x 50'	RP6-50	273.86

# Twin Welding Hose

## Coupled & Bulk Lengths



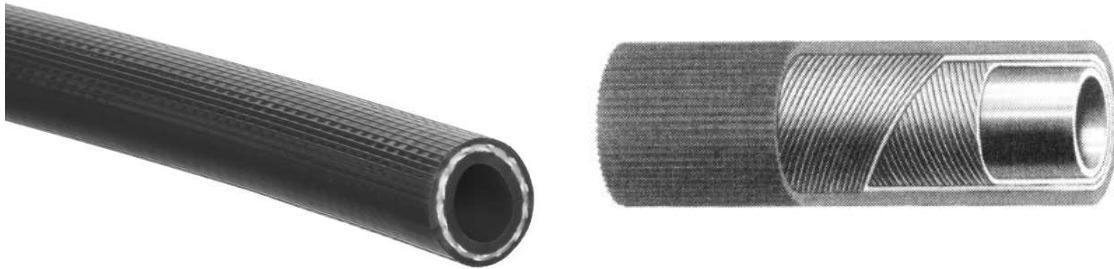
**Service:** Gas welding. Red & green hose. Grade R  
**Tube:** SBR  
**Cover:** SBR  
**Reinforcement:** Braided synthetic yarns  
**Package:** Coils  
 -Coupled with 1/4" BB fittings

COUPLED							
Inside Diameter	Outside Diameter	Part Number	Braid	Working Pressure	Weight lbs/ea.	Length	Price/Ea
1/4"	17/32"	HTWR021	1	200	6.71	25'	54.27
1/4"	17/32"	HTWR022	1	200	13.42	50'	91.97
1/4"	17/32"	HTWR024	1	200	26.84	100'	169.05

BULK							
Inside Diameter	Outside Diameter	Part Number	Braid	Working Pressure	Weight lbs/ea.	Length	Price/Ea
1/4"	17/32"	HTWR025	1	200	26.77	300'	468.24

# Spray Hose

PVC | 600 Lbs.

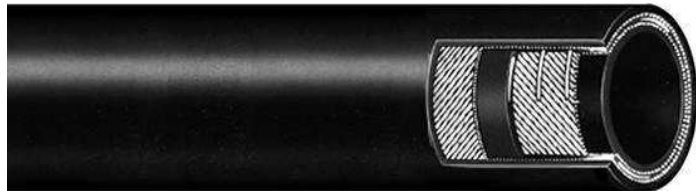


**Service:** Agricultural spraying, Pest control, etc.  
**Tube:** PVC - Orange  
**Cover:** PVC - Orange corrugated  
**Reinforcement:** Braided synthetic cords  
**Package:** Boxed

Inside Diameter	Outside Diameter	Part Number	Braid	Working Pressure	Weight lbs/c	Length	Price/Ea
1/4"	17/32"	HSPP025	1	600	10	300'	265.28
3/8"	5/8"	HSPP038	1	600	12	300'	346.02
1/2"	13/16"	HSPP050	1	600	18	300'	484.43
5/8"	31/32"	HSPP060	1	600	22.3	300'	830.45
3/4"	1-1/16"	HSPP075	1	600	31	300'	1121.00

# Chemical Hose - UHMW

## Food Grade



**Service:** Suction/discharge of chemicals, petroleum, food/beverage  
**Tube:** White smooth UHMWPE  
**Cover:** EPDM, Blue or Green smooth, weather and chemicals resistant  
**Reinforcement:** High tensile plies and helix wire  
**Package:** Coil  
**Temperature:** Up to 212° F as per medium and concentration

Inside Diameter	Outside Diameter	Part Number	Bend Radius	Working Pressure	Weight lbs/ft	Length	Price/Ft
3/4"	1.22"	HUHMW07	6"	225	0.47	50-100'	17.68
1"	1.47"	HUHMW10	7"	225	0.56	50-100'	20.41
1-1/2"	2.00"	HUHMW15	12"	225	0.87	50-100'	25.13
2"	2.56"	HUHMW20	15"	225	1.24	50-100'	28.46
2-1/2"	3.09"	HUHMW25	22"	225	1.59	50-100'	40.53
3"	3.58"	HUHMW30	30"	225	1.95	50-100'	43.58
4"	4.64"	HUHMW40	40"	225	2.79	50-100'	55.35

# Composite Hose - AG Oil 150 PSI

Aluminum wire for less weight



Orange Hose  
Yellow Stripe



**Inner Tube:** Polypropylene Fabric & Films  
**Cover:** **Orange Hose with Yellow Stripe**  
 PVC Coated Fabric  
**Reinforcement:** Steel Helix  
**Inside:** Aluminum Wire  
**Outside:** Galvanized Steel

**Vacuum:** 0.9 BAR/13.05 PSI  
**Temperature:** -30°C ~ +100°C  
**Temperature:** -22°F ~ +212°F  
**Electrical Resistance:** < 10 Ω  
**Branding:** BS/EN13765-2010  
**Max Length:** 100 Ft.  
**Standard:** BS EN13765:2010

## OIL WP 10 BAR / 150 PSI

Part #	Bore Diameter		Max Working		Bend Radius		Weight		List Price/Ft
	Inch	mm	BAR	PSI	Inch	mm	Kg/M	Lbs/Ft	
HAG101-20	2"	50	10	150	6"	150	1.30	0.87	10.39
HAG101-25	2-1/2"	65	10	150	4"	100	1.60	1.08	13.79
HAG101-30	3"	76	10	150	5"	125	2.00	1.34	16.34
HAG101-40	4"	102	10	150	6"	150	2.70	1.81	29.41

\*\*\*All composite hose custom length assemblies are tested and certified\*\*\*

Special composite hose fittings with spiraled stems are available.

Please see p. 8-9, and p. 130-131.



# Composite Hose - GG Oil 150 PSI

Galvanized steel wire for durability



Blue Hose  
Yellow Stripe



**Inner Tube:** Polypropylene Fabric & Films  
**Cover:** **Blue Hose with Yellow Stripe**  
 PVC Coated Fabric  
**Reinforcement:** Steel Helix  
**Inside:** Galvanized Steel  
**Outside:** Galvanized Steel

**Vacuum:** 0.9 BAR/13.05 PSI  
**Temperature:** -30°C ~ +100°C  
**Temperature:** -22°F ~ +212°F  
**Electrical Resistance:** < 10 Ω  
**Branding:** BS/EN13765-2010  
**Max Length:** 100 Ft.  
**Standard:** BS EN13765:2010

## OIL WP 10 BAR / 150 PSI

Part #	Bore Diameter		Max Working		Bend Radius		Weight		List Price/Ft
	Inch	mm	BAR	PSI	Inch	mm	Kg/M	Lbs/Ft	
HOP101-20	2"	50	10	150	6"	150	1.60	1.08	10.29
HOP101-25	2-1/2"	65	10	150	7"	180	2.10	1.41	13.73
HOP101-30	3"	76	10	150	8"	205	2.50	1.68	16.18
HOP101-40	4"	102	10	150	11"	270	3.60	2.42	29.08

\*\*\*All composite hose custom length assemblies are tested and certified\*\*\*

Special composite hose fittings with spiraled stems are available.

Please see p. 8-9, and p. 130-131.



## Composite Hose - PG Chemical 200 PSI



Blue Hose  
Orange Stripe



Inner Tube:	Polypropylene Fabric & Films	Vacuum:	0.9 BAR/13.05 PSI
Cover:	<b>Blue Hose with Orange Stripe</b>	Temperature:	-30°C ~ +100°C
	PVC Coated Fabric	Temperature:	-22°F ~ +212°F
Reinforcement:	Steel Helix	Electrical Resistance:	< 10 Ω
Inside:	PP Coated Steel	Branding:	BS/EN13765-2010
Outside:	Galvanized Steel	Max Length:	100 Ft.
		Standard:	BS EN13765:2010

### CHEMICALS WP 14 BAR / 200 PSI

Part #	Bore Diameter		Max Working		Bend Radius		Weight		List Price/Ft
	Inch	mm	BAR	PSI	Inch	mm	Kg/M	Lbs/Ft	
HPGP141-20	2"	50	14	200	7"	150	1.90	1.28	12.26
HPGP141-25	2-1/2"	65	14	200	8"	180	2.50	1.68	15.85
HPGP141-30	3"	76	14	200	11"	280	3.00	2.02	20.75
HPGP141-40	4"	102	14	200	15"	395	5.20	3.49	34.88

## Composite Hose - PG Chemical 250 PSI



Blue Hose  
Orange Stripe



Inner Tube:	Polypropylene Fabric & Films	Vacuum:	0.9 BAR/13.05 PSI
Cover:	<b>Blue Hose with Orange Stripe</b>	Temperature:	-30°C ~ +100°C
	PVC Coated Fabric	Temperature:	-22°F ~ +212°F
Reinforcement:	Steel Helix	Electrical Resistance:	< 10 Ω
Inside:	PP Coated Steel	Branding:	BS/EN13765-2010
Outside:	Galvanized Steel	Max Length:	100 Ft.
		Standard:	BS EN13765:2010

### CHEMICALS WP 17 BAR / 250 PSI

Part #	Bore Diameter		Max Working		Bend Radius		Weight		List Price/Ft
	Inch	mm	BAR	PSI	Inch	mm	Kg/M	Lbs/Ft	
HPGP171-20	2"	50	17	250	7"	150	1.90	1.28	13.70
HPGP171-25	2-1/2"	65	17	250	8"	180	2.50	1.68	17.52
HPGP171-30	3"	76	17	250	11"	280	3.00	2.02	23.01
HPGP171-40	4"	102	17	250	15"	395	5.20	3.49	36.76

## Composite Hose

# Composite Hose -SG P.T.F.E. 200 PSI



Blue Hose  
Blue Stripe



**Inner Tube:** Polypropylene Fabric / Teflon Films  
**Cover:** **Blue Hose with Blue Stripe**  
PVC Coated Fabric  
**Inside:** Stainless Steel 316  
**Outside:** Galvanized Steel

**Vacuum:** 0.9 BAR/13.05 PSI  
**Temperature:** -30°C ~ +120°C  
**Temperature:** -22°F ~ +248°F  
**Electrical Resistance:** < 10 Ω  
**Branding:** BS/EN13765-2010  
**Max Length:** 100 Ft.  
**Standard:** BS EN13765:2010

### AGGRESSIVE CHEMICALS WP 14 BAR / 200 PSI

Part #	Bore Diameter		Max Working		Bend Radius		Weight		List Price/Ft
	Inch	mm	BAR	PSI	Inch	mm	Kg/M	Lbs/Ft	
HSGT141-20	2"	50	14	200	7"	150	1.90	1.28	24.11
HSGT141-25	2-1/2"	65	14	200	8"	180	2.50	1.68	33.88
HSGT141-30	3"	76	14	200	11"	280	3.00	2.02	40.99
HSGT141-40	4"	102	14	200	15"	395	5.20	3.49	63.01

# Composite Hose -SG P.T.F.E. 250 PSI



Blue Hose  
Blue Stripe



**Inner Tube:** Polypropylene Fabrics / Teflon Films  
**Cover:** **Blue Hose with Blue Stripe**  
PVC Coated Fabric  
**Inside:** Stainless Steel 316  
**Outside:** Galvanized Steel

**Vacuum:** 0.9 BAR/13.05 PSI  
**Temperature:** -30°C ~ +120°C  
**Temperature:** -22°F ~ +248°F  
**Electrical Resistance:** < 10 Ω  
**Branding:** BS/EN13765-2010  
**Max Length:** 100 Ft.  
**Standard:** BS EN13765:2010

### AGGRESSIVE CHEMICALS WP 17 BAR / 250 PSI

Part #	Bore Diameter		Max Working		Bend Radius		Weight		List Price/Ft
	Inch	mm	BAR	PSI	Inch	mm	Kg/M	Lbs/Ft	
HSGT171-20	2"	50	17	250	7"	150	1.90	1.28	25.83
HSGT171-25	2-1/2"	65	17	250	8"	180	2.50	1.68	35.87
HSGT171-30	3"	76	17	250	11"	280	3.00	2.02	43.16
HSGT171-40	4"	102	17	250	15"	395	5.20	3.49	65.52



## Composite Hose

### Aluminum Composite Hose Couplings

Our aluminum composite hose couplings are made from gravity casting 356 T6.



**Male End**

Size	Part #	Price
2"	CHAM20	13.48
3"	CHAM30	28.34
4"	CHAM40	44.15



**Type C**

Size	Part #	Price
2"	CHA203	24.06
3"	CHA303	43.36
4"	CHA403	58.96



**Type E**

Size	Part #	Price
2"	CHA205	16.90
3"	CHA305	34.30
4"	CHA405	53.62

\*\*\*Please specify:  
**"for composite hose"**  
 when ordering.\*\*\*

### Stainless Steel Composite Hose Couplings

Our stainless steel composite hose couplings are 100% 316.



**Male End**

Size	Part #	Price
1"	CHSM10	28.85
1-1/2"	CHSM15	50.67
2"	CHSM20	65.57
3"	CHSM30	141.51
4"	CHSM40	218.36



**Type C**

Size	Part #	Price
1"	CHS103	35.03
1-1/2"	CHS153	63.64
2"	CHS203	92.49
3"	CHS303	160.41
4"	CHS403	222.01



**Type E**

Size	Part #	Price
1"	CHS105	30.26
1-1/2"	CHS155	52.18
2"	CHS205	81.91
3"	CHS305	144.95
4"	CHS405	214.28

## TTMA Composite Hose Flange Fittings



TTMA flange composite hose coupling. TTMA (Truck Trailer Manufacturers Association) carbon steel flange couplings are available for high-volume bulk transfer of petroleum products for loading and unloading applications. The one-piece design reduces the need for adapters and eliminates two potential leak points.



Size	Part #	Desc.	Price
3"	CHKCFG30	3" x 3" TTMA Flange	179.02
4"	CHKCFG40	4" x 4" TTMA Flange	255.75

## Composite Hose Gaskets



Size	Part #	Price
1"	CHG10	0.60
1-1/2"	CHG15	0.78
2"	CHG20	2.48
3"	CHG30	4.71
4"	CHG40	5.59

## Plated Steel Composite Hose Nipples

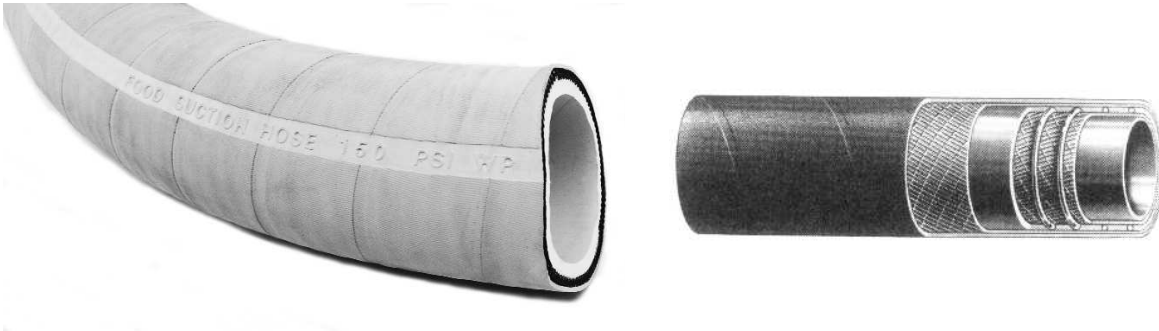


Type KC Nipple

Size	Part #	Price
2"	CCHKC20	30.49
3"	CCHKC30	52.91
4"	CCHKC40	77.84

# Food Suction Hose

## Rubber



**Service:** Oily and fatty foods, beer, and wine. Meets FDA requirements  
**Tube:** Nitrile - White  
**Cover:** Nitrile - Grey  
**Reinforcement:** Synthetic reinforced fibers, double wire helix  
**Package:** Coil  
**Temperature:** Range +4~+176° F. Up to 248° F for cleaning and sterilization

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft.	Length	Price/Ft
1"	1.46"	HWFS10	2P+1W	150	.54	50-100'	20.01
1-1/2"	2.05"	HWFS15	2P+1W	150	.97	50-100'	23.11
2"	2.56"	HWFS20	2P+1W	150	1.28	50-100'	30.69
2-1/2"	3.11"	HWFS25	2P+1W	150	1.71	50-100'	37.34
3"	3.70"	HWFS30	2P+1W	150	2.28	50-100'	44.15
4"	4.72"	HWFS40	2P+1W	150	3.16	50-100'	55.18

**Custom assemblies are available.**

# Food Suction Hose

## Clear PVC



**Service:** Food handling  
**Tube:** Clear PVC  
**Cover:** Corrugated, Clear PVC  
**Reinforcement:** Rigid PVC helix  
**Package:** Coil

Inside Diameter	Outside Diameter	Part Number	W.P. @ 68° F	Weight lbs/ft.	Length	Price/Ft
1"	1.29"	HSUPC10	100	0.30	50-100'	3.81
1-1/4"	1.56"	HSUPC12	90	0.38	50-100'	4.57
1-1/2"	1.84"	HSUPC15	90	0.48	50-100'	5.33
2"	2.39"	HSUPC20	70	0.71	50-100'	7.92
2-1/2"	2.92"	HSUPC25	65	0.97	50-100'	11.71
3"	3.46"	HSUPC30	60	1.27	50-100'	14.15
4"	4.56"	HSUPC40	50	2.01	50-100'	22.51

# Springflex Hose

## Clear PVC

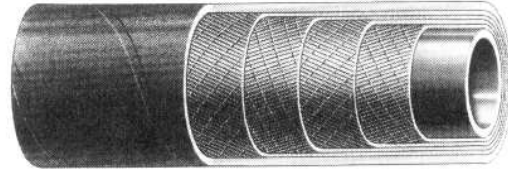


**Service:** Food handling, meets or exceeds FDA requirements of food grade hose  
**Tube:** Clear PVC  
**Cover:** Smooth, Clear PVC  
**Reinforcement:** Steel wire  
**Package:** Coil  
**Temperature:** -16° F to 160° F.

Inside Diameter	Outside Diameter	Part Number	W.P. @ 68° F	Weight lbs/c	Length	Price/Ea
3/4"	1 1/16"	155-0340	55	24	100'	381.62
1"	1 1/4"	155-1000	55	35	100'	494.14
1 1/4"	1 5/8"	155-1140	36	49	100'	746.33
1 1/2"	1 29/32"	155-1120	36	75	100'	1,023.82
2"	2 1/2"	155-2000	36	108	100'	1,259.97

# Sandblast Hose

## 4 Ply



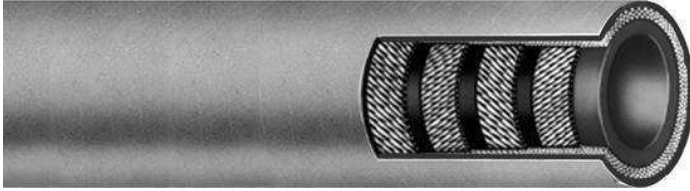
**Service:** Sand and shot blasting  
**Tube:** SBR/NR Static conductive  
**Cover:** EPDM/SBR - Black weather resistant  
**Reinforcement:** Synthetic cord plies  
**Package:** Coil

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/c	Length	Price/Ea
1/2"	1-1/8"	HSAN050	4	150	40	50'	461.36
3/4"	1-1/2"	HSAN075	4	150	76	50'	565.17
1"	1-5/8"	HSAN100A	4	150	64	50'	755.48
1"	1-7/8"	HSAN100	4	150	102	50'	755.48
1-1/4"	2-5/32"	HSAN120	4	150	134	50'	841.98
1-1/2"	2-3/8"	HSAN150	4	150	149	50'	926.57
2"	2-7/8"	HSAN200	4	150	188	50'	1,322.57

Fittings and nozzles are available on p. 22

# Plaster & Cement Hose

## Abrasion Resistant Rubber



**Service:** Delivery of plaster and cement under repeated high pressure  
**Tube:** Black smooth highly abrasion resistant rubber  
**Cover:** Black smooth abrasion and weather resistant rubber  
**Reinforcement:** High tensile textile cords. **Safety factor 2:1**  
**Package:** Coil  
**Temperature:** -30° F to 176° F

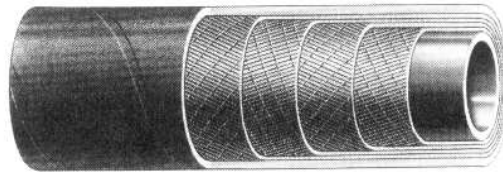
Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft	Length	Price/Ft
1-1/4"	1.90"	HPCR12	4	1233	0.85	50-100'	21.23
1-1/2"	2.20"	HPCR15	4	1233	1.05	50-100'	24.15
2"	2.23"	HPCR20	4	1233	1.39	50-100'	27.46
2-1/2"	3.31"	HPCR25	4	1233	1.80	50-100'	40.14
3"	4.01"	HPCR30	6	1233	2.82	50-100'	48.10
4"	5.17"	HPCR40	6	1233	4.00	50-100'	71.13

# Dry Cement Discharge Hose

## Static Conductive Rubber

*New and improved!*

*Lighter and easier to work with!*



**Service:** Conveying of dry cement and other dry abrasives  
**Tube:** Black, smooth static conductive rubber. Thickness **1/8"**  
**Cover:** Black smooth abrasion and weather resistant rubber  
**Reinforcement:** High tensile spiraled yarn  
**Package:** Coil

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft	Length	Price/Ft
4"	4.53"	HDCBFL40	4	75	1.45	50-100'	22.61



# Hot Tar & Asphalt Hose

## Black



**Service:** Hot Tar and Asphalt Hose. Designed for the transfer of tar, asphalt, hot oils and other high temperature petroleum based products.

**Tube:** High grade nitrile rubber - Black

**Cover:** Nitrile - Smooth black abrasion resistant

**Reinforcement:** Plies of polyester tire cord with helix wire

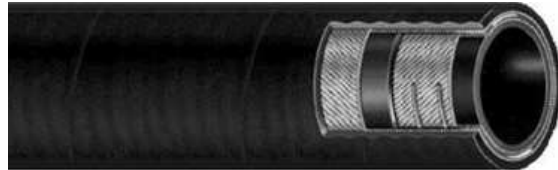
**Package:** Coil

**Temperature:** -40° to +350°F

Inside Diameter	Outside Diameter	Part Number	Bend Radius	Working Pressure	Weight lbs/ft.	Length	Price/Ft
3"	3-3/4"	HTAS303	14"	150	2.8	100'	60.80

# Hot Air Blower Hose

## Rubber



**Service:** Flexible connector between hot air compressor and tanks on truck.  
**Tube:** EPDM  
**Cover:** EPDM Blue  
**Reinforcement:** Multiple plies with helix wire  
**Package:** Coil

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft	Length	Price/Ft
3"	3.60"	HHAB30	2	150	2.1	50-100'	24.66

# LPG Hose

UL Listed



**Service:** Liquid Petroleum Gas Transfer  
**Tube:** Nitrile  
**Cover:** Neoprene - Black  
**Reinforcement:** Braided synthetic yarns  
**Package:** Bale

Inside Diameter	Outside Diameter	Part Number	Braid	Working Pressure	Weight lbs/c	Length	Price/Ea
1/4"	9/16"	HLPG021	1	350	14	300'	830.96
3/8"	11/16"	HLPG038	1	350	21	300'	1,268.49

# Fuel Oil Delivery Hose

## NBR, RMA Class A



**Service:** For the transfer of fuel oils, commercial gasoline and related petroleum based products in home delivery, marine, commercial and industrial service.

**Tube:** NBR, RMA Class A.

**Cover:** Red NBR/PVC, RMA Class A.

**Reinforcement:** High tensile spiral polyester cord.

**Package:** Reels

**Temperature:** -40°F to +212°F (-40°C to +100°C)

Inside Diameter	Outside Diameter	Part Number	Working Pressure	Length Per Reel	Price/Ft
1"	1-1/2"	HFOR100	250	500	16.17
1-1/4"	1-25/32"	HFOR125	250	400	20.53
1-3/8"	1-7/8"	HFOR138	250	400	23.61
1-1/2"	2-3/32"	HFOR150	250	400	23.08

# Tank Truck Hose

150 Lbs.



- Service:** Suction & discharge of petroleum products. Handles aromatics to 50%
- Tube:** Nitrile - Oil resistant
- Cover:** Nitrile blend, Black smooth, oil, ozone and weather resistant rubber
- Reinforcement:** High tensile spiraled yarn and double helix wire up to 4"
- Package:** Coil
- Temperature:** -22° F to 176° F

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft	Length	Price/Ft
1-1/2"	1.97"	HTKR15	2	150	0.90	50-100'	14.00
2"	2.52"	HTKR20	2	150	1.30	50-100'	15.55
2-1/2"	3.03"	HTKR25	2	150	1.66	50-100'	21.48
3"	3.58"	HTKR30	2	150	2.14	50-100'	24.61
4"	4.72"	HTKR40	2	150	3.41	50-100'	32.70
6"	6.82"	HTKR60	2	150	4.76	20-50'-100'	68.86

# Steam Hose

## Wire Braid



**Service:** Continues service -40° to 410° F. Intermittent peaks up to +450° F  
**Tube:** EPDM, Black smooth rubber  
**Cover:** EPDM, Black smooth pinpricked  
**Reinforcement:** High tensile spiraled steel wire  
**Package:** Coil

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft	Length	Price/Ft
1/2"	0.96"	HWSR05	2	250	0.36	50-100'	7.35
3/4"	1.18"	HWSR07	2	250	0.54	50-100'	8.42
1"	1.46"	HWSR10	2	250	0.69	50-100'	10.74
1-1/4"	1.73"	HWSR12	2	250	0.92	50-100'	16.29
1-1/2"	2.15"	HWSR15	2	250	1.24	50-100'	19.15
2"	2.64"	HWSR20	2	250	1.59	50-100'	24.00
2-1/2"	3.15"	HWSR25	2	200	2.14	50-100'	39.84
3"	3.70"	HWSR30	2	250	2.89	50-100'	48.00

# Contractor's Water Hose - Red Rubber

## Coupled Lengths



**Service:** General service water  
**Tube:** SBR  
**Cover:** SBR  
**Reinforcement:** Synthetic yarns  
**Package:** Coils

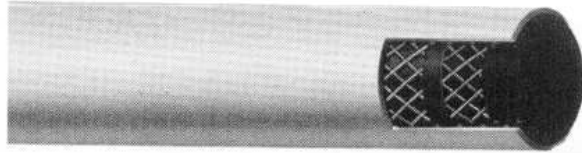
### Coupled with heavy machined brass couplings

Size and Length	Color	W.P.	Part Number	Price/Ea
1/2" x 50' GHT	Red	300	HSWI-50-50CP	102.61
1/2" x 75' GHT	Red	300	HSWI-50-75CP	145.87
1/2" x 100' GHT	Red	300	HSWI-50-100CP	189.12
5/8" x 50' GHT	Red	200	HSWI-63-50CP	108.00
5/8" x 75' GHT	Red	200	HSWI-63-75CP	153.40
5/8" x 100' GHT	Red	200	HSWI-63-100CP	195.42
3/4" x 50' GHT	Red	200	HSWI-75-50CP	131.45
3/4" x 75' GHT	Red	200	HSWI-75-75CP	192.73
3/4" x 100' GHT	Red	200	HSWI-75-100CP	253.90
1" x 50' NPT	Red	200	HSWI-100-50CP	190.47
1" x 75' NPT	Red	200	HSWI-100-75CP	273.74
1" x 100' NPT	Red	200	HSWI-100-100CP	357.79

### Uncoupled

Size and Length	Color	W.P.	Part Number	Price/Ft
5/8" x 300' Uncpld	Red	200	HSWI-63150	1.88
3/4" x 300' Uncpld	Red	200	HSWI-75150	2.38
1" x 200' Uncpld	Red	200	HSWI-100250	3.34

## White Washdown Hose (Dari-Preen Creamery) Rubber



**Service:** Washdown of food processing facilities and equipment.  
**Tube:** EPDM  
**Cover:** EPDM  
**Reinforcement:** Synthetic yarns  
**Package:** Reels  
**Temperature:** -40° F to +180° F

Inside Diameter	Outside Diameter	Part Number	Spiral	Working Pressure	Weight /ft.	Pack	Price/Ft
3/4"	1-1/4"	HSW-75WD	4	200	0.5	700	5.37



# Contractor's Water Hose

## PVC



This is an economical water hose designed for general contractor use. The PVC cover provides excellent abrasion resistance which relates to longer service life. Available in both bulk and coupled lengths. 3:1 working pressure to burst safety factor.

**Service:** General service air and water. **Black only.**  
**Tube:** PVC  
**Cover:** PVC  
**Reinforcement:** Synthetic cords  
**Package:** Coils  
 -Coupled GHT

UNCOUPLED							
Inside Diameter	Outside Diameter	Part Number	Spiral	Working Pressure	Weight lbs/ea.	Length	Price/Ft
5/8"	0.881"	HCLW-B060	2	150	95	500'	N/A
3/4"	1.030"	HCLW-B075	2	150	105	500'	N/A

COUPLED							
Inside Diameter	Outside Diameter	Part Number	Spiral	Working Pressure	Weight lbs/ea.	Length	Price/Ea
5/8"	0.881"	HCLW-B062	2	150	10	50'	N/A
3/4"	1.030"	HCLW-B072	2	150	11	50'	N/A

# Green Water Hose “Rubber Like”

PVC | USA

**GOODYEAR**



**Service:** Golf courses, sports complexes, general service water  
**Tube:** PVC  
**Cover:** PVC  
**Reinforcement:** High-strength synthetic cords  
**Package:** Reels / Assemblies

## Bulk Lengths

Inside Diameter	Outside Diameter	Part Number	Spiral	W.P.	Weight lbs/ft.	Length	Price/Ft
3/4"	1 1/16"	HGN075	2	200	0.22	500'	2.97

## Coupled Lengths

Inside Diameter	Outside Diameter	Part Number	Spiral	W.P.	Weight lbs/ft.	Length	Price/Ea
3/4"	1 1/16"	HGN071	2	200	7	25'	84.48
3/4"	1 1/16"	HGN072	2	200	14	50'	154.28
3/4"	1 1/16"	HGN073	2	200	22	75'	224.00
3/4"	1 1/16"	HGN074	2	200	29	100'	304.56

**Coupled hose comes assembled with brass GHT fittings and stainless steel bands.**

# Discharge Hose - Blue PVC

## Coupled Lengths



**Service:** Lay-flat water discharge  
**Tube:** PVC  
**Cover:** PVC - Blue  
**Reinforcement:** Synthetic reinforced fibers  
**Package:** Coil  
**Temperature:** -4° F to +112° F

1-1/2" through 4" use 2 bands on each side.  
 6" uses 4 bands on each side.

### Blue PVC Discharge Hose w/Stainless Bands.

Size	Length	Alum/Brass Set		Type C & E Alum.	
		Part Number	Price/Ea	Part Number	Price/Ea
1-1/2"	50'	HDCP152AB	86.24	HDCP152CE	98.95
2"	50'	HDCP202AB	106.00	HDCP202CE	120.00
2-1/2"	50'	HDCP252AB	142.70	HDCP252CE	164.30
3"	50'	HDCP302AB	174.30	HDCP302CE	191.30
4"	50'	HDCP402AB	245.60	HDCP402CE	258.60
6"	50'	HDCP602AB	490.50	HDCP602CE	549.00

### Blue PVC Discharge Hose w/Galvanized Bands.

Size	Length	Alum/Brass Set		Type C & E Alum.	
		Part Number	Price/Ea	Part Number	Price/Ea
1-1/2"	50'	HDCP152AB-C	80.75	HDCP152CE-C	93.46
2"	50'	HDCP202AB-C	99.22	HDCP202CE-C	113.20
2-1/2"	50'	HDCP252AB-C	134.60	HDCP252CE-C	155.90
3"	50'	HDCP302AB-C	163.90	HDCP302CE-C	180.80
4"	50'	HDCP402AB-C	235.30	HDCP402CE-C	248.20
6"	50'	HDCP602AB-C	467.70	HDCP602CE-C	526.20

# Discharge Hose - Blue PVC

## Bulk Lengths



**Service:** Lay-flat water discharge  
**Tube:** PVC  
**Cover:** PVC - Blue  
**Reinforcement:** Synthetic reinforced fibers  
**Package:** Coil  
**Temperature:** -4° F to +112° F

Inside Diameter	Outside Diameter	Part Number	Working Pressure	Weight lbs/ft.	Length	Price/Ft
1-1/2"	1.75"	HDCP150	75	0.19	300'	1.12
2"	2.21"	HDCP200	75	0.25	300'	1.38
2-1/2"	2.71"	HDCP250	60	0.32	300'	1.81
3"	3.21"	HDCP300	60	0.44	300'	2.27
4"	4.27"	HDCP400	60	0.48	300'	2.98
6"	6.32"	HDCP600	45	0.87	300'	5.92
8"	8.30"	HDCP800A	45	1.21	100'	10.46
8"	8.30"	HDCP800	45	1.21	300'	10.40
10"	10.20"	HDCPX0	45	1.81	100'	46.95

# Discharge Hose - Red PVC

## Coupled Lengths



**Service:** Lay-flat water discharge  
**Tube:** PVC  
**Cover:** PVC - Red  
**Reinforcement:** Synthetic reinforced fibers  
**Package:** Coil  
**Temperature:** -4° F to +112° F

1-1/2" through 4" use 2 bands on each side.

### Red PVC Discharge Hose w/Stainless Bands.

Size	Length	Alum/Brass Set		Type C & E Alum.	
		Part Number	Price/Ea	Part Number	Price/Ea
1-1/2"	50'	HDCPR152AB	116.56	HDCPR152CE	130.82
2"	50'	HDCPR202AB	137.48	HDCPR202CE	153.85
2-1/2"	50'	HDCPR252AB	184.67	HDCPR252CE	208.85
3"	50'	HDCPR302AB	238.04	HDCPR302CE	259.87
4"	50'	HDCPR402AB	336.92	HDCPR402CE	362.32
6"	50'	HDCPR602AB	598.79	HDCPR602CE	681.56
8"	50'	HDCPR802AB	N/A	HDCPR802CE	1,359.50

### Red PVC Discharge Hose w/Galvanized Bands.

Size	Length	Alum/Brass Set		Type C & E Alum.	
		Part Number	Price/Ea	Part Number	Price/Ea
1-1/2"	50'	HDCPR152AB-C	111.20	HDCPR152CE-C	125.46
2"	50'	HDCPR202AB-C	130.88	HDCPR202CE-C	147.18
2-1/2"	50'	HDCPR252AB-C	167.02	HDCPR252CE-C	201.01
3"	50'	HDCPR302AB-C	229.15	HDCPR302CE-C	251.96
4"	50'	HDCPR402AB-C	326.07	HDCPR402CE-C	351.47
6"	50'	HDCPR602AB-C	576.83	HDCPR602CE-C	659.60
8"	50'	HDCPR802AB-C	N/A	HDCPR802CE-C	1,330.88

# Discharge Hose - Red PVC

## Bulk Lengths

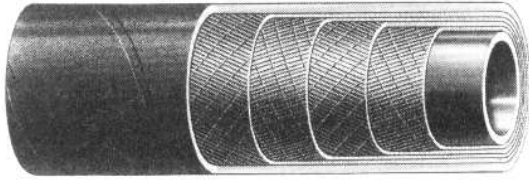


**Service:** Lay-flat water discharge  
**Tube:** PVC  
**Cover:** PVC - Red  
**Reinforcement:** Synthetic reinforced fibers  
**Package:** Coil  
**Temperature:** -4° F to +112° F

Inside Diameter	Outside Diameter	Part Number		W.P. @ 68° F	Weight lbs/ft.	Length	Price/Ft
1-1/2"	1.77"	HDCPR15		100	0.22	300'	1.73
2"	2.23"	HDCPR20		100	0.27	300'	2.04
2-1/2"	2.71"	HDCPR25		100	0.37	300'	2.73
3"	3.23"	HDCPR30		90	0.42	300'	3.70
4"	4.27"	HDCPR40		90	0.57	300'	5.12
6"	6.32"	HDCPR60		75	0.91	300'	8.69
8"	8.32"	HDCPR80		75	1.28	100-300'	14.65

# Water Discharge Hose

Rubber | 150 Lbs.

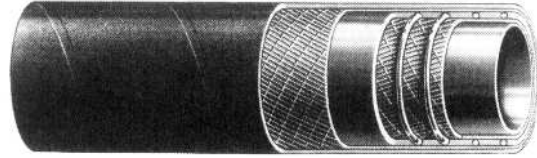


**Service:** Lightweight, high working pressure. Can be rolled up for storage  
**Tube:** SBR  
**Cover:** SBR - Black wrapped finish  
**Reinforcement:** Synthetic cord plies  
**Package:** Coil

Inside Diameter	Outside Diameter	Part Number	Ply	Working Pressure	Weight lbs/ft	Length	Price/Ft
1-1/2"	1.76"	HDCR15	2	150	0.31	50-100'	8.80
2"	2.28"	HDCR20	2	150	0.40	50-100'	10.80
2 1/2"	2.72"	HDCR25	2	150	0.50	50-100'	11.67
3"	3.32"	HDCR30	2	150	0.65	50-100'	14.79
4"	4.44"	HDCR40	2	150	1.28	50-100'	20.32
5"	5.39"	HDCR50	2	150	1.50	50-100'	31.35
6"	6.44"	HDCR60	2	150	1.70	50-100'	33.84
8"	8.52"	HDCR80	4	150	2.54	50'	61.44
10"	10.62"	HDCR100	4	150	3.64	50'	91.55
12"	12.74"	HDCR120	4	150	4.78	50'	121.02

# Water Suction Hose

## Rubber



**Service:** Water suction & discharge  
**Tube:** SBR - Black  
**Cover:** SBR/EPDM - Ozone, weather, and abrasion resistant - Black  
**Reinforcement:** Textile cord with wire helix  
**Package:** Coil

Inside Diameter	Outside Diameter	Part Number	Ply	Max W.P.	Weight lbs/c	Length	Price/Ft
1-1/2"	2-3/8"	HSUR15	2+1W	150	105	50-100'	8.90
2"	2-9/16"	HSUR20	2+1W	150	141	50-100'	10.02
2-1/2"	3-1/16"	HSUR25	2+1W	150	170	50-100'	12.69
3"	3-9/16"	HSUR30	2+1W	150	213	50-100'	14.45
4"	4-11/16"	HSUR40	2+1W	150	318	50-100'	21.34
5"	5-13/16"	HSUR50	2+1W	150	417	60'	37.14
6"	7"	HSUR60	2+1W	150	718	20-60'	42.01
8"	9-1/16"	HSUR80	2+1W	100	932	20'	76.55
10"	11-3/8"	HSUR100	2+1W	75	1520	20'	126.88
12"	13-3/8"	HSUR120	2+1W	75	1650	20'	165.20



# Suction Hose - Green PVC

## Coupled Lengths



**Service:** Water suction & discharge  
**Tube:** PVC  
**Cover:** PVC - Opaque Green  
**Reinforcement:** Rigid PVC helix  
**Package:** Coil

1-1/2" through 4" use 2 bands on each side.  
 6" uses 3 bands on each side.

### Green PVC Suction Hose w/Stainless Bands.

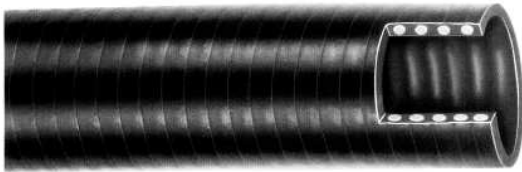
Size	Length	Alum/Brass Set		Type C & E Alum.		Type C & Plated Nipple	
		Part Number	Price/Ea	Part Number	Price/Ea	Part Number	Price/Ea
1-1/2"	20'	HSUP153AB	132.60	HSUP153CE	145.40	HSUP153CN	144.10
2"	20'	HSUP203AB	150.50	HSUP203CE	164.50	HSUP203CN	162.90
2-1/2"	20'	HSUP253AB	206.40	HSUP253CE	227.80	HSUP253CN	222.00
3"	20'	HSUP303AB	270.80	HSUP303CE	287.70	HSUP303CN	285.80
4"	20'	HSUP403AB	432.20	HSUP403CE	445.20	HSUP403CN	440.50
6"	20'	HSUP603AB	773.10	HSUP603CE	831.60	HSUP603CN	814.20

### Green PVC Suction Hose w/Galvanized Bands.

Size	Length	Alum/Brass Set		Type C & E Alum.		Type C & Plated Nipple	
		Part Number	Price/Ea	Part Number	Price/Ea	Part Number	Price/Ea
1-1/2"	20'	HSUP153AB-C	127.20	HSUP153CE-C	139.90	HSUP153CN-C	138.66
2"	20'	HSUP203AB-C	143.70	HSUP203CE-C	157.70	HSUP203CN-C	156.10
2-1/2"	20'	HSUP253AB-C	198.30	HSUP253CE-C	219.70	HSUP253CN-C	213.90
3"	20'	HSUP303AB-C	260.30	HSUP303CE-C	277.30	HSUP303CN-C	275.40
4"	20'	HSUP403AB-C	421.90	HSUP403CE-C	434.80	HSUP403CN-C	430.20
6"	20'	HSUP603AB-C	750.40	HSUP603CE-C	808.90	HSUP603CN-C	791.50

# Suction Hose - Green PVC

## Bulk Lengths



**Service:** Water suction & discharge  
**Tube:** PVC  
**Cover:** PVC - Opaque Green  
**Reinforcement:** Rigid PVC helix  
**Package:** Coil

Inside Diameter	Outside Diameter	Part Number	Working Pressure	Weight lbs/ft	Length	Price/Ft
1"	1.27"	HSUP10	115	0.24	50-100'	2.71
1-1/4"	1.53"	HSUP12	100	0.31	50-100'	3.61
1-1/2"	1.82"	HSUP15	90	0.38	50-100'	3.73
2"	2.34"	HSUP20	75	0.56	50-100'	5.17
2 1/2"	2.88"	HSUP25	70	0.67	50-100'	7.19
3"	3.40"	HSUP30	60	0.98	50-100'	9.14
4"	4.44"	HSUP40	60	1.45	50-100'	15.45
6"	6.56"	HSUP60	45	2.83	20-50-100'	27.63
8"	8.95"	HSUP80	45	7.05	20'-30'	71.70

# Contractor's Hose - Single Jacket

## Import | 250 PSI



Polyester jacket offers superior wear and strength characteristics. Ozone resistant rubber lining. Standard color is white. Also available in other colors. Please call for availability and quantity requirements. 100% Polyester.

UNCOUPLED						
Inside Diameter	Bowl	Part Number	Service Test	Weight lbs/ft	Length	Price/Ft
1-1/2"	1-3/4"	HFCS15	250	0.20	50-100'	2.16
2"	2-3/16"	HFCS20	250	0.23	50-100'	2.70
2-1/2"	2-13/16"	HFCS25	250	0.34	50-100'	3.43
3"	3-5/16"	HFCS30	250	0.42	50-100'	4.37
4"	4-3/8"	HFCS40	200	0.87	50-100'	7.93

COUPLED <i>All couplings have rocker lugs.</i>						
Inside Diameter	Length	Part Number	Thread Type	Service Test	Alum. /Ea.	Brass /Ea.
1-1/2"	50'	HFCS152CP	NST or NPSH	250	182.84	211.46
1-1/2"	100'	HFCS153CP	NST or NPSH	250	304.80	332.12
2-1/2"	50'	HFCS252CP	NST or NPSH	250	305.39	410.62
2-1/2"	100'	HFCS253CP	NST or NPSH	250	479.87	553.63

Specify thread type when ordering.

\*See p. 38 for couplings.

\*\*Non MSHA standard. Not for fire protection.

# Contractor's Hose - Double Jacket

## Import | 400 PSI



These premium duty, quality industrial hoses are manufactured to exacting municipal requirements. Standard color is white. Also available in other colors. Please call for availability and quantity requirements. 100% Polyester.

### UNCOUPLED

Inside Diameter	Bowl	Part Number	Service Test	Weight lbs/ft	Length	Price/Ft
1-1/2"	1-13/16"	HFCD15	400	0.30	50-100'	3.49
2-1/2"	2-13/16"	HFCD25	400	0.62	50-100'	5.58

### COUPLED

*All couplings have rocker lugs.*

Inside Diameter	Length	Part Number	Thread Type	Service Test	Alum. /Ea.	Brass /Ea.
1-1/2"	50'	HFCD152CP	NST or NPSH	400	253.53	276.73
1-1/2"	100'	HFCD153CP	NST or NPSH	400	433.99	465.82
2-1/2"	50'	HFCD252CP	NST or NPSH	400	402.84	524.80
2-1/2"	100'	HFCD253CP	NST or NPSH	400	695.23	768.53

Specify thread type when ordering.

\*See p. 38 for couplings.

\*\*Non MSHA standard. Not for fire protection.

# Fire Hose - Single Jacket

250 PSI | Made In USA



*\*UL Label Available for special order.*

These premium duty, quality industrial hoses are manufactured to exacting municipal requirements. Standard color is white. Also available in other colors. Please call for availability and quantity requirements. 100% Polyester.

## 250 PSI - SINGLE JACKET

UNCOUPLED						
Inside Diameter	Bowl	Part Number	Service Test	Weight lbs/ft	Length	Price/Ft
1-1/2"	1-13/16"	HFHS15	250	0.22	50-100'	3.83
2-1/2"	2-13/16"	HFHS25	250	0.44	50-100'	6.74

COUPLED <i>All couplings have rocker lugs.</i>						
Inside Diameter	Length	Part Number	Thread Type	Service Test	Alum. /Ea.	Brass /Ea.
1-1/2"	50'	HFHS152CP	NST or NPSH	250	245.59	281.25
1-1/2"	100'	HFHS153CP	NST or NPSH	250	445.49	482.75
2-1/2"	50'	HFHS252CP	NST or NPSH	250	430.49	567.22
2-1/2"	100'	HFHS253CP	NST or NPSH	250	784.28	860.20

Specify thread type when ordering.

\*See p. 38 for couplings.

# Fire Hose - Double Jacket

## 400PSI | Made In USA



***\*UL Label Available for special order.***

These premium duty, quality industrial hoses are manufactured to exacting municipal requirements. Standard color is white. Also available in other colors. Please call for availability and quantity requirements. 100% Polyester.

### 400 PSI - DOUBLE JACKET

UNCOUPLED						
Inside Diameter	Bowl	Part Number	Service Test	Weight lbs/ft	Length	Price/Ft
1-1/2"	1-13/16"	HFHD15	400	0.30	50-100'	5.91
2-1/2"	2-13/16"	HFHD25	400	0.62	50-100'	9.52

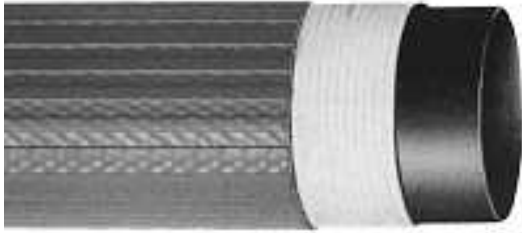
COUPLED <i>All couplings have rocker lugs.</i>						
Inside Diameter	Length	Part Number	Thread Type	Service Test	Alum. /Ea.	Brass /Ea.
1-1/2"	50'	HFHD152CP	NST or NPSH	400	349.35	388.44
1-1/2"	100'	HFHD153CP	NST or NPSH	400	645.98	688.50
2-1/2"	50'	HFHD252CP	NST or NPSH	400	582.61	653.59
2-1/2"	100'	HFHD253CP	NST or NPSH	400	1074.77	1146.76

Specify thread type when ordering.

\*See p. 38 for couplings.

# Contractor's Hose

## Nitrile Rubber Covered



Heavy duty one piece all synthetic extruded through-the-weave rubber covered hose with a wide rib pattern making it resistant to punctures, cuts, heat and abrasion. Ideally suited for construction and rental service. Color is red. Also available in other colors.

### UNCOUPLED

Inside Diameter	Bowl	Part Number	Service Test	Weight lbs/ft	Length	Price/Ft
1-1/2"	1-13/16"	HFNS15	300	0.34	50-100'	9.10
2-1/2"	2-7/8"	HFNS25	300	0.56	50-100'	16.91

### COUPLED

*All couplings have rocker lugs.*

Inside Diameter	Length	Part Number	Thread Type	Service Test	Alum. /Ea.	Brass /Ea.
1-1/2"	50'	HFNS152CP	NST or NPSH	300	518.46	572.71
1-1/2"	100'	HFNS153CP	NST or NPSH	300	981.14	1072.42
2-1/2"	50'	HFNS252CP	NST or NPSH	300	950.20	1082.36
2-1/2"	100'	HFNS253CP	NST or NPSH	300	1796.85	1996.50

Specify thread type when ordering.

\*See p. 38 for couplings.

\*\*Non MSHA standard. Not for fire protection.



**Service:** Industrial hose, construction, rental yards, dust control  
**Tube:** Synthetic rubber  
**Cover:** White  
**Reinforcement:** Polyester yarns  
**Package:** Boxed

### SINGLE JACKET

Inside Diameter	Bowl	Part Number	Working Pressure	Weight lbs/ft	Length	Price/Ft
1"	1-3/16"	HFIS10	150	0.12	50-100'	1.20
1-1/2"	1-3/4"	HFIS15	150	0.18	50-100'	1.85
2"	2-3/16"	HFIS20	150	0.27	50-100'	2.27
2-1/2"	2-3/4"	HFIS25	150	0.33	50-100'	3.21
3"	3-11/64"	HFIS30	150	0.42	50-100'	3.66
4"	4-13/64"	HFIS40	150	0.57	50-100'	6.54

### DOUBLE JACKET

Inside Diameter	Bowl	Part Number	Working Pressure	Weight lbs/ft	Length	Price/Ft
1"	1-9/32"	HFID10	200	0.17	50-100'	1.92
1-1/2"	1-13/16"	HFID15	200	0.26	50-100'	3.37
2-1/2"	2-13/16"	HFID25	200	0.44	50-100'	5.38

\*See p. 38 for couplings.



# Mill Hose

## Coupled Lengths | Import



**Service:** Industrial hose, construction, rental yards, dust control  
**Tube:** Synthetic rubber  
**Cover:** White  
**Reinforcement:** Polyester yarns  
**Package:** Boxed

### **SINGLE JACKET** *Coupled with expansion ring couplings.*

Inside Diameter	Length	Part Number	Thread Type	Working Pressure	Alum. /ea.	Brass /ea.
1"	50'	HFIS102CP	NST or NPSH	150	124.60	N/A
1"	100'	HFIS103CP	NST or NPSH	150	184.60	N/A
1-1/2"	50'	HFIS152CP	NST or NPSH	150	156.48	198.00
1-1/2"	100'	HFIS153CP	NST or NPSH	150	253.98	298.59
2"	50'	HFIS202CP	NPSH	150	202.88	N/A
2"	100'	HFIS203CP	NPSH	150	323.38	N/A
2-1/2"	50'	HFIS252CP	NST or NPSH	150	267.78	388.72
2-1/2"	100'	HFIS253CP	NST or NPSH	150	413.33	520.83

### **DOUBLE JACKET** *Coupled with expansion ring couplings.*

Inside Diameter	Length	Part Number	Thread Type	Working Pressure	Alum. /ea.	Brass /ea.
1"	50'	HFID102CP	NST or NPSH	200	160.60	N/A
1"	100'	HFID103CP	NST or NPSH	200	256.60	N/A
1-1/2"	50'	HFID152CP	NST or NPSH	200	222.45	255.67
1-1/2"	100'	HFID153CP	NST or NPSH	200	400.07	427.61
2-1/2"	50'	HFID252CP	NST or NPSH	200	359.38	499.81
2-1/2"	100'	HFID253CP	NST or NPSH	200	641.05	734.33

Couplings are rocker lug. Specify thread when ordering.

# Pressure Washer Hose

## Oil Resistant



**Service:** High pressure cleaning  
**Tube:** Oil resistant  
**Cover:** Oil & weather resistant  
**Reinforcement:** Wire braid  
**Package:** Coil  
**Temperature:** -40° F to 212° F

Inside Diameter	Part Number	Working Pressure	Length	Price/Ea
3/8"	HPW042	4000	50'	202.58
3/8"	HPW043	4000	100'	377.81

Each assembly features 3/8" NPT couplings, 3/8" NPT swivel coupling and PVC strain relievers. Other lengths available on special order. Call for pricing and availability.

## Straight Thru Couplers

These couplers and plugs have no valves. Smooth, straight through bore gives maximum flow with minimum pressure drop. Couplers are brass, with stainless steel balls and springs

**WARNING: Do not disconnect with pressure in the line.**

### 1/8" - 1/2" SERIES

#### COUPLERS

##### Female Thread

Size	Brass	Price
1/8"	CST2B	15.00
1/4"	CST4B	15.11
3/8"	CST6B	15.47
1/2"	CST8B	30.10



#### PLUGS

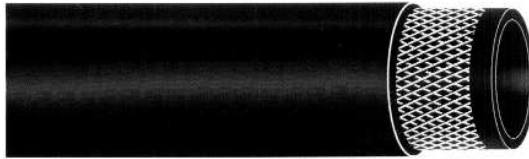
##### Male Thread

NPT		
Size	Brass	Price
1/4"	CPST3B	4.33
3/8"	CPST5B	7.33
1/2"	CPST7B	8.62

##### Female Thread

NPT		
Size	Brass	Price
1/8"	CPST2B	4.61
1/4"	CPST4B	4.69
3/8"	CPST6B	6.79
1/2"	CPST8B	10.74

## Heater Hose - Standard Black

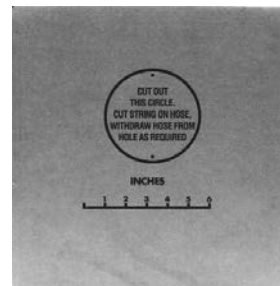


Replacement for OE hose on most cars and light trucks. High quality EPDM tube and cover, polyester reinforced to meet and exceed SAE 20R3 Class D2 specifications. Resists engine heat and weathering.

Inside Diameter	Length	Part Number	Weight	Price/Ea
1/2"	50'	1825	9	104.50
5/8"	50'	1826	10	108.38
3/4"	50'	1827	14	121.56
1"	50'	1828	21	217.70

50' packaged 1 per carton.

## Fuel Line Hose - Premium

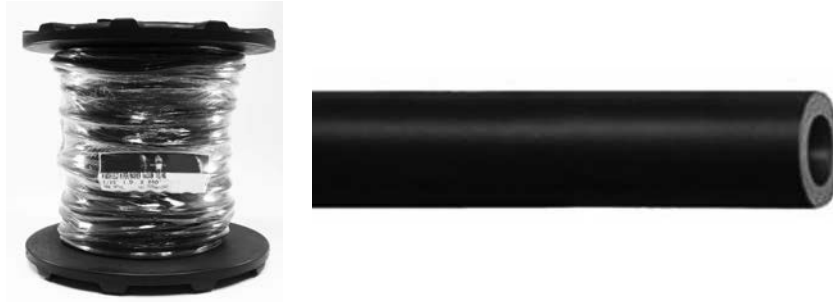


Meets the OE replacement specifications standards SAE 30R7 and GM 6165M for cars and trucks. Resists temperature ranges of -40 deg. to +257 deg. F. Nitrile tube and Hypalon cover resists high heat.

Inside Diameter	Length	Part Number	Weight	Price/Ea
1/4"	50'	15232	5.5	124.29
1/4"	250'	25068	26	507.07
5/16"	50'	15248	6	117.43
5/16"	250'	25084	30	545.57
3/8"	50'	15254	6.8	132.05
3/8"	250'	25100	34	733.25

50' packaged 1 per carton. 250' on spool.

## Windshield Wiper & Vacuum Tubing



Low pressure EPDM tubing for windshield washers and vacuum systems for automotive power accessories. Will not deteriorate from heat, weathering or ozone. Meets SAE J1027 specifications.

Inside Diameter	Length	Part Number	Weight	Price/Ea
7/64"	250'	3339250	6.1	173.96
5/32"	250'	3340250	13.6	184.99
7/32"	250'	3341250	10.6	208.59
9/32"	250'	3342250	19.6	229.40

## Silicone Vacuum Hose



Applications: vacuum, coolant overflow, windshield washers, emission control, wire insulation, etc.

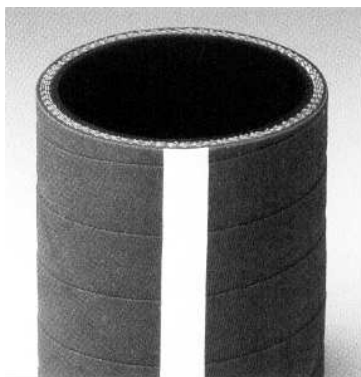
Inside Diameter	Length	Part Number	Weight	Price/Ea
1/8"	50'	50-012	.016	112.29
5/32"	50'	50-016	.026	135.14
3/16"	50'	50-018	.039	174.56
1/4"	50'	50-025	.064	239.31
5/16"	50'	50-031	.100	261.84
3/8"	50'	50-038	.144	343.48

# Silicone Coolant Hose

## Series 7030

3 ft. lengths, Color: Blue with white stripe (Longer lengths available upon request)

Ozone resistant. Oil splash resistance. Temperature range: -65 F to +350 F. Meets operating requirements of SAE J20 R1, and TMC RP303B Class 1 Grade 11. 3 ply construction.



### Lined Clamps for silicone hose

Lined clamps are designed for use with silicone rubber and other soft hose. The liner prevents hose from extruding or shearing through the band notches as the clamp is tightened. 10 per box.

**Band:** 1/2" Stainless

**Housing:** Stainless

**Screw:** 5/16" Slotted Hex  
Dichromate, Carbon Steel

Hose I.D.	Part #	Price
1/2	53-08	2.55
5/8	53-10	2.55
3/4	53-12	2.63
7/8	53-16	2.63
1 to 1 1/8	53-20	2.67
1 1/8 to 1 3/8	53-24	2.67
1 1/4 to 1 5/8	53-28	2.71
1 1/2 to 1 7/8	53-32	2.71
1 5/8 to 2	53-36	2.81
2 to 2 1/4	53-40	3.35
2 1/4 to 2 1/2	53-44	3.70
2 1/2 to 2 3/4	53-48	3.70
2 3/4 to 3	53-52	4.00
3	53-56	4.00
3 1/2	53-64	4.35
4	53-72	4.65

Other metals & sizes available. Call sales dept.

Inside Diameter	Outside Diameter	Part Number	W.P.	Price/Ea
1/4"	.580	7030-025	317	60.98
3/8"	.705	7030-038	278	64.38
1/2"	.830	7030-050	261	68.07
5/8"	.955	7030-062	247	72.65
3/4"	1.080	7030-075	230	78.37
7/8"	1.205	7030-087	216	85.46
1"	1.330	7030-100	206	87.45
1 1/16"	1.393	7030-106	196	92.78
1 1/8"	1.455	7030-112	186	97.55
1 1/4"	1.580	7030-125	178	101.76
1 5/16"	1.643	7030-131	170	105.46
1 3/8"	1.705	7030-138	164	109.15
1 1/2"	1.833	7030-150	157	112.25
1 5/8"	1.955	7030-162	152	125.85
1 3/4"	2.080	7030-175	147	136.90
1 7/8"	2.205	7030-187	140	140.69
2"	2.330	7030-200	136	144.71
2 1/8"	2.450	7030-212	133	150.13
2 1/4"	2.580	7030-225	128	156.14
2 3/8"	2.705	7030-238	126	165.59
2 1/2"	2.830	7030-250	122	170.62
2 5/8"	2.955	7030-262	120	176.54
2 3/4"	3.080	7030-275	117	182.71
3"	3.330	7030-300	115	197.84
3 1/2"	3.830	7030-350	114	237.97
4"	4.330	7030-400	113	265.62
4 1/2"	4.830	7030-450		305.85
5"	5.330	7030-500		359.15
5 1/2"	5.830	7030-550		386.01
6"	6.330	7030-600		412.91
7"	7.330	7030-700		587.64
8"	8.330	7030-800		532.45
10"	10.330	7030-1000		671.73

Hose installed with unlined clamp.

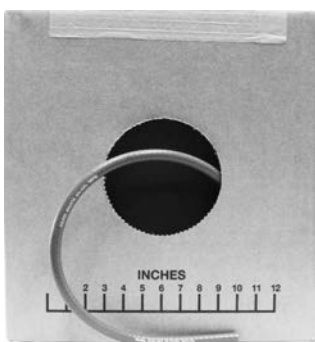


Hose installed with lined clamp.



# Silicone Heater Hose

## 80 Series



Meets and exceeds all performance and physical characteristics of SAE J20 Part 3, SAE 20 R3 Class A.

25 ft and 50 ft lengths. Color: Blue

Inside Diameter	Outside Diameter	Part Number	Working Pressure	Length	Price/Ea
1/4"	0.46	80-025X25	250	25'	185.56
1/4"	0.46	80-025X50	250	50'	371.11
5/16"	0.552	80-031X25	225	25'	203.14
5/16"	0.552	80-031X50	225	50'	406.28
3/8"	0.635	80-038X25	225	25'	239.74
3/8"	0.635	80-038X50	225	50'	479.48
1/2"	0.76	80-050X25	200	25'	274.43
1/2"	0.76	80-050X50	200	50'	548.86
5/8"	0.925	80-062X25	175	25'	280.75
5/8"	0.925	80-062X50	175	50'	561.50
3/4"	1.07	80-075X25	150	25'	365.10
3/4"	1.07	80-075X50	150	50'	730.20
7/8"	1.235	80-078X25	150	25'	483.14
7/8"	1.235	80-078X50	150	50'	966.27
1"	1.38	80-100X25	125	25'	528.89
1"	1.38	80-100X50	125	50'	1101.70

# Marine Exhaust Hose

## Soft Wall



Recommended for wet marine exhaust systems. 2 ply construction. Special tube & cover resists engine exhaust, high temperatures and ozone. Temp. range - 40° F to +200° F. Meets or exceeds USCG, ABYC, and SAE J2006 standards.

**12-1/2 ft lengths.** Color: Black with Stripe Branding.

Inside Diameter	Outside Diameter	Part Number	Burst	Weight /ft	Price/Ea
1 1/2"	1 15/16"	200-1124	360	.50	211.21
1 5/8"	2 1/16"	200-1584	335	.54	219.93
1 3/4"	2 3/16"	200-1344	310	.58	223.33
2"	2 5/16"	200-2004	290	.63	268.61
2 1/8"	2 7/16"	200-2184	275	.67	291.18
2 1/4"	2 11/16"	200-2144	250	.91	304.17
2 3/8"	2 15/16"	200-2384	225	.97	307.92
2 1/2"	3 1/16"	200-2124	215	1.02	322.94
2 5/8"	3 3/16"	200-2584	205	1.07	331.08
2 7/8"	3 7/16"	200-2784	190	1.13	358.74
3"	3 7/16"	200-3004	185	1.23	372.88
3 1/8"	3 11/16"	200-3184	180	1.29	417.96
3 1/2"	4 1/16"	200-3124	160	1.34	478.59
4"	4 9/16"	200-4004	140	1.50	497.03
4 1/8"	4 11/16"	200-4184	135	1.72	650.04
4 1/2"	5 1/8"	200-4124	125	1.77	713.41
5"	5 5/8"	200-5004	115	2.15	769.49
6"	6 5/8"	200-6004	95	2.62	963.04
6 5/8"	7 13/32"	200-6584	85	2.86	1143.30
8"	8 25/32"	200-8004	70	4.76	1419.22

# Marine Exhaust Hose

## Hard Wall



*Wire-Reinforced*

Recommended for wet marine exhaust systems. Helical wire reinforcement design allows for connections requiring tight bends. Tube and cover is a Neoprene/SBR blend. 1 ply thru 3 1/8", 2 ply thru 6". Temperature range -40° F to 200° F. Meets or exceeds USCG, ABYC, and SAE J2006 R2 standards.

**12-1/2 ft lengths.** Color: Black with Stripe Branding.

Inside Diameter	Outside Diameter	Part Number	Burst	Weight /ft	Price/Ea
1 1/2"	1 13/16"	250-1124	170	.48	225.11
1 5/8"	1 15/16"	250-1584	160	.51	218.95
1 3/4"	2 1/16"	250-1344	150	.55	227.62
1 7/8"	2 3/16"	250-1784	140	.59	243.57
2"	2 5/16"	250-2004	135	.63	248.46
2 1/8"	2 7/16"	250-2184	130	.70	283.01
2 1/4"	2 9/16"	250-2144	125	.74	310.02
2 3/8"	2 11/16"	250-2384	120	.78	318.85
2 1/2"	2 13/16"	250-2124	115	.83	325.58
2 7/8"	3 9/32"	250-2784	100	1.15	451.41
3"	3 13/32"	250-3004	95	1.20	451.37
3 1/8"	3 17/32"	250-3184	90	1.26	477.85
3 1/2"	3 15/16"	250-3124	165	1.50	518.14
4"	4 15/32"	250-4004	145	1.81	603.33
4 1/8"	4 19/32"	250-4184	140	1.86	636.32
4 1/2"	4 31/32"	250-4124	130	2.02	723.30
5"	5 15/32"	250-5004	115	2.25	735.33
6"	6 19/32"	250-6004	95	3.27	1148.48



# Clear PVC Tubing

## Food Grade



Food grade clear non-toxic. Applications include: drinking water, liquid food, and beverage transfer lines.

Inside Diameter	Outside Diameter	Part Number	W.P. @ 68° F	Length	Price/Ea
3/16"	5/16"	CT0305	55	100'	29.63
1/4"	3/8"	CT0406	45	100'	34.46
1/4"	1/2"	CT0408	70	100'	78.29
5/16"	7/16"	CT0507	45	100'	39.40
3/8"	1/2"	CT0608	45	100'	44.41
3/8"	5/8"	CT0610	55	100'	98.47
1/2"	5/8"	CT0810	30	100'	56.91
1/2"	3/4"	CT0812	50	100'	123.42
5/8"	7/8"	CT1014	40	100'	148.21
3/4"	1"	CT1216	40	100'	171.97
1"	1 1/4"	CT1620	35	100'	220.77
1 1/4"	1 1/2"	CT2028	40	100'	443.52
1 1/2"	1 7/8"	CT2432	35	100'	507.81
2"	2 7/16"	CT3240	35	100'	831.79

## Clear PVC Braid Food Grade



Food grade clear non-toxic. Applications include: drinking water, liquid food, and beverage transfer lines.

Inside Diameter	Outside Diameter	Part Number	W.P. @ 68° F	Length	Price/Ea
1/4"	3/8"	CB0406	200	300'	151.79
5/16"	9/16"	CB0509	200	300'	244.71
3/8"	5/8"	CB0610	200	300'	289.59
1/2"	3/4"	CB0812	200	300'	363.99
5/8"	7/8"	CB1014	200	300'	461.36
3/4"	1 1/16"	CB1221	200	300'	613.15
1"	1 5/16"	CB1621	200	300'	901.54
1 1/4"	1 11/16"	CB2027	100	100'	441.29
1 1/2"	1 7/8"	CB2430	100	100'	579.51
2"	2 1/2"	CB3240	75	100'	931.30

# General Purpose Ducting

## Medium Duty Thermoplastic Rubber - Wear Strip



**Temperature:** -65° F to +275° F  
**Abrasion Ext:** Excellent  
**Flexibility:** Good  
**Pressure:** 20 psi to 48 psi  
**Standard Length:** 25'  
**Size I.D.:** 2" to 20"  
**Flame Retardant:** UL94HB

Part Number	Size	Price/Ea
HDUC201	2"	292.95
HDUC221	2-1/4"	410.39
HDUC251	2-1/2"	414.62
HDUC301	3"	436.81
HDUC351	3-1/2"	505.92
HDUC401	4"	540.69
HDUC451	4-1/2"	564.18
HDUC501	5"	582.40
HDUC551	5-1/2"	637.56
HDUC601	6"	660.72
HDUC701	7"	794.59
HDUC801	8"	789.97
HDUC901	9"	942.30
HDUC1001	10"	977.91
HDUC1201	12"	1219.64
HDUC1401	14"	1704.33
HDUC1601	16"	2070.62
HDUC1801	18"	2319.44
HDUC2001	20"	3189.45

### Other ducting available

Material Handling - Ventilation - General Purpose  
 Metal - PVC - Neoprene - Polyester  
 Nylon - Silicone

Send details to sales department

# Thermoplastic Urethane Ducting (TPU)



**TPU** is constructed of a helical wire reinforced thermoplastic urethane that offers excellent abrasion resistance for material handling applications. It's a tough, versatile, lightweight, flexible hose/ducting that can be used in a wide variety of applications, and is offered in black or clear transparent urethane that allows the user to monitor the flow of material. Thickness of material is .030".

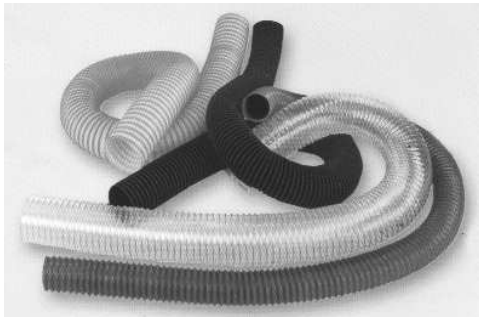
**Service:** Lawn & garden, industrial vacuum, dry bulk material handling, agricultural material handling.

**Colors:** Clear

**Temperature:** -65°F to +200°F

I.D.	Part Number	Weight lbs/ft.	Bend Radius	Burst	W.P.	Compress-ability	Length	Max Neg. Priessure	Price/Ea
2"	HTPU201	.24	1"	50	17	65%	25'	24	452.19
4"	HTPU401	.56	2"	25	8	65%	25'	23	572.25
6"	HTPU601	.94	3"	22	7	65%	25'	9	765.57
8"	HTPU801	1.08	4"	15	5	65%	25'	8	949.56
10"	HTPUX01	1.36	5"	10	3	65%	25'	6	1384.63

# Thermoplastic Rubber Ducting (TPR)



**TPR** features a helical wire reinforced thermoplastic rubber suitable for a wide variety of air handling, fume control, and dust collection applications. It offers good abrasion resistance, superior chemical resistance, excellent ozone and weathering resistance, as well as good resistance to flex fatigue.

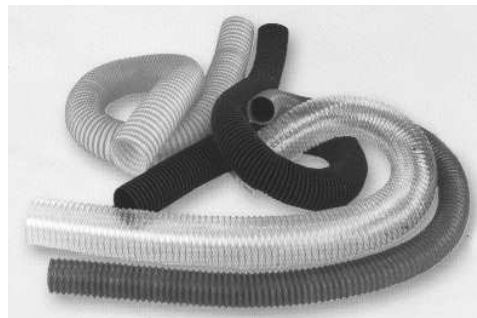
**Service:** Venting systems for chemical fumes, dust collection, exhausting gases, air movement.

**Colors:** Black

**Temperature:** -60°F to +275°F continuous  
+300°F intermittent

I.D.	Part Number	Weight lbs/ft.	Bend Radius	Burst	W.P.	Compress-ability	Length	Max Neg. Pressure	Price/Ea
2"	HTPR201	.22	1"	50	17	65%	25'	24	194.90
4"	HTPR401	.75	2"	32	11	65%	25'	24	367.98
6"	HTPR601	.94	3"	27	9	65%	25'	9	431.91
8"	HTPR801	1.62	4"	25	8	65%	25'	8	553.55
10"	HTPRX01	1.86	5"	22	7	65%	25'	6	707.89

# Thermoplastic PVC Ducting (TPC)



**TPC** consists of a thermoplastic polyvinyl chloride (PVC) material reinforced with a spring steel wire helix. It is an excellent economical choice for industrial applications that require fume removal, ventilation, dust collection, etc.

**Service:** Fume removal, ventilation, dust collection, light material handling, internal cooling and venting of computers.

**Colors:** Blue

**Temperature:** -20°F to +180°F

I.D.	Part Number	Weight lbs/ft.	Bend Radius	Burst	W.P.	Compress-ability	Length	Max Neg. Priessure	Price/Ea
2"	HTPC201	.17	1"	27	9	75%	25'	20	239.65
4"	HTPC401	.40	2"	18	6	75%	25'	14	280.65
6"	HTPC601	.59	3"	17	5.5	75%	25'	8	333.67
8"	HTPC801	.85	4"	15	5	75%	25'	6	449.06
10"	HTPCX01	1.03	5"	10	3	75%	25'	5	575.20

# Cotton/Polyester Ducting (DC)



**DC** is exceptionally reliable and strong. Type DC is designed for air handling, fume control, dust collection, and light material handling applications. It features a double ply of neoprene coated cotton/polyester blend fabric with a helical wire reinforcement.

**Service:** Air handling, fume control, dust collection, and light material handling applications.

**Colors:** Black

**Temperature:** -40°F to +250°F

I.D.	Part Number	Weight lbs/ft.	Bend Radius	Burst	W.P.	Crush Resist (lbs)	Length	Max Neg. Pressure	Price/Ea
2"	HDDC201	.24	.625"	50	12.5	490	25'	18	324.33
3"	HDDC301	.41	.625"	45	11	280	25'	17	371.10
4"	HDDC401	.61	1"	40	10	550	25'	16	413.21
5"	HDDC501	.64	1"	32	9	360	25'	15	472.43
6"	HDDC601	.75	1.5"	28	7	800	25'	14	511.45
7"	HDDC701	1.15	1.75"	24	6	700	25'	13	580.04
8"	HDDC801	1.36	1.75"	20	5	600	25'	12	684.65
10"	HDDCX01	1.64	2"	18	4.5	500	25'	11	813.93
12"	HDDCX21	2.07	2.5"	15	3.75	400	25'	10	983.88

# Hydraulic Hose - SAE100R1AT

Import



**Service:** Exceeds SAE 100R1 specifications  
**Tube:** Oil resistant  
**Cover:** Oil & weather resistant  
**Reinforcement:** Wire Braid  
**Package:** Bale  
**Temperature:** -40° F to 212° F

Inside Diameter	Max O.D.	Part Number	Bend Radius	Working Pressure	Weight lbs/ft	Length	Price/Ft
1/4"	0.56"	HYDR1025	4"	2750	0.16	Random	2.20
3/8"	0.71"	HYDR1038	5"	2250	0.21	Random	2.94
1/2"	0.85"	HYDR1050	7"	2000	0.30	Random	3.89
3/4"	1.13"	HYDR1075	9.6"	1250	0.37	Random	4.85
1"	1.44"	HYDR1100	12"	1000	0.64	Random	6.86

\*See p. 109-113 for couplings



# Hydraulic Hose - SAE100R2AT

## Import



**Service:** Exceeds SAE 100R2 specifications  
**Tube:** Oil resistant  
**Cover:** Oil & weather resistant  
**Reinforcement:** Wire Braid  
**Package:** Bale  
**Temperature:** -40° F to 212° F

Inside Diameter	Max O.D.	Part Number	Bend Radius	Working Pressure	Weight lbs/ft	Length	Price/Ft
1/4"	0.62"	HYDR2025	4"	5000	0.27	Random	2.85
3/8"	0.78"	HYDR2038	5"	4000	0.35	Random	3.88
1/2"	0.91"	HYDR2050	7"	3500	0.45	Random	4.85
3/4"	1.19"	HYDR2075	9.5"	2250	0.64	Random	6.75
1"	1.53"	HYDR2100	12"	2000	0.74	Random	8.76
2"	2.656"	HYDR2200	25"	1125	1.73	Random	21.89

\*See p. 109-113 for couplings

# Hydraulic Hose - SAE100R5

Made in USA



**Service:** Medium pressure hydraulic applications, air, water.  
**Tube:** Nitrile blend  
**Cover:** Black textile braid  
**Reinforcement:** Wire braid  
**Package:** Bale  
**Temperature:** -40°F to +212°F (-40°C to +100°C)

Inside Diameter	Max O.D.	Part Number	Bend Radius	Working Pressure	Weight lbs/ea.	Length	Price/Ft
3/16"	0.520	HYDR5018	3"	3000	0.15	Random	8.40
5/16"	0.680	HYDR5031	4"	2250	0.22	Random	9.54
13/32"	0.770	HYDR5040	4.6"	2000	0.30	Random	10.58
1/2"	0.921	HYDR5050	5.5"	1750	0.37	Random	11.28
5/8"	1.080	HYDR5060	6.5"	1500	0.46	Random	14.27
7/8"	1.240	HYDR5087	7.4"	800	0.48	Random	15.68

\*See p. 108 for couplings

# Hydraulic Hose - R9R

## Import



**Service:** Kelly Hose  
**Tube:** Oil resistant  
**Cover:** Oil & weather resistant  
**Reinforcement:** Spiral wire  
**Package:** Bale  
**Temperature:** -40° F to 212° F

Inside Diameter	Max O.D.	Part Number	Bend Radius	Working Pressure	Weight lbs/c	Length	Price/Ea
2"	2.62"	HYD202	4"	3000	313	50'	2153.98

### Couplings for R9R:

2" Male Stem	Part # 232-132	\$87.66
2" Ferrule	Part # 432-400	\$61.11

# Hydraulic Hose - 4SH

Import



**Service:** Kelly Hose  
**Tube:** Oil resistant  
**Cover:** Oil & weather resistant  
**Reinforcement:** Spiral wire  
**Package:** Bale  
**Temperature:** -40° F to 212° F

UNCOUPLED							
Inside Diameter	Max O.D.	Part Number	Bend Radius	Working Pressure	Weight lbs/c	Length	Price/Ea
2"	2.62"	HYDSP4SH-120	28"	5000	313	120'	4822.34

COUPLED Coupled Male x Male NPT							
Inside Diameter	Max O.D.	Part Number	Bend Radius	Working Pressure	Weight lbs/c	Length	Price/Ea
2"	2.62"	HYDSP4SH-30	28"	5000	313	30'	1475.40
2"	2.62"	HYDSP4SH	28"	5000	313	50'	2206.68

## Couplings for 4SH

2" Male                      Part # HYDSP4SH-C                      Price:\$188.11  
                                     (Ferrule included)

### Grease Whip Hoses



Coupled Male x Male Pipe Solid  
3000 PSI Max. Pressure  
3/16" I.D. Hose - 1/8" M.P.T. Each end

Length	Part #	Price
6"	GH6	11.21
8"	GH8	12.75
10"	GH10	13.86
12"	GH12	16.24
14"	GH14	16.11
16"	GH16	17.29
18"	GH18	19.84
20"	GH20	20.13
24"	GH24	22.48
30"	GH30	24.90
36"	GH36	30.69

## Hose Reels

### Duro Retractable Hose Reels - (Air or Water)

#### Single Reel #1400



**Heavy-duty hose reels** - With automatic rewind for service stations, garage, tire centers or factory.

- Sealed and lubricated motor springs assure longer life. Centrifugally aligned, with built in de-clutching device to protect against backlash, avoiding premature spring failure.
- Independent rotating all brass swivel joints, each with four "O" ring seals.
- Non-sparking positive locking and releasing ratchet, for tension free hose.
- Cast aluminum hose guides with quiet friction free nylon rollers.
- Highest quality hose with standard female fitting for installation. One piece adjustable hose ball stop can be secured any place along the hose length.
- Slotted holes in mounting base for easy installation. Extra large safety axle.
- All materials protected against rust by heavy epoxy coating, cadmium plate, heat treated aluminum, bronze, brass or other conversion coatings.

\* **POR = Price on Request**

#### Double Reel #1500



Lgth	I.D.	Weight/lbs	Part #	Price	Weight/lbs	Part #	Price
20	1/4"	25	1401	POR	51	1501	POR
25	1/4"	27	1402	POR	53	1502	POR
30	1/4"	28	1403	POR	56	1503	POR
35	1/4"	30	1404	POR	60	1504	POR
40	1/4"	34	1405	POR	68	1505	POR
50	1/4"	35	1406	POR	70	1506	POR
20	3/8"	26	1413	POR	52	1513	POR
25	3/8"	30	1414	POR	58	1514	POR
30	3/8"	32	1415	POR	60	1515	POR
35	3/8"	34	1416	POR	70	1516	POR
40	3/8"	35	1417	POR	72	1517T	POR
50	3/8"	40	1418	POR	75	1518T	POR
20	1/2"	37	1419	POR	64	1519	POR
25	1/2"	40	1420	POR	68	1520	POR

#### Utility Reel #2000



#### Compact Utility Reels - 300 psi

- **Machine shops** - Size makes it ideal for mounting on or near machines for cleaning dust or chips
- **Under work bench** - Factory production lines wherever air tools are used. Steps up production, saves time, labor and keeps area uncluttered. Great for market produce watering.

\* **POR = Price on Request**

Model #	Hose Size	Over All Size	Weight	Price
2001	10 feet 1/4"	10 1/2" x 5" x 10 1/2"	10 lbs	POR
2002	15 feet 1/4"	10 1/2" x 5" x 10 1/2"	12 lbs	POR
2003	20 feet 1/4"	10 1/2" x 5" x 10 1/2"	14 lbs	POR
2004	10 feet 3/8"	10 1/2" x 6" x 10 1/2"	14 lbs	POR

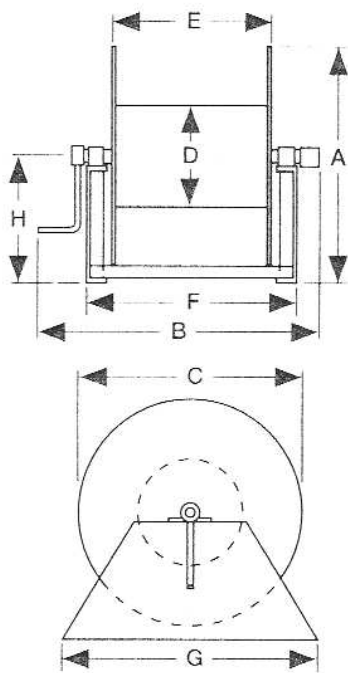
**MADE TO ORDER - ALLOW 7-10 DAYS F.O.B. RENO, NEVADA**

## Hose Reels

### Duro Hose Reels - (Liquid or Gasses)

**Hand rewind** - Direct rewind by side hand crank. Suitable for most liquids or gases. All standard models re-wind clockwise. Furnished in red baked enamel finish. Reel sold without hose. Order hose separately.

#### Hand Re-wind #2900



Model Number	I.D. - O.D. -	1/4" - 5/8"	3/8" - 3/4"	1/2" - 7/8"	3/4" - 1 1/4"	1" - 1 1/2"	Shipping Weight	Price
2901		120'	75'	70'			37 lbs	POR
2902		180'	135'	125'			40 lbs	POR
2903		225'	165'	130'			50 lbs	POR
2904		375'	270'	185'			53 lbs	POR
2905				115'	40'		55 lbs	POR
2906				165'	65'		58 lbs	POR
2907				225'	110'		65 lbs	POR
2908				330'	170'		68 lbs	POR
2909						35'	53 lbs	POR
2910						60'	55 lbs	POR
2911						75'	65 lbs	POR
2912						125'	68 lbs	POR
2913		250'	160'	145'			42 lbs	POR
2914		315'	200'	175'			45 lbs	POR
2915		450'	335'	235'			53 lbs	POR
2916		590'	415'	330'			56 lbs	POR

Model Number	A	B	C	D	E	F	G	H	Inlet Size
2901	15-1/2"	21"	14"	7"	8"	13"	14"	8-1/2"	1/2"
2902	15-1/2"	25"	14"	7"	12"	17"	14"	8-1/2"	1/2"
2903	19-1/4"	21"	18"	7"	8"	13"	16"	10-1/4"	1/2"
2904	19-1/4"	25"	18"	7"	12"	17"	16"	10-1/4"	1/2"
2905	19-1/4"	21"	18"	9"	8"	13"	16"	10-1/4"	3/4"
2906	19-1/4"	25"	18"	9"	12"	17"	16"	10-1/4"	3/4"
2907	25"	21"	24"	9"	8"	13"	19"	13"	3/4"
2908	25"	25"	24"	9"	12"	17"	19"	13"	3/4"
2909	19-1/4"	21"	18"	9"	8"	13"	16"	10-1/4"	1"
2910	19-1/4"	25"	18"	9"	12"	17"	16"	10-1/4"	1"
2911	25"	21"	24"	9"	8"	13"	19"	13"	1"
2912	25"	25"	24"	9"	12"	17"	19"	13"	1"
2913	15-1/2"	29"	14"	7"	16"	21"	14"	8-1/2"	1/2"
2914	15-1/2"	33"	14"	7"	20"	25"	14"	8-1/2"	1/2"
2915	19-1/4"	29"	18"	9"	16"	21"	16"	10-1/4"	1/2"
2916	19-1/4"	33"	18"	9"	20"	25"	16"	10-1/4"	1/2"

#### Twin Welding #1800



#### Single Welding Reel - for bi-line hose

- Hose is held out at any working length tension free, by a non-gravity and non-sparking type locking pawl. A slight tug of the hose releases for automatic rewind.

\* **POR = Price on Request**

Model #	Hose Cap.	Hose I.D.	Weight	Price
1804	25 feet	3/16" or 1/4"	31 lbs	POR
1806	35 feet	3/16" or 1/4"	38 lbs	POR
1808	50 feet	3/16" or 1/4"	43 lbs	POR

**MADE TO ORDER - ALLOW 7-10 DAYS  
F.O.B. RENO, NEVADA**

## SBR CI Sheet



**DURO:** 65 +/- 5%  
**ELONGATION:** 250  
**TENSILE:** 500 PSI

- Plate finish.
- Non-oil resistant.
- Black color.
- Cotton inserted.

Part Number	Gauge	Width	Length Roll Ft.	Weight Roll Lb.	Weight Sq. Yd. Lb.	Weight Linear Ft.	Sq. Yd. Per Roll	Price
RCI1-16-36	1/16"	36"	50	73.31	4.40	1.47	16.67	315.26
RCI1-16-48	1/16"	48"	50	97.75	4.40	1.96	22.22	415.22
RCI1-8-36	1/8"	36"	50	146.65	8.80	2.94	16.67	628.60
RCI1-8-48	1/8"	48"	50	195.53	8.80	3.92	22.22	824.68
RCI3-16-36	3/16"	36"	50	219.50	13.17	4.40	16.67	943.87
RCI3-16-48	3/16"	48"	50	292.66	13.17	5.86	22.22	1,239.91
RCI1-4-36	1/4"	36"	50	292.82	17.57	5.86	16.67	1,259.13
RCI1-4-48	1/4"	48"	50	390.43	17.57	7.80	22.22	1,651.29



## Sheet Rubber & Conveyor Belt

### Neoprene Sheet



**DURO:** 60 +/- 5%  
**TENSILE:** 1000 PSI

- Commercial grade Neoprene.
- Plate finish.
- Good oil and Ozone resistance.

Part Number	Gauge	Width	Length Roll Ft.	Weight Roll Lb.	Weight Sq. Yd. Lb.	Weight Linear Ft.	Sq. Yd. Per Roll	Price
RSN1-16-36	1/16"	36"	50	83.35	5	1.67	16.67	319.11
RSN1-16-48	1/16"	48"	50	111.25	5	2.23	22.22	424.84
RSN1-8-36	1/8"	36"	50	166.71	10	3.33	16.67	636.29
RSN1-8-48	1/8"	48"	50	222.50	10	4.45	22.22	851.60
RSN3-16-36	3/16"	36"	50	250.05	15	5.00	16.67	959.25
RSN3-16-48	3/16"	48"	50	333.78	15	6.68	22.22	1,282.20
RSN1-4-36	1/4"	36"	50	333.41	20	6.67	16.67	1,278.35
RSN1-4-48	1/4"	48"	50	445.03	20	8.90	22.22	1,703.19
RSN3-8-36	3/8"	36"	25	247.45	29.7	9.90	16.67	1,003.46
RSN3-8-48	3/8"	48"	25	330.30	29.7	13.21	22.22	1,337.95
RSN1-2-36	1/2"	36"	25	330.81	39.7	13.23	16.67	1,327.37
RSN1-2-48	1/2"	48"	25	441.56	39.7	17.66	22.22	1,769.51
RSN3-4-36	3/4"	36"	25	497.50	59.7	19.90	16.67	2,006.92
RSN3-4-48	3/4"	48"	25	664.07	59.7	26.56	22.22	2,676.86
RSN10-36	1"	36"	25	661.62	79.4	26.46	16.67	2,480.78
RSN10-48	1"	48"	25	883.12	79.4	35.32	22.22	3,304.50

### Black Corrugated Rubber Matting



**DURO:** 70 +/- 5%  
**TENSILE:** 400 PSI

General purpose matting for use where floor protection is needed.

Part Number	Gauge	Width	Length Roll Ft.	Weight Roll Lb.			Price/Ft
RCRM1-8-36-50	1/8"	36"	50	146.00			9.54
RCRM1-8-48-50	1/8"	48"	50	195.00			12.73

## Skirtboard Rubber - 1000 PSI Tensile

### Skirtboard Rubber - 65 duro - 1000 PSI tensile



Press Cured  
50 ft lengths

**Price is per 50ft roll**

Size	Part #	Weight	Price/Roll
1/4"X4"X50' SKIRTBOARD	RSKR021	31.44	107.00
1/4"X6"X50' SKIRTBOARD	RSKR022	47.16	157.00
1/4"X8"X50' SKIRTBOARD	RSKR023	62.85	212.00
1/4"X10"X50' SKIRTBOARD	RSKR024	78.57	267.00
1/4"X12"X50' SKIRTBOARD	RSKR025	94.29	311.50
1/4"X36"X50'SKIRTBOARD	RSKR027	282.87	945.00
1/4"X48"X50' SKIRTBOARD	RSKR028	377.16	1251.50
3/8"X4"X50' SKIRTBOARD	RSKR041	47.16	159.50
3/8"X6"X50' SKIRTBOARD	RSKR042	70.72	237.00
3/8"X8"X50' SKIRTBOARD	RSKR043	94.29	304.00
3/8"X10"X50' SKIRTBOARD	RSKR044	117.86	389.00
3/8"X12"X50' SKIRTBOARD	RSKR045	141.45	471.00
3/8"X36"X50' SKIRTBOARD	RSKR047	424.17	1408.50
3/8"X48"X50'SKIRTBOARD	RSKR048	565.74	1879.50
1/2"X4"X50' SKIRTBOARD	RSKR051	62.85	207.00
1/2"X6"X50' SKIRTBOARD	RSKR052	94.29	306.50
1/2"X8"X50' SKIRTBOARD	RSKR053	125.73	414.00
1/2"X10"X50' SKIRTBOARD	RSKR054	157.14	518.50
1/2"X12"X50' SKIRTBOARD	RSKR055	188.58	625.50
1/2"X36"X50' SKIRTBOARD	RSKR057	565.74	1879.50
1/2"X48"X50' SKIRTBOARD	RSKR058	754.33	2505.50
3/4"X4"X50' SKIRTBOARD	RSKR071	94.29	299.50
3/4"X6"X50' SKIRTBOARD	RSKR072	141.45	459.00
3/4"X8"X50' SKIRTBOARD	RSKR073	188.58	601.00
3/4"X10"X50' SKIRTBOARD	RSKR074	235.74	755.50
3/4"X12"X50' SKIRTBOARD	RSKR075	282.87	915.00
3/4"X36"X50' SKIRTBOARD	RSKR077	848.62	2744.50
3/4"X48"X50' SKIRTBOARD	RSKR078	1,131.49	3659.50
1"X4"X50' SKIRTBOARD	RSKR101	125.73	404.00
1"X6"X50' SKIRTBOARD	RSKR102	188.58	606.00
1"X8"X50' SKIRTBOARD	RSKR103	251.43	803.00
1"X10"X50' SKIRTBOARD	RSKR104	314.31	967.50
1"X12"X50' SKIRTBOARD	RSKR105	377.16	1214.00
1"X36"X50' SKIRTBOARD	RSKR107	1,131.49	3642.00
1"X48"X50' SKIRTBOARD	RSKR108	1,508.65	4853.50

## Heavy Duty Rubber Conveyor Belt

**CUT EDGE, LESS PLY CONSTRUCTION.** High strength EP (Polyester/Nylon) fabric. Most popular construction for heavy duty conveying of aggregate, sand and gravel, ore, etc. High abrasion resistant covers. Manufactured to RMA-2 specifications. Widths up to 84" available.



Style	Covers	18"	24"	30"	36"	42"	48"	60"
2202	1/8" x 1/16"	<b>Price on Request</b>						
2202	3/16" x 1/16"							
3303	3/16" x 1/16"							
3303	1/4" x 1/16"							
4404	1/4" x 1/16"							

### Belt Winding Cores

Extruded cylinders of graded wood particles compounded with high-strength resins.

Cut with saw to desired width. Use to roll up belt, sheet rubber, skirtboard, etc.



Size	Part #	Price
5" OD x 2.25" Square x 48" long	CORE5	70.00
7" OD x 3.25" Square x 48" long	CORE7	132.00

Style No.	2202	2202	3303	3303	4404
Specifications	2 Ply 200 1/8" x 1/16"	2 Ply 200 3/16" x 1/16"	3 Ply 300 3/16" x 1/16"	3 Ply 300 1/4" x 1/16"	4 Ply 400 1/4" x 1/16"
Overall thickness	5/16"	3/8"	27/64"	15/32"	9/16"
Covers	1/8" x 1/16"	3/16" x 1/16"	3/16" x 1/16"	1/4" x 1/16"	1/8" x 1/16"
Working tension rating per inch	220	220	330	330	440
Approx. weight per per inch foot inch	.166 lbs	.20 lbs	.217 lbs	.25 lbs	.285 lbs
Min. Pulley -- Head	16"	16"	18"	18"	24"
Diameter -- Tail	10"	10"	12"	12"	16"
Compound	NR/SBR	NR/SBR	NR/SBR	NR/SBR	NR/SBR
Lacing / Fastener Recommendation	Flexco Plate # 140	Flexco Plate # 190	Flexco Plate # 190	Flexco Plate # 190	Flexco Plate # 190
	Flexco Hinged # 375 or 550	Flexco Hinged # 375 or 550	Flexco Hinged # 550	Flexco Hinged # 550	Flexco Hinged
	Flexco Rivet # R5	Flexco Rivet # R5	Flexco Rivet # R6	Flexco Rivet # R6	Flexco Rivet # R6

## Potato Conveyor Belt

Excellent for the harvesting, processing and storage conveyors that handle potatoes. Potato belts have two plies of synthetic fabrics with black, abrasion-resistant top and bottom covers. The perfect low-cost solution to this specialty application.

75 lb. x 2 Ply, 1/32" x 1/32" Rubber covers, 3/16" thick. Widths are 30", 36", and 48".

**Price On Request**



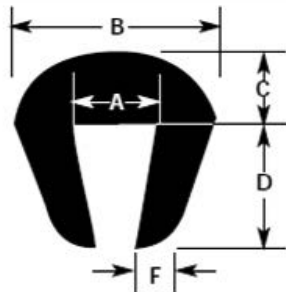
## Crown Bar Rubber

RT and FT sold in 100' lengths.  
FTH sold in 50' lengths only.



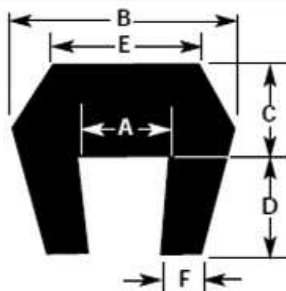
Our crown bar rubber is designed to greatly reduce shock and vibration to the shaker screen and extend the life of the frame end screen. The proprietary blend of rubber is formulated specifically to resist tears, cuts and provides superior weather resistance. Our crown bar channel is used in aggregate yards & mines all over North America, and is available in extra heavy top for even the toughest situations.

Style	Size	Part #	Price
RT	1/4" x 100'	RT025	291.13
	3/8" x 100'	RT038	309.27
	1/2" x 100'	RT050	349.62
FT	1/4" x 100'	FT025	291.13
	3/8" x 100'	FT038	309.27
	1/2" x 100'	FT050	349.62
FTH	1/4" x 50'	FTH025	311.16
	3/8" x 50'	FTH038	307.38
	1/2" x 50'	FTH050	328.18
	3/4" x 50'	FTH075	449.65



RT

Size	Weight	A	B	C	D	E	F
1/4"	.27 lb	1/4"	13/16"	3/8"	3/4"	--	3/16"
3/8"	.23 lb	3/8"	13/16"	11/32"	5/8"	--	3/16"
1/2"	.25 lb	1/2"	1"	5/16"	11/16"	--	3/16"



FT

Size	Weight	A	B	C	D	E	F
1/4"	.26 lb	1/4"	13/16"	3/8"	1/2"	9/16"	3/16"
3/8"	.28 lb	3/8"	7/8"	3/8"	1/2"	9/16"	3/16"
1/2"	.33 lb	1/2"	1 1/16"	3/8"	1/2"	9/16"	3/16"

FTH  
(Heavy)

Size	Weight	A	B	C	D	E
1/4"	.46 lb	1/4"	1 1/8"	1/2"	5/8"	7/8"
3/8"	.47 lb	3/8"	1 1/4"	1/2"	5/8"	7/8"
1/2"	.48 lb	1/2"	1 1/4"	1/2"	3/4"	1"
3/4"	.49 lb	3/4"	1 1/2"	5/8"	3/4"	1 1/8"

## Flexco® Conveyor Belt Fasteners

### Flexco® Bolt Solid Plate Fastener System



Flexco® Bolt Solid Plate fasteners are engineered to meet the demands of the toughest material handling applications, providing a strong sift-free splice and superior holding ability. A choice of sizes accommodates belts from 3/16" (5 mm) to over 15/16" (24 mm) thick.

**High strength** - High strength is the result of superior design and plate compression on both the top and bottom sides of the belt. High tensile strength bolts compress top and bottom plates to distribute splice tension evenly across the entire width of each fastener plate. For added strength and pull-out resistance, specially formed teeth penetrate deep into the belt carcass – without damaging carcass fibers.

**Easy installation** - Field-proven templates, punches, and boring tools make it easy to quickly and accurately prepare belts for fastener installation. Fasteners are easily installed on-site using portable hand tools or power tools. Our exclusive piloted bolts also contribute to faster installation.

#### Market applications

- Sand • Gravel • Crushed stone
- Grain • Coal • Cement • Salt



Fastener Size	For Belts With Mechanical Fastener Ratings Up To:		Belt Thickness Range		Recommended Min. Pulley Diameter (90° Splice)					
					Operating Tension 75-100% of Belt Rating		Operating Tension 50-75% of Belt Rating		Operating Tension Under 50% of Belt Rating	
					in	mm	in	mm	in	mm
140	225	40	3/16 - 7/16	5 - 11	14	360	12	300	10	250
190	330	60	5/16 - 9/16	8 - 14	18	460	16	410	14	360
1-1/2	300	50	7/16 - 11/16	11 - 17	18	460	16	410	14	360
2	440	75	9/16 - 13/16	14 - 21	30	760	28	710	24	610
2*	700*	123*	5/16 - 1-1/4	8 - 32	20	510	20	510	20	510

\*when used with No. 3 Lead Wedlock® pattern  
Belts over 7/8" (22mm) require extra long No. 2-1/4 bolts.



Description	For Fastener Number	Part No.	Price
Punch	1. 140, 190	P1P	80.52
	1-1/2, 2, 2-1/4	P2P	80.52
Power Punch	1, 140, 190	HP1	77.22
	1-1/2, 2, 2-1/4	HP2	77.22
Power Wrench	1, 140, 190	HW1	106.98
	1-1/2, 2, 2-1/4	HW2	98.21



Belt Thickness	Part No.	Price/100
3/16 - 7/16	140C	578.40
5/16 - 9/16	190C	663.70

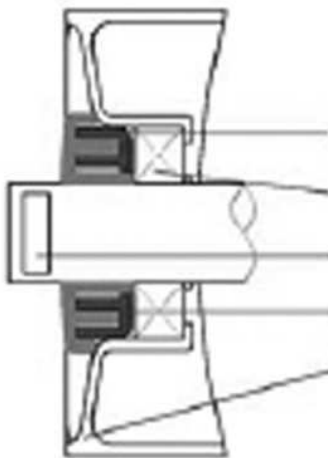
Description	For Fastener Number	Part No.	Price
Bolt Breaker (2 per package)	1. 140, 190	110	98.78



# ICC 4" Type B Idlers



ICC idlers offer an exceptional combination of reliability, quality, and value in an off-the-shelf conveyor idler. Using proven seal and can designs, and heavy-duty frames, these idlers are ideal for medium duty aggregate applications.



- Quadruple horizontal labrynth seal
- Double sealed ball bearing
- Broached solid shaft
- Grease filled clearances protect bearings
- Recessed deep drawn head continuously welded inside shell

## Features

- “Industry preferred” recessed end disk, eliminates roll to end disc separation.
- Grease filled deep labyrinth seal helps eliminate contaminants within the bearing.
- Exterior shield provides a barrier to divert contaminants away from bearing cavity.
- Factory lubricated.
- Precision ground lifetime ball bearings with positive lip contact seals.
- 17mm shaft exceeds Cema C standards.
- Fully complies with Cema idler criteria.
- Ridged, self cleaning, welded steel frame.
- Heavy duty rollers.
- Heavy duty center and end stands.

All ICC idlers come backed with a one year warranty.

## Available Widths

18"	24"
30"	36"
42"	48"

## Other Considerations

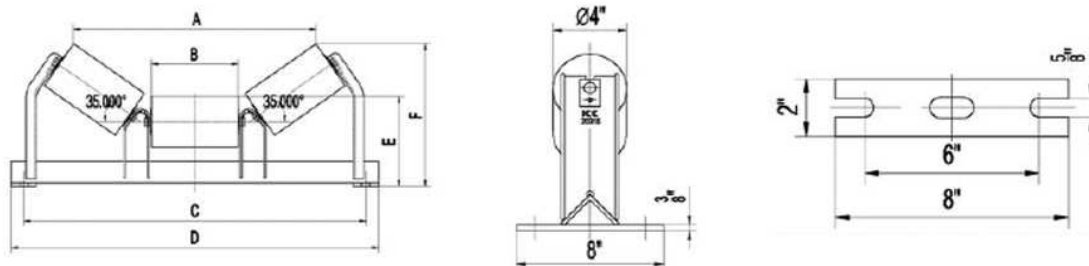
- Low Price Guarantee*
- Minimal Lead Times*
- Off-the-shelf parts*
- Nationwide distribution*
- One Year Replacement Warranty*

## Additional Features

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• “Sealed for Life” design.</li><li>• Labyrinth seal arrangement.</li><li>• Head welded inside shell.</li><li>• Stamped center and end brackets.</li><li>• Precision deep drawn head.</li><li>• Maximum 3/8” roll gap.</li><li>• 17mm 6303 Ball Bearings.</li></ul> | <ul style="list-style-type: none"><li>• Meets CEMA B load ratings.</li><li>• Meets CEMA B dimensional criteria.</li><li>• Broached shaft to add frame stability.</li><li>• Belt widths 24” through 48” (belt width +9” mounting.)</li><li>• 20° and 35° troughing rolls.</li><li>• Return idlers w/drop and riser brackets.</li></ul> |
|---|---|

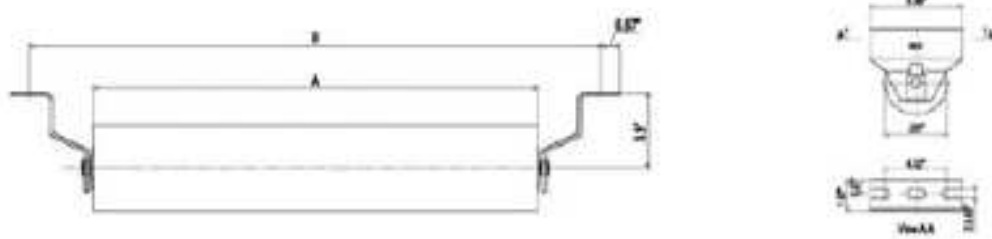
## ICC 4" Type B Idlers

### Troughing Idlers



Belt Width	Idler Number	Deg	Idler Weight	A	B	C	D	E	F	Price
18"	B20-18	20°	29	21.30	6.81	27	29	7.125	9.61	253.18
24"	B20-24	20°	34	27.20	8.86	33	35	7.125	10.31	275.99
30"	B20-30	20°	37	33.19	10.94	39	41	7.125	11.02	295.94
36"	B20-36	20°	44	39.09	13.00	45	47	7.125	11.73	321.57
18"	B35-18	35°	29	21.30	6.81	27	29	7.125	9.61	253.18
24"	B35-24	35°	34	27.20	8.86	33	35	7.125	10.31	275.99
30"	B35-30	35°	37	33.19	10.94	39	41	7.125	11.02	295.94
36"	B35-36	35°	44	39.09	13.00	45	47	7.125	11.73	321.57

### Return Idlers with brackets



Idler Number	Idler Weight	A	B	Price
BR-18	15	21	27	152.43
BR-24	18	27	33	164.98
BR-30	23	33	39	169.38
BR-36	24	39	45	180.63

## ICC 5" Type C Idlers



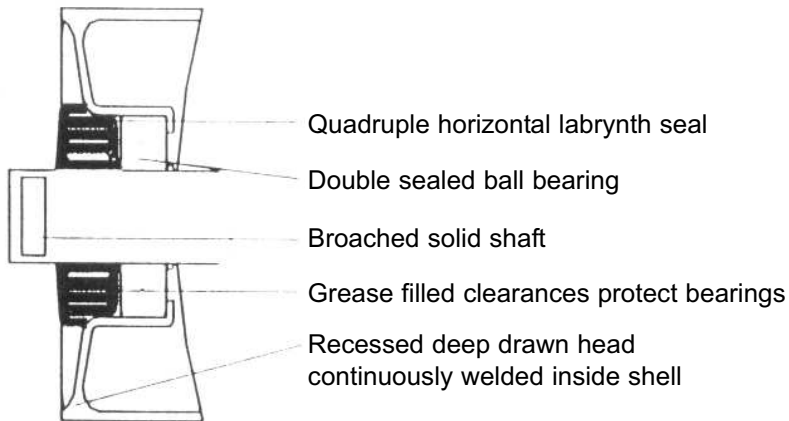
ICC Idlers offer an exceptional combination of reliability, quality, and value in an off-the-shelf conveyor idler. Using proven seal and can designs, and heavy-duty frames, these idlers are ideal for medium duty aggregate applications.

The "Sealed for Life" bearings eliminate the need for any maintenance.

The idlers are also interchangeable with a number of other manufacturer's products (See Table Below).

All ICC idlers come with a standard one-year warranty. With the best pricing in the industry, and off-the-shelf availability, these idlers are ideal for today's competitive environment.

The components are stocked in locations across the country, and are often available for delivery with minimal lead time and freight.



### Features

- Polymeric coating on roll and frames provides superior corrosion protection.
- "Sealed for Life" design.
- Labyrinth seal arrangement.
- Head welded inside shell.
- Stamped center and brackets.
- Precision deep drawn head.
- Maximum 3/8" roll gap.
- 20mm 6304 Ball Bearings with seals on both sides.
- Meets CEMA C load ratings.
- Meets CEMA C dimensional criteria.
- Broached shaft to add frame stability.
- Belt widths 24" through 48" (belt width + 9" mounting).
- 20 deg and 35 deg troughing rolls
- Return idlers

**All ICC idlers come backed with a one year warranty.**

### Available Widths

24"  
30"  
36"  
42"  
48"

### Other Considerations

*Low Price Guarantee*

*Minimal Lead Times*

*Off-the-shelf parts*

*Nationwide distribution*

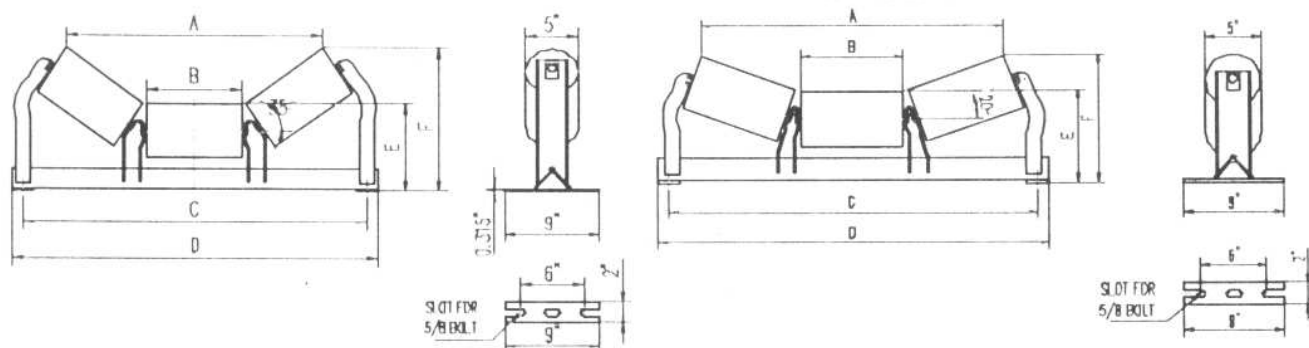
**One Year Replacement Warranty**

Idler Interchangeability	Series
FMC	C2000/C3000
Continental	----
Goodman (Jeffrey)	----
Hewitt-Robins	BC
Rexnord	B+
Stephens-Adamson	4400/4300
Precision	SB
Precismeca (Transall)	PC/C



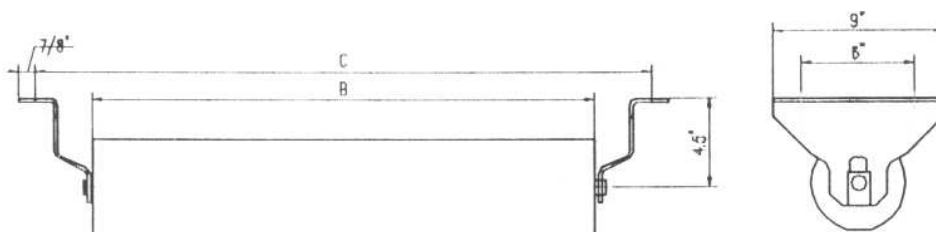
## ICC 5" Type C Idlers

### Troughing Idlers



Belt Width	Idler Number	Deg	Idler Weight	A	B	C	D	E	F	Price
24"	C35-24	35°	46	24 1/2"	9	33	35	8 3/8"	13 1/2"	327.24
30"	C35-30	35°	53	29 7/8"	11	39	41	8 9/16"	15"	355.69
36"	C35-36	35°	58	35 1/8"	13	45	47	8 9/16"	16 1/8"	378.47
42"	C35-42	35°	68	41 3/8"	15	51	53	8 9/16"	17 1/2"	404.06
48"	C35-48	35°	75	52"	17	57	59	8 9/16"	18 3/4"	424.26
24"	C20-24	20°	43	27 1/8"	9	33	35	8 3/8"	11 1/2"	327.24
30"	C20-30	20°	52	32 7/8"	11	39	41	8 9/16"	12 1/2"	355.69
36"	C20-36	20°	57	38 9/16"	13	45	47	8 9/16"	13 1/8"	378.47
42"	C20-42IC	20°	64	45 3/8"	15	51	53	8 9/16"	14"	404.06
48"	C20-48	20°	70	52"	17	57	59	8 9/16"	18 3/4"	424.26

### Return Idlers with brackets



Belt Width	Idler Number	Idler Weight	B	C	Price
24"	CR-24	24	24 7/8"	33	176.33
30"	CR-30	28	32 7/8"	39	190.57
36"	CR-36	32	38 7/8"	45	207.64
42"	CR-42	36	44 7/8"	51	217.37
48"	CR-48	40	50 7/8"	57	233.23

## 763 Reel Payout / Feeder



- Can be used for reels of wire, steel cable, or hose
- Maximum weight limit is 2000 lbs
- No limit on width of reel
- Two independent roller tracks
- Two rollers on each track
- Ramp on each track
- Dimensions: 25" x 7" x 2.5"

Part #	Price
763	POR

## 764 Reel Payout / Feeder



- Can be used for reels of wire, steel cable, or hose
- Maximum weight limit is 1000 lbs
- Hold reels up to 34", 36", or 48" wide
- One roller track
- Two rollers on track
- Ramp on each track
- Dimensions: 25" x 15-45" x 2.5"
- 30-50 lbs

Size	Part #	Price
24"	764-24	POR
36"	764-36	POR
48"	764-48	POR

## Swinging Fire Hose Reel



- Heavy duty construction
- One piece wall bracket (14 gauge) for easy mounting- 180 deg. swing will also take pipe clamps to 3".
- Baked enamel finish (Red only)
- Compact size - smaller reel hub to allow more hose storage.
- Hose is double rolled from center of length, coupled to valve and nozzle.
- Hose is easily removed by pulling towards fire area. Instantly ready for action when completely removed and valve is opened.



Part #	Reel OD	Weight	Hose Capacity		Price
			1 1/2" SJ	2 1/2" SJ	
R15-18	18"	12 lbs	100'		297.14
R15-24	24"	15 lbs	150'	100'	329.93

### Reel Covers

RE18	For 18"	\$59.66
RE24	For 24"	\$67.37

### Packing Tape Gun



**Keeps tape stuck to gun with static electricity! No more flapping tape!**

- Pistol grip heavy duty dispenser for packaging & sealing tape
- Strong, pistol grip dispenser for fast, high volume carton sealing
- Adjustable clutch to accommodate different types of tape
- Takes tapes with 3" core, 50mm wide
- Static strip keeps tape flap stuck to gun

Part #	Price
CPT-GUN	N/A

### Vinyl Pallet Wrap - Clear



- Great for bundling and securing items
- Stretch Wrap clings only to itself - not the objects being wrapped
- Clear stretch vinyl .8 Mil
- 1500' long - 10.5 lb roll
- 18" wide

Part #	Price
WRAP	63.24

### Vinyl Hose Wrap - Black



- Black stretch vinyl .8 Mil
- 1000' long
- 5" wide

Part #	Price
HWRAP	37.25

## Clear Packing Tape



- High quality clear packaging tape, easy tear, strong, water resistant, high tack and easy unwind
- Clear polypropylene - 2" x 110 yard rolls

Qty.	Part #	Price/Ea
1 - 35	CPT-1	9.50
36	CPT-2	9.33

## Cloth Duct Tape



- Gray - UL listed
- Contractor quality
- 2" x 50 yards
- Made in USA

Part #	Price
DUCT	23.79

## Caution Tape



- Highly-visible at distance
- Black lettering on yellow tape
- 1000 ft. rolls

Part #	Price
CTAPE	37.45

## Colored Electric Tape



- 3/4" x 60' spool
- .7 mil thick - 600 volt
- UL listed & approved
- 200% elongation
- 10 roll sleeve
- Available in **black** or **white**.

Part #	Price
464	3.31

*Please specify color when ordering*

## Stainless Steel Pipe Tape



Stainless Steel Pipe tape. This tape is designed to prevent galling or seizing of threads during assembly on stainless steel threads.

1/2" x 260"

Part #	Price
TT-SS	23.99

## Green Oxygen Tape



Green Oxygen tape. Designed for use with oxygenating equipment. It is safe to use and chemically inert and will not support combustion.

1/2" x 260"

Part #	Price
TT-GO	16.80

## Yellow Gas Tape



Yellow Gas tape. Used in gas fittings, this is a full density tape for ferrous and non ferrous gas fittings. This is much thicker than normal white tape.

1/2" x 260"

Part #	Price
TT-YG	8.74

## Pink Industrial Tape



Developed specially for plumbers and pipe fitters! Manufactured to a higher density. Provides an impenetrable barrier to liquids & gases. Suitable for a wide temperature range. Suitable for metal pipes and fittings. Will not string or shred in use. Requires fewer wraps to seal.

1/2" x 540"

Part #	Price
TT-PI	14.25

## White Teflon Tape



Industrial teflon tread sealing tape. Chemically resistant.

Size	Part #	Price
1/2" x 520"	TT-2	2.22
3/4" x 520"	TT-4	3.76
1" x 520"	TT-5	4.67

### Hose Cutter - Handheld



- Easily cuts through PVC, rubber, & vinyl hoses
- Cuts rubber hose and tubing through 2" I.D.
- Cuts PVC pipe through 1-1/4" I.D.
- 2" stainless steel blade

Part #	Price
HCUTTER	62.12

- 2" stainless steel REPLACEMENT blade

Part #	Price
RBLADE	23.78

### Hose Knife



General purpose professional cutting tools. Precision machine-ground cutting edges. With smooth wooden handle, this product won't get hung up on the insulation.

- 1" wide high carbon steel blades
- 6" blade length, with guard

Part #	Price
KNIFE	31.58

### Hose Knife Sheath



Custom-made and designed to accommodate the 6" hose knife. With riveted stress points, this rigid accessory leaves no part of the blade exposed, thus preventing accidental injuries.

- Strong stitched leather
- #6 nickel plated steel rivets

Part #	Price
SHEATH	24.83

## Rubber Tarp Straps (Tie Down)



Make sure your loads are tied down securely with tarp straps.

- Heavy duty 100% EPDM tarp straps
- Plated steel hooks

Size	Part #	Price
10"	TSE1	1.67
15"	TSE2	2.19
21"	TSE3	2.78
31"	TSE4	3.89
41"	TSE5	4.77



## Adjustable Rubber Tarp Straps

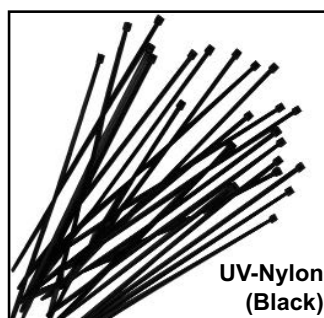


Adjustable tarp straps have 10 heavy reinforced holes every 6" along the strap to hook back into or move the end hook to make it shorter.

- Heavy duty 100% EPDM tarp straps
- Plated steel hooks
- 31" long. One size fits all

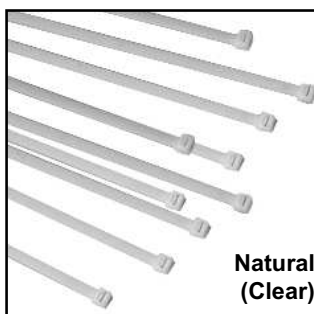
Size	Part #	Price
31"	TSE4U	4.09

## Nylon Cable Ties



Size	Part #	Pcs/Bag	Bags/Case	Price/Bag
7"	CTB7	100	10	13.74
11"	CTB11	100	10	21.04
14"	CTB14	100	10	26.48
24"	CTB24	50	5	53.98
36"	CTB36	50	5	66.57
48"	CTB48	50	5	195.67

- Tough nylon cable ties
- Continuous locking threads let you adjust to the exact length needed
- UV (black) cable ties are ultraviolet resistant for prolonged life



Size	Part #	Pcs/Bag	Bags/Case	Price/Bag
7"	CT7	100	10	11.69
11"	CT11	100	10	19.88
14"	CT14	100	10	21.92
24"	CT24	50	5	51.33
36"	CT36	50	5	63.45
48"	CT48	50	5	174.72

## Tub-O-Towels® Cleaning Towels

Quickly removes tough to clean substances including:

- Lubricants
- Oils
- Permanent Marker
- Inks
- Tar
- Wax
- Caulk
- Sealants
- Paints
- Epoxies
- Heavy Grease



This heavy duty power cleaner remove even the toughest stains!

- 90 count, 10 x 12 sheets for big spills or messes.
- No water necessary.
- Removes stains others won't, including: grease, tar, ink, paint, permanent marker and other hard-to-remove soils.
- Environmentally friendly and gentle on hands.
- Contains lanolin, aloe vera & vitamin E.
- Kills germs.
- More towels than the competition!

Part #	Price/6
TW90	277.78

\*Sold by case of 6 only.

## Free All® Deep Penetrating Oil

**“Free All is MORE than a lubricant because it has special ingredients that actually eat rust!”**

- Penetrates rust, scale and corrosion to free parts and assemblies INSTANTLY!
- Loosens red and white lead, tar, grease, carbon and graphite deposits.
- No more torching, drilling, hammering or chiseling.
- Specially formulated rust eating agent is ideal for plumbing, automotive, marine and general industrial applications.
- Will free up all threaded pipe connections, rusted machine screws, bolts, nuts, clamps for mufflers and tail pipes, pillow blocks, universal joints, locks, etc.
- Contains NO silicones, making it safe in paint and shop environments.

*Check with your carrier for individual shipping guidelines for this product.*



Free All spreads deep into rusted or frozen parts, freeing them in seconds with ease!

You'll find Free All on shelves in auto shops and industrial plant floors. It's been the secret weapon in the toolboxes of mechanics, and other professionals for years.

Professionals, homeowners and other smart folks are using Free All to bring any frozen, rust-covered parts back to life.

Part #	Price/12
RE12	212.42

\*Sold by case of 12 only.

## Lube-It All® Deep Lubricating Oil

- Contains Molybdenumdisulphide for superior lubricating performance!
- Silicone free.
- Forms a thin, dry lubricant coating to reduce friction.
- Displaces 1200 times its volume in water on surfaces and repels moisture to prevent corrosion.
- Does not attract dust.
- Penetrates through fine gaps to deliver coating to assembled parts and obstructed surfaces.
- Can be used on electrical, metal and plastic surfaces, rotating parts and gears.
- Temperature Range: -300°F to 450°F (-184°C to 232°C).

*Check with your carrier for individual shipping guidelines for this product.*



It's simply the best lubricant for protecting parts and machines from corrosion and moisture.

**USE IT EVERYWHERE!**

Perfect for industrial, automotive, marine and household applications!

Part #	Price/12
LA12	204.25

\*Sold by case of 12 only.



## Standard Shoulder Leather Gloves



- Gunn pattern
- Wing thumb
- Rubberized safety cuff

Part #	Price
1160	5.42

## 3 Piece Yellow Rainsuit



- 0.35mm thickness
- PVC / polyester 2-ply
- Jacket with detachable hood
- Bib overall pants with adjustable suspender clips
- Corduroy collar
- Zipper front with storm fly front snaps
- Bib overall with adjustable suspender clips

Sizes available: **S - 5XL**

Part #	Price
1220	35.73

*Please specify size when ordering*

## 2 Piece Yellow Raincoat



- 0.35mm thickness
- PVC / polyester 2-ply
- Coat with detachable hood
- 48" length
- Storm fly front snaps

Sizes available: **S - 5XL**

Part #	Price
1225	25.89

*Please specify size when ordering*

## O-Ring Kit



Contains 407 O-Rings of the most popular sizes

No.	Qty.	No.	Qty.
006	20	211	10
008	20	212	10
009	20	213	10
011	20	214	10
012	20	215	10
014	20	216	10
110	13	217	10
111	13	218	10
112	13	219	10
113	13	220	10
114	13	221	10
115	13	222	10
116	13	223	10
117	13	224	10
118	13	225	10
210	10	226	10

Style: AS-OKN-C (inch)  
 Case: ABS Plastic  
 Color: Red or Blue  
 Material: Buna-N BG (Nitrile 70 Shore)  
 Spec: ASTM D2000 SAE J200

Part #	Price
ORING1	45.11

## Grease Whip Hoses



Coupled Male x Male Pipe Solid  
 3000 PSI Max. Pressure  
 3/16" I.D. Hose - 1/8" M.P.T. each end

Length	Part #	Price
6"	GH6	11.21
8"	GH8	12.75
10"	GH10	13.86
12"	GH12	16.24
14"	GH14	16.11
16"	GH16	17.29
18"	GH18	19.84
20"	GH20	20.13
24"	GH24	22.48
30"	GH30	24.90
36"	GH36	30.69

## solvent information chart

aromatic solvents:	benzene, cumene, p-cumene, naphthalene, toluene, xylene, cresol, styrene, cyclohexane and combinations
alifatic solvents:	propane, butane, pentane, hexane, heptane, dipentene, tripropylene
halogenous solvents:	chloroform, dichlorobenzene, dichloroethylene, methylenbromide, methylene chloride, benzyl chloride, carbon tetrachloride, trichloroethylene, carbon disulphide, turpentine, perchloroethylene, dichloroethane

ketonic solvents:	acetone, methyl ketone, isobutyl ketone, methyl ethyl ketone, methyl isobutyl ketone
esters solvents:	butyl acetate, methyl acetate, anyl acetate, isobutyl acetate
alcohols:	methyl (wood spirits), ethyl, buthyl, anyl, isopropyl, decyl, isobutyl, diacetone, ethyl hexanol
armines:	aniline, ethylene diamine, diethanol amine, triethanolamine, dimethyl amine, monoethanolamine

## chemical resistance chart

Key to chemical guide:	EX = recommended, little or no effect on tube compound, suitable for continuous service
	G = recommended, minor effect on tube compound, may be suitable for continuous service, suitable for intermittent service
	C = questionable, moderate to severe effect on tube, may be suitable for limited applications
	X = not recommended
	I = no data available, but not expected to perform better than rated compounds

**note:** the compatibility guide shown is based at + 21 C (+ 70 F) or room temperature

	epdm	epr	hypalon	natural	nitrile	chloroprene	sbr	viton	cross-linked polyethylene	cpe		epdm	epr	hypalon	natural	nitrile	chloroprene	sbr	viton	cross-linked polyethylene	cpe
acetaldehyde 50%	G	EX	C	G	X	C	C	X	EX	I	calcium acetate	G	EX	G	EX	G	G	X	X	EX	EX
acetic acid, glacial	G	EX	C	G	C	X	G	C	EX	EX	calcium bisulfite	X	X	EX	X	X	EX	X	EX	EX	EX
acetic acid 30%	G	EX	G	G	G	EX	G	G	EX	EX	calcium chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
acetic anhydride	C	G	EX	G	C	G	G	X	EX	EX	calcium hydroxide	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
acetone	G	EX	G	C	X	C	C	X	EX	EX	calcium hypochlorite	G	EX	EX	C	G	C	C	EX	C	EX
acetyl chloride	X	X	X	X	X	X	X	EX	G	EX	calcium nitrate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
acetylene	G	EX	G	G	EX	G	G	EX	EX	I	calcium sulfide	G	EX	EX	G	EX	EX	G	EX	EX	EX
adipic acid	G	EX	I	EX	EX	EX	EX	I	I	I	carbitol	C	G	G	G	G	G	G	G	EX	EX
aluminum acetate	G	EX	EX	EX	G	G	G	X	EX	EX	carbolic acid (phenol)	C	G	X	X	X	C	X	EX	EX	EX
aluminum chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	carbon bisulfide	X	X	X	X	C	X	X	EX	I	C
aluminum fluoride	G	EX	EX	G	EX	EX	EX	EX	EX	I	carbon dioxide	C	G	G	G	EX	G	G	EX	EX	I
aluminum nitrate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	carbonic acid	G	EX	EX	EX	G	EX	G	EX	EX	EX
aluminum sulfate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	carbon monoxide	G	EX	G	G	EX	G	G	EX	EX	I
ammonia anhydrous	G	EX	G	X	G	EX	X	X	EX	EX	carbon tetrachloride	X	X	X	X	C	X	X	EX	EX	X
ammonia gas (cold)	G	EX	EX	EX	EX	EX	EX	X	EX	I	castor oil	C	G	G	EX	EX	EX	EX	EX	EX	EX
ammonia gas (hot)	C	G	G	X	X	G	X	X	EX	I	cellosolve	C	G	X	X	X	X	X	C	EX	I
ammonium carbonate	G	EX	I	EX	X	EX	EX	I	EX	I	cellosolve acetate	C	G	X	X	X	X	X	X	EX	I
ammonium chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	chlorine (dry)	X	X	G	X	X	C	X	EX	C	I
ammonium hydroxide	G	EX	EX	X	X	EX	X	G	EX	EX	chlorine (wet)	X	C	C	X	X	C	X	EX	C	I
ammonium nitrate	G	EX	EX	C	EX	EX	G	I	EX	I	chlorine dioxide	X	C	C	X	X	X	X	EX	I	I
ammonium nitrile	G	EX	EX	EX	EX	EX	EX	I	EX	I	chloroacetone	G	EX	C	X	X	C	X	X	EX	X
ammonium phosphate	G	EX	EX	EX	EX	EX	EX	I	EX	EX	chloroacetic acid	G	EX	EX	X	X	X	X	C	EX	I
ammonium sulfate	G	EX	EX	EX	EX	EX	EX	X	EX	EX	chlorobenzene	X	X	X	X	X	X	X	EX	EX	X
amyl acetate	X	C	X	X	X	X	X	X	EX	C	chlorobutadiene	X	X	X	X	X	X	X	EX	EX	I
amyl alcohol	G	EX	EX	G	G	G	G	G	EX	EX	chloroform	X	X	X	X	X	X	X	EX	G	X
aniline	G	EX	C	X	X	X	X	C	EX	G	chlorotoluene	X	X	X	X	X	X	X	EX	G	X
aniline dyes	G	EX	G	G	X	G	G	G	EX	G	chrome plating solutions	C	G	X	X	X	X	X	EX	I	I
aniline hydrochloride	C	G	X	G	G	X	X	G	EX	I	chromic acid	G	EX	G	X	X	C	X	EX	EX	EX
animal fats	C	G	G	X	EX	G	X	EX	EX	EX	citric acid	G	EX	EX	EX	EX	EX	EX	EX	EX	I
aqua regia	X	C	EX	X	X	X	X	G	X	G	cobalt	G	EX	EX	EX	EX	EX	EX	EX	EX	I
arsenic acid	G	EX	EX	G	EX	EX	EX	EX	EX	EX	coconut oil	X	C	C	X	EX	G	X	EX	EX	I
arsenic trichloride	X	C	I	X	EX	EX	I	I	X	I	cod liver oil	G	EX	G	X	EX	G	X	EX	EX	I
asphalt	I	X	G	X	G	G	X	EX	X	I	coke oven gas	X	X	C	X	X	X	X	EX	EX	I
barium chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	copper acetate	G	EX	G	EX	G	G	X	EX	I	I
barium sulfate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	copper chloride	G	EX	G	EX	EX	G	EX	EX	EX	G
barium sulfide	G	EX	EX	EX	EX	EX	G	EX	EX	EX	copper cyanide	G	EX	EX	EX	EX	EX	EX	EX	EX	I
beer	G	EX	EX	EX	EX	EX	EX	EX	I	EX	copper sulfate	G	EX	EX	G	EX	EX	G	EX	EX	EX
benzene	X	X	X	X	X	X	X	EX	EX	X	corn oil	X	C	G	X	EX	C	X	EX	EX	G
benzyl alcohol	G	EX	G	X	X	G	X	EX	EX	I	cottonseed oil	C	G	G	X	EX	G	X	EX	EX	G
benzyl benzoate	C	G	X	X	X	X	X	X	EX	I	creosote (coal tar)	X	X	X	X	EX	G	X	EX	EX	I
benzyl chloride	X	X	X	X	X	X	X	EX	EX	X	cresol	X	X	X	X	X	C	X	EX	EX	EX
benzoic acid	X	C	X	X	C	X	X	EX	EX	EX	creylic acid	X	X	X	X	X	C	X	EX	EX	I
bordeaux mixture	G	EX	EX	G	G	G	G	EX	EX	I	cumene	X	X	X	X	X	X	X	EX	EX	C
boric acid	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	cyclohexane	X	X	X	X	EX	C	X	EX	EX	EX
brine	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	cyclohexanol	X	C	G	X	C	EX	X	EX	EX	EX
bromine-anhydrous	X	X	X	X	X	X	X	EX	X	I	cyclohexanone	G	G	X	X	X	X	X	X	EX	G
bromine trifluoride	X	X	X	X	X	X	X	X	X	I	p-cymene	X	X	X	X	X	X	X	EX	EX	X
bromine water	G	G	EX	X	X	X	X	EX	X	I	decalin	X	X	X	X	X	X	X	EX	EX	X
bromotoluene	X	X	X	X	X	X	X	EX	C	X	denatured alcohol	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
bunker oil	X	X	X	X	EX	X	X	EX	EX	I	detergent solution non-										
butadiene	X	C	C	X	X	X	X	EX	EX	I	hydrocarbon	G	EXCV	G	G	EX	G	G	EX	EX	G
butane	X	X	G	X	EX	EX	X	EX	EX	G	diacetone	G	EX	X	X	X	X	X	X	EX	I
butter	G	EX	G	X	EX	G	X	EX	EX	G	diacetone alcohol	G	EX	G	X	X	G	X	X	EX	EX
butyl acetate	X	C	X	X	X	X	X	X	EX	G	dibenzyl ether	C	G	X	X	X	C	X	X	EX	C
butyl alcohol	C	G	EX	EX	EX	EX	EX	EX	EX	EX	dibutyl amine	G	EX	X	X	X	X	X	X	EX	EX
butyl amine	G	EX	X	X	C	X	X	X	I	G	dibutyl ether	X	C	X	X	X	C	X	C	EX	EX
butyl benzoate	C	G	X	C	X	X	G	EX	EX	I	dibutyl phthalate	C	G	X	X	X	X	C	EX	C	C
butyl cellosolve	G	EX	G	X	C	C	X	X	EX	EX	dibutyl sebecate	C	G	X	X	X	X	G	EX	G	G
butyl stearate	X	C	X	X	G	X	X	EX	EX	G	dichlorobenzene	X	X	X	X	X	X	X	EX	EX	X
butyraldehyde	C	G	X	X	X	C	X	X	EX	G	dichloro-isopropyl ether	X	C	C	X	X	X	C	EX	X	X

	epdm	ep	hypalon	natural	nitrile	chloroprene	sbr	viton	cross-linked polyethylene	cpe		epdm	ep	hypalon	natural	nitrile	chloroprene	sbr	viton	cross-linked polyethylene	cpe
diesel oil	X	X	C	X	EX	C	X	EX	EX	I	isopropyl acetate	C	G	X	X	X	X	X	X	EX	I
diethylamine	G	EX	C	G	G	G	G	X	EX	G	isopropyl alcohol	G	EX	EX	EX	G	G	G	EX	EX	EX
diethylamine benzene	X	X	X	X	X	X	X	EX	EX	X	isopropyl chloride	X	X	X	X	X	X	X	EX	EX	I
diethyl ether	X	X	C	X	X	C	X	X	EX	EX	isopropyl ether	X	X	C	X	G	C	X	X	EX	I
diethylene glycol	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	kerosene	X	X	C	X	EX	G	X	EX	EX	EX
diethyl sebacate	C	G	G	X	G	X	X	G	EX	G	lactic acid (cold)	G	EX	EX	EX	EX	EX	EX	EX	EX	I
diisobutylene	G	EX	X	X	G	X	X	EX	EX	I	lactic acid (hot)	G	EX	EX	X	X	X	X	EX	EX	I
diisopropyl benzene	X	X	X	X	X	X	X	EX	EX	I	lard	C	G	X	X	EX	G	X	EX	EX	EX
diisopropyl ketone	G	EX	X	X	X	X	X	X	EX	I	lavender oil	X	X	X	X	G	X	X	EX	G	I
dimethyl formamide	G	EX	X	X	G	C	X	X	EX	I	lead acetate	G	EX	X	EX	G	EX	X	X	EX	EX
dimethyl phthalata	G	EX	X	X	X	X	X	G	EX	EX	lead nitrate	G	EX	EX	EX	EX	EX	EX	I	EX	EX
dinitrotoluene	X	X	X	X	X	X	X	EX	EX	X	lead sulfamate	G	EX	EX	G	G	EX	G	EX	EX	I
dioctyl phthalata	C	G	X	X	C	X	X	G	EX	C	linseed oil	X	C	G	X	EX	G	X	EX	EX	EX
dioctyl sebacate	C	G	X	X	X	X	X	G	EX	X	liquefied petroleum gas	X	X	G	X	EX	G	X	EX	EX	G
dipentene	X	X	X	X	G	X	X	EX	EX	G	lubricating oils (petroleum)	X	X	G	X	EX	G	X	EX	EX	EX
diphenyl (phenylbenzene)	X	X	X	X	X	X	X	EX	EX	I	lye	G	EX	EX	G	G	G	G	I	EX	EX
dowtherm oil	X	X	X	X	X	X	X	EX	EX	C	magnesium chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
dry cleaning fluids	X	X	X	X	C	X	X	EX	I	I	magnesium hydroxide	G	EX	EX	G	G	EX	G	EX	EX	EX
ethane	X	X	G	X	EX	G	X	EX	EX	I	magnesium sulfate	G	EX	EX	G	EX	EX	G	EX	EX	EX
ethanolamine	G	EX	C	G	G	G	G	X	EX	EX	maleic acid	G	EX	X	C	X	C	C	EX	G	I
ethyl acetate	G	EX	X	X	X	C	X	X	EX	G	maleic anhydride	C	G	EX	C	X	C	C	X	I	I
ethyl acetoacetate	G	EX	X	C	X	C	C	X	EX	EX	malic acid	G	EX	G	C	EX	C	C	EX	I	I
ethyl alcohol	G	EX	EX	EX	EX	EX	EX	C	EX	EX	mercury	C	G	EX	C	X	C	C	X	I	I
ethyl benzene	X	X	X	X	X	X	X	EX	EX	X	mesityl oxide	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
ethyl benzoate	G	EX	X	EX	X	X	EX	EX	G	X	methane	C	G	X	X	X	X	X	X	EX	G
ethyl cellulose	C	G	G	G	G	G	G	X	EX	I	methyl acetate	X	X	G	X	EX	G	X	G	EX	G
ethyl chloride	X	C	X	X	EX	X	X	EX	EX	I	methyl alcohol	G	EX	X	C	X	G	C	X	EX	EX
ethyl ether	X	C	X	X	C	C	X	X	EX	EX	methyl bromide	C	G	EX	X	G	X	EX	EX	I	I
ethyl formate	C	G	G	X	X	G	X	EX	EX	EX	methyl butyl ketone (propyl acetone)	G	EX	X	X	X	X	X	EX	I	I
ethyl pentachlorobenzene	X	X	X	X	X	X	X	EX	X	X	methyl cellosolve	C	G	G	X	G	G	X	X	EX	EX
ethyl silicate	G	EX	G	G	EX	EX	G	EX	EX	EX	methyl chloride	X	C	X	X	X	X	X	EX	G	X
ethylene	C	G	C	EX	C	C	EX	I	I	I	methyl ethyl ketone (mek)	C	EX	X	X	X	C	X	X	EX	G
ethylene chloride	X	C	X	X	X	X	X	EX	EX	I	methyl isobutyl ketone	C	G	X	X	X	X	X	X	EX	G
ethylene chlorohydrin	C	G	G	G	X	G	G	EX	EX	I	methyl oleate	C	G	X	X	X	X	X	G	EX	I
ethylene diamine	G	EX	G	EX	EX	G	X	EX	G	C	milk	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
ethylene dichloride	X	C	X	X	X	X	X	EX	EX	C	mineral oil	X	C	G	X	EX	G	X	EX	EX	EX
ethylene glycol	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	monochlorobenzene	X	X	X	X	X	X	X	EX	G	I
ethylene trichloride	X	C	X	X	X	X	X	EX	EX	I	monoethanolamine	G	EX	X	G	X	X	G	X	EX	I
fatty acids	X	C	G	X	G	G	X	EX	EX	G	monomethylether	X	X	G	X	EX	C	X	EX	I	G
ferric chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	monovinyl acetylene	G	G	G	G	EX	G	G	EX	I	G
ferric nitrate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	naphtha	X	X	X	X	G	C	X	EX	EX	EX
ferric sulfate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	naphthalene	X	X	X	X	X	X	X	EX	EX	EX
fish oil	X	X	I	X	EX	X	X	EX	EX	I	naphthenic acid	X	X	X	X	G	X	X	EX	EX	EX
fluoroboric acid	G	EX	EX	EX	EX	EX	EX	I	EX	EX	natural gas	X	X	EX	G	EX	EX	G	EX	EX	EX
fluorobenzene	X	X	I	X	X	X	X	EX	EX	I	nickel acetate	G	EX	X	EX	G	G	X	X	EX	I
fluorolube	G	EX	EX	G	EX	G	C	G	I	I	nickel chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
fluosilic acid	C	G	EX	G	EX	G	C	EX	G	EX	nickel sulfate	G	EX	EX	G	EX	EX	G	EX	EX	EX
formaldehyde	G	EX	EX	G	C	G	G	X	EX	EX	nitric acid-conc.	G	EX	G	X	X	X	X	C	G	X
formic acid	G	EX	EX	G	G	EX	EX	C	G	EX	nitric acid-dilute	G	EX	EX	X	X	G	X	EX	EX	EX
freon 12	C	G	EX	G	EX	EX	EX	G	EX	EX	nitrobenzene	G	EX	X	X	X	X	X	G	EX	C
freon 13	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	nitroethane	C	G	G	G	X	C	G	X	EX	EX
freon 21	X	X	X	X	EX	X	X	EX	X	EX	nitromethane	C	G	C	G	X	G	G	X	EX	I
freon 22	G	EX	EX	G	EX	EX	EX	X	EX	EX	nitrogen	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
freon 114	G	EX	EX	EX	EX	EX	EX	G	EX	I	octachlorotoluene	X	X	X	X	X	X	X	EX	I	X
fuel oil	X	X	G	X	EX	G	X	EX	EX	EX	octyl alcohol	X	C	G	G	G	EX	G	EX	EX	EX
furfural	G	EX	C	X	X	C	X	X	EX	EX	oleic acid	X	X	C	X	C	X	G	EX	EX	EX
gallic acid	G	EX	G	EX	G	G	G	EX	EX	I	oleum	G	EX	G	X	G	C	X	EX	I	I
gasoline	X	X	C	X	EX	C	X	EX	EX	G	olive oil	C	G	G	X	EX	G	X	EX	EX	G
gelatine	G	EX	EX	EX	EX	EX	EX	EX	EX	I	o-dichlorobenzene	X	X	X	X	X	X	X	EX	I	X
glucose	G	EX	EX	EX	EX	EX	EX	EX	EX	I	oxalic acid	G	EX	G	G	G	G	G	EX	EX	EX
glue	G	EX	EX	G	EX	EX	G	EX	EX	EX	oxygen-cold	G	EX	EX	G	G	EX	G	EX	EX	EX
glycerine	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	ozone	G	EX	EX	X	X	C	X	EX	EX	EX
glycols	G	EX	EX	EX	EX	EX	EX	EX	EX	EX	palmitic acid	C	G	C	G	EX	G	G	EX	G	EX
green sulfate liquor	G	EX	G	G	G	G	G	EX	EX	G	peanut oil	X	C	G	X	EX	C	X	EX	EX	EX
hexane	X	X	G	X	EX	G	X	EX	G	G	perchloric acid	C	G	G	X	X	G	X	EX	EX	I
helix alcohol	X	C	G	G	EX	G	G	EX	EX	EX	perchloroethylene	X	X	X	X	G	X	X	EX	EX	X
hydraulic oil (petroleum)	X	X	G	X	EX	G	X	EX	EX	EX	petroleum	X	X	G	X	EX	G	X	EX	EX	EX
hydrobromic acid	G	EX	EX	EX	X	X	X	EX	EX	EX	phenol (carbolic acid)	G	EX	G	X	X	C	I	EX	EX	EX
hydrobromic acid (hot) 37%	X	C	X	X	X	X	X	G	EX	I	phenylbenzene	X	X	X	X	X	X	X	EX	I	X
hydrochloric acid (cold) 37%	G	EX	EX	G	C	G	G	EX	EX	EX	phenyl hydrazine	C	G	X	EX	X	X	G	EX	EX	X
hydrocyanic acid	G	EX	EX	G	G	G	G	EX	C	I	phorone	X	C	X	X	X	X	X	X	EX	I
hydrofluoric acid (conc.) hot	G	EX	C	X	X	X	X	C	EX	I	phosphoric acid-20%	G	EX	EX	G	G	G	G	EX	EX	EX
hydrofluoric acid (conc.) cold	G	EX	EX	X	X	X	X	EX	EX	EX	phosphoric acid-80%	G	EX	G	C	X	G	C	EX	EX	EX
hydrofluoric acid - anhydrous	G	EX	EX	X	X	X	X	EX	EX	EX	phosphorus trichloride	G	EX	X	X	X	X	X	EX	I	X
hydrofluosilic acid	C	G	EX	G	EX	G	C	EX	I	EX	picric acid	G	EX	G	G	G	EX	G	EX	EX	G
hydrogen gas	G	EX	EX	G	EX	EX	EX	EX	EX	EX	pine oil	X	X	X	X	EX	X	X	EX	EX	EX
iodine	X	X	EX	X	X	X	X	X	EX	EX	polyvinyl acetate emulsion	G	EX	G	G	I	G	X	EX	I	I
isobutyl alcohol	G	EX	EX	EX	G	EX	G	EX	EX	EX	potassium acetate	G	EX	EX	EX	G	G	X	X	EX	EX
isooctane	X	X	G	X	EX	G	X	EX	EX	G	potassium chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
											potassium cupro cyanide	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX

# Chem. Resistance Chart

	epdm	epr	hypalon	natural	nitrile	chloroprene	sbr	viton	cross-linked polyethylene	cpe
potassium cyanide	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
potassium dichromate	G	EX	EX	G	EX	EX	G	EX	G	EX
potassium hydroxide	G	EX	EX	G	G	G	G	X	EX	EX
potassium nitrate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
potassium sulfate	G	EX	G	G	EX	EX	EX	EX	EX	EX
propane	X	X	G	X	EX	G	X	EX	EX	G
propyl acetate	C	G	X	X	X	X	X	X	EX	G
propyl alcohol	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
propyl nitrate	G	EX	G	X	X	X	X	X	EX	G
propylene	X	X	X	X	X	X	X	EX	EX	EX
pyranol (transformer oil)	X	X	C	X	EX	G	X	EX	EX	EX
pyridine	G	EX	G	X	X	X	X	X	EX	I
sal ammoniac	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
salicylic acid	G	EX	EX	EX	G	EX	G	EX	EX	EX
salt water	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
sewage	G	G	EX	G	EX	G	G	EX	EX	EX
silicone greases	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
silicone oils	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
silver nitrate	G	EX	EX	EX	G	EX	EX	EX	EX	EX
skydrol 500	G	EX	X	X	X	X	X	X	EX	G
skydrol 7000	G	EX	X	X	X	X	X	G	EX	G
soap solutions	G	EX	EX	G	EX	G	EX	EX	EX	EX
soda ash	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
sodium acetate	G	EX	EX	EX	G	G	X	X	EX	EX
sodium bicarbonate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
sodium bisulfite	G	EX	EX	EX	EX	EX	G	EX	EX	EX
sodium borate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
sodium chloride (brine)	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
sodium cyanide	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
sodium hydroxide	G	EX	EX	EX	G	EX	EX	G	EX	EX
sodium hypochlorite	C	G	EX	X	G	EX	X	EX	G	EX
sodium metaphosphate	G	EX	G	EX	EX	G	EX	EX	EX	EX
sodium nitrate	G	EX	EX	G	G	G	EX	I	EX	EX
sodium perborate	G	EX	G	G	G	G	G	EX	EX	I
sodium peroxide	G	EX	G	G	G	G	G	EX	EX	G
sodium phosphate	G	EX	EX	EX	EX	G	EX	EX	EX	EX
sodium silicate	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
sodium sulfate	G	EX	EX	G	EX	EX	G	EX	EX	EX
sodium thiosulfate	G	EX	EX	G	G	EX	G	EX	EX	EX
soybean oil	X	C	C	X	EX	G	X	EX	EX	I
stannic chloride	G	EX	EX	EX	EX	G	EX	EX	EX	EX
steam	G	EX	X	X	X	C	X	X	X	X
stearic acid	G	G	G	G	G	G	G	I	EX	EX
styrene	X	X	X	X	X	X	X	G	G	C
sucrose solution	G	EX	G	EX	EX	G	EX	EX	EX	EX
sulfur	G	EX	EX	X	X	EX	X	EX	EX	I
sulfur chloride	X	X	G	X	C	C	X	EX	EX	I
sulfur dioxide	G	EX	G	G	X	X	G	EX	EX	I
sulfuric trioxide	C	G	X	G	X	X	G	EX	G	X
sulfuric acid 10%	G	EX	EX	C	C	G	C	EX	EX	EX
sulfuric acid 10-75%	G	EX	C	X	X	X	X	EX	EX	X
sulfurous acid	G	EX	EX	G	G	G	G	EX	EX	EX
tannic acid	G	EX	EX	EX	EX	EX	G	EX	EX	EX
tar bituminous	X	C	X	X	G	C	X	EX	I	I
tartaric acid	C	G	EX	C	EX	G	X	EX	EX	EX
terpineol	X	C	X	X	G	X	X	EX	G	EX
tertiary butyl alcohol	C	G	G	G	G	G	G	EX	EX	G
tetrachloroethylene	X	X	X	X	X	X	X	EX	EX	C
tetraethyl lead	X	X	X	X	G	G	X	EX	I	I
toluene	X	X	X	X	X	X	X	EX	EX	C
transformer oil	X	X	C	X	EX	G	X	EX	EX	EX
transmission fluid -A-	X	X	G	X	EX	G	X	EX	EX	EX
trichloroethane	X	X	X	X	X	X	X	EX	EX	C
trichloroacetic acid	C	G	X	C	G	X	G	C	EX	I
trichloroethylene	X	X	X	X	X	X	X	EX	EX	X
tricresyl phosphate	X	X	X	X	X	X	C	EX	EX	EX
triethanol amine	G	EX	G	G	G	EX	G	X	EX	EX
trinitrotoluene	X	X	G	X	X	G	X	EX	EX	G
turbine oil	X	X	X	X	G	X	X	EX	EX	I
turpentine	X	X	X	X	EX	X	X	EX	EX	I
vegetable oils	X	C	G	X	EX	C	X	EX	EX	EX
vinegar	G	EX	EX	G	G	G	G	EX	EX	EX
vinyl chloride	X	X	X	X	X	X	X	EX	EX	C
water	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
whiskey, wines	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
white oil	X	X	X	X	EX	G	X	EX	EX	EX
wood oil	X	X	C	X	EX	G	X	EX	EX	EX
xylene	X	X	X	X	X	X	X	EX	EX	C
zinc chloride	G	EX	EX	EX	EX	EX	EX	EX	EX	EX
zinc sulfate	G	EX	EX	G	EX	EX	G	EX	EX	EX

# Composite Hose Chem. Resistance Chart

PP			PP			PP		
	25C	70C		25C	70C		25C	70C
Acrylic acid inhibited	A	B	Benzyl chloride	A		Chlorinated solvents	C	C
Acrylic nitrile	B	C	Biphenyl	C	C	Chlorinated water	C	C
Acrylonitrile	B	C	Bismuth carbonate	A		Chlorinated water, 25%	C	C
Adipic acid	B	B	Bitter almonds oil	A	B	Chlorine	C	C
Air	A	A	Bitumen	A	A	Chlorine	C	C
Alabaster	A	A	Bleach water, 20%	B	C	Chlorine dioxide	B	C
Aliphatic hydrocarbons	A	A	Bleach water, 25%	B	C	Chlorine peroxide	C	
Aliphatic solvents	C	C	Borax	A	A	Chloroacetic acid solution	B	C
Alkylbenzene	B	C	Boric acid	A	A	Chlorobenzene	A	B
Allyl alcohol	A	A	Borofluoric acid	A	B	Chlorobromomethane	C	
Allyl chloride	C	C	Borofluoro hydride	A	B	Chloroethanol	A	
Allyl metacrylate	C	C	Brake fluid	C	C	Chloroform	B	C
Alumina acetate	A	A	Brine	A	A	Chloromethane	C	C
Aluminium chlorate	A		Bromine	C	C	1-Chloropentane	C	C
Aluminium chloride	A	A	Bromium water	C	C	2-Chloropentane	C	C
Aluminium fluoride	A	A	Bromochloromethane	A		Chlorosulphonic acid	C	C
Aluminium hydrate	A	A	Bromochloropropane	A		Chromic acid, solution < 30%	C	C
Aluminium hydroxide	A	A	Butadiene monomer	B		Chromic acid, solution > 30%	C	C
Aluminium nitrate	A	A	Butane	A		Chromium alum	A	A
Aluminium phosphate	A		1,4-Butanediol	A	A	Cider	A	
Aluminium sulphate	A	A	Butanediol	A	A	Citric acid	A	B
Alums	A	A	Butanol	A	B	Cocoa butter	A	
Aminoacetic acid	A		Butanone	B		Coconut oil	A	
Aminobenzene	B	C	2-Butoxyethanol	A	A	Cod liver oil	A	B
Aminodiethyl	A	B	Butyl acetate	C	C	Copper (II) chloride	A	A
Aminoethanol	A	A	Butyl alcohol	A	B	Copper (II) cyanide	A	A
Ammonia, anhydrous	A	B	Butyl chloride	B		Copper (III) chloride	A	
Ammonia, solution 10%	A	B	Butyl ether	A		Copper acetate	A	
Ammonia, solution 35%	A	A	Butyl metacrylate	C	C	Copper carbonate	A	
Ammonium acetate	A	B	Butyl phthalate	B	C	Copper chloride	A	A
Ammonium carbonate	A	A	Butylacetic ether	C	C	Copper fluoride	A	B
Ammonium chloride	A	B	n-Butylamine	B	C	Copper nitrate	A	B
Ammonium fluoride	A	A	Butylbenzene phthalate	B	B	Copper sulphate	A	A
Ammonium hydroxide, 10%	A	B	Butylcarbitol	A	A	Copper vitriol	A	A
Ammonium hydroxide, 35%	A	A	Butyleneglycol	A	A	Cotton oil	A	
Ammonium metabisulphite	A		Butylglycol	A	A	Creosote oil	C	
Ammonium metaphosphate	A	A	Butylphenol	A		o-Cresol	C	C
Ammonium nitrate	A	A	Butyric acid	B		Cresols (m-,p-)	C	C
Ammonium oxalate	A		Calcium acetate	A	B	Cryolite, 10%	A	A
Ammonium persulphate	A		Calcium carbonate	A	A	Culin lard	B	
Ammonium phosphate	A	A	Calcium chlorate	A	A	Cumene	A	
Ammonium pyrosulphate	A		Calcium chloride	A	A	Cyclohexane	C	C
Ammonium sulphate	A	A	Calcium chromate	A	A	Cyclohexanol	A	B
Ammonium sulphide	A	A	Calcium dichromate	A		Cyclohexanone	B	C
Ammonium sulphite	A		Calcium fluoride	A	A	DBP	B	C
Ammonium thisulphate	A		Calcium hydroxide	A	A	Developing bath (photo)	A	
Amyl acetate	B	C	Calcium hypochlorite	A		Dextrin	A	A
Amyl alcohol	A	A	Calcium hypochlorite, 25%	A		Dextrose	A	A
Amyl chloride	C	C	Calcium hypochlorite, dry	A		Diacetic ether	B	C
Amyl phthalate	B	C	Calcium metabisulphite	A	A	Diacetone alcohol	A	A
Amylamines	B	C	Calcium nitrate	A	A	Diamyl phthalate	B	C
Aniline	B		Calcium oxide	A		Dibenzyl ether	A	
Aniline colouring	B		Calcium phosphate	A		Dibutyl ether	A	
Anisole	B		Calcium pyrophosphate	A		Dibutyl phthalate	B	C
Antifreeze (glycols based)	A	A	Calcium pyrosulphate	A		Dibutylketone	A	
Antimony chloride	A	B	Calcium sulphate	A	A	Dichloride sulfur	B	C
Argon	A	A	Calcium sulphide	A	A	Dichlorobutane	C	
Aromatic hydrocarbons	A	A	Calcium sulphite	A		Dichlorodifluoromethane	B	
Arsenic acid liquid	A	C	Calcium thiosulphate	A		Dichloroethane	C	C
Asphalt	A	A	Carbinol	A	B	Dichloroisopropyl ether	B	
ASTM1 oil	A		Carbitol	A	A	Dichloromethane	C	C
ASTM2 oil	A		Carbolic acid	A	C	Diesel fuel	A	
ASTM3 oil	A		Carbon dioxide	A	B	Diethanolamine	A	
Barium carbonate	A	A	Carbon disulphide	C	C	Diethyl ether	A	C
Barium chloride	A	A	Carbon disulphide	B	C	Diethyl phthalate	B	C
Barium chromate	A	A	Carbon monoxide	A		Diethylamine	A	B
Barium cyanide	C	C	Carbon oxide	A		Diethylene oxide	C	C
Barium hydrate	A	B	Carbon oxychloride	C	C	Diethylene oxide	C	C
Barium hydroxide	A	B	Carbon sulphide	C		Diethyleneglycol	A	A
Barium nitrate	A	A	Carbon tetrachloride	C		Diethyleneglycol monoethyl ether	A	A
Barium oxide, aqueous	A	A	Carbonic acid	A	B	Diethylketone	B	C
Barium sulphate	A	A	Carbonic anhydride	A	B	Difluorodichloromethane	B	
Barium sulphide	A	A	Carbonyl chloride	C	C	Diglycol	A	A
Baryta water	A		Castor oil	A	A	2,2-Dihydroxydiethyl ether	A	A
Beer	A	A	Caustic potash, 25%	A	A	1,2-Dihydroxypropane	A	A
Benzaldehyde	A	B	Caustic potash, 50%	A	A	Diisobutylketone	A	
Benzene	B	C	Caustic soda, 25%	A	A	Diisopropyl ether	A	
Benzoic acid	B	C	(Sodium hydroxide, 25%)			Diisopropylketone	A	
Benzoic acid aldehyde	A	B	Caustic soda, 50%	A	B	Dimethyl ether	A	C
Benzoic aldehyde	A	B	(Sodium hydroxide, 50%)			Dimethyl phthalate	B	C
Benzosulfonic acid	C	C	Cellulose acetate	A		Dimethylamine	A	B
Benzyl alcohol	A	A	Cetylacetic acid, alcohol solution	B	C	N,N-Dimethylaniline	B	C

# Composite Hose Chem. Resistance Chart

	PP			PP			PP	
	25C	70C		25C	70C		25C	70C
Dimethylbenzene	B	C	Gelatin	A	A	Magnesium metabisulphite	A	
Dimethylcarbinol	A	A	Glucose (Sugar)	A	A	Magnesium nitrate	A	B
Dimethylformamide	C	C	Glucose syrup	A	A	Magnesium oxide	A	
Dimethylketone	A	A	Glycerin	A	A	Magnesium sulphate	A	A
Di-n-Butylamine	A	B	Glycerol	A	A	Magnesium sulphite	A	
Diethyl phosphate	A		Glycine	A		Maleic acid	A	A
Diethyl phthalate	A	B	Glycolic acid	A	A	Maleic anhydride	C	C
1,4-Dioxane	C	C	Glycolmonoethyl ether	A	A	Manganese sulphate	A	A
Diphenyl oxide	C		Groundnut oil	C	C	Mercuric chloride	A	A
Dipropylene glycol	A	A	Gypsum	A	A	Mercury	B	B
Distilled water	A	A	Helium	A	A	Mercury cyanide	A	A
DMF	C	C	Heptane	B	C	Mercury nitrate	A	A
Dodecanol	A		Hexadecanoic acid	A	A	Metanoic acid	A	C
Dodecyl alcohol	A		Hexahydrobenzene	C	C	Metanoic acid, 20%	A	A
DOP	A	B	Hexahydrophenol	A	B	Methane	A	
Epichlorohydrin	A	A	Hexaline	A	B	Methanol	A	B
Ethanal	A	B	Hexamethylene	C	C	Methoxybutanol	A	C
Ethane	A		Hexane	B	C	2-Methoxyethanol	A	A
1,2-Ethanediol	A	A	Hexyl chloride	C	C	Methyl acetate	B	C
Ethanol	A	B	Hexyleneglycol	A	A	Methyl alcohol	A	B
Ethanolamine	A	A	Hydraulic oil (ester based)	C	C	Methyl bromide	B	C
Ether	A	C	Hydraulic oil (glycols based)	A	A	Methyl chloride	C	C
2-Ethoxyethanol	A	A	Hydrazine, aqueous solution	A		Methyl cyanide	B	
Ethyl acetate	B	C	Hydrobromic acid, solution	C	C	Methyl ether	A	C
Ethyl alcohol	A	B	Hydrocarbonic acid	A	B	Methyl metacrylate	C	C
Ethyl benzoate	B		Hydrochloric acid, < 20%	A	B	Methyl phthalate	B	C
Ethyl chloride	B	C	Hydrochloric acid, 20% to 37%	B	C	4-Methyl-2-pentanol	A	
Ethyl ether	A	C	Hydrochloric acid, 37%	B	C	Methylacetic ether	B	C
Ethyl isobutyl ether	A		Hydrochloric acid, gas	B		Methylamine	A	
Ethyl phenyl ether	A		Hydrochloric gas, dry	B		Methylamyl acetate	B	C
Ethyl propyl ether	A		Hydrofluosilicic acid	A		Methylated spirits	A	B
Ethylaldehyde	A	B	Hydrogen fluoride, < 50%	A	B	Methylbenzene	B	C
Ethylamine	A		Hydrogen fluoride, > 50%	B		Methylene	A	B
Ethylbenzene	B		Hydrogen peroxide, 10%	A	B	Methylene chloride	C	C
Ethylcarbinol	A	B	Hydrogen peroxide, 30%	B	C	Methylene chlorobromide	C	
Ethylene bromide	C	C	Hydrogen peroxide, 50%	C	C	Methylethylketone	A	B
Ethylene chloride	B	C	Hydrogen peroxide, 87%	C	C	Methylglycol	A	A
Ethylene dibromide	C	C	Hydrogen sulphide	A	A	Methylisobutylcarbinol	A	
Ethylene dicarboxylic acid	A	A	Hydrogen, gas	A	A	Methylisobutylketone	A	
Ethylene dichloride	C	C	Hydrosulphuric acid	A	A	Methylisopropylketone	A	
Ethyleneglycol	A	A	Hydroxyacetic acid	A	A	Methylpentane	C	C
Ethyleneglycol ethyl ether	A		Hypochlorous acid, 10%	A	B	2-Methylphenol	C	
Ethylglycol	A	A	Hypochlorous acid, solution	B	B	MIBK	A	
Ethylhexanol	A	A	Iodine	C	C	Milk	A	A
Ethylketone	A		Iron nitrate	A	A	Mineral hydraulic oil	A	
Ethylmethylketone	B		Iron perchloride	A	A	Mineral petrol	A	A
Ethyne	A	A	Isobutanol	A	B	Modified petrol	A	A
Ferric chloride	A	A	Isobutyl acetate	C	C	Molasses	A	A
Ferrous chloride	A	A	Isobutylketone	A		Monochlorobenzene	A	B
Firedamp	A		Isocyanates	C		Monochloroethylene	B	C
Fixing bath (photo)	A		Isoecane	A		Monochloromethane	C	C
Fluoboric acid	A	B	Isooctane	A	B	Monoethanolamine	A	A
Fluor	B	C	Isooctane 50% - Toluene 50%	A		Monoethylamine	A	
Fluorhydric acid < 50%	A	B	Isooctane 70% - Toluene 30%	A		Monohydroxybenzene	A	C
Fluorhydric acid > 50%	B		Isophorones	A		Morpholine	B	C
Fluoroboric acid	A	B	Isopropanol	A	A	Mustard	A	
Fluorosilicic acid	A	B	Isopropyl acetate	B	C	Naphta, 40% aromatic	A	C
Formaldehyde, 100%	A	A	Isopropyl alcohol	A	A	Naphthalene, crude or refined	B	
Formaldehyde, 30%	A	A	Isopropyl ether	A		Natural gas	A	
Formaldehyde, 40%	A	A	Isopropylbenzene	A		Nickel chloride	A	A
Formamide	A	A	Isopropylcarbinol	A	B	Nickel nitrate	A	B
Formic acid	A	C	Isopropylketone	A		Nickel sulphate	A	B
Formic acid, 20%	A	A	Kerosene	A	C	Nitric acid, 10%	A	A
Formic aldehyde, 100%	A	A	Lactic acid	A	B	Nitric acid, 30%	A	B
Formic aldehyde, 30%	A	A	Lanoline	A	B	Nitric acid, 60%	B	C
Formic aldehyde, 40%	A	A	Latex	A	B	Nitric acid, red fuming	C	C
Freon 113	C		Lauric alcohol	A		Nitrobenzene	B	
Freon 12	B		Lead acetate	A	A	Nitrogen	A	A
Fruit juice	B		Lead nitrate	A	B	Nitrous acid	A	
Fuel ASTM-A	A	B	Lead sulphamate	A	B	Nitrous gas	C	
Fuel ASTM-B	A		Lead sulphate	A	A	Nitrous oxide	A	A
Fuel ASTM-C	A		Lighting gas	A		Nonanol	A	A
Fuel oil	A		Lime	A	A	Nonyl alcohol	A	A
Fural	C	C	Lime water	A	A	Octyl phthalate	A	B
Furaldehyde	C	C	Linseed oil	A	A	Oleic acid	B	B
Furan	C	C	Liquid soap	A	A	Oxalic acid	A	A
Furfural	C	C	Lithium carbonate	A		Oxalic acid, aqueous	A	A
Furfuran	C	C	Lithium sulphate	A		o-Oxybenzoic acid	A	A
Furfurol	C	C	Magnesium carbonate	A	A	Oxygen	A	A
Furfuryl aldehyde	C	C	Magnesium chloride	A	A	Ozon	C	C
Gallic acid	A		Magnesium fluoride	A	A	Palmitic acid	A	A
Gas oil	A		Magnesium hydroxide	A	A	Paradichlorobenzene	A	

# Composite Hose Chem. Resistance Chart

	PP			PP			PP	
	25C	70C		25C	70C		25C	70C
Paraffin	A		Soap water	A	A	Tincture of iodine	A	
Paraffin oil	B	C	Sodium acetate	A	A	Toluene	B	C
Paraformaldehyde	A	A	Sodium benzoate	A	A	Transformer oils	B	
Pentane	C	C	Sodium borates	A	A	Triaryl phosphate	A	
1-Pentanol	A	A	Sodium bromide	A	A	Tributoxyethyl phosphate	A	
3-Pentanone	B	C	Sodium carbonate	A	A	Tributyl phosphate	A	C
n-Pentyl acetate	B	C	Sodium carbonate hydrate	A	A	Trichloroacetic acid	A	A
Pentyl chloride	C	C	Sodium carbonate hydrogen	A	A	Trichloroethane	C	C
Perchloric acid	C	C	Sodium chlorate	A	A	Trichloroethylene	C	C
Petrol ether	A	A	Sodium chloride	A	A	Trichloroethylene	C	
Petrol, 40% aromatic	A	A	Sodium chlorite	B	C	Trichloromethane	B	B
Petrol, 60% aromatic	A	A	Sodium chromate	A	A	Tricresyl phosphate	A	B
Petrol, 70% aromatic	A	A	Sodium cyanide	A	A	Triethanolamine	C	C
Petroleum crude oil	B	C	Sodium dichromate	A	A	Triethylamine	A	B
Phenic acid	A	C	Sodium disulphide	A	A	Triethyleneglycol	A	A
Phenol	A	C	Sodium fluoride	A	A	Triglycol	A	A
Phenyl hydroxide	A	C	Sodium hydroxide, 25%	A	A	Trihydroxybenzoic acid	A	
Phenylamine	B	C	Sodium hydroxide, 50%	A	B	Trimethylamine	A	B
Phenylethylene	C	C	Sodium hypochloride	B		Trimethyleneglycol	A	A
Phosgene	C		Sodium hypochlorite, 20%	B	C	Trinitrophenol	B	
Phosphoric acid, 20%	A	A	Sodium hypochlorite, 25%	B	C	Trioctyl phosphate	A	
Phosphoric acid, 85%	A	B	Sodium hyposulphite	A	A	Triphenyl phosphate	A	
Phtalic acid	C	C	Sodium iodide	A		Trisodium phosphate	A	
Pickling liquor	A		Sodium metabisulphite	A	B	Triethyl phosphate	A	
Picric acid	B		Sodium metaphosphate	A	A	Turpentine	C	C
Polyethylene glycols	A	A	Sodium nitrate	A	A	Turpentine	B	C
Polyglycols	A	A	Sodium nitrite	A	A	Two star petrol	A	A
Potassium acetate, aqueous	A	A	Sodium oxalate	A		Unleaded petrol	A	A
Potassium alum	A	A	Sodium perborate	A	A	Urea	A	A
Potassium bromate	A	A	Sodium peroxide	A	B	Urine	A	
Potassium bromide	A		Sodium phosphate	A		Vaseline	A	A
Potassium carbonate	A	A	Sodium polyphosphate	A	A	Vinegar	A	A
Potassium carbonate hydrate	A	A	Sodium pyrophosphate	A		Vinyl acetate	B	
Potassium carbonate hydrogen	A	A	Sodium pyrosulphate	A		Vinyl metacrylate	C	
Potassium chlorate	A	A	Sodium silicate	A		Vinylacetylene	C	
Potassium chloride	A	A	Sodium sulphate	A	A	Vinylbenzene	C	C
Potassium chromate	A	A	Sodium sulphide	A	A	Vinylcarbinol	A	A
Potassium cyanide	A		Sodium sulphite	A		Vitriol ether	C	C
Potassium dichromate	A		Sodium tetraborate	A	A	Water	A	A
Potassium ferricyanide	A		Sodium thiosulphate	A	A	White spirit	A	B
Potassium fluoride	A		Stannic (II) chloride	A	A	White-wash	A	A
Potassium hydroxide, 25%	A	A	Stannic chloride	A	B	Wine	A	A
Potassium hydroxide, 50%	A	A	Stannic chloride	A	A	Xenon	A	
Potassium iodide	A	A	Starch	A	A	Xylene	B	C
Potassium metabisulphite	A		Stearic acid	B	C	Zeolite	A	A
Potassium monosulphide	A		Stearin	B	C	Zinc acetate	A	A
Potassium nitrate	A	A	Styrene	C	C	Zinc chloride	A	A
Potassium oxalate	A		Styrolene	C	C	Zinc sulphate	A	A
Potassium oxide	A		Sugar	A	A			
Potassium perchlorate	A	B	Sulfur chloride	C	C			
Potassium permanganate	A	A	Sulfur dioxide	A	B			
Potassium persulphate	A		Sulfur trioxide	C	C			
Potassium phosphate	A		Sulphamic acid	C				
Potassium pyrophosphate	A		Sulphuric acid, 10%	A	A			
Potassium pyrosulphate	A		Sulphuric acid, 100%	C	C			
Potassium sulphate	A	A	Sulphuric acid, 20%	A	A			
Potassium sulphide	A	A	Sulphuric acid, 50%	A	A			
Potassium sulphite	A		Sulphuric acid, 75%	A	B			
Potassium thiosulphate	A		Sulphuric acid, 95%	C	C			
Propane, gas	A		Sulphuric acid, 98%	C	C			
Propane, liquid	A		Sulphuric anhydride	C	C			
1,2-Propanediol	A	A	Sulphuric chlorhydrine	C	C			
1,3-Propanediol	A	A	Sulphuric ether	A	C			
1,2,3-Propanetriol	A	A	Sulphurous acid, 10% to 75%	A	A			
Propanoic acid	A		Sulphurous acid, 75%	A	B			
n-Propanol	A	B	Sulphurous anhydride	A	B			
2-Propanone	A	A	Super petrol	A	A			
3-Propenol	A	A	Sweet liquor	A				
Propione	B	C	Tallow	B				
Propionic acid	A		Tannic acid	A	A			
Propyl acetate	B	C	Tannin	A				
n-Propyl alcohol	A	B	Tars, liquid	C				
Propylamine	A	B	Tartaric acid	A	C			
Propyleneglycol	A	A	Tetrachloroethane	C				
Pyridine	A	B	Tetrachloroethylene	C	C			
Pyromucic aldehyde	C	C	Tetrachloromethane	C	C			
Salicylic acid	A	A	Tetrahydrofuran	B	C			
Sea salt	A	A	Tetrahydronaphtalene	C	C			
Sea water	A	A	Tetralin	C	C			
Silicone greases	A	A	Tetramethyleneglycol	A	A			
Silicone oils	A	A	THF	B	C			
Silver nitrate	A	B	Thionyl chloride	C	C			



# Corrosion Resistance of Coupling Materials

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**RATINGS:**

1. Excellent
2. Good
3. Fair or conditional
- X. Not Satisfactory

**NOTE:** No rating indicates no data available.

AGENT	Mall. Iron Steel	Brass	Bronze	Aluminum	Stainless 410, 416, 430	Stainless 302, 303, 304, 308	Stainless 316	Monel
Acetate, Solvents, Crude.....		3			2	1	1	2
Acetate, Solvents, Pure.....		1	1	1	1	1	1	1
Acetic Acid.....	x	x	x	2	x	2	2	2
Acetic Acid Vapors.....	x	x		2	x	2	2	2
Acetic Anhydride.....	x	x		2	x	2	2	2
Acetone.....	1	1	1	1	1	1	1	1
Acetylene.....	1	2		1	1	1	1	2
Alcohols.....	1	2		1	1	1	1	1
Aluminum Sulfate.....	x	3	3	3	x	3	2	2
Alums.....	x	3	2	3	x	3	2	2
Ammonia Gas.....	1	x	3	1	1	1	1	x
Ammonium Chloride.....	1	3		1*	3	3	1	1
Ammonium Hydroxide.....	2	x		2	1	1	1	3
Ammonium Nitrate.....	1	x		2	1	1	1	3
Ammonium Phosphate (Ammoniacal).....		x			1	1	1	2
Ammonium Phosphate (Neutral).....		x			1	1	1	2
Ammonium Phosphate (Acid).....		3			3	2	1	2
Ammonium Sulfate.....	1	3			2	1	1	2
Asphalt.....	1	2			2	1	1	1
Beer.....	2	2	1	1	x	1	1	1
Beet Sugar Liquors.....	1	2		1	2	1	1	1
Benzene, Benzol.....	1	1	1	1	1	1	1	1
Benzine (petroleum - naphtha).....	1	1		1	1	1	1	1
Borax.....	2	2			1	1	1	1
Boric Acid.....	x	3		1	3	2	1	1
Butane, Butylene.....	1	1	1	1	1	1	1	1
Butadiene.....		1			1	1	1	1
Calcium Bisulfate.....		x			x	2	1	x
Calcium Hypochlorite.....	3	3	3	x	x	3	2	3
Cane Sugar Liquors.....	1	2		1	2	1	1	1
Carbon Dioxide (Dry).....	1	1		1	1	1	1	1
Carbon Dioxide (Wet & Aqueous Sol).....	2	3		2	2	1	1	2
Carbon Disulfide.....	2	3		2	2	1	1	3
Carbon Tetrachloride.....	3	1	2	3	1	1	1	1
Chlorine (Dry).....	2	2	2	1	2	2	2	1
Chlorine (Wet).....	x	x	3	x	x	x	3	3
Chromic Acid.....		x	x	x	3	2	2	3
Citric Acid.....	x	3		1	3	x	1	2
Coke Oven Gas.....	1	3		2	1	1	1	2
Copper Sulfate.....	x	x		x	1	1	1	3
Core Oils.....		1	1		1	1	1	1
Cottonseed Oil.....	1	1	1	1	1	1	1	1
Creosote.....	2	3		1	1	1	1	1
Ethers.....	2	1		1	1	1	1	1
Ethylene Glycol.....	2	2			1	1	1	1
Ferric Chloride.....	x	x	x	x	x	x	x	x
Ferric Sulfate.....	x	x		x	1	1	1	3
Formaldehyde.....	2	2		2	1	1	1	1

\*3 to X at high temperatures.

## Corrosion Resistance of Coupling Materials

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**NOTE:** No rating indicates no data available.

AGENT	Mall. Iron Steel	Brass	Bronze	Aluminum	Stainless 410, 416, 430	Stainless 302, 303, 304, 308	Stainless 316	Monel
Formic Acid.....	x	2		x	x	2	1	2
Freon.....	3	1	1	1	1	1	1	1
Furfural.....	1	2		1	1	1	1	1
Gasoline (Sour).....	3	3		3	3	1	1	x
Gasoline (Refined).....	1	1	1	1	1	1	1	1
Gelatin.....	1	3		1	1	1	1	1
Glucose.....	1	1		1	1	1	1	1
Glue.....	1	3		1	1	1	1	1
Glycerine or Glycerol.....	1	2		1	1	1	1	1
Hydrochloric Acid.....	x	x	x	x	x	x	x	x
Hydrocyanic Acid.....	3	x		1	3	1	1	2
Hydrofluoric Acid.....	x	3	3	x	x	x	x	1
Hydrogen Fluoride.....		3			x	x	3	1
Hydrogen.....	1	1		1	1	1	1	1
Hydrogen Peroxide.....	x	x		1	1	2	1	2
Hydrogen Sulfide (Dry).....	3	3		2	3	2	1	3
Hydrogen Sulfide (Wet).....	3	3		2	3	2	1	3
Lacquers and Lacquer Solvents.....	3	2		1	1	1	1	1
Lactic Acid.....	x			3		3	2	1
Lime-Sulfur.....	2	x			2	1	1	2
Linseed Oil.....	1	1		1		1	1	1
Magnesium Chloride.....	3	3		x	3	2	1	1
Magnesium Hydroxide.....	1	2		x	1	1	1	1
Magnesium Sulfate.....	2	2		3	1	1	1	1
Mercuric Chloride.....	3	x		x	x	x	3	x
Mercury.....	1	x		x	1	1	1	2
Milk.....	3	3		1	2	1	1	3
Molasses.....	2	x		2	2	1	1	1
Natural Gas.....	1	2		1	1	1	1	1
Nickel Chloride.....		x		x	x	3	2	2
Nickel Sulfate.....		3		x	3	2	1	1
Nitric Acid.....	x	x	x	3	2	2	2	x
Oleic Acid.....	2	3		1	2	2	1	1
Oxalic Acid.....	3	3		2	3	2	1	1
Oxygen.....	1	1	1	1	1	1	1	1
Palmitic Acid.....	1	3		1	2	2	1	1
Petroleum Oils (Sour).....		3			3	1	1	x
Petroleum Oils (Refined).....	1	1	1	1	1	1	1	1
Phosphoric Acid - 25%.....	3	x		3	x	3	1	2
Phosphoric Acid - 25-50%.....	x	x		x	x	x	2	2
Phosphoric Acid - 50-85%.....	x	x		x	x	x	2	2
Picric Acid.....	3	x		3	2	1	1	x
Potassium Chloride.....	2	3		3	3	2	1	1
Potassium Hydroxide.....	3	x		x	1	1	1	1
Potassium Sulfate.....	2	2		1	1	1	1	1
Propane.....	1	1			1	1	1	1
Rosin (Dark).....	1	2		1	1	1	1	1
Rosin (Light).....		x		1	1	1	1	2

# Corrosion Resistance of Coupling Materials

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**NOTE:** No rating indicates no data available.

AGENT	Mall. Iron Steel	Brass	Bronze	Aluminum	Stainless 410, 416, 430	Stainless 302, 303, 304, 308	Stainless 316	Monel
Shellac.....		2		2	1	1	1	1
Sludge Acid.....		x			x	x	3	2
Soda Ash (Sodium Carbonate).....	1	2		x	1	1	1	1
Sodium Bicarbonate.....	3	1		x	1	1	1	1
Sodium Bisulfate.....	x	3		3	x	1	1	1
Sodium Chloride.....	2	3	2	x	3	2	1	1
Sodium Cyanide.....	2	x		x	1	1	1	2
Sodium Hydroxide.....	3	x	3	x	2	2	2	1
Sodium Hypochlorite.....	x	x		x	x	3	2	3
Sodium Metaphosphate.....	x	3		1	2	1	1	1
Sodium Nitrate.....	1	3		1	1	1	1	1
Sodium Perborate.....	3	3		1	1	1	1	1
Sodium Peroxide.....	3	3		1	1	1	1	1
Sodium Phosphate.....								
(Alkaline).....		3			1	1	1	1
(Neutral).....		2			1	1	1	1
(Acid).....		2			x	2	1	1
Sodium Silicate.....	1	3		x	1	1	1	1
Sodium Sulfate.....	1	2		3	1	1	1	1
Sodium Sulfide.....	1	x			1	1	1	2
Sodium Thiosulfate (Hypo).....	3	x		x	1	1	1	2
Stearic Acid.....	3	3		3	2	2	1	1
Sulfate Liquors.....		x			1	1	1	2
Sulfur.....	2	x		2	2	2	1	3
Sulfur Chloride.....	x	x			x	3	2	2
Sulfur Dioxide (Dry).....	2	1		1	1	1	1	1
Sulfur Dioxide (Wet).....		x			x	2	1	x
Sulfuric Acid 10%.....	x	x	3	3	x	x	2	2
Sulfuric Acid 10-75%.....	x	x	x	x	x	x	x	2
Sulfuric Acid 75-95%.....	3	x	x	x	3	3	2	3
Sulfuric Acid 95%.....	2	x	x		2	2	2	x
Sulfurous Acid.....	x	x		x	x	3	2	x
Tannic Acid.....	3	3	1	x		1	1	1
Tar.....	1	2		1	2	1	1	1
Toluene, Toluol.....	1	1		1	1	1	1	1
Trichlorethylene.....	3	1		3	1	1	1	1
Turpentine.....		3		1	3	1	1	1
Varnish.....	2	2			1	1	1	1
Vegetable Oils.....	1	2		1	1	1	1	1
Vinegar.....	3	3		3	3	2	1	2
Water (Acid Mine Water).....	3	x		3	2	1	1	3
Water (Fresh).....	3	1		1	1	1	1	1
Water (Salt).....	3	3	2	x	3	2	2	1
Whiskey.....	x	2			3	1	1	2
Wines.....	x	2			3	1	1	2
Xylene, Xylol.....	2	1		1	1	1	1	1
Zinc Chloride.....	x	x		x	3	2	1	1
Zinc Sulfate.....	3	3		3	3	2	1	1

# PVC Chemical Resistance Chart

**A=Satisfactory B=Be Expected to Change C=Unsatisfactory \*=Check with Factory**

**NOTE:** THIS PARTIAL LISTING IS FOR GENERAL GUIDANCE ONLY AND NO WARRANTY CAN BY EXTENDED AS EXACT OPERATING CONDITIONS MAY VARY IN EACH CASE. WE BASE THE INFORMATION ON PAST KNOWLEDGE AND EXPERIENCE.

Operating Conditions				Operating Conditions				Operating Conditions			
Chemical	Concentration by Weight	68° F	140° F	Chemical	Concentration by Weight	68° F	140° F	Chemical	Concentration by Weight	68° F	140° F
Acetate Solvents		C	C	Cresylic Acid		C	C	Methyl Ethyl Ketone		C	C
Acetic Acid	10%	A	B	Cyclohexane		A	B	Methylene Chloride		C	C
Acetic Acid	Glacial	B	C	DDT Weed Killer		C	C	Mineral Oils		A	B
Acetone		C	C	Detergent Sythetic		A	B	Monochlorobenzene		C	C
Acrylonitrile		A	B	Developers Photographic		A	A	Naphtha		B	C
Adipic Acid		A	B	Dextrin		A	A	Naphthalene		C	C
Alcohol Methyl		A	B	Dextrose		A	A	Nitric Acid	10%	A	A
Alcohol Ethyl		A	B	Dibutyl Phthalate		C	C	Nitric Acid	40%	A	B
Alcohol Isopropyl		A	B	Dichlorobenzene		C	C	Nitric Acid	70%	C	C
Alcohol Methyl		A	B	Diesel Oil		B	C	Nitrobenzene		C	C
Aluminum Acetate		A	-	Diethylene Glycol		A	A	Nitrogen Fertilizers		A	-
Aluminum Chloride		A	A	Diethyl Ether		C	C	Oleic Acid		A	B
Aluminum Hydroxide		A	-	Diocetyl Phthalate		C	C	Oxalic Acid		A	A
Aluminum Sulfate		A	A	Emulsifiers		A	A	Palmitic Acid		A	A
Allyl Chloride		C	C	Emulsions Photographic		A	A	Paraffin		A	A
Ammonia	0.88S.G. Aqueous	A	A	Ethyl Acetate		C	C	Pentane		A	A
Ammonia	Dry Gas	A	-	Ethylene Dichloride		C	C	Perchloroethylene		C	C
Ammonia	Liquid	C	C	Ethylene Glycol		A	A	Phenol		B	C
Ammonium Chloride		A	A	Fatty Acid		A	A	Phosphoric Acid		A	A
Animal Oils		A	A	Ferric Chloride		A	A	Pitch		A	B
Amyl Acetate		C	C	Ferric Sulphate		A	A	Potassium Hydroxide		A	A
Aniline Oils		B	C	Ferrous Chloride		A	A	Propane		A	A
Aromatic Hydrocarbons		C	C	Ferrous Sulphate		A	A	Sea Water		A	A
Asphalt		C	C	Fixing Solution Photographic		A	A	Sodium Hydroxide	10%	C	C
ASTM Fuel A		B	B	Fluorine		C	C	Sodium Hydroxide	50%	C	C
ASTM Fuel B		C	C	Formaldehyde	40%	C	C	Sodium Cyanide		A	A
ASTM #1 Oil		A	A	Formic Acid	40%	A	A	Soybean Oil		A	B
ASTM #2 Oil		B	C	Formic Acid	50%	B	C	Stearic Acid		A	A
Barium Chloride		A	A	Formic Acid	100%	C	C	Styrene		C	C
Barium Hydroxide		A	A	Fuel Oil		B	C	Sulphur Dioxide	Dry	A	A
Barium Sulfide		A	A	Glacial Acetic Acid		B	C	Sulphur Dioxide	Moist	B	C
Benzene		C	C	Glucose		A	A	Sulphur Dioxide	Liquid	C	C
Benzine		B	B	Glycerine		A	A	Sulphuric Acid	45%	*	*
Bordaux Mixture		A	A	Grape Sugar		A	A	Sulphuric Acid	60%	*	*
Borax		A	A	Grease		A	B	Sulphuric Acid	98%	*	*
Boric Acid		A	A	Heptane		B	C	Sulphurous Acid	30%	*	*
Brine		A	A	Hexane		B	C	Tannic Acid		A	A
Bromine Traces		C	C	Hydrochloric Acid		C	C	Tartaric Acid		A	A
Butyl Acetate		C	C	Hydrochloric Acid	10%	C	C	Tetrahydrofuran		C	C
Calcium Hydroxide		A	A	Hydrochloric Acid	40%	C	C	Toluene		C	C
Calcium Hypochlorite		A	A	Hydrofluoric Acid	10%	C	C	Trichlorethylene		C	C
Carbonic Acid		B	C	Hydrofluoric Acid	40%	C	C	Triethanolamine		A	A
Carbon Dioxide		A	A	Hydrofluoboric Acid		A	A	Tricresyl Phosphate		C	C
Carbon Disulphite		C	C	Hydrofluosilicic Acid		A	A	Turpentine		B	C
Carbon Monoxide		A	A	Hydrogen Peroxide		A	-	Urea		A	A
Carbon Tetrachloride		C	C	Hydrogen Sulphide		A	-	Vinegar		A	A
Casien		A	B	Iso-Octane		A	B	Vinyl Acetate		C	C
Chlorine	Dry Gas	A	A	Isopropyl Acetate		C	C	Vinyl Chloride		C	C
Chlorine	Wet Gas	B	C	Kerosene		B	B	Water		A	A
Chlorine	Water	C	C	Ketones		C	C	Xylene		C	C
Chlorobenzene		C	C	Lactic Acid	10%	A	-	Zinc Chloride		A	A
Chloroform		C	C	Lactic Acid	100%	C	C	Zinc Sulphate		A	A
Chromic Acid		A	B	Lacquer Solvents		B	C				
Citric Acid		A	A	Linseed Oil		A	A				
Coal Tar		C	C	Lubricating Oils		A	A				
Copper Chloride		A	A	Magnesium Chloride		A	A				
Copper Nitrate		A	A	Magnesium Hydroxide		A	A				
Copper Suphate		A	A	Magnesium Sulphate		A	A				
Cottonseed Oil		B	C	Malic Acid		A	A				
Creosote		C	C	Methyl Acetate		C	C				
Cresol		A	B	Methyl Bromide		C	C				

## Pressure Conversion Chart

PSI	Atms	inches H <sub>2</sub> O	inches Hg	mm Hg (Torr)	mbar	bar	Pa (N/m <sup>2</sup> )	kPa	MPa
1	0.0681	27.71	2.036	51.715	68.95	0.0689	6895	6.895	0.0069
14.7	1	407.2	29.92	760	1013	1.013	101,325	101.3	0.1013
0.0361	0.00246	1	0.0735	1.866	2.488	0.00249	248.8	0.249	0.00025
0.4912	0.03342	13.61	1	25.4	33.86	0.0339	3386	3.386	0.00339
0.01934	0.001316	0.536	0.0394	1	1.333	0.001333	133.3	0.1333	0.000133
0.0145	0.000987	0.4012	0.0295	0.75	1	0.001	100	0.1	0.0001
14.504	0.987	401.9	29.53	750	1000	1	100,000	100	0.1
0.000145	0.00001	0.00402	0.000295	0.0075	0.01	0.00001	1	0.001	0.000001
0.14504	0.00987	401.9	0.295	7.50	10	0.01	1000	1	0.001
145.04	9.869	4019	295.3	7500	10,000	10	1,000,000	1000	1

### To use chart:

1. Locate the column with the units you want to convert from.
2. Move DOWN that column until you locate the "1".
3. Move HORIZONTALLY to the column with the units you want to convert to.
4. MULTIPLY the number in the box by the amount you are changing from to get the converted value.

### Length

1 cm = 0.3937 in = 10 mm = 0.01 m  
 1 m = 3.2808 ft = 1000 mm = 100 cm  
 1 in = 2.540 cm = 25.40 mm  
 1 ft = 30.48 cm = 0.3048 m

### Volume

1 L = 0.0353 ft<sup>3</sup>  
 1 L = 0.2642 gal  
 1 L = 61.025 in<sup>3</sup>  
 1 L = 0.001 m<sup>3</sup>  
 1 ft<sup>3</sup> = 28.3286 L  
 1 gal = 0.1336 ft<sup>3</sup>

### Pressure

1 psi = 0.0681 atm  
 1 psi = 27.71 in H<sub>2</sub>O  
 1 psi = 703.8 mm H<sub>2</sub>O  
 1 psi = 2.036 in Hg  
 1 psi = 51.715 mm Hg (torr)  
 1 psi = 68.95 mbar  
 1 psi = 0.0689 bar  
 1 psi = 6895 Pa (N/m<sup>2</sup>)  
 1 psi = 6.895 kPa  
 1 psi = 0.0069 MPa

## Conversions

### Length Conversion Constants

Metric to U.S.	U.S. to Metric
Millimeters x .039370 = inches	Inches x 25.4001 = millimeters
Meters x 39.370 = inches	Inches x .0254 = meters
Meters x 3.2808 = feet	Feet x .30480 = meters
Meters x 1.09361 = yards	Yards x .91440 = meters
Kilometers x 3,280.8 = feet	Feet x .0003048 = kilometers
Kilometers x .62137 = Statute Miles	Statute Miles x 1.60935 = kilometers
Kilometers x .53959 = Nautical Miles	Nautical Miles x 1.85325 = kilometers

### Weight Conversion Constants

Metric to U.S.	U.S. to Metric
Grams x 981 = dynes	Dynes x .0010193 = grams
Grams x 15.432 = grains	Grains x .0648 = grams
Grams x .03527 = ounces (Avd.)	Ounces (Avd.) x 28.35 = grams
Grams x .033818 = fluid ounces (water)	Fluid Ounces (water) x 29.57 = grams
Kilograms x 35.27 = ounces (Avd.)	Ounces (Avd.) x .02835 = kilograms
Kilograms x 2.20462 = pounds (Avd.)	Pounds (Avd.) x .45359 = kilograms
Metric Tons (1000 Kg.) x 1.10231 = Net Ton (2000 lbs.)	Net Ton (2000 lbs.) x .90719 = Metric Tons (1000 Kg.)
Metric Tons (1000 Kg.) x .98421 = Gross Ton (2240 lbs.)	Gross Ton (2240 lbs.) x 1.101605 = Metric Tons (1000 Kg.)

### Area Conversion Constants

Metric to U.S.	U.S. to Metric
Square Millimeters x .00155 = square inches	Square Inches x 645.163 = square millimeters
Square Centimeters x .155 = square inches	Square Inches x 6.45163 = square centimeters
Square Meters x 10.76387 = square feet	Square Feet x .0929 = square meters
Square Meters x 1.19599 = square yards	Square Yards x .83613 = square meters
Hectares x 2.47104 = acres	Acres x .40469 = hectares
Square Kilometers x 247.104 = acres	Acres x .0040469 = square kilometers
Square Kilometers x .3861 = square miles	Square Miles x 2.5899 = square kilometers

# Temperature Conversion Chart

## Fahrenheit - Celsius

Locate temperature in middle column. If in °C, read °F equivalent in right hand column; if in °F, read °C in left hand column.

-459° to 0°			1° to 60°			61° to 290°			300° to 890°			900° to 3000°		
C	C F	F	C	C F	F	C	C F	F	C	C F	F	C	C F	F
-273	-459.4		-17.2	1	33.8	16.1	61	141.8	149	300	572	482	900	1652
-268	-450		-16.7	2	35.6	16.7	62	143.6	154	310	590	488	910	1670
-262	-440		-16.1	3	37.4	17.2	63	145.4	160	320	608	493	920	1688
-257	-430		-15.6	4	39.2	17.8	64	147.2	166	330	626	499	930	1706
-251	-420		-15.0	5	41.0	18.3	65	149.0	171	340	644	504	940	1724
-246	-410		-14.4	6	42.8	18.9	66	150.8	177	350	662	510	950	1742
-240	-400		-13.9	7	44.6	19.4	67	152.6	182	360	680	516	960	1760
-234	-390		-13.3	8	46.4	20.0	68	154.4	188	370	698	521	970	1778
-229	-380		-12.8	9	48.2	20.6	69	156.2	193	380	716	527	980	1796
-223	-370		-12.2	10	50.0	21.1	70	158.0	199	390	734	532	990	1814
-218	-360		-11.7	11	51.8	21.7	71	159.8	204	400	752	538	1000	1832
-212	-350		-11.1	12	53.6	22.2	72	161.6	210	410	770	549	1020	1868
-207	-340		-10.6	13	55.4	22.8	73	163.4	216	420	788	560	1040	1904
-201	-330		-10.0	14	57.2	23.3	74	165.2	221	430	806	571	1060	1940
-196	-320		-9.4	15	59.0	23.9	75	167.0	227	440	824	582	1080	1976
-190	-310		-8.9	16	60.8	24.4	76	168.8	232	450	842	593	1100	2012
-184	-300		-8.3	17	62.6	25.0	77	170.6	238	460	860	604	1120	2048
-179	-290		-7.8	18	64.4	25.6	78	172.4	243	470	878	616	1140	2084
-173	-280		-7.2	19	66.2	26.1	79	174.2	249	480	896	627	1160	2120
-169	-273	-459.4	-6.7	20	68.0	26.7	80	176.0	254	490	914	638	1180	2156
-168	-270	-454	-6.1	21	69.8	27.2	81	177.8	260	500	932	649	1200	2192
-162	-260	-436	-5.6	22	71.6	27.8	82	179.6	266	510	950	660	1220	2228
-157	-250	-418	-5.0	23	73.4	28.3	83	181.4	271	520	968	671	1240	2264
-151	-240	-400	-4.4	24	75.2	28.9	84	183.2	277	530	986	682	1260	2300
-146	-230	-382	-3.9	25	77.0	29.4	85	185.0	282	540	1004	693	1280	2336
-140	-220	-364	-3.3	26	78.8	30.0	86	186.8	288	550	1022	704	1300	2372
-134	-210	-346	-2.8	27	80.6	30.6	87	188.6	293	560	1040	732	1350	2462
-129	-200	-328	-2.2	28	82.4	31.1	88	190.4	299	570	1058	760	1400	2552
-123	-190	-310	-1.7	29	84.2	31.7	89	192.2	304	580	1076	788	1450	2642
-118	-180	-292	-1.1	30	86.0	32.2	90	194.0	310	590	1094	816	1500	2732
-112	-170	-274	-0.6	31	87.8	32.8	91	195.8	316	600	1112	843	1550	2822
-107	-160	-256	0.0	32	89.6	33.3	92	197.6	321	610	1130	871	1600	2912
-101	-150	-238	0.6	33	91.4	33.9	93	199.4	327	620	1148	899	1650	3002
-96	-140	-220	1.1	34	93.2	34.4	94	201.2	332	630	1166	927	1700	3092
-90	-130	-202	1.7	35	95.0	35.0	95	203.0	338	640	1184	954	1750	3182
-84	-120	-184	2.2	36	96.8	35.6	96	204.8	343	650	1202	983	1800	3272
-79	-110	-166	2.8	37	98.6	36.1	97	206.6	349	660	1220	1010	1850	3362
-73	-100	-148	3.3	38	100.4	36.7	98	208.4	354	670	1238	1038	1900	3452
-68	-90	-130	3.9	39	102.2	37.2	99	210.2	360	680	1256	1066	1950	3542
-62	-80	-112	4.4	40	104.0	37.8	100	212.0	366	690	1274	1093	2000	3632
-57	-70	-94	5.0	41	105.8	43	110	230	371	700	1292	1121	2050	3722
-51	-60	-76	5.6	42	107.6	49	120	248	377	710	1310	1149	2100	3812
-46	-50	-58	6.1	43	109.4	54	130	266	382	720	1328	1177	2150	3902
-40	-40	-40	6.7	44	111.2	60	140	284	388	730	1346	1204	2200	3992
-34	-30	-22	7.2	45	113.0	66	150	302	393	740	1364	1232	2250	4082
-29	-20	-4	7.8	46	114.8	71	160	320	399	750	1382	1260	2300	4172
-23	-10	14	8.3	47	116.6	77	170	338	404	760	1400	1288	2350	4262
-17.8	0	32	8.9	48	118.4	82	180	356	410	770	1418	1316	2400	4352
			9.4	49	120.2	88	190	374	416	780	1436	1343	2450	4442
			10.0	50	122.0	93	200	392	421	790	1454	1371	2500	4532
			10.6	51	123.8	99	210	410	427	800	1472	1399	2550	4622
			11.1	52	125.6	100	212	413.6	432	810	1490	1427	2600	4712
			11.7	53	127.4	104	220	428	438	820	1508	1454	2650	4802
			12.2	54	129.2	110	230	446	443	830	1526	1482	2700	4892
			12.8	55	131.0	116	240	464	449	840	1544	1510	2750	4982
			13.3	56	132.8	121	250	482	454	850	1562	1538	2800	5072
			13.9	57	134.6	127	260	500	460	860	1580	1566	2850	5162
			14.4	58	136.4	132	270	518	466	870	1598	1593	2900	5252
			15.0	59	138.2	138	280	536	471	880	1616	1621	2950	5342
			15.6	60	140.0	143	290	554	477	890	1634	1649	3000	5432

## Threading Chart

Abrev.	System Name	Compatibility	Seat Method
<b>BSPP</b>	British Standard Pipe Parallel	Male BSPP with Female BSPP Female BSPP with Male BSPP Female BSPP with Male BSPT <sub>r</sub>	Washer Washer Washer
<b>BSPT<sub>r</sub></b>	British Standard Pipe Taper	Male BSPT <sub>r</sub> with Female BSPT <sub>r</sub> Male BSPT <sub>r</sub> with Female BSPP Female BSPT <sub>r</sub> with Male BSPT <sub>r</sub> Female BSPT <sub>r</sub> not compatible with Male BSPP	Thread Washer Thread
<b>CHT</b>	American standard Fire Hose Thread (1" National Hose Thread is Chemical Hose Thread, also known as Booster Hose Thread)	1" Male NH (NST) with 1" Female NH (HST) 1" Female NH (NST) with 1" Male NH (NST) 1" Thread is used on both 3/4" hose and 1" hose. Not compatible with other systems	Washer Washer
<b>GHT</b>	Garden Hose Thread	Male GHT with Female GHT Female GHT with Male GHT Thread is same for all size hose Not compatible with other systems	Washer Washer
<b>IPS</b>	Iron Pipe Straight Thread	Generic Name for Straight Pipe thread See NPSH for compatibility	Washer
<b>IPT</b>	Iron Pipe Thread	Generic Name for All Pipe thread More information required	
<b>JIC</b>	Joint Industrial Committee	Used with other mating JIC threads	Mechanical
<b>NH or NST</b>	American Standard Fire Hose Coupling Thread (National Hose thread also known as National Standard Thread)	Male NH (NST) with Female NH (NST) Female NH (NST) with Male NH (NST) Not compatible with other systems Thread pitch and diameters of fire threads may vary according to local and municipal regulations. Consult Factory	Washer Washer
<b>NPT</b>	American Standard Taper Pipe Thread (National Pipe Tapered)	Male NPT with Female NPT Male NPT with Female NPTF Male NPT with Female NPSM Male NPT with Female NPSH Female NPT with Male NPT Female NPT with Male NPTF Female NPT not compatible with Male NPSM or Male NPSH	Thread Thread Washer Washer Thread Thread
<b>NPTF</b>	American Standard Taper Pipe Fuel Dryseal Thread (National Pipe Tapered Fine)	Male NPTF with Female NPTF Male NPTF with Female NPT Male NPTF with Female NPSM Male NPTF with Female NPSH Female NPTF with Male NPTF Female NPTF with Male NPT Female NPTF with Male NPSM or NPSH Note: NPTF with NPTF threads do not require sealant for the initial use. After that, sealant is required.	Thread Thread Washer Washer Thread Thread Not Compatible
<b>NPSH</b>	American Standard Straight Pipe for Hose Couplings (National Pipe Straight Hose)	Male NPSH with Female NPSH Female NPSH with Male NPSH Female NPSH with Male NPT Female NPSH with Male NPTF Female NPSH with Male NPSM	Washer Washer Washer Washer Washer
<b>NPSM</b>	American Standard Straight Mechanical Joints (National Pipe Straight Mechanical)	Male NPSH with Female NPSH Female NPSH with Male NPSH Female NPSM with Male NPSM Female NPSM with Male NPT Female NPSM with Male NPTF	Seal can be either mechanical or washer. Mating fittings must be of same type.
<b>TIPT</b>	Tapered Iron Pipe Thread	Generic Name for Tapered Pipe Thread	Thread



## Thread Dimensions Chart

### Nominal Dimensions of Standard Threads

	Pipe O.D.	NPT	NPSH			NPSM			NH (NST)			BSPP (Parallel)			BSPT <sub>r</sub> (Tapered)
Size		TPI	TPI	ODM (Max)	IDF (min)	TPI	ODM (max)	IDF (min)	TPI	ODM (max)	IDF (min)	TPI	ODM (max)	IDF (min)	TPI
1/8"	.405	27				27	3.397	0.358					0.383	0.337	28
1/4"	.504	18				18	0.526	0.468					0.516	0.450	19
3/8"	.675	18				18	0.662	0.603					0.656	0.588	19
1/2"	.840	14	14	0.8248	0.7395	14	0.823	0.747					0.825	0.733	14
3/4"	1.050	14	14	1.0353	0.9500	14	1.034	0.958	8	1.375	1.2246		1.041	0.950	14
1"	1.315	11.5	11.5	1.2951	1.1921	11.5	1.293	1.201	8	1.375	1.2246	11	1.309	1.193	11
1-1/4"	1.660	11.5	11.5	1.6399	1.5369	11.5	1.638	1.546					1.650	1.534	11
1-1/2"	1.900	11.5	11.5	1.8788	1.7758	11.5	1.887	1.785	9	1.990	1.8577	11	1.882	1.766	11
2"	2.375	11.5	11.5	2.3528	2.2498	11.5	2.351	2.259					2.347	2.231	11
2-1/2"	2.875	8				8	2.841	2.708	7.5	3.068	2.9104	11	2.960	2.844	11
3"	3.500	8				8	3.467	3.334	6	3.623	3.5306	11	3.460	3.344	11
4"	4.500	8				8	4.466	4.333	4	5.010	4.7111	11	4.450	4.334	11
4-1/2"									4	5.760	5.4611				
5"	5.563	8				8	5.528	5.395	4	6.260	5.9602	11	5.450	5.359	11
6"	6.625	8				8	6.585	6.452	4	7.025	6.7252	11	6.450	6.359	11
8"	8.625	8													
10"	10.750	8													
12"	12.750	8													

ODM -- Outside Diameter of the Male

IDF -- Inside Diameter of the Female

TPI -- Threads Per Inch

GHT (3/4") -- 1.0625 ODM, 11 1/2 TPI

**NOTE: Female NPT (Tapered Pipe) thread is not available on hose swivel nuts.**

### Normal Engagement Length of NPT Thread in Inches ("A")\*

1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"
1/4"	3/8"	3/8"	1/2"	9/16"	11/16"	11/16"	11/16"	3/4"	15/16"	1"	1-1/8"	1-1/4"	1-5/16"	1-7/16"	1-5/8"	1-3/4"

\* Dimensions given do not allow for variations in tapping or threading.

### Cam & Groove Nominal Take-up Lengths

Thread to Thread Take-up Length	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8"
	0.53"	0.55"	0.66"	0.68"	0.68"	0.70"	0.93"	1.02"	1.09"	1.19"	1.21"	1.31"

Coupler/Adapter Take-up Length	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	5"	6"	8" BL	8" AND
	0.88"	0.88"	1.20"	1.44"	1.50"	1.75"	1.82"	1.88"	1.95"	2.00"	2.13"	1.94"	2.94"

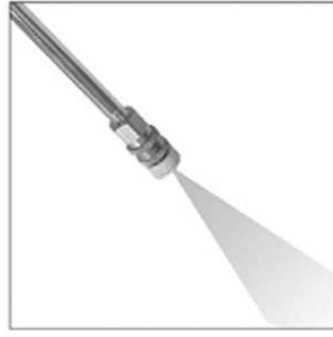
## Choosing The Right Nozzle

### Nozzle Spray Patterns



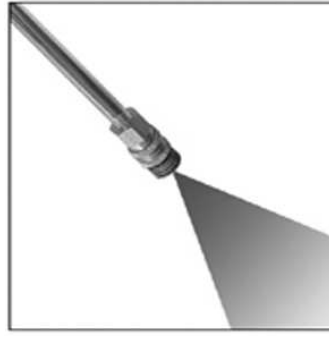
#### Red 0° Nozzle

This is a blasting nozzle. It delivers a very concentrated stream of water. Care should be used to avoid gouging wood or damaging fragile surfaces. Uses: Removing weeds from sidewalk cracks, stubborn stains and chewing gum from concrete, masonry, aluminum and steel, caked mud from equipment and cleaning lawn mower undersides.



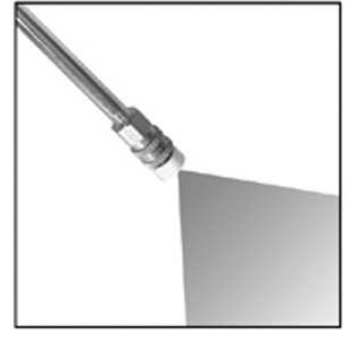
#### Yellow 15° Nozzle

This is a chiseling nozzle. The spray should be directed at a 45° angle to the surface and used like a scraper to remove paint, grease and dirt. Uses: Surface preparation (removing peeling paint and mildew stains), cleaning gutters and downspouts and bugs from trucks.



#### Green 25° Nozzle

This is a flushing nozzle. With a narrower spray pattern than the 40° nozzle and with more concentrated spray pressure, this nozzle is best suited for flushing dirt, mud and grime. Uses: Wet-sweeping leaves from walks, curbs and driveways, cleaning stable floors, washing swimming pool bottoms and cleaning barbeque grills.



#### White 40° Nozzle

This is a wash nozzle. It's wide spray pattern disperses the water pressure over a large area and is recommended for rinsing and moderate washing. Uses: Washing down aluminum siding, cleaning windows, washing vehicles, spraying sidewalks, driveways and patios.

### Nozzle Spray Patterns

The orifice size of the nozzle determines the operating pressure of your machine. As a rule of thumb, the smaller the orifice, the greater the restriction of water flowing through the machine. This causes the pressure to increase.

- Choosing a nozzle with too large an orifice will reduce operating pressure.
- Choosing a nozzle with too small an orifice will limit water flow and possibly create an excessive load on the machine.

Use the table below to select the properly sized nozzle for your machine.

Determine the nozzle size by matching the operating pressure (PSI) of your machine to the Gallons Per Minute (GPM)

Nozzle Orifice Size	Pounds Per Square Inch (PSI)																		
	500 PSI	600 PSI	700 PSI	800 PSI	1000 PSI	1500 PSI	2000 PSI	2500 PSI	3000 PSI	3500 PSI	4000 PSI	4500 PSI	5000 PSI	5500 PSI	6000 PSI	6500 PSI	7000 PSI	7500 PSI	8000 PSI
2.0	.71	.77	.84	.89	1.0	1.2	1.4	1.6	1.7	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8
2.5	.9	1.0	1.0	1.1	1.3	1.6	1.8	2.0	2.2	2.3	2.5	2.7	2.8	2.9	3.1	3.2	3.3	3.4	3.5
3.0	1.1	1.2	1.3	1.4	1.5	1.8	2.1	2.4	2.6	2.8	3.0	3.2	3.4	3.5	3.7	3.8	4.0	4.1	4.2
3.5	1.3	1.4	1.5	1.6	1.8	2.2	2.5	2.8	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.6	4.8	4.9
4.0	1.4	1.6	1.7	1.8	2.0	2.5	2.8	3.2	3.5	3.7	4.0	4.2	4.5	4.7	4.9	5.1	5.3	5.5	5.7
4.5	1.6	1.7	1.9	2.0	2.3	2.8	3.2	3.6	3.9	4.2	4.5	4.8	5.0	5.3	5.5	5.7	6.0	6.2	6.4
5.0	1.8	1.9	2.1	2.2	2.5	3.1	3.5	4.0	4.3	4.7	5.0	5.3	5.6	5.9	6.1	6.4	6.6	6.8	7.1
5.5	1.9	2.1	2.3	2.5	2.8	3.4	3.9	4.1	4.8	5.1	5.5	5.8	6.2	6.4	6.7	7.0	7.3	7.5	7.8
6.0	2.1	2.3	2.5	2.7	3.0	3.7	4.2	4.7	5.2	5.6	6.0	6.4	6.7	7.0	7.3	7.6	7.9	8.2	8.5
6.5	2.3	2.5	2.7	2.9	3.3	4.0	4.6	5.1	5.6	6.1	6.5	6.9	7.3	7.6	8.0	8.3	8.6	8.9	9.2
7.0	2.5	2.7	2.9	3.1	3.5	4.3	4.9	5.5	6.1	6.5	7.0	7.4	7.8	8.2	8.6	8.9	9.3	9.6	9.9
7.5	2.7	2.9	3.1	3.4	3.8	4.6	5.3	5.9	6.5	7.0	7.5	8.0	8.4	8.8	9.2	9.6	9.9	10.3	10.6
8.0	2.8	3.1	3.4	3.6	4.0	4.9	5.7	6.3	6.9	7.5	8.0	8.5	8.9	9.4	9.8	10.2	10.6	11.0	11.3
9.0	3.2	3.5	3.8	4.0	4.5	5.5	6.4	7.1	7.8	8.4	9.0	9.6	10.1	10.6	11.0	11.5	11.9	12.3	12.7
10	3.5	3.9	4.2	4.5	5.0	6.1	7.1	7.9	8.7	9.4	10.0	10.6	11.2	11.7	12.2	12.7	13.2	13.7	14.1
12	4.2	4.6	5.0	5.4	6.0	7.3	8.5	9.5	10.4	11.2	12.0	12.7	13.4	14.1	14.7	15.3	15.9	16.4	17.0
15	5.3	5.8	6.3	6.7	7.5	9.2	10.6	11.9	13.0	14.1	15.0	15.9	16.8	17.6	18.4	19.1	19.8	20.5	21.2

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## Decimal and Millimeter Equivalents of Fractions

Inches		Millimeters
Fractions	Decimals	
1/64	.015625	.397
1/32	.03125	.794
3/64	.046875	1.191
1/16	.0625	1.588
5/64	.078125	1.984
3/32	.09375	2.381
7/64	.109375	2.778
1/8	.125	3.175
9/64	.140625	3.572
5/32	.15625	3.969
11/64	.171875	4.366
3/16	.1875	4.763
13/64	.203125	5.159
7/32	.21875	5.556
15/64	.234375	5.953
1/4	.250	6.350
17/64	.265625	6.747
9/32	.28125	7.144
19/64	.296875	7.541
5/16	.3125	7.938
21/64	.328125	8.334
11/32	.34375	8.731
23/64	.359375	9.128
3/8	.375	9.525
25/64	.390625	9.922
13/32	.40625	10.319
27/64	.421875	10.716
7/16	.4375	11.113
29/64	.453125	11.509
15/32	.46875	11.906
31/64	.484375	12.303
1/2	.500	12.700

Inches		Millimeters
Fractions	Decimals	
33/64	.515625	13.097
17/32	.53125	13.494
35/64	.546875	13.891
9/16	.5625	14.288
37/64	.578125	14.684
19/32	.59375	15.081
39/64	.609375	15.478
5/8	.625	15.875
41/64	.640625	16.272
21/32	.65625	16.669
43/64	.671875	17.066
11/16	.6875	17.463
45/64	.703125	17.859
23/32	.71875	18.256
47/64	.734375	18.653
3/4	.750	19.050
49/64	.765625	19.447
25/32	.78125	19.844
51/64	.796875	20.241
13/16	.8125	20.638
53/64	.828125	21.034
27/32	.84375	21.431
55/64	.859375	21.828
7/8	.875	22.225
57/64	.890625	22.622
29/32	.90625	23.019
59/64	.921875	23.416
15/16	.9375	23.813
61/64	.953125	24.209
31/32	.96875	24.606
63/64	.984375	25.003
1	1.000	25.400

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