

www.flexhose.com



Pumpsaver®

BRAIDED PUMP CONNECTORS



fh FLEX-HOSE CO. INC.



NEW!
NSF/ANSI 61,
California low lead law
and NSF/ANSI 372
third party listed
by IAPMO R&T

Toll Free 1-877-847-3539

Pumpsaver®

Form Follows Function.

Many believe that all braided pump connectors are the same, until you go to pick up the Pumpsaver®. The Pumpsaver is manufactured with closed pitch hose making it an extraordinarily flexible connection. That construction saves valuable time on equipment installation, making it easy when it comes to equipment alignment.

Safety and performance has always been the heart of our product's design. That is why Pumpsaver's unique manufacturing process creates a smooth transition at the first convolution to the flange vs. the industry norm – a raw, jagged sharp edge.

PUMPSAVERS design and manufacturing utilizes state-of-the-art welding technology. Flex-Hose Co. has welders certified to ASME Section IX. Quality and safety is our passion at Flex-Hose Co. That is why we 100% pressure test every Pumpsaver connector to assure trouble-free installation and years of quality service and back our product with the industry's only 3 year product replacement warranty.

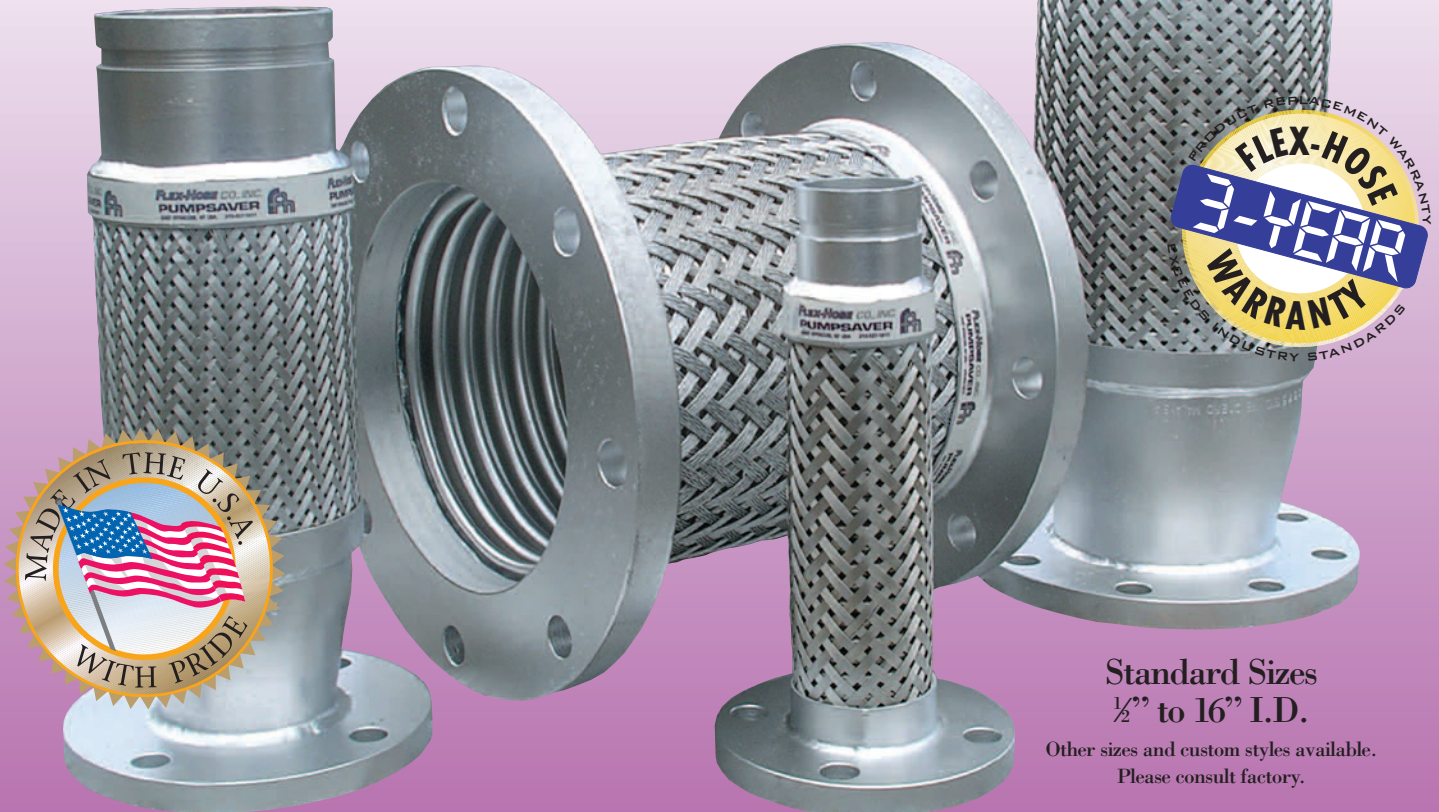
Flex-Hose Co.'s PUMPSAVER® connectors are metal flexible connectors available in stainless steel or bronze. They are used to prevent damage to pumps caused by piping stress. PUMPSAVER connectors also absorb vibration and noise found in pump installations. PUMPSAVER connectors are easily installed and reduce the possibility of pump failure.

PUMPSAVER are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor. Their compact design saves valuable space.

Working pressure of standard hose and braid up to 1325PSI or full vacuum and operating temperatures of -400°F to +1500°F.

PUMPSAVERS are manufactured with 321 stainless steel or bronze annular corrugated close pitch metal flexible hose. Other stainless steel and corrosion-resistant alloys are available.

PUMPSAVERS are available with flanged ends, steel male NPT ends, grooved ends, weld ends, or copper tube female sweat ends and may include multiple braids for higher working pressures.



Standard Sizes
½" to 16" I.D.

Other sizes and custom styles available.
Please consult factory.

Quality Assurance... Precision Manufacturing

Flex-Hose Co.'s PUMPSAVER[™] manufacturing process incorporates the removal of the first convolution lip at the crest creating a smooth transition. This eliminates internal sharp edges or burrs which may break off during operation, thus causing damage to pumps and precision rotating equipment.

PUMPSAVERS design and manufacturing utilizes state-of-the-art welding technology. Flex-Hose Co. has welders certified to ASME Section IX.

PUMPSAVERS are pressure tested for manufacturing integrity prior to release for shipment.

State-of-the-art Robotic Welding



ASME Section IX Certified

NEW!



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FLEX-HOSE CO., INC.
PUMPSAVER
EAST SYRACUSE, NY USA 315-437-1611



CSA standard B51
certified. Inspected
and tested by the
Technical Standards
and Safety Authority
of Canada.

If it's not built to last, it shouldn't be built.

If our beginnings in 1968 has shown us anything, it is the commitment that our customers make when they plunk down their hard earned reputation to recommend and utilize our product in their plant's demanding applications.

We will meet your most challenging service condition utilizing highest quality materials and manufacturing process. Flex-Hose industrial metal hose manufacturing process

incorporates the removal of the first convolution lip at the crest, creating a smooth transition. This eliminates internal sharp edges or burrs which may break off during operation, thus causing damage to pumps and precision equipment. Our design and manufacturing utilizes state-of-the-art welding technology. Flex-Hose Co. has welders certified to ASME Section IX. We are regularly inspected by Underwriters Laboratory for our UL Listed gas assemblies. We build it to last!



Why metal hose?

Flex Hose Co. industrial metal hoses can be supplied up to 24" in diameter. Major applications include absorbing vibration, compensating for misalignment, and accommodating offset motion.

Our metal Hose assemblies are widely used in mechanical and process piping systems for conveying high pressure and/or high temperature media as well as corrosive and non-corrosive media including gas.

If it can be welded...

...we can build it, attach it or incorporate it into your piping system. So don't limit our ability to meet your requirements by what you see or don't see in our published catalog.

Flex-Hose Co. personnel have the technical training and ability to provide solutions to the most demanding applications. Our support also extends through specific job analysis which recommends product placement within a piping system, perfectly integrating them into the overall theme of your project – saving you both time and money!

Passing the test...

Manufactured with a 4:1 safety factor, all Flex-Hose Co. industrial metal hose is pressure tested for manufacturing integrity prior to release for shipment. Testing options include: standard leak testing, hydrostatic testing, dye penetrant, and helium mass spectrometer.

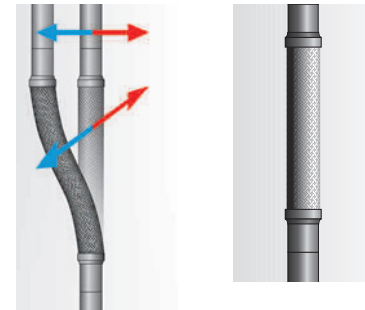


Compressed and Combustible Gases

If you require UL listed connectors approved for compressed and combustible gases, then ask about the UltraFuel Flex! UltraFuel Flex product is approved by the Commonwealth of Massachusetts, Board of State Examiners of Plumbers and Gas Fitters.

Pumpsaver® Motion Classifications

Flex-Hose Co.'s PUMPSAVER braided pump connectors are capable of handling the following movements:



PARALLEL

VIBRATION

Offset Motion:

Motion that occurs when one end of the hose assembly is deflected in a plane perpendicular to the longitudinal axis with the ends remaining parallel. Offset is measured as displacement of the free end centerline from the fixed end centerline.

Motion Frequency:

Permanent Offset - The maximum fixed parallel offset to which the corrugated metal hose assembly may be bent without damage to the convolutions. No further motion is to be imposed other than normal vibration.

Intermittent Offset is motion that occurs on a regular or irregular cyclic basis. It is normally the result of thermal expansion and contraction or other non-continuous actions.

PUMPSAVER are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor.

Available Alloys:

316 Stainless Steel • 321 Stainless Steel • Bronze
Hastelloy® • Inconel® • Monel®

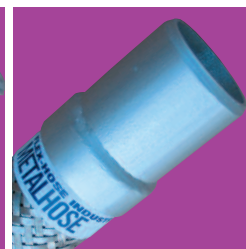
Additional Corrugated/Braided Metal Hose Fittings



Floating Flange



Hex Male Pipe Nipple



Weld End



Female Union



Hex Male Pipe Nipple
Bronze

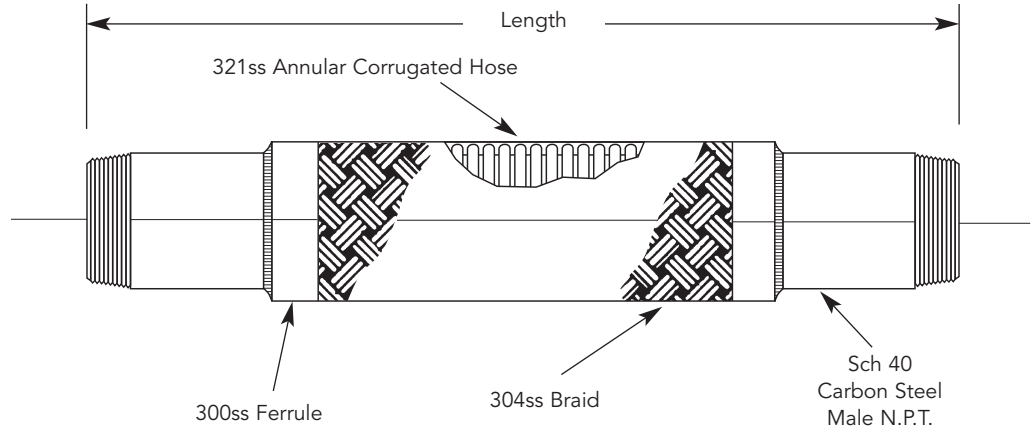


Male Union
Bronze

Pumpsaver[®] SMN (Threaded Ends)

Flex-Hose Co.'s PUMPSAVER SMN style has schedule 40 carbon steel male NPT ends, 321 stainless steel corrugated hose, and single stainless steel braid.

Also available with stainless steel end fittings and multiple braids for higher pressures.



NSF/ANSI 61, California low lead law and NSF/ANSI 372 third party listed by IAPMO R&T

This product is listed by IAPMO R&T under file #N-7208 for NSF/ANSI 61 and file 7207 for California Lead Plumbing Law. Our listed products can be viewed on IAPMO R&T's Web listing at <http://pld.iapmo.org>



CSA standard B51 certified. Inspected and tested by the Technical Standards and Safety Authority of Canada.



U.S.					
I.D. (In.)	Length (In.)	Pressure (PSI) 70°F	Parallel Offset* (In.)		Weight (lb)
			Permanent	Intermittent	
.50	6.50	1100	½	¾	.50
.75	7.00	800	½	¾	.75
1.00	8.00	750	¾	¾	1.00
1.25	8.50	600	¾	¾	1.25
1.50	9.00	555	¾	¾	1.50
2.00	10.50	500	¾	¾	2.50
2.50	12.00	385	¾	¾	4.00
3.00	14.00	285	1	¾	6.00
4.00	16.00	230	1¼	¾	8.00

*For definition of motion classifications, see page 4.

METRIC					
I.D. (mm)	Length (mm)	Pressure (kPa) 20°C	Parallel Offset* (mm)		Weight (kg)
			Permanent	Intermittent	
13	165	7580	12.70	3.17	.25
20	175	5515	12.70	3.17	.35
25	200	5170	9.52	3.17	.45
30	215	4135	9.52	3.17	.60
40	230	3825	12.70	3.17	.70
50	265	3445	9.52	3.17	1.15
65	305	2650	19.05	6.35	1.85
80	355	1965	25.40	12.70	2.75
100	405	1585	31.75	15.87	3.65

PUMPSAVER are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor.

Standard sizes 1/2" to 4" I.D.
Other alloys & sizes available on request.

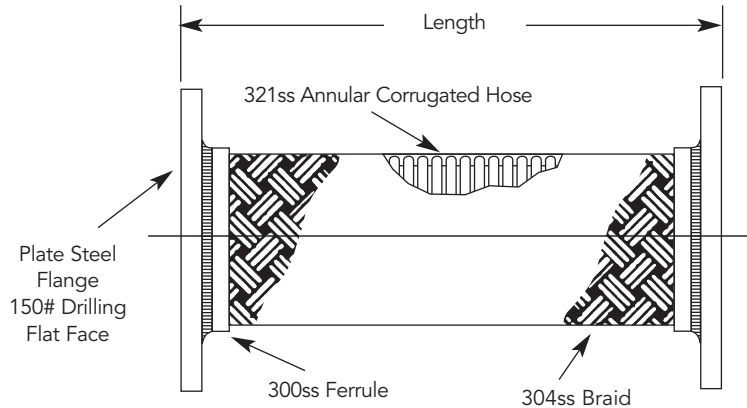
Toll Free 1-877-874-3539



Pumpsaver® SMP (Flanged Ends)

Flex-Hose Co.'s PUMPSAVER SMP style has 150 lb. plate carbon steel flanges, 321 stainless steel corrugated hose, and single stainless steel braid.

Larger sizes up to 30" ID are available with special order. Also available with 300 lb., 600 lb., concentric reducing, DIN flanges and multiple braids for higher pressures.



NSF/ANSI 61, California low lead law and NSF/ANSI 372 third party listed by IAPMO R&T

This product is listed by IAPMO R&T under file #N-7208 for NSF/ANSI 61 and file 7207 for California Lead Plumbing Law. Our listed products can be viewed on IAPMO R&T's Web listing at <http://pld.iapmo.org>



*For definition of motion classifications, see page 4.



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U.S.

I.D. (In.)	Length (In.)	Pressure (PSI) 70°F	Parallel Offset* (In.) Permanent	Parallel Offset* (In.) Intermittent	Weight (lb)
2.00	9.00	500	1 1/2	3/8	10.00
2.50	9.00	385	1	3/8	12.00
3.00	9.00	285	3/4	1/4	14.00
4.00	9.00	230	1/2	1/4	19.00
5.00	11.00	190	3/4	3/8	25.00
6.00	11.00	165	3/4	1/4	30.00
8.00	12.00	180	1/2	1/2	54.00
10.00	13.00	170	1/2	1/4	75.00
12.00	14.00	145	1/2	1/4	105.00
14.00	14.00	110	3/4	1/2	135.00

METRIC

I.D. (mm)	Length (mm)	Pressure (kPa) 20°C	Parallel Offset* (mm) Permanent	Parallel Offset* (mm) Intermittent	Weight (kg)
50	225	3445	28.57	9.52	4.60
65	225	2650	25.40	9.52	5.50
80	225	1965	15.87	6.35	6.50
100	225	1585	12.70	6.35	9.00
125	280	1310	19.05	9.52	11.50
150	280	1135	15.87	6.35	14.00
200	300	1240	12.70	6.35	24.50
250	330	1170	12.70	6.35	34.50
300	350	1000	12.70	6.35	48.00
350	350	755	9.52	3.17	61.50

PUMPSAVER are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor.

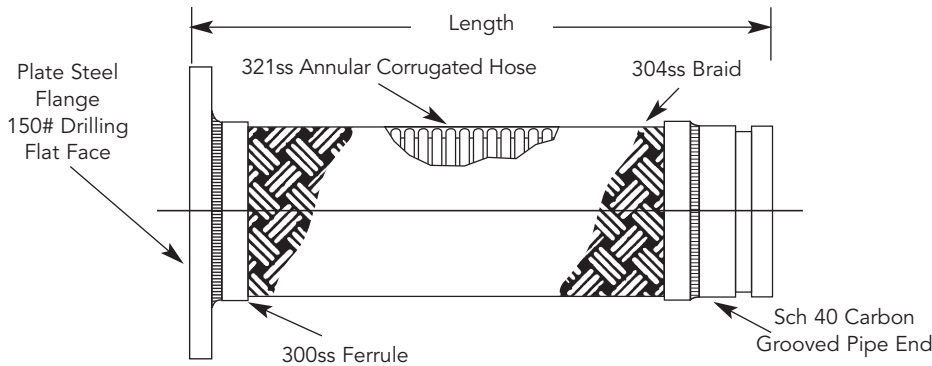


Standard sizes 2" to 14" I.D.
Other alloys & sizes available on request.

Toll Free 1-877-874-3539



Pumpsaver® SF-15PxVG (Flange x Grooved Ends)



Flex-Hose Co.'s PUMPSAVER SF-15PxVG style has 150 lb. plate carbon steel flange x schedule 40 grooved pipe end, 321 stainless steel corrugated hose, and single stainless steel braid.

Provides easy transition from pump flange to grooved piping.

*For definition of motion classifications, see page 4.

U.S.					
I.D. (In.)	Length (In.)	Pressure (PSI) 70°F	Parallel Offset* (In.)		Weight (lb)
			Permanent	Intermittent	
2.00	12.00	500	1%	½	7.20
2.50	12.00	385	1%	½	8.50
3.00	12.00	285	1%	½	10.40
4.00	12.00	230	½%	¼	14.00
5.00	14.00	190	¾%	¾	18.40
6.00	14.00	165	¾%	¾	23.70
8.00	15.00	180	¾%	¾	39.60

METRIC					
I.D. (mm)	Length (mm)	Pressure (kPa) 20°C	Parallel Offset* (mm)		Weight (kg)
			Permanent	Intermittent	
50	305	3445	47.62	15.87	3.27
65	305	2650	41.27	15.87	3.86
80	305	1965	28.57	12.70	4.72
100	305	1585	15.87	6.35	6.35
125	355	1310	22.22	9.52	8.35
150	355	1135	19.05	9.52	10.75
200	380	1240	15.87	6.35	17.96

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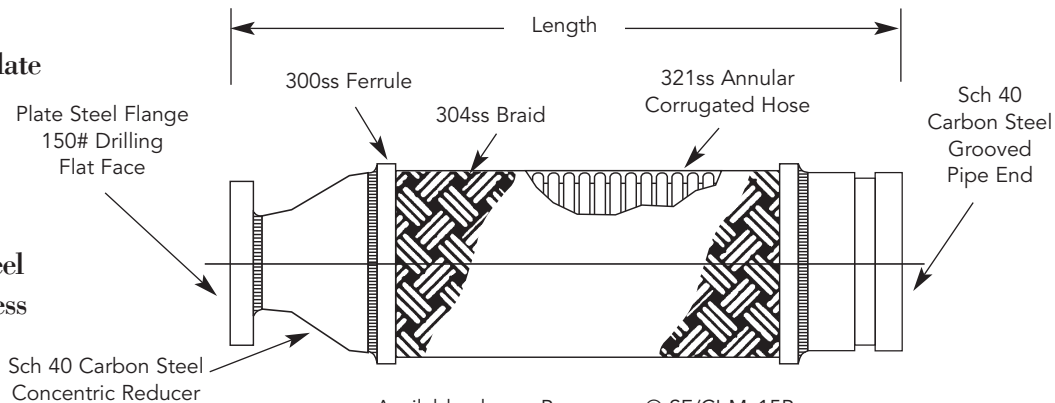
Standard sizes 2" to 12" I.D.
Other alloys & sizes available on request.

Toll Free 1-877-874-3539



Pumpsaver® SF/CI-15PxVG Increasing Flex (Flange x Grooved Ends)

Flex-Hose Co.'s PUMPSAVER SF/CI-15PxVG style has 150 lb. plate carbon steel flanges (smaller flange), attached to a schedule 40 steel concentric reducer, a schedule 40 carbon steel grooved pipe end, 321 stainless steel corrugated hose, and single stainless steel braid.



Available also as Pumpsaver® SF/CI-Mx15P
(Small Male NPT x Large Flange & Hose) in sizes 1.25" to 3"

*For definition of motion classifications, see page 4.



CSA standard B51 certified. Inspected and tested by the Technical Standards and Safety Authority of Canada.

U.S.

I.D. (In.)		Length (In.)	Pressure (PSI) 70°F	Parallel Offset* (In.)		Weight (lb)
Small Flange	Large Flange & Hose			Permanent	Intermittent	
1.50	2.00	14.00	500	1½	¾	6.70
1.50	2.50	14.00	385	1¼	¾	6.90
2.00	2.50	14.00	385	1¼	¾	8.10
2.00	3.00	14.00	285	¾	¾	10.10
2.00	4.00	15.00	230	½	¼	12.00
2.50	3.00	14.00	285	¾	¾	11.20
2.50	4.00	15.00	230	½	¼	14.70
2.50	5.00	18.00	190	¾	¾	18.90
2.50	6.00	19.00	165	¾	¾	25.30
3.00	4.00	15.00	230	½	¼	15.50
3.00	5.00	18.00	190	¾	¾	19.70
3.00	6.00	19.00	165	¾	¾	26.10
4.00	5.00	18.00	190	¾	¾	21.60
4.00	6.00	19.00	165	¾	¾	28.00
4.00	8.00	20.00	180	¾	¼	38.40
5.00	6.00	19.00	165	¾	¾	31.00
5.00	8.00	20.00	180	¾	¼	40.70
6.00	8.00	20.00	180	½	¼	41.70

METRIC

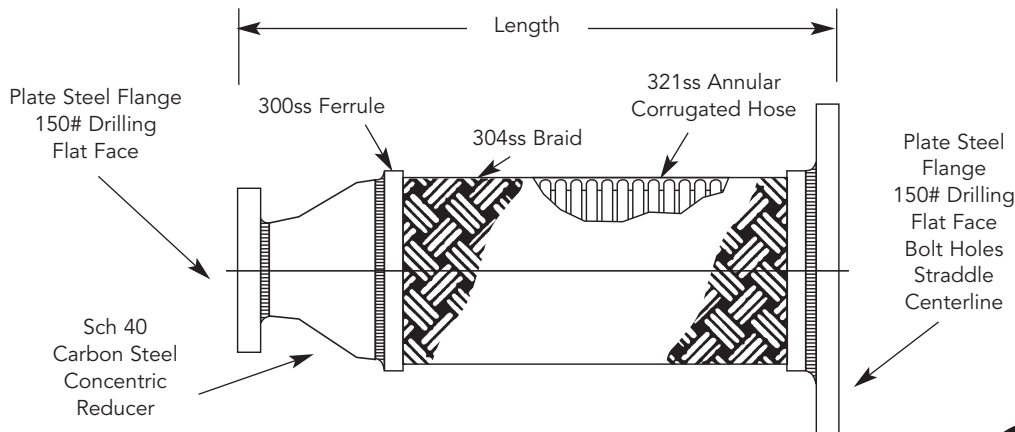
I.D. (mm)		Length (mm)	Pressure (kPa) 70°F	Parallel Offset* (mm)		Weight (kg)
Small Flange	Large Flange & Hose			Permanent	Intermittent	
40	50	330	3455	38.10	15.87	3.00
40	65	300	2650	31.75	9.52	3.15
50	65	330	2650	31.75	9.52	3.70
50	80	330	1965	19.05	9.52	4.60
50	100	330	1585	12.70	6.35	5.45
65	80	330	1965	19.05	9.52	5.10
65	100	330	1585	12.70	6.35	6.70
65	125	406	1310	19.05	9.52	8.60
65	150	406	1135	19.05	9.52	11.50

Other Metric sizes available. Please see submittal drawing.

PUMPSAVER are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor.

Standard sizes 2" to 12" I.D.
Other alloys & sizes available on request.

Pumpsaver® SF/CI-15P Increasing Flex (Flanged Ends)



Flex-Hose Co.'s PUMPSAVER SF/CI-15P style has 150 lb. plate carbon steel flanges (smaller flange), attached to a schedule 40 steel concentric reducer, 321 stainless steel corrugated hose, and single stainless steel braid.

Commonly used for pump discharge applications.



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U.S.						
I.D. (In.)		Length (In.)	Pressure (PSI) 70°F	Parallel Offset* (In.)		Weight (lb)
Small Flange	Large Flange & Hose			Permanent	Intermittent	
1.50	2.00	13.00	500	1¼	¾	10.00
1.50	2.50	13.00	385	1¼	½	11.20
2.00	2.50	13.00	385	1¼	½	12.40
2.00	3.00	13.00	285	¾	¾	14.90
2.00	4.00	13.00	230	½	¼	18.70
2.50	3.00	13.00	285	¾	¾	16.00
2.50	4.00	13.00	230	½	¼	20.00
2.50	5.00	16.00	190	¾	¾	25.70
2.50	6.00	16.00	165	½	¼	32.00
3.00	4.00	13.00	230	½	¼	20.80
3.00	5.00	16.00	190	¾	¾	26.50
3.00	6.00	16.00	165	½	¼	32.80
4.00	5.00	16.00	190	¾	¾	28.40
4.00	6.00	16.00	165	½	¼	34.70
4.00	8.00	18.00	180	¾	¾	53.40
5.00	6.00	16.00	165	½	¼	37.70
5.00	8.00	18.00	180	¾	¾	55.70
6.00	8.00	18.00	180	¾	¾	56.90
6.00	10.00	20.00	170	¾	¾	83.10
8.00	10.00	20.00	170	¾	¾	95.00

METRIC						
I.D. (mm)		Length (mm)	Pressure (kPa) 70°F	Parallel Offset* (mm)		Weight (kg)
Small Flange	Large Flange & Hose			Permanent	Intermittent	
40	50	330	3445	44.45	15.87	4.50
40	65	300	2650	34.92	12.70	5.05
50	65	330	2650	34.92	12.70	5.60
50	80	330	1965	22.22	9.52	6.80
50	100	330	1585	12.70	6.35	6.50
65	80	330	1965	22.22	9.52	7.30
65	100	330	1585	12.70	6.35	9.10
65	125	406	1310	12.70	9.52	11.70
65	150	406	1135	22.22	6.35	14.55
80	100	330	1585	12.70	6.35	9.50
80	125	406	1310	22.22	9.52	12.05
80	150	406	1135	12.70	6.35	14.95

Other Metric sizes available. Please see submittal drawing.

*For definition of motion classifications, see page 4.



Optional Port Available

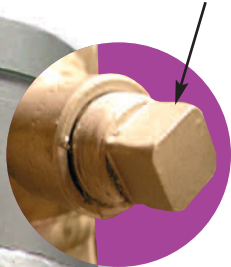
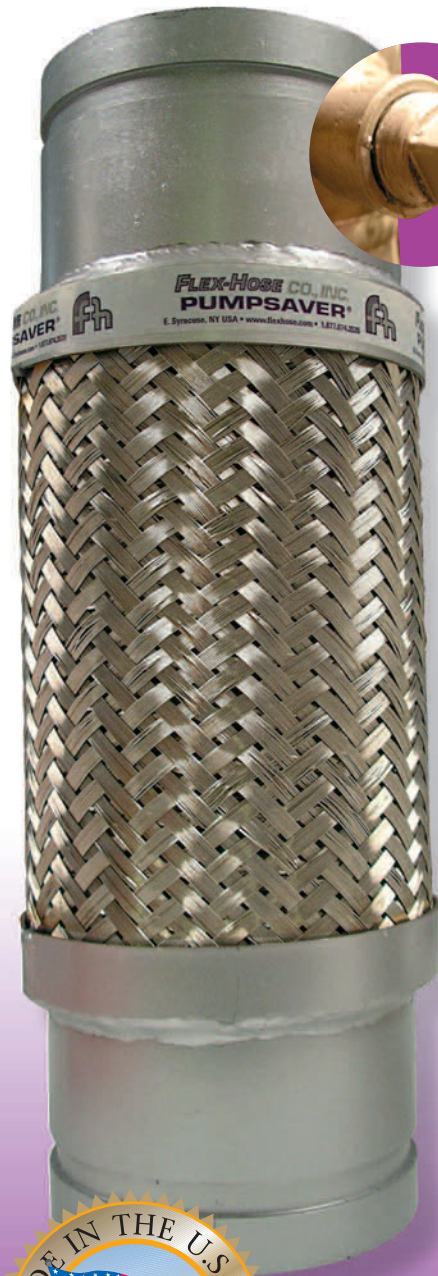
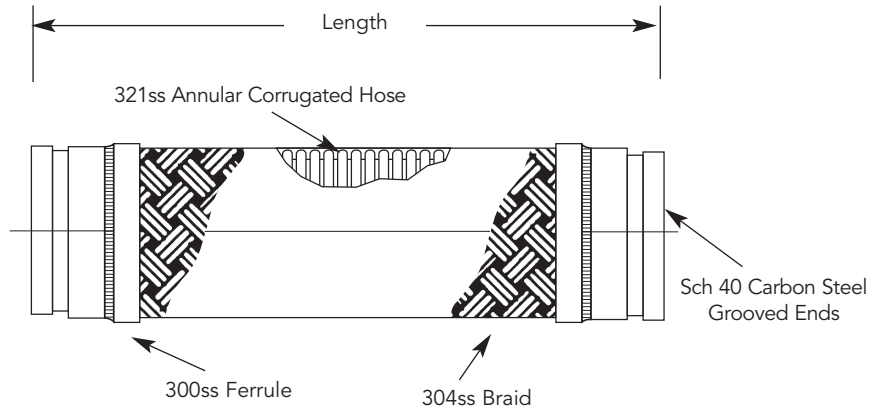


Standard sizes 2" to 12" I.D.
Other alloys & sizes available on request.

PUMPSAVER are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor.

Pumpsaver[®] SVG (Grooved Ends)

Flex-Hose Co.'s PUMPSAVER SVG style has carbon steel schedule 40 grooved ends, 321 stainless steel corrugated hose, and single stainless steel braid. Also available with stainless fittings.



*For definition of motion classifications, see page 4.



NSF/ANSI 61, California low lead law and NSF/ANSI 372 third party listed by IAPMO R&T

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U.S.

I.D. (In.)	Length (In.)	Pressure (PSI) 70°F	Parallel Offset* (In.)		Weight (lb)
			Permanent	Intermittent	
1.00	12.00	750	2½	1½	1.00
1.50	12.00	555	1¾	¾	2.00
2.00	12.00	500	1¼	¾	2.50
2.50	12.00	385	1¼	¾	3.50
3.00	12.00	285	¾	¼	4.50
4.00	14.00	230	½	¼	8.00
5.00	16.00	190	¾	¾	12.00
6.00	16.00	165	¾	¼	14.00
8.00	16.00	180	½	¼	20.00
10.00	20.00	170	¾	¼	38.00
12.00	20.00	145	½	¼	46.00

METRIC

I.D. (mm)	Length (mm)	Pressure (kPa) 20°C	Parallel Offset* (mm)		Weight (kg)
			Permanent	Intermittent	
25	300	5170	66.67	28.57	.45
40	300	3825	44.45	15.87	.95
50	300	3445	31.75	9.53	1.15
65	300	2650	31.75	9.53	1.60
80	300	1965	19.05	6.35	2.05
100	350	1585	12.70	6.35	3.65
125	400	1310	22.22	9.53	5.45
150	400	1135	15.87	6.35	6.35
200	400	1240	12.70	6.35	9.10
250	500	1170	15.87	6.35	17.25
300	500	1000	12.70	6.35	20.90

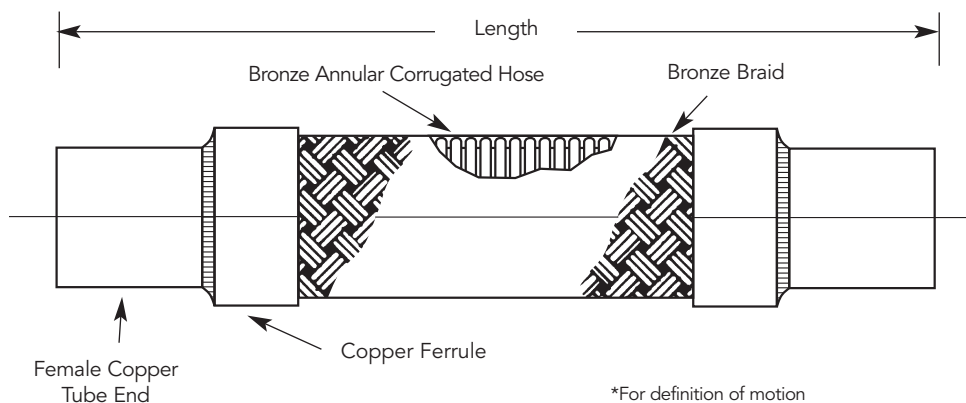


Standard sizes 1" to 12" I.D.
Other alloys & sizes available on request.

Toll Free 1-877-874-3539



Pumpsaver® BSW (Sweat Ends)



*For definition of motion classifications, see page 4.

Flex-Hose Co.'s PUMPSAVER BSW style has copper female sweat ends, bronze corrugated hose, and single bronze braid.

Also available with carbon steel, copper, male NPT ends and multiple braids for higher pressures.

U.S.					
I.D. (In.)	Length (In.)	Pressure (PSI) 70°F	Parallel Offset* (In.)		Weight (lb)
			Permanent	Intermittent	
.50	6.50	565	7/8	1/4	.50
.75	7.00	465	1/2	1/8	.75
1.00	8.00	335	1/2	1/8	1.00
1.25	8.50	305	1/4	1/16	1.50
1.50	9.00	295	1/4	1/16	2.00
2.00	10.50	210	1/4	1/8	3.25
2.50	16.00	190	1 1/4	5/8	6.50
3.00	18.00	165	1 3/8	5/8	9.50

METRIC					
I.D. (mm)	Length (mm)	Pressure (kPa) 20°C	Parallel Offset* (mm)		Weight (kg)
			Permanent	Intermittent	
13	165	3895	22.25	6.35	.25
20	175	3205	12.70	3.17	.35
25	200	2305	12.70	3.17	.45
30	215	2100	6.35	1.58	.70
40	230	2030	6.35	1.58	.95
50	265	1445	6.35	3.17	1.50
65	400	1310	31.75	15.87	2.95
80	450	1135	34.92	15.87	4.35

PUMPSAVER are designed to be pressure tested 1.5 times their maximum rated working pressure and manufactured with a 4:1 safety factor.



NSF/ANSI 61, California low lead law and NSF/ANSI 372 third party listed by IAPMO R&T

This product is listed by IAPMO R&T under file #N-7208 for NSF/ANSI 61 and file 7207 for California Lead Plumbing Law. Our listed products can be viewed on IAPMO R&T's Web listing at <http://pld.iapmo.org>. This BSW copper product has been evaluated for use in drinking water systems pH 6.5 and above. Drinking water supplies that are less than pH 6.5 may require corrosion control to limit leaching of copper into the drinking water.



CSA standard B51 certified. Inspected and tested by the Technical Standards and Safety Authority of Canada.



Standard sizes 1/2" to 4" I.D.
 Now available with copper press-fit ends in sizes 1/2" to 2" I.D.
 Other alloys & sizes available on request.

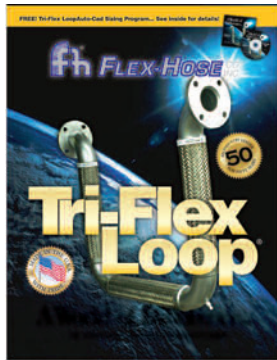
Toll Free 1-877-874-3539



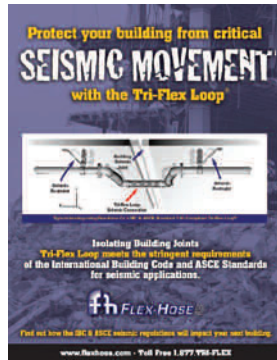
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Product Overview



Flexible Pipe Loop



IBC Compliant Seismic Connections



Flexible Pipe Loop Hanger Kit & Accessories



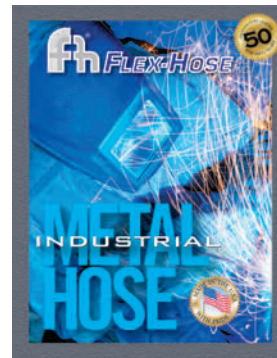
Braided Metal Pump Connectors



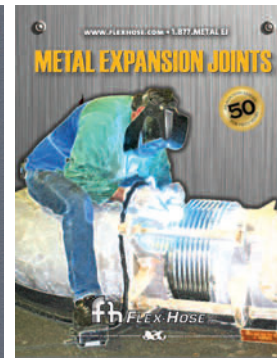
Expansion Joint Application Guide



Flexible Gas Connection



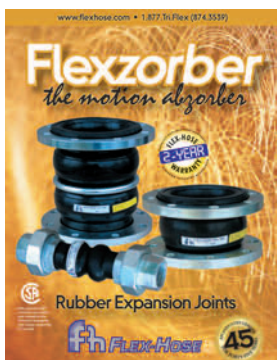
Industrial Metal Hose



Metal Bellows Expansion Joints



Enclosed Metal Bellows Expansion Joints



Rubber Expansion Joints



Expansion Joint Control Assemblies



Air Separators



Expansion Compensators



Externally Pressurized Expansion Joints

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