



## Contents

**3-25** Flowmeters & Process Controls

**26-52** Valves

**53-68** Pumps

**69-71** Gauges

**72-78** Filters & Strainers

**79-90** Tanks

**91** Portable Mixers

**92-99** Level Control

**100** Chart Recorders

**101-115** Pipe & Fittings

**116** Pipe Strut & Accessories

**117-138** Tubing & Hose

**139** Machining Shapes & Profiles

**140** Pipe Hangers & Fittings

**141, 142** Blowers & Duct Fittings

**143-151** Tools & Accessories



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**MODEL VARIATIONS FOR F-440, F-450, F-451, & F-452:**

LH and LHN = In-Line units (flow through).  
 LHE = 90° Elbows for Panel Mount Installation.  
 LHNE = 90° Elbows for Panel Mount Installation (M/NPT all models but the CF451006 F/NPT).  
 LEA = 90° Elbows for Panel Mount Installation and Adjustable Valve.  
 LHC, LHNC, LHKC = Units with Polycarbonate Shield.  
 LHK and LHKH = In-Line units specially equipped with Hastelloy C, PVC or Teflon float and guide rod (material is dependent on scale range).  
 LKEA = 90° Elbows for Panel Mount Installation, Adjustable Valve and specially equipped units.  
 LHB and LHBH = Units with Brass Adapters. (Suffix -7 = 3/8" F/NPT; -8 = 1/2" Sweat; -9 = 1/2" F/MPT; -12 = 3/4" Sweat; -13 = 3/4" F/MPT).  
 LHBPN = Units with Brass F/NPT Adapters.  
 LHBSN = Units with Brass Sweat Adapters.  
 GH, GHN, GNC = In-Line units calibrated for air.  
 GHNE = 90° Elbows for Panel Mount Installation calibrated for air.  
 GEA = 90° Elbows for Panel Mount Installation with Adjustable Valve calibrated for air.



**BLUE WHITE**  
INDUSTRIES

As Low As  
**\$53.97**



F-440 Series		Calibration		Adapter	Price				
Item #		GPM	LPM	Size (in.)	LH*	LHE*	LEA*	LHK*	LKEA*
F44250(*)6		.025 to .250	0.1 to 1.0	3/8" M/NPT	\$53.97	\$65.47	\$96.36	\$66.78	\$125.21
F44250(*)8		.025 to .250	0.1 to 1.0	1/2" M/NPT	53.97	65.47	96.36	66.78	125.21
F44375(*)6		0.1 to 1.0	0.4 to 4.0	3/8" M/NPT	53.97	65.47	96.36	66.78	125.21
F44375(*)8		0.1 to 1.0	0.4 to 4.0	1/2" M/NPT	53.97	65.47	96.36	66.78	125.21
F44376(*)6		0.2 to 2.0	0.75 to 7.5	3/8" M/NPT	53.97	65.47	96.36	96.09	125.21
F44376(*)8		0.2 to 2.0	0.75 to 7.5	1/2" M/NPT	53.97	65.47	96.36	96.09	125.21
F44500(*)6		0.5 to 5.0	1.8 to 18	3/8" M/NPT	53.97	65.47	96.36	96.09	125.21
F44500(*)8		0.5 to 5.0	1.8 to 18	1/2" M/NPT	53.97	65.47	96.36	96.09	125.21
F44750(*)12		1.0 to 10	5.0 to 37.5	3/4" M/NPT	62.19	75.86	107.32	143.57	203.07

Item #	Calibration GPH	Size (in.)	LH*	LHE*	LEA*	LHK*	LKEA*	LHB*
F44330(*)6	3.0 to 30	3/8" M/NPT	\$53.96	\$67.67	\$98.77	\$96.09	\$150.04	—
F44330(*)8	3.0 to 30	1/2" M/NPT	53.96	67.67	98.77	96.09	150.04	\$65.73
F44560(*)6	5.0 to 60	3/8" M/NPT	53.96	67.67	98.77	96.09	150.04	—
F44560(*)8	5.0 to 60	1/2" M/NPT	53.96	67.67	98.77	96.09	150.04	65.73

F-450 Series		Calibration		Adapter	Price				
Item #		GPM	LPM	Size (in.)	LHN*	LHNE*	LEA*	LHKN*	LKEA*
F45375(*)6		0.1 to 1.0	0.4 to 4.0	3/8" F/NPT	\$56.81	\$67.67	\$98.77	\$96.09	\$155.03
F45375(*)8		0.1 to 1.0	0.4 to 4.0	1/2" M/NPT	56.81	67.67	98.77	96.09	155.03
F45376(*)6		0.2 to 2.0	1.0 to 7.5	3/8" F/NPT	56.81	67.67	98.77	96.09	155.03
F45376(*)8		0.2 to 2.0	1.0 to 7.5	1/2" M/NPT	56.81	67.67	98.77	96.09	155.03
F45500(*)6		0.5 to 5.0	2.0 to 20	3/8" F/NPT	56.81	67.67	98.77	96.09	155.03
F45500(*)8		0.5 to 5.0	2.0 to 20	1/2" M/NPT	56.81	67.67	98.77	96.09	155.03
F45500(*)12		0.5 to 5.0	2.0 to 20	3/4" M/NPT	56.81	67.67	98.77	96.09	155.03
F45750(*)12		1.0 to 10	4.0 to 40	3/4" M/NPT	65.62	76.12	107.23	144.12	203.07

Item #	Calibration SCFM (Air)	Adapter Size (in.)	GHN*	GHNE*	GEA*
F45376(*)8	1 to 12	3/8" F/NPT	\$56.81	\$67.67	\$98.77
F45376(*)6	1 to 12	1/2" M/NPT	56.81	67.67	98.77
F45750(*)8	4 to 48	3/4" M/NPT	65.62	76.12	107.23

\* Replace with the appropriate Model above.

F-451 Series		Calibration		Adapter	Price				
Item #		GPM	LPM	Size (in.)	LHN*	LHNE*	LHNC*	LHKN*	LHBPN*
F451006(*)		0.5 to 6	2 to 20	1" F/NPT	\$174.92	\$215.54	\$246.14	\$318.96	\$252.68
F451001(*)		1.0 to 10	4 to 40	1" F/NPT	186.18	215.54	256.59	318.96	262.03
F451002(*)		2.0 to 20	7.5 to 75	1" F/NPT	195.42	224.24	264.81	343.01	283.33
F451003(*)		3.0 to 30	12 to 115	1" F/NPT	214.11	240.92	283.51	375.62	281.92
F451004(*)		4.0 to 40	15 to 155	1" F/NPT	224.76	250.56	294.14	404.27	295.93

1 1/2" F/NPT PVC Adapters					LHNC*	LHKN*
F451006(*)24		0.5 to 6	2.0 to 20	1 1/2" F/NPT	\$195.83	\$265.22
F451001(*)24		1.0 to 10	4 to 40	1 1/2" F/NPT	195.83	265.22
F451002(*)24		2.0 to 20	7.5 to 75	1 1/2" F/NPT	205.04	274.44
F451003(*)24		3.0 to 30	12 to 115	1 1/2" F/NPT	223.73	293.16
F451004(*)24		4.0 to 40	15 to 155	1 1/2" F/NPT	234.39	303.78

Item #	Calibration SCFM (Air)	Adapter Size (in.)	Price
F451002GHN	8 to 80	1" F/NPT	\$175.88
F451002GHN24	8 to 80	1 1/2" F/NPT	184.54

F-452 Series		Calibration		Adapter	Price			
Item #		GPM	LPM	Size (in.)	LH*	LHK*	LHC*	LHKC*
F452020(*)		2.0 to 20	8.0 to 78	2" F/NPT	\$377.24	\$551.39	\$473.32	\$647.48
F452060(*)		6.0 to 60	30 to 230	2" F/NPT	377.24	573.34	473.32	669.42
F452080(*)		10 to 80	40 to 300	2" F/NPT	377.24	573.34	473.32	669.42
F452100(*)		5.0 to 100	20 to 380	2" F/NPT	377.24	573.34	473.32	669.42
F452130(*)		15 to 130	60 to 500	2" F/NPT	401.39	591.17	497.47	687.24
F452175(*)		20 to 175	75 to 675	2" F/NPT	401.39	591.17	497.47	687.24

Item #	Calibration SCFM (Air)	Adapter Size (in.)	GH*	GHC*
F452040GH	4 to 40	2" F/NPT	\$377.24	\$473.32
F452250GH	30 to 230	2" F/NPT	377.24	473.32

\* Replace with the appropriate Model above.

**Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726**

## Series F-440 & F-450 Flowmeters

High performance Polysulfone meter body and adapters. Viton® O-ring seals. Corrosion and wear resistant internal parts.

Configurations for both in-line and panel mount installation requirements. Optional integral flow adjustment valve. Permanent screen printed scales. Not recommended for direct sunlight applications. Dual scale: gallons per minute and liters per minute (GPM/LPM). Single scale for gallons per hour (GPH).

### PIPE SIZES:

3/8", 1/2", 3/4" M/NPT & F/NPT



### Quick Spec

- Temperature: 212°F/100°C @ 0 pressure
- Pressure: 150 psi/10.3 Bar @ 70°F/21°C
- Full Scale Accuracy: ±5%
- Meter Body material: Polysulfone
- Adapters material: Polysulfone
- O-rings: Viton
- Float material: #316 SS (Hastelloy C, Teflon & PVC materials available depending on calibration)
- Max Pressure drop: 2 psi

## Series F-451 & F-452 High Capacity Flowmeters

A heat and chemical resistant meter body of injection molded Polysulfone. Floats are #316 SS or Teflon depending on calibration. Not recommended for direct sunlight applications.

### PIPE SIZES:

1" F/NPT,  
1 1/2" F/NPT



### Quick Spec

- F-451 Series
- Temperature: 212°F/100°C @ 0 pressure
- Pressure: 150 psi/10 Bar @ 70°F/21°C
- Full Scale Accuracy: ±3%
- Meter Body material: Polysulfone
- Adapters material: 1" Polysulfone & 1 1/2" PVC
- O-rings: Viton
- Float material: #316 SS, Hastelloy C or Teflon
- Max Pressure drop: 1 psi

### F-452 Series

- Temperature: 150°F/65°C @ 0 pressure
- Pressure: 130 psig/8.9 Bar @ 70°F/21°C
- Full Scale Accuracy: ±2%
- Meter Body material: Polysulfone
- Adapter material: 2" F/NPT Polysulfone
- O-rings: Viton
- Float material: #316 SS, Hastelloy C or Teflon
- Max Pressure drop: 2 psi

## CF-400N Series In-Line Flowmeter

Higher  
Flow RatesBLUE WHITE®  
INDUSTRIES

These units offer individual, handmade quality, combined with excellent accuracy and repeatability.

The flowmeters are machined of high quality acrylic rod stock, and carefully polished to a clear-as-glass finish. Easy to read scales are screen printed on the meter body. Adapters on the F-400N are reinforced with aluminum stress rings for added strength, and o-ring seals are Viton.

Unit shown with optional  
High/Low Level Alarm.

\*Note: The F-400N Series units have an aluminum sensor bezel clamp with an enclosed reed switch (normally open). The clamp can be easily moved up or down the scale on the meter body. Two lead wires are included, so customer can hook up their own electronics (read switch is 1 watt).



CF-420N

CF-400N

**An exceptional flowmeter at a remarkable price!**

**Models now available with 1½" adapters. Up to 50 GPM.**

Item #	GPM	Adapter Material	Adapter Size	Price
<b>Units for In-Line Installation — Single Scale Gallon Per Minute (U.S.)</b>				
CF42025LN	5.0 to 25	PVC	1½" M/NPT	\$158.49
CF42040LN	4.0 to 40	PVC	1½" M/NPT	158.49
CF42050LN	10 to 50	PVC	1½" M/NPT	158.49
<b>Units for In-Line Installation — Single Scale Liter Per Minute (Metric)</b>				
CF42100LM	20 to 100	PVC	1½" M/NPT	158.49
CF42150LM	30 to 150	PVC	1½" M/NPT	158.49
CF42180LM	30 to 180	PVC	1½" M/NPT	158.49

Item #	GPM	LPM	Adapter Size	Price
CF40250LN4	0.025 to 0.250	0.1 to 1.0	¼" FPT	\$66.33
CF40250LN6	0.025 to 0.250	0.1 to 1.0	⅜" FPT	66.33
CF40375LN6	0.1 to 1.0	0.4 to 4.0	⅜" FPT	56.73
CF40375LN8	0.1 to 1.0	0.4 to 4.0	½" FPT	56.73
CF40376LN6	0.2 to 2.0	1.0 to 7.5	⅜" FPT	56.73
CF40376LN8	0.2 to 2.0	1.0 to 7.5	½" FPT	56.73
CF40377LN6	0.3 to 3.0	1.5 to 11.5	⅜" FPT	61.16
CF40377LN8	0.3 to 3.0	1.5 to 11.5	½" FPT	61.16
CF40500LN6	0.5 to 5.0	1.8 to 18	⅜" FPT	61.16
CF40500LN8	0.5 to 5.0	1.8 to 18	½" FPT	61.16
CF40750LN12	1.0 to 10	4.0 to 38	¾" FPT	109.29
CF40750LN16	1.0 to 10	4.0 to 38	1" FPT	109.29
CF41017LN12	1.0 to 17	4.0 to 64	¾" FPT	109.29
CF41017LN16	1.0 to 17	4.0 to 64	1" FPT	109.29
CF41000LN12	2.0 to 20	8.0 to 78	¾" FPT	109.29
CF41000LN16	2.0 to 20	8.0 to 78	1" FPT	109.29

\*Units available with High/Low Level Alarm. Please call for prices.



## USCO tech tip

When installing any Blue-White flowmeter, Teflon tape has proven to be the thread sealant of choice. (See page 115.) Avoid using commercial sealants such as Loctite, etc. Also, PVC glues and fumes cannot come in direct contact with flowmeters.

## F-460 &amp; F-461 Series Flowmeters

## For ULTRA PURE applications

Ribbed Polysulfone meter body with precisely engineered float guides. Easy to read dual scale screen printed on the meter body. Units available for in-line installation. No metal in the fluid path. Ideal for corrosive environments such as Deionized Water or other jobs where an all plastic meter is desirable. Not recommended for direct sunlight applications.

Item #	Flow Range		Float Material	Adapter Size	Price	
	GPM	LPM			PVDF Adapter	PVC Adapter
CF46010LX-08K*	0.1 to 1.2	.4 to 4.4	Teflon	½" F/NPT	\$172.67	\$145.40
CF46010LX-12K*	0.1 to 1.2	.4 to 4.4	Teflon	¾" F/NPT	172.67	145.40
CF46020LX-08K*	0.2 to 2.0	.8 to 8.0	Teflon	½" F/NPT	172.67	145.40
CF46020LX-12K*	0.2 to 2.0	.8 to 8.0	Teflon	¾" F/NPT	172.67	145.40
CF46030LX-08K*	0.3 to 3.0	1.0 to 11.0	Teflon	½" F/NPT	181.78	154.84
CF46030LX-12K*	0.3 to 3.0	1.0 to 11.0	Teflon	¾" F/NPT	181.78	154.84
CF46050LX-08K*	0.5 to 5.0	2.0 to 20.0	Teflon	½" F/NPT	190.17	163.58
CF46050LX-12K*	0.5 to 5.0	2.0 to 20.0	Teflon	¾" F/NPT	190.17	163.58
CF461100LX-16K*	1.0 to 10.0	4.0 to 40.0	Teflon	1" F/NPT	270.37	236.27
CF461200LX-16K*	2.0 to 20.0	5.0 to 75.0	Teflon	1" F/NPT	270.37	236.27

\* Models listed above: PVDF Adapter "K". For PVC Adapter replace "K" with "P".

BLUE WHITE®  
INDUSTRIES

NO METAL CONTAMINANTS IN THE FLUID PATH!

## PIPE SIZES:

½", ¾", 1" F/NPT

From Only  
**\$145<sup>40</sup>**Easy-To-Read  
Dual Scale

## Quick Spec

- Temperature: 210°F/98°C @ 0 pressure (PVDF adapter), 130°F/54°C @ 0 pressure (PVC adapter)
- Pressure: 150 psig/10.3 Bar @ 70°F/21°C
- Full Scale Accuracy: ±2%
- Half Union: Anodized aluminum, optional PVC
- O-rings: Viton
- Max Pressure drop: 2 psi





## F-500E Panel Mount Flowmeter

The F-500E panel mount flowmeter features body styling similar to that of the F-500 series, however, it is much smaller in size to accommodate a different range of applications. The F-500E has meter body construction of machined acrylic, Viton o-ring seals, and floats of #316 Stainless Steel. If you don't see the calibration you need, contact an USCO sales person for assistance.



Dimension-Connector				
Item #	Calibration	Adapter Size	Center to Center	Price
F501E	2.0 to 20 CFH	1/4" MPT	3"	<b>\$38.40</b>
F502E	4.0 to 30CFH	1/4" MPT	3"	<b>38.40</b>
F503E	5.0 to 50 CFH	1/4" MPT	3"	<b>38.40</b>
F504E	2.0 to 24 LPM/Air	1/4" MPT	3"	<b>38.40</b>
F505E	1.0 to 11 GPH	1/4" MPT	3"	<b>38.40</b>
F506E	1.0 to 5 SCFM	1/4" MPT	3"	<b>42.28</b>
F507E	0.2 to 1.2 GPM	1/4" MPT	3"	<b>42.28</b>

Note: Larger Calibrations are available. Consult sales office.



**BLUE WHITE INDUSTRIES**

As Low As  
**\$72.76**

### Quick Spec

- Temperature: 200°F/93°C @ 0 pressure
- Pressure: 250 psig/17.2 Bar @ 70°F/21°C
- Full Scale Accuracy: ±5%
- Meterbody material: Machined acrylic
- Adapter material: Polypropylene
- O-rings: Viton
- Float material: #316 SS
- Max Pressure drop: 2 psi full scale

## CF-440E & 440EA Panel Mount & Adjustable Flowmeters

The panel mount F-440E (E = Elbow) flowmeters come equipped with 90° adapters for panel mount installation. Installation is easy. Drill two holes in the panel, insert meter fittings through the holes, and secure with the provided lock nuts. The elbows come with MPT or barbed connections. The panel mount adjustable F-440EA (A = Adjustable) models have an integral adjustable flow control needle valve. The flowmeter construction is of injection molded Polysulfone. The PVC needle valve has double O-ring packing on the stem, and a 15° valve stem point for greater flow control. These units also come with MPT or barbed tubing connections. The adjustable valve may be installed at either the suction or discharge end of the flowmeter. Additionally, F-440EA units may be ordered with an adjustable valve at one end and in-line adapter at the other. Any number of configurations are possible.



**BLUE WHITE INDUSTRIES**

### SPECIFICATIONS

Accuracy:	±5%	Scale Range:	0.025 to 10GPM
Material of Construction (meter body):	Molded Polysulfone	Adapter Size:	3/8" to 3/4" MPT
O-Ring Material:	Viton®	Temperature Limits:	150°F
		Shipping weight:	2 lbs. approx.

Item #	GPM	LPM	Float Material	Adapter Size	Price
CF44250LHE6	.025 to .250	1 to 1.0	PVC	3/8" MPT	<b>\$64.91</b>
CF44375LHE6	.1 to 1.0	.4 to 4.0	#316 S.S.	3/8" MPT	<b>64.91</b>
CF44376LHE8	.2 to 2.0	.75 to 7.5	#316 S.S.	1/2" MPT	<b>64.91</b>
CF44500LHE8	.5 to 5.0	1.8 to 18	#316 S.S.	1/2" MPT	<b>64.91</b>
CF44750LHE12	1.0 to 10	5.0 to 37.5	#316 S.S.	3/4" MPT	<b>75.86</b>
CF44250LEA8	.025 to .250	.1 to 1.0	PVC	1/2" MPT	<b>96.36</b>
CF44375LEA8	.1 to 1.0	.4 to 4.0	#316 S.S.	1/2" MPT	<b>96.36</b>
CF44376LEA8	.2 to 2.0	.75 to 7.5	#316 S.S.	1/2" MPT	<b>96.36</b>
CF44500LEA8	.5 to 5.0	1.8 to 18	#316 S.S.	1/2" MPT	<b>96.36</b>
CF44750LEA12	1 to 10	5.0 to 37.5	#316 S.S.	3/4" MPT	<b>107.32</b>

Note: Different adapter sizes are available. Consult sales office.



## F-550 Series Panel Mount Flowmeters

### FEATURES

- One piece machined and polished acrylic meter body.
- Corrosion and wear resistant internal parts.
- Adapters: M/NPT (Male National Pipe Thread).
- Units for panel mount installation.
- Dual scale: Gallons Per Minute (GPM) and Liters Per Minute (LPM).
- Bulkhead nuts attach directly to inside panel.
- Adjustable Valve (flow control only), easy to assemble.

Item #	Calibration		Adapter Size	Float Material	Price	
	GPM	LPM			Standard	with Adj. Valve
F55250L	.025 to .250	0.1 to 1.0	1/4" M/NPT	#316 SS	<b>\$74.94</b>	<b>\$110.81</b>
F55375L	0.1 to 1.0	0.4 to 4.0	3/8" M/NPT	#316 SS	<b>72.76</b>	<b>101.89</b>
F55376L	0.2 to 2.0	0.75 to 7.5	3/8" M/NPT	#316 SS	<b>72.76</b>	<b>101.89</b>
F55500L	0.5 to 5.0	2 to 20	1/2" M/NPT	#316 SS	<b>72.76</b>	<b>101.89</b>
F55750L	1.0 to 10	4 to 40	3/4" M/NPT	#316 SS	<b>86.28</b>	<b>142.00</b>
F55005L	1.0 to 5	3 to 18	1" M/NPT	#316 SS	<b>102.74</b>	—
F55010L	1.0 to 10	4 to 40	1" M/NPT	#316 SS	<b>102.74</b>	<b>150.33</b>
F55015L	1.0 to 15	4 to 57	1" M/NPT	#316 SS	<b>102.74</b>	<b>150.33</b>
F55200L	2.0 to 20	8 to 80	1" M/NPT	#316 SS	<b>102.74</b>	<b>150.33</b>

Note: To order with Adjustable Valve add the letter "A" after the "L".  
Model # F-55005L not available with Adjustable Valve.

## F-750 Series Panel Mount PVC Meter

The F-750 is designed to connect directly to 1/4" I.D. flexible PVC tubing, either by clamping or gluing. Reducer adapters are available for 3/8" I.D. tubing. Optional Flow Control Valve available. Internally molded float guides. Single scale liquid flow ranges: GPH, LPM, oz/min and ml/min. Single scale air flow ranges: SCFM, SCFH and cc/min.

Item #	Flow Range Liquid		Flow Range Air		Float Material	Price	
	GPH	Oz/Min	SCFH	SCFM		No Valve	Adj. Valve*
F750(**)T	0.2 to 1.6	.25 to 3.5	—	—	Teflon	<b>\$21.14</b>	<b>\$26.36</b>
F751(**)T	1.0 to 12	2 to 25	—	—	Teflon	<b>21.14</b>	<b>26.36</b>
F750(**)G	0.2 to 2.3	.50 to 5.0	1.0 to 14	—	Glass	<b>21.14</b>	<b>26.36</b>
F751(**)G	1.0 to 16	2 to 34	—	.10 to 1.5	Glass	<b>21.14</b>	<b>26.36</b>
F750(**)C	0.3 to 3.1	.50 to 6.5	2.0 to 18	—	Ceramic	<b>21.14</b>	<b>26.36</b>
F751(**)C	2.0 to 24	5 to 50	—	.20 to 2.0	Ceramic	<b>21.14</b>	<b>26.36</b>
F750(**)S	0.5 to 5.5	2 to 12	5.0 to 25	—	316 SS	<b>21.14</b>	<b>26.36</b>
F751(**)S	3.0 to 32	7 to 70	—	.30 to 3.0	316 SS	<b>21.14</b>	<b>26.36</b>
F751(**)K	3.0 to 32	7 to 70	—	.30 to 3.0	K Monel	<b>21.14</b>	<b>26.36</b>

\*For Adjustment Valve add the letter "A" after the last digit of item number.

\*\* Replace with the appropriate flow range: GPH, Oz/Min, SCFH or SCFM.

**TUBE SIZE**  
1/4" O.D.



**BLUE WHITE INDUSTRIES**

From Only  
**\$21.14**

### Quick Spec

- Temperature: 100°F/37°C @ 0 pressure
- Pressure: 75 psig/10 Bar @ 70°F/21°C
- Full Scale Accuracy: ±10%
- Meterbody material: PVC
- Connections: PVC 1/4" gluing or clamping to flexible tubing
- O-rings: Viton
- Float material: #316 SS, Glass, Ceramic, K Monel, Teflon depending on calibration
- Max Pressure drop: 2 psi

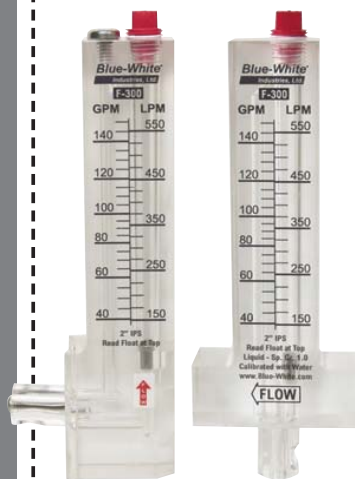


**Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726**

**USCO 5**



## CF-300 Series Pitot Tube Flowmeter



CD/CU-300 Series

CF-300 Series

Well suited for closed pipe installation. Easy to read dual scale (GPM/LPM), screen printed on both sides of the meter body. Horizontal or vertical pipe installation. One piece machined acrylic meter body. Corrosion resistant internal parts.

### Quick Spec

- Temperature: 190°F/88°C @ 0 pressure
- Pressure: 150 psig/10.3 Bar @ 70°F/21°C
- Full scale accuracy: ±10%
- Meter Body material: Acrylic
- Connection type: Saddle
- Float material: #316 SS, Hastelloy or Teflon (low flow units)
- Max. pressure drop: 0 psi

From Only  
**\$52.89**

### PIPE SIZES:

1", 1½", 1¾", 2", 2½", 3", 4", 6" & 8" F/NPT

## Heavy Duty F-650 Series ARMORED GLASS Tube Meter

The ALL NEW F-650 Series Flowmeter is ideal for difficult applications. It's tough, accurate, and dependable. The glass tube is protected by a durable, Polycarbonate shield. 65mm or 150mm scales are supplied with both Air and Liquid Calibration Charts.

### Quick Spec

- Glass tubing (borosilicate) scale length 65mm & 150mm
- Optional flow control valve\*
- Available for liquid and air
- Maximum Temperature recommended: 121°C/250°F (@ 0 Bar)
- Maximum Pressure recommended: 13.7 Bar/200 Psig (@ 21.5°C/70°F)
- Accuracy: ±6% (65mm), ±4% (150mm)

As Low As  
**\$218.94**



### 65mm Scale Flow Ranges (Low Flow) – WATER: ml/min, LPH and GPH – AIR: cc/min

Item #	Calibration Water (70°)			Calibration Air (STP)		Float Material	Adapter F/NPT	Price
	ML/Min	LPH	GPH	CC/Min				
F6501G4	0.011 to 0.065	0.0003 to 0.0037	0.0001 to 0.001	0.7 to 5.8	Glass	1/4"		<b>\$218.94</b>
F6501SS4	0.015 to 0.283	0.0007 to 0.0151	0.0002 to 0.004	1.4 to 16.7	316SS	1/4"		<b>\$218.94</b>
F6501T4	0.030 to 0.655	0.0018 to 0.0037	0.0005 to 0.010	3.1 to 34.4	Tantalum	1/4"		<b>\$218.94</b>
F6503G4	0.9 to 39.7	0.037 to 2.384	0.01 to 0.63	52 to 2040	Glass	1/4"		<b>\$218.94</b>
F6503SS4	1.0 to 108.3	0.059 to 6.472	0.0158 to 1.71	115 to 3990	316SS	1/4"		<b>\$218.94</b>
F6503C4	2.0 to 169.8	0.117 to 10.18	0.031 to 2.69	182 to 5739	Carboloy	1/4"		<b>\$218.94</b>
F6502G4	36 to 522	2.119 to 31.30	0.56 to 8.27	1852 to 23169	Glass	1/4"		<b>\$218.94</b>
F6502S4	58 to 798	3.444 to 47.88	0.91 to 12.65	2650 to 29218	Sapphire	1/4"		<b>\$218.94</b>
F6502C4	176 to 1866	10.522 to 111.9	2.78 to 29.58	6082 to 58500	Carboloy	1/4"		<b>\$218.94</b>

### 150mm Scale Flow Ranges (Std. Flow) – WATER: ml/min, LPH and GPH – AIR: cc/min

Item #	Calibration Water (70°)			Calibration Air (STP)		Float Material	Adapter F/NPT	Price
	ML/Min	LPH	GPH	CC/Min				
F6551G4	0.100 to 0.850	0.0059 to 0.049	0.00158 to 0.013	11.5 to 92.0	Glass	1/4"		<b>\$281.70</b>
F6551SS4	0.28 to 4.74	0.0151 to 0.283	0.004 to 0.075	33 to 264	316SS	1/4"		<b>\$281.70</b>
F6551T4	1.0 to 9.2	0.059 to 0.552	0.0158 to 0.146	60 to 484	Tantalum	1/4"		<b>\$281.70</b>
F6552G4	13 to 568	0.775 to 34.07	0.205 to 9.003	545 to 23564	Glass	1/4"		<b>\$281.70</b>
F6552SS4	55 to 1370	3.327 to 82.17	0.879 to 21.71	1790 to 44336	316SS	1/4"		<b>\$281.70</b>
F6552T4	103 to 2254	6.158 to 133.95	1.627 to 35.72	3224 to 70444	Tantalum	1/4"		<b>\$281.70</b>

For standard models, add suffix "X" to end of item number. For adjustable models, add suffix "A" to end of item number.  
\*Flow Adjustment Valve: Add \$27.00

### For Horizontal Pipe Installation

Item #	GPM	LPM	Pipe Size	Price
<b>Standard Flow</b>				
CF30100*	5 to 35	20 to 160	1"	<b>\$52.89</b>
CF30125*	15 to 75	60 to 280	1¼"	<b>\$2.89</b>
CF30150*	20 to 100	75 to 375	1½"	<b>\$2.89</b>
CF30200*	40 to 150	150 to 550	2"	<b>\$6.86</b>
CF30250*	60 to 240	250 to 900	2½"	<b>\$4.88</b>
CF30300*	80 to 300	300 to 1125	3"	<b>\$3.11</b>
CF30400*	125 to 500	550 to 2000	4"	<b>\$7.76</b>
CF30600*	250 to 1050	900 to 3900	6"	<b>\$28.98</b>
CF30800*	500 to 1900	2000 to 7200	8"	<b>\$43.37</b>

### Low Flow

CF30100(*)R	2 to 10	8 to 38	1"	<b>\$2.89</b>
CF30125(*)R	5 to 35	30 to 130	1¼"	<b>\$2.89</b>
CF30150(*)R	8 to 30	30 to 110	1½"	<b>\$2.89</b>
CF30200(*)R	15 to 70	60 to 260	2"	<b>\$6.86</b>
CF30300(*)R	40 to 140	160 to 520	3"	<b>\$3.11</b>

### For Vertical Pipe Installation

CD30150*	20 to 100	75 to 375	1½"	<b>\$4.49</b>
CD30200*	40 to 150	150 to 550	2"	<b>\$9.50</b>
CU30150*	20 to 100	75 to 375	1½"	<b>\$4.49</b>
CU30200*	40 to 150	150 to 550	2"	<b>\$9.50</b>

\*PVC Pipe add the letter "P" \*Copper Tube add the letter "T"

NOTE: If used on Sch 80 PVC pipe will read 12% higher than actual.

## F-670 Series Rib Guided GLASS TUBE Flowmeter

When Glass Tube Flowmeters are indicated, the new F-670 series should be considered. These meters offer many features as standard, Half-Union connections, choice of adapter material, and viton seals. The rib guided (borosilicate) glass tube is protected by an impact resistant Lexan® shield. These meters are attractive, durable and are an exceptional value.



### Quick Spec

- Accuracy: ±10%
- Maximum Temperature: 100°F (PVC Adapters) 150°F (CPVC adapters) 212°F (PVDF adapters)
- Maximum Pressure: 150 Psig
- Optional O-ring material: AFLAS, KLAREZ (call for quote)

### Units for In-Line Installation – PVC Adapters

Item #	Flow Range GPM	Float Material	Adapter Size F/NPT	Adapter Material	O-Ring Material	Price
F67375LGPMS06PV	0.1 to 1.0	316SS	3/8"	PVC	Viton	<b>\$279.90</b>
F67375LGPMS08PV	0.1 to 1.0	316SS	1/2"	PVC	Viton	<b>\$279.90</b>
F67376LGPMS06PV	0.2 to 2.0	316SS	3/8"	PVC	Viton	<b>\$279.90</b>
F67376LGPMS08PV	0.2 to 2.0	316SS	1/2"	PVC	Viton	<b>\$279.90</b>
F67500LGPMS06PV	0.5 to 5.0	316SS	3/8"	PVC	Viton	<b>\$279.90</b>
F67500LGPMS08PV	0.5 to 5.0	316SS	1/2"	PVC	Viton	<b>\$279.90</b>

### Units for In-Line Installation – CPVC Adapters

Item #	Flow Range GPM	Float Material	Adapter Size F/NPT	Adapter Material	O-Ring Material	Price
F67375LGPMS08CV	0.1 to 1.0	316SS	1/2"	CPVC	Viton	<b>\$348.24</b>
F67376LGPMS08CV	0.2 to 2.0	316SS	1/2"	CPVC	Viton	<b>\$348.24</b>
F67500LGPMS08CV	0.5 to 5.0	316SS	1/2"	CPVC	Viton	<b>\$348.24</b>

PVDF end connectors available. LPM scales available.

Specially equipped units with Hastelloy C or Teflon float available.

## MICRO-FLO Rate & Total Display

### 1/8" & 1/4" F/NPT Pipe and 1/4" & 3/8" OD Tubing

Pipe Size, Flow Range and Display Model Options:

Operating Flow Range		FS Model (Sensor Mount)		FP Model (Panel Mount)		FV Model (Sensor Only)	
OZ/MIN	ML/MIN	Item #	Price	Item #	Price	Item #	Price
<b>115V Models with 1/8" F/NPT connections and clear PVC lens</b>							
1 to 10	30 to 300	FS1-100-7V	\$227.49	FP1-100-7V	\$227.49	FV1-100-7V	\$144.49
3.5 to 35	100 to 1000	FS1-200-7V	227.49	FP1-200-7V	227.49	FV1-200-7V	144.49
7 to 70	200 to 2000	FS1-300-7V	227.49	FP1-300-7V	227.49	FV1-300-7V	144.49
10 to 100	300 to 3000	FS1-400-7V	227.49	FP1-400-7V	227.49	FV1-400-7V	144.49
17 to 170	500 to 5000	FS1-500-7V	227.49	FP1-500-7V	227.49	FV1-500-7V	144.49
24 to 240	700 to 7000	FS1-600-7V	227.49	FP1-600-7V	227.49	FV1-600-7V	144.49
<b>115V Models with 1/4" F/NPT connections and clear PVC lens</b>							
1 to 10	30 to 300	FS1-100-5V	227.49	FP1-100-5V	227.49	FV1-100-5V	144.49
3.5 to 35	100 to 1000	FS1-200-5V	227.49	FP1-200-5V	227.49	FV1-200-5V	144.49
7 to 70	200 to 2000	FS1-300-5V	227.49	FP1-300-5V	227.49	FV1-300-5V	144.49
10 to 100	300 to 3000	FS1-400-5V	227.49	FP1-400-5V	227.49	FV1-400-5V	144.49
17 to 170	500 to 5000	FS1-500-5V	227.49	FP1-500-5V	227.49	FV1-500-5V	144.49
24 to 240	700 to 7000	FS1-600-5V	227.49	FP1-600-5V	227.49	FV1-600-5V	144.49
<b>115V Models with 3/8" OD Tubing connections and clear PVC lens</b>							
1 to 10	30 to 300	FS1-100-6V	227.49	FP1-100-6V	227.49	FV1-100-6V	144.49
3.5 to 35	100 to 1000	FS1-200-6V	227.49	FP1-200-6V	227.49	FV1-200-6V	144.49
7 to 70	200 to 2000	FS1-300-6V	227.49	FP1-300-6V	227.49	FV1-300-6V	144.49
10 to 100	300 to 3000	FS1-400-6V	227.49	FP1-400-6V	227.49	FV1-400-6V	144.49
17 to 170	500 to 5000	FS1-500-6V	227.49	FP1-500-6V	227.49	FV1-500-6V	144.49
24 to 240	700 to 7000	FS1-600-6V	227.49	FP1-600-6V	227.49	FV1-600-6V	144.49

### MATERIALS OF CONSTRUCTION

- Body, Paddle, Axle material: PVDF
- Connector material:
  - F/NPT connections – PVC
  - Tubing connectors – PVDF
- O-ring seals: Viton (Optional EP available)
- Viewing lens material option:
  - Clear see through – PVC
  - Opaque chemical resistant – PVDF
- Compression seal to pump: PVC



**NEW**



### FEATURES

- High accuracy digital paddlewheel technology.
- Flow rates from 30 to 7000 milliliters/min.
- 3 model variations:
  - FS = Sensor mounted display
  - FP = Panel mounted display (w/25' cable)
  - FV = No display. Sensor only.
- 5vdc current sinking output
- 6 digit LCD, up to 4 decimal positions.
- Displays both rate of flow and total accumulated flow.
- Open collector alarm setpoint.
- User selectable or custom programmable scale factors.
- Flow units: Gallons, Liters, Ounces, milliliters
- Time units: Minutes, Hours, Days
- Volumetric field calibration programming system.
- Non-volatile programming and accumulated flow memory.
- Total reset function can be disabled.
- Not for direct sunlight applications.

### Quick Spec

- Max. Working Pressure:
  - PVC lens – 130 psig (9 bar) @ 70°F (21°C)
  - PVDF lens – 150 psig (10 bar) @ 70°F (21°C)
- Max. Fluid Temperature:
  - PVC lens, F/NPT connectors – 130°F (54°C) @ 0 PSI. PVDF lens, tubing connectors – 200°F (93°C) @ 0 PSI
- Full scale accuracy: +/- 6%
- Input Power requirement: 8-28 VDC (Optional AC/DC transformers available)
- Sensor only output: 5V DC digital square wave (3-wire)
- Sensor output cable: 3-wire shielded cable, 25'
- Enclosure: Weather resistant Valox® PBT NEMA type 4X, (IP56)
- Approximate shipping wt: 1 lb. (.45 kg)



F-430N Series  
3" Wide x 14" High

### Quick Spec

- Adapters thread directly into the meter body
- Clear glass like finish
- Permanently silk screened direct reading dual scale
- Permanently silk screened white back reflector for enhanced readability
- Temperature: 130°F/54°C @ 0 pressure
- Pressure: 130 psi @ 70°F/21°C
- Full scale accuracy: ±5%
- Shipping weight: Approx. 6lbs. Maximum
- Meter Body material: Cast Acrylic Rod
- Adapter material: PVC (Optional: CPVC, Polypropylene)
- O-rings: Adapter Seals: Viton
- Float Stops: Atlas
- Float Material: #316 SS, (Optional: Hastelloy C-276)

USCO Price Only  
**\$414.29**

## F-430N Machined Acrylic Flowmeter

**NEW!**  
**F-430N**

PIPE SIZES: 1 1/2" & 2" F/NPT



Item #	Flow Range GPM/LPM	Adapter Size	Float Material	Price
<b>Models with 2" Female Pipe Threads (F/NPT)</b>				
F-43040LNS	4-40/15-150	2" F/NPT	#316 SS	\$414.29
F-43060LNS	6-60/20-230	2" F/NPT	#316 SS	414.29
F-43080LNS	8-80/30-300	2" F/NPT	#316 SS	414.29
F-43100LNS	20-100/75-375	2" F/NPT	#316 SS	414.29
<b>Models with 1 1/2" Female Pipe Threads (F/NPT)</b>				
F-43040LNS-24	4-40/15-150	1 1/2" F/NPT	#316 SS	414.29
F-43060LNS-24	6-60/20-230	1 1/2" F/NPT	#316 SS	414.29
F-43080LNS-24	8-80/30-300	1 1/2" F/NPT	#316 SS	414.29
F-43100LNS-24	20-100/75-375	1 1/2" F/NPT	#316 SS	414.29

## Electronic Digital Water and Fuel Meters: Simple, Small, Sturdy

This meter easily installs either inline or at the end of the hose. The large, easy-to-read display and compact, light-weight design please any user. A rugged nylon housing and sealed electronic circuitry provides years of durable use in almost any condition. Two AAA batteries power the small microprocessor for a year and are very easy to replace.

- Calibrated at the factory to accurately measure water.
- Works well on any pump, pressure, or gravity feed system with at least 3 to 30 GPM (10 to 100 LPM) flow range.

Ordering Item #	Model	Unit of Measure	Price
113255-4	01N31GM	GPM	\$178.97
113255-5	01N31LM	LPM	178.97
<b>Meters for Fuel (Same specifications as above except housing is aluminum.)</b>			
113255-1	01A31GM	GPM	167.71
113255-2	01A31LM	LPM	167.71

Max. Working Pressure: 150 PSIG  
Threads: 1 inch Female NPT  
Operating Temperature: +14° to +130°F  
Storage Temperature: -40° to +158°F  
Weight: 0.4 lbs.  
Dimensions: 4"W x 2.5"H x 2"D



**Totalizer Only!**

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 7

## Electronic Digital Turbine Flowmeters

**GPI**  
GREAT PLAINS INDUSTRIES, INC.

### ALUMINUM



\*NOTE:  
1" Aluminum are available with a .3-3 low flow option.

### NYLON



\*NOTE:  
1" Nylon are available with a .3-3 low flow option.

### STAINLESS STEEL



SS Starting At  
**\$616<sup>67</sup>**

#### Quick Spec

#### For Intermittent Use and Dispensing Applications

- Accuracy: \* Percentage of Reading
- Repeatability: 0.5%
- Factory Calibration — Non-Viscous Fluids: ±1.5%
- Linearity: ±3.0%
- User (Field) Calibration\*\* — Viscous Fluids: ±1.0%
- Non-viscous Fluids: ±0.5%
- Operating Temp: +14°F to 140°F

\*Attainable only when used within stated flow ranges.

\*\*Attainable only with proper calibration measurement sample.

#### COMMON WETTED MATERIALS

Tungsten Carbide, 316 Stainless Steel, Ferrite, Ceramic, Nylon (Aluminum & Nylon) and PVDF (Stainless Steel).

NOTE: Other models available, consult sales office. Remote readout and outputs available.

Factory Mutual Approval — INTRINSICALLY SAFE for: Class I, II, III, Division I, Groups ABCDEFG

— NONINCENDIVE for: Class I, II, III, Division 2, Groups ABCD FG

Pipe Size	1/2" FNPT	3/4" FNPT	1" FNPT	1 1/2" FNPT	2" FNPT
<b>ALUMINUM Totalizer with Rate of Flow</b>					
Item #	NA	NA	A109GMA100NA1	NA	A109GMA200NA1
Flow Rate	NA	NA	3-50 GPM	NA	30-300 GPM
Price	NA	NA	<b>\$358.89</b>	NA	<b>\$904.94</b>
<b>NYLON Totalizer with Rate of Flow</b>					
Item #	NA	NA	A109GMIN100NA1	NA	NA
Flow Rate	NA	NA	3-50 GPM	NA	NA
Price	NA	NA	<b>\$435.28</b>	NA	NA
<b>STAINLESS STEEL Totalizer with Rate of Flow</b>					
Item #	G2S05N09GMA	G2S07N09GMA	G2S10N09GMA	G2S15N09GMB	G2S20N09GMB
Flow Rate	1-10 GPM	2-20 GPM	5-50 GPM	10-100 GPM	20-200 GPM
Price	<b>\$625.40</b>	<b>\$616.67</b>	<b>\$647.22</b>	<b>\$908.39</b>	<b>\$1,191.33</b>

## Wireless Transmitter & Receiver for G2 Series Meters

GPI's new, battery-powered Wireless Transmitter is designed to transmit flowrate from G2/A2 Series meters to the Receiver. This system includes both the Transmitter and Receiver. The Wireless Transmitter is perfect in many plant applications. Both Transmitter and Receiver are color coded making installation easy for optimum signal transmissions.



wireless



#### FEATURES AND BENEFITS

- Simple to use.
- Affordable wireless system.
- Battery powered.
- Retro fits GPI meters.

**GPI**  
GREAT PLAINS INDUSTRIES, INC.

Item# 12530001  
Price: **\$825<sup>63</sup>**

#### Quick Spec

- Kit Includes: Transmitter to fit to G2/A2, Receiver includes 25 feet cable, Transmitter Battery Pack
- Transmission Frequency: 903.37 MHz- 921.37 MHz
- Power Supply: Transmitter: Battery Pack (2 each) 3/4 AA Lithium (3.6V each - 7.2V total), Receiver: 5 VDC - 35 VDC
- Signal: Transmitter: Delayed Burst
- Transmission Method, Receiver: Open Collector (Current Sinking), Max. OFF Voltage: 60V, Max. ON Voltage: 200 mA
- Transmission Distance: 300 ft. Maximum; Line of Sight
- Available Channels: Eight
- Transmission Time Intervals: Four (1 sec., 2 sec., 5 sec., 10 sec.)
- Enclosure: NEMA4



1/2" and 1" PVDF & PVC Flowmeters

From Only  
**\$556<sup>67</sup>**

The 1" PVDF flowmeter was developed to target the aggressive chemical market. The meter is constructed of PVDF and Ceramic, both of which have excellent chemical compatibility. We have also incorporated true union fittings, that use Viton O-Rings, in the meter design. The fittings are available in NPT and ISO versions.

Replacement Battery Kit: 113520-1 **\$31<sup>82</sup>**

## 1/2" and 1" PVDF & PVC Flowmeters

#### Quick Spec

**GPI**  
GREAT PLAINS INDUSTRIES, INC.

- Linear Flowrate: 5 to 50 GPM
- Repeatability: 0.3%
- PVC — Ceramic — PVDF
- Accuracy: ±1.5% of reading
- Maximum Pressure: 150 PSI
- Max. Pressure Drop: 11 PSIG
- Operating Temp.: 14 to 140°F (with Computer Electronics)
- -40 to 180°F (Housing only)
- Dimensions: 8"L x 2.75"W x 3"H

#### Totalizer with Rate of Flow

	1/2" PVDF	1" PVDF	1/2" PVC	1" PVC
Item #	G2P05N09GMA	G2P10N09GMA	G2C05N09GMA	G2C10N09GMA
Flow Rate	1.2-12 GPM	5-50 GPM	1.2-12 GPM	5-50 GPM
Price	<b>\$701.11</b>	<b>\$711.11</b>	<b>\$556.67</b>	<b>\$569.30</b>

NOTE: Prices listed above are the same for ISO or Socket Weld Fittings

Great Plains Industries Optional Modules Please call for USCO's prices on these optional models.

\* Stainless Steel only

#### CONDITIONED SIGNAL OUTPUT MODULE

Provides Open Collector or 6-volt Square Wave output.

#### FM APPROVED REMOTE KIT ASSEMBLY

Allows the remote mounting of meter display.

#### \* STANDARD REMOTE KIT ASSEMBLY

Allows the remote mounting of meter display.

#### \* 4-20 mA MODULE

Provides a 4-20 mA or 0-5 volt analog signal output.

#### PULSE ACCESS MODULE

Provides a digital open collector signal output.

#### \* EXTERNAL POWER MODULE

Allows for 9-30 volt external power.



## High Output Flowmeters

**GPI**
**GREAT PLAINS INDUSTRIES, INC.**

Introducing the newest member of the GPI flowmeter line-up... the TM Series. This new meter can be used where large amounts of water transfer is required and accurate measurement is a must.

### Quick Spec

- Economical meter for use with water applications
- Durable construction & lightweight
- Powered by Lithium batteries, approximate battery life - 5000 operational hours
- Complete and easy installation

**Computer Electronics:** **Totalizer with Rate of Flow**  
Displays in Gallons or Liters. Field calibration is easily set and modified by the user.

**Indoor  
Outdoor Use!**

Starting At  
**\$274<sup>44</sup>**



Actual size of meter is  
2" diameter, 3" wide and 5 1/2" long.

### WETTED COMPONENTS

Housing  
Journal Bearings  
Shaft  
Rotor and Supports

PVC  
Ceramic  
Tungsten Carbide  
PVDF

Maximum Working Pressure 150 PSI  
Operating Temperature +14° to +140°F  
(-10° to +60°C)

Socket #	Thd NPT #	Description	Flow Rate	Price
TM050	TM050-N	1/2" PVC Turbine Meter	1-10	<b>\$274.44</b>
TM075	TM075-N	3/4" PVC Turbine Meter	2-20	<b>312.22</b>
TM100	TM100-N	1" PVC Turbine Meter	5-50	<b>353.33</b>
TM150	TM150-N	1 1/2" PVC Turbine Meter	10-100	<b>392.22</b>
TM200	TM200-N	2" PVC Turbine Meter	20-200	<b>433.33</b>

	POLYMER			BRONZE			
Size:	5/8" x 1/2"	5/8" x 3/4"	3/4" x 3/4"	5/8" x 1/2"	5/8" x 3/4"	3/4" x 3/4"	1"
Starting Flow GPM	—	—	—	1/50	1/50	1/2	3/4
95%-101% Accuracy GPM	—	—	—	1/50	1/50	—	—
97%-101% Accuracy GPM	1/4	1/4	1/2	—	—	—	—
98.5%-101.5% Accuracy GPM	1-20	1-25	2-30	1/4-20	1/4-25	2-30	3-50
Continuous Flow GPM	10	12 1/2	15	15	15	15	25
Maximum Flow GPM	20	25	30	20	20	30	50
Head Loss at 20 GPM psi	—	—	—	8.5	8.5	—	—
Operating Pressure psi	150	150	150	150	150	150	150
Operating Temperature °F	120 (67°C)	120	120	120	120	120	120
Sweep Hand Registers:							
US Gallons	10	10	10	10	10	10	10
Cubic Feet	1	1	1	1	1	1	1
m <sup>3</sup> -Cubic Meters	1/10	1/10	1/10	1/10	1/10	1/10	1/10
Imperial Gallons	10	10	10	10	10	10	10
Capacity of Register:							
US Gallons (millions)	10	10	10	10	10	10	100
Cubic Feet (millions)	1	1	1	1	1	1	10
m <sup>3</sup> -Cubic Meters (millions)	1/10	1/10	1/10	1/10	1/10	1/10	1/10
Imperial Gallons (millions)	10	10	10	10	10	10	100
Register Type:	Permanently sealed direct reading.			Permanently sealed nitrogen gas filled.		Permanently sealed direct reading.	
Materials:							
Main Case	Modified Acetal Copolymer			Bronze			
Top Plate	Modified Acetal Copolymer						
Bottom Plate				Bronze, Cast Iron or Synthetic			
Polymer							
Body O-ring	Neoprene Rubber						
Bottom Gasket-Liner				Nitrile			
Body Bolts				Stainless Steel			
Measuring Chamber	Compounded Thermoplastic			Compounded Polymer			
Thrust Bearing Insert	Loaded Nylon			Loaded Nylon			
Piston	High Impact Polymer			High Impact Polymer			
Division Plate	Loaded Nylon			Loaded Nylon			
Driving Bar	Loaded Nylon			Loaded Nylon			
Strainer	Polypropylene			Polypropylene			
Register Can	90% Copper Alloy			90% Copper Alloy			
Domed Register Lens	Tempered Glass			Tempered Glass			
Register Housing & Lid	Synthetic Polymer			Synthetic Polymer or Bronze			

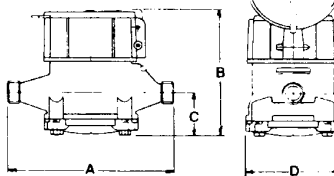
**In Stock!**

## Positive Displacement Water Meters

### Description

**Operation.** The C-700 is an oscillating piston style, positive displacement water meter. Product utilizes a piston which the water rotates in a measuring chamber, each piston revolution being equivalent to a known volume of water. The piston movement is transferred by a magnetic drive to a straight reading sealed register which contains the appropriate reduction gearing.

**Compliance to Standards.** The C-700 meter fully complies with the American Water Works Association Standard C-700 as most recently revised.



**ABB**  
Kent Meters, Inc.



Polymer Item #	Meter Chamber X NPT Ends	(A)	(B)	(C)	(D)	Price
KENT1008	5/8 x 1/2	7 1/2	5 3/8	1 3/8	4 3/4	<b>\$87.94</b>
KENT1012	5/8 x 3/4	7 1/2	5 3/8	1 3/8	4 3/4	<b>87.94</b>
KENT1212	3/4 x 3/4	9	5 15/16	1 15/16	5	<b>120.66</b>

Bronze Item #	Meter Chamber X NPT Ends	(A)	(B)	(C)	(D)	Price
KENT2500	5/8 x 1/2	7 1/2	5 1/4	1 1/2	4	<b>\$95.52</b>
KENT2600	5/8 x 3/4	7 1/2	5 1/4	1 1/2	4	<b>95.52</b>
KENT2700	3/4 x 3/4S	7 1/2	6 1/8	2 1/2	4 1/2	<b>153.33</b>
KENT2800	3/4 x 3/4	9	6 1/8	2 1/2	4 1/2	<b>153.33</b>
KENT2900	1 x 1	10 3/4	7 3/4	2 3/8	7 1/4	<b>229.49</b>



### USCO tech tip

Kent meters must be installed in a clean pipe line, free from any foreign materials. These meters may be installed in a horizontal or inclined line.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**USCO 9**

# F-2000 DIGITAL FLOWMETER

## FEATURES

- Easy to read 8 digit LCD, up to 4 decimal positions.
- Flow rate and Total flow display.
- AC/DC transformer or battery operated (RT models only). 4 AA batteries.
- Factory programmed with calibration certificate.
- Field programmable via front panel touch pad.
- Front panel security lockout.
- Total reset function can be disabled.
- Panel mounting option available.
- Custom calibration units available. Contact Sales Office.



## F-2000 Sensor Mounted on Molded In-Line Body



Weather resistant ABS enclosure. NEMA 4X.  
Note: LCD is not recommended for direct sunlight applications.

### Transformer Powered models on Molded In-Line Polypropylene Body

Pipe Size M/NPT	GPM Models Item #	Flow Range	RT	AO	PC	AP
3/8"	RTS138M1GM1	.8 to 8	\$551.28	\$745.83	\$745.83	\$940.40
3/8"	RTS138M2GM2	.4 to 4	\$51.28	745.83	745.83	940.40
1/2"	RTS150M1GM1	2 to 20	\$51.28	745.83	745.83	940.40
1/2"	RTS150M2GM2	.5 to 5	\$51.28	745.83	745.83	940.40
3/4"	RTS175M1GM1	3 to 30	\$51.28	745.83	745.83	940.40
3/4"	RTS175M2GM2	.8 to 8	\$51.28	745.83	745.83	940.40
1"	RTS110M1GM1	5 to 50	\$51.28	745.83	745.83	940.40
1"	RTS110M2GM2	2 to 20	\$51.28	745.83	745.83	940.40
1 1/2"	RTS115M1GM1	4 to 40	\$601.12	795.69	795.69	990.24
1 1/2"	RTS115M2GM2	6 to 60	\$601.12	795.69	795.69	990.24
1 1/2"	RTS115M3GM3	10 to 100	\$601.12	795.69	795.69	990.24
2"	RTS120M1GM1	4 to 40	\$613.84	808.40	808.40	1,002.97
2"	RTS120M2GM2	6 to 60	\$613.84	808.40	808.40	1,002.97
2"	RTS120M3GM3	10 to 100	\$613.84	808.40	808.40	1,002.97
2"	RTS120M4GM4	20 to 200	\$613.84	808.40	808.40	1,002.97

Models listed above are with 115V AC/DC transformer and supplied "on-sensor" mounted. RT models only can be battery operated. All models are available with the display "Panel Mounted" remotely from the sensor. Consult Sales Office for ordering information.



Weather resistant ABS enclosure.  
Note: LCD is not recommended for direct sunlight applications.

### Quick Spec

- Max. Working Pressure: 300 psig (20 bar) @ 70°F (21°C)
- Max. Fluid Temperature: 200°F (93°C) @ 0 PSI (all PVDF saddle fittings) 140°F (60°C) @ 0 PSI (all PVC saddle and TEE fittings)
- Note: Temperature rating of F-1000 only. Actual pipe rating may vary.
- Full Scale Accuracy: ±2%
- Saddle Material: PVDF (1 1/2", 2", 3", 50mm, 63mm, 90mm) PVC (other sizes)
- Sensor/Paddle/Axle Material: PVDF
- O-Ring Seals: Viton®
- Max. Pressure Drop: 0 PSI (no significant pressure drop)
- Approximate Shipping Weight: 4 lb. (1.8 kg)

## FOUR MODEL VARIATIONS

RT = Rate and Totalizer. Transformer or battery operated.

AO = 4-20mA, 0-10 VDC analog output, flow rate & totalizer. Transformer operated.

PC = Batch processing, flow rate alarm, proportional chemical metering, flow rate and totalizer. Transformer operated.

AP = Analog output, batch processing, flow rate alarm, proportional chemical metering, flow rate and totalizer. Transformer operated.

Maximum continuous flow should not occur in the upper 25% of the flow range. See instruction manual for detailed installation and operating requirements.

### Quick Spec PIPE SIZES: 3/8", 1/2", 3/4", 1", 1 1/2", 2" M/NPT

- Max. Working Pressure: 300 psig (20 bar) @ 70°F (21°C)
- Max. Fluid Temperature: 200°F (93°C) @ 0 PSI
- Full Scale Accuracy: ±1%
- Sensor/Paddle/Axle Material: PVDF
- O-Ring Seals: Viton®
- Max. Pressure Drop: 8 PSI (varies per model)
- Approximate Shipping Weight: 4 lb. (1.8 kg)

### Transformer Powered models on Molded In-Line PVDF Body

Pipe Size M/NPT	GPM Models Item #	Flow Range	RT	AO	PC	AP
3/8"	RTS138F1GM1	.8 to 8	\$639.28	\$833.84	\$833.84	\$1,028.40
3/8"	RTS138F2GM2	.4 to 4	\$639.28	\$833.84	\$833.84	\$1,028.40
1/2"	RTS150F1GM1	2 to 20	\$639.28	\$833.84	\$833.84	\$1,028.40
1/2"	RTS150F2GM2	.5 to 5	\$639.28	\$833.84	\$833.84	\$1,028.40
3/4"	RTS175F1GM1	3 to 30	\$639.28	\$833.84	\$833.84	\$1,028.40
3/4"	RTS175F2GM2	.8 to 8	\$639.28	\$833.84	\$833.84	\$1,028.40
1"	RTS110F1GM1	5 to 50	\$639.28	\$833.84	\$833.84	\$1,028.40
1"	RTS110F2GM2	2 to 20	\$639.28	\$833.84	\$833.84	\$1,028.40
1 1/2"	RTS115F1GM1	4 to 40	\$785.51	\$980.08	\$980.08	\$1,174.63
1 1/2"	RTS115F2GM2	6 to 60	\$785.51	\$980.08	\$980.08	\$1,174.63
1 1/2"	RTS115F3GM3	10 to 100	\$785.51	\$980.08	\$980.08	\$1,174.63
2"	RTS120F1GM1	4 to 40	\$817.31	\$1,011.88	\$1,011.88	\$1,206.43
2"	RTS120F2GM2	6 to 60	\$817.31	\$1,011.88	\$1,011.88	\$1,206.43
2"	RTS120F3GM3	10 to 100	\$817.31	\$1,011.88	\$1,011.88	\$1,206.43
2"	RTS120F4GM4	20 to 200	\$817.31	\$1,011.88	\$1,011.88	\$1,206.43

## F-2000 with Saddle Mount and Solvent Weld TEE Bodies

PIPE SIZES: 1 1/2", 2", 3", 4", 6", 8", 10", 12"

### Models for Saddle Mounting on U.S. IPS Pipe (ASTM 1785)

IPS Pipe Size	SCH 40 Models Item #	SCH 80 Models Item #	Flow Range	RT	AO	PC	AP
1 1/2"	RTS115K4GM1	RTS115K8GM1	15 to 150	\$551.28	\$745.83	\$745.83	\$940.40
2"	RTS120K4GM1	RTS120K8GM1	30 to 300	\$51.28	745.83	745.83	940.40
3"	RTS130K4GM1	RTS130K8GM1	60 to 600	\$51.28	745.83	745.83	940.40
4"	RTS140A4GM1	RTS140A8GM1	100 to 1000	\$616.13	\$810.69	\$810.69	\$1,005.26
6"	RTS160A4GM1	RTS160A8GM1	250 to 2500	\$616.13	\$810.69	\$810.69	\$1,005.26
8"	RTS180A4GM1	RTS180A8GM1	400 to 4000	\$616.13	\$810.69	\$810.69	\$1,005.26
10"	RTS1100A4GM1	RTS1100A8GM1	600 to 6000	\$629.10	\$823.67	\$823.67	\$1,018.22
12"	RTS1120A4GM1	RTS1120A8GM1	800 to 8000	\$629.10	\$823.67	\$823.67	\$1,018.22

### Models for Mounting on Solvent Weld PVC TEE

IPS Pipe Size	GPM Models Item #	Flow Range	LPM Models Item #	Flow Range	RT	AO	PC	AP
1"	RTS110ATGM1	6 to 60	RTS110ATLM1	25 to 250	\$551.28	\$745.83	\$745.83	\$940.40
1 1/2"	RTS115ATGM1	15 to 150	RTS115ATLM1	60 to 600	\$51.28	745.83	745.83	940.40
2"	RTS120ATGM1	30 to 300	RTS120ATLM1	100 to 1000	\$51.28	745.83	745.83	940.40

Models listed above are with 115V AC/DC transformer and supplied "on-sensor" mounted. RT models only can be battery operated. All models are available with the display "Panel Mounted" or "Wall/Pipe Mounted" remotely from the sensor. Consult Sales Office for ordering information.

## USCO can help you build a SIGNET System... as easy as 1, 2, 3!

1) Select a Controller, Monitor or Transmitter 2) Choose a +GF+ SIGNET Sensor 3) And... complete the Connection!



Monitor



Controller



Transmitter



Flow



pH

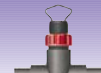


Conductivity

Installation Fittings



Metal Fittings



Plastic Fittings



Submersible

### 5090 Sensor Powered Flow Monitor



The most economical flow monitor in the SIGNET product line is also one of the most feature-packed. The 5090 Sensor Powered Flow Monitor is designed exclusively for use with the SIGNET 515 Rotor-X Flow Sensor\* to provide a completely independent flow monitoring system. The combination is FM approved for hazardous environments, without any extra safety barriers or special wiring requirements. No other indicator or rotameter provides the application versatility and the unique SIGNET features of the 5090.

**+GF+ SIGNET**

#### Quick Spec

- Accuracy:  $\pm 2\%$  of full scale
- Repeatability:  $\pm 1\%$  of full scale
- Operating temperature: 14°F to 149°F
- Dials: Reversible dial kit included (0-2, 4, 6, 8, 10, 100)

#### RECOMMENDED SCALE RANGES (GPM)

Recommended full scale calibration ranges for individual pipe size installations are shown. Average flow rate should be approximately 50% of the scale.

*For use with +GF+ SIGNET 5090 and 515		
Pipe Size (in.)	Minimum	Maximum
0.5	0 - 8	0 - 2 x 10
0.75	0 - 2 x 10	0 - 4 x 10
1	0 - 4 x 10	0 - 8 x 10
1.25	0 - 6 x 10	0 - 100
1.5	0 - 6 x 10	0 - 2 x 100
2	0 - 100	0 - 2 x 100
2.5	0 - 2 x 100	0 - 4 x 100
3	0 - 4 x 100	0 - 6 x 100
4	0 - 4 x 100	0 - 100 x 10
5	0 - 6 x 100	0 - 100 x 10
6	0 - 8 x 100	0 - 2 x 1000
8	0 - 2 x 1000	0 - 4 x 1000
10	0 - 2 x 1000	0 - 6 x 1000
12	0 - 4 x 1000	0 - 8 x 1000



**APPROVED For Hazardous Areas** SIGNET 5090/515 system has been FM approved for installation and operation in environments that conform to Standard No. 3610, Class 1 Division 1, Group A conditions.

Part No.	Description	Price
3-5090	Assorted flow unit/multiplier dial face decals included Reversible dial face kit includes (0-2, 4, 6, 8, 10 and 100)	\$261.33

#### 515 Rotor-X Polypropylene Flow Sensor

Item #	Housing Material	Shaft Material	Pipe Size (in.)	Price
P51530P0	Polypropylene	Titanium	0.5 to 4	\$250.28
P51530P1	Polypropylene	Titanium	5 to 8	\$259.72
P51530P2	Polypropylene	Titanium	10-up	\$281.44

#### 515 PVDF Flow Sensor

P51530V0	PVDF	Hastelloy C	0.5 to 4	\$445.78
P51530V1	PVDF	Hastelloy C	5 to 8	\$461.83
P51530T0	PVDF	PVDF	0.5 TO 4	\$445.78
P51530T1	PVDF	PVDF	5 TO 8	\$461.83

### 8150 Battery Powered Flow Totalizer



Panel Mount



Pipe, Wall and Tank Mount



Integral Mount

**3 Totalizers: 2 Resettable and 1 Permanent: user selects which one to be displayed**

The +GF+ SIGNET 8150 Battery Operated Flow Totalizer is compatible with the +GF+SIGNET 515, 525 and 2517 flow sensors, and will provide years of dependable operation. One of the three totalizers is resettable from the front panel or a remote location, while the second resettable totalizer can only be reset by entering a user-selectable security code. Meanwhile, the third is a permanent non-resettable totalizer. Our intuitive software design and four-button keypad provide for simple operation while setting screen displays and programming the system. A display averaging feature is included for applications where the flow in the pipe fluctuates, for applications where flow stops and starts due to production needs, a no-flow indicator will display the hours of non-flow.

#### Quick Spec

- Three totalizers
- Long-lasting lithium batteries
- Mounting versatility
- No-flow indicator
- Large digital display with averaging
- Simple push-button operation
- User selectable access code prevents unwanted changes
- Auto-calibration

#### COMPATIBLE SENSORS

The 8150 Battery Powered Flow Totalizer is compatible with the following +GF+ SIGNET Flow Sensors: 515, 525 & 2517.

#### 8150 Battery Powered Flow Transmitters

From Only  
**\$392<sup>89</sup>**

Item #	Description	Price
38150-1	Field Mount	\$392.89
38150-1P	Panel Mount	\$392.89
38150-P0	Field Mount, mount kit, 38510-P0	\$619.56
38150-P1	Field Mount, mount kit, 38510-P1	\$628.44
38150-T0	Field Mount, mount kit, 38510-T0	\$827.56
38150-V0	Field Mount, mount kit, 38510-V0	\$808.89

#### ORDERING INFORMATION

**Field, Panel or Integral Sensor mount – choose one:**

- 1 Field mount for pipe, tank and wall mounting
- 1P Panel mount; includes mounting bracket and panel gasket
- P0\* 38150-1 integrally mounted on Model 515 Paddlewheel (Part No. 38510-P0) for 0.5 to 4 in. pipes, with a polypropylene body, Black PVDF rotor and Titanium pin
- P1\* 38150-1 integrally mounted on Model 515 Paddlewheel (Part No. 38510-P1) for 5 to 8 in. pipes, with a polypropylene body, Black PVDF rotor and Titanium pin
- T0\* 38150-1 integrally mounted on Model 515 Paddlewheel (Part No. 38510-T0) for 0.5 to 4 in. pipes, with a natural PVDF body, rotor and pin
- V0\* 38150-1 integrally mounted on Model 515 Paddlewheel (Part No. 38510-V0) for 0.5 to 4 in. pipes, with a natural PVDF body, rotor and Hastelloy pin

Notes: 1) For panel version, cutout must be 92 x 92 mm (3.62 x 3.62 in.).

2) To mount the panel version on a wall, use the heavy duty wall mount bracket.

3) Use the Universal mounting kit with the Field mount instrument to mount to a pipe, tank or wall.

4) An optional splash proof rear cover can be ordered separately if needed.

\* Contact sales office to request additional sensor information.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 11



# +GF+ SIGNET ProPoint Line up...

## Quick Spec

- Independently calibrated flow and totalizer displays
  - Scalable pulse outputs
  - Two 8-digit totalizers; resettable and non-resettable
  - Backlit Liquid Crystal Display with High Visibility Analog Indication
- Display:**
- Analog: Slide in dials 0-2, 4, 6, 8, 10, 100
  - Digital: Backlit 2x16 character alphanumeric LCD
- Power Requirements:** 12 to 24 VAC or 12 to 24 VDC, unregulated, 50-0 Hz, 10W max.
- Accuracy:**  $\pm 0.5\%$  of reading
- Materials:** Enclosure: ABS Plastic, NEMA 4X/IP65, Keypad: Silicone Rubber, Panel and case gasket: Neoprene, Window: Hard-coated polycarbonate
- Immunity:** EN50082-2
- Emissions:** EN55011
- Safety:** EN61010-1

Item #	Description	Price
35075	Totalizing Monitor	\$494.22
73007524	Power Supply 120 VAC/24VAC	35.56

## 5075 Totalizing Monitor

The 5075 Totalizing Monitor is designed for simple flow totalization and flow rate. It is compatible with all +GF+ SIGNET flow sensors. The 5075 is independently calibrated, and measures virtually any volumetric unit from ml to acre-feet.

**Quality Standards:** CE, CSA, UL



+GF+ SIGNET



## 5500 Flow Monitor

+GF+ SIGNET



The SIGNET 5500 Flow Monitor is a feature-packed process monitor covering the widest possible spectrum of applications. Dual totalizers are calibrated independently of the digital analog flow rate. Reset one totalizer remotely from 100 feet away. Expand the communication range of the system by connecting peripheral equipment to the isolated frequency out, the totalizer pulse output, the alarm contact outputs, or the 4-20 mA current output. Packaged in a slim-line housing with NEMA 4X shatter-resistant front panel.



- ✓ Simple pushbutton operation
- ✓ Independently calibrated flow and totalizer displays

## Quick Spec

- Accuracy:  $\pm 0.5\%$  of reading
  - Repeatability:  $\pm 0.2\%$  of reading
  - Power Requirements: 12 to 24 VAC or 12 to 24 VDC, unregulated, 50-60 Hz, 10W max.
- Display:**
- Totalizers: 8-digit resettable with security option 8-digit non-resettable
  - Operating Temp: max. 122°F with optional rear cover

**Quality Standards:** CE, CSA, UL

- Alarm contacts:**
- Two SPDT relays: 5A @ 30 VDC max., 5A @ 125 VAC, or 3A @ 250 VAC
  - HI/LO/Pulse programmable with adjustable Hysteresis
- Current output:**
- 4 to 20 mA, non-isolated, internally powered (scalable)
  - Accuracy:  $\pm 0.1\%$

Item #	Description	Price
3-5500	Reversible dial face kit includes (0-2, 4, 6, 8, 10, and 100)	\$707.56
73007524	Power Supply 120 VAC/24VAC	35.56

## COMPATIBILITY

All +GF+SIGNET Flow Sensors

## Quick Spec

- Power Requirements:** 12 to 24 VAC or 12 to 24 VDC, unregulated, 50-60 Hz, 10W max.
- Display:**
- Analog: Reversible dial, 0 to 100% or 100 to 0%
  - Batch size: 0 to 999999 engineering units
  - Totalizer: 8-digit resettable and non-resettable
- Current Output:**
- 4 to 20 mA, non-isolated, internally powered
- Accuracy:**  $\pm 0.1\%$
- Alarm Contacts:**
- Two SPDT relays: 5A @ 30 VDC max., 5A @ 125 VAC, or 3A @ 250 VAC
  - Option: Two-stage shutdown, overrun alarm, end of batch pulse, missing signal alarm remote start, stop, resume
  - Operating temperature: 14 to 131°F
- Accuracy:**  $\pm 0.5\%$  of reading
- Enclosure:** ABS Plastic, NEMA 4X/IP65

Item #	Description	Price
3-5600	Batch Controller	\$707.56
73007524	Power Supply 120 VAC/24VAC	35.56

## COMPATIBILITY

All +GF+SIGNET Flow Sensors

## 5600 Batch Controller

The +GF+SIGNET 5600 Batch Controller was designed specifically for simple, single function batching systems. A user-selectable menu allows easy configuration of current and relay options. One relay provides batch in-progress alarming and the other can be used for a two stage shutdown, overrun alarm, end-of-batch or missing signal alarm. The 5600 can be combined with any +GF+ SIGNET flow sensor and an appropriate actuator valve/positioner for automated batching.

**backlit Digital LCD**

+GF+ SIGNET



- ✓ User friendly menu with simple setup and operation
- ✓ Easy changeability of batch size
- ✓ Remote and "daisy-chain" capabilities

# +GF+ SIGNET ProPoint Line up...

## Quick Spec

- Independently calibrated flow and totalizer displays
  - Scalable pulse outputs
  - Two 8-digit totalizers; resettable and non-resettable
  - Backlit Liquid Crystal Display with High Visibility Analog Indication
- Display:**
- Analog: Slide in dials 0-2, 4, 6, 8, 10, 100
  - Digital: Backlit 2x16 character alphanumeric LCD
- Power Requirements:** 12 to 24 VAC or 12 to 24 VDC, unregulated, 50-0 Hz, 10W max.
- Accuracy:**  $\pm 0.5\%$  of reading
- Materials:** Enclosure: ABS Plastic, NEMA 4X/IP65, Keypad: Silicone Rubber, Panel and case gasket: Neoprene, Window: Hard-coated polycarbonate
- Immunity:** EN50082-2
- Emissions:** EN55011
- Safety:** EN61010-1

Item #	Description	Price
35075	Totalizing Monitor	\$494.22
73007524	Power Supply 120 VAC/24VAC	35.56

## 5075 Totalizing Monitor

The 5075 Totalizing Monitor is designed for simple flow totalization and flow rate. It is compatible with all +GF+ SIGNET flow sensors. The 5075 is independently calibrated, and measures virtually any volumetric unit from ml to acre-feet.

**Quality Standards:** CE, CSA, UL



+GF+ SIGNET



## 5500 Flow Monitor

+GF+ SIGNET



The SIGNET 5500 Flow Monitor is a feature-packed process monitor covering the widest possible spectrum of applications. Dual totalizers are calibrated independently of the digital analog flow rate. Reset one totalizer remotely from 100 feet away. Expand the communication range of the system by connecting peripheral equipment to the isolated frequency out, the totalizer pulse output, the alarm contact outputs, or the 4-20 mA current output. Packaged in a slim-line housing with NEMA 4X shatter-resistant front panel.



- Simple pushbutton operation
- Independently calibrated flow and totalizer displays

## Quick Spec

- Accuracy:**  $\pm 0.5\%$  of reading
- Repeatability:**  $\pm 0.2\%$  of reading
- Power Requirements:** 12 to 24 VAC or 12 to 24 VDC, unregulated, 50-60 Hz, 10W max.
- Display:**
- Totalizers: 8-digit resettable with security option 8-digit non-resettable
  - Operating Temp: max. 122°F with optional rear cover

**Quality Standards:** CE, CSA, UL

- Alarm contacts:**
- Two SPDT relays: 5A @ 30 VDC max., 5A @ 125 VAC, or 3A @ 250 VAC
  - HI/LO/Pulse programmable with adjustable Hysteresis
- Current output:**
- 4 to 20 mA, non-isolated, internally powered (scalable)
  - Accuracy:  $\pm 0.1\%$

Item #	Description	Price
3-5500	Reversible dial face kit includes (0-2, 4, 6, 8, 10, and 100)	\$707.56
73007524	Power Supply 120 VAC/24VAC	35.56

## COMPATIBILITY

All +GF+SIGNET Flow Sensors

## Quick Spec

- Power Requirements:** 12 to 24 VAC or 12 to 24 VDC, unregulated, 50-60 Hz, 10W max.
- Display:**
- Analog: Reversible dial, 0 to 100% or 100 to 0%
  - Batch size: 0 to 999999 engineering units
  - Totalizer: 8-digit resettable and non-resettable
- Current Output:**
- 4 to 20 mA, non-isolated, internally powered
- Accuracy:**  $\pm 0.1\%$
- Alarm Contacts:**
- Two SPDT relays: 5A @ 30 VDC max., 5A @ 125 VAC, or 3A @ 250 VAC
  - Option: Two-stage shutdown, overrun alarm, end of batch pulse, missing signal alarm remote start, stop, resume
  - Operating temperature: 14 to 131°F
- Accuracy:**  $\pm 0.5\%$  of reading
- Enclosure:** ABS Plastic, NEMA 4X/IP65

Item #	Description	Price
3-5600	Batch Controller	\$707.56
73007524	Power Supply 120 VAC/24VAC	35.56

## COMPATIBILITY

All +GF+SIGNET Flow Sensors

## 5600 Batch Controller

The +GF+SIGNET 5600 Batch Controller was designed specifically for simple, single function batching systems. A user-selectable menu allows easy configuration of current and relay options. One relay provides batch in-progress alarming and the other can be used for a two stage shutdown, overrun alarm, end-of-batch or missing signal alarm. The 5600 can be combined with any +GF+ SIGNET flow sensor and an appropriate actuator valve/positioner for automated batching.

**backlit Digital LCD**

+GF+ SIGNET



- User friendly menu with simple setup and operation
- Easy changeability of batch size
- Remote and "daisy-chain" capabilities

## 5700 pH/ORP Monitor



**+GF+ SIGNET**

The SIGNET 5700 pH/ORP Monitor software automatically identifies the signal from the sensor and presents the correct operating menu for pH or ORP applications. Simple push-button programming displays millivolt, pH, and temperature values. Calibration menus feature a unique "Easy-Cal" automatic calibration, including buffer recognition of the most commonly used pH and ORP values.

**Advanced Relay Capability**

**scalable  
4 to 20mA**

- ✓ Backlit LCD
- ✓ Buffer recognition

- ✓ Auto or manual calibration menu
- ✓ Sensor recognition

## 8860 Dual Channel Conductivity/Resistivity Controller

**+GF+ SIGNET**



The +GF+ SIGNET 8860 Dual Channel Conductivity/Resistivity Controller is a two-channel input device equipped with three scalable 4 to 20mA outputs and four programmable relays. A selector switch activates two open collector outputs in place of two of the relays for extraordinary output versatility. The four-button keypad arrangement with intuitive software design is user-friendly, and the NEMA 4X/IP65 integrity of the front panel can be extended to the enclosure by using the optional Rear Cover kit.

- ✓ Display and/or Control:  $\mu\text{S}$ , mS, PPM, or PPB (TDS), K $\Omega$ , M $\Omega$
- ✓ Four relays
- ✓ % Rejection, Difference, Ratio,  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$
- ✓ Time Delay Relay Function
- ✓ Proportional Pulse Control Capability
- ✓ Programmable Temperature Compensation
- ✓ Output Simulation for System Testing

**3 Fully scalable  
4 to 20 mA  
outputs**

### Quick Spec

#### Operating Range

- Conductivity: 0.055 to 400,000  $\mu\text{S}/\text{cm}$
- Resistivity: 10 k $\Omega$  to 18.26 M $\Omega$  (0.055 to 100  $\mu\text{S}/\text{cm}$ )
- TDS: 0.001 to 999999 ppm or ppb (display limit)
- Temperature: PT 1000: -25 to 120 $^{\circ}\text{C}$  (-13 to 248 $^{\circ}\text{F}$ )

#### Power Requirements

- 3-8860-AC: 100 to 240 VAC  $\pm 10\%$ , 50-60 Hz, 20VA
- 3-8860: 11 to 24 VDC  $\pm 10\%$ , reg., 0.5A max.
- Current Output: (3 each) 4 to 20 mA, isolated, fully adjustable and reversible.

- Max. Loop impedance: 150 $\Omega$  @ 12V, 450 $\Omega$  @ 18V, 750 $\Omega$  @ 24V
- Open-collector outputs: (2 each) Isolated, 50 mA sink or source, 30 VDC max. pull-up voltage.
- Operational Settings: Hi, Lo, USP, Pulse, Off
- Maximum Pulse Rate: 400 pulses/minute
- Alarm Contacts: (up to 4 each) SPDT Relays
- Max. voltage ratings: 5A @ 30 VDC or 250 VAC
- Operational Settings: Hi,Lo,USP, Pulse, OFF
- Max. Pulse Rate: 400 pulses/minute
- Standards and Approvals: CSA, CE, UL
- Manufactured under ISO 9001 AND ISO 14001

	Item #	Code	Description	Price
<b>Basic Unit:</b>	3-8860	159000677	Conductivity/Resistivity Controller, DC Powered	<b>\$859.44</b>
	3-8860-AC	159000678	Conductivity/Resistivity Controller, AC Powered	<b>910.44</b>
<b>Accessories:</b>	3-8050.395	159000186	NEMA 4X Rear Cover	<b>39.11</b>
	3-9000.392	159000368	Liquid-tight Connector Kit for rear cover(3)	<b>39.11</b>
	3-8050.392	159000640	Model 200 Retrofit Adapter	<b>46.22</b>
	3-5000.399	198840224	5x5 inch Adapter Plate for +GF+ Signet retrofit	<b>20.78</b>
	3-0000.596	159000641	Heavy Duty Wall Mount Bracket	<b>46.22</b>
	3-5000.598	198840225	Surface Mount Bracket	<b>24.89</b>
	3-8050.396	159000617	RC Filter Kit (for relay use)	<b>15.11</b>
	3-2830	159000628	Conductivity Certification Tool	<b>155.83</b>

### Quick Spec

- Accuracy:  $\pm 0.2\%$  of full scale
- Input range: Power Requirements: 12 to 24 Volt AC or DC, unregulated, 50-60 Hz, 10 W Max.
- pH: 0 to 14, optically isolated Temp. comp.: 5 to 248 $^{\circ}\text{F}$
- ORP: -1,000 to +1,000 mV, optically isolated

### Quality Standards: CE, CSA, UL

#### Alarm contacts:

- Two SPDT relays: 5A @ 30 VDC, 5A @ 125 VAC, or 3A @ 250 VAC max.
- HI/LO/Pulse programmable with adjustable Hysteresis
- 4 to 20 mA, non-isolated, internally powered
- Accuracy:  $\pm 0.1\%$

**COMPATIBILITY:** Signet 2720 Pre-Amp and pH/ORP Sensors

Item #	Description	Price
3-5700	Reversible pH & ORP dial face included	<b>\$784.44</b>
73007524	Power Supply 120 VAC/24VAC	<b>36.83</b>

## 8850 Conductivity/Resistivity Transmitter



The +GF+ SIGNET 8850 Conductivity/Resistivity Transmitter is designed for broad application and ease of setup and use. The unit can be used for conductance, resistance, or TDS signal transmission and display. Mounting can be accomplished in several options best tailored to your application requirements. Full-micro-processor based electronics allow wide operating range, and long term signal stability due to the elimination of potentiometers, jumpers and dip switches.

- ✓ Display in  $\mu\text{S}$ , mS, kohm, Mohm, ppm (TDS)
- ✓ Programmable Temperature compensation
- ✓ Relay options
- ✓ Dual output option allows temperature and process signal transmission
- ✓ 2 x 16 character dot matrix LCD
- ✓ Clearly marked terminal labels

### Quick Spec

#### Accuracy $\pm 2\%$ of reading

#### Enclosure:

- Rating: NEMA 4X/IP65 front
- Sensor input range:
  - Conductance: 0.055 to 400,000  $\mu\text{S}$
  - Resistivity: 10 K $\Omega$  to 18.2 M $\Omega$
- TDS: 0.023 to 200,000 ppm
- Temperature: PT 1000 (-13 to 248 $^{\circ}\text{F}$ )
- Current output:
  - 4 to 20 mA, isolated, fully adjustable and reversible

**+GF+ SIGNET**

#### Power: 12 to 24 VDC $\pm 5\%$ , regulated

#### Relay output:

- Mechanical SPDT contacts: Hi, Lo, Pulse, Off
- Maximum voltage rating: 5 A @ 30 VDC, or 5 A @ 250 VAC resistive load
- Hysteresis: User Adjustable
- Open-collector output: Hi, Lo, Pulse, Off
- Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up voltage
- CSA, CE, UL listed
- Manufactured under ISO 9001

Item #	Mounting Version	Wire Power	Sensor Input	4 to 20 mA Output	Open Collector/Relay	Price
388501	Field	4	1	1	1 O.C. Hi, Lo, Pulse or Off	<b>\$475.56</b>
388502	Field	4	1	1	2 Relays Hi, Lo, Pulse or Off	<b>555.56</b>
388503	Field	4	1	2*	2 O.C.'s Hi, Lo, Pulse or Off	<b>621.33</b>
388501P	Panel	4	1	1	1 O.C. Hi, Lo, Pulse or Off	<b>475.56</b>
388502P	Panel	4	1	1	2 Relays Hi, Lo, Pulse or Off	<b>555.56</b>
388503P	Panel	4	1	2*	2 O.C.'s Hi, Lo, Pulse or Off	<b>621.33</b>
3-8050	Universal mounting kit					<b>42.67</b>
3-8050.395	Transmitter NEMA 4X cover					<b>39.11</b>
3-8052	3/4" Integral mounting kit					<b>48.00</b>
3-8050.396	RC Filter kit (for relay use)					<b>15.11</b>

\* Conductivity/Resistivity or Temperature

See page 18 for Conductivity/Resistivity Sensors

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**USCO 13**



# +GF+ SIGNET ProcessPro Transmitters

**+GF+ SIGNET all-new ProcessPro™ Transmitters offer a single, trusted source for all your industrial water treatment instrument needs. Simple to order, with even simpler operation based on the industry's leading "easy menu" design. They're rugged and compact, making them an ideal choice for skid or 1/4 DIN panel mounted process measurement. Whether you're measuring single or multiple points of measurement, it's another way +GF+ SIGNET serves as an innovative, reliable partner to help make the job easier.**

## SIGNET Transmitters are available in a panel mount or a field version.

The field version is mounted to the sensor using the integral mount kit (3-8051) or you may select the universal mount kit (3-8050) to mount the transmitter on a surface near the sensor.



**Panel Mount 38550XP**  
Panel mount transmitters fit into a standard 1/4 DIN panel cutout.



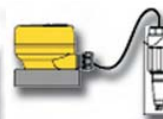
**Integral Mount 38051 Kit**  
Integral adapter for mounting the transmitter and sensor directly in a pipe.



**Universal Mount 38550X Transmitter**  
For mounting the transmitter on a pipe, wall, or other stationary surface.



**Panel Mount 38750XP**  
Panel mount transmitters fit into a standard 1/4 DIN panel cutout.



**Universal Mount 38750X Transmitter**  
For mounting the transmitter on a pipe, wall, or other stationary surface.

## 8550 Flow Transmitter +GF+ SIGNET

The +GF+ SIGNET 8550 Flow Transmitter is an advanced solution that converts the signal from all +GF+ SIGNET flow sensors into a 4 to 20 mA signal for long distance transmission.

Configuration flexibility is maximized with two optional relays for process control, two packaging options for integral/pipe mount or panel installation, and scalability for virtually any flow range or engineering unit. State-of-the-art electronic design ensures long-term reliability, signal stability, and simple user setup and operation.



- Permanent and resettable totalizers
- 2 x 16 character dot matrix LCD
- Relay options
- Clearly marked terminal labels

As Low As  
**\$350<sup>22</sup>**

### Quick Spec

Accuracy: $\pm 0.5$ Hz	Power: 12 to 24 VDC $\pm 10\%$ , regulated
Enclosure: Rating NEMA 4XIP65 front	Accuracy: $\pm 0.03$ mA
CSA, CE, UL listed	Relay output:
Manufactured under ISO 9001	■ Mechanical SPDT contacts: Hi, Lo, Pulse, Off
Sensor power:	■ Maximum voltage rating: 5 A @ 30 VDC, 5 A @ 250 VAC resistive load
■ 2-wire: 1.5 mA @ 5 VDC $\pm 1\%$	■ Hysteresis: User adjustable
■ 3- or 4-wire: 20 mA @ 5 VDC $\pm 1\%$	Open-collector output: Hi, Lo, Pulse, Off
Current output:	■ Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up voltage
■ 4 to 20 mA, isolated, fully adjustable and reversible	

Item #	Mounting Version	Sensor Input	4 to 20 mA Output	Open Collector/Relay	Price
385501	Field	1	1	1 O.C. Hi, Lo, Pulse, Freq or Off	<b>\$350.22</b>
385502	Field	1	1	2 Relays Hi, Lo, Pulse or Off	<b>416.00</b>
385503	Field	2	2*	2 O.C.'s Hi, Lo, Pulse, Freq or Off	<b>596.44</b>
385501P	Panel	1	1	1 O.C. Hi, Lo, Pulse, Freq or Off	<b>350.22</b>
385502P	Panel	1	1	2 Relays Hi, Lo, Pulse or Off	<b>416.00</b>
385503P	Panel	2	2*	2 O.C.'s Hi, Lo, Pulse, Freq or Off	<b>596.44</b>
3-8050	Universal mounting kit				<b>42.67</b>
3-8050.395	Transmitter NEMA 4X cover				<b>39.11</b>
3-8051	Flow Integral Mnt NPT				<b>42.67</b>
3-8050.396	RC Filter kit (for relay use)				<b>15.11</b>

\* Sensor 1, Sensor 2 or delta Flow

Item #	Description	Price
38510P0	Integral Flow Sensor, PP Body, Ti shaft, 0.5"-4.0"	<b>\$216.89</b>
38510P1	Integral Flow Sensor, PP Body, Ti shaft, 5.0"-8.0"	<b>233.78</b>
38510T0	Integral Flow Sensor, PVDF Body, PVDF shaft, 0.5"-4.0"	<b>432.00</b>
38510V0	Integral Flow Sensor, PVDF Body, PVDF shaft, 0.5"-4.0"	<b>411.56</b>
38512P0	Integral Low Flow Sensor, PP Body, Ti shaft, 0.5"-4.0"	<b>208.89</b>
38512P1	Integral Low Flow Sensor, PP Body, Ti shaft, 5.0"-8.0"	<b>224.89</b>
38512T0	Integral Low Flow Sensor, PVDF Body, PVDF shaft, 0.5"-4.0"	<b>415.11</b>
38512V0	Integral Low Flow Sensor, PVDF Body, HastC shaft, 5.0"-4.0"	<b>395.56</b>

## 8750 pH/ORP Transmitter +GF+ SIGNET

The +GF+ SIGNET 8750 pH/ORP Transmitter is designed for broad application and ease of setup and use. The unit auto-configures for either pH or ORP use when connected to +GF+SIGNET pH or ORP sensors. Multiple mounting options allow for installation best suited to your particular application. The automated "Easy-cal" menu features automatic buffer recognition for mistake proof pH or ORP sensor calibrations. Two-line LCD provides sensor diagnostic information for ease in system maintenance.



- Display in Deg. C or Deg. F
- Relay options
- Dual output option allows temperature and pH signal transmission
- Clearly marked terminal labels

Starting At  
**\$439<sup>11</sup>**

### Quick Spec

Accuracy: $\pm 0.03$ pH, $\pm 2$ mV's ORP	Accuracy: $\pm 0.03$ mA @ 25°C, 24 V
Sensor input range:	Relay output:
■ pH: 0.00 to 14.00 pH	■ Mechanical SPDT contacts: Hi, Lo, Pulse, Off
■ Temp. 3K Balco, (-13 to 248°F)	■ Maximum voltage rating: 5 A @ 30 VDC, 5 A @ 250 VAC resistive load
■ ORP: -1000 to +2000 mV, isolated (10K I.D. resistance T+, T-)	■ Hysteresis: User adjustable
Current output:	Open-collector output: Hi, Lo, Pulse, Off
■ 4 to 20 mA, isolated, fully adjustable and reversible	■ Open-collector, optically isolated, 50 mA max, sink, 30 VDC max. pull-up voltage
■ Power: 12 to 24 VDC $\pm 5\%$ , regulated	

Item #	Mounting Version	Wire Power	Sensor Input	4 to 20 mA Output	Open Collector/Relay	Price
387501	Field	2	1	1	1 O.C. Hi, Lo, Pulse or Off	<b>\$439.11</b>
387502	Field	4	1	1	2 Relays Hi, Lo, Pulse or Off	<b>522.67</b>
387503	Field	4	1	2*	2 O.C.'s Hi, Lo, Pulse or Off	<b>646.22</b>
387501P	Panel	2	1	1	1 O.C. Hi, Lo, Pulse or Off	<b>439.11</b>
387502P	Panel	4	1	1	2 Relays Hi, Lo, Pulse or Off	<b>522.67</b>
387503P	Panel	4	1	2*	2 O.C.'s Hi, Lo, Pulse or Off	<b>646.22</b>
3-8050	Universal mounting kit					<b>42.67</b>
3-8050.395	Transmitter NEMA 4X cover					<b>39.11</b>
3-8050.396	RC Filter kit (for relay use)					<b>15.11</b>

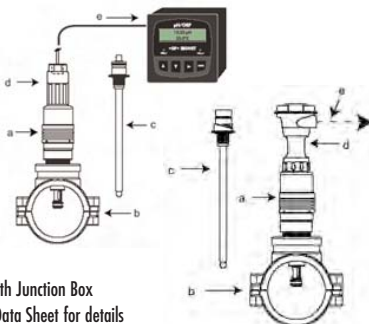
\* pH, Temp or ORP

Item #	Description	Price
32720	Pre-amplifier, NPT	<b>\$159.11</b>
32714	Electrode, pH, Flat	<b>222.22</b>
32714HF	Electrode, pH, Flat, HF resistant	<b>272.89</b>
32715	Electrode, ORP, Flat	<b>240.00</b>
32716	Electrode, pH, Bulb	<b>189.33</b>
32716DI	Electrode, pH, Bulb, DI Water Applications	<b>222.22</b>
32717	Electrode, ORP, Bulb	<b>208.00</b>
P31542	Sensor Cap	<b>8.89</b>

Item #	Description	Price
<b>Base Unit, required; choose one</b>		
3-8900	Base unit with back-lit LCD	\$329.78
3-8900-VF	Base unit with vacuum fluorescent display	456.89
<b>I/O Module, required; choose one</b>		
3-8900.401-1	Two inputs, no outputs	127.11
3-8900.401-2	Two inputs, two passive 4 to 20mA outputs	226.67
3-8900.401-3	Two inputs, two active 4 to 20mA outputs	287.11
3-8900.401-4	Two inputs, two 0 to 5/10 VDC outputs	306.67
3-8900.401-5	Four inputs, no outputs	311.11
3-8900.401-6	Four inputs, two passive 4 to 20mA outputs	409.78
3-8900.401-7	Four inputs, two active 4 to 20mA outputs	471.11
3-8900.401-8	Four inputs, two 0 to 5/10 VDC outputs	489.78
<b>Power Module, required; choose one</b>		
3-8900.402-1	85 to 264 VAC power	151.11
3-8900.402-2	12 to 24 VDC power	99.56
<b>Relay Module, optional; choose zero, one or two</b>		
3-8900.403-1	Two dry-contact relays	89.78
3-8900.403-2	Two solid-state relays	89.78
<b>External Relay Module, optional; choose zero or one</b>		
3-8059-2	Two external dry-contact relays	176.89
3-8059-2AC	Two external dry contact relays with power supply	265.78
3-8059-4	Four external dry-contact relays	259.56
3-8059-4AC	Four external dry-contact relays with power supply	353.78
<b>Additional Outputs, optional; choose zero or one</b>		
3-8900.405-1	Two passive 4 to 20mA outputs	141.33
3-8900.405-2	Two active 4 to 20mA outputs	202.67
3-8900.405-3	Two 0 to 5/10 VDC outputs	221.33
3-8900.404-1	RS232 communication module	108.44

### SYSTEM OVERVIEW

- Low-profile Clamp-on Saddle Fitting (sizes 2.5 to 12 in.)
- 3719 Wet-Tap Assembly
- 2716-WT or 2717-WT Twist-Lock pH or ORP Electrode
- 2720 Twist-Lock Preamplifier
- +GF+ SIGNET pH/ORP Instrument
- 2756-WT or 2757-WT DryLoc™ pH or ORP Electrode
- 2750 DryLoc™ pH/ORP Sensor with Junction Box
- Output signal options - see 2750 Data Sheet for details



Note: To purchase a complete system, customer must choose [a & b], and select either [c, d & e] OR [f & g].

Item #	Description	Price
<b>3719 Wet-Tap Housing</b>		
SIG3-3719-11	Wet-Tap Assembly, 1.5 in. NPT	\$550.22
SIG3-3719-21	Wet-Tap Assembly, 2 in. NPT	550.22
SIG3-3719-12	Wet-Tap Assembly, ISO 7/1-R 1.5	577.78
SIG3-3719-22	Wet-Tap Assembly, ISO 7/1-R 2	577.78
<b>pH &amp; ORP Sensors &amp; Electrodes</b>		
SIG3-2716-WT	Twist-Lock pH Electrode (use with +GF+ SIGNET 2720 Preamplifier)	247.11
SIG3-2717-WT	Twist-Lock ORP Electrode (use with +GF+ SIGNET 2720 Preamplifier)	276.44
SIG3-2720	Twist-Lock Preamplifier, 3/4 in. NPT	159.11
SIG3-2720-2	Twist-Lock Preamplifier, ISO 7/1-R 3/4	168.89
SIG3-2756-WT	DryLoc™ pH Electrode (use with 2750 pH/ORP Sensor)	237.33
SIG3-2757-WT	DryLoc™ ORP Electrode (use with 2750 pH/ORP Sensor)	265.78
SIG3-2750-1	In-line DryLoc™ pH/ORP Sensor with Junction Box	269.89
SIG3-2750-2	In-line DryLoc™ pH/ORP Sensor with Junction Box and EasyCal	325.33
<b>Installation Fittings</b>		
SIG2007-0225	PP Clamp-on Saddle, 2.5 in. x 1.5 in. (ASTM, NPT)	23.11
SIG2007-0230	PP Clamp-on Saddle, 3 in. x 1.5 in. (ASTM, NPT)	27.56
SIG2007-0240	PP Clamp-on Saddle, 4 in. x 1.5 in. (ASTM, NPT)	32.00
SIG2007-0260	PP Clamp-on Saddle, 6 in. x 2 in. (ASTM, NPT)	78.22
SIG2007-0280	PP Clamp-on Saddle, 8 in. x 2 in. (ASTM, NPT)	134.22
SIG2007-0210	PP Clamp-on Saddle, 10 in. x 2 in. (ASTM, NPT)	152.89
SIG2007-0212	PP Clamp-on Saddle, 12 in. x 2 in. (ASTM, NPT)	161.78
<b>Spare Parts</b>		
SIG1220-0114	3719 O-Ring, FPM	2.22
SIG3-3719.390	3719 Locking Shroud	127.11
SIG1220-0021	Electrode O-Ring, FPM	2.22

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## 8900 Multi-Parameter Controller +GF+ SIGNET



The 8900 Multi-Parameter Controller takes the concept of modularity to the extreme. Ultimate flexibility is achieved via plug-in modules for either two or four input channels, universal AC line voltage or 12 to 24 VDC operation, up to four analog outputs, and up to four relays. The controller will support up to four additional relays, for a total of eight, by way of external relay modules. Absolute input versatility allows mixing and matching of up to four sensors with S<sup>L</sup>™ output including pH, ORP, conductivity/resistivity, pressure, temperature, and level. Two of the possible four input channels may be used for any combination of the many +GF+ SIGNET flow sensors with frequency output. The table below identifies sensor models available for use with this controller.

### Quick Spec

- Modular configurability
- Absolute input versatility up to four channels
- 1/4 DIN enclosure
- S<sup>L</sup>™ digital connectivity for pH, ORP, conductivity, level, temperature and pressure
- Frequency input for many flow sensor options
- Derived measurements: Difference, Sum, Ratio, % Recovery, % Rejection, % Passage
- Up to four analog outputs
- Up to eight relays
- RS232 output (pending)
- Display options

## 3719 pH/ORP Wet-Tap +GF+ SIGNET

The +GF+ SIGNET 3719 pH/ORP Wet-Tap allows installation and removal of pH or ORP electrodes without the need for process shutdown during routine electrode maintenance and calibration. Process isolation is achieved with a double O-ring seal on a unique and compact retraction assembly; no separate valve is required. A cam activated automatic locking mechanism, SafeLoc™, and the short stroke design help to assure operator safety.

### TECHNICAL DATA

#### Wet-Tap

- Operating Pressure: 100 psi (6.9 bar) max.
- Materials: Retraction Housing (Wetted): CPVC O-rings (Wetted): FPM Locking Shroud: PVC Hardware: 316 stainless steel
- Maximum Flow Velocity: 10 ft/s

#### Environmental

- Storage Temperature: -15 to 120°C (5 to 248°F)
- Process Temperature: 0 to 80°C (32 to 176°F)

#### Electrode

- Operating Range: pH: 0 to 14 pH ORP: -2000 to +2000 mV
- Accuracy: ±0.1% over full range
- Temp. Sensor (pH): 3K Balco (3-2716-WT) PT-1000 (3-2756-WT)
- Temp. & Pressure Limit: 6.9 bar @ 65°C (100 psi @ 149°F)
- Wetted Materials: Body: Glass Junctions: Porous PTFE Sensing surface: Glass Membrane (pH), Platinum (ORP) O-rings: FPM

#### Environmental

- Storage Temperature: 0° to 85°C (32° to 185°F)
- Process Temperature: 0° to 85°C (32° to 185°F)



3719-2X shown with Twist-Lock Electrodes

As Low As \$550<sup>22</sup>

### Quick Spec

- Automatic process isolation upon electrode retraction - no separate valve required
- Compatible with Twist-Lock and DryLoc™ Electrodes for use with 2720 Preamplifier or 2750 pH/ORP Sensor
- Low profile Clamp-on Saddle Fittings for convenient installation in ASTM pipe sizes 2.5 to 12 in.

## 2754-2757 pH and ORP Electrodes

The +GF+ SIGNET 2754-2757 pH and ORP Electrodes feature a unique foul-proof DryLoc™ connector with gold-plated contacts designed specifically for use with the +GF+ SIGNET 2750 and 2760 Sensor Electronics. These dependable and highly responsive electrodes feature a large reference chamber volume and intelligent positioning of internal elements that combine to extend the service life.

### COMPATIBLE INSTRUMENTS

The 2754-2757 DryLoc™ pH/ORP Electrodes are compatible with the following +GF+ SIGNET Instruments and Sensor Electronics: 2750, 2760 and 8900.

#### Quick Spec

- Durable DryLoc™ connector with gold-plated contacts
- Self-cleaning flat versions reduce risk of glass breakage
- Large reference volume and solid polymer electrolyte
- Temperature sensor included in pH electrodes

As Low As  
**\$182<sup>22</sup>**

Flat Glass

Protected Bulb

### 2754-2757 Series pH and ORP Electrodes w/Dry-Loc connection

Item #	Description	Price
3-2754	Flat pH Electrode	<b>\$213.33</b>
3-2754-HF	Flat pH Electrode, HF Resistant	<b>262.22</b>
3-2755	Flat ORP Electrode	<b>231.11</b>
3-2756	Bulb pH Electrode	<b>182.22</b>
3-2756-DI	Bulb pH Electrode, DI Resistant	<b>213.33</b>
3-2757	Bulb ORP Electrode	<b>200.00</b>

## 2750 and 2760 DryLoc and Preamplifiers pH/ORP Sensor Electronics

The +GF+ SIGNET 2750 and 2760 pH/ORP Sensor Electronics and Preamplifiers, featuring DryLoc™ connectors, provide a variety of functions to suit various requirements. The 2760 is a preamplifier that allows any DryLoc™ pH/ORP electrode to work with most +GF+ SIGNET instruments. It can also be used as a simple connector for use with other manufacturers' instruments that do not require a pre-amplified signal.

The 2750 comes with the same pre-amplified signal as the 2760, but features two different outputs: a two-wire 4 to 20 mA loop output, or a digital (S<sup>2</sup>L) output which allows for longer cable lengths and is

compatible with the +GF+ SIGNET 8900 Multi-Parameter Controller. The 2750 devices self-configure for pH or ORP operation via automatic recognition of the electrode type. The optional EasyCal feature allows simple push-button calibration and includes an LED indicator for visual feedback.

The DryLoc™ electrode connector found on both models quickly forms a robust assembly for submersible and in-line installations. NEMA 4X junction boxes are integral parts of the 2750 in-line version and are also available as accessories for both Models 2750 (submersible version) and 2760.



3-2750-1, -2



3-2750-3, -4  
3-2760

From Only  
**\$144<sup>00</sup>**

2760 shown  
with 2774 elec-  
trode

**Blind Output  
or Standard  
Preamplified  
Output**

In-Line Installation			Submersible Installation	Wet-Tap Installation
Panel Mount +GF+ SIGNET Instrument (sold separately)	Pipe, Tank, Wall Mount +GF+ SIGNET pH/ORP Transmitter (sold separately)	4 to 20 mA Input +GF+ SIGNET 5091 (sold separately) OR Programmable Logic Controller	Panel, Pipe, Tank, Wall Mount +GF+ SIGNET Instrument (sold separately)	
+GF+ SIGNET 2750 and 2760 Sensor Electronics and Preamplifier	+GF+ SIGNET Universal Adapter Kit (3-40501) (sold separately)	+GF+ SIGNET 2760 Preamplifier	Pipe extension or conduit with 3/4 in. NPT or ISO 7/16 in. 3/4 threads (customer supplied)	+GF+ SIGNET 2750 or 2760 and 2756-WT (sold separately)
DryLoc™ pH/ORP Electrodes (sold separately)		+GF+ SIGNET 2750 and 2760 Sensor Electronics and Preamplifier		+GF+ SIGNET 3719 Wet-Tap (sold separately)
2754-2757 DryLoc™ Electrodes: Use +GF+ SIGNET Fittings			DryLoc™ pH/ORP Electrodes (sold separately)	+GF+ SIGNET Fittings* (sold separately)
2764-2767 and 2774-2777 DryLoc™ Electrodes: Use 3/4 in. NPT fittings (customer supplied)				

### 2750 Series pH and ORP Sensor Electronics w/Dry-Loc connection

Item #	Description	Price
3-2750-1	In-Line pH/ORP Sensor	<b>\$296.89</b>
3-2750-2	In-Line pH/ORP Sensor w/EasyCal	<b>325.33</b>
3-2750-3	Sub pH/ORP Sensor, NPT	<b>280.00</b>
3-2750-4	Sub pH/ORP Sensor, ISO	<b>280.00</b>

## 2774-2777 Threaded DryLoc™ pH/ORP Electrode

The +GF+ SIGNET 2774-2777 pH and ORP Electrodes feature a unique foul-proof DryLoc™ connector with gold-plated contacts designed specifically for use with the +GF+ SIGNET 2750 and 2760 preamplifiers, sensor electronics, and connectors. These dependable and highly responsive electrodes feature a Teflon™ double reference junction and a large reference chamber that combine to extend the service life. Embedded positioning of the temperature element in the pH/ORP sensing tip allows the temperature response to be quick and accurate.

### COMPATIBLE INSTRUMENTS

The 2774-2777 Threaded DryLoc™ pH/ORP Electrodes are compatible with the following +GF+ SIGNET Instruments and Sensor Electronics: 8900, 8750, 5700, 2750 and 2760.

#### Quick Spec

- Durable DryLoc™ connector with gold-plated contacts
- Special design allows mounting at any angle
- Quick temperature response
- Mounts into standard 1/2 inch threads

### 2774-2777 Series pH and ORP 1/2" Threaded Electrodes w/Dry-Loc connection

Item #	Description	Price
3-2774	Flat pH Electrode, 3K ohm TC	<b>\$282.67</b>
3-2774-1	Flat pH Electrode, PT1000 TC	<b>282.67</b>
3-2775	Flat ORP Electrode, 10 K ID	<b>296.89</b>
3-2775-1	Flat ORP Electrode, no TC	<b>296.89</b>
3-2776	Bulb pH Electrode, 3K ohm TC	<b>254.22</b>
3-2776-1	Bulb pH Electrode, PT1000 TC	<b>254.22</b>
3-2777	Bulb ORP Electrode, 10 K ID	<b>268.44</b>
3-2777-1	Bulb ORP Electrode, no TC	<b>268.44</b>

### 2760 Series pH and ORP Preamplifiers and Connectors w/Dry-Loc connection

Item #	Description	Price
3-2760-1	Preamplifier, NPT	<b>\$185.78</b>
3-2760-2	Preamplifier, ISO	<b>185.78</b>
3-2760-3	Connector, NPT	<b>144.00</b>
3-2760-4	Connector, ISO	<b>144.00</b>



## 2819/2820/2821 Conductivity Sensors

The +GF+SIGNET 2819/2820/2821 Conductivity Sensors offer high performance and reliability. Controlled surface finish and integral temperature compensation devices ensure accurate conductivity measurement.



Item #	Cell Constant	Temp. Comp.	Range ( $\mu$ S)	Price
328191	Cond. Cell K=0.01	PT-1000	0.055 to 100 $\mu$ S (10K $\Omega$ to 18.3M $\Omega$ )	<b>\$244.44</b>
328201	Cond. Cell K=0.1	PT-1000	1 to 1000 $\mu$ S	<b>244.44</b>
328211	Cond. Cell K=1.0	PT-1000	10 to 10,000 $\mu$ S	<b>244.44</b>

NIST Traceable Certificates available for an additional charge.

### Quick Spec

- Temperature: 212°F max. (opt. 316 SS fitting: 32820392; 248 °F)
- Pressure: 100 psi max. (opt. 316 SS fitting: 32820392; 200 psi)
- Pipe Size Range: 3/4 in. and larger
- Materials: Body: 316 Stainless Steel
- Insulator: Teflon®
- O-rings: EPR
- Fitting: 3/4 in. MNPT Polypropylene (reversible for submersion)
- Optional: 1/2 in. MNPT 316 Stainless Steel

USCO Price Only  
**\$244.44**

### COMPATIBILITY

5800CR Conductivity/Resistivity Monitor 9050CR Conductivity/Resistivity Controller

## 2822/2823 Conductivity Sensors

The +GF+SIGNET 2822/2823 Conductivity Sensors offer higher pressure and temperature specifications. The flow-through design ensures continuous measurement without air entrapment.

Compatible with 5800CR Conductivity/Resistivity Monitor and 9050CR Conductivity/Resistivity Controller.



Item #	Cell Constant	Temp. Comp.	Range ( $\mu$ S)	Price
328221	Cond. Cell K=10.0	PT-1000	100 to 200,000 $\mu$ S	<b>\$410.67</b>
328231	Cond. Cell K=20.0	PT-1000	200 to 400,000 $\mu$ S	<b>515.56</b>
32820390	3/4" NPT 316SS Fitting for Submersion			<b>142.22</b>

### Quick Spec

#### 2823

- Temperature: 302 °F max.
- Pressure: 100 psi max.
- Pipe Size Range: 3/4 in. and larger
- Materials: Body: 316 Stainless Steel
- Insulator: Teflon®
- O-rings: EPR
- Fitting: 3/4 in. MNPT 316 Stainless Steel (reversible for submersion)

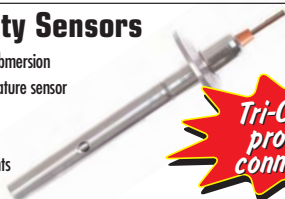
#### 2822

- Temperature: 203 °F max.
- Pressure: 100 psi max.
- Pipe Size Range: 3/4 in. and larger
- Materials: Body: 316 Stainless Steel
- Insulator: CPVC
- O-rings: EPR
- Fitting: 3/4 in. MNPT 316 Stainless Steel
- Optional: 32820390 316 Stainless Steel 3/4 in. MNPT fitting for submersion

As Low As  
**\$410.67**

## Sanitary Conductivity Sensors

- Reversible 3/4" process connection for submersion or in-line use Integral platinum temperature sensor
- Controlled surface finish
- Good for Semicon & CIP applications.
- Designed to meet USP 23 requirements for Pharmaceutical industry.



Tri-Clover  
process  
connection

The +GF+ SIGNET Sanitary Conductivity/Resistivity sensors are constructed of 316L SS or Titanium with Teflon insulation in cell constant values of 0.01, 0.1 and 1.0. Certified versions are also available with cell constant values determined to  $\pm 1\%$ . When used with +GF+SIGNET's 5800CR Conductivity/Resistivity Monitor the system meets USP-23 criteria for conductivity.

## 2714/2716 pH Electrodes

+GF+ SIGNET

The SIGNET 2714 and 2716 pH Electrodes feature a combination design with measurement, reference, and temperature compensation element in one package. The plastic body construction and unique connection design makes removal and replacement of the electrodes so simple it can be done in seconds.

NOTE: For use with the SIGNET 2720 Pre-amplifier.

## 2715/2717 ORP Electrodes

Quick and Easy Replacement

The SIGNET 2715 and 2717 ORP Electrodes feature a double-junction combination electrode with unique integral I.D. resistor for automatic sensor recognition by the SIGNET 8710 pH/ORP Transmitter. The chemically resistant CPVC body, and twist-lock connection make removal and replacement of electrodes fast and simple. NOTE: For use with the SIGNET 2720 Pre-amplifier.

Pressure: 100 PSI, 32 to 149 °F; 58 PSI, 150 to 185 °F

### Quick Spec

- Construction Materials: CPVC with Viton® O-rings
- Temperature Range: 32 to 185 °F (0 to 85 °C Bulb) 50 to 185 °F (10 to 85 °C Flat)
- Submersible and in-line mounting capability
- Double-junction combination electrode
- Electrode: Platinum Rod
- Reference Electrode: Ag/AgCl

Item #	Description	Price
32714	Electrode, pH, Flat	<b>\$222.22</b>
32714HF	Electrode, pH, Flat, HF Resistant	<b>272.89</b>
32716	Electrode, pH, Bulb	<b>189.33</b>
32716DI	Electrode, pH, Bulb, DI Water Applications	<b>222.22</b>
32715	Flat ORP electrode	<b>240.00</b>
32717	Bulb ORP electrode	<b>208.00</b>

## 2720 Pre-Amplifier



The SIGNET 2720 unity gain Pre-amplifier converts pH probe signals to a level that can be wired over a great distance on ordinary cable. The 2720 connects to the new line of SIGNET pH and ORP sensors with a unique twist-lock connection design. The 2720 was designed for use with any device supplying a dual 5 VDC supply including all current Signet models of pH and ORP controllers, analyzers, and transmitters. The unit is fully-potted and features a 15 ft. shielded cable and easy to connect 0.75 in. FNPT threads for easy installation into submersible and in-line (use threaded cap P31542) applications.

### Quick Spec

+GF+ SIGNET

- Operating Temperature: 32 to 176 °F (0 to 80 °C)
- Chemically resistant CPVC housing
- Compatible with Inteltek-Pro™ controllers and Compak transmitters

USCO Price Only  
**\$159.11**

Item #	Description	Price
32720	Pre-amplifier NPT	<b>\$159.11</b>
P31542	Threaded cap for in-line sensor mounting	<b>8.89</b>

### COMPATIBILITY

+GF+ SIGNET 5800CR Conductivity/Resistivity Monitor  
+GF+ SIGNET 9050CR (Dual Channel) Conductivity/Resistivity Controller

Item #	Description	Price
32819S1	CR Sanitary .01, SS, 1"	<b>\$488.89</b>
32819S2	CR Sanitary .01, SS, 2"	<b>577.78</b>
32820S1	CR Sanitary 0.1, SS, 1"	<b>488.89</b>
32820S2	CR Sanitary 0.1, SS, 2"	<b>577.78</b>
32821S1	CR Sanitary 1.0, SS, 1"	<b>488.89</b>
32821S2	CR Sanitary 1.0, SS, 2"	<b>577.78</b>

.01 Cell constant available in Titanium.

NIST Traceable Certificates available for an additional charge.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 17

## 515 Rotor-X Flow Sensor **+GF+ SIGNET**

Creating a flow monitoring or controlling system is simple with the SIGNET 515 Rotor-X Flow Sensor. Combine the 515 with a matched sensor installation fitting, and a Signet flow meter or controller, and have an operational flow monitoring system in minutes.

### 515 FLOW SENSOR

The 515 Flow Sensor is available in Polypro and PVDF for chemical resistance and high purity applications.

#### COMPATIBILITY

5090, 5100, 5500      8512 Flow Transmitter  
Flow Monitors      8540 Pump Pulser  
5600 Batch Controller      9010 Flow Controller



**\*FM APPROVED For Hazardous Areas**  
SIGNET 515 Flow Sensor is  
CE FM approved for Class I, II, and III,  
Division 1, Groups A-G

#### Quick Spec

- Flow Rate Range: 1 to 20 ft/s
- Linearity:  $\pm 1\%$  of full range
- Repeatability:  $\pm 0.5\%$  of full range
- PP 180 psi @ 68°F, 25 psi @ 185°F
- PVDF 200 psi @ 68°F, 25 psi @ 185°F

### 515 Rotor-X Polypropylene Flow Sensor

Item #	Housing Material	Shaft Material	Pipe Size (in.)	Price
P51530P0	Polypropylene	Titanium	0.5 to 4	<b>\$245.33</b>
P51530P1	Polypropylene	Titanium	5 to 8	<b>\$254.22</b>
P51530P2	Polypropylene	Titanium	10-up	<b>\$275.94</b>

#### 515 PVDF Flow Sensor

P51530V0	PVDF	Hastelloy C	0.5 to 4	<b>\$436.44</b>
P51530V1	PVDF	Hastelloy C	5 to 8	<b>\$452.78</b>
P51530T0	PVDF	PVDF	0.5 TO 4	<b>\$437.22</b>
P51530T1	PVDF	PVDF	5 TO 8	<b>\$452.44</b>



## 2536 Low Flow Sensor

**+GF+ SIGNET**

The +GF+SIGNET 2536 Low Flow Sensor is a high resolution, low power device ideal for measuring flow in piping systems with extremely low velocities. It incorporates a state-of-the-art, advanced Hall Effect design allowing it to operate with a wide range of voltages and current supplies.

Item #	Description	Price
32536P0	PP body, Titanium shaft, 0.5" to 4.0"	<b>UNDER \$271.11</b>
32536P1	PP body, Titanium shaft, 5.0" to 8.0"	<b>UNDER 284.44</b>
32536P2	PP body, Titanium shaft, 10.0" & up	<b>UNDER 297.78</b>
32536T0	PVDF body, PVDF shaft, 0.5" to 4.0"	<b>UNDER 457.78</b>
32536V0	PVDF body, Hastelloy C shaft, 0.5" to 4.0"	<b>UNDER 457.78</b>
32536V1	PVDF body, Hastelloy C shaft, 5.0" to 8.0"	<b>UNDER 477.33</b>

#### Quick Spec

- Operating Range:
- 0.3 to 20fps
  - PP sensor housing: 180 psi @ 68°F, 25 psi 185°F
  - PVDF sensor housing: 200 psi @ 68°F, 25 psi @ 185°F
- Power Requirements: 3.3 to 24VDC, < 1.5mA @ 3.3V to 6VDC, < 20mA @ 6V to 24VDC
- Pipe Size Range: 0.5 to 24 in.  
Repeatability:  $\pm 0.5\%$  of full scale  
Linearity: 1% of full range  
Materials: Refer to ordering info. for material options available.
- O-rings: Viton®
  - Cable type: twisted pair, foil shield with drain wire. Cable length: 25 ft. (1,000 ft. max.)
- Quality Standards: CE

#### COMPATIBILITY

5500 Flow Monitor      8512 Flow Transmitter      9010 Flow Controller  
5600 Batch Controller      8540 Pump Pulser

#### Quick Spec

**+GF+ SIGNET**

- Rugged 316 stainless steel or brass construction
- Flow rates as low as 0.3 ft/s
- No magnets in process fluid
- Removal without shutdown with Hot-Tap version

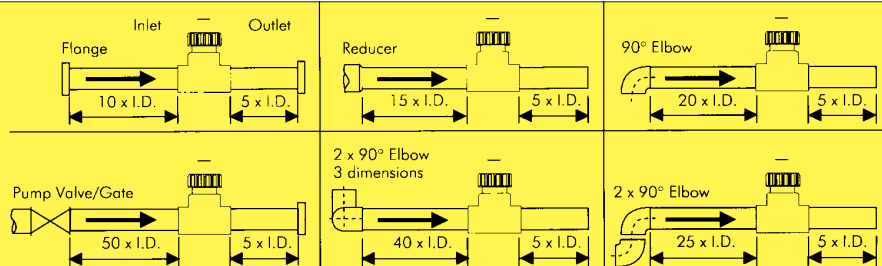
Item #	Description	Price
<b>2517 Adjustable 316SS Flow Sensor</b>		
325401	High Performance Flow Sensor with 1.5 in. NPT thread	<b>\$420.44</b>
325402	High Performance Flow Sensor with 1.5 in. ISO thread	<b>\$420.44</b>
12240021	Optional EPR Seal (Max. Temp.: 212°F/100°C)	<b>4.72</b>
325403	Hot Tap w/ 1.5" NPT	<b>\$586.67</b>
325404	Hot Tap w/ 1.5" ISO	<b>\$586.67</b>
31500.663	Hot Tap Insertion Tool	<b>\$356.50</b>
<b>2517 Adjustable Brass Flow Sensor</b>		
32517.100	Standard Sensor w/ 1.5" NPT	<b>\$392.89</b>
32517.101	Standard Sensor w/ 1.5" ISO	<b>\$392.89</b>
32517.102	Ext. Length for Hot Tap w/ 1.5" NPT	<b>\$91.11</b>
32517.103	Ext. Length for Hot Tap w/ 1.5" ISO	<b>\$91.11</b>



### USCO tech tip

#### Installation

For maximum linearity and accuracy, the sensor should be located in a straight run of pipe upstream and downstream of the sensor. Major obstructions such as pumps or throttled valves will require longer straight runs.



## 2540/2517 High Performance Flow Sensor

The +GF+ SIGNET 2540 offers the added strength and corrosion resistance of stainless steel for applications with low velocity measurements. Unique internal circuitry eliminates the need for magnets in the process fluid, enabling lower flow measurement while maintaining the advantages of insertion sensor design. The 2540's unique rotor/bearing design offers low flow measuring capability with increased reliability. Pipe size range: 1.5in. to 24in. Consult Sales Office for applications above 24in.

#### COMPATIBILITY

5010 Flow Monitor (2517 only)      8512 Flow Transmitter  
5500 Flow Monitor      8540 Pump Pulser  
5600 Batch Controller      9010 Flow Controller



## 525 Metalex Flow Sensor

The SIGNET 525 Metalex Flow Sensor offers the added strength of an all metal sensor for high temperature and pressure applications.

### Quick Spec

**+GF+ SIGNET**

- Flow rate range: 1.6 to 20 ft/s
- Rotor: CD4MCu stainless steel
- Sensor body: 316 stainless steel
- Rotor Shaft: 316 Stainless Steel or Tungsten Carbide optional
- Pressure: 1500 psi with mini-tap
- Temperature: 300°F with mini-tap
- Linearity:  $\pm 1\%$  of range
- Handles pressures to 1500 psi
- Operates in temperatures to 300°F
- FM approved for hazardous areas
- CSA approved

Item #	Pipe Fitting Size (in.) / Style	Maximum Temperature	Maximum Pressure	Price
P5251	0.5 to 1 mini-tap	300°F	1500 psi	\$401.11
P5252	1.25 to 12 mini-tap	300°F	1500 psi	401.11
P5253	2 to 12 saddle	150°F	300 psi	401.11

\*FM APPROVED For Hazardous Areas — SIGNET 525 Metalex Flow Sensor is CE FM approved for Class I, II, and III, Division 1, Groups A-G. (IMPORTANT: Sensor output signal approved only. If to be used with a powered device, please ask for assistance.)

## Installation Accessories

Call for Special Pricing on All SIGNET Parts and Accessories

**+GF+ SIGNET**



### Rotor-X Accessories (for models 515, 2536, 2540, 2517, 8510 & 8512 sensors)

Item #	Description	Price
12200021	Sensor Housing O-Ring — Viton (standard)	\$1.78
12240021	Sensor Housing O-Ring — EPR	4.44
12280021	Sensor Housing O-Ring — Kalrez	124.44
305153221	Replacement Rotor — Sleeve Bearing	48.89
32517567	Shaft Retainer — 2517	20.44
325363202	Pin & rotor kit (natural PVDF) for 2535/2536/8512-XX	48.00
325363201	Replacement Rotor — PVDF (standard — Black) for 2535/2536/8512-XX	45.33
32540320	Rotor Kit — 2540	45.33
55230222	Cable, 2 conductor, shielded (price is per foot)	.89
M15382	Replacement Rotor — PVDF (standard — Black)	35.56
M15384	Replacement Rotor — Tefzel	41.78
M15461	Replacement Pin — Titanium	16.00
M15462	Replacement Pin — Hastelloy C	42.67
M15463	Replacement Pin — Tantalum	96.89
M15464	Replacement Pin — Stainless Steel	42.67
P315150V200	Pipe Adapter Insert PVDF 0.5" - 4.0" (inline 2700 & 2800 series sensors)	62.78
P315201V	Pipe Adapter Insert PVDF 5.0" - 8.0"	112.89
P315202P	Pipe Adapter Insert PVC 10.0" & up	238.22
P31536	Polypro Plug (standard)	41.78
P315362	PVDF Plug with standard cap	72.00
P31934	Conduit Cap	8.89
P51545	Replacement Pin — Ceramic	96.89
P515473	Replacement Rotor — PVDF (natural) (Replaced M1538-3)	29.33
P52503	Bearing — 2517 (2 Required)	6.22
P52504-1	Shaft, 316SS	11.56
P52504-2	Shaft, Tungsten	41.78
P52509-1	Rotor Kit — 2517	42.67

### Instrument Spare Parts

Item #	Description	Price
35000395	Rear Cover Kit (ProPoint & Intelek-Pro series — NEMA 4X)	\$33.78
39000392	Liquid Tight Connector Kit (ProPoint & Intelek-Pro series)	39.11
74000010	Battery, 5100	30.56
P31542	Sensor cap pH/ORP (Red)	8.89
P51589	Sensor Conduit Adapter Kit	37.22
Power Supply — See page 22 for complete selection		

## Signet 2537 Paddlewheel Flow Sensor

The Signet 2537 Flow Sensor is the next generation in fluid measurement technology from the inventor of the original paddlewheel flowmeter. It has the added functionality of various output options.

**NEW**



### FEATURES

- Digital (5" L), or 4 to 20mA outputs, or Flow Switch, or Pulse output (multi-function)
- Allows for up to six sensors to Signet 8900 Controller
- Low flow capabilities
- Built-in user interface for on-site configuration

### APPLICATIONS

- Pump Protection
- Filtration Systems
- Demineralization/Regeneration
- Cooling Towers
- Proportional metering pump



### Quick Spec

**+GF+ SIGNET**

#### GENERAL

Input Frequency Range: 1 Hz to 1000 Hz  
Operating Range: 0.1 m/s to 6 m/s (0.3 ft/s to 20 ft/s)

Linearity:  $\pm 1\%$  of max. range @ 25°C (77°F)  
Repeatability:  $\pm 0.5\%$  of max. range @ 25°C (77°F)

Operating Range: 0.3 to 20 ft/s

#### ELECTRICAL

Pulse, Flow Switch

- With dry-contact relay: 24 VDC nominal (21.6 VDC min. to 26.4 VDC max.) 30 mA max current
- With solid-state relay: 5 to 24 VDC nominal (5.0 VDC min to 26.4 VDC max.) 30 mA max current
- Digital (5" L): 5 VDC nominal (5.0 VDC min to 6.5 VDC max.) 3 mA max current
- 4 to 20 mA: 12 VDC to 32 VDC nominal (10.8 VDC min to 35.2 VDC max.) 21 mA max current

Pulse Divider/Total Pulse Output

- Pulse Divider Setting: 1.0000 to 99999
- Relay Modes: Low, High
- Time Delay: 0.0 to 6400.0 seconds
- Hysteresis: Adjustable in Engineering Units

Relay Specifications

- Mechanical SPDT: 5A @ 30 VDC, 5A @ 250VAC
- Solid-State Relay: 100mA @ 40VDC, 70 mA @ 33 VAC

### MAX. TEMPERATURE/PRESSURE RATING

- Storage Temperature: -10°C to 75°C (14°F to 167°F)
- Operating Temperature: 0°C to 65°C (32°F to 149°F)

Flow Sensor

- PP: 12.5 bar @ 20°C, 1.7 bar @ 85°C (180 psi @ 68°F, 25 psi @ 185°F)
- PVDF: 14 bar @ 20°C, 1.7 bar @ 85°C (200 psi @ 68°F, 25 psi @ 185°F)

Operating Temperature:

- PP: -18°C to 85°C (0°F to 185°F)
- PVDF: -18°C to 85°C (0°F to 185°F)

### STANDARDS & APPROVALS

- CE
- Enclosure rating: NEMA 4X/IP65
- UL
- EN61326: Immunity and Emissions for Control Equipment
- EN61010: Safety requirements for electrical equipment.
- Manufactured under ISO 9001:2000 and ISO 14001:2004

Sensor Part Number - Choose one	
3-2537	Paddlewheel Flow Sensor
Sensor Output Type	
-1	Pulse Divider via Dry Contact Relay
-2	Pulse Divider via Solid-State Relay
-3	Flow Switch via Dry-Contact Relay
-4	Flow Switch via Solid-State Relay
-5	Digital (5" L) output
-6	4 to 20mA output
C Integral Mount (8512 sensors)	
Material Options	
-P	Polypropylene body, black PVDF rotor, Titanium pin, FPM O-rings
-T	Natural PVDF body, rotor and pin, FPM O-rings
Pipe Size	
0	0.5 to 4 inch
1	5 to 8 inch

Item #	Price	Item #	Price	Item #	Price
3-2537-1C-P0	\$356.00	3-2537-1C-P1	\$372.80	3-2537-1C-T0	\$424.00
3-2537-2C-P0	\$356.00	3-2537-2C-P1	\$372.80	3-2537-2C-T0	\$424.00
3-2537-3C-P0	\$364.80	3-2537-3C-P1	\$372.80	3-2537-3C-T0	\$424.00
3-2537-4C-P0	\$364.80	3-2537-4C-P1	\$372.80	3-2537-4C-T0	\$424.00
3-2537-5C-P0	\$364.80	3-2537-5C-P1	\$390.40	3-2537-5C-T0	\$445.60
3-2537-6C-P0	\$390.40	3-2537-6C-P1	\$407.20	3-2537-6C-T0	\$466.40

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 19



## Sensor Installation Fittings

+GF+ SIGNET

*Call for the Best Prices on Sensor Fittings for all Signet Sensors*

Pipe Mat'l Size (in.)	PVC 40 & 80 Item # Price	CPVC 80 Item # Price	PVDF Item # Price	Fiberglass Item # Price	Polypropylene Item # Price	S.S. 316 Item # Price	Iron Item # Price	Carbon Steel Item # Price	Copper/Bronze Item # Price	Metalex Item # Price
1/2	PV8T005 \$132.44	CPV8T005 \$137.78	SFMT005 \$195.56	N/A	PPMT005 \$137.78	CR4T005 \$281.78	N/A	CS4T005 \$224.00	CUKT005 \$186.67	<b>B</b> P5262005 \$253.33
3/4	PV8T007 \$132.44	CPV8T007 \$137.78	SFMT007 \$195.56	N/A	PPMT007 \$137.78	CR4T007 \$281.78	N/A	CS4T007 \$224.00	CUKT007 \$186.67	<b>B</b> P5262007 \$253.33
1	PV8T010 \$137.78	CPV8T010 \$144.00	SFMT010 \$215.11	N/A	PPMT010 \$148.44	CR4T010 \$281.78	IR4T010 \$90.67	CS4T010 \$224.00	CUKT010 \$186.67	<b>B</b> P5262010 \$253.33
									BR4T010 \$120.89	
1 1/4	PV8T012 \$146.67	CPV8T012 \$152.89	SFMT012 \$233.78	N/A	PPMT012 \$171.56	CR4T012 \$144.00	IR4T012 \$90.67	CS4T012 \$120.00	CUKT012 \$95.11	<b>A</b> P5262012 \$213.33
									BR4T012 \$95.11	
1 1/2	PV8T015 \$146.67	CPV8T015 \$152.89	SFMT015 \$257.78	FPT015 \$272.89	PPMT015 \$200.00	CR4T015 \$181.33	IR4T015 \$90.67	CS4T015 \$171.56	CUKT015 \$124.44	<b>A</b> P5262015 \$213.33
									BR4T015 \$114.67	
2	PV8T020 \$155.56 PV8S020 \$104.89	SEE IR8S020	SFMT020 \$300.44	FPT020 \$272.89	PPMT020 \$243.56	CR4T020 \$224.00	IR4T020 \$90.67 IR8S020 \$114.67	CS4T020 \$219.56	CUKT020 \$148.44 BR4T020 \$144.00	<b>A</b> P5262020 \$213.33 <b>C</b> P5261020 \$275.56
2 1/2	PV8T025 \$164.44 PV8S025 \$104.89	SEE IR8S025	SFMT025 \$362.67	N/A	PPMT025 \$296.00	CR4W025 \$382.22	IR8S025 \$148.44	CS4W025 \$114.67	BR4B025 \$277.33	<b>A</b> P5262025 \$213.33 <b>C</b> P5261025 \$275.56
3	PV8T030 \$178.67 PV8S030 \$123.56	SEE IR8S030	SFMT030 \$406.22	FPS030 \$305.78	PPMT030 \$324.44	CR4W030 \$382.22	IR8S030 \$148.44	CS4W030 \$114.67	BR4B030 \$277.33	<b>A</b> P5262030 \$213.33 <b>C</b> P5261030 \$305.78
4	PV8T040 \$196.44 PV8S040 \$146.67	SEE IR8S040	SFMT040 \$453.33	FPS040 \$362.67	PPMT040 \$348.344	CR4W040 \$382.22	IR8S040 \$148.44	CS4W040 \$114.67	BR4B040 \$277.33	<b>A</b> P5262040 \$213.33 <b>C</b> P5261040 \$305.78
5	SEE IR8S050	SEE IR8S050	SFMT050 \$487.11	N/A	PPMT050 \$434.67	CR4W050 \$401.78	IR8S050 \$200.00	CS4W050 \$148.44	BR4B050 \$382.22	<b>A</b> P5262050 \$213.33 <b>C</b> P5261050 \$335.11
6	PV8S060 \$178.67	SEE IR8S060	SFMT060 \$696.89	FPS060 \$515.56	PPMT060 \$491.56	CR4W060 \$401.78	IR8S060 \$210.67	CS4W060 \$148.44	BR4B060 \$382.22	<b>A</b> P5262060 \$213.33 <b>C</b> P5261060 \$335.11
8	PV8S080 \$219.56	SEE IR8S080	SFMT080 \$1,222.22	FPS080 \$553.78	PPMT080 \$630.22	CR4W080 \$401.78	IR8S080 \$219.56	CS4W080 \$148.44	BR4B080 \$382.22	<b>A</b> P5262080 \$213.33 <b>C</b> P5261080 \$346.67
10	SEE IR8S100	SEE IR8S100	N/A	FPS100 \$750.22	N/A	CR4W100 \$597.33	IR8S100 \$415.11	CS4W100 \$344.00	BR4B100 \$573.33	<b>A</b> P5262100 \$213.33 <b>C</b> P5261100 \$388.44
12	SEE IR8S120	SEE IR8S120	N/A	FPS120 \$950.22	N/A	CR4W120 \$597.33	IR8S120 \$415.11	CS4W120 \$344.00	BR4B120 \$573.33	<b>A</b> P5262120 \$213.33 <b>C</b> P5261120 \$417.78



## Series SWT Pressure Switch



<b>Non-Wetted Parts</b>	PVC, Viton, Stainless Steel, Ethylene Propylene Rubber, Nylon, Buna-Nitrile
<b>Pressure Rating</b>	Maximum 150 PSI @ 70°F
<b>Operating Pressure</b>	3 Ranges: 15-50 PSI, All three springs are in 50-100 PSI, 100-150 PSI according to the spring installed. All three springs are included, the middle range (50-100) is installed by the factory unless otherwise specified
<b>Standard Switch Rating</b>	16 Amps @ 125 VAC, ½ HP; 6 Amps @ 250 VAC, ½ HP. UL Recognized and CSA Approved

### Corrosion-Resistant Design with No Wetted Metals or Elastomers

#### HOW IT WORKS:

The Plast-O-Matic Series SWT contains a snap-action electric switch with three terminals. One is common, one is normally-open, and one is normally-closed. The normally-open switch will close upon reaching the set pressure, and the normally-closed switch will open when set pressure is reached. Set pressure can be reached by higher system pressure falling to the set value, or when lower system pressure rises to the set value.

Example: the switch can be set to actuate at 50 PSI, rising pressure (switch actuates when pressure rises to 50 PSI). When the pressure rises to 50 PSI the normally-open contact will close, and the normally-closed contact will open. Therefore, depending on how the switch is wired, a light, or a pump, etc.

can be energized or de-energized... or one item could be energized and another de-energized at the same moment. As the pressure continues to rise, no further changes occur.

#### Quick Spec

- PVC body, ½" NPT connection.
- Used to signal equipment when pressure in a piping system either rises or falls to a set pressure.
- Adjusts easily with adjusting screw.
- Maximum operating pressure of 150 PSI via three easy-to-change spring ranges.
- NEMA 4X design and patented Fail-Dry® enhance system safety.
- Electrical switch is UL recognized and CSA approved.
- Corrosion-resistant plastic cord grip and 18" cable simplify installation.
- Better piston design and piston guidance vs. competition enhances reliability and accuracy.
- Tested to 1,000,000 cycles in laboratory conditions.
- PTFE diaphragm with no wetted metals or elastomers is ideal for ultra-pure liquids.
- Versatile snap-action 16 Amp/3 terminal switch is standard; 25 Amp and low deadband 3 Amp switches optional.

Item #	Body	Pipe Size	Seals	Amperage	Price
SWT050T16APV	PVC	½"	Teflon	16	\$248.89
SWT050T25APV	PVC	½"	Teflon	25	262.22
SWT050T3APV	PVC	½"	Teflon	3	295.56

### +GF+ SIGNET

## 7300 Switching Power Supplies



Item #	Description	Price
73007524	24VDC, 7.5W, 300mA	\$79.11
73001524	24VDC, 15W, 600mA	117.33
73003024	24VDC, 30W, 1.3mA	151.11
73005024	24VDC, 50W, 2.1mA	211.56
73001024	24VDC, 100W, 4.2mA	304.89

#### Accessories

38050392	200 Retrofit Adapter	46.22
74000011	Lithium Battery, 3.6V, Size AA	6.22
55230222	Cable (per ft.)	.89
38050396	RC Filter Kit	15.11

+GF+ SIGNET 7300 Switching Power Supplies provide regulated output voltage in compact and lightweight plastic housings that can be DIN Rail or surface mounted. The series includes five different output capacities from 300mA to 4.2A (7.5W to 100W), all of which accept universal AC line voltage input and meet worldwide standards for performance and safety. These units meet the power requirements for a single system, multiple +GF+ SIGNET instruments or other devices requiring 24VDC operation.

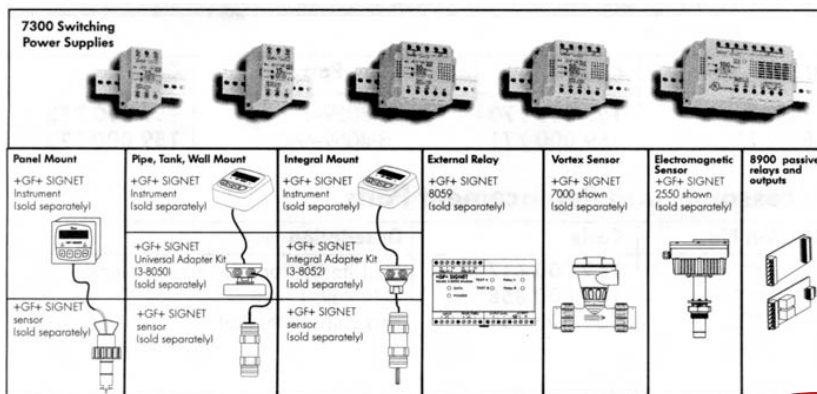
#### Compatible Instruments:

The +GF+ SIGNET 7300 Power Supply is compatible with the following instruments: 5075, 5500, 5600, 5700, 5800CR, 5900, 8059, 8250, 8350, 8450, 8550, 8750, 8850, 8860 and 8900. **Compatible Sensors:** 2550, 2560, 7000, 7001 and 7002.

#### Quick Spec

- Regulated 24VDC output voltage
- Five output capacities: 300mA, 600mA, 1.3A, 2.1 A and 4.2A
- DIN rail or surface mount
- Universal AC input (85 to 264VAC)
- DC compatible input (105 to 370VDC)
- Fused input
- Auto resetting output overcurrent protection
- Unique spring-up, finger-safe terminals
- Short-circuit protection
- Output voltage adjust (+/-10%)
- Lightweight plastic housing

From Only  
**\$79.11**



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USCO 21



Model PD693

### MODEL PD693 FREQUENCY/PULSE INPUT

- Pulse, Open Collector, Switch Closure, TTL or Square Wave Field Selectable Inputs
- K-factor, Internal, or External Calibration
- 11 Point Calibration for Non-linear Inputs
- Low-Flow Cutoff
- 12 VDC @ 50 mA or 24 VDC @ 20 mA Field Selectable Power Supply
- 2 or 4 Relay Output Options
- 4-20 mA Output Option - Converts the pulse input into an isolated 4-20 mA output
- Tachometer/Rate Meter

From Only  
\$280.00



Model PD692

### MODEL PD692 ANALOG INPUT

- 4-20 mA, 0-5 V, or 0-10 V Field Selectable Inputs Internal or External Calibration
- 11 Point Calibration for Non-linear Inputs
- Square Root Extraction
- Low-Flow Cutoff
- Isolated 24 V Transmitter Power Supply
- 2 or 4 Relay Options
- 4-20 mA Output Option



## Universal 1/8 DIN Rate/Totalizer/Batch Controller

Universal Rate/Totalizer Batch Controller may be used to display rate and total as well as provide simple automatic or manual batch control. Models are available for analog inputs such as 4-20mA or frequency/pulse inputs such as pulse, open collector or switch closures. These meters feature a full six digit display, programmable time base of second, minute and hour, as well as a user programmable multiplier out to five decimal points. They also provide 24 VDC excitation for analog inputs and up to 50 mA for frequency/pulse inputs.

**RELAYS** Rating: 2 or 4 SPDT (form C); rated 2 Amp @ 30 VDC or 2 Amp @ 250 VAC resistive load; 1/4 HP @ 125/250 VAC for inductive loads.



### Quick Spec

- Alternating Rate/Total Display
- Priority Batch Programming
- Preset Value Tracking
- Automatic, External or Menu Totalizer Reset
- Rate Displayed in Engineering Units per Second, Minute, or Hour
- Total Displayed in any Engineering Unit
- Peak Hold Feature
- Green Display Available

Item #	Description	Price
<b>115 VAC</b>	<b>Analog Input</b>	
*PD6923N	No Options	\$302.22
*PD692314	2 Relays (total only)	373.33
PD692315	4-20 mA Output	418.89
PD692316	2 Relays (total only) + 4-20 mA Output	488.89
PD692317	4 Relays (2 total & 2 rate)	507.78
PD692318	4 Relays (2 total & 2 rate) + 4-20 mA Output	571.11

Item #	Description	Price
<b>115 VAC</b>	<b>Analog Input</b>	
*PD6933N	No Options	\$280.00
*PD693314	2 Relays (total only)	350.00
*PD693315	4-20 mA Output	395.56
PD693316	2 Relays (total only) + 4-20 mA Output	465.56
PD693317	4 Relays (2 total & 2 rate)	484.44
PD693318	4 Relays (2 total & 2 rate) + 4-20 mA Output	547.78

\*Quick Shipment Item, shipped within 2 working days. Most other products shipped within 1 week, call for best shipping date.  
Note: A-G may be added in the part number to call out meters with a green display, ex. PD6923G14; add \$15.00.

## Model PD690 Universal 1/8 DIN Process Meter

Model PD690 is a high performance, easy to use, industrial-grade microprocessor-based digital process meter. It accepts all the standard process signals: 4-20 mA, 1-5 V, 0-5 V and 0-10 V and displays these signals in engineering units on a 4 1/2 digit display. The display includes an extra zero which may be used to handle numbers up to 199,990.

- Single Button Scaling with Lockout Feature
- 4-20mA, 0-5V, 0-10V Field Selectable Inputs
- 24 V Transmitter Power Supply Standard
- Stand Alone Scaling
- Steady, Accurate Display to  $\pm 199,990$
- 11 Point Linearization
- Square Root Extraction
- 4 1/2 Digit + Extra Zero
- Type 4X, NEMA 4X Front Panel
- 2 or 4 Relay + 4-20 mA Output Options
- Isolated 24 VDC Powered Option

Item #	Description	Price
<b>115 VAC</b>		
*PD6903N	No Options	\$291.11
*PD690314	2 Relays	361.11
*PD690315	4-20 mA Output	407.78
*PD690316	2 Relays + 4-20 mA Output	477.78
*PD690317	4 Relays	496.67
*PD690318	4 Relays + 4-20 mA Output	560.00
<b>18-36 VDC</b>		
PD6902N	No Options	432.22
PD690214	2 Relays	502.22
PD690215	4-20 mA Output	547.78
PD690216	2 Relays + 4-20 mA Output	617.78
PD690217	4 Relays	636.67
PD690218	4 Relays + 4-20 mA Output	700.00

\*Quick Shipment Item, shipped within 2 working days.  
Most other products shipped within 1 week, call for best shipping date.  
Note: A-G may be added in the part number to call out meters with a green display, ex. PD6903G14; add \$15.00.



Just ONE BUTTON to program and calibrate!



**RELAYS** RATING: 2 or 4 relays; 2 Amp SPDT (form C). The contacts are rated 2 Amp @ 30 VDC or 2 Amp @ 250 VAC resistive load; 1/4 HP @ 125/250 VAC for NC contacts and 1/10 HP @ 125/250 VAC for NO contacts, inductive load.

### Quick Spec

- CALIBRATION: May be calibrated using internal calibration (I-CAL) or by applying an external calibration signal (E-CAL). To scale inputs such as 0-5 V, 1-5V or 0-10 V without applying a signal it is necessary to first complete an initial calibration.
- LOOP POWER: (AC powered units only) Isolated 24VDC  $\pm 5\%$  at 20 mA regulated. Max loop resistance of 1200 ohms. Available for either signal input or 4-20 mA output option but not both.
- POWER: AC power: 115 VAC  $\pm 10\%$ , 50/60 Hz, 10VA. DC power: 24 VDC, 6 watts max.
- ISOLATION: AC power: 1500 VAC DC power: 500 VDC
- ENCLOSURE: 1/8 DIN, high impact plastic, UL 94V-0.



## TechPro Instruments Conductivity/TDS, pH and Temperature

Obtain reliable and accurate measurements of your water source with the value-priced TechPro Series instruments. Ideal for water treatment testing and other industrial and commercial applications, these instruments reflect Myron L's 30 plus years experience designing and building quality conductivity and pH measuring instrumentation.

**MYRON L  
COMPANY**

### Quick Spec

Display: 3½ digit LCD  
Dimensions: 7.7" x 2.7" x 2.5"  
(196mm x 68mm x 64mm)  
Cond./TDS cell capacity: 0.2 oz. (5 ml)  
pH sensor well capacity: 0.04 oz. (1.2 ml)

Power: 9V alkaline battery  
Battery life: >100 hours (5000 readings)  
Operating/storage temperature:  
14 to 132°F (-10 to 55°C)

Item #	Conductivity	TDS	pH	Temperature	Price
MLAR1	0-199.9 $\mu$ S 200-1999 $\mu$ S 2.00-19.99 mS	0-199.9 ppm 200-1999 ppm 2.0-19.99 ppm	—	32 to 160°F (0 to 71°C)	<b>\$583.89</b>
MLARH1	0-199.9 $\mu$ S 200-1999 $\mu$ S 2.00-19.99 mS	0-199.9 ppm 200-1999 ppm 2.0-19.99 ppm	0-14	32 to 160°F (0 to 71°C)	<b>817.78</b>
MLpH1	—	—	0-14	32 to 160°F (0 to 71°C)	<b>306.67</b>
UCC	Soft protective case with belt clip				<b>38.89</b>
RPG	Replacement pH sensor				<b>135.56</b>



CE

*Long life internal  
conductivity electrodes.  
Splash-proof.  
Easy to use.*



**CONDUCTIVITY TDS  
RESISTIVITY pH  
TEMPERATURE ORP**

## Ultra-Fast, Ultra-Easy Ultrameters™

*Fast and accurate in the laboratory, all three models are rugged enough for daily inline controller checks in hostile process applications.*

**MYRON L  
COMPANY**

Ultrameter™ Model	4P2	6P2
Parameters	Conductivity/TDS Resistivity/Temp.	Conductivity/TDS/pH Resistivity/Temp./ORP
<b>Features:</b>		
Autoranging	•	•
Adjustable Temp. Comp.	•	•
Adjustable Cond./TDS Ratio	•	•
Memory (20 readings)	•	•
Calibration Prompts	•	•
Low Battery Indicator	•	•
Auto-Off	•	•
Price	<b>\$700.56</b>	<b>\$934.44</b>
RPR — Ultrameter replacement pH/ORP Sensor for Ultrameters		<b>152.22</b>

	pH	ORP	Conductivity	TDS	Resistivity	Temperature
Ranges	0-14pH	$\pm 999$ mV	0-9999 $\mu$ S 10-200mS in 5 autoranges	0-9999ppm 10-200ppt in 5 autoranges	10K $\Omega$ - 30M $\Omega$	0-71°C 32-160°F
Resolution	0.01pH	$\pm 1$ mV	0.01 (<100 $\mu$ S) 0.1 (<1000 $\mu$ S) 1.0 (>1000 $\mu$ S)	0.01 (<100ppm) 0.1 (<1000ppm) 1.0 (>1000ppm)	0.01 (<100K $\Omega$ ) 0.1 (<1000K $\Omega$ ) 0.01 (>1M $\Omega$ )	0.1°C/F
Accuracy	$\pm 0.01$ pH	$\pm 1$ mV	$\pm 1\%$ of reading***	$\pm 1\%$ of reading***	$\pm 1\%$ of reading**	$\pm 0.1$ °C
Auto Temperature Compensation	0-71°C 32-160°F		0-71°C 32-160°F	0-71°C 32-160°F	0-71°C 32-160°F	
Adjustable Temperature Compensation			0-9.99%/°C	0-9.99%/°C	0-9.99%/°C	
Cond./TDS Ratios Preprogrammed			KCl, 442*, NaCl			
Adjustable Cond./TDS Ratio Factor			0.20-7.99			

\*442 Natural Water Standard™ Myron L Company \*\*10K $\Omega$ —10M $\Omega$  \*\*\*up to 100mS/pp; 100-200mS/pp:  $\pm 1-2\%$

### ACCURACY YOU CAN TRUST

All Ultrameter models deliver performance of  $\pm 1\%$  of reading (not merely full scale). This high level of accuracy has been achieved through advanced four-electrode conductivity cell technology, a unique pH/ORP sensor and powerful microprocessor-based circuitry. Allowing readings up to 9999  $\mu$ S/ppm, the four-digit LCD ensures resolution levels never before possible in such affordable instruments. Factory calibrated with NIST traceable solutions, each Ultrameter can be supplied with both certification of traceability and NIST traceable solutions for definitive calibration.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**USCO 23**



ASHCROFT®

**K1 Pressure Transducer****NEW**

## Quick Spec

- OUTPUT: 4-20 mA (voltage available)
- ENCLOSURE: Stainless steel Nema 4X
- SENSOR: 17-4 Stainless steel
- CONNECTION: 1/4" NPT Male stainless steel
- ACCURACY: +/- 1% (B.F.S.C.)
- With 36" shielded cable with PVC jacket

Pressure	Item #	Price
30" HG VAC	K1 7M0242F20/V	\$330.00
15psi	K1 7M0242F2 15#	330.00
30psi	K1 7M0242F2 30#	310.00
60psi	K1 7M0242F2 60#	299.00
100psi	K1 7M0242F2 100#	299.00
150psi	K1 7M0242F2 150#	299.00
200psi	K1 7M0242F2 200#	299.00
300psi	K1 7M0242F2 300#	299.00
500psi	K1 7M0242F2 500#	299.00

**T2 Pressure Transducer****NEW**

ASHCROFT®

## Quick Spec

- OUTPUT: 4-20 mA (voltage available)
- ENCLOSURE: Glass reinforced nylon
- SENSOR: 17-4 PH stainless steel
- CONSTRUCTION: All welded pressure construction
- CONNECTION: 1/4" NPT male stainless steel
- ACCURACY: 1% total error band
- With 36" shielded cable with PVC jacket

Pressure	Item #	Price
30psi/VAC	T2 M0242F2 30#/VAC	\$235.00
30psi	T2 M0242F2 30#	225.00
60psi	T2 M0242F2 60#	225.00
100psi	T2 M0242F2 100#	225.00
150psi	T2 M0242F2 150#	225.00
200psi	T2 M0242F2 200#	225.00
300psi	T2 M0242F2 300#	225.00
500psi	T2 M0242F2 500#	225.00
750psi	T2 M0242F2 750#	225.00
1000psi	T2 M0242F2 1000#	225.00

**B Series Differential Pressure Switch****NEW**

ASHCROFT®



## Quick Spec

- ENCLOSURE: Nema 4X weatherproof or Nema 7/9 IP66 explosion proof
- 15 AMP 125/250/480 VAC micro switch
- CONNECTION: 316 Stainless steel 1/4" NPT female
- Buna N Diaphragm (other materials available)

Nema 4X Enclosure			Nema 7/9 Enclosure		
Pressure	Item #	Price	Item #	Price	
30" H <sub>2</sub> O D	D424B 30" H <sub>2</sub> O psid	\$320.00	D724B 30" H <sub>2</sub> O psid	\$500.00	
15psid	D424B 15psid	355.00	D724B 15psid	540.00	
30psid	D424B 30psid	355.00	D724B 30psid	540.00	
60psid	D424B 60psid	355.00	D724B 60psid	540.00	
100psid	D424B 100psid	355.00	D724B 100psid	540.00	
160psid	D424B 160psid	355.00	D724B 160psid	540.00	
200psid	D424B 200psid	355.00	D724B 200psid	540.00	
400psid	D424B 400psid	355.00	D724B 400psid	540.00	
600psid	D424B 600psid	355.00	D724B 600psid	540.00	

**B Series Pressure Switch****NEW**

ASHCROFT®



## Quick Spec

- ENCLOSURE: Nema 4X weatherproof or Nema 7/9 IP66 explosion proof
- 15 AMP 125/250/480 VAC micro switch
- CONNECTION: 316 Stainless steel 1/4" NPT female
- Buna N diaphragm (other materials available)

Nema 4X Enclosure			Nema 7/9 Enclosure		
Pressure	Item #	Price	Item #	Price	
30" HG VAC	B424B 30" HG/V	\$170.00	B724B 30" HG/V	\$350.00	
30" H <sub>2</sub> O	B424B 30" H <sub>2</sub> O	180.00	B724B 30" H <sub>2</sub> O	360.00	
15psi	B424B 15#	150.00	B724B 15#	330.00	
30psi	B424B 30#	150.00	B724B 30#	330.00	
60psi	B424B 60#	150.00	B724B 60#	330.00	
100psi	B424B 100#	150.00	B724B 100#	330.00	
160psi	B424B 160#	150.00	B724B 160#	330.00	
200psi	B424B 200#	150.00	B724B 200#	330.00	
400psi	B424B 400#	150.00	B724B 400#	330.00	
600psi	B424B 600#	150.00	B724B 600#	330.00	

## Industrial Digital Gauge with 4-20mA Output

**ASHCROFT**



### Quick Spec

- 4½" Thermoplastic case
- Loop powered with 36" shielded cable
- ACCURACY: +/- .25% of span terminal point
- WETTED PARTS: 17-4 PH stainless steel
- DISPLAY: LCD display with backlight
- CONNECTION: ½" NPT lower 316 stainless

Pressure	Item #	Price
30" HG VAC	45 2174 SD 02L XENBL VAC	\$565.00
15psi	45 2174 SD 02L XENBL 15#	\$65.00
30psi	45 2174 SD 02L XENBL 30#	\$65.00
60psi	45 2174 SD 02L XENBL 60#	\$65.00
100psi	45 2174 SD 02L XENBL 100#	\$65.00
160psi	45 2174 SD 02L XENBL 160#	\$65.00
200psi	45 2174 SD 02L XENBL 200#	\$65.00
300psi	45 2174 SD 02L XENBL 300#	\$65.00
600psi	45 2174 SD 02L XENBL 600#	\$65.00
800psi	45 2174 SD 02L XENBL 800#	\$65.00
1000psi	45 2174 SD 02L XENBL 1000#	\$65.00

## General Purpose Digital Gauge – 2½" Dial

**ASHCROFT**



### Quick Spec

- WETTED PARTS: 17-4PH stainless steel sensor, 316 stainless steel socket
- ACCURACY: +/- 0.5% full scale
- CONNECTION: ½" NPT lower
- BATTERY OPERATION: Two AAA batteries
- CASE: Noryl
- DISPLAY: 4½ digits, LCD

Pressure	Item #	Price
30" HG VAC	25D 1005PS 02L VAC	\$240.00
30psi	25D 1005PS 02L 30#	240.00
60psi	25D 1005PS 02L 60#	240.00
100psi	25D 1005PS 02L 100#	240.00
200psi	25D 1005PS 02L 200#	240.00
300psi	25D 1005PS 02L 300#	240.00
500psi	25D 1005PS 02L 500#	240.00
1000psi	25D 1005PS 02L 1000#	240.00

## Adjust Angle Thermometer

### Quick Spec

- Mercury free, spirit filled
- Valox case

**WEKSLER**



### 9" SCALE

Range	3½" Stem Item #	Price	6" Stem Item #	Price	9" Stem Item #	Price
-40/110°F	A935F1	\$43.00	A960AF1	\$57.00	A990AF1	\$71.50
0/20°F	A935F2	43.00	A960AF2	57.00	A990AF2	71.50
0/160°F	A935F3	43.00	A960AF3	57.00	A990AF3	71.50
30/180°F	A935F4	43.00	A960AF4	57.00	A990AF4	71.50
30/240°F	A935F5	43.00	A960AF5	57.00	A990AF5	71.50
30/300°F	A935F6	43.00	A960AF6	57.00	A990AF6	71.50

## Bimetal Thermometer

USCO Price Only  
**\$120.00**

**ASHCROFT**



### Quick Spec

- CASE: Stainless steel – hermetically sealed
- CONSTRUCTION: All welded stainless steel
- WINDOW: Glass
- DIAL: 5"
- CONNECTION: Everyangle™ adjustable swivel connection
- ACCURACY: ASME B.40.3, Grad A (+/- 1% full scale)

Range	2½" Stem Item #	4" Stem Item #	6" Stem Item #	Price
-80/120°F	50E160E025 -80/120F	50E160E040 -80/120F	50E160E060 -80/120F	\$120.00
-20/120°F		50E160E040 -20/120F	50E160E060 -20/120F	120.00
30/130°F		50E160E040 30/130F	50E160E060 30/130F	120.00
0/200°F	50E160E025 0/200F	50E160E040 0/200F	50E160E060 0/200F	120.00
0/250°F	50E160E025 0/250F	50E160E040 0/250F	50E160E060 0/250F	120.00
50/300°F	50E160E025 50/300F	50E160E040 50/300F	50E160E060 50/300F	120.00
50/400°F	50E160E025 50/400F	50E160E040 50/400F	50E160E060 50/400F	120.00
50/550°F	50E160E025 50/550F	50E160E040 50/550F	50E160E060 50/550F	120.00
200/700°F		50E160E040 200/700F	50E160E060 200/700F	120.00
100/800°F		50E160E040 100/800F	50E160E060 100/800F	120.00
200/1000°F		50E160E040 200/1000F	50E160E060 200/1000F	120.00

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# ASCO<sup>®</sup>

## General Service Solenoid Valves



ASCO warehouse stock available for immediate delivery.

ASCO's  
Henry  
"Grumpy"  
Dow



### Quick Spec

- Wide range of sizes
- High Flow Valves for liquid, and air/inert gas service
- Industrial applications include: Car wash, Laundry equipment, Air compressors, Industrial water control, Pumps

### Model 8210

- Pilot Operated
- Direct Lift

AVAILABLE IN  
STAINLESS STEEL



### Model 8262

- Direct Acting

AVAILABLE IN  
STAINLESS STEEL



We carry an  
extensive range  
of products!

### Model 8320

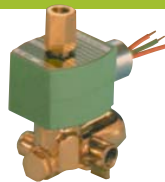
- Direct Acting

AVAILABLE IN  
STAINLESS STEEL



### Compact Valve Model 8345

- Pilot Operated
- Brass Body



MODEL 8210			Operating Pressure Differential (psi) Max. AC					Max. Fluid Temp. °F		Brass Body			
Pipe Size (in)	Orifice Size (in)	Cv Flow Factor	Min.	Air-Inert Gas	Water	Light Oil @300 SSU	AC	DC	Catalog Number	UL® Listing	Voltage	Item #	Price
NORMALLY CLOSED (Closed when de-energized) NBR or PTFE - ② Seating													
3/8	3/8	1.5	①	150	125	—	180	—	8210673③	●	120/60, 110/50	176349	\$90.00
3/8	3/8	3	0	150	150	—	180	—	8210693	○	120/60, 110/50	174775	\$119.00
3/8	3/8	3	5	200	150	135	180	—	821061	○	120/60, 110/50	174765	\$101.00
1/2	1/2	2.2	①	150	125	—	180	—	8210615③	●	120/60, 110/50	174766	\$98.00
1/2	3/8	4	0	150	150	—	180	—	8210694	○	120/60, 110/50	177607	\$119.00
1/2	3/8	4	5	200	150	135	180	—	821062	○	120/60, 110/50	179431	\$101.00
1/2	3/8	4	5	—	—	—	—	150	821062	○	24/DC	192143*	\$101.00
1/2	3/8	4	5	200	150	135	180	—	821062HW	○	120/60, 110/50	190216	\$118.00
1/2	3/8	4	5	300	300	300	175	—	821067	○	120/60, 110/50	176348	\$146.00
3/4	3/4	5	5	125	125	125	180	—	821069	○	120/60, 110/50	177605	\$117.00
3/4	3/4	5	5	—	—	—	—	150	821069	○	120/60, 110/50	217421**	\$117.00
3/4	3/4	5	5	125	125	125	180	—	821069HW	○	120/60, 110/50	190210	\$134.00
3/4	3/4	5	0	150	150	—	180	—	8210695	○	120/60, 110/50	87713	\$131.00
3/4	3/4	6	0	350	300	200	200	—	8210626④	●	120/60	212542	\$310.00
1	1	13	0	150	125	125	180	—	8210654④	●	120/60	176341	\$277.00
1	1	13	5	150	150	100	180	—	821064	○	120/60, 110/50	177604	\$206.00
1 1/4	1 1/4	15	5	150	150	100	180	—	821068	○	120/60, 110/50	174772	\$250.00
1 1/2	1 1/4	22.5	0	150	125	125	180	—	8210656④	—	120/60	176343	\$418.00
1 1/2	1 1/2	22.5	5	150	150	100	180	—	8210622	●	120/60, 110/50	153678	\$382.00
2	1 3/4	43	5	150	125	90	180	—	82106100	●	120/60, 110/50	174764	\$674.00

<b>NORMALLY OPEN (Open when de-energized) NBR or PTFE - ② Seating</b>										
3/8	3/8	3	0 150	150	125	180	—	8210633	● 120/60, 110/50	174770 <b>\$207.00</b>
1/2	1/2	4	0 150	150	125	180	—	8210634	● 120/60, 110/50	177606 <b>\$207.00</b>
3/4	3/4	5.5	0 150	150	125	180	—	8210635	● 120/60, 110/50	83874 <b>\$207.00</b>

Notes: ① 5 psi on Air; 1 psi on Water ② Valve Provided with PTFE main Disc ③ Valve Includes Ultem (G.E. trademark) piston

④ Must have solenoid mounted vertical and upright ⑤ Safety Shutoff Valve; ● General Purpose Valve

NEMA 4 Standard Explosionproof, add prefix EF; SC = Type F - High temperature DIN-type connector;

KJF = Elongated splice box; Class F - High temperature - Screw terminals; HW = Hot water construction

\*Operating Pressure Differential (psi) - Max. DC: Air/Inert Gas - 125, Water - 100, Light Oil @300 SSU - 100

\*\*Operating Pressure Differential (psi) - Max. DC: Air/Inert Gas - 100, Water - 90, Light Oil @300 SSU - 75

MODEL 8262		Cv Flow Factor	Operating Pressure Differential (psi) Max. AC				Max. Fluid Temp. °F	Brass Body			Item #	Price
Pipe Size (in)	Orifice Size (in)		Air-Inert Gas	Water	Light Oil @300 SSU	AC		Catalog Number	UL <sup>①</sup> Listing	Voltage		
NORMALLY CLOSED (Closed when de-energized) NBR Disc												
1/8	1/8	.34	155	180	140	180	—	826262	○	120/60, 110/50	176376	\$43.00
1/4	1/32	.17	360	340	160	180	—	8262620	○	120/60, 110/50	177624	\$6.00
1/4	1/8	.35	140	165	90	180	—	8262622	○	120/60, 110/50	174781	\$0.00
1/4	1/8	.35	300	300	200	180	—	82626232	○	120/60, 110/50	176378	\$61.00
1/4	1/32	.50	180	200	145	180	—	82626202	○	120/60, 110/50	177611	\$58.00
1/4	1/32	.72	90	100	100	180	—	82626208	○	120/60, 110/50	174779	\$61.00
1/4	1/32	.85	40	50	40	180	—	8262613	○	120/60, 110/50	174777	\$1.00
1/4	1/32	.88	90	100	90	180	—	82626212	○	120/60, 110/50	174814	\$77.00
1/4	1/32	.96	27	36	28	180	—	8262690	○	120/60, 110/50	174782	\$1.00
1/4	1/32	.96	—	—	—	—	120	8262690	○	24/DC	212034*	\$1.00

Notes: ① Safety Shutoff Valve; ● General Purpose Valve

NEMA 4 Standard Explosionproof, add prefix EF; X with TPL 13200 = Special gasketed panel mount; P = Panel mounted;

SF = Class F - High temperature - Spade terminals; V = Viton

\*Operating Pressure Differential (psi) - Max. DC: Air/Inert Gas - 15, Water - 16, Light Oil @300 SSU - 16

**NEMA 4 Standard Explosionproof, add prefix EF; X with TPL 13200 = Special gasketed panel mount; P = Panel mounted; SF = Class F - High temperature - Spade terminals; V = Viton**

**\*Operating Pressure Differential (psi) - Max. DC: Air/Inert Gas - 15, Water - 16, Light Oil @300 SSU - 16**

<b>MODEL 8320</b>		Operating Pressure Differential (psi) Max. AC				Max. Fluid Temp. °F		Brass Body	Voltage	Item #	Price
Pipe Size (in)	Orifice Size (in)	Cv Flow Factor	Air-Inert Gas	Water	Light Oil @300 SSU	AC	DC	Catalog Number			
<b>UNIVERSAL OPERATION (Pressure at any port)</b>											
1/8	1/16	.09	100	100	100	180	—	832061	120/60, 110/50	176387	<b>\$81.00</b>
1/4	1/16	.09	125	130	130	200	—	83206172	120/60, 110/50	174789	<b>\$102.00</b>
1/4	1/8	.12	100	100	100	200	—	83206174	120/60, 110/50	174790	<b>\$102.00</b>
1/4	1/8	.25	50	50	50	200	—	83206176	120/60, 110/50	174791	<b>\$98.00</b>
<b>NORMALLY CLOSED (Closed when de-energized)</b>											
1/8	1/16	.09	150	125	125	180	—	8320613	120/60, 110/50	212219	<b>\$72.00</b>
1/8	1/8	.12	100	100	100	180	—	8320615	120/60, 110/50	174891	<b>\$73.00</b>
1/4	1/16	.09	210	225	225	200	—	83206182	120/60, 110/50	174792	<b>\$126.00</b>
1/4	1/8	.12	150	150	150	200	—	83206184	120/60, 110/50	174793	<b>\$102.00</b>
<b>NORMALLY OPEN (Open when de-energized)</b>											
1/8	1/64	.06	200	200	200	180	—	83206136	120/60, 110/50	212233	<b>\$76.00</b>
1/4	1/16	.09	250	250	250	200	—	83206192	120/60, 110/50	212250	<b>\$126.00</b>
1/4	1/8	.12	150	140	140	200	—	83206194	120/60, 110/50	176388	<b>\$102.00</b>

Notes: NEMA 4 Standard Explosionproof, add prefix EF

MODEL 8345				Operating Pressure Differential (psi)			Max. AC	Max. Fluid	Brass Body					
Pipe Size (in)	Orifice Size (in)	Exhaust	Cv Flow Factor	Min.	Air-Inert Gas	Water	Light Oil @50 SSU	Temp °F	AC	DC	Catalog Number	Voltage	Item #	Price
SINGLE SOLENOID														
1/4	1/16	3/32	.09 .09	10	150	150	150	180	—	8345G1	120/60, 110/50	153680	\$194.00	
1/4	1/16	3/32	.09 .09	10	150	150	150	180	—	EF8345G1	120/60, 110/50	174930	\$271.00	
SINGLE SOLENOID AIR-ONLY CONSTRUCTION - Exhaust to Atmosphere														
1/4	1/16	3/32	.09 .09	10	150	—	—	180	—	8345H3	120/60, 110/50	174829	\$209.00	

Notes: NEMA 4 Standard Explosionproof, add prefix EF

## True Union Ball Valves for Actuation

¼" to 6" – PVC, PPL and Corzan® CPVC

### REMOTE CONTROL VALVES

Hayward True Union Ball Valves, designed for actuator mounting, are ideal for reliable remote control of process fluids in a piping system. They enable all Hayward actuators and accessories to be mounted quickly with accurate alignment and proper support.

#### FEATURES

- Full Port Design
- Reversible PTFE Seats
- Rated to 225 PSI
- Viton® or EPDM Seals
- Double Stem Seals
- Easily Adapts to Manual Operation

#### OPTIONS

- Electric Actuators
- Pneumatic Actuators
- Stem Extension
- Mounting Kits

Corzan™ is a trademark of BF Goodrich Company.  
Viton® is a trademark of DuPont Dow Elastomers



From Only  
**\$57<sup>78</sup>**

Size	PVC/Viton®		PVC/EPDM		CPVC Corzan®/Viton®		CPVC Corzan™/EPDM	
	Item #	Price	Item#	Price	Item#	Price	Item #	Price
½" SKT/THD	HCTB1050STACTV	<b>\$58.89</b>	HCTB1050STACTE	<b>\$57.78</b>	HCTB2050STACTV	<b>\$81.11</b>	HCTB2050STACTE	<b>\$80.00</b>
¾" SKT/THD	HCTB1075STACTV	<b>64.78</b>	HCTB1075STACTE	<b>63.33</b>	HCTB2075STACTV	<b>87.78</b>	HCTB2075STACTE	<b>84.44</b>
1" SKT/THD	HCTB1100STACTV	<b>77.00</b>	HCTB1100STACTE	<b>75.56</b>	HCTB2100STACTV	<b>107.78</b>	HCTB2100STACTE	<b>105.56</b>
1¼" SKT/THD	HCTB1125STACTV	<b>90.00</b>	HCTB1125STACTE	<b>87.78</b>	HCTB2125STACTV	<b>125.56</b>	HCTB2125STACTE	<b>123.33</b>
1½" SKT/THD	HCTB1150STACTV	<b>90.00</b>	HCTB1150STACTE	<b>87.78</b>	HCTB2150STACTV	<b>125.56</b>	HCTB2150STACTE	<b>123.33</b>
2" SKT/THD	HCTB1200STACTV	<b>116.67</b>	HCTB1200STACTE	<b>113.33</b>	HCTB2200STACTV	<b>162.22</b>	HCTB2200STACTE	<b>157.78</b>
2½" Threaded	HCTB1250STACTV	<b>285.56</b>	HCTB1250STACTE	<b>275.56</b>	HCTB2250STACTV	<b>408.89</b>	HCTB2250STACTE	<b>400.00</b>
2½" Socket	HCTB1250SACTV	<b>285.56</b>	HCTB1250SACTE	<b>275.56</b>	HCTB2250SACTV	<b>408.89</b>	HCTB2250SACTE	<b>400.00</b>
3" Threaded	HCTB1300TACTV	<b>285.56</b>	HCTB1300TACTE	<b>275.56</b>	HCTB2300TACTV	<b>408.89</b>	HCTB2300TACTE	<b>400.00</b>
3" Socket	HCTB1300SACTV	<b>285.56</b>	HCTB1300SACTE	<b>275.56</b>	HCTB2300SACTV	<b>408.89</b>	HCTB2300SACTE	<b>400.00</b>
4" Threaded	HCTB1400TACTV	<b>390.00</b>	HCTB1400TACTE	<b>378.89</b>	HCTB2400TACTV	<b>563.33</b>	HCTB2400TACTE	<b>552.22</b>
4" Socket	HCTB1400SACTV	<b>390.00</b>	HCTB1400SACTE	<b>378.89</b>	HCTB2400SACTV	<b>563.33</b>	HCTB2400SACTE	<b>552.22</b>

Combine a valve  
with an actuator  
for one  
"complete"  
unit.



**OPTIONS  
AVAILABLE**

For Use with  
All Sizes of  
Ball and  
Butterfly  
Valves

## Series PHD & PHS Pneumatic Actuators

### ALL-AROUND BEST CHOICE

Hayward Series PHD and PHS Actuators are the best choice for applications requiring pneumatically-actuated true union ball valves, three way ball valves or butterfly valves. These actuators are available in models with appropriate torque outputs for all valves from ¼" all the way up to 24" pipeline size.

#### FEATURES

- Four Piston Rack-and-Pinion Design
- Manual Override
- Position Indicator
- Epoxy-Coated Housing
- High Torque Output
- Lightweight, Compact

Valve Size	Air to Air PHD	Air to Spring PHS
½"	PCD15 <b>\$263.33</b>	PCS15 <b>\$295.56</b>
¾"	PCD15 <b>263.33</b>	PCS15 <b>295.56</b>
1"	PCD15 <b>263.33</b>	PCS15 <b>295.56</b>
1¼"	PCD15 <b>263.33</b>	PCS15 <b>295.56</b>
1½"	PCD15 <b>263.33</b>	PCS15 <b>295.56</b>
2"	PCD15 <b>263.33</b>	PCS20 <b>381.11</b>
2½"	PCD20 <b>361.11</b>	PCS25 <b>565.56</b>
3"	PCD20 <b>361.11</b>	PCS25 <b>565.56</b>
4"	PCD20 <b>361.11</b>	PCS25 <b>565.56</b>

## Series EVS/EVT Electric Actuators

*The Best Choice Overall*

This is the electric actuator that can do it all. There's a model to work with every size of Hayward Ball and Butterfly Valve in both on/off and modulating applications. A complete set of options allows the actuator to be configured to meet virtually any application specification.



As Low As  
**\$757<sup>78</sup>**

#### FEATURES

- Multi Option Availability
- Gold Plated Connectors
- Modular Internal Construction
- Easy Options Add-On
- Manual Override
- Position Indicator
- UL Listed Motor
- Nema 4X Housing
- Permanent Lubrication
- 115 VAC Operation

#### Quick Spec

- Housing: Epoxy-Coated Aluminum
- Conduit Size: ½"
- Duty Cycle: 25%
- Thermal Overload: Standard
- Cycle Time: 5 to 45 seconds, depending on model
- Base: Epoxy-Coated Aluminum
- Voltage: 120 VAC
- Enclosure: NEMA 4X
- Mechanical Brake: Standard for Butterfly Valve
- Operation: Reversing
- Motor: UL Approved

#### OPTIONS

- Limit Switches
- Positioners
- Voltages
- Fail Safe Operation
- Feedback Potentiometer
- Extended Duty Motor
- Heater & Thermostat
- Mechanical Brake
- CSA Certification
- Nema 4, 7, & 9 Housing

Heavy duty actuator designed for the modular installation of options. Manual override standard.

Valve Size	Item #	Price
½"	EVS2	<b>\$757.78</b>
¾"	EVS2	<b>757.78</b>
1"	EVS2	<b>757.78</b>
1¼"	EVS2	<b>757.78</b>
1½"	EVS2	<b>757.78</b>
2"	EVS2	<b>757.78</b>
2½"	EVS3	<b>816.67</b>
3"	EVS3	<b>816.67</b>
4"	EVS3	<b>816.67</b>

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USCO 27

Valves



PVC Industrial - EPDM



## PVC & CPVC TRUE UNION 2000 VALVES

Spears® True Union 2000 Ball Valves, 3-Way Ball Valves and Ball Check Valves provide maximum versatility with fully interchangeable valve cartridges. Provides for easier system design modifications and upgrades in multiphase projects, or anywhere changes in valve types are desired. Simply exchange any True Union 2000 valve in-line using existing union nuts. Also mates with Spears® new Schedule 80 Unions and Diaphragm Valves. All True Union 2000 valves feature a low profile, compact design for minimal space requirements.

*One of the Most Versatile, Compact Valve Designs Available*



### Quick Spec

- Built-in Handle Lockout
- Fully Serviceable, Replaceable Components
- Safe-T-Blocked Seal Carrier - Full Rated Pressure
- ISO Pattern Actuation Mounting Option
- Spears® Dual O-ring Safe-T-Shear® Stem
- Self Adjusting PTFE Floating Seat Design
- Sizes 1/2" - 2" pressure rated to 235 psi @ 73°F, sizes 2 1/2" - 6" and all flanged to 150 psi @ 73°F
- NSF Certified for Potable Water Use
- Produced in IPS sizes 1/2" - 6" with Socket, Flanged or SR Threaded End Connectors

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Soc/Thd	1829005	1829007	1829010	1829012	1829015	1829020			
Socket	\$15.77	\$18.66	\$22.22	\$30.73	\$37.02	\$48.84	1822025	1822030	1822040
Threaded							\$128.59	\$169.54	\$286.46
							1821025	1821030	1821040
							\$128.59	\$169.54	\$286.46

### PVC Industrial - Viton®

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Soc/Thd	1839005	1839007	1839010	1839012	1839015	1839020			
Socket	\$17.54	\$20.76	\$24.74	\$39.23	\$41.09	\$53.79	1832025	1832030	1832040
Threaded							\$174.23	\$188.38	\$318.28
							1831025	1831030	1831040
							\$174.23	\$188.38	\$318.28

### CPVC Industrial - EPDM

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Soc/Thd	1829005C	1829007C	1829010C	1829012C	1829015C	1829020C			
Socket	\$20.82	\$26.22	\$31.22	\$49.63	\$52.41	\$70.10	1822025C	1822030C	1822040C
Threaded							\$215.26	\$251.69	\$456.07
							1821025C	1821030C	1821040C
							\$215.26	\$251.69	\$456.07

### CPVC Industrial - Viton®

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Soc/Thd	1839005C	1839007C	1839010C	1839012C	1839015C	1839020C			
Socket	\$23.13	\$29.14	\$34.69	\$55.17	\$58.23	\$80.59	1832025C	1832030C	1832040C
Threaded							\$239.16	\$279.67	\$506.73
							1831025C	1831030C	1831040C
							\$239.16	\$279.67	\$506.73

## PVC Utility Ball Valves

A high quality, economical, quarter-turn shut off valve designed for irrigation, pool and spa applications. Available in IPS sizes 1/2" through 4", with choice of either socket or threaded end connectors, plus 6" socket.

From Only  
\$4.53



### PVC w/EPDM O-Ring Seal

	Threaded	Socket
Size	Item #	Item #
1/2"	2621005	2622005
3/4"	2621007	2622007
1"	2621010	2622010
1 1/4"	2621012	2622012
1 1/2"	2621015	2622015
2"	2621020	2622020
	Price	Price
	\$4.53	\$4.53
	5.37	5.37
	7.30	7.30
	9.68	9.68
	14.76	14.76
	18.66	18.66

### Quick Spec

- PVC Construction
- One-Piece Sealed Unit
- Teflon® HDPE Ball Seats
- EPDM O-ring Seals
- 150 psi Pressure Rating - Maximum Internal Pressure at 73°F for a variety of applications.
- Certified by NSF for Potable Water - All Utility Ball Valves are Certified by NSF International for potable water use.

## EA Series Automated True Union Valves



**Low Cost, Full Featured Plastic Valve And Actuator - Sizes From 1/2" to 2" PVC Construction with EPDM Seals**



### LOW COST AUTOMATION

The EA electrically actuated true union ball valve is the perfect answer to cost sensitive, automated valve applications that can't get by with less than a full featured valve and actuator combination. Other low cost automated valves use a stripped down actuator with a non-repairable, "throwaway" type valve. The EA features a fully serviceable true union ball valve for long reliable service.

### VALVE FEATURES

- All-plastic
- Pressure rating to 225 psi
- PTFE seats
- Full port design
- Double o-ring stem seal

Starting At  
\$213.22

### ACTUATOR FEATURES

- All-plastic enclosure
- 3-second cycle time
- Thermal overload protection
- NEMA 4X housing
- Actuator brake for full open/close

Item #	Size	End Connection	Price
EATB1050STE	1/2"	Socket or Thread	\$213.22
EATB1075STE	3/4"	Socket or Thread	\$217.44
EATB1100STE	1"	Socket or Thread	\$223.78
EATB1150STE	1 1/2"	Socket or Thread	\$236.44
EATB1200STE	2"	Socket or Thread	\$248.06



## Quick Spec

- Safe Block design
- Fully serviceable. Internals can be inspected and serviced
- Fine pitch threaded seal retainer to adjust for seat wear
- Reversible Teflon seats. Doubles the life of the seating material
- Full Port design for greater Cv values



Hayward Safe Block Valves are made from NSF approved material and are available in PVC, CPVC and PPL.

From Only  
**\$20<sup>76</sup>**

## Safe Block™ True Union Ball Valves



Valves

### PVC Viton® O-Rings

	1/4"		3/8"		1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"		4"		
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	
Threaded	TB1025T	\$20.76	TB1037T	\$20.76	TB1050ST	\$20.76	TB1075ST	\$24.50	TB1100ST	\$29.76	TB1125ST	\$39.50	TB1150ST	\$48.50	TB1200ST	\$63.50	TB1300T	\$155.00	TB1400T	\$261.50	
Socket	TB1025S	20.76	TB1037S	20.76	1/2" – 2" PVC Valves are supplied with both socket and threaded end connectors.													TB1300S	155.00	TB1400S	261.50

1/2" - 2" PVC Valves are supplied with both socket and threaded end connectors.

### PVC EPDM O-Rings

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"		4"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Threaded	TB1050STE	\$18.26	TB1075STE	\$22.50	TB1100STE	\$26.00	TB1125STE	\$34.50	TB1150STE	\$43.50	TB1200STE	\$57.00	TB1300TE	\$131.50	TB1400TE	\$231.50
Socket	1/2" – 2" PVC Valves are supplied with both socket and threaded end connectors.												TB1300SE	131.50	TB1400SE	231.50

1/2" - 2" PVC Valves are supplied with both socket and threaded end connectors.

### Corzan™ CPVC Viton® O-Rings

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"		4"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Threaded	TB20050ST	\$28.76	TB20075ST	\$35.76	TB20100ST	\$43.76	TB20125ST	\$60.50	TB20150ST	\$72.50	TB20200ST	\$99.50	TB2300T	\$287.00	TB2400T	\$492.50
Socket	1/2" – 2" PVC Valves are supplied with both socket and threaded end connectors.												TB2300S	287.00	TB2400S	492.50

1/2" - 2" PVC Valves are supplied with both socket and threaded end connectors.

### Corzan™ CPVC EPDM O-Rings

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"		4"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Threaded	TB20050STE	\$27.00	TB20075STE	\$34.00	TB20100STE	\$41.24	TB20125STE	\$57.50	TB20150STE	\$68.50	TB20200STE	\$94.50	TB2300TE	\$269.50	TB2400TE	\$462.50
Socket	1/2" – 2" PVC Valves are supplied with both socket and threaded end connectors.												TB2300SE	269.50	TB2400SE	462.50

1/2" - 2" PVC Valves are supplied with both socket and threaded end connectors.

### Polypropylene\* Viton® O-Rings

	1/2"	3/4"	1"	1 1/2"	2"
Item #	Price	Item #	Price	Item #	Price
Threaded	TB30050T <b>\$41.00</b>	TB30075T <b>\$48.50</b>	TB30100T <b>\$59.50</b>	TB40150T <b>\$98.50</b>	TB40200T <b>\$136.00</b>

\* 1/2" - 1" Natural 1 1/2" - 4" Glass reinforced

## QIC® Ball Valves

Hayward QIC, (Quality-Innovative-Compact) Ball Valves are used in process piping systems when low cost and compact design are required. They provide reliable quarter turn shut off.



## Quick Spec

- Rugged and compact
- Factory set threaded seal retainer provides low running and seating torque
- High in quality, low in cost
- Maximum flow with low pressure loss
- NSF Approved



### PVC EPDM O-Rings & Teflon® Seats (150 psi @ 70°F non shock)

1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		
Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	
Threaded	QV10050T	\$9.12	QV10075T	\$11.76	QV10100T	\$13.92	QV10125T	\$24.62	QV10150T	\$24.62	QV10200T	\$32.10
Socket	QV10050S	9.12	QV10075S	11.76	QV10100S	13.92	QV10125S	24.62	QV10150S	24.62	QV10200S	32.10



## Polypropylene Dry Disconnect

**User friendly:** Operating Dry-Mate is simple. The handles interlock making it easy to identify which handle opens or closes first. No guessing involved! The two Dry-Mate halves couple together with cam levers for positive engagement. **Design:** The Banjo Dry-Mate is designed for safe and easy spill free connections. The "double ball" design allows maximum flow, while the cam lever style of connection is the most recognized fluid connector.

**Prevents Accidental Spills and Exposure!**

**Double Ball Design with Cam Lever Connection!**

## Quick Spec

- Lightweight
- Unrestricted 1 1/2" flow
- Minimal fluid spillage
- Easy to use
- Economical
- Reduces risk of exposure
- Wide range of chemical resistance
- Cannot be uncoupled in open position
- Swivel on female Dry-mate®

Item #	Description	Max. PSI	Pipe Size	Opening Thru Ball	Price
DM150A	1 1/2" Male Dry-Mate	100	1 1/2"	1 1/2"	<b>\$105.09</b>
DM150D	1 1/2" Female Dry-Mate	100	1 1/2"	1 1/2"	<b>112.33</b>
DM200A	2" Male Dry-Mate	100	2"	1 1/2"	<b>105.09</b>
DM200D	2" Female Dry-Mate	100	2"	1 1/2"	<b>112.33</b>
DM20200A	Repair Kit for Male		Fits 1 1/2" & 2"		<b>54.36</b>
DM20200D	Repair Kit for Female		Fits 1 1/2" & 2"		<b>54.36</b>
DM200CAP	Dust Cap for Male		Fits 1 1/2" & 2"		<b>28.78</b>
DM200PL	Dust Plug for Female		Fits 1 1/2" & 2"		<b>28.78</b>



USCO 29

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

## Type 21 Ball Valve



NSF

Ideal for Actuation!

NEW LOWER PRICE  
From Only \$18.50

## TYPE 21 SPECIFICATIONS \*

Sizes: 1/2"-4"\*\*\*

Models: Socket, Threaded, Flanged (ANSI), Butt

Bodies: PVC, CPVC, PP, PVDF

Seats: Teflon backed with EPDM or Viton

Seals: EPDM or Viton

## OPTIONS

- Stem extensions
- 2" square nut
- Locking handle
- "T" nut
- Spring return handle
- Actuator operation: see pages 32 and 33

UP TO  
230 PSI!

## Pressure Vs Temperature (PSI, Water, Non-Shock)

Size (inches)	PVC			CPVC						PP			PVDF				
	30°F	71°F	106°F	30°F	71°F	106°F	121°F	141°F	176°F	30°F	86°F	141°F	30°F	71°F	106°F	141°F	176°F
	70°F	105°F	120°F	70°F	105°F	120°F	140°F	175°F	195°F	85°F	140°F	175°F	70°F	105°F	140°F	175°F	210°F
½ – 2	230PSI	165PSI	150PSI	230PSI	165PSI	150PSI	120PSI	75PSI	55PSI	150PSI	85PSI	55PSI	230PSI	185PSI	150PSI	110PSI	85PSI

## True Blue Ball Valve

PLAST-O-MATIC

PVC T.U. Ball Valves (socket and threaded end connectors included)



## Quick Spec

- Ball valve shaft reinforced with stainless steel rod to eliminate breakage
- Dual shaft seals to eliminate leakage
- Teflon bearing on shaft
- Teflon seats backed up with O-rings
- True union ball design
- Full concentricity and mirror smoothness of ball assures leakproof operation
- Multi-directional flow
- True-union ends

Seal Material	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
EPDM	PMMBV050EPTVP	\$34.06	PMMBV075EPTVP	\$39.22	PMMBV100EPTVP	\$46.83	PMMBV125EPTVP	\$80.83	PMMBV150EPTVP	\$84.22	PMMBV200EPTVP	\$96.22
VITON	PMMBV050VTPV	38.14	PMMBV075VTPV	42.58	PMMBV100VTPV	51.11	PMMBV125VTPV	86.83	PMMBV150VTPV	90.22	PMMBV200VTPV	102.17

## PVC White True Union 2000 Standard Ball Valves

Excellent for landscape irrigation,  
pool & spa applications

NSF

Viton  
Available!

## Quick Spec

- Excellent for OEM applications
- Replaceable seats
- Safe-T-Blocked Seal Carrier - full rated pressure
- Spears Safe-T-Shear® Stem
- Self-adjusting floating seat
- Sizes 1/2"-2" pressure rated to 135 psi @ 73°F
- NSF Certified for potable water use
- Produced in IPS sizes 1/2"-2" with socket, flanged, or SR threaded end connectors

Not for use with compressed air or gas.

Joint	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Socket	3622-005W	\$11.38	3622-007W	\$13.46	3622-010W	\$16.03	3622-012W	\$22.13	3622-015W	\$26.72	3622-020W	\$35.26
SR Threaded	3621-005WSR	11.62	3621-007WSR	14.04	3621-010WSR	16.62	3621-012WSR	23.96	3621-015WSR	28.61	3621-020WSR	37.31

## Multiport "3-way" Ball Valve

### Quick Spec

- Blocks from left or right union ports leaving full pressure on the opposite end of valve
- "L" ported ball permits flow from common port to either left or right port or to OFF position ("Tee" port and "double-L" optional)

### Type 23



**All Three Ports  
True Union  
Design!**

### OPTIONS

(consult sales office for pricing)

- Stem Extensions
- 2" square nut
- "T" nut
- Locking handle
- Spring return handle
- Round handle
- EPDM O-rings
- Actuator operators available, see pages 32 and 33
- "Tee" port, "Double-L" port and Cross port



Valves

### PVC Multiport Valve with Viton O-Rings

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"		4"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Socket	2513005	\$64.17	2513007	\$75.83	2513010	\$99.17	2513012	\$220.00	2513015	\$180.83	2513020	\$225.00	2513030	\$522.50	2513040	\$902.50
Threaded	2514005	64.17	2514007	75.83	2514010	99.17	2514012	220.00	2514015	180.83	2514020	225.00	2514030	522.50	2514040	902.50

### CPVC Multiport Valve with Viton O-Rings

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"		4"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Socket	2519005	\$75.83	2519007	\$86.67	2519010	\$121.67	2519012	\$241.67	2519015	\$209.17	2519020	\$365.83	2519030	\$655.83	2519040	\$1,345.00
Threaded	2520005	75.83	2520007	86.67	2520010	121.67	2520012	241.67	2520015	209.17	2520020	365.83	2520030	655.83	2520040	1,345.00

### PVDF Multiport Valve with Viton O-Rings

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"		4"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Threaded	2533005	\$211.67	2533007	\$272.50	2533010	\$361.67	2534012	\$596.67	2533015	\$596.67	2533020	\$831.67	2534030	\$2,782.50	2534040	\$3,165.00
Flange	2535005	366.11	2535007	532.50	2535010	718.33	2536012	1,018.33	2535015	1,018.33	2535020	1,385.83	2536030	3,610.00	2536040	3,946.67

### Polypropylene Multiport Valve with Viton O-Rings

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"		4"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Threaded	2529005	\$148.33	2529007	\$175.00	2529010	\$232.50	2529012	\$428.33	2529015	\$428.33	2529020	\$537.50	2529030	\$1,297.50	2529040	\$1,525.00
Flange	2531005	235.83	2531007	275.83	2531010	353.33	2531012	604.17	2531015	604.17	2531020	756.67	2531030	1,625.83	2531040	2,267.50

## Omni Ball Valve

### Quick Spec

- Teflon seats with EPDM cushion
- Compact uni-body construction
- All sizes rated for vacuum service

Actuator Operators available, see pages 32 and 33.

**HIGH QUALITY  
LOW PRICE!**

**As Low As  
\$9.00**



### USCO tech tip

When solvent cementing non-true union ball valves such as the Asahi Omni Ball Valve, make sure valve is in the open position. This helps vent the fumes from the cement which may cause swelling or damage to the ball.

### PVC Omni Ball Valve

	3/8"		1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Threaded	1071003	\$9.00	1071005	\$9.00	1071007	\$9.00	1071010	\$11.50	1071012	\$15.00	1071015	\$19.50	1071020	\$26.00	1071030	\$119.50
Socket	1070003	9.00	1070005	9.00	1070007	9.00	1070010	11.50	1070012	15.00	1070015	19.50	1070020	26.00	1070030	119.50

### CPVC Omni Ball Valve

	3/8"		1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Threaded	1073003	\$13.50	1073005	\$13.50	1073007	\$20.50	1073010	\$25.00	1073012	\$48.00	1073015	\$48.00	1073020	\$63.50	1073040	\$211.00
Socket	1072003	13.50	1072005	13.50	1072007	20.50	1072010	25.00	1072012	48.00	1072015	48.00	1072020	63.50	1072090	211.00

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 31



## Electric Actuators for Asahi Ball Valves QuarterMaster Chief-Series 92



**Fail-Safe battery  
back-up available**



Price includes: Reversible Motor, Manual Override, Position Indicator and NEMA IV Housing, Factory Mounting, and Hardware.

Price does not include valve. Add actuator price to ball valve price for complete unit. See pages 30 and 31 for ball valve pricing (Duo Bloc & MultiPort only).

**From Only  
\$747<sup>97</sup>**

### Quick Spec

- Reversing type motor, 115 VAC, 50/60 Hz, single phase
- Brushless, capacitance-run motors (AC models)
- Integral thermal overload protection with auto-reset (AC models)
- Permanently lubricated gear train
- Thermally-bonded epoxy powder coating inside and out
- Dec clutchable manual override easily employed by pulling up on indicator knob and inserting wrench onto flats of stem
- NEMA IV (weatherproof) housing NEMA VII (explosion proof)
- Corrosion resistant mounting kit specially engineered for ASAHI valves
- 100% Duty cycle up to 3", 75% for 4"



### USCO tech tip

**REVERSING ELECTRIC ACTUATOR MOTORS:** Reversible motors open the valve in one direction and close the valve in the reverse direction. In order to control the direction of rotation the appropriate open/close coil needs to be energized.

### Electric Actuators for Asahi Ball Valves

Ball Valve Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Item #	2001005	2001007	2001010	2001012	2001015	2001020	2001025	2001030	2001040
Price	\$747.47	\$747.47	\$747.47	\$755.89	\$755.89	\$755.89	\$1,029.79	\$1,029.79	\$1,029.79

### Options

Item #	Description	Price
2126001	Extra Limit Switch (Max 2)	\$56.84
2127001	Heater & Thermostat	106.11
2129001	Feedback Potentiometer	96.63
2130810	Digital 4-20 MA Positioner	864.95
2131001	Cycle Length Control	258.11
2132001	Center Off Switch	151.58
2102001	Two Wire Control	110.84

### Voltage Options (for both items - this page)

Item #	Description	Price
2135749	12 VDC	\$100.42
2135750	24 VDC	100.42
2135751	12 VAC	100.42
2135752	24 VAC	100.42
2135753	230 VAC	134.53

## QuarterMaster, Series 94 for Asahi Ball Valves



**From Only  
\$441<sup>97</sup>**



### OPTIONS

- LIMIT SWITCHES: 2 Additional limit switches may be mounted in the actuator for interlocking other equipment, such as pumps, compressors, mixers or other valves.
- Two-wire control or momentary contact actuation
- Voltages - 230 VAC, 12, 24 VDC
- Powerpak for battery backup power
- Digital 4-20mA positioner

Price includes: Reversible Motor, Manual Override, Position Indicator and NEMA IV Housing, Factory Mounting, and Hardware. Price does not include valve. Add actuator price to ball valve price for complete unit. See pages 30 and 31 for ball valve pricing (Duo Bloc & MultiPort only).

### Quick Spec

- Low cost/high quality quarter-turn electric actuator
- Corrosion-proof/waterproof NEMA IV housing rugged thermoplastic with stainless steel trim
- Compact design, perfect for OEMs and customers with space limitations
- Duty cycle 100% for high-cycle applications
- Position indicator, easy to see from a distance
- Manual override, large handle, easy to see and use, an unusual feature on such a low-cost unit
- 115 v/60 Hz
- For ball valves 1/2" - 3"

### SPECIFICATIONS

Temperature Limits (All models)	15°F to 140°F
Enclosure:	NEMA IV
Limit switches:	Two SPDT, all sizes; 5 amps.
Voltages:	115V & 230 AC, 12V and 24V DC
Lubrication:	Permanently lubricated gear trim

1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Item #	Item #	Item #	Item #	Item #	Item #	Item #	Item #
2085005	2085007	2085010	2085012	2085015	2085020	2085025	2085030
Price	Price	Price	Price	Price	Price	Price	Price
\$441.47	\$441.47	\$441.47	\$441.47	\$441.47	\$441.47	\$479.37	\$479.37

**Electromni®****The Economical Answer To Automated Flow Control****ACTUATOR OPTIONS**

- 12 VAC, 24 VAC, 220 VAC, 12 VDC, 24 VDC
- Extra limit switch (SPDT) for sequencing with other equipment and for remote light indication
- Position indication lights, built into base of unit, signal whether valve is open or closed
- 2-wire control for retrofitting solenoids for direct wiring timers, level switches, etc.
- Electromni actuator also available with True Union Ball valve, consult sales office.

**Quick Spec**

- 115 VAC single phase
- 2.2 amps uni-directional ¼ turn motor
- 5 second cycle time
- Actuator housing of high impact ABS (NEMA IV, weatherproof)

**True Union Available!****USCO tech tip**

**UNI-DIRECTIONAL ACTUATOR:** One-way motors travel in one direction only and stop every 90° until signaled to move. These single coil, on/off actuators are adequate for some ball valve applications in which the valve requires alternate opening and closing.

Price includes valve and actuator.

	Item#	Price	Item#	Price	Item#	Price	Item#	Price	Item#	Price	Item#	Price	Item#	Price
<b>PVC</b>														
Threaded	2016003	<b>\$181.89</b>	2016005	<b>\$181.89</b>	2016007	<b>\$186.63</b>	2016010	<b>\$190.42</b>	2016012	<b>\$197.05</b>	2016015	<b>\$202.74</b>	2016020	<b>\$211.26</b>
Socket	2015003	<b>181.89</b>	2015005	<b>181.89</b>	2015007	<b>186.63</b>	2015010	<b>190.42</b>	2015012	<b>197.05</b>	2015015	<b>202.74</b>	2015020	<b>211.26</b>
<b>CPVC</b>														
Threaded	2018003	<b>185.68</b>	2018005	<b>185.68</b>	2018007	<b>192.32</b>	2018010	<b>200.84</b>	2018012	<b>213.16</b>	2018015	<b>217.89</b>	2018020	<b>236.84</b>
Socket	2017003	<b>185.68</b>	2017005	<b>185.68</b>	2017007	<b>192.32</b>	2017010	<b>200.84</b>	2017012	<b>213.16</b>	2017015	<b>217.89</b>	2017020	<b>236.84</b>

**Pneumatic Actuators for Asahi Ball Valves****Pneumatic Series 79P Air-to-Spring**

Price includes: Double Rack and Pinion Air-to-Spring (Failsafe) Operator, Manual Override, Position Indicator, Coated Housing, Factory Mounting and Hardware.

**Pneumatic Series 79P Air-to-Air**

Price includes: Double Rack and Pinion Air-to-Air Operator, Manual Override, Position Indicator, Coated Housing, and Factory Mounting and Hardware.

**Quick Spec****79P**

- Double piston, double rack and pinion design, resulting in a lightweight, compact and more powerful actuator
- Body and end caps coated with Rilsan 11 inside and outside, for maximum corrosion resistance. Coating is scratch proof and extremely durable
- Pistons, guides and pinion are molded parts of Nylon 66, for increased durability, high impact resistance and excellent corrosion resistance
- Choice of air-to-air or air-to-spring models
- Actuator shaft is 300 Series cast stainless steel
- Actuator can be used with water as the power source
- Position indication through highly visible indicator knob
- Manual override by inserting a wrench onto flats of extended shaft or by mounting a declutchable gear operator onto shaft
- Standard actuators operate on 80 PSI air supply pressure

**AP79****Quick Spec**

- The industry's lowest priced actuator with double rack and pinion design
- Compact: Generates more torque for its weight than any other actuator on the market today
- Corrosion-resistant: Glass-filled polyamide housing and internals with 303SS trim stops corrosion inside and out
- Air-to-air for ½" to 2" ball valves
- Air-to-spring for ½" to 1¼" ball valves

**Under 3 1/2 in. tall!**

	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
<b>Air-to-Air</b>																
	2301005	<b>\$156.32</b>	2301007	<b>\$156.32</b>	2301010	<b>\$156.32</b>	2301012	<b>\$156.32</b>	2301015	<b>\$156.32</b>	2301020	<b>\$156.32</b>	2301025	<b>\$450.00</b>	2301030	<b>\$551.37</b>
<b>Air-to-Spring</b>																
	2302005	<b>166.74</b>	2302007	<b>166.74</b>	2302010	<b>166.74</b>	2302012	<b>166.74</b>	2302015	<b>280.42</b>	2302020	<b>354.32</b>	2302025	<b>739.89</b>	2302030	<b>985.26</b>
															2302040	<b>985.26</b>

Price does not include valve. Add actuator price to ball valve price for complete unit.

See pages 30 and 31 for ball valve pricing. (Duo Bloc & MultiPort only).

Price includes factory mounting and hardware.

**Starting At \$156<sup>32</sup>****Options for all pneumatic actuators**

Item #	Description	Price
2412761	3-15 PSI Air-To-Air	<b>\$1,406.84</b>
2413761	3-15 PSI Air-To-Spring	<b>1,163.37</b>
2412762	4-20 MA Air-To-Air	<b>2,192.21</b>
2413762	4-20 MA Air-To-Spring	<b>2,046.32</b>

Item #	Limit Switches	Price
2403779	NEMA IV-Double	<b>\$292.74</b>
2403780	NEMA VII-Double	<b>427.26</b>

Item #	Solenoids	Price
2401779	NEMA IV	<b>\$158.21</b>
2401780	NEMA VII	<b>248.21</b>

**Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726**

**USCO 33**



## Cartridge Ball Valve With True Union Ends Type 546

The Type 546 Ball Valve, successor to the proven Type 346 Ball Valve, is the next generation in an established family of products behind which stand George Fischer's 40 years of experience in plastic piping systems.

*Change for the better!*

GEORGE FISCHER +GF+

From Only  
**\$17<sup>33</sup>**

### Quick Spec

- EPDM and FPM seals and PTFE ball seats standard
- 232 psi rating for PVC, CPVC, PVDF socket
- ASTM 1970-01 compliant end connections
- Union nuts with strong buttress threads
- Seat carrier with fine pitched thread for precise adjustment
- Can be actuated after installation

Body Material	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Item #	Price	Item #	Price	Item #	Price	Item #	Price
PVC Teflon Seats, EPDM Seal Material							
161546341	\$17.33	161546342	\$17.33	161546343	\$20.90	161546344	\$25.41
161546351	20.90	161546352	21.38	161546353	24.99	161546354	31.54
PVC Teflon Seats, Viton Seal Material							
161546341	30.07	163546342	30.54	163546343	34.21	163546344	41.18
163546351	33.63	163546352	34.11	163546353	38.23	163546354	47.31



*Light Duty!!*



## PVC & CPVC True Union 2000 Standard Ball Valves

### FEATURES – PVC & CPVC

Economical, low profile quarter turn shutoff valve is excellent for general purpose and many OEM applications. PVC and CPVC valves are available in IPS sizes 1/2" through 4" with socket, SR thread (Stainless Steel Reinforced), or flanged end connectors.

### Quick Spec

- Sizes 1/2" - 2" pressure rated to 235 psi for water @ 73°F
- Sizes 2 1/2" - 4" pressure rated to 150 psi for water @ 73°F
- Flanged pressure rated to 150 psi for water @ 73°F
- Maximum service temperature PVC = 140°F, CPVC = 200°F
- Pressure deratings apply
- Replaceable Teflon HDPE floating seat design

### PVC – Socket & Threaded Ends

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Item #	Price	Item #	Price	Item #	Price	Item #
EPDM	3629005	3629007	3629010	3629012	3629015	3629020
Viton®	3639005	3639007	3639010	3639012	3639015	3639020

### CPVC – Socket & Threaded Ends

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Item #	Price	Item #	Price	Item #	Price	Item #
EPDM	3629005C	3629007C	3629010C	3629012C	3629015C	3629020C
Viton®	3639005C	3639007C	3639010C	3639012C	3639015C	3639020C



## PLAST-O-MATIC

- 125 PSI inlet & backpressure rating with 0.4 Cv
- Continuous duty, 11 watt NEMA 4X CSA approved coil
- Rugged black polypropylene design, normally-closed valve ideal for processes with less aggressive liquids compatible with a wetted metal core.

Designed for applications requiring a compact, very cost effective and high pressure rated valve with extended cycle life. Among lower cost solenoid valves, Series WCM represents the best combination of price and performance available.

## Series WCM Wetted Core Solenoid Valve

*Price and Performance for Less Aggressive Applications*

### Quick Spec

- Compact Size: At just over 4 in. high, these valves are ideal for limited space installations. Weighs just 13 oz. total.
- Economical: Low unit cost coupled with high pressure ratings and considerable flow rate (Cv of 0.4) offer excellent opportunities for systems requiring quick opening/quick closing solenoid valves.
- High Pressure: Particularly for applications where high backpressures (up to 125 PSI) are required e.g. controlling flow to spray nozzles, high pressure water injections, etc. Inlet pressure to 125 PSI. Series WCM will open or close under any combination of pressures, as long as backpressure does not significantly exceed inlet pressure.
- Unique Design: Glass-filled polypropylene cover isolates coil and protects valve body from excessive heat, permitting up to 60 cycles per minute.
- Versatility: The wetted metal core is well suited to city water, many wastewater applications, pure water, and mild chemicals.
- Superior Performance: 2,000,000 cycles in lab conditions.
- Energy Efficient: Molded 11 Watt NEMA 4X style coil with DIN standard connector results in low energy consumption... CSA approved.
- Size: 1/2 in. pipe size with .14" (3.05 mm) Orifice.
- Corrosion Resistant: Rugged thermoplastic construction is resistant to harsh environments.

### Black Polypropylene/Teflon®

Item #	Pipe Size	Seals	Price
WC4V6W11PP	1/2"	Viton	\$149.11
WC4EP6W11PP	1/2"	EPDM	143.69



## Actuated Ball Valve Type 107

### Quick Spec

- 35% duty cycle
- Lightweight
- Corrosion resistant
- Maintenance free, 250,000 cycle life
- Available in PVC, CPVC, PP, and PVDF, sizes 3/8"-2"
- PP and PVDF available in sizes 16 mm - 63 mm
- EPDM and FPM seals
- 115/230 VAC 50/60 Hz or 24VDC
- Connections: PVC/CPVC (socket, threaded, flanged) PP/PVDF (threaded, flanged, metric socket fusion)
- Manual override standard
- Options include heater, fail safe unit, and position sensing switches
- IP67 rated with cable gland
- CE, CSA approved; UL pending

### GEORGE FISCHER +GF+

Electrically actuated ball valve for aggressive fluids and industrial applications. Based on the new Type 546 ball valve, the Type 107 uses the new Type EA 11 actuator which can be fitted onto the valve in process.

Starting At  
**\$319<sup>37</sup>**



Valves

PVC	Item #	3/8"	Price	Item #	1/2"	Price	Item #	3/4"	Price	Item #	1"	Price	Item #	1 1/4"	Price	Item #	1 1/2"	Price	Item #	2"	Price
PVC with EPDM and manual override																					
Socket	199107202	<b>\$319.37</b>		199107203	<b>\$320.53</b>		199107204	<b>\$232.68</b>		199107205	<b>\$327.89</b>		199107206	<b>\$338.68</b>		199107207	<b>\$343.00</b>		199107208	<b>\$360.26</b>	
Threaded	199107242	<b>\$19.37</b>		199107243	<b>\$20.53</b>		199107244	<b>\$22.68</b>		199107245	<b>\$27.89</b>		199107246	<b>\$38.68</b>		199107247	<b>\$43.00</b>		199107248	<b>\$60.26</b>	
PVC with Viton and manual override																					
Socket	199107212	<b>\$23.68</b>		199107213	<b>\$23.68</b>		199107214	<b>\$27.89</b>		199107215	<b>\$35.53</b>		199107216	<b>\$45.16</b>		199107217	<b>\$57.00</b>		199107218	<b>\$75.26</b>	
Threaded	199107252	<b>\$23.68</b>		199107253	<b>\$23.68</b>		199107254	<b>\$27.89</b>		199107255	<b>\$35.53</b>		199107256	<b>\$45.16</b>		199107257	<b>\$57.00</b>		199107258	<b>\$75.26</b>	

## YOUR SALES TEAM...

Call for answers to all your sales and technical questions.



Ian Power



Stephen McGlynn



Bill Jangro



Dave McGlynn



Jim Mathews



Self-Service



Training

## Actuated Ball Valve Type 233

### Quick Spec

- Lightweight
- Corrosion resistant
- Maintenance free, 250,000 cycle life
- Available in PVC and CPVC sizes 3/8" - 2"
- Available in PP and SYGEF®-PVDF in sizes 16 mm - 63 mm
- EPDM and FPM seals
- Available fail close, fail open, or double acting
- Connections: PVC/CPVC (socket, thread, flanged)
- Options include declutchable manual override, stroke limiter, and position indicator

### GEORGE FISCHER +GF+

Pneumatically actuated ball valve for aggressive fluids and industrial applications. Based on the new Type 546 ball valve, the Type 233 uses the new PA 11/21 pneumatic actuators which can be fitted onto the valve in process.

From Only  
**\$332<sup>26</sup>**



PVC	Item #	3/8"	Price	Item #	1/2"	Price	Item #	3/4"	Price	Item #	1"	Price	Item #	1 1/4"	Price	Item #	1 1/2"	Price	Item #	2"	Price
Fail safe to close, manual override, EPDM seal material																					
Socket	199233002	<b>\$332.26</b>		199233003	<b>\$333.32</b>		199233004	<b>\$337.63</b>		199233005	<b>\$344.05</b>		199233006	<b>\$389.21</b>		199233007	<b>\$394.63</b>		199233008	<b>\$416.16</b>	
Threaded	199233202	<b>\$32.26</b>		199233203	<b>\$33.32</b>		199233204	<b>\$37.63</b>		199233205	<b>\$44.05</b>		199233206	<b>\$89.21</b>		199233207	<b>\$94.63</b>		199233208	<b>\$116.16</b>	
Fail safe to open, manual override, EPDM seal material																					
Socket	199233022	<b>\$32.26</b>		199233023	<b>\$33.32</b>		199233024	<b>\$37.63</b>		199233025	<b>\$44.05</b>		199233026	<b>\$89.21</b>		199233027	<b>\$94.63</b>		199233028	<b>\$116.16</b>	
Threaded	199233222	<b>\$32.26</b>		199233223	<b>\$33.32</b>		199233224	<b>\$37.63</b>		199233225	<b>\$44.05</b>		199233226	<b>\$89.21</b>		199233227	<b>\$94.63</b>		199233228	<b>\$116.16</b>	
Double acting, manual override, EPDM seal material																					
Socket	199233042	<b>\$315.05</b>		199233043	<b>\$316.16</b>		199233044	<b>\$320.47</b>		199233045	<b>\$325.79</b>		199233046	<b>\$362.37</b>		199233047	<b>\$368.84</b>		199233048	<b>\$390.32</b>	
Threaded	199233242	<b>\$315.05</b>		199233243	<b>\$316.16</b>		199233244	<b>\$320.47</b>		199233245	<b>\$325.79</b>		199233246	<b>\$362.37</b>		199233247	<b>\$368.84</b>		199233248	<b>\$390.32</b>	
Fail safe to close, manual override, Viton seal material																					
Socket	199233012	<b>\$337.63</b>		199233013	<b>\$338.68</b>		199233014	<b>\$343.00</b>		199233015	<b>\$351.58</b>		199233016	<b>\$396.79</b>		199233017	<b>\$411.84</b>		199233018	<b>\$433.32</b>	
Threaded	199233212	<b>\$337.63</b>		199233213	<b>\$338.68</b>		199233214	<b>\$343.00</b>		199233215	<b>\$351.58</b>		199233216	<b>\$396.79</b>		199233217	<b>\$411.84</b>		199233218	<b>\$433.32</b>	
Fail safe to open, manual override, Viton seal material																					
Socket	199233032	<b>\$337.63</b>		199233033	<b>\$338.68</b>		199233034	<b>\$343.00</b>		199233035	<b>\$351.58</b>		199233036	<b>\$396.79</b>		199233037	<b>\$411.84</b>		199233038	<b>\$433.32</b>	
Threaded	199233232	<b>\$337.63</b>		199233233	<b>\$338.68</b>		199233234	<b>\$343.00</b>		199233235	<b>\$351.58</b>		199233236	<b>\$396.79</b>		199233237	<b>\$411.84</b>		199233238	<b>\$433.32</b>	
Double acting, manual override, Viton seal material																					
Socket	199233052	<b>\$320.47</b>		199233053	<b>\$320.47</b>		199233054	<b>\$325.79</b>		199233055	<b>\$334.42</b>		199233056	<b>\$371.05</b>		199233057	<b>\$384.95</b>		199233058	<b>\$407.53</b>	
Threaded	199233252	<b>\$320.47</b>		199233253	<b>\$320.47</b>		199233254	<b>\$325.79</b>		199233255	<b>\$334.42</b>		199233256	<b>\$371.05</b>		199233257	<b>\$384.95</b>		199233258	<b>\$407.53</b>	

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 35

## True Union Diaphragm Valve Type 314



**OPTIONAL Handwheel**

### Quick Spec

Suitable for slurries and abrasive media. Corrosion resistant and maintenance free. Standard overall length.

- Manually operated diaphragm valve Type 314 with union ends, PVC construction
- Short overall length
- True Union design
- Built-in locking handle (optional)
- Position indicator
- Flow in either direction irrespective of installation position
- Bracketing facility incorporated in the valve
- Available in other materials

**GEORGE FISCHER +GF+**

Diaphragm	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Material	Item #	Price	Item #	Price	Item #	Price
EPDM	161314677	\$73.26	161314678	\$81.77	161314679	\$105.04
Teflon	161314692	\$111.37	161314693	\$127.67	161314694	\$187.33

### Handwheel with Built-In Locking Mechanism

	½"		¾"		1"		1¼"		1½"		2"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Handwheel	167481943	\$22.69	167481943	\$22.69	167481944	\$23.14	167481945	\$24.46	167481945	\$24.46	167481946	\$24.91

## Electrically Actuated Ball Valve — "The Engineered Ball Valves"



### 2-Way Electric Actuated Ball Valves

### Quick Spec

- Rugged lightweight plastic construction — ideal for corrosive atmosphere
- Direct manual override with visual position indication
- Position and motor running lights
- Thermally protected motor — will withstand stall torque
- NEMA IV water and dust tight enclosure
- Simple attachment to True Blue valve bodies
- Easily adaptable for computer operation and verification
- CSA approval on 120 volt models

### PLAST-O-MATIC

#### BALL VALVE FEATURES

- Long cycle life with Trunnion design
- Dual shaft seals to eliminate leakage
- True union ends
- Self compensating Teflon® seats
- Perfectly round and highly polished ball
- Rugged construction

Seal Material	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Item #	Price	Item #	Price	Item #	Price	Item #
PVC						
EPDM	PMEBV050EPTVP	\$366.66	PMEBV075EPTVP	\$370.68	PMEBV100EPTVP	\$376.51
VITON	PMEBV050VTPV	368.63	PMEBV075VTPV	373.26	PMEBV100VTPV	379.84
CPVC (CORZAN™)						
EPDM	PMEBV050EPTCP	386.20	PMEBV075EPTCP	395.63	PMEBV100EPTCP	408.00
VITON	PMEBV050VTCV	388.16	PMEBV075VTCV	398.32	PMEBV100VTCV	411.26

**Note 1:** End connectors must be specified on all actuated ball valves. **Note 2:** Model numbers listed are for "threaded" end connectors. For "Sockets" change the "T" in the model number to "S".

**Note 3:** Voltage/Hertz must be specified.

## 2-Way Air Actuated Ball Valve — "The Engineered Ball Valves"



**24 HOUR**

### Air x Air

### Quick Spec

- Rugged all-plastic construction — ideal for corrosive atmosphere
- Lightweight assembly — less piping stresses and lower shipping costs
- Long cycle life design — extensively tested and proven
- Simple attachment to valve body mounting lugs
- Simple changeover to spring return
- Compact design with manual override
- Limit switch and travel stops available

### PLAST-O-MATIC

#### BALL VALVE FEATURES

- Long cycle life with Trunnion design
- Dual shaft seals to eliminate leakage
- True union ends
- Self compensating Teflon® seats
- Perfectly round and highly polished ball
- Rugged construction

Seal Material	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Item #	Price	Item #	Price	Item #	Price	Item #
PVC						
EPDM	PMABVA050EPTVP	\$217.63	PMABVA075EPTVP	\$245.47	PMABVA100EPTVP	\$251.34
VITON	PMABVA050VTPV	219.58	PMABVA075VTPV	248.07	PMABVA100VTPV	254.68
CPVC (CORZAN™)						
EPDM	PMABVA050EPTCP	237.17	PMABVA075EPTCP	270.47	PMABVA100EPTCP	282.84
VITON	PMABVA050VTCV	239.11	PMABVA075VTCV	273.16	PMABVA100VTCV	286.11

### Air x Spring

Seal Material	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Item #	Price	Item #	Price	Item #	Price	Item #
PVC						
EPDM	PMABVS050EPTVP	\$274.58	PMABVS075EPTVP	\$317.26	PMABVS100EPTVP	\$354.63
VITON	PMABVS050VTPV	276.58	PMABVS075VTPV	319.79	PMABVS100VTPV	326.47
CPVC (CORZAN™)						
EPDM	PMABVS050EPTCP	294.21	PMABVS075EPTCP	342.16	PMABVS100EPTCP	354.63
VITON	PMABVS050VTCV	296.68	PMABVS075VTCV	344.85	PMABVS100VTCV	357.89

**Note 1:** End connectors must be specified on all actuated ball valves. **Note 2:** Model numbers listed are for "threaded" end connectors. For "Sockets" change the "T" in the model number to "S".

**Note 3:** For options and accessories on above please consult sales office. **Note 4:** Polypropylene and PVDF also available.

## Type 57 Butterfly Valves

### Quick Spec

- Stainless steel shaft has full engagement with disc and is a non-wetted part isolated from the media by double O-ring seals on top and bottom trunnions of disc
- Only disc and liner are wetted parts
- 1½"-8" with lever handle
- 8"-24" with gear operator
- PVC body has Polypropylene disc standard

### OPTIONS

- Stem Extensions
- Other seat materials available on special order
- Gear operators for all sizes
- Sprocket and chain wheel: all sizes
- Teflon® or PVDF stem coatings
- Handle locking devices
- 2" square operating nut
- Stem of any commercially available metal
- Lug style butterfly valves
- PVDF Damper style available
- Electric or Pneumatic actuator

**NEW**
**NEW Features  
at the Same  
Price!**


### NEW DESIGN FEATURES

- Flange Stopper – prevents over-compressing liners due to improper installation.
- Absorption Channel – Never worry about an over-tightened liner causing excessive stem torque
- Spherical Disc – Gain higher Cv and extended valve cycle life as a result of new disc design
- Plagear Plastic gear operator – The first industrial non-metallic gear box, offers superior corrosion resistance

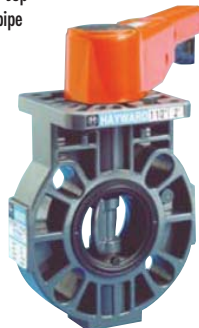
1½"	2"	2½"	3"	4"	6"	8"	10"	12"
<b>PVC Body/PP Disc/EPDM Seats</b>								
1730015	1730020	1730025	1730030	1730040	1730060	1730080	1730100	1730120
<b>\$143.25</b>	<b>\$149.25</b>	<b>\$168.00</b>	<b>\$162.00</b>	<b>\$188.25</b>	<b>\$283.50</b>	<b>\$636.75</b>	<b>\$896.80</b>	<b>\$1,242.60</b>
<b>W/Viton Seats</b>								
1731015	1731020	1731025	1731030	1731040	1731060	1731080	1731100	1731120
<b>287.85</b>	<b>255.55</b>	<b>367.65</b>	<b>297.35</b>	<b>361.00</b>	<b>585.20</b>	<b>1,206.50</b>	<b>2,135.60</b>	<b>2,921.25</b>
<b>PVDF Body/PVDF Disc/Viton Seats</b>								
1745015	1745020	1745025	1745030	1745040	1745060	1745080	17452100	1745120
<b>782.80</b>	<b>782.80</b>	<b>951.90</b>	<b>994.65</b>	<b>1,408.85</b>	<b>2,769.25</b>	<b>5,020.75</b>	<b>7,397.65</b>	<b>9,406.90</b>

## Butterfly Valves



### 1½" to 12" PVC, Corzan® CPVC, PPL – Wafer and Lug Designs

Hayward 1½" through 12" all-Plastic Butterfly Valves are rated at a full 150 psi. Unlike other plastic butterfly valves, Hayward valves are constructed from a one piece body that incorporates fully supported flanged bolt holes to prevent stressing of the mating pipe flanges. Their heavy duty construction stands up to the most demanding applications.

**A Better  
Butterfly Valve**


### FEATURES

- Rated at 150 PSI
- Stainless Steel Shaft
- Fully Supported Flange Bolt Holes
- Full Body, V-Notch Liner
- Blowout-Proof Shaft
- Viton, EPDM or Nitrile Liners

### OPTIONS

- Stem Extensions
- Lug Body Design
- Gear Operators
- Electric Actuators
- Pneumatic Actuators
- Titanium Shaft
- 2" Square Operating Nut
- PVDF Discs

Size	Body	Disc	Viton® Liner & Seals		EPDM Liner & Seals	
			Item #	Price	Item #	Price
1½"-2"	PVC	PVC	BY110200VL	<b>\$323.22</b>	BY110200EL	<b>\$154.96</b>
	PVC	PPL	BY140200VL	<b>333.67</b>	BY140200EL	<b>159.72</b>
3"	PVC	PVC	BY110300VL	<b>369.79</b>	BY110300EL	<b>171.11</b>
	PVC	PPL	BY140300VL	<b>381.22</b>	BY140300EL	<b>176.83</b>
4"	PVC	PVC	BY110400VL	<b>455.33</b>	BY110400EL	<b>198.68</b>
	PVC	PPL	BY140400VL	<b>462.96</b>	BY140400EL	<b>207.23</b>
6"	PVC	PVC	BY110600VL	<b>732.93</b>	BY110600EL	<b>298.50</b>
	PVC	PPL	BY140600VL	<b>754.79</b>	BY140600EL	<b>308.00</b>
Lever Operated 8"	PVC	PVC	BY110800VL	<b>1,226.30*</b>	BY110800EL	<b>530.44*</b>
	PVC	PPL	BY140800VL	<b>1,260.52*</b>	BY140800EL	<b>546.61*</b>
Gear Operated 10"	PPL	PVC	BY41100VG	<b>2,684.56</b>	BY41100EG	<b>1,054.22</b>
	PPL	PPL	BY44100VG	<b>2,759.18</b>	BY44100EG	<b>1,085.61</b>
Gear Operated 12"	PPL	PVC	BY41120VG	<b>3,675.09</b>	BY41120EG	<b>1,459.22</b>
	PPL	PPL	BY44120VG	<b>3,777.78</b>	BY44120EG	<b>1,502.94</b>

\* Manual price shown

Corzan® is a trademark of BF Goodrich Company.

## PVC, CPVC Diaphragm Valves

### Precision Engineered

This full-featured valve is engineered to provide accurate throttling control and shutoff for industrial, chemical and water treatment applications.



### Quick Spec

- Low Profile Design
- Multiple End Connector Options
- Heavy Bodied Schedule 80 PVC or CPVC
- PTFE Diaphragms Optional

**As Low As  
\$57.18**

### PVC Socket & Thread Ends (True Union Style)

½"	¾"	1"	1¼"	1½"	2"
<b>EPDM Seals &amp; Diaphragm</b>					
2729005	2729007	2729010	2729012	2729015	2729020
<b>\$57.18</b>	<b>\$64.90</b>	<b>\$79.98</b>	<b>\$119.72</b>	<b>\$125.86</b>	<b>\$148.88</b>
<b>Viton® Seals &amp; Diaphragm</b>					
2739005	2739007	2739010	2739012	2739015	2739020
<b>63.52</b>	<b>72.11</b>	<b>87.89</b>	<b>142.36</b>	<b>145.64</b>	<b>176.44</b>

Also available with Stainless Steel Reinforced (SR) Plastic Thread Ends

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 37

Valves



## Electric Actuators for Asahi Butterfly Valves QuarterMaster Chief-Series 92



### Quick Spec

- Reversing type motor, 115 VAC, 50/60 Hz, single phase
- Brushless, capacitance-run motors (AC models)
- Integral thermal overload protection with auto-reset (AC models)
- Permanently lubricated gear train
- NEMA IV (weatherproof) housing and NEMA VII (explosion proof)
- Thermally-bonded epoxy powder coating inside and out
- Dec clutchable manual override easily employed by pulling up on indicator knob and inserting wrench onto flats of stem
- Corrosion resistant mounting kit specially engineered for ASAHI valves
- 100% Duty cycle up to 6", 50% 8" and up



### OPTIONS

- Extra limit switches
- Digital 4-20 mA positioner
- Heater and Thermostat
- Feedback potentiometer
- Cycle time options
- Voltage options

Price includes: Reversible Motor, Manual Override, Position Indicator and NEMA IV Housing, Factory Mounting, and Hardware.



1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"
1792015	1792020	1792025	1792030	1792040	1792050	1792060	1792080	1792100	1792120
\$768.55	\$768.55	\$768.55	\$768.55	\$768.55	\$1,061.15	\$1,061.15	\$1,148.55	\$3,272.75	\$3,272.75

## QuarterMaster2 Series 94 Electric Actuator for Butterfly Valves



USCO Price Only  
**\$442<sup>70</sup>**



### Quick Spec

- Low cost/high quality quarter-turn electric actuator
- Corrosion-proof/waterproof NEMA IV housing rugged thermoplastic with stainless steel trim
- Compact design, perfect for OEMs and customers with space limitations
- Duty cycle 75% for high-cycle applications
- Position indicator, easy to see from a distance
- Manual override, large handle, easy to see and use, an unusual feature on such a low-cost unit
- 115 v/60 Hz
- For butterfly valves 1½" - 4"



### OPTIONS

- Extra limit switches
- Two-wire controls
- Voltage options

**Failsafe back-up battery available.**

1½"		2"		3"		4"	
Item #	Price	Item #	Price	Item #	Price	Item #	Price
1793015	\$442.70	1793020	\$442.70	1793030	\$442.70	1793040	\$518.70

## Pneumatic Actuators for Asahi Butterfly Valves



**Sizes up to 24" available**



### OPTIONS

- 4-20 mA or 3-15 PSI positioner
- Limit switches
- Solenoid valves
- Camstops

### Quick Spec

- Double piston, double rack and pinion design, resulting in a lightweight, compact and more powerful actuator
- Actuator can be used with water as the power source
- Position indication through highly visible indicator knob
- Manual override by inserting a wrench onto flats of extended shaft or by mounting a declutchable gear operator onto shaft
- Choice of air-to-air or air-to-spring models
- Standard actuators operate on 80 PSI air supply pressure

### Pneumatic Series 79P Air-to-Spring

Price includes: Double Rack and Pinion Air-to-Spring (Failsafe) Operator, Manual Override, Position Indicator, Coated Housing, Factory Mounting and Hardware.

### Pneumatic Series 79P Air-to-Air

Price includes: Double Rack and Pinion Air-to-Air Operator, Manual Override, Position Indicator, Coated Housing, and Factory Mounting and Hardware.

1½"	2"	2½"	3"	4"	5"	6"	8"	10"
<b>Air-to-Air</b>								
1794015	1794020	1794025	1794030	1794040	1794050	1794060	1794080	1794100
\$353.40	\$353.40	\$353.40	\$423.10	\$423.10	\$559.55	\$626.05	\$1,115.30	\$1,115.30
<b>Air-to-Spring</b>								
1795015	1795020	1795025	1795030	1795040	1795050	1795060	1795080	1795100
497.80	497.80	525.35	708.70	708.70	1,010.80	1,010.80	1,702.40	1,702.40

## Quick Spec

- True-Union end connectors for ease of installation and maintenance
- Bubble-tight closure, even in slurry applications or flows with suspended particles
- Large weir surface allows greater flows with less movement of diaphragm
- Position indicator and adjustable travel stop to prevent overtightening
- EPDM or Teflon/PVDF backed diaphragms, PVC, CPVC, Polypropylene and PVDF bodies
- Socket or threaded end connectors, butt-fusion, PP, & PVDF are also available

## True Union Diaphragm Valve



Valves

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
<b>PVC Body – EPDM Diaphragm</b>												
Socket	1526005	\$89.00	1526007	\$99.00	1526010	\$127.00	1526012	\$191.00	1526015	\$191.00	1526020	\$228.00
Threaded	1527005	89.00	1527007	99.00	1527010	127.00	1527012	191.00	1527015	191.00	1527020	228.00
<b>PVC Body – Teflon Diaphragm</b>												
Socket	1528005	147.00	1528007	153.00	1528010	205.00	1528012	301.00	1528015	301.00	1528020	371.00
Threaded	1529005	147.00	1529007	153.00	1529010	205.00	1529012	301.00	1529015	301.00	1529015	371.00

Note: Socket or Threaded end connectors are available with PVC and CPVC body's

## Flanged 2 1/2, 3 &amp; 4" Diaphragm Valve Type "14"



## Quick Spec

- Flanged face-to-face dimensions are equal to most commonly used lined steel diaphragm valves
- Body and bonnet materials are solid thermoplastic
- Only body and diaphragm are wetted parts
- Bubble-tight closure, even in slurry applications
- Large weir surface allows greater flows with less movement of diaphragm
- Position indicator and adjustable travel stop to prevent overtightening

## OPTIONS

- Diaphragms in other materials such as Nitrile (Buna N), Viton
- 2" square or T-nut operating nuts
- Stem extensions for out of reach applications
- Three-part Diaphragm: Teflon, PVDF gas barrier and EPDM backing cushion,
- to prevent permeation of aggressive gasses, such as in chlorine service
- Locking handles for tamper proof valves
- Manual limit switches for remote position indication by lights or for sequencing of other equipment
- Pneumatic or electric actuation

## Flanged Diaphragm Valves

Body	Diaphragm	2 1/2"	3"	4"
PVC	EPDM	1461025	1461030	1461040
		\$378.00	\$431.00	\$631.00
PVC	TEF	1462025	1462030	1462040
		598.00	743.00	1,048.00
CPVC	EPDM	1463025	1463030	1463040
		558.00	713.00	946.00
CPVC	TEF	1464025	1464030	1464040
		828.00	1,018.00	1,437.00
PP	EPDM	1465025	1465030	1465040
		492.00	565.00	828.00
PP	TEF	1466025	1466030	1466040
		730.00	903.00	1,271.00
PVDF+	TEF	1467025	1467030	1467040
		1,272.00	1,611.00	2,300.00

Note: Other sizes larger than 4" are available.

## Flanged 1/2" to 2" Diaphragm Valve Type "14"

## SPECIFICATIONS

SIZE: 1/2"-2"

BODY MATERIAL: PVC, CPVC, PP, PVDF

BONNET MATERIAL: PVC, PPG, PVDF

DIAPHRAGMS: Teflon®, EPDM, Nitrile, Viton



## Quick Spec

- Flanged face-to-face dimensions are equivalent to most commonly used metallic valves
- Square body to bonnet design results in superior sealing characteristics
- Position indicator and travel stop prevent over tightening
- Bonnet seals to protect internals from corrosive environments
- Weir design allows for excellent throttling capabilities
- Bubble-tight sealing in applications such as slurries and suspended particles
- All thermoplastic construction for ultimate corrosion resistance in the most aggressive applications
- Low profile design accommodates space limitations

## Flanged Diaphragm Valves

Body	Diaphragm	1/2"	3/4"	1"	1 1/2"	2"
PVC	EPDM	1461005	1461007	1461010	1461015	1461020
		\$103.00	\$115.00	\$148.00	\$222.00	\$264.00
PVC	TEF	1462005	1462007	1462010	1462015	1462020
		167.00	175.00	236.00	348.00	429.00
CPVC	EPDM	1463005	1463007	1463010	1463015	1463020
		158.00	171.00	217.00	333.00	398.00
CPVC	TEF	1464005	1464007	1464010	1464015	1464020
		229.00	247.00	326.00	486.00	593.00
PP	EPDM	1465005	1465007	1465010	1465015	1465020
		138.00	151.00	191.00	295.00	349.00
PP	TEF	1466005	1466007	1466010	1466015	1466020
		205.00	215.00	289.00	427.00	522.00
PVDF+	TEF	1467005	1467007	1467010	1467015	1467020
		250.00	292.00	417.00	620.00	787.00

## Pressure Vs Temperature (PSI, Water, Non-Shock)

Size (inches)	PVC		CPVC			
	30°F	105°F	30°F	105°F	141°F	176°F
1/2 – 2	104°F	140°F	104°F	140°F	175°F	195°F
	150PSI	150PSI	150PSI	120PSI	90PSI	45PSI
Size (inches)	PP		PVDF			
	-5°F	105°F	141°F	-5°F	141°F	176°F
1/2 – 2	104°F	140°F	195°F	140°F	175°F	212°F
	150PSI	120PSI	75PSI	150PSI	120PSI	95PSI

+ PVDF Valves include a PVDF Gas Barrier

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 39

## AD-16 Compact Air Diaphragm Valve

**NEW**  
**LOWER PRICE**  
**Starting At**  
**\$165.79**



### Quick Spec

- Most compact design available
- Extended cycle life
- PVC construction
- PTFE diaphragm
- True union design
- Available with socket, thread and flange ends

### Travel Stop

	Without Indicator	Price	With Indicator	Price
1/2"	841081005	<b>\$45.79</b>	841082005	<b>\$45.79</b>
3/4"	841081007	<b>49.74</b>	841082007	<b>49.74</b>
1"	841081010	<b>49.74</b>	841082010	<b>49.74</b>
1 1/2"	841081015	<b>55.26</b>	—	<b>NA</b>
2"	841081020	<b>55.26</b>	—	<b>NA</b>

### Speed Controller

	Air-To-Spring	Price	Air-To-Air	Price
1/2"	841079005	<b>\$29.21</b>	841080005	<b>\$52.89</b>
3/4"	841079007	<b>29.21</b>	841080007	<b>52.89</b>
1"	841079010	<b>29.21</b>	841080010	<b>52.89</b>
1 1/2"	841079015	<b>29.21</b>	841080015	<b>52.89</b>
2"	841079020	<b>29.21</b>	841080020	<b>52.89</b>



## Air to Spring PVC/PTFE Diaphragm EPDM Seals

	1/2"	3/4"	1"	1 1/2"	2"
Item #	Price	Item #	Price	Item #	Price
Socket	841067005 <b>\$165.79</b>	841067007 <b>\$177.63</b>	841067010 <b>\$188.68</b>	841067015 <b>\$341.05</b>	841067020 <b>\$458.68</b>
Thread	841068005 <b>165.79</b>	841068007 <b>177.63</b>	841068010 <b>188.68</b>	841068015 <b>341.05</b>	841068020 <b>458.68</b>

## Air to Spring PVC/PTFE Diaphragm FKM Seals

Socket	841073005 <b>\$168.95</b>	841073007 <b>\$182.37</b>	841073010 <b>\$194.21</b>	841073015 <b>\$352.11</b>	841073020 <b>\$483.16</b>
Thread	841074005 <b>168.95</b>	841074007 <b>182.37</b>	841074010 <b>194.21</b>	841074015 <b>352.11</b>	841074020 <b>483.16</b>

## Air to Air PVC/PTFE Diaphragm EPDM Seals

Socket	841073005 <b>\$158.68</b>	841073007 <b>\$165.79</b>	841073010 <b>\$176.05</b>	841073015 <b>\$247.89</b>	841073020 <b>\$396.32</b>
Thread	841074005 <b>158.68</b>	841074007 <b>165.79</b>	841074010 <b>176.05</b>	841074015 <b>247.89</b>	841074020 <b>396.32</b>

## Air to Air PVC/PTFE Diaphragm FKM Seals

Socket	841076005 <b>\$161.84</b>	841076007 <b>\$170.53</b>	841076010 <b>\$181.58</b>	841076015 <b>\$321.32</b>	841076020 <b>\$420.79</b>
Thread	841077005 <b>161.84</b>	841077007 <b>170.53</b>	841077010 <b>181.58</b>	841077015 <b>321.32</b>	841077020 <b>420.79</b>

Specifications	Unit	1/2"	3/4"	1"	1 1/2"	2"
Orifice Diameter	mm	16	22	22	40	50
	inch	0.630	0.866	0.866	1.57	1.97
Cv Value		5	8	8	CF	CF
Actuator Dimension	mm	50 x 50	60 x 60	60 x 60	95 x 95	110 x 110
	inch	1.97 x 1.97	2.36 x 2.36	2.36 x 2.36	3.74 x 3.74	4.33 x 4.33

- Applications: DI Water, Chemical
- Operating Temperature Media: 0-60°C, 32-140°F
- Operating Temperature Ambient: 0-60°C, 32-140°F
- Working Pressure: 0.4 MPa, 60 PSI
- Pilot Air Pressure: 0.4-0.5 MPa, 60-72.5 PSI
- Back Pressure: 0.2 MPa, 30 PSI
- Air Port Connection: Re 1/8
- Connection: True Union with Socket, Thread or Flange
- Actuator Type: Air to Open (Normally Closed), Air to Air
- Options: Position Indicator, Travel Stop, Bypass Valve

## Type 14 Pneumatic Diaphragm Valve



### Quick Spec

- All-thermoplastic construction for superior corrosion resistance
- Square actuator to body design results in excellent sealing characteristics
- NAMUR pad mount for easy installation of solenoid valve
- Position indicator provides local indication of valve position
- Excellent throttling capabilities due to diaphragm type actuator and valve wear design
- Choice of Air-to-Spring or Air-to-Air models
- Size: 1/2" to 2"
- Body: PVC, CPVC, PP, PVDF
- Actuator housing: PPG
- Type: Air-to-Spring or Air-to-Air
- Diaphragm: TFE, EPDM, Nitrile, Viton
- End connector: Flanged
- Air supply: Recommended – 60 psi, maximum – 90 psi

Body Bonnet Dia	PVC		CPVC		PP		PVDF	
	PPG		PPG		PPG		PPG	
Size	EPDM	Teflon	EPDM	Teflon	EPDM	Teflon	EPDM	Teflon

### Diaphragm Valves Type 14 True Union Air-to-Air – Flanged

	1413	1414	1415	1416	1417	1418	1421	1419
1/2" (005)	<b>\$234.00</b>	<b>\$299.00</b>	<b>\$383.00</b>	<b>\$410.00</b>	<b>\$378.00</b>	<b>\$405.00</b>	<b>\$411.00</b>	<b>\$456.00</b>
3/4" (007)	<b>248.00</b>	<b>317.00</b>	<b>397.00</b>	<b>424.00</b>	<b>388.00</b>	<b>415.00</b>	<b>431.00</b>	<b>479.00</b>
1" (010)	<b>264.00</b>	<b>339.00</b>	<b>406.00</b>	<b>435.00</b>	<b>396.00</b>	<b>425.00</b>	<b>462.00</b>	<b>514.00</b>
1 1/4" (012)	<b>332.00</b>	<b>425.00</b>	<b>416.00</b>	<b>508.00</b>	<b>401.00</b>	<b>512.00</b>	<b>615.00</b>	<b>684.00</b>
1 1/2" (015)	<b>415.00</b>	<b>531.00</b>	<b>518.00</b>	<b>554.00</b>	<b>498.00</b>	<b>552.00</b>	<b>654.00</b>	<b>727.00</b>
2" (020)	<b>506.00</b>	<b>649.00</b>	<b>565.00</b>	<b>735.00</b>	<b>533.00</b>	<b>695.00</b>	<b>837.00</b>	<b>930.00</b>

### Diaphragm Valves Type 14 True Union Air-to-Spring\*

	1423	1424	1425	1426	1427	1428	1422	1429
1/2" (005)	<b>\$234.00</b>	<b>\$299.00</b>	<b>\$496.00</b>	<b>\$612.00</b>	<b>\$508.00</b>	<b>\$604.00</b>	<b>\$607.00</b>	<b>\$674.00</b>
3/4" (007)	<b>248.00</b>	<b>317.00</b>	<b>518.00</b>	<b>635.00</b>	<b>540.00</b>	<b>636.00</b>	<b>637.00</b>	<b>707.00</b>
1" (010)	<b>264.00</b>	<b>339.00</b>	<b>541.00</b>	<b>659.00</b>	<b>565.00</b>	<b>663.00</b>	<b>662.00</b>	<b>736.00</b>
1 1/4" (012)	<b>332.00</b>	<b>425.00</b>	<b>698.00</b>	<b>877.00</b>	<b>722.00</b>	<b>868.00</b>	<b>960.00</b>	<b>1,067.00</b>
1 1/2" (015)	<b>415.00</b>	<b>531.00</b>	<b>732.00</b>	<b>913.00</b>	<b>770.00</b>	<b>916.00</b>	<b>999.00</b>	<b>1,110.00</b>
2" (020)	<b>506.00</b>	<b>649.00</b>	<b>1,011.00</b>	<b>1,251.00</b>	<b>1,039.00</b>	<b>1,230.00</b>	<b>1,351.00</b>	<b>1,501.00</b>

\* Air-to-Spring Actuators supplied Failsafe closed. For Failsafe open please specify.



## +GF+ DIASTAR Type 025 Diaphragm Valve

The +GF+ DIASTAR series of diaphragm valves is distinguished by a future-oriented range of models and a wide variety of accessories. The attractive design is accompanied by numerous special product features:

### PVC Body with Socket Connections

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Fail-safe close												
EPDM	199025751	\$211.42	199025752	\$223.98	199025753	\$239.61	199025754	\$301.42	199025755	\$376.22	199025756	\$459.71
PTFE	199025771	272.14	199025772	287.32	199025773	306.84	199025774	384.89	199025775	481.39	199025776	588.74
Fail-safe open												
EPDM	199025757	124.68	199025758	136.23	199025759	145.08	199025760	200.76	199025761	228.16	199025762	276.88
PTFE	199025777	169.15	199025778	184.96	199025779	196.14	199025780	245.87	199025781	309.00	199025782	373.23
Double acting												
EPDM	199025763	127.37	199025764	136.23	199025765	145.08	199025766	200.76	199025767	228.16	199025768	276.88
PTFE	199025783	169.15	199025784	184.96	199025785	196.14	199025786	245.87	199025787	309.00	199025788	373.23

*Pre-loaded compression springs: safety*  
*Actuator housing of PP-GF: very low weight*  
*Very compact design: Compact systems*

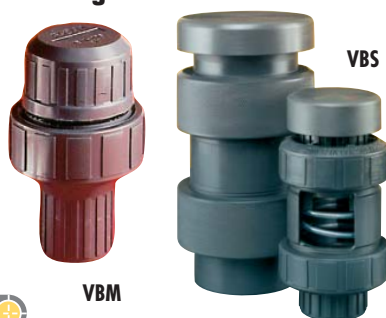


Valves

## Compact, Self-Closing Vacuum Breakers

**PROTECT AGAINST  
HAZARDS, DAMAGE  
AND FINANCIAL  
LOSSES CAUSED BY  
VACUUM!**

As Low As  
\$71.75



### Quick Spec

#### Features/Benefits with Proper Installation

- Designed to protect enclosed tanks from collapse or structural damage during draining.
- Eliminates siphoning of dangerous fluids.
- Prevents vacuum which can cause damage to sensitive instruments and filters.
- Normally closed design prevents fugitive emissions from leaving system.
- For corrosive or ultra-pure liquid applications.

### DESIGN:

The Plast-O-Matic VBM Vacuum Breakers have only one moving part – the patented self-sealing diaphragm, and this provides both design simplicity and maximum operating dependability. This normally-closed design seals in the identical location every time producing a very dependable, long-life seal. Series VBS Vacuum Breakers feature a corrosion resistant Teflon® PFA encapsulated spring which acts on a poppet seal that neither sticks nor chatters. Maximum working pressure is 100 PSI @ 75°F (6,9 bar @ 24°C).

### Series VBM & VB Threaded with Viton seals

	1/2"		3/4"		1"	
	Item #	Price	Item #	Price	Item #	Price
PVC	VBM050VPV	\$71.75	VBM075VPV	\$84.63	VBM100VPV	\$97.05
Polypro	VBM050VPP	89.23	VBM075VPP	104.97	VBM100VPP	112.48
Teflon	NA	NA	VB075VPF	303.61	VB100VPF	320.73

### Series "VBS" Threaded Normally Closed High Volume Vacuum Breakers

	1 1/2"		2"		3"	
	Item #	Price	Item #	Price	Item #	Price
PVC	VBS150V-PV	\$193.11	VBS200V-PV	\$254.84	VBS300V-PV	\$502.38
PVC	VBS150EP-PV	186.92	VBS200EP-PV	248.66	VBS300EP-PV	457.21
Natural Polypro	VBS150V-PP	253.29	VBS200V-PP	301.22	VBS300V-PP	786.19
Natural Polypro	VBS150EP-PP	247.22	VBS200EP-PP	294.96	VBS300EP-PP	742.58
PVDF	VBS150V-PF	831.35	VBS200V-PF	863.09	VBS300V-PF	3,409.79
PVDF	VBS150EP-PF	824.03	VBS200EP-PF	857.12	VBS300EP-PF	3,366.08

For socket connector specify "S" in part number (ex. VBS150VS-PV). For threaded end connector specify "T" in part number (ex: VBS150VT-PV). No additional charge.

**Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726**

## Throttle Master PVC, CPVC & PP Needle Valves

*Precise Flow Control  
with Fine Adjustment  
of Corrosive and  
High Purity Fluids*



### Quick Spec

- Produced in two styles: Globe pattern (straight 180°) and Angle pattern (90°)
- Three standard end connections: 1/4", 3/8" and 1/2" FNPT
- Needle finish, SPI/SPE #1. Bubble tight, low torque shut-off long term performance
- 24 Pitch metering thread. 20% finer metering control
- PTFE, Teflon® sealed, chemical resistance, high purity
- Versatile and simple panel mount system
- Integrally designed panel mounting, no fasteners required, mounts to panel thicknesses from 1/4" to 1/2"
- No elastomers (O-Rings), metals or lubricants, no corrosion, no contamination

FLOW DATA	1/4" & 3/8"		1/2"	
	Globe	Angle	Globe	Angle
Orifice – Inlet	0.187"	0.250"	0.218"	0.250"
Orifice – Outlet	0.187"	0.187"	0.218"	0.218"
Cv	0.310"	0.426"	0.620"	0.780"

	Item #	Description	Price
PVC	NG250PVC	1/4" FNPT Globe Needle Valve	\$32.68
	NA250PVC	1/4" FNPT Angle Needle Valve	32.68
	NG375PVC	3/8" FNPT Globe Needle Valve	32.68
	NA375PVC	3/8" FNPT Angle Needle Valve	32.68
	NG500PVC	1/2" FNPT Globe Needle Valve	36.32
	NA500PVC	1/2" FNPT Angle Needle Valve	36.32
CPVC	NG250CPV	1/4" FNPT Globe Needle Valve	38.42
	NA250CPV	1/4" FNPT Angle Needle Valve	38.42
	NG375CPV	3/8" FNPT Globe Needle Valve	38.42
	NA375CPV	3/8" FNPT Angle Needle Valve	38.42
	NG500CPV	1/2" FNPT Globe Needle Valve	40.74
	NA500CPV	1/2" FNPT Angle Needle Valve	40.74
PP	NG250PPR	1/4" FNPT Globe Needle Valve	36.05
	NA250PPR	1/4" FNPT Angle Needle Valve	36.05
	NG375PPR	3/8" FNPT Globe Needle Valve	36.05
	NA375PPR	3/8" FNPT Angle Needle Valve	36.05
	NG500PPR	1/2" FNPT Globe Needle Valve	38.79
	NA500PPR	1/2" FNPT Angle Needle Valve	38.79

USCO 41

*Setting today's standards in performance, quality and reliability.*



#### Code Identification

(B) BARB  
Materials  
(PP) Polypropylene  
(N) Nylon  
Seals  
(B) Buna-N  
(E) Ethylene Propylene  
(F) Fluoroelastomer

PP 695 2 B 2 B E  
Seal  
End Connector  
Size  
End Connector  
Size  
Model  
Material



Item #	End Connector	End Connector	Approx. (C.V.)	Max Pressure
<b>Female Pipe x Female Pipe</b>				
5862F2F	1/8" F.N.P.T.	1/8" F.N.P.T.	.40	125
5864F4F	1/4" F.N.P.T.	1/4" F.N.P.T.	.40	125
<b>Male Pipe x Male Pipe</b>				
5862M2M	1/8" M.N.P.T.	1/8" M.N.P.T.	.40	125
5864M4M	1/4" M.N.P.T.	1/4" M.N.P.T.	.40	125
<b>Barb x Barb</b>				
5864B4B	1/4" BARB	1/4" BARB	.40	125
5866B6B	3/8" BARB	3/8" BARB	.40	125
5868B8B	1/2" BARB	1/2" BARB	.40	125
<b>Compression x Compression</b>				
5864CSM4CSM	1/4" CSM	1/4" CSM	.40	125
5866CSM6CSM	3/8" CSM	3/8" CSM	.40	125

Item #	Price
PVC586-4F4F-E	<b>\$8.93</b>
PVC586-4F4F-T	<b>9.64</b>
WFP586-4F4F-E	<b>10.10</b>
WFP586-4F4F-T	<b>10.82</b>
PVC586-4F4M-E	<b>8.92</b>
PVC586-4F4M-T	<b>9.64</b>
WFP586-4F4M-E	<b>10.10</b>
WFP586-4F4M-T	<b>10.82</b>
PVC586-4CSM4CSM-E	<b>11.02</b>
PVC586-6CSM6CSM-E	<b>11.23</b>

## 695 Series Miniature Check Valves

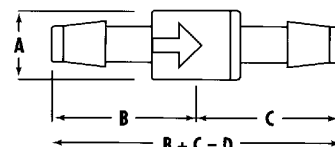
### Quick Spec

- The SMC Miniature check valve series is a general purpose check valve which operates in any position, horizontal or vertical.
- 695 Series offers a low-resistance, high flow check valve where space is limited.
- Nylon, for general use, poly for excellent chemical resistance, positive seal at pressure.
- Standard cracking pressure 1/2 psi.
- Guided stainless steel ball and spring.
- For Technical Assistance, custom springs, seals, and end combinations please call or fax our Customer Service Department.

Item #	End Connector Size	Price	Item #	End Connector Size	Price
<b>POLYPROPYLENE</b>			<b>NYLON</b>		
PP695-4B4B-B	1/4"	<b>\$1.86</b>	N695-4B4B-B	1/4"	<b>\$2.06</b>
PP695-4B4B-E	1/4"	<b>1.86</b>	N695-4B4B-E	1/4"	<b>2.06</b>
PP695-4B4B-F	1/4"	<b>1.96</b>	N695-4B4B-F	1/4"	<b>2.17</b>
PP695-3B3B-B	3/16"	<b>1.86</b>	N695-3B3B-B	3/16"	<b>2.06</b>
PP695-3B3B-E	3/16"	<b>1.86</b>	N695-3B3B-E	3/16"	<b>2.06</b>
PP695-3B3B-F	3/16"	<b>1.96</b>	N695-3B3B-F	3/16"	<b>2.17</b>
PP695-2B2B-B	1/8"	<b>1.86</b>	N695-2B2B-B	1/8"	<b>2.06</b>
PP695-2B2B-E	1/8"	<b>1.86</b>	N695-2B2B-E	1/8"	<b>2.06</b>
PP695-2B2B-F	1/8"	<b>1.96</b>	N695-2B2B-F	1/8"	<b>2.17</b>

This pricing does NOT include strainers shown in inset photo.

A	D	Opening Dia.
.500	1.40	.080
.500	1.72	.115
.500	2.00	.125
1/4	3/16	1/8
B=1.0	.85	.69
C=1.0	.85	.69



## 586 Series Plastic Needle Valves

### Quick Spec

From Only  
**\$8.93**

- MIX & MATCH end combination special orders
- Excellent chemical and corrosion resistance
- Maximum operating temperature 120°F
- For Technical Assistance, seals, and end combinations please call or fax our Customer Service Department

#### Code Identification

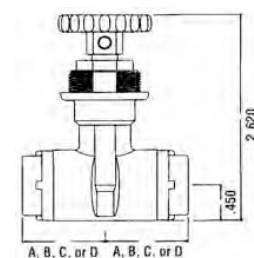
(M) M.N.P.T. Male  
(F) F.N.P.T. Female  
(B) BARB  
(CSM) Compression Specialty Mfg.

Materials  
(FP) Filled Polypropylene  
(PVC) PVC - Poly Vinyl Chloride  
Stem Seals, Seals  
(E) Ethylene Propylene  
(T) Teflon

PVC 586 4 F 4 F E  
Seal  
End Connector  
Size  
End Connector  
Size  
Model  
Material

To determine overall dimension for your valve design add together the dimensions from the chart below.

Dimensions		
A	Male End	1.34
B	Female End	1.01
C	BARB End	1.67
D (PVC only)	Comp. End	1.33



Automatic metering flow control valves designed to maintain a constant flow with changes in inlet pressure from 15 psi to 120 psi. No metals in contact with the liquid.

**IMPORTANT:** These flow controls are designed for liquids similar in viscosity to water. All applications should be tested for flow characteristics and chemical compatibility to insure desired results. Swelling of the diaphragms in certain liquids will result in loss of flow rate accuracy. An in-line strainer or filter should be installed before the flow control when suspended solids are present, and for all applications below 1.0 GPM.

**ACCURACY:** The rated output of Series "FC" flow controls will vary  $\pm 10\%$  with Buna-N assemblies;  $\pm 15\%$  with EPDM.

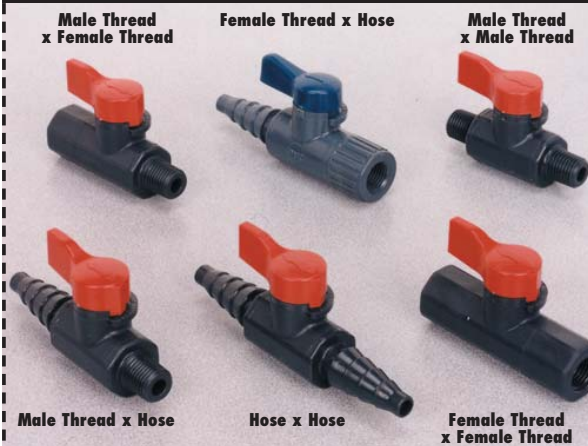
PipeFlow**		PVC, Buna-N Seals		EPDM Seals	
(NPT)	Rate (GPM)	Item #	Price	Item #	Price
1/4	1/4-2	FC025B1/4-2PV	\$77.66	FC025EP1/4-2PV	\$87.84
3/8	1/4-2	FC037B1/4-2PV	68.74	FC037EP1/4-2PV	82.11
1/2	1/4-2	FC050B1/4-2PV	68.74	FC050EP1/4-2PV	82.11
3/4	3-8	FC075B3-8PV	78.29	FC075EP3-8PV	93.58
3/4	9-16	FC075B9-16PV	250.14	FC075EP9-16PV	280.68
3/4	17-19	FC075B17-24PV	274.98	FC075EP17-19PV	317.00
3/4	20-24	FC075B17-24PV	274.98	FC075EP20-24PV	382.11
1	5-8	FC100B5-8PV	85.92	FC100EP5-8PV	98.74
1	9-13	FC100B9-16PV	250.14	FC100EP9-13PV	280.68
1	14-16	FC100B9-16PV	250.14	FC100EP14-16PV	280.68
1	17-19	FC100B17-24PV	274.98	FC100EP14-19PV	317.00
1	20-24	FC100B17-24PV	274.98	FC100EP20-24PV	382.11

\*\*Listed flow rates are ranges only. Other materials and sizes available, consult sales office.

Specify flow rate when ordering.

Up to 3" available!

## Labcock



### Quick Spec

- PVC body
- Rated at 120° F up to 150 PSI
- Water non-shock
- Corrosion resistant thermoplastic construction
- 1/4-turn operation
- Calibrated flow indicator
- Vacuum rating 29.9 Hg
- Choice of models makes all combinations of hose or thread connections possible
- Perfect for laboratory use. Also for process control monitoring or sampling
- Lever-type handle for ease of adjustment

Item #	Description	Price
1076002	1/4" FPT x FPT Labcock	\$11.49
1077002	1/4" MPT x MPT Labcock	11.49
1078002	1/4" MPT x Hose Labcock	11.49
1079002	1/4" Hose x Hose Labcock	11.49
1080002	1/4" MPT x FT Labcock	11.49
1082002	1/4" FPT x Hose Labcock	11.49

USCO Price Only  
\$11.49



## Flow Control Valve



This versatile, quarter-turn shut off valve is ideally suited for a variety of laboratory, system monitoring and OEM applications. Available in IPS sizes 1/4" and 3/8" with choice of socket or thread end connectors. Optional 1/4" valve & adapter kit provides multiple combinations of tubing and male pipe thread connections.



## Laboratory and Specialty Valve

### Quick Spec

- Multi-functional 1/4" lab valve with adapter kit
- Chemical and corrosion resistant PVC or CPVC construction
- EPDM O-ring seals
- High-impact polypropylene handle
- Teflon® ball seats
- Full 150 psi pressure rating
- Suitable for vacuum service
- Individual 1/4" and 3/8" specialty valves

Item	Size	O-ring Material	Item #	Price
PVC Lab Valve	Threaded	3/8" EPDM	1521003	\$15.12
PVC Lab Valve	Socket	3/8" EPDM	1522003	15.12
CPVC Lab Valve	Threaded	3/8" EPDM	1521003C	18.14
CPVC Lab Valve	Socket	3/8" EPDM	1522003C	18.14
PVC Lab Valve with Adapter Kit	1/4"	EPDM	1529002	13.47
CPVC Lab Valve with Adapter Kit	1/4"	EPDM	1529002C	16.17

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 43

Valves



## Degassing Valve for Continuous Automatic Venting

### All Plastic Design



- Series DGV is designed for systems that continuously generate trace amounts of gasses. For system start-up requiring rapid expulsion of larger volume of air or gasses, see Series ARV.

### FEATURES

- Reduces replacement costs – no internal or external metal components; ideal for aggressive environments.
- Placed at the high point of a piping system, this innovative valve will vent gas as it occurs. A unique float/actuating lever allows the vent orifice to open when gas is present. After gas vents, liquid forces the vent to close. Whenever gas accumulates, the valve will re-open until the gas is vented.
- All-plastic construction designed for sodium hypochlorite, ozone systems, or any liquids prone to outgassing.

### Quick Spec

Body Materials Available:	PVC or CPVC
Elastomers:	FKM (Viton) or EPDM
Additional Wetted Material:	Natural Polypropylene
Maximum Operating Pressure:	100 psi
Minimum Specific Gravity:	0.9
Dimensions:	4 1/4" high x 2 1/4" diameter
System Connection:	Valve must be oriented vertically as illustrated above.

Specifications and Dimensions subject to change.

Material	Pipe Size	EPDM		Viton®	
		Item #	Price	Item #	Price
PVC	1/2"	DGV050EP-PV	\$300.00	DGV050V-PV	\$300.00
CPVC	1/2"	DGV050EP-CP	354.74	DGV050V-CP	354.74
Natural Polypro	1/2"	DGV050EP-PP	396.84	DGV050V-PP	396.84
PVDF	1/2"	DGV050EP-PF	705.26	DGV050V-PF	705.26

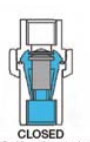
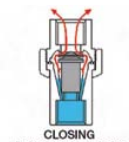
## Series "ARV" Thermoplastic Air Release Valve



Series ARV is a normally-open valve. Until your system is pressurized, the valve is simply open, and air is present. As pressure builds within the system, unwanted air is forced to the highest point in the system, i.e., the normally-open air release valve. When pressure within the system exceeds atmospheric pressure, air is expelled. As liquid rises, the poppet becomes buoyant and eventually closes. (Note, minimum specific gravity of liquid must be .9 or higher). It is possible that trace amounts of

air will remain in the system, depending on the rapidity with which the valve closes. It is also likely that some trace amounts of process liquid will be emitted. At system pressure of 10 PSI (with EPDM elastomer), the poppet will seal bubble-tight against the orifice. When pressure and liquid level drop, the valve will automatically re-open."

- Safety:** Allows safe expulsion of unwanted air in piping system.
- Minimum Closing Pressure:** Closes at 0 PSI, as long as liquid is present. Valve closes as liquid rises, after virtually all unwanted air is forced out. Seals bubble-tight at system pressures as low as 10 psi (EPDM seals).
- Superior Design:** Poppet seals more reliable than ball design; does not deform under pressure like a hollow ball.



\*Ask for proper installation instructions.



## SMC Polypropylene Check Valves

From Only \$5.11

Item #	Seal Material	End Conn.	A	B	C	Maximum Pressure	Opening Diameter	Approx. CV	Water GPM @ 10 PSI	Price
PP6944F4FB	BUNA	1/4" F.N.P.T.	.938	2.02	1.44	125	.438	6	17	\$5.11
PP6944F4FE	EPDM	1/4" F.N.P.T.	.938	2.02	1.44	125	.438	6	17	5.11
PP6944F4FF	VITON	1/4" F.N.P.T.	.938	2.02	1.44	125	.438	6	17	5.88
PP6936F6FB	BUNA	3/8" F.N.P.T.	.938	2.02	1.44	125	.562	8	25	5.49
PP6936F6FE	EPDM	3/8" F.N.P.T.	.938	2.02	1.44	125	.562	8	25	5.49
PP6936F6FF	VITON	3/8" F.N.P.T.	.938	2.02	1.44	125	.562	8	25	6.33
PP6858F8FB	BUNA	1/2" F.N.P.T.	1.125	2.50	1.75	125	.625	10	34	5.88
PP6858F8FE	EPDM	1/2" F.N.P.T.	1.125	2.50	1.75	125	.625	10	34	5.88
PP6858F8FF	VITON	1/2" F.N.P.T.	1.125	2.50	1.75	125	.625	10	34	6.20
PP68712F12FB	BUNA	3/4" F.N.P.T.	1.125	2.75	1.75	125	.812	17	56	6.69
PP68712F12FE	EPDM	3/4" F.N.P.T.	1.125	2.75	1.75	125	.812	17	56	6.69
PP68712F12FF	VITON	3/4" F.N.P.T.	1.125	2.75	1.75	125	.812	17	56	7.03

Black polypropylene is standard. Please specify white polypropylene if needed.

## Self-Guided Poppet Assures Dependable, Repetitive Operation

### PLAST-O-MATIC

	Item #	Pipe NPT	Seals	A		B		C		Price
				in.	mm	in.	mm	in.	mm	
PVC	ARV050VT-PV	1/2"	Viton	5.3	130	1.9	48	2.8	72	\$133.00
	ARV050EPT-PV	1/2"	EPDM	5.3	130	1.9	48	2.8	72	129.89
	ARV075VT-PV	3/4"	Viton	5.3	130	1.9	48	2.8	72	133.00
	ARV075EPT-PV	3/4"	EPDM	5.3	130	1.9	48	2.8	72	129.89
	ARV100VT-PV	1"	Viton	4.7	120	1.9	48	2.8	72	133.00
CPVC	ARV100EPT-PV	1"	EPDM	4.7	120	1.9	48	2.8	72	129.89
	ARV050VT-CP	1/2"	Viton	5.3	130	1.9	48	2.8	72	146.32
	ARV050EPT-CP	1/2"	EPDM	5.3	130	1.9	48	2.8	72	143.32
	ARV075VT-CP	3/4"	Viton	5.3	130	1.9	48	2.8	72	146.32
	ARV075EPT-CP	3/4"	EPDM	5.3	130	1.9	48	2.8	72	143.32
	ARV100VT-CP	1"	Viton	4.7	120	1.9	48	2.8	72	146.32
	ARV100EPT-CP	1"	EPDM	4.7	120	1.9	48	2.8	72	143.32

Available in Geon® PVC and Corzan® CPVC

ARV (series) 050 (size) EP (material) T (threaded) - PV (body material).

Part numbers shown are EPDM seals with PVC bodies.

Note: All three sizes are based on the 1" valve; the 1/2" and 3/4" sizes use reducing bushings.

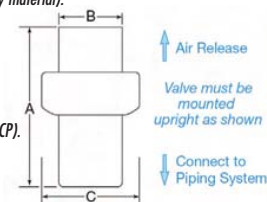
– For Viton seals, change "EP" to "V" (ARV050VT-PV).

– For Buna-N seals, change "V" to "B" (ARV050BT-PV).

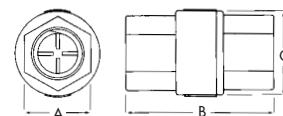
– For Corzan CPVC body, change "PV" to "CP" (ARV050VT-CP).

– Standard connections are threaded. For socket connection, change "T" to "S" after seal material (ARV050EPT-PV).

– For spigot or other connection types, consult factory.



### Dimensions



### Quick Spec

- The 685/687 series polypropylene check valve operates in any position, horizontal or vertical.
- Standard cracking pressure less than 1psi with a maximum operating pressure of 125psi and a maximum operating temperature of 140°F.
- Buna-N seals standard, ethylene propylene or fluoroelastomer seals available.
- Easily disassembled for repair or replacement of seals.
- Stainless steel spring, with guided propylene poppet. Hastelloy springs available.

## True Union 2000 Industrial Ball Check Valve

### Quick Spec

- Pressure rating @ 73°F water: 1/2" - 2" 235 psi
- Maximum service temperature: PVC = 140°F, CPVC = 200°F (Pressure deratings apply)
- Rated for vacuum service
- All valves assembled with silicone-free, water soluble lubricant

*Sizes 1/2 - 2 Now Includes Both Socket & Threaded End Connectors with Each Valve*



	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
<b>PVC Industrial</b>												
EPDM Seals	4529005	\$19.40	4529007	\$23.14	4529010	\$27.52	4529012	\$40.19	4529015	\$46.16	4529020	\$63.01
Viton® Seals	4539005	21.87	4539007	24.42	4539010	30.67	4539012	45.09	4539015	51.22	4539020	70.06
<b>CPVC Industrial</b>												
EPDM Seals	4529005C	28.67	4529007C	34.33	4529010C	40.51	4529012C	69.76	4529015C	69.76	4529020C	93.18
Viton® Seals	4539005C	31.93	4539007C	38.15	4539010C	45.00	4539012C	77.44	4539015C	77.44	4539020C	103.82

## Y-Check Valve Type 304

- Excellent flow characteristics
- Mount horizontally or vertically
- Minimum pressure loss
- Efficient at low working pressures

GEORGE FISCHER +GF+

1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		3"	
Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
<b>PVC Body EPDM Seal Material</b>													
192304006	\$27.46	192304007	\$32.66	192304008	\$38.67	192304009	\$49.72	192304010	\$68.52	192304011	\$99.76	192304013	\$224.24
<b>Viton Seal Material</b>													
192304031	33.11	192304032	40.17	192304033	46.88	192304034	62.16	192304035	98.00	192304036	137.73	192304038	260.44



### Quick Spec

- True Union design eliminates the need for flanges and permits installation and repair without expanding the pipeline
- May be used either vertically or horizontally
- Uniseal/Seal of EPDM or Viton
- Minimum shut off is 5 psi
- All sizes rated for full vacuum service



## True Union Ball Check Valve



### OPTIONS

- Spring loaded ball to assist ball in seating faster
- Foot Valve – The Asahi Ball Check Valve may be ordered with high impact, rigid PVC screen assembly which will screen out foreign matter
- PVC, CPVC, Polypropylene, PVDF bodies
- PVC & CPVC 1/2"-2" include both Socket & Threaded end connectors
- Flanged ends available
- 3" and 4" NOW available

### Quick Spec

- True union design eliminates the need for flanges and permits installation or repair without expanding the pipeline
- May be used either vertically or horizontally
- Uniseal/Seal of EPDM, Viton available
- Excellent flow characteristics
- Minimum shut-off is 5 psi
- All sizes rated for vacuum service

## True Union Ball Foot Valve

### OPTIONS

- Teflon® coated Uniseal/Seal
- Spring-loaded ball to assist ball in seating faster



## PVC Ball Foot Valve with EPDM O-Ring

	1/2"		3/4"		1"		1 1/2"		2"		3"		4"	
	Item#	Price	Item#	Price	Item#	Price	Item#	Price	Item#	Price	Item#	Price	Item#	Price
Threaded	1236005	\$48.95	1236007	\$55.26	1236010	\$71.84	1236015	\$138.16	1236020	\$160.26	1236030	\$382.11	1236040	\$670.26
Socket	1235005	48.95	1235007	55.26	1235010	71.84	1235015	138.16	1235020	160.26	1235030	382.11	1235040	670.26
Flanged	1237005	67.89	1237007	82.89	1237010	107.37	1237015	213.16	1237020	263.68	1237030	547.11	1237040	910.26

NOTE: PVC True Union Ball Foot Valve with Viton O-ring available, consult sales office.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 45

Valves

## Prevent reverse flow of extremely corrosive and ultra-pure liquids!

### PVC In-Line Adjustable Spring Check Valves



#### Quick Spec

- Pressure rating: 200 psi @ 73°F.
- Maximum service temperature: PVC = 140°F.
- Temperature/pressure de-ratings apply.
- 2 - 14 lbs. adjustable spring tension (5 to 32 feet of head).
- Factory preset to approximately 5 psi (12 feet of head).
- Each full turn of adjustment nut = 1 psi (2.3 feet of head).
- Stainless Steel adjustment hardware, EPDM seat.

Not for use with compressed air or gas.

Size	Item #	Description	Price
1/2"	S1102-05	Standard Unit - Female Inlet x Male Outlet (Fipt x Mipt)	\$5.96
3/4"	S1102-07	Standard Unit - Female Inlet x Male Outlet (Fipt x Mipt)	6.09
1"	S1102-10	Standard Unit - Female Inlet x Male Outlet (Fipt x Mipt)	10.12
1/2" x 3/4"	S1102-05-07	Standard Unit - Female Inlet x Male Outlet (Fipt x Mipt)	6.42
1/2"	S1101-05	Male Inlet x Female Outlet (Mipt x Fipt)	5.96
3/4"	S1100-05	Female Inlet x Female Outlet (Fipt x Fipt)	6.29



### Check Valve

Normally closed leak-proof check valves to prevent reverse flow of extremely corrosive and ultra-pure liquids. Will check in any position. The series "CKM" check valves utilize a normally closed design which is entirely automatic in action.

Starting At  
\$50.75

PLAST-O-MATIC

Pipe Size (NPT)	PVC Item #	PVC Price	Polypropylene Item #	Polypropylene Price	PVDF Item #	PVDF Price
1/2"	PMCKM050BPV	\$50.75	PMCKM050BPP	\$70.62		
1/2"	PMCKM050EPV	50.75	PMCKM050EPP	70.62	PMCKM050EP-PF	\$96.52
1/2"	PMCKM050VPV	53.69	PMCKM050VPP	72.28	PMCKM050V-PF	98.11
3/4"	PMCKM075BPV	63.33	PMCKM075BPP	79.60		
3/4"	PMCKM075EPV	63.33	PMCKM075EPP	79.60	PMCKM075EP-PF	161.05
3/4"	PMCKM075VPV	65.93	PMCKM075VPP	82.12	PMCKM075V-PF	163.46
1"	PMCKM100BPV	74.59	PMCKM100BPP	89.31		
1"	PMCKM100EPV	74.59	PMCKM100EPP	89.31	PMCKM100EP-PF	206.41
1"	PMCKM100VPV	77.21	PMCKM100VPP	91.82	PMCKM100V-PF	208.63

B = Buna E = EPDM V = Viton

### Series CKS Self Closing Check Valves in Sizes 1 1/2", 2" and 3"

Provides superior performance!

PLAST-O-MATIC

As Low As  
\$149.08



#### Quick Spec

- Normally closed design, self-sealing, not dependent upon gravity, mounting position or reverse flow.
- Teflon® PFA encapsulated stainless steel spring provides bubble-tight seal mounted in any position.
- Rapid closure by spring-loaded poppet helps to eliminate sudden back-flow water hammer.
- Positive repetitive sealing: poppet automatically positions itself against seat in the identical location each time for long cycle life dependability.
- Minimal Cracking Pressure: Valve begins to open at approximately 1.0 to 1.5 PSI.

Pipe Size (NPT)	PVC Item #	PVC Price	Polypro Item #	Polypro Price	PVDF Item #	PVDF Price
1 1/2"	PMCKS150VNCVP	\$154.02	PMCKS150VNCPP	\$202.07	PMCKS150VNCVP	CALL
1 1/2"	PMCKS150EPNCVP	149.08	PMCKS150EPNCPP	197.14	PMCKS150EPNCVP	CALL
1 1/2"	PMCKS150BNCVP	149.08	PMCKS150BNCPP	197.14	PMCKS150BNCVP	CALL
2"	PMCKS200VNCVP	203.31	PMCKS200VNCPP	240.26	PMCKS200VNCVP	CALL
2"	PMCKS200EPNCVP	198.36	PMCKS200EPNCPP	235.35	PMCKS200EPNCVP	CALL
2"	PMCKS200BNCVP	198.36	PMCKS200BNCPP	235.35	PMCKS200BNCVP	CALL
3"	PMCKS300VNCVP	400.75	PMCKS300VNCPP	CALL	PMCKS300VNCVP	CALL
3"	PMCKS300EPNCVP	364.85	PMCKS300EPNCPP	CALL	PMCKS300EPNCVP	CALL
3"	PMCKS300BNCVP	364.85	PMCKS300BNCPP	CALL	PMCKS300BNCVP	CALL

Socket standard, for threaded end connectors specify "T" in part number (ex. CKS150VTNCPV).

B = Buna, E = EPDM, V = Viton

### Horizontal Swing Check Valve



As Low As  
\$239.00



#### OPTIONS

- Teflon and Viton seats and seals
- External lever and weight to assist disc in closing faster

#### Quick Spec

- May be installed in horizontal or in vertical lines
- Top entry valve facilitates cleaning without removing from line
- All sizes rated for vacuum service

#### Minimum Back Pressure Required to Close Valve (psi)

Seat	3/4"	1"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
EPDM	2.8	5.0	5.0	5.0	5.0	5.7	5.7	6.4	6.4
Teflon	5.0	8.5	8.5	8.5	8.5	8.5	9.2	10.0	10.0

Size	PVC Item #	PVC Price	PP Item #	PP Price	PVDF Item #	PVDF Price
3/4"	1201007	\$239.00	1202007	\$289.00	1203007	\$538.00
1"	1201010	275.00	1202010	329.00	1203010	853.00
1 1/2"	1201015	344.00	1202015	414.00	1203015	1,228.89
2"	1201020	424.00	1202020	511.00	1203020	1,666.00
2 1/2"	1201025	594.00	1202025	718.00	1203025	2,208.95
3"	1201030	677.00	1202030	809.00	1203030	2,408.00
4"	1201040	964.00	1202040	1,158.00	1203040	3,725.00

This valve is available in sizes up to 8", consult sales office.



## Utility Swing & Utility Spring Check Valves

### Quick Spec

- Pressure rating @ 73°F, water:  
Full flow (open) 150 psi  
Back pressure (closed) 75 psi
- Maximum service temperature: 140°F
- Temperature/pressure de-ratings apply
- EPDM seat

Not for use with compressed air or gas.



White PVC

**NEW**



**Clear Available!**

## True Union Utility Swing & Utility Spring Check Valves

General Installation information: These valves are designed for horizontal installations, but may be installed in up-flow only vertical position. Valves MUST be installed with the FLOW arrow pointing in the direction of the flow. Do not install valve upside down. Flow velocity should not exceed 5 ft./sec. Minimum opening pressure less than 0.5 psi.

**NEW**

White PVC



**Clear Available!**

### Utility Swing Check Valve

Size	Socket	Thread	Price
1/2"	S1520-05	S1520-05F	\$9.07
3/4"	S1520-07	S1520-07F	9.37
1"	S1520-10	S1520-10F	9.75
1 1/4"	S1520-12	S1520-12F	10.14
1 1/2"	S1520-15	S1520-15F	10.73
2"	S1520-20	S1520-20F	16.67
2 1/2"	S1520-25	S1520-25F	27.73
3"	S1520-30	S1520-30F	30.81
4"	S1520-40	S1520-40F	43.64

### Spring Assisted Swing Check Utility Spring Check Valve

Size	Socket	Thread	Price
1/2"	S1580-05	S1580-05F	\$17.86
3/4"	S1580-07	S1580-07F	20.22
1"	S1580-10	S1580-10F	21.06
1 1/4"	S1580-12	S1580-12F	21.94
1 1/2"	S1580-15	S1580-15F	23.35
2"	S1580-20	S1580-20F	24.47
2 1/2"	S1580-25	S1580-25F	43.43
3"	S1580-30	S1580-30F	45.29
4"	S1580-40	S1580-40F	64.29

Stainless Steel spring assisted (non-adjustable)

### Spring Assisted Swing Check True Union Utility Spring Check Valve

Size	Socket	Thread	Price
1/2"	S1780-05	S1780-05F	\$23.76
3/4"	S1780-07	S1780-07F	26.95
1"	S1780-10	S1780-10F	28.08
1 1/4"	S1780-12	S1780-12F	29.25
1 1/2"	S1780-15	S1780-15F	31.17
2"	S1780-20	S1780-20F	32.44
2 1/2"	S1780-25	S1780-25F	57.92
3"	S1780-30	S1780-30F	60.41
4"	S1780-40	S1780-40F	85.73

Stainless Steel spring assisted (non-adjustable)

## Globe Valve



*Great for applications requiring frequent throttling of flow.*



Starting At  
**\$24.66**

### Quick Spec

- Used for efficient, frequent throttling of flow with a minimum of erosion to the seat
- All sizes rated for vacuum service
- Positive shutoff
- Stainless steel reinforcing ring on body of polypropylene valve to maintain pressure rating at higher temperature
- EPDM, Viton seals.

	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"	
PVC	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
Threaded	1261005	\$24.66	1261007	\$26.14	1261010	\$43.11	1261012	\$52.92	1261015	\$107.93	1261020	\$163.63
Socket	1260005	24.66	1260007	26.14	1260010	43.11	1260012	52.92	1260015	107.93	1260020	163.63
Flanged	1262005	37.09	1262007	41.73	1262010	66.09	1262012	90.45	1262015	156.85	1262020	221.95

## Gate Valves

*Non-rising stem makes this a perfect choice when clearance is an issue!*

This solid, proven design is well suited for agricultural, industrial and chemical processing applications. Spears Gate Valves are feature-packed with a variety of end connector options.

1/2" - 2" PVC Heavy Duty Gate Valves

### Quick Spec

- O-ring stem seal which eliminates the need to retighten the stem nut.
- Specially designed sealing surface and tapered wedge promote positive sealing and smooth operation with minimal tightening
- Special strain-equalizing thread is used to couple the stem and wedge. Reduces the chances of stripping wedge threads in the event of accidental over-tightening

### OPTIONS

- Also available in 20mm through 63mm metric sockets or 1/2" through 2" BSP threads
- PVC valves offer standard Buna-N O-rings with optional EPDM or Viton®
- 200 psi Maximum Internal Pressure Rating @ 73°F

From Only  
**\$12.64**



O-ring Material	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	
Item #	Price	Item #	Price	Item#	Price	Item#	Price
PVC Threaded							
Buna-N	2011005 \$12.64	2011007 \$15.47	2011010 \$18.34	2011012 \$25.35	2011015 \$32.35	2011020 \$41.54	
EPDM	2021005 13.88	2021007 17.03	2021010 20.19	2021012 27.89	2021015 35.94	2021020 45.72	
Viton®	2031005 15.27	2031007 17.93	2031010 22.22	2031012 30.67	2031015 39.12	2031020 50.26	
PVC Socket							
Buna-N	2012005 12.64	2012007 15.47	2012010 18.34	2012012 25.35	2012015 32.35	2012020 41.54	
EPDM	2022005 13.88	2022007 17.03	2022010 20.19	2022012 27.89	2022015 35.94	2022020 45.72	
Viton®	2032005 15.27	2032007 17.93	2032010 22.22	2032012 30.67	2032015 39.12	2032020 50.26	

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 47

## Solenoid Valve Series "EASYMT"& "EASMT" with "Teflon Bellows"



### Quick Spec

- Patented Fail-Dry® design provides advance visual warning of any seal failure and avoids costly shutdowns. All valves individually inspected and 100% tested to insure dependable operation
- Valve handles acids, caustics, solvents, chlorine solutions and ultra pure liquids
- Service: pressure or vacuum
- Dependable Teflon Bellows flexes to provide barrier type dynamic seal and eliminate leaks to atmosphere. Extremely long cycle life – over 2 million cycles
- Normally closed, energize to open
- Optional - Indicator light for W20 coils available

### PLAST--MATIC

Unique "All Purpose"  
2-Way Solenoid Valve

Starting At  
**\$298<sup>61</sup>**

### Specifications and Model Numbers: Series EASYMT & EASMT (molded) and EASYT & EAST (machined)

Pipe Size	Orifice Size		Watts	Cv	AC COILS				Cv	DC COILS				Viton® Seals Model Number	Viton® Seals Model Number
	in.	mm			Max. Inlet Pressure PSI	Max. Inlet Pressure BARS	Max. Back Pressure PSI	Max. Back Pressure BARS		Max. Inlet Pressure PSI	Max. Inlet Pressure BARS	Max. Back Pressure PSI	Max. Back Pressure BARS		
1/4	.375	9,5	20	1.1	140	9,5	38	2,6	1.1	70	4,8	19	1,3	EASYMT2V12W20	EASYT2V12W20
1/2	.375	9,5	20	1.1	140	9,5	38	2,6	1.1	70	4,8	19	1,3	EASYMT4V12W20	EASYT4V12W20
1/2	.375	9,5	20	2.1	125	8,5	18	1,2	1.6	60	4,1	18	1,2	EASMT4V12W20	EAST4V12W20
3/4	.470	12,7	20	3.1	58	3,9	17	1,1	2.2	25	1,7	17	1,1	EASMT5V16W20	EAST5V16W20
1	.656	16,7	20	4.6	15	1,0	12	0,8	4.0	8	0,5	8	0,8	EASMT6V22W20	EAST6V22W20
1*	.452	11,5	20	3.6	25	1,7	12	0,8	2.9	13	0,9	12	0,8	EASMT6V14W20	EAST6V14W20
1/2	.375	9,5	58	2.3	140	9,5	38	2,6	NA	NA	NA	NA	NA	EASMT4V12G58	EAST4V12G58
3/4	.470	12,7	58	3.4	120	8,2	34	2,3	NA	NA	NA	NA	NA	EASMT5V16G58	EAST5V16G58
1	.656	16,7	58	4.7	70	4,8	34	2,3	NA	NA	NA	NA	NA	EASMT6V22G58	EAST6V22G58

\* This is an optional version of the 1" valve where the design has been modified to allow higher inlet pressure at the sacrifice of lower Cv.

### Series EASYMT & EASMT Teflon Bellows Molded Direct Acting Solenoid Valves

Pipe Size	Orifice Size	PVC Item #	Price	CPVC Item #	Price	GPP* Item #	Price	PVDF Item #	Price
Series EASYMT Teflon Bellows with 20 Watt Coil – Continuous Duty									
1/4	3/8	EASYMT2V12W20PV	\$298.61	EASYMT2V12W20CP	\$313.36	EASYMT2V12W20PP	\$313.36	EASYMT2V12W20PF	\$355.76
		EASYMT2V12E20PV	406.07	EASYMT2V12E20CP	420.81	EASYMT2V12E20PP	420.81	EASYMT2V12E20PF	463.65
1/2	3/8	EASYMT4V12W20PV	304.98	EASYMT4V12W20CP	322.78	EASYMT4V12W20PP	322.78	EASYMT4V12W20PF	362.12
		EASYMT4V12E20PV	412.40	EASYMT4V12E20CP	427.15	EASYMT4V12E20PP	427.15	EASYMT4V12E20PF	469.54
Series EASMT Teflon Bellows with 20 Watt Coil – Continuous Duty									
1/2	3/8	EASMT4V12W20PV	335.16	EASMT4V12W20CP	349.89	EASMT4V12W20PP	349.89	EASMT4V12W20PF	392.29
		EASMT4V12E20PV	442.60	EASMT4V12E20CP	457.34	EASMT4V12E20PP	457.34	EASMT4V12E20PF	499.80
3/4	1/2	EASMT5V16W20PV	358.99	EASMT5V16W20CP	375.02	EASMT5V16W20PP	375.02	EASMT5V16W20PF	421.27
		EASMT5V16E20PV	466.43	EASMT5V16E20CP	482.77	EASMT5V16E20PP	482.77	EASMT5V16E20PF	528.73
1**	1 1/16	EASMT6V22W20PV	392.29	EASMT6V22W20CP	410.69	EASMT6V22W20PP	410.69	EASMT6V22W20PF	460.86
		EASMT6V22E20PV	499.80	EASMT6V22E20CP	518.12	EASMT6V22E20PP	518.12	EASMT6V22E20PF	568.31
Series EASMT Teflon Bellows with 58 Watt Coil – Intermittent Duty Only: Max. 15 min. on followed by 15 min. off to cool									
1/2	3/8	EASMT4V12G58PV	589.33	EASMT4V12G58CP	604.05	EASMT4V12G58PP	604.05	EASMT4V12G58PF	646.46
		EASMT4V12E58PV	762.51	EASMT4V12E58CP	777.23	EASMT4V12E58PP	777.23	EASMT4V12E58PF	819.71
3/4	1/2	EASMT5V16G58PV	613.11	EASMT5V16G58CP	629.52	EASMT5V16G58PP	629.52	EASMT5V16G58PF	675.45
		EASMT5V16E58PV	785.33	EASMT5V16E58CP	802.67	EASMT5V16E58PP	802.67	EASMT5V16E58PF	849.05
1	1 1/16	EASMT6V22G58PV	646.46	EASMT6V22G58CP	664.85	EASMT6V22G58PP	664.85	EASMT6V22G58PF	715.04
		EASMT6V22E58PV	819.71	EASMT6V22E58CP	838.03	EASMT6V22E58PP	838.03	EASMT6V22E58PF	888.22

#### NOTES:

1) Model numbers listed are for Viton seals. For EPDM seals change "V" to "EP". Price is the same. Example: For "EP" seals change EASYMT1V12W20PV to EASYMT1EP12W20PV.

2) Model numbers are shown with "W20" water and dust tight (NEMA-4) and (E20) explosion-proof (NEMA-7) 20 watt coils or "G58" general purpose (NEMA-1) or "E58" watt coils.

\*GPP – Glass-Filled Polypropylene

\*\*There is also an optional version of this 1" valve where the design has been modified to allow higher inlet pressure (from 15 to 25 PSI) at the sacrifice of lower Cv; the price is the same. To order, change "22" to "14" in the item number shown. Example: EASMT6V22W20PV changes to EASMT6V14W20PV.

## Pilot Operated Thermoplastic Solenoid Valve... Inlet Rating 140 PSI, Back Pressure Rating To 70 PSI.

### Quick Spec

- Normally closed, in-line design with bubble-tight shut-off.
- High pressures: Particularly for applications where high back-pressures (up to 70 PSI) are required e.g. controlling flow to spray nozzles, high pressure chemical injections, etc. Inlet pressure to 140 PSI.
- High flow rates - Cv's from 5.2 on the 1/2" size to 80 on the 3" size.
- Unique design: Teflon® Bellows barrier type dynamic seal prevents leaking of fugitive emissions to the atmosphere.
- Safety/Dependability: Patented Fail-Dry® safety design feature provides advance visual warning if seal malfunctions,
- while permitting valves to continue operating until maintenance can be scheduled.
- Cycle life in excess of 1,000,000 cycles.
- Versatility: Can be used with all type solutions including acids, caustics, solvents and chlorine solutions.
- Rugged thermoplastic construction is resistant to both internal & atmospheric corrosion. No metal parts in wetted areas.
- Positive valve closure in the event of electrical failure.
- Energy-efficient 11 watt coil.
- Molded coil and standard DIN connector; designed to meet NEMA 4X.
- Sizes: 1/2", 3/4", 1", 1 1/2", 2" & 3".



*For process liquid applications requiring high flow capacity and high pressure capability!*

**PLAST-O-MATIC**

### Materials of Construction:

Series PS Pilot Operated Solenoid Valves are available in PVC and CPVC (Corzan™), Polypropylene and PVDF (Kynar®). Consult Sales Office.

Valve Size (NPT)	Valve Seals	Item #	Cv	Price
1/2"	Viton®	PS050VW11PV	5.2	<b>\$383.19</b>
1/2"	EPDM	PS050EPW11PV	5.2	<b>368.40</b>
3/4"	Viton®	PS075VW11PV	7.6	<b>400.54</b>
3/4"	EPDM	PS075EPW11PV	7.6	<b>385.66</b>
1"	Viton®	PS100VW11PV	9.5	<b>417.69</b>
1"	EPDM	PS100EPW11PV	9.5	<b>402.91</b>
1 1/2"	Viton®	PS150VW11PV	28	<b>610.04</b>
1 1/2"	EPDM	PS150EPW11PV	28	<b>595.14</b>
2"	Viton®	PS200VW11PV	35	<b>683.83</b>
2"	EPDM	PS200EPW11PV	35	<b>669.05</b>
3"	Viton®	PS300VW11PV	80	<b>1,595.61</b>
3"	EPDM	PS300EPW11PV	80	<b>1,570.98</b>

Pressure	PSI	(Bars)
Maximum Inlet @ 75°F (24°C)	140	(9.7)
Maximum Inlet @ 140°F (60°C) *	40	(2.8)
Minimum Inlet	5	(0.4)
Maximum Outlet @ 75°F (24°C)	70	(4.8)
Minimum Differential	5	(0.4)

\*This rating is for PVC. For other materials Consult Sales Office.

## Series "EAST" True Blue™ Teflon® Bellows Solenoid Valve

### Quick Spec

- Compact Size: Only 4 1/8" high, these valves are ideal for limited space installations.
- Unique Design: Teflon Bellows barrier type dynamic seal prevents leaking of fugitive emissions to the atmosphere.
- Versatility: Can be used with all type solutions. Includes acids, caustics, solvents, chlorine solutions and ultra-pure liquids. For pressure, drain or vacuum service.
- Energy Efficient: Molded 11 watt NEMA 4X style coil with DIN standard connector results in low energy consumption.
- Corrosion Resistant: wetted areas.
- Superior Performance: 2,000,000 cycle design.
- Safety/Dependability: Patented Fail-Dry® safety design feature provides advance visual warning if seal malfunctions.
- Coil Connector Light: Can be ordered with this optional feature, which lights up brightly to show when the solenoid is energized.
- Materials of Construction: Bodies: Teflon Bellows solenoid valve bodies are available in PVC, Polypropylene, and PVDF (Kynar®) Seals: Standard seal material for all Bellows solenoid valves is a special treated Viton®.

**PLAST-O-MATIC**



*For applications requiring a compact, cost effective and high-pressure rated valve with extended cycle life.*

**Notes:** Model numbers listed are for Viton seals. For EPDM seals change "V" to "EP". Price is the same.

**IMPORTANT:** When ordering all solenoid valves, voltage must be specified. Prices listed are for 120/60 AC voltage.

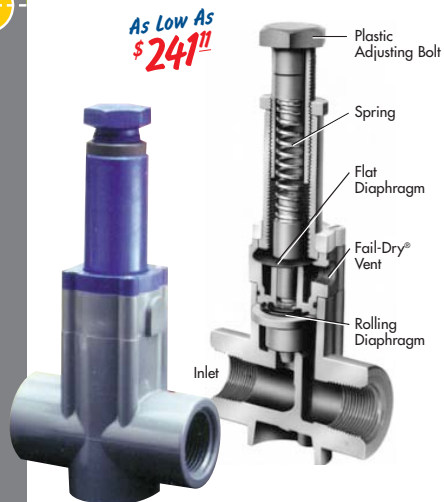
Pipe Size	Orifice Size	Watts	CV	Max. Pressure		Inlet		Outlet		PVC		POLYPROPYLENE		PVDF	
				PSI	Bars	PSI	Bars	PSI	Bars	Model No.	Price	Model No.	Price	Model No.	Price
1/4	3/16	11	0.5	140	9.5	90	6.1	EAST2V6W11-PV	<b>\$183.41</b>	EAST2V6W11-PP	<b>\$226.88</b>	EAST2V6W11-PF	<b>\$336.93</b>		
1/2	3/16	11	0.5	140	9.5	90	6.1	EAST4V6W11-PV	<b>183.41</b>	EAST4V6W11-PP	<b>226.88</b>	EAST4V6W11-PF	<b>336.93</b>		
3/4	1/4	11	0.8	70	4.8	60	4.1	EAST2V8W11-PV	<b>183.41</b>	EAST2V8W11-PP	<b>226.88</b>	EAST2V8W11-PF	<b>336.93</b>		
1/2	1/4	11	0.8	70	4.8	60	4.1	EAST4V8W11-PV	<b>183.41</b>	EAST4V8W11-PP	<b>226.88</b>	EAST4V8W11-PF	<b>336.93</b>		

**Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726**

**USCO 49**



## Series RVDM Pressure Relief Valve



As Low As  
**\$241<sup>11</sup>**

### PLAST-O-MATIC

SERIES RVDM in-line pressure relief valves feature a primary rolling diaphragm and a secondary flat diaphragm which incorporates the Plast-O-Matic patented Fail-Dry® design for added protection. If the rolling diaphragm should fail, liquid will weep through the vent port which is located between the two diaphragms. Leakage indicates maintenance is required and can be conveniently scheduled eliminating an emergency shutdown. The second diaphragm protects the control spring from the liquid. Additionally, the rolling diaphragm eliminates crystallization problems.

### Series RVDM Flow Reference Chart

Pipe Size	Set Pressure Range PSI	Overpressure To Reach Indicated Flow Rate	
		2 GPM	4 GPM
1/2	5-35	9 PSI	13 PSI
	36-70	16	18
	71-120	16	18
3/4	5-25	5 GPM	8 GPM
	26-40	10 PSI	13 PSI
	41-100	15	13
1	5-35	9 GPM	15 GPM
	36-85	12 PSI	16 PSI
	86-100	12	19
		14	21

NOTE: The flow rate in the right hand column is the maximum recommended.

NPT or BSP	PVC*				CPVC*			
	EPDM	Price	Viton	Price	EPDM	Price	Viton	Price
1/2"	RVDM050EPPV	\$242.44	RVDM050VPV	\$241.11	RVDM050EPCP	\$309.49	RVDM050VCP	\$320.29
3/4"	RVDM075EPPV	265.19	RVDM075VPV	289.91	RVDM075EPCP	361.79	RVDM075VCP	386.40
1"	RVDM100EPPV	304.97	RVDM100VPV	337.16	RVDM100EPCP	418.61	RVDM100VCP	450.82

\*PP and PVDF available.

## Teflon® Diaphragm Relief, By-Pass and Back Pressure Valves

### PLAST-O-MATIC

*For Smooth, Sensitive Operation and the Ultimate in Corrosion Resistance... with No Wetted Elastomers!*

Series RVDT in-line pressure relief valves feature a wetted flat Teflon diaphragm to resist both chemical attack and salt crystallization problems. A large active diaphragm area provides for smooth, chatterfree operation. Relief setting is infinitely adjustable from 5 PSI to 100 PSI. Series RVDT is available in 1/4", 1/2", 3/4", 1" and 1 1/2" pipe sizes.

#### Quick Spec

- Rugged thermoplastic construction is ideal for a broad range of industrial applications.
- Unique Teflon Diaphragm is excellent for use with highly aggressive liquids... and also provides the ultimate in contamination-free sealing.

### Series RVDT Flow Reference Chart

Pipe Size	Overpressure to Reach Indicated Flow Rate		PVC		NATURAL POLYPRO	
			Item #	Price	Item #	Price
1/4"	.5 GPM - 5 PSI	1 GPM - 8 PSI	RVDT025VPV	\$203.03	RVDT025VPP	\$262.14
1/2"	2 GPM - 8 PSI	4 GPM - 12 PSI	RVDT050VPV	253.79	RVDT050VPP	327.66
3/4"	5 GPM - 9 PSI	8 GPM - 12 PSI	RVDT075VPV	288.74	RVDT075VPP	373.16
1"	9 GPM - 9 PSI	15 GPM - 12 PSI	RVDT100VPV	354.91	RVDT100VPP	429.96
1 1/2"	25 GPM - 9 PSI	50 GPM - 16 PSI	RVDT150VPV	455.89	RVDT150VPP	597.58

Stainless Steel Fasteners are standard. PVDF and Teflon® available.



## Metering Type 323 Ball Valve



#### Quick Spec

- Precise control of minimal flow quantities
- Indicator scale allows fine adjustment
- Standard overall lengths
- Teflon seat

**GEORGE FISCHER +GF+**

### PVC METERING VALVE

The metering ball valve Type 323 is equipped with union ends and has an integrated gauge to measure exactly the required throughput over the whole setting range of 0 to 180°. The direction of flow is indicated.

		3/8"		1/2"	
		Item #	Price	Item #	Price
EPDM	Socket	161323521	\$55.32	161323522	\$56.54
EPDM	Threaded	161323541	63.21	161323542	65.43
VITON	Socket	161323531	60.16	161323532	62.40
VITON	Threaded	161323551	75.72	161323552	78.14

Also available in polypropylene (PP).

## Liquid Dispensing Assemblies



**FILTER GUARD CORPORATION**

PVC dispensing assemblies for distilled, deionized, demineralized water as well as chemical dispensing. Models are available in PVC, Natural Polypropylene, and ultra pure PVDF. All tips accept 1/8" to 1/2" tubing.

Type 20 Ball Valve    Type 15 Needle Valve    Type 30 Self Closing Valve

Item #	*Type	Material	Type Mount	Price
FCDA15D	#15	PVC	Deck	\$115.64
FCDA15D	#15	Polypro	Deck	129.58
FCDA15D	#15	PVDF	Deck	370.00
FCDA15W	#15	PVC	Wall	114.08
FCDA20D	#20	PVC	Deck	101.75
FCDA30D	#30	PVC	Deck	107.92
FCDA30W	#30	PVC	Wall	114.08
FCDA00D	#00	PVC	Deck	55.51
FCDA00W	#00	PVC	Wall	58.58

- Type 15 has Needle Valve
- Type 20 has Ball Valve
- Type 30 has Self Closing Snap Valve

#### Quick Spec

- PVC and PVDF models available
- Includes ball valve
- PVDF available with needle valve, consult sales office

## 426 Series PVC Check Valves



Hi-strength PVC check valves. Operates in any position. Mix or match end combinations. Guided teflon ball and Quad ring seat. Cracking pressure 1 p.s.i., with a maximum operating pressure of 125 p.s.i. and a maximum operating temperature of 140°F. Buna-N seals standard, ethylene propylene or fluoroelastomer seals available.

### Code Identification

F — F.N.P.T. Female  
M — M.N.P.T. Male  
CJ — Compression "JACO"  
CIG — Compression "John Guest"  
¼" QEST — ¾" O.D. Tube (¼" Nominal CTS)  
¾" QEST — ½" O.D. Tube (¾" Nominal CTS)  
½" QEST — ¾" O.D. Tube (½" Nominal CTS)  
CTS — Copper Tube Size (Inside Diameter)

### 426 Series PVC Check Valves

Item #	End Conn.	End Conn.	PVC-All Ends
PVC4262F2FB	¼" F	¼" F	<b>\$5.87</b>
Maximum operating pressure: 125 psi Maximum operating temperature: 140°F			
PVC4264F4FB	¼" F	¼" F	<b>5.87</b>
Maximum operating pressure: 125 psi Maximum operating temperature: 140°F			
PVC4264M4MB	¼" M	¼" M	<b>5.87</b>
Maximum operating pressure: 125 psi Maximum operating temperature: 140°F			
PVC4264F4MB	¼" F	¼" M	<b>5.87</b>
Maximum operating pressure: 125 psi Maximum operating temperature: 140°F			
PVC4264B4BB	¼" BARB	¼" BARB	<b>5.87</b>
Maximum operating pressure: 125 psi Maximum operating temperature: 140°F			
PVC4266B6BB	¾" BARB	¾" BARB	<b>5.87</b>
Maximum operating pressure: 125 psi Maximum operating temperature: 140°F			
PVC4268B8BB	½" BARB	½" BARB	<b>5.87</b>
Maximum operating pressure: 125 psi Maximum operating temperature: 140°F			

Special handles, special ends and other seals available on most SMC valves at additional cost. Please consult sales office for more information.

## Relief Valves

Relief valves to prevent overpressures in vessels and lines to handle by-pass flow from pumps. For highly corrosive or pure liquids. "RVT" relief valves feature a non-sticking design utilizing a Teflon® shaft passing through (3) U-cup seals. Venting between the upper and center U-cup seals results in our FAIL-DRY design for added protection.

SERIES RVD is an angle pattern design featuring a single diaphragm which is an advantage where salt crystallization prob-

## PLAST-O-MATIC

lems can cause valve sticking. The standard RVD is available in ¼" and ½" pipe sizes. Set pressures from 5 to 150 PSI. (½ to 10 Bars).

The spring housing, since it is not in contact with liquid, is supplied only in PVC.



### USCO tech tip

To assure steadier flow, better pump performance, and to protect pumps from dead heading, use Plast-O-Matic's Pressure Relief Valve.

RVT

From Only  
**\$124.69**



NPT	PVC				CPVC			
	Item #	Price	Item #	Price	Item #	Price	Item #	Price
¼"	PMRVD025BPV	<b>\$124.69</b>	PMRVD025VPV	<b>\$132.61</b>	N/A	N/A	N/A	N/A
½"	PMRVD050BPV	<b>134.49</b>	PMRVD050VPV	<b>142.06</b>	N/A	N/A	N/A	N/A
¾"	PMRVT075BPV	<b>242.45</b>	PMRVT075VPV	<b>253.79</b>	N/A	N/A	N/A	N/A
1"	PMRVT100BPV	<b>265.19</b>	PMRVT100VPV	<b>289.81</b>	PMRVT075BCP	<b>\$361.79</b>	PMRVT075VCP	<b>\$386.40</b>
1 ¼"	PMRVT125BPV	<b>304.97</b>	PMRVT125VPV	<b>337.16</b>	PMRVT100BCP	<b>418.61</b>	PMRVT100VCP	<b>450.82</b>
1 ½"	PMRVT150BPV	<b>340.95</b>	PMRVT150VPV	<b>411.03</b>	PMRVT125BCP	<b>475.44</b>	PMRVT125VCP	<b>545.53</b>
2"	PMRVT200BPV	<b>392.13</b>	PMRVT200VPV	<b>447.03</b>	PMRVT150BCP	<b>541.73</b>	PMRVT150VCP	<b>596.67</b>
3"	PMRVT300BPV	<b>477.34</b>	PMRVT300VPV	<b>532.23</b>	PMRVT200BCP	<b>657.28</b>	PMRVT200VCP	<b>712.19</b>
		<b>979.55</b>		<b>1,016.51</b>	PMRVT300BCP	<b>CALL</b>	PMRVT300VCP	<b>CALL</b>

NOTES: 1) Optional pressure seal \$15.36. Available on RVT only.

2) Stainless steel fasteners are standard.

3) RVD fasteners are stainless steel (standard).

4) For Polypropylene, PVDF, & Teflon pricing, consult sales office.

### Flow Rate Reference Chart Series (RVD & RVT)

Valve Pressure Settings		RVD	RVD	RVT	RVT	RVT	RVT	RVT	RVT
Relief Valve Pipe Sizes		¼"	½"	¾"	1"	1 ¼"	1 ½"	2"	3"
PSI 5-25	Max Recommended Flows	2 GPM	2 GPM	4 GPM	8 GPM	15 GPM	25 GPM	50 GPM	80 GPM
26-100**	Actual Over-pressure to Reach Recommended Flows	6 psi	6 psi	10 psi	12 psi	10 psi	10psi	14 psi	14 psi
Percentage of Over-pressure to Reach Recommended Flows		40%	40%	40%	40%	40%	40%	40%	40%

\*\*Series RVD sizes ¼" thru ½" can be set to 150 psi and sizes ¾" thru 2" can be set only to 100 psi.

## Pressure Regulator

Pressure regulators to accurately convert varying or constant excessive upstream pressures to a predetermined maximum downstream pressure in systems handling highly corrosive or ultra-pure liquids.

PVC (NPT)	Buna-N Seals		Viton Seals	
	Item #	Price	Item #	Price
¼"	PMPR025B	<b>\$204.57</b>	PMPR025V	<b>\$286.02</b>
½"	PMPR050B	<b>276.39</b>	PMPR050V	<b>305.72</b>
¾"	PMPR075B	<b>471.65</b>	PMPR075V	<b>569.98</b>
1"	PMPR100B	<b>530.37</b>	PMPR100V	<b>634.55</b>
1½"	PMPR150B	<b>630.76</b>	PMPR150V	<b>742.53</b>
2"	PMPR200B	<b>763.37</b>	PMPR200V	<b>875.11</b>
3"	PMPR300B	<b>1,880.89</b>	PMPR300V	<b>2,037.05</b>

### Flow Reference Chart For Series PR

Pressure Settings		INLET PRESSURES											
		¼ NPT	½ NPT	¾ NPT	1 NPT	1 ½ NPT	2 NPT	3 NPT	4 NPT	5 NPT	6 NPT	8 NPT	10 NPT
		15 PSI	30 & UP	15 PSI	30 & UP	10 PSI	25 & UP	10 PSI	25 & UP	10 PSI	25 & UP	10 PSI	25 & UP
PSI	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM	GPM
5	1.0	1.0	2	3	8	11	16	20	20	50	50	50	50
10	3.0	3.0	6	7	14	18	20	25	28	36	30	50	65
15	3.5	4.0	7	9	18	29	25	40	36	58	40	80	160
20	3.5	4.5	7	10	18	35	25	50	36	70	50	100	100
25	3.5	5.0	7	10	18	35	25	50	36	70	50	100	100
30	3.5	5.0	7	10	18	35	25	50	36	70	50	100	100
40	3.5	5.0	7	10	18	35	25	50	36	70	50	100	100
50	3.5	5.0	7	10	18	35	25	50	36	70	50	100	100
60	3.5	5.0	7	10	18	35	25	50	36	70	50	100	100
70	3.5	5.0	7	10	18	35	25	50	36	70	50	100	100
75	3.5	5.0	7	10	18	35	25	50	36	70	50	100	100

NOTES: 1) 5 to 50 psi set range standard.

2) ½" Regulator available fully molded, consult sales office.

3) Series PRD Pressure Regulators are available for control of differential pressure across downstream system equipment such as filters. Consult sales office for additional information and pricing.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 51

Valves

## 638/657 Series PVC Ball Valves

657 and 638 series valves offer a broad range of applications, from ultra-pure water systems to photographic processing equipment

and laboratory use. These PVC ball valves come in a broad range of end connectors, male, female, tapered barb, and laboratory use.

**2 way**

### 638 Series



### 657 Series



Jaco, and John Guest. The 638 and 657 series are NSF listed, offering superior quality and dependability.

- Materials: Body, ball, handle, ends — PVC
- Buna-N seals standard, ethylene propylene or fluorelastomer seals available

### 657 Right Angle Buna-N Seals

Item #	End Conn.	End Conn.	Max. Pressure	Price
6570190	1/4" F	1/4" F	125	<b>\$3.86</b>
6570690	1/4" F	1/4" M	125	<b>3.86</b>
6571190	1/4" F	*BARB	125	<b>4.16</b>
6570090	1/4" F	1/4" CJ	125	<b>4.16</b>
6570590	1/4" F	3/8" CJ	125	<b>4.16</b>
6571390	1/4" F	1/4" CIG	125	<b>5.14</b>
6571290	1/4" F	3/8" CIG	125	<b>5.25</b>

- For technical assistance please consult sales office

### NSF Listed Component

### 638 Straight 2-Way Buna-N Seals

Item #	End Conn.	End Conn.	Max. Pressure	Price
6380090	1/4" F	1/4" F	125	<b>\$3.47</b>
6382890	3/8" F	3/8" F	125	<b>3.76</b>
6380490	1/4" M	1/4" F	125	<b>3.47</b>
6381990	*BARB	1/4" F	125	<b>3.76</b>
6381090	1/4" CJ	1/4" F	125	<b>3.76</b>
6381590	3/8" CJ	1/4" F	125	<b>3.76</b>
6381790	1/4" CIG	1/4" CIG	125	<b>6.04</b>
6381890	3/8" CIG	3/8" CIG	125	<b>6.24</b>
6382990	3/8" CIG	1/4" CIG	125	<b>6.13</b>
6383190	1/4" F	3/8" CIG	125	<b>4.85</b>
6382590	3/8" CIG	3/8" F	125	<b>7.05</b>

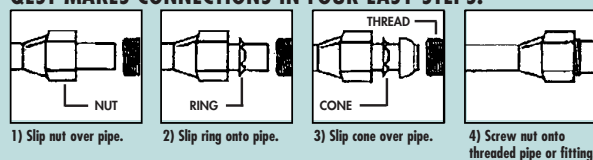


**2 way**

## 689 Series T-Link PVC Ball Valve

SMC in-line supply valves are designed for a broad range of applications, from ultra-pure water systems to beverage dispensing and food process industries.

### QEST MAKES CONNECTIONS IN FOUR EASY STEPS:



- Materials: Body, ball, handle, ends — PVC
- Buna-N seals standard, ethylene propylene seals available
- For technical assistance and custom valve or end combinations, please consult sales office
- NSF Listed Component

### Code Identification

F	— F.N.P.T. Female	1/4" QEST — 3/8" O.D. Tube (1/4" Nominal CTS)
M	— M.N.P.T. Male	3/8" QEST — 1/2" O.D. Tube (3/8" Nominal CTS)
CJ	— Compression "JACO"	1/2" QEST — 5/8" O.D. Tube (1/2" Nominal CTS)
CIG	— Compression "John Guest"	CTS — Copper Tube Size (Inside Diameter)

*Simple, economical in-line valves that set today's standards in performance, quality and dependability.*

### 689 Series T-Link PVC Ball Valve — Buna-N Seals

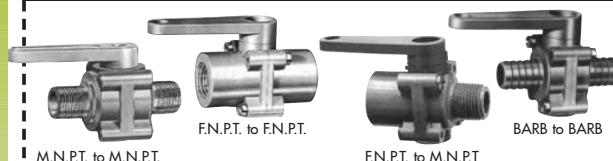
Item #	Valve End	Tube O.D.	Max. Pressure	Price
6890090	1/4" F	1/4" QEST	125	<b>\$7.82</b>
6890190	1/4" F	3/8" QEST	125	<b>7.92</b>
6890290	1/4" F	1/2" QEST	125	<b>7.92</b>
6890690	1/4" CJ	1/4" QEST	125	<b>7.92</b>
6890790	1/4" CJ	3/8" QEST	125	<b>7.92</b>
6890890	1/4" CJ	1/2" QEST	125	<b>8.32</b>
6891290	3/8" CJ	1/4" QEST	125	<b>8.32</b>
6891390	3/8" CJ	3/8" QEST	125	<b>8.32</b>
6891490	3/8" CJ	1/2" QEST	125	<b>8.41</b>
6891890	3/8" CIG	1/4" QEST	125	<b>9.21</b>
6891990	1/4" CIG	3/8" QEST	125	<b>9.21</b>
6892090	1/4" CIG	1/2" QEST	125	<b>9.29</b>
6892490	3/8" CIG	1/4" QEST	125	<b>9.49</b>
6892590	3/8" CIG	3/8" QEST	125	<b>9.49</b>
6892690	3/8" CIG	1/2" QEST	125	<b>9.60</b>

### Quick Spec

- Full ported
- Styled quarter turn handle
- Positive shut-off
- One piece ball and stem
- Compact design



## 250 Series Plastic Ball Valves



M.N.P.T. to M.N.P.T.

F.N.P.T. to F.N.P.T.

F.N.P.T. to M.N.P.T.

BARB to BARB

The 250 series two way PVC ball valves are a general purpose valves that offer features designed for speed and easy operation. A variety of seal materials for best chemical compatibility, mixed end combinations available for greater flexibility.

### Quick Spec

- 90° Actuation
- Max 125 PSI
- Buna-N Seals
- 140°F Max. Temperature

**USCO Price Only**  
**\$11.20**

### 250 Series Plastic Ball Valves Buna-N Seals Standard

Item #	End Conn.	End Conn.	Max. Pressure	Dia. Thru Ball	PVC-All Ends
PVC2504F4FB	1/4" F	1/4" F	125	.500	<b>\$11.20</b>
PVC2508F8FB	1/2" F	1/2" F	125	.500	<b>11.20</b>
PVC2508M8MB	1/2" M	1/2" M	125	.500	<b>11.20</b>
PVC25012M12MB	3/4" M	3/4" M	125	.500	<b>11.20</b>
PVC2508F8MB	1/2" F	1/2" M	125	.500	<b>11.20</b>
PVC25012F12MB	3/4" F	3/4" M	125	.500	<b>11.20</b>
PVC2506B6BB	3/8" BARB	3/8" BARB	125	.500	<b>11.20</b>
PVC2508B8BB	1/2" BARB	1/2" BARB	125	.500	<b>11.20</b>
PVC25010B10BB	3/8" BARB	3/8" BARB	125	.500	<b>11.20</b>
PVC25012B12BB	3/4" BARB	3/4" BARB	125	.500	<b>11.20</b>



F.N.P.T. to F.N.P.T.

F.N.P.T. to M.N.P.T.

M.N.P.T. to M.N.P.T.

BARB to BARB

## 226 Series Plastic Ball Valves

**2 way**

The 226 series offers the advantage of mixing or matching the different end combinations. Below are the combinations USCO maintains in stock. The 226 series is offered in PVC, Nylon, or filled polypropylene. Buna-N seals are standard, other seals available for best chemical compatibility.

NSF listed (PVC only).



**From Only \$6.52**

Optional Round Fluted Handle Available on all 226 Series Ball Valves



### 226 Series Plastic Ball Valves — Buna-N Seals

Item #	End Conn.	End Conn.	Max. Pressure	PVC	FN	FP
2262F2FB	1/8" F	1/8" F	125	<b>\$6.52</b>	<b>\$7.13</b>	<b>\$7.00</b>
2264F4FB	1/4" F	1/4" F	125	<b>6.52</b>	<b>7.13</b>	<b>7.00</b>
2264F4MB	1/4" F	1/4" M	125	<b>6.52</b>	<b>7.13</b>	<b>7.00</b>
2264M4MB	1/4" M	1/4" M	125	<b>6.52</b>	<b>7.13</b>	<b>7.00</b>
2264B4BB	1/4" BARB	1/4" BARB	125	<b>6.52</b>	<b>7.13</b>	<b>7.00</b>
2266B6BB	3/8" BARB	3/8" BARB	125	<b>6.52</b>	<b>7.13</b>	<b>7.00</b>
2268B8BB	1/2" BARB	1/2" BARB	125	<b>6.52</b>	<b>7.13</b>	<b>7.00</b>

When ordering please specify material:

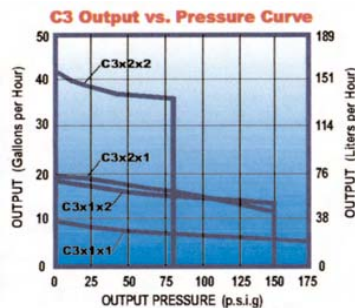
Example: PVC2262F2 = 1/8" FNPT \$6.52 ea.

Prefix Item # with PVC = Polyvinyl Chloride, FN = Filled Nylon, FP = Filled Polypropylene



## Quick Spec

- Max. Working Pressure: 175 psig (12.1 bar)
- Max. Fluid Temperature: 130°F (54°C)
- Ambient Temp Range: 14° to 115°F (-10° to 46.1°C)
- Output Adjustment Range: 2-100% in 1% increments
- Duty Cycle: Continuous
- Maximum Viscosity: 1,000 Centipoise
- Maximum Suction Lift: 15ft. Water, 0 psig (4.5m, 0 bar)
- Enclosure: NEMA 4X, (IP66)
- Voltage (amp draw): 115VAC/60Hz, 1ph (1.5 amp max)  
230VAC/60Hz, 1ph (.7 amp max)  
220VAC/50Hz, 1ph (1 amp max)
- Power Cord Plug Type: 115V60Hz - NEMA 5/15 (USA)  
230V60Hz - NEMA 6/15 (USA)  
220V50Hz = CEE 7/VII (EU)
- Dimensions: 9"H x 13 1/2" W x 10 3/4" D
- Approximate Shipping Wt: 29 lb.



## CHEM-PRO™ C3 Series Diaphragm Metering Pump



## SERIES C3F &amp; C3V STANDARD FEATURES

- Washdown (NEMA 4X, IP66).
- 2 year warranty.
- Smooth variable speed drive.
- Outputs to 42 GPH. Pressures to 175 PSI.
- Operator friendly digital touch pad.
- Easy to read Back Lit LCD display
- PVDF pump head with priming/degassing valve.
- PVDF wet parts with large PVDF double ball valves.
- DFD, Diaphragm Failure Detection alarm system. — Senses chemical in the pump head, shuts off the pump.
- FVS, Flow Verification System alarm. — Verifies flow with optional Blue-White Micro-Flo sensor.
- 3 amp alarm output relay.
- Chemical resistant, powder coated aluminum housing.
- Includes 8' suction tubing, PVDF injection fitting, foot valve, and 1 outlet adapter (Barb, 1/2" MPT, or 1/2" FPT).

## SERIES C3V ADDITIONAL FEATURES:

- Speed control via external 4-20mA, 0-10VDC or pulse inputs.
- Timed batch output trigger via single or multiple pulse inputs.

Maximum Output at 0 PSI			Maximum Output at Max PSI			Strokes Per Minute	Outlet Connection (PVDF)	C3F Models with Manual Speed Control			C3V Models with External Speed Control		
GPD	GPH	Max PSI	GPD	GPH				115V/60Hz Item #	230V/60Hz Item #	Price	115V/60Hz Item #	230V/60Hz Item #	Item # Price
233	9.7	175	118	4.9	62	1/2" M/NPT	C3F141XVA	C3F151XVA	\$1,147.50		C3V141XVA	C3V151XVA	\$1,317.50
442	18.4	150	350	14.6	62	1/2" M/NPT	C3F142XVA	C3F152XVA	1,147.50		C3V142XVA	C3V152XVA	1,317.50
473	19.7	150	271	11.3	130	1/2" M/NPT	C3F241XVA	C3F251XVA	1,147.50		C3V241XVA	C3V251XVA	1,317.50
1008	42	80	833	34.7	130	1/2" M/NPT	C3F242XVA	C3F252XVA	1,147.50		C3V242XVA	C3V252XVA	1,317.50
233	9.7	175	36.7	4.9	62	1/2" F/NPT	C3F141XVB	C3F151XVB	1,147.50		C3V141XVB	C3V151XVB	1,317.50
442	18.4	150	69.7	14.6	62	1/2" F/NPT	C3F142XVB	C3F152XVB	1,147.50		C3V142XVB	C3V152XVB	1,317.50
473	19.7	150	74.6	11.3	130	1/2" F/NPT	C3F241XVB	C3F251XVB	1,147.50		C3V241XVB	C3V251XVB	1,317.50
1008	42	80	159	34.7	130	1/2" F/NPT	C3F242XVB	C3F252XVB	1,147.50		C3V242XVB	C3V252XVB	1,317.50
233	9.7	175	36.7	4.9	62	1/2" Barb	C3F141XVC	C3F151XVC	1,147.50		C3V141XVC	C3V151XVC	1,317.50
442	18.4	150	69.7	14.6	62	1/2" Barb	C3F142XVC	C3F152XVC	1,147.50		C3V142XVC	C3V152XVC	1,317.50
473	19.7	150	74.6	11.3	130	1/2" Barb	C3F241XVC	C3F251XVC	1,147.50		C3V241XVC	C3V251XVC	1,317.50
1008	42	80	159	34.7	130	1/2" Barb	C3F242XVC	C3F252XVC	1,147.50		C3V242XVC	C3V252XVC	1,317.50

See instruction manual at [www.blue-white.com](http://www.blue-white.com) for detailed installation and operating requirements.

## OPTIONAL EXTENDED BRACKETS

- ✓ Raise the metering pump 4 1/2 inches off the ground or surface.
- ✓ Made out of tough Stainless Steel.
- ✓ Provides a stable mounting surface.

Item #	Price
72000-380	\$34.00



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

## C-1500N Series Injector Pumps



*C-1500N –  
It's what you've been  
waiting for!*

Finally, the dependability CHEM-FEED® is known for, now built for **INDOOR or OUTDOOR APPLICATIONS**. All C-1500N models are equipped with a stylish black weather-resistant housing of Valox® outdoor applications demand.



**BLUE WHITE®**  
INDUSTRIES

The C-1500N comes STANDARD with Blue White's popular heavy duty pump head assembled with chemically resistant internals such as Teflon®-coated EP diaphragms, Viton® O-ring seals, Hastelloy C valve springs and PVDF cartridge fittings. In addition, each unit includes Blue White's best PVC anti-siphon check valve with Viton® seals and Polypropylene footvalve strainer. Also included is a molded acrylic flow indicator with glass float attached to suction tubing. The C1500N's ball bearing motor provides smoother and stronger operation which can handle pressures up to a maximum of 125 PSI.

**Deluxe models** offer added flexibility. They come with all the quality standard items listed above, but also have a built-in electronic percentage timer giving you the ability to adjust the injector for even lower feed rates. This feature also allows you to keep full stroke to adjust feed rate by time only, or adjust time on and stroke.

Blue White offers you a choice! Numerous combinations of voltages, material construction sizes and styles are available to practically "build your own pump" to meet your required applications.

Model Number	Strokes Per Min.	Max. GPD	Min. GPD	Max. GPH	Max. Oz./Min.	Max. ML/MN	Max. PSI	Head Material	O-Ring Material	Diaphragm Material	Price
C15N002X	14	8.3	.84	.35	.7	22.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N004X	14	12.9	1.20	.50	1.1	34.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N102X	30	17.5	1.75	.75	1.6	46.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N104X	30	31.0	3.10	1.30	2.7	82.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N202X	45	29.3	2.93	1.22	2.6	77.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N204X	45	49.0	4.90	2.00	4.3	129.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N302X	60	35.0	3.50	1.46	3.1	92.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N304X	60	60.0	6.00	2.85	5.9	158.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N402X	125	68.4	6.84	2.85	5.9	180.0	125	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
C15N404X	125	119.7	11.90	4.90	10.6	315.0	70	Polypro	Viton®	Teflon/EP	<b>\$292.57</b>
<b>Deluxe Models Dual Control – Stroke and Timer</b>											
C15N102I	30	17.5	.84	.35	1.6	46.0	125	Polypro	Viton®	Teflon/EP	<b>\$19.90</b>
C15N104I	30	31.0	.62	1.30	2.7	82.0	125	Polypro	Viton®	Teflon/EP	<b>\$19.90</b>
C15N202I	45	29.3	.58	1.22	2.6	77.0	125	Polypro	Viton®	Teflon/EP	<b>\$19.90</b>
C15N204I	45	49.0	.98	2.00	4.3	129.0	125	Polypro	Viton®	Teflon/EP	<b>\$19.90</b>
C15N302I	60	35.0	.70	1.46	3.1	92.0	125	Polypro	Viton®	Teflon/EP	<b>\$19.90</b>
C15N304I	60	60.0	1.20	2.50	5.3	158.0	125	Polypro	Viton®	Teflon/EP	<b>\$19.90</b>
C15N402I	125	68.4	1.37	2.85	5.9	180.0	125	Polypro	Viton®	Teflon/EP	<b>\$19.90</b>
C15N404I	125	119.0	2.38	4.90	10.6	315.0	70	Polypro	Viton®	Teflon/EP	<b>\$19.90</b>

Other electrical and material options available.

## C-1700 Dual Head Injector Pumps

*All NEW design!*



From Only  
**\$422.53**



**BLUE WHITE®**  
INDUSTRIES

The all new design of the C-1700N begins with the twin, heavy-duty cartridge valve heads. This durable liquid end is injection molded of Polypropylene and includes: Double-sealed PVDF cartridge valve fittings, Viton O-ring seals, ceramic ball checks, Hastelloy valve springs, and a Teflon/EPDM diaphragm.

Each head is independently controlled, and, because of the unique design, motor power is utilized to maximum efficiency. This is particularly important for overcoming back pressure.

The C-1700N is well-suited to a wide variety of applications. It can be used to inject: different amounts of like chemical into separate systems, feed two different chemicals into the same system, or when a single head pump doesn't provide quite enough output.

Item #	Maximum Feed			Maximum PSI	Head Material	O-Ring Material	Diaphragm Material	Price
	GPD	GPH	ML/MN					
C17N002X000V00	14.4	.6	38	125	Polypro	Viton	EP/Teflon	<b>\$430.89</b>
C17N004X000V00	28.9	1.2	77	125	Polypro	Viton	EP/Teflon	<b>\$430.89</b>
C17N102X000V00	32.7	1.4	86	125	Polypro	Viton	EP/Teflon	<b>\$422.53</b>
C17N202X000V00	46.4	1.9	122	125	Polypro	Viton	EP/Teflon	<b>\$422.53</b>
C17N104X000V00	60.8	2.5	160	125	Polypro	Viton	EP/Teflon	<b>\$422.53</b>
C17N302X000V00	62.3	2.6	164	125	Polypro	Viton	EP/Teflon	<b>\$422.53</b>
C17N204X000V00	89.7	3.7	236	125	Polypro	Viton	EP/Teflon	<b>\$422.53</b>
C17N304X000V00	119.0	5.0	313	125	Polypro	Viton	EP/Teflon	<b>\$422.53</b>
C17N402X000V00	129.3	5.4	340	125	Polypro	Viton	EP/Teflon	<b>\$422.53</b>
C17N404X000V00	241.1	10.0	634	70	Polypro	Viton	EP/Teflon	<b>\$422.53</b>
C17N401X000V00	285.3	11.9	750	20	Polypro	Viton	EP/Teflon	<b>\$422.53</b>

# FLEXFLO® Variable Speed Pumps

## FLEXFLO® A-100NV Variable Speed PERISTALTIC Dosing Pump for Industrial Water Treatment Applications

### Quick Spec

- Accepts 4-20mA, 0-10VDC and pulse input signals
- Flow rates to 95 GPD, pressure to 100 PSI
- Accuracy:  $\pm 1\%$  repeatability full range
- No pulsation - continuous stream injection
- Tube Failure Detection (TFD) Alarm System
- Alarm output- relay (1 amp)
- Flow Output Verification Alarm System (Requires Micro-Flow Sensor sold separately)
- Peristaltic Operation - No Valves to Clog
- Recommended Service Warning System
- Easy to read LCD display and controls
- Corrosion resistant enclosure



A-100NV

Maximum Output at any Pressure			Inlet/Outlet Tubing O.D.	Maximum PSI	Digital Percentage Control Item #	Price	Standard Percentage Control Item #	Price
2.3	0.20	6	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	100	A1N0(*)V-4T	\$701.06	A1N0(*)F-4T	\$478.12
4.9	0.44	13	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	100	A1N1(*)V-4T	692.73	A1N1(*)F-4T	469.79
8.0	0.71	21	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	100	A1N2(*)V-4T	692.73	A1N2(*)F-4T	469.79
9.5	0.85	25	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	75	A1N3(*)V-4T	692.73	A1N3(*)F-4T	469.79
6.0	1.42	42	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	100	A1N1(*)V-6T	692.73	A1N1(*)F-6T	469.79
24.0	2.13	63	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	100	A1N2(*)V-6T	692.73	A1N2(*)F-6T	469.79
30.1	2.67	79	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	75	A1N3(*)V-6T	692.73	A1N3(*)F-6T	469.79
52.5	4.66	138	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	50	A1N1(*)V-7T	692.73	A1N1(*)F-7T	469.79
95.1	8.45	250	$\frac{3}{8}$ " OD x $\frac{1}{4}$ " ID	50	A1N3(*)V-7T	692.73	A1N3(*)F-7T	469.79

Replace (\*) with 0=115V/60Hz, 1=220V/50Hz, 2=230V/60Hz (Voltage does not effect pricing) All models ship with 1 extra set of motor brushes.



**BLUE WHITE®**  
INDUSTRIES

*Blue White's premier peristaltic pump features exclusive pump tube design!*

## FLEXFLO® C-1100V Variable Speed DIAPHRAGM Injector Pump for Industrial Water Treatment Applications

### Quick Spec

- Accepts 4-20mA, 0-10VDC and pulse input signals
- Flow rates to 360 GPD, pressure to 150 PSI
- Accuracy:  $\pm 1\%$  repeatability full range
- Low pulsation - smooth gearmotor operation
- Variable speed and stroke length adjustment
- Flow Output Verification Alarm System (Requires Micro-Flow Sensor sold separately)
- Alarm output- relay (1 amp)
- Ceramic double ball check valves
- PVDF valves with Atlas ball seats
- Recommended Service Warning System
- Easy to read LCD display and controls
- Corrosion resistant enclosure

C-1100V

From Only  
**\$590<sup>30</sup>**



Maximum Output at 0 PSIG				Maximum PSI	Electronic Percentage Control Item #	Price	Mechanical Control Item #	Price
360.0	15.0	56.8	32.0	25	C11V5(*)3X000V00	\$799.58	C11F5(*)3X000V00	\$590.30
260.8	10.8	41.1	23.1	100	C11V5(*)4X000V00	799.58	C11F5(*)4X000V00	590.30
155.9	6.4	24.6	13.8	150	C11V4(*)1X000V00	799.58	C11F4(*)1X000V00	590.30
119.7	4.9	18.9	10.6	150	C11V4(*)4X000V00	799.58	C11F4(*)4X000V00	590.30
57.7	2.4	9.1	5.1	150	C11V3(*)4X000V00	799.58	C11F3(*)4X000V00	590.30

Replace (\*) with 4=115V/60Hz, 5=220V/50Hz, 6=230V/60Hz (Voltage does not effect pricing). All models ship with 1 extra set of motor brushes. Typical brush life is 2000 hours.



**BLUE WHITE®**  
INDUSTRIES



Made in the  
U.S.A.

### CONVERSION TABLE

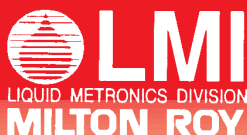
To Convert	To	Formula	To Convert	To	Formula
<b>LIQUID</b>					
GALLONS	LITERS	GALLONS x 3.78533 = LITERS	GALLONS/DAY	MILLILITERS/MIN	GALLONS/DAY x 2.628 = MILLILITERS/MIN
LITERS	GALLONS	LITERS x .2642 = GALLONS	GALLONS	CUBIC METERS	Gallons x .0037854 = Cubic meters
OUNCES	MILLILITERS	OUNCES x 29.57 = MILLILITERS	CUBIC METERS	GALLONS	Cubic Meters x 264.173 = Gallons
MILLILITERS	OUNCES	MILLILITERS x .0338 = OUNCES			
MILLILITERS/MIN	GAL. PER HOUR	ML/MN x .0158	<b>MISCELLANEOUS</b>		
FEET OF WATER	PSI	Feet of Water (Head) x .43352 = PSI	PSI	KGS/SQ. CM.	PSI x .070307 = KGS/SQ. CM
GALLONS	POUNDS	GALLONS x 8.337 = POUNDS	KGS/SQ. CM.	PSI	KGS/SQ. CM. x 14.223 = PSI
GALLONS	CUBIC FEET	GALLONS x .1337 = CUBIC FEET	INCHES	MILLIMETERS	INCHES x 25.4 = MILLIMETERS
GALLONS	CUBIC INCHES	GALLONS x 231 = CUBIC INCHES	MILLIMETERS	INCHES	MILLIMETERS x .03937 = INCHES
			BARS	PSI	BARS x 14.5 = PSI
			PSI	BARS	PSI x .068947 = BARS

\*PLEASE NOTE: Although USCO has obtained this information from reliable sources, the company cannot assume any responsibility for its accuracy. Please verify this information before using.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 55





# LiquiPro Pumps

*An evolution in electronic metering pumps*

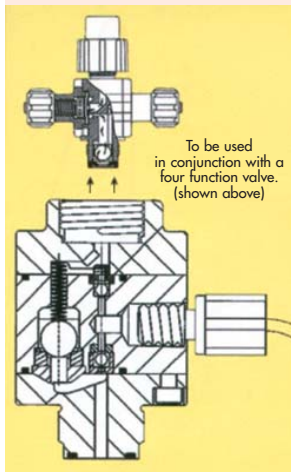
The new LiquiPro Pumps from LMI utilize exciting new technology to address the concerns of today's water treatment professionals. Technology that evolutionizes the electronic metering pump; greatly improving priming capabilities, reducing loss of prime and providing the industry with the most advanced electronics for dependable, repeatable performance.

## Quick Spec

- Simplified wiring
- Extended Speed Range
- Variety of Head Materials
- Unique Cartridge Valve Design
- Visual Pump-Operational Status
- Ultimate in Chemically Resistant Materials
- Easy Priming with New Three and Four Function Valves

**0.0 to 70 GPH!**

**Pressures up to 300 PSI!**



To be used in conjunction with a four function valve. (shown above)

## LMI Milton Roy's AutoPrime Valve

### THE SOLUTION FOR YOUR SODIUM HYPOCHLORITE METERING PUMPS

#### FEATURES

- Automatic priming
- Anti-Siphon (air gap device)
- One valve for multiple applications
- Automatically regulates pump output
- Field retrofitable — all LiquiPro liquid ends
- Vertical discharge design

Contact us today for more information!

## Liquid Handling Assemblies

LMI offers a wide selection of liquid handling assemblies with flexible tubing and pipe thread connections. Configurations for viscous chemicals and slurries provide total flexibility in all applications.

■ PVC ■ Acrylic ■ PVDF ■ Polypropylene ■ UHMWPE ■ 316 SS

## Series P0/P1 Chemical Metering Pumps



**LMI**  
LIQUID METRONICS DIVISION  
MILTON ROY

Starting At  
**\$302<sup>22</sup>**



## USCO tech tip

For four function technical information on the Four Function Valve, see bottom of page 60.

## Quick Spec

- Microprocessor based electronics
- Low-cost OEM pump
- 100:1 adjustable range
- Outputs up to 2 GPH
- Up to 250 PSI
- Other wetted materials available

## Series P

### Series P0 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
P021352HI	0.06	0.21	150	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>\$467.50</b>
P021358SI	0.06	0.21	150	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.250 O.D.	<b>302.22</b>
P021352SI	0.06	0.21	150	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.250 O.D.	<b>333.39</b>
P021358HI	0.06	0.21	150	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>436.33</b>
P031392HI	0.13	0.42	110	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>474.11</b>
P031398SI	0.13	0.42	110	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.375 O.D.	<b>308.83</b>
P031392SI	0.13	0.42	110	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.375 O.D.	<b>340.00</b>
P031398HI	0.13	0.42	110	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>442.94</b>
P041352HI	0.12	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>483.56</b>
P041358SI	0.12	0.58	250	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.250 O.D.	<b>310.72</b>
P041352SI	0.12	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.250 O.D.	<b>340.94</b>
P041358HI	0.12	0.58	250	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>452.39</b>
P051392HI	0.20	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>490.17</b>
P051398SI	0.20	1.0	110	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.375 O.D.	<b>317.33</b>
P051392SI	0.20	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.375 O.D.	<b>347.56</b>
P051398HI	0.20	1.0	110	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>459.00</b>
P061362HI	0.40	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>506.22</b>
P061368SI	0.40	2.0	50	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.375 O.D.	<b>331.50</b>
P061362SI	0.40	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polypropel	Fluorofilm	4FV	PE.375 O.D.	<b>361.72</b>
P061368HI	0.40	2.0	50	PVC/PVC	Ceramic	PVDF/Polypropel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>476.94</b>

Stroking frequency fixed. Stroke length manually adjustable from 0 to 100% (30% recommended minimum for PX2, PX3; 20% for PX4, PX5, PX6).

SEE P1 SERIES PUMPS ON FOLLOWING PAGE.

## Series P1 Metering Pumps

SEE P0 SERIES PUMPS ON PREVIOUS PAGE.

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
P121352HI	0.003	0.21	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>\$522.28</b>
P121358SI	0.003	0.21	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>347.56</b>
P121352SI	0.003	0.21	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>332.22</b>
P121358HI	0.003	0.21	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>491.11</b>
P131392HI	0.01	0.42	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>528.89</b>
P131398SI	0.01	0.42	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>354.17</b>
P131392SI	0.01	0.42	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>384.39</b>
P131398HI	0.01	0.42	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>497.72</b>
P141352HI	0.01	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>539.28</b>
P141358SI	0.01	0.58	250	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>363.61</b>
P141352SI	0.01	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>393.83</b>
P141358HI	0.01	0.58	250	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>508.11</b>
P151392HI	0.01	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>545.89</b>
P151398SI	0.01	1.0	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>370.22</b>
P151392SI	0.01	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>400.44</b>
P151398HI	0.01	1.0	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>514.72</b>
P161362HI	0.02	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>561.00</b>
P161368SI	0.02	2.0	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>385.33</b>
P161362SI	0.02	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>415.56</b>
P161368HI	0.02	2.0	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>529.83</b>

Stroking frequency manually adjustable. Stroke length manually adjustable from 0 to 100% (30% recommended minimum for PX2, PX3; 20% for PX4, PX5, PX6).

Due to the large selection of possible materials and pump sizes we cannot show all combinations, so call our sales office if you don't see a model to fit your needs.



USCO tech tip

For four function technical information on the Four Function Valve, see bottom of page 60.

## Series A Chemical Metering Pumps

## Series AA9 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
AA941352HI	0.00	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>\$903.83</b>
AA941358SI	0.00	0.58	250	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>738.56</b>
AA941352SI	0.00	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>769.72</b>
AA941358HI	0.00	0.58	250	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>872.67</b>
AA951392HI	0.00	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>910.44</b>
AA951398SI	0.00	1.0	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>745.17</b>
AA951392SI	0.00	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>776.33</b>
AA951398HI	0.00	1.0	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>879.28</b>
AA961362HI	0.00	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>932.17</b>
AA961368SI	0.00	2.0	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>766.89</b>
AA961362SI	0.00	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>815.44</b>
AA961368HI	0.00	2.0	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>901.00</b>
AA971352HI	0.00	0.42	140	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>842.44</b>
AA971358SI	0.00	0.42	140	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>677.17</b>
AA971352SI	0.00	0.42	140	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>708.33</b>
AA971358HI	0.00	0.42	140	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>811.28</b>

Programmable, Microprocessor-based, all adjustment features of Series A7 plus 4-20 mA direct and divide/multiply batch accumulate.

## Series AA7 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
AA741352HI	0.00	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>\$702.67</b>
AA741358SI	0.00	0.58	250	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>537.39</b>
AA741352SI	0.00	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>568.56</b>
AA741358HI	0.00	0.58	250	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>671.50</b>
AA751392HI	0.00	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>709.28</b>
AA751398SI	0.00	1.0	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>544.00</b>
AA751392SI	0.00	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>575.17</b>
AA751398HI	0.00	1.0	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>678.11</b>
AA761362HI	0.00	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>731.00</b>
AA761368SI	0.00	2.0	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>565.72</b>
AA761362SI	0.00	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>596.89</b>
AA761368HI	0.00	2.0	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>699.83</b>
AA771352HI	0.00	0.42	140	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>640.33</b>
AA771358SI	0.00	0.42	140	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>475.06</b>
AA771352SI	0.00	0.42	140	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>506.22</b>
AA771358HI	0.00	0.42	140	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>609.17</b>
AA781392HI	0.00	0.75	80	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>646.94</b>
AA781398SI	0.00	0.75	80	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>481.67</b>
AA781392SI	0.00	0.75	80	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>512.83</b>
AA781398HI	0.00	0.75	80	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>615.78</b>

Manual adjustment features of Series A1 plus switch conversion to external control for automatic systems.

SEE A1 SERIES PUMPS ON NEXT PAGE.

Liquid Metronics' Chemical Metering Pumps are available with outputs of .001 GPH up to 70 GPH. A wide variety of materials are available for liquid ends to handle any chemical from acids to alkalies, solvents and high viscosity materials.

## Quick Spec

- Microprocessor control
- Automatic pressure relief
- Rugged construction
- Low cost
- 100:1 adjustable range
- Outputs up to 2.0 GPH or 250 PSI
- 16 feet of tubing, foot valve and injection check/back pressure valve included

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LIQUID METRONICS DIVISION  
**MILTON ROY**



## A Series



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 57

**A9 PUMPS** - Programmable, micro-processor based, all adjustable features of A7 series plus 4-20 mA direct and divide/multiply batch accumulate

**A7 PUMPS** - Manual control, plus switch conversion to external control for automatic systems. (use A to D converter for 4-20 mA control signal)

**A1 PUMPS** - Manual control, outputs up to 2.0 GPH



**USCO tech tip**

For four function technical information on the Four Function Valve, see bottom of page 60.

### Series AA1 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
AA141352HI	0.01	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>\$645.06</b>
AA141358SI	0.01	0.58	250	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>466.56</b>
AA141352SI	0.01	0.58	250	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>496.78</b>
AA141358HI	0.01	0.58	250	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>613.89</b>
AA151392HI	0.01	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>651.67</b>
AA151398SI	0.01	1.0	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>474.11</b>
AA151392SI	0.01	1.0	110	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>504.33</b>
AA151398HI	0.01	1.0	110	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>620.50</b>
AA161362HI	0.02	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>673.39</b>
AA161368SI	0.02	2.0	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>493.94</b>
AA161362SI	0.02	2.0	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>524.17</b>
AA161368HI	0.02	2.0	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>642.22</b>
AA171352HI	0.01	0.42	140	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>583.67</b>
AA171358SI	0.01	0.42	140	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>407.06</b>
AA171352SI	0.01	0.42	140	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.250 O.D.	<b>436.33</b>
AA171358HI	0.01	0.42	140	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.250 O.D.	<b>552.50</b>
AA181392SI	0.01	0.75	80	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>590.28</b>
AA181398SI	0.01	0.75	80	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>413.67</b>
AA181392SI	0.01	0.75	80	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>443.89</b>
AA181398HI	0.01	0.75	80	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>559.11</b>

Stroking frequency manually adjustable. Nominal range from 5 to 100 strokes per minute. Stroke length manually adjustable from 0 to 100% (30% recommended minimum on Series A17 & A18; 20% on Series A14, A15 & A16).

### B Series Chemical Metering Pump

**B9 PUMPS** Programmable, micro-processor based, all adjustable features of B7 series plus 4-20 mA direct and divide/multiply batch accumulate – available.

**B7 PUMPS** Manual control, plus switch conversion to external control for automatic systems.

**B1 PUMPS** Manual control, outputs up to 7.0 GPH.

#### Quick Spec

- High efficiency solid state electronic controls
- 200:1 adjustable range
- Outputs from .01 up to 7.0 GPH or 150 PSI
- Tubing, foot valve, and injection valve included
- Rugged construction
- Wetted parts offered in other materials



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See additional  
Specialty Products  
on page 61

### Series B9 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
B911392HI	0.00	1.6	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>\$1,132.39</b>
B911398SI	0.00	1.6	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>912.33</b>
B911392SI	0.00	1.6	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>941.61</b>
B911398HI	0.00	1.6	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>1,101.22</b>
B921392HI	0.00	2.5	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>1,132.39</b>
B921398SI	0.00	2.5	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>912.33</b>
B921392SI	0.00	2.5	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>941.61</b>
B921398HI	0.00	2.5	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>1,101.22</b>
B931362HI	0.00	4.5	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>1,132.39</b>
B931368SI	0.00	4.5	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>912.33</b>
B931362SI	0.00	4.5	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>941.61</b>
B931368HI	0.00	4.5	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>1,101.22</b>
B941312HI	0.00	7.0	30	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.500 O.D.	<b>1,232.50</b>
B941318SI	0.00	7.0	30	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,001.11</b>
B941312SI	0.00	7.0	30	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,036.06</b>
B941318HI	0.00	7.0	30	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.500 O.D.	<b>1,195.67</b>

Programmable, Microprocessor-based, all adjustment features of Series B7 plus 4-20 mA direct and divide/multiply batch accumulate.

### Series B7 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
B711392HI	0.00	1.6	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>\$926.50</b>
B711398SI	0.00	1.6	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>718.72</b>
B711392SI	0.00	1.6	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>748.00</b>
B711398HI	0.00	1.6	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>895.33</b>
B721392HI	0.00	2.5	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>926.50</b>
B721398SI	0.00	2.5	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>718.72</b>
B721392SI	0.00	2.5	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>748.00</b>
B721398HI	0.00	2.5	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>895.33</b>
B731362HI	0.00	4.5	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>926.50</b>
B731368SI	0.00	4.5	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>718.72</b>
B731362SI	0.00	4.5	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>748.00</b>
B731368HI	0.00	4.5	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>895.33</b>
B741312HI	0.00	7.0	30	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.500 O.D.	<b>1,026.61</b>
B741318SI	0.00	7.0	30	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>770.67</b>
B741312SI	0.00	7.0	30	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>842.44</b>
B741318HI	0.00	7.0	30	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.500 O.D.	<b>989.78</b>

Manual adjustment features of Series B1 plus toggle switch conversion to external control for automatic systems.



## Series B1 Metering Pumps

SEE B9 &amp; B7 SERIES PUMPS ON PREVIOUS PAGE.

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
B111392HI	0.01	1.6	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>\$865.11</b>
B111398SI	0.01	1.6	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>660.17</b>
B111392SI	0.01	1.6	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>689.44</b>
B111398HI	0.01	1.6	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>833.94</b>
B121392HI	0.01	2.5	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>865.11</b>
B121398SI	0.01	2.5	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>660.17</b>
B121392SI	0.01	2.5	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>689.44</b>
B121398HI	0.01	2.5	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>833.94</b>
B131362HI	0.02	4.5	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>865.11</b>
B131368SI	0.02	4.5	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>693.18</b>
B131362SI	0.02	4.5	50	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>723.73</b>
B131368HI	0.02	4.5	50	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>833.94</b>
B141312HI	0.04	7.0	30	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.500 O.D.	<b>965.22</b>
B141318SI	0.04	7.0	30	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>748.94</b>
B141312SI	0.04	7.0	30	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>783.89</b>
B141318HI	0.04	7.0	30	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.500 O.D.	<b>928.39</b>

Stroke frequency manually adjustable. Nominal range 5 to 100 strokes per minute. Stroke length manually adjustable from 0 to 100% (10% recommended minimum).

## Series C7 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
C701498SP	0.00	1.3	300	PVC	Ceramic	PVC	Fluorofilm	4FV	¼ MNPT	<b>\$1,059.67</b>
C711362HI	0.00	2.5	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>1,151.28</b>
C711368SI	0.00	2.5	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>976.90</b>
C711362SI	0.00	2.5	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,006.79</b>
C711460SI	0.00	2.5	150	Acrylic/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,041.51</b>
C711368HI	0.00	2.5	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.375 O.D.	<b>1,120.11</b>
C721368SI	0.00	4.0	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>976.90</b>
C721362SI	0.00	4.0	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,006.79</b>
C721460SI	0.00	4.0	100	Acrylic/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,041.51</b>
C731312HI	0.00	8.0	60	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	AV+4FV	PE.500 O.D.	<b>1,219.28</b>
C731318SI	0.00	8.0	60	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,038.01</b>
C731312SI	0.00	8.0	60	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,074.68</b>
C731410SI	0.00	8.0	60	Acrylic/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,110.48</b>
C74135T	0.00	20.0	25	Polypropylene	Ceramic	Polypropylene	Teflon Face	2-Way	PE.500 O.D.	<b>1,237.93</b>
C74136	0.00	20.0	25	PVC/PVC	Ceramic	PVC	Teflon Face	2-Way	PE.500 O.D.	<b>1,220.48</b>
C77120S	0.00	10.0	80	Acrylic/PVC	Ceramic	PVC	Fluorofilm	4FV	PE.500 O.D.	<b>1,240.56</b>
C77125T	0.00	10.0	80	Polypropylene	Ceramic	Polypropylene	Fluorofilm	2-Way	PE.500 O.D.	<b>1,189.92</b>
C77126S	0.00	10.0	80	PVC/PVC	Ceramic	PVC	Fluorofilm	4FV	PE.500 O.D.	<b>1,237.93</b>
C78135T	0.00	25.0	30	Polypropylene	Ceramic	Polypropylene	Fluorofilm	2-Way	PE.500 O.D.	<b>1,347.07</b>
C78136	0.00	25.0	30	PVC/PVC	Ceramic	PVC	Fluorofilm	2-Way	PE.500 O.D.	<b>1,329.60</b>

Manual adjustment features of Series C1 plus toggle switch conversion to external control for automatic systems.

## Series C1 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
C101498SP	0.01	1.3	300	PVC	Ceramic	PVC	Fluorofilm	4FV	¼ MNPT	<b>\$998.28</b>
C111368SI	0.01	2.5	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>924.61</b>
C111362SI	0.01	2.5	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>955.78</b>
C121368SI	0.02	4.0	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>924.61</b>
C121362SI	0.02	4.0	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>955.78</b>
C131318SI	0.05	8.0	60	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>986.94</b>
C131312SI	0.05	8.0	60	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,023.78</b>
C14135T	0.1	20.0	25	Polypropylene	Ceramic	Polypropylene	Fluorofilm	2-Way	PE.500 O.D.	<b>1,190.00</b>
C14136	0.1	20.0	25	PVC	Ceramic	PVC	Fluorofilm	2-Way	PE.500 O.D.	<b>1,172.06</b>


Stroke frequency manually adjustable. Nominal range 5 to 100 strokes per minute. Stroke length manually adjustable from 0 to 100% (10% recommended minimum).

## Series C9 Metering Pumps

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Balls	Cartridge	Liquifram	Access Valve	Tube Connection	Price
C901498SP	0.00	1.3	300	PVC	Ceramic	PVC	Fluorofilm	4FV	¼ MNPT	<b>\$1,272.17</b>
C911368SI	0.00	2.5	150	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,197.56</b>
C911362SI	0.00	2.5	150	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,228.72</b>
C911460SI	0.00	2.5	150	Acrylic/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,262.72</b>
C921368SI	0.00	4.0	100	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,197.56</b>
C921362SI	0.00	4.0	100	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,228.72</b>
C921460SI	0.00	4.0	100	Acrylic/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.375 O.D.	<b>1,262.72</b>
C931318SI	0.00	8.0	60	PVC/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,259.89</b>
C931312SI	0.00	8.0	60	PVDF/PVDF	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,296.72</b>
C931410SI	0.00	8.0	60	Acrylic/PVC	Ceramic	PVDF/Polyprel	Fluorofilm	4FV	PE.500 O.D.	<b>1,456.33</b>
C94135T	0.00	20.0	25	Polypropylene	Ceramic	Polypropylene	Fluorofilm	2-Way	PE.500 O.D.	<b>1,462.94</b>
C94136	0.00	20.0	25	PVC	Ceramic	PVC	Fluorofilm	2-Way	PE.500 O.D.	<b>1,445.00</b>

Programmable, Microprocessor-based, all adjustment features of Series C7 plus 4-20 mA direct and divide/multiply batch accumulate.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726


**LMI**  
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 As Low As  
**\$660<sup>17</sup>**
**USCO** tech tip
 For four function technical  
 information on the  
 Four Function Valve,  
 see bottom of page 60.
C Series Chemical  
Metering Pumps


## Quick Spec

- High efficiency solid state electronic controls
- Outputs from .01 up to 25.0 GPH or 300 PSI
- Tubing, foot valve, and injection/check/back pressure valve included
- Rugged construction
- Wetted parts offered in other materials

**C9 PUMPS** Programmable, micro-processor based, all adjustable features of C7 series plus 4-20 mA direct and divide/multiply batch accumulate — available.

**C7 PUMPS** Manual control, plus switch conversion to external control for automatic systems.

**C1 PUMPS** Manual control, outputs up to 20 GPH.


**LMI**  
 LIQUID METRONICS DIVISION  
 MILTON ROY
**C Series****USCO 59**

## G Series Chemical Metering Pump

### Quick Spec

- Mechanically actuated diaphragm (MAD).
- Variable eccentric design delivers smooth output.
- Variable speed drives for external control and automation.
- Durable, compact epoxy coated cast housing.

**Up to  
300 GPH**

**LMI**  
LIQUID METRICS DIVISION  
MILTON ROY



**G Series**

**MOTOR:** ¾ hp, 1-Phase, 60Hz, 115/230V, 1800 rpm, TEFC, 56C Frame

**Other pump materials available.**

### GD Series Metering Pump

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Maximum Pressure	Head/ Valves	Balls	Seals	Seats	Connection	Price
SD4288P	6	10	120	PVC/PVDF	150	PVC/PVDF	Ceramic	Aflas	PTFE	¼" NPTM	\$1,702.22
SD4282P	6	10	120	Polypropylene	150	PVDF/PVDF	Ceramic	Aflas	PTFE	¼" NPTM	2,013.33
SD4688P	8.3	10	120	PVC	150	PVC/PVDF	Ceramic	Aflas	PTFE	¼" NPTM	1,702.22
SD4682P	8.3	19	180	PVDF	150	PVDF/PVDF	Ceramic	Aflas	PTFE	¼" NPTM	2,013.33
SD4388P	12	19	180	PVC	150	PVC/PVDF	Ceramic	Aflas	PTFE	¼" NPTM	1,702.22
SD4382P	12	19	180	Polypropylene	150	PVDF/PVDF	Ceramic	Aflas	PTFE	¼" NPTM	2,013.33
SD7188P	12.5	36	100	PVDF	100	PVC/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,178.89
SD7182P	12.5	36	100	PVC	100	PVDF/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,994.44
SD7288P	25	36	100	Polypropylene	100	PVC/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,178.89
SD7282P	25	53	80	PVDF	100	PVDF/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,994.44
SD7688P	34	53	80	PVC	100	PVC/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,178.89
SD7682P	34	53	80	Polypropylene	100	PVDF/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,994.44
SD7388P	50				100	PVC/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,178.89
SD7382P	50				100	PVDF/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,994.44
SD8188P	28				75	PVC/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,213.33
SD8182P	28				75	PVDF/PVDF	Ceramic	Viton	PVDF	1" NPTF	3,212.22
SD8288P	57				75	PVC/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,213.33
SD8282P	57				75	PVDF/PVDF	Ceramic	Viton	PVDF	1" NPTF	3,212.22
SD8688P	79				75	PVC/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,213.33
SD8682P	79				75	PVDF/PVDF	Ceramic	Viton	PVDF	1" NPTF	3,212.22
SD8388P	115				75	PVC/PVDF	Ceramic	Viton	PVDF	1" NPTF	2,213.33
SD8382P	115				75	PVDF/PVDF	Ceramic	Viton	PVDF	1" NPTF	3,212.22

Motor Driven. Stroke frequency fixed. Stroke length manually adjustable from 0 to 100% (10% recommended minimum).

### GB Series Metering Pump

Item #	Minimum GPH	Maximum GPH	Maximum PSI	Head/ Fittings	Maximum Pressure	Head/ Valves	Balls	Seals	Seats	Connection	Price
SG5188P	26	26	150	PP/PVC	150	PVC/PVDF	Ceramic	Viton	PVDF	½" NPTF	\$3,053.33
SG5182P	26	26	150	PVDF/PVDF	150	PVDF/PVDF	Ceramic	PTFE	PVDF	½" NPTF	3,868.89
SG5288P	53	53	150	PP/PVC	150	PVC/PVDF	Ceramic	Viton	PVDF	½" NPTF	3,053.33
SG5282P	53	53	150	PVDF	150	PVDF/PVDF	Ceramic	PTFE	PVDF	½" NPTF	3,868.89
SG6888P	75				150	PVC/PVC	Ceramic	Viton	PE	1" NPTF	3,053.33
SG6882P	75				150	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	3,868.89
SG5388P	106				150	PVC/PVC	Ceramic	Viton	PE	1" NPTF	3,053.33
SG5382P	106				150	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	3,868.89
SG6188P	36				100	PVC/PVC	Ceramic	Viton	PE	1" NPTF	3,157.78
SG6182P	36				100	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	5,396.67
SG6288P	73				100	PVC/PVC	Ceramic	Viton	PE	1" NPTF	3,157.78
SG6282P	73				100	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	5,396.67
SG6688P	104				100	PVC/PVC	Ceramic	Viton	PE	1" NPTF	3,157.78
SG6682P	104				100	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	5,396.67
SG6388P	147	147	100	PP/PVC	100	PVC/PVC	Ceramic	Viton	P.E.	1" NPTF	3,157.78
SG6382P	147	147	100	PVDF	100	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	5,396.67
SG7188P	75	300	50	PP/PVC	50	PVC/PVC	Ceramic	Viton	P.E.	1" NPTF	4,372.22
SG7182P	75	300	50	PVDF	50	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	6,116.67
SG7288P	149				50	PVC/PVC	Ceramic	Viton	P.E.	1" NPTF	4,372.22
SG7282P	149				50	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	6,116.67
SG7688P	208				50	PVC/PVC	Ceramic	Viton	P.E.	1" NPTF	4,372.22
SG7682P	208				50	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	6,116.67
SG7388P	300				50	PVC/PVC	Ceramic	Viton	P.E.	1" NPTF	4,372.22
SG7382P	300				50	PVDF/PVDF	Ceramic	PTFE	PVDF	1" NPTF	6,116.67

Motor Driven. Stroke frequency fixed. Stroke length manually adjustable from 0 to 100% (10% recommended minimum). Shipping Weight: 88 lbs. (40 kg)



**USCO tech tip**

### Four Function Valve (4 FV) Method of Operation

#### A. Priming

1. Connect pressure release tubing to pressure release port.
2. Route tubing to solution reservoir and anchor with a plastic tie.
3. Set pump at 80% speed and 100% stroke. Start pump.
4. Pull or ¼ turn Pressure Release knob (black knob), holding knob out until solution is visible through translucent pressure release tubing.
5. Pump is now primed.

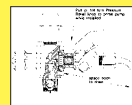
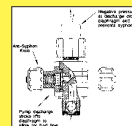
#### Note:

- (a) Pump is normally self-priming if suction lift is no more than 5 ft (1.5 m), valves in the pump are wet with water and the above steps (A1 thru A5) are followed.
- (b) If the pump does not self prime, remove Four Function Valve Assembly and discharge valve ball, and pour water or solution slowly into discharge port until head is filled. Replace Four Function Valve Assembly and follow steps A1 through A5 thereafter.

#### B. Depressurizing Discharge Line

1. It is possible to depressurize discharge line and pump head without removal of tubing or loosening of fittings. Be sure injection check valve is properly installed and is operating. If a gate valve or globe has been installed downstream of injection check valve, it should be closed. Be certain relief tubing is connected and run to chemical solution tank.
2. Pull or ¼ turn both anti-siphon and pressure release knobs.

3. The discharge line is now depressurized.
4. If injection check valve is of higher elevation than pump head, disconnecting tubing at injection check valve end will allow air to enter and permit solution to drain back to tank.



# Accessories and Replacement Parts for LMI Metering Pumps

## Calibration Cylinders

**Grifco** calibration cylinders are designed to enhance the performance of chemical feed systems by providing a verification of the flow rate of the chemical feed pump. Robust construction of clear PVC with an easy to read graduation in mls and gph.

To convert to LPH or GPH use this formula:

$$\text{LPH} = (\text{volume} \div \text{draw time}) \times 3.6$$

$$\text{GPH} = (\text{volume} \div \text{draw time}) \times 0.952$$

Note: Max. cylinder pressure is 15 psi.

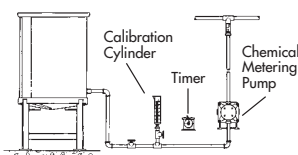


Fig. 1

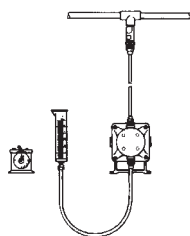


Fig. 2

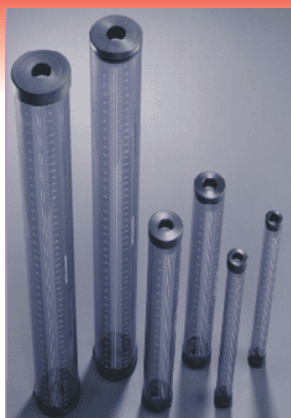
### Quick Spec

- High Reliability / Low Cost
- High Contrast Graduation Markings
- Clear Easy-View Tube
- Robust Construction
- Direct GPH Readout
- Sealed Top with Overflow Connection
- Optional EZ-Clean Model
- Optional Open Top with Dust Cap

Sealed Top* Item #	Loose Top** Item #	Capacity mL	Capacity GPH	Connections	Price
CC0100S	CC0100L	100	3.2	1/2"	<b>\$77.78</b>
CC0200S	CC0200L	200	6.4	1/2"	<b>90.78</b>
CC0500S	CC0500L	500	16	3/4"	<b>104.22</b>
CC1000S	CC1000L	1000	32	3/4"	<b>125.44</b>
CC2000S	CC2000L	2000	64	1"	<b>194.89</b>
CC4000S	CC4000L	4000	128	1"	<b>270.94</b>

\*Sealed Top c/w over flow connection

\*\*Open top with dust cap



### OPERATION

1. Follow arrangement indicated in either fig. 1 or 2.
2. With calibration cylinder full, start metering pump and run at 100% output adjustment until pump is fully primed.
3. With pump installed under actual operating conditions, operate pump until all air is exhausted from suction line and pump head. Refill calibration cylinder.
4. Start the pump and using a stop watch or timer, calculate the volume pumped over time.



## Repair & Preventative Maintenance Kits

RPM Pro Pac™ kits include the recommended parts for the LiquiPro™ Series LMI Metering Pumps. These kits provide an easy, economical solution to annual pump maintenance.

Item #	For Liquid End Assembly...	Price
LMRPM352	350TI, 350SI, 350BI, 350TP, 350SP, 350BP 351TI, 351SI, 351BI, 351TP, 351SP, 351BP 352TI, 352SI, 352BI, 352TP, 352SP, 352BP 450TI, 450SI, 450BI, 450TP, 450SP, 450BP	<b>\$81.11</b>
LMRPM353	353TI, 353SI, 353BI, 353TP, 353SP, 353BP	<b>108.89</b>
LMRPM392	390TI, 390SI, 390BI, 390TP, 390SP, 390BP 391TI, 391SI, 391BI, 391TP, 391SP, 391BP 392TI, 392SI, 392BI, 392TP, 392SP, 392BP 490TI, 490SI, 490BI, 490TP, 490SP, 490BP	<b>87.78</b>
LMRPM393	393TI, 393SI, 393BI, 393TP, 393SP, 393BP	<b>116.67</b>
LMRPM362	360TI, 360SI, 360BI, 360TP, 360SP, 360BP 361TI, 361SI, 361BI, 361TP, 361SP, 361BP 362TI, 362SI, 362BI, 362TP, 362SP, 362BP 460TI, 460SI, 460BI, 460TP, 460SP, 460BP	<b>90.00</b>
LMRPM363	363TI, 363SI, 363BI, 363TP, 363SP, 363BP	<b>118.89</b>
LMRPM312	310TI, 310SI, 310BI, 310TP, 310SP, 310BP 311TI, 311SI, 311BI, 311TP, 311SP, 311BP 312TI, 312SI, 312BI, 312TP, 312SP, 312BP 410TI, 410SI, 410BI, 410TP, 410SP, 410BP	<b>104.44</b>
LMRPM313	313TI, 313SI, 313BI, 313TP, 313SP, 313BP	<b>132.22</b>

Replacement part kits for liquid end assemblies other than the LiquiPro Series pumps are also available. Example: Kit numbers starting with SP. Please call.

## Model No. 34643 Wall Mounting Bracket Assembly

- Wall mounts any of LMI's Series A, B, C, J, or P pumps
- Rugged, polypropylene bracket provides excellent chemical resistance
- All hardware included for mounting pump and bracket to wall studs, concrete, or hollow block walls
- Provides a stable mounting surface

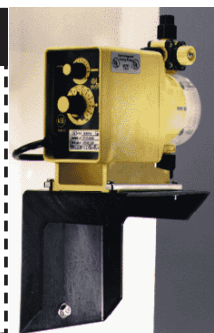
### BENEFITS

LMI's Wall Mounting Bracket Assembly allows LMI pumps to face either right or left.

A wall mounted pump is up and away from the solution drum, minimizing the chance for splatters.

A wall mounted pump makes changing solution drums easier. The tubing safety wand can be handled easily and safely, for transferring from empty to full drum.

Item #	Description	Price
34643	Wall Mounting Bracket Assembly	<b>\$35.83</b>



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 61



## Computerized Sump Pump



Model A53



Model A55D

**4000 GPH**


Model 56D



Model 56S

**RULE**
**From Only  
\$122.50**

### Quick Spec

- Pumps automatically when water is present; turns off automatically
- Automatically checks for water every few minutes
- No float switches to tangle or stick
- Snap-off strainer for easy cleaning
- Permanently lubricated for long life

### Performance Chart

Open Discharge	2800 Series	1800 Series
5 feet vertically	2000 GPH	1250 GPH
10 feet vertically	1100 GPH	700 GPH
15 feet vertically	900 GPH	100 GPH

Includes 8 ft. electrical cord (24 ft. cord optional on A535 model).

Item #	Description	Volts	Price
A55D	Series 2800 non-automatic pump	110 VAC	<b>\$145.10</b>
A535	Series 1800 pump w/ 1" NPT	110 VAC	<b>122.50</b>
A69	Double stepped adapter for 3/8" or 1/4" ID hose		<b>4.60</b>
A68	Garden hose adapter		<b>4.60</b>

Designed for the toughest applications, the 4000 GPH pump optimizes Rule's exclusive design features to produce the highest capacity available for a pump its size. 2" discharge outlet.

Item #	Description	Volts	Price
56D	<b>Non-Automatic</b> Series 4000 GPH pump w/ 2" NPT	12 VDC	<b>\$153.76</b>
56S	<b>Fully Automatic</b> Series 4000 GPH pump w/ 2" NPT	12 VDC	<b>222.81</b>
56S-3	<b>Fully Automatic</b> Series 4000 GPH pump w/ 2" NPT with 3rd wire for manual override or indicator light capability	12 VDC	<b>243.91</b>

## Snappy John® Automatic Sump Pump

Internally lubricated; zinc motor housing. Thermally protected. Screened inlet. Able to pump water containing solids up to 3/8" in diameter such as twigs, debris, etc. Built-in snap-action float switch for automatic operation: "On" level is 7"-10" of water; "Off" level is 5"-2". 1 1/4" FNPT outlet with garden hose adapter.

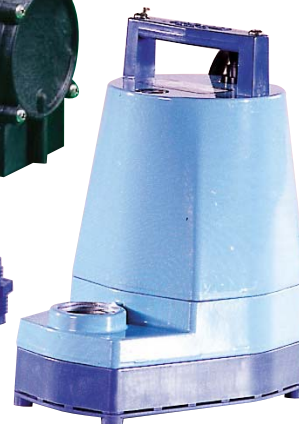
Item #	Model	Cord Length	Price
LG505700	5.5-ASP	10'	<b>\$124.20</b>
LG505701	5.5-ASP	25'	<b>131.14</b>

## Water Wizard® Utility Pumps



Model 5-ASP-LL

**Operates  
Submersed**
**1200 GPH**

**Starting At  
\$74.90**


Model 5-MSP

Little Giant's most versatile manual portable utility pump is submersible and removes water to within 1/8" of the surface. Housing is cast aluminum with protective epoxy coating. Bottom sump-type pick up with removable plastic screen 1" FNPT discharge with garden hose adapter.

Automatic or manual on/off. 5-MSP pump with RS-5 switch for automatic operation: "On" level is 6"-9" of water, "Off" level is 4"-1".

Identical to above except switch is the RS5LL, for pump activation at a low level of water: "On" level is 2" 3" of water; "Off" level is 1.5"-.5".

### Quick Spec

- Lightweight
- Compact
- 1" discharge (garden hose)
- Removes water to 1" depth
- 10 FT. power cord
- Max. head 26.3
- (RS-5) remote switch for automatic operation available

Model	List./ Cert.	GPH @ 1'	Cord Length	Shut Off	psi	HP	Motor amp.	Shipping Wt. lbs.	Item #	Price
5-MSP	UL	1200'	10'	26.3	11.4	1/8	5	8.25	LG505000	<b>\$83.22</b>
5-ASP	UL/CSA	1200	10'	26.3	11.4	1/8	5	8.5	LG505300	<b>120.89</b>
5-ASP-LL	UL/CSA	1200	18'	26.3	11.4	1/8	5	10	LG505350	<b>136.97</b>


**USCO Priced  
\$124.20**
**2400 GPH**




# Magnet Driven Chemical Pumps

*Trouble-free handling  
of acids, alkalis, solvents*

## LITTLE GIANT MAGNET DRIVEN CHEMICAL PUMPS FEATURE:

- Leak-proof, seal-less magnetic drive
- Chemicals contact only chemically resistant materials
- Balanced drive magnet extends bearing life
- Spindle shaft supported at both ends to prevent impeller damage during start-up and stop
- Motors designed to run cooler under maximum load and continuous operation
- Motors have built-in overload protection
- Most pump models UL Listed or Component Recognized and CSA Component Certified

### Quick Spec

For mildly corrosive chemicals and solutions

## MD Series Magnet Driven Chemical Pump

- Non-submersible pumps with leakproof seal-less magnet drive
- High quality, permanent, uncoated ceramic (barium ferrite) driven magnet
- Except where noted, all models have titanium shaft and thrust washers for excellent wear and corrosion resistance
- Glass-filled polypropylene pumping head and impeller
- Nitrile O-ring

From Only  
**\$68.85**

Item #	Pump Model (115V, 60Hz.)	Gallons per minute at 1 foot	at 6 feet	Shut Off (feet)	PSI	Intake Size (inches)	Discharge Size (inches)	Price
LG588001	1-AA-MD	2.83	—	5.5	2.5	½" O.D.	½" O.D.	<b>\$68.85</b>
LG589002	1-MD	3.00	1.50	10.6	4.6	½" O.D.	½" O.D.	<b>111.58</b>
LG580002	2-MD	8.50	6.83	14.6	6.3	½" FPT	½" MPT	<b>136.20</b>
LG581002	3-MD	9.83	8.16	16.3	7.1	½" FPT	½" MPT	<b>164.95</b>
LG582002	4-MD	11.50	10.00	23.7	10.2	½" FPT	½" MPT	<b>197.51</b>
LG583002	5-MD	15.08	13.30	34.6	15.0	½" FPT	½" MPT	<b>294.00</b>

For mildly corrosive fluids such as low concentrations of acids and alkalis in the 5-9 pH range, and temperatures up to 150°F.



### FLUID SYSTEM

#### DESIGN PARAMETERS

- Specific Gravity: Up to 1:1
- Viscosity: Up to 100 SSU (20 CPS)
- Ambient Air Temperatures: Up to 77° F (25° C)

### Quick Spec

For semi-corrosive chemicals and solutions

## MD-SC Series Magnet Driven Chemical Pump

- Non-submersible pumps with leakproof seal-less magnet drive
- 99.5% pure alumina ceramic shaft and thrust washers for long, trouble-free service
- Glass-filled polypropylene pumping head and impeller with encapsulated magnet for excellent chemical resistance
- Nitrile O-ring



Item #	Pump Model (115V, 60Hz.)	Gallons per minute @ 1 Ft.	@ 6 Ft.	Shut Off (Ft.)	PSI	Intake Size (in.)	Discharge Size (in.)	Price
LG580503	2-MD-SC	8.50	6.83	14.6	6.3	½"	½"	<b>\$154.25</b>
LG581503	3-MD-SC	12.50	11.08	21.9	9.5	¾"	½"	<b>177.33</b>
LG582503	4-MD-SC	14.16	12.75	24.3	10.5	1"	½"	<b>213.31</b>
LG583503	5-MD-SC	17.50	15.33	27.5	11.9	1"	½"	<b>305.42</b>
@ 1 Ft. @ 15 Ft. @ 30 Ft.								
LG585504	TE-5.5-MD-SC	33.33	28.00	19.16	42.0	1"	¾"	<b>505.84</b>
LG586504	TE-6-MD-SC	39.66	34.16	28.33	51.0	22.0	1"	<b>524.71</b>

For semi-corrosive acids, alkalines and salt solutions at fluid temperatures up to 150°F.

As Low As  
**\$154.25**



### FLUID SYSTEM

#### DESIGN PARAMETERS

- Specific Gravity: Up to 1:1
- Viscosity: Up to 100 SSU (20 CPS)
- Ambient Air Temperatures: Up to 77° F (25° C)

### Quick Spec

For highly corrosive chemicals and solutions

## MD-HC Series Magnet Driven Chemical Pump

- 99.5% pure alumina ceramic shaft and thrust washers for long, trouble-free service in use with harsh solutions
- Viton® O-ring.
- Self-lubricating carbon impeller bushing which is impervious to fluids and long-lived in abrasive solutions.
- Glass-filled Ryton® encapsulated driven magnet for superior chemical wear resistance
- Non-submersible pumps with leakproof seal-less magnet drive



Item #	Pump Model (115V, 60Hz.)	Gallons per minute @ 1 Ft.	@ 6 Ft.	Shut Off (Ft.)	PSI	Intake Size (in.)	Discharge Size (in.)	Price
LG580603	2-MD-HC	8.5	6.83	14.6	6.3	½"	½"	<b>\$190.75</b>
LG578603	3-MD-MT-HC	8.33	7.08	16.2	7.0	½"	½"	<b>160.59</b>
LG581603	3-MD-HC	12.50	11.08	21.9	9.5	½"	½"	<b>267.16</b>
LG581604	TE-3-MD-HC	9.83	8.16	16.3	7.1	½"	½"	<b>239.07</b>
LG582603	4-MD-HC	14.16	12.75	24.3	10.5	½"	½"	<b>268.07</b>
LG582604	TE-4MD-HC	14.16	12.75	24.3	10.5	1"	½"	<b>289.01</b>
@ 1 Ft. @ 15 Ft. @ 30 Ft.								
LG583603	5-MD-HC	17.50	10.91	—	27.5	11.9	1"	<b>341.33</b>
LG584604	TE-5-MD-HC	20.00	14.75	—	29.3	12.7	1"	<b>498.75</b>
LG585604	TE-5.5-MD-HC	33.33	28.00	19.16	42.0	18.0	1"	<b>524.71</b>
LG586604	TE-6-MD-HC	39.66	34.16	28.33	51.0	22.0	1"	<b>543.56</b>
LG587010	TE-7-MD-HC	53.00	44.00	37.50	58.9	25.5	1½"	<b>858.82</b>

NOTE: Consult USCO for applications with higher ambient temperatures, specific gravities and viscosities.

Resistant to a broad range of highly corrosive chemistries and most solvents, at fluid temperatures up to 200° F. While not recommended, pumps in the MD-HC Series can run dry for up to eight hours with no apparent damage.

\*Although no pump should be operated dry, these pumps can be run dry for up to eight hours without apparent damage.



### FLUID SYSTEM

#### DESIGN PARAMETERS

- Specific Gravity: Up to 1:1
- Viscosity: Up to 100 SSU (20 CPS)
- Ambient Air Temperatures: Up to 77° F (25° C)

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 63

## MD-CK Series Magnet Driven Chemical Pump



**CK Series**

From Only  
**\$854<sup>31</sup>**



**MD-CK Series** Resistant to a broad range of highly corrosive chemistries and up to 200° F. The MD-CK Series' impeller bushing is impervious to fluids and long-lived in abrasive solutions.

### FLUID SYSTEM DESIGN PARAMETERS

- Specific Gravity: Up to 1:1
- Viscosity: Up to 100 SSU (20 CPS)
- Ambient Air Temperatures: Up to 77° F (25° C)

### Quick Spec

- Volute, magnet housing and impeller are carbon-filled Kynar® (PVDF) for excellent chemical resistance
- Self-lubricating carbon-filled Teflon (Chemloy) impeller bushing is impervious to fluids and long-lived in abrasive solutions
- Encapsulated carbon-filled Kynar® permanent impeller magnet
- Ceramic shaft and thrust washers 99.5% pure alumina for long, trouble-free service in use with harsh solutions
- O-rings in MD-CK Series pumps are Viton®



### USCO tech tip

When placed into operation, Little Giant Mag Drive Pumps should be installed below the liquid level with the intake flooded. If installed above the liquid level, the pump must be manually primed to start.

Item #	Pump Model (115V, 60Hz.)	Gallons per minute @ 1 Ft. @ 15 Ft. @ 30 Ft.	Shut Off (Ft.)	PSI	Intake Size (in.)	Discharge Size (in.)	Price
LG585600	TE-5.5-MD-CK†	33.33 28.00 19.16	42.0	18.0	1"	3/4"	<b>\$954.11</b>
LG586600	TE-6-MD-CK†	37.50 31.66 24.58	49.0	21.0	1"	3/4"	<b>\$854.31</b>
LG586610	TE-6-MD-CK*	37.50 31.66 24.58	49.0	21.0	1"	3/4"	<b>\$971.13</b>
LG587600	TE-7-MD-CK*	53.00 45.83 37.50	58.5	25.5	1 1/2"	1"	<b>1,130.00</b>

† Equipped with Mica-filled Teflon bushing for optional chemical compatibility.

\*CK Series does not have run-dry capability.

NOTE: Consult USCO for applications with higher ambient temperatures, specific gravities and viscosities.

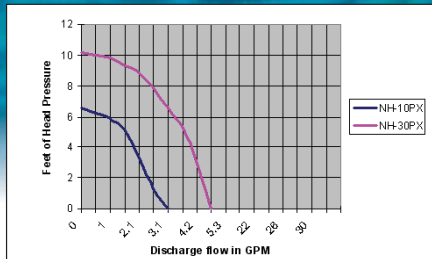
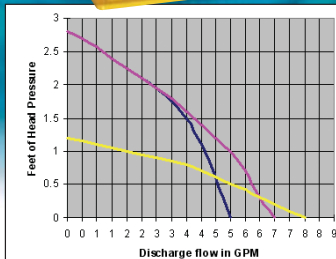
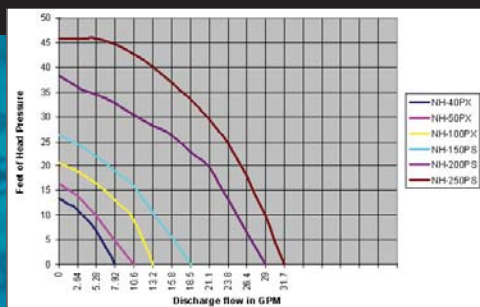
## Centrifugal Magnetic-Drive Pumps



PAN WORLD CO., LTD.

Exceptional performance –  
ideal for bulk transfer  
or circulation

From Only  
**\$98<sup>35</sup>**



115 VAC				220 VAC				Max Flow (GPM)	Max Head (ft)	Conn	HP	Price
Hose Conn Item #	NPT Conn Item #	Hose Conn Item #	NPT Conn Item #	Hose Conn Item #	NPT Conn Item #	Hose Conn Item #	NPT Conn Item #					
5PX-H-115	5PX-T-115	5PX-H-220	5PX-T-220	2.1	3.9	1/2"	1/375	<b>\$98.35</b>				
1PX-Z-H-115	1PX-Z-T-115	1PX-Z-H-220	1PX-Z-T-220	1.8	9.1	1/2"	1/150	<b>101.76</b>				
10PX-H-115	10PX-T-115	10PX-H-220	10PX-T-220	3.0	6.5	1/2"	1/150	<b>105.12</b>				
5PX-Z-H-115	5PX-Z-T-115	5PX-Z-H-220	5PX-Z-T-220	7.4	9.2	1/2"	1/150	<b>105.12</b>				
30PX-H-115	30PX-T-115	30PX-H-220	30PX-T-220	4.7	10.1	(1/2"H) (3/4"NPT)	1/75	<b>152.61</b>				
40PX-H-115	40PX-T-115	40PX-H-220	40PX-T-220	7.9	13.4	3/4"	1/40	<b>179.74</b>				
50PX-H-115	50PX-T-115	50PX-H-220	50PX-T-220	9.8	16.4	3/4"	1/15	<b>220.44</b>				
100PX-H-115	100PX-T-115	100PX-H-220	100PX-T-220	13.2	20.6	3/4"	1/12	<b>257.76</b>				
150PS-H-115	150PS-T-115	150PS-H-220	150PS-T-220	18.4	26.9	1"	1/8	<b>339.12</b>				
200PS-H-115	200PS-T-115	200PS-H-220	200PS-T-220	29.0	39.3	1"	1/5	<b>376.41</b>				
250PS-H-115	250PS-T-115	250PS-H-220	250PS-T-220	31.7	45.9	1"	1/3	<b>423.92</b>				

### Quick Spec

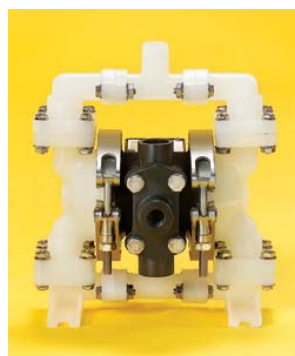
- Quiet, energy efficient and compact
- Exceptional performance – ideal for bulk transfer or circulation
- Permanent split capacitor TENV motors
- 20,000 hours life
- Magnet completely encapsulated
- Pumps include 3 ft power cord
- Moderate Flow Polypropylene Pumps
- WETTED PARTS
  - Front/Rear casings and impeller/magnet capsule: glass fiber reinforced polypropylene
  - Spindle and thrust ring: Alumina ceramic or Rytan
  - Casing O-ring: Viton
  - Bearing: Ceramic
  - Maximum rpm: 3400



# Versa-Matic Elima-Matic Pumps

Versa-Matic® enhances the standard of pumping performance with the next generation in Elima-Matic® technology. As the name suggests, Elima-Matic pumps virtually eliminate pumping problems to keep your operations running smoothly. Elima-Matic pumps are available in a variety of plastic and metal materials, such as polypropylene, acetal, aluminum, and stainless steel. Sizes range from ¼" to 3" and specialty features are available, including clamped design, bolted design, split manifold, and side discharge.

Starting At  
\$243<sup>33</sup>



## E6 ¼" PUMPS

Get reliable performance with the non-stalling, lube-free air valve system in Versa-Matic's E6 ¼" pump. Leak-free design reduces downtime, ensuring continuous, reliable pump performance.

### The E6 ¼" Pump...

- Features dual threaded manifolds
- Offers optional manifold configurations
- Provides an integrated muffler
- Is self-priming

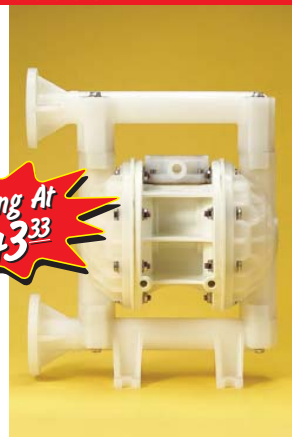


## E5 ½" PUMPS

Leak-free bolted construction provides a greater positive seal with Versa-Matic's E5 ½" pump. Elima-Matic's air valve system provides the reliability you need and lets you transfer chemicals safely and confidently.

### The E5 ½" Pump...

- Is available in either plastic or metal
- Supplies a corrosion-resistant air section
- Provides multiple porting options
- Offers an adaptable footprint
- Is self-priming
- Offers center port and split manifolds on plastic bolted pumps

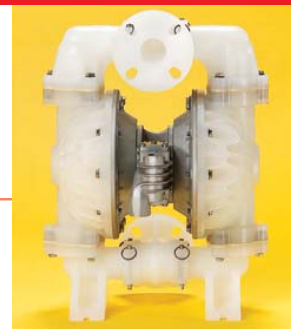


## E1 1" PUMPS

Versa-Matic's E1 1" pump uses the Elima-Matic air valve system to provide non-stalling, lube-free performance. The E1 1" plastic bolted pump comes in optional and standard porting models, and offers a flow rate of 0-35 gpm.

### The E1 1" Pump...

- Is available in either plastic or metal
- Supplies a corrosion-resistant air section
- Provides multiple porting options
- Is self-priming
- Offers center port and split manifolds on plastic bolted pumps
- Offers UL listed models on bolted metallic pumps

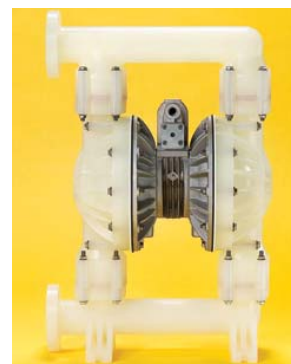


## E4 1½" PUMPS

The Elima-Matic air valve system ensures continuous, reliable performance in the E4 1½" pump. Available in both clamped and bolted models with a flow rate of 0-72 gpm, this durable pump can handle infinite variable flows up to 90% solids.

### The E4 1½" Pump...

- Is available in either plastic or metal
- Supplies a corrosion-resistant air section
- Is self-priming
- Provides dimensional interchangeability with Wilden 1½" pumps
- Offers horizontal discharge model on bolted metallic pump



## E2 2" PUMPS

Versa-Matic's E2 2" pump uses the Elima-Matic air valve system to provide non-stalling, lube-free performance. It is available in a clamped or bolted design, with some models offering a side discharge feature that prevents corrosive fluid from leaking into the pump's center section.

### The E2 2" Pump...

- Is available in either plastic or metal
- Avoids blow-by when the pump is online but not in use
- Is self-priming
- Provides dimensional interchangeability with Wilden 2" pumps
- Offers horizontal discharge model on bolted metallic pump

Size	Model #	GPM	Wetted	Non-Wetted	Diaphragm	Valve Balls	Valve Seats/O-Rings	Price
¼"	E6KP5B550	0 - 4	Kynar	Polypropylene	One-Piece Teflon	Teflon	Kynar/Teflon	\$395.56
	E6KP6X550	0 - 4	Kynar	Polypropylene	XL	Teflon	Kynar/Teflon	342.22
	E6KP6X650	0 - 4	Kynar	Polypropylene	XL	XL	Kynar/Teflon	326.67
	E6PP5B550	0 - 4	Polypropylene	Polypropylene	One-Piece Teflon	Teflon	Polypropylene/Teflon	313.33
	E6PP6X550	0 - 4	Polypropylene	Polypropylene	XL	Teflon	Polypropylene/Teflon	257.78
	E6PP6X550	0 - 4	Polypropylene	Polypropylene	XL	XL	Polypropylene/Teflon	243.33
½"	E5KP5T59A	0 - 14	Kynar	Polypropylene	Two-Piece Teflon	Teflon	Kynar/Teflon Encap. Silicone	918.89
	E5KP6X669A	0 - 14	Kynar	Polypropylene	XL	XL	Kynar/XL	760.00
	E5PP5T59A	0 - 14	Polypropylene	Polypropylene	Two-Piece Teflon	Teflon	Polypropylene/Teflon Encap. Silicone	500.00
	E5PP6X669A	0 - 14	Polypropylene	Polypropylene	XL	Teflon	Polypropylene/XL	391.11
	E5PP6X669A	0 - 14	Polypropylene	Polypropylene	XL	XL	Polypropylene/XL	386.67
	E1PP5T59	0 - 35	Polypropylene	Polypropylene	Two-Piece Teflon	Teflon	Polypropylene/Teflon Encap. Silicone	942.22
1"	E1PP5T59-CP	0 - 35	Polypropylene	Polypropylene	Two-Piece Teflon	Teflon	Polypropylene/Teflon Encap. Silicone	942.22
	E1PP6X669	0 - 35	Polypropylene	Polypropylene	XL	XL	Polypropylene/XL	740.00
	E1PP6X669-CP	0 - 35	Polypropylene	Polypropylene	XL	XL	Polypropylene/XL	740.00
	E1KP5B579	0 - 35	Kynar	Polypropylene	One-Piece Teflon	Teflon	Kynar/Teflon Encap. Silicone	1,687.78
	E1KP5T59	0 - 35	Kynar	Polypropylene	Two-Piece Teflon	Teflon	Kynar/Teflon Encap. Silicone	1,620.00
	E1KP6X669	0 - 35	Kynar	Polypropylene	XL	XL	Kynar/XL	1,456.67
1½"	E4KA5B579	0 - 72	Kynar	Aluminum	One-Piece Teflon	Teflon	Kynar/Teflon Encap. Silicone	3,914.44
	E4KA6X669	0 - 72	Kynar	Aluminum	XL	XL	XL	3,455.56
	E4PA5B579	0 - 72	Polypropylene	Aluminum	One-Piece Teflon	Teflon	Polypropylene/Teflon Encap. Silicone	2,005.56
	E4PA6X569	0 - 72	Polypropylene	Aluminum	XL	Teflon	XL	1,723.33
	E4PA6X669	0 - 72	Polypropylene	Aluminum	XL	XL	XL	1,666.67
	U2KP5T59	0 - 155	Kynar	Polypropylene	Two-Piece Teflon	Teflon	Kynar/Teflon Encap. Silicone	6,294.44
2"	U2KP6D669	0 - 155	Kynar	Polypropylene	XL (Dome)	XL	XL	5,861.11
	U2PP5T59	0 - 155	Polypropylene	Polypropylene	Two-Piece Teflon	Teflon	Polypropylene/Teflon Encap. Silicone	2,873.33
	U2PP6D569	0 - 155	Polypropylene	Polypropylene	XL (Dome)	Teflon	XL	2,655.56
	U2PP6D669	0 - 155	Polypropylene	Polypropylene	XL (Dome)	XL	XL	2,551.11

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 65

Pumps

## PF Series Drum Pumps



**REVOLUTIONARY  
in Drum Pump  
Design**

## EASY TO ORDER...

## 1 CHOOSE YOUR MOTOR:

The PF series drum pump is unmatched in performance when compared to any competitive drum pump and is available at the lowest price worldwide. The PF Series is a revolution in drum pump design.

## ELECTRIC – 50/60 HZ

- 40 gpm (150 L/min)
- 80 feet TDH (24 m)
- 500 cps max.

## AIR

- 30 gpm (112 L/min)
- 60 feet TDH (18 m)
- 330 cps max.

**UP TO  
500 CPS**

**NOTE:** Explosionproof motor performance is reduced to 7 gpm and 18 feet TDH maximum. This reduction helps to reduce static electricity.

Model	Description	Item #	Price
M3	½ HP, 10,000 rpm, 110/50-60/1, Splashproof, LR# 69028 Ⓢ, 7 amps	A100005	\$377.04
M3T	½ HP, 10,000 rpm, 110/50-60/1, TEFC, LR# 69028 Ⓢ, 8 amps	A101128	601.91
M3X	½ HP, 5,000 rpm, 110/50-60/1, EXP, LR# 69028 Ⓢ, 1.7 amps, Class I, Div. I, Group D	A101129	858.58
M5	½ HP, 10,000 rpm, 220/50-60/1, Splashproof, IP44	A100006	395.22
M5T	½ HP, 10,000 rpm, 220/50-60/1, TEFC, Ⓢ, IP54, 480 watts	A101132	626.89
M5X	½ HP, 10,000 rpm, 220/50-60/1, EXP, Ⓢ, EEx d IIA T4, IP54, TUV	A101133	883.56
M6	½ HP, 300 – 6,000 rpm, Air, 80 PSI at 25 cfm	A100007	295.28
M6X	¾ HP, 300 – 6,000 rpm, EXP Air, 100 psi at 25 cfm	A101125	363.43
†M10X	½ HP, 10,000 rpm, 220/50-60/1, EXP, Ⓢ, EEx d IIA T4, IP54	A101495	883.56

\* For pumping flammables, use only air or explosionproof electric motors on stainless steel tubes with static protection kit # A100835.

† Recommended for pumping non-flammables in an explosionproof environment.

## Quick Spec -----

- Sealless
- Unique double suction impeller
- Variable flow orifice (PFP & PFV only)
- Pump interchangeable with motors
- Easy disassembly for cleaning
- 30-minute run dry capability
- 1.8 sg

## 2 CHOOSE YOUR SEAL-LESS PUMP TUBE:

## Light to Medium Viscosity Pump Tubes

## PFP – Polypropylene Tubes

Model #	Item #	Shaft Length	Price
PFP-27	DPFP005	27"	\$306.63
PFP-40	DPFP006	40"	317.99
PFP-48	DPFP007	48"	350.92

For corrosive liquids – acids, caustics, salts – 500 cps, maximum temperature 160°F.

## PFV – PVDF Tubes

Model #	Item #	Shaft Length	Price
PFV-27	DPFV005	27"	\$564.58
PFV-40	DPFV012	40"	680.27
PFV-48	DPFV007	48"	758.63

For VERY CORROSIVE liquids – concentrated sulphuric, hydrofluoric and nitric acids – 500 cps, maximum temperature 120°F.

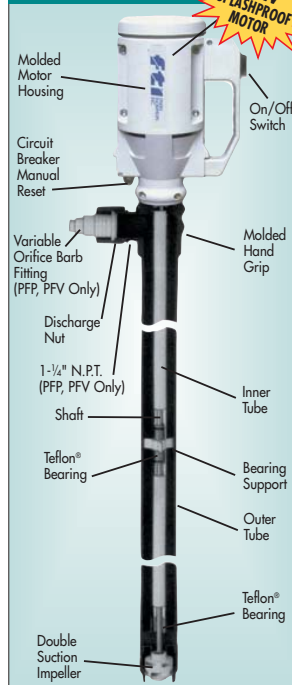
## PFS – Stainless Steel Tubes

Model #	Item #	Shaft Length	Price
PFS-27	DPFS005	27"	\$473.70
PFS-40	DPFS006	40"	532.63
PFS-48	DPFS007	48"	590.56

For flammables\*, solvents, mild corrosives, and organic acids, 500 cps, maximum temperature 220°F.

## 3 YOUR COMPLETE UNIT

**NEW  
SPASHPROOF  
MOTOR**



## EP Series Drum Pumps

## ECONO PUMP

Light Viscosity, Mild Corrosives



**Perfect for  
intermittent  
use!**

**From Only  
\$113.57**

**WARNING:** EP Series is not for pumping flammable liquids or for use in hazardous locations.

## Quick Spec -----

- Teflon seal
- Tube and motor repairable
- 1" tube (25mm) diameter for carboys
- ¾" (20mm) hose barb connection
- 1.4 SG maximum
- Maximum liquid temperature 120°F (49°C)
- 6 GPM (22 LPM) maximum flow
- 10 feet (3 meters) maximum head
- 150 centistoke maximum viscosity

## Tubes

Item #	Model	Price
DEPP001	27" Polypropylene pump tube, 316 SS pump shaft	\$113.57
DEPP004	40" Polypropylene pump tube, 316 SS pump shaft	141.96
DEPP002	27" Polypropylene pump tube, Alloy 625 pump shaft	176.02
DEPP005	40" Polypropylene pump tube, Alloy 625 pump shaft	176.02

## Motors – Electric Splashproof, IP44

		Output													
Item #	Model	Hp	Watt	RPM	Volt	Hz	PH	FLA	Enclosure	Certification	Price	Item #	Model	Hp	Watt
A102656	M55	½	10,000	120	50/60	1	3	Splashproof	CSA		\$170.36	A102655	M54	100	10,000
					220-240	50/60	1	1.5	P11	CE	181.71				

## 331 & 331XL Plastic Piston Drum Pumps



These piston pumps are constructed of high quality polypropylene with high density polyethylene internal parts. Each will fit a 2" or 3/4" IPS female opening. Special adapter tubes are provided which allow the dispense rate to be modified to 25, 50 or 75% of the pump volume. The adapters snap easily on the pump piston. A 5 gallon pail adapter is standard and suction tubing and clamps are provided to fit 5, 15, 30 & 55 gallon drums. The discharge spouts rotate 360 degrees.

The 331 & 331XL are recommended for use with water based fluids, light oils, mild acids and corrosive soaps, detergents, waxes, deodorants, etc.

Item #	Model	Description	Price
10044	331	8 Ounces per stroke	\$15.82
10050	331XL	16 Ounces per stroke	21.76

## Syphon Pumps

Item # SYPH-1B

**\$5<sup>36</sup>**

Item # SYPH4A-HD

**\$15<sup>09</sup>**

**MARVELTEK**

For chemical compatibility, please call USCO Technical Support.

**SYPH-1B** — Low cost polyethylene squeeze bulb pump fits 1, 2 1/2 and 5 gallon containers. Perfect for small carboys and cans. Siphon flow rate is approximately 2 gpm.

**SYPH-4A-HD** — This all polyethylene, heavy duty siphon pump is the choice for heavy use applications. Siphons 7 gallons per minute. Provides longer life than 4A when pumping aggressive chemicals. Fits containers with 2" IPS female threads.

## Transfer Pumps

Quick Spec -----

**BECKSON**

- Solvent welded construction
- Will withstand temperature to 120°F
- Self-Priming
- Will not syphon
- Pumps a gallon in six strokes
- Safe. Uses no pressure
- Operates by lifting action only
- Six feet of hose
- Supplied with 2" IPS bung adapter

Item #	Description	Price
BE336PF6S	Transfer pump Buna-N valve & seal	\$61.83
BE436PF6S	Transfer pump Hypalon valve & seal	77.64
BE236PF6S	Transfer pump Viton valve & seal	61.43

## KC Series Magnetic Sealless Centrifugal Pumps

### KC3 Series Centrifugal Pump

**FTI** FINISH THOMPSON INC.

KC3 ODP (Open Drip Proof)



Quick Spec -----

- Neodymium magnetic technology
- Run dry capability
- 1.0 SG
- Polypropylene or PVDF
- ODP (IP 22) motor
- NPT threads
- Carbon or Teflon® bushing
- Viton or EPDM O-ring
- Back pullout design for easy service

### KC4 & 5 Series Centrifugal Pumps

**FTI** FINISH THOMPSON INC.

KC4/5 TEFC



Quick Spec -----

- Neodymium magnetic technology
- Run dry capability
- 1.8 SG
- Polypropylene or PVDF
- TEFC (IP 54) or ODP (IP 22) motors
- NPT threads
- Carbon or Teflon® bushing
- Viton or EPDM O-ring
- Retrofittable to existing OEM equipment
- Back pullout design for easy service

#### Pump with Motor

Motor Description

Polypropylene  
Item # Price

PVDF  
Item # Price

#### KC 3 Series

1/2 HP, 3450 RPM, 1 Phase, 60 Hz, Open, 115V KC3PCVN2301 **\$256.42** KC3VCVN2301 **\$385.00**

#### KC 4 Series

1/2 HP, 3450 RPM, 1 Phase, 60 Hz, Open, 115V KC4PCVN2301 **455.00** KC4VCVN2301 **653.33**

1/2 HP, 3450 RPM, 1 Phase, 50/60 Hz, Corrosive Duty TEFC, 110/220V KC4PCVN2305 **589.17** KC4VCVN2305 **787.50**

#### Pump with Motor

Motor Description

Polypropylene  
Item # Price

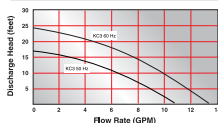
PVDF  
Item # Price

#### KC 5 Series

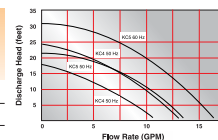
1/2 HP, 3450 RPM, 1 Phase, 60 Hz, Open, 115V KC5PCVN2701 **\$536.67** KC5VCVN2701 **\$646.56**

1/2 HP, 3450 RPM, 1 Phase, 50/60 Hz, Corrosive Duty TEFC, 110/220V KC5PCVN2705 **670.83** KC5VCVN2705 **810.83**

**NOTE: Teflon impeller bushing and EPDM O-rings available.**



Specifications		Max. Flow	Max. Head	Specific Gravity @ 30 CPS	Motor 60 Hz hp	Max. Inlet Pressure		Max. Temp. PP		Max. Temp. PVDF	
Model	Suction Discharge MNPT	3450 RPM US gpm	3450 RPM ft			psi	°F °C	°F °C	°F °C	°F °C	°F °C
KC3	1	13.5	24	1.0	.125	60	180 82	220 104	220 104	220 104	220 104
KC4	1	13.5	24	1.8	1/4	60	180 82	220 104	220 104	220 104	220 104
KC5	1	17	31	1.8	1/4	60	180 82	220 104	220 104	220 104	220 104



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**USCO 67**

Pumps



## KC Series Magnetic Sealless Centrifugal Pumps

The KC Series are sealless, magnetic drive centrifugal pumps designed to be lighter weight yet stronger than conventional mag drive centrifugals. The rare earth Neodymium magnets utilized in the KC series are 10 times stronger yet require 10 times less space than conventional ceramic magnets used in most mag drive pumps. The result is more secure magnetic coupling, no leakage, and 30 minute run dry capability.

As Low As  
**\$711.00**

Up to  
**7.5hp**



**KC6, KC8,  
KC10**



**KC11**



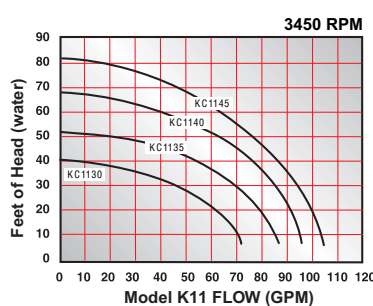
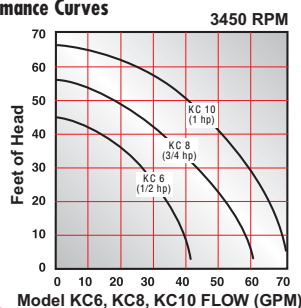
**KC22**

### PERFORMANCE

- Flows to 255 gpm (58 m<sup>3</sup>/hr)
- Heads to 135 ft (42 m)
- 30+ minutes run dry capability

- Viscosities to 50 cps
- 1.4 to 1.8 specific gravity
- Temperatures: PP-180°F (82°C) PVDF-220°F (104°C)

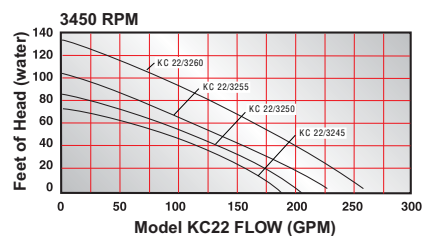
### Performance Curves



### MATERIALS OF CONSTRUCTION

"P" Polypropylene Glass filled Carbon Teflon®, High Purity Ceramic and Viton. Max. temp. 180°F (82°C)

"V" PVDF Carbon filled, Carbon/Teflon®, High Purity Ceramic and Viton. Max. temp. 220°F (104°C).



### Quick Spec

- Excellent chemical resistance
- Standard motor mounting
- Rugged cantilever design
- Back pull-out design
- No Leakage
- Polypropylene and PVDF Construction
- Short carbon bushing with flush groove for immediate heat dissipation



### TYPICAL APPLICATIONS

- Chemical processing
- Plating
- Printed circuit board manufacturing
- Semi-conductor
- Wet scrubber
- Photo processing
- Pulp and paper
- Pharmaceuticals
- Heat exchanger

Model #	Item #	Material	Suction	Discharge	3450 RPM Max. Flow (GPM)	3450 RPM Max. Head (Ft.)	Max. Inlet Pressure (PSI)	Motor	Price
<b>Models KC6, KC8, KC10</b>									
KC6	KC6PCVN315C02	polypro	1	3/4	40	45	60	1/2 hp, single phase, 60 Hz	\$711.00
KC6	KC6PCVN315C03	polypro	1	3/4	40	45	60	1/2 hp, three phase, 50-60 Hz	711.00
KC6	KC6VCVN315C02	PVDF	1	3/4	40	45	60	1/2 hp, single phase, 60 Hz	946.39
KC6	KC6VCVN315C03	PVDF	1	3/4	40	45	60	1/2 hp, three phase, 50-60 Hz	882.56
KC8	KC8PCVN355C02	polypro	1 1/2	1	60	55	60	3/4 hp, single phase, 60 Hz	850.57
KC8	KC8PCVN355C03	polypro	1 1/2	1	60	55	60	3/4 hp, three phase, 50-60 Hz	850.57
KC8	KC8VCVN355C02	PVDF	1 1/2	1	60	55	60	3/4 hp, single phase, 60 Hz	1,017.39
KC8	KC8VCVN355C03	PVDF	1 1/2	1	60	55	60	3/4 hp, three phase, 50-60 Hz	1,017.39
KC10	KC0PCVN385C01	polypro	1 1/2	1	70	65	60	1 hp, single phase, 60 Hz	952.33
KC10	KC0PCVN385C02	polypro	1 1/2	1	70	65	60	1 hp, three phase, 50-60 Hz	952.33
KC10	KC0VCVN385C01	PVDF	1 1/2	1	70	65	60	1 hp, single phase, 60 Hz	1,115.56
KC10	KC0VCVN385C02	PVDF	1 1/2	1	70	65	60	1 hp, three phase, 50-60 Hz	1,115.56
<b>Model KC11</b>									
KC1135	KC11PCVN355C13	polypro	1 1/2	1 1/4	85	53	60	1 1/2 hp, single phase, 60 Hz	1,545.00
KC1135	KC11PCVN355C14	polypro	1 1/2	1 1/4	85	53	60	1 1/2 hp, three phase, 60 Hz	1,545.00
KC1135	KC11VCVN355C13	PVDF	1 1/2	1 1/4	85	53	60	1 1/2 hp, single phase, 60 Hz	2,154.22
KC1135	KC11VCVN355C14	PVDF	1 1/2	1 1/4	85	53	60	1 1/2 hp, three phase, 60 Hz	2,154.22
KC1140	KC11PCVN405C17	polypro	1 1/2	1 1/4	95	68	60	2 hp, single phase, 60 Hz	1,599.33
KC1140	KC11PCVN405C18	polypro	1 1/2	1 1/4	95	68	60	2 hp, three phase, 60 Hz	1,533.00
KC1140	KC11VCVN405C17	PVDF	1 1/2	1 1/4	95	68	60	2 hp, single phase, 60 Hz	2,208.51
KC1140	KC11VCVN405C18	PVDF	1 1/2	1 1/4	95	68	60	2 hp, three phase, 60 Hz	2,142.28
KC1145	KC11PCVN455C19	polypro	1 1/2	1 1/4	105	83	60	3 hp, three phase, 60 Hz	1,574.42
KC1145	KC11VCVN455C19	PVDF	1 1/2	1 1/4	105	83	60	3 hp, three phase, 60 Hz	2,183.67
<b>Model KC22</b>									
KC2245	KC22PCVN451803	polypro	2	2	180	75	60	3 hp, three phase, 60 Hz	3,009.56
KC2245	KC22VCVN451803	PVDF	2	2	180	75	60	3 hp, three phase, 60 Hz	3,967.30
KC2250	KC22PCVN501806	polypro	2	2	200	84	60	5 hp, three phase, 60 Hz	3,009.23
KC2250	KC22VCVN501806	PVDF	2	2	200	84	60	5 hp, three phase, 60 Hz	4,059.57
KC2255	KC22PCVN551806	polypro	2	2	225	105	60	5 hp, three phase, 60 Hz	3,009.52
KC2255	KC22VCVN551806	PVDF	2	2	225	105	60	5 hp, three phase, 60 Hz	4,059.57
KC2260	KC22PCVN601807	polypro	2	2	255	135	60	7 1/2 hp, three phase, 60 Hz	3,160.66
KC2260	KC22VCVN601807	PVDF	2	2	255	135	60	7 1/2 hp, three phase, 60 Hz	4,211.00

## Steel Case/Dry Gauge

2" Dial			2½" Dial		
Pressure	Item #	Price	Item #	Price	
30" HG VAC	20 1005H 02L VAC	<b>\$6.95</b>	25 1005H 02L VAC	<b>\$8.05</b>	
15psi	20 1005H 02L 15#	<b>6.95</b>	25 1005H 02L 30#	<b>8.05</b>	
30psi	20 1005H 02L 30#	<b>6.95</b>	25 1005H 02L 60#	<b>8.05</b>	
60psi	20 1005H 02L 60#	<b>6.95</b>	25 1005H 02L 100#	<b>8.05</b>	
100psi	20 1005H 02L 100#	<b>6.95</b>	25 1005H 02L 200#	<b>8.05</b>	
200psi	20 1005H 02L 200#	<b>6.95</b>	25 1005H 02L 300#	<b>8.05</b>	
300psi	20 1005H 02L 300#	<b>6.95</b>	25 1005H 02L 400#	<b>8.05</b>	
400psi	20 1005H 02L 400#	<b>6.95</b>	25 1005H 02L 600#	<b>8.05</b>	
600psi	20 1005H 02L 600#	<b>6.95</b>	25 1005H 02L 1000#	<b>11.00</b>	
1000psi	20 1005H 02L 1000#	<b>9.99</b>			

## Commercial Gauges (2" and 2½")

**NEW**

## Quick Spec

- CASE: Steel and ABS
- WETTED PARTS: Bronze tube and brass socket
- WINDOW: Plastic
- CONNECTION: ¼" NPT lower (back available)
- ABS available

ASHCROFT



## Industrial Stainless Case 1008A/AL (2½" and 4")

## Bronze Tube, Brass Socket 2½" (63mm) Dial

Dry			Glycerin Fill		
Pressure	Item #	Price	Item #	Price	
30" HG VAC	63 1008A 02L VAC	<b>\$18.50</b>	63 1008AL 02L VAC	<b>\$19.75</b>	
15psi	63 1008A 02L 15#	<b>18.50</b>	63 1008AL 02L 15#	<b>19.75</b>	
30psi	63 1008A 02L 30#	<b>18.50</b>	63 1008AL 02L 30#	<b>19.75</b>	
60psi	63 1008A 02L 60#	<b>18.50</b>	63 1008AL 02L 60#	<b>19.75</b>	
100psi	63 1008A 02L 100#	<b>18.50</b>	63 1008AL 02L 100#	<b>19.75</b>	
200psi	63 1008A 02L 200#	<b>18.50</b>	63 1008AL 02L 200#	<b>19.75</b>	
300psi	63 1008A 02L 300#	<b>18.50</b>	63 1008AL 02L 300#	<b>19.75</b>	
400psi	63 1008A 02L 400#	<b>18.50</b>	63 1008AL 02L 400#	<b>19.75</b>	
600psi	63 1008A 02L 600#	<b>18.50</b>	63 1008AL 02L 600#	<b>19.75</b>	
1000psi	63 1008A 02L 1000#	<b>18.50</b>	63 1008AL 02L 1000#	<b>19.75</b>	

## Quick Spec

- WETTED PARTS: Bronze tube, brass socket
- WINDOW: Plastic
- CONNECTION: ¼" NPT lower (back available)
- ACCURACY: ASME B.40.1 Grade B (+/- 3-2-3% full scale)

ASHCROFT



## Bronze Tube, Brass Socket 4" (100mm) Dial

Dry			Glycerin Fill		
Pressure	Item #	Price	Item #	Price	
30" HG VAC	100 1008A 02L VAC	<b>\$35.00</b>	100 1008AL 02L VAC	<b>\$39.00</b>	
15psi	100 1008A 02L 15#	<b>35.00</b>	100 1008AL 02L 15#	<b>39.00</b>	
30psi	100 1008A 02L 30#	<b>35.00</b>	100 1008AL 02L 30#	<b>39.00</b>	
60psi	100 1008A 02L 60#	<b>35.00</b>	100 1008AL 02L 60#	<b>39.00</b>	
100psi	100 1008A 02L 100#	<b>35.00</b>	100 1008AL 02L 100#	<b>39.00</b>	
200psi	100 1008A 02L 200#	<b>35.00</b>	100 1008AL 02L 200#	<b>39.00</b>	
300psi	100 1008A 02L 300#	<b>35.00</b>	100 1008AL 02L 300#	<b>39.00</b>	
400psi	100 1008A 02L 400#	<b>35.00</b>	100 1008AL 02L 400#	<b>39.00</b>	
600psi	100 1008A 02L 600#	<b>35.00</b>	100 1008AL 02L 600#	<b>39.00</b>	
1000psi	100 1008A 02L 1000#	<b>35.00</b>	100 1008AL 02L 1000#	<b>39.00</b>	

ASHCROFT



## USCO tech tip

Where vibration and/or pulsation are encountered, choose our Liquid Filled Type 233.53 or 213.53 gauges. The glycerine fill liquid dampens the bourdon tube and reduces wear on the movement thereby extending the life of the gauge.

## Stainless Tube and Socket 2½" (63mm) Dial

Dry			Glycerin Fill			"Plus"		
Pressure	Item #	Price	Item #	Price		Item #	Price	
30" HG VAC	63 1008S 02L VAC	<b>\$45.00</b>	63 1008SL 02L VAC	<b>\$48.50</b>		63 1008S 02L XLL VAC	<b>\$48.00</b>	
15psi	63 1008S 02L 15#	<b>45.00</b>	63 1008SL 02L 15#	<b>48.50</b>		63 1008S 02L XLL 15#	<b>48.00</b>	
30psi	63 1008S 02L 30#	<b>45.00</b>	63 1008SL 02L 30#	<b>48.50</b>		63 1008S 02L XLL 30#	<b>48.00</b>	
60psi	63 1008S 02L 60#	<b>45.00</b>	63 1008SL 02L 60#	<b>48.50</b>		63 1008S 02L XLL 60#	<b>48.00</b>	
100psi	63 1008S 02L 100#	<b>45.00</b>	63 1008SL 02L 100#	<b>48.50</b>		63 1008S 02L XLL 100#	<b>48.00</b>	
200psi	63 1008S 02L 200#	<b>45.00</b>	63 1008SL 02L 200#	<b>48.50</b>		63 1008S 02L XLL 200#	<b>48.00</b>	
300psi	63 1008S 02L 300#	<b>45.00</b>	63 1008SL 02L 300#	<b>48.50</b>		63 1008S 02L XLL 300#	<b>48.00</b>	
400psi	63 1008S 02L 400#	<b>45.00</b>	63 1008SL 02L 400#	<b>48.50</b>		63 1008S 02L XLL 400#	<b>48.00</b>	
600psi	63 1008S 02L 600#	<b>45.00</b>	63 1008SL 02L 600#	<b>48.50</b>		63 1008S 02L XLL 600#	<b>48.00</b>	
1000psi	63 1008S 02L 1000#	<b>49.50</b>	63 1008SL 02L 1000#	<b>52.75</b>		63 1008S 02L XLL 1000#	<b>52.00</b>	

## Stainless Tube and Socket 4" (100mm) Dial

Dry			Glycerin Fill			"Plus"		
Pressure	Item #	Price	Item #	Price		Item #	Price	
30" HG VAC	100 1008S 02L VAC	<b>\$86.50</b>	100 1008SL 02L VAC	<b>\$92.00</b>		100 1008S 02L XLL VAC	<b>\$89.50</b>	
15psi	100 1008S 02L 15#	<b>86.50</b>	100 1008SL 02L 15#	<b>92.00</b>		100 1008S 02L XLL 15#	<b>89.50</b>	
30psi	100 1008S 02L 30#	<b>86.50</b>	100 1008SL 02L 30#	<b>92.00</b>		100 1008S 02L XLL 30#	<b>89.50</b>	
60psi	100 1008S 02L 60#	<b>86.50</b>	100 1008SL 02L 60#	<b>92.00</b>		100 1008S 02L XLL 60#	<b>89.50</b>	
100psi	100 1008S 02L 100#	<b>86.50</b>	100 1008SL 02L 100#	<b>92.00</b>		100 1008S 02L XLL 100#	<b>89.50</b>	
200psi	100 1008S 02L 200#	<b>86.50</b>	100 1008SL 02L 200#	<b>92.00</b>		100 1008S 02L XLL 200#	<b>89.50</b>	
300psi	100 1008S 02L 300#	<b>86.50</b>	100 1008SL 02L 300#	<b>92.00</b>		100 1008S 02L XLL 300#	<b>89.50</b>	
400psi	100 1008S 02L 400#	<b>86.50</b>	100 1008SL 02L 400#	<b>92.00</b>		100 1008S 02L XLL 400#	<b>89.50</b>	
600psi	100 1008S 02L 600#	<b>86.50</b>	100 1008SL 02L 600#	<b>92.00</b>		100 1008S 02L XLL 600#	<b>89.50</b>	
1000psi	100 1008S 02L 1000#	<b>86.50</b>	100 1008SL 02L 1000#	<b>92.00</b>		100 1008S 02L XLL 1000#	<b>89.50</b>	

## Industrial Stainless Case Gauge 1008S/SL (2½" and 4")

ASHCROFT



## Quick Spec

- WETTED PARTS: Stainless steel tube and socket
- WINDOW: Plastic
- CONSTRUCTION: All welded
- CONNECTION: ¼" NPT lower (back available)
- ACCURACY: ASME B.4.01 Grade B (+/- 3-2-3% full scale)

USCO 69

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**Duragauge****ASHCROFT****NEW****Quick Spec**

- CASE: Phenolic solid front — 4 1/2"
- WETTED PARTS: Bronze and 316L stainless steel
- WINDOW: Glass
- POINTER: Micrometer adjustable
- ACCURACY: ASME B40.1 Grade 2A, +/- 0.5% full scale
- CONNECTION: 1/4" NPT lower (1/2" NPT available)

**Bronze Tube, Brass Socket**

Pressure	Dry		Glycerin Fill		"Plus"	
	Item #	Price	Item #	Price	Item #	Price
30" HG VAC	45 1279AS 02L VAC	\$103.00	45 1279ASL 02L VAC	\$140.00	45 1279AS 02L XLL-VAC	\$125.00
15psi	45 1279AS 02L 15#	103.00	45 1279ASL 02L 15#	140.00	45 1279AS 02L XLL-15#	125.00
30psi	45 1279AS 02L 30#	103.00	45 1279ASL 02L 30#	140.00	45 1279AS 02L XLL 30#	125.00
60psi	45 1279AS 02L 60#	103.00	45 1279ASL 02L 60#	140.00	45 1279AS 02L XLL 60#	125.00
100psi	45 1279AS 02L 100#	103.00	45 1279ASL 02L 100#	140.00	45 1279AS 02L XLL 100#	125.00
200psi	45 1279AS 02L 200#	103.00	45 1279ASL 02L 200#	140.00	45 1279AS 02L XLL 200#	125.00
300psi	45 1279AS 02L 300#	103.00	45 1279ASL 02L 300#	140.00	45 1279AS 02L XLL 300#	125.00
400psi	45 1279AS 02L 400#	103.00	45 1279ASL 02L 400#	140.00	45 1279AS 02L XLL 400#	125.00
600psi	45 1279AS 02L 600#	103.00	45 1279ASL 02L 600#	140.00	45 1279AS 02L XLL 600#	125.00
1000psi	45 1279AS 02L 1000#	103.00	45 1279ASL 02L 1000#	140.00	45 1279AS 02L XLL 1000#	125.00

**316L Stainless Steel Tube and Socket**

Pressure	Dry		Glycerin Fill		"Plus"	
	Item #	Price	Item #	Price	Item #	Price
30" HG VAC	45 1279SS 02L VAC	\$160.00	45 1279SSL 02L VAC	\$199.00	45 1279SS 02L XLL-VAC	\$184.00
15psi	45 1279SS 02L 15#	160.00	45 1279SSL 02L 15#	199.00	45 1279SS 02L XLL-15#	184.00
30psi	45 1279SS 02L 30#	160.00	45 1279SSL 02L 30#	199.00	45 1279SS 02L XLL 30#	184.00
60psi	45 1279SS 02L 60#	160.00	45 1279SSL 02L 60#	199.00	45 1279SS 02L XLL 60#	184.00
100psi	45 1279SS 02L 100#	160.00	45 1279SSL 02L 100#	199.00	45 1279SS 02L XLL 100#	184.00
200psi	45 1279SS 02L 200#	160.00	45 1279SSL 02L 200#	199.00	45 1279SS 02L XLL 200#	184.00
300psi	45 1279SS 02L 300#	160.00	45 1279SSL 02L 300#	199.00	45 1279SS 02L XLL 300#	184.00
400psi	45 1279SS 02L 400#	160.00	45 1279SSL 02L 400#	199.00	45 1279SS 02L XLL 400#	184.00
600psi	45 1279SS 02L 600#	160.00	45 1279SSL 02L 600#	199.00	45 1279SS 02L XLL 600#	184.00
1000psi	45 1279SS 02L 1000#	160.00	45 1279SSL 02L 1000#	199.00	45 1279SS 02L XLL 1000#	184.00

**Commercial Hydraulic Gauge — 2 1/2" Dial****NEW****ASHCROFT****Quick Spec**

- CASE: ABS
- WETTED PARTS: Bronze tube, brass socket
- WINDOW: Plastic
- CONNECTION: 1/4" NPT lower (back available)
- ACCURACY: ASME B.40.1, Grade B (+/- 3-2-3% full scale)

**Bronze Tube, Brass Socket 2 1/2" Dial**

Pressure	Dry		Glycerin Fill	
	Item #	Price	Item #	Price
30" HG VAC	63 3005PH 02L VAC	\$13.50	63 3005PHL 02L VAC	\$14.75
15psi	63 3005PH 02L 15#	13.50	63 3005PHL 02L 15#	14.75
30psi	63 3005PH 02L 30#	13.50	63 3005PHL 02L 30#	14.75
60psi	63 3005PH 02L 60#	13.50	63 3005PHL 02L 60#	14.75
100psi	63 3005PH 02L 100#	13.50	63 3005PHL 02L 100#	14.75
200psi	63 3005PH 02L 200#	13.50	63 3005PHL 02L 200#	14.75
300psi	63 3005PH 02L 300#	13.50	63 3005PHL 02L 300#	14.75
400psi	63 3005PH 02L 400#	13.50	63 3005PHL 02L 400#	14.75
600psi	63 3005PH 02L 600#	13.50	63 3005PHL 02L 600#	14.75
1000psi	63 3005PH 02L 1000#	13.50	63 3005PHL 02L 1000#	14.75

**Chemical Gauge Guards**

An economical way to protect instruments from corrosion and clogging while maintaining high accuracy resulting in cost savings and assurance of system dependability within an operating range of full vacuum to 200 psi.

"Fill Liquid" is a temperature stabilized mineral oil which will not cause inaccuracies in gauge reading when subjected to temperature variations, as may occur with other liquids.

Center Back Mounted Gauge Add "C" and \$9.40  
(ex: PMGGMT100-PV-C - )

Snubber Insert Add Z-Snubber  
and \$7.80 (ex: PMGGMT100-PV-Z-Snubber - )

V=Viton, for use in vacuum or to 200 psi

T=Teflon, for use from 30 psi to 200 psi

**PLAST-O-MATIC**

From Only  
**\$40.06**

**Series "GGM" Gauge Guards With Gauge 1/4" x 1/2" NPT Connections**

Gauge Range	PVC		Polypro		PVDF	
	Item #	Price	Item #	Price	Item #	Price
<b>For Pressure</b>						
0-15	PMGGMV015PV	\$63.82	PMGGMV015PP	\$71.87	PMGGMV015PF	\$95.56
0-30	PMGGMT030PV	63.82	PMGGMT030PP	71.87	PMGGMT030PF	95.56
0-60	PMGGMT060PV	63.82	PMGGMT060PP	71.87	PMGGMT060PF	95.56
0-100	PMGGMT100PV	63.82	PMGGMT100PP	71.87	PMGGMT100PF	95.56
0-200	PMGGMT200PV	63.82	PMGGMT200PP	71.87	PMGGMT200PF	95.56
<b>For Vacuum 0-30" Hg</b>						
	PMGGMV000PV	68.14	PMGGMV000PP	75.56	PMGGMV000PF	99.26
Removable Housing Add "R" to model no., (ex.: PMGGMT200-PV-R)						
		57.78		66.20		98.70
Shield Add "S" to model no., (ex.: PMGGMT200-PP-S)						
		69.81		80.64		149.26

**Series "GGM" Gauge Guards Without Gauge (1/4" x 1/2")**

	PVC		Polypro		PVDF	
	Item #	Price	Item #	Price	Item #	Price
	PMGGMT1PV	\$40.06	PMGGMT1PP	\$48.89	PMGGMT1PF	\$68.89
	PMGGMV1PV	40.06	PMGGMV1PP	48.89	PMGGMV1PF	68.89



**Stainless Tube, Bronze Socket 2½" Dial**

Pressure	Dry		Glycerin Fill		"Plus"	
	Item #	Price	Item #	Price	Item #	Price
30" HG VAC	25 1009AW 02L VAC	\$48.00	25 1009AWL 02L VAC	\$56.50	25 1009AW 02L XLL VAC	\$53.50
15psi	25 1009AW 02L 15#	48.00	25 1009AWL 02L 15#	56.50	25 1009AW 02L XLL 15#	53.50
30psi	25 1009AW 02L 30#	48.00	25 1009AWL 02L 30#	56.50	25 1009AW 02L XLL 30#	53.50
60psi	25 1009AW 02L 60#	48.00	25 1009AWL 02L 60#	56.50	25 1009AW 02L XLL 60#	53.50
100psi	25 1009AW 02L 100#	48.00	25 1009AWL 02L 100#	56.50	25 1009AW 02L XLL 100#	53.50
200psi	25 1009AW 02L 200#	48.00	25 1009AWL 02L 200#	56.50	25 1009AW 02L XLL 200#	53.50
300psi	25 1009AW 02L 300#	48.00	25 1009AWL 02L 300#	56.50	25 1009AW 02L XLL 300#	53.50
400psi	25 1009AW 02L 400#	48.00	25 1009AWL 02L 400#	56.50	25 1009AW 02L XLL 400#	53.50
600psi	25 1009AW 02L 600#	48.00	25 1009AWL 02L 600#	56.50	25 1009AW 02L XLL 600#	53.50
1000psi	25 1009AW 02L 1000#	48.00	25 1009AWL 02L 1000#	56.50	25 1009AW 02L XLL 1000#	53.50

**Stainless Tube and Socket 2½" Dial**

Pressure	Dry		Glycerin Fill		"Plus"	
	Item #	Price	Item #	Price	Item #	Price
30" HG VAC	25 1009SW 02L VAC	\$69.50	25 1009SWL 02L VAC	\$75.00	25 1009SW 02L XLL VAC	\$74.00
15psi	25 1009SW 02L 15#	69.50	25 1009SWL 02L 15#	75.00	25 1009SW 02L XLL 15#	74.00
30psi	25 1009SW 02L 30#	69.50	25 1009SWL 02L 30#	75.00	25 1009SW 02L XLL 30#	74.00
60psi	25 1009SW 02L 60#	69.50	25 1009SWL 02L 60#	75.00	25 1009SW 02L XLL 60#	74.00
100psi	25 1009SW 02L 100#	69.50	25 1009SWL 02L 100#	75.00	25 1009SW 02L XLL 100#	74.00
200psi	25 1009SW 02L 200#	69.50	25 1009SWL 02L 200#	75.00	25 1009SW 02L XLL 200#	74.00
300psi	25 1009SW 02L 300#	69.50	25 1009SWL 02L 300#	75.00	25 1009SW 02L XLL 300#	74.00
400psi	25 1009SW 02L 400#	69.50	25 1009SWL 02L 400#	75.00	25 1009SW 02L XLL 400#	74.00
600psi	25 1009SW 02L 600#	69.50	25 1009SWL 02L 600#	75.00	25 1009SW 02L XLL 600#	74.00
1000psi	25 1009SW 02L 1000#	69.50	25 1009SWL 02L 1000#	75.00	25 1009SW 02L XLL 1000#	74.00

**Stainless Tube, Bronze Socket 3½" Dial**

Pressure	Dry		Glycerin Fill		"Plus"	
	Item #	Price	Item #	Price	Item #	Price
30" HG VAC	35 1009AW 02L VAC	\$59.50	35 1009AWL 02L VAC	\$72.00	35 1009AW 02L XLL VAC	\$65.00
15psi	35 1009AW 02L 15#	59.50	35 1009AWL 02L 15#	72.00	35 1009AW 02L XLL 15#	65.00
30psi	35 1009AW 02L 30#	59.50	35 1009AWL 02L 30#	72.00	35 1009AW 02L XLL 30#	65.00
60psi	35 1009AW 02L 60#	59.50	35 1009AWL 02L 60#	72.00	35 1009AW 02L XLL 60#	65.00
100psi	35 1009AW 02L 100#	59.50	35 1009AWL 02L 100#	72.00	35 1009AW 02L XLL 100#	65.00
200psi	35 1009AW 02L 200#	59.50	35 1009AWL 02L 200#	72.00	35 1009AW 02L XLL 200#	65.00
300psi	35 1009AW 02L 300#	59.50	35 1009AWL 02L 300#	72.00	35 1009AW 02L XLL 300#	65.00
400psi	35 1009AW 02L 400#	59.50	35 1009AWL 02L 400#	72.00	35 1009AW 02L XLL 400#	65.00
600psi	35 1009AW 02L 600#	59.50	35 1009AWL 02L 600#	72.00	35 1009AW 02L XLL 600#	65.00
1000psi	35 1009AW 02L 1000#	59.50	35 1009AWL 02L 1000#	72.00	35 1009AW 02L XLL 1000#	65.00

**Stainless Tube and Socket 3½" Dial**

Pressure	Dry		Glycerin Fill		"Plus"	
	Item #	Price	Item #	Price	Item #	Price
30" HG VAC	35 1009SW 02L VAC	\$80.00	35 1009SWL 02L VAC	\$88.00	35 1009SW 02L XLL VAC	\$85.00
15psi	35 1009SW 02L 15#	80.00	35 1009SWL 02L 15#	88.00	35 1009SW 02L XLL 15#	85.00
30psi	35 1009SW 02L 30#	80.00	35 1009SWL 02L 30#	88.00	35 1009SW 02L XLL 30#	85.00
60psi	35 1009SW 02L 60#	80.00	35 1009SWL 02L 60#	88.00	35 1009SW 02L XLL 60#	85.00
100psi	35 1009SW 02L 100#	80.00	35 1009SWL 02L 100#	88.00	35 1009SW 02L XLL 100#	85.00
200psi	35 1009SW 02L 200#	80.00	35 1009SWL 02L 200#	88.00	35 1009SW 02L XLL 200#	85.00
300psi	35 1009SW 02L 300#	80.00	35 1009SWL 02L 300#	88.00	35 1009SW 02L XLL 300#	85.00
400psi	35 1009SW 02L 400#	80.00	35 1009SWL 02L 400#	88.00	35 1009SW 02L XLL 400#	85.00
600psi	35 1009SW 02L 600#	80.00	35 1009SWL 02L 600#	88.00	35 1009SW 02L XLL 600#	85.00
1000psi	35 1009SW 02L 1000#	80.00	35 1009SWL 02L 1000#	88.00	35 1009SW 02L XLL 1000#	85.00

**HVAC/Contractor Gauge – 4½" Face!**

Pressure	Item #	Price
30" HG VAC	EA 14 H	\$14.50
15psi	EA 14 Z	14.50
30psi	EA 14 A	14.50
60psi	EA 14 B	14.50
100psi	EA 14 C	14.50
160psi	EA 14 D	14.50
200psi	EA 14 E	14.50
300psi	EA 14 F	14.50
500psi	EA 14 G	14.50
30" HG O 30psi	EA 14 J	14.50
30" HG O 100psi	EA 14 K	14.50

**WEKSLER****Quick Spec**

- CASE: Stainless steel
- WETTED PARTS: Phosphor bronze tube, brass socket
- WINDOW: Plastic
- POINTER: Adjustable
- CONNECTION: ¼" NPT lower

**Duralife****ASHCROFT****Quick Spec**

- CASE: Stainless steel
- WETTED PARTS: Stainless steel tube – Bronze, stainless steel socket
- WINDOW: Plastic
- CONSTRUCTION: All welded
- CONNECTION: ¼" NPT lower (back available)
- ACCURACY: ASME B.40.1 Grade 1A, +/- 1% full scale

**Industrial Liquid Filled Gauges**

Ashcroft Type 300S and 1008A pressure gauges feature the patented **Powerflex** movement for greater resistance to the effects of pulsation and vibration, a stainless steel case for protection from harsh environments, and glycerin fill in the case for added protection against pulsation and vibration.

**Quick Spec**

- Case: Stainless Steel
- Ring: Polished SS
- Wetted Parts: Phosphor Bronze
- Powerflex movement with overload and under load stops.
- Window: Polycarbonate
- Dial: Aluminum
- Pointer: Aluminum
- Liquid fill: Glycerin.
- Accuracy: ASME B40. 1 Grade B 3-2-3

As Low As  
\$17.60

**OPTIONS AVAILABLE:**

**Plus! Performance:** Gives the performance of a liquid filled gauge in a dry case! Temp ranges from -40°F to 300°F. U-Clamp, front flange, throttle plugs, silicone fill.

Pressure	Item #	Price
15 PSI	63-3005HL-02L-15	\$17.95
30 PSI	63-3005HL-02L-30	17.60
60 PSI	63-3005HL-02L-60	17.60
100 PSI	63-3005HL-02L-100	17.60
160 PSI	63-3005HL-02L-160	17.60
200 PSI	63-3005HL-02L-200	17.60
300 PSI	63-3005HL-02L-300	17.60
400 PSI	63-3005HL-02L-400	17.60
600 PSI	63-3005HL-02L-600	17.60
1000 PSI	63-3005HL-02L-1000	19.75

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 71

## Simplex Bag Filters

## Single or Double Length – PPL, PVDF



*Corrosion Is  
Never a Problem*



As Low As  
**\$970.00**

A metal filter housing will ultimately rust or corrode and contaminate the process media. There is no danger of this happening with a Hayward All-Plastic Simplex Bag Filter. It will never rust or corrode and never compromise quality of the process fluid.

## Quick Spec

- Material of Construction: Glass-reinforced polypropylene – single & double length; PVDF double length only
- Piping Connections: PPL; 2" NPT threaded or 150# ANSI flange. PVDF; 2" flange
- Drain Connections: PPL; 2" NPT threaded or 150# ANSI flange. PVDF; 2" flange
- Bag Size: Single length – 7" x 16", 2.0 square feet; double length – 7" x 32", 4.1 square feet, PPL fabric and ring
- Pressure Rating: PPL 150 psi, PVDF 100 psi
- Seals: Viton (EPDM optional)
- Universal seat accepts most standard 7" diameter bags
- Flow Rate: Single length, 50 gpm with clean bag; double length, 100 gpm with clean bag

## Polypropylene Simplex Bag Filters

Simplex bag filters use single length 7" x 16" No.1 bags or double length 7" x 32" No. 2 bags

Size	End Connection	Item #	Price
Single Length	2" Threaded	FLT4201	<b>\$970.00</b>
Single Length	2" Flanged	FLT4201F	<b>1,351.00</b>
Double Length	2" Threaded	FLT4202	<b>1,097.00</b>
Double Length	2" Flanged	FLT4202F	<b>1,477.00</b>

## Hayward Welded Construction Filter Bags



The SENTINEL® collar features a super strong welded seam that stands up to the most aggressive applications.



Handles on SENTINEL® ring bag remain above fluid level for easy removal.



Filter bag with SENTINEL® ring fits perfectly inside filter vessel.

*Patent pending technology produces a smooth BONDED seam to eliminate any possibility of downstream fiber migration.*

## SENTINEL® RING FILTER BAG SEAL

The SENTINEL® all-plastic collar is an improvement over other filter bag sealing systems. The SENTINEL® collar fits into the filter vessel housing in a unique manner that provides a positive, self-energized seal in the filter vessel that restricts the process fluid from bypassing the filter bag. This seal is enhanced as the pressure differential increases during operation.

Hayward's SENTINEL® collar design also creates a constant, radially-directed pressure to prevent the ring from collapsing into the restrainer basket.

The elevated handles, which remain above the liquid, make bag changeout fast and efficient. Contact with aggressive fluids is greatly reduced.

The patented SENTINEL® ring is your assurance of a bypass-free filtration system. Combined with fully welded media construction, the SENTINEL® ring assures that every drop of liquid is filtered with no bypass.

The SENTINEL® ring is available in 4" and 7" diameters.

**SENTINEL® RING MATERIALS:** Polypropylene • Polyester • Santoprene

**FABRIC MATERIALS:** Polypropylene • Extended life polypropylene • FDA polypropylene

• FDA extended life polypropylene • Polyester • Extended life polyester • FDA polyester • FDA extended life polyester • Meltblown polypropylene • Meltblown polyester • Multilayer meltblown polypropylene.

**MICRON RATINGS:** 1, 5, 10, 25, 50, 75, 100, 200.

## Filter Bags

## Polypropylene Felt Filter Bags – Welded Construction

Welded Construction with PPL Plastic Collar SENTINEL®.

Sold only in master carton quantities.

From Only  
**\$3.00**

Size	Single Length*		Double Length**	
	Item #	Price Per Bag	Item #	Price Per Bag
1 micron	F31R36590	<b>\$3.68</b>	F31S36502	<b>\$5.46</b>
5 micron	F31R36817	<b>3.00</b>	F31S36501	<b>4.21</b>
10 micron	F31R36552	<b>3.00</b>	F31S36503	<b>4.21</b>
25 micron	F31R36596	<b>3.00</b>	F31S36412	<b>4.21</b>
50 micron	F31R36589	<b>3.00</b>	F31S36500	<b>4.21</b>
100 micron	F31R36551	<b>3.00</b>	F31S36505	<b>4.21</b>
200 micron	F3AB00319	<b>3.00</b>	F3AB0022	<b>4.21</b>

\* Packed 50 per master carton \*\*Packed 30 per master carton

## Polypropylene Monofilament Filter Bags - Sewn Construction

Sewn Construction with PPL Snap Ring. Sold only in master carton quantities.

Size	Single Length*		Double Length**	
	Item #	Price Per Bag	Item #	Price Per Bag
150 micron	F3AB00170	<b>\$5.48</b>	F3AB00177	<b>\$8.23</b>
400 micron	F3AB00173	<b>5.48</b>	F3AB00180	<b>8.23</b>
600 micron	F3AB00174	<b>4.64</b>	F3AB00181	<b>6.80</b>
800 micron	F3AB00175	<b>4.64</b>	F3AB00182	<b>6.80</b>

\* Packed 50 per master carton

## Polypropylene Felt Filter Bags – Sewn Construction

Sewn Construction with PPL Snap Ring. Sold only in master carton quantities.

Size	Single Length*		Double Length†	
	Item #	Price Per Bag	Item #	Price Per Bag
1 micron	F3AB00013	<b>\$3.99</b>	F31B36372	<b>\$5.81</b>
5 micron	F3AB00157	<b>3.24</b>	F31B37455	<b>4.52</b>
10 micron	F3AB00019	<b>3.24</b>	F3AA01434	<b>4.52</b>
25 micron	F3AB00020	<b>3.24</b>	F3AB00002	<b>4.52</b>
50 micron	F3AB00014	<b>3.24</b>	F3AA00160	<b>4.52</b>
100 micron	F31A37288	<b>3.24</b>	F3AA01128	<b>4.52</b>
200 micron	F3AB00103	<b>3.24</b>	F3AB00057	<b>4.52</b>

\* Packed 50 per master carton

†1 and 200 micron: 30 per carton; 5, 10, 25, 50, 100 micron: 50 per carton

## True Union Sediment Strainer

### Quick Spec

- True Union design eliminates the need for flanges and permits installation or repair without expanding the pipeline
- Transparent PVC strainer body permits easy evaluation of filter screen's condition
- Corrosion resistant — no metal parts
- Worn or blocked filter screens can be replaced with filter body in line
- EPDM O-rings provide tight seal

From Only  
**\$39<sup>00</sup>**

NSF



### SPECIFICATIONS

Sizes:	1/2" - 4"
Material:	PVC
Models:	Socket, Threaded, Flanged (ANSI)
Temperature:	32°F to 120°F
Pressure Rating (at ambient temp.):	1/2" - 2" = 150 psi; 3" - 4" = 85 psi
Screens:	Standard — 20 mesh PVC    Optional — 30 and 40 mesh PVC

### Cv Values

Size	1/2"	3/4"	1"	1 1/2"	2"	3"	4"
Cv	5.2	7.5	14	34	50	110	165

### Filter Screen Sizes

Mesh (holes per linear inch)	20	30	40
Max. Particle Size (inch)	.033	.023	.011
Micron Particle Size (10-3 mm)	840	595	420

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"
Universal	Item # 1257005TU Price <b>\$39.00</b>	Item # 1257007TU Price <b>\$42.47</b>	Item # 1257010TU Price <b>\$51.13</b>	Item # 1257012TU Price <b>\$84.07</b>	Item # 1257015TU Price <b>\$84.07</b>	Item # 1257020TU Price <b>\$103.13</b>	Item # 1257030TU Price <b>\$252.20</b>	Item # 1257040TU Price <b>\$420.33</b>
Socket	—	—	—	—	—	—	Item # 1256030TU Price <b>\$252.20</b>	Item # 1256040TU Price <b>\$420.33</b>
Flanged	Item # 1258005TU Price <b>\$75.53</b>	Item # 1258007TU Price <b>\$94.47</b>	Item # 1258010TU Price <b>\$123.07</b>	Item # 1258012TU Price <b>\$201.07</b>	Item # 1258015TU Price <b>\$201.07</b>	Item # 1258020TU Price <b>\$251.33</b>	Item # 1258030TU Price <b>\$457.60</b>	Item # 1258040TU Price <b>\$714.13</b>

NOTES: Connectors; 3" & 4" specify socket or threaded. \*\*1 1/4" is bushed down from 1 1/2" strainers.

### Replacement Screens Only

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3"	4"
PVC Screen	Item # Price	Item # Price	Item # Price	Item # Price	Item # Price	Item # Price	Item # Price	Item # Price
20 Mesh	3186005 <b>\$11.27</b>	3186007 <b>\$11.27</b>	3186010 <b>\$13.00</b>	3186012 <b>\$14.73</b>	3186015 <b>\$14.73</b>	3186020 <b>\$18.20</b>	3186030 <b>\$21.67</b>	3186040 <b>\$27.73</b>
30 Mesh	3187005 <b>11.27</b>	3187007 <b>11.27</b>	3187010 <b>13.00</b>	3187012 <b>14.73</b>	3187015 <b>14.73</b>	3187020 <b>18.20</b>	3187030 <b>21.67</b>	3187040 <b>27.73</b>
40 Mesh	3188005 <b>11.27</b>	3188007 <b>11.27</b>	3188010 <b>13.00</b>	3188012 <b>14.73</b>	3188015 <b>14.73</b>	3188020 <b>18.20</b>	3188030 <b>21.67</b>	3188040 <b>27.73</b>

## Y Strainers 1/2" to 4" Corzan® CPVC

### ECONOMICAL PROTECTION

Hayward Y Strainers protect piping system components from damage caused by dirt or debris in the process media. They cost less than other types of strainers and are lightweight and very compact. Because they can often be supported by the pipeline alone, they work in applications where other strainers cannot.

### Quick Spec

- Rated to 150 PSI
- Viton® Seals
- Standard 1/2" perf screen
- All-plastic construction
- Easy screen access can be used in horizontal or vertical position

### OPTIONS

Stainless Steel Strainer Screens



End Connection	1/2"	3/4"	1"	1 1/2"	2"	3"	4"
Threaded	Item # YS20050T Price <b>\$110.00</b>	Item # YS20075T Price <b>\$121.67</b>	Item # YS20100T Price <b>\$155.83</b>	Item # YS20150T Price <b>\$242.50</b>	Item # YS20200T Price <b>\$311.67</b>	Item # YS20300T Price <b>\$389.17</b>	Item # YS20400T Price <b>\$674.17</b>
Socket	Item # YS20050S Price <b>110.00</b>	Item # YS20075S Price <b>121.67</b>	Item # YS20100S Price <b>155.83</b>	Item # YS20150S Price <b>242.50</b>	Item # YS20200S Price <b>311.67</b>	Item # YS20300S Price <b>389.17</b>	Item # YS20400S Price <b>674.17</b>

## Line Strainer Type 306

GEORGE FISCHER +GF+

### Quick Spec

- Easy to clean
- Corrosion resistant
- Screens available in four different perforations
- Screens can be removed and cleaned without removing strainer from line
- 20 mesh screen standard
- Line strainer type 306 is suitable for protecting valves, pumps and other equipment against solid particles
- It is available in transparent PVC
- Installation position is dependent on flow direction

Starting At  
**\$39<sup>06</sup>**



	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	3"
PVC	Item # Price	Item # Price	Item # Price	Item # Price	Item # Price	Item # Price	Item # Price
EPDM	192306300 <b>\$39.06</b>	192306350 <b>\$44.89</b>	192306400 <b>\$49.64</b>	192306450 <b>\$86.67</b>	192306500 <b>\$86.67</b>	192306550 <b>\$106.78</b>	192306650 <b>\$217.11</b>
VITON	192306349 <b>47.17</b>	192306399 <b>52.28</b>	192306449 <b>56.56</b>	192306499 <b>95.78</b>	192306549 <b>104.00</b>	192306599 <b>128.61</b>	192306699 <b>254.56</b>

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 73



## Replacement Filter Cartridges

USCO filter cartridges are wound in precise manner to provide true depth filtration through hundreds of tapered passageways. Depth wound cartridges offer gradual pressure increase compared to sudden pressure increase with surface type filters. Progressive dirt removal from surface to core provides high dirt holding capacity. Core covers are available to prevent fiber migration.



### Quick Spec

- Solids removal
- Truly graded depth-type media
- FDA approved fibers
- Yarn-wound cartridges
- Broad chemical capability
- Economical
- Optimum dirt holding capability
- Fibers with low extracts
- Polypropylene core

### APPLICATIONS

- Food and Beverage
- Chemicals
- Electronics
- Photographic
- Hospitals
- Magnetic Coatings
- Oil Production
- Cosmetics
- Pharmaceuticals
- Paint and Ink
- Plating

NOTE: Specify 10" or 9 1/4" Length when ordering.

NOTE: All 9 1/4" and 10" are 30/case. All 20" and 30" are 15/case. All 40" are 10/case.

\* Optional core price must be added to element price. (Confirm element length equals optional core length.)

Prices are for 9 1/4" and 10" elements

Micron Rating	FDA Polypropylene	Industrial Polypropylene	Fibrillated Polypropylene	Natural Cotton	FDA Bleached Cotton
0.5	05P10PF <b>\$3.42</b>	5P10P <b>\$3.12</b>	5PF10P <b>\$3.12</b>	05CU10P <b>\$3.87</b>	05C10PF <b>\$3.50</b>
1	1P10PF <b>2.70</b>	1P10P <b>2.46</b>	1PF10P <b>2.46</b>	1CU10P <b>3.17</b>	1C10PF <b>2.87</b>
3	3P10PF <b>2.64</b>	3P10P <b>2.41</b>	3PF10P <b>2.41</b>	3CU10P <b>3.04</b>	3C10PF <b>2.77</b>
5	5P10PF <b>2.53</b>	5P10P <b>2.30</b>	5PF10P <b>2.39</b>	5CU10P <b>2.94</b>	5C10PF <b>2.68</b>
10	10P10PF <b>2.41</b>	10P10P <b>2.20</b>	10PF10P <b>2.34</b>	10CU10P <b>2.89</b>	10C10PF <b>2.63</b>
15	15P10PF <b>2.39</b>	15P10P <b>2.18</b>	15PF10P <b>2.30</b>	15CU10P <b>2.87</b>	15C10PF <b>2.61</b>
25	25P10PF <b>2.36</b>	25P10P <b>2.14</b>	25PF10P <b>2.27</b>	25CU10P <b>2.84</b>	25C10PF <b>2.57</b>
50	50P10PF <b>2.30</b>	50P10P <b>2.10</b>	50PF10P <b>2.24</b>	50CU10P <b>2.76</b>	50C10PF <b>2.50</b>
100	100P10PF <b>2.30</b>	100P10P <b>2.08</b>	100PF10P <b>2.22</b>	100CU10P <b>2.70</b>	100C10PF <b>2.46</b>
150	150P10PF <b>2.30</b>	150P10P <b>2.08</b>	150PF10P <b>2.22</b>	150CU10P <b>2.70</b>	150C10PF <b>2.46</b>
200	200P10PF <b>2.30</b>	200P10P <b>2.08</b>	200PF10P <b>2.22</b>	200CU10P <b>2.70</b>	200C10PF <b>2.46</b>
300	300P10PF <b>2.30</b>	300P10P <b>2.08</b>	300PF10P <b>2.22</b>	300CU10P <b>2.70</b>	300C10PF <b>2.46</b>

### Price Adders / Optional Cores\*

20", 30", 40" Element Lengths	Element Length	304 SS	316 SS	Tinned Steel
	10"	<b>\$1.17</b>	<b>\$1.40</b>	<b>\$2.23</b>
20" = 10" Price x 2	20"	<b>2.33</b>	<b>2.80</b>	<b>.36</b>
30" = 10" Price x 3	30"	<b>3.50</b>	<b>4.20</b>	<b>.52</b>
40" = 10" Price x 4	40"	<b>4.67</b>	<b>5.60</b>	<b>.70</b>

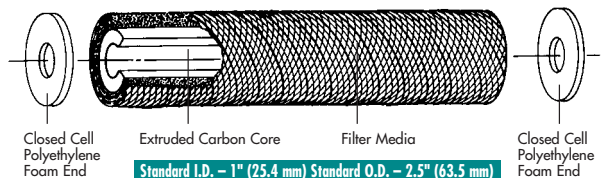
## Premium Water CEW Series Carbon Filter Cartridges

### Quick Spec

- High Chemical Adsorptive Capacity
- High Adsorptive Efficiency
- High VOC Reduction
- High TOC Reduction
- High Chlorine Adsorptive Capacity

### SPECIFICATIONS

- Maximum operating temperature: 150°F
- Maximum operating pressure: 250 psig.
- Maximum differential pressure: 100 psid.
- Collapse pressure: 200 psid.
- Approximate net pressure drop: 2.25 psid at 1 gpm.
- 90% efficient at 5 Micron



Item #	Micron	Description	Filter Length	Price
CEWSP10	5	Polypropylene/Carbon	10"	<b>\$9.39</b>
CEWSPF10	5	Fibrillated Polypropylene/Carbon	10"	<b>9.39</b>

NOTE: Specify 10" or 9 1/4" length when ordering.

20" Element price: x2

30" Element price: x3

40" Element price: x4

### CARBONEX™ DUAL MEDIA FILTER

**Outer Media:** High efficient depth filter with high dirt holding capacity.

**Inner Core:** High effective activated carbon treatment media.

## Harmsco® Band Clamp Filters



From Only  
**\$835<sup>56</sup>**



### Quick Spec

- 316 stainless steel filter housings for increased durability
- Electro polished for superior finish
- Band clamp lid closure
- Staggered in-line installation
- O-Rings - Buna-N
- Removable cartridge lifters for easy cartridge removal
- Stainless cartridge lifters
- Maximum Operating Pressure - 150 psi
- Uses Harmsco & popular length cartridges
- Integral mounting legs
- Cartridge specifications always prevail

**ALL BAND CLAMP MODELS:** ■ Temp Rating: 300° \*\*\* ■ I/O Pipe Size: 2" ■ Drain Size: 1/2"

### Band Clamp Filter Models and Individual Specifications

Model	Conservative Recommended Flow Rate	*Max GPM Flow Rate	LMP Flow Rate	(M3/hr) Flow Rate	**Media Area W/ Harmsco 801 cartridge	Cartridge Height	Service Height	Shipping Weight	Price
BC4-1	12	up to 25	95	5	24 sq. ft.	9 1/2"-10"	28"	27 lbs	<b>\$835.56</b>
BC4-2	24	up to 50	190	12	48 sq. ft.	19 1/2"-20"	47"	32 lbs	<b>960.00</b>
BC4-3	36	up to 75	285	17	72 sq. ft.	29 1/2"-30"	67"	38 lbs	<b>1,233.89</b>
BC6-1	18	up to 42	159	10	36 sq. ft.	9 1/2"-10"	28"	45 lbs	<b>1,015.22</b>
BC6-2	36	up to 84	318	19	72 sq. ft.	19 1/2"-20"	47"	53 lbs	<b>1,252.61</b>
BC6-3	54	up to 126	477	29	108 sq. ft.	29 1/2"-30"	67"	62 lbs	<b>1,449.11</b>

\* Flow rates should be used as guidelines.

\*\* 6 sq. ft. cartridges.

\*\*\* Cartridge specifications always prevail.

Floor Space Footprint: 8" diameter: 13" x 13" -10" diameter: 15" x 15". Actual flow rates will vary based on many different factors.

# Harmsco® Industrial Filters

## Harmsco® Up-Flow Filters



### CLUSTER FILTERS

With Harmsco cluster filters, the entire set of filter cartridges is removed at one time for cleaning or replacement.

*A design so superior  
it's patented!*



**HIF-7**



**HIF-14**



**HIF-16**



**HIF-21**

**HIF-24**

Flow rate (U.S. GPM)	Up to 30	Up to 60	Up to 75	Up to 90	Up to 100
Flow rate (LPM)	Up to 113	Up to 226	Up to 284	Up to 340	Up to 397
Flow rate (M3HR)	Up to 7	Up to 14	Up to 16	Up to 21	Up to 24
Number of std. cartridges	7	14	16	21	24
Alternative cartridge	Single only	Doubles	Doubles	Triples	Triples
Pipe size	1½" NPT	1½" NPT	2" NPT	1½" NPT	2" NPT
Filter height	19.5" / 49 cm	28" / 71 cm	28" / 71 cm	37" / 94 cm	37" / 94 cm
Floor space requirement	13" x 13"	13" x 13"	13" x 13"	13" x 13"	13" x 13"
Service height clearance	35" / 89 cm	48" / 122 cm	48" / 122 cm	68" / 173 cm	68" / 173 cm
Shipping weight (approx.)	29 lbs. / 13 kg	39 lbs. / 18 kg	39 lbs. / 18 kg	50 lbs. / 23 kg	50 lbs. / 23 kg
Price	<b>\$884.22</b>	<b>\$1,255.44</b>	<b>\$1,369.56</b>	<b>\$1,597.78</b>	<b>\$1,969.00</b>

## Genuine Harmsco® Replacement Cartridges

These cartridges cost less to use regardless what they cost to buy because they have 50% more filter media than other brands for longer life and increased dirt holding capacity.

### APPLICATIONS

- Drinking water
- Bottled water
- Drinking fountains
- Ground water
- Beverages
- Municipal water
- Surface waters
- Whole house
- R/O pre-filtration
- Power washing
- Process water waste water
- Rinse water
- Environmental
- Parts washing
- Plating baths cooling towers
- Heating loops
- chill water
- Ground water remediation

Approximately 6 sq. ft. of media per 9¾" length.

**Case Quantity Discounts**

### Quick Spec -----

- Pleated design for long filter life.
- Polyester filter media can be cleaned and reused
- Color coded end caps to easily identify micron rating
- Thermally bonded construction for added strength
- FDA listed materials for use in potable water and liquid food applications
- Highly efficient filter media for superior filtration

### CARTRIDGES FOR HARMSCO FILTER HOUSINGS

2¾" O.D. (All cartridges packaged 24 per case)

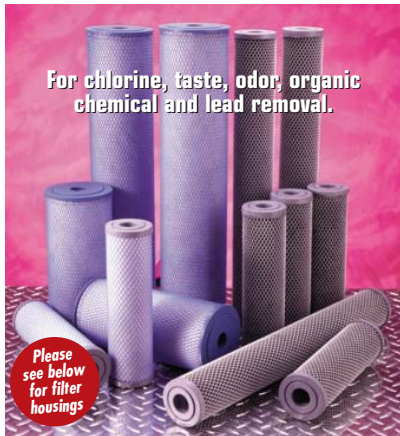
9¾"			9¾" Wrapped			19½"			29¼"		
Micron	Code	Price/each	Code	Price/each	Code	Price/each	Code	Price/each			
.35	801-0.35	\$11.19	801-0.35-W	\$11.56	921-0.35	\$21.28	931-0.35	\$36.89			
1	801-1	8.03	801-1-W	8.41	921-1	16.78	931-1	26.83			
5	801-5	6.84	801-5-W	7.17	921-5	14.00	931-5	25.72			
10	801-10	6.84	801-10-W	7.17	921-10	14.00	931-10	25.72			
20	801-20	6.84	801-20-W	7.17	921-20	14.00	931-20	25.72			
50	801-50	6.84	801-50-W	7.17	921-50	14.00	931-50	25.72			
100	801-100	6.84	801-100-W	7.17	—	—	—	—			



Harmsco cartridges are cleanable and reusable in most applications and micron ratings.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**USCO 75**



For chlorine, taste, odor, organic chemical and lead removal.

Please see below for filter housings

#### Lead removal, Big-Blue and standard cartridges

We offer a complete line of filter cartridges containing activated carbon for improved water quality. Select from the products described at right.

## Premium Quality Activated Carbon Cartridges

When you demand the very best quality for process, select Harmsco® activated carbon cartridges with high carbon content for superior performance and long life. All cartridges individually wrapped.

#### Percent Chlorine Removed

500 gal.	1000 gal.	1500 gal.	2000 gal.	2500 gal.	3000 gal.
99%	99%	99%	99%	96%	89%

Test data generated by independent laboratory at 1 GPM using test procedures described in NSF Standard 42. Average chlorine feed at 2 ppm using HAC-10-W cartridge.

Type	Size (L x OD)	Item #	No./Case	Maximum Flow Rates		Maximum Capacity (Gals)				Price
				GPM	LPM	Chlorine	Organic Chemicals	Lead		
Activated Carbon	9 3/4" x 2 3/4"	HAC10W	24	1.5	5.7	3,000	500	—		\$14.00
Activated Carbon	20" x 2 3/4"	HAC20W	24	3.0	11.3	6,000	1,000	—		28.33
A/C +Lead Removal	9 3/4" x 2 3/4"	HAC10LRW	24	0.75	2.8	3,000	500	4,000*		34.67
Activated Carbon/Big-Blue	9 3/4" x 4 1/2"	HAC10BBW	8	5.0	18.9	7,500	1,000	—		38.00
Activated Carbon/Big-Blue	20" x 4 1/2"	HAC20BBW	4	10	37.8	15,000	2,000	—		67.06

Note: All center tubes are 1 1/8" ID.

\*99% lead removal typical with low pH and alkalinity to 4,000 gals. 98% to 92% removal typical with high pH and alkalinity to 3,000 gals. Data shown above are approximate and depend on filter life relative to solids content.

## Single Filter Cartridge Housings and Drinking Water Systems by Harmsco

#### Single filter cartridge housings

A wide selection of high quality, single filter cartridge housings are available for low flow rates and when multi-cartridge filter housings are not required. Made of polypropylene for durability, strength and chemical compatibility. Rated for temperatures to 100°F (38°C) and pressures to 125 psi (8.5 bar). Slimline and Big-Blue housings available.

#### Drinking water systems

Counter top and under counter model for two housings are available.

Rated for temperatures to 100°F (38°C) and pressures to 125 psi (8.5 bar). Individually boxed, installation instructions included.

From Only  
\$20<sup>21</sup>

Item #	Type	Pipe	Pr. Relief	Color	Price
Polypropylene filter housings for one 9 3/4" cartridge (2 3/4" O.D.). NSF 42 component listed.					
HSL10-0.25W	Slimline	1/4"	No	White	\$20.21
HSL10-0.375W	Slimline	3/8"	No	White	20.21
HSL10-0.75WPR	Slimline	3/4"	Yes	White	20.21
HSL10-0.75WCP	Slimline	3/4"	Yes	Wt/Clear	27.94
Polypropylene filter housings for one 20" cartridge (2 3/4" O.D.).					
HSL20-0.75WPR	Slimline	3/4"	Yes	White	60.33
Polypropylene filter housings for Big-Blue filter cartridges (4 1/2" O.D.).					
HBB10-1WPR	10" Big-Blue	1"	Yes	White	68.17
HBB20-1.5WPR	20" Big-Blue	1 1/2"	Yes	White	103.97



## Big-Blue Cartridges by Harmsco

We manufacture a complete line of 4 1/2" diameter cartridges for both 10" and 20" Big-Blue filter housings. Harmsco Big-Blue cartridges are made with our proprietary blend of Polyester-Plus™ filter media; they are thermally bonded for added strength; cleanable and reusable in most applications; individually shrink wrapped; and available in 1, 5, 20 and 50 nominal micron ratings.

#### SPECIFICATIONS

Filter media:	Polyester-Plus™
End Caps:	Plastisol (pliable PVC)
Center Tubes:	PVC, rigid and perforated
Dimensions:	4 1/2" OD x 1 1/8" ID x 9 3/4" L and 20" L
Flow Rates:	Up to 15 GPM (56 LPM) for 10"; 30 GPM (113 LPM) for 20"
Temperature:	Up to 140°F (60°C)

Temperature limits based on pressure and time under load.

#### Filter Cartridges for Big-Blue Housings

Item #	Microns	Length	No./Case	Price
HB101W	1	9 3/4"	8	\$19.87
HB105W	5	9 3/4"	8	18.72
HB1020W	20	9 3/4"	8	17.50
HB1050W	50	9 3/4"	8	17.50
HB201W	1	20"	4	35.22
HB205W	5	20"	4	30.17
HB2020W	20	20"	4	30.17
HB2050W	50	20"	4	30.17



## Simplex Basket Strainers ½" to 8" PVC, Corzan® CPVC and Eastar®

### PROTECT SYSTEM COMPONENTS

When pipeline system components require protection from dirt and debris and the line can be shut down for basket cleaning, a HAYWARD® All Plastic Simplex Basket Strainer is the ideal choice. Unwanted particles are removed as the process media passes through a perforated strainer basket contained inside the strainer body. The basket traps the unwanted material while allowing the process media to flow freely.

Each Simplex Basket Strainer includes one plastic basket.

If perforation is not specified, then standard basket perforation\* will be shipped.

Size	End Connection	Item #	Price
½"	Threaded	BS10050T	<b>\$204.78</b>
½"	Socket	BS10050S	<b>204.78</b>
¾"	Threaded	BS10075T	<b>204.78</b>
¾"	Socket	BS10075S	<b>204.78</b>
1"	Threaded	BS10100T	<b>204.78</b>
1"	Socket	BS10100S	<b>204.78</b>
1"	Flanged	BS10100F	<b>235.39</b>
1½"	Threaded	BS10150T	<b>358.89</b>
1½"	Socket	BS10150S	<b>358.89</b>
1½"	Flanged	BS10150F	<b>427.50</b>

\*For ½", ¾" and 1" Basket Strainers standard perforation is ½". For 1½" thru 8" Basket Strainers standard perforation is ¼".

Corzan® is a registered trademark of  
BF Goodrich Company  
Viton® is a trademark of DuPont Dow Elastomers

Size	End Connection	Item #	Price
2"	Threaded	BS10200T	<b>\$352.56</b>
2"	Socket	BS10200S	<b>352.56</b>
2"	Flanged	BS10200F	<b>420.11</b>
3"	Threaded	BS1300T	<b>813.83</b>
3"	Socket	BS1300S	<b>813.83</b>
3"	Flanged	BS1300F	<b>976.39</b>
4"	Threaded	BS1400T	<b>1,077.72</b>
4"	Socket	BS1400S	<b>1,077.72</b>
4"	Flanged	BS1400F	<b>1,273.00</b>
6"	Flanged	BS1600F	<b>2,717.00</b>
8"	Flanged	BS1800F	<b>3,580.44</b>



- Ergonomic hand removable cover
- Hand removable vent on cover
- True Union connections
- Hand removable drain on body

### ADDITIONAL FEATURES

- External body threads
- Low pressure drop
- Wide choice of baskets
- In-line or loop piping design
- Viton® Seals
- Integral, flat mounting base
- Liquid displacing cover

### OPTIONS

- Stainless steel mesh strainer baskets
- EPDM seals

Starting At  
**\$204.78**



**CPVC & PPL  
available!**

- EASY BASKET CLEANING
- CHOICE OF PIPING CONNECTIONS
- WIDE RANGE OF STRAINER BASKETS

Plastic Baskets in perforation sizes from ½" to ¾" are available. Stainless steel perforated baskets are available from ½" to ½". Mesh stainless steel baskets for very fine straining applications are available in sizes from 20 mesh down to 325 mesh.

## Extra/Replacement Baskets for Simplex or Duplex Basket Strainers

It is recommended that one spare basket per strainer be kept on hand at all times.

### For ½" ¾" and 1" Simplex or Duplex Basket Strainers PVC

Perforation	Item #	Price
½"	BS101001/32	<b>\$80.22</b>
¾"	BS101001/16	<b>80.22</b>

### For 1½" and 2" Simplex or Duplex Basket Strainers PVC

Perforation	Item #	Price
½"	BS102001/32	<b>\$101.33</b>
¾"	BS102001/16	<b>101.33</b>
1"	BS102001/8	<b>101.33</b>
1½"	BS102003/16	<b>101.33</b>

### For 3" Simplex or Duplex Basket Strainers PVC

Perforation	Item #	Price
¼"	BS103001/16	<b>\$226.94</b>
½"	BS103001/8	<b>226.94</b>
¾"	BS103003/16	<b>226.94</b>

### For 4" Simplex or Duplex Basket Strainers PVC

Perforation	Item #	Price
¼"	BS104001/16	<b>\$257.56</b>
½"	BS104001/8	<b>257.56</b>
¾"	BS104003/16	<b>257.56</b>

### For 6" Simplex Basket Strainers 6" PVC

Perforation	Item #	Price
¼"	BS16001/8	<b>\$733.61</b>
½"	BS16003/16	<b>733.61</b>

### For 8" Simplex Basket Strainers 8" PVC

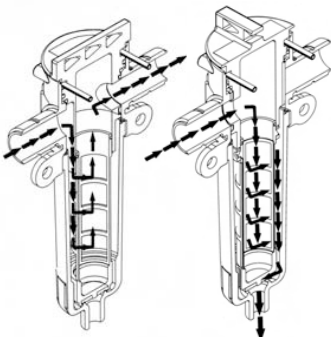
Perforation	Item #	Price
¼"	BS18001/8	<b>\$1,013.33</b>
½"	BS18003/16	<b>1,013.33</b>



## In-Line Water Filter – Backwash with a turn of a knob!

Flow Position

Clean Position



### Quick Spec

- Reuseable filter
- Spin down action
- Can be plumbed into drain
- Molded Stainless screen
- Clear bowl / optional sunscreen
- Robust design high grade components

Item #	Micron	Max. Rate GPM	M3h	Pressure	Inlet	Outlet	Price
TCF-1250	250	15	3.4	7 BAR	100 PSI	¾"	<b>\$78.46</b>
TCF-1149	149	15	3.4	7 BAR	100 PSI	¾"	<b>78.46</b>
TCF-1104	104	15	3.4	7 BAR	100 PSI	¾"	<b>78.46</b>
TCF-2250	250	30	6.8	7 BAR	100 PSI	1"	<b>84.62</b>
TCF-2149	149	30	6.8	7 BAR	100 PSI	1"	<b>84.62</b>
TCF-2104	104	30	6.8	7 BAR	100 PSI	1"	<b>84.62</b>



From Only  
**\$78.46**



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 77

## The Revolutionary Hurricane Filter

**It's a Separator & Cartridge Filter in One**  
Hurricane filters provide unsurpassed performance because they separate dense solids prior to cartridge filtration for extended filter life, increased dirt holding capacity and reduced maintenance costs. In many respects Hurricane filters are two filters in one! Components include outer chamber for particle separation, inner chamber for cartridge filtration and built-in drain for purge, if required.

### Three-standard Filter Housings Available

Three standard HarmSCO Hurricane Filter models are available for a wide range of applications. Standard models are rated for pressures to 150 psi and temperatures to 140°F (60°C). See compatibility charts for chemical resistance to stainless steel.

#### Quick Spec

- 304 stainless steel filter housings
- Electro-polished for superior finish
- Resistant coatings available
- Fail-safe lids with individual studs for security
- Bronze wing nuts for convenience
- 90° elbow and 45° sweep on outlet for staggered in-line vertical installation
- CPVC standpipe for up-flow design
- Cartridge not included



**HURRICANE**  
HARMSCO™

*Combines three filtration technologies in a single compact design.*

#### Tangential entry:

Liquid enters the filter tangentially to provide rotational flow and centrifugal force for particle separation.



**HUR40HP**



**HUR90HP**



**HUR170HP**

*Hurricane Filters now available to meet ASME requirements*

Ask an USCO Sales Rep. today.

Flow rate (GPM)	Up to 50	Up to 100	Up to 150
Flow rate (LPM)	Up to 189	Up to 378	Up to 568
Row rate (M3/HR)	Up to 12	Up to 24	Up to 36
Pipe size (NPT)	2"	2"	2"
Drain (NPT)	1"	1"	1"
Filter height	21"/54 cm	31"/79 cm	41"/105 cm
Floor space requirements	15" x 15"	15" x 15"	15" x 15"
Service height requirements	31"/79 cm	51"/130 cm	72"/183 cm
Shipping weight	40 lbs./18 kg	51 lbs./23 kg	64 lbs./29 kg
Price	<b>\$1,655.56</b>	<b>\$1,968.89</b>	<b>\$2,967.78</b>



## Replacement Cartridges

*Standard pleated polyester filter elements*

*As Low As \$83.83*

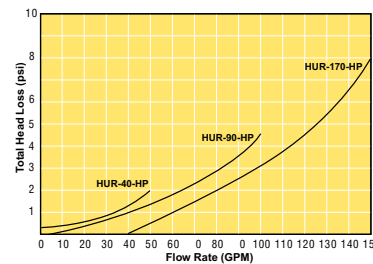
Cartridges rated for temperatures to 140°F (60°C). Polyester-Plus™ filter media is cleanable and cartridges are reusable in most applications and micron ratings. Cartridges can separate solids in liquids with a pH of 3 to 11. Packaged one per carton.

Filter Model	Cartridge Item #	Nominal Micron	Cartridge Dimensions			Ship wt./ctn. (One Cartridge)	Price
HUR40HP	HC400.35	0.35	9 5/8"	7 3/4"	3" FPT	4 lbs.	<b>\$114.06</b>
	HC401	1	9 5/8"	7 3/4"	3" FPT	4 lbs.	<b>95.02</b>
	HC405	5	9 5/8"	7 3/4"	3" FPT	4 lbs.	<b>83.83</b>
	HC4020	20	9 5/8"	7 3/4"	3" FPT	4 lbs.	<b>83.83</b>
	HC4050	50	9 5/8"	7 3/4"	3" FPT	4 lbs.	<b>83.83</b>
	HC40100	100	9 5/8"	7 3/4"	3" FPT	4 lbs.	<b>83.83</b>
HUR90HP	HC900.35	0.35	19 1/2"	7 3/4"	3" FPT	7 lbs.	<b>181.11</b>
	HC901	1	19 1/2"	7 3/4"	3" FPT	7 lbs.	<b>137.50</b>
	HC905	5	19 1/2"	7 3/4"	3" FPT	7 lbs.	<b>115.11</b>
	HC9020	20	19 1/2"	7 3/4"	3" FPT	7 lbs.	<b>115.11</b>
	HC9050	50	19 1/2"	7 3/4"	3" FPT	7 lbs.	<b>115.11</b>
	HC90100	100	19 1/2"	7 3/4"	3" FPT	7 lbs.	<b>115.11</b>
HUR170HP	HC1700.35	0.35	30 3/4"	7 3/4"	3" FPT	10 lbs.	<b>334.00</b>
	HC1701	1	30 3/4"	7 3/4"	3" FPT	10 lbs.	<b>228.00</b>
	HC1705	5	30 3/4"	7 3/4"	3" FPT	10 lbs.	<b>203.50</b>
	HC17020	20	30 3/4"	7 3/4"	3" FPT	10 lbs.	<b>203.50</b>
	HC17050	50	30 3/4"	7 3/4"	3" FPT	10 lbs.	<b>203.50</b>
	HC170100	100	30 3/4"	7 3/4"	3" FPT	10 lbs.	<b>203.50</b>

### Poly-Pleat™ Cartridges for One Micron Absolute Rated Filtration

Poly-Pleat cartridges are designed for drinking water applications to remove *Cryptosporidium*, and *Giardia* Cysts and when one micron absolute rated filtration is required. Cartridges are rated for temperatures to 140°F (60°C). Polypropylene filter media offers compatibility with many aggressive chemicals. Check compatibility charts for PVC center tubes and end caps.

Filter Model	Cartridge Item #	Nominal Micron	Cartridge Dimensions			Ship wt./ctn. (One Cartridge)	Price
HUR40HP	PPHC401	1	9 5/8"	7 3/4"	3" FPT	4 lbs.	<b>\$175.50</b>
HUR90HP	PPHC901	1	19 1/2"	7 3/4"	3" FPT	7 lbs.	<b>262.67</b>
HUR170HP	PPHC1701	1	30 3/4"	7 3/4"	3" FPT	10 lbs.	<b>458.28</b>



Pressure drop shown above is for filter housing and 20 micron filter cartridge in clean water. Data developed by NSF International.

## "Heavy Duty" Molded Cylindrical Tanks with Covers

### Quick Spec

- Continuous service; 150°F/65°C (HDPE, XLPE) 220°F/104°C (PP)
- Tough, chemical resistant for prolonged storage and mixing of acids, caustics and many other chemicals
- Good impact and abrasion resistance
- Smooth, easy-to-clean finish
- Resin complies with U.S. Food & Drug Administration regulation 177.1520 (HDPE only)
- Installed fittings available

Material Capacity	HDPE			XLPE			Polypropylene		
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #
5	111000005	\$42.56	113000005	\$53.73	112000005	\$73.72			
7.5	111000007	\$7.71	113000007	\$9.78	112000007	\$8.66			
10	111000010	\$9.12	113000010	\$9.87	112000010	\$9.26			
15	111000015	\$7.10	113000015	\$10.81	112000015	\$10.97			
30	111000030	\$116.36	113000030	\$158.93	112000030	\$166.29			
55	111000055	\$160.30	113000055	\$225.10	112000055	\$219.31			
80	111000080	\$329.02	113000080	\$417.41	112000080	\$462.88			
100	111000100	\$349.10	113000100	\$516.28	112000100	\$531.31			
150	111000150	\$474.76	113000150	\$655.92	112000150	\$637.71			
200	111000200	\$515.31	113000200	\$596.96	112000200	\$671.62			
275	111000275	\$65.44	113000275	\$766.72	112000275	\$886.68			
360	111000360	\$834.28	113000360	\$937.86	112000360	\$1,092.49			
500	111000500	\$1,182.27	NA	NA	NA	NA			
1000	111001000	\$1,979.50	NA	NA	NA	NA			

As Low As  
\$42<sup>56</sup>



Capacity, Gallons	5	7.5	10	15	30	55	80	100	150	200	275	360	500	1000
Calibration, Gallons/Liters	.5/2	.5/*	1/*	1/4	2.5/10	2.5/10	5/20	5/20	10/40	25/200	25/100	25/100	25/100	25/100
Approximate O.D. x Depth, inches	11 x 15	12 x 18	13 x 20	13 x 27	18 x 30	22 x 36	24 x 48	28 x 44	31 x 49	35 x 51	42 x 49	48 x 49	53 x 62	66 x 72
Approximate Wall Thickness	3/16	3/16	3/16	3/16	3/16	1/4	1/4	1/4	1/4	1/4	1/4	1/4	5/16	5/16

\* 7½ and 10 gallon cylindrical tanks do not have liter calibrations.

NOTES: 1) Tanks of 55-gallon capacity and above have spoked-bottom design. Others have raised center for complete drainage.

2) 1000 gal. cover is sloped and has flats for installation fittings.

## Tanks with Spigot for Easy Dispensing

These HDPE tanks come complete with a PP needle-type spigot, making them excellent for chemical dispensing. To ensure strength and leak-free operation, Norton welds a mounting boss onto the tank, then installs the spigot. Available in both heavy- and light-weight versions, in sizes from 5 to 55 gallons.

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PERFORMANCE PLASTICS

Capacity Gallons	Heavyweight Item #	Price	Lightweight Item #	Price
5	11102-0005	\$66.91	54102-0005	\$63.57
7½	11102-0007	\$81.81	54102-0007	\$77.09
10	11102-0010	\$84.01	54102-0010	\$79.12
15	11102-0015	\$101.38	54102-0015	\$96.30
30	11102-0030	\$143.32	54102-0030	\$136.21
55	11102-0055	\$188.60	54102-0055	\$178.57



## "Economy" HDPE Tanks with Covers

Designed for less demanding applications where cost is a critical factor.

From Only  
\$40<sup>41</sup>

Capacity Gallons	Item #	O.D. x Depth, in.	Wall Thickness	Price
5	54100-0005	11 x 15	3/32	\$40.41
7½	54100-0007	12 x 18	3/32	\$4.93
10	54100-0010	13 x 20	3/32	\$6.17
15	54100-0015	13 x 27	3/32	\$70.39
30	54100-0030	18 x 30	3/32	\$110.41
55	54100-0055	22 x 36	3/32	\$152.28



## 19009 and 19010 Stands for Cylindrical Tanks

### Quick Spec

- 8-in. hole for drains
- 275-gal. and larger stands have six legs
- Rim has 5½ in. cutout for fitting
- Available with agitator supports
- Fit most Norton cylindrical tanks, including those with FRP casings
- Heavy-duty braced steel stands support tank with full liquid load
- Polyurethane coating: more chemical-resistant than most industrial paints
- For additional dimensions consult sales office

Elevated Tank Stands – Heavy-duty braced steel stands. Lifts flat-bottom tanks 22 inches from floor. With 8-in. center hole for drains, cutout on rim for fittings. Chemical-resistant polyurethane paint.

Capacity Gallons	Without Agitator Support		With Agitator Support	
	Item #	Price	Item #	Price
30	190090030	\$295.81	190100030	\$401.74
55	190090055	\$326.64	190100055	\$440.60
80	190090080	\$426.92	190100080	\$557.27
100	190090100	\$392.37	190100100	\$522.03
150	190090150	\$436.99	190100150	\$575.01
200	190090200	\$509.72	190100200	\$646.48
275	190090275	\$699.57	190100275	\$841.42
360	190090360	\$750.30	190100360	\$887.29
500	190090500	\$789.82	190100500	\$901.16
1000	190091000	\$2,285.09	190101000	\$2,566.32

NOTE: To order cylindrical tank stand with agitator support, specify part number 19010 and appropriate size code. Special modifications such as height changes available on request.

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PERFORMANCE PLASTICS



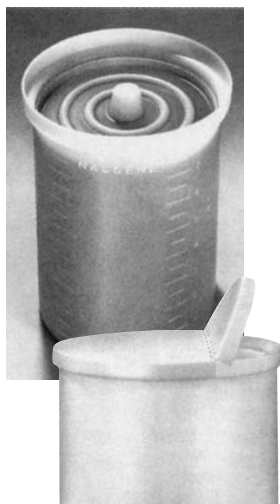
Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 79

Tanks



## Cylindrical Tank Accessories



### FLOATING COVERS

Maintain continuous contact as liquid level changes; reduce evaporation, fumes and surface oxidation. Very good chemical resistance. Fit *only* straight-wall cylindrical tanks (Series 11000, 18000, 19000, and 54000). Resin complies with FDA Reg. 177.1520.

### HDPE Floating Covers for Cylindrical Tanks, Thickness

Fits These Size Tanks	Diameter (in.)	Item #	Floating Cover Thickness (in.)	Price
5 Gals.	10 $\frac{3}{8}$	54104-0011	$\frac{1}{16}$	<b>\$22.13</b>
7.5 Gals.	12	54104-0012	$\frac{1}{16}$	<b>24.74</b>
10 Gals.	12 $\frac{3}{4}$	54104-0013	$\frac{1}{16}$	<b>27.56</b>
15 Gals.	13 $\frac{1}{8}$	54104-0014	$\frac{1}{16}$	<b>30.27</b>
30 Gals.	17 $\frac{3}{4}$	54104-0018	$\frac{3}{32}$	<b>31.07</b>
55 Gals.	22 $\frac{3}{8}$	54104-0022	$\frac{3}{32}$	<b>38.97</b>

### INSTALLED HINGES

Flexible PP hinge provides access to cylindrical tanks without completely removing cover. The cover is cut to your specifications, then the hinge is installed with stainless steel rivets. Hinge length and exact location must be listed separately on your purchase order.

### Installed Hinges for Cylindrical Tank Covers

Fits These NALGENE Cylindrical Tanks	Item #	Hinge Length (in.)	Price
5 to 80 Gals.	87500-0024	up to 24	<b>\$206.36</b>
100 to 200 Gals.	87500-2536	25 to 36	<b>306.76</b>
275 & 360 Gals.	87500-3748	37 to 48	<b>409.66</b>
500 Gals.	87500-4960	49 to 60	<b>516.38</b>

Hinges for rectangular tanks are also available.

## High-Density Polyethylene Cone Bottom Tanks

### with Covers



*These tanks require elevated stands. See stands at right.*

From Only  
**\$120<sup>41</sup>**



### Quick Spec

- 30° cone angle (18° for 400 gallons, 45° for 500 gallons)
- Complete drainage
- Better dispersal of solids
- Easy installation of welded or bulk-head fittings
- Require metal stands
- HDPE and polypropylene resins comply with 21 CFR Reg. 177.1520 PVDF 21 CFR 177.2510
- Clearance from the floor to bottom of the tank is 18 inches (12 inches on 10-gallon tank)

**WARNING:** Never use FRP casings alone as a tank. Always use a liner. Always use an FRP casing with your tank for continuous service at elevated temperatures, or storage of high specific-gravity materials.

Item #	Cap., Gal.	Calib., Gal.	Calib., Liters	Approx. O.D. x Depth, in.	Approx. Wall Thickness in.	16120 Tank and Cover Price
161200010	10	1	5	13 $\frac{1}{4}$ x 23	$\frac{5}{32}$	<b>\$120.41</b>
161200030	30	2 $\frac{1}{2}$	10	18 x 35	$\frac{3}{32}$	<b>137.16</b>
161200055	55	2 $\frac{1}{2}$	10	22 x 44	$\frac{3}{16}$	<b>189.84</b>
161200100	100	5	20	32 x 38	$\frac{1}{4}$	<b>365.94</b>
161200150	150	5	50	32 x 57	$\frac{1}{4}$	<b>461.08</b>
161200250	250	25	100	43 x 54	$\frac{5}{16}$	<b>586.04</b>
161200500	500	25	100	53 x 80	$\frac{3}{16}$	<b>1,490.33</b>

NOTE: PP and XLPE available.

## Stands for Cone Bottom Tanks

*Elevated stands for cone bottom tanks.*



### Quick Spec

- Heavily-braced steel
- Polyurethane coating helps prevent corrosion—more chemical resistant than most industrial paints
- All sizes have 8-inch hole in bottom for fittings
- Stands for 250-gallon and larger tanks have six legs
- Available with agitator supports for mounting mixing equipment
- Accommodate tanks with FRP casings



Specify for complete drainage or better solids dispersion. Stands lift tank bottoms 18 in. off floor, have cutout for fitting. Chemical-resistant polyurethane paint.

Item #	Tank Size, Gal.	17109 Stands Price	Clearance, in. **	Item #	17110 Stands w/Agitator Support Price
171090010	10	<b>\$650.43</b>	12	N/A	<b>N/A</b>
171090030	30	<b>452.08</b>	18	171100030	<b>\$536.43</b>
171090055	55	<b>518.04</b>	18	171100055	<b>610.81</b>
171090100	100	<b>653.48</b>	18	171100100	<b>766.01</b>
171090150	150	<b>772.34</b>	18	171100150	<b>870.98</b>
171090250	250	<b>919.13</b>	18	171100250	<b>1,051.30</b>
171090500	500	<b>1,148.47</b>	18	171100500	<b>1,365.36</b>

\*\*Clearance from tip of tank to floor.

NOTE: To order conical-bottom tank stand with agitator support, specify 17110 stand. Special modifications such as height changes, etc. available upon request.

## High-Density Polyethylene Tanks with Covers

Item #	Cap., Gal.	Len. x Wid. x Dep.	Wall Thick., in.	Price
141000002	2	8 x 8 x 8	$\frac{5}{32}$	\$50.12
141000005	6	14 x 10 x 10	$\frac{5}{32}$	55.26
141000010	7	12 x 12 x 12	$\frac{5}{32}$	63.66
141000015	11	18 x 12 x 12	$\frac{5}{32}$	85.89
141000020	15	24 x 12 x 12	$\frac{5}{32}$	121.22
141000035	11	12 x 12 x 18	$\frac{5}{32}$	108.63
141000040	15	18 x 12 x 18	$\frac{5}{32}$	117.23
141000042	25	18 x 18 x 18	$\frac{5}{32}$	177.96
141000043	22	24 x 12 x 18	$\frac{5}{32}$	176.17
141000045	30	24 x 18 x 18	$\frac{5}{32}$	149.32
141000050	60	36 x 20 x 20	$\frac{5}{32}$	250.62
141000060	22	18 x 12 x 24	$\frac{5}{32}$	176.17
141000062	30	24 x 12 x 24	$\frac{5}{32}$	187.07
141000065	45	24 x 18 x 24	$\frac{5}{32}$	211.50
141000070	90	36 x 24 x 24	$\frac{3}{16}$	358.61
141000075	12	24 x 4 x 30	$\frac{1}{8}$	172.80
141000080	25	24 x 8 x 30	$\frac{1}{8}$	191.38
141000090	90	24 x 24 x 36	$\frac{3}{16}$	392.01

Other sizes available, consult sales office.

SAINT-GOBAIN  
PERFORMANCE PLASTICS

- Continuous service to 150°F/65°C
- Visible liquid level
- Good abrasion and impact resistance
- Very good chemical resistance
- Wide range of uses includes plating, photofinishing and food handling (resin meets U.S. Food & Drug Administration regulation 177.1520)



From Only  
**\$50<sup>12</sup>**

## Polypropylene Tanks with Covers

Item #	Cap., Gal.	Len. x Wid. x Dep.	Wall Thick., in.	Price
142000002	2	8 x 8 x 8	$\frac{3}{16}$	\$62.91
142000005	6	14 x 10 x 10	$\frac{3}{16}$	75.91
142000010	7	12 x 12 x 12	$\frac{3}{16}$	80.09
142000015	11	18 x 12 x 12	$\frac{3}{16}$	125.31
142000020	15	24 x 12 x 12	$\frac{3}{16}$	174.59
142000030	6	18 x 4 x 18	$\frac{3}{16}$	143.66
142000035	11	12 x 12 x 18	$\frac{3}{16}$	125.31
142000040	15	18 x 12 x 18	$\frac{3}{16}$	145.33
142000042	25	18 x 18 x 18	$\frac{1}{4}$	267.30
142000043	22	24 x 12 x 18	$\frac{1}{4}$	262.16
142000045	30	24 x 18 x 18	$\frac{1}{4}$	230.91
142000050	60	36 x 20 x 20	$\frac{1}{4}$	396.17
142000060	22	18 x 12 x 24	$\frac{1}{4}$	250.72
142000062	30	24 x 12 x 24	$\frac{1}{4}$	289.10
142000065	45	24 x 18 x 24	$\frac{1}{4}$	308.61
142000070	90	36 x 24 x 24	$\frac{1}{4}$	541.50
142000075	12	24 x 4 x 30	$\frac{3}{16}$	268.87
142000080	25	24 x 8 x 30	$\frac{3}{16}$	280.10
142000090	90	24 x 24 x 36	$\frac{1}{4}$	531.76

Other sizes available, consult sales office.

- Service to 220°F/104°C
- Excellent stress-crack resistance
- Very good chemical resistance
- Nineteen different sizes ranging from 2 to 90 gallons
- Wide range of uses includes plating, silicon wafer processing, high-purity water storage. For continuous service at elevated temperatures or storage of high specific gravity materials, see 15200 Series with FRP casing.



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PERFORMANCE PLASTICS



### USCO tech tip

FRP (Fiberglass Reinforced Polyester) support casings should be used with rectangular tanks at elevated temperatures, with high specific gravity liquids or having any dimensions greater than 18 inches. These casings are steel reinforced, chemical resistant, and maintenance free.

## Cross-Linked High-Density Polyethylene Large Rectangular Tanks with Covers

Item #	Cap., Gal.	Len. x Wid. x Dep.	Wall Thick., in.	Price
123000006	30	30 x 24 x 12	$\frac{7}{32}$	\$330.11
123000011	50	48 x 24 x 12	$\frac{7}{32}$	435.69
123000016	50	30 x 24 x 18	$\frac{7}{32}$	411.58
123000023	75	48 x 24 x 18	$\frac{7}{32}$	472.82
123000025	60	24 x 24 x 24	$\frac{7}{32}$	420.49
123000031	70	30 x 24 x 24	$\frac{7}{32}$	441.04
123000036	105	48 x 24 x 24	$\frac{7}{32}$	536.04
123000041	40	18 x 18 x 30	$\frac{7}{32}$	338.34
123000046	55	24 x 18 x 30	$\frac{7}{32}$	409.79
123000051	85	30 x 24 x 30	$\frac{7}{32}$	481.63
123000055	115	30 x 30 x 30	$\frac{7}{32}$	579.22
123000061	135	48 x 24 x 30	$\frac{7}{32}$	612.14
123000067	220	44 x 36 x 33	$\frac{3}{16}$	1,233.83
123000071	250	50 x 36 x 33	$\frac{3}{16}$	1,352.27
123000076	105	30 x 24 x 36	$\frac{7}{32}$	586.16
123000082	185	36 x 36 x 36	$\frac{7}{32}$	702.83

Other sizes available, consult sales office.

SAINT-GOBAIN  
PERFORMANCE PLASTICS

- Continuous service to 150°F/65°C
- Most durable polyethylene tanks available
- Excellent stress-crack resistance
- Exceptional impact resistance
- Straight walls protect plating equipment
- PVC and PP bulkhead fittings available
- Other sizes available

NOTE: XLPE tanks cannot be welded

Starting At  
**\$330<sup>11</sup>**



Tanks

# Tank Assemblies for Metering Pumps



## 10 Gallon Tank Assembly

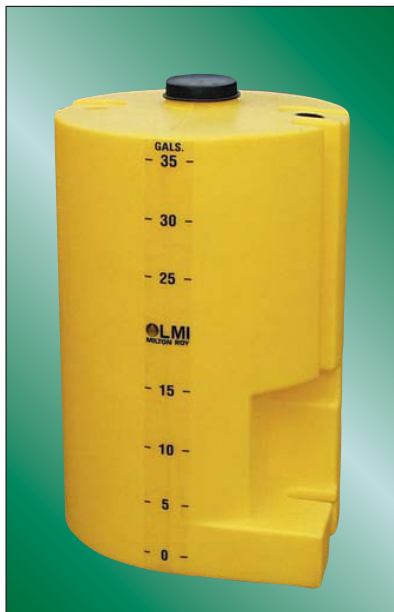
MODEL NO. 27421

- Ultraviolet resistant, yellow polyethylene tank
- Molded recesses for mounting of any LMI Series A, J, or P pump
- Convenient and lightweight, ships economically
- Large fill hole at top allows easy replenishing of solution
- Slightly translucent yet rugged design allows checking solution level at a glance

Item #	Description	Shipping Wt.	Price
27421	Tank Assembly	7 lbs.	<b>\$116.54</b>

**NOTES:**

1. Full, flat bottom support required.
2. Maximum solution/ambient temperature 110°F (43°C).
3. Minimum solution/ambient temperature 0°F (-18°C).
4. Not suitable for use with slurries, concentrated organic solvents, oils and related materials.



## 35 Gallon Tank Assembly

MODEL NO. 27400

- Ultraviolet resistant, yellow polyethylene tank with recess for mounting of any LMI Series A, P, or J pump
- Fitted for mounting of agitator and liquid level switch
- Provides an economical, all-in-one flooded suction installation. Less to assemble, less to maintain
- Shutoff valve, discharge tubing retainer and large upper fill hole complete this unique design
- 5 gallon graduations. 20 liter graduations
- Suitable for most corrosive and non-corrosive solutions

Item #	Description	Shipping Wt.	Price
27400	Tank Assembly	18 lbs.	<b>\$276.79</b>

**NOTES:**

1. Full, flat bottom support required.
2. Maximum solution/ambient temperature 110°F (43°C).
3. Minimum solution/ambient temperature 0°F (-18°C).
4. Not suitable for use with slurries, concentrated organic solvents, oils and related materials.
5. Two fittings are supplied with each tank assembly for connection to either 3/8" OD or 1/4" OD tubing.



## 50 Gallon Tank Assembly

MODEL NO. 26350-1

- Ultraviolet resistant, molded yellow polyethylene tank
- High rigidity black polyethylene cover with molded recess for mounting of pump, agitator\* and liquid level switch
- 5 gallon (20 liter) graduations
- Self supporting, tapered sides
- Suitable for most corrosive and noncorrosive solutions

Item #	Description	Shipping Wt.	Price
26350	Tank Assembly	25 lbs.	<b>\$227.79</b>
26350-1	Tank w/drilled cover for agitator	25 lbs.	<b>\$234.41</b>

**NOTES:**

1. Full, flat bottom support required.
  2. Maximum solution/ambient temperature 110°F (43°C)
  3. Minimum solution/ambient temperature 0°F (-18°C)
  4. Maximum weight limit for cover 50 lbs (23 kg)
  5. Not suitable for use with concentrated organic solvents, oils and related materials.
- \*Cover must be drilled at factory for agitator mounting. Please indicate your desire for this option when ordering.



## Versatile Utility Tanks

Lightweight and economical, these tanks are molded of LPE and are available in many colors. An industry standard for small volume chemical feed/mixing applications, they are offered in 30 and 50 gallon sizes. Specially suited for use with TFT 0078 molded cover with recesses for mounting chemical feeder, agitator and liquid level switch.

### Quick Spec

- Molded-in calibration scale
- Tapered sides permit nesting for shipping/storage economy
- Inexpensive
- Special pump mount cover

Item #	Capacity		Weight (lbs.)		Wall Ins.	O.D. x Depth Ins.	Tank Price	Cover Price
	Gallons	Liters	Tank	Cover				
TFT0785	30	110	9	2.5	1/8"	21" x 22 1/4"	<b>\$92.52</b>	<b>\$30.40</b>
TFT0787	50	185	12	2.5	1/8"	21" x 38 3/4"	<b>100.46</b>	<b>30.40</b>
TFT0078	Cover, molded with fill hole and recesses for mounting chemical feeder, liquid level switch and lightweight agitator (for above models only)							<b>55.51</b>



## Vertical Storage Tanks

Assmann vertical tanks are rotationally molded from your choice of high density crosslinked polyethylene or FDA compliant low density linear polyethylene. They are translucent with gallon markers and access openings molded-in. Either is more corrosion and chemical resistant than fiberglass/thermoset resin materials, stainless or mild steel. Tanks are one-piece seamless molded units, designed with wall thickness conforming to ASTM D-1998-93 standards for liquid storage and have narrow diameter for spacesaving in-plant use. They possess excellent low temperature impact resistance and are U.V. stabilized. They are available in natural white or optional blue, green, yellow or black colors. They can be equipped with accessories to fit your specifications.



Item #	Capacity (U.S. Gallons)	Dimensions (Inches)		Weight (lb)		Access Opening (Inches)	Price			
		Diameter	Height	Crosslinked 1.5 Sp. Gravity	Linear 1.9 Sp. Gravity		Linear		Crosslink	
							1.5	1.9	1.5	1.9
ICT 65	65	23	43	25	28	6	NA	\$213.66	NA	\$213.66
ICT 80	80	24	49	30	35	16	NA	268.70	NA	268.70
ICT 140	140	29	58	60	65	16	NA	418.13	NA	418.13
ICT 300	300	35	35	85	85	16	NA	559.69	NA	621.30
ACT 550	550	69	40	120	120	16	NA	744.51	NA	827.09
ICT 550	550	48	82	120	130	16	\$671.10	744.51	\$745.81	827.09
IFT 550	550	48	79	120	130	16	671.10	744.51	745.81	827.09
ICT 700	700	69	48	130	150	16	744.51	794.32	827.09	882.13
ICT 850	850	48	120	230	250	16	886.07	1,013.21	984.38	1,125.93
IFT 950	950	64	81	190	205	16	952.92	1,023.69	1,057.78	1,163.42
ICT 1000	1000	64	84	190	205	16	952.34	1,023.69	1,057.78	1,136.42
ICT 1100	1100	86	55	190	220	16	929.32	975.20	1,031.57	1,082.68
ACT 1500	1500	86	73	250	320	16	1,171.80	1,308.13	1,301.57	1,452.31
ICT 1500	1500	34	121	320	415	16	1,253.08	1,591.24	1,392.02	1,766.89
ICT 1850	1850	96	78	350	400	16	1,461.49	1,911.07	1,622.70	2,123.41
ICT 2000	2000	86	100	335	445	16	1,461.49	1,911.07	1,622.70	2,123.41
ICT 2050	2050	64	164	500	540	16	1,841.60	2,330.51	2,057.97	2,588.73
ICT 2400	2400	96	95	450	620	16	2,009.38	2,453.72	2,232.21	2,725.06
ICT 2500	2500	86	114	450	620	16	2,009.38	2,453.72	2,232.21	2,725.06
ICT 2900	2900	96	111	620	800	16	2,438.00	3,036.22	2,709.32	3,404.01
ICT 3000	3000	90	122	620	800	16	2,438.00	3,036.22	2,709.32	3,404.01
ICT 4000	4000	90	162	850	1100	16	3,594.07	4,794.73	3,993.86	5,326.89
ICT 4200	4200	96	152	850	1100	16	3,594.07	4,794.73	3,993.86	5,326.89
ICT 5200	5200	105	150	1050	1400	24*	4,920.54	5,785.66	5,072.61	5,963.92
ICT 5500	5500	119	141	1350	1600	24*	5,199.74	5,912.80	5,360.98	6,094.27
ICT 5600	5600	96	196	1500	1750	24*	5,072.61	6,140.86	5,229.90	6,330.91
ICT 6500	6500	105	193	1600	1900	24*	6,446.28	7,641.67	6,645.51	7,877.60
ICT 6510	6510	119	156	1600	1850	24*	6,153.98	6,637.63	6,344.03	6,842.11
ICT 8000	8000	143	142	1850	2325	24*	8,201.36	9,167.39	8,454.33	9,450.50
ICT 10000	10000	143	173	3000	3400	24*	10,247.43	11,659.12	11,075.83	12,551.74
ICT 12000	12000	143	196	3800	4400	24*	13,120.60	14,976.63	14,028.96	16,245.44

\*All 24" manway access covers are hinged.



From Only  
**\$213<sup>66</sup>**



### USCO tech tip

For great chemical and stress cracking resistance for storing sodium hypochlorite, USCO recommends using XLPE, 1.9 specific gravity Bulk Storage Tanks. Available in optional colors.



## Horizontal Leg Tanks

Cylindrical horizontal storage tanks are similar to the horizontal tanks at left except they have molded-in legs requiring no steel cradle support. Materials and features are similar to vertical and conical tanks.

Tank size (gal.)	HDPE		XLPE	
	Item #	Price	Item #	Price
55	IHFSS5	\$301.48	IHFSS5XLPE	\$301.48
110	IHFST100	377.50	IHFST100XLPE	377.50
200	IHFS200	503.33	IHFS200XLPE	503.33
300	IHFS300	629.16	IHFS300XLPE	629.16
500	IHFS500	752.38	IHFS500XLPE	752.38

**Assmann Plastic Horizontal Leg Tanks** provide a new cost-efficient design which simplifies installation and saves money!



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 83



### THESE UNIQUE TANKS ARE BUILT TO LAST!

- This system consists of a primary inner tank and secondary containment, with a capacity of 120% of the inner tank, exceeding EPA standards and complies with 40 CFR-264.193.
- Inner tank dome overlaps outer tank sidewall to prevent rainwater, snow, and debris from entering secondary containment, making system ideal for outdoor storage of chemicals.
- Molded 7" threaded top access opening is standard. This access opening is chemically resistant and fume tight. Larger access openings available.
- Small footprints of 34½" & under will fit through standard 36" doorway to allow convenient system location within tight manufacturing areas.
- Molded in pump shelf is ideal for installing chemical pumps and metering equipment. This pump shelf is recessed in the top of the tank to contain small chemical spills.
- Molded in sump in the primary tank is located directly below the pump shelf. Suction lines can be lowered onto the sump area, which will allow for maximum drainage of chemical with top discharge assemblies.
- Recessed lower fitting flat will allow fittings to penetrate through the secondary containment wall and into the primary tanks sump. This feature allows full flooded suction for outlet assemblies.
- Interstitial leak detection systems option available.



## Assmann Small Double Wall Tanks

**New Double Wall Tank System provides primary and secondary containment in one space-saving integral unit.**

This system consists of a primary inner tank and secondary containment, with a capacity of 120% of the inner tank, exceeding EPA standards and complies with 40 CFR-264.193.

### Double Wall Tank Specifications

Item #	Capacity		Dimensions (In.)		Std. Access Opening	Linear Price	Crosslink 1.9 Price
	Gallons	Liters	Diameter	Height			
*IMT20	20	75	26½"	16½"	7"	<b>\$172.39</b>	<b>\$172.39</b>
*IMT40	40	151	26½"	27½"	7"	<b>\$320.77</b>	<b>\$320.77</b>
*IMT65	65	246	26½"	42½"	7"	<b>\$480.01</b>	<b>\$480.01</b>
*IMT85	85	321	34½"	37½"	7"	<b>\$528.82</b>	<b>\$528.82</b>
*IMT120	120	454	34½"	50½"	7"	<b>\$677.67</b>	<b>\$677.67</b>
*IMT150	150	568	47"	44"	7/16"	<b>\$643.79</b>	<b>\$726.23</b>
*IMT165	165	624	34½"	65½"	7"	<b>\$745.43</b>	<b>\$745.43</b>
*IMT250	250	946	47"	61"	7/16"	<b>\$815.46</b>	<b>\$1,019.89</b>

\*Specifications pertain to small double wall tank models only.

Model number availability and individual specifications subject to change without notice. All specifications approximate. All wall thicknesses conform to ASTM D-1998 standards. Consult factory on specific uses for Assmann Double Wall Tanks.

Molded in sump in the primary tank is located directly below the pump shelf. Suction lines can be lowered onto the sump area, which will allow for maximum drainage of chemical with top discharge assemblies.

Inner tank dome overlaps outer tank to prevent contamination.

Molded in pump shelf is recessed in the top of the tank. Shown w/optional metering pump.

Interstitial leak detection system — detects loss of product into secondary containment.

Molded-in forklift access on the IMT 150/250 models allows for easy movement in tight spaces.

## Dual Containment Closed-Top Tank Systems



Each closed-top tank is available with a round containment basin that is specifically designed for that tank. Sized to contain an additional 15% more volume than the base storage tank.

### Quick Spec

- One piece, seamless molded construction
- Closed-top capacities from 50-500 gallons
- Calibrations engraved in most closed-top tanks
- Chemical resistant and food grade polyethylene
- Rating to 1.5 specific gravity
- Large manway with 12" threaded cover (8" diameter cover up to 165 gallon size)
- Translucent color on both the tank and the basin
- Containment basins with a molded lip for integral strength

### Closed Top Tank

Item #	Capacity (gal.)	Dimensions (ID x H)	Price
TK5003	50	23" x 30"	<b>\$158.28</b>
TK5014	75	23" x 46"	<b>\$192.68</b>
TK5015	95	23" x 59"	<b>\$209.26</b>
TK5007	110	31" x 40"	<b>\$297.02</b>
TK5008	165	31" x 60"	<b>\$344.08</b>
TK5009	220	43" x 42"	<b>\$440.41</b>
TK5006	300	43" x 61"	<b>\$529.87</b>
TK5010	500	54" x 70"	<b>\$777.60</b>

### Spill Containment Basin

Item #	Capacity (gal.)	Dimensions (ID x H)	Price
SP75	90	31" x 30"	<b>\$151.39</b>
SP95	110	28" x 43"	<b>\$373.28</b>
SP110	130	36" x 30"	<b>\$165.14</b>
SP165	210	36" x 48"	<b>\$207.14</b>
SP220	260	52" x 28"	<b>\$227.09</b>
SP300	350	48" x 49"	<b>\$250.49</b>
SP500	700	60" x 58"	<b>\$407.39</b>

## Liquid Dispensing Tanks

**Ideal for dispensing of Bulk Liquids**

**Many More Styles Available!**

USCO



Our line features a seamless tank, a one piece construction of polyethylene. The tank includes:

- Side calibrations
- Cover with air vent
- 6" Filler opening
- 1" Drain outlet at the bottom for complete drainage.

### SPECIFICATIONS: Standard Dispenser Tanks

Item #	Imp. Gal./Litres	Dimensions	Approx. Weight Lbs./Kgs	Cap & Vent	Drain	Price
2030	50/227	24" OD x 34" H	49/22.3	6" Dia.	1" NPT	<b>\$159.88</b>
2031	75/341	24" OD x 50" H	53/24.1	6" Dia.	1" NPT	<b>\$190.11</b>
2033	125/568	30" OD x 60" H	73/33.2	6" Dia.	1" NPT	<b>\$240.37</b>
2034	175/795	30" OD x 75" H	125/56.8	6" Dia.	1" NPT	<b>\$368.90</b>



### Polyethylene Tank Stands

The stands are seamless polyethylene available in two sizes to support our 24" and 30" OD tanks. They have a sturdy ¾" wall thickness.

**As Low As \$131.24**

Item #	Dimensions	Approx. Weight Lbs./Kgs	For Tank	Price
2032	26½" OD x 24" H	23.4/22.3	24" OD	<b>\$131.24</b>
2035	32½" OD x 24" H	30.8/14	30" OD	<b>\$152.29</b>

## Containment Basins

**CHEM-TAINER**



### Quick Spec

- Excellent chemical and impact resistance.
- Capacities listed are the maximum for the containment basin. The containment basin capacity must be at least 10% greater than that of the primary tank.
- Check local regulations.

Item #	Capacity (gal)	Dia. x H (in)	Price
TK64330A	385	64 x 33*	<b>\$633.84</b>
TK66460A	675	66 x 46	<b>965.13</b>
TK82300A	675	82 x 30	<b>965.13</b>
TK86380A	950	64 x 70	<b>989.74</b>
TK64700A	950	86 x 38*	<b>989.74</b>
TK84460A	1000	84 x 46	<b>1,452.31</b>
7272660A	1150	72 x 72 x 66 rect.	<b>1,624.61</b>
9696400A	1250	96 x 96 x 40 tapered †	<b>1,873.84</b>
9696440A	1415	96 x 96 x 44 tapered †	<b>2,066.67</b>
8484480A	1450	84 x 84 x 48 rect.	<b>2,066.67</b>
TC86600A	1500	86 x 60*	<b>2,061.54</b>
8484600A	1800	84 x 84 x 60 rect.	<b>2,758.98</b>
TC86810A	2000	86 x 81*	<b>2,349.70</b>
9696620A	2075	96 x 96 x 62 tapered †	<b>2,807.18</b>
TC95850A	2450	95 x 85*	<b>2,807.18</b>
TC95970A	2975	95 x 97*	<b>3,531.28</b>
TC37010A	3700	102 x 109	<b>3,395.90</b>
TC42500A	4250	120 x 87*	<b>4,291.28</b>
TC46500A	4650	120 x 97*	<b>5,356.90</b>
TN50000A	5000	141 x 77**	<b>17,494.36</b>
TC57000A	5700	120 x 117*	<b>6,655.39</b>
TN65000A	6500	141 x 100**	<b>18,072.82</b>
TC68000A	6800	120 x 150*	<b>7,982.57</b>
TN75000A	7500	141 x 125**	<b>18,365.13</b>
TN87500A	8750	141 x 135**	<b>18,574.36</b>

\*Includes internal flange \*\*Includes SS flange natural color.

† Inside bottom dimension is 85 x 85.

Price is for basin only. Basins are supplied in black linear polyethylene. Available in translucent white, contact sales office.

## Closed Head Shipping Drums

**CHEM-TAINER**



### Quick Spec

- Molded one-piece linear polyethylene.
- U.N. certified (#1H1/Y1.3/100) drum.
- Designed to handle with hoists, parrot beaks, forklifts and hand trucks.
- All drums supplied with 2" and 3/4" NPT plugs.
- Linear polyethylene.

Item #	Capacity (gal)	Dia. x H (in)	Price
SH192930	30	19 3/4 x 29 3/4	<b>\$90.12</b>
SH233655	55	23 3/4 x 36 1/4	<b>117.29</b>

Price includes drain plug.

## Spill Containment Pallets



**CHEM-TAINER**

### 2 & 4 Drum Pallets



### Quick Spec

- Drum pallets are designed so that hazardous spills can be safely contained in pallet basin — not on your floors or in the soil.
- Pallets hold either two or four 55 gallon drums.
- Convenient forklift entry.
- Designed for in-plant use, not for transport.

Item #	Description	L x W x H (in)	Price
SP1003HA	4 Drum	54 x 54 x 14	<b>\$536.41</b>
SP1006HA	2 Drum	55 x 28 x 17	<b>374.36</b>

Price includes drain plug.

## Security Spill Containment



**CHEM-TAINER**

### Quick Spec

- Ideal as a portable secondary containment vessel, as a storage container for absorbents and other emergency response equipment, or as a drum pumping station.
- Hinged cover is lockable.
- Forkliftable for easy handling.
- Designed for in-plant use, not for transport.
- 122 gallon capacity.

Item #	Description	L x W x H (in)	Price
SP1001HA	2 Drum	56 x 32 x 45	<b>\$667.69</b>

## Double Wall Bulk Storage Tanks

DC Series — Outer containment tank capacity complies with federal regulation 40CFR-264.193 requirements.



### Quick Spec

- Save valuable floor space.
- Enclosed design prevents rain, snow and debris from collecting in containment tank.
- Sizes ranging from 50 to 6,000 gallons.
- Denotes New Size: Designed to fit through narrow doors/openings.

Item #	Capacity* (gal)	Size Dia. x H (in)	Vented Manway (in)	Price
TC27380C	50	27 x 38	8	<b>\$476.92</b>
TC35390C	100	35 x 39	16	<b>735.39</b>
TC34480C	150	34 x 48	16	<b>924.10</b>
TC41520C	200	41 x 52	16	<b>1,091.28</b>
TC52560C	350	52 x 56	16	<b>2,126.16</b>
TC59710C	500	59 x 71	16	<b>2,349.74</b>
TC74850C	1000	74 x 85	16	<b>3,342.57</b>
TC20000C	2000	86 x 156	16	<b>6,809.23</b>
TC30000C	3000	120 x 116	16	<b>8,143.59</b>
TC40000C	4000	120 x 165	16	<b>11,978.47</b>
TC50000C	5000	120 x 181	16	<b>14,724.10</b>
TC60000C	6000	120 x 198	16	<b>19,176.41</b>

\*Capacity of the primary tank.

DC Series transition fittings available. Contact sales office.

## Oil-Tainer



### Quick Spec

- Double-wall tank with 110% secondary containment.
- Large 385 gallon capacity.
- Weather resistant and vented with hinged, lockable manway.
- Maintenance free, won't rust, chip or dent.
- Large sink with debris screen and removable debris strainer.
- Automatic overflow shutoff.
- Oil level monitoring gauge.
- 2" external quick-release drain coupling.

Item #	Capacity (gal)	Size Dia. x H (in)	Vented Manway (in)	Price
TC64440C	385	64 x 42	16	<b>\$1,456.88</b>
TC66080A	Spill Pan	66 x 8	—	<b>228.72</b>

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**USCO 85**

Tanks



## Cone Bottom Tanks with Polyethylene Support Stands



**CHEM-TAINER**

### Quick Spec

- PE** – Linear polyethylene tank
- PP** – Polypropylene tank, FOB CA only
- Greater corrosion resistance.
- Lightweight.

Item #	Capacity (gal)	Dia. x H (in)	PE Tank	PP Tank
TC1528	10	15 x 28	<b>\$346.20</b>	<b>\$553.22</b>
TC1530	15	15 x 30	<b>363.74</b>	<b>592.99</b>
TC1840	30	18 x 40	<b>447.89</b>	<b>750.88</b>
TC2247	55	22 x 47	<b>546.20</b>	<b>1,002.34</b>
TC3035	75	30 x 35	<b>660.82</b>	<b>1,343.86</b>
TC3048	100	30 x 48	<b>749.71</b>	<b>1,415.21</b>
TC4235	125	42 x 35	<b>1,022.22</b>	—
TC3175	200	31 x 75	<b>1,086.56</b>	<b>2,118.13</b>
TC4257	250	42 x 57	<b>1,223.39</b>	<b>2,307.60</b>
TC4270	350	42 x 70	<b>1,853.80</b>	<b>3,840.93</b>

Polyethylene stands only. Dimensions include stand.

NOTE: Fittings sold separately

## Pharmaceutical Processing Tanks



**CHEM-TAINER**

### Quick Spec

- Designed for Bio-pharmaceutical, Diagnostic and Dry Chemical Powder industries.
- Use with sterile and non-sterile liners.
- Rotationally molded from polyethylene.
- Resin complies with FDA regulation 21 CFR 177.1520.
- Processing tanks are ready for immediate reuse after liner removal.

### OPTIONS:

- T-304 Stainless Steel Dollies with non-marking swivel casters. SP Series Dollies available up to 150 Gals.
- One piece PF Series lift off covers for all sizes.

Item #	Capacity (gal)	Size Dia. x H (in)	Capacity Liters	PL Tank	PF Cover	SP Dolly
TC1327	15	13 x 27	56	<b>\$70.00</b>	<b>\$8.89</b>	<b>\$187.78</b>
TC1830	30	18 x 29	114	<b>106.67</b>	<b>18.89</b>	<b>173.33</b>
TC2236	55	22 x 36	208	<b>155.56</b>	<b>25.56</b>	<b>230.00</b>
TC2448	80	24 x 48	303	<b>264.44</b>	<b>28.89</b>	<b>242.22</b>
TC2844	100	28 x 44	380	<b>333.33</b>	<b>42.22</b>	<b>302.22</b>
TC3149	150	31 x 49	568	<b>425.56</b>	<b>43.33</b>	<b>318.89</b>
TC3648	200	36 x 48	760	<b>490.00</b>	<b>56.67</b>	—
TC4248	275	42 x 48	1040	<b>613.33</b>	<b>73.33</b>	—
TC4848	360	48 x 48	1362	<b>740.00</b>	<b>106.67</b>	—

## Conical Bottom Bulk Storage Tanks with Polyethylene Support Stands



**CHEM-TAINER**

### Quick Spec

JPC Series - is designed to handle contents that have a maximum specific gravity of 1.5 at 73° F.

- Greater corrosion resistance.
- Less maintenance and lighter weight.

Item #	Capacity (gal)	Size Dia. x H (in)	Vented Manway (in)	Cone Angle	Price
TN4249JP	175	42 x 49	8	30°	<b>\$851.28</b>
TC3177JP	200	31 x 87	16	30°	<b>1,032.74</b>
TN4860JP	300	48 x 60	16	30°	<b>1,281.43</b>
TC3198JP	300	31 x 98	16	30°	<b>1,128.66</b>
TN4271JP	310	42 x 71	16	30°	<b>1,202.92</b>
TN4885JP	500	48 x 85	16	30°	<b>1,421.06</b>
TN7265JP	750	72 x 65	16	20°	<b>1,713.46</b>
TN7285JP	1050	72 x 85	16	20°	<b>2,401.17</b>
TN8894JP	1600*	88 x 94	16	30°	<b>3,095.91</b>
TN2500JP	2500*	96 x 114	16	30°	<b>4,092.40</b>
TN3000JP	3000*	96 x 131	16	30°	<b>5,529.82</b>

\* Also available as a 1.9 S.G. in blue color.

Tanks come with 2" Polypropylene drain fittings with Viton gasket.

## Pharmaceutical Processing Hoppers



### Quick Spec

- In-plant handling of powders and granules in pharmaceutical, food and chemical processing.
- Supplied with a heavy duty stainless steel stand. The conical shape and smooth, interior surface promote the flow of contents.
- Stackable.

### OPTIONS:

- 6" or 8" easy roll casters.
- Powder coated steel stand.
- 8" Stainless steel or plastic valves.
- Colors available.
- Stenciling.

Item #	Capacity Gal. / Cu. Ft.	Size W x H (in)	Cone Angle	Price
TC4654PH	180 / 24	46½ x 54½	60°	<b>\$6,267.78</b>
TC4662PH	225 / 30	46½ x 62	60°	<b>6,483.33</b>

## Vertical Water Storage Tanks IW SERIES



### Quick Spec

- Economical way to store potable (drinking) water for Residential and Commercial applications.
- Resin complies with U.S. Food and Drug Administration regulation 21CFR 177.1520(1) 3.1 and 3.2 for storage of potable water. These tanks are designed for water use only.
- Green color reduces algae growth and blends with the environment.
- Comes complete with threaded inlet /outlets and a vented twist entry. Double-wall tank with 110% secondary containment.
- Large 385 gallon capacity.
- Weather resistant and vented with hinged, lockable manway.
- Maintenance free, won't rust, chip or dent.
- Large sink with debris screen and removable debris strainer.
- Automatic overflow shutoff.
- Oil level monitoring gauge.
- 2" external quick-release drain coupling.

Item #	Capacity (gal)	Size Dia. x H (in)	Vented Manway (in)	Price
TC1851	45	18 x 51*	4	<b>\$193.84</b>
TC2342	65	23 x 42	8	<b>209.23</b>
TC2364	100	23 x 64	8	<b>264.61</b>
TC3536	110	35 x 36**	8	<b>378.47</b>
TC2376	130	23 x 76	8	<b>418.47</b>
TC3158	165	31 x 58	8	<b>434.87</b>
TC3581	300	35 x 81	16	<b>632.82</b>
TC6446	500	64 x 46	16	<b>901.53</b>
TC4594	550	45 x 94	16	<b>1,053.33</b>
TC5660	650	56 x 60	16	<b>1,311.80</b>
TC750X	750	46 x 119	16	<b>1,400.00</b>
TC850X	850	48 x 124	16	<b>1,617.43</b>
TC6481	1000	64 x 81	16	<b>1,427.69</b>
TC6974	1000	69 x 74	16	<b>1,504.61</b>
TC1500	1500	64 x 121	16	<b>2,162.06</b>
TC8765	1550	87 x 65	16	<b>1,477.94</b>
TC2000	2000	64 x 144	16	<b>2,943.59</b>
TC9589	2500	95 x 89	16	<b>2,787.69</b>
TC3000	3000	95 x 107	16	<b>3,491.28</b>
TC4000	4000	95 x 140	16	<b>5,527.18</b>
TC4001	4000	102 x 125	16	<b>6,021.53</b>
TC5000	5000	102 x 152	16	<b>6,946.67</b>

\* 45 Gal. has inverted calibrations.

\*\*110 Gal. has side indents for fork lift handling.

45 - 165 Gals: have 1" inlet and 1.5" outlet standard.

300 Gals and up: have 1.5" inlet and 2" outlet standard.

Outlets are located close to top and bottom, in line.

## Closed-Head and Open-Head Drums

### Quick Spec

- Seamless, one piece polyethylene construction
- Standard 2" and 3/4" NPS plugs on closed-head drums
- FDA approved materials used for these DOT 34 drums
- Standard lever-lock on open head drums

## SUPERSHIPPER®

The Super Shipper® line is D.O.T. approved for a list of materials including corrosives, Class B poisons and flammables.

Available in black, blue, red, yellow, or green colors at no extra cost. Specify color when ordering.

Tanks

### 15 GALLON

56.8 liters  
Height: 22 3/4"  
Diameter: 16"  
Weight: 8 lbs.\*

Closed-Head: SSCH15  
Price: **\$33<sup>73</sup>**

Open-Head: SSOH15  
Price: **\$42<sup>29</sup>**

### 20 GALLON

75.7 liters  
Height: 26 3/8"  
Diameter: 17 1/4"  
Weight: 10 lbs.\*

Closed-Head: SSCH20  
Price: **\$39<sup>91</sup>**

Open-Head: SSOH20  
Price: **\$47<sup>79</sup>**

### 30 GALLON

113.6 liters  
Height: 29 3/4"  
Diameter: 19 3/8"  
Weight: 15 lbs.\*

Closed-Head: SSCH30  
Price: **\$52<sup>60</sup>**

Open-Head: SSOH30  
Price: **\$65<sup>22</sup>**

### 35 GALLON

132.5 liters  
Height: 31 3/4"  
Diameter: 20 3/4"  
Weight: 16 lbs.\*

Closed-Head: SSCH35  
Price: **\$62<sup>63</sup>**

Open-Head: SSOH35  
Price: **\$70<sup>67</sup>**

### 55 GALLON

208.2 liters  
Height: 36 1/4"  
Diameter: 23 1/2"  
Weight: 23 lbs.\*

Closed-Head: SSCH55  
Price: **\$79<sup>59</sup>**

Open-Head: SSOH55  
Price: **\$93<sup>79</sup>**

\*Approximate

## Big Mouth® Secondary Containment Pallets

Industrial strength molded polyethylene pallets with a unique patented grid pattern drainage deck captures container spills and leaks of expensive materials for reuse.



### MODEL NO. BM-2-DP

Holds two 55 gallon drums

Length: 50"  
Width: 26 1/4"  
Height: 16"  
Weight: 40 lbs.  
Capacity: 61 gallon sump capacity  
Price: **\$285<sup>63</sup>**



*Single and Double  
Drum Polyethylene  
Pallets*

## SUPERSHIPPER®

*4-Drum Pallets Available*

### MODEL NO. BM-1-DP

Holds one 55 gallon drum

Length: 36"  
Width: 36"  
Height: 16"  
Weight: 40 lbs.  
Capacity: 61 gallon sump capacity  
Price: **\$285<sup>63</sup>**



## Econo-Dike Secondary Containment Pallets



## SUPERSHIPPER®

The ECONO-DIKE is truly the most economical manner in which to meet the secondary containment requirement of 40 CFR 264.175.

### MODEL NO. BM-ED

Length: 65 1/2"  
Width: 29"  
Height: 9"  
Weight: 15 lbs.  
Capacity: 61 gallon sump capacity  
Price: **\$71<sup>42</sup>**

### Quick Spec

- Rustproof
- Economical
- Lightweight
- Easy to clean
- Low point drainage
- Corrosion resistant
- Choice of many colors
- Holds two 55 gallon drums
- Molded of rugged Polyethylene
- Ideal for containing most hazardous materials

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 87

**Chem-Tainer Industries** has been designing, developing and manufacturing products that providesolutions to tough material handling problems for more than 40 years!

Our line of Maxi-Mover® trucks and containers service the needs of commercial laundries, healthcare facilities and hotels as well as department stores, factories, warehouses, airports and anywhere there is material to be stored and transported.



## Utility Carts and Liners

Our truck bodies and liners are molded of seamless, durable polyethylene, providing years of reliable service.

K5400  
Liners



### Quick Spec

- Smooth interior with rounded corners for easy cleaning
- Nestable for shipping and space savings
- Curled Flange for easy handling
- Resin complies with USFDA Regulation 177.1520 (c) 3.1 and 3.2
- Liners are an ideal replacement for nylon or canvas bodies and are available in four wall thicknesses: .100, .125, .190, .225

Liner Item #	.100	.125	.190	.225
K5406	\$62.06	\$68.27	\$93.09	\$105.50
K5408	68.27	74.47	105.50	117.90
K5410	74.47	93.09	117.90	142.73
K5412	93.09	99.30	130.32	155.14
K5414	99.30	105.50	148.93	167.56
K5416	105.50	117.90	161.36	179.97
K5418	-	130.32	167.56	217.20
K5420	-	136.52	210.99	242.02

Contact our Sales Office for liner shipping weights.

Item # Truck	Item # Liner	Capacity Bushels	Width Outside	Length Outside	Depth Inside	Overall Height	Shipping Weight (truck)	Price
K5106	K5406	6	19"	32"	50 1/2"	26 1/2"	30 lbs	\$142.69
K5108	K5408	8	24 1/4"	36"	23"	29"	35 lbs	161.40
K5110	K5410	10	26 1/2"	38"	25 1/2"	31"	43 lbs	174.27
K5112	K5412	12	28"	38 1/2"	27 1/2"	35"	48 lbs	211.70
K5114	K5414	14	30 1/4"	42 1/2"	28"	35"	54 lbs	223.39
K5116	K5416	16	30"	42 1/2"	30 1/2"	37 1/2"	56 lbs	242.11
K5118	K5418	18	32"	44 1/2"	30 1/2"	37 1/2"	60 lbs	254.97
K5120	K5420	20	34 1/4"	49 1/2"	31"	37 1/2"	66 lbs	292.40

Caster Data: K5106-K5110 - 3 1/2"; K5112-K5120 - 5" Polyolefin.

## Bulk Fork Lift Containers

One piece molded of rugged polyethylene for durable service.

**CHEM-TAINER**



### Quick Spec

#### BFC MODEL

- 4 Way fork lift entry
- Available with smooth flat interior bottom for food applications
- Ideal for the storage and in-plant transportation of dry materials
- Nests when empty

- Stack 2 high when using cover
- Material complies with U.S. FDA regulation 21CFR 177.1520

#### FL MODEL

- 2 Way fork lift entry
- Available with bottom plates for dumping

Item #	Capacity Cu. Ft.	Length Outside	Width Outside	Overall Height	Shipping Weight (lbs)	Price
BFC30CFA	30	44"	44"	33"	90	\$553.22
BFC30CFF (cover)					35	217.54
BFC30SIB*	30	44"	44"	33"	90	622.22
FL4460S2	62	60"	44"	52"	160	989.48

\*Smooth interior bottom. Drain fitting available. Cover: BFC30CFF, 44" L x 44" W.

## Tilt Trucks

Designed for use in commercial and industrial applications. Efficient collection and dumping of all types of materials.



### Quick Spec

- Smooth, seamless body molded from tough polyethylene that is resistant to grease and oils.
- Balanced for one person handling
- Easy to clean and maintain
- Ideal for the transport of recyclables

Item #	Capacity Cu. Yds.	Length	Width	Height	Load Limit	Shipping Weight (lbs)	Tilt Truck	Hinged Cover
MT50XHTA	1/2	54"	27"	41"	1200	105	\$411.36	\$126.02
MT50XLTA	1/2	54"	27"	41"	350	88	487.44	126.02
MT50XSTA	1/2	54"	27"	41"	750	96	518.36	126.02
MT100HTA	1	71"	32"	43"	2000	126	562.34	158.12
MT100LTA	1	71"	32"	43"	750	110	670.53	158.12
MT100STA	1	71"	32"	43"	1000	119	708.58	158.12
MT175HTA	1 1/2	73 1/2"	37 1/2"	50"	2000	165	992.72	-
MT175STA	1 1/2	73 1/2"	37 1/2"	50"	1000	150	1,055.73	-
MT200HTA	2	83"	46"	50"	2300	200	1,150.84	-
MT200STA	2	83"	46"	50"	1800	190	1,220.99	-
MT250HTA	2 1/2	83"	55"	50"	2300	235	1,308.97	-
MT250STA	2 1/2	83"	55"	50"	1875	220	1,379.11	-

Wheel and Caster Data: MT50XLTA 10" hard rubber wheel with one 3/4" polyolefin caster.  
MT50 10" hard rubber wheel with two 3/4" polyolefin caster.  
MT100 & MT175 12" hard rubber wheel with two 3/4" polyolefin caster.  
MT200 & MT250 12" hard rubber wheel with 5" polyolefin caster.

## Platform Truck



### Quick Spec

- Polyethylene platform will not splinter or rust
- Skid resistant "Diamond Pattern" decking
- Non-marring platform with rounded corners will not damage walls, doorways or displays
- Rugged truck that holds up to 2000 lbs
- Heavy duty, easy rolling casters
- Ship via UPS

Item #	Capacity lbs.	Length	Width	Price
MP5828SB	2000	58"	28"	\$442.11

Caster Data: 6" Rubber casters with thread guards.



## Master Cradle

The stackable drum cradle system that accepts either metal or plastic drums. The stack is given its strength from the cradle not the drums, eliminating the worry of empty plastic drums collapsing in the stack! Empty drums can be replaced without having to disassemble the entire stack. Our patented drip tray assembly captures all spills, leaks and drips from drum faucets.



USCO Price From Only  
**\$466<sup>22</sup>** A PAIR

**Durable Polyethylene Dollies**

## Dixie Drum Dollies

Drum Size	Item #	Height	Diameter	Wt (lbs.)	Price
55	D2455	3	24"	6	<b>\$67.37</b>
35	D2135	3	21"	5.5	<b>\$4.01</b>
30	D2030	3	20"	5.25	<b>\$2.32</b>
20	D1820	3	18"	4.75	<b>\$0.63</b>
15	D1715	3	17"	4.5	<b>\$8.96</b>

### Quick Spec

- Stackable
- Choice of colors (specify when ordering)
- Lightweight, easy handling
- One piece molded polyethylene
- Holds two 55 gallon or smaller drums
- Eliminates need for absorbents, drip pans or pails hanging from faucets
- Integrated self-aligning stacking lugs for extra support in a stacking mode

### Model No. BM-MC

Length: 62"  
Width: 34"  
Height: 38½"  
Load Capacity: 1600 lbs. per unit stacked three high

## SUPERSHIPPER®

### Quick Spec

- Five Sizes
- 16 Colors
- Heavy Duty
- Rust Resistant
- 4 Swivel Casters
- 600 Pound Capacity
- Outdoor and Indoor Use

## Porta-Cradle

## SUPERSHIPPER®

Control and concentration of contaminated areas from spills and accidents is the main focus of today's environmental concerns. The BIG MOUTH line of POLY-CRADLES controls and eliminates spill potentials.

*Unique dispensing of liquids from drums to smaller containers*



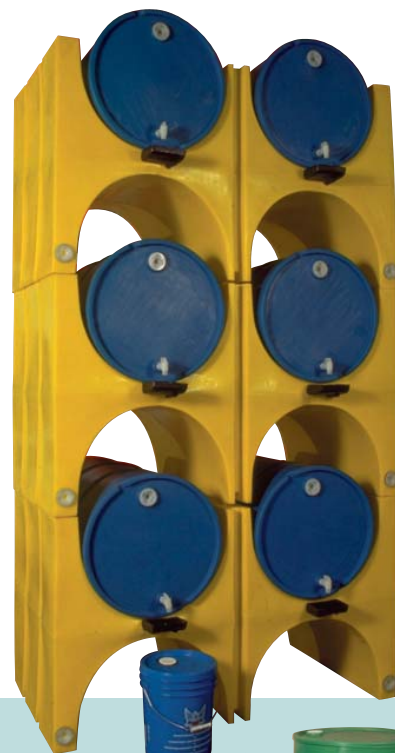
### Quick Spec

- A round contoured lower back provides a rolling action for ease of loading drums from a vertical position.
- Retractable handles on the front side to manipulate the tilted angle of the drum.
- A caster assembly allows mobility of the container with an 800 pound limit.
- The drip tray catches all drips of product from faucets, including catastrophic failure of the faucet and stores it in the interior of the hollow cradle.
- Manufactured of 100% virgin polyethylene which is UV stabilized as well as rust proof.

### Model No. BM-CRDP

Length: 42" Width: 30"  
Height: 24½" Weight: 45 lbs.

USCO Price As Low As  
**\$330<sup>80</sup>**



*Great for transport of non-hazardous materials or in-house usage.*



From Only  
**\$713<sup>66</sup>**

Shown with optional 18" manway

## VTP Series Chemical Resistant Polyethylene Tanks

300 VTP features a rugged polyethylene tank mounted on a mild steel skid with a chemical resistant coating

- Stackable
- 300 gallon capacity
- 2 way fork lift entry
- 7" fill cap standard, other size openings available
- 2" bulkhead fitting with recessed valve for discharge

### Model No. 300 VTP

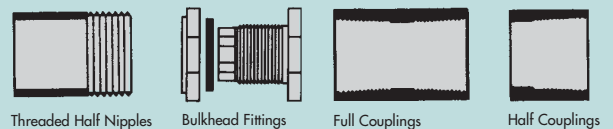
Height: 52½" Weight: 260 lbs.  
Width: 47½" Capacity: 300 gallon

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 89

## Installed Fittings for St. Gobain Tanks

Norton will install tank fittings for you. All fittings except bulk heads are installed by hot inert-gas welding. The fitting price, which includes installation, should be added to the price of the tank. When ordering, specify the type of fitting required and exactly where it is to be installed. Sketches are necessary.



Fittings	Material	Item #	Size of Fittings (inches)								
			½	¾	1	1¼	1½	2	3	4	6
Bulkhead Fittings	PVC	87001	\$57.17	\$60.23	\$63.02	\$71.37	\$73.92	\$76.71	\$118.43	\$205.61	
	PP	88001	67.89	75.96	86.52	97.38	106.26	134.33	222.04	359.42	
Half Nipples, Threaded	PE	93857	76.38	79.84	88.04		96.13	100.16	125.76	149.43	
Flanged Outlets	PE	93400	296.03	317.20	346.17		357.63	403.82	450.16	563.27	\$608.77
Couplings	PE	87005	104.61	107.81	121.58		165.26	206.16	313.59	402.09	
Half Couplings	PE	93840	76.67	80.96	31.27		117.83	143.71	229.32	290.53	

## Self-Aligning Bulkhead Fittings



Hayward Self-Aligning Bulkhead Fittings allow tank piping connections to be made in a straight line without fabricating special fittings to correct for the curvature of the tank. Using a precision machined ball sealed inside a bulkhead fitting housing, the Hayward Self-Aligning Bulkhead Fitting permits connections with an offset angle of up to 27°.



PVC			
Threaded	1"	SF10100T	\$87.61
Threaded	2"	SF10200T	133.00
Threaded	3"	SF10300T	205.83

All Bulkhead Fittings have one EPDM gasket.



## Poly Bolted Tank Flanges



When installed in the bottom of the tank, the "Bottom Drain" Tank Flange allows full drainage!

Fits most cone bottom & chemical inductor tanks, 30 gallons and larger.

### Quick Spec

- Stainless steel bolts
- EPDM gaskets standard (Viton available)
- Bolt head plugs sealed ultrasonically
- Glass reinforced polypropylene

### "Bottom Drain" Poly Tank Flanges **PATENTED**

Outlet x Inlet	EPDM.	Price	Viton	Price
3/4" x 1 1/2" Threaded Flange	BF075BD	\$22.56	BF075BDV	\$34.19
1" x 1 1/2" Threaded Flange	BF100BD	22.56	BF100BDV	34.19
1 1/4" x 1 1/2" Threaded Flange	BF125BD	22.56	BF125BDV	34.19
1 1/2" x 2" Threaded Standard Port Flange	BF150BD	21.47	BF150BDV	64.94
2" x 2" Threaded Standard Port Flange	BF200BD	21.47	BF200BDV	64.94
3" x 3" Threaded Flange	BF300BD	40.00	BF300BDV	99.13

## Heavy Duty Bulkhead Fittings



Easy assembly to a tank. Cut a hole in tank wall (using a hole saw). Remove locknut from fitting, leaving gasket on body. Insert body through hole in tank from the inside, trapping the washer between tank wall and shoulder of tank adapter. Screw locknut back onto body for a tight, leak-free installation... even on curved surfaces.



**EASY INSTALLATION**

Size	PVC Soc. x Thd.		PVC Thd. x Thd.		CPVC Soc. x Thd.	
	Item #	Price	Item #	Price	Item #	Price
1/2"	70258007	\$10.24	872PV005	\$13.76	CPTA0007	\$14.42
3/4"	70258008	11.68	872PV007	15.09	CPTA0008	17.17
1"	70258009	12.98	872PV010	16.51	CPTA0009	19.26
1 1/4"	70258010	15.63	872PV012	22.02	CPTA0010	24.57
1 1/2"	70258011	17.17	872PV015	24.00	CPTA0011	26.74
2"	70258012	25.43	872PV020	31.60	CPTA0012	37.71
3"	70258014	46.79	872PV030	55.04	CPTA0014	66.07
4"	70258016	92.17	872PV040	103.16	CPTA0016	110.10
6"	70258018	178.91	872PV060	206.43	CPTA0018	302.77

Installed fittings are available from Nalgene (see above).

## Bulkhead Fittings 1/2" to 4" - PVC, Corzan® CPVC and PPL

**EASY TANK CONNECTIONS** - Hayward Safe-T-Loc Bulkhead Fittings (Tank Adapters) easily permit safe, quick pipe connections to be made to plastic, metal or plastic tanks. Simply cut the proper size opening in the tank, slide the body of the fitting through it, and then just tighten the nut. The fitting is now ready to accept the piping connection.



### FEATURES

- Rated to 150 PSI
- EPDM or Viton® Gasket Seal
- All-Plastic Construction
- Hex Body for One Person Installation
- Proven, Rugged Design



Size	End Conn.	PVC EPDM		CPVC EPDM		Natural PPL EPDM	
		Item #	Price	Item #	Price	Item #	Price
1/2"	Skt. x Thd.	BF10050SXT	\$8.64	BF20050SXT	\$11.81		
1/2"	Thd. x Thd.	BF10050TXT	11.12			BF30050TXT	\$15.31
3/4"	Skt. x Thd.	BF10075SXT	9.58	BF20075SXT	13.94		
3/4"	Thd. x Thd.	BF10075TXT	12.23			BF30075TXT	18.66
1"	Skt. x Thd.	BF10100SXT	10.52	BF20100SXT	16.00		
1"	Thd. x Thd.	BF10100TXT	13.27			BF30100TXT	24.04
1 1/4"	Skt. x Thd.	BF10125SXT	13.94				
1 1/4"	Thd. x Thd.	BF10125TXT	18.06			BF30125TXT	30.54
1 1/2"	Skt. x Thd.	BF10150SXT	13.94	BF20150SXT	21.73		
1 1/2"	Thd. x Thd.	BF10150TXT	19.17			BF30150TXT	30.54
2"	Skt. x Thd.	BF10200SXT	20.79	BF20200SXT	30.80		
2"	Thd. x Thd.	BF10200TXT	25.50			BF30200TXT	47.49
3"	Skt. x Thd.	BF10300SXT	38.16	BF20300SXT	53.13		
3"	Thd. x Thd.	BF10300TXT	44.49			BF30300TXT	93.26
4"	Skt. x Thd.	BF10400SXT	74.87	BF20400SXT	88.98		
4"	Thd. x Thd.	BF10400TXT	83.84			BF30400TXT	174.53

Corzan® is a trademark of BF Goodrich Company. Viton® is a trademark of DuPont Dow Elastomers.

## Series L Laboratory Mixers – Bar, Clamp and Bracket Mount

Item #	Mount Type	Motor Description	RPM	Shaft Diameter	Shaft Length	Prop. Diameter	Price	Shaft Material
L1CL	"C" Clamp	½ HP-115-60-TEFC	1550	¾"	30"	3"	\$261.11	S.S.
L1CL24	"C" Clamp	½ HP-115-60-TEFC	1550	¾"	24"	3"	261.11	S.S.
L1CL18	"C" Clamp	½ HP-115-60-TEFC	1550	¾"	18"	3"	261.11	S.S.
L1BK	Bracket	½ HP-115-60-TEFC	1550	¾"	30"	3"	231.67	S.S.
L1A	Lab Clamp	HP AIR MOTOR	Variable*	¾"	20"	3"	294.72	S.S.
L1AC	"C" Clamp	HP AIR MOTOR	Variable*	¾"	20"	3"	335.78	S.S.

Cord and plug included on electric motor models. Air (speed) control valve include on air motor models.

\*Develops 0.10 HP @ 2000 RPM – Requires 6 CFM @ 60 PSI

0.175 HP @ 2000 RPM – Requires 10 CFM @ 60 PSI

## Series JD and JG Laboratory Mixers

### Quick Spec

- Square pitch 1.0 ratio marine propellers are used exclusively. Flow coefficients and power consumption characteristics equal those of the best hydrofoil impeller designs
- 316SS propellers and shafts are standard. Optional coatings such as rubber, PVC or Teflon® also available
- Variable speed drives also available.
- Cast aluminum housing.
- Mixers have adjustable angles of entry by indexed ball-and-socket design to achieve different process results
- Motors are available in TEFC or explosion-proof enclosures (1750 rpm, 56C frame). Air motors also available
- Vibration-absorbing pad standard
- All mixer shaft bearings are permanently lubricated
- Fixed position mounting plate also available

### Series JD: Direct Drive Mixer, Clamp or Optional Cup Plate Mount 1750 RPM, Grease Lube

Item #	Motor Description	Shaft Diameter	Shaft Length	Prop. Diameter		Prices (316SS)	
				Single	Dual	Single Prop	Dual Prop
JD20	½ HP-1-115/230-TEFC	¾"	36"	4"	4"	\$1,138.94	\$1,156.83
JD30	½ HP-1-115/230-TEFC	¾"	48"	5"	4"	1,202.11	1,223.17
JD34	½ TO ½ HP AIR MOTOR Air Requirements: 12–20 CFM at 20–40 PSI	¾"	48"	5"	4"	1,260.00	1,281.06
JD40	¾ HP-1-115/230-TEFC	¾"	48"	5"	4"	1,223.17	1,244.21
JD44	¾ HP AIR MOTOR Air Requirements: 30 CFM at 60 PSI	¾"	48"	5"	4"	1,578.94	1,600.00
JD51	1 HP-3-230/460-TEFC	1"	60"	6"	5"	1,412.63	1,431.58
JD54	1 HP AIR MOTOR Air Requirements: 40 CFM at 40 PSI	1"	60"	6"	5"	1,998.94	2,016.83
JD61	1½ HP-3-230/460-TEFC	1"	60"	6"	5"	1,466.32	1,488.42
JD64	1½ HP AIR MOTOR Air Requirements: 55 CFM at 60 PSI	1"	60"	6"	5"	2,046.33	2,066.32
JD71	2 HP-3-230/460-TEFC	1"	60"	7"	6"	1,774.74	1,797.90
JD74	2 HP AIR MOTOR Air Requirements: 65 CFM at 75 PSI	1"	60"	7"	6"	2,305.27	2,326.32

### Series JG: Gear Drive Mixer, Clamp or Optional Cup Plate Mount 350 RPM, Heavy Helical Gear, Grease Lube

Item #	Motor Description	Shaft Diameter	Shaft Length	Prop Diameter		Prices (316SS)	
				Single	Dual	Single Prop	Dual Prop
JG20	½ HP-1-115/230-TEFC	¾"	48"	10"	8"	\$1,452.63	\$1,524.21
JG30	½ HP-1-115/230-TEFC	¾"	48"	12"	10"	1,680.00	1,728.42
JG34	½ TO ½ HP AIR MOTOR Air Requirements: 12–20 CFM at 20–40 PSI	¾"	48"	12"	10"	1,736.84	1,786.32
JG40	¾ HP-1-115/230-TEFC	¾"	60"	13"	11"	1,823.17	1,977.90
JG44	¾ HP AIR MOTOR Air Requirements: 30 CFM at 60 PSI	¾"	60"	13"	11"	1,880.00	2,034.74
JG51	1 HP-3-230/460-TEFC	1"	60"	14"	12"	1,915.79	2,109.48
JG54	1 HP AIR MOTOR Air Requirements: 40 CFM at 40 PSI	1"	60"	14"	12"	2,107.37	2,301.06
JG61	1½ HP-3-230/460-TEFC	1"	60"	15"	13"	2,121.06	2,216.84
JG71†	2 HP-3-230/460-TEFC	1¼"	60"	16"	14"	2,946.32	3,158.94
JG81†	3 HP-3-230/460-TEFC	1¼"	72"	16"	15"	3,020.00	3,332.63
JG84†	4 HP AIR MOTOR Air Requirements: 125 CFM at 90 PSI	1¼"	72"	16"	15"	3,157.89	3,470.56

† Cup Plate Mount Only



Model L-1-BK

Neptune's Laboratory Mixers are available in air or electric drive with clamp or bracket mount. The air motors include a control valve and muffler.

Model L-1-AC includes a C-clamp and the air supply pipe passes through the C-clamp. Model L-1-A does not include a C-clamp but the air supply pipe will fit a standard one-half-inch laboratory bar clamp.

Cord and plug are standard with 1550 rpm electric models. Operating speed ranges from 200 to 2000 rpm with Air motors.



Laboratory-type Air Mixer Model L-1-AC C-Clamp as shown.

**Neptune**  
MIXER COMPANY



Model JG-7.1



Model JG-3.4

Model JG-3.0

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 91



KARI

*Sense multiple levels with only one float!*

(M) MINI-SERIES

STANDARD SERIES



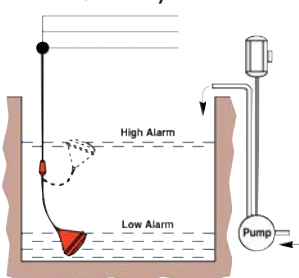
## Cable-Suspended Float Switches

KARI float switches are unique cable-suspended liquid level sensors offering convenience and reliability for a wide range of pump control and alarm applications. Their most important feature is the ability to sense multiple levels using only one float. This results in a simple device that can be used in many different level sensing situations. The dependability of KARI float switches has been proven in many thousands of installations, worldwide, for over a quarter of a century.

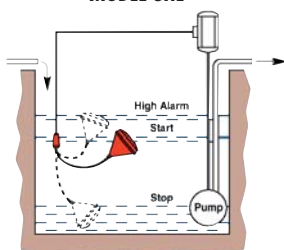
### Quick Spec

- Usable in most liquids
- Installation does not require penetration of tank wall
- Adjustable switch-point levels
- Polypro float
- PVC Cable
- Proven reliability in operation
- No maintenance required
- Cost effective
- 16 Foot cable standard

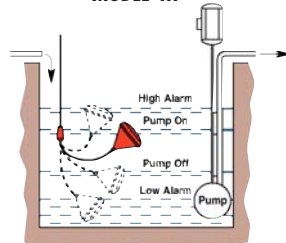
MODEL 2HL/M2AY



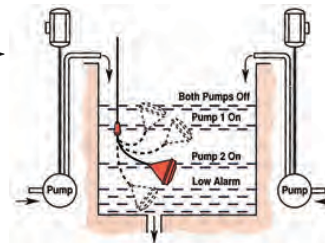
MODEL 3HE



MODEL 4H



MODEL 4L5E



Model	High Alarm	Low Alarm	Function	Pump Up	Pump Down	Number of Conductors in Cable	Item #	Price
1L		•				2	22269	\$108.14
1H	•					2	22271	108.14
1C	•	•				3	22270	165.83
1LE			Dual			4	22452	167.03
1HE	Dual					4	22451	167.03
2HL	•	•				3	22273	191.07
2L				•		2	22272	167.03
2H					•	2	22274	167.03
3L				•		3	22275	212.70
3LE			Isolated	•		4	22390	227.11
3H	•				•	3	22276	212.70
3HE	Isolated				•	4	22277	227.11
4L	•	•		•		4	22278	272.78
4H	•	•			•	4	22280	272.78
4L5E		•	Duplex			5	22279	355.69
4H5E	•				Duplex	5	22281	355.69
M1L		•				2	22282	70.90
M1H	•					2	22284	70.90
M1C	•	•				3	22283	94.93
M2AY	•	•				3	22048	187.46
M2L				•		2	22285	94.93
M2H					•	2	22287	94.93

## Float Valve

**FILTER-CHEM**  
CORPORATION

Available  
in PVC or  
Polypropylene



*Specially designed for:  
Deionized Water  
Distilled Water  
Corrosive Chemicals*

All plastic PVC or Polypropylene for controlled liquid levels in all types of tanks. Float valves have been successfully used throughout the United States. They can be installed with simple piping over the top edge of the tank or by using a tank adapter. After installation, the Float Valve will automatically keep the tank as full as needed by replacing liquid lost by evaporation, spillage or drainage.

### Quick Spec

- Polypropylene float\*
- Easy to install
- Pressure limit 80 PSI
- High Flow rates
- Piston material, hi-density, unpigmented polypropylene
- Four mounting holes at top of valve

FPT Pipe Size	PVC		Polypropylene	
	Item #	Price	Item #	Price
1/4"	FCFLV25*	\$116.11	FCPPFLV25	\$147.78
3/8"	FCFLV38*	116.11	FCPPFLV38	147.78
1/2"	FCFLV50	116.11	FCPPFLV50	147.78
3/4"	FCFLV75	168.89	FCPPFLV75	205.83
1"	FCFLV100	205.83	FCPPFLV100	245.94
1 1/2"	FCFLV150	496.11	FCPPFLV150	654.44
2"	FCFLV200	622.78	FCPPFLV200	786.39

\* Bushed from 1/2"

## Vertical Mounting Liquid Level Control

### Series 10-782



The switch action of the 10-782 can be configured for either normally open or normally closed switch action depending upon the orientation of the float on the stem. The product is shipped with the float in the "magnets up" normally closed condition. To reverse this action, remove the float and retaining ring, turn the float over, and re-assemble the float and retaining ring.

Compac Engineering Inc.



From Only  
**\$8<sup>94</sup>**



#### APPLICATION ENVIRONMENT

Pressure:	100 PSI MAX at 20°C Derate pressure capability to zero at 70°C
Temperature:	100°C MAX
Specific Gravity:	.8 MIN
Position:	30° CANT MAX
Dimensions	Inches
Length Overall:	2.1
Thread NPT:	1/8
Float Diameter:	1.0
Leadwire Length:	24.0

#### Electrical Rating

Contact rating	<b>RU</b>	.080 AMP, 120V 60 Hz, Resistive
UL File E66144	<b>RU</b>	.040 AMP, 240V, 60 Hz, Resistive
DC		3.36 VA, 240V, 60Hz Pilot Duty
		1 AMP MAX at 24 VDC

#### Materials of Construction

Item #	Wetted Parts	Price
*10782PP	Polypropylene	<b>\$8.94</b>
*10782KR	Kynar PVDF	<b>22.18</b>

## Side Mounting Liquid Level Control

### Series 15-650

The switch action of the 15-650 can be configured for either normally open or normally closed switch action depending upon the orientation of the unit at the time of installation. An orientation datum arrow symbol is molded into the hex. "Up arrow" denotes float is above the unit's center line. Conversely, "down arrow" denotes float is below the unit's centerline.



As low As  
**\$25<sup>53</sup>**

Compac Engineering Inc.



#### APPLICATION ENVIRONMENT

Pressure:	50PSI MAX at 20°C Derate pressure capability to zero at 70°C
Temperature:	90°C MAX
Specific Gravity:	.8 MIN
Dimensions:	Inches
Length Overall:	2.1
Thread NPT:	1/4, 1/2
Float Diameter:	1.0
Leadwire Length:	24.0

#### Electrical Rating

Contact rating	<b>RU</b>	.080 AMP, 120V 60 Hz, Resistive
UL File E66144	<b>RU</b>	.040 AMP, 240V, 60 Hz, Resistive
DC		3.36 VA, 240V, 60Hz Pilot Duty
		1 AMP MAX at 24 VDC

#### Materials of Construction

Item #	Wetted Parts	Price
*15650PP	Polypropylene	<b>\$25.53</b>
*15650KR	Kynar PVDF	<b>46.42</b>

## Series 20-611 Vertical Mounting Liquid Level Control

#### Electrical Rating

120 VAC	15 Ampere in-rush 3 ampere carry or break
240 VAC	7 ampere in-rush 2 ampere carry or break
DC	Derate 50%

#### Materials of Construction

Item #	Stem	Float	Nut	O-ring	Price
*20611PPWO	Polypropylene	Polypropylene	Nylon	Viton	<b>\$117.84</b>
*20611PPDO	Polypropylene	Polypropylene	Nylon	Viton	<b>117.84</b>

\* Please call for quantity discounts.

#### APPLICATION ENVIRONMENT

Pressure:	80 PSI MAX at 20°C Derate pressure capability to zero at 70°C
Temperature:	90°C MAX
Specific Gravity:	.8 MIN
Dimensions:	Inches
Length Overall:	4.50
Thread NPT:	1/4
Float Diameter:	2.06
Leadwire Length:	24.00



The 20-611 is offered as either a normally open or normally closed switch. Since the unit can be mounted "threads up" or "threads down," merely specifying NO or NC is insufficient because what is "your" normal is not known to us. The switches are identified at the end of the stem, "WET OPEN" or "DRY OPEN." This signifies behavior according to the following definition:

**Wet Open:** Switch opens as float approaches the hex and closes as float approaches the stop ring at the opposite end.

**Dry Open:** Switch opens as float approaches the stop ring and closes as float approaches the hex at the opposite end.

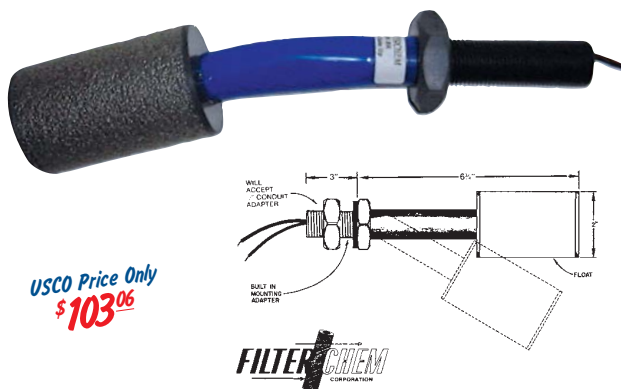


Compac Engineering Inc.

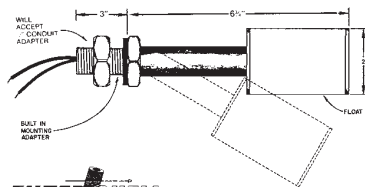


Level Control

## Mini-Max All Plastic Level Limit Float Switch



USCO Price Only  
**\$103.06**



Ideal for high or low level alarm service. Mini-Max will control high or low levels of water or other liquids. Designed for use especially in corrosive atmospheres. Mini-Max is an inexpensive float switch designed particularly for pure water service. Mini-Max will not contaminate high purity water such as distilled, deionized, or demineralized. Watertight conduit must be used on all applications.

### Quick Spec

- All PVC construction with polyethylene float
- Built in mounting adapter and conduit connector
- Compact
- Easy installation
- No adjustment necessary

FC-MMMR Contact on Rising  
FC-MMBR Break on Rising

120 Volts	60 Hz	1→	10A	(¾ HP)
240 Volts	60 Hz	1→	5A	(¾ HP)
240 Volts	60 Hz	3→	5A	(1½ HP)
480 Volts	60 Hz	3→	3A	(1½ HP)

## Mini-Stat All Plastic Miniature Level Limit Control



### Quick Spec

- Compact design — uses minimum space
- Available in CPVC/Poly Pro combination
- Available in All Natural PVDF
- Service to 180°F for the CPVC/PP model and 250°F for the PVDF model
- Voltage 115 VAC
- 3 feet of wire furnished with unit
- Adjustable height by means of extension pipe and mounting bracket
- Maximum ½ AMP load
- Add wire for deeper service

Item #	Description	Price
FCMT1	Mini-Stat, CPVC/Polypro	<b>\$150.00</b>
FCMT1	PVDF Mini-Stat	<b>275.56</b>
FCMTMB	Mounting Bracket	<b>38.67</b>
FCMTR6	6" Extension with Coupling	<b>38.67</b>
FCMTR12	12" Extension with Coupling	<b>38.67</b>

For extra long extensions specify length and add \$4¢ per ft.

## Liquistat - Liquid Level Control



*Liquistat protection will cost you only \$413<sup>33</sup>!*

\* For a standard unit up to 3' length with 2 switch positions. Unit shown with bracket option A. See other bracket options below.

### Spare Parts

Item #	Description	Price
FC-RS	Reed Switch	<b>\$61.67</b>
FC-20R	20 Amp Relay	<b>133.33</b>
FC-PFA	PP Float Assembly	<b>186.67</b>
FC-CFA	CPVC Float Assembly	<b>245.56</b>
FC-KFA	PVDF Float Assembly	<b>378.89</b>

### Units 3' long with 1 or 2 switches in base price

Material	Load	Item #	Price
PP	115V to 20 Amps (1 hp or under)	FC-LLC-120P	<b>\$413.33</b>
PP	24 VAC (1 hp or under)	FC-LLC-24P	<b>498.33</b>
CPVC	115V to 20 Amps (1 hp. or under)	FC-LLC-120HT	<b>507.78</b>
CPVC	24 VAC (1 hp or under)	FC-LLC-24HT	<b>588.89</b>
PVDF	115V to 20 Amps (1 hp or under)	FC-LLC-120K	<b>1,150.89</b>
PVDF	24 VAC (1 hp or under)	FC-LLC-24K	<b>1,228.08</b>

### APPLICATIONS

High or Low level control signals turn pumps, tanks, heaters ON and OFF. Extra control to prevent fires and other safety controls.

### HOW TO ORDER

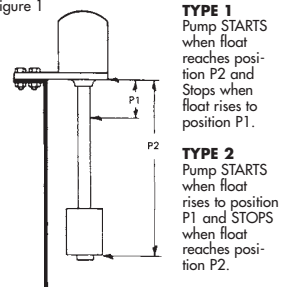
1. Specify Flow Control Type 1 or Type 2.
2. Specify voltage: 24 VAC or 120 VAC (standard). Wire fractional HP motors direct thru 1 HP single phase (Part No. FC-LLC-10).
3. Indicate mounting bracket desired. Bracket A, B, or C included in price of standard unit.
4. Give all level control dimensions from top of vessel. Describe function to be performed at each level. If indicator lights or alarms are required, also diagram these positions. For example: P1 stop pump 6"; P2 start pump 24"; P3 ring low level alarm 29".

### Price List Notes

- PP and CPVC add \$7.00 per foot over 3 ft.
- PVDF add \$24.00 per foot over 3 ft.
- The lowest switch position must be 3" above the bottom of the vessel; if not, a well is required.
- Switches can be no closer than 2" from each other.
- Temperature limit on PP and CPVC is 180°F. PVDF is 300°F.

Units available 3 inches to 20 feet long.

Figure 1



### BRACKETS



Bracket A



Bracket B



Bracket C



Bracket D



## Switch-Tek™ Vibration Level Switch



### APPLICATION

The general purpose vibration level switch is an ideal choice for more challenging liquids including those with light to medium coating, scaling or foaming characteristics. Media examples include wastewater and diluted caustic. The 60 VA relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The submersible sensor is universally mounted through the wall or inside the tank.

### FEATURES

- Rugged PP-Ryton® sensor and cable rated NEMA 6 or IP68
- 60 VA relay selectable NO or NC via power supply wiring polarity
- Compatible with Flowline alarm, controller and fitting accessories
- Not effected by process foam or light to medium build-up

USCO Price As Low As  
**\$285<sup>00</sup>**

### ORDERING LZ12-14 5

- Process mount (1)(2)(3)
- 0 ¾" NPT (US)
  - 2 ¾" G/Rp (Metric)

**FLOWLINE**

### Quick Spec

■ Orientation: Universal	■ Sensor rating: NEMA 6 (IP68)
■ Accuracy: ± 1 mm in water	■ Sensor material: PP-Ryton® (glass fill)
■ Repeatability: ± 0.5 mm in water	■ Cable jacket mat: PP
■ Supply voltage: 12-36 VDC	■ Cable Type: 4-conductor, #22 AWG (shielded)
■ Consumption: 25 mA maximum	■ Cable length: Standard: 10' (3m) Special order: 25' (7.6m) or 50' (15.2m)
■ Contact type: (1) SPST relay	■ Process mount: ¾" NPT (¾" G/Rp)
■ Contact rating: 60 VA	■ Mount. gasket: Viton® (G version only)
■ Contact output: Selectable NO/NC	■ Classification: General Purpose
■ Process temp.: F: -40° to 176° C: -40° to 80°	■ CE compliance: EN 61326 EMC (pending) EN 61010-1 safety
■ Pressure: 150 psi (10 bar) @ 25°C, derated @ 1.667 psi (.113 bar) per °C above 25° C.	

### ORDERING NOTES

- 1 The Metric sensor is offered with straight G threads on the sensing side and conical Rp threads on the cable side of the wrench flat.
- 2 The straight G thread version seals with an included Viton® mounting gasket.
- 3 To special order a 25' (7.6m) or 50' (15.2 m) sensor cable, place the cable length at the end of the part number (ie: LZ10-1405-25') and add \$15 for 25' or \$30 for 50'.

## Switch-Tek™ Ultrasonic Level Switch

**FLOWLINE**



USCO Price From Only  
**\$270<sup>00</sup>**

### APPLICATION

CSA and Cenelec approved intrinsically safe for use in hazardous area locations, the ultrasonic level switch is broadly applied in chemical, solvent, hydrocarbon and petroleum based liquids. Media examples include jet fuel and sulfuric acid. The 60 VA relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm.

### FEATURES

- PP or PFA Teflon® sensor and cable rated NEMA 6 or IP68
- 60 VA relay selectable NO or NC via power supply wiring polarity
- CSA and Cenelec approved intrinsically safe for use in hazardous area locations

### ORDERING LU10- 5

#### Sensor material (1)

- 1 PP
- 2 PFA -add \$100

#### Sensor length

- 3 Short
- 4 Long -add \$10

#### Process mount (2)(3)

- 0 ¾" NPT (US)
- 2 ¾" G/Rp (Metric) - add \$5

### Quick Spec

■ Orientation: Universal	■ Sensor rating: NEMA 6 (IP68)
■ Accuracy: ± 1 mm in water	■ Sensor material: 1__5: PP 2__5: PFA Teflon®
■ Repeatability: ± 0.5 mm in water	■ Cable jacket mat: 1__5: PP 2__5: PFA Teflon®
■ Supply voltage: 12-36 VDC	■ Cable type: 4-conductor, #22 AWG (shielded)
■ Consumption: 25 mA maximum	■ Cable length: Standard: 10' (3m) Special order: 25' (7.6m) or 50' (15.2m)
■ Contact type: (1) SPST relay	■ Process mount: ¾" NPT (¾" G/Rp)
■ Contact rating: GP: 60 VA IS: 32 VDC @ 0.5A	■ Mount. gasket: Viton® (G version only)
■ Contact output: Selectable NO/NC	■ CE compliance: EN 61326 EMC EN 61010-1 safety
■ Process temp.: F: -40° to 176° C: -40° to 80°	
■ Pressure: 150 psi (10 bar) @ 25° C, derated @ 1.667 psi (.113 bar) per °C above 25° C.	

### ORDERING NOTES

- 1 To special order a 25' (7.6m) or 50' (15.2 m) sensor cable, place the cable length at the end of the part number (ie: LU10-1305-25'). For PP, add \$15 for 25' or \$30 for 50'. For PFA, add \$50 for 25' or \$100 for 50'.
- 2 The short Metric sensor is offered with conical Rp threads on both sides of the wrench flat. The long Metric sensor is offered with straight G threads on the sensing side and conical Rp threads on the cable side of the wrench flat.
- 3 The straight G thread version seals with an included Viton® mounting gasket.

Level Control

## Switch-Tek™ Non-Intrusive RF Capacitance Level Switch



### FEATURES

- Level detection through plastic tank walls up to 1" thick
- Sensor mounting brackets are offered in common tank materials for adhesive or tack-weld install

From Only  
**\$205<sup>00</sup>**

### APPLICATION

The general purpose non-intrusive capacitance level switch is a great choice for clean or ultrapure, aqueous based liquids with non-coating and/or scaling characteristics. Media examples include deionized water and hydrochloric acid. The 60 VA relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm.

**FLOWLINE**

### ORDERING LP50-□005

#### Bracket material (1)(2)

- 1 PP
- 5 PVDF - add \$20
- 6 PE
- 7 PVC - add \$15

### Quick Spec

- Tank mounting: Non-intrusive
- Tank mat. comp.: non-metallic
- Accuracy: ± 1 mm in water
- Repeatability: ± 0.5 mm in water
- Dielectric range: >10 constants
- Conductive range: >100 micromhos
- Supply voltage: 12-36 VDC
- Contact type: (1) SPST relay
- Contact rating: 60 VA
- Contact output: Selectable NO/NC
- Process temp.: F: -40° to 194°
- Enclosure rating: NEMA 4X (IP65)
- Enclosure mat.: PS0
- Bracket mounting: 3M adhesive/plastic thermal weld
- Cable jacket mat: PP
- Cable length: Standard: 10' (3m)
- Classification: General purpose
- CE compliance: EN 61326 EMC
- EN 61010-1 safety

### ORDERING NOTES

- Select the bracket that matches the tank wall material in your application.
- Each sensor comes with one user specified bracket.

## Switch-Tek™ Optic Leak Detection Switch



As Low As  
**\$148<sup>00</sup>**

### FEATURES

- PP or PFA Teflon® sensor and cable rated NEMA 6 or IP68
- 60 VA relay selectable NO or NC via power supply wiring polarity
- Fail-safe sensor inverts wet to alert user for maintenance

### APPLICATION

The general purpose optic switch is an excellent choice for leak detection in and around secondary containment sumps, tanks and pipes. The sensor can be applied in a broad range of chemical solutions. Media examples include ferric chloride and chlorine. The 60 VA relay provides a reliable switch interface with remote devices such as a PLC, SCADA or alarm. The submersible sensor is universally mounted within the interstitial space of the vessel.

### ORDERING LO10-□□005

#### Sensor material

- 1 PP
- 2 PFA - add \$100

#### Sensor length

- 3 Short
- 4 Long - add \$10

#### Process mount (2)(3)

- 0 ¾" NPT (US)
- 2 ¾" G/Rp (Metric) - add \$5

### Quick Spec

- Orientation: Universal
- Accuracy: ± 1 mm in water
- Repeatability: ± 0.5 mm in water
- Supply voltage: 12-36 VDC
- Contact type: (1) SPST relay
- Contact rating: 60 VA
- Contact output: Selectable NO/NC
- Process temp.: F: -40° to 176°  
C: -40° to 80°
- Sensor rating: NEMA 6 (IP68)
- Cable length: Standard: 10' (3m)
- Pressure: 150 psi (10 bar) @ 25° C, derated @ 1.667 psi (113 bar) per °C. above 25° C
- Process mount: ¾" NPT (¾" G/Rp)
- Mount. gasket: Viton® (G version only)
- Classification: General purpose
- CE compliance: EN 61326 EMC
- EN 61010-1 safety

## Chemical Flow and Level Indicators

Plasto-O-Matic Chemical Flow and Level Indicators offer a safe and economical means of indicating flow, clarity, or exact level of extremely corrosive and ultra-pure liquids.

### MATERIALS OF CONSTRUCTION

A wide choice of plastic indicator end materials is offered to assure maximum chemical compatibility. Ends on Series "GX" indicators

are PVC (TYPE 1, GRADE 1 Polyvinyl Chloride) and Polypropylene. Ends on Series "GY" indicators are either PVC, Polypropylene or Teflon. Ends on Series "GYW" indicators are PVC, CPVC (Chlorinated Polyvinyl Chloride), Polypropylene, Teflon or Kynar.

Standard O-ring seals on Series "GX" indicators are either Buna-N or Viton. On Series "GX"; "GYW" indicators Viton

## PLAST-O-MATIC

O-rings are standard.

Stainless steel fasteners are standard on all flow indicators.

The transparent inner cylinder walls used in the Series "GY", "GYW" indicators are Pyrex. The transparent outer cylinder walls used in all PLAST-O-MATIC indicators are high impact strength acrylic.

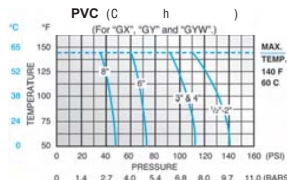
### Series GX and GY Sight Glasses

Pipe Size	Series "GX" (Single Cylinder Wall)				Series "GY" (Double Cylinder Wall)			
	PVC		Natural Polypro		PVC		Natural Polypro	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price
1/2	GX050V-PV	\$98.33	GX050V-PP	\$123.39	GY050V-PV	\$125.22	GY050V-PP	\$154.17
3/4	GX075V-PV	98.33	GX075V-PP	123.39	GY075V-PV	125.22	GY075V-PP	154.17
1	GX100V-PV	115.83	GX100V-PP	150.33	GY100V-PV	140.67	GY100V-PP	177.28
1 1/4	GX125V-PV	144.56	GX125V-PP	190.78	GY125V-PV	181.17	GY125V-PP	233.22
1 1/2	GX150V-PV	159.94	GX150V-PP	210.11	GY150V-PV	206.22	GY150V-PP	260.17
2	GX200V-PV	188.89	GX200V-PP	266.00	GY200V-PV	242.78	GY200V-PP	321.83
3	GX300V-PV	350.78	GX300V-PP	480.17	GY300V-PV	466.28	GY300V-PP	574.28

NOTE: For streamers add "\$" and \$24.83 for 1/2"-1", or \$80.70 for 1 1/4"-3" size (ex. GY300V-PV-\$ - \$478.67). For Teflon® and PVDF body materials consult factory.

### Series "GYW" Water Style Sight Glasses (Viton Seals Standard)

Pipe Size	PVC		CPVC		Natural Polypro	
	Item #	Price	Item #	Price	Item #	Price
1 1/2	GYW150V-PV \$264.74		GYW150V-CP \$295.39		GYW150V-PP \$253.97	
2	GYW200V-PV 306.17		GYW200V-CP 349.44		GYW200V-PP 291.78	
3	GYW300V-PV 410.67		GYW300V-CP 488.11		GYW300V-PP 390.83	
4	GYW400V-PV 574.53		GYW400V-CP 700.61		GYW400V-PP 606.97	



### ADVANTAGES

- Large 360° viewing area
- Series "GY" and "GYW" have double wall construction for maximum safety
- Full flow design (no corners to collect debris)
- Wide choice of select plastic materials to assure maximum chemical compatibility
- Little or no maintenance required

## Level Switch Remote Relay Controller

The general purpose controller is offered in three versions with 1 or 2 relays and 1-3 sensor inputs. The LC40 provides a high or low level switch with a single sensor input. The LC41 provides latched automatic fill or empty control with two sensor inputs. The LC42 provides latched automatic fill or empty control and an independent high or low level switch with three sensor inputs. Package the controller with any of our level switches.

### FEATURES

- LED indicators provide user with power, sensor and relay status
- Fail-safe relay control of pumps and valves with 0-60 second time delay

### ORDERING LC4-1001

- Contact(s)/input(s)**  
(1)(2)(3)(4)
- 0 1 SPDT relay / 1 sensor
  - 1 1 SPDT latching relay / 2 sensors — add \$30
  - 2 2 SPDT relays (1 latching) / 3 sensors — add \$80

### ORDERING NOTES

- Select the best configuration based upon your control requirements. The following are the typical applications for each type:  
LC40: High or low level switch  
LC41: Automatic fill or empty  
LC42: Automatic fill or empty with high or low level switch
- To factory configure for 240 VAC, place an E at the end of the P/N: (ie: LC40-1001-E).
- For field mount installation in a NEMA 4X polycarbonate windowed enclosure, order the LM94-1001 (single controller box) for \$227 or the LM95-1001 (two controller box) for \$342.
- To order the CE configuration, place CE at the end of the P/N: (ie: LC42-1001-CE) and add \$30.



As Low As  
**\$179<sup>00</sup>**

## FLOWLINE

### Quick Spec

- Supply voltage: 120/240 VAC @ 50-60 Hz.
- Consumption: 5 watts max.
- Sensor inputs: LC40: (1) two-wire level switch  
LC41: (2) two-wire level switches  
LC42: (3) two-wire level switches
- Sensor Supply: 13.5 VDC @ 27 mA
- Contact Type: LC40: (1) SPDT relay  
LC41: (1) SPDT relay latching  
LC42: (2) SPDT relays, (one latching)
- Contact rating: 250 VAC @ 10A
- Contact latch: LC40: N/a  
LC41/2: Select ON/OFF
- LED indication: Sensor, power and relay status
- Electronics temp.: F: -40° to 158°  
C: -40° to 70°
- Enclosure type: 35 mm DIN rail
- Encl. material: PP, UL94V0
- Classification: General purpose
- CE compliance: EN 50082-2 immunity  
EN 55011 emission  
EN 61010-1 safety

### Quick Spec

- Display type: LCD, 5-digit
  - Display units: Factory cal: % of span  
PC cal: engineering\*
  - Decimal point: Floating
  - Display output: Transmitter: 0-99999  
Switch: Good/Alarm\*
  - Display height: 0.4" (1 cm)
  - Display backlight: LED bar (adjustable)
  - Linearization\*: 2 to 16-point function
  - User interface: Single push button
  - Input channels: LI42: (2) 4-20mA  
LI44: (4) 4-20mA
  - Loop insertion: LI42: In-series, 10 Ohms  
LI44: N/A (stand-alone)
  - Supply voltage: 12-24 VDC
  - PC-cal. interface\*: USB® adaptor w/cable
  - PC-cal. software\*: MicroCal (Windows®)
  - Memory: Non-volatile
  - Alarm cancel: Single push button
  - Alarm type\*: LI42: (2) FET switches with opt. audible chirp  
LI44: (1) FET switch with opt. audible chirp
  - Alarm set points\*: 1 point: alarm  
2 points: out of bounds  
1A @ 24 VDC
  - Switch rating: Normally open
  - Switch output\*: F: -4° to 140°  
C: -20° to 60°
  - Operating temp.: C: -20° to 60°
  - Cable type: 10-conductor, #22 AWG
  - Cable length: 10' (3m)
  - Enclosure rating: NEMA 4X (IP65)
  - Enclosure mat'l.: PC/ABS FR
  - Enclosure mount: Panel or field
  - Button mat'l.: Silicone rubber
  - Classification: General purpose
  - CE compliance: EN 61326 EMC (pending)
- \* Requires the LI96-1001 MicroCal calibration kit

### ORDERING NOTES

- For indicator and loop power, order the LC95-1001 (120 VAC) or LC96-1001 (240 VAC) power supply (24 VDC@0.6A) for \$195.00.
- Factory calibrated, the indicator displays % of span with transmitter inputs only and no alarm set points.
- Order the LI96-1001 MicroCal PC calibration kit (\$158.00) to display engineering units, configure alarm set points from transmitter and switch inputs, and/or linearize the volumetric measurement of odd shaped tanks. Each kit includes (1) PC Windows® based MicroCal software CD and (1) USB to RS485 adapter with 1m cable.

## MicroPoint™ Multi-Channel Level Indicator

## FLOWLINE

Factory calibrated, the general purpose indicator reads 0-100% of span with two or four level transmitter input channels. A single push button allows users to scroll through their active channels. With the optional MicroCal PC calibration kit, users can customize engineering units, configure FET alarm set points from level transmitter and switch inputs, and/or linearize the volumetric measurement of odd shaped tanks. Select the 2 channel for loop insertion with PLC's and the 4 channel for stand alone indication.

### FEATURES

- Compatible with Flowline level transmitter and leak detection sensors
- Alarms can be configured for high level, low level or out-of-bounds
- Adjustable LED backlight for night use outdoors and/or in dimly lit locations
- MicroCal provides convenient interface for indicator calibration and cloning
- Corrosion resistant PC/ABS FR enclosure rated NEMA 4X



As Low As  
**\$415<sup>00</sup>**

### ORDERING LI4-1001

#### Sensor input channels (1)(2)(3)

- 2 2 Channels \$415 (transmitter or switch)
- 4 4 Channels \$495 (transmitter or switch)



LI96 Shown



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 97



## EchoSonic™ 2-Wire Ultrasonic Level Transmitters



### FEATURES

- Amazing 32' measurement span in standard 2" process connection
- Digital infinity surface mapping for extreme accuracy and reliability
- PC/ABS enclosure rated NEMA 6 with rugged Kynar® transducer
- Miniature dead band optimizes the filling capacity of tanks and sumps
- Failsafe intelligence with diagnostic feedback for easy troubleshooting
- Incredible 2"-3" beam diameter for applications with restricted space

## FLOWLINE

### Models LU11, LU13, LU14

#### APPLICATION

Provides non-contact level measurement up to 32'-8" or 12.2m, and is ideally suited for challenging corrosive, coating or waste liquids. The transmitter is broadly selected for atmospheric bulk storage, day tank, process vessel and waste sump applications. Media examples include ink and polymer.

### ORDERING LU1-50-1

#### Sensor range/size

- 1 16'4" (5m)/2"
- 3 26'2" (8m)/2" – add \$200
- 4 32'8" (10m)/2" – add \$400

#### Process mount (1)(2)

- 0 NPT (US)
- 6 G (Metric) – add \$5



### FEATURES

- Extremely compact sensor for use in small machines, tools and skids
- Miniature dead band optimizes the filling capacity of small vessels
- PC/ABS enclosure rated NEMA 6 with rugged Kynar® transducer
- Failsafe intelligence with diagnostic feedback for easy troubleshooting
- Digital infinity surface mapping for extreme accuracy and reliability

### Models LU05, LU12

#### APPLICATION

Provides non-contact level measurement up to 4' or 1.2m, and is ideally suited for challenging ultrapure, corrosive, slurry or waste liquids. The transmitter is typically selected for small atmospheric process vessel, IBC tote, 55 gallon drum and waste sump applications. Media examples include chromic acid and copper sulfate.

### ORDERING LU-50-1

#### Sensor range/size

- 05 4' (1.2m)/1"
- 12 10' (3m)/1" – add \$100

#### Process mount (1)(2)

- 0 NPT (US)
- 6 G (Metric) – add \$5

## EchoSpan™ NEW

### FEATURES

- Setup is fast and simple with push button calibration and LCD display
- Offered in three measurement ranges up to 10m with 2" transducer
- 6-segment LCD display indicates level in inch or centimeter values
- 7.6 cm minimum beam width for applications with restricted space
- PC/ABS enclosure rated NEMA 4X with rugged PVDF transducer
- Fail-safe intelligence with diagnostic feedback for easy troubleshooting



### Models LU81, LU83, LU84

#### APPLICATION

Provides non-contact level measurement up to 32' or 10m, and is ideally suited for challenging ultrapure, corrosive or waste liquids. Push button calibrated, the transmitter is broadly selected for atmospheric bulk storage, day tank and waste sump applications. Media examples include wastewater and sodium hydroxide.

### ORDERING LU-51-1

#### Sensor range

- 81 5m (16.4')
- 83 8m (26.2')
- 84 10m (32.8')

#### Process mount (1)(2)

- 0 NPT (US)
- 6 G (Metric)

### SPECIFICATIONS COMMON TO ALL LEVEL TRANSMITTERS ON THIS PAGE:

- Memory: Non-volatile
- Signal output: 4-20 mA, two-wire
- Temp. comp.: Automatic
- Electronics temp.: F: -40° to 160° C: -40° to 71°
- End. material: PC/ABS FR
- Pressure: 30 psi (2 bar) @ 25° C, derated @ 1.667 psi (.113 bar) per °C above 25° C.

### Quick Spec

■ Range: LU11: 0.33' to 16' 4" (10 cm to 5m) LU13: 0.33' to 25' (10 cm to 7.6m) LU14: 0.66' to 40' (20 cm to 12.2m)	■ Process temp.: F: -40° to 176° C: -40° to 80°
■ Resolution: 0.125" (3 mm)	■ Sensor rating: NEMA 6 (IP68)
■ Beam width: LU11: 2" diameter LU13/14: 3" diameter	■ Installed height: 1.7" (4.3 cm) above tank process mount
■ Dead band: LU11: 0.33' (10 cm) LU13: 0.33' (10 cm) LU14: 0.66' (20 cm)	■ Trans. material: PVDF Kynar®
■ LED indication: Power, calibration and diagnostics	■ Cable jacket mat.: Polypropylene
■ Supply voltage: 14-28 VDC	■ Cable type: 3-conductor, shielded
■ Loop resist.: 600 ohms @ 24 VDC	■ Cable length: 10' (3m)
■ Fail-safety: Reverts to 22 mA	■ Process mount: LU11, LU13, LU14: 2" NPT (2" G)
	■ Mount. gasket: Viton® (G version only)
	■ CE compliance: EN 61326 EMC EN 61010-1 safety

#### Ordering Notes

- 1) The straight G thread version seals with an included Viton® mounting gasket.
- 2) For installation on open tanks, order the LM501001 (2N NPT) or LM501061 (2" G) side mount bracket for \$30. Locate the bracket far enough inboard from the side wall to avoid sensor beam width conflicts.

### Quick Spec

■ Range LU05: 0.16' to 4' (5cm to 1.2m) LU12: 0.16' to 10' (5cm to 3m)	■ Sensor rating: NEMA 6 (IP68)
■ Accuracy: ± 0.15% of span in air	■ Installed height: 1.7" (4.3 cm) above tank process mount
■ Resolution: 0.125" (3 mm)	■ Trans. material: PVDF Kynar®
■ Beam width: 2" diameter	■ Cable jacket mat.: Polypropylene
■ Dead band: 0.16' (5 cm)	■ Cable type: 2-conductor, shielded
■ Supply voltage: 12-28 VDC	■ Cable length: 10' (3m)
■ Loop resist.: 600 ohms @ 24 VDC	■ Process mount: 1" NPT (1" G)
■ Calibration: Target, wiring polarity	■ Mount. gasket: Viton® (G version only)
■ Fail-safety: Reverts to 22 mA	■ Dimensions: See fig. on page
■ Process temp.: F: -40° to 176° C: -40° to 80°	■ CE compliance: EN 61326 EMC EN 61010-1 safety

#### Ordering Notes

- 1) The straight G thread version seals with an included Viton® mounting gasket.
- 2) For installation on open tanks, order the LM501001 (2R NPT) or LM501061 ½" GJ side mount bracket for \$30. Locate the bracket far enough inboard from the side wall to avoid sensor beam width conflicts.

### Quick Spec

■ Range: LU81: 4" to 16.4' (10 cm to 5m) LU83: 8" to 26.2' (20 cm to 8m) LU84: 12" to 32.8' (30 cm to 10m)	■ Supply voltage: 12-28 VDC
■ Resolution: LU81/83: 0.039" (1 mm) LU84: 0.078" (2 mm)	■ Loop resist.: 500 ohms @ 24 VDC
■ Beam width: 3" (7.6 cm) dia.	■ Signal invert: 4-20 mA, 20-4 mA
■ Dead band: LU81: 4" (10 cm) LU83: 8" (20 cm) LU84: 12" (30 cm)	■ Fail-safety: Selectable 4mA, 20mA, 21 mA, 22 mA or hold
■ Display type: LCD, 6-digit	■ Process temp.: F: -4° to 140° C: -20° to 60°
■ Display units: Inch, cm or percent	■ Enclosure rating: NEMA 4X (IP65)
	■ Enclosure vent: Water tight membrane
	■ Trans. material: PVDF
	■ Process mount: 2" NPT (2" G)
	■ Mount. gasket: Viton®
	■ Conduit entrance: Dual, ½" NPT
	■ CE compliance: EN 61326 EMC (pending)

#### Ordering Notes

- 1) For installation on open tanks, order the LM50-1001 (2" NPT) or LM50-1061 (2" G) side mount bracket.
- 2) For a liquid tight cable connection, order the LM90-1001 connector.

## Quick Spec

- Range: LU75: 2" to 4'  
LU72: 4" to 9.8'  
LU71: 4" to 16.4'  
LU73: 8" to 26.2'
- Resolution: 0.125"
- Repeatability: 0.25"
- Hysteresis: Adjustable over range
- Beam width: LU72/75: 2" diameter  
LU71/73: 3" diameter
- Dead band: LU75: 2"  
LU71/72: 4"  
LU73: 8"
- LED indication: Power, relay and echo status
- Calibration: Target, push button
- Memory: Non-volatile
- Supply Voltage: 50\_5: 95-250 VAC  
58\_5: 12-28 VDC
- Consumption: 50\_5: 20 watts max.  
58\_5: 100 mA @ 24 VDC
- Contact type: (3) SPDT relays
- Contact rating: 60 VA
- Contact logic: Single point: alarm  
Two point: latching or out of bounds alarms  
Duplex or Alternation: (Relays 1 and 2 only)
- Contact fail-safety: Reverts to de-energized state during echo-loss
- Process temp.: F: -4° to 140°  
C: -20° to 60°
- Temp. comp.: Automatic
- Electronics temp.: F: -40° to 160°  
C: -40° to 71°
- Pressure: 30 psi (2 bar) @ 25°C, derated @ 1.667 psi (.113 bar) per °C above 25° C.
- Enclosure rating: NEMA 4X (IP65)
- Enclosure vent: Water tight membrane
- Installed height: 28" (7.2 cm) above tank process mount
- Process mount: LU72/75: 1" NPT (1" G)  
LU71/73: 2" NPT (2" G)
- Mount. gasket: Viton® (G version only)
- Conduit entrance: Dual, 1/2" NPT
- Classification: General purpose
- CE compliance: EN 61326 EMC  
EN 61010-1 safety

## ORDERING NOTES

- 1 The straight G thread version seals with an included Viton® mounting gasket.
- 2 For installation on open tanks, order the LM50-1001 (2" NPT) or LM50-1061 (2" G) side mount bracket for \$30. Locate the bracket far enough inboard from the side wall to avoid sensor beam width conflicts.

## EchoSwitch™ Multi-Point Ultrasonic Level Switch



## APPLICATION

The general purpose ultrasonic switch provides non-contact level detection up to 26.2' or 8m with 3 relays and 1-6 set points. Each relay can be configured on a single set point alarm, two latched set points for automatic fill or empty control or two independent set points for out of bounds alarming and alternating relays 1 and 2 full duplex.

## FEATURES

- EasyCal target push button calibration with non-volatile memory
- Digital infinity surface mapping for extreme accuracy and reliability
- PC/ABS enclosure rated NEMA 4X with rugged Kynar® transducer
- Small dead band optimizes filling capacity of tanks and sumps
- Fail-safe intelligence with diagnostic feedback for easy troubleshooting
- Incredible 2"-3" beam diameter for applications with restricted space

## ORDERING LU7-5

## Sensor Range/Size

- 5 4'/1"
- 2 9.8'/1" – add \$200
- 1 16.4'/2" – add \$200
- 3 26.2'/2" – add \$200

## Supply Voltage

- 0 95-250 VAC – \$50
- 8 12-28 VDC

## Process mount

- 0 2" NPT (US)
- 6 2" G (Metric) – add \$5

## Level Transmitter Universal Panel Meter

## Quick Spec

- Supply voltage: 120/240 VAC @ 50–60 Hz.
- Sensor input: (1) two or three-wire 4–20 mA transmitter
- Sensor supply: 24 VDC @ 25 mA
- Loop power: 4–20 mA, 18 VDC
- Repeater output: 4–20 mA, 24–36 VDC
- Contact rating: 250 VAC @ 2A
- Contact type: LU12/3: (2) SPDT relays, latching  
LU14/5: (4) SPDT relays, latching
- Contact rating: 250 VAC @ 2A
- Electronics temp: F: -40° to 149° C: -40° to 65°
- UL certificate: E 160849

## ORDERING L11-1001

## Configuration (1)(2)(3)

- 0 Meter only
- 1 Meter with 4 –20 mA repeater – add \$130
- 2 Meter with 2 relays – add \$85
- 3 Meter with 2 relays and 4 –20 mA repeater – add \$230
- 4 Meter with 4 relays – add \$250
- 5 Meter with 4 relays and 4 –20 mA repeater – add \$320

## ORDERING NOTES

- 1 To factory configure for 240 VAC, place an E at the end of the P/N: (ie: L110-1001E).
- 2 For three wire transmitter power, order the LC95-1001 (120 VAC) or LC96-1001 (240 VAC) power supply (24 VDC @ 0.6A) for \$195.



## APPLICATION

The general purpose panel meter provides single tank level indication with optional 2 or 4 relays, 4 or 8 set points and an isolated analog repeater. Each relay can be configured on a single set point switch or latched on two set points for automatic fill or empty control. Package the meter with any of our level transmitters.

## FEATURES

- 4.5 digit LED display indicates level in custom engineering units
- 11-point linearization function for volumetric tank measurement
- Fail-safe design with security lock out jumper for process safety
- 1/8 DIN polycarbonate enclosure with NEMA 4X faceplate

As Low As  
\$310.00

## MRC 5000 1 & 2 Pen Circular Chart Recorder

### Basic Recording At Its Best!

Finding a place to install this recorder is easy, with its compact 2.5" panel depth and short 1.3" protrusion from the front of the panel. It can be panel or surface mounted. The cutout size for the MRC 5000 is the commonly utilized 12.7" square cutout. An optional adapter plate provides convenient retrofitting of the MRC 5000 in Partlow MRC 7000/ARC 4100 cutouts.

The pens (up to two available), each with configurable spans, are positioned smoothly without any slidewire feedback, simplifying the design and improving reliability. The 10" chart rotates at user selectable speeds.

Up to 2 Process Alarms or limit Alarms are optional for each pen, with both normally open and normally closed contacts available. Alarms can be high or Low process or high or low limit (latching with manual reset). FM approval for the high/low limit function will be available.

To power the MRC 5000, simply supply power; 90 - 264 VAC, 50/60 Hz. For low voltage operation, an optional 20 - 50 VAC/DC power input is available.

Digital Communications is also available as an option, to access process values, alarm conditions, etc. The RS-485 Com port utilizes MODBUS RTU protocol, allowing the MRC 5000 to communicate with virtually any software package on the market.



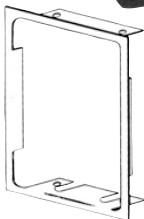
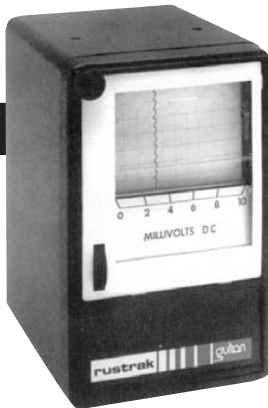
**Partlow**  
ISO 9002 Certified

#### Quick Spec

- Slim and Trim
- Easy to Setup
- .56" High LED Display
- Optional Process or High/Low Limit Alarms
- Wide Range Power Operation
- Optional Low Voltage Operation
- Non-Volatile Memory instead of battery-backed memory
- Setup/Calibration Seal
- Optional Configuration Port

Item #	Description	Price
51000011	Single Pen Recorder only (90-264 VAC)	\$772.22
51100011	Two Pen Recorder only (90-264 VAC)	1,077.78
51111011	Single Pen Recorder w/1 Alarm relay per pen (90-264 VAC)	1,257.78
51122011	Two Pen Recorder w/2 Alarm relays per pen (90-264 VAC)	1,416.67

Many more configurations available. Please consult sales office.



- Quick mount recorders without drilling holes or using studs and provide an attractive border around recorders.
- Covers rough cut panel edges.
- Enhances the appearance of mounted recorders.

#### MRC 5000 SPECIFICATIONS

##### INPUTS

Input Types/Range	Type	Range
Thermocouple	J	0°C to 760°C 0°F to 1400°F
	K	0°C to 1360°C 0°F to 2500°F
	T	-200°C to 400°C -330°F to 750°F
	R	200°C to 1650°C 400°F to 3000°F
	S	200°C to 1650°C 400°F to 3000°F
RTD	100 ohm Platinum	-140°C to 400°C -220°F to 750°F
	.00385 ohms/ohm/°C	
Current DC	0 to 20 mA, 4 to 20 mA	
RTD Excitation Current	150 microamps, typical	
Input Scan Rate	1 scan per second for non-RTD inputs	
	1 scan per 1.2 seconds for RTD inputs	

**Two Year Warranty**

##### RELAY OUTPUTS

Relays SPDT, contacts rated 5 amps resistive at 115 VAC, 2.5 amps resistive at 230 VAC, 1/8 HP at 230 VAC (single phase), 250 VA at 115/230

##### RECORDING

Pen Color	Pen 1 - Red, Pen 2 - Green
Chart Size	10 inch
Chart Rotation	User configurable: 8 hours, 12 hours, 24 hours, 48 hours, or 7 days
Chart Span	Bottom and top of span, -9999 to 9999 units

##### ALARMS

Number	Up to two process alarms for each of two inputs
Type	Process high or low
Limit Device	Optional high/low limits for each input with latching output
	Normally open output latches open
	Red reset button included to the right of the display
	Fully adjustable, 0 to 200 units, single sided
Hysteresis	Alarm setpoint changes can be prohibited
Security	

## Chart Paper for MRC5000

Item #	Description	Price
00214417	10" Chart Paper, 24 Hr. 0-14 pH, Box of 100	\$25.00
00214416	10" Chart Paper, 7 Day 0-14 pH, Box of 100	25.00
00214733	10" Chart Paper, 24 Hr. 0-5000 GPM, Box of 100	25.00
00214714	10" Chart Paper, 24 Hr. 0-10 GPM, Box of 100	25.00
00213825	10" Chart Paper, 24 Hr. 0-100 GPM, Box of 100	25.00
00213820	10" Chart Paper, 24 Hr. 0-1000 GPM, Box of 100	25.00
00213832	10" Chart Paper, 24 Hr. 30-230°F, Box of 100	25.00
00214407	10" Chart Paper, 24 Hr. 210-30°F/8.0-3.5 pH, Box of 100	25.00

## Strip Chart Recorder

### Model 288 Single Channel

The small, compact size makes the Rustrak the ideal choice for both portable applications and for areas where space is limited.

- 4-20 mA input
- 0-14 pH range
- Compact design
- Rustrak dependability

#### Quick Spec

Accuracy:	± 2% of span	Dimensions:	3 3/8" W x 5 1/2" H x 4 1/2" D
Response Time:	1 second max.	Chart Speed Accuracy:	Synchronous with line frequency
Max. Short Term Input:	200%	Input Connections:	6 pin connector (exception: 10, 25 or 50 mV binding posts)
Max. Continuous Input:	150%	Power Cord:	Detachable line cord (exception: 10, 25 or 50 mV = fixed line cord)
Environment:	Indoor/Outdoor with suitable enclosure	Primary Power:	100-130 V/50Hz; 100-130 V/60Hz
Operating Temperature:	0 to 60°C, 32 to 140°F		200-260 V/50Hz; 200-260 V/60Hz
Storage Temperature:	-40 to 70°C, -40 to 158°F		6, 12, 24
Recording Width	288: 2 1/8"		
With 1 Event:	288: 2"		
With 2 Events:	288: 1"		

**rustrak®**

Item #	Description	Price
288-4-20	Strip Chart Recorder	\$733.33
C6803	0-14 pH Paper	18.17/roll
2196	Panel mount Bracket	53.33

100 USCO

Best Price, Best Quality and Best Service





## Low-extractable piping for ultra-pure water systems

Harvel LXT® piping systems provide a cost-effective alternative to other piping materials typically used for ultra-pure water applications in the semiconductor, electronics, biotechnology and other industries. Lower material costs combined with fast, reliable installation greatly reduce installation costs – resulting in significant savings without jeopardizing water quality.



### Features

**Harvel LXT Piping Systems offer unique advantages for many ultra-pure water applications.**

- Exceptionally smooth interior walls reduce particle contaminants.
- Fast, reliable installation with simple, inexpensive joining methods.
- Proprietary one-step fast setting joining method reduces TOC contamination and rinses up quickly.

## Bondstrand® Industrial, Military and Environmental Systems

Fiberglass Pipe Group



Ameron Fiberglass Pipe can withstand higher temperatures and pressures than ordinary thermoplastic materials. That, together with its corrosion and chemical resistance, makes it particularly well-suited for general industrial service and chemical processing applications. Fiberglass pipe also provides environmental protection benefits. In applications such as secondary containment and waste handling, it can eliminate the ground-water contamination caused by corroded metal piping. Bondstrand LD large-diameter piping is available in diameters through 144 inches (3600 mm).

## CHEMICAL DRAINAGE SYSTEMS

MECHANICAL AND FUSION LOCK™ JOINT CONNECTIONS

### MATERIAL SPECIFICATIONS, PHYSICAL PROPERTIES — POLYPROPYLENE:

Zurn non-flame-retardant polypropylene pipe and fittings meet the requirements for ASTM-4101 of PP0210 B55042. Our flame-retardant polypropylene meets ASTM-4101 specification for PP0210 B56562 FLO12. The compound also meets NSF standard 14 and ASTM-F1412 chemical resistance testing requirements.



### Benefits

- Superior joining methods: Fusion Lock™ and nut with seal mechanical joint.
- Ease of installation reduces chance for faulty installations - industry's best fusion machine and grooving tool.
- Don't have to go back and tighten joints after fusing – reduces operator error.



## Double-Contained Pipe

Asahi/America offers two complete double-containment systems and provides the industry's most comprehensive technical support, from AutoCAD for fast and easy system layout, to material scheduling and contractor training.



- ✓ **Technical Support**
- ✓ **Factory/Distributor installation and certification prior to start-up**

### DUO-PRO®

- Any combination of PP, HDPE, PVDF, or Halar®
- Components joined by reliable thermal butt fusion
- To 150 psi pressure in carrier and containment
- Accepts many leak detection and location systems
- Size ranges for all pressure or drainage systems
- Choice of field fabrication from components or pre-fabrication
- Unique specialty fittings, such as dogbone fittings to control differential expansion



- Supporting devices on inner carrier pipe prevent sagging or buckling
- Containment piping can be compartmentalized, creating leak zones, and can be designed for continuous draining

### POLY-FLO®

Extruded and molded in one piece by a patented process, in sizes from 1" - 6" (carrier). Poly-Flo is relatively inexpensive and extremely easy to cut and weld.

- Top quality PP, HDPE or PVDF
- Unitary construction for fewer welds, increased structural integrity, and lower installation costs
- To 100 psi pressure in carrier and containment
- Patented double O-ring flanges maintain secondary containment, yet can be easily disassembled
- The strongest, lowest cost system for applications requiring carrier pipe sizes of 6" and under
- Certified as approved technology by the California Department of Toxic Substances Control



## Compressed Air Pipe

### AIR-PRO™

The Air-Pro piping system is made of safe, ductile high density polyethylene from Solvay (Eltex Tub 124). It meets the safety requirements for Cal-OSHA. Air-Pro is a full pressure system rated to 230 psi. It won't scale, pit or corrode, has a longer service life in tough environments, and its pressure drop won't increase. Sensitive pneumatic equipment is protected from internal particles present in metal systems.

## PolyPure System

### POLYPURE

The natural polypropylene PolyPure system is Asahi/America's newest piping system. PolyPure is a clean and smooth piping system ideal for high purity water systems at a fraction of the cost of 316 EP Stainless Steel. The new system is offered in sizes from 1/2" - 4". PolyPure is a complete piping system including pipe, fittings, diaphragm valves, ball valves and Universal Vortex flow meters all made from the same natural polypropylene piping system.

## High-Purity Purad

### PVDF

Asahi/America, and the Agru Company offer two complete PVDF systems designed for high purity or standard chemical applications. PVDF (polyvinylidene fluoride) demonstrates extreme resistance to a variety of hazardous chemicals.

When other plastic or metal systems can not handle the application, PVDF should be considered.



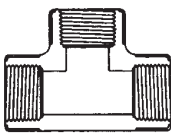
Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 101

## Polypropylene Schedule 80 SR Threaded Fittings

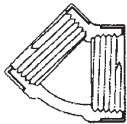
### PATENTED STAINLESS STEEL REINFORCED (SR) THREAD DESIGN

Spears patented Stainless Steel Reinforced (SR) thread design is one of the most significant advancements in the use of plastic threaded fittings. More than just an added metal ring, this unique precompression design compensates for expansion forces generated from tapered pipe thread joint make-up. Radial stress is reduced in normal installations and contained in severe over tightening situations. SR style fittings use type 316 Stainless Steel reinforcement.



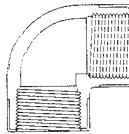
Tee SR Fipt

Size	Item #	Price
1/2"	4805-005SR	\$6.76
3/4"	4805-007SR	7.51
1"	4805-010SR	8.93
1 1/2"	4805-015SR	9.92
2"	4805-020SR	17.50



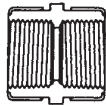
45° Ell SR Fipt

Size	Item #	Price
1/2"	4819-005SR	\$6.91
3/4"	4819-007SR	7.78
1"	4819-010SR	8.22
1 1/2"	4819-015SR	11.18
2"	4819-020SR	15.21



90° Ell SR Fipt

Size	Item #	Price
1/2"	4808-005SR	\$5.49
3/4"	4808-007SR	6.68
1"	4808-010SR	8.26
1 1/2"	4808-015SR	11.18
2"	4808-020SR	15.21

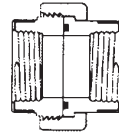


Coupling SR Fipt

Size	Item #	Price
1/2"	4830-005SR	\$5.21
3/4"	4830-007SR	6.52
1"	4830-010SR	7.19
1 1/2"	4830-015SR	9.40
2"	4830-020SR	11.30

### Quick Spec

- Wide Selection of Configurations
- High Grade Natural or Black
- Full 150 psi Pressure Rating at 73°F
- Featuring Spears Stainless Steel Reinforced (SR) Thread
- 180°F Maximum Service Temperature



Union SR Fipt with Viton® O-ring

Size	Item #	Price
1/2"	4858-005SR	\$24.27
3/4"	4858-007SR	26.44
1"	4858-010SR	32.73
1 1/2"	4858-015SR	49.58
2"	4858-020SR	72.41



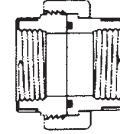
T.T. Bushing Mipt x Fipt

Size	Item #	Price
3/4" x 1/2"	4839-101	\$8.06
1" x 1/2"	4839-130	9.83
1" x 3/4"	4839-131	9.83
1 1/2" x 1"	4839-211	17.38
2" x 1"	4839-249	25.20
2" x 1 1/2"	4839-251	25.20



Flange SR Fipt

Size	Item #	Price
1/2"	4852-005SR	\$15.16
3/4"	4852-007SR	16.42
1"	4852-010SR	18.41
1 1/2"	4852-015SR	25.82
2"	4852-020SR	30.46



Union SR Fipt with EDPM O-ring

Size	Item #	Price
1/2"	4898-005SR	\$23.78
3/4"	4898-007SR	25.91
1"	4898-010SR	32.08
1 1/2"	4898-015SR	48.59
2"	4898-020SR	70.96



Cap SR Fipt

Size	Item #	Price
1/2"	4848-005SR	\$4.93
3/4"	4848-007SR	6.48
1"	4848-010SR	7.19
1 1/2"	4848-015SR	10.03
2"	4848-020SR	11.30



Blind Flange Fipt

Size	Item #	Price
1/2"	4853-005	\$25.37
3/4"	4853-007	26.20
1"	4853-010	27.80
1 1/2"	4853-015	53.80
2"	4853-020	58.64

## Low Torque AV Gaskets

### Quick Spec

#### Materials/Sizes:

- EPDM: 1/2" - 12"
  - PTFE-bonded EPDM: 1/2" - 12"
  - PVDF-bonded EPDM: 1/2" - 10"
- (Except 1 1/4" and 2 1/4")

**NEW**



#### STANDARD FEATURES

- EPDM — durometer A, hardness 65 - 68
- PTFE or PVDF-bonded EPDM for maximum corrosion resistance
- Perfect sealing at low bolt tightening torque ratings, longer gasket life
- Working temperature:
  - 1) EPDM: -40 to 195°F
  - 2) PTFE-bonded: -40 to 250°F
  - 3) PVDF-bonded: -40 to 250°F
- Ideal for plastic piping systems, as well as metal or plastic-lined metal systems
- Approximately a 1/2 bolt tightening torque ratings as compared with flat or envelope type gasket
- Thickness of bonded materials
  - PTFE: All Sizes: 0.016" (0.4mm)
  - PVDF: Sizes 1/2" - 2": 0.016" (0.4mm)
  - PVDF: Sizes 3" - 10": 0.020" (0.5mm)

All AV Gaskets shall be of low torque, full face to ANSI B16.5 dimensions and shall have two concentric, convex, molded rings between center hole and bolt hole circle in EPDM, PTFE-bonded EPDM or PVDF-bonded EPDM, as manufactured by Asahi/America, Inc.

#### Recommended Bolt Torque\*

Nominal Size	mm	PTFE PVDF	EPDM
1/2	15	174	157
3/4	20	174	157
1	25	174	157
1 1/4	30	191	165
1 1/2	40	217	174
2	50	217	174
2 1/2	65	304	217
3	80	304	217
4	100	304	217
6	150	348	260
8	200	435	304
10	250	435	304
12	300	522	435

\*Expressed in Inch-Pounds

#### AV Gaskets

Size	EPDM (3113)	Teflon (3114)	PVDF (3115)
1/2 (005)	\$2.11	\$6.33	\$10.56
3/4 (007)	2.11	7.39	12.17
1 (010)	2.11	8.44	12.17
1 1/4 (012)	2.11	10.56	NA
1 1/2 (015)	2.11	10.56	14.78
2 (020)	3.17	12.67	16.89
2 1/2 (025)	3.17	14.78	NA
3 (030)	3.17	19.00	26.39
4 (040)	5.28	22.17	31.67
6 (060)	6.33	33.78	45.39
8 (080)	8.44	42.22	76.00
10 (100)	12.17	49.61	84.44
12 (120)	12.17	61.22	NA

## Black Polypropylene Threaded Fittings (Schedule 80)

(PP) Chemtrol Black and Natural PP, as specified in ASTM D4101, is a member of the polyolefin family of plastics. Although PP has less physical strength than PVC, it is chemically resistant to organic solvents as well as acids and alkalis. Generally, polypropylene should not be used in contact with strong oxidizing acids, chlorinated hydrocarbons and aromatics. Polypropylene has gained wide acceptance where its resistance to sulfur-bearing compounds is particularly useful in salt water disposal lines, crude oil piping, and low

pressure gas gathering systems. With a maximum service temperature of 180°F, PP has proved to be an excellent material for laboratory and industrial drainage where mixtures of acids, bases and solvents are involved. All polyolefins are severely degraded by ultraviolet (UV) radiation and are not recommended for application involving direct sunlight.

Polypropylene is joined by the thermo-seal fusion process, threading or flanging.

**Chemtrol®**  
A DIVISION OF NISCO INC.



**Threaded Flange**

Size (in.)	Item #	Price
1/2	07044007	<b>\$14.78</b>
3/4	07044008	<b>15.99</b>
1	07044009	<b>17.93</b>
1 1/4	07044010	<b>24.64</b>
1 1/2	07044011	<b>25.16</b>
2	07044012	<b>29.67</b>
3	07044014	<b>72.33</b>
4	07044016	<b>99.71</b>



**Threaded Tee**

Size in.	Item #	Price
1/2	07014007	<b>\$6.59</b>
3/4	07014008	<b>7.33</b>
1	07014009	<b>8.69</b>
1 1/4	07014010	<b>10.61</b>
1 1/2	07014011	<b>12.87</b>
2	07014012	<b>17.09</b>
3	07014014	<b>85.76</b>
4	07014016	<b>130.87</b>



**Threaded Plug**

Size in.	Item #	Price
1/2	07043007	<b>\$5.84</b>
3/4	07043008	<b>6.16</b>
1	07043009	<b>6.82</b>
1 1/4	07043010	<b>11.76</b>
1 1/2	07043011	<b>13.92</b>
2	07043012	<b>18.42</b>
3	07043014	<b>24.54</b>
4	07043016	<b>31.80</b>



**Nipples**

	Length-Close		Length-Short		Length-3"		Length-4"		Length-5"		Length-6"	
Size in.	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
½	07053148	<b>\$1.37</b>	07053149	<b>\$1.56</b>	07053151	<b>\$2.03</b>	07053153	<b>\$2.34</b>	07053155	<b>\$2.67</b>	07053157	<b>\$3.01</b>
¾	07053161	<b>1.91</b>	07053162	<b>2.03</b>	07053164	<b>2.46</b>	07053166	<b>2.84</b>	07053168	<b>3.56</b>	07053170	<b>3.94</b>
1	07053174	<b>2.37</b>	07053175	<b>2.57</b>	07053177	<b>3.17</b>	07053179	<b>3.77</b>	07053181	<b>4.41</b>	07053183	<b>5.04</b>
1¼	07053201	<b>2.61</b>	07053202	<b>3.53</b>	07053204	<b>3.89</b>	07053206	<b>4.57</b>	07053208	<b>5.29</b>	07053210	<b>5.96</b>
1½	07053213	<b>2.82</b>	07053214	<b>4.00</b>	07053216	<b>4.33</b>	07053218	<b>5.14</b>	07053220	<b>6.17</b>	07053222	<b>6.94</b>
2	07053226	<b>3.70</b>	07053227	<b>4.74</b>	07053229	<b>5.29</b>	07053231	<b>6.38</b>	07053300	<b>7.69</b>	07053235	<b>8.72</b>
3	07053248	<b>9.68</b>	07053249	—	—	—	07053251	<b>13.12</b>	07053299	<b>15.30</b>	07053252	<b>17.46</b>
4	07053256	<b>13.80</b>	07053257	—	—	—	—	—	07053298	<b>20.42</b>	07053260	<b>23.54</b>



**Threaded Cap**

Size in.	Item #	Price
1/2	07032007	<b>\$4.82</b>
3/4	07032008	<b>6.36</b>
1	07032009	<b>7.00</b>
1 1/4	07032010	<b>9.18</b>
1 1/2	07032011	<b>9.77</b>
2	07032012	<b>11.00</b>
3	07032014	<b>35.81</b>
4	07032016	<b>42.19</b>

**HUGE INVENTORY**



**Threaded Union**

Size in.	Item #	Price
1/2	07029007	<b>\$23.24</b>
3/4	07029008	<b>25.42</b>
1	07029009	<b>31.29</b>
1 1/4	07029010	<b>41.04</b>
1 1/2	207029011	<b>47.41</b>
2	07029012	<b>69.20</b>



**Flange Gaskets –**  
See page 112.



**Bushings THD. x THD.**

Size in.	Item #	Price
3/4 x 1/2	07050031	<b>\$7.88</b>
1 x 1/2	07050034	<b>9.59</b>
1 x 3/4	07050035	<b>9.59</b>
1 1/4 x 1	07050040	<b>16.92</b>
1 1/2 x 1	07050045	<b>16.92</b>
1 1/2 x 1 1/4	07050046	<b>16.92</b>
2 x 1	07050051	<b>24.50</b>
2 x 1 1/2	07050053	<b>24.50</b>
3 x 2	07050069	<b>25.38</b>
4 x 3	07050076	<b>38.91</b>



**Threaded Coupling**

Size in.	Item #	Price
1/2	07026007	<b>\$5.10</b>
3/4	07026008	<b>6.36</b>
1	07026009	<b>7.00</b>
1 1/4	07026010	<b>8.18</b>
1 1/2	07026011	<b>9.18</b>
2	07026012	<b>11.00</b>
3	07026014	<b>24.40</b>
4	07026016	<b>49.47</b>



**Threaded 90° Elbow**

Size in.	Item #	Price
1/2	07002007	<b>\$5.37</b>
3/4	07002008	<b>6.51</b>
1	07002009	<b>8.04</b>
1 1/4	07002010	<b>9.51</b>
1 1/2	07002011	<b>10.88</b>
2	07002012	<b>14.79</b>
3	07002014	<b>52.33</b>
4	07002016	<b>73.66</b>



**Threaded 45° Elbow**

Size in.	Item #	Price
1/2	07008007	<b>\$6.59</b>
3/4	07008008	<b>7.56</b>
1	07008009	<b>8.01</b>
1 1/4	07008010	<b>9.43</b>
1 1/2	07008011	<b>10.88</b>
2	07008012	<b>14.79</b>
3	07008014	<b>65.43</b>
4	07008016	<b>105.82</b>



**Pipe**

Nominal Pipe Size (in.)	Outside Diam. (in.)	Inside Diam. (in.)	Item #	Price/Ft.
1/2	.840	0.546	46000007	<b>\$1.60</b>
3/4	1.050	0.742	46000008	<b>1.96</b>
1	1.315	0.957	46000009	<b>2.92</b>
1 1/4	1.660	1.278	46000010	<b>3.59</b>
1 1/2	1.900	1.500	46000011	<b>3.70</b>
2	2.375	1.939	46000012	<b>4.56</b>
3	3.500	2.900	46000014	<b>9.07</b>
4	4.500	3.826	46000016	<b>13.44</b>
6	6.625	5.761	46000018	<b>27.26</b>



**Ball Valve w/Viton O-Rings & Teflon® Seats**

(Max. Temp. 185°F @ 50 psi)

Size in.	Threaded Item #	Price
1/2	24598007	<b>\$46.03</b>
3/4	24598008	<b>54.24</b>
1	24598009	<b>68.29</b>
1 1/4	24598010	<b>114.64</b>
1 1/2	24598011	<b>114.64</b>
2	24598012	<b>154.00</b>
3	24598013	<b>400.40</b>
4	24598014	<b>631.61</b>

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**USCO 103**

Pipe & Fittings



## Red & Natural PVDF (Kynar®) Schedule 80 Threaded Pipe, Valves & Fittings

**PVDF (Polyvinylidene Fluoride)** is a strong, tough, and abrasion resistant fluorocarbon material. It resists distortion and retains most of its strength to 280°F. It is chemically resistant to most acids, bases, and organic solvents and is ideally suited for handling wet or dry chlorine, bromine and other halogens. No other solid thermoplastic piping components can approach the combination of strength, chemical resistance and working temperatures of PVDF. PVDF is joined by the thermo-seal fusion process, threading or flanging.



**Reducer Bushing – M.P.T. x F.P.T.**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
3/4 x 1/2	3839101	\$20.46	4839101	\$21.43
1 x 1/2	3839130	20.46	4839130	21.43
1 x 3/4	3839131	21.36	4839131	21.56
1 1/2 x 1	3839211	27.83	4839211	29.18
2 x 1	3839249	40.90	4839249	42.86
2 x 1 1/2	3839251	40.90	4839251	42.86



**Coupling – Threaded**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
1/2	3830005	\$19.22	4830005	\$20.13
3/4	3830007	21.37	4830007	22.39
1	3830010	28.99	4830010	30.38
1 1/2	3830015	38.92	4830015	40.79
2	3830020	64.31	4830020	67.33



**45° Elbow – Threaded**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
1/2	3819005	\$21.52	4819005	\$22.57
3/4	3819007	31.56	4819007	46.54
1	3819010	36.28	4819010	38.00
1 1/2	3819015	55.88	4819015	58.28
2	3819020	76.59	4819020	80.27



**90° Elbow – Threaded**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
1/2	3808005	\$21.52	4808005	\$22.57
3/4	3808007	25.17	4808007	26.38
1	3808010	36.28	4808010	38.00
1 1/2	3808015	55.88	4808015	58.53
2	3808020	76.59	4808020	80.82



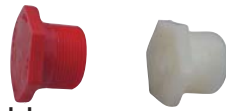
**Tee – Threaded**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
1/2	3805005	\$24.61	4805005	\$25.81
3/4	3805007	28.32	4805007	29.67
1	3805010	44.54	4805010	46.67
1 1/2	3805015	71.83	4805015	75.22
2	3805020	98.46	4805020	103.17



**TRU-BLOC™ Ball Valve Viton® O-Rings Teflon® Seats**

Size	PVDF - RED Threaded Item #	PVDF - RED Threaded Price	PVDF - NATURAL Threaded Item #	PVDF - NATURAL Threaded Price
1/2	27598007	\$95.82	T66TBV005	\$104.38
3/4	27598008	136.03	T66TBV007	141.17
1	27598009	195.92	T66TBV010	204.48
1 1/2	27598011	341.37	T66TBV015	356.77
2	27598012	467.99	T66TBV020	490.23



**Plug – Threaded**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
1/2	3850005	\$23.74	4850005	\$24.90
3/4	3850007	26.23	4850007	27.49
1	3850010	29.61	4850010	31.02
1 1/2	3850015	45.30	4850015	47.46
2	3850020	55.89	4850020	58.32



**Union – Threaded**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
1/2	3898005	\$47.39	4898005	\$49.53
3/4	3898007	62.31	4898007	65.23
1	3898010	89.62	4898010	93.16
1 1/2	3898015	140.92	4898015	147.63
2	3898020	192.38	4898020	202.43



**Red/Natural PVDF Nipple Threaded Both Ends**

Nom. Pipe Size (In.)	Price	Close	Short	Length (inches)			
1/2	Red Item #	KNAR3148	KNAR3149	3	4	5	6
	Price	\$10.34	\$11.59	KNAR3151	KNAR3153	KNAR3154	KNAR3155
3/4	Red Item #	KNAT3148	KNAT3149	3	4	5	6
	Price	10.39	12.14	KNAT3151	KNAT3153	KNAT3154	KNAT3155
1	Red Item #	KNAR3161	KNAR3162	3	4	5	6
	Price	12.72	14.13	KNAR3164	KNAR3166	KNAR3168	KNAR3170
1 1/2	Red Item #	KNAT3161	KNAT3162	3	4	5	6
	Price	13.37	14.82	KNAT3164	KNAT3166	KNAT3168	KNAT3170
2	Red Item #	KNAR3174	KNAR3175	3	4	5	6
	Price	15.50	17.87	KNAR3177	KNAR3179	KNAR3181	KNAR3183
2 1/2	Red Item #	KNAT3174	KNAT3175	3	4	5	6
	Price	16.66	18.74	KNAT3177	KNAT3179	KNAT3181	KNAT3183
3	Red Item #	KNAR3213	KNAR3214	3	4	5	6
	Price	25.34	26.50	KNAR3216	KNAR3217	KNAR3218	KNAR3219
4	Red Item #	Call for Part #	Call for Part #	3	4	5	6
	Price	27.63	46.11	55.96	69.79	85.56	101.81
6	Red Item #	Call for Part #	Call for Part #	3	4	5	6
	Price	29.02	41.97	48.41	73.24	89.83	107.80

\*For threaded one end or any length nipples, please call customer service.  
Red Kynar® pipe is pigmented to resist ultra-violet attack when handling high concentrations of halogens.  
Chemtrol's pipe is completely compatible to Chemtrol's line of Kynar® fittings and valves.  
Socket Fusion available through 6".



**Chemtrol®**  
A DIVISION OF NISCO INC.

**Pipe**

Size	PVDF - RED Item #	PVDF - RED Price/Ft.	PVDF - NATURAL Item #	PVDF - NATURAL Price/Ft.
1/2	KNAR0007	\$10.42	6600007	\$10.91
3/4	KNAR0008	13.78	6600008	14.39
1	KNAR0009	20.22	6600009	21.16
1 1/2	KNAR0011	24.14	6600011	34.42
2	KNAR0012	44.82	6600012	46.39



**Cap – Threaded**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
1/2	3848005	\$17.39	4848005	\$18.22
3/4	3848007	20.08	4848007	21.01
1	3848010	24.70	4848010	25.88
1 1/2	3848015	38.59	4848015	40.43
2	3848020	52.32	4848020	54.83

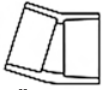


**Flange – Threaded (Heavy Duty – Solid Style)**

Pipe Size (In.)	Red Item #	Red Price	Natural Item #	Natural Price
1/2	3852H05	\$36.44	4852H05	\$38.20
3/4	3852H07	44.82	4852H07	46.94
1	3852H10	71.14	4852H10	74.58
1 1/2	3852H15	93.18	4852H15	97.62
2	3852H20	147.63	4852H20	155.47



**Flange Gaskets – See page 112.**

**22 1/2° Street El Soc**

Item #	Size in.	Price
416-005	1/2	<b>\$41</b>
416-007	3/4	<b>.63</b>
416-010	1	<b>.77</b>
416-012	1 1/4	<b>1.07</b>
416-015	1 1/2	<b>1.34</b>
416-020	2	<b>1.76</b>
416-030	3	<b>7.08</b>
416-040	4	<b>12.71</b>

**Cross Soc**

Item #	Size in.	Price
420-005	1/2	<b>\$67</b>
420-007	3/4	<b>1.11</b>
420-010	1	<b>1.39</b>
420-012	1 1/4	<b>1.83</b>
420-015	1 1/2	<b>2.07</b>
420-020	2	<b>3.06</b>
420-025	2 1/2	<b>6.48</b>
420-030	3	<b>7.94</b>
420-040	4	<b>11.77</b>

**Coupling Soc**

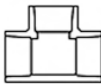
Item #	Size in.	Price
429-005	1/2	<b>\$11</b>
429-007	3/4	<b>.16</b>
429-010	1	<b>.28</b>
429-012	1 1/4	<b>.38</b>
429-015	1 1/2	<b>.41</b>
429-020	2	<b>.63</b>
429-025	2 1/2	<b>1.39</b>
429-030	3	<b>2.17</b>
429-040	4	<b>3.13</b>

**Reducer Bushing Mipt x Fipt**

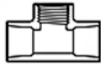
Item #	Size in.	Price
439-052	3/8 x 1/2	<b>\$83</b>
439-071	1/2 x 3/4	<b>.83</b>
439-072	1/2 x 1	<b>.83</b>
439-073	1/2 x 1 1/4	<b>.83</b>
439-098	3/4 x 1	<b>.51</b>
439-099	3/4 x 1 1/4	<b>.51</b>
439-101	3/4 x 1 1/2	<b>.51</b>
439-130	1 x 1 1/4	<b>.72</b>
439-131	1 x 1 1/2	<b>.72</b>
439-166	1 1/4 x 1 1/2	<b>1.07</b>
439-167	1 1/4 x 1 3/4	<b>1.07</b>
439-168	1 1/4 x 1	<b>1.07</b>
439-209	1 1/2 x 1 1/4	<b>1.29</b>
439-210	1 1/2 x 1 1/2	<b>1.29</b>
439-211	1 1/2 x 1	<b>1.29</b>
439-212	1 1/2 x 1 1/4	<b>1.29</b>
439-248	2 x 3/4	<b>1.39</b>
439-249	2 x 1	<b>1.39</b>
439-250	2 x 1 1/4	<b>1.39</b>
439-251	2 x 1 1/2	<b>1.39</b>
439-292	2 1/2 x 2	<b>4.83</b>
439-338	3 x 2	<b>5.71</b>
439-339	3 x 2 1/2	<b>5.71</b>

**PVC-40 White Pipe (20 ft. lengths)**

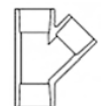
Item #	Size in.	Description	Price/ft.
15287	1/2	PVC WHT S40	<b>\$27</b>
15288	3/4	PVC WHT S40	<b>.36</b>
15289	1	PVC WHT S40	<b>.54</b>
15290	1 1/4	PVC WHT S40	<b>.70</b>
15263	1 1/2	PVC DWV S40	<b>.76</b>
15264	2	PVC DWV S40	<b>1.01</b>
15265	3	PVC DWV S40	<b>2.10</b>
15266	4	PVC DWV S40	<b>2.90</b>

**Tee Soc**

Item #	Size in.	Price
401-003	3/8	<b>\$68</b>
401-005	1/2	<b>.21</b>
401-007	3/4	<b>.24</b>
401-010	1	<b>.47</b>
401-012	1 1/4	<b>.73</b>
401-015	1 1/2	<b>.89</b>
401-020	2	<b>1.29</b>
401-025	2 1/2	<b>4.27</b>
401-030	3	<b>5.60</b>
401-040	4	<b>10.13</b>

**Tee Soc x Fipt**

Item #	Size in.	Price
402-003	3/8	<b>\$69</b>
402-005	1/2	<b>.29</b>
402-007	3/4	<b>.44</b>
402-010	1	<b>.83</b>
402-012	1 1/4	<b>1.31</b>
402-015	1 1/2	<b>1.71</b>
402-020	2	<b>2.18</b>
402-025	2 1/2	<b>6.61</b>
402-030	3	<b>8.43</b>
402-040	4	<b>12.88</b>

**Wye Soc**

Item #	Size in.	Price
475-005	1/2	<b>\$74</b>
475-007	3/4	<b>1.18</b>
475-010	1	<b>1.64</b>
475-012	1 1/4	<b>2.53</b>
475-015	1 1/2	<b>3.26</b>
475-020	2	<b>9.76</b>
475-025	2 1/2	<b>22.29</b>
475-030	3	<b>16.43</b>
475-040	4	<b>30.99</b>

1/2" - 2 1/2" - 235 psi and 3" - 6" - 150 psi  
Maximum Internal Pressure Rating @ 73°F

**PVC Schedule 40 White Fittings**

- Full 1/2" - 12" Availability
- Higher Flow Capacity

SPEARS® Schedule 40 PVC fitting designs combine years of proven experience with computer generated stress analysis to yield the optimum physical structure and performance for each fitting. Material reinforcement is uniformly placed in stress concentration areas for substantially improved pressure handling capability. Resulting products are subjected to numerous verification tests to assure the very best PVC fittings available.

*Performance Engineered & Tested*



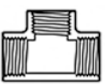
**NEW**

**90° El Soc**

Item #	Size in.	Price
406-003	3/8	<b>\$88</b>
406-005	1/2	<b>.18</b>
406-007	3/4	<b>.20</b>
406-010	1	<b>.36</b>
406-012	1 1/4	<b>.62</b>
406-015	1 1/2	<b>.67</b>
406-020	2	<b>1.04</b>
406-025	2 1/2	<b>3.19</b>
406-030	3	<b>3.81</b>
406-040	4	<b>6.82</b>

**90° El Soc x Fipt**

Item #	Size in.	Price
407-005	1/2	<b>\$21</b>
407-007	3/4	<b>.24</b>
407-010	1	<b>.47</b>
407-012	1 1/4	<b>.79</b>
407-015	1 1/2	<b>.87</b>
407-020	2	<b>2.24</b>
407-025	2 1/2	<b>5.54</b>
407-030	3	<b>8.30</b>
407-040	4	<b>12.59</b>

**Tee Fipt**

Item #	Size in.	Price
405-005	1/2	<b>\$80</b>
405-007	3/4	<b>1.26</b>
405-010	1	<b>1.73</b>
405-012	1 1/4	<b>2.40</b>
405-015	1 1/2	<b>2.48</b>
405-020	2	<b>3.28</b>
405-025*	2 1/2	<b>11.68</b>

\*Outlet sized with Bushing

**90° Street El Spig x Soc**

Item #	Size in.	Price
409-005	1/2	<b>\$49</b>
409-007	3/4	<b>.60</b>
409-010	1	<b>1.04</b>
409-012	1 1/4	<b>1.26</b>
409-015	1 1/2	<b>1.39</b>
409-020	2	<b>2.67</b>
409-025	2 1/2	<b>4.79</b>
409-030	3	<b>5.91</b>
409-040	4	<b>10.99</b>

**90° El Fipt**

Item #	Size in.	Price
408-005	1/2	<b>\$42</b>
408-007	3/4	<b>.63</b>
408-010	1	<b>1.33</b>
408-012	1 1/4	<b>1.43</b>
408-015	1 1/2	<b>1.80</b>
408-020	2	<b>2.74</b>

**45° El Soc**

Item #	Size in.	Price
417-005	1/2	<b>\$29</b>
417-007	3/4	<b>.44</b>
417-010	1	<b>.53</b>
417-012	1 1/4	<b>.74</b>
417-015	1 1/2	<b>.94</b>
417-020	2	<b>1.22</b>
417-025	2 1/2	<b>3.19</b>
417-030	3	<b>4.96</b>
417-040	4	<b>8.89</b>

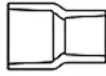
**45° Street El Spig x Soc**

Item #	Size in.	Price
427-005	1/2	<b>\$29</b>
427-007	3/4	<b>.44</b>
427-010	1	<b>.53</b>
427-012	1 1/4	<b>.74</b>
427-015	1 1/2	<b>.94</b>
427-020	2	<b>1.22</b>
427-025	2 1/2	<b>3.99</b>
427-030	3	<b>4.96</b>
427-040	4	<b>8.89</b>

**Coupling Fipt**

Item #	Size in.	Price
430-005	1/2	<b>\$22</b>
430-005G	1/2	<b>.24</b>
430-007	3/4	<b>.41</b>
430-010	1	<b>.53</b>
430-012	1 1/4	<b>1.81</b>

## PVC Schedule 40 White Fittings (cont.)

**NEW****Reducer Coupling**

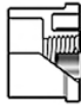
Item #	Size in.	Price
429-101	¼ x ½	<b>\$2.29</b>
429-130	1 x ½	<b>.69</b>
429-131	1 x ¾	<b>.49</b>
429-166	1½ x ½	<b>1.30</b>
429-167	1½ x ¾	<b>1.30</b>
429-168	1½ x 1	<b>.83</b>
429-209	1½ x ½	<b>1.09</b>
429-210	1½ x ¾	<b>.88</b>
429-211	1½ x 1	<b>1.36</b>
429-212	1½ x 1½	<b>.88</b>
429-247	2 x ½	<b>1.91</b>
429-248	2 x ¾	<b>1.91</b>
429-249	2 x 1	<b>1.86</b>
429-250	2 x 1½	<b>1.91</b>
429-251	2 x 1¾	<b>1.40</b>
429-291	2½ x 1½	<b>3.73</b>
429-292	2½ x 2	<b>2.87</b>
429-335	3 x 1	<b>8.47</b>
429-337	3 x 1½	<b>8.47</b>
429-338	3 x 2	<b>7.51</b>
429-339	3 x 2½	<b>6.37</b>
429-416	4 x ¾	<b>9.82</b>
429-417	4 x 1	<b>15.60</b>
429-420	4 x 2	<b>9.10</b>
429-421	4 x 2½	<b>11.46</b>
429-422	4 x 3	<b>9.38</b>

**Reducer Bushing  
Flush Style Spig x Soc**

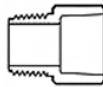
Item #	Size in.	Price
437-072	½ x ¾	<b>\$3.33</b>
437-073	½ x 1	<b>.33</b>
437-101	¾ x ½	<b>.18</b>
437-130	1 x ½	<b>.33</b>
437-131	1 x ¾	<b>.33</b>
437-166	1½ x ½	<b>.44</b>
437-167	1½ x ¾	<b>.44</b>
437-168	1½ x 1	<b>.44</b>
437-209	1½ x ½	<b>.47</b>
437-210	1½ x ¾	<b>.47</b>
437-211	1½ x 1	<b>.47</b>
437-212	1½ x 1½	<b>.47</b>
437-247	2 x ½	<b>.79</b>
437-248	2 x ¾	<b>.79</b>
437-249	2 x 1	<b>.79</b>
437-250	2 x 1½	<b>.79</b>
437-251	2 x 1¾	<b>.79</b>
437-287	2½ x ½	<b>1.26</b>
437-288	2½ x ¾	<b>1.26</b>
437-289	2½ x 1	<b>1.26</b>
437-290	2½ x 1½	<b>1.26</b>
437-291	2½ x 1¾	<b>1.26</b>
437-292	2½ x 2	<b>1.26</b>
437-334	3 x ¾	<b>1.86</b>
437-335	3 x 1	<b>1.86</b>
437-336	3 x 1½	<b>1.86</b>
437-337	3 x 1¾	<b>1.86</b>
437-338	3 x 2	<b>1.86</b>
437-339	3 x 2½	<b>1.86</b>
437-420	4 x 2	<b>4.14</b>
437-421	4 x 2½	<b>4.14</b>
437-422	4 x 3	<b>4.14</b>

**Special Reinforced  
Female Adapter Soc x SR Fipt**

Item #	Size in.	Price
435-002SR	¼	<b>\$1.52</b>
435-003SR	¾	<b>1.52</b>
435-005SR	½	<b>.84</b>
435-007SR	¾	<b>1.23</b>
435-010SR	1	<b>1.83</b>
435-012SR	1½	<b>2.96</b>
435-015SR	1½	<b>3.63</b>
435-020SR	2	<b>6.34</b>
435-025SR	2½	<b>10.00</b>
435-030SR	3	<b>11.28</b>
435-040SR	4	<b>19.38</b>

**Special Reinforced Reducer Bushing  
Flush Style Spig x SR Fipt**

Item #	Size in.	Price
438-128SR	1 x ¾	<b>\$9.90</b>
438-209SR	1½ x ½	<b>2.29</b>
438-210SR	1½ x ¾	<b>2.29</b>
438-247SR	2 x ½	<b>2.80</b>
438-248SR	2 x ¾	<b>2.80</b>
438-249SR	2 x 1	<b>2.80</b>
438-334SR	3 x ¾	<b>10.99</b>
438-335SR	3 x 1	<b>10.99</b>
438-336SR	3 x ¾	<b>10.99</b>
438-337SR	3 x 1½	<b>10.99</b>

**Male Adapter Mipt x Soc**

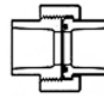
Item #	Size in.	Price
436-003	¾	<b>\$6.60</b>
436-005	½	<b>.16</b>
436-007	¾	<b>.18</b>
436-010	1	<b>.31</b>
436-012	1½	<b>.38</b>
436-015	1½	<b>.51</b>
436-020	2	<b>.67</b>
436-025	2½	<b>1.99</b>
436-030	3	<b>2.90</b>
436-040	4	<b>3.70</b>

**Cap Soc**

Item #	Size in.	Price
447-003	¾	<b>\$4.44</b>
447-005	½	<b>.16</b>
447-007	¾	<b>.18</b>
447-010	1	<b>.29</b>
447-012	1½	<b>.41</b>
447-015	1½	<b>.44</b>
447-020	2	<b>.53</b>
447-025	2½	<b>1.71</b>
447-030	3	<b>1.88</b>
447-040	4	<b>4.27</b>

**Plug Mipt**

Item #	Size in.	Price
450-003	¾	<b>\$4.49</b>
450-005	½	<b>.47</b>
450-007	¾	<b>.51</b>
450-010	1	<b>.83</b>
450-012	1½	<b>.87</b>
450-015	1½	<b>.93</b>
450-020	2	<b>1.21</b>
450-025	2½	<b>1.68</b>
450-030	3	<b>2.54</b>
450-040	4	<b>5.73</b>

**Union Soc w/EPDM O-ring Seal**

Item #	Size in.	Price
497-005	½	<b>\$1.89</b>
497-007	¾	<b>2.16</b>
497-010	1	<b>2.21</b>
497-012	1½	<b>7.12</b>
497-015	1½	<b>7.42</b>
497-020	2	<b>10.01</b>
497-025	2½	<b>14.01</b>
497-030	3	<b>22.34</b>
497-040	4	<b>30.07</b>

150 psi @ 73°F

**Union Fipt w/EPDM O-ring Seal**

Item #	Size in.	Price
498-005	½	<b>\$2.11</b>
498-007	¾	<b>3.53</b>
498-010	1	<b>4.81</b>
498-012	1½	<b>8.27</b>
498-015	1½	<b>8.47</b>
498-020	2	<b>10.40</b>
498-025	2½	<b>14.56</b>
498-030	3	<b>23.47</b>
498-040	4	<b>31.62</b>

150 psi @ 73°F

**Female Adapter Soc x Fipt**

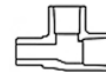
Item #	Size in.	Price
435-003	¾	<b>\$6.64</b>
435-005	½	<b>.20</b>
435-007	¾	<b>.24</b>
435-010	1	<b>.29</b>
435-012	1½	<b>.44</b>
435-015	1½	<b>.51</b>
435-020	2	<b>.69</b>
435-025	2½	<b>1.74</b>
435-030	3	<b>2.34</b>
435-040	4	<b>3.88</b>

**Reducer Bushing  
Flush Style Spig x Fipt**

Item #	Size in.	Price
438-071	½ x ½	<b>\$3.38</b>
438-072	½ x ¾	<b>.38</b>
438-073	½ x 1	<b>.38</b>
438-098	¾ x ¼	<b>.38</b>
438-101	¾ x ½	<b>.29</b>
438-127	1 x ½	<b>.47</b>
438-129	1 x ¾	<b>.47</b>
438-130	1 x 1	<b>.47</b>
438-131	1 x ¾	<b>.47</b>
438-166	1½ x ½	<b>.72</b>
438-167	1½ x ¾	<b>.72</b>
438-168	1½ x 1	<b>.72</b>
438-206	1½ x ¾	<b>.83</b>
438-207	1½ x 1	<b>.83</b>
438-209	1½ x ½	<b>.83</b>
438-210	1½ x ¾	<b>.83</b>
438-211	1½ x 1	<b>.83</b>
438-212	1½ x 1½	<b>.83</b>
438-245	2 x ¾	<b>1.11</b>
438-247	2 x 1	<b>1.11</b>
438-248	2 x ¾	<b>1.11</b>
438-249	2 x 1	<b>1.11</b>
438-250	2 x 1½	<b>1.11</b>
438-251	2 x 1¾	<b>1.11</b>
438-287	2½ x ½	<b>1.60</b>
438-288	2½ x ¾	<b>1.60</b>
438-289	2½ x 1	<b>1.60</b>
438-290	2½ x 1½	<b>1.60</b>
438-291	2½ x 1¾	<b>1.60</b>
438-292	2½ x 2	<b>1.60</b>
438-334	3 x ¾	<b>1.86</b>
438-335	3 x 1	<b>1.86</b>
438-336	3 x 1½	<b>1.86</b>
438-337	3 x 1¾	<b>1.86</b>
438-338	3 x 2	<b>1.86</b>
438-339	3 x 2½	<b>1.86</b>
438-420	4 x 2	<b>4.13</b>
438-421	4 x 2½	<b>4.13</b>
438-422	4 x 3	<b>4.13</b>

**Cap Fipt**

Item #	Size in.	Price
448-003	¾	<b>\$6.60</b>
448-005	½	<b>.33</b>
448-007	¾	<b>.38</b>
448-010	1	<b>.58</b>
448-012	1½	<b>.69</b>
448-015	1½	<b>.72</b>
448-020	2	<b>1.27</b>
448-025	2½	<b>1.88</b>
448-030	3	<b>2.46</b>
448-040	4	<b>4.30</b>

**Street Tee Spig x Soc x Soc**

Item #	Size in.	Price
444-005	½	<b>\$1.12</b>
444-007	¾	<b>1.50</b>
444-010	1	<b>1.93</b>
444-012	1½	<b>3.12</b>
444-015	1½	<b>4.30</b>
444-020	2	<b>7.49</b>



## Pipe



Item #	Nominal Pipe Size	Average O.D.	Average I.D.	Minimum Wall	Max. W.P. PSI*	Lbs./Ft.	Price Per Ft.
<b>Schedule 40</b>							
34000004C	¼"	.540	.354	.088	390	.081	<b>\$5.78</b>
34000005C	⅜"	.675	.483	.091	310	.109	<b>1.06</b>
34000007C	½"	.840	.608	.109	300	.161	<b>1.23</b>
34000008C	¾"	1.050	.810	.113	240	.214	<b>1.64</b>
34000009C	1"	1.315	1.033	.133	220	.315	<b>2.46</b>
34000010C	1¼"	1.660	1.364	.140	180	.426	<b>3.30</b>
34000011C	1½"	1.900	1.592	.145	170	.509	<b>3.96</b>
34000012C	2"	2.375	2.049	.154	140	.682	<b>5.33</b>
34000013C	2½"	2.875	2.445	.203	150	1.076	<b>8.41</b>
34000014C	3"	3.500	3.042	.216	130	1.409	<b>10.99</b>
34000015C	3½"	4.000	3.520	.226	120	1.697	<b>13.96</b>
34000016C	4"	4.500	3.998	.237	110	2.006	<b>16.54</b>
34000017C	**6" x ⅝"	6.625	6.355	.125	45	1.647	<b>19.19</b>
34000018C	6"	6.625	6.031	.280	90	3.535	<b>30.26</b>
34000019C	8"	8.625	7.943	.322	80	5.305	<b>45.36</b>

<b>Schedule 80</b>							
32000004C	¼"	.540	.288	.119	570	.100	<b>.77</b>
32000005C	⅜"	.675	.407	.126	460	.138	<b>1.07</b>
32000007C	½"	.840	.528	.147	420	.202	<b>1.56</b>
32000008C	¾"	1.050	.724	.154	340	.273	<b>2.11</b>
32000009C	1"	1.315	.935	.179	320	.402	<b>3.10</b>
32000010C	1¼"	1.660	1.256	.191	260	.554	<b>4.27</b>
32000011C	1½"	1.900	1.476	.200	240	.673	<b>5.19</b>
32000012C	2"	2.375	1.913	.218	200	.932	<b>7.19</b>
32000014C	3"	3.500	2.864	.300	190	1.903	<b>14.69</b>
32000016C	4"	4.500	3.786	.337	160	2.782	<b>21.58</b>

Standard Length - 10 Feet. Custom lengths and sizes available. All pipe is packed in polybags and boxed. This material complies with the provisions of Title 21 of the United States FDA Code of Federal Regulations, and is safe for use in food contact applications. Pipe has a UL 94 V-0 rating.

\* For water at 73.4 F. with solvent welded joints.

\*\* This Size does not meet schedule 40 criteria.



## Coupling (Slip x Slip)

Item #	Size	Price
429-002L	¼"	<b>\$3.53</b>
429-003L	⅜"	<b>3.53</b>
429-005L	½"	<b>2.63</b>
429-007L	¾"	<b>3.54</b>
429-010L	1"	<b>6.13</b>
429-012L	1¼"	<b>8.38</b>
429-015L	1½"	<b>8.99</b>
429-020L	2"	<b>14.02</b>
429-025L	2½"	<b>30.73</b>
429-030L	3"	<b>48.22</b>
429-040L	4"	<b>69.61</b>



## Reducer Bushing (Spig x Slip)

Item #	Size	Price
437-101L	¾" x ½"	<b>\$4.09</b>
437-131L	1" x ¾"	<b>7.51</b>
437-168L	1¼" x 1"	<b>9.89</b>
437-211L	1½" x 1"	<b>10.44</b>
437-212L	1½" x 1¼"	<b>10.44</b>
437-251L	2" x 1½"	<b>17.29</b>
437-292L	2½" x 2"	<b>27.81</b>
437-338L	3" x 2"	<b>41.27</b>
437-339L	3" x 2½"	<b>41.27</b>
437-422L	4" x 3"	<b>92.20</b>



## 45° Ell (Slip x Slip)

Item #	Size	Price
417-002L	¼"	<b>\$8.43</b>
417-003L	⅜"	<b>8.43</b>
417-005L	½"	<b>6.40</b>
417-007L	¾"	<b>9.89</b>
417-010L	1"	<b>11.88</b>
417-012L	1¼"	<b>16.80</b>
417-015L	1½"	<b>20.94</b>
417-020L	2"	<b>27.39</b>
417-025L	2½"	<b>70.96</b>
417-030L	3"	<b>110.14</b>
417-040L	4"	<b>197.83</b>



## Cap (slip)

Item #	Size	Price
447-002L	¼"	<b>\$4.74</b>
447-003L	⅜"	<b>4.74</b>
447-005L	½"	<b>3.54</b>
447-007L	¾"	<b>4.09</b>
447-010L	1"	<b>6.47</b>
447-012L	1¼"	<b>8.99</b>
447-015L	1½"	<b>9.89</b>
447-020L	2"	<b>11.92</b>
447-025L	2½"	<b>38.12</b>
447-030L	3"	<b>37.53</b>
447-040L	4"	<b>85.37</b>

## Clear PVC Pipe &amp; Fittings (Schedule 40)

Whatever your need for clear PVC pipe, Harvel Clear Schedule 40 and 80 Rigid pipe meets the toughest standards. Our clear pipe and fittings match or exceed the performance of copper, stainless steel, or glass — at a far lower cost than any alternative.



**Now Available!**  
Clear PVC  
SCH80 Pipe!



## Tee (Slip x Slip x Slip)

Item #	Size	Price
401-002L	¼"	<b>\$6.46</b>
401-003L	⅜"	<b>6.46</b>
401-005L	½"	<b>4.87</b>
401-007L	¾"	<b>5.54</b>
401-010L	1"	<b>10.40</b>
401-012L	1¼"	<b>16.32</b>
401-015L	1½"	<b>19.81</b>
401-020L	2"	<b>28.77</b>
401-025L	2½"	<b>94.86</b>
401-030L	3"	<b>124.40</b>
401-040L	4"	<b>225.21</b>

Female Adapter (Slip x Fipt)  
Stainless Steel Reinforced

Item #	Size	Price
435-002SRL	¼"	<b>\$7.40</b>
435-003SRL	⅜"	<b>7.40</b>
435-005SRL	½"	<b>4.39</b>
435-007SRL	¾"	<b>5.50</b>
435-010SRL	1"	<b>6.34</b>
435-012SRL	1¼"	<b>9.74</b>
435-015SRL	1½"	<b>11.42</b>
435-020SRL	2"	<b>15.40</b>
435-030SRL	3"	<b>52.22</b>
435-040SRL	4"	<b>86.38</b>



## 90° Ell (Slip x Slip)

Item #	Size	Price
406-002L	¼"	<b>\$5.26</b>
406-003L	⅜"	<b>5.26</b>
406-005L	½"	<b>3.97</b>
406-007L	¾"	<b>4.34</b>
406-010L	1"	<b>7.88</b>
406-012L	1¼"	<b>13.87</b>
406-015L	1½"	<b>14.73</b>
406-020L	2"	<b>23.34</b>
406-025L	2½"	<b>70.84</b>
406-030L	3"	<b>84.77</b>
406-040L	4"	<b>151.79</b>




## Male Adapter (Mipt x Slip)

Item #	Size	Price
436-003L	⅜"	<b>\$4.74</b>
436-005L	½"	<b>3.54</b>
436-007L	¾"	<b>3.97</b>
436-010L	1"	<b>6.97</b>
436-012L	1¼"	<b>8.40</b>
436-015L	1½"	<b>11.41</b>
436-020L	2"	<b>14.89</b>
436-025L	2½"	<b>44.17</b>
436-030L	3"	<b>64.52</b>
436-040L	4"	<b>82.28</b>

## Cement and Primer

Item #	Description	Price/Quart
10144	Clear Cement	<b>\$15.24</b>
10222	Clear Primer	<b>14.47</b>


## Gray Industrial PVC Schedule 40 Pressure Fittings and Pipe

Reducing Bushing  
Male Slip x Socket



Size in.	Item #	Price
1/2 x 3/8*	837-073	<b>\$ .93</b>
3/4 x 1/2	837-101	<b>.34</b>
1 x 1/2	837-130	<b>.96</b>
1 x 3/4	837-131	<b>.96</b>
1 1/4 x 1/2	837-166	<b>1.51</b>
1 1/4 x 3/4	837-167	<b>1.51</b>
1 1/4 x 1	837-168	<b>1.51</b>
1 1/2 x 1/2	837-209	<b>2.05</b>
1 1/2 x 3/4	837-210	<b>2.05</b>
1 1/2 x 1	837-211	<b>2.05</b>
1 1/2 x 1 1/4	837-212	<b>2.05</b>
2 x 1/2	837-247	<b>2.93</b>
2 x 3/4	837-248	<b>2.93</b>
2 x 1	837-249	<b>2.93</b>
2 x 1 1/4	837-250	<b>2.93</b>
2 x 1 1/2	837-251	<b>2.93</b>
2 1/2 x 1 1/4	837-290	<b>5.07</b>
2 1/2 x 1 1/2	837-291	<b>5.07</b>
2 1/2 x 2	837-292	<b>5.07</b>
3 x 1	837-335	<b>8.05</b>
3 x 1 1/4	837-336	<b>8.05</b>
3 x 1 1/2	837-337	<b>8.05</b>
3 x 2	837-338	<b>8.05</b>
3 x 2 1/2	837-339	<b>8.05</b>
4 x 2	837-420	<b>11.16</b>
4 x 3	837-422	<b>11.16</b>

Bushings are SCH80


## Reducing Bushing M.P.T. x F.P.T.




Size in.	Item #	Price
1/2 x 3/8*	839-073	<b>\$2.09</b>
3/4 x 1/4*	839-098	<b>1.57</b>
3/4 x 3/8*	839-099	<b>1.57</b>
3/4 x 1/2	839-101	<b>1.28</b>
1 x 1/4	839-128	<b>2.52</b>
1 x 3/8	839-129	<b>2.02</b>
1 x 1/2	839-130	<b>2.02</b>
1 x 3/4	839-131	<b>2.02</b>
1 1/4 x 1/2	839-166	<b>2.14</b>
1 1/4 x 3/4	839-167	<b>2.14</b>
1 1/4 x 1	839-168	<b>2.14</b>
1 1/2 x 1/2	839-209	<b>2.54</b>
1 1/2 x 3/4	839-210	<b>2.54</b>
1 1/2 x 1	839-211	<b>2.54</b>
1 1/2 x 1 1/4	839-212	<b>2.54</b>
2 x 1/2	839-247	<b>3.72</b>
2 x 3/4	839-248	<b>3.72</b>
2 x 1	839-249	<b>3.72</b>
2 x 1 1/4	839-250	<b>3.72</b>
2 x 1 1/2	839-251	<b>3.72</b>
2 1/2 x 2	839-292	<b>5.03</b>
3 x 1 1/2	839-337	<b>6.83</b>
3 x 2	839-338	<b>6.83</b>
3 x 2 1/2	839-339	<b>6.83</b>
4 x 2	839-420	<b>14.08</b>
4 x 3	839-422	<b>17.99</b>

45° Ell  
(Slip x Slip)


Item #	Size	Price
417-005G	1/2	<b>\$5.55</b>
417-007G	3/4	<b>.83</b>
417-010G	1	<b>1.00</b>
417-012G	1 1/4	<b>1.42</b>
417-015G	1 1/2	<b>1.77</b>
417-020G	2	<b>2.29</b>
417-025G	2 1/2	<b>5.96</b>
417-030G	3	<b>9.27</b>
417-040G	4	<b>16.64</b>

Fitting Adapter  
(Spig x Fipt)



Item #	Size	Price
478-005G	1/2	<b>\$4.42</b>
478-007G	3/4	<b>.48</b>
478-010G	1	<b>.78</b>
478-012G	1 1/4	<b>1.25</b>
478-015G	1 1/2	<b>1.55</b>
478-020G	2	<b>1.93</b>
478-030G	3	<b>6.65</b>
478-040G	4	<b>11.02</b>

Reducing Bushing  
Male Slip x F.P.T.


Size in.	Item #	Price
1/2 x 3/8	838-073	<b>\$ .93</b>
3/4 x 1/4	838-098	<b>.61</b>
3/4 x 3/8	838-099	<b>.61</b>
3/4 x 1/2	838-101	<b>.61</b>
1 x 1/2	838-129	<b>.96</b>
1 x 3/4	838-130	<b>.96</b>
1 x 1 1/4	838-131	<b>.96</b>
1 1/4 x 1/2	838-166	<b>1.95</b>
1 1/4 x 3/4	838-167	<b>1.95</b>
1 1/4 x 1	838-168	<b>1.95</b>
1 1/2 x 1/2	838-209	<b>2.44</b>
1 1/2 x 3/4	838-210	<b>2.44</b>
1 1/2 x 1	838-211	<b>2.44</b>
1 1/2 x 1 1/4	838-212	<b>2.44</b>
2 x 1/2	838-247	<b>2.99</b>
2 x 3/4	838-248	<b>2.99</b>
2 x 1	838-249	<b>2.99</b>
2 x 1 1/4	838-250	<b>2.99</b>
2 x 1 1/2	838-251	<b>2.99</b>
2 1/2 x 1/2	838-287	<b>6.33</b>
2 1/2 x 3/4	838-288	<b>6.33</b>
2 1/2 x 1	838-289	<b>6.33</b>
2 1/2 x 1 1/4	838-290	<b>6.33</b>
2 1/2 x 1 1/2	838-291	<b>6.33</b>
2 1/2 x 2	838-292	<b>6.33</b>
3 x 3/4	838-334	<b>11.71</b>
3 x 1	838-335	<b>11.71</b>
3 x 1 1/4	838-336	<b>11.71</b>
3 x 1 1/2	838-337	<b>11.71</b>
3 x 2	838-338	<b>11.71</b>
3 x 2 1/2	838-339	<b>11.71</b>
4 x 2	838-420	<b>17.99</b>
4 x 2 1/2	838-421	<b>17.99</b>
4 x 3	838-422	<b>17.99</b>


Bushings are SCH80

## Tee (Slip x Slip x Slip)




Item #	Size	Price
401-005G	1/2	<b>\$4.41</b>
401-007G	3/4	<b>.46</b>
401-010G	1	<b>.87</b>
401-012G	1 1/4	<b>1.37</b>
401-015G	1 1/2	<b>1.67</b>
401-020G	2	<b>2.41</b>
401-025G	2 1/2	<b>7.98</b>
401-030G	3	<b>10.47</b>
401-040G	4	<b>18.95</b>

## Cap (Slip)




Item #	Size	Price
447-003G	3/8	<b>\$5.83</b>
447-005G	1/2	<b>.31</b>
447-007G	3/4	<b>.35</b>
447-010G	1	<b>.55</b>
447-012G	1 1/4	<b>.76</b>
447-015G	1 1/2	<b>.83</b>
447-020G	2	<b>1.00</b>
447-025G	2 1/2	<b>3.21</b>
447-030G	3	<b>3.51</b>
447-040G	4	<b>7.98</b>

## Male Adapter (Mipt x Slip)



Item #	Size	Price
436-005G	1/2	<b>\$2.29</b>
436-007G	3/4	<b>.33</b>
436-010G	1	<b>.58</b>
436-012G	1 1/4	<b>.71</b>
436-015G	1 1/2	<b>.97</b>
436-020G	2	<b>1.24</b>
436-025G	2 1/2	<b>3.72</b>
436-030G	3	<b>5.43</b>
436-040G	4	<b>6.92</b>
436-074G	1/2 x 3/4	<b>.58</b>
436-101G	3/4 x 1/2	<b>.54</b>

## Female Adapter (Slip x Fipt)




Item #	Size	Price
435-005G	1/2	<b>\$3.37</b>
435-007G	3/4	<b>.46</b>
435-010G	1	<b>.55</b>
435-012G	1 1/4	<b>.83</b>
435-015G	1 1/2	<b>.97</b>
435-020G	2	<b>1.31</b>
435-025G	2 1/2	<b>3.26</b>
435-030G	3	<b>4.39</b>
435-040G	4	<b>7.26</b>
435-101G	3/4 x 1/2	<b>.66</b>
435-131G	1 x 3/4	<b>.87</b>

HARVEL

Can be cut to ship US


## Pipe



Size in.	O.D.	Min. Wall	Item #	Price/foot
1/2	.840	.109	34000007	<b>\$3.36</b>
3/4	1.050	.113	34000008	<b>.47</b>
1	1.315	.133	34000009	<b>.69</b>
1 1/4	1.660	.140	34000010	<b>.93</b>
1 1/2	1.900	.145	34000011	<b>1.10</b>
2	2.375	.154	34000012	<b>1.48</b>
2 1/2	2.875	.203	34000013	<b>2.96</b>
3	3.500	.216	34000014	<b>3.04</b>
4	4.500	.237	34000016	<b>4.33</b>
6	6.625	.280	34000018	<b>7.64</b>
8	8.625	.322	34000019	<b>11.48</b>


Note: Schedule 40 pipe is sold in 20 foot sections

## 90° Ell (Slip x Slip)




Item #	Size	Price
406-003G	3/8	<b>\$1.64</b>
406-005G	1/2	<b>.33</b>
406-007G	3/4	<b>.37</b>
406-010G	1	<b>.66</b>
406-012G	1 1/4	<b>1.17</b>
406-015G	1 1/2	<b>1.23</b>
406-020G	2	<b>1.98</b>
406-025G	2 1/2	<b>5.96</b>
406-030G	3	<b>7.14</b>
406-040G	4	<b>12.77</b>

## Coupling (Slip x Slip)



Item #	Size	Price
429-005G	1/2	<b>\$2.21</b>
429-007G	3/4	<b>.31</b>
429-010G	1	<b>.52</b>
429-012G	1 1/4	<b>.71</b>
429-015G	1 1/2	<b>.76</b>
429-020G	2	<b>1.19</b>
429-025G	2 1/2	<b>2.58</b>
429-030G	3	<b>4.05</b>
429-040G	4	<b>5.85</b>

## Cross (Soc)



Item #	Size	Price
420-005G	1/2	<b>\$1.24</b>
420-007G	3/4	<b>2.06</b>
420-010G	1	<b>2.58</b>
420-012G	1 1/4	<b>3.41</b>
420-015G	1 1/2	<b>3.87</b>
420-020G	2	<b>5.72</b>
420-025G	2 1/2	<b>12.13</b>
420-030G	3	<b>14.86</b>
420-040G	4	<b>22.03</b>

108 USCO

JAPD

Best Price, Best Quality and Best Service

## PVC & CPVC Schedule 80 Expansion Joint Repair Couplings

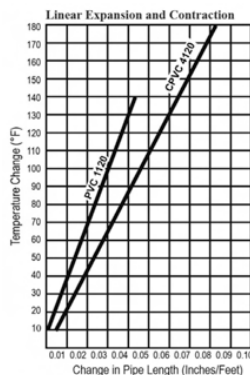
Linear expansion and contraction from temperature fluctuations can be a major problem in thermoplastic piping systems. Forces left uncontrolled can literally tear systems apart. Spears® Expansion Joint allows a telescoping movement of an inner pipe within a firmly mounted outer tube to eliminate such damage.

### CPVC Schedule 80 Pipe

Note: Pipe sold in 20 foot sections.



Nominal Pipe Size (In.)	Max. W.P. @73.4°F Type I	Outside Diam. (In.)	Min. Wall Thickness (In.)	Item #	Price/Ft.
1/4	1130	.540	.119	42000004	<b>\$1.36</b>
3/8	920	.675	.126	42000005	<b>1.87</b>
1/2	850	.840	.147	42000007	<b>.99</b>
3/4	690	1.050	.154	42000008	<b>1.34</b>
1	630	1.315	.179	42000009	<b>1.99</b>
1 1/4	520	1.660	.191	42000010	<b>2.73</b>
1 1/2	470	1.900	.200	42000011	<b>3.32</b>
2	400	2.375	.218	42000012	<b>4.60</b>
2 1/2	425	2.875	.276	42000013	<b>7.01</b>
3	375	3.500	.300	42000014	<b>9.04</b>
4	324	4.500	.337	42000016	<b>13.20</b>
6	280	6.625	.432	42000018	<b>25.39</b>
8	250	8.625	.500	42000019	<b>44.22</b>
10	230	10.750	.593	42000020	<b>74.56</b>



**NEW**  
Triple O-ring Sealed  
Telescoping Design Available  
with 6" and 12" Travel



Coefficient of Thermal Linear Expansion  
PVC 1120 =  $2.8 \times 10^{-5}$  in/in/°F  
CPVC 4120 =  $3.4 \times 10^{-5}$  in/in/°F

### Fabricated Expansion Joints with EPDM O-rings

6" Travel			12" Travel		
Size in.	Item #	Price	Item #	Price	
1/2	826-005X6	<b>\$177.37</b>	826-005X12	<b>\$199.50</b>	
3/4	826-007X6	<b>190.68</b>	826-007X12	<b>211.00</b>	
1	826-010X6	<b>192.82</b>	826-010X12	<b>252.84</b>	
1 1/4	826-012X6	<b>275.69</b>	826-012X12	<b>322.36</b>	
1 1/2	826-015X6	<b>237.66</b>	826-015X12	<b>255.98</b>	
2	826-020X6	<b>265.84</b>	826-020X12	<b>301.96</b>	
2 1/2	826-025X6	<b>469.78</b>	826-025X12	<b>507.29</b>	
3	826-030X6	<b>357.20</b>	826-030X12	<b>390.11</b>	
4	826-040X6	<b>337.80</b>	826-040X12	<b>384.83</b>	
6	826-060X6	<b>556.52</b>	826-060X12	<b>638.39</b>	

1/2" - 2" 235 psi @ 73°F, 2 1/2" - larger 150 psi @ 73°F

- Compact Installation - Eliminates Need For Expansion Loops
- EPDM or Viton® Pressure O-ring Seal with Dual "Wiper" O-ring for Extended Life
- Support Piston Eliminates Binding, Minimizes Alignment Problems
- Excellent For Use as a Repair Coupling

## CPVC Schedule 80 Fittings, Unions, Flanges, Tank Adapters, Expansion Joints & Saddles



CPVC Socket Tee

Size in.	Item #	Price
1/4	801-002C	<b>\$2.60</b>
3/8	801-003C	<b>2.60</b>
1/2	801-005C	<b>2.60</b>
3/4	801-007C	<b>2.64</b>
1	801-010C	<b>3.24</b>
1 1/4	801-012C	<b>6.83</b>
1 1/2	801-015C	<b>7.83</b>
2	801-020C	<b>8.72</b>
2 1/2	801-025C	<b>22.20</b>
3	801-030C	<b>22.20</b>
4	801-040C	<b>29.53</b>
6	801-060C	<b>76.88</b>
8	801-080C	<b>220.20</b>



CPVC Socket 45° Elbow

Size in.	Item #	Price
1/4	817-002C	<b>\$4.21</b>
3/8	817-003C	<b>4.21</b>
1/2	817-005C	<b>1.36</b>
3/4	817-007C	<b>1.96</b>
1	817-010C	<b>3.11</b>
1 1/4	817-012C	<b>6.11</b>
1 1/2	817-015C	<b>6.29</b>
2	817-020C	<b>7.04</b>
2 1/2	817-025C	<b>14.40</b>
3	817-030C	<b>18.50</b>
4	817-040C	<b>25.40</b>
6	817-060C	<b>78.24</b>
8	817-080C	<b>162.79</b>



CPVC Socket 90° Elbow

Size in.	Item #	Price
1/4	806-002C	<b>\$2.83</b>
3/8	806-003C	<b>2.83</b>
1/2	806-005C	<b>1.11</b>
3/4	806-007C	<b>1.41</b>
1	806-010C	<b>2.24</b>
1 1/4	806-012C	<b>4.87</b>
1 1/2	806-015C	<b>5.42</b>
2	806-020C	<b>6.54</b>
2 1/2	806-025C	<b>15.08</b>
3	806-030C	<b>17.07</b>
4	806-040C	<b>30.74</b>
6	806-060C	<b>61.77</b>
8	806-080C	<b>151.16</b>



CPVC Union Socket

Size in.	Item #	Price
1/4	897-002C	<b>\$7.47</b>
3/8	897-003C	<b>7.47</b>
1/2	8097-005C	<b>5.02</b>
3/4	8097-007C	<b>5.26</b>
1	8097-010C	<b>6.30</b>
1 1/4	8097-012C	<b>12.76</b>
1 1/2	8097-015C	<b>12.99</b>
2	8097-020C	<b>21.52</b>
2 1/2	8097-025C	<b>35.30</b>
3	8097-030C	<b>44.67</b>
4	8097-040C	<b>57.08</b>



CPVC Socket Cap

Size in.	Item #	Price
1/4	847-002C	<b>\$2.01</b>
3/8	847-003C	<b>2.01</b>
1/2	847-005C	<b>1.82</b>
3/4	847-007C	<b>2.60</b>
1	847-010C	<b>4.60</b>
1 1/4	847-012C	<b>5.03</b>
1 1/2	847-015C	<b>5.03</b>
2	847-020C	<b>5.31</b>
2 1/2	847-025C	<b>17.87</b>
3	847-030C	<b>19.59</b>
4	847-040C	<b>19.91</b>
6	847-060C	<b>65.87</b>
8	847-080C	<b>199.89</b>



CPVC Socket Coupling

Size in.	Item #	Price
1/4	829-002C	<b>\$3.01</b>
3/8	829-003C	<b>3.01</b>
1/2	829-005C	<b>1.18</b>
3/4	829-007C	<b>1.63</b>
1	829-010C	<b>2.21</b>
1 1/4	829-012C	<b>3.30</b>
1 1/2	829-015C	<b>4.16</b>
2	829-020C	<b>4.83</b>
2 1/2	829-025C	<b>10.76</b>
3	829-030C	<b>11.68</b>
4	829-040C	<b>15.31</b>
6	829-060C	<b>36.06</b>
8	829-080C	<b>97.46</b>



CPVC Nipples (Machine Threaded)

Length-Close			Length-Short			Length-3"			Length-4"			Length-5"			Length-6"		
Size in.	Item #	Price	Item #	Price	Item #	Item #	Price	Item #	Item #	Price	Item #	Item #	Price	Item #	Item #	Price	Item #
1/4	05053120	<b>\$1.04</b>	05053121	<b>\$1.24</b>	05053124	05053126	<b>\$1.72</b>	05053126	05053128	<b>\$2.07</b>	05053128	05053130	<b>\$2.40</b>	05053130	05053132	<b>\$2.74</b>	05053132
3/8	05053131	<b>1.24</b>	05053132	<b>1.47</b>	05053134	05053135	<b>2.18</b>	05053135	05053136	<b>2.64</b>	05053136	05053137	<b>3.14</b>	05053137	05053138	<b>3.58</b>	05053138
1/2	05053148	<b>1.04</b>	05053149	<b>1.22</b>	05053151	05053152	<b>1.66</b>	05053152	05053153	<b>1.89</b>	05053153	05053154	<b>2.26</b>	05053154	05053155	<b>2.60</b>	05053155
3/4	05053161	<b>1.62</b>	05053162	<b>1.70</b>	05053164	05053165	<b>2.12</b>	05053165	05053166	<b>2.52</b>	05053166	05053167	<b>3.18</b>	05053167	05053168	<b>3.58</b>	05053168
1	05053174	<b>2.01</b>	05053175	<b>2.23</b>	05053177	05053178	<b>2.83</b>	05053178	05053179	<b>3.49</b>	05053179	05053180	<b>4.19</b>	05053180	05053181	<b>4.79</b>	05053181
1 1/4	05053201	<b>2.49</b>	05053202	<b>2.49</b>	05053204	05053205	<b>3.88</b>	05053205	05053206	<b>4.74</b>	05053206	05053207	<b>5.57</b>	05053207	05053208	<b>6.44</b>	05053208
1 1/2	05053213	<b>2.91</b>	05053214	<b>4.10</b>	05053216	05053217	<b>4.63</b>	05053217	05053218	<b>5.68</b>	05053218	05053219	<b>6.90</b>	05053219	05053220	<b>7.94</b>	05053220
2	05053226	<b>4.10</b>	05053227	<b>5.20</b>	05053229	05053230	<b>5.91</b>	05053230	05053231	<b>7.34</b>	05053231	05053232	<b>8.96</b>	05053232	05053233	<b>10.39</b>	05053233
2 1/2	05053239	<b>8.73</b>	—	—	05053241	05053242	<b>9.83</b>	05053242	05053243	<b>12.01</b>	05053243	05053244	<b>14.21</b>	05053244	05053245	<b>16.39</b>	05053245
3	05053248	<b>11.04</b>	—	—	—	—	—	—	05053251	<b>15.13</b>	05053251	05053252	<b>18.06</b>	05053252	05053253	<b>20.98</b>	05053253
4	05053256	<b>15.13</b>	—	—	—	—	—	—	—	—	—	05053298	<b>23.51</b>	05053298	05053299	<b>27.46</b>	05053299

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 109



## CPVC Fittings



## Threaded Tee

Size in.	Item #	Price
1/4	805-002C	\$5.78
3/8	805-003C	5.78
1/2	805-005C	5.78
3/4	805-007C	8.32
1	805-010C	8.96
1 1/4	805-012C	9.01
1 1/2	805-015C	9.47
2	805-020C	10.51
2 1/2	805-025C	51.68
3	805-030C	59.97
4	805-040C	142.06



## Threaded Cap

Size in.	Item #	Price
1/4	848-002C	\$2.36
3/8	848-003C	2.36
1/2	848-005C	2.03
3/4	848-007C	3.36
1	848-010C	4.70
1 1/4	848-012C	8.38
1 1/2	848-015C	8.59
2	848-020C	12.36
2 1/2	848-025C	28.60
3	848-030C	37.52
4	848-040C	54.50



## Threaded Coupling

Size in.	Item #	Price
1/4	830-002C	\$3.79
3/8	830-003C	3.79
1/2	830-005C	3.11
3/4	830-007C	5.03
1	830-010C	5.71
1 1/4	830-012C	6.06
1 1/2	830-015C	6.51
2	830-020C	7.68
2 1/2	830-025C	13.77
3	830-030C	16.02
4	830-040C	32.67

Coupling Adapter  
Male Adapter

Size in.	Item #	Price
1/2	836-005C	\$1.51
3/4	836-007C	1.84
1	836-010C	3.11
1 1/4	836-012C	4.58
1 1/2	836-015C	6.19
2	836-020C	8.40
2 1/2	836-025C	22.91
3	836-030C	30.79
4	836-040C	52.04



## Threaded 90° Elbow

Size in.	Item #	Price
1/4	808-002C	\$2.98
3/8	808-003C	2.98
1/2	808-005C	1.72
3/4	808-007C	2.58
1	808-010C	3.62
1 1/4	808-012C	6.98
1 1/2	808-015C	7.51
2	808-020C	10.07
2 1/2	808-025C	31.22
3	808-030C	33.48
4	808-040C	52.40



## Threaded Plug

Size in.	Item #	Price
1/4	850-002C	\$1.90
3/8	850-003C	1.90
1/2	850-005C	1.66
3/4	850-007C	2.09
1	850-010C	3.43
1 1/4	850-012C	5.19
1 1/2	850-015C	4.30
2	850-020C	5.86
2 1/2	850-025C	9.94
3	850-030C	10.64
4	850-040C	12.33



## Threaded Union

Size in.	Item #	Price
1/4	898-002C	\$8.39
3/8	898-003C	8.39
1/2	898-005C	5.32
3/4	898-007C	9.40
1	898-010C	12.96
1 1/4	898-012C	24.71
1 1/2	898-015C	24.71
2	898-020C	27.91
2 1/2	898-025C	39.33
3	898-030C	78.24
4	898-040C	91.09

Coupling Adapter  
Socket x Thread

Size in.	Item #	Price
1/4	835-002C	\$3.82
3/8	835-003C	3.82
1/2	835-005C	1.89
3/4	835-007C	2.00
1	835-010C	4.62
1 1/4	835-012C	4.73
1 1/2	835-015C	5.51
2	835-020C	9.50
2 1/2	835-025C	18.22
3	835-030C	37.38
4	835-040C	62.22



## Threaded 45° Elbow

Size in.	Item #	Price
1/4	819-002C	\$3.96
3/8	819-003C	3.96
1/2	819-005C	3.74
3/4	819-007C	4.11
1	819-010C	4.53
1 1/4	819-012C	7.73
1 1/2	819-015C	7.73
2	819-020C	10.21
2 1/2	819-025C	19.36
3	819-030C	27.88
4	819-040C	43.86

Threaded Flange  
150 lbs. ANSI

Size in.	Item #	Price
1/2	852-005C	\$6.90
3/4	852-007C	8.37
1	852-010C	9.12
1 1/4	852-012C	12.67
1 1/2	852-015C	13.41
2	852-020C	13.66
2 1/2	852-025C	22.17
3	852-030C	21.99
4	852-040C	34.19

Van Stone flanges available.

Blind Flange  
150 lbs. ANSI

Size in.	Item #	Price
1/2	853-005C	\$7.40
3/4	853-007C	8.02
1	853-010C	10.00
1 1/4	853-012C	11.31
1 1/2	853-015C	15.83
2	853-020C	16.63
2 1/2	853-025C	25.16
3	853-030C	31.27
4	853-040C	42.36
6	853-060C	71.04
8	853-080C	131.79

USCO 150#  
Full Face  
Flange Gaskets  
See page 112.Socket Flange  
150 lbs. ANSI

Size in.	Item #	Price
1/2	854-005C	\$4.97
3/4	854-007C	5.08
1	854-010C	5.54
1 1/4	854-012C	6.77
1 1/2	854-015C	7.52
2	854-020C	9.10
2 1/2	854-025C	18.86
3	854-030C	19.74
4	854-040C	26.67
5	854-050C	45.43
6	854-060C	45.43
8	854-080C	136.72

Van Stone flanges available.

Reducing Bushing  
Male Slip x F.P.T.

Size in.	Item #	Price
3/8 x 1/4	838-052C	\$2.63
1/2 x 3/8	838-071C	2.63
1/2 x 1/4	838-072C	2.63
1/2 x 3/8	838-073C	2.63
3/4 x 1/4	838-098C	2.93
3/4 x 3/8	838-099C	2.93
3/4 x 1/2	838-101C	1.37
1 x 3/8	838-129C	3.90
1 x 1/2	838-130C	1.73
1 x 3/4	838-131C	1.73
1 1/4 x 3/4	838-166C	5.58
1 1/4 x 1	838-167C	5.58
1 1/2 x 1/2	838-168C	5.58
1 1/2 x 1/4	838-209C	6.87
1 1/2 x 3/4	838-210C	6.87
1 1/2 x 1	838-211C	6.87
1 1/2 x 1 1/4	838-212C	6.87
2 x 1/2	838-247C	9.44
2 x 3/4	838-248C	9.44
2 x 1	838-249C	9.44
2 x 1 1/4	838-250C	9.44
2 x 1 1/2	838-251C	9.44
2 1/2 x 1/2	838-287C	15.11
2 1/2 x 3/4	838-288C	15.11
2 1/2 x 1	838-289C	15.11
2 1/2 x 1 1/4	838-290C	15.11
2 1/2 x 1 1/2	838-291C	15.01
2 1/2 x 2	838-292C	15.01
3 x 3/4	838-334C	39.99
3 x 1	838-335C	39.99
3 x 1 1/4	838-336C	39.99
3 x 1 1/2	838-337C	39.99
3 x 2	838-338C	33.47
3 x 2 1/2	838-339C	33.73
4 x 2	838-420C	68.19

Reducing Bushing  
M.P.T. x F.P.T.

Size in.	Item #	Price
3/8 x 1/4	839-052C	\$3.53
1/2 x 1/4	839-072C	3.53
1/2 x 3/8	839-073C	3.53
3/4 x 1/4	839-098C	3.90
3/4 x 3/8	839-099C	3.90
3/4 x 1/2	839-101C	1.68
1 x 1/4	839-128C	4.21
1 x 3/8	839-129C	4.21
1 x 1/2	839-130C	2.82
1 x 3/4	839-131C	2.82
1 1/4 x 1/2	839-166C	5.61
1 1/4 x 3/4	839-167C	5.61
1 1/4 x 1	839-168C	5.57
1 1/2 x 1/2	839-209C	6.76
1 1/2 x 3/4	839-210C	6.76
1 1/2 x 1	839-211C	6.76
1 1/2 x 1 1/4	839-212C	6.70
2 x 1/2	839-247C	7.47
2 x 3/4	839-248C	7.47
2 x 1	839-249C	7.47
2 x 1 1/4	839-250C	7.47
2 x 1 1/2	839-251C	6.70
2 1/2 x 2	839-292C	17.96
3 x 1 1/2	839-337C	24.16
3 x 2	839-338C	24.16
3 x 2 1/2	839-339C	24.16
4 x 2	839-420C	41.51
4 x 3	839-422C	41.51

Reducing Bushing  
Male Slip x Socket

Size in.	Item #	Price
3/8 x 1/4	837-052C	\$2.44
1/2 x 1/4	837-072C	2.44
1/2 x 3/8	837-073C	2.44
3/4 x 1/2	837-101C	1.26
1 x 1/2	837-130C	1.94
1 x 3/4	837-131C	1.94
1 1/4 x 1/2	837-166C	5.16
1 1/4 x 3/4	837-167C	5.16
1 1/4 x 1	837-168C	5.16
1 1/2 x 1/2	837-209C	5.82
1 1/2 x 3/4	837-210C	5.82
1 1/2 x 1	837-211C	5.82
1 1/2 x 1 1/4	837-212C	5.82
2 x 1/2	837-247C	7.52
2 x 3/4	837-248C	7.52
2 x 1	837-249C	7.52
2 x 1 1/4	837-250C	7.52
2 x 1 1/2	837-251C	7.52
2 1/2 x 1 1/4	837-290C	9.16
2 1/2 x 1 1/2	837-291C	9.16
2 1/2 x 2	837-292C	9.16
3 x 1	837-335C	13.94
3 x 1 1/4	837-336C	13.94
3 x 1 1/2	837-337C	13.94
3 x 2	837-338C	13.94
3 x 2 1/2	837-339C	13.94
4 x 2	837-420C	15.42

PVC and CPVC  
are not recommended  
for compressed air  
or gas service.

## PVC Fittings (Schedule 80)



### PVC Tee Socket

Size	Item #	Price
1/4	801-002	<b>\$1.71</b>
3/8	801-003	<b>1.71</b>
1/2	801-005	<b>1.71</b>
3/4	801-007	<b>1.79</b>
1	801-010	<b>2.24</b>
1 1/4	801-012	<b>6.17</b>
1 1/2	801-015	<b>6.17</b>
2	801-020	<b>7.71</b>
2 1/2	801-025	<b>8.38</b>
3	801-030	<b>10.47</b>
4	801-040	<b>12.13</b>
6	801-060	<b>41.43</b>
8	801-080	<b>96.08</b>

### PVC 90° Elbow Socket

Size	Item #	Price
1/4	806-002	<b>\$ .60</b>
3/8	806-003	<b>.60</b>
1/2	806-005	<b>.60</b>
3/4	806-007	<b>.78</b>
1	806-010	<b>1.26</b>
1 1/4	806-012	<b>1.67</b>
1 1/2	806-015	<b>1.79</b>
2	806-020	<b>2.17</b>
2 1/2	806-025	<b>5.07</b>
3	806-030	<b>5.70</b>
4	806-040	<b>8.66</b>
6	806-060	<b>24.63</b>
8	806-080	<b>67.90</b>

### PVC Threaded Tee

Size	Item #	Price
1/4	805-002	<b>\$1.98</b>
3/8	805-003	<b>1.98</b>
1/2	805-005	<b>1.98</b>
3/4	805-007	<b>2.20</b>
1	805-010	<b>4.86</b>
1 1/4	805-012	<b>5.16</b>
1 1/2	805-015	<b>6.24</b>
2	805-020	<b>6.71</b>
2 1/2	805-025	<b>24.44</b>
3	805-030	<b>25.53</b>
4	805-040	<b>41.49</b>



### PVC 45° Elbow Socket

Size	Item #	Price
1/4	817-002	<b>\$2.18</b>
3/8	817-003	<b>2.18</b>
1/2	817-005	<b>1.14</b>
3/4	817-007	<b>1.74</b>
1	817-010	<b>2.62</b>
1 1/4	817-012	<b>3.33</b>
1 1/2	817-015	<b>3.94</b>
2	817-020	<b>5.11</b>
2 1/2	817-025	<b>10.72</b>
3	817-030	<b>13.06</b>
4	817-040	<b>23.51</b>
6	817-060	<b>29.61</b>
8	817-080	<b>64.19</b>

### PVC Cap Socket

Size	Item #	Price
1/4	847-002	<b>\$1.40</b>
3/8	847-003	<b>1.40</b>
1/2	847-005	<b>1.08</b>
3/4	847-007	<b>1.13</b>
1	847-010	<b>2.01</b>
1 1/4	847-012	<b>2.43</b>
1 1/2	847-015	<b>2.43</b>
2	847-020	<b>4.79</b>
2 1/2	847-025	<b>9.79</b>
3	847-030	<b>11.46</b>
4	847-040	<b>19.31</b>
6	847-060	<b>48.04</b>
8	847-080	<b>61.68</b>

### PVC Threaded Cap

Size	Item #	Price
1/4	848-002	<b>\$1.34</b>
3/8	848-003	<b>1.34</b>
1/2	848-005	<b>1.34</b>
3/4	848-007	<b>1.50</b>
1	848-010	<b>1.90</b>
1 1/4	848-012	<b>2.26</b>
1 1/2	848-015	<b>2.58</b>
2	848-020	<b>5.07</b>
2 1/2	848-025	<b>10.13</b>
3	848-030	<b>11.93</b>
4	848-040	<b>21.00</b>



### PVC Coupling Socket

Size	Item #	Price
1/4	829-002	<b>\$1.76</b>
3/8	829-003	<b>1.76</b>
1/2	829-005	<b>1.10</b>
3/4	829-007	<b>1.49</b>
1	829-010	<b>1.52</b>
1 1/4	829-012	<b>2.33</b>
1 1/2	829-015	<b>2.51</b>
2	829-020	<b>2.69</b>
2 1/2	829-025	<b>6.63</b>
3	829-030	<b>7.61</b>
4	829-040	<b>9.53</b>
5	829-050F	<b>33.81</b>
6	829-060	<b>20.52</b>
8	829-080	<b>27.92</b>

### PVC Union Socket

Size	Item #	Price
1/4	857-002	<b>\$4.20</b>
3/8	857-003	<b>4.20</b>
1/2	857-005	<b>2.24</b>
3/4	857-007	<b>2.86</b>
1	857-010	<b>3.27</b>
1 1/4	857-012	<b>6.48</b>
1 1/2	857-015	<b>7.34</b>
2	857-020	<b>9.96</b>
2 1/2	857-025	<b>15.93</b>
3	857-030	<b>18.53</b>
4	857-040	<b>25.81</b>

### PVC Threaded Union

Size	Item #	Price
1/4	858-002	<b>\$4.53</b>
3/8	858-003	<b>4.53</b>
1/2	858-005	<b>2.61</b>
3/4	858-007	<b>3.66</b>
1	858-010	<b>4.87</b>
1 1/4	858-012	<b>9.28</b>
1 1/2	858-015	<b>11.49</b>
2	858-020	<b>17.67</b>
2 1/2	858-025	<b>29.89</b>
3	858-030	<b>44.82</b>
4	858-040	<b>52.68</b>



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

## Pipe



### PVC Schedule 80 Pipe

Nominal Pipe Size	Max. W.P. @73.4°F	Outside Diam.	Min. Wall Thickness	Item #	Price/ft.
1/4	1130	.540	.119	32000004	<b>\$ .66</b>
3/8	920	.675	.126	32000005	<b>.89</b>
1/2	850	.840	.147	32000007	<b>.42</b>
3/4	690	1.050	.154	32000008	<b>.57</b>
1	630	1.315	.179	32000009	<b>.84</b>
1 1/4	520	1.660	.191	32000010	<b>1.16</b>
1 1/2	470	1.900	.200	32000011	<b>1.31</b>
2	400	2.375	.218	32000012	<b>1.84</b>
2 1/2	425	2.875	.276	32000013	<b>3.02</b>
3	375	3.500	.300	32000014	<b>3.81</b>
4	324	4.500	.337	32000016	<b>5.46</b>
6	280	6.625	.432	32000018	<b>10.66</b>
8	250	8.625	.500	32000019	<b>16.03</b>
10	230	10.750	.593	32000020	<b>24.11</b>
12	220	12.750	.687	32000021	<b>33.28</b>
14	220	14.00	.750	32000022	<b>41.38</b>
16	220	16.00	.843	32000023	<b>71.27</b>

Note: Schedule 80 pipe sold in 20 foot sections.



### PVC Threaded 90° Elbow

Size	Item #	Price
1/4	808-002	<b>\$1.50</b>
3/8	808-003	<b>1.50</b>
1/2	808-005	<b>1.40</b>
3/4	808-007	<b>1.76</b>
1	808-010	<b>2.20</b>
1 1/4	808-012	<b>2.37</b>
1 1/2	808-015	<b>3.37</b>
2	808-020	<b>3.79</b>
2 1/2	808-025	<b>14.76</b>
3	808-030	<b>23.79</b>
4	808-040	<b>41.87</b>

### PVC Threaded 45° Elbow

Size	Item #	Price
1/4	819-002	<b>\$2.47</b>
3/8	819-003	<b>2.47</b>
1/2	819-005	<b>2.26</b>
3/4	819-007	<b>2.42</b>
1	819-010	<b>3.04</b>
1 1/4	819-012	<b>4.64</b>
1 1/2	819-015	<b>5.93</b>
2	819-020	<b>8.64</b>
2 1/2	819-025	<b>17.10</b>
3	819-030	<b>27.51</b>
4	819-040	<b>39.47</b>



### PVC Threaded Plug

Size	Item #	Price
1/4	850-002	<b>\$1.16</b>
3/8	850-003	<b>1.16</b>
1/2	850-005	<b>1.03</b>
3/4	850-007	<b>1.08</b>
1	850-010	<b>1.32</b>
1 1/4	850-012	<b>1.94</b>
1 1/2	850-015	<b>2.36</b>
2	850-020	<b>2.42</b>
2 1/2	850-025	<b>6.77</b>
3	850-030	<b>7.89</b>
4	850-040	<b>15.37</b>
6	850-060	<b>18.27</b>

### PVC Threaded Coupling

Size	Item #	Price
1/4	830-002	<b>\$1.32</b>
3/8	830-003	<b>1.32</b>
1/2	830-005	<b>1.23</b>
3/4	830-007	<b>1.76</b>
1	830-010	<b>1.88</b>
1 1/4	830-012	<b>2.33</b>
1 1/2	830-015	<b>5.18</b>
2	830-020	<b>5.43</b>
2 1/2	830-025	<b>12.97</b>
3	830-030	<b>15.21</b>
4	830-040	<b>26.34</b>



## PVC Fittings (Schedule 80)



### Van Stone Flange 150 lbs. ANSI

Size in.	Item #	Price
1/2	854-005	\$3.32
3/4	854-007	3.56
1	854-010	3.96
1 1/4	854-012	4.07
1 1/2	854-015	4.16
2	854-020	5.53
2 1/2	854-025	8.54
3	854-030	9.44
4	854-040	11.94
5	854-050	18.80
6	854-060	18.80
8	854-080	30.60



### Reducing Bushing Male Slip x F.P.T.

Size in.	Item #	Price
3/8 x 1/4	838-052	\$ .98
1/2 x 1/8	838-071	.98
1/2 x 1/4	838-072	.98
1/2 x 3/8	838-073	.98
3/4 x 1/4	838-098	.64
3/4 x 3/8	838-099	.64
3/4 x 1/2	838-101	.64
1 x 3/8	838-129	1.01
1 x 1/2	838-130	1.01
1 x 3/4	838-131	1.01
1 1/4 x 1/2	838-166	2.06
1 1/4 x 3/4	838-167	2.06
1 1/4 x 1	838-168	2.06
1 1/2 x 1/2	838-209	2.58
1 1/2 x 3/4	838-210	2.58
1 1/2 x 1	838-211	2.58
1 1/2 x 1 1/4	838-212	2.58
2 x 1/2	838-247	3.16
2 x 3/4	838-248	3.16
2 x 1	838-249	3.16
2 x 1 1/4	838-250	3.16
2 x 1 1/2	838-251	3.16
2 1/2 x 1/2	838-287	6.68
2 1/2 x 3/4	838-288	6.68
2 1/2 x 1	838-289	6.68
2 1/2 x 1 1/4	838-290	6.68
2 1/2 x 1 1/2	838-291	6.68
2 1/2 x 2	838-292	6.68
3 x 3/4	838-334	12.36
3 x 1	838-335	12.36
3 x 1 1/4	838-336	12.36
3 x 1 1/2	838-337	12.36
3 x 2	838-338	12.36
3 x 2 1/2	838-339	12.36
4 x 2	838-420	18.99
4 x 2 1/2	838-421	18.99
4 x 3	838-422	18.99
6 x 2	838-528	21.87
6 x 3	838-530	21.87
6 x 4	838-532	21.87

### Blind Flange 150 lbs. ANSI

Size in.	Item #	Price
1/2	853-005	\$4.66
3/4	853-007	5.56
1	853-010	7.58
1 1/4	853-012	9.30
1 1/2	853-015	9.30
2	853-020	13.90
2 1/2	853-025	22.66
3	853-030	27.33
4	853-040	34.06
6	853-060	41.38
8	853-080	51.79



### Threaded Flange 150 lbs. ANSI

Size in.	Item #	Price
1/2	852-005	\$3.98
3/4	852-007	4.66
1	852-010	5.11
1 1/4	852-012	7.03
1 1/2	852-015	7.68
2	852-020	7.86
2 1/2	852-025	18.06
3	852-030	18.59
4	852-040	34.92

Van Stone flanges available.



### USCO 150# Full Face Flange Gaskets

Size in.	Item #	Description	Price	Item #	Description	Price	Item #	Description	Price
1/2	70001007	Neoprene Gasket	\$ .56	70001007E	EPDM Gasket	\$ .91	70001007V	Viton Gasket	\$4.43
3/4	70001008	Neoprene Gasket	.63	70001008E	EPDM Gasket	1.16	70001008V	Viton Gasket	4.87
1	70001009	Neoprene Gasket	.69	70001009E	EPDM Gasket	1.52	70001009V	Viton Gasket	7.03
1 1/4	70001010	Neoprene Gasket	.81	70001010E	EPDM Gasket	1.62	70001010V	Viton Gasket	8.18
1 1/2	70001011	Neoprene Gasket	.98	70001011E	EPDM Gasket	1.78	70001011V	Viton Gasket	9.71
2	70001012	Neoprene Gasket	1.37	70001012E	EPDM Gasket	2.52	70001012V	Viton Gasket	14.07
2 1/2	70001013	Neoprene Gasket	1.91	70001013E	EPDM Gasket	3.31	70001013V	Viton Gasket	17.41
3	70001014	Neoprene Gasket	2.06	70001014E	EPDM Gasket	3.63	70001014V	Viton Gasket	20.09
4	70001016	Neoprene Gasket	2.86	70001016E	EPDM Gasket	5.02	70001016V	Viton Gasket	29.56
6	70001018	Neoprene Gasket	3.76	70001018E	EPDM Gasket	7.26	70001018V	Viton Gasket	35.56
8	70001019	Neoprene Gasket	5.26	70001019E	EPDM Gasket	9.64	70001019V	Viton Gasket	44.66
10	70001020	Neoprene Gasket	7.14	70001020E	EPDM Gasket	14.14	70001020V	Viton Gasket	66.62
12	70001021	Neoprene Gasket	10.59	70001021E	EPDM Gasket	17.62	70001021V	Viton Gasket	104.83

Call for other sizes.



### PVC Nipples

Size	Length Close		Length Short		Length 3"		Length 4"		Length 5"		Length 6"	
	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price	Item #	Price
1/4	01053120	\$ .94	01053121	\$1.02	01053124	\$1.41	01053126	\$1.66	01053128	\$1.88	01053130	\$2.18
3/8	01053131	1.02	01053132	1.14	01053134	1.66	01053135	1.98	01053136	2.28	01053137	2.56
1/2	01053148	.81	01053149	.86	01053151	1.02	01053153	1.18	01053155	1.28	01053157	1.41
3/4	01053161	1.02	01053162	1.11	01053164	1.24	01053166	1.50	01053168	1.78	01053170	1.94
1	01053174	1.39	01053175	1.44	01053177	1.64	01053179	1.91	01053181	2.18	01053183	2.38
1 1/4	01053201	1.46	01053202	2.04	01053204	2.18	01053206	2.53	01053208	2.83	01053210	3.18
1 1/2	01053213	1.69	01053214	2.42	01053216	2.58	01053218	3.10	01053220	3.57	01053222	3.90
2	01053226	2.11	01053227	2.83	01053229	3.14	01053231	3.76	01053300	4.30	01053235	5.16
2 1/2	01053239	4.62	—	—	01053241	4.99	01053242	5.69	01053243	6.43	01053244	7.16
3	01053248	5.39	—	—	01053249	5.81	01053251	6.78	01053299	7.73	01053252	8.72
4	01053256	7.06	—	—	—	—	01053257	8.64	01053298	10.02	01053260	11.48

### Reducing Bushing M.P.T. x F.P.T.

Size in.	Item #	Price
3/8 x 1/4*	839-052	\$2.21
1/2 x 1/4	839-072	2.21
1/2 x 3/8*	839-073	2.21
3/4 x 1/4*	839-098	1.66
3/4 x 3/8*	839-099	1.66
3/4 x 1/2	839-101	1.36
1 x 1/4	839-128	2.66
1 x 3/8	839-129	2.13
1 x 1/2	839-130	2.13
1 x 3/4	839-131	2.13
1 1/4 x 1/2	839-166	2.26
1 1/4 x 3/4	839-167	2.26
1 1/4 x 1	839-168	2.26
1 1/2 x 1/2	839-209	2.68
1 1/2 x 3/4	839-210	2.68
1 1/2 x 1	839-211	2.68
1 1/2 x 1 1/4	839-212	2.68
2 x 1/2	839-247	3.92
2 x 3/4	839-248	3.92
2 x 1	839-249	3.92
2 x 1 1/4	839-250	3.92
2 x 1 1/2	839-251	3.92
2 1/2 x 2	839-292	5.31
3 x 1 1/2	839-337	7.21
3 x 2	839-338	7.21
3 x 2 1/2	839-339	7.21
4 x 2	839-420	14.87
4 x 3	839-422	18.99

### Coupling Adapter Socket x Thread

Size in.	Item #	Price
1/4	835-002	\$1.86
3/8	835-003	1.86
1/2	835-005	1.03
3/4	835-007	1.52
1	835-010	2.24
1 1/4	835-012	3.64
1 1/2	835-015	4.47
2	835-020	7.80
2 1/2	835-025	12.31
3	835-030	13.87
4	835-040	23.82

### Coupling Adapter Male Adapter

Size in.	Item #	Price
1/2	836-005	\$1.28
3/4	836-007	1.41
1	836-010	2.44
1 1/4	836-012	2.87
1 1/2	836-015	4.11
2	836-020	5.94
2 1/2	836-025	6.77
3	836-030	7.51
4	836-040	13.36
6	836-060	29.67

### Reducing Bushings Male Slip x Socket

Size in.	Item #	Price
3/8 x 1/4*	837-052	\$ .98
1/2 x 1/4	837-072	.98
1/2 x 3/8*	837-073	.98
3/4 x 1/2	837-101	.36
1 x 1/2	837-130	1.01
1 x 3/4	837-131	1.01
1 1/4 x 1/2	837-166	1.59
1 1/4 x 3/4	837-167	1.59
1 1/4 x 1	837-168	1.59
1 1/2 x 1/2	837-209	2.17
1 1/2 x 3/4	837-210	2.17
1 1/2 x 1	837-211	2.17
1 1/2 x 1 1/4	837-212	2.17
2 x 1/2	837-247	3.09
2 x 3/4	837-248	3.09
2 x 1	837-249	3.09
2 x 1 1/4	837-250	3.09
2 x 1 1/2	837-251	3.09
2 1/2 x 1 1/4	837-290	5.36
2 1/2 x 1 1/2	837-291	5.36
2 1/2 x 2	837-292	5.36
3 x 1	837-335	8.50
3 x 1 1/4	837-336	8.50
3 x 1 1/2	837-337	8.50
3 x 2	837-338	8.50
3 x 2 1/2	837-339	8.50
4 x 2	837-420	11.78
4 x 3	837-422	11.78
6 x 2	837-528	16.37
6 x 3	837-530	16.37
6 x 4	837-532	16.37
8 x 6	837-585	39.82





**Transition Union w/Brass Threaded Insert and Viton® O-Ring Seal (Soc x BR Fipt)**

Size	Item #	Price
1	859-010BR	<b>\$21.36</b>
1 1/4	859-012BR	<b>36.87</b>
1 1/2	859-015BR	<b>48.79</b>
2	859-020BR	<b>64.84</b>



**Transition Union w/Brass Threaded Insert and EPDM O-Ring Seal (Soc x BR Fipt)**

Size	Item #	Price
1	899-010BR	<b>\$21.04</b>
1 1/4	899-012BR	<b>35.40</b>
1 1/2	899-015BR	<b>46.86</b>
2	899-020BR	<b>62.44</b>



**Stainless Steel Reinforced Union (Soc x SR Fipt) w/Viton® O-Ring Seal**

Size	Item #	Price
1/2	8059-005SR	<b>\$4.42</b>
3/4	8059-007SR	<b>5.32</b>
1	8059-010SR	<b>6.92</b>
1 1/4	8059-012SR	<b>13.22</b>
1 1/2	8059-015SR	<b>16.31</b>
2	8059-020SR	<b>24.92</b>
3	8059-030SR	<b>60.88</b>
4	8059-040SR	<b>69.90</b>



**Stainless Steel Reinforced Reducing Tee (Soc x Soc x SR Fipt)**

Size	Item #	Price
1/2 x 1/4	802-072SR	<b>\$3.74</b>
3/4 x 1/4	802-098SR	<b>4.87</b>
3/4 x 1/2	802-101SR	<b>4.87</b>



**Transition Female Adapter (Soc x Brass Fipt)**

Size	Item #	Price
1/2	835-005BR	<b>\$8.12</b>
3/4	835-007BR	<b>11.68</b>
1	835-010BR	<b>20.11</b>
1 1/4	835-012BR	<b>33.12</b>
1 1/2	835-015BR	<b>43.51</b>
2	835-020BR	<b>53.89</b>



**Stainless Steel Reinforced Union (Soc x SR Fipt) w/EPDM O-Ring Seal**

Size	Item #	Price
1/2	8039-005SR	<b>\$3.94</b>
3/4	8039-007SR	<b>5.30</b>
1	8039-010SR	<b>6.83</b>
1 1/4	8039-012SR	<b>11.89</b>
1 1/2	8039-015SR	<b>15.41</b>
2	8039-020SR	<b>24.80</b>
3	8039-030SR	<b>59.07</b>
4	8039-040SR	<b>67.41</b>

**AVOID SPLIT THREADS**



**Stainless Steel Reinforced Tee (Soc x Soc x SR Fipt)**

Size	Item #	Price
1/2	802-005SR	<b>\$3.74</b>



**Transition Reducing Female Adapter (Soc x Brass Fipt)**

Size	Item #	Price
3/4 x 1/2	835-101BR	<b>\$12.07</b>



**Transition 90° Ell (Soc x Brass Fipt)**

Size	Item #	Price
1/2	807-005BR	<b>\$9.41</b>
3/4	807-007BR	<b>16.66</b>



**Stainless Steel Reinforced Reducing Female Adapter (Soc x SR Fipt)**

Size	Item #	Price
1/2 x 3/4	835-074SR	<b>\$2.10</b>
3/4 x 1/2	835-101SR	<b>2.10</b>
3/4 x 1	835-102SR	<b>3.12</b>
1 x 1/2	835-130SR	<b>3.12</b>
1 x 3/4	835-131SR	<b>3.12</b>

## PVC Transition Fittings

**STRONG AND RELIABLE – METAL-TO-PLASTIC TRANSITIONS**  
SPEARS Threaded Brass Insert and Stainless Steel Collar are molded-in-place as an integral part of each fitting for superior strength. Secondary O-ring seal compensates for expansion and contraction variations between materials. Low profile design accommodates streamline installation.



**Transition Reducing Tee (Soc x Soc x Brass Fipt)**

Size	Item #	Price
3/4 x 3/4 x 1/2	802-101BR	<b>\$13.38</b>



**Transition Reducing 90° Ell (Soc x Brass Fipt)**

Size	Item #	Price
3/4 x 1/2	807-101BR	<b>\$11.74</b>



**Stainless Steel Reinforced Spigot Female Adapter (Spig x SR Fipt)**

Size	Item #	Price
1/2	878-005SR	<b>\$1.90</b>
3/4	878-007SR	<b>2.24</b>
1	878-010SR	<b>3.44</b>
1 1/4	878-012SR	<b>5.49</b>
1 1/2	878-015SR	<b>6.57</b>
2	878-020SR	<b>10.94</b>
3	878-030SR	<b>20.12</b>
4	878-040SR	<b>34.17</b>



**Transition Tee (Soc x Soc x Brass Fipt)**

Size	Item #	Price
1/2	802-005BR	<b>\$10.71</b>
3/4	802-007BR	<b>21.47</b>



**Stainless Steel Reinforced Female Adapter (Soc x SR Fipt)**

Size	Item #	Price
1/4	835-002SR	<b>\$2.60</b>
3/8	835-003SR	<b>2.60</b>
1/2	835-005SR	<b>1.44</b>
3/4	835-007SR	<b>2.10</b>
1	835-010SR	<b>3.12</b>
1 1/4	835-012SR	<b>5.06</b>
1 1/2	835-015SR	<b>6.54</b>
2	835-020SR	<b>10.83</b>
2 1/2	835-025SR	<b>17.10</b>
3	835-030SR	<b>19.28</b>
4	835-040SR	<b>33.12</b>

## Quick Spec

- Excellent metal-to-plastic system transition
- Multi-bolt design, choice of hardware options

## PVC Clamp-On Saddles & Hot-Tap Saddles

### PVC CLAMP-ON SADDLES

**Simple Two-Piece Design Engineered for Reliability** – Spears PVC Clamp-On Saddles allow quick, easy and reliable addition of branch lines to existing piping system lines. These versatile saddle units can be used in either temporary or permanent installations on all types pipe with IPS (Iron Pipe Size) outside diameter, such as PVC CPVC, Polyethylene Polypropylene and steel.

**PVC Gray Clamp-On Saddle x Soc Single Outlet with Viton® O-ring Seal & SS Hardware**

Hole Saw Dia.	Item #	Price
2 x 1 1/8	866SV-249	<b>\$31.19</b>
2 x 1 1/2	866SV-251	<b>31.19</b>
2 1/2 x 1 1/8	866SV-291	<b>41.80</b>
3 x 2	866SV-338	<b>41.80</b>
4 x 1	866SV-417	<b>53.79</b>
4 x 1 1/2	866SV-419	<b>53.79</b>
4 x 2	866SV-420	<b>53.79</b>
4 x 3	866SV-422	<b>58.82</b>
6 x 1	866SV-525	<b>79.72</b>
6 x 2	866SV-528	<b>79.72</b>

**PVC Gray Clamp-On Saddle x Soc Single Outlet with EPDM O-ring Seal & SS Hardware**

Hole Saw Dia.	Item #	Price
2 x 1 1/8	866S-249	<b>\$27.94</b>
2 x 1 1/2	866S-251	<b>27.94</b>
2 1/2 x 1 1/8	866S-291	<b>37.56</b>
3 x 1	866S-335	<b>37.56</b>
3 x 2	866S-338	<b>37.56</b>
4 x 1	866S-417	<b>48.36</b>
4 x 1 1/2	866S-419	<b>48.36</b>
4 x 2	866S-420	<b>48.36</b>
6 x 1	866S-525	<b>72.77</b>
6 x 2	866S-528	<b>72.77</b>

### PVC HOT-TAP SADDLES

Hot-Tap Saddles are designed for adding branch connections to piping systems under live ("hot") pressure. Hot-Tap Saddle branch outlets are either 3/4" socket (with 1" Spigot O.D.) or 1 1/2" socket (with 2" Spigot O.D.) in saddle sizes 2" through 6" to fit IPS pipe using a built-in O-ring seal. Internal cutter is operated using conventional ratchet and drive extension and permanently retains coupon cut from pipe. See packaged installation instructions for details.

**PVC Gray Hot-Tap Saddle EPDM Saddle x Soc (Spigot) SS316 Bolts**

Size	Item #	Price
2 x 3/4 (1)	HT2S-248	<b>\$45.17</b>
2 x 1 1/2 (2)	HT2S-251	<b>93.26</b>
2 1/2 x 3/4 (1)	HT2S-288	<b>48.26</b>
2 1/2 x 1 1/2 (2)	HT2S-291	<b>96.33</b>
3 x 3/4 (1)	HT2S-334	<b>55.26</b>
3 x 1 1/2 (2)	HT2S-337	<b>106.26</b>
4 x 3/4 (1)	HT2S-416	<b>63.83</b>
4 x 1 1/2 (2)	HT2S-419	<b>112.33</b>
6 x 3/4 (1)	HT2S-524	<b>71.67</b>
6 x 1 1/2 (2)	HT2S-527	<b>119.50</b>

**PVC Gray Hot-Tap Saddle Viton® Saddle x Soc (Spigot) SS316 Bolts**

Size	Item #	Price
2 x 3/4 (1)	HT3S-248	<b>\$49.00</b>
2 x 1 1/2 (2)	HT3S-251	<b>101.17</b>
2 1/2 x 3/4 (1)	HT3S-288	<b>52.50</b>
2 1/2 x 1 1/2 (2)	HT3S-291	<b>104.59</b>
3 x 3/4 (1)	HT3S-334	<b>59.92</b>
3 x 1 1/2 (2)	HT3S-337	<b>115.42</b>
4 x 3/4 (1)	HT3S-416	<b>69.17</b>
4 x 1 1/2 (2)	HT3S-419	<b>121.92</b>
6 x 3/4 (1)	HT3S-524	<b>77.83</b>
6 x 1 1/2 (2)	HT3S-527	<b>129.50</b>



O-ring seal provides positive, trouble-free sealing to pipe.

Special pilot engages with hole in pipe to prevent saddle dislocation.

## IPS Cement and Primer



Weld-On Hot 'R Cold 727 was especially formulated for PVC applications over the wide range of temperatures encountered during all seasons of the year. Successful, high strength joints can be made at temperatures as low as -15°F and as high as 110°F.



## P-70™ Primers

For all PVC and CPVC applications. Meets ASTM F-656 & SCAQMD 1168. Low VOC. Purple or clear. 3 year shelf life.



## P-70™ Clear Primer

Quantity	Item #	Price
Pint	10224	\$8.92
Quart	10222	14.47

## P-70™ Purple Primer

Quantity	Item #	Price
Pint	10225	\$8.92
Quart	10223	14.47

## 717™ Cement

Heavy bodied, medium setting, PVC cement for all classes & schedules, including Sch. 80, through 12" diameter. Clear or gray. 3 year shelf life.



Heavy Bodied

## 717™ Clear Cement

Quantity	Item #	Price
Pint	10147	\$8.87
Quart	10144	15.24

## 717™ Gray Cement

Quantity	Item #	Price
Pint	10148	\$8.87
Quart	10145	15.24

## 724™ Cement

Heavy bodied, medium setting, CPVC cement for all classes & schedules through 12" diameter. High chemical resistance to caustics, including hypochlorite solutions. Approved for Corzan™ industrial systems. Meets ASTM F-493 & SCAQMD 1168. LOW VOC. 2 year shelf life.



Approved for Corzan

## 724™ Gray Cement

Quantity	Item #	Price
Pint	11890	\$9.92
Quart	11659	17.53

## 727™ Cement

Hot 'R Cold™ 727 – Medium bodied, very fast setting, PVC cement for all classes and schedules through 6" diameter. Meets ASTM D-2564, 3 year shelf life.



Medium Bodied

Universal Temperature Friendly

## 727™ Clear Cement

Quantity	Item #	Price
Pint	10842	\$9.24
Quart	10841	15.98

## FlowGuard Gold™ CPVC Cement

Medium bodied, fast setting, CPVC cement for copper tube size and Schedule 40 pipe and fittings through 2" diameter. Preferred for FlowGuard Gold™ systems. Meets ASTM D-2846, F-493 & SCAQMD 1168. LOW VOC ONE STEP (use without primer). 2 year shelf life.



Preferred for FlowGuard Gold Systems

## FlowGuard Gold™ Yellow Cement

Quantity	Item #	Price
Pint	11027	\$8.96

## 719™ Cement

Extra heavy bodied, slow setting, PVC cement for all classes & schedules, including Sch. 80, through 30" diameter. Gray or white. 3 year shelf life.



Extra Heavy Bodied

## 719™ White Cement

Quantity	Item #	Price
Pint	10159	\$10.34
Quart	10157	17.91

## 719™ Gray Cement

Quantity	Item #	Price
Pint	10158	\$10.34
Quart	10156	17.91

## 714™ Cement

Heavy bodied, medium setting, CPVC cement for all classes & schedules through 12" diameter. Meets ASTM D-2846 & F-493. 2 year shelf life.



Heavy Bodied

## 714™ Gray Cement

Quantity	Item #	Price
Pint	10134	\$9.38
Quart	10131	16.69

Your Choice of Applicator - Helps Create a Successful Joint

## Applicators &amp; Accessories

## 3020 Pipe Roller

Roll-A-Weld 3" roller for pipe diameters from 3" to 6"; fits MT-653 empty quart triple tight neck.



## 6020 Pipe Roller

Roll-A-Weld 4" roller for pipe diameters from 3" to 8"; fits standard quart and MT-651 empty quart can.



## 7020 Pipe Roller

Jumbo Roll-A-Weld 7" roller for pipe diameters of 6" up; fits MT-648 empty gallon can and wide mouth cans.



## 4020 Pipe Swab

4" Swab for pipe diameters of 6" and larger; fits MT-648 empty gallon can and wide mouth cans.



## 5020 Pipe Swab

4" swab for pipe diameters from 3" through 8"; fits standard quart can as well as MT-651 empty quart can.



## Can-Mate Daubers

Adjustable applicator with telescoping stem to fit all cans (except ¼ pint). Available in ½", ¾" and 1½" dauber sizes.



## Cap Dauber

DP daubers fit ½ pint & pint cans; DQ daubers fit quart cans. In ½", ¾" and 1½" dauber sizes.



## Brushes

PB-1 Plastic Handle Brush; fits standard pint and quart cans.



## Can-Tote Carrier

For carrying Quart and pint cans.



## Can-Mate® Carrier Kit

Includes plastic carrier arm and two Can-Mate® CM-150 adjustable shaft 1½" diameter daubers.



## Empty Metal Cans

Available in gallon, quart, quart (paint type), and pint sizes.



Call for your FREE Pocket Guide to Solvent Cementing PVC & CPVC Plastic Pipe Fittings

## Applicators &amp; Accessories

Item #	Description	Price
W/T10007	3020 - 3"-6" Pipe roller - Paint style can	\$5.99
W/T11957	6020 - 3"-8" Pipe roller - Quart can	5.90
W/T10008	7020 - 7" Pipe roller - Gallon can	7.34
W/T10009	4020 - Pipe swab - Gallon can	7.34
W/T12071	5020 - 3"-8" Pipe swab - Quart can	5.90
W/T12307	CM-50 Can-Mate™ Adjustable ½" Dauber	2.67
W/T10832	CM-75 Can-Mate™ Adjustable ¾" Dauber	2.67
W/T10833	CM-150 Can-Mate™ Adjustable 1½" Dauber	2.67
W/T10864	Can-Mate™ Carrier - 2 Dauber kit for 2 Quart or Pint cans	5.44
W/T12891	Carrying Tote - Quart and Pint cement cans	6.93
W/T10003	DP50 Dauber ½" pipe - Pint cans	.47
W/T10004	DP75 Dauber ¾" to 1½" pipe - Pint cans	.47
W/T10005	DP150 Dauber 1½" to 3" pipe - Pint cans	.51
W/T11831	DQ50 Dauber ½" pipe - Quart cans	.47
W/T12429	DQ75 Dauber ¾" to 1½" pipe - Quart cans	.47
W/T10006	DQ150 Dauber 1½" to 3" pipe - Quart cans	.51
W/T12121	PB-1 Plastic Handle Brush - Pint and Quart cans	3.73
W/T10012	MT651 Quart can 1½" neck	2.48
W/T10014	MT653 Quart can - Paint style	2.48
W/T10015	MT654 Pint can 1½" neck	2.29
W/T10010	MT648 Gallon can 2½" neck	7.77
W/T12832	Easy Pour Spout - 3 per bag	2.43

## PVC Insert Fittings



**Tee (Insert x Insert x Insert)**

Item #	Size	Price
1401005	1/2	<b>\$1.19</b>
1401007	3/4	<b>1.30</b>
1401010	1	<b>1.69</b>
1401012	1 1/4	<b>2.63</b>
1401015	1 1/2	<b>2.99</b>
1401020	2	<b>5.89</b>

For use with polyethylene pipe and various types of tubing.



**Tee (Insert x Insert x Fipt)**

Item #	Size	Price
1402005	1/2	<b>\$1.30</b>
1402007	3/4	<b>1.96</b>
1402010	1	<b>2.29</b>
1402012	1 1/4	<b>3.37</b>
1402015	1 1/2	<b>5.86</b>
1402020	2	<b>7.26</b>



**Tee (Insert x Insert x Mipt)**

Item #	Size	Price
1403005	1/2	<b>\$1.66</b>
1403007	3/4	<b>2.26</b>
1403010	1	<b>2.89</b>
1403012	1 1/4	<b>3.76</b>
1403015	1 1/2	<b>4.22</b>
1403020	2	<b>6.56</b>



**90° Ell (Insert x Insert)**

Item #	Size	Price
1406005	1/2	<b>\$1.09</b>
1406007	3/4	<b>1.33</b>
1406010	1	<b>1.48</b>
1406012	1 1/4	<b>1.66</b>
1406015	1 1/2	<b>1.96</b>
1406020	2	<b>2.72</b>
1406025	2 1/2	<b>12.28</b>



**Coupling (Insert x Insert)**

Item #	Size	Price
1429005	1/2	<b>\$5.56</b>
1429007	3/4	<b>.67</b>
1429010	1	<b>.70</b>
1429012	1 1/4	<b>1.03</b>
1429015	1 1/2	<b>1.22</b>
1429020	2	<b>2.32</b>
1429025	2 1/2	<b>5.99</b>
1429030	3	<b>10.19</b>
1429040	4	<b>13.87</b>



**Reducer Coupling (Insert x Insert)**

Item #	Size	Price
1429101	3/4 x 1/2	<b>\$5.91</b>
1429130	1 x 1/2	<b>1.24</b>
1429131	1 x 3/4	<b>.93</b>
1429167	1 1/4 x 3/4	<b>1.91</b>
1429168	1 1/4 x 1	<b>1.48</b>
1429210	1 1/2 x 3/4	<b>2.32</b>
1429211	1 1/2 x 1	<b>2.22</b>
1429212	1 1/2 x 1 1/4	<b>1.73</b>
1429249	2 x 1	<b>3.14</b>
1429250	2 x 1 1/4	<b>2.93</b>
1429251	2 x 1 1/2	<b>2.79</b>



**90° Ell (Insert x Mipt)**

Item #	Size	Price
01413005	1/2	<b>\$1.38</b>
01413007	3/4	<b>1.90</b>
01413010	1	<b>2.49</b>
01413012	1 1/4	<b>3.32</b>
01413015	1 1/2	<b>4.40</b>
01413015H	1 1/2	<b>4.40</b>
01413020	2	<b>6.94</b>



**90° Ell (Insert x Fipt)**

Item #	Size	Price
1407005	1/2	<b>\$1.23</b>
1407007	3/4	<b>1.33</b>
1407010	1	<b>1.72</b>
1407012	1 1/4	<b>2.53</b>
1407015	1 1/2	<b>2.89</b>
1407020	2	<b>4.89</b>



**Female Adapter (Fipt x Insert)**

Item #	Size	Price
1435005	1/2	<b>\$2.43</b>
1435007	3/4	<b>2.64</b>
1435010	1	<b>2.93</b>
1435012	1 1/4	<b>3.60</b>
1435015	1 1/2	<b>4.57</b>
1435020	2	<b>7.71</b>



**Reducing Male Adapter (Mipt x Insert)**

Item #	Size	Price
1436074	1/2 x 3/4	<b>\$1.73</b>
1436101	3/4 x 1/2	<b>1.56</b>
1436102	3/4 x 1	<b>1.76</b>
1436131	1 x 3/4	<b>1.61</b>
1436132	1 x 1 1/4	<b>2.18</b>
1436133	1 x 1 1/2	<b>3.28</b>
1436167	1 1/4 x 3/4	<b>1.91</b>
1436168	1 1/4 x 1	<b>2.04</b>
1436169	1 1/4 x 1 1/2	<b>3.28</b>
1436211	1 1/2 x 1	<b>2.49</b>
1436212	1 1/2 x 1 1/4	<b>2.49</b>
1436213	1 1/2 x 2	<b>4.22</b>
1436251	2 x 1 1/2	<b>4.19</b>

**Male Adapter (Mipt x Insert)**

Item #	Size	Price
1436005	1/2	<b>\$5.56</b>
1436007	3/4	<b>.67</b>
1436010	1	<b>.69</b>
1436012	1 1/4	<b>1.09</b>
1436015	1 1/2	<b>1.22</b>
1436020	2	<b>2.34</b>
1436025	2 1/2	<b>9.63</b>
1436030	3	<b>11.11</b>
1436040	4	<b>15.46</b>



**Hose Adapter (Male Hose Thread x Insert)**

Item #	Size	Price
1436007MHT	3/4	<b>\$1.64</b>

**Insert x IPS Spigot Adapter**

Item #	Size	Price
460005	1/2	<b>\$5.77</b>
460007	3/4	<b>1.01</b>
460010	1	<b>1.06</b>
460012	1 1/4	<b>1.09</b>
460015	1 1/2	<b>1.17</b>
460020	2	<b>1.94</b>
460030	3	<b>6.57</b>
460040	4	<b>7.56</b>

**Insert x IPS Socket Adapter**

Item #	Size	Price
474005	1/2	<b>\$5.70</b>
474007	3/4	<b>.84</b>
474010	1	<b>.89</b>
474012	1 1/4	<b>1.41</b>
474015	1 1/2	<b>1.57</b>
474020	2	<b>2.90</b>
474030	3	<b>8.66</b>
474040	4	<b>9.89</b>

## Teflon® Thread Seal Tape



**LAKE CITY**

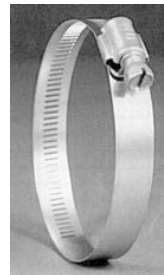
Size in.	Item #	Price
1/2 x 520	70017119	<b>\$1.14</b>
3/4 x 260	70017122	<b>.97</b>
3/4 x 520	70017120	<b>1.52</b>
1 x 260	70017123	<b>1.09</b>
1 x 520	70017121	<b>1.97</b>

High quality. White. Manufactured from 100% Virgin PTFE. Approved by National Sanitation Foundation, & U.S. Bureau of Ships.



## Stainless Steel Clamps 200 Series

The Tridon Regular Worm Gear Clamps feature a unique interlocking design between the one piece housing and band. This strengthens under tension for maximum torque application and sealing efficiency.



Item #	Clamp Diameter	Price
620006	3/8 - 1/8	<b>\$5.98</b>
620008	7/16 - 1	<b>.98</b>
620010	9/16 - 1 1/16	<b>.98</b>
620012	5/8 - 1 1/4	<b>.98</b>
620016	1 1/16 - 1 1/2	<b>.98</b>
620020	3/4 - 1 3/4	<b>1.00</b>
620024	1 1/16 - 2	<b>1.00</b>
620028	1 3/16 - 2 1/4	<b>1.01</b>
620032	1 7/16 - 2 1/2	<b>1.01</b>
620036	1 13/16 - 2 3/4	<b>1.04</b>
620040	2 1/16 - 3	<b>1.19</b>

Series	Band	Housing	Screw
225	3/16" 301 Stainless Steel	301 Stainless Steel	5/16" 305 Hex Head Stainless Steel

Item #	Clamp Diameter	Price
620044	2 5/16 - 3 1/4	<b>\$1.33</b>
620048	2 1/16 - 3 1/2	<b>1.33</b>
620052	2 13/16 - 3 3/4	<b>1.46</b>
620056	3 1/16 - 4	<b>1.46</b>
620060	3 5/16 - 4 1/4	<b>1.53</b>
620064	3 9/16 - 4 1/2	<b>1.53</b>
620072	4 1/16 - 5	<b>1.63</b>
620080	4 3/8 - 5 1/2	<b>1.70</b>
620088	4 3/32 - 6	<b>1.86</b>
620096	4 1/2 - 6 1/2	<b>1.98</b>
620104	5 - 7	<b>2.01</b>

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**USCO 115**



## Aickinstrut Channel Framing and Accessories

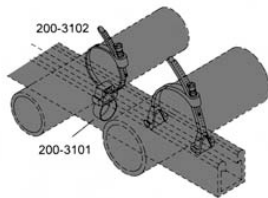
Aickinstrut Fiberglass Strut is the most widely used and accepted non-metallic strut support system in the world because it is the most complete quality line of non-metallic accessories, fasteners, hangers, pipe clamps and channels available. Aickinstrut is a versatile, high-strength product that has been successfully used in thousands of applications worldwide. Some of those applications include: wastewater treatment, refineries, chemical plants, marinas, pulp and paper, desalination facilities, theme parks, aquariums and underground vaults.

### Material Code

**E** – PVC **P** – Polyester **V** – Vinylester **PU** – Polyurethane **PP** – Polypropylene **N** – Nylon

The ability of each material to handle high and low temperatures, chemical exposure and static loads is covered in the full design manual. By using these criteria, you will be able to select the optimal Aickinstrut channel, fittings and accessories for your particular application.

Please consult a salesperson for full details.



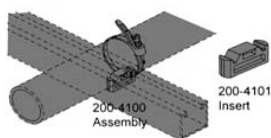
### Adjustable Pipe Clamps

Item #	Description	Price Ea.
200-3100	1/2" to 1 1/2"	\$3.45
200-3110	1 1/2" to 2 1/2"	4.52
200-3120	2 1/4" to 3 1/4"	5.24
200-3130	3" to 4"	6.54
200-3140	4" to 6 1/2"	7.96

### Non-Load Bearing

200-3150	6 1/2" to 8"	20.93
200-3160	8" to 10"	21.89
200-3170	10" to 12"	22.72
200-3180	12" to 14"	23.55
200-3190	14" to 16"	24.75
200-3200	16" to 18"	26.06
200-3210	18" to 20"	27.35

Also available in PVDF (Kynar) material.  
Please consult sale office.



### Universal Channel Inserts/Uniserts For Use with Standard Steel Channels

Item #	Description	Price Ea.
200-4100	Clamp (1/2" to 1 1/2" O.D.) + Insert Assem. (PU)	\$3.45
200-4100N	Clamp (1/2" to 1 1/2" O.D.) + Insert Assem. (Nylon)	1.19
200-4101	Universal Insert (PU)	.95
200-4101N	Universal Insert (Nylon)	.35
200-3102	Universal Clamp (PU)	2.62
200-3102N	Universal Clamp (Nylon)	.95

### Aickinstrut Rigid Pipe Clamps

Item #	Size	Price Ea.
PCR-050	1/2"	\$4.28
PCR-075	3/4"	4.75
PCR-100	1"	5.00
PCR-125	1 1/4"	5.24
PCR-150	1 1/2"	5.59
PCR-200	2"	5.82
PCR-300	3"	6.66
PCR-400	4"	7.25
PCR-600	6"	8.68



### Non-Metallic U-Bolts

Item #	Size	Price Ea.
UB-050	1/2"	\$3.80
UB-075	3/4"	3.93
UB-100	1"	4.16
UB-125	1 1/4"	4.28
UB-150	1 1/2"	5.59
UB-200	2"	8.09
UB-250	2 1/2"	8.93
UB-300	3"	9.64
UB-350	3 1/2"	9.75
UB-400	4"	10.59



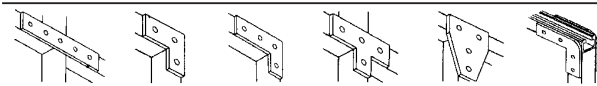
U-Bolts include two hex head nuts.

### Glass Reinforced Polyurethane Post Bases

Item #	Size	Price Ea.
<b>Polyurethane</b>		
20PU-5853	1 5/8"	\$28.79
20PU-5854	1 1/2"	28.79
20PU-5855	1"	28.79
<b>Polypropylene</b>		
20PP-5853	1 5/8"	14.52
20PP-5854	1 1/2"	14.52
20PP-5855	1"	14.52
<b>Polyurethane</b>		
20PU-5903	1 5/8"	34.38
20PU-5904	1 1/2"	34.38
20PU-5905	1"	34.38
<b>Polypropylene</b>		
20PP-5903	1 5/8"	18.68
20PP-5904	1 1/2"	18.68
20PP-5905	1"	18.68



### Channel Fittings (Other channel fittings and accessories available.)



## AICKINSTRUT

### AICKINSTRUT CHANNEL FRAMING

Types P (Gray), V (Beige) and E (Gray)  
2000 Series 1 1/2" Heavy Duty



#### Polyester

Item #	Desc.	Price/ft.
20P-2000	Single	\$5.82
20P-2100	Double	11.31
20P-2200	Slotted	8.80
20P-2300	Conc. Ins.	13.45

#### Vinylester

Item #	Desc.	Price/ft.
20V-2000	Single	\$7.25
20V-2100	Double	13.45
20V-2200	Slotted	11.41
20V-2300	Conc. Ins.	13.45

#### Rigid PVC

Item #	Desc.	Price/ft.
20E-2000	Single	\$4.16
20E-2200	Slotted	5.47
20E-2300	Conc. Ins.	5.72

### Glass Reinforced Polyurethane Channel Nuts

Item #	Size	Price Ea.
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#### Standard Duty

250PU-CN	1/4"	\$1.66
312PU-CN	5/16"	1.66
375PU-CN	3/8"	1.66
500PU-CN	1/2"	1.66
625PU-CN	5/8"	1.66
10PU-CNM	10mm	1.66
10PU-CNM	12mm	1.66



#### Heavy Duty

375PU-CNHD	3/8"	\$2.98
500PU-CNHD	1/2"	2.98
625PU-CNHD	5/8"	2.98
750PU-CNHD	3/4"	2.98
10PU-CNHD	10mm	2.98
12PU-CNHD	12mm	2.98
16PU-CNHD	16mm	2.98
20PU-CNHD	20mm	2.98



### Saddle Clips

Item #	Size	Price Ea.
200-4226	3/8"	\$1.91
200-4217	1/2"	1.91
200-4341	5/8"	1.91
200-4342	3/4"	1.91



### Stop-Lock Assemblies

Item #	Size	Price Ea.
200-4227	3/8"	\$5.47
200-4219	1/2"	5.47
200-4343	5/8"	5.47



### Fiberglass Reinforced Threaded Rod

Item #	Size	4 ft./Ea.	8 ft./Ea.
200-3827	3/8"	\$19.82	\$33.45
200-3828	1/2"	19.52	38.89
200-3829	5/8"	25.58	51.27
200-3830	3/4"	37.95	75.89
200-3831	1"	43.78	87.44

To order 8' lengths, add suffix (-96) to part number. Example: 200-3827-96



Many more configurations available.  
Consult sales office.

### Fiberfast™ Glass Reinforced Polyurethane Nuts and Bolts

Item #	Size	Price Ea.
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#### 1/4" Hex Head Bolts

250PU-075	1/4" x 3/4"	\$3.35
250PU-100	1/4" x 1"	.48
250PU-150	1/4" x 1 1/2"	.48

#### 3/8" Hex Head Bolts

375PU-125	3/8" x 1 1/4"	1.19
375PU-150	3/8" x 1 1/2"	1.31
375PU-200	3/8" x 2"	1.42
375PU-250	3/8" x 2 1/2"	1.66
375PU-300	3/8" x 3"	1.79
375PU-350	3/8" x 3 1/2"	1.91

#### 1/2" Hex Head Bolts

500PU-125	1/2" x 1 1/4"	1.31
500PU-150	1/2" x 1 1/2"	1.31
500PU-200	1/2" x 2"	1.78
500PU-250	1/2" x 2 1/2"	2.00
500PU-300	1/2" x 3"	2.12
500PU-350	1/2" x 3 1/2"	2.38

#### 5/8" Hex Head Bolts

625PU-125	5/8" x 1 1/4"	2.02
625PU-150	5/8" x 1 1/2"	2.14
625PU-200	5/8" x 2"	2.27
625PU-250	5/8" x 2 1/2"	2.38
625PU-300	5/8" x 3"	2.49
625PU-350	5/8" x 3 1/2"	2.73



### Hex Nut

Item #	Size	Price Ea.
250PU-000	1/4"	\$1.15
375PU-000	3/8"	.72
500PU-000	1/2"	.84
625PU-000	5/8"	1.19



### Hex Flange Nut

Item #	Size	Price Ea.
375PU-FN-000	3/8"	\$1.33
500PU-FN-000	1/2"	1.45
625PU-FN-000	5/8"	1.78
750PU-FN-000	3/4"	2.00
1000PU-FN-000	1"	2.78



### Vinylester Flat PVC Washers

Item #	Size	Price Ea.
250E-999	1/4"	\$3.35
375E-999	3/8"	.45
500E-999	1/2"	.55
625E-999	5/8"	1.00
750E-999	3/4"	1.22
1000E-999	1"	1.33



# TYGON® A Tradition of Excellence in High Performance Tubing

**Performance, Quality and Innovation** – These are characteristics you've come to expect from Saint-Gobain Performance Plastics' Tygon® tubing. Since its introduction in the 1940s, Tygon® tubing has been recognized as an integral and vital component in countless fluid transport systems. By delivering an uncompromising standard of consistent performance, today's Tygon® tubing has become the standard by which all flexible tubing is judged. Whether your need for flexible tubing involves pharmaceutical, medical, laboratory, food or beverage applications; requires temperature, abrasion,

chemical or permeation resistance; or necessitates a pure, sterile or inert environment, there is a Tygon® formulation proven to enhance user performance and increase overall productivity. By providing a broad range of Tygon® tubing products, each engineered to meet specific user needs, you can choose a Tygon® formulation that provides the best possible value in use.

## SUGGESTED MAXIMUM WORKING PRESSURES FOR TYGON®

**& OTHER TUBINGS** (See Calculation of Working Pressures on following page.) The maximum working pressure of Tygon® tubing varies with the different formulations. In addition, working pressure is affected by temperature, size and wall thickness, time and material transmitted as explained below:

- **TEMPERATURE:** Since Tygon® tubing is produced from a variety of polymers, elastomers and rubbers, temperature should be considered in the selection of a Tygon® formulation for an end-use application. As a rule, tubing will stiffen as ambient temperature is reduced from standard room temperature (73°F/23°C). At higher temperatures, the tubing will become more flexible and physical properties such as tensile strength will become lower.
- **SIZE AND WALL THICKNESS:** Working pressure increases as the wall thickness increases relative to die bore size.
- **TIME:** If pressure exceeding the maximum suggested working pressure is maintained over a period of time, the tubing will gradually swell and eventually rupture.
- **MATERIAL TRANSMITTED:** Even materials such as solvents that attack Tygon® tubing can be handled over short periods of time. However, prolonged exposure tends to cause swelling, loss of normal tensile strength and reduced pressure resistance.

## Tygon® B-44-4X I.B. Pressure Tubing

Tygon® Pressure Tubing's unique flexibility gets it into service quickly and easily. This means less tubing footage, fittings and labor than required for rigid systems. Reinforced with a tough polyester inner-braid imbedded in the wall, it can handle four times the pressure of non-reinforced tubing. Tygon® Pressure Tubing is compatible with virtually all non-solvent chemicals, meeting the needs of many industries in hundreds of applications

Item #	I.D.	O.D.	Wall	Length	Price/ft.
ADA00018	¼	¾	⅜	50'	\$1.88
ADA00029	¾	¾	¾	50'	2.68
ADA00038	½	¾	¾	50'	3.69
ADA00046	¾	¾	¾	50'	4.78
ADA00053	¾	1	¾	50'	5.23
ADA00064	1	1 ½	¾	50'	8.69
ADA00070	1 ¼	1 ¾	¾	50'	12.42
ADA00074	1 ½	2	¾	50'	20.80
ADA05074	1 ½	2	¾	20'	20.81
ADA05079	2	2 ¾	¾	20'	45.42
ADA05086	3	3 ¾	¾	20'	62.09
ADA06074	1 ½	2	¾	10'	20.71
ADA06079	2	2 ¾	¾	10'	45.42
ADA06086	3	3 ¾	¾	10'	62.09

### Quick Spec

- Handles four times the pressure of non-reinforced tubing
- Clear wall for visualization of flow
- Smooth, non-porous bore won't trap particulate matter
- Meets FDA, 3-A and NSF criteria



where flexibility and higher pressure are required. Its clear wall permits positive flow monitoring and inspection.

The smooth inner bore of Tygon® Pressure Tubing (smoother than virtually all stainless steel) will not trap bacteria-harboring particles, making it ideal for food and beverage use. It is non-toxic, odorless, taste-free and exhibits outstanding resistance to the alkaline cleaners used in this industry.



## Tygon® B-44-3 Beverage Tubing

Tygon® Beverage Tubing is specially formulated for

transferring a wide variety of beverages including soft drinks, fruit juices, flavored teas and bottled water. In virtually all cases, Tygon® Beverage Tubing will not affect the taste or odor of product transferred through it, while its excellent non-wetting properties facilitate complete drainage and permit simple flush-cleaning.

Many of the unique properties inherent to Tygon® Beverage Tubing also apply to a wide variety of complex applications ranging from fine cosmetic production to the dispensing of water-based printing inks found in the publishing industry. The versatility and proven performance of Tygon® Beverage Tubing have made it today's most widely specified clear, flexible plastic tubing.

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAB00003	¼	¾	⅜	50'	\$4.2
AAB00005	½	¾	¾	50'	.52
AAB00007	¾	¾	¾	50'	.62
AAB00010	¾	¾	¾	50'	.74
AAB00012	¾	¾	¾	50'	.90
AAB00014	¾	¾	¾	50'	1.96
AAB00017	¾	¾	¾	50'	1.02
AAB00019	¾	¾	¾	50'	2.08
AAB00022	¾	¾	¾	50'	1.24
AAB00024	¾	¾	¾	50'	2.20
AAB00027	¾	¾	¾	50'	1.46
AAB00029	¾	¾	¾	50'	2.71
AAB00034	¾	1 ¼	¾	50'	3.00
AAB00036	¾	¾	¾	50'	1.76
AAB00038	¾	¾	¾	50'	3.36
AAB00046	¾	¾	¾	50'	3.83
AAB00053	¾	1	¾	50'	4.32
AAB00062	1	1 ¼	¾	50'	5.40
AAB00065	1	1 ½	¾	50'	11.99
AAB00069	1 ¼	1 ¾	¾	50'	6.58
AAB00070	1 ¼	1 ¾	¾	50'	9.88
AAB00071	1 ¼	1 ¾	¾	50'	14.39
AAB00073	1 ½	1 ¾	¾	50'	12.13
AAB00074	1 ½	2	¾	50'	16.74
AAB00076	1 ¾	2 ¼	¾	50'	18.91
AAB00078	2	2 ½	¾	50'	21.36
AAB05078	2	2 ½	¾	20'	21.36
AAB05079	2	2 ¾	¾	20'	30.16
AAB05080	2	3	¾	20'	39.16
AAB05081	2 ¼	2 ¾	¾	20'	24.04
AAB05085	3	3 ¾	¾	20'	27.99

**IMPORTANT:** It is the user's responsibility to ensure the suitability and safety of Saint-Gobain Performance Plastics tubing for all intended uses, including establishing the compatibility of any fluid with the tubing through which it is transmitted. Laboratory, field or clinical tests must be conducted in accordance with applicable requirements in order to determine the safety and effectiveness for use of tubing in any particular application. If intended for medical use, it is the user's responsibility to ensure that the tubing to be used complies with all applicable medical regulatory requirements.

**NOTE:** The ratings in the charts DO NOT reflect the extent to which extraction may occur, or the extent to which fluids may undergo any physical changes in properties or composition, as a result of coming into contact with the tubing. Saint-Gobain Performance Plastics makes no representation or warranty with respect to the susceptibility of any fluid to become contaminated or undergo changes in properties or composition as a result of possible extraction of tubing ingredients by the fluid to be transmitted. Certain corrosives that would be destructive to tubing with prolonged exposure can be satisfactorily handled for short periods of time if flushed with water after use. All ratings are based on room temperature (73°F). Chemical resistance will be adversely affected by elevated temperatures.

## Tygon® B-44-4X Food, Milk and Dairy Tubing



Producers of food, milk and dairy products insist upon Tygon® Food, Milk and Dairy Tubing for dependable performance in count-less filling, draining, transfer and processing applications. Its smooth, non-porous bore inhibits particle entrapment, promoting a sanitary fluid path by minimizing potential for bacterial growth. It has outstanding resistance to harsh alkaline cleaners and is equally unaffected by commonly used sanitizers.

Non-toxic, taste-free and odor-free, Tygon® Food, Milk and Dairy Tubing meets applicable regulatory standards for contact with food products. Complete clarity for positive visual inspection and flow control, it is available in up to a 6" inside diameter.

### Quick Spec

- Smooth, non-porous bore will not trap particulates or promote bacterial growth
- Compatible with foods containing a high oil content
- Resistant to harsh alkaline cleaners and sanitizers
- Excellent alternative to rigid piping systems
- Meets FDA, 3-A and NSF criteria

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAA00001	1/32	3/32	1/32	50'	\$1.11
AAA00002	1/16	1/8	1/32	50'	.17
AAA00004	3/32	1/4	1/32	50'	.21
AAA00007	1/8	1/4	1/16	50'	.62
AAA00009	3/16	1/2	1/32	50'	.32
AAA00011	1/4	1/2	1/16	50'	.37
AAA00013	3/8	1/2	1/16	50'	1.44
AAA00017	1/2	3/4	1/16	50'	1.02
AAA00019	3/4	1	1/8	50'	2.08
AAA00023	3/8	1/2	1/16	50'	1.83
AAA00025	1/2	3/4	1/16	50'	3.19
AAA00027	3/8	1/2	1/16	50'	1.46
AAA00029	3/8	1/2	1/16	50'	2.71
AAA00032	1/4	3/4	1/16	50'	1.71
AAA00033	1/4	3/4	1/16	50'	2.12
AAA00036	1/2	3/4	1/16	50'	1.76
AAA00038	1/2	3/4	1/16	50'	3.36
AAA00041	3/8	1/2	1/16	50'	2.64
AAA00046	3/8	1/2	1/16	50'	3.83
AAA00053	3/4	1	1/8	50'	4.32
AAA00055	3/4	1 1/4	3/16	50'	6.74
AAA00057	3/4	1 1/4	1/4	50'	9.59
AAA00059	3/4	1 1/4	1/4	50'	4.79
AAA00062	1	1 1/4	1/4	50'	5.40
AAA00065	1	1 1/2	1/4	50'	11.99
AAA00067	1 1/4	1 1/2	1/4	50'	5.99
AAA00070	1 1/4	1 1/2	3/16	50'	9.88
AAA00074	1 1/2	2	1/4	50'	16.74
AAA00078	2	2 1/2	1/4	50'	21.36
AAA05078	2	2 1/2	1/4	20'	21.36
AAA05079	2	2 1/4	3/8	20'	30.16
AAA05080	2	3	1/2	20'	39.16
AAA05082	2 1/2	3	1/4	20'	24.77
AAA05083	2 1/2	3 1/4	3/8	20'	35.02
AAA05085	3	3 1/2	1/4	20'	27.99
AAA05086	3	3 3/4	3/8	20'	39.62
AAA05088	4	5	1/2	20'	67.08
AAA05318	6	6 1/2	1/4	20'	131.59
AAA06088	4	5	1/2	10'	67.09
AAA06318	6	6 1/2	1/4	10'	131.59

Also available with reinforcement to withstand elevated working pressure.

## Norprene® A-60-F Food Process Tubing

Formulated to withstand the high temperatures frequently occurring during food and beverage processing, Norprene® Food Process Tubing will outlast and outperform virtually all other food grade tubings. Even following extended exposure to heat and ozone, Norprene® Food Process Tubing will not crack or deteriorate as commonly found when using traditional rubber tubings.

Extremely flexible, Norprene® Food Process Tubing resists kinks and retains its shape while



installing quickly and easily. Its excellent flex-ural fatigue resistance makes it the absolute best choice for use in peristaltic pumps often found in dispensing equipment. Repeatedly autoclavable, Norprene® Food Process Tubing can be steam cleaned in place, eliminating the need for frequent tubing replacement. When harsh sanitizing solutions are used, it exhibits exceptional chemical resistance and is entirely unaffected by a wide variety of cleaning solutions. Also available with reinforcement to withstand elevated working pressure.

### Quick Spec

- Temperature resistant from -75°F to 275°F
- Compatible with virtually all common sanitizers and cleaners
- Can be autoclaved repeatedly
- Meets FDA, 3-A and NSF criteria

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAL00003	1/8	3/8	1/8	50'	\$5.9
AAL00007	1/4	1/2	1/8	50'	.68
AAL00012	3/8	1/2	1/8	50'	.96
AAL00017	1/2	3/4	1/8	50'	1.17
AAL00019	1/4	1/2	1/8	50'	2.03
AAL00022	3/8	1/2	1/8	50'	1.34
AAL00027	1/2	3/4	1/8	50'	1.99
AAL00029	3/8	1/2	1/8	50'	3.17
AAL00038	1/2	3/4	1/8	50'	3.43
AAL00046	3/4	1	1/8	50'	4.26
AAL00053	3/4	1	1/8	50'	4.58

## Calculation of Working Pressures

The information below can be used to calculate the working pressure of a specific tubing.

- STEP ONE:** Locate Maximum Suggested Working Pressure of desired tubing size from the "Tubing Working Pressure Values" chart below.
- STEP TWO:** Multiply this working pressure value by the appropriate factor listed to the far right, for your selected Tygon® tubing formulation. For example: 1/8 inch ID, 1/8 inch OD Tygon® R-3603 tubing would be: 70 psi x 0.70 = 49 psi working pressure.

Working pressures are calculated at a 1:5 ratio relative to burst pressure. (A 1:4 ratio is used for those formulations noted with an asterisk in the chart to the right.) The factors provide only approximate working pressure values for the entire size range.

### STEP ONE: Tubing Working Pressure Values at 73°F (Test method ASTM D1559-88)

Max. Suggested				Max. Suggested			
Thickness	Inside	Outside	Working	Thickness	Inside	Outside	Working
Wall (in)	Dia. (in)	Dia. (in)	Pressure	Wall (in)	Dia. (in)	Dia. (in)	Pressure
			psi				kPa
			kPa				kPa
1/32	1/32	3/32	110	1/8	3/8	1/2	30
	1/16	1/8	70		1/4	1/2	28
	3/32	1/4	47		3/4	1	26
	1/4	3/4	45		1/2	1 1/2	23
	3/8	1 1/4	35		1	1 1/2	20
	1/2	1 1/2	34		1 1/8	1 1/2	19
	3/4	1 3/4	28		1 1/4	1 1/2	17
	1 1/4	2	22	3/32	3/4	1	60
	1 1/2	2 1/4	15		1/2	1 1/8	42
	1 3/4	2 1/2	10		3/4	1 1/2	39
	2	2 3/4	9		1	1 3/4	36
					1 1/4	1	33
1/16	0.020	0.145	260		1 1/2	1 1/4	31
	1/32	1/8	180		3/4	1 1/2	27
	1/8	3/8	100		1	1 1/2	24
	3/16	1/2	78	3/16	3/4	1	689
	1/4	3/4	62		1/2	1 1/4	85
	3/8	1 1/4	52		3/4	1 1/2	36
	1/2	1 1/2	45		1	1 1/2	28
	3/4	1 3/4	36		1 1/4	1 1/2	26
	1	2	30		1 1/2	1 1/2	24
	1 1/4	2 1/4	26		1 1/2	1 1/2	20
	1 1/2	2 1/2	23	1/4	3/4	1 1/4	80
	1 3/4	2 3/4	20		1/2	1 1/4	70
	2	3	12		3/4	1 1/4	45
	2 1/4	3 1/4	24		1	1 1/2	36
	2 1/2	3 1/2	11		1 1/4	1 1/4	30
	2 3/4	3 3/4	10		1 1/2	1 1/2	26
3/32	3/8	1/2	62		1 3/4	1 1/2	23
	1/4	3/4	49		2	2 1/2	20
	3/8	1 1/4	41		2 1/4	2 1/2	19
	1/2	1 1/2	36		2 1/2	3	17
	3/4	1 3/4	31		3	3 1/2	15
	1	2	28		6	6 1/2	8
	1 1/4	2 1/4	26	3/16	3/4	1	80
	1 1/2	2 1/2	24		1/2	1 1/4	70
	1 3/4	2 3/4	22		3/8	1 1/4	65
	2	3	22		1/2	1 1/2	55
1/4	1/4	3/8	100		3/4	1 1/2	28
	3/8	1/2	78		1	1 1/2	24
	1/2	3/4	62		1 1/4	1 1/2	20
	3/4	1	52		1 1/2	1 1/2	19
	1	1 1/4	45		1 3/4	1 1/2	18
	1 1/4	1 1/2	39	1/2	1	2	60
	1 1/2	1 3/4	36		2	3	36
	1 3/4	2	32		3	4	26
					4	5	20

### STEP TWO: Multiply maximum suggested working pressure value x factor

Formulation	Factor	Formulation	Factor	Formulation	Factor
Tygon® B-44-3	1.00	Versilic™ SPX-70 I.B.	3.00	Norprene® A-60-G	0.30
Tygon® B-44-4X	1.00	Tygon® 3350	0.15	Tygon® F-4040-A	0.80
Tygon® B-44-4X I.B.*	4.00	Tygon® 3370 I.B.*	4.00	Tygon® C-210-A	1.15
Norprene® A-60-F	0.30	Tygon® S-50-HL	0.90	Tygon® C-544-A I.B.*	3.10
Norprene® A-60-F I.B.*	2.00	Tygon® S-54-HL	1.28	Tygon® R-3400	1.05
Tygon® R-3603	0.70	Tygon® 2275	0.44	Fluon® F-5500-A	0.30
Tygon® R-3603 Vacuum	0.70	Tygon® 2275 I.B.*	2.50	Tygon® SE-200	1.40
PharMed™ Tubing	0.30	Tygon® 2075*	0.44	Chemfluor® FEP*, **	4.00
Tygon® R-1000	0.30	Tygon® 2001	0.44	Chemfluor® PFA*, **	4.00
Versilic™ SPX-50	0.20	Tygon® LFL	0.70	Chemfluor® PTFE*, **	4.00

\* These values are suggested working pressures. Refer to individual data sheets for actual working pressures.

Working pressures are calculated at a 1:4 ratio relative to burst pressure.

\*\* Increased pressure ratings are available in heavy-walled tubing. See individual data sheets for specific details.



## Norprene® A-60-F I.B. Pressure Tubing



exposure. Norprene® Pressure Tubing provides long service life when exposed to heat, abrasion and pressure. It is temperature resistant up to 275°F and retains flexibility to -75°F.

### Quick Spec

- Provides long service life
- Performs well at a range of temperature
- Ozone and UV light resistant
- Repeatedly autoclavable
- Meets FDA, 3A and NSF Criteria

Ideal for use in clean-in-place and steam-in-place cleaning and sterilization systems, Norprene® Pressure Tubing has excellent alkali resistance and is compatible with numerous oxidizing agents such as hydrogen peroxide, sodium hypochlorite and ozone.

Norprene® Pressure Tubing exhibits excellent resistance to ozone and UV light, with little or no signs of deterioration in laboratory testing equivalent to 10 years of outdoor

Item #	I.D.	O.D.	Wall	Length	Price/ft.
APW00019	1/4	1/2	1/8	50'	\$3.31
APW00029	3/8	3/4	1/8	50'	4.14
APW00038	1/2	3/4	1/8	50'	5.72
APW00046	3/8	1/2	1/8	50'	6.19
APW00054	3/4	1 1/4	3/32	50'	7.92
APW00064	1	1 1/2	3/16	50'	12.21



### SUPERIOR PERFORMANCE IN PERISTALTIC PUMPS

Designed specifically for use in peristaltic pump applications, Tygoprene™ Pump Tubing maintains a pump life of over 500 hours. With a durometer hardness of Shore A 60, it is extremely flexible and exhibits superior flex life, reducing downtime due to pump tubing failure.

### EXCELLENT PHYSICAL PROPERTIES

Exhibits excellent resistance to ozone, oxygen and sunlight aging. Tygoprene™ Pump Tubing remains flexible at -40°F and is temperature resistant up to 250°F. Tygoprene™ Pump Tubing complies with FDA CFR 21, 177.1210 criteria, which are applicable for food contact applications, and is NSF listed under standard 51. It has also passed the UL 94-HB flammability resistance classification.

### Quick Spec

- Long flex life in peristaltic pumps
- Temperature resistant up to 250°F
- Low extractables
- Meets FDA and NSF 51 criteria
- Alternative to PVC

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AN800003	1/8	3/16	1/16	50'	\$4.8
AN800007	1/8	1/4	1/16	50'	.54
AN800012	3/16	3/8	1/16	50'	.68
AN800017	1/4	1/2	1/16	50'	.72
AN800022	3/16	3/8	1/8	50'	.88
AN800027	3/8	1/2	1/8	50'	.98
AN800038	1/2	3/4	1/8	50'	1.90
AN800046	3/8	1/2	1/8	50'	2.34
AN800053	3/4	1	1/8	50'	2.56

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAC00001	1/32	3/32	1/32	50'	\$1.11
AAC00002	1/16	1/8	1/32	50'	.19
AAC00003	1/8	3/16	1/16	50'	.46
AAC00004	3/32	1/4	1/32	50'	.23
AAC00005	1/4	1/2	1/16	50'	.57
AAC00006	1/8	3/16	1/32	50'	.28
AAC00007	1/8	1/4	1/16	50'	.68
AAC00009	3/32	1/2	1/32	50'	.34
AAC00010	1/32	1/16	1/16	50'	.81
AAC00011	3/16	1/2	1/32	50'	.40
AAC00012	3/16	3/8	1/16	50'	.97
AAC00013	3/16	1/2	1/32	50'	1.56
AAC00014	3/16	1/4	1/8	50'	2.11
AAC00016	1/4	3/8	1/32	50'	.49
AAC00017	1/4	1/2	1/16	50'	1.11
AAC00018	1/4	3/4	1/32	50'	1.84
AAC00019	1/4	1/2	1/8	50'	2.26
AAC00022	3/16	3/8	1/16	50'	1.34
AAC00023	3/16	1/2	1/32	50'	2.00
AAC00024	3/16	3/4	1/8	50'	2.39
AAC00025	3/16	3/4	1/32	50'	3.47
AAC00027	3/8	1/2	1/16	50'	1.59
AAC00029	3/8	3/4	1/8	50'	2.94
AAC00032	1/8	3/8	1/16	50'	1.86
AAC00033	1/8	1/2	1/32	50'	2.30
AAC00034	1/8	1/4	1/8	50'	3.27
AAC00036	1/2	3/4	1/16	50'	1.91
AAC00038	1/2	3/4	1/8	50'	3.66
AAC00041	3/16	3/4	1/32	50'	2.88
AAC00046	3/8	1/2	1/8	50'	4.17
AAC00053	3/4	1	1/8	50'	4.70
AAC00055	3/4	1 1/8	3/16	50'	7.32
AAC00057	3/4	1 1/4	1/8	50'	10.42
AAC00059	1/2	1 1/8	1/8	50'	5.21
AAC00062	1	1 1/4	1/8	50'	5.87
AAC00065	1	1 1/2	1/8	50'	13.02
AAC00068	1 1/8	1 1/2	3/16	50'	10.26
AAC00069	1 1/4	1 1/2	1/8	50'	7.16
AAC00071	1 1/4	1 3/4	1/8	50'	15.63
AAC00073	1 1/2	1 7/8	3/16	50'	13.19
AAC00074	1 1/2	2	1/8	50'	18.20
AAC00076	1 3/4	2 1/4	1/8	50'	20.54
AAC00078	2	2 1/2	1/8	50'	23.21



## Tygon® R-3603 Laboratory Tubing

Crystal-clear and flexible, Tygon® Laboratory Tubing handles virtually all inorganic chemicals found in the lab. It is non-oxidizing and non-contaminating.

Long-lasting and crack-resistant, Tygon® Laboratory Tubing is less permeable than rubber tubing. The glassy-smooth inner bore helps prevent buildup so that cleaning is facilitated. Coils are marked at 1-foot intervals for easy measuring. Autoclavable. Remains flexible at -45°F (43°C). Durometer hardness: Shore A, 55.

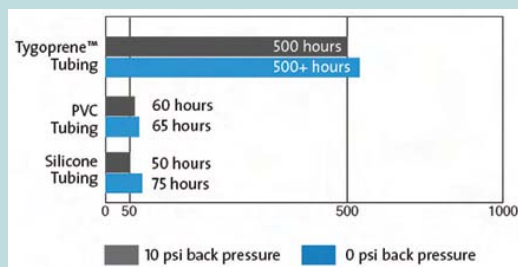
### Quick Spec

- Outstanding chemical resistance
- Increases productivity in peristaltic pumps - outlasts other clear tubing 2 to 1
- Lot-to-lot consistency for reproducible results
- Ideal for condensers, incubators, desiccators, gas lines and drain lines

## Tygoprene™ XL-60 Pump Tubing

### Comparative Peristaltic Pump Tubing Life

The table below depicts hours until failure of 1/4" ID x 3/8" OD tubing. In each case, a 3-roller pump head operating at 600 rpm under room temperature (73°F) conditions was utilized. Tubing failure is measured in hours of use prior to rupture.



The performance of tubing in peristaltic pumping applications is affected by the conditions of use and equipment utilized, along with size and wall thickness of the tubing tested. The data above is presented for information only and should not be utilized for specification purposes.

## Tygon® R-3603 Vacuum Tubing

Tygon® Vacuum Tubing has extra-heavy walls that will withstand a full vacuum at room temperature (29.9" [759 mm] of mercury at 73°F [23°C]) and up to 27" [686 mm] of mercury at 140°F [60°C].

Like standard Tygon® Laboratory Tubing, Tygon® Vacuum Tubing resists most inorganic chemicals and can be used in corrosive atmospheres.

Clarity allows monitoring for possible backups which could result in equipment damage. Tygon® Vacuum Tubing will not swell closed if vacuum pump oil should back up into it.

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAC00015	3/16	3/8	3/16	50'	\$4.08
AAC00020	1/4	5/8	3/16	50'	4.48
AAC00030	3/8	1 1/8	1/4	50'	7.41
AAC00040	1/2	1 3/8	3/8	50'	11.07
AAC00049	3/4	1 7/8	3/8	50'	16.07
AAC00058	3/4	1 7/8	3/8	50'	18.00
AAC00066	1	2	1/2	50'	31.92
<b>Unipacs</b>					Pack Price/Pk
AACUN007	1/8	3/8	3/16	10/10'	68.16
AACUN012	3/16	5/8	3/16	10/10'	97.46
AACUN017	1/4	3/4	3/16	10/10'	112.30
AACUN019	1/4	1/2	1/8	10/10'	227.00
AACUN027	3/8	1 1/4	3/16	10/10'	159.80
AACUN036	1/2	1 3/4	3/16	10/10'	192.30
AACUN053	3/4	1 7/8	1/2	10/10'	474.00
AACUN062	1	1 3/4	1/2	10/10'	591.30
<b>Metric</b>					mm mm mm M Price/M
AAC1S1502	2	4	1	15	1.11
AAC1S1517	3	5	1	15	1.47
AAC1S1518	4	6	1	15	1.70
AAC1S1503	5	8	1.5	15	3.44
AAC1S1504	6	9	1.5	15	3.87
AAC1S1505	7	10	1.5	15	4.13
AAC1S1506	8	12	2	15	6.16
AAC1S1507	10	14	2	15	6.51

Low vapor pressure (low outgassing) makes it suitable for vacuum applications down to  $3 \times 10^{-2}$  mm Hg at 165°F (74°C). Ideal for analytical testing of gases or vapors. Well-suited for use in making manometers.



### Quick Spec

- Holds full vacuum at room temperature
- Will not crack and age like rubber tubing
- Excellent clarity for visual inspection

## Tygon® R-1000 Ultra Soft Tubing



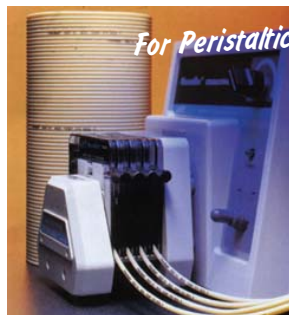
Tygon® Ultra-Soft Tubing resists a broad range of aqueous chemicals and provides an excellent alternative to silicone tubing in applications where corrosive chemicals are used. Its minimal resistance to compression permits use in low-torque pump applications including battery driven types.

Tygon® Ultra-Soft Tubing stays flexible at temperatures as low as -100°F (-73°C). Its smooth bore facilitates easy cleaning and helps prevent possible buildup. Tygon® Ultra-Soft Tubing is not autoclavable. Durometer hardness: Shore A, 40.

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAU00003	1/16	3/16	1/16	50'	\$5.54
AAU00007	1/8	1/4	1/16	50'	.80
AAU00012	3/16	3/8	1/16	50'	1.14
AAU00017	1/4	3/4	1/16	50'	1.32
AAU00019	1/4	1/2	1/16	50'	2.68
AAU00022	3/8	1 1/4	1/16	50'	1.60
AAU00027	3/8	1/2	1/16	50'	1.87
AAU00029	3/8	3/4	1/16	50'	3.49
AAU00036	1/2	1 1/4	1/16	50'	2.27
AAU00038	1/2	3/4	1/16	50'	4.26

### Quick Spec

- Ultra-soft and flexible
- Performs well at low temperatures (to -100°F)
- Excellent for use in low-torque pump applications



## For Peristaltic Pumps and Cell Culture

### PharMed® Tubing

PharMed® Tubing is less permeable to gases and vapors than silicone tubing. It is ideal for cell culture, fermentation, synthesis, separation, purification and process monitoring and control. Independent tests show that PharMed® Tubing is safe for use in sensitive cell culture applications.

PharMed® Tubing has very good general chemical resistance and excellent acid, alkali and oxidation resistance. Opaque to visible and UV light, it helps protect sensitive fluids. Continuous service temperature range is -60°F (-51°C) to 275°F (135°C).

### Quick Spec

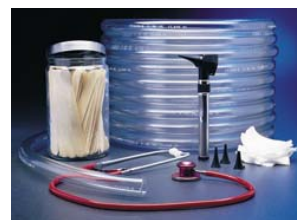
- Outlasts silicone tubing in peristaltic pumps by up to 30 times
- Heat weldable for sterile access in closed systems
- Can be autoclaved repeatedly
- Documented biocompatibility to the ISO 10993 Standard
- Meets USP Class VI, FDA and NSF criteria

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AY242605	.020	.145	.062	25'	\$1.74
AY242606	1/32	3/16	1/16	25'	2.07
AY242002	1/16	1/8	1/32	25'	2.20
AY242003	3/16	3/8	1/16	25'	2.67
AY242005	1/8	1/2	1/16	25'	3.17
AY242006	1/8	3/8	1/32	25'	2.41
AY242007	1/8	1/4	1/16	25'	2.67
AY242012	3/16	3/8	1/16	25'	2.73
AY242017	1/4	3/4	1/16	25'	3.21
AY242019	1/4	1/2	1/16	25'	5.67
AY242022	3/8	1 1/4	1/16	25'	3.38
AY242027	3/8	1/2	1/16	25'	4.11
AY242029	3/8	3/4	1/16	25'	5.34
AY242038	1/2	1 1/4	1/16	25'	6.54
AY242046	1/2	3/4	1/16	25'	7.73
AY242053	3/4	1	1/8	25'	10.79

## Tygon® S-50-HL Medical/Surgical Tubing

Originally developed for use in cardiac surgery, Tygon® Medical/Surgical Tubing's consistent quality provides dependable performance in medical device applications. Saint-Gobain Performance

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAX00001	1/32	3/32	1/32	50'	\$1.2
AAX00002	1/16	1/8	1/32	50'	.20
AAX00003	1/8	3/8	1/16	50'	.48
AAX00004	3/16	3/8	1/32	50'	.24
AAX00005	1/4	1/2	1/16	50'	.60
AAX00006	1/2	1 1/4	1/32	50'	.30
AAX00007	1/8	1/4	1/16	50'	.71
AAX00009	3/16	3/8	1/32	50'	.36
AAX00010	1/4	1/2	1/16	50'	.84
AAX00011	3/8	1 1/4	1/32	50'	.42
AAX00012	3/16	3/8	1/16	50'	1.02
AAX00013	3/8	1/2	1/32	50'	1.63
AAX00014	1/2	1 1/4	1/16	50'	2.22
AAX00016	1/4	3/8	1/32	50'	.53
AAX00017	1/4	1/2	1/16	50'	1.22
AAX00018	1/4	3/8	1/32	50'	2.02
AAX00019	1/4	1/2	1/16	50'	2.48
AAX00022	3/16	3/8	1/16	50'	1.48
AAX00023	3/8	1 1/4	1/32	50'	2.19
AAX00024	3/8	1/2	1/16	50'	2.62
AAX00027	1/2	1 1/4	1/16	50'	1.73
AAX00028	3/8	3/4	1/32	50'	2.26
AAX00029	3/8	1/2	1/16	50'	3.23
AAX00032	1/16	3/16	1/16	50'	2.04
AAX00033	1/8	1/4	1/32	50'	2.53
AAX00034	1/8	1/4	1/16	50'	3.58
AAX00036	1/4	3/8	1/16	50'	2.09
AAX00037	3/8	1 1/4	1/32	50'	2.86
AAX00038	1/2	1 1/4	1/16	50'	4.00
AAX00041	3/8	3/4	1/32	50'	3.16
AAX00045	1/2	1 1/4	1/32	50'	3.49
AAX00046	3/4	1 3/4	1/16	50'	4.58
AAX00047	1/2	1 1/4	1/32	50'	5.59
AAX00053	3/4	1	1/8	50'	5.16
AAX00059	3/4	1 1/4	1/8	50'	5.71
AAX00062	1	1 1/4	1/8	50'	6.43



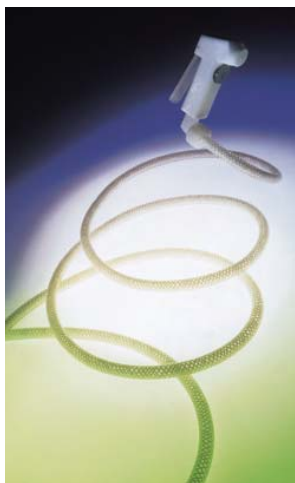
Plastics compounds its own materials to specific formulation requirements using select ingredients that have been carefully qualified and specified. To ensure formulation integrity, full characterization of chemical make-up and physical property and biological safety testing are performed on each lot of material before it is released to production for extrusion. Tygon® Medical/Surgical Tubing has been fully tested for biological safety to the ISO 10993 standard. Durometer hardness: Shore A, 66.

Tygon® Medical/Surgical Tubing can be sterilized by radiation, ethylene oxide, steam or chemical methods.

### Quick Spec

- Ideal for contact with blood
- Flexible and resilient with established performance in peristaltic pump applications
- Fully characterized to ISO 10993 and FDA guidelines for biocompatibility
- Meets USP Class VI criteria

## Tygon® 2275 I.B. High-Purity Pressure Tubing



Tygon® 2275 I.B. helps maintain product integrity during fluid transfer in pharmaceutical and biotechnology applications. Loss of fluid through migration into the tubing or adherence of fluid onto the tubing walls may create inconsistencies in final product results. Tygon® 2275 I.B. is hydrophobic and resists the sorption (absorption/adsorption) of aqueous fluids. This reduction in sorption minimizes the risk of fluid alteration in single or repeat-use applications.

Tygon® 2275 I.B. is virtually unaffected by chemical sanitizers and cleaners. As a result, it can be cleaned repeatedly without decreasing its service life. The non-wettable surface of the product facilitates complete drainage of fluid during the cleaning process. In addition, Tygon® 2275 I.B. can be sterilized easily using conventional gamma radiation gas (ethylene oxide) and autoclave methods.

Item #	I.D.	O.D.	Length	Price/ft.
AFH00014	3/16	1/8	50'	<b>\$3.02</b>
AFH00019	1/4	1/2	50'	<b>3.86</b>
AFH00029	3/8	3/4	50'	<b>4.71</b>
AFH00038	1/2	3/4	50'	<b>6.37</b>
AFH00046	3/4	7/8	50'	<b>7.30</b>
AFH00054	3/4	1 1/8	50'	<b>7.94</b>
AFH42064	1	1 3/8	25'	<b>13.91</b>
AFH06074	1 1/2	2	10'	<b>46.77</b>

### Quick Spec

- Low sorption to aqueous fluids
- Tough braid reinforcement for elevated working pressures
- Plasticizer-free
- Meets USP Class VI, FDA and NSF criteria

## Tygon® 2275 High-Purity Tubing



Tygon® High-Purity Tubing is ideal for handling sensitive fluids such as pharmaceutical or biological solutions. There is virtually no absorption of key fluid constituents into the tubing material or fluid adsorption onto the tubing walls. As a result, fluid alteration and loss is limited. There is no plasticizer to leach into or contaminate the fluid, yet the tubing remains flexible.

Tygon® High-Purity Tubing can be sterilized by radiation, ethylene oxide, steam or chemical methods.

Frequently, incineration is used to dispose of contaminated materials. While many tubings release hazardous by-products when burned, Tygon® High-Purity Tubing only releases carbon dioxide and water when properly incinerated, providing safe disposal.

Also available with reinforcement to withstand elevated working pressure.

### Quick Spec

- Provides an uncompromising fluid path for sensitive solutions
- Low sorption maintains fluid integrity
- Environmentally friendly – safe to dispose of through incineration
- Plasticizer-free – virtually no extractables
- Documented biocompatibility to the ISO 10993 Standard
- Meets USP Class VI, FDA and NSF criteria

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AER00003	3/16	3/16	1/16	50'	<b>\$1.08</b>
AER00007	1/8	1/4	1/16	50'	<b>1.69</b>
AER00012	3/16	3/16	1/16	50'	<b>1.82</b>
AER00017	1/4	3/8	1/16	50'	<b>1.97</b>
AER00022	3/16	1/2	1/16	50'	<b>2.27</b>
AER00027	3/8	1/2	1/16	50'	<b>2.47</b>
AER00038	1/2	3/4	1/16	50'	<b>5.54</b>
AER00046	3/4	7/8	1/16	50'	<b>6.42</b>
AER00053	3/4	1	1/16	50'	<b>6.91</b>
AER42064	1	1 3/8	3/16	25'	<b>11.86</b>

## Tygon® 3350 Sanitary Silicone Tubing

Designed for high-purity applications, Tygon® Sanitary Silicone Tubing's ultra-smooth inner bore can reduce the risk of particle entrapment and microscopic buildup during sensitive fluid transfer. In-house analysis of the inner surface of Tygon® Sanitary Silicone Tubing compared to other silicone tubing shows that it is up to three times smoother. In addition, this smoother fluid path facilitates complete system cleaning and sterilization.

Utilizing a platinum-curing process, Tygon® Sanitary Silicone Tubing eliminates the concern of extraction often encountered when alternative curing methods are used. It has also been fully characterized using the ISO 10993 standards, reducing user cost and time associated with process validation.

Also available with reinforcement to withstand elevated working pressure.

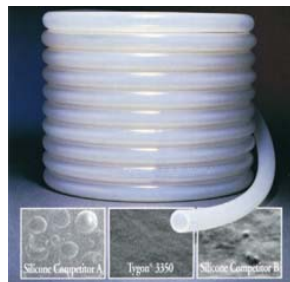


### Quick Spec

- Ultra-smooth inner bore reduces potential for particle entrapment
- Minimal extractables help maintain fluid integrity
- Hydrophobic surface improves fluid flow
- Documented biocompatibility to the ISO 10993 standard
- Meets USP Class VI, FDA and NSF criteria

Item #	I.D.	O.D.	Wall	Length	Price/ft.
ABW00001	1/32	3/32	1/32	50'	<b>\$0.97</b>
ABW00002	1/16	1/8	1/32	50'	<b>1.12</b>
ABW00003	1/8	3/16	1/16	50'	<b>1.50</b>
ABW00004	3/16	1/2	1/16	50'	<b>1.22</b>
ABW00005	1/2	3/4	1/16	50'	<b>1.74</b>
ABW00006	3/4	1	1/16	50'	<b>1.28</b>
ABW00007	1/2	3/4	1/8	50'	<b>1.88</b>
ABW00009	3/16	1/2	1/16	50'	<b>1.36</b>
ABW00011	3/16	1/2	1/16	50'	<b>1.60</b>
ABW00012	3/16	1/2	1/8	50'	<b>2.40</b>
ABW00013	3/16	1/2	1/8	50'	<b>3.43</b>
ABW00014	3/16	1/2	1/8	50'	<b>4.69</b>
ABW00016*	1/4	3/4	1/16	50'	<b>1.78</b>
ABW00017	1/4	3/4	1/8	50'	<b>2.62</b>
ABW00018	1/4	3/4	1/8	50'	<b>4.02</b>
ABW00019	1/4	3/4	1/8	50'	<b>5.46</b>
ABW00022	3/16	1/2	1/8	50'	<b>3.28</b>
ABW00023	3/16	1/2	1/8	50'	<b>4.63</b>
ABW00027	3/8	1/2	1/8	50'	<b>3.59</b>
ABW00028	3/8	1/2	1/8	50'	<b>5.29</b>
ABW00029	3/8	1/2	1/8	50'	<b>6.78</b>
ABW00037	1/2	3/4	1/8	50'	<b>6.50</b>
ABW00038	1/2	3/4	1/8	50'	<b>8.59</b>
ABW00053	3/4	1	1/8	50'	<b>11.64</b>
ABW00062	1	1 1/4	1/8	50'	<b>14.52</b>

## Tygon® 3370 I.B. Sanitary Silicone Pressure Tubing



Often specified in high-purity applications, Tygon® Sanitary Silicone Pressure Tubing is produced from a platinum-curing process that helps ensure the highest level of biocompatibility available. The ultra smooth inner surface and the ability to be cleaned and sterilized repeatedly in CIP and SIP systems helps to maintain fluid integrity throughout sensitive fluid transfer or processing. When used in combination with sanitary fittings, complete assemblies can be constructed that provide the sanitary conditions critical to pharmaceutical, biotechnology, cosmetic, food, dairy and beverage applications.

Braid-reinforced for increased pressure resistance, it also provides flexibility, durability, and chemical and temperature resistance to make it the ideal pressure tubing for a wide variety of industries.

### Quick Spec

- Consistently smooth inner surface reduces potential for particle entrapment
- Withstands repeated CIP and SIP sterilization
- Tough braid reinforcement for elevated working pressures
- Meets USP Class VI, FDA and NSF criteria

Item #	I.D.	O.D.	Length	Price/ft.
AHJ001718*	3/16	.443	50'	<b>\$11.98</b>
AHJ001719	1/4	.515	50'	<b>12.62</b>
AHJ001720	1/2	.687	50'	<b>15.57</b>
AHJ001721	3/4	.847	50'	<b>19.73</b>
AHJ001722	1	.980	50'	<b>25.78</b>
AHJ001671	3/4	1.150	50'	<b>29.39</b>
AHJ001724	1	1.390	50'	<b>36.98</b>
AHJ421725*	1 1/4	1.636	25'	<b>42.24</b>
AHJ421726*	1 1/2	1.900	25'	<b>44.46</b>
AHJ421798*	2	2.432	25'	<b>51.01</b>

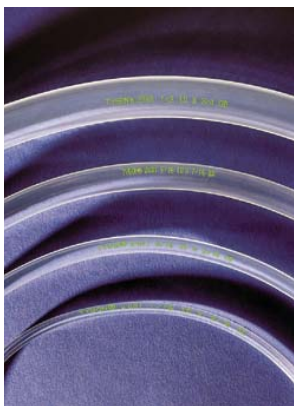
\*Consult factory for lead times.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 121



## Tygon® 2001 Plasticizer Free Tubing



### Quick Spec

- Superior flex life in peristaltic pumps
- Chemically resistant to a wide range of fluids
- Temperature resistant from -108°F to 135°F
- Clear for easy visual flow monitoring
- Meets FDA criteria for food contact

Tygon® Plasticizer Free Tubing is a uniquely engineered product that offers the low compression set properties of a thermoset rubber. Tygon® Plasticizer Free Tubing provides the most flexibility, highest temperature resistance and longest pump life available in a clear, plasticizer/oil free tubing. It is ideal for a broad range of applications including peristaltic pump applications, soap and detergent dispensing, water purification lines, food contact applications and chemical transfer. This uniquely engineered tubing will not embrittle or crack prematurely like other tubings that contain plasticizer or extender oils, benefiting the user with less downtime and tubing changes.

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AE300003	3/16	3/8	3/16	50'	<b>\$.97</b>
AE300007	1/4	1/2	3/16	50'	<b>1.51</b>
AE300012	3/8	3/4	3/16	50'	<b>1.68</b>
AE300017	1/2	3/4	3/16	50'	<b>1.88</b>
AE300022	3/4	1	3/16	50'	<b>2.08</b>
AE300027	3/4	1 1/2	3/16	50'	<b>2.32</b>
AE300038	1 1/2	2	3/16	50'	<b>5.28</b>
AE300046	3/4	1 1/2	3/8	50'	<b>6.21</b>
AE300053	3/4	1	1/2	50'	<b>6.72</b>
AE300064	1	1 1/2	3/8	50'	<b>11.74</b>

## Norprene® A-60-G Industrial Grade Tubing



Item #	I.D.	O.D.	Wall	Length	Price/ft.
AFL00003	3/16	3/8	3/16	50'	<b>\$.53</b>
AFL00007	1/4	1/2	3/16	50'	<b>.56</b>
AFL00008	1/4	3/8	3/16	50'	<b>1.06</b>
AFL00012	3/8	3/4	3/16	50'	<b>.59</b>
AFL00013	3/8	3/4	3/32	50'	<b>.90</b>
AFL00015	3/8	3/4	3/16	50'	<b>2.40</b>
AFL00017	1/2	3/4	3/16	50'	<b>.67</b>
AFL00018	1/2	3/4	3/32	50'	<b>1.10</b>
AFL00019	1/2	1/2	1/8	50'	<b>1.61</b>
AFL00020	1/2	3/4	3/16	50'	<b>2.81</b>
AFL00022	3/4	3/4	3/16	50'	<b>.84</b>
AFL00023	3/4	1/2	3/32	50'	<b>1.30</b>
AFL00026	3/4	1 1/4	1/4	50'	<b>4.78</b>
AFL00027	3/4	1/2	3/16	50'	<b>.96</b>
AFL00028	3/4	3/4	3/32	50'	<b>1.56</b>
AFL00029	3/4	3/4	3/16	50'	<b>2.13</b>
AFL00032	3/4	3/4	3/16	50'	<b>1.76</b>
AFL00036	1/2	3/4	3/16	50'	<b>1.40</b>
AFL00037	1/2	1 1/4	3/32	50'	<b>2.07</b>
AFL00038	1/2	3/4	1/8	50'	<b>2.67</b>
AFL00045	3/4	1 1/4	3/32	50'	<b>2.98</b>
AFL00046	3/4	1/2	1/8	50'	<b>3.21</b>
AFL00053	3/4	1	1/8	50'	<b>3.70</b>
AFL00062	1	1 1/4	1/8	50'	<b>4.80</b>

Norprene® Industrial Grade Tubing outperforms neoprene, EPDM and other general-purpose tubings in test after test and application after application. It will not weaken or crack after years of exposure to heat and ozone. This provides long service in a wide range of applications such as gasketing, abrasion-resistant sleeving and cable insulation. Performance formulated for on-the-job reliability, Norprene® handles temperatures from -75°F (-60°C) to 275°F (135°C), allowing the use of one material with a broad range of temperatures. It is heat sealable and can be joined without fittings. It also has excellent resistance to inorganic (acids and bases) fluids.

With its outstanding flexural fatigue resistance and high temperature capability, Norprene® Industrial Grade Tubing outlasts and outperforms virtually all other general service tubings in peristaltic and vacuum pump applications.

### Quick Spec

- Superior weathering
- Abrasion resistant
- Outstanding flexural fatigue resistance
- Wide temperature range
- Low gas permeability versus rubber tubing

## Tygon® LFL Long Flex Life Pump Tubing

Crystal-clear Tygon® Long Flex Life Pump Tubing is formulated specifically for use in peristaltic pump applications. With its superior flex life characteristics, manufacturing processes can be simplified by reducing production downtime due to pump tubing failure.

The excellent wear properties of Tygon® Long Flex Life Pump Tubing also lead to a reduction of particulate spallation. This feature limits the risk of sensitive-fluid contamination critical to the pharmaceutical, cosmetic, food and beverage industries.

Non-aging characteristics and broad chemical resistance provide users with versatility in use for a wide variety of applications. Safe and non-toxic Tygon® Long Flex Life Pump Tubing can be produced in up to a 6" inside diameter.

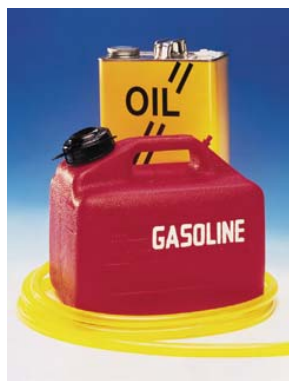
### Quick Spec

- Longest flex life of any clear Tygon® tubing
- Extremely low particulate spallation
- Broad chemical resistance
- Meets USP Class VI and FDA criteria



Item #	I.D.	O.D.	Wall	Length	Price/ft.
AVW42003	3/16	3/8	3/16	25'	<b>\$2.56</b>
AVW42007	1/4	1/2	3/16	25'	<b>2.96</b>
AVW42012	3/8	3/4	3/16	25'	<b>3.08</b>
AVW42017	1/2	3/4	3/16	25'	<b>3.03</b>
AVW42019	1/2	1/2	3/8	25'	<b>5.24</b>
AVW42022	3/4	3/4	3/16	25'	<b>3.53</b>
AVW42029	3/4	3/4	3/8	25'	<b>7.99</b>
AVW42038	1 1/2	2	3/8	25'	<b>8.47</b>
AVW06057	3/4	1 1/4	3/8	10'	<b>18.27</b>
AVW06064	1	1 1/2	3/8	10'	<b>19.00</b>

## Tygon® F-4040-A Fuel and Lubricant Tubing



A consistent performer lot after lot, Tygon® Fuel and Lubricant Tubing is the most requested fuel and lubricant tubing for a variety of applications – from small engine fuel lines to coolant transfer. Specifically designed to handle most fuels and industrial lubricants, Tygon® Fuel and Lubricant Tubing resists the swelling and hardening caused by hydrocarbon-based fluids. This significantly reduces the risk of failure due to cracking and leakage. Its minimum extractability safeguards the liquid or vapor being transferred against adulteration.

Extremely flexible (Shore A, 57), Tygon® Fuel and Lubricant Tubing simplifies installation, even in tight places. It is translucent yellow for positive identification and to allow easy flow monitoring. It is routinely used to handle gasoline, kerosene, heating oils, cutting compounds and glycol-based coolants.

### Quick Spec

- Resists embrittlement
- Compatible with most petroleum-based products
- Resists swelling and cracking
- Ozone and UV light resistant

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAG00700	.080	.140	.030	50'	<b>\$.56</b>
AAG00165	3/32	3/16	3/64	50'	<b>.56</b>
AAG00007	1/8	1/4	3/16	50'	<b>.71</b>
AAG00012	3/16	3/8	3/16	50'	<b>1.01</b>
AAG00017	1/4	3/8	3/16	50'	<b>1.22</b>
AAG00022	3/8	3/4	3/16	50'	<b>1.48</b>
AAG00027	3/8	1/2	3/16	50'	<b>1.73</b>
AAG00029	3/8	3/4	3/16	50'	<b>3.21</b>
AAG00032	3/8	3/4	3/16	50'	<b>2.03</b>
AAG00036	1/2	3/4	3/16	50'	<b>2.08</b>
AAG00038	1/2	3/4	1/8	50'	<b>3.99</b>
AAG00046	3/4	1	3/8	50'	<b>4.54</b>
AAG00053	3/4	1	1/2	50'	<b>5.13</b>



## Tygothane® C-210-A Precision Polyurethane Tubing

Our rigidly controlled manufacturing process makes Tygothane® Precision Polyurethane Tubing the flexible polyurethane tubing that has consistently tight tolerances from lot to lot. Precision tolerances and high elasticity provide the user with an easy, worry-free attachment to fittings. Made of a tough, ester-based polyurethane, Tygothane® Precision Polyurethane Tubing's clarity, high tear strength and excellent abrasion resistance make it ideal for many applications, including fuel and lubricant lines, pneumatic lines, abrasive product transfer and cable jacketing. It also offers exceptional resistance to oils, greases, fuels and many chemicals.

Able to withstand rugged daily use, Tygothane® Precision Polyurethane Tubing resists weathering and can be safely used in temperatures ranging from -100°F (-73°C) to 200°F (93°C). It meets FDA criteria for food and beverage use and is also available in ether-based, medical grade and reinforced formulations.

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AEM02002	1/8	3/8	1/32	100'	<b>\$1.19</b>
AEM02006	1/8	3/8	1/32	100'	<b>.24</b>
AEM02007	1/8	3/8	1/16	100'	<b>.47</b>
AEM02011	3/16	1/2	1/32	100'	<b>.34</b>
AEM02012	3/16	3/4	1/16	100'	<b>.59</b>
AEM02013	3/16	3/4	1/32	100'	<b>1.19</b>
AEM02016	1/4	3/4	1/32	100'	<b>.61</b>
AEM02017	1/4	3/4	1/16	100'	<b>.72</b>
AEM02018	1/4	3/4	1/32	100'	<b>1.42</b>
AEM02019	1/4	1/2	1/16	100'	<b>1.91</b>
AEM02022	3/16	1/2	1/16	100'	<b>1.03</b>
AEM02027	3/16	1/2	1/16	100'	<b>.84</b>
AEM02028	3/16	3/4	1/32	100'	<b>1.30</b>
AEM02029	3/16	3/4	1/16	100'	<b>1.90</b>
AEM02033	1/2	3/4	1/32	100'	<b>1.68</b>
AEM02034	1/2	1 1/4	1/16	100'	<b>2.17</b>
AEM02036	1/2	3/4	1/16	100'	<b>1.23</b>
AEM02037	1/2	1 1/4	1/32	100'	<b>1.80</b>
AEM02038	1/2	3/4	1/16	100'	<b>2.31</b>
AEM02044	3/4	3/4	1/16	100'	<b>1.52</b>
AEM02045	3/4	1 1/4	1/32	100'	<b>2.33</b>
AEM02046	3/4	3/4	1/16	100'	<b>2.68</b>
AEM02052	3/4	1 1/4	1/32	100'	<b>2.64</b>
AEM02053	3/4	1	1/16	100'	<b>3.02</b>
AEM02059	1	1 1/4	1/16	100'	<b>3.76</b>
AEM02062	1	1 1/4	1/16	100'	<b>3.93</b>



## Tygon® R-3400 UV Resistant Tubing

Ideal for virtually any permanent or temporary chemical transfer application, Tygon® UV Resistant Tubing combines suppleness and flexibility with resistance to a wide range of chemicals. It shows exceptional resistance to strong acids and many alkalis. The flexibility of Tygon® UV Resistant Tubing makes it quick and easy to put into service, providing considerable savings on installation time and cost. Black in color, it is resistant to ultraviolet light, ozone and weathering, making it ideal for many outdoor applications. Standard inventoried sizes of Tygon® UV Resistant Tubing have sufficient wall thickness to block transmission of all UV light.

In-house testing also indicates a UL 94V-0 and UL 94HB flammability rating.

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AAE00002	1/8	3/8	1/32	50'	<b>\$2.21</b>
AAE00004	3/16	1/2	1/32	50'	<b>.27</b>
AAE00005	3/16	1/2	1/16	50'	<b>.62</b>
AAE00007	1/4	1/2	1/16	50'	<b>.73</b>
AAE00010	3/16	1/2	1/16	50'	<b>.87</b>
AAE00011	3/16	1/2	1/32	50'	<b>.46</b>
AAE00012	3/16	3/4	1/16	50'	<b>1.04</b>
AAE00013	3/16	3/4	1/32	50'	<b>1.68</b>
AAE00017	1/4	3/4	1/16	50'	<b>1.21</b>
AAE00018	1/4	3/4	1/32	50'	<b>1.99</b>
AAE00022	3/16	1/2	1/16	50'	<b>1.46</b>
AAE00027	3/16	1/2	1/16	50'	<b>1.71</b>
AAE00029	3/16	3/4	1/16	50'	<b>3.19</b>
AAE00032	1/2	3/4	1/16	50'	<b>2.16</b>
AAE00038	1/2	3/4	1/16	50'	<b>3.94</b>
AAE00046	3/4	1 1/4	1/16	50'	<b>4.50</b>
AAE00053	3/4	1	1/16	50'	<b>5.08</b>

### Quick Spec

- Black in color, protects light-sensitive fluids
- Wide range of chemical resistance
- Ozone resistant
- Excellent burn resistance

## Tygothane® C-544-A I.B. Precision Polyurethane Pressure Tubing



More flexible than many other reinforced urethane tubings, Tygothane® Pressure Tubing can be used in some of the most physically demanding applications, such as those requiring a tight bend radius. Specially formulated from tough, ether-based polyurethane resin, Tygothane® Pressure Tubing is resistant to a range of chemicals, including oils, greases, solvents and chemicals.

Because of its excellent wear properties, Tygothane® Pressure Tubing frequently out-

performs traditional rubber, plastic and metal materials when exposed to abrasive conditions. Tygothane® Pressure Tubing is also plasticizer free, and remains flexible even when cycled through temperature extremes.

### Quick Spec

- Abrasion and tear resistant
- Braid reinforcement for elevated working pressures
- Resistant to oils, greases and fuels
- Flexible even in sub-zero temperatures
- Meets FDA criteria for food contact
- Meets NSF 61 criteria for potable water contact\*

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AZY02008	1/8	3/8	1/32	100'	<b>\$1.62</b>
AZY02014	3/16	1/2	1/32	100'	<b>1.67</b>
AZY02019	1/4	1/2	1/32	100'	<b>1.72</b>
AZY02029	3/16	3/4	1/32	100'	<b>2.43</b>
AZY02038	1/2	3/4	1/32	100'	<b>2.99</b>
AZY02046	3/4	1 1/4	1/32	100'	<b>4.30</b>
AZY02054	3/4	1 1/4	1/32	100'	<b>4.78</b>
AZY02064	1	1 1/4	1/16	100'	<b>6.44</b>
AZY00071	1 1/4	1 1/2	1/16	50'	<b>12.66</b>
AZY00074	1 1/2	2	1/16	50'	<b>14.20</b>
AZY00078	2	2 1/2	1/16	50'	<b>36.52</b>

\*NSF has length restriction, determined by tubing size, for NSF 61 applications.

## Fluran® F-5500-A Severe Environment Tubing



Made of a proprietary fluoroelastomer, Fluran® Severe Environment Tubing has both the physical and chemical characteristics that make it ideal for severe environments, such as dry cleaning

fluid lines and solvent recovery systems, where other flexible tubings fail. Fluran® Severe Environment Tubing can be used in continuous service with temperatures as high as 400°F (204°C) and has excellent resistance to corrosive chemicals, oils, fuels, solvents and most mineral acids.

This opaque, black tubing helps protect light-sensitive materials being transferred and will not prematurely crack and age when exposed to ozone, sun and weather. It is highly flexible and resilient, making it the ideal choice in peristaltic pumping of extremely corrosive materials. A food grade formulation is available upon request.

### Quick Spec

- Provides continuous service at temperatures up to 400°F (204°C)
- Excellent resistance to corrosive chemicals, oils, fuels and solvents
- Resists ozone, sunlight and weathering
- Opaque black color helps protect light sensitive fluids

Item #	I.D.	O.D.	Wall	Length	Price/ft.
AGN00002	1/8	3/8	1/32	50'	<b>\$2.24</b>
AGN00007	1/8	1/2	1/16	50'	<b>6.42</b>
AGN00012	3/16	1/2	1/16	50'	<b>8.83</b>
AGN00017	1/4	3/4	1/16	50'	<b>11.08</b>
AGN00022	3/16	3/4	1/16	50'	<b>12.84</b>
AGN00027	3/16	1/2	1/16	50'	<b>14.04</b>

## Flex GP 70 PVC Clear Tubing



A cost-effective selection when your application does not require premium-grade, higher performance PVC tubing. Its materials comply with the Food Additives Amendment of the FDA and is flexible and transparent.

*See Plastic  
Tube Cutter on  
page 125*

### FINGER LAKES EXTRUSION

#### Quick Spec

Durometer: 70

- Clear and flexible
- Complies with FDA CFR 21 for food packaging
- Resists aging
- Resistant to a broad range of chemicals
- Excellent wearability
- Easy to connect
- Smooth inner wall; excellent flow characteristics
- Cost-effective alternative to ClearFLEX for applications that don't require regulatory compliances
- Light weight, yet tough and abrasion-resistant

## Clear Flex 60 Premium PVC Tubing



Finger Lakes 60 will handle most inorganic chemicals found in the laboratory. The most flexible of our formulations, Finger Lakes 60 is easy to use on laboratory equipment and medical applications.

*As Low As  
20¢/ft*

### FINGER LAKES EXTRUSION

#### Quick Spec

Durometer: 60

- Long service life — non-aging, non-oxidizing.
- Smooth inner wall resists build-up
- Tight bend radius
- Soft and flexible — easy to slip over fittings
- Outstanding flex life

Item #	Inside Diameter	Outside Diameter	Wall Thickness	Wk. Press @ 73°F	Price/Ft.
80000006	3/32	5/32	1/32		<b>\$2.20</b>
81604245	1/8	3/4	1/16	50	<b>.26</b>
81604295	3/16	5/16	1/16	36	<b>.36</b>
81604335	1/4	3/8	1/16	30	<b>.44</b>
81604345	1/4	1/2	1/8	46	<b>.87</b>
81604390	5/16	7/16	1/16	28	<b>.51</b>
81604430	3/8	1/2	1/16	22	<b>.61</b>
81604440	3/8	5/8	1/8	40	<b>1.12</b>
80000170	7/16	11/16	1/8	34	<b>1.09</b>
81604505	1/2	3/4	1/16	20	<b>.73</b>
81604515	1/2	3/4	1/8	30	<b>1.39</b>
81604570	5/8	7/8	1/8	26	<b>1.57</b>
81602605	3/4	1	1/8	22	<b>1.78</b>
81602675	1	1 1/4	1/8	18	<b>2.22</b>
81602685	1	1 1/2	1/4	26	<b>4.88</b>
81602715	1 1/4	1 3/4	3/16	22	<b>5.89</b>
81602755	1 1/2	2	1/4	24	<b>6.88</b>
81602790	2	2 1/2	1/4	18	<b>9.16</b>

Item #	Inside Diameter	Outside Diameter	Wall Thickness	Wk. Press @ 73°F	Price/Ft.
82004170	1/16	1/8	1/32	66	<b>\$5.09</b>
82004240	1/8	3/16	1/32	46	<b>.10</b>
82004245	1/8	1/4	1/16	62	<b>.10</b>
82004295	3/16	5/16	1/16	54	<b>.11</b>
82004335	1/4	3/8	1/16	54	<b>.12</b>
82004345	1/4	1/2	1/8	66	<b>.29</b>
82004390	5/16	7/16	1/16	48	<b>.14</b>
82004400	5/16	9/16	1/8	66	<b>.32</b>
82004430	3/8	1/2	1/16	44	<b>.17</b>
82004440	3/8	5/8	1/8	58	<b>.38</b>
82004505	1/2	3/4	1/16	28	<b>.28</b>
82004515	1/2	3/4	1/8	44	<b>.51</b>
82004560	5/8	3/4	1/16	28	<b>.30</b>
82004570	5/8	7/8	1/8	38	<b>.59</b>
82002605	3/4	1	1/8	34	<b>.67</b>
82002640	7/8	1 1/8	1/8	30	<b>.83</b>
82002675	1	1 1/4	1/8	24	<b>.88</b>
82002690	1	1 1/2	1/4	44	<b>1.84</b>
82002710	1 1/4	1 1/2	1/8	20	<b>1.19</b>
82002720	1 1/4	1 3/4	1/4	44	<b>2.28</b>
82002755	1 1/2	2	1/4	38	<b>2.73</b>
82002790	2	2 1/2	1/4	34	<b>4.74</b>
82002805	2 1/4	2 3/4	1/4	34	<b>5.52</b>
82002815	2 1/2	3	1/4	30	<b>6.58</b>
82002840	3	3 1/2	1/4	25	<b>9.21</b>

## Braid Flex 70 Reinforced Tubing



The interwoven reinforcement locks braid into place. Movement is minimized, strength is maintained, and the chance of delamination is greatly reduced. Even with this superior reinforcement, Finger Lakes 70 remains extremely flexible. Finger Lakes 70 complies fully with FDA criteria.

### FINGER LAKES EXTRUSION

#### Quick Spec

Durometer: 70

- Complies with FDA CFR 21 for food packaging
- Embedded braid prevents material entrapment, ensures easy cleaning
- Easy to bend into place
- Suitable for use with foods and beverages
- Flexible; permits tight compression of crimp fittings for leakproof connections
- Maximum working pressure clearly printed on tubing
- Clear tubing allows full visual flow monitoring

Item #	Inside Diameter	Outside Diameter	Wall Thickness	Wk. PSI @ 73°F	Price/Ft.
84704340	1/4	7/16	3/32	275	<b>\$5.56</b>
84704395	5/16	1/2	3/32	275	<b>.58</b>
84704435	3/8	9/16	3/32	250	<b>.59</b>
84704515	1/2	3/4	1/8	230	<b>.78</b>
84704570	5/8	7/8	1/8	210	<b>1.24</b>
84702605	3/4	1	1/8	175	<b>1.37</b>
84702680	1	1 1/16	5/32	140	<b>2.00</b>
84702715	1 1/4	1 3/8	3/16	100	<b>3.43</b>
84702750	1 1/2	1 7/8	3/16	80	<b>4.11</b>
84702790	2	2 1/2	1/4	70	<b>7.20</b>

\*From standard stock



**USCO tech tip**

For an easier connection or disconnection between PVC tubing and barbed fittings, dip the tubing in hot water. The hot water helps soften and expand PVC tubing allowing it to fit over or slide off the fitting more easily.

*Tubing  
can be cut and  
ordered in 25 foot  
increments\**



## Parflex Polyethylene Tubing Instrument Grade

Parflex flexible polyethylene thermoplastic tubing is extruded from high molecular weight resin for increased dimensional stability, uniformity and long-term strength. Its resistance to environmental stress cracking greatly exceeds that of ordinary polyethylene tubing. Parflex polyethylene tubing is available in black as well as seven coding colors as recommended by the Instrument Society of America. Black (EB) tubing contains an ultraviolet inhibitor which is recommended for use in sunlit areas.



Item #	Color	O.D.	I.D.	Price/ft.
E430100	Natural	1/4	.170	<b>\$.17</b>
EB430100	Black	1/4	.170	<b>.17</b>
E530100	Natural	5/16	.187	<b>.22</b>
EB530100	Black	5/16	.187	<b>.22</b>
E440100	Natural	3/8	.250	<b>.29</b>
EB440100	Black	3/8	.250	<b>.29</b>
E660100	Natural	1/2	.375	<b>.47</b>
EB660100	Black	1/2	.375	<b>.43</b>
E1080100	Natural	5/8	.500	<b>.68</b>
EB1080100	Black	5/8	.500	<b>.68</b>



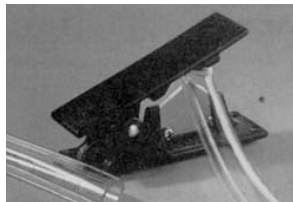
## Parflex Polypropylene Tubing Laboratory Grade

Parker Parflex flexible polypropylene tubing may be used at higher temperatures and working pressures than polyethylene tubing. Resistance to hot water and hot corrosive acids is excellent. Polypropylene tubing will last many times longer than nylon tubing in hot water service. Parker polypropylene tubing is available in pure white or ultraviolet resistance black formulations. White polypropylene meets all specifications of the U.S.F.D.A. for materials in contact with foods or drugs used for human consumption. Good resistance to mineral and vegetable oils.

Item #	Color	O.D. in. ±.005	Nom. I.D.	Working Pressure @ 73°F	Price Per Foot
PP211000	White	1/8	.080	300	<b>\$.10</b>
PPB211000	Black	1/8	.080	1000	<b>.10</b>
PP320500	White	3/16	.120	300	<b>.17</b>
PPB320500	Black	3/16	.120	500	<b>.17</b>
PP430500	White	1/4	.170	300	<b>.21</b>
PPB430500	Black	1/4	.170	500	<b>.21</b>
PP530500	White	5/16	.187	300	<b>.33</b>
PPB530500	Black	5/16	.187	500	<b>.33</b>
PP640500	White	3/8	.250	300	<b>.40</b>
PPB640500	Black	3/8	.250	500	<b>.40</b>
PPB60250	White	1/2	.375	250	<b>.70</b>
PPB860250	Black	1/2	.375	250	<b>.70</b>
PP1080100	White	5/8	.500	100	<b>1.12</b>
PPB1080100	Black	5/8	.500	100	<b>1.12</b>



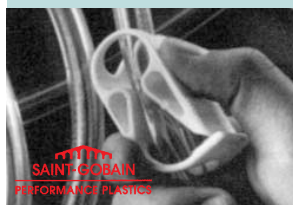
As Low As  
**10¢/ft**



### Plastic Tube Cutter

Cuts from 1/16" to 3/4" O.D. tubing. An easy to handle razor-edged tube cutter, closes automatically, assuring clean and square cuts. May be used with polyethylene, polypropylene, nylon and other plastic tubing.

Item #	Description	Price
PTC	Plastic Tube Cutter	<b>\$9.87</b>
PTC001RB	Replacement Blade	<b>2.43</b>



### Pinch Clamp

Allows precise, one-hand regulation of liquid flow from completely open to completely closed. This all-plastic autoclavable clamp won't rust, corrode or deform. Molded of durable polypropylene (PP) into one piece with no sharp edges. Fits tubing with 1/4 in. (6.4 mm) to 7/16 in. (11.1 mm) O.D.

Item # 6165-0002

**\$1.66**

## Chemflur® PFA Tubing – Perfluoroalkoxy



### Quick Spec

- High level of purity
- Excellent chemical resistance
- Retains higher mechanical strength at elevated temperatures compared to PTFE
- High resistance to stress cracking

Item #	O.D.	I.D.	Wall	Length	Price/Length
TSPF35-0125-031-50	1/8	1/16	.031	50'	<b>\$53.40</b>
TSPF35-0125-031-10				100'	<b>106.71</b>
TSPF35-0187-031-50	3/16	1/8	.031	50'	<b>86.88</b>
TSPF35-0187-031-10				100'	<b>173.74</b>
TSPF35-0236-039-50	.236	.158	.039	50'	<b>93.46</b>
TSPF35-0236-031-10				100'	<b>188.22</b>
TSPF35-0236-031-50	1/4	3/16	.031	50'	<b>112.72</b>
TSPF35-0236-031-10				100'	<b>225.46</b>
TSPF35-0250-047-50	1/4	5/32	.047	50'	<b>162.38</b>
TSPF35-0250-031-10				100'	<b>324.78</b>
TSPF35-0250-062-50	1/4	1/8	.062	50'	<b>193.39</b>
TSPF35-0250-031-10				100'	<b>386.79</b>
TSPF35-0312-031-50	5/16	1/4	.031	50'	<b>144.79</b>
TSPF35-0312-031-10				100'	<b>289.57</b>
TSPF35-0312-062-50	5/16	3/16	.062	50'	<b>267.86</b>
TSPF35-0312-031-10				100'	<b>535.71</b>
TSPF35-0375-031-50	3/8	5/16	.031	50'	<b>182.01</b>
TSPF35-0375-031-10				100'	<b>364.04</b>
TSPF35-0375-062-50	3/8	1/4	.062	50'	<b>296.82</b>
TSPF35-0375-031-10				100'	<b>593.62</b>
TSPF35-0437-031-50	7/16	3/8	.031	50'	<b>221.69</b>
TSPF35-0437-031-10				100'	<b>443.49</b>
TSPF35-0500-031-50	1/2	7/16	.031	50'	<b>251.31</b>
TSPF35-0500-031-10				100'	<b>502.61</b>
TSPF35-0500-062-50	1/2	3/8	.062	50'	<b>370.23</b>
TSPF35-0500-031-10				100'	<b>740.49</b>



Saint-Gobain Performance Plastic's stringent material quality control, state-of-the-art process control and outstanding customer service are why industry leaders worldwide insist upon Chemflur® PFA Tubing. Made from standard PFA resin (perfluoroalkoxy), Chemflur® PFA Tubing is widely used in the semiconductor, laboratory, environmental and pharmaceutical industries where ultrapure chemicals (including water) require precise quality control.

Chemflur® PFA Tubing is also available in even higher purity grades for extremely critical applications.

From Only  
**\$53.40**

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 125

Tubing & Hose

## TYGON® Silver Antimicrobial Tubing



### Is Your Tubing Protected Against Microbes?

Microorganisms are living cells so small that most can only be seen with a microscope — they are a type of microorganism found everywhere and include bacteria, fungi and algae. Growth of microbes on many materials can lead to foul odors, discoloration and formation of mildew and biofilm. In the case of tubing, microbes can contaminate the material being transferred, as well as degrade the tubing itself.

Item #	I.D. (inches)	O.D. (inches)	Wall Thickness (inches)	Package Length (ft)	Max. Working Bend Radius (inches)	Vacuum Rating, at 73°F (psi)*	In. of Mercury at 73°F	Price
AS600007	1/8	1/4	1/16	50	1/2	65	29.9	<b>\$1.33</b>
AS600012	3/16	5/16	1/16	50	3/4	50	29.9	<b>1.61</b>
AS600017	1/4	5/8	1/16	50	3/4	40	29.9	<b>1.71</b>
AS600027	3/8	1/2	1/16	50	1 1/2	30	25.0	<b>2.36</b>
AS600038	1/2	3/4	1/8	50	1 1/2	38	29.9	<b>3.84</b>

**NEW**

SAINT-GOBAIN  
PERFORMANCE PLASTICS

### HOW IT WORKS

AlphaSan®, the antimicrobial polymer compound used by Saint-Gobain, is a zirconium-based ceramic ion-exchange resin containing silver. Silver is recognized as being safe for human contact and is an integral part of antimicrobial additives that provide several benefits.

### Quick Spec

- Plasticizer-free inner bore
- Formulated with a silver-based compound on I.D. surface
- Reduces formation of biofilm and mildew
- Inhibits growth of microbes
- Will not discolor
- Meets FDA criteria
- Meets NSF 51 criteria

### TYPICAL APPLICATIONS

- Food and beverage
- Ice machines
- Water purification
- Environmental
- Dairy
- Lab



### Series K6155/K6158 – Non-toxic PVC hose

Nominal ID (In)	(mm)	Nominal OD (In)	(mm)	Max. Working* Pressure (PSI) @70°F @122°F (20°C) (50°C)		Standard Length Coils	Approx. Weight/ package	Item#	Price/ 100 ft.
Series KK6155 - White hose									
3/4"	12.7	.750"	19.1	200	100	300 ft.	40 lbs.	K6155-08X300	\$84.03
1/2"	19.1	1.031"	26.2	150	85	200 ft.	43 lbs.	K6155-12X200	142.72
1"	25.4	1.375"	34.9	150	75	200 ft.	59 lbs.	K6155-16X200	170.11
Series KK6158 - Grey hose									
3/8"	9.5	.594"	15.1	225	125	300 ft.	27 lbs.	K6158-06X300	\$65.56
1/2"	12.7	.750"	19.1	200	100	300 ft.	40 lbs.	K6158-08X300	84.03
3/4"	19.1	1.031"	26.2	150	85	200 ft.	43 lbs.	K6158-12X200	142.72
1"	25.4	1.300"	33.0	125	75	200 ft.	59 lbs.	K6158-16X200	215.84
1 1/2"	38.1	1.938"	49.2	100	50	100 ft.	64 lbs.	K6158-24X100	458.96

\*Note: Working Pressure decreases as temperature increases. Pressure ratings can only be obtained with proper coupling procedures. Use of compression fittings with Kuri Tec® yarn-reinforced hose is not recommended. Hose claims involving use of these fittings will be disallowed.

## Kuri Tec® "High Purity" Non-Toxic PVC Potable Water Hose

### Quick Spec

#### CONSTRUCTION

- Tube: Clear PVC compound, formulated in compliance with FDA<sup>1</sup>, NSF<sup>2</sup> and California Proposition 65<sup>3</sup>
- Reinforcement: High tensile strength yarn

- Cover: Non-toxic PVC compound, available in two solid colors:  
K6155 – white and K6158 – grey.  
Additional non-toxic colors (red, black, blue, green and sand) are available on a special order basis.

### FEATURES

- Made with PVC compounds certified under NSF-51/NSF-61
- White or gray jacket to reduce tendency for algae growth and U. V. degradation in warm sunny applications
- Non-marking cover
- Non-perforated cover
- Non-conductive compounds
- Silicone-free
- One-piece lengths

### APPLICATIONS

- Transfer of potable water
- Transfer of deionized water
- Induction welding tubing lines
- Temporary residential water supply lines
- Water transfer lines for semiconductor manufacturing, where applicable
- Applications requiring a non-conductive hose

### Compliance Footnotes:

**1 FDA** – CFR Title 21 Parts 170 to 199.

**2 NSF** – The tube compound is certified under NSF-51, Plastic materials and components used in food equipment and is also certified under NSF-61 for drinking water system components. (Not to exceed a use of 128.9 square inches per litre.)

**3 Proposition 65** – Compounds contain no substances designated as hazardous under California Proposition 65.

**BECAUSE WE CONTINUALLY EXAMINE WAYS TO IMPROVE OUR PRODUCTS, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS WITHOUT PRIOR NOTICE.**

## Quick Spec -----

- **TEMPERATURE:** -40°F to +212°F (-40°C to +100°C) normal service. Renegade is designed to withstand fluid temperatures to 212°F (+100°C), however the rating is dependent on the specific chemical conveyed.
- **CONSTRUCTION:** Tube: Type L (Ultra-high Molecular Weight Polyethylene). Clear, backed with Gatron™ Modified XLPE. Reinforcement: Synthetic, high tensile textile with steel wire helix. Cover: Type P (EPDM). Green corrugated with yellow spiral stripe.

Nom. I.D. (In.)	Max W.P. (psi)	Suction (In. Hg)	Min. Bend Radius (In.)	Standard Pack	Item #	Price
¾	200	30.0	4.0	100 ft.	4697-0014	<b>\$10.83</b>
1	200	30.0	5.0	100 ft.	4697-0015	<b>11.42</b>
1½	200	30.0	6.0	100 ft.	4697-0016	<b>12.06</b>
1¾	200	30.0	8.0	100 ft.	4697-0017	<b>13.02</b>
2	200	30.0	9.0	100 ft.	4697-0018	<b>16.40</b>
2½	150	30.0	12.0	100 ft.	4697-0019	<b>19.48</b>
3	150	30.0	18.0	100 ft.	4697-0020	<b>23.37</b>
4	125	30.0	24.0	100 ft.	4697-0021	<b>28.78</b>

## Renegade™ Acid-Chemical Hose

## (Specification 4697G)

RECOMMENDED FOR: Tank truck, barge, ship, or storage tank transfer of a variety of chemical products. Renegade contains a wire helix for full suction capability, as well as for routing hoses through tight bends. The Ultra-high Molecular Weight Polyethylene tube stock has excellent chemical resistance and is backed by Gates Gatron™ for flex fatigue safety at the coupling.

**NEW**

*Pressure rating  
will vary with coupling  
choice. Please Ask!!*



## Barracuda® Water Hose

## (Specification 4686AT)

RECOMMENDED FOR: Medium to light duty water suction/discharge for agricultural, construction and industrial applications.

**NEW**

*Pressure rating  
will vary with coupling  
choice. Please Ask!!*

## Quick Spec -----

- **TEMPERATURE:** -40°F to +180°F (-40°C to +82°C). For 1" through 6" sizes. -32°F to +200°F (-36°C to +93°C). For 8" through 12" sizes.
- **CONSTRUCTION:** Tube: Type P (EPDM). Black. Reinforcement: Synthetic, high tensile textile with steel wire helix. Cover: Type B2 (Specially compounded elastomer for ozone and abrasion resistance). Black with green spiral stripe. For sizes 1" through 6" sizes. Type P (EPDM). Black with green spiral stripe. For sizes 8", 10" and 12" only.

Nom. I.D. (In.)	Max W.P. (psi)	Suction (In. Hg)	Min. Bend Radius (In.)	Standard Pack	Item #	Price
2	150	30.0	8.0	100 ft.	4686-0200	<b>\$4.20</b>
2½	150	30.0	10.0	100 ft.	4686-0205	<b>5.20</b>
3	150	30.0	14.0	100 ft.	4686-0201	<b>5.80</b>
4	150	30.0	18.0	100 ft.	4686-0202	<b>8.25</b>
6	100	30.0	28.0	20 ft.	4686-0207	<b>21.58</b>
6	100	30.0	28.0	25 ft.	4686-0206	<b>21.58</b>
8	100	30.0	40.0	25 ft.	4686-0209	<b>55.10</b>
10	100	30.0	50.0	25 ft.	4686-0210	<b>89.65</b>
12	100	30.0	60.0	25 ft.	4686-0211	<b>102.25</b>

## Quick Spec -----

- **TEMPERATURE:** -40°F to +212°F (-40°C to +100°C) continuous service.
- **CONSTRUCTION:** Tube: Type C (Nitrile). Black. Reinforcement: Synthetic, high tensile textile cord. Cover: Type C4 (Carboxylated Nitrile). Yellow.
- **PACKAGING:** Minimum of 90% of hose reels will be 1-piece lengths. ¾" through ¾": Packaged in 500' to 700' reels. Maximum 2 pieces in 50' increments. 1" and 1¼": Packaged in 350' reels. Maximum 3 pieces. Minimum length 50'. 1½" and 2": Packaged 100' coiled and wrapped in polyethylene.

Nom. I.D. (In.)	Max W.P. (psi)	Suction (In. Hg)	Min. Bend Radius (In.)	Standard Pack	Item #	Price
¾	501	30.0	3.0	Reel	3202-0001	<b>\$1.20</b>
¾	501	25.0	3.0	Reel	3202-0006	<b>1.48</b>
¾	501	25.0	5.0	Reel	3202-0011	<b>2.08</b>
¾	501	15.0	6.0	Reel	3202-0016	<b>2.78</b>
1	501	10.0	7.9	Reel	3202-0021	<b>4.13</b>
1¼	501	10.0	10.0	Reel	3202-0027	<b>5.71</b>
1½	501	10.0	12.0	100 ft.	3202-0029	<b>7.85</b>
2	501	10.0	14.0	100 ft.	3202-0032	<b>8.72</b>

## Terminator® Air and Multi-Purpose Hose

## (Specification 3202T/3202TW)

RECOMMENDED FOR: Applications requiring a premium-quality, multi-purpose hose with superior abrasion resistance for air, oil and some chemical applications. Excellent durability for extra long life in these applications: mining, air drill, construction, poultry plants and other severe service. Excellent weather and ozone resistance.

**NEW**

*Pressure rating  
will vary with coupling  
choice. Please Ask!!*



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 127



## Creamery/Paper Mill Washdown Pressure Washer Hose

**NEW**


*Pressure rating  
will vary with coupling  
choice. Please Ask!!*

### Quick Spec

- **TEMPERATURE**  
-40°F to +212°F (-40°C to +100°C) continuous service.  
-20°F to +180°F (-29°C to +82°C) continuous service. For nozzle only.
- **CONSTRUCTION**  
Tube: Type P (EPDM). Black.  
Type D (SBR). Black. For nozzle only.  
Reinforcement: Synthetic, high tensile textile cord. Braided, high tensile synthetic textile cord. For nozzle only.  
Cover: Type P (EPDM). White. All sizes are perforated on plain end hose only.  
Type D (Natural Rubber). Gray with green stripe. For nozzle only.
- **PACKAGING**  
½": Packaged in 600' to 800' reels. Maximum 4 pieces.  
One length 25' to 50'. Maximum of 2 lengths under 100'.  
¾" and 1": Packaged in 300' to 400' reels. Maximum 3 pieces.  
One length 25' to 50'. Maximum of 2 lengths under 100'.  
50' lengths: Packaged 50' coiled in a carton.  
(without nozzle)

### (Specification 3213B/3325T)

RECOMMENDED FOR: Cold and hot water up to 212°F (100°C) where steam is injected into the water. Used for paper mill, food handling or processing plant washdown service requiring hose with a non-marking cover.

**CAUTION:** NOT RECOMMENDED FOR USE WITH PURE STEAM.

Nom. I.D. (In.)	Max W.P. (psi)	Suction (In. Hg)	Min. Bend Radius (In.)	Standard Pack	Item #	Price
½	200	25.0	5.0	REEL	3213-0401	<b>\$1.37</b>
¾	200	15.0	6.0	50 ft.	3213-0413	<b>1.96</b>
¾	200	15.0	6.0	REEL	3213-0501	<b>1.96</b>
1	200	15.0	8.0	50 ft.	3213-0416	<b>2.82</b>

## PVC Standard Duty All Clear Food Handling Suction Hose

**SPIRALITE® 175**


### Quick Spec

- **STANDARD LENGTH:** 100'
- **COLOR:** Clear wall and clear helix.
- **TEMP. RANGE:** -10°F to +130°F
- **APPLICATION:** Milk handling, food processing, conditions requiring see-through flow.
- **HIGH QUALITY:** High quality materials in compliance with the criteria of 3A Standard No. 20-00 and FDA. Acceptable to USDA for use in federally inspected meat and poultry plants.



## PVC Pac-Flex Flexible Conduit

**SPIRALITE® 850**


### Quick Spec

- **STANDARD LENGTH:** 100'
- **COLOR:** Light Gray
- **TEMP. RANGE:** -10°F to +130°F
- **APPLICATION:** Flexible conduit manufactured to Sch. 40 sizing spec.
- **HIGH QUALITY:** Meets or exceeds Western Underground Committee's 3.1 Specifications, 3.2 Heat Distortion, 3.3 Impact Resistance, 3.4 Conduit Stiffness  
*Note: Industrial use only. Not for plumbing.*



<b>Spiralite 175</b>	Nominal Size	Inch	¾"	1"	1¼"	1½"	2"	2½"	3"	4"
Approx. O.D.	inch	1.02	1.29	1.56	1.84	2.39	2.92	3.46	4.56	
Recommended W.P. @ 68°F	psi	100	100	90	90	70	65	60	50	
Vacuum Rating @ 68°F	in./HG	28	28	28	28	28	28	28	28	
Recom. Min. Bend Radius @ 68°F*	inch	2	3	4	5	6	8	9	12	
Approx. B.P. @ 68°F	psi	300	300	270	270	210	195	180	150	
Approx. Weight	lbs./ft.	.21	.30	.38	.48	.71	.97	1.27	2.10	
Item #		SP1750075	SP1750100	SP1750125	SP1750150	SP1750200	SP1750250	SP1750300	SP1750400	
Price/ft.		<b>\$ .86</b>	<b>\$1.07</b>	<b>\$1.49</b>	<b>\$1.57</b>	<b>\$2.49</b>	<b>\$3.21</b>	<b>\$4.61</b>	<b>\$9.14</b>	

<b>Spiralite 850</b>	Nominal Size	Inch	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	4"	6"
Approx. O.D.	inch	.85	1.06	1.33	1.67	1.91	2.38	2.89	3.50	4.50	6.61	
Recom. Min. Bend Radius @ 68°F*	inch	2	2	3	4	5	6	7	8	11	16	
Approx. Weight	lbs./ft.	.15	.22	.30	.40	.48	.64	.88	1.21	1.90	4.19	
Item #		SP8500050	SP8500075	SP8500100	SP8500125	SP8500150	SP8500200	SP8500250	SP8500300	SP8500400	SP8500600	
Price/ft.		<b>\$ .68</b>	<b>\$ .86</b>	<b>\$ .90</b>	<b>\$1.23</b>	<b>\$1.33</b>	<b>\$1.79</b>	<b>\$2.96</b>	<b>\$3.43</b>	<b>\$6.26</b>	<b>\$13.78</b>	

\*Bend Radius for continuous service.

**KWIK CLAMPS - Sold in increments of 50 pieces**

Item #	Nom. OD (in.)	Min. (in.)	Max. (in.)	Width (in.)	Thickness (in.)	Price
5700072	1/4	.220	.276	.17	.05	<b>\$3.34</b>
5700149	3/16	.256	.323	.19	.06	<b>.34</b>
5700226	1/2	.319	.382	.18	.06	<b>.36</b>
5700303	5/8	.358	.433	.18	.06	<b>.36</b>
5700380	3/4	.413	.500	.24	.06	<b>.36</b>
5700457	1/2	.480	.583	.24	.06	<b>.37</b>
5700534	3/4	.524	.646	.30	.08	<b>.47</b>
5700611	1/2	.594	.717	.28	.07	<b>.47</b>
5700688	1/4	.673	.795	.29	.08	<b>.47</b>
5700765	3/4	.732	.870	.30	.08	<b>.47</b>
5700842	1/2	.803	.949	.29	.08	<b>.50</b>
5700919	1/4	.886	1.031	.28	.08	<b>.52</b>
5700996	1	.976	1.130	.28	.08	<b>.53</b>
5701073	1 1/4	1.055	1.220	.30	.08	<b>.58</b>
5701150	1 1/2	1.150	1.319	.35	.08	<b>.74</b>
5701227	1 3/4	1.283	1.437	.36	.08	<b>.83</b>
5701304	2	1.382	1.551	.35	.08	<b>.86</b>
5701458	1 3/4	1.610	1.772	.36	.09	<b>.87</b>
5701535	1 1/2	1.744	1.913	.36	.08	<b>.88</b>
5701689	2	1.965	2.146	.34	.08	<b>.96</b>

Limited stock availability; lead times and minimums may apply - call Sales Office for details.

**Oetiker Clamps - Sold in increments of 100 pieces**

Nom. OD (in.)	Inches Closed	Inches Open	Stainless Steel	Price	Zinc Plated	Price
3/8	.350	.414	5820073	<b>\$1.16</b>	5840072	<b>\$1.13</b>
1/2	.381	.444	5820087	<b>.16</b>	5840086	<b>.13</b>
5/8	.394	.486	5820094	<b>.16</b>	5840093	<b>.13</b>
3/4	.453	.524	5820101	<b>.17</b>	5840100	<b>.13</b>
7/8	.472	.551	5820115	<b>.17</b>	5840114	<b>.14</b>
1	.496	.571	5820122	<b>.18</b>	5840121	<b>.14</b>
1 1/8	.543	.618	5820136	<b>.18</b>	5840135	<b>.14</b>
1 1/4	.594	.669	5820150	<b>.18</b>	5840149	<b>.14</b>
1 3/8	.618	.728	5820157	<b>.18</b>	5840156	<b>.14</b>
1 1/2	.669	.779	5820164	<b>.18</b>	5840163	<b>.14</b>
1 3/4	.716	.827	5820178	<b>.19</b>	5840177	<b>.16</b>
2	.779	.890	5820192	<b>.19</b>	5840191	<b>.16</b>
2 1/4	.839	.949	5820206	<b>.20</b>	5840205	<b>.16</b>
2 1/2	.898	1.008	5820220	<b>.20</b>	5840219	<b>.16</b>

Larger sizes are available - call Sales Office for details.

**Kwik Clamp™****NYLON DOUBLE BOND HOSE CLAMPS**

- Made of U.L.-listed, durable, black Nylon 6-6; will not rust or corrode
- Easy to install & remove with hose in place; reusable
- Handles temperatures from -40°F to 302°F\*
- Handles most moderate non-hydraulic pressure applications
- Patented double row of teeth ensures a strong bond that will not vibrate loose

**Notes**

KWIK CLAMPS are typically stored and shipped with a small amount of water. This helps to maintain physical properties and prevents the clamps from drying and/or cracking prior to use. Water does not harm the product.

\*Values listed are typical for the material used in manufacture, except where noted, and are meant only as a guide to aid in design. Field testing should be performed to find the actual values for your application. Clamps must be used in higher pressure applications; testing recommended.

**Oetiker® Clamps****EAR TYPE CLAMPS**

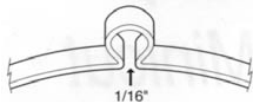
- Oetiker ear type clamps "breathe" and adapt to the expansion and contraction of hose affected by thermodynamics or aging - no need to retighten
- Clamps are lightweight and compact -- important when bulky screw-type clamps interfere with limited space applications
- Provides a tamper-proof seal without damage to the hose

**ONE EAR**

- Made of UNS S30400 (DIN 1.4301) stainless steel or SAE 1008/1010 (DIN 1.0338) zinc plated carbon steel
- Features a mechanical lock at the joint instead of a spot weld - prevents failure due to corrosion

**NOTES**

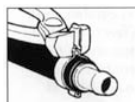
One Ear Special clamps are available through custom order. These clamps feature one-piece design made from spirally welded tubing to provide a strong grip with a smooth inner & outer band surfaces. The one-ear design allows for easy access. Call for details. Because each application has its own set of variables, application pressures vary. Field testing should be performed to determine the actual maximum pressure for the application.

**to Apply:**

Position clamp on hose as shown.



Give each ear a firm squeeze with your Oetiker Standard Jaw Pincers.



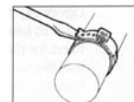
Where access to ear is difficult, use Oetiker Side Jaw or Narrow Jaw Pincers.



Grip outer edge of ear firmly and cut through with either pincers.



Cut ear by taking several small bites at its base with either pincers. Then grip ear firmly and twist off.



Stepless clamps may be easily removed by prying end up with a common screwdriver.

**INSTALLATION NOTES**

When installing OETIKER EAR TYPE CLAMPS, each ear must be crimped as recommended to obtain a proper seal. An incorrect installation may impair the 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 used.

**Pincers - 3 Styles to select from**

- Use for proper crimping of clamps
- Durable steel construction

**SIDE JAW Pincer**

The dual purpose design allows clamps to be applied or removed in confined areas with pincers held parallel to the hose. It may also be used like Standard Jaw Pincers; 3/4" jaw width.

**NARROW JAW Pincer**

3/8" Jaw width for tight areas.

**STANDARD JAW Pincer**

Item #	Description	Price
9800182	Standard Jaw Pincer	<b>\$29.10</b>
9801000	Narrow Jaw Pincer	<b>36.38</b>
9800203	Side Jaw Pincer	<b>36.38</b>

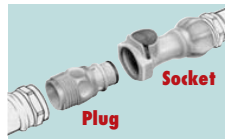
Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 129

## Quick Disconnect Couplings



- Automatic latching: to connect coupling, slide plug into socket, feel the latch engage. Click indicates connection is secure.



- One-hand disconnect: depress thumb latch, separate halves
- Shrouded latch prevents accidental disconnects

Series	Flow Size	Material	O-Ring	Temperature Range	Working Pressure	Max Flow 8 psi/GP
HFC12	3/8"	Polypropylene	EPDM	32°F to 160°F	60psi	11
HFC57	3/8"	Polysulfone	EPDM	-40°F to 280°F	125psi	11
FFC35	1/2"	Polysulfone	BUNA	-40°F to 280°F	125psi	23

## HFC/FFC Series – 1/2" Flow Polysulfone Couplings

Patented HFC & FFC Series polysulfone couplings are able to withstand demanding applications. They can operate in harsh environments in temperatures from -40°F to 280°F (-40°C to 138°C) and pressures from vacuum to 125 psi (8.6 bar). The HFC design offers a unique valve design for high flow and low spillage while the FFC Series has an open bore for increased flow.

### HFC57 SERIES (left)

Tubing Range: 3/8" to 3/4"  
(9.5mm to 19.0mm)  
Feature: High flow family of couplings

### FFC35 SERIES (below)

Tubing Range: 3/8" (19.0mm)  
Feature: Unobstructed flow path (no valves)

### Male Thread Socket

Item #	Style	Thread Size	Price
FFC10835	Straight Thru	1/2" NPT	\$9.69
FFC101235	Straight Thru	3/4" NPT	9.87
FFC101235GHT	Straight Thru	3/4" Garden Hose	9.87

Note: Metric Sizes available in 1/2" and 3/4" BSPP

### In-Line Hose Barb Socket

Item #	Style	Tubing Size	Price
FFC171235	Straight Thru	3/4" ID (19.1 mm)	\$10.16

### Female Thread Socket

Item #	Style	Thread Size	Price
FFC191235GHT	Straight Thru	3/4" Garden Hose	\$11.09

Note: Metric size available in 3/4" BSPP

### Bulkhead Panel Mount Hose Barb Socket

Item #	Style	Tubing Size	Price
FFC161235	Straight Thru	3/4" ID (19.1 mm)	\$12.63

### Male Thread Plug

Item #	Style	Thread Size	Price
FFC24835	Straight Thru	1/2" NPT	\$5.73
FFC241235	Straight Thru	3/4" NPT	5.83
FFC241235GHT	Straight Thru	3/4" Garden Hose	5.83

Note: Metric Sizes available in 1/2" and 3/4" BSPP

### In-Line Hose Barb Plug

Item #	Style	Tubing Size	Price
FFC221235	Straight Thru	3/4" ID (19.1 mm)	\$5.16

### Female Thread Plug

Item #	Style	Thread Size	Price
FFC261235GHT	Straight Thru	3/4" Garden Hose	\$7.11

Note: Metric size available in 3/4" BSPP

## HFC57 Series – 3/8" Flow Polysulfone Couplings

### Male Thread Socket

Item #	Style	Thread Size	Price
HFC10635	Straight Thru	3/8" NPT	\$9.50
HFC10635	Shutoff	3/8" NPT	11.90
HFC10835	Straight Thru	1/2" NPT	9.50
HFC10835	Shutoff	1/2" NPT	11.90
HFC101235	Straight Thru	3/4" NPT	12.12
HFC101235	Shutoff	3/4" NPT	12.77
HFC101235GHT	Straight Thru	3/4" Garden Hose	9.50
HFC101235GHT	Shutoff	3/4" Garden Hose	11.90

Note: Metric Sizes available in 3/8", 1/2" and 3/4" BSPP

### Bulkhead Panel Mount Hose Barb Socket

Item #	Style	Tubing Size	Price
HFC16635	Straight Thru	3/8" ID (9.5 mm)	\$12.17
HFC16635	Shutoff	3/8" ID (9.5 mm)	15.11
HFC16835	Straight Thru	1/2" ID (12.7 mm)	12.17
HFC16835	Shutoff	1/2" ID (12.7 mm)	15.11
HFC161235	Straight Thru	3/4" ID (19.1 mm)	12.39
HFC161235	Shutoff	3/4" ID (19.1 mm)	15.37

### In-Line Hose Barb Socket

Item #	Style	Tubing Size	Price
HFC17635	Straight Thru	3/8" ID (9.5 mm)	\$9.77
HFC17635	Shutoff	3/8" ID (9.5 mm)	11.82
HFC17835	Straight Thru	1/2" ID (12.7 mm)	9.77
HFC17835	Shutoff	1/2" ID (12.7 mm)	11.82
HFC171235	Straight Thru	3/4" ID (19.1 mm)	9.97
HFC171235	Shutoff	3/4" ID (19.1 mm)	12.06

### Female Thread Socket

Item #	Style	Thread Size	Price
HFC191235GHT	Straight Thru	3/4" Garden Hose	\$11.97
HFC191235GHT	Shutoff	3/4" Garden Hose	13.24

Note: Metric size available in 3/4" BSPP

### Female Thread Plug

Item #	Style	Thread Size	Price
HFC261235GHT	Straight Thru	3/4" Garden Hose	\$6.99
HFC261235GHT	Shutoff	3/4" Garden Hose	10.46

Note: Metric size available in 3/4" BSPP

### Elbow Hose Barb Plug

Item #	Style	Tubing Size	Price
HFC23635	Straight Thru	3/8" ID (9.5 mm)	\$5.94
HFC23635	Shutoff	3/8" ID (9.5 mm)	10.36
HFC23835	Straight Thru	1/2" ID (12.7 mm)	5.94
HFC23835	Shutoff	1/2" ID (12.7 mm)	10.36

### In-Line Hose Barb Plug

Item #	Style	Tubing Size	Price
HFC22635	Straight Thru	3/8" ID (9.5 mm)	\$4.78
HFC22635	Shutoff	3/8" ID (9.5 mm)	8.29
HFC22835	Straight Thru	1/2" ID (12.7 mm)	4.78
HFC22835	Shutoff	1/2" ID (12.7 mm)	8.29
HFC221235	Straight Thru	3/4" ID (19.1 mm)	4.87
HFC221235	Shutoff	3/4" ID (19.1 mm)	8.42

### Male Thread Plug

Item #	Style	Thread Size	Price
HFC24635	Straight Thru	3/8" NPT	\$5.60
HFC24635	Shutoff	3/8" NPT	9.08
HFC24835	Straight Thru	1/2" NPT	5.60
HFC24835	Shutoff	1/2" NPT	9.08
HFC241235	Straight Thru	3/4" NPT	5.73
HFC241235	Shutoff	3/4" NPT	9.27
HFC241235	Straight Thru	3/4" Garden Hose	5.60
HFC241235GHT	Shutoff	3/4" Garden Hose	9.08

Note: Metric Sizes available in 3/8", 1/2" and 3/4" BSPP

## HFC12 Series – 3/8" Flow Polypropylene Couplings

HFC12 Series couplings incorporate full 3/8" flow with chemically resistant polypropylene for handling harsh chemicals. Available in a wide range of configurations. For use in scientific equipment, chemical systems, drum unloading, agriculture and water transfer.

### MATERIALS

Coupling: Polypropylene  
Thumb Latch: Polypropylene  
Panel Mount Material: Polypropylene  
O-Ring: EPDM, others available

Panel Mount Gasket: EPDM, others available  
Color: Light Gray with Charcoal Gray Latch  
Spring: 316 Stainless Steel

### Male Thread Socket

Item #	Style	Thread Size	Price
HFC10612	Straight Thru	3/8" NPT	\$7.09
HFC10612	Shutoff	3/8" NPT	8.93
HFC10812	Straight Thru	1/2" NPT	7.09
HFC10812	Shutoff	1/2" NPT	8.93
HFC101212	Straight Thru	3/4" NPT	7.24
HFC101212	Shutoff	3/4" NPT	9.09

### Bulkhead Panel Mount Hose Barb Socket

Item #	Style	Tubing Size	Price
HFC16612	Straight Thru	3/8" ID (9.5 mm)	\$10.36
HFC16612	Shutoff	3/8" ID (9.5 mm)	12.06
HFC16812	Straight Thru	1/2" ID (12.7 mm)	10.36
HFC16812	Shutoff	1/2" ID (12.7 mm)	12.06
HFC161012	Straight Thru	3/4" ID (15.8 mm)	10.57
HFC161212	Shutoff	3/4" ID (15.8 mm)	12.30
HFC161212	Straight Thru	3/4" ID (19.1 mm)	10.57
HFC161212	Shutoff	3/4" ID (19.1 mm)	12.30

### In-Line Hose Barb Socket

Item #	Style	Tubing Size	Price
HFC17612	Straight Thru	3/8" ID (9.5 mm)	\$7.72
HFC17612	Shutoff	3/8" ID (9.5 mm)	9.38
HFC17812	Straight Thru	1/2" ID (12.7 mm)	7.72
HFC17812	Shutoff	1/2" ID (12.7 mm)	9.38
HFC171012	Straight Thru	3/4" ID (15.8 mm)	7.84
HFC171212	Shutoff	3/4" ID (15.8 mm)	9.59
HFC171212	Straight Thru	3/4" ID (19.1 mm)	7.84
HFC171212	Shutoff	3/4" ID (19.1 mm)	9.59

### In-Line Hose Barb Plug

Item #	Style	Tubing Size	Price
HFC22612	Straight Thru	3/8" ID (9.5 mm)	\$3.29
HFC22612	Shutoff	3/8" ID (9.5 mm)	7.17
HFC22812	Straight Thru	1/2" ID (12.7 mm)	3.29
HFC22812	Shutoff	1/2" ID (12.7 mm)	7.17
HFC221012	Straight Thru	3/4" ID (15.8 mm)	3.23
HFC221012	Shutoff	3/4" ID (15.8 mm)	7.39
HFC221212	Straight Thru	3/4" ID (19.1 mm)	3.23
HFC221212	Shutoff	3/4" ID (19.1 mm)	7.39

### Male Thread Plug

Item #	Style	Thread Size	Price
HFC24612	Straight Thru	3/8" NPT	\$3.52
HFC24612	Shutoff	3/8" NPT	7.24
HFC24812	Straight Thru	1/2" NPT	3.52
HFC24812	Shutoff	1/2" NPT	7.24
HFC241212	Straight Thru	3/4" NPT	3.59
HFC241212	Shutoff	3/4" NPT	7.39

### Elbow Hose Barb Plug

Item #	Style	Tubing Size	Price
HFC23612	Straight Thru	3/8" ID (9.5 mm)	\$5.41
HFC23612	Shutoff	3/8" ID (9.5 mm)	8.26
HFC23812	Straight Thru	1/2" ID (12.7 mm)	5.41
HFC23812	Shutoff	1/2" ID (12.7 mm)	8.26



## Black Polyethylene Par Barb Insert Fittings

### Male Connector

Item #	Tubing Inside Dia. (in.)	MPT (in.)	Price
OOP3MCB2	3/16	1/8	<b>\$.47</b>
OOP3MCB4	3/16	1/4	<b>.50</b>
OOP3MCB8	3/16	1/2	<b>.77</b>
OOP4MCB2	1/4	1/8	<b>.47</b>
OOP4MCB4	1/4	1/4	<b>.47</b>
OOP4MCB6	1/4	3/8	<b>.47</b>
OOP4MCB8	1/4	1/2	<b>.77</b>
OP4MCB12	1/4	3/4	<b>1.37</b>
OOP5MCB2	5/16	1/8	<b>.77</b>
OOP5MCB4	5/16	1/4	<b>.57</b>
OOP5MCB6	5/16	3/8	<b>.63</b>
OOP6MCB2	3/8	1/8	<b>.47</b>
OOP6MCB4	3/8	1/4	<b>.47</b>
OOP6MCB6	3/8	3/8	<b>.50</b>
OOP6MCB8	3/8	1/2	<b>.77</b>
OP6MCB12	3/8	3/4	<b>.91</b>
OOP8MCB4	1/2	1/4	<b>.68</b>
OOP8MCB6	1/2	3/8	<b>.68</b>
OOP8MCB8	1/2	1/2	<b>.82</b>
OP8MCB12	1/2	3/4	<b>.97</b>
OP10MCB6	5/8	3/8	<b>.77</b>
OP10MCB8	5/8	1/2	<b>.86</b>
OP10MCB12	5/8	3/4	<b>.91</b>
OP12MCB8	3/4	1/2	<b>.86</b>
PI2MCB12	3/4	3/4	<b>1.02</b>

### HPL – Hex Head Pipe Plug

Item #	Side 1	Price
P2HPL	1/8	<b>\$.19</b>
P4HPL	1/4	<b>.19</b>
P6HPL	3/8	<b>.26</b>
P8HPL	1/2	<b>.32</b>
PI2HPL	3/4	<b>.48</b>

### Male Elbow

Item #	Tubing Inside Dia. (in.)	MPT (in.)	Price
OOP3MEB2	3/16	1/8	<b>\$1.02</b>
OOP3MEB4	3/16	1/4	<b>1.02</b>
OOP4MEB2	1/4	1/8	<b>1.02</b>
OOP4MEB4	1/4	1/4	<b>1.06</b>
OOP4MEB6	1/4	3/8	<b>1.27</b>
OOP4MEB8	1/4	1/2	<b>1.31</b>
OP4MEB12	1/4	3/4	<b>1.84</b>
OOP6MEB2	3/8	1/8	<b>1.02</b>
OOP6MEB4	3/8	1/4	<b>.97</b>
OOP6MEB6	3/8	3/8	<b>1.27</b>
OOP6MEB8	3/8	1/2	<b>1.31</b>
OP6MEB12	3/8	3/4	<b>1.43</b>
OOP8MEB4	1/2	1/4	<b>1.06</b>
OOP8MEB6	1/2	3/8	<b>1.22</b>
OOP8MEB8	1/2	1/2	<b>1.31</b>
OP8MEB12	1/2	3/4	<b>1.43</b>
OP10MEB6	5/8	3/8	<b>1.31</b>
OP10MEB8	5/8	1/2	<b>1.37</b>
OP10MEB12	5/8	3/4	<b>1.57</b>
OP12MEB8	3/4	1/2	<b>1.37</b>

### Union Connector

Item #	Tubing Inside Dia. Both Ends (in.)	Price
OOP2UCB2	1/8	<b>\$.64</b>
OOP3UCB3	3/16	<b>.64</b>
OOP4UCB4	1/4	<b>.64</b>
OOP5UCB5	5/16	<b>.73</b>
OOP6UCB6	3/8	<b>.68</b>
OOP8UCB8	1/2	<b>.68</b>
PI0UCB10	5/8	<b>.71</b>

### Tee Union

Item #	Tubing #1	Inside #2	Dia. #3	Price
OOP2TUB2	1/8	1/8	1/8	<b>\$.97</b>
OOP3TUB3	3/16	3/16	3/16	<b>.97</b>
OOP4TUB4	1/4	1/4	1/4	<b>1.02</b>
OOP5TUB5	5/16	5/16	5/16	<b>1.06</b>
OOP6TUB4	3/8	3/8	1/4	<b>1.06</b>
OOP6TUB6	3/8	3/8	3/8	<b>1.06</b>
OOP6TUB8	3/8	3/8	1/2	<b>1.06</b>
OOP8TUB6	1/2	1/2	3/8	<b>1.06</b>
OOP8TUB8	1/2	1/2	1/2	<b>1.22</b>
PI0TUB10	5/8	5/8	5/8	<b>1.22</b>

### Male Tee Branch

Item #	Inside Diameter	NTPF Pipe Thread Size	Price
P3MTB2	3/16	1/8	<b>\$1.52</b>
P3MTB4	3/16	1/4	<b>1.73</b>
P4MTB2	1/4	1/8	<b>1.06</b>
P4MTB4	1/4	1/4	<b>1.06</b>
P4MTB6	1/4	3/8	<b>1.80</b>
P6MTB4	3/8	1/4	<b>1.13</b>
P6MTB6	3/8	3/8	<b>1.37</b>
P6MTB8	3/8	1/2	<b>1.27</b>
P8MTB4	1/2	1/4	<b>1.17</b>
P8MTB6	1/2	3/8	<b>1.22</b>
P8MTB8	1/2	1/2	<b>1.36</b>

### Elbow Union

Item #	Inside Diameter	Price
OOP4EUB4	1/4–1/4	<b>\$.97</b>
OOP6EUB6	3/8–3/8	<b>1.02</b>
OOP8EUB4	1/2–1/4	<b>1.02</b>
OOP8EUB6	1/2–3/8	<b>1.73</b>
OOP8EUB8	1/2–1/2	<b>1.06</b>
PI0EUB10	5/8–5/8	<b>1.13</b>
PI2EUB12	3/4–3/4	<b>2.30</b>

### HPN – Hex Pipe Nipple

Item #	Side 1	Side 2	Price
P2HPN2	1/8	1/8	<b>\$.42</b>
P4HPN2	1/4	1/8	<b>.42</b>
P4HPN4	1/4	1/4	<b>.42</b>
P6HPN2	3/8	1/8	<b>.46</b>
P6HPN4	3/8	1/4	<b>.48</b>
P6HPN6	3/8	3/8	<b>.48</b>
P8HPN2	1/2	1/8	<b>.53</b>
P8HPN4	1/2	1/4	<b>.53</b>
P8HPN6	1/2	3/8	<b>.56</b>
P8HPN8	1/2	1/2	<b>.59</b>
PI2HPN6	3/4	3/8	<b>.59</b>
PI2HPN8	3/4	1/2	<b>.68</b>
PI2HPN12	3/4	3/4	<b>.80</b>

## FDA Cam Lever Couplings

### Quick Spec

- Stainless steel rings, arms and pins.
- Most complete line of polypropylene FDA couplings available.
- Versatile – interchangeable with all types of cam lever couplers.
- Durable – FDA Polypropylene is glass filled for rugged strength and durability.
- Precision molded – insures a uniform and accurate fit.
- Smooth operating – finger rings are designed for easy opening of cam levers.
- Complete series of 3/4", 1", 1 1/2", 2", 3" NPT thread.
- Standard with FDA EPDM gaskets.
- Operating conditions: 3/4"-2" – 100 psi @ 0°F, 125 psi @ 70°F, 70 psi @ 150°F; 3" Cap – 50 psi. Couplings 75 psi max.
- Economical and superior in performance.

**WARNING:** Couplings should not be disconnected under pressure or with liquid in the line.

Item	Description	3/4"	1"	1 1/2"	2"	3"
A	Male Adapter – Female Thread (FDA)	75AFD <b>\$3.26</b>	100AFD <b>\$3.89</b>	150AFD <b>\$4.57</b>	200AFD <b>\$5.48</b>	300AFD <b>\$10.28</b>
B	Female Coupler – Male Thread (FDA)	75BFD <b>7.42</b>	100BFD <b>8.36</b>	150BFD <b>10.14</b>	200BFD <b>11.94</b>	300BFD <b>20.03</b>
C	Female Coupler – Hose Shank (FDA)	075CFD <b>7.42</b>	100CFD <b>8.36</b>	150CFD <b>10.14</b>	200CFD <b>11.94</b>	300CFD <b>20.03</b>
D	Female Coupler – Female Thread (FDA)	075DFD <b>7.42</b>	100DFD <b>8.36</b>	150DFD <b>10.14</b>	200DFD <b>11.94</b>	300DFD <b>20.03</b>
E	Male Adapter – Hose Shank (FDA)	075EFD <b>3.46</b>	100EFD <b>3.89</b>	150EFD <b>4.66</b>	200EFD <b>5.97</b>	300EFD <b>12.71</b>
F	Male Adapter – Male Thread (FDA)	075FFD <b>3.46</b>	100FFD <b>3.89</b>	150FFD <b>4.66</b>	200FFD <b>5.97</b>	300FFD <b>12.71</b>
PL	Plug for Female Coupler (FDA)	075PLFD <b>3.26</b>	100PLFD <b>3.89</b>	150PLFD <b>4.66</b>	200PLFD <b>5.48</b>	300PLFD <b>10.28</b>
CAP	Cap for Male Adapter (FDA)	075CAPFD <b>7.42</b>	100CAPFD <b>8.36</b>	150CAPFD <b>10.14</b>	200CAPFD <b>11.94</b>	300CAPFD <b>20.03</b>

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USCO 131

# BANJO®

LIQUID HANDLING PRODUCTS

## Polypropylene Swivels

### Quick Spec

- Teflon thrust bearing
- Viton O-rings
- Hex flats
- Heavy duty reinforced polypropylene
- S.S. drive stud
- 75 P.S.I. maximum



Item #	Description	Price
SW100	1" Female x 1" Male Poly Swivel	<b>\$8.20</b>
SW150	1½" Female x 1½" Male Poly Swivel	<b>10.04</b>
SW200	2" Female x 2" Male Poly Swivel	<b>11.27</b>

## Polypropylene Reducer Nipple



Item #	Description	Qty. Per Bag	Price Ea.
RN050-038	½" x ¾" Poly Reducer Nipple	10	<b>\$1.03</b>
RN075-050	¾" x 1" Poly Reducer Nipple	10	<b>1.11</b>
RN100-050	1" x 1½" Poly Reducer Nipple	10	<b>1.41</b>
RN100-075	1" x ¾" Poly Reducer Nipple	10	<b>1.29</b>
RN125-075	1¼" x ¾" Poly Reducer Nipple	10	<b>1.49</b>
RN125-100	1¼" x 1" Poly Reducer Nipple	10	<b>1.36</b>
RN150-100	1½" x 1" Poly Reducer Nipple	10	<b>1.61</b>
RN150-125	1½" x 1¼" Poly Reducer Nipple	10	<b>1.43</b>
RN200-125	2" x 1¼" Poly Reducer Nipple	10	<b>1.96</b>
RN200-150	2" x 1½" Poly Reducer Nipple	10	<b>1.59</b>

## Polypropylene 90° Coupling

### Quick Spec

- Precision molded in polypropylene, reinforced with fiberglass for strength and durability.
- Banjo 90° angle couplings and adapters will reduce the number of elbows and other pipe fittings used in plumbing applications.
- Stainless steel rings, cam levers and pins resist corrosion.
- As with all Banjo couplings, these angle couplers will interchange with standard cam lever couplings of all types.

Item #	Description	Price
150C90	90° Female Coupler 1½" Hose Shank	<b>\$10.11</b>
200C90	90° Female Coupler 2" Hose Shank	<b>12.53</b>

Item #	Description	Price
150D90	90° Female Coupler 1½" Female Thread	<b>\$10.11</b>
200D90	90° Female Coupler 2" Female Thread	<b>12.53</b>

Item #	Description	Price
150F90	90° Male Adapter 1½" Male Thread	<b>\$5.89</b>
200F90	90° Male Adapter 2" Male Thread	<b>6.30</b>

Item #	Description	Price
150A90	90° Male Adapter 1½" Female Thread	<b>\$4.91</b>
200A90	90° Male Adapter 2" Female Thread	<b>5.61</b>



## Polypropylene Hose Barbs

### Quick Spec

- Precision molded in polypropylene.
- Glass reinforced for stability, strength and toughness.
- Hose barbs are molded specifically to fit properly into hoses.
- Sizes range from ¼" to 3".
- Combination sizes available for elbows and straight barbs.
- Excellent chemical resistance.
- Pressure to 150 P.S.I. at 70°.

Male Thread  
x Hose ShankMale Thread  
x Hose Shank 90

Item #	Description	Qty. per Bag	Price
HB075	¾" Male Thread x ¾" Hose Shank	10	<b>\$ .68</b>
HB075-100	¾" Male Thread x 1" Hose Shank	10	<b>.82</b>
HB0100-075	1" Male Thread x ¾" Hose Shank	10	<b>.82</b>
HB100	1" Male Thread x 1" Hose Shank	10	<b>.82</b>
HB100-125	1" Male Thread x 1¼" Hose Shank	10	<b>1.01</b>
HB125-075	1¼" Male Thread x ¾" Hose Shank	10	<b>1.01</b>
HB125-100	1¼" Male Thread x 1" Hose Shank	10	<b>1.01</b>
HB125	1¼" Male Thread x 1¼" Hose Shank	10	<b>1.01</b>
HB125-150	1¼" Male Thread x 1½" Hose Shank	10	<b>1.96</b>
HB150-100	1½" Male Thread x 1" Hose Shank	10	<b>1.53</b>
HB150-125	1½" Male Thread x 1¼" Hose Shank	10	<b>1.53</b>
HB150	1½" Male Thread x 1½" Hose Shank	10	<b>1.71</b>
HB150-200	1½" Male Thread x 2" Hose Shank	10	<b>2.63</b>
HB200-150	2" Male Thread x 1½" Hose Shank	10	<b>2.63</b>
HB200	2" Male Thread x 2" Hose Shank	10	<b>2.11</b>
HB300	3" Male Thread x 3" Hose Shank		<b>6.78</b>
HB400	4" Male Thread x 4" Hose Shank		<b>14.22</b>

Item #	Description	Qty. per Bag	Price Ea.
HB025-90	¼" Male Thread x ¼" Hose Shank 90	10	<b>\$ .68</b>
HB038-90	⅜" Male Thread x ⅜" Hose Shank 90	10	<b>.68</b>
HB050/038-90	½" Male Thread x ⅜" Hose Shank 90	10	<b>.68</b>
HB050-90	½" Male Thread x ½" Hose Shank 90	10	<b>.68</b>
HB050/075-90	½" Male Thread x ¾" Hose Shank 90	10	<b>.68</b>
HB075/050-90	¾" Male Thread x ½" Hose Shank 90	10	<b>.86</b>

## Polypropylene Nozzle Valves



VA200FP

**All Stainless Bolts!**



VN100

### Quick Spec

#### VA150/VA200FP

- Lightweight hose end valve for convenient transfer of liquids into drums, tanks, etc. Angled end flange with 8" long polypropylene fill spout.

#### VN100

- Glass filled polypropylene.
- Stainless steel handle, spring and pin.
- Viton® rubber parts.
- Padlock capability.
- 75 P.S.I. Maximum.
- 40 G.P.M.

Item #	Pipe Size	Opening Thru Ball	Female NPT Thread	Price
<b>Bolted Valve — Full Port — Viton® with 90° Elbow</b>				
VA150	1½" x 8"	1½"	1½"	<b>\$34.06</b>
<b>Bolted Valve — Full Port — Viton® with 90° Elbow</b>				
VA200FP	2" x 8"	2½"	2"	<b>50.97</b>
<b>Poly Nozzle Valve</b>				
VN100	1"	—	1"	<b>36.36</b>
<b>Repair Kit</b>				
VN10200	—	—	—	<b>12.28</b>

## Quick Spec -----

- Stainless steel rings, arms & pins
- Versatile – interchangeable with all types of cam lever couplers.
- Precision molded – insures a uniform and accurate fit.
- Durable – Polypropylene is glass filled for rugged strength and durability.
- Smooth operating – finger rings are designed for easy opening of cam levers.
- Operating conditions:  
 $\frac{1}{2}$ " thru 2" – 100 PSI @ 0°F; 125 PSI @ 70°F; 70 PSI @ 150°F.  
 3" & 4" Cap – 50 PSI Couplings 75 PSI max  
 Standard with EPDM gaskets. Buna "N", and Viton also available.

## Black Polypropylene Cam Lever Couplings



## USCO tech tip

**WARNING:** Couplings should not be disconnected under pressure or with liquid in the line.



From Only  
**\$2<sup>76</sup>**



Part A Adapter X FNPT			Part B Coupler X MNPT			Part C Coupler X Hose Shank			Part D Coupler X FNPT		
Size	Item #	Price	Item #	Price		Item #	Price		Item #	Price	
* $\frac{1}{2}$ "	75A1/2	<b>\$2.76</b>	75B1/2	<b>\$6.28</b>		050C	<b>\$6.28</b>		050D	<b>\$6.28</b>	
$\frac{3}{4}$ "	75A3/4	<b>2.76</b>	75B3/4	<b>6.28</b>		075C	<b>6.28</b>		075D	<b>6.28</b>	
1"	100A	<b>2.76</b>	100B	<b>7.20</b>		100C	<b>7.20</b>		100D	<b>7.20</b>	
** $1\frac{1}{4}$ x 1"	125A	<b>2.76</b>	125B	<b>7.20</b>		125C	<b>7.20</b>		125D	<b>7.20</b>	
*** $1\frac{1}{2}$ x $1\frac{1}{4}$ "	150125A	<b>3.11</b>	150125B	<b>8.44</b>		150125C	<b>8.44</b>		150125D	<b>8.44</b>	
$1\frac{1}{2}$ "	150A	<b>3.11</b>	150B	<b>8.44</b>		150C	<b>8.44</b>		150D	<b>8.44</b>	
2"	200A	<b>3.68</b>	200B	<b>10.28</b>		200C	<b>10.28</b>		200D	<b>10.28</b>	
3"	300A	<b>8.86</b>	300B	<b>17.27</b>		300C	<b>17.27</b>		300D	<b>17.27</b>	
4"	400A	<b>13.51</b>	400B	<b>34.21</b>		400C	<b>34.21</b>		400D	<b>34.21</b>	



Part E Adapter X Hose Shank			Part F Adapter X MNPT			Part PL Adapter Plug			Part CAP Coupler Cap		
Size	Item #	Price	Item #	Price		Item #	Price		Item #	Price	
* $\frac{1}{2}$ "	050E	<b>\$2.96</b>	050F	<b>\$2.96</b>		050PL	<b>\$2.96</b>		050CAP	<b>\$6.28</b>	
$\frac{3}{4}$ "	075E	<b>2.96</b>	075F	<b>2.96</b>		075PL	<b>2.96</b>		075CAP	<b>6.28</b>	
1"	100E	<b>3.28</b>	100F	<b>3.28</b>		100PL	<b>2.86</b>		100CAP	<b>6.91</b>	
** $1\frac{1}{4}$ x 1"	125E	<b>3.28</b>	125F	<b>3.28</b>		125PL	<b>2.86</b>		125CAP	<b>6.91</b>	
*** $1\frac{1}{2}$ x $1\frac{1}{4}$ "	150125E	<b>3.30</b>	150125F	<b>3.30</b>		150125PL	<b>3.19</b>		150125CAP	<b>8.44</b>	
$1\frac{1}{2}$ "	150E	<b>3.30</b>	150F	<b>3.30</b>		150PL	<b>3.19</b>		150CAP	<b>8.44</b>	
2"	200E	<b>4.33</b>	200F	<b>4.33</b>		200PL	<b>4.29</b>		200CAP	<b>10.28</b>	
3"	300E	<b>11.34</b>	300F	<b>11.34</b>		300PL	<b>9.00</b>		300CAP	<b>17.27</b>	
4"	400E	<b>13.51</b>	400F	<b>13.51</b>		400PL	<b>10.62</b>		400CAP	<b>24.94</b>	

\*NOTE:  $\frac{1}{4}$ ",  $\frac{3}{8}$ " and  $\frac{1}{2}$ " series couplings interchange with  $\frac{3}{4}$ " size couplings. Coupling ends are  $\frac{3}{4}$ " size. \*\* $1\frac{1}{4}$ " series couplings interchange with 1" size couplings. Coupling ends are 1" size. \*\*\* $1\frac{1}{2}$  x  $1\frac{1}{4}$ " couplings interchange with  $1\frac{1}{2}$ " size couplings. Coupling ends are  $1\frac{1}{2}$ " size.

## Ansi Flange Ball Valves – 2" Full Port

## Quick Spec -----

- Stainless steel bolts.
- 100% Teflon seats.
- Viton seals.
- Glass-filled polypropylene.
- Unique compact design.
- Lightweight.
- Maximum operating pressure:  
100 PSI @ 70°F; 75 PSI @ 150°F



VSF200FPAF

VSMT200FPAF

Item#	Description	Price
VSF200FPAF	2" Male Adapter x 2" ANSI Flange	<b>\$88.38</b>
VSMT200FPAF	2" Male Thread x 2" ANSI Flange	<b>88.38</b>

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

**USCO 133**



## Quick Spec -----

- Tough 316 stainless steel to insure durability.
- Chemical resistant to protect against corrosion.
- Precision-made, investment casting high quality process to assure uniformity and proper fit.
- Versatile to interchange with all types of cam lever couplings.
- Smooth operating to make connections quickly and easily.
- Standard with Buna "N" gaskets. Viton & EPDM available.
- 150 PSI maximum operating pressure.

## 316 Stainless Steel Cam Lever Couplings



USCO tech tip

**WARNING:** Couplings should not be disconnected under pressure or with liquid in the line.



A



B



C



D

Part A Adapter X FNPT			Part B Coupler X MT			Part C Coupler X Hose Shank			Part D Coupler X FNPT		
Size	Item #	Price	Item #	Price		Item #	Price		Item #	Price	
3/4"	075ASS	\$27.26	075BSS	\$42.24		075CSS	\$40.98		075DSS	\$42.67	
1"	100ASS	27.51	100BSS	48.13		100CSS	42.21		100DSS	45.98	
1 1/2"	150ASS	28.12	150BSS	58.47		150CSS	50.79		150DSS	58.47	
2"	200ASS	32.93	200BSS	69.06		200CSS	62.20		200DSS	64.21	
3"	300ASS	68.84	300BSS	130.43		300CSS	100.40		300DSS	131.47	
4"	400ASS	118.32	400BSS	177.13		400CSS	163.99		400DSS	177.67	



E



F



PL



CAP

Part E Adapter X Hose Shank			Part F Adapter X MNPT			Part PL Adapter Plug			Part CAP Coupler Cap		
Size	Item #	Price	Item #	Price		Item #	Price		Item #	Price	
3/4"	075ESS	\$28.42	075FSS	\$31.10		075PL/SS	\$28.41		075CAP/SS	\$42.24	
1"	100ESS	28.42	100FSS	35.00		100PL/SS	30.41		100CAP/SS	48.10	
1 1/2"	150ESS	36.26	150FSS	44.47		150PL/SS	30.18		150CAP/SS	54.67	
2"	200ESS	38.76	200FSS	48.50		200PL/SS	35.29		200CAP/SS	53.43	
3"	300ESS	77.14	300FSS	95.77		300PL/SS	65.39		300CAP/SS	78.31	
4"	400ESS	152.91	400FSS	152.91		400PL/SS	98.94		400CAP/SS	124.56	

Easy Action  
Locking  
Lever

## 1 1/2" Locking Couplings

Item#	Description	Price
L150B	Female Coupler — Male Thread	\$18.13
L150C	Female Coupler — Hose Shank	18.13
L150D	Female Coupler — Female Thread	18.13
L150CAP	Cap for Male Adapter	18.13

## Locking Cam Lever Poly Couplings – Patent Pending

## Quick Spec -----

- All Stainless Steel construction.
- Easy action lever.
- Excellent for high vibration applications.

## 2" Locking Couplings

Item#	Description	Price
L200B	Female Coupler — Male Thread	\$19.96
L200C	Female Coupler — Hose Shank	19.96
L200D	Female Coupler — Female Thread	19.96
L200CAP	Cap for Male Adapter	19.96

**WARNING:** Locking Cam Arm Lever is not intended to be used as a security device or to prevent unauthorized opening of coupling assembly.

Locking Arm with Ring



Pin

Item#	Description	Price
200KL	Locking Cam Arm w/ Ring fits 1 1/2" & 2" Couplings	\$6.92
200PKL	Coupling Pin fits 1 1/2" & 2" Couplings	1.39

## Tubing Polypropylene Ball Valves

Parker's Polypropylene Ball Valves outperform and outlast conventional plug valves. Our "True" ball valve design incorporates tough, all-plastic construction that provides bi-directional, full-flow capabilities. In addition, our specially engineered O-ring offers a reliable leak-free seal for years of service.

### ADVANTAGES

- NSF 51 listed
- Wider chemical acceptance and temperature range
- Bi-directional, leak-free design
- Optimum flow rate without sacrificing pressure drop
- Reduced cost — Built-in TrueSeal™ connection eliminates the need for a secondary fitting



### SPECIFICATIONS

- Temperature range: 0° F - 225° F
- Pressure rating: 150 psi with a 600 psi burst pressure
- O-ring seal material: Nitrile
- NPTF threads

### APPLICATIONS

Water conditioning, pneumatic, laboratory, chemical process, beverage dispensing



#### VMC — Valve Male Connector

Item #	Nom. Tube O.D.	NPTM Thread Size	ØE Min Thru Hole	Price
PP4VMC4MG	1/4	1/4	.19	<b>\$4.83</b>
PP4VMC6MG	1/4	3/8	.19	<b>4.83</b>
PP6VMC4MG	3/8	1/4	.25	<b>4.83</b>
PP6VMC6MG	3/8	3/8	.25	<b>4.83</b>



#### VUC — Valve Union Connector Straight (T/S Tube Connection to T/S Tube Connection)

Item #	Tube Size	Tube Size	ØE Min Thru Hole	Price
PP4VUC4MG	1/4	1/4	.19	<b>\$4.83</b>
PP4VUC6MG	1/4	3/8	.19	<b>4.83</b>
PP6VUC4MG	3/8	1/4	.19	<b>4.83</b>
PP6VUC6MG	3/8	3/8	.25	<b>4.83</b>



#### VME — Valve Male Elbow (T/S Tube Connection to Male NPT)

Item #	Nom. Tube O.D.	NPTM Thread Size	ØE Min Thru Hole	Price
PP4VME4MG	1/4	1/4	.19	<b>\$4.98</b>
PP4VME6MG	1/4	3/8	.19	<b>4.98</b>
PP6VME4MG	3/8	1/4	.25	<b>4.98</b>
PP6VME6MG	3/8	3/8	.25	<b>4.98</b>



#### VFE — Valve Female Elbow (T/S Tube Connection to Female NPTF)

Item #	Nom. Tube O.D.	NPTF Thread Size	ØE Min Thru Hole	Price
PP4VFE4MG	1/4	1/4	.19	<b>\$4.98</b>
PP4VFE6MG	1/4	3/8	.19	<b>4.98</b>
PP6VFE4MG	3/8	1/4	.25	<b>4.98</b>
PP6VFE6MG	3/8	3/8	.25	<b>4.98</b>



#### VFC — Valve Female Connector

Item #	Nom. Tube O.D.	NPTF Thread Size	ØE Min Thru Hole	Price
PP4VFC4MG	1/4	1/4	.19	<b>\$4.83</b>
PP4VFC6MG	1/4	3/8	.19	<b>4.83</b>
PP6VFC4MG	3/8	1/4	.25	<b>4.83</b>
PP6VFC6MG	3/8	3/8	.25	<b>4.83</b>



#### VEU — Valve Elbow Union 90°

Item #	Nom. Tube O.D.	Nom. Tube O.D.	ØE Min Thru Hole	Price
PP4VEU4MG	1/4	1/4	.19	<b>\$4.98</b>
PP4VEU6MG	1/4	3/8	.19	<b>4.98</b>
PP6VEU4MG	3/8	1/4	.25	<b>4.98</b>
PP6VEU6MG	3/8	3/8	.25	<b>4.98</b>

## NSH Series Couplings



### MATERIAL: POLYPROPYLENE

Patented NSH Series couplings feature a pressure-balanced nonspill design and a 100% metal-free, spring-free flow path at a very competitive price.

Non-spill design virtually eliminates spills, minimizes downtime and enhances operator safety.




### FEATURES

- All plastic flow path
- High flow, low turbulence, no corrosion
- Disconnect under pressure with no spills
- One-hand connection and disconnection


### Quick Spec

- Pressure: Vacuum to 120 psi, 8.3 bar
- Temperature: 32°F to 120°F  
0°C to 49°C
- Materials:  
**Main components:** Polypropylene, glass-filled polypropylene  
**O-ring seals:** EPDM  
**Panel mount seal:** EPDM
- Optional colors: Red or blue thumb latch and insert tip
- Springs (not in flow path): 316 stainless steel
- Compression nut, gripper, ferrule: Polypropylene
- Lubricants: Krytox® PFPE (inert)


### Coupling Bodies — Polypropylene

Pipe Thread	Thread Size	Termination Type	Shutoff	Height/ Diameter	Total Length	Price
	3/4" NPT	Female NPT Thread	NSHD19006	2.0	3.70	<b>\$31.11</b>
	3/8" BSPT	Male BSPT Thread	NSHD10006BSPT	2.0	3.67	<b>27.78</b>
	1/2" NPT	Male NPT Thread	NSHD10008	2.0	3.81	<b>27.78</b>
	3/4" NPT	Male NPT Thread	NSHD10012	2.0	4.01	<b>31.11</b>




 In-Line Compression	Tubing Size	Metric EQ.	Termination Type	Shutoff	Height/ Diameter	Total Length	
	3/8" OD	9.5mm OD	Compression	NSHD13006	2.0	3.97	<b>\$31.11</b>
	1/2" OD	12.7mm OD	Compression	NSHD13008	2.0	4.10	<b>31.11</b>




Hose Barb	Tubing Size	Metric EQ.	Termination Type	Shutoff	Height/ Diameter	Total Length	
	3/8" ID	9.5mm ID	Hose Barb	NSHD17006	2.0	3.73	<b>\$27.78</b>
	1/2" ID	12.7mm ID	Hose Barb	NSHD17008	2.0	3.73	<b>27.78</b>
	3/4" ID	15.9mm ID	Hose Barb	NSHD17010	2.0	3.88	<b>27.78</b>
	1" ID	19.0mm ID	Hose Barb	NSHD17012	2.0	3.73	<b>27.78</b>


### Coupling Inserts — Polypropylene

Pipe Thread	Thread Size	Termination Type	Shutoff	Height/ Diameter	Total Length	Price
	3/8" NPT	Female NPT Thread	NSHD26006	1.64	3.87	<b>\$31.11</b>
	3/8" BSPT	Male BSPT Thread	NSHD24006BSPT	1.64	3.84	<b>27.78</b>
	1/2" NPT	Male NPT Thread	NSHD24008	1.64	3.98	<b>27.78</b>
	3/4" NPT	Male NPT Thread	NSHD24012	1.64	3.98	<b>31.11</b>



In-Line Compression	Tubing Size	Metric EQ.	Termination Type	Shutoff	Height/ Diameter	Total Length	
	3/8" OD	9.5mm OD	Compression	NSHD20006	1.64	4.14	\$31.11
	1/2" OD	12.7mm OD	Compression	NSHD20008	1.64	4.27	31.11



 Hose Barb	Tubing		Termination		Height/	Total
	Size	Metric EQ.	Type	Shutoff	Diameter	Length
	3/8" ID	9.5mm ID	Hose Barb	NSHD22006	1.64	3.90
	1/2" ID	12.7mm ID	Hose Barb	NSHD22008	1.64	3.90
	3/4" ID	15.9mm ID	Hose Barb	NSHD22010	1.64	4.05
	1"	19.0mm ID	Hose Barb	NSHD22012	1.64	3.90
						<b>\$27.78</b>
						<b>\$27.78</b>
						<b>\$27.78</b>
						<b>\$27.78</b>



Accessories Panel Mount Kit With Panel Seal — NSH PMKIT 12

Dust Plug/Cap For Body or Insert — 1800700

A 2.00 inch (50.8mm) hole must be bored in the panel/container.

Maximum panel thickness is .50 inch (12.7mm).

Minimum panel thickness is .12 inch (3.1mm).

Panel mount kit can be used with body for front mount or insert for front or rear mount.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 135

## TrueSeal™ Thermoplastic Push-In Fittings

TrueSeal push-to-connect thermoplastic fittings are light weight, reusable, and connect to plastic tubing without the use of tools.



### Quick Spec

- All components in TrueSeal fittings are manufactured from FDA compliant materials and are NSF-51 listed for contact with food and potable water.
- All-plastic body designs offer reduced weight, eliminate rust, corrosion, and system contamination in applications where metal components cannot be tolerated.
- Collets are offered with a metal grip edge made from 300 series stainless steel for use on all tubing including copper. Connections made with metal gripper collets and tube stem adapters are not reusable.

### Standard Materials

Material	Fitting Color	O-ring
Acetal	Gray	Nitrile

Note: Polypropylene and Kynar also available

Fitting Size	Acetal
1/2"	300
3/8"	300
1/4"	300
Temp. Range	-20°F (-29°C) to +180°F (85°C)

### BU - Bulkhead Union Tube-to-Tube (Gray Acetal Nitrile Seal)



Item #	Nom. Tube O.D.	C Hex	L Overall Length	Max. Wall Thk.	Hole Size	Price
A4BU4MG	1/4"	1/8"	1.50	.50	7/8"	\$2.54
ASBU5MG	5/16"	1/8"	1.75	.62	1"	3.27
A6BU6MG	3/8"	1/8"	1.75	.62	1"	3.32
A8BU8MG	1/2"	1/4"	2.04	.70	1 1/8"	4.31

**WORKING PRESSURE** — TrueSeal fittings are rated for the pressures listed below or at 1/4 (one-fourth) of the rated burst pressure of the tubing being used (whichever is less).

**TUBING** — TrueSeal fittings with all plastic collets can be used with the following tubing materials: polyethylene, polypropylene, nylon, Teflon, and polyurethane (3/8" and 1/2" polyurethane should use tube supports).

**APPLICATIONS** — TrueSeal fittings find wide acceptance in water conditioning, filtration, and reverse osmosis industries and on water, soft drink, beer, wine, and condiment dispensing equipment. Industrial applications range from vacuum to low-pressure hydraulic and pneumatic systems on robotics, air logic, packaging/filling equipment, and conveyors. Ink and dye transfer, lubrication and cooling lines on presses, machine tools, ion implanting devices — all rely on TrueSeal.



### MTS - Male Tee Swivel Tube-to-Pipe (Gray Acetal Nitrile Seal)

Item #	Nom. Tube O.D.	NPTF Thread Size	C Hex	Price
A4MTS2MG	1/4"	1/8"	9/16"	\$2.56
A4MTS4MG	1/4"	1/4"	1 1/16"	2.54
A5MTS2MG	5/16"	1/8"	9/16"	2.63
A5MTS4MG	5/16"	1/4"	1 1/16"	2.66
A5MTS6MG	5/16"	3/8"	1 3/16"	2.71
A6MTS4MG	3/8"	1/4"	1 3/16"	3.08
A6MTS6MG	3/8"	3/8"	1 3/16"	3.12
A8MTS4MG	1/2"	1/4"	1 3/16"	5.09
A8MTS6MG	1/2"	3/8"	1 3/16"	4.39
A8MTS8MG	1/2"	1/2"	1	4.39

Part Consists of tee union and tube stem adapter.

### TS - Tube Supports (Nylon)

Item #	Price
N4TS3	\$0.76
N5TS3	1.34
N6TS4	.79
N8TS6	.90



**AQRT - Quick Release Tool**  
Makes disconnection of tube adapters and tubing a breeze.

\$1.03

### MC - Male Connector Tube-to-Pipe (Gray Acetal Nitrile Seal)



Item #	Nom. Tube O.D.	NPTF Thread Size	C Hex	Price
A4MC2MG	1/4"	1/8"	1 1/16"	\$0.91
A4MC4MG	1/4"	1/4"	1 1/16"	1.06
A4MC6MG	1/4"	3/8"	1 1/16"	1.57
A5MC2MG	5/16"	1/8"	1 3/16"	1.10
A5MC4MG	5/16"	1/4"	1 3/16"	1.16
A5MC6MG	5/16"	3/8"	1 3/16"	1.67
A6MC2MG	3/8"	1/8"	1 3/16"	2.12
A6MC4MG	3/8"	1/4"	1 3/16"	1.60
A6MC6MG	3/8"	3/8"	1 3/16"	1.80
A8MC8MG	1/2"	1/2"	1 3/16"	2.80
A8MC6MG	1/2"	3/8"	1 3/16"	2.48
A8MC8MG	1/2"	1/2"	1 3/16"	2.67

### MES - Male Elbow Swivel Tube-to-Pipe (Gray Acetal Nitrile Seal)



Item #	Nom. Tube O.D.	NPTF Thread Size	C Hex	Price
A4MES2MG	1/4"	1/8"	9/16"	\$2.10
A4MES4MG	1/4"	1/4"	1 1/16"	2.10
A4MES6MG	1/4"	3/8"	1 3/16"	3.17
A5MES2MG	5/16"	1/8"	9/16"	2.39
A5MES4MG	5/16"	1/4"	1 1/16"	2.39
A5MES6MG	5/16"	3/8"	1 3/16"	2.48
A6MES2MG	3/8"	1/8"	9/16"	3.02
A6MES4MG	3/8"	1/4"	1 3/16"	3.03
A6MES6MG	3/8"	3/8"	1 3/16"	3.23
A8MES4MG	1/2"	1/4"	1 3/16"	4.88
A8MES6MG	1/2"	3/8"	1 3/16"	3.56
A8MES8MG	1/2"	1/2"	1	4.16

Part consists of elbow union and tube stem adapter.

### EU - Elbow Union Tube-to-Tube (Gray Acetal Nitrile Seal)



Item #	Nom. Tube O.D.	Price
A4EU4MG	1/4"	\$1.66
A5EU4MG	5/16"-1/4"	2.13
A5EU5MG	5/16"	1.91
A6EU4MG	3/8"-1/4"	2.39
A6EU5MG	3/8"-5/16"	2.74
A6EU6MG	3/8"	2.57
A8EU6MG	1/2"-3/8"	3.26
A8EU8MG	1/2"	2.90

### ME - Male Elbow Tube-to-Pipe (Gray Acetal Nitrile Seal)



Item #	Nom. Tube O.D.	NPTF Thread Size	C Hex	Price
A4ME2MG	1/4"	1/8"	1 1/16"	\$1.44
A4ME4MG	1/4"	1/4"	1 1/16"	1.68
A4ME6MG	1/4"	3/8"	1 1/16"	1.99
A5ME4MG	5/16"	1/4"	1 1/16"	2.09
A5ME6MG	5/16"	3/8"	1 1/16"	2.13
A6ME4MG	3/8"	1/4"	1 1/16"	2.50
A6ME6MG	3/8"	3/8"	1 1/16"	2.56

### FC - Female Connector Tube-to-Pipe (Gray Acetal Nitrile Seal)



Item #	Nom. Tube O.D.	NPTF Thread Size	C Hex	Price
A4FC2MG	1/4"	1/8"	1 1/16"	\$1.83
A4FC4MG	1/4"	1/4"	23/32"	2.24
A5FC4MG	5/16"	1/4"	1 3/16"	2.57
A5FC6MG	5/16"	3/8"	1	2.62
A6FC4MG	3/8"	1/4"	1 3/16"	2.57
A6FC6MG	3/8"	3/8"	1	2.63
A8FC6MG	1/2"	3/8"	1 1/8"	2.82
A8FC8MG	1/2"	1/2"	1 1/8"	2.82

### TU - Tee Union Tube-to-Tube (Gray Acetal Nitrile Seal)



Item #	Tube A Run	Tube B Stem	Price
A4TU4MG	1/4"	1/4"	\$2.10
A5TU5MG	5/16"	5/16"	2.18
A6TU4MG	3/8"	1/4"	2.89
A6TU6MG	3/8"	3/8"	2.48
A8TU8MG	1/2"	1/2"	3.12

### UC - Union Connector Tube-to-Tube (Gray Acetal Nitrile Seal)



Item #	Nom. Tube O.D.	Price
A4UC4MG	1/4"	\$1.47
A5UC4MG	5/16"-1/4"	1.61
A5UC5MG	5/16"	1.58
A6UC4MG	3/8"-1/4"	1.99
A6UC5MG	3/8"-5/16"	2.04
A6UC6MG	3/8"	1.97
A8UC5MG	1/2"-5/16"	2.59
A8UC6MG	1/2"-3/8"	2.70
A8UC8MG	1/2"	2.32

## Mur-lok™ Polypropylene Quick-Connect Fittings

- All Polypropylene construction with stainless steel collet teeth
- Dual EPDM chloramine resistant O-ring technology
- Working Pressure: 150 psi @ 70°F, 60 psi @ 150°F

Continued on next page.



### Female Flare Connectors

Item #	Mur-lok	Thread	Price
U0420476	1/4"	1/4" Female Flare	\$2.29
U0520476	5/16"	1/4" Female Flare	2.88
U0620476	3/8"	1/4" Female Flare	2.56
U0620676	3/8"	3/8" Female Flare	2.98

### Female Connectors

Item #	Mur-lok	Thread	Price
U0420206	1/4"	1/4" Female NPTF	\$2.62
U0420406	1/4"	1/4" Female NPTF	2.86
U0620406	3/8"	1/4" Female NPTF	3.28

### Union & Reducing 90° Elbows

Item #	Mur-lok	Price
Q0420426	1/4"	\$2.06
Q0520426	5/16"	2.64
Q0520526	5/16"	2.44
Q0620426	3/8"	3.43
Q0620526	3/8"	3.43
Q0620626	3/8"	4.28
Q0820626	1/2"	4.06
Q0820826	1/2"	3.70

### Dividers

Item #	Mur-lok	Price
V0420006	1/4"	\$2.87
V0520006	5/16"	2.98
V0620006	3/8"	3.31

### Tube-to-Hose Stem 90° Elbows

Item #	Stem	Barb	Price
S0460448	1/4"	1/4"	\$1.49
S0460548	5/16"	5/16"	1.83
S0560448	5/16"	1/4"	1.53
S0560548	5/16"	5/16"	1.83
S0660448	3/8"	1/4"	1.83

### Union Tees

Item #	Mur-lok	Price
V0420426	1/4"	\$2.58
V0520526	5/16"	2.71
V0620426	3/8" x 3/8" x 1/4"	4.20
V0620626	3/8"	3.13
V0820626	1/2" x 1/4" x 3/8"	4.39
V0820826	1/2"	3.96

### Tube-to-Hose Stems

Item #	Stem	Barb	Price
S0460446	1/4"	1/4"	\$1.16
S0660446	3/8"	1/4"	1.61
S0660546	3/8"	5/16"	1.68
S0660646	3/8"	3/8"	1.81
S0660846	3/8"	1/2"	2.46
S0860646	1/2"	3/8"	1.96
S0860846	1/2"	1/2"	2.42

### Reducers

Item #	Mur-lok	Stem	Price
S0420566	1/4"	5/16"	\$1.74
S0420666	1/4"	3/8"	2.00
S0520666	5/16"	3/8"	2.06
S0620866	3/8"	1/2"	3.80



**Fixed NPTF 90° Elbows**

Item #	Mur-lok	Thread	Price
P0420206	1/4"	1/4" Female NPTF	<b>\$3.17</b>
P0420216	1/4"	1/4" Male NPTF	<b>1.81</b>
P0420416	1/4"	1/4" Male NPTF	<b>2.06</b>
P0420616	1/4"	3/8" Male NPTF	<b>2.47</b>
P0620416	3/8"	1/4" Male NPTF	<b>2.72</b>
P0620616	3/8"	3/8" Male NPTF	<b>2.80</b>

**Swivel NPTF 90° Elbows**

Item #	Mur-lok	Thread	Price
Q0420216	1/4"	1/4" Male NPTF	<b>\$2.97</b>
Q0420416	1/4"	1/4" Male NPTF	<b>2.97</b>
Q0620416	3/8"	1/4" Male NPTF	<b>4.16</b>
Q0620616	3/8"	3/8" Male NPTF	<b>4.36</b>
Q0820616	1/2"	3/8" Male NPTF	<b>5.58</b>
Q0820816	1/2"	1/2" Male NPTF	<b>5.58</b>

**Garden Hose Connectors**

Item #	Mur-lok	Hose Thread	Price
U0421406	1/4"	3/4" Female	<b>\$3.49</b>
U0621406	3/8"	3/4" Female	<b>3.80</b>

**Plug-In 90° Elbows**

Item #	Mur-lok	Stem	Price
T0420466	1/4"	1/4"	<b>\$1.83</b>
T0420666	1/4"	3/8"	<b>2.50</b>
T0520566	5/16"	3/8"	<b>2.37</b>
T0520666	5/16"	3/8"	<b>2.50</b>
T0620666	3/8"	3/8"	<b>3.17</b>
T0820866	1/2"	1/2"	<b>3.79</b>

**Union Connectors & Reducing Unions**

Item #	Mur-lok	Mur-lok	Price
R0420426	1/4"	1/4"	<b>\$1.81</b>
R0520426	5/16"	1/4"	<b>2.00</b>
R0520526	5/16"	5/16"	<b>1.94</b>
R0620426	3/8"	1/4"	<b>2.48</b>
R0620526	3/8"	5/16"	<b>2.51</b>
R0620626	3/8"	3/8"	<b>2.46</b>
R0820526	1/2"	5/16"	<b>3.24</b>
R0820626	1/2"	3/8"	<b>3.34</b>
R0820826	1/2"	1/2"	<b>2.84</b>

**Black Polypropylene Tube Fittings**

Fast & Tite thermoplastic tube fittings from Parker will prove to be the answer to your tubing connector needs. Patented Fast & Tite fittings install in seconds without tools and provide a tight, sure, leak proof seal without clamps or adjustments. A unique 302 stainless steel grab ring, for tube retention, coupled with a Nitrile O-Ring for positive seal, assures good tube connection with only hand tight assembly. A plastic

**Thermoplastic Fittings**  
*Fast & Tite® Fittings*

grab ring is also available upon special request. Vibration or tube movement will not break the seal and cause leakage. Preassembled in either highly inert polypropylene, or strong, durable nylon, Fast & Tite fittings are the answer to low flow thermoplastic tubing system requirements.

**Male Connector**

Item #	Nominal Tube O.D. (in.)	NPT Thread (in.)	Price
000P4MC2	1/4	1/8	<b>.92</b>
000P4MC4	1/4	1/4	<b>.94</b>
000P5MC2	5/16	1/8	<b>.94</b>
000P5MC4	5/16	1/4	<b>.98</b>
000P6MC2	3/8	1/8	<b>1.19</b>
000P6MC4	3/8	1/4	<b>1.17</b>
000P6MC6	3/8	3/8	<b>1.22</b>
000P6MC8	3/8	1/2	<b>1.31</b>
00P6MC12	3/8	3/4	<b>1.34</b>
000P8MC2	1/2	1/8	<b>1.66</b>
000P8MC4	1/2	1/4	<b>1.69</b>
000P8MC6	1/2	3/8	<b>1.66</b>
000P8MC8	1/2	1/2	<b>1.78</b>
00P8MC12	1/2	3/4	<b>1.90</b>
00P10MC2	5/8	1/8	<b>2.08</b>
00P10MC4	5/8	1/4	<b>2.08</b>
00P10MC6	5/8	3/8	<b>2.08</b>
00P10MC8	5/8	1/2	<b>2.13</b>
00P10MC12	5/8	3/4	<b>2.24</b>

**Grab Ring**  
(Stainless or Plastic)

Item #	Material	For Nom. Tube O.D.	Price
4GR	Stainless Steel	1/4	<b>\$1.13</b>
5GR	Stainless Steel	5/16	<b>.13</b>
6GR	Stainless Steel	3/8	<b>.13</b>
8GR	Stainless Steel	1/2	<b>.14</b>
10GR	Stainless Steel	5/8	<b>.14</b>
4GRP	Plastic	1/4	<b>.31</b>
5GRP	Plastic	5/16	<b>.61</b>
6GRP	Plastic	3/8	<b>.39</b>
8GRP	Plastic	1/2	<b>.43</b>
10GRP	Plastic	5/8	<b>.72</b>

**Union Connector**

Item #	Nominal Tube O.D. (in.)	Price
000P4UC4	1/4 - 1/4	<b>\$1.33</b>
000P5UC5	5/16 - 5/16	<b>1.66</b>
000P6UC6	3/8 - 3/8	<b>1.94</b>
000P8UC8	1/2 - 1/2	<b>2.23</b>
0P10UC10	5/8 - 5/8	<b>2.62</b>
000P5UC4	5/16 - 1/4	<b>1.60</b>
000P6UC4	3/8 - 1/4	<b>1.71</b>
000P6UC5	3/8 - 5/16	<b>1.84</b>
000P8UC6	1/2 - 3/8	<b>2.24</b>
00P10UC6	5/8 - 3/8	<b>2.34</b>
00P10UC8	5/8 - 1/2	<b>2.47</b>

**Female Elbow**

Item #	Nominal Tube O.D. (in.)	NPT Thread (in.)	Price
000P4FE2	1/4	1/8	<b>\$1.33</b>
000P4FE4	1/4	1/4	<b>1.60</b>
000P5FE2	5/16	1/8	<b>1.84</b>
000P6FE4	3/8	1/4	<b>1.66</b>
000P6FE6	3/8	3/8	<b>1.66</b>
000P8FE6	1/2	3/8	<b>1.72</b>
000P8FE8	1/2	1/2	<b>1.84</b>
00P10FE8	5/8	1/2	<b>1.91</b>

**O-ring**

Item #	Tube O.D.	Price
4OR	1/4	<b>\$1.16</b>
5OR	5/16	<b>.16</b>
6OR	3/8	<b>.17</b>
8OR	1/2	<b>.22</b>
10OR	5/8	<b>.24</b>

**Bulkhead Union**

Item #	Nominal Tube O.D. (in.)	Price
000P4BU4	1/4	<b>\$3.32</b>
000P5BU5	5/16	<b>4.14</b>
000P6BU6	3/8	<b>3.46</b>
000P8BU8	1/2	<b>3.74</b>

**Male Elbow**

Item #	Nominal Tube O.D. (in.)	NPT Thread (in.)	Price
000P4ME2	1/4	1/8	<b>\$1.22</b>
000P4ME4	1/4	1/4	<b>1.24</b>
000P4ME6	1/4	3/8	<b>1.51</b>
000P5ME2	5/16	1/8	<b>1.42</b>
000P5ME4	5/16	1/4	<b>1.44</b>
000P5ME6	5/16	3/8	<b>1.90</b>
000P6ME4	3/8	1/4	<b>1.69</b>
000P6ME6	3/8	3/8	<b>1.72</b>
000P6ME8	3/8	1/2	<b>1.91</b>
000P6ME12	3/8	3/4	<b>2.01</b>
000P8ME6	1/2	3/8	<b>2.09</b>
000P8ME8	1/2	1/2	<b>2.13</b>
00P10ME8	5/8	1/2	<b>2.29</b>

**Tee Union**

Item #	Nominal Tube O.D. (in.)	Price
000P4TU4	1/4 - 1/4	<b>\$2.34</b>
000P5TU5	5/16 - 5/16	<b>2.47</b>
000P6TU6	3/8 - 3/8	<b>2.51</b>
000P8TU6	1/2 - 3/8	<b>3.16</b>
000P8TU8	1/2 - 1/2	<b>3.09</b>
00P10TU6	5/8 - 3/8	<b>3.59</b>
0P10TU10	5/8 - 5/8	<b>3.48</b>

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**Mur-lok™ Polypropylene Quick-Connect Fittings****Male NPTF Connectors**

Item #	Mur-lok	Thread	Price
00420216	1/4"	1/4" Male NPTF	<b>\$1.17</b>
00420416	1/4"	1/4" Male NPTF	<b>1.28</b>
00420616	1/4"	3/8" Male NPTF	<b>1.83</b>
00520216	5/16"	1/8" Male NPTF	<b>1.36</b>
00520416	5/16"	1/4" Male NPTF	<b>1.42</b>
00520616	5/16"	3/8" Male NPTF	<b>2.06</b>
00620216	3/8"	1/8" Male NPTF	<b>2.68</b>
00620416	3/8"	1/4" Male NPTF	<b>2.00</b>
00620616	3/8"	3/8" Male NPTF	<b>2.31</b>
00620816	3/8"	1/2" Male NPTF	<b>3.58</b>
00820616	1/2"	3/8" Male NPTF	<b>3.11</b>
00820816	1/2"	1/2" Male NPTF	<b>3.34</b>

**Faucet/Refrigerator Connectors**

Item #	Mur-lok	Thread	Price
U0420706	1/4"	7/16" - 24 UNS	<b>\$2.44</b>
U0620706	3/8"	7/16" - 24 UNS	<b>2.71</b>

**Male Flare Connectors**

Item #	Mur-lok	Thread	Price
00420476	1/4"	1/4" Male Flare	<b>\$1.48</b>
00620476	3/8"	1/4" Male Flare	<b>2.39</b>
00620676	3/8"	3/8" Male Flare	<b>2.78</b>

**NPTF Stem Adapters**

Item #	Stem	Thread	Price
S0460216	1/4"	1/4" Male NPTF	<b>\$6.63</b>
S0460416	1/4"	1/4" Male NPTF	<b>.63</b>
S0460616	1/4"	3/8" Male NPTF	<b>.92</b>
S0560216	5/16"	1/8" Male NPTF	<b>.63</b>
S0660416	3/8"	1/4" Male NPTF	<b>.79</b>
S0660616	3/8"	3/8" Male NPTF	<b>.99</b>
S0860616	1/2"	3/8" Male NPTF	<b>1.61</b>
S0860816	1/2"	1/2" Male NPTF	<b>1.61</b>

**End Stops**

Item #	Price	Item #	Price
W0420006	1/4" <b>\$1.10</b>	W0620006	3/8" <b>\$1.44</b>

Tube DD	to 75° F	to 125° F	to 175° F
1/4"	300 psi	300 psi	300 psi
5/16"	300 psi	300 psi	300 psi
3/8"	250 psi	250 psi	150 psi
1/2"	200 psi	200 psi	150 psi
5/8"	150 psi	100 psi	50 psi

**Female Connector**

Item #	Nominal Tube O.D. (in.)	NPT Thread (in.)	Price
000P4FC2	1/4	1/8	<b>\$1.66</b>
000P4FC4	1/4	1/4	<b>1.29</b>
000P6FC4	3/8	1/4	<b>1.51</b>
000P6FC6	3/8	3/8	<b>1.54</b>
000P6FC8	3/8	1/2	<b>1.74</b>
000P8FC6	1/2	3/8	<b>2.80</b>
000P8FC8	1/2	1/2	<b>2.74</b>
00P10FC8	5/8	1/2	<b>2.13</b>

**Nut and Spacer Sets**

Item #	For Nom. Tube O.D.	Price
P4NS	1/4	<b>\$3.38</b>
P5NS	5/16	<b>.40</b>
P6NS	3/8	<b>.40</b>
P8NS	1/2	<b>.44</b>
P10NS	5/8	<b>.49</b>

**Male Run Tee**

Item #	Nominal Tube O.D. (in.)	NPT Thread (in.)	Price
000P4MR2	1/4	1/8	<b>\$1.77</b>
000P6MR4	3/8	1/4	<b>2.24</b>
000P8MR6	1/2	3/8	<b>3.09</b>
00P10MR8	5/8	1/2	<b>3.88</b>

**Elbow Union**

Item #	Nominal Tube O.D. (in.)	Price
000P4EU4	1/4 - 1/4	<b>\$1.94</b>
000P5EU5	5/16 - 5/16	<b>2.20</b>
000P6EU6	3/8 - 3/8	<b>2.60</b>
000P8EU8	1/2 - 1/2	<b>2.86</b>
0P10EU10	5/8 - 5/8	<b>3.48</b>
000P5EU4	5/16 - 1/4	<b>3.03</b>
000P6EU4	3/8 - 1/4	<b>2.32</b>
000P6EU5	3/8 - 5/16	<b>2.47</b>
000P8EU6	1/2 - 3/8	<b>2.83</b>

**Male Branch Tee**

Item #	Nominal Tube O.D. (in.)	NPT Thread (in.)	Price
000P4MT2	1/4	1/8	<b>\$1.66</b>
000P4MT4	1/4	1/4	<b>1.77</b>
000P5MT2	5/16	1/8	<b>1.84</b>
000P5MT4	5/16	1/4	<b>1.82</b>
000P6MT4	3/8	1/4	<b>2.20</b>
000P6MT6	3/8	3/8	<b>2.24</b>
000P8MT6	1/2	3/8	<b>2.86</b>
000P8MT8	1/2	1/2	<b>2.90</b>
00P10MT8	5/8	1/2	<b>3.03</b>

**Tube Support**

Item #	For Tube I.D.	Price
P4TS3	.170	<b>\$3.36</b>
P5TS3	3/16	<b>.39</b>
P6TS4	1/4	<b>.43</b>
P8TS6	3/8	<b>.44</b>
P10TS8	1/2	<b>.47</b>

## CBC-Lok® Tube Fittings **NEW**

Tylok International, Inc. offers a tube fitting line, CBC-Lok®, that is fully interchangeable with Swagelok® and Parker A-Lok®. Although it is always recommended to use all CBC-Lok® components, intermixing CBC-Lok® bodies and/or component parts with that of other manufacturers will not adversely affect sealing ability. CBC-Lok® Tube Fittings are made to strict quality control standards and cannot guarantee that of other manufacturers.

### Quick Spec

- Double ferrule swaging action
- Total component interchangeability
- Heat Code traceable
- ASTM material construction
- Corrosion resistant 316 Stainless Steel rear ferrules



### Cap

Tylok	Swagelok	Parker A-Lok	Tube	Item #	Price
2-DCAP	200-C	2BLEN2	1/8"	274326	\$5.55
4-DCAP	400-C	4BLEN4	1/4"	274327	4.75
6-DCAP	600-C	6BLEN6	3/8"	274328	6.49
8-DCAP	810-C	8BLEN8	1/2"	274329	9.49
10-DCAP	1010-C	10BLEN10	3/4"	274330	11.47
12-DCAP	1210-C	12BLEN12	1"	274331	15.40
16-DCAP	1610-C	16BLEN16	1"	274332	28.70

### Union

Tylok	Swagelok	Parker A-Lok	Tube	Item #	Price
2-DU	200-6	2SC2	1/8"	274702	\$9.38
4-DU	400-6	4SC4	1/4"	268383	9.86
5-DU	500-6	5SC5	5/16"	308427	10.43
6-DU	600-6	6SC6	3/8"	268384	13.31
8-DU	810-6	8SC8	1/2"	268385	19.80
10-DU	1010-6	10SC10	3/4"	283947	25.69
12-DU	1210-6	12SC12	1"	274072	32.07
14-DU	1410-6	14SC14	1 1/4"	283948	52.32
16-DU	1610-6	16SC16	1 1/2"	274071	55.68

### Union Elbow

Tylok	Swagelok	Parker A-Lok	Tube	Item #	Price
2-DELU-2	200-9	2EE2	1/8"	274706	\$12.62
4-DELU-4	400-9	4EE4	1/4"	268386	13.55
5-DELU-5	500-9	5EE5	5/16"	318662	14.06
6-DELU-6	600-9	6EE6	3/8"	268387	16.56
8-DELU-8	810-9	8EE8	1/2"	268388	27.21
10-DELU-10	1010-9	10EE10	3/4"	274707	30.44
12-DELU-12	1210-9	12EE12	1"	274074	48.04
16-DELU-16	1610-9	16EE16	1 1/2"	274073	91.90

### Female Elbow

Tylok	Swagelok	Parker A-Lok	Tube	Pipe	Item #	Price
2-DFE-2	200-8-2	2FEL2N	1/8"	1/8"	274708	\$16.21
4-DFE-2	400-8-2	4FEL2N	1/4"	1/4"	274709	14.12
4-DFE-4	400-8-4	4FEL4N	1/4"	1/4"	274710	16.09
5-DFE-4	500-8-4	5FEL4N	5/16"	5/16"	308425	18.90
6-DFE-2	600-8-2	6FEL2N	3/8"	3/8"	274711	15.74
6-DFE-4	600-8-4	6FEL4N	3/8"	3/8"	274712	16.56
6-DFE-6	600-8-6	6FEL6N	3/8"	3/8"	274713	18.65
8-DFE-4	810-8-4	8FEL4N	1/2"	1/2"	274714	21.30
8-DFE-6	810-8-6	8FEL6N	1/2"	1/2"	274715	22.45
8-DFE-8	810-8-8	8FEL8N	1/2"	1/2"	274716	30.33
10-DFE-8	1010-8-8	NA	3/4"	3/4"	274717	32.87
12-DFE-12	1210-8-12	12FEL12N	1"	1"	274718	60.65
16-DFE-16	1610-8-16	16FEL16N	1 1/2"	1 1/2"	274719	97.23

### Male Connector

Tylok	Swagelok	Parker A-Lok	Tube	Pipe	Item #	Price
2-DMC-2	200-1-2	2MSC2N	1/8"	1/8"	274603	\$6.25
2-DMC-4	200-1-4	2MSC4N	1/8"	1/8"	306629	7.18
2-DMC-6	200-1-6	2MSC6N	1/8"	1/8"	306630	10.94
4-DMC-1	400-1-1	4MSC1N	1/4"	1/4"	308424	6.49
4-DMC-2	400-1-2	4MSC2N	1/4"	1/4"	268376	5.79
4-DMC-4	400-1-4	4MSC4N	1/4"	1/4"	268377	6.02
4-DMC-6	400-1-6	4MSC6N	1/4"	1/4"	274604	7.64
4-DMC-8	400-1-8	4MSC8N	1/4"	1/4"	274605	10.30
5-DMC-4	500-1-4	5MSC4N	5/16"	5/16"	317311	8.07
6-DMC-2	600-1-2	6MSC2N	3/8"	3/8"	274606	7.29
6-DMC-4	600-1-4	6MSC4N	3/8"	3/8"	268378	8.23
6-DMC-6	600-1-6	6MSC6N	3/8"	3/8"	268379	9.26
6-DMC-8	600-1-8	6MSC8N	3/8"	3/8"	268380	11.11
6-DMC-12	600-1-12	6MSC12N	3/8"	3/8"	310475	14.25
8-DMC-4	810-1-4	8MSC4N	1/2"	1/2"	268381	11.93
8-DMC-6	810-1-6	8MSC6N	1/2"	1/2"	274607	12.39
8-DMC-8	810-1-8	8MSC8N	1/2"	1/2"	268382	13.78
8-DMC-12	810-1-12	8MSC12N	1/2"	1/2"	274608	17.71
10-DMC-6	1010-1-6	10MSC6N	3/4"	3/4"	318673	14.25
10-DMC-8	1010-1-8	10MSC8N	3/4"	3/4"	274609	15.27
12-DMC-8	1210-1-8	12MSC8N	1"	1"	308420	20.07
12-DMC-12	1210-1-12	12MSC12N	1"	1"	274080	21.06
12-DMC-16	1210-1-16	12MSC16N	1 1/4"	1 1/4"	310503	32.41
14-DMC-12	1410-1-12	14MSC12N	1 1/2"	1 1/2"	308422	36.19
16-DMC-12	1610-1-12	16MSC12N	1 1/2"	1 1/2"	318630	39.08
16-DMC-16	1610-1-16	16MSC16N	1 1/2"	1 1/2"	274079	36.93

### Rear Collet

Tylok	Swagelok	Parker A-Lok	Tube	Item #	Price
DRC-1	104-1	1BF1	1/8"	274867	\$1.53
DRC-2	204-1	2BF2	1/4"	274848	.93
DRC-3	304-1	3BF3	3/8"	274849	.91
DRC-4	404-1	4BF4	1/2"	273942	.75
DRC-5	504-1	5BF5	5/8"	273942	.94
DRC-6	604-1	6BF6	3/4"	273941	.95
DRC-8	814-1	8BF8	1"	273940	1.35
DRC-10	1014-1	10BF10	1 1/4"	274851	1.63
DRC-12	1214-1	12BF12	1 1/2"	274852	2.23
DRC-14	1414-1	12BF12	1 1/2"	274853	3.00
DRC-16	1614-1	16BF16	1 1/2"	274874	3.46

### Nut

Tylok	Swagelok	Parker A-Lok	Tube	Item #	Price
DN-1	102-1	NA	1/8"	274859	\$2.80
DN-2	202-1	NU2	1/4"	274860	1.77
DN-3	302-1	NU3	3/8"	274861	1.60
DN-4	402-1	NU4	1/2"	268418	1.62
DN-5	502-1	NU5	5/8"	274862	1.70
DN-6	602-1	NU6	3/4"	268419	2.24
DN-8	812-1	NU8	1"	268420	3.69
DN-10	1012-1	NU10	1 1/4"	274863	5.12
DN-12	1212-1	NU12	1 1/2"	274864	6.10
DN-14	1412-1	NU14	1 1/2"	274865	7.96
DN-16	1612-1	NU16	1 1/2"	274866	11.63

### Reducing Union

Tylok	Swagelok	Parker A-Lok	Tube	Pipe	Item #	Price
4-DRU-2	400-6-2	4RU2	1/4"	1/4"	274682	\$9.85
5-DRU-4	500-6-4	5RU4	5/16"	5/16"	318664	10.67
6-DRU-4	600-6-4	6RU4	3/8"	3/8"	274683	13.31
6-DRU-5	600-6-5	6RU5	3/8"	5/16"	318672	20.27
8-DRU-4	810-6-4	8RU4	1/2"	1/2"	274685	20.49
8-DRU-6	810-6-6	8RU6	1/2"	3/8"	274687	20.49
10-DRU-8	1010-6-8	10RU8	3/4"	3/4"	274688	26.39
12-DRU-8	1210-6-8	12RU8	3/4"	3/4"	274690	31.25
16-DRU-12	1610-6-12	16RU12	1 1/2"	1 1/2"	274692	57.30

### Female Connector

Tylok	Swagelok	Parker A-Lok	Tube	Pipe	Item #	Price
2-DFC-2	200-7-2	2FSC2N	1/8"	1/8"	274591	\$7.99
4-DFC-2	400-7-2	4FSC2N	1/4"	1/4"	274592	7.76
4-DFC-4	400-7-4	4FSC4N	1/4"	1/4"	274593	9.72
5-DFC-4	500-7-4	5FSC4N	5/16"	5/16"	318663	10.30
6-DFC-2	600-7-2	6FSC2N	3/8"	3/8"	274594	10.19
6-DFC-4	600-7-4	6FSC4N	3/8"	3/8"	268375	9.95
6-DFC-6	600-7-6	6FSC6N	3/8"	3/8"	274595	13.20
6-DFC-8	600-7-8	6FSC8N	3/8"	3/8"	274596	17.36
8-DFC-4	810-7-4	8FSC4N	1/2"	1/2"	274597	13.78
8-DFC-6	810-7-6	8FSC6N	1/2"	1/2"	274598	14.12
8-DFC-8	810-7-8	8FSC8N	1/2"	1/2"	274599	19.45
8-DFC-12	810-7-12	8FSC12N	1/2"	1/2"	283338	23.15
10-DFC-8	1010-7-8	10FSC8N	3/4"	3/4"	274600	20.61
12-DFC-8	1210-7-8	12FSC8N	3/4"	3/4"	308419	29.02
12-DFC-12	1210-7-12	12FSC12N	3/4"	3/4"	274601	26.05
16-DFC-16	1610-7-16	16FSC16N	1 1/2"	1 1/2"	274602	55.68

### Male Elbow

Tylok	Swagelok	Parker A-Lok	Tube	Pipe	Item #	Price
2-DME-2	200-2-2	2MSEL2N	1/8"	1/8"	274720	\$10.08
4-DME-2	400-2-2	4MSEL2N	1/4"	1/4"	268389	10.65
4-DME-4	400-2-4	4MSEL4N	1/4"	1/4"	268390	11.47
4-DME-6	400-2-6	4MSEL6N	1/4"	3/8"	274721	16.09
4-DME-8	400-2-8	4MSEL8N	1/4"	1/2"	274722	18.41
5-DME-4	500-2-4	5MSEL4N	5/16"	5/16"	308426	11.76
6-DME-2	600-2-2	6MSEL2N	3/8"	3/8"	274737	14.70
6-DME-4	600-2-4	6MSEL4N	3/8"	3/8"	268391	14.25
6-DME-6	600-2-6	6MSEL6N	3/8"	3/8"	274723	17.13
6-DME-8	600-2-8	6MSEL8N	3/8"	1/2"	274724	22.00
8-DME-4	810-2-4	8MSEL4N	1/2"	1/2"	274725	20.14
8-DME-6	810-2-6	8MSEL6N	1/2"	3/8"	274726	20.14
8-DME-8	810-2-8	8MSEL8N	1/2"	1/2"	268392	25.12
10-DME-6	1010-2-6	10MSEL6N	3/4"	3/4"	308417	26.51
10-DME-8	1010-2-8	10MSEL8N	3/4"	1/2"	274727	27.67
12-DME-8	1210-2-8	12MSEL8N	3/4"	3/4"	308421	30.74
12-DME-12	1210-2-12	12MSEL12N	3/4"	3/4"	274077	30.56
16-DME-16	1610-2-16	16MSEL16N	1 1/2"	1 1/2"	274078	59.61

### Union Tee

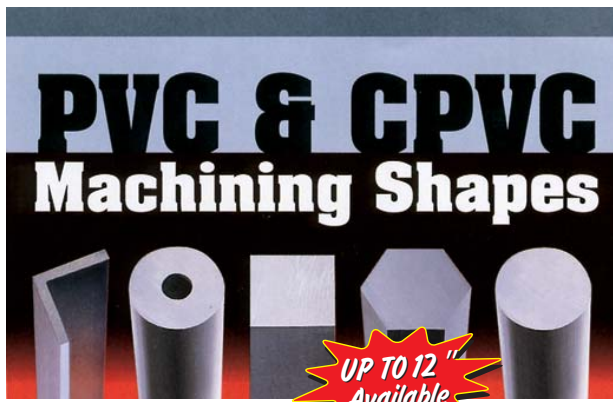
Tylok	Swagelok	Parker A-Lok	Tube	Item #	Price
2-DITT-2	200-3	2ET2	1/8"	274231	\$20.49
4-DITT-4	400-3	4ET4	1/4"	268393	19.10
5-DITT-5	500-3	5ET5	5/16"	318665	21.84
6-DITT-6	600-3	6ET6	3/8"	268394	24.89
8-DITT-8	810-3	8ET8	1/2"	268395	37.85
10-DITT-10	1010-3	10ET10	3/4"	274227	44.21
12-DITT-12	1210-3	12ET12	1"	274076	56.60
16-DITT-16	1610-3	16ET16	1 1/2"	274075	121.31

### Front & Rear Collet Set (10 of each)

Tylok	Swagelok	Parker A-Lok	Tube	Pipe	Item #	Price
DCSEF-4-10	400 Sets-10	4-ALOK-SS-SET	1/4"	1/4"	268421	\$16.73
DCSEF-6-10	600 Sets-10	6-ALOK-SS-SET	3/8"	3/8"	268422	20.55
DCSEF-8-10	810 Sets-10	8-ALOK-SS-SET	1/2"	1/2"	268423	28.89
DCSEF-12-10	1210 Sets-10	12-ALOK-SS-SET	3/4"	3/4"	274082	48.84
DCSEF-16-10	1610 Sets-10	16-ALOK-SS-SET	1 1/2"	1 1/2"	274081	81.40

### TY-FLO HP Series Ball Valves

Tylok	Tube	Item #	Price
SS-8-DIT-8-8-K	1/2" X 1/2"	275810	<b>\$83.95</b>
SS-6-DIT-8-8-K	1/2" X 1/2"	275807	<b>\$5.64</b>
SS-8-DIT-8-6-K	1/2" X 3/8"	275809	<b>\$3.60</b>
SS-8-DIT-8-10-K	1/2" X 5/8"	275812	<b>\$6.23</b>
SS-6-DIT-4-4-K	1/4" X 1/4"	275805	<b>\$2.43</b>
SS-6-DIT-6-6-K	3/8" X 3/8"	275806	<b>\$3.62</b>



## Type 1 Grade 1 PVC Solid Round Bar

Size (Inches)	O.D.	Tolerance Minus 0 & Plus	Weight Per Ft.	Gray Price/Ft. Standard Tolerance	Gray Price/Ft. Centerless Ground $\pm .003$ "
1/4"	.250	.008	.029	\$ .60	\$ .96
3/8"	.375	.011	.066	.65	1.11
1/2"	.500	.015	.117	.84	1.41
5/8"	.625	.020	.183	1.01	1.78
3/4"	.750	.022	.265	1.46	2.38
7/8"	.875	.025	.358	1.87	3.08
1"	1.000	.030	.471	2.51	3.96
1 1/8"	1.125	.035	.594	3.56	5.16
1 1/4"	1.250	.035	.736	4.01	6.21
1 3/8"	1.375	.040	.891	4.84	7.44
1 1/2"	1.500	.040	1.060	5.76	8.61
1 5/8"	1.625	.045	1.244	7.51	10.24
1 3/4"	1.750	.050	1.440	8.15	12.27
1 7/8"	1.875	.055	1.657	9.36	13.79
2"	2.000	.060	1.890	10.11	15.34
2 1/8"	2.125	.060	2.128	11.99	18.38
2 1/4"	2.250	.068	2.384	13.55	20.58
2 3/8"	2.375	.071	2.658	15.59	23.66
2 1/2"	2.500	.075	2.950	16.69	25.36
2 5/8"	2.750	.080	3.560	20.27	
3"	3.000	.090	4.240	22.78	
3 1/2"	3.500	.105	5.770	31.15	
4"	4.000	.120	7.550	41.76	

1/4" through 2" Bar – 10' lengths. 2 1/8" through 6" Bar – 5' + 10' lengths.  
7" through 10" Bar – 5' lengths. 11" & 12" Bar – 2' lengths.  
Tolerance length plus or minus 1.000".

## Type 1 Grade 1 Rigid Unplasticized PVC Hollow Bar Stock

O.D. Min. (Inches)	I.D. Min. (Inches)	Average Wt. #1 Ft.	Price/Ft. 5' & Up
1.625	.562	1.154	\$9.11
1.900	.562	1.647	12.56
1.900	.906	1.410	10.79
2.000	1.250	1.285	9.64
2.125	.750	2.010	15.52
2.250	1.125	2.025	15.40
2.375	1.000	2.393	18.46
2.500	1.000	2.680	20.14
2.500	1.500	2.209	16.78
2.625	1.500	2.511	18.87
2.750	1.000	3.299	25.34
3.000	1.000	3.976	29.71
3.000	1.250	3.770	28.20
3.000	1.500	3.375	25.33
3.000	2.000	2.798	20.89
3.250	1.250	4.506	33.67
3.500	1.500	5.037	37.68
3.563	1.500	5.245	39.08
4.000	2.500	5.153	38.64
4.000	3.000	3.845	28.80
4.250	1.750	7.452	55.65
4.250	3.000	4.948	36.61

Less than standard length, add 35% to price. Tolerance O.D.'s are minimum. I.D.'s are maximum.  
1.625" x .562" through 5" x 3" stocked in 10' lengths  $\pm 1$ ".  
5.563" x 4.000" through 8.625" x 5.75" stocked in 5' lengths  $\pm 1$ ".

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726



## Superior Quality

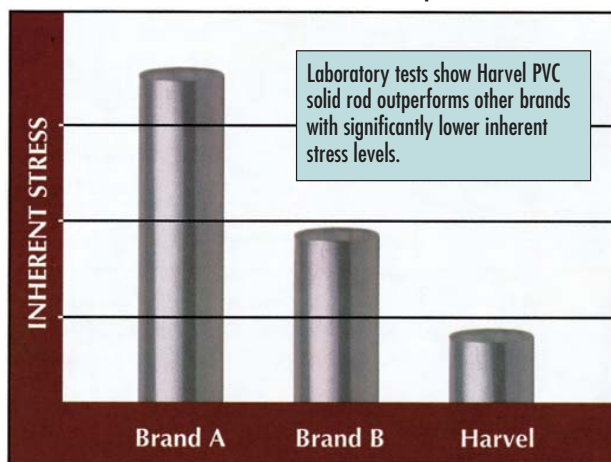
Harvel's state-of-the-art extrusion process provides porosity-free, stressed-reduced products with optimum physical properties and exacting tolerances, products that consistently machine with ease, part after part. Innovation and the latest technical know-how, combined with processing experience since 1964, enable Harvel to produce 9 quality stock machining shapes from 1/8" through 12" diameters. Available products include solid bar, hollow bar, square, rectangular, hexagonal bar, angle and joining strip.

## Type 1 Grade 1 Hexagonal Bar

O.D. Min. (Inches)	I.D. Min. (Inches)	Average Wt. #1 Ft.	Price/Ft.
7/16"	0.4375	.108	\$1.00
1/2"	0.5000	.142	1.19
9/16"	0.5625	.180	1.38
5/8"	0.6250	.222	1.80
3/4"	0.7500	.320	2.46
13/16"	0.8125	.375	2.98
7/8"	0.8750	.435	3.41
1"	1.0000	.569	4.36
1 1/8"	1.1250	.721	6.60
1 1/4"	1.2500	.890	8.01
1 3/8"	1.3750	1.080	9.91
1 1/2"	1.5000	1.283	11.82
1 3/4"	1.7500	1.746	16.05
2"	2.0000	2.280	20.93

7/16" through 1 1/8" stocked in 10' lengths  $\pm 1$ ". Tolerance across flats  $\pm .030$ ".  
1 1/4" through 1 3/4" stocked in 10' lengths  $\pm 1$ ". Tolerance across flats  $\pm 1/16$ " – 0.  
2" stocked in 10' lengths  $\pm 1$ ". Tolerance across flats  $\pm 1/8$ " – 0".

## PVC Solid Rod Internal Stress Comparison





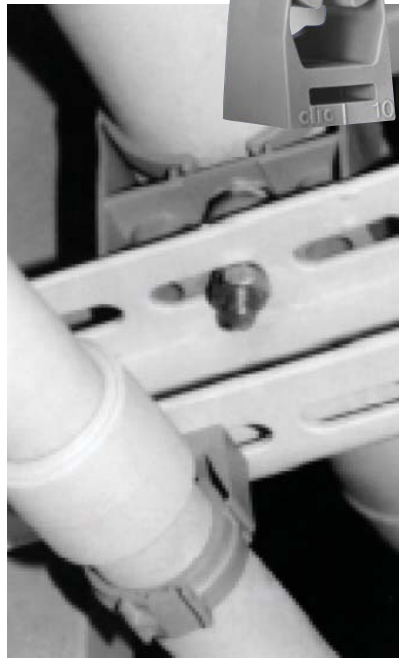
# Clic-x Series 88 Xenoy 5730

## AUTOMATIC LOCKING & CORROSION RESISTANT PIPE/TUBE SUPPORT & HANGER

### Why Xenoy?

Xenoy is a thermoplastic alloy blend of polybutylene terephthalate (PBT) and Polycarbonate (PC). The migration to Xenoy from Nylon makes good sense in terms of improved performance and material costing.

The Clic product line migrates to Clic-X for the entire size range of #8 - #113.



In the 20 years in the United States, the product has been used and specified by most of the Fortune 1000 facilities. Its specifications can be found in the top 500 engineering and construction firms across the country. Its international client base is unparalleled.

The story continues with CLIC-X. A major improvement in the product line will add new installation opportunities with UL 2043 compliance for plenum installations.



### HOW IT WORKS

1. Insert pipe/tube into the open clic.
2. Apply slight pressure to the pipe/tube, forcing jaws to close and lock.
3. A sharp "clic" tells you the pipe is securely fastened.

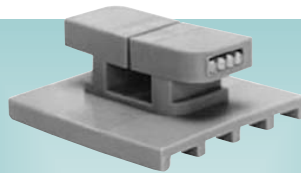
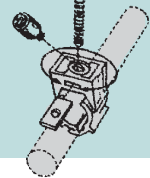
### Clic-x/Strutcatcher Accessories

Item #	Size	For Use With	Price
<b>Bundle - Insulation Rings</b>			
25-1	3/4" I.D.	Clic-x #25	<b>\$.37</b>
32-2	1" I.D.	Clic-x #32	<b>.44</b>
40-3	1 1/4" I.D.	Clic-x #40	<b>.46</b>
47-4	1 1/2" I.D.	Clic-x #47	<b>.58</b>
59-9	2" I.D.	Clic-x #59	<b>.78</b>
<b>Clic Spacers</b>			
LT88-15	15mm	Clic-x #8 - #59	<b>.49</b>
LT88-25	25mm	Clic-x #8 - #59	<b>.52</b>
LT88-35	35mm	Clic-x #8 - #59	<b>.60</b>
LT88-45	45mm	Clic-x #8 - #59	<b>1.12</b>
LT88-85	85mm	Clic-x #8 - #59	<b>2.10</b>

Item #	Description	Price
CLIC10	Hanger 1/8 Tubing	<b>\$.37</b>
CLIC12	Hanger 1/4 Tubing	<b>.43</b>
CLIC15	Hanger 1/2 Tubing	<b>.43</b>
CLIC17	Hanger 3/4 Tubing	<b>.49</b>
CLIC20	Hanger 1/2 IPS	<b>.58</b>
CLIC25	Hanger 3/4 IPS	<b>.82</b>
CLIC28	Hanger 1 Tubing	<b>.87</b>
CLIC32	Hanger 1 IPS	<b>1.13</b>
CLIC40	Hanger 1 1/4 IPS	<b>1.53</b>
CLIC47	Hanger 1 1/2 IPS	<b>1.97</b>
CLIC59	Hanger 2 IPS	<b>2.61</b>
CLIC71	Hanger 2 1/2 IPS	<b>6.30</b>
CLIC80	Hanger 3 IPS	<b>6.86</b>
CLIC113	Hanger 4 IPS	<b>11.11</b>
CLICLT101	Flange 1/4 THD Rod 1/2-2	<b>.37</b>
CLICLT102	Knurled Nut 3/4 THD Rod 1/2-2	<b>2.92</b>
CLICLT106	Flange 3/4 THD Rod 2 1/4-4	<b>1.76</b>
CLICLT109	Strutcatcher	<b>1.21</b>
CLICLT103	1/4"-20 Stud for LT-101	<b>.29</b>

### AS A HANGER... THREADED ROD

Insert 316 alloy stainless steel flange, LT-101, into slot in base of clic. Make 1/4" threaded rod into flange via screw hole in base of clic. If using 3/8" threaded rod make 316 alloy stainless steel adapter, LT-102, into flange via screw hole in base of clic, then make 3/8" threaded rod into adapter. For sizes 2", 2 1/2", 3", 4" the flange has a standard 3/8" screw hole so no adapter is necessary.



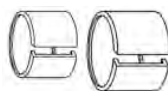
### LT-109 Strutcatcher™

A very simple device used with clic to speed up installations of all types of pipe, tube, conduit, wire and cable onto strut. Made from Xenoy.

- ✓ Installs on the ground
- ✓ Installs in the air
- ✓ Shop fabrication
- ✓ One-man installation
- ✓ No drilling of strut

#### For use with the following items of steel strut:

- 12 gauge 1 5/8" x 1 5/8"
- 12 gauge 1" x 1 5/8"
- 12 gauge 1 3/8" x 1 5/8"
- 14 gauge 1 3/8" x 1 5/8"



### BUNDLE - INSULATION RINGS

A fast, easy and reusable means to support and configure bundles of tubing. Rings may be used with insulation for continuous insulation through Clic-x units #25 - #59. **New ridgeless design; will not krimp fiber optic cables.**



#### LT-101 FLANGE

Stainless Steel 316 Alloy, tapped 1/4"-20 for thumb-tight fit into slot in base of clic. Permits 1/4" threaded rod or stud, LT-103 stud, LT-102 adapter, to mate with clic via screw hole in base of clic.



#### LT-102 ADAPTER

Stainless Steel 316 Alloy, 1/4" -20 male x 3/8" -16 plain female, 3/4" overall length. "Mates with LT-101 above." Permits 3/8" threaded rod to mate with clic when used in combination with flange, LT-101.



#### LT-103 STUD

Stainless Steel 316 Alloy, threaded 1/4"-20, 1/2" long, to mate with flange, LT-101.



#### LT-106 FLANGE

Stainless Steel 316 Alloy, tapped 3/8", thumb-tight fit into slot in base of clic. Permits 3/8" threaded rod to mate with clic via hole in base of clic.



#### CLIC SPACERS

Light grey polypropylene. For use with Clic-x #8 - #59. Spacers can be plugged into and combined with one another.

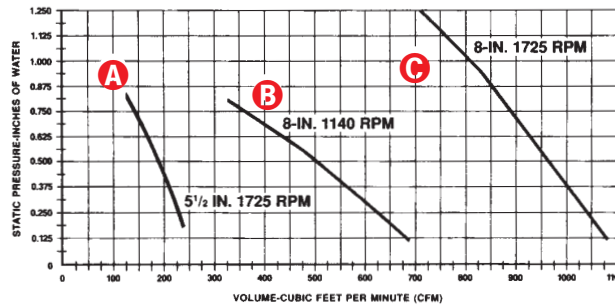
All Plastic NORTON Blowers are reliable, corrosion-resistant units. They are excellent choices for aggressive applications where metal blowers corrode. Compared to metal blowers of the same capacity, NORTON plastic blowers often cost less because they last longer.

### Quick Spec

- Resistant to corrosive vapors
- One year warranty
- Blowers come complete with motors — ready to run
- For indoor and outdoor use
- Choice of motors — totally-enclosed fan cooled or explosion proof optional
- Steel stands are coated with corrosion-resistant polyurethane paint
- Forward-curved impeller blades (when looking at inlet) for lower speed, low-noise operation
- Maximum temperature limit of 140°F/60°C

Simply find your cubic feet per minute requirements on the graph at right.

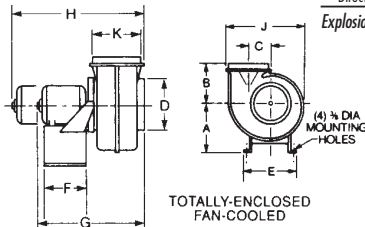
**A, B or C** line will be the appropriate curve.



#### NOTES:

1) NORTON blowers are supplied fully assembled in counterclockwise upblast position. Other counterclockwise positions are available on request.

2) Industrial blowers feature round inlets and rectangular outlets.



	Drive	Motor Enclosure	Material Wheel/Housing	Inlet O.D., in.	RPM	HP	Power Voltage (Phase)	Approx. Ship Weight, lb.	Item #	Price
<b>A</b>	140 to 225 CFM 3/4" to 1/4" Static Pressure									
	Direct	TEFC	PP/PVC	5 1/2	1725	1/8	115/208-230 (1)	30	713300050	\$893.03
<b>B</b>	360 to 625 CFM 3/4" to 1/4" Static Pressure									
	Direct	TEFC	PP/FRP	8	1140	1/3	115/208-230 (1)	47	714300050	1,156.48
	Direct	TEFC	PVC/FRP	8	1140	1/3	115/208-230 (1)	49	715300050	1,572.18
<b>C</b>	710 to 1,025 CFM 3/4" to 1/4" Static Pressure									
	Direct	TEFC	PP/FRP	8	1725	1/3	115/208-230 (1)	42	714300100	1,128.72
	Direct	TEFC	PVC/FRP	8	1725	1/3	115/208-230 (1)	44	715300100	1,470.41

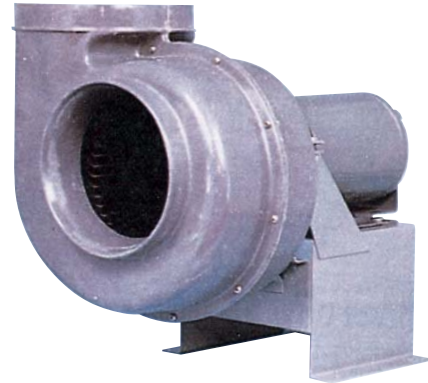
Explosion proof models are also available.

#### Blower Dimensions

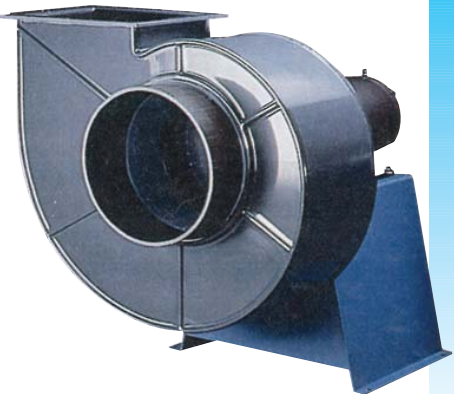
Item #	A, in.	B, in.	C, in.	D, in.	E, in.	F, in.	G, in.	J, in.	K, in.
713300050	5 1/2	6 1/2	3 3/4	5 1/2	9	7	14 1/2	11	4 1/2
71430-715300050	9 1/2	7 1/4	4 1/2	8	10 1/2	7 1/4	19	15 1/8	8
71430-715300100	9 1/2	7 1/4	4 1/2	8	10 1/2	7 1/4	18 1/2	15 1/8	8

NOTE: NORTON also manufactures larger industrial blowers — both direct drive and belt driven. If lab blowers do not meet your requirements, contact our sales department for additional information.

## Lab Blower



## Industrial Blower



Drive	Motor Enclosure	Material Wheel/Housing	Inlet OD, in.	RPM	HP	Pwr. Voltage (Phase)	Appx. Ship Wt., lb.	Item #	Price
<b>350 to 500 CFM</b>									
DIRECT	XP	PP/PVC	6 1/4	1725	1/3	208-230/460(3)	110	725210160	\$2,025.97
DIRECT	TEFC	PP/PVC	6 1/4	1725	1/3	208-230/460(3)	105	725310160	1,757.77
BELT	XP	PP/PVC	6 1/4	1725	1/3	208-230/460(3)	135	727210160	3,065.07
BELT	TEFC	PP/PVC	6 1/4	1725	1/3	208-230/460(3)	130	727310160	2,755.76
<b>650 to 800 CFM</b>									
DIRECT	XP	PP/PVC	7 3/8	1140	3/4	208-230/460(3)	125	725200200	2,160.80
DIRECT	TEFC	PP/PVC	7 3/8	1140	3/4	208-230/460(3)	113	725300200	1,991.60
DIRECT	XP	PVC/PVC	7 3/8	1140	3/4	208-230/460(3)	128	726200200	2,326.57
DIRECT	TEFC	PVC/PVC	7 3/8	1140	3/4	208-230/460(3)	116	726300200	2,159.34
<b>730 to 1100 CFM</b>									
DIRECT	XP	PP/PVC	7 3/8	1725	3/4	208-230/460(3)	128	725210200	2,242.76
DIRECT	TEFC	PP/PVC	7 3/8	1725	3/4	208-230/460(3)	113	725310200	1,968.09
BELT	XP	PP/PVC	7 3/8	1725	3/4	208-230/460(3)	155	727210200	3,181.12
BELT	TEFC	PP/PVC	7 3/8	1725	3/4	208-230/460(3)	138	727310200	2,925.61

Consult sales office for dimensions and blowers up to 5000 CFM.

\* Duct to blower connections are available.

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 141

## PVC & CPVC Thermoplastic Custom Fabrication

### Custom Component Fabrication For Virtually Any Piping System Need!

Spears Manufacturing has the capability to build custom piping system components to virtually any specifications for either pressure or nonpressure applications. Spears experience in piping system component fabrications provides the highest quality and technology available for a variety of industry needs including Agriculture, Turf Irrigation, Water Parks, Aquariums, Pulp & Paper, Industrial and Chemical Processing.



- Manifolds
- Custom Fittings
- Offset Connectors



**CALL for Job Pricing!**

### Up to 48" Nominal Diameter Fabrication

Spears forming capabilities can handle some of the largest thermoplastic piping component custom fabrication needs.

### Pressure & Non-Pressure Applications

Produced primarily from thermoplastic pipe and piping system components, custom products can be fabricated for a variety of pressure applications based on design criteria and material selection from a variety of Schedule, Class and SDR ratings.

### Superior FRP Bonding Technology

Spears research in Fiberglass Reinforced Plastic (FRP) technology has developed superior bonding of fiberglass resin to PVC and CPVC thermoplastic materials. This eliminates weaker, "egg shell" reinforcement typical in many competitor FRP products.

### High Quality Joining & Welding

From basic solvent cement welding to precision Hot-Air welds, Spears controlled quality fabrication gives the highest assurance of sound, reliable construction.

### Multi-Outlet Manifolding

Spears specializes in multi-outlet manifolds built to specifications for a wide variety of inlet, outlet and reductions in socket, flanged, or threaded connections.

## Spears PVC Duct Fabricated Fittings



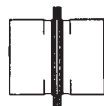
**Reducer Coupling Belled Socket**

Size	Item #	Price
6" x 4"	4329-532	\$29.33
8" x 4"	4329-582	90.67
8" x 6"	4329-585	38.45
10" x 4"	4329-624	169.46
10" x 6"	4329-626	105.36
10" x 8"	4329-628	49.40
12" x 4"	4329-664	188.76
12" x 6"	4329-666	182.29
12" x 8"	4329-668	131.92
12" x 10"	4329-670	57.49
14" x 4"	4329-694	468.86
14" x 6"	4329-696	339.68
14" x 8"	4329-698	199.73
14" x 10"	4329-700	164.99
14" x 12"	4329-702	94.40
16" x 4"	4329-754	566.33
16" x 6"	4329-756	458.76
16" x 8"	4329-758	330.88
16" x 10"	4329-760	230.16
16" x 12"	4329-762	248.42
16" x 14"	4329-764	106.67



**Coupling Belled Socket**

Size	Item #	Price
6"	4329-060	\$22.45
8"	4329-080	26.36
10"	4329-100	31.06
12"	4329-120	35.08
14"	4329-140	41.15
16"	4329-160	47.52
18"	4329-180	69.41
20"	4329-200	107.26
24"	4329-240	145.20



**Blast Gate Damper Belled End**

Size	Item #	Price
6"	43BG-060	\$138.79
8"	43BG-080	157.75
10"	43BG-100	167.22
12"	43BG-120	209.52
14"	43BG-140	278.13
16"	43BG-160	309.07
18"	43BG-180	364.61
20"	43BG-200	413.81
24"	43BG-240	563.84



**45° Elbow Belled Socket**

Size	Item #	Price
6"	4317-060	\$58.06
8"	4317-080	72.39
10"	4317-100	78.46
12"	4317-120	97.20
14"	4317-140	114.82
16"	4317-160	139.14
18"	4317-180	203.09
20"	4317-200	278.62
24"	4317-240	362.61



**Rain Cap Style B**

Size	Item #	Price
6"	4347-060B	\$331.81
8"	4347-080B	375.51
10"	4347-100B	406.01
12"	4347-120B	442.08
14"	4347-140B	496.96
16"	4347-160B	602.86
18"	4347-180B	728.86
20"	4347-200B	836.24
24"	4347-240B	967.95



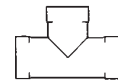
**90° Elbow Belled Socket**

Size	Item #	Price
6"	4306-060	\$82.88
8"	4306-080	93.40
10"	4306-100	112.71
12"	4306-120	127.09
14"	4306-140	149.85
16"	4306-160	193.59
18"	4306-180	269.41
20"	4306-200	409.81
24"	4306-240	494.36



**Flat Cap**

Size	Item #	Price
6"	4347-060	\$46.13
8"	4347-080	46.95
10"	4347-100	50.62
12"	4347-120	55.38
14"	4347-140	89.27
16"	4347-160	97.28
18"	4347-180	106.01
20"	4347-200	157.99
24"	4347-240	161.52



**Tee Belled Socket**

Size	Item #	Price
6"	4301-060	\$104.91
8"	4301-080	133.51
10"	4301-100	168.42
12"	4301-120	185.56
14"	4301-140	215.84
16"	4301-160	278.06
18"	4301-180	365.93
20"	4301-200	537.74
24"	4301-240	718.69





## Mechanical Pipe Plugs

These reusable plugs work on small diameter plastic, steel, iron and copper pipe. A wing nut is used for tightening sizes up to 1 1/4" and a hex nut on sizes 1 1/2" to 4".



Item #	Nominal Size	Pipe Type	Maximum Back Pressure		Price
			Water Head (feet)	Air (psig)	
WT83715	1/2"	Copper/Sch. 40	300	5	<b>\$3.21</b>
WT83716	3/4"	Copper/Sch. 40	300	5	<b>3.42</b>
WT83717	1"	Copper/Sch. 40	250	5	<b>4.76</b>
WT83718	1 1/4"	Sch. 40	225	5	<b>5.29</b>
WT83719	1 1/2"	Sch. 40	150	5	<b>6.04</b>
WT83721	2"	Copper/Sch. 40	150	5	<b>8.82</b>
WT83722	2 1/2"	Sch. 40	100	5	<b>17.53</b>
WT83723	3"	Sch. 40	—	—	<b>21.81</b>
WT83724	4"	Sch. 40	—	—	<b>36.72</b>

## Twist-Tite™ Mechanical Test Plugs

### Quick Spec

- Oversized Wingnut with Wrench Pad for Easy Removal
- Made of High Impact ABS Material
- Will Not Rust or Corrode
- Neoprene Gasket



Item #	Nominal Size	Minimum Pipe Diameter	Maximum Pipe Diameter	Maximum Back Pressure		Price
				Water Head (feet)	Air (psig)	
OAT270-210	1 1/2"	1.48	1.65	40	5	<b>\$3.37</b>
OAT270-229	2"	1.90	2.17	40	5	<b>3.86</b>
OAT270-237	3"	2.80	3.10	40	5	<b>5.19</b>
OAT270-245	4"	3.78	4.06	40	5	<b>6.36</b>
OAT270-261	6"	5.77	6.08	30	5	<b>18.18</b>
OAT270-270	8"	7.86	8.03	30	5	<b>34.11</b>

## Pneumatic Bypass Plugs – 1 1/2" to 15"

The Pneumatic Bypass Plug is designed for the bypassing of water or sewage in pipelines or to temporarily stop the flow. It can also be adapted to use in air testing of sewer lines. Each plug is designed for one pipe size. These plugs can be used in a variety of applications and are suitable for many different pipe materials. Manufactured from a durable natural rubber compound these plugs are flexible yet rugged.

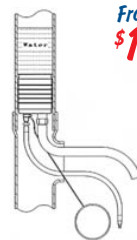
Sizes 1 1/2" through the 6" come with 12" chain and ring assembly attached to a molded inflation valve

Sizes 8" through 15" come with an eyebolt for connecting a rope or inflation/lift line and a 1/4" NPT replaceable inflation valve.

Item #	Nominal Size	Minimum Pipe Diameter	Maximum Pipe Diameter	Bypass Size	Inflation Pressure (psig)	Maximum Back Pressure		Price
						Water Head (feet)	Air (psig)	
WT83671	1 1/2"	1.40	1.75	1/4"	40	50	21	<b>\$145.28</b>
WT83672	2"	1.90	2.25	1/4"	40	50	21	<b>154.43</b>
WT83673	3"	2.65	3.25	3/4"	40	50	21	<b>162.29</b>
WT83674	4"	3.15	4.25	3/4"	35	30	13	<b>167.81</b>
WT83676	6"	5.51	6.25	1 1/2"	35	30	13	<b>198.60</b>
WT83678	8"	7.09	8.25	3"	35	30	13	<b>251.92</b>
WT83680	10"	8.92	10.25	3"	35	30	13	<b>328.26</b>
WT83682	12"	11.02	12.25	3"	35	30	13	<b>463.31</b>
WT83685	15"	13.39	16.25	4"	30	30	13	<b>702.33</b>



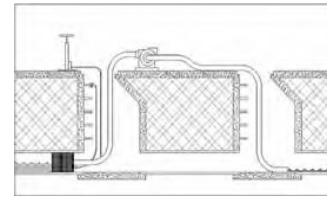
1 1/2" to 6"



From Only  
**\$145<sup>28</sup>**



8" to 15"



## Solid Die, Adjustable Guide Threader Sets

### Adjustable Guides Only

Cat. No.	Item Code	Price
SD84SC	05376	<b>\$238.85</b>

### Adjustable Guide with Dies: Series SD84 Full Range 1/2" - 2" – Uses (4" x 4") Dies

Cat. No.	Item Code	Size Range	No. of Dies Included	Price
SD84-4P	04405	1/2" - 2"	6	<b>\$596.47</b>
SD84-5P	04406	3/4" - 2"	5	<b>538.69</b>
SD84-6P	04407	1" - 2"	4	<b>490.23</b>
SD84-7P	04408	1 1/4" - 2"	3	<b>431.39</b>

### Dies Only: NPT – Solid Dies for PVC Pipe\*

Cat. No.	Item Code	Nom. Pipe Size	Die Block	Adj. Guide No.	Price
2SP11/2	04411	1/2"	4 x 4	SD84	<b>\$59.09</b>
2SP3/4	04422	3/4"	4 x 4	SD84	<b>59.09</b>
2SP1	04413	1"	4 x 4	SD84	<b>59.09</b>
2SP11/4	04414	1 1/4"	4 x 4	SD84	<b>59.09</b>
2SP11/2	04415	1 1/2"	4 x 4	SD84	<b>59.09</b>
2SP2	04416	2"	4 x 4	SD84	<b>59.09</b>

\*Meets Federal Specifications GGG-00581b, Type II, Class I

The Reed adjustable guide makes these the most economical, most convenient, and most versatile threader sets on the market. Because the guide adjusts to different sizes of pipe, it is only necessary to have a die for each pipe size, not a die and head. Other threader sets which require a die and a head for each size typically weigh over 25% more and take up considerably more room in the toolbox or truck. Further, with two pawls, handle swing is faster - half that of one pawl competitive sets, and best for close quarter work. Adjusting guides easily fit **over coated pipe**. These sets use the Reed solid die: the easiest starting, easiest cutting, and most precise threading of any die.

### WHY REED? Reed threader sets:

- 25% **easier** to use because two chasers cut while the other two guide the thread.
- 25% **lighter** because Reed does not need a separate head for each size.
- 10%-25% **less expensive** for a full set.

From Only  
**\$431<sup>39</sup>**



Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 143

**NEW****Automatic Water-Saver Nozzles***Strahman®***M-70 SERIES**

Heavy duty Water Saver nozzle with adjustable spray pattern from a fine spray to a steady stream. The M-70 Series has bronze/stainless steel internals ensuring long-lasting performance.

Model	with No Adapter		with #21 Regular Adapter*		with #21S Swivel Adapter*	
	Item #	Price	Item #	Price	Item #	Price
M-70	WSM70COMPLETE0000	<b>\$85.50</b>	WSM70COMPLETE0001 1/2"	<b>\$90.50</b>	WSM70COMPLETE0002 1/2"	<b>\$98.50</b>
M-70	Black — Nozzle	<b>85.50</b>	WSM70COMPLETE0003 3/4"	<b>90.50</b>	WSM70COMPLETE0004 3/4"	<b>98.50</b>
M-70	Black — Nozzle	<b>85.50</b>	WSM70COMPLETE0005 5/8"	<b>90.50</b>	WSM70COMPLETE0006 5/8"	<b>98.50</b>
M-70	Black — Nozzle	<b>85.50</b>	WSM70COMPLETE0007 GHT	<b>90.50</b>	WSM70COMPLETE0008 GHT	<b>98.50</b>
M-75	WSM75COMPLETE0000	<b>85.50</b>	WSM75COMPLETE0001 1/2"	<b>90.50</b>	WSM75COMPLETE0002 1/2"	<b>98.50</b>
M-75	White — Nozzle	<b>85.50</b>	WSM75COMPLETE0003 3/4"	<b>90.50</b>	WSM75COMPLETE0004 3/4"	<b>98.50</b>
M-75	White — Nozzle	<b>85.50</b>	WSM75COMPLETE0005 5/8"	<b>90.50</b>	WSM75COMPLETE0006 5/8"	<b>98.50</b>
M-75	White — Nozzle	<b>85.50</b>	WSM75COMPLETE0007 GHT	<b>90.50</b>	WSM75COMPLETE0008 GHT	<b>98.50</b>
M-77	WSM77COMPLETE0000	<b>85.50</b>	WSM77COMPLETE0001 1/2"	<b>90.50</b>	WSM77COMPLETE0002 1/2"	<b>98.50</b>
M-77	Red — Nozzle	<b>85.50</b>	WSM77COMPLETE0003 3/4"	<b>90.50</b>	WSM77COMPLETE0004 3/4"	<b>98.50</b>
M-77	Red — Nozzle	<b>85.50</b>	WSM77COMPLETE0005 5/8"	<b>90.50</b>	WSM77COMPLETE0006 5/8"	<b>98.50</b>
M-77	Red — Nozzle	<b>85.50</b>	WSM77COMPLETE0007 GHT	<b>90.50</b>	WSM77COMPLETE0008 GHT	<b>98.50</b>

**NEW****P-70 SERIES**

The lightweight industrial spray nozzle weighs 1.3 lbs. and provides the same high level of quality as the M-70 Series nozzles. Body made of FDA approved space age material. Complete with #21S swivel adapter.

Model	Description	with #21S Swivel Adapter	Price
P-75	White — Nozzle	WSP75COMP0000 1/2"	<b>\$50.00</b>
P-75	White — Nozzle	WSP75COMP0002 3/4"	<b>50.00</b>
P-75	White — Nozzle	WSP75COMP0001 5/8"	<b>50.00</b>
P-75	White — Nozzle	WSP75COMP0003 GHT	<b>50.00</b>

**NEW****MINI-M-70 SERIES**

The lightweight Mini-70 water saver nozzle weighs 1.8 lbs. and provides the same high level of quality as the heavy duty M-70 Series nozzle just smaller.

Model	Description	Item #	Price
Mini M-70	Black — Nozzle	WSM7MCOMP0001 1/2"	<b>\$50.00</b>
Mini M-70	Black — Nozzle	WSM7MCOMP0002 3/4"	<b>50.00</b>
Mini M-70	Black — Nozzle	WSM7MCOMP0003 5/8"	<b>50.00</b>
Mini M-70	Black — Nozzle	WSM7MCOMP0000 GHT	<b>50.00</b>

**NEW****All Stainless Steel****HYDRO-PRO 150® SPRAY NOZZLES**

The Strahman Hydro-Pro 150® is constructed with a stainless steel housing for strength and durability, yet this solid, water saver spray nozzle weighs less than 2 lbs., and is ergonomically designed to reduce user fatigue. It features a patented, locking trigger mechanism that allows users to lock in a desired spray pattern without having to maintain pressure on the trigger.

Model	with No Adapter		with #21 Regular Adapter*		with #21S Swivel Adapter*	
	Item #	Price	Item #	Price	Item #	Price
Hydro-Pro150	WSHPCOMPLETE0000	<b>\$140.00</b>	WSHPCOMPLETE0001 1/2"	<b>\$145.00</b>	WSHPCOMPLETE0002 1/2"	<b>\$155.00</b>
Hydro-Pro150	Black — Nozzle	<b>140.00</b>	WSHPCOMPLETE0003 3/4"	<b>145.00</b>	WSHPCOMPLETE0004 3/4"	<b>155.00</b>
Hydro-Pro150	Black — Nozzle	<b>140.00</b>	WSHPCOMPLETE0005 5/8"	<b>145.00</b>	WSHPCOMPLETE0006 5/8"	<b>155.00</b>
Hydro-Pro150	Black — Nozzle	<b>140.00</b>	WSHPCOMPLETE0007 GHT	<b>145.00</b>	WSHPCOMPLETE0008 GHT	<b>155.00</b>
Hydro-Pro150	WSHPCOMPLETE0009	<b>140.00</b>	WSHPCOMPLETE0010 1/2"	<b>145.00</b>	WSHPCOMPLETE0011 1/2"	<b>155.00</b>
Hydro-Pro150	White — Nozzle	<b>140.00</b>	WSHPCOMPLETE0012 3/4"	<b>145.00</b>	WSHPCOMPLETE0013 3/4"	<b>155.00</b>
Hydro-Pro150	White — Nozzle	<b>140.00</b>	WSHPCOMPLETE0014 5/8"	<b>145.00</b>	WSHPCOMPLETE0015 5/8"	<b>155.00</b>
Hydro-Pro150	White — Nozzle	<b>140.00</b>	WSHPCOMPLETE0016 GHT	<b>145.00</b>	WSHPCOMPLETE0017 GHT	<b>155.00</b>
Hydro-Pro150	WSHPCOMPLETE0018	<b>140.00</b>	WSHPCOMPLETE0019 1/2"	<b>145.00</b>	WSHPCOMPLETE0020 1/2"	<b>155.00</b>
Hydro-Pro150	Red — Nozzle	<b>140.00</b>	WSHPCOMPLETE0021 3/4"	<b>145.00</b>	WSHPCOMPLETE0022 3/4"	<b>155.00</b>
Hydro-Pro150	Red — Nozzle	<b>140.00</b>	WSHPCOMPLETE0023 5/8"	<b>145.00</b>	WSHPCOMPLETE0024 5/8"	<b>155.00</b>
Hydro-Pro150	Red — Nozzle	<b>140.00</b>	WSHPCOMPLETE0025 GHT	<b>145.00</b>	WSHPCOMPLETE0026 GHT	<b>155.00</b>

\* #21, #21S (Bronze/SS), #21, #21S (Stainless Steel) available in 1/2", 3/4", 5/8" hose barb or 3/4" GHT

## Industrial Flashlights



2 Cell D size yellow industrial safety flashlight with Krypton bulb. Model BATIN2KML includes magnet.

Item #	Description	Price
BATIN2K	Flashlight	\$4.38
BATIN2KML	Flashlight w/Magnet	6.04



## Maximum Alkaline Batteries

The #1 selling Industrial battery rated #1 in quality and value by the top 100 distributors.



Item #	Description	Price
BATA1604	Alkaline 9-Volt 2-Pk	\$4.67
BATNM1604-1	NIMH 9-Volt Rechargeable	6.05
BAT813-2	Alkaline D Size 2-Pk	3.18
BATALD-12	Alkaline D Size 12-Pk	13.41
BAT814-2	Alkaline C Size 2-Pk	2.94
BATALC-12	Alkaline C Size 12-Pk	11.91
BAT815-2	Alkaline AA Size 2-Pk	2.06
BATALAA-24	Alkaline AA Size 24-Pk	14.99
BATNM715-4	NIMH AA Size Rechargeable	10.28
BAT824-2	Alkaline AAA Size 2-Pk	1.87
BAT824-4	Alkaline AAA Size 4-Pk	3.22
BATALAAA-18	Alkaline AAA Size 18-Pk	12.07
BATNM724-4	NIMH AAA Size Rechargeable 4-Pk	12.27

## Heavy Duty Battery Chargers

### ONE-HOUR VEHICLE CHARGER

Plugs into vehicle's cigarette lighter. Charges ALL Milwaukee Power-Plus batteries, including Ni-Cd and Ni-MH. Compatible with all 18, 14.4 and 12 Volt Milwaukee Tools and Work Lights



Item #	Description	Price
MIL4859-0255	Universal Charger	\$57.53
MIL4859-2818	Universal Charger	69.12
MIL4859-0186	Vehicle Charger	76.59
MIL4859-0192	Super II Charger (not shown)	60.07

### ONE-HOUR UNIVERSAL CHARGER

Charges ALL Milwaukee Power-Plus batteries, including Ni-Cd and Ni-MH. Compatible with all 18, 14.4 and 12 Volt Milwaukee Tools and Work Lights

## Battery Charger Features

### RUGGED CONSTRUCTION

- Withstands 3' Foot Drop To Concrete With Battery Attached
- Generator, Inverter And Long Extension Cord Ready - Due To Wide Input Voltage Range Of AC Charger

### MAXIMIZING BATTERY PACK LIFE

- Charge Between 40° To 105° F
- Allow Battery Pack To Cool Before Charging
- Do Not Deeply Discharge Battery
- Store Batteries In Cool Places
- Occasionally Charge Battery Packs Overnight To Top-Off Individual Cells In Pack

### 2-STEP CHARGING PERFORMANCE

- 1) One Hour Fast-Charge Mode
- 2) Maintenance Mode - Keeps The Battery Pack Fully Charged While On Charger

### TEMPERATURE PROTECTION CIRCUITRY

- Charges Battery Packs At A Slower Rate When Battery Pack Temperature Is Below 40°F Or Above 105°F
- Automatically Switches To Fast Charge Mode When Battery Pack Temperature Falls Within 40°F To 105°F Temperature Range



## Heavy Duty Job Site Radio

Clear, powerful sound system with 3-level Punch EQ™ bass boost. Rugged construction — withstands 8' drop to concrete. Up to 44 watt total system power. 7-Channel weather band. Digital tuner with 20 AM/FM presets. Steel grill protected weather resistant speakers. Dimensions: 15 1/4" H x 19 1/2" W x 10" D. 17.5 lbs.

Item #	Description	Price
MIL49-24-0280	Accepts 12, 14.4, 18 or 28 V Power-Plus Batteries	\$129.00

## Heavy Duty Rechargeable Batteries

### 12 VOLT

#### 2.4 A-H POWER-PLUS BATTERY

Compatible with all 12 Volt Milwaukee Tools and Work Light.

### 14.4 VOLT

#### 2.4 A-H POWER-PLUS BATTERY

Compatible with all 14.4 Volt Milwaukee Tools and Work Light.

### 18 VOLT

#### 2.4 A-H POWER-PLUS BATTERY

2.4 Amp-Hr battery delivers the most run time and is compatible with all 18 Volt Milwaukee Tools and Work Lights **except:** 6516-20, 6516-21, 6516-22, 6516-23, 1108-20, 1108-21, 3108-21, 5364-20, 5364-21.

Item #	Description	Price
MIL4811-0080	9.6 Volt (not shown)	\$49.53
MIL4811-1970	12 Volt	60.92
MIL4811-1024	14.4 Volt	72.24
MIL4811-2230	18 Volt	81.84

## Heavy Duty Work Lights



USCO Price Only  
\$35.24

## Quick Spec

- Rugged Construction For Industrial Use
- 120° Pivoting Head. 30° Down - 90° Up With 10° Positive Detents
- Up To 3 Hours Of Illumination Per Charge
- High Output Xenon Bulb Produces Extremely Bright, Uniform Light
- Glass Reinforced Nylon Housing And Bezel Withstands Rough Handling
- Trigger Style On-Off Switch With Intermittent Position
- Extra Bulb Stored Under Lens Cap
- Battery Not Included

Item #	Description	Price
MIL49-24-0165	Accepts 18 V Power-Plus Batteries	\$35.24
MIL49-24-0155	Accepts 12 & 14.4 V Power-Plus Batteries	35.24

Order Toll Free (800) 343-7555 24-HOUR FAX LINE (800) 232-8726

USCO 145



## REED Tools for Plastic



### RS7290 Shears

Reed now offers a one-hand, 2" capacity shear designed, machined and assembled in the USA. This one-hand style will cut PE and PVC pipe used in gas, water, plumbing and industrial applications. One screw makes blade change simple

Model	Item #	Capacity		Length		Price
		Actual Inches	Actual Ø mm	Inches	mm	
RS7290	04182	2.4	63	13.25	337	\$124.51

### Replacement Blade

Model Number	Item Number	Description	Price
RS7290B	94555	Blade fits Reed RS7290 and Wheeler® 7290	\$48.97

## Plastic Pipe Joiners

With 28 to 1 leverage, it is easy for one person to join PVC or PE pipe up to 16" gasketed or up to 12" solvent cement joints.



REDPPJ with  
REDPPJVS



REDPPJ with  
REDPPJFA and  
REDPPJ6S

**USCO** TRAINING AVAILABLE

## Laramy Model Vari-FT

### SELF-CONTAINED TORCH WITH VARIABLE TEMPERATURE CONTROL



*For Field and  
Shop Welding*  
**USCO Price Only  
\$1122.00**

Model Vari-FT provides its own air supply from the ambient atmosphere making it ideal for installation, repair and field work on hard and soft PVC and similar thermoplastics including plexiglass, polycarbonate, polyisobutylene, polystyrene, polyimide, etc.

Temperature can be steplessly regulated with an electronic controller up to 1100°F. Hand welding tip VFT-20 supplied.

### VARI-FT SPECIFICATIONS

Temperature:	Variable (to 1100° F.)
Electrical:	11 OVAC, 800 watts.
Air:	Self-contained supply from built-in blower/motor.
Controls:	On/Off Switch. Stepless temperature control knob.
Length:	13.8"

## Laramy Model 30-200 Compressor/Torch Outfit



### TORCH

- Laramy high-speed high-production torch with "Located Heat" design.
- 450-1300°F temperature range.
- Interchangeable elements.
- 12 feet of vinyl combination non-kink hose.
- Stainless steel barrel.
- Molded glass-filled nylon handle.
- Combination tip included.
- 110-120 v. 60 cycle.

### SPECIFICATIONS

Electrical Power: 120 v 60 cycle  
Air Flow: From 2½ cfm at 3 psi.

Heat Range: 450 – 1300° F  
Wattage: 250,350,450, 550,650 or 750 (specify)

## Bevelers



With a strong aluminum alloy frame, effective roller locking, and good tool life, a smooth 15° bevel is produced on all types of plastic pipe in about one minute. Easily adjustable for different pipe sizes and thicknesses, with no part changes.

**WHY REED?** A much faster, more consistent bevel than a file and much less dangerous than an abrasive saw! Also, it creates a continuous ribbon rather than chips and dust.

Model	Item #	Pipe Capacity		Weight		Price
		Inches Nom.	Actual Ø mm	lbs	kg	
BT1	0495	1½ – 8	40–200	2.8	1.3	\$207.49
BT2	04398	1½–12	40–300	6	2.7	\$320.19

	Item #	Pipe Cap. Inches Nom.	Pipe Cap. Actual Ø mm	Price
Gasketed Pipe	REDPPJ	—	—	\$868.07
	REDPPJVS	4 – 16	114 – 434	\$472.03
Solvent Cement Connection	REDPPJ	—	—	\$868.07
	REDPPJFA	4 – 12	114 – 324	\$382.58
Saddles	Item #	OD Cap. Actual Ø in.	OD Cap. Actual Ø mm	Price
	REDPPJ4S	4.50	114	\$120.38
	REDPPJ6S	6.625	168	\$137.81
	REDPPJ8S	8.825	224	\$157.90
	REDPPJ10S	10.75	273	\$305.48
	REDPPJ12S	12.75	324	\$405.63

## Laramy Custom Welding Tips

Engineered stainless steel tips for all hot gas welding requirements. Laramy introduced the High-Speed Tip and the all-purpose Combination Tip. Choose from the most complete selection of tips in the plastics welding industry.



\$30.33



\$22.21



\$89.64

- NHS-1 ⅛" and ⅜" dia. rod  
NHS-2 ⅜" dia. rod  
NHS-3 ¼" dia. rod

**NCT-1 Combination Welding & Tacking Tip** A dual purpose design that eliminates the need for separate tips on maintenance and light fabrication work. Cuts rod at end of weld.

**NR-1 Universal Round Tip** For tight-corner hand welding.

### NHS Universal High Speed Tip

A one-hand welding tip that is 6 to 8 times faster than conventional tips. Cuts off rod as desired. Exclusive Laramy design preplasticizes work and rod simultaneously. These tips, because of the time they save, should be used for any extensive work on maintenance and fabrication projects. Model NHS-2 should be used with 450 watt element or higher only. Custom speed tips can be designed and built for special rod sizes and shapes.

**Speed Tips for TRIANGULAR WELDING RODS Now Available!**

### COMPRESSOR

- High-quality continuous duty oil-less rotary compressor.
- Provides 2½ cfm at 3 psi.
- Intake filter/muffler.
- Standard electrical cord with grounded plug.
- 120 v. 60 cycle.

### CONTROL PANEL

- Factory-wired separate On-Off switches for compressor and torch — interlocked to prevent operation of torch without compressor.
- Complete operating instruction on control panel.
- Pilot light.

### Welding Rod

Size	PVC Item #	Price/Lb.	PP Item #	Price/Lb.	PE Item #	Price/Lb.
⅛"	WRPV18	\$12.07	WRPP18	\$13.07	WRPE18	\$12.12
⅜"	WRPV32	12.07	WRPP32	13.07	WRPE32	12.12
¾"	WRPV316	12.07	WRPP316	13.07	WRPE316	12.12

# All New Craftsman Tools! **CRAFTSMAN** The #1 Brand in Hand Tools!

## Air Compressors & Tanks



### Electric 3.0 HP, 4 Gallon Side Stack Air Compressor

#### Features:

- High-flo regulator
- Large 2 inch gauges
- Universal quick-couplers
- Large internal fan gives smooth and cool operation
- Direct drive motors with no belts to adjust and fewer parts provide outstanding reliability
- Pistons, cylinder valves and heads have been engineered with advanced technology
- Maintenance-free pumps never need oil



#### Quick Spec

- Delivers 8.0 SCFM @ 40PSI, 5.7 SCFM @ 90PSI, 150 Max PSI.
- Twin tanks, oil-free design for no maintenance
- Full perimeter frame
- 120 volt, 15 amp current required
- Dimensions: 21" L x 20" W x 19 1/2" H
- Weight: 76.0 lbs.

Item #	Description	Price
CRT9-16746	4 Gallon Electric Air Compressor	\$346.83

**NEW**



### 10 Gal. Horizontal Air Tank

135 PSI. Portable tank compressor with a gauge located at the top of the tank for quick and easy pressure reading. Tank relief valve relieves excess pressure. 3 ft. high-pressure air hose and tire chuck. Wt. 21.3 lbs.

Item #	Description	Price
CRT9-15201	10 Gallon Air Tank	\$44.40



### 1/4", 3/8", 1/2" Impact Wrenches

**CRT9-18854** – 1/4" Drive Reversible Impact Wrench  
Up to 25ft./lbs. torque. Average air consumption 3.0 SCFM.  
**CRT9-19946** – 3/8" Drive Reversible Impact Wrench  
Up to 75ft./lbs. torque. Average air consumption 4.0 CFM.  
**CRT9-19914** – 1/2" Drive Reversible Impact Wrench  
Up to 550ft./lbs. torque. Average air consumption 4.2 CFM.

Item #	Description	Price
CRT9-18854	1/4" Drive Reversible Impact Wrench	\$74.93
CRT9-19946	3/8" Square Drive Impact Wrench	86.62
CRT9-19914	1/2" Square Drive Impact Wrench	134.76

**NEW**



### 2 Gallon Wet/Dry Vac, Portable Style, 1.5 HP

A portable vac fitted with a carrying handle, this lightweight vac cleans all manner of mess anywhere you take it. Doubles as a blower to quickly clean debris in hard-to-reach places. Accessories include 4' x 1 1/4" hose, and utility nozzle. Wt. 7.0 lbs.

Item #	Description	Price
CRT9-17713	2 Gallon Wet/Dry Vac	\$35.18
CRT9-16949	Standard Filter	3.62

### Reusable Pleated Paper Filter

Fits 8, 12, 16 gallon Craftsman vacs sold since 1985, and 6 gallon vac models: 9-17712, 9-17743, 9-17744, 9-17746, 9-17781. Does not fit 9-17920, 9-17921, 9-17922.



Item #	Description	Price
CRT9-17816	Reusable Pleated Paper Filter	\$18.11

**NEW**



### 18 Gallon Wet/Dry Vac

Industrial-strength vacuum features 9-amp, dual-stage motor that's 50% quieter than standard Craftsman wet/dry vacs. Hard metal drum with durable metal vac cart. Chrome-plated cart includes front casters and 10" diameter ball-bearing rear wheels. Includes 10' x 1 1/2" crush-resistant hose. Rear tank drain with hose conveniently empties liquids without messy over spills. Push handle doubles as a cord wrap. Grounded 35' long cord. Foam and cloth filters for easy maintenance. Metal accessories include two-piece extension wand, floor, wet and carpet nozzles. Wt. 77.0 lbs.



Item #	Description	Price
CRT9-17934	18 Gallon Industrial Wet/Dry Vac	\$469.21
CRT9-17910	Foam Filter	14.49
CRT9-17911	Cloth Filter	14.49

**NEW**



### 20 Gallon Wet/Dry Vac, 6.5 HP

The perfect size for your biggest jobs, and lots of power to tackle almost any chore. Insert the hose into the rear blowing port and the vac doubles as a blower, perfect, for quick clean-ups. Accessories include 7' x 2 1/2" Pos-I-Loc™ hose, 2 extension wands, muffler, crevice tool, car nozzle, utility nozzle, and squeegee nozzle. 6.5 hp, 120 Volt, 11.1 Amp. Wt. 25.7 lbs.

Item #	Description	Price
CRT9-17762	20 Gallon Wet/Dry Vac	\$124.00
CRT9-17816	Standard Filter	17.38
CRT9-17912	HEPA Filter	29.31

## Deep Cut Portable Electric Band Saws

**LARGE 4 3/4" X 4 3/4" CAPACITY**



With Trigger Speed Control

**ALL MODELS USE STANDARD 44 1/2" X 1/2" X .020" BAND SAW BLADES**

- Powerful Motor With Long Life Brushes And High Output Fans
- Optimum Speed Range
- All Ball And Roller Bearing Construction For Smooth, Durable Operation
- High Torque Worm Gear And Chain Drive Mechanism
- Excellent Balance
- Open Line Of Sight For More Accurate Cut
- Blade Tightening Lever

### Quick Spec

- No Load Surface: 0-350 ft./min.
- Volts: 120 AC only
- Amps: 6.0
- Capacity: 4 3/4" Round Stock  
4 3/4" x 4 3/4" Rect. Stock
- Length: 19 1/4"

### Portable Band Saw Table (Not included)

For All MILWAUKEE Band Saws. Converts Milwaukee's portable band saws to stationary units. Can be mounted on a work bench or used on the job with 3/4" diameter pipe for legs (not included). Heavy duty clamping chain and crank nut easily secures all shapes of material.



Item #	Description	Price
MIL6232-6	120V AC Band Saw	\$544.00
MIL4808-0260	Band Saw Table	347.53

Standard equipment: One 14-tooth Super-Tough® Bi-Metal Blade 4869-0510 and Impact Resistant Carrying Case.

## Sawzall-The Hatchet® Kit



- 6-Position Rotatable Handle\*\* Allows User To Get Between Joists, Studs And Other Confined Spaces
- Orbital Action Selector\*\* For Aggressive Wood Cutting
- 0-2,700 SPM
- 3/8" Blade Stroke
- 18 Volt, 2.4 Amp-Hr Battery
- One-Hour Universal Battery Charger
- Reversible Battery\*\*
- Counter Balanced Mechanism
- Durable Slider-Crank Reciprocating Mechanism
- Heavy-Duty Milwaukee Built Motor
- Double-Walled Rotating-Handle Detents
- Metal Cam Lock

- 25 Amp Marquardt Variable Speed Switch
- Heavy-Duty, Steel, Keyless Quik-Lok Blade Clamp\*\*
- Soft-Grip Handle Pad For Comfort And Secure Gripping
- All Metal Gearcase 0
- Rugged, Tool-Free Adjustable Shoe\*\*
- Orbit Adjustment Lever
- Replaceable Brushes

### Quick Spec

- Volts: 18 DC only
- Strokes/Min.: 0-2700
- Stroke Length: 3/8"
- Battery Amp-Hrs.: 2.4
- Length (w/bat. pk.): 20 1/4" Straight  
13" Pivoted

Item #	Description	Price
MIL6514-21	The Hatchet® Kit	\$310.89

\*Patented \*\*Patent Pending

## 1/2" Hammer-Drill



- T-Handle Design Hammer-Drill Provides Optimum Balance and Comfort
- 1/2" All Metal Ratcheting Keyless Chuck

### Quick Spec

- Volts: 18 DC only
- Drill Speed rpm: High 0-1700  
Low 0-500
- No Load BPM: 25,500
- Drill Max. to In.-Lbs.: 495
- Battery Amp-Hrs.: 2.4
- Length: 10 1/4"

Item #	Description	Price
MIL0624-24	1/2" Hammer-Drill	\$293.31

## Right Angle Drills



- 1/2" Trigger Speed Control Reversing
- 7.0 Amp MILWAUKEE Motor
- Helical Cut, Heat Treated Gears
- Durable, Glass Reinforced Nylon Handles
- All Ball And Roller Bearings

## 1/2" Magnum® Drill



With Keyed Chuck

- Powerful MILWAUKEE Built 5.5 AMP Motor
- Removable Brush Cartridge System — Change brushes in less than one minute, with only a screw-driver. Self-stopping brushes. Includes spare brushes stored in cartridge.
- Aluminum Gear Case And Diaphragm Supplies Greater Support For Shaft And Bearings
- Heavy-Duty Industrial Chucks
- Trigger Speed Control Reversing Switches
- All Ball And Roller Bearings
- Helical Cut, Heat Treated Gears For Heavy Duty Industrial/Construction Applications

Item #	Description	Price
MIL0234-6	1/2" Magnum® Drill	\$155.40

### FEATURES

- Use With Up To 4 1/2" Selffeed Bits
- Steel Hardened Shafts
- Head And Handle Swivel 360° — Can Be Locked Tight In Any Position. Allow 5/8" for right angle drill head and chuck.

Item #	Description	Price
MIL3102-6	Right Angle Drill	\$287.78

## Sawzall® Kits WORLD'S LONGEST LASTING RECIPROCATING SAWS



- Legendary Sawzall Durability
- New More Powerful 10.0 Amp Motor
- Lightweight - Only 7.0 Pounds
- 0-2800 Strokes Per Minute With Trigger Speed Control
- Adjustable Pivot Shoe — Allows more efficient use of blade and depth-of-cut control.
- Easy Access To Pivot Shoe Adjusting Screws
- All Ball And Roller Bearings

### Quick Spec

- Volts: 120 AC only
- Amps: 10.0
- Length of Stroke: 3/4"
- Strokes/Minute: 0-2800
- Overall Length: 17.3"

Item #	Description	Price
MIL6509-22	Variable Speed Sawzall	\$155.11

Standard equipment: One 14-tooth Super-Tough® Bi-Metal Blade 4869-0510 and Impact Resistant Carrying Case.

## Lok-Tor™ Series Heat Gun



- Variable Temperature 140°F to 1040°F
- Rotate Rear Housing To Select Temperature
- Impact Resistant Heating Element
- Efficient Soft Air Velocity
- Cool Air Inlet Design
- Support Stand
- Applications: Softens, molds, bends and forms plastics. Pre-dries surfaces for fast preparation, softens caulking, putty and plastics, strips paint, varnish and lacquer. Repairs auto top vinyl, thaws frozen pipes, shrink fits plastic tubing, dries electric lines and cables, removes tiles, floor covering materials, loosens over-tightened screws and joints, welds plastics, PVC coated fabrics and foils.

### Quick Spec

- Volts: 120 AC only
- Amps: 11.6
- Air Volume: 14.8 Cu. Ft./Min.
- Air Temperatures: 140°F - 1040°F
- Length: 10 1/4"

### ACCESSORY ASSORTMENT KIT

to fit most common applications. Includes **Air Reduction** — for intensified heat in a specific area - soldering, **Hook Nozzle** — when heat is needed for surround-bending, soldering pipe, shrinking tubing, **Deflector** — deflects air away from glass when stripping paint or softening putty and **Air Spreader** — for intensified heat when removing floor coverings, paint burning, vinyl top removal. Fits all heat guns offered by MILWAUKEE.



Item #	Description	Price
MIL8977-20	Heat Gun	\$108.87
MIL4980-0300	Accessory Kit	27.62

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Best Price, Best Quality and Best Service



## All New Craftsman Tools!

**CRAFTSMAN**

## The #1 Brand in Hand Tools!

## Tools &amp; Accessories

Item #	Description	Price
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**Tool Boxes & Totes**

CRT9-40283	Contractor's Tote — Heavy duty rubber handle, padded adjustable shoulder strap, tools not inc.	\$46.88
CRT9-59423	23" Wide Durable Plastic Hand Box — Overall dimensions: 23"W x 10½"D x 10"H	24.96

**Mechanic's Tool Sets**

CRT9-33354	254 Pc. Mechanic's Tool Set — 156 sockets, 26 wrenches, 9 drive tools, 63 additional tools	321.47
CRT9-46573	154 Pc. Mechanic's Tool Set — 105 sockets, 12 wrenches, 5 drive tools, 32 additional tools	178.59

**Socket Wrench Sets**

CRT9-34802	20 Pc. ¾" Drive Standard Socket Wrench Set	58.12
CRT9-34804	24 Pc. ¾" Drive Standard Socket Wrench Set	46.51

**Ratcheting Wrench Sets**

CRT9-42160	5 Pc. Standard Ratcheting Box End Wrench Set — ¼", ⅜", ½", ⅝", ¾", 1"	34.88
CRT9-42408	5 Pc. Standard Reversible Ratcheting Wrench Set — ⅜", ½", ⅝", ¾", 1"	93.01
CRT9-43375	5 Pc. Standard Offset Ratcheting Box End Wrench Set — ¼", ⅜", ½", ⅝", ¾", 1"	46.51

**Wrenches**

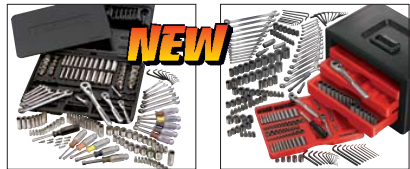
CRT9-44602	6" Adjustable Wrench — ⅜" capacity	12.06
CRT9-44603	8" Adjustable Wrench — 1½" capacity	12.66
CRT9-44604	10" Adjustable Wrench — 1½" capacity	16.11
CRT9-44605	12" Adjustable Wrench — 1½" capacity	23.23
CRT9-44606	18" Adjustable Wrench — 2½" capacity	67.39
CRT9-46701	9 Blade Standard Folding Hex Key Set	9.88

**Pliers**

CRT9-45711	7" Straight Jaw Locking Pliers (no cutter)	15.67
CRT9-45715	10" Straight Jaw Locking Pliers (no cutter)	16.71
CRT9-45761	9½" Tongue & Groove Pliers — v-notch teeth	20.17
CRT9-45763	8" Long Nose Pliers	21.28
CRT9-45764	9" Linesman Pliers — New England style rounded head w/built-in fish tape puller	25.68
CRT9-45765	7" Wide Jaw Diagonal Cutting Pliers — spring loaded handle, semi flush cutting edge	19.03

**Screwdrivers**

CRT9-41161	4-in-1 Reversible Screwdriver — double end bits, ⅜" & ⅝" slotted, #1 & #2 Phillips	11.14
CRT9-47136	8 Pc. Screwdriver Set — 4 Slotted: 2", 4", 6" and 4 Phillips: 2½", 3", 4", 6"	11.51



Item #	Description	Price
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**Turbo-Max Drill Bits**

WAL357020	Irwin FDT & Drill Bit, 20 Pc. Drill/Drive Set	\$20.82
WAL73304	Irwin ¼" Turbo-Max Drill Bit, Jobber Length, 2/Card	1.96
WAL73308	Irwin ⅜" Turbo-Max Drill Bit, Jobber Length, 2/Card	1.18
WAL73312	Irwin ½" Turbo-Max Drill Bit, Jobber Length	1.41
WAL73316	Irwin ¾" Turbo-Max Drill Bit, Jobber Length	2.02
WAL73320	Irwin 1" Turbo-Max Drill Bit, Jobber Length	3.33
WAL73324	Irwin 1½" Turbo-Max Drill Bit, Jobber Length	4.42
WAL73328	Irwin 2" Turbo-Max Drill Bit, Jobber Length	6.54
WAL73332	Irwin 2½" Turbo-Max Drill Bit, Jobber Length	8.47
WAL318018	Irwin Turbo-Max Drill Bit Kit, ¼", ⅜", ½", ¾", 1" — Jobber Length	26.14

**Speedbor Bits**

WAL88806	Irwin ⅜" Speedbor Bit, 6" Length, 1/pack	1.79
WAL88808	Irwin ½" Speedbor Bit, 6" Length, 1/pack	1.79
WAL88810	Irwin ¾" Speedbor Bit, 6" Length, 1/pack	2.01
WAL88812	Irwin 1" Speedbor Bit, 6" Length, 1/pack	2.01
WAL88814	Irwin 1½" Speedbor Bit, 6" Length, 1/pack	2.10
WAL88816	Irwin 2" Speedbor Bit, 6" Length, 1/pack	2.22



Item #	Description	Price
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**Nutdrivers**

CRT9-41971	¼" Standard Nutdriver	\$4.38
CRT9-41972	⅜" Standard Nutdriver	5.21
CRT9-41973	½" Standard Nutdriver	5.21
CRT9-41974	¾" Standard Nutdriver	5.21
CRT9-41976	1" Standard Nutdriver	6.96
CRT9-42192	¼" Cushion Grip Nutdriver	8.90
CRT9-42195	¾" Cushion Grip Nutdriver	10.37

**Hand Tools**

CRT9-37342	Steel Pull-N-Pry Bar — 2" x 15"	10.00
CRT9-38283	16" All Steel Rip Claw Hammer — Polished, 22 oz. head, wt. 2.2 lbs.	30.12
CRT9-38311	Hand Drilling Hammer — drop forged head, 10" Hickory handle, 3 lbs. head, wt. 3.5 lbs.	15.62
CRT9-39674	1" x 25" Locking Tape Measure — ABS case, acrylic coated steel blade, blade lock & belt clip	16.89
CRT9-39676	1" x 30" Locking Tape Measure — ABS case, acrylic coated steel blade, blade lock & belt clip	19.31
CRT9-39829	9" Torpedo Level — Aluminum I-beam frame, w/1 magnetic & 1 v-grooved edge	11.14
CRT9-49031	Electronic Stud/Joint Sensor — single depth scan ¾", LED display and audio horn	18.07
CRT9-94853	Aluminum Utility Knife — 3-position retractable blades, extra blades store in handle, string cutter	5.98

**Trade Tools**

CRT34-73576	Dual Romex® Up-Front Wire Stripper/Cutter Pliers — Spring loaded, locks shut, strip and cut	21.12
CRT34-82563	Electrical Repair Tool — 8" Cushioned grip, plier nose, strip & crimp wire and cut & rethread bolts	18.90
CRT9-45570	2 Pc. Strap Wrench Set — small handles up to 4" dia., large handles up to 6½" dia.	23.23
CRT9-52353	58 Pc. Carbon Standard Steel Tap & Die Set	178.59
CRT9-52382	39 Pc. Carbon Standard Steel Tap & Die Set	95.24

**Power Tools**

CRT9-27996	¾" Chuck Industrial Rated Drill — 3.2 Amps, 0-1500 RPM, 10¼" long, w/Case	168.44
CRT9-28640	Electric Reciprocating Saw	240.64

**Work Lights**

CRT34-83911	Fluorescent Worklight — Pistol grip, 25 ft. cord	33.96
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Item #	Description	Price
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WAL88818	Irwin 1¼" Speedbor Bit, 6" Length, 1/pack	\$3.20
WAL88822	Irwin 1½" Speedbor Bit, 6" Length, 1/pack	3.20
WAL88824	Irwin 1¾" Speedbor Bit, 6" Length, 1/pack	3.20
WAL88601	Irwin 12" Speedbor Extension, Carded	3.31
WAL88702	Irwin 6" Speedbor Extension, Carded	2.66
WAL341008	Irwin 8 Pc. Speedbor Pro Set w/ Case	19.81
WAL88889	Irwin 3 Pc. Speedbor Set, ¼", ⅜" & 1" — Carded	6.04

**Bell Hanger/Installer Bits**

WAL39104	Irwin ¼" Pouch Installer Bit, 18" Length	7.79
WAL39106	Irwin ⅜" Pouch Installer Bit, 18" Length	9.02
WAL39108	Irwin ½" Pouch Installer Bit, 18" Length	10.42

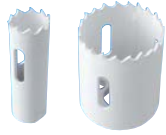
**Buckets & Organizers**

MIS502	VersaPak 5 Gallon Yellow Pail, 1 Lid, 2 Reg. Trays, 2 Small Trays	21.22
MIS504	VersaPak 5 Gallon Yellow Pail, 1 Lid, 1 Reg. Tray, 4 Small Trays	21.22
MIS405	VersaPak 5 Gallon Yellow Pail, 1 Lid, 3 Reg. Trays	19.96
MIS401	VersaPak Regular Size Tray 1 ea.	4.31
MIS201	VersaPak Small Tray 1 ea.	2.57
MIS001	VersaPak Lid for Bucket 1 ea.	4.83



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**Bi-Metal Hole Saws****LENOX**

Item #	Diameter (In.)	Pipe Top (In.)	Pipe Entrance (In.)	Use Arbor No.	Price
LEN30009-9L	3/4			1L, 4L or 5L	<b>\$8.59</b>
LEN30010-10L	1			1L, 4L or 5L	<b>6.42</b>
LEN30012-12L	1 1/4	1/2	3/4	1L, 4L or 5L	<b>6.42</b>
LEN30018-18L	1 3/4	1	3/4	1L, 4L or 5L	<b>7.09</b>
LEN30022-22L	2		1	2L, 3L or 6L	<b>7.33</b>
LEN30026-26L	2 1/4			2L, 3L, 6L or 7L	<b>7.33</b>
LEN30042-42L	3 1/2	2 1/2		2L, 3L, 6L or 7L	<b>11.98</b>
LEN30066-66L	4 1/2		3 1/2	2L, 3L, 6L or 7L	<b>20.33</b>

**LENOX® Gold™ Utility Knives and Blades****LENOX® GOLD™ KNIVES**

Durable construction and comfortable grip for extended use.

Item #	Description	Price
LEN20355	LENOX® Gold™ Quick Change Fixed Blade Knife	<b>\$13.86</b>

**LENOX® GOLD™ UTILITY BLADES**

Item #	Description	Price
LEN20350	LENOX® Gold™ Utility Knife Blade — 5 Pack	<b>\$3.42</b>
LEN20351	LENOX® Gold™ Utility Knife Blade — 50 Pack	<b>17.78</b>

**Plastic Retractable Utility Knife**

Item #	Description	Price
SPT10-065	Plastic Retractable Utility Knife	<b>\$2.91</b>

**High Tension Hand Hacksaw Frames****HIGH TENSION FRAME**

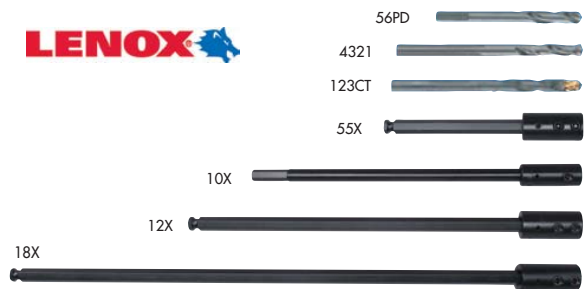
Item #	Description	Price
LEN4012	High Tension Frame	<b>\$22.66</b>

**LOW PROFILE FRAME**

Item #	Description	Price
LEN5012	Low Profile, High Tension Frame	<b>\$18.21</b>

**Hole Saw Arbors****LENOX****Arbors (1 per pack)**

Item #	Fits Hole Saws	Shank Type	Shank Size (In.)	Price
LEN11L	9L-19L	Hex	1/2 & Larger	<b>\$9.54</b>
LEN2L	20L-96L	Hex	1/2 & Larger	<b>15.39</b>
LEN4L	9L-19L	3-Sided	1/2 & Larger	<b>6.73</b>
LEN5L	9L-19L	Hex	1/2 & Larger	<b>10.28</b>
LEN6L	20L-96L	Hex	1/2 & Larger	<b>14.98</b>
LEN7L	24L-96L	Hex	1/2 & Larger	<b>27.99</b>

**LENOX****Accessories (1 per pack)**

Item #	Description	Chuck Size	Fits Arbor No.	Price
LEN4321	Pilot Drill	1/4	1L, 2L or 4L	<b>\$3.43</b>
LEN56PD	Pilot Drill	1/4	3L, 5L, 6L or 7L	<b>2.99</b>
LEN123CT	Carbide Tipped Pilot Drill	1/4	1L, 2L, 4L or 7L	<b>6.83</b>
LEN18X	18" Extension	1/2 & Larger	1L, 2L or 3L	<b>15.16</b>
LEN12X	12" Extension	1/2 & Larger	1L, 2L or 3L	<b>10.96</b>
LEN10X*	10" Extension	1/2 & Larger	5L, 6L or 7L	<b>12.61</b>
LEN55X	5 1/2" Extension	1/2 & Larger	1L, 2L or 3L	<b>10.62</b>

**Heavy Duty Hand Saws****TRI-FOLD® SAW**

Wood, drywall and non-metallic

Item #	Description	Price
LEN3636	TRI-FOLD® Saw	<b>\$16.61</b>

**975 HACKSAW**

Cuts bolts, wire, tubing and plastic

Item #	Description	Price
LEN975	Compact Hacksaw	<b>\$7.61</b>

## Crimpers

Item #	Item Code	Capacity	Price
REDCR12	04900	1/2" with short handle	<b>\$133.72</b>
REDCR34	04903	3/4" with short handle	<b>133.72</b>
REDCR1	04904	1/2" with medium handle	<b>158.33</b>
REDCR1234	04910	1/2" & 3/4" with medium handle	<b>158.33</b>



## Thru-Bolt™ Ratchet Wrenches

Item #	Code #	Handle	Sockets	Price
REDL514	02286	L564	3/4", 7/8", 15/16", 1 1/16", 1 1/8", 1 1/4"	<b>\$420.28</b>
REDL514M	02245	L564	19, 22, 24, 27, 30, 32mm	<b>420.28</b>

Includes adjustable angle handle and steel storage case.



## Quick Release Cutters

Reed quick-acting tubing cutters are the industry standard; most recommended by plastic pipe companies and imitated by other manufacturers. They are the most practical cutters for small, medium, and large diameter work.

Item #	O.D. Capacity	Length	Weight	Price
TC1QPVC	1/8" - 1 1/16"	6"	.5 lb.	<b>\$52.72</b>
TC2QPVC	1/4" - 2 5/8"	8"	1 lb.	<b>87.23</b>
TC3QPVC	3/8" - 3 1/2"	11"	2.5 lbs.	<b>112.00</b>
TC4QPVC	1 7/8" - 4 1/2"	12"	2.8 lbs.	<b>130.50</b>
TC6QPVC	4" - 6 5/8"	15"	3.5 lbs.	<b>166.00</b>
TC6Q60PVC	4 - 6 5/8"	15"	3.5 lbs.	<b>166.00</b>
TC8QP	6 1/4" - 10"	26"	8 lbs.	<b>577.48</b>



## Plastic Pipe Saws

Tooth design, tooth set, and hardness are designed for efficiency and longevity when cutting highly abrasive ABS and PVC pipe. Die cast design of handle makes blade change fast and easy. Blades are interchangeable with most manufacturers. PPS provides fastest cuts on large, thick pipe. Blade design allows simultaneous cutting forward and backward... **a 50% productivity improvement.**

Item #	Capacity	Length	Weight	Price
PPS12	3"	16"	4.1 lbs.	<b>\$17.40</b>
PPS18	4"	22"	4.6 lbs.	<b>19.87</b>
PPS21	6"	22"	4.8 lbs.	<b>22.82</b>



## Ratchet Shears

Ratchet shears offer good mechanical advantage and smooth, easy operation. RS1 and RS1PLT are designed for one-hand cuts. Both also cut tracer wire. RS1PLT features a plated steel blade. RS2 is designed with new jaw shape and "Made in USA" quality. All ratchet shears blades are easily resharpened or replaced.



Starting At  
**\$76.89**

Item #	Capacity	Length	Weight	Price
RS1PLT	1.7"	8.3"	1 lb.	<b>\$85.39</b>
RS1	1.7"	8.3"	1 lb.	<b>76.89</b>
RS2	2.4"	17"	2.5 lb.	<b>146.97</b>



## Tubing Cutters

Item #	O.D. Capacity	Cutter Wheel	Price
REDTC1.6Q	1/4" - 1 1/8"	6-42 O OP2 1-2PVC	<b>\$26.26</b>
REDT20	5/8" - 2 1/2"	15-54 O OP2 1-2PVC	<b>48.78</b>
REDOP2	Cutting wheel for REDT20 & REDTC1.6Q		<b>13.03</b>

\*To cut plastic pipe, order recommended cutter wheel for plastic separately.



## Scissor Shears

Scissor shears squeeze together for fast cutting of thin wall and small diameter plastic, rubber, or nylon tubing. Rotate shears around tubing while squeezing handles together for best cut. Replacement Teflon® coated blades available.

Item #	Capacity	Length	Weight	Price
SC1	1.3"	8.3"	.3 lb.	<b>\$16.14</b>
SC125	1.7"	8.3"	.3 lb.	<b>17.48</b>



## Deburring Tools

**DEB0:** For internal burrs in copper tubing. Features long-lasting high speed steel blade, aluminum handle, and pocket clip.

**DEB2:** Deburs inner/outer edges of pipe up to 2" in diameter.

**DEB3:** Deburs aluminum/copper/steel. 3 spare blades in handle.

**DEB4:** Deburs fast — one easy revolution produces a 3/32" 15° chamfer in seconds. Deburs six pipe sizes: 1/4" through 4".

Item #	Nominal Pipe Capacity	Weight	Price
DEB0	Unlimited	.1 lb.	<b>\$6.28</b>
DEB2	Up to 2"	.2 lb.	<b>21.40</b>
DEB3	Unlimited	.1 lb.	<b>13.50</b>
DEB4	1/4", 1/2", 2", 2 1/2", 3", 4"	.8 lb.	<b>67.50</b>



## Strap Wrenches

Provides gripping power without scratching or deforming plastic or polished metal pipe.

Item #	Pipe Capacity	Tube Capacity O.D.	Handle Length	Weight	Price
SW12A	1/8" - 2"	3.5"	12"	2 lbs.	<b>\$33.98</b>
SW12A30	1/8" - 2"	7.5"	12"	2.2 lbs.	<b>39.38</b>
SW18A	1" - 5"	6"	18"	3.3 lbs.	<b>68.94</b>
SW24A	2" - 12"	14"	24"	5.7 lbs.	<b>82.59</b>

Meets Federal Specifications GGG-W-00651a and Amendment 1; Type V Fig. 7

## Dual Socket Ratchet Wrenches

Item #	Hex Sockets	Fits	Handle length In/mm	Price
REDL2017	1 1/4 + 1 1/16	3/4" + 5/8" heavy hex nuts	13/330	<b>\$75.83</b>
REDL1815	1 1/8 + 1 1/16	3/4" + 5/8" standard hex nuts	13/330	<b>75.83</b>
REDL1817	1 1/8 + 1 1/16	3/4" + 5/8" standard hex nuts	13/330	<b>75.83</b>



## Hydrostatic Test Pump

Item #	Item Code	Capacity	Price
REDHTP300	08150	300 psi	<b>\$174.59</b>
REDHTP300	08160	1000 psi	<b>206.78</b>
REDHTPINHOSE	08152	Input Hose	<b>33.50</b>
REDHTPOUTHOSE	08152	Output Hose	<b>29.11</b>

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