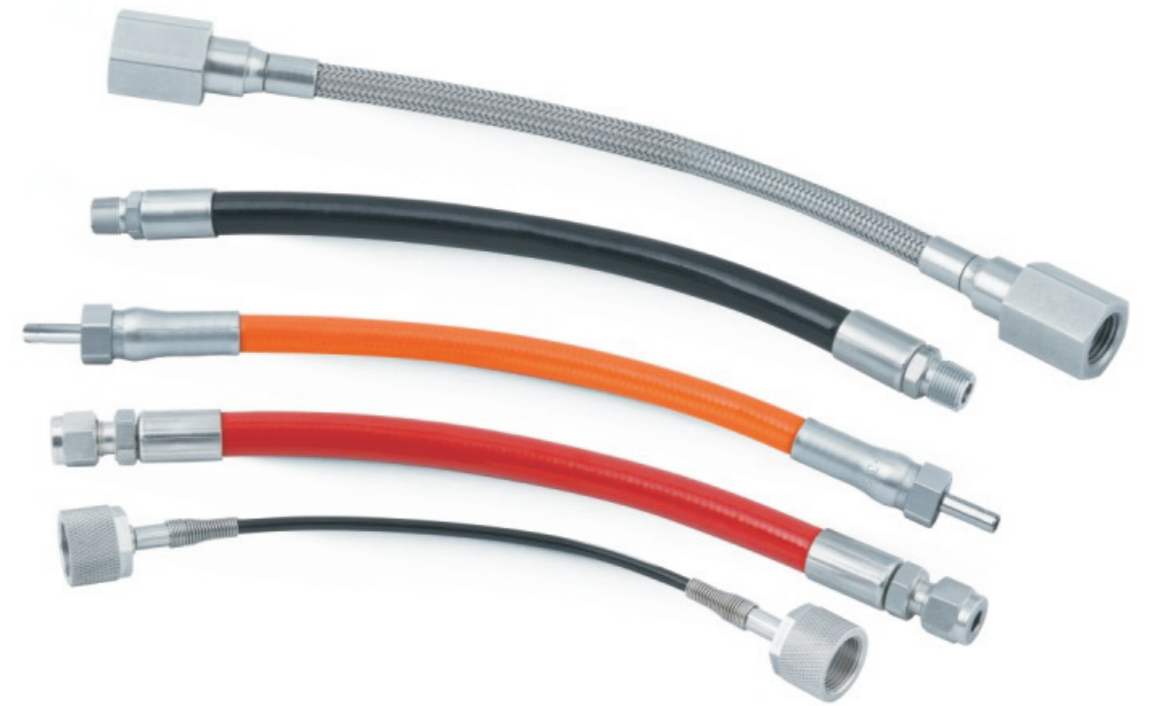


Hoses and Connectors

MFH, MFM, PTH, PD, NYH and HCS Series



Contents

Hose and Flexible Tubing Installation and Use Guide

	01
Metal Flexible Hoses MFH, MFM Series	
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Hose and Flexible Tubing Installation and Use Guide

Inspection

Establish an inspection schedule based on system application and replacement history.

Static Electricity

Static electricity can be generated by fluid passing through the hose. Select hose with sufficient conductivity to ground the static electric charge.

Vibration

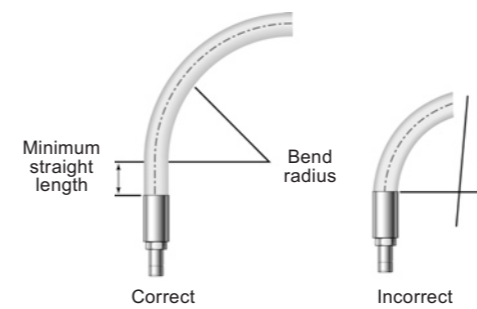
Evaluate amount of system vibration when selecting hose. Metal hose may not be appropriate for systems with constant or severe vibration.

Length

Take into consideration hose movement, system pressurization, and thermal expansion when determining hose length. Installing hose that does not have sufficient length to accommodate these factors may reduce hose life.

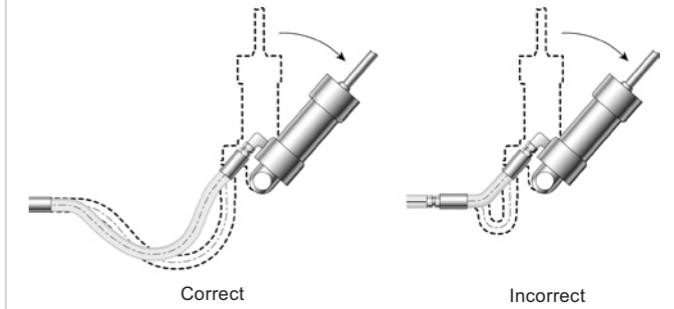
Minimum Bend Radius

Follow minimum bend radius requirements for your hose. Installing hose with smaller bends may kink hose and reduce hose life.

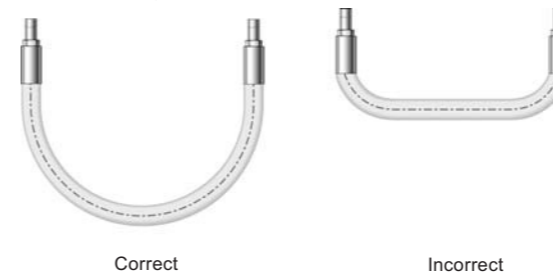


Motion Absorption

Distribute movement and prevent bends smaller than the hose's minimum bend radius by providing sufficient hose length.

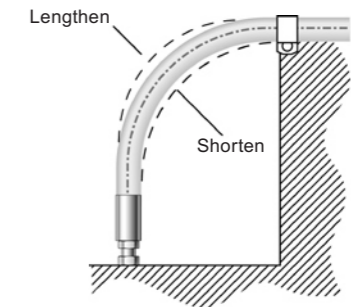


Hose rupture or leakage may result from bending too close to the hose/fitting connection.



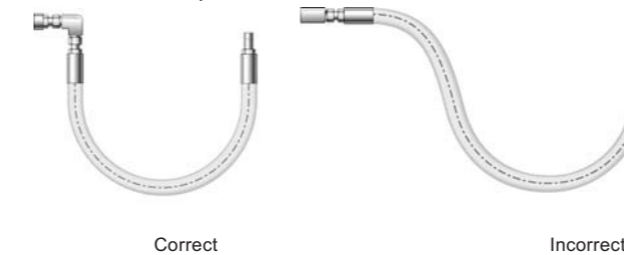
System Pressure Changes

Allow sufficient hose length to accommodate changing system pressures. Do not connect high- and low pressure hoses.



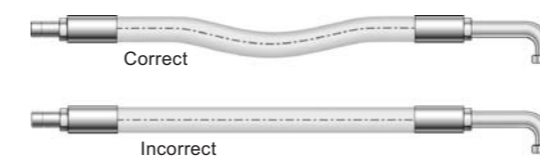
Hose Strain

Elbows and adapters can be used to relieve hose strain.



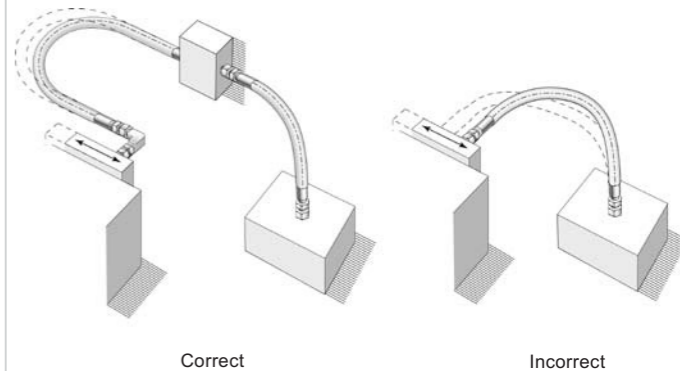
Machine Tolerance

Allow for changes in length resulting from machine motion and tolerances.



Bending in One Plane

Avoid twisting the hose by bending it in one plane only. For a compound bend, use multiple hose pieces or other isolation methods.



Metal Flexible Hoses

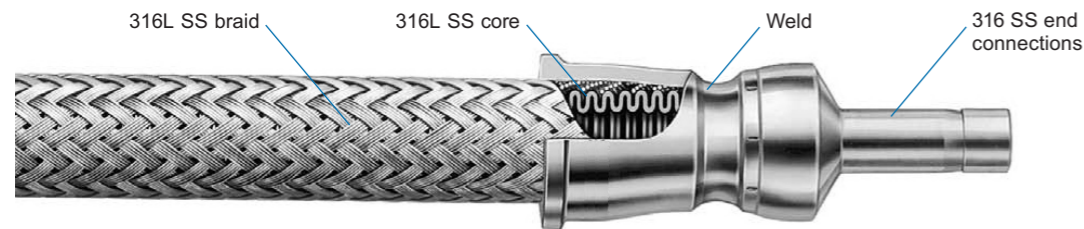
MFH, MFM Series

Features

- ⦿ All-metal hose promotes corrosion resistance
- ⦿ 316L stainless steel annular convoluted core
- ⦿ Vacuum and positive pressure applications
- ⦿ The tube wall is constructed to be non-spiral U-shaped and annular corrugated
- ⦿ Single braid layer of 316L stainless steel promotes hose pressure containment and exhibits strong performance in dynamic cycling applications.
- ⦿ Welded fitting-to-hose construction to ensure reliable seal
- ⦿ Standard and custom-length available
- ⦿ Maximum working pressure: 3100 psig (213 bar)
- ⦿ Hose size: 1/4" to 2"
- ⦿ Working temperature: -325°F to 800°F (-200°C to 426°C)
- ⦿ End connections:
 - 1/8" to 1" thread
 - 3/16" to 1" and 6 mm to 22 mm tube fitting



MFH series

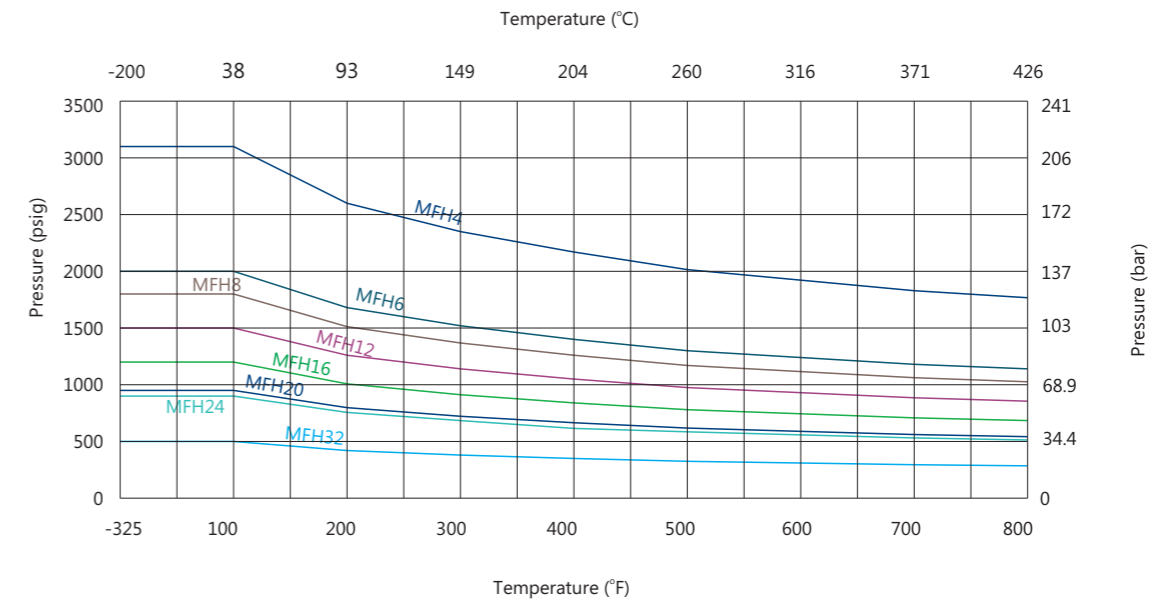


Hose Technical Data (MFH Series)

Nominal Hose Size	Inside Diameter	Min. Bend Radius		Temperature Range	Working Pressure at 70°F (20°C)	Burst Pressure at 70°F (20°C)	Hose Series
		Static	Dynamic				
in. (mm)	in. (mm)	in. (mm)	in. (mm)	°F (°C)	psig (bar)	psig (bar)	
1/4 (6.4)	0.28 (7.1)	2.25 (57.2)	10.0 (254)	-325 to 800 (-200 to 426)	3100 (213)	12400 (854)	MFH4
3/8 (9.7)	0.42 (10.6)	3.00 (76.2)	12.0 (305)		2000 (137)	8000 (551)	MFH6
1/2 (12.7)	0.53 (13.5)	4.50 (114)	16.0 (406)		1800 (124)	7200 (496)	MFH8
3/4 (19.0)	0.80 (20.3)	6.00 (152)	17.0 (432)		1500 (103)	6000 (413)	MFH12
1 (25.4)	1.03 (26.0)	6.75 (171)	20.0 (508)		1200 (82.6)	4800 (330)	MFH16
1 1/4 (31.8)	1.30 (33.0)	8.86 (225)	23.0 (584)		950 (65.4)	3800 (261)	MFH20
1 1/2 (38.1)	1.53 (38.9)	11.0 (280)	26.0 (660)		900 (62.0)	3600 (248)	MFH24
2 (50.8)	2.05 (52.1)	13.8 (350)	32.0 (813)		500 (34.4)	2000 (137)	MFH32

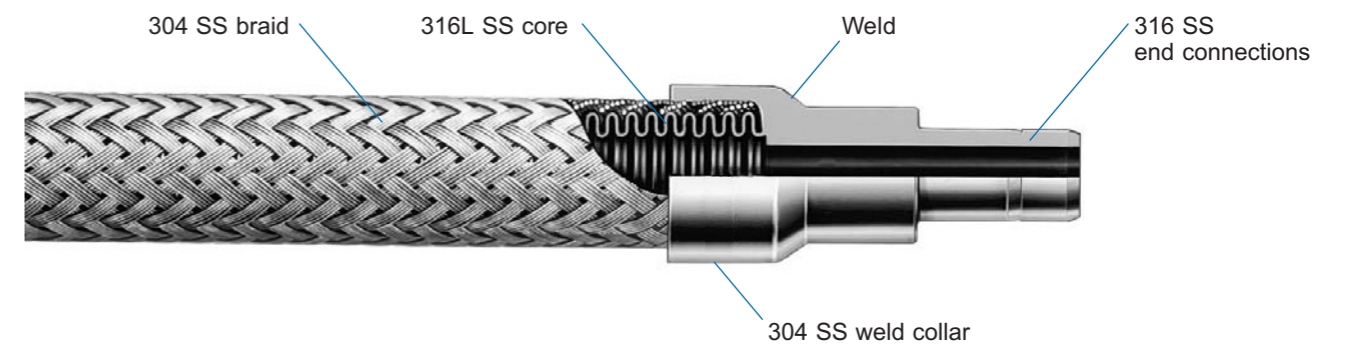
Pressure vs. Temperature

MFH series



The working pressure of the hose selected must not exceed the maximum pressure, including any pressure spikes of the system. To determine actual working pressure ratings in accordance with pulsation, shock factors multiply by 0.5.

MFM series

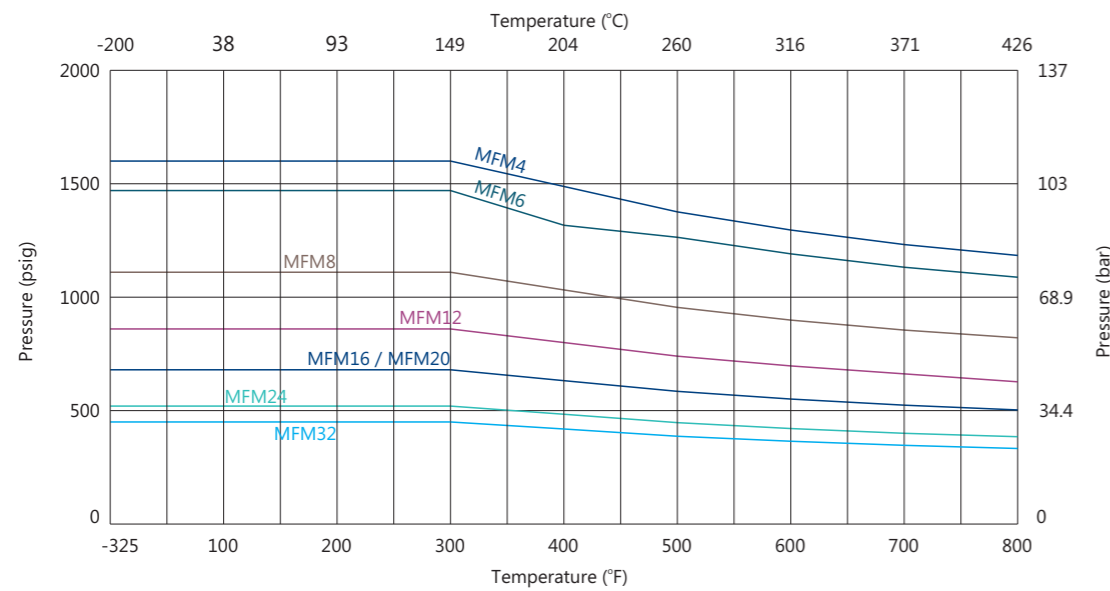


Hose Technical Data (MFM Series)

Nominal Hose Size	Inside Diameter	Min. Bend Radius		Temperature Range	Working Pressure at 70°F (20°C)	Burst Pressure at 70°F (20°C)	Hose Series
		Static	Dynamic				
in. (mm)	in. (mm)	in. (mm)	in. (mm)	°F (°C)	psig (bar)	psig (bar)	
1/4 (6.4)	0.25 (6.4)	0.75 (19.0)	4.33 (110)	-325 to 800 (-200 to 426)	1600 (110)	6400 (440)	MFM4
3/8 (9.7)	0.38 (9.5)	0.87 (22.1)	5.91 (150)		1470 (101)	6000 (413)	MFM6
1/2 (12.7)	0.50 (12.7)	1.04 (26.4)	6.50 (165)		1110 (76.4)	4500 (310)	MFM8
3/4 (19.0)	0.75 (19.0)	1.61 (40.9)	8.86 (225)		860 (59.2)	3500 (241)	MFM12
1 (25.4)	1.00 (25.4)	1.89 (48.0)	10.2 (259)		680 (46.8)	2680 (184)	MFM16
1 1/4 (31.8)	1.25 (31.8)	2.16 (54.9)	11.8 (300)		680 (46.8)	2600 (179)	MFM20
1 1/2 (38.1)	1.50 (38.1)	2.33 (59.2)	13.4 (340)		520 (35.8)	2200 (151)	MFM24
2 (50.8)	2.00 (50.8)	3.10 (78.7)	15.4 (391)		450 (31.0)	1800 (124)	MFM32

Pressure vs. Temperature

MFM series



The working pressure of the hose selected must not exceed the maximum pressure, including any pressure spikes of the system. To determine actual working pressure ratings in accordance with pulsation, shock factors multiply by 0.5.

Testing

Every FD-LOK metal flexible hose assembly is factory tested with helium to a maximum leak rate of 1×10^{-5} std cm³/s.

Cleaning and Packaging

FD-LOK metal flexible hose components are cleaned in accordance with FD-LOK standard cleaning (FC-01) for general industrial procedures.

Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.



Standard Assemblies



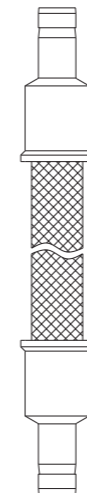
Tube Fitting to Male NPT End

Nominal Hose Size	Tube Fitting Size	NPT Size	Hose Series	Overall length	Ordering Number	Minimum Inside Diameter	Maximum Outside Dimension
1/4	1/4	1/4	MFH4	12 (305)	SS-MFH4-S4-NT4-F12	0.19 (4.8)	0.95 (24.1)
			MFM4	36 (914)	SS-MFM4-S4-NT4-F36	0.19 (4.8)	0.73 (18.6)
3/8	3/8	3/8	MFH6	18 (457)	SS-MFH6-S6-NT6-F18	0.28 (7.1)	1.09 (27.7)
			MFM6	36 (914)	SS-MFM6-S6-NT6-F36	0.28 (7.1)	0.80 (20.3)
1/2	1/2	1/2	MFH8	18 (457)	SS-MFH8-S8-NT8-F18	0.41 (10.4)	1.23 (31.3)
			MFM8	48 (1220)	SS-MFM8-S8-NT8-F48	0.41 (10.4)	1.02 (25.8)
3/4	3/4	3/4	MFH12	18 (457)	SS-MFH12-S12-NT12-F18	0.66 (16.0)	1.74 (44.2)
			MFM12	48 (1220)	SS-MFM12-S12-NT12-F48	0.66 (16.0)	1.32 (33.5)
1	1	1	MFH16	24 (610)	SS-MFH16-S16-NT16-F24	0.88 (22.4)	2.03 (51.6)



Tube Fitting End

Nominal Hose Size	Tube Fitting Size	Hose Series	Overall length	Ordering Number	Minimum Inside Diameter	Maximum Outside Dimension
1/4	1/4	MFH4	12 (305)	SS-MFH4-S4-F12	0.19 (4.8)	0.95 (24.1)
		MFM4	36 (914)	SS-MFM4-S4-F36	0.19 (4.8)	0.65 (16.6)
3/8	3/8	MFH6	18 (457)	SS-MFH6-S6-F18	0.28 (7.1)	1.09 (27.7)
		MFM6	36 (914)	SS-MFM6-S6-F36	0.28 (7.1)	0.80 (20.3)
1/2	1/2	MFH8	18 (457)	SS-MFH8-S8-F18	0.41 (10.4)	1.23 (31.3)
		MFM8	48 (1220)	SS-MFM8-S8-F48	0.41 (10.4)	1.02 (25.8)
3/4	3/4	MFH12	18 (457)	SS-MFH12-S12-F18	0.66 (16.0)	1.74 (44.2)
		MFM12	48 (1220)	SS-MFM12-S12-F48	0.66 (16.0)	1.32 (33.5)
1	1	MFH16	24 (610)	SS-MFH16-S16-F24	0.88 (22.4)	2.03 (51.6)



Tube Adapter End

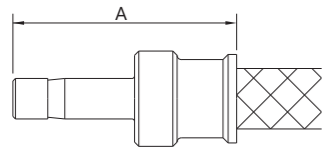
Nominal Hose Size	Tube Adapter Size	Hose Series	Overall length	Ordering Number	Minimum Inside Diameter	Maximum Outside Dimension
1/4	1/4	MFH4	12 (305)	SS-MFH4-FT4-F12	0.16 (4.1)	0.75 (19.0)
		MFM4	36 (914)	SS-MFM4-FT4-F36	0.16 (4.1)	0.73 (18.6)
3/8	3/8	MFH6	12 (305)	SS-MFH6-FT6-F12	0.27 (6.9)	0.93 (23.6)
		MFM6	36 (914)	SS-MFM6-FT6-F36	0.27 (6.9)	0.93 (23.6)

- All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact the authorized representative or FD-LOK.
- Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.



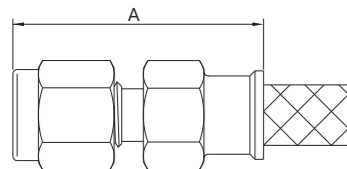
End Connections

Tube Adapters



Tube Adapter Size	Nominal Hose Size	End Connection Designator	Dimensions		
			A	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.		in. (mm)		
1/4	1/4	FT4	1.76 (44.7)	0.16 (4.1)	0.75 (19.0)
3/8	3/8	FT6	1.82 (46.2)	0.27 (6.9)	0.93 (23.6)
1/2	1/2	FT8	2.22 (56.4)	0.37 (9.4)	1.05 (26.7)
3/4	3/4	FT12	2.35 (59.7)	0.58 (14.7)	1.38 (35.1)
1	1	FT16	2.69 (68.3)	0.80 (20.3)	1.69 (42.9)
mm	in.	—	mm (in.)		
6	1/4	MT6	44.4 (1.75)	4.1 (0.16)	19.0 (0.75)
10	3/8	MT10	47.0 (1.85)	7.1 (0.28)	23.5 (0.93)
12	1/2	MT12	57.2 (2.25)	8.9 (0.35)	26.7 (1.05)

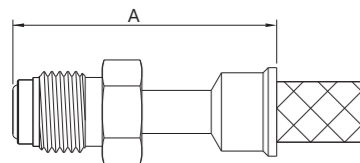
Tube Fittings



Tube Fitting Size	Nominal Hose Size	End Connection Designator	Dimensions		
			A	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.		in. (mm)		
1/4	1/4	S4	1.94 (49.3)	0.19 (4.8)	0.95 (24.1)
3/8	1/4	S6	2.00 (50.8)	0.28 (7.1)	0.95 (24.1)
3/8	3/8	S6	2.02 (51.3)	0.28 (7.1)	1.09 (27.7)
1/2	1/2	S8	2.24 (56.9)	0.41 (10.4)	1.23 (31.3)
5/8	1/2	S10	2.27 (57.7)	0.50 (12.7)	0.95 (24.1)
3/4	3/4	S12	2.35 (59.7)	0.63 (16.0)	1.74 (44.2)
1	1	S16	2.64 (67.1)	0.88 (22.4)	2.03 (51.6)
1 1/4	1 1/4	S20	4.04 (103)	1.09 (27.7)	2.23 (58.9)
1 1/2	1 1/2	S24	4.75 (121)	1.34 (34.0)	2.61 (66.3)
2	2	S32	5.72 (145)	1.88 (47.8)	3.48 (88.4)
mm	in.	—	mm (in.)		
6	1/4	SM6	62.2 (2.45)	4.8 (0.19)	20.6 (0.81)
8	1/4	SM8	63.2 (2.49)	6.4 (0.25)	20.6 (0.81)
10	3/8	SM10	51.6 (2.03)	7.9 (0.31)	27.9 (1.10)
12	1/2	SM12	56.9 (2.24)	9.7 (0.38)	31.3 (1.23)

Male FR Metal Gasket Face

Seal Fittings Swivel

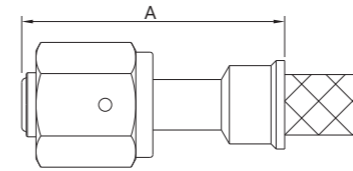


FR Size	Nominal Hose Size	End Connection Designator	Dimensions		
			A	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.		in. (mm)		
1/4	1/4	SFR4	2.60 (66.0)	0.18 (4.6)	0.73 (18.4)
1/2	1/2	SFR8	2.83 (71.9)	0.40 (10.2)	1.09 (27.7)
3/4	3/4	SFR12	4.19 (106)	0.65 (16.5)	1.52 (38.7)
1	1	SFR16	4.80 (122)	0.87 (22.1)	1.89 (47.9)

End Connections

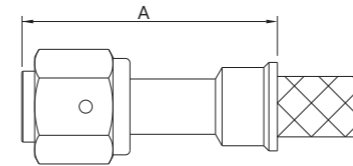
Female FR Metal Gasket Face

Seal Fittings Swivel

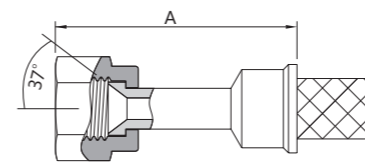


Female FO O-Ring Face

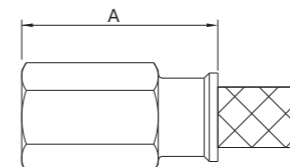
Seal Fittings Swivel



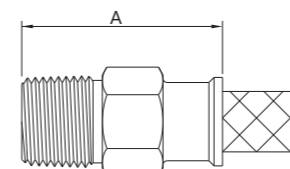
SAE 37° (JIC) Female Swivel



Female Pipe Threads, NPT



Male Pipe Threads, NPT



FR Size	Nominal Hose Size	End Connection Designator	Dimensions		
			A	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.		in. (mm)		
1/4	1/4	SFFR4	2.00 (50.8)	0.18 (4.6)	0.87 (22.1)
1/2	1/2	SFFR8	2.16 (54.9)	0.40 (10.2)	1.23 (31.3)
3/4	3/4	SFFR12	4.19 (106)	0.65 (16.5)	1.74 (44.2)
1	1	SFFR16	4.80 (122)	0.87 (22.1)	2.03 (51.6)

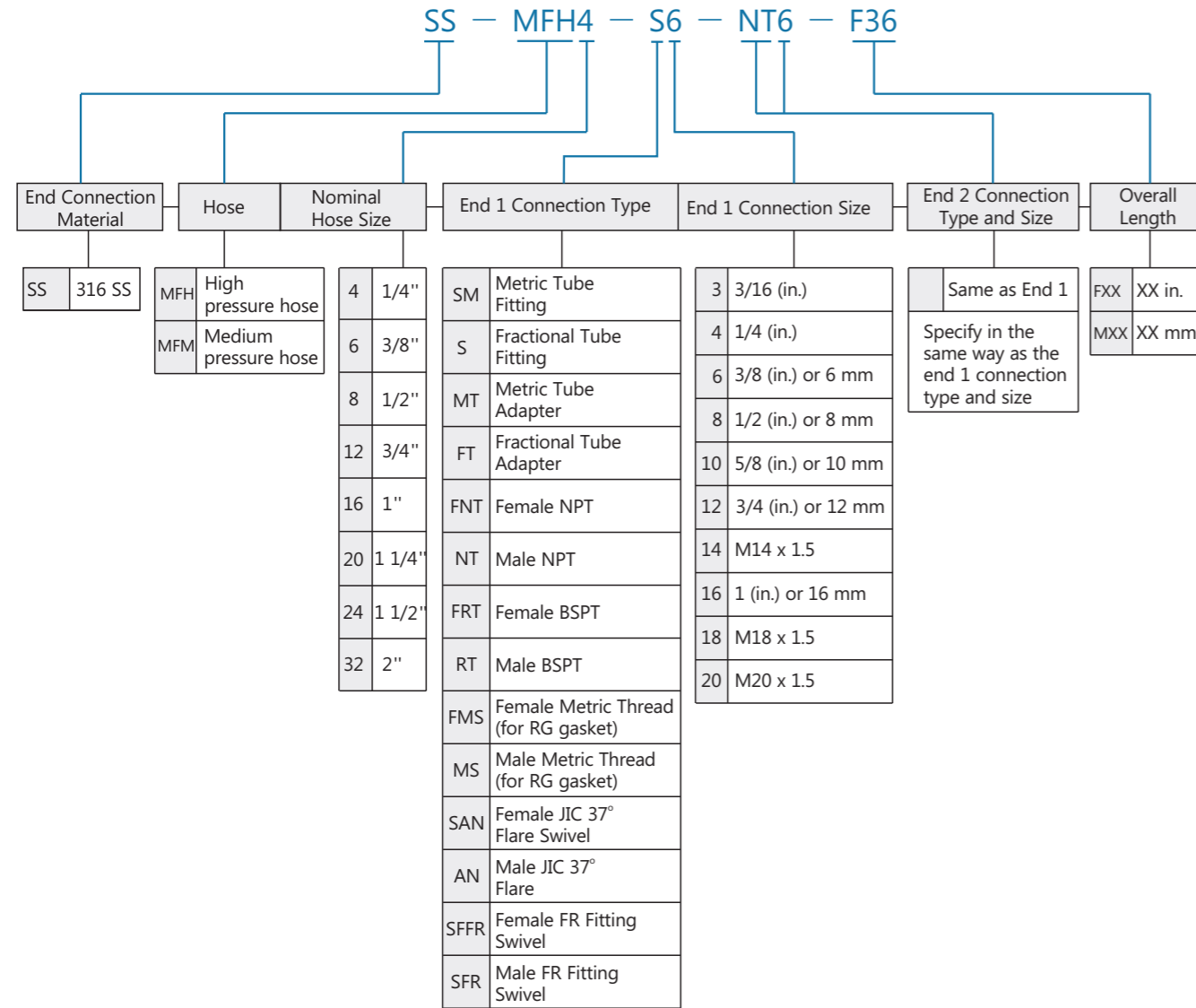
FO Size	Nominal Hose Size	End Connection Designator	Dimensions		
			A	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.		in. (mm)		
1/4	1/4	SFFO4	2.11 (53.6)	0.18 (4.6)	0.80 (20.3)
1/2	1/2	SFFO8	2.14 (54.4)	0.40 (10.2)	1.16 (29.5)

Swivel Size	Nominal Hose Size	End Connection Designator	Dimensions		
			A	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.		in. (mm)		
1/4	1/4	SAN4	1.87 (47.5)	0.17 (4.3)	0.94 (23.9)
3/8	3/8	SAN6	1.98 (50.3)	0.28 (7.1)	1.09 (27.7)
1/2	1/2	SAN8	2.25 (57.2)	0.42 (10.7)	1.23 (31.3)

NPT Size	Nominal Hose Size	End Connection Designator	Dimensions		
			A	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.		in. (mm)		
1/4	1/4	FNT4	1.81 (46.0)	0.28 (7.1)	0.94 (23.9)
3/8	3/8	FNT6	1.87 (47.5)	0.38 (9.7)	1.09 (27.7)
1/2	1/2	FNT8	2.18 (55.4)	0.47 (11.9)	1.23 (31.3)
3/4	3/4	FNT12	2.21 (56.1)	0.72 (18.3)	1.74 (44.2)

NPT Size	Nominal Hose Size	End Connection Designator	Dimensions		
			A	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.		in. (mm)		
1/4	1/4	NT4	1.80 (45.7)	0.28 (7.1)	0.94 (23.9)
1/4	3/8	NT4	1.81 (46.0)	0.28 (7.1)	1.09 (27.7)
3/8	3/8	NT6	1.81 (46.0)	0.38 (9.7)	1.09 (27.7)
1/2	1/4	NT8	1.99 (50.6)	0.47 (11.9)	1.02 (25.8)
1/2	1/2	NT8	2.15 (54.6)	0.47 (11.9)	1.23 (31.3)
3/4	3/4	NT12	2.22 (56.4)	0.63 (16.0)	1.74 (44.2)
1	1	NT16	2.54 (64.5)	0.88 (22.4)	2.03 (51.6)
1 1/4	1 1/4	NT20	3.06 (77.7)	1.09 (27.7)	2.03 (51.6)
1 1/2	1 1/2	NT24	3.72 (94.5)	1.34 (34.0)	2.47 (62.6)
2	2	NT32	4.19 (106)	1.81 (46.0)	3.19 (81.0)

Ordering Information



Example: SS-MFH4-FT6-M710

SS: End connection material is 316 stainless steel.

MFH4: MFH series, hose size is 1/4".

FT6: End 1 connection type and size is 3/8" tube adapter.

End 2 connection type and size is 3/8" tube adapter.

M710: Overall length is 710 mm.

End 1 and end 2 follow the orders and regulations below:

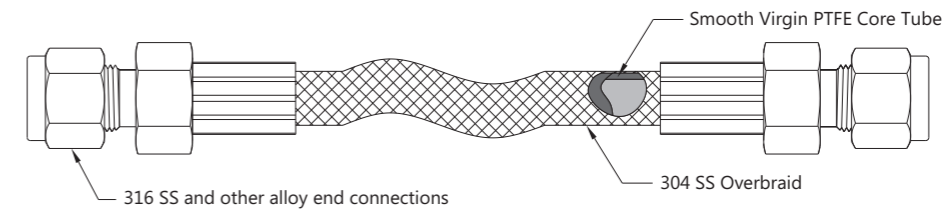
1. Metric Double Ferrules - Fractional Double Ferrules - Metric Tube Adapters - Fractional Tube Adapters - NPT Threads - BSPT Threads - BSPP Threads -SAE/MS Parallel Threads - 37° Flare - Others
2. Put the sizes from the biggest down to the smallest if they are of the same type.
3. Put the female before male if they are of the same type and size.

PTFE-lined, Stainless Steel Braided Hoses

PTH Series (High-pressure)

Features

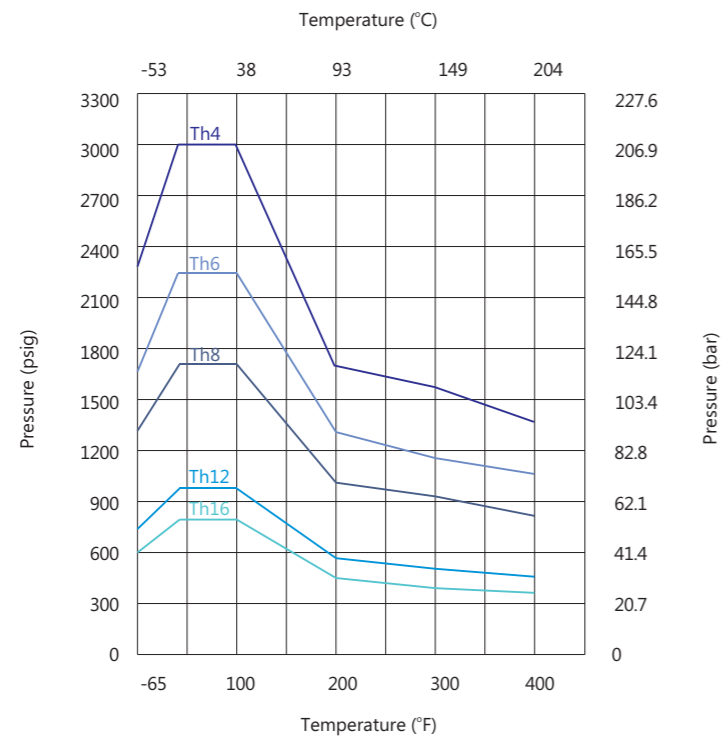
- Commonly used where chemical compatibility and permeation resistance is desired
- Lightweight construction for easy handling and installation
- Core tube material: smooth virgin PTFE
- Overbraid material: single braid layer of 304 stainless steel
- Maximum working pressure: 3000 psig (206 bar)
- Hose size: 1/4" to 1"
- Working temperature: -65°F to 450°F (-53°C to 230°C)
- Standard and custom-length available



Hose Technical Data

Nominal Hose Size	Inside Diameter	Min. Inside Bend Radius		Temperature Range	Working Pressure at 70°F (20°C)	Burst Pressure at 70°F (20°C)
		Static	Dynamic			
in. (mm)	in. (mm)	in. (mm)	in. (mm)	°F (°C)	psig (bar)	psig (bar)
1/4 (6.4)	0.19 (4.8)	1.5 (38.1)	2.0 (50.8)	-65 to 450 (-53 to 230)	3000 (206)	12000 (826)
3/8 (9.5)	0.31 (7.9)	3.5 (88.9)	5.0 (127)		2500 (172)	10000 (689)
1/2 (12.7)	0.41 (10.3)	4.5 (114)	6.0 (152)		2000 (137)	8000 (551)
3/4 (19.0)	0.63 (15.9)	6.0 (152)	7.5 (190)		1500 (103)	6000 (413)
1 (25.4)	0.88 (22.2)	9.0 (229)	11.3 (287)		1000 (68)	4000 (275)

Pressure vs. Temperature



Testing

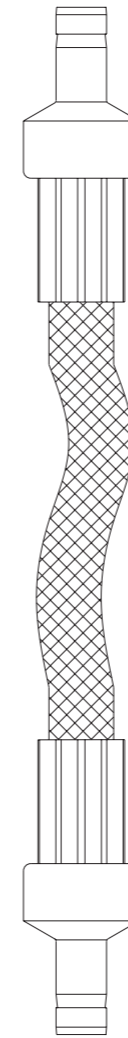
Every FD-LOK PTFE-lined hose assembly is factory tested with pure water at 1.5 times the maximum working pressure.

Cleaning and Packaging

FD-LOK PTFE-lined hose components are cleaned in accordance with FD-LOK standard cleaning (FC-01) for general industrial procedures.

Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.

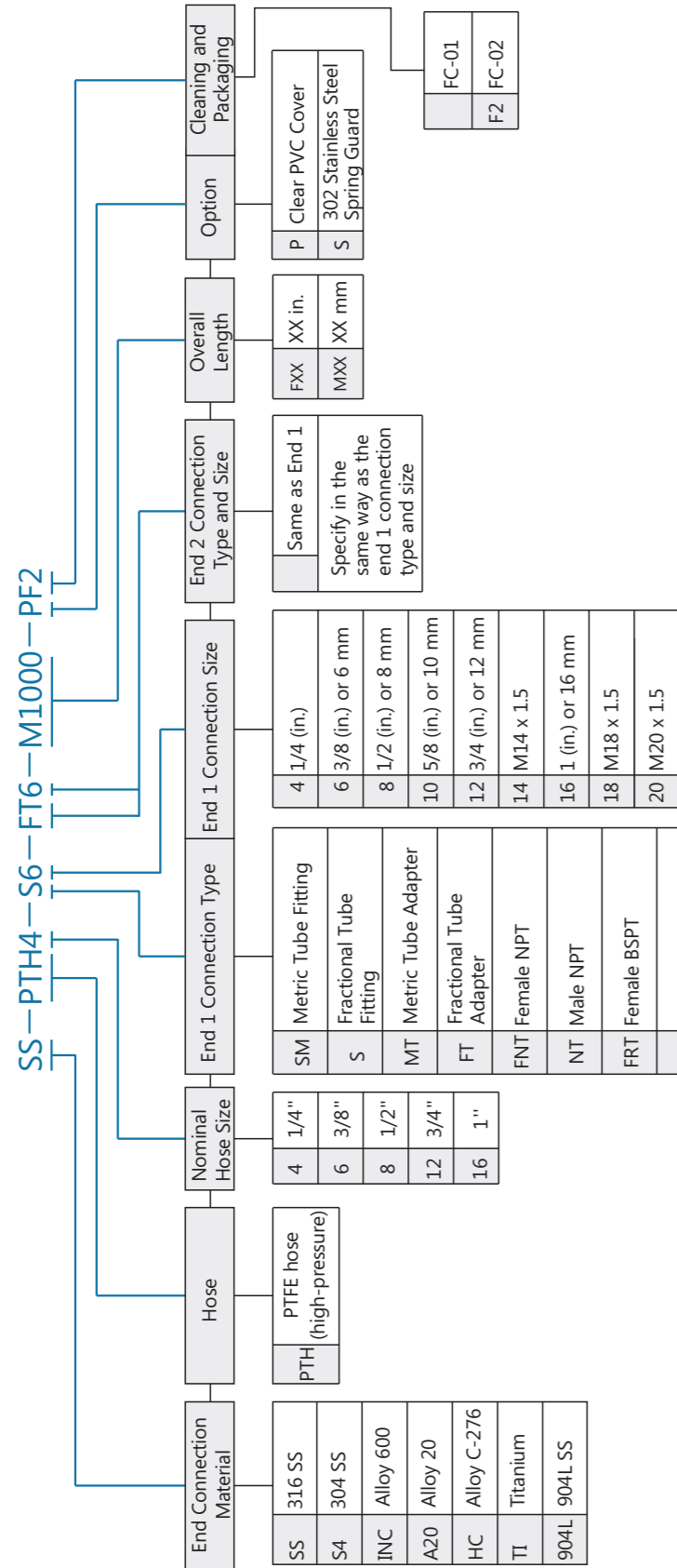
PTFE-lined Hose Standard Assemblies



Tube Adapters

Nominal Hose Size	Tube Adapter Size	Overall Length	Ordering Number	Minimum Inside Diameter	Maximum Outside Diameter
in.	in.	in.(mm)		in.(mm)	in.(mm)
1/4	1/4	6.0 (153)	SS-PTH4-FT4-F6	0.16 (4.1)	0.54 (13.7)
		12.0 (305)	SS-PTH4-FT4-F12		
		18.0 (458)	SS-PTH4-FT4-F18		
		24.0 (610)	SS-PTH4-FT4-F24		
		36.0 (915)	SS-PTH4-FT4-F36		
		48.0 (1220)	SS-PTH4-FT4-F48		
		60.0 (1530)	SS-PTH4-FT4-F60		
		72.0 (1829)	SS-PTH4-FT4-F72		
		120.0 (3050)	SS-PTH4-FT4-F120		
3/8	3/8	12.0 (305)	SS-PTH6-FT6-F12	0.27 (6.9)	0.73 (18.5)
		18.0 (458)	SS-PTH6-FT6-F18		
		24.0 (610)	SS-PTH6-FT6-F24		
		36.0 (915)	SS-PTH6-FT6-F36		
		48.0 (1220)	SS-PTH6-FT6-F48		
		60.0 (1530)	SS-PTH6-FT6-F60		
		72.0 (1829)	SS-PTH6-FT6-F72		
		96.0 (2439)	SS-PTH6-FT6-F96		
		120.0 (3050)	SS-PTH6-FT6-F120		
1/2	1/2	12.0 (305)	SS-PTH8-FT8-F12	0.36 (9.1)	0.86 (21.8)
		24.0 (610)	SS-PTH8-FT8-F24		
		36.0 (915)	SS-PTH8-FT8-F36		
		48.0 (1220)	SS-PTH8-FT8-F48		
		60.0 (1530)	SS-PTH8-FT8-F60		
		72.0 (1829)	SS-PTH8-FT8-F72		
3/4	3/4	24.0 (610)	SS-PTH12-FT12-F24	0.53 (13.5)	1.04 (26.4)
		36.0 (915)	SS-PTH12-FT12-F36		
1	1	36.0 (915)	SS-PTH16-FT16-F36	0.80 (20.3)	1.36 (34.5)
		48.0 (1220)	SS-PTH16-FT16-F48		
in.	mm	in.(mm)	—	in.(mm)	in.(mm)
1/4	6	12.0 (305)	SS-PTH4-MT6-F12	0.16 (4.1)	0.54 (13.7)
		24.0 (610)	SS-PTH4-MT6-F24		
		36.0 (915)	SS-PTH4-MT6-F36		
1/2	12	24.0 (610)	SS-PTH8-MT12-F24	0.33 (8.4)	0.86 (21.8)
		36.0 (915)	SS-PTH8-MT12-F36		

1. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact the authorized representative or FD-LOK.
2. Sizes and types listed are standard. Other sizes and types are available on request, refer to the ordering information.



Example: SS-PTH4-SAN4-M500
 SS: End connection material is 316 stainless steel.
 PTH4: PTH series, hose inside diameter is 3/16".
 SAN4: End 1 connection type and size is 1/4" fitting size, female JIC 37° flare swivel.
 End 2 connection type and size is 1/4" fitting size, female JIC 37° flare swivel.
 M500: Overall length is 500 mm.

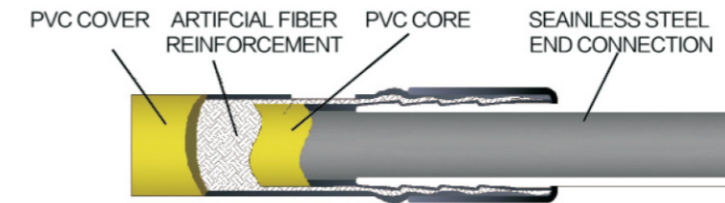
- Options and accessories do not change hose technical data. Hose operating parameters must be considered when selecting a cover.
 - Lucid PVC cover resists abrasion.
 - 302 stainless steel spring guard covers entire hose to protect against kinking and abrasion.
 - To order a hose assembly with special cleaning and packaging (FC-02), following ASTM G93 level C, add -F2 as a suffix to the ordering number.
 Example: SS-PTH4-F24-F2.
- End 1 and end 2 follow the orders and regulations below:
- Metric Double Ferrules - Fractional Double Ferrules - Metric Tube Adapters - Fractional Tube Adapters - NPT Threads - BSPT Threads - BSPP Threads - SAE/MS Parallel Threads - 37 Flare - Others
 - Put the sizes from the biggest down to the smallest if they are of the same type.
 - Put the female before male if they are of the same type and size.

Polyvinyl Chloride Hoses

PD Series

Features

- Cover: Polyvinyl Chloride
- Reinforcement: single-braid high-strength synthetic fiber woven for maximum strength and end connection retention
- Core tube: Polyvinyl Chloride
- Hose colors: blue, black, red and yellow
- Maximum working pressure: 725 psig (50 bar)
- Hose size: 1/4" to 1"
- Working temperature: 5°F to 185°F (-15°C to 85°C)
- End connection materials: stainless steel and brass
- End connections reusable
- Custom-length available



Hose Technical Data

Nominal Hose Size	Inside Diameter	Temperature Range	Working Pressure at -40 to 70°F (-40 to 20°C)	Min. Burst Pressure at 70°F (20°C)
in. (mm)	in. (mm)	°F(°C)	psig (bar)	psig (bar)
1/4 (6.4)	0.26 (6.6)	-40 to 200 (-40 to 93)	725 (50.0)	2320 (160)
3/8 (9.5)	0.39 (9.9)			
1/2 (12.7)	0.50 (12.7)	580 (40.0)	580 (40.0)	1740 (120)
3/4 (19.0)	0.76 (19.3)			
1 (25.4)	1 (25.4)			

Testing

Every FD-LOK PVC hose assembly is factory tested with pure water at 1.5 times the maximum working pressure.

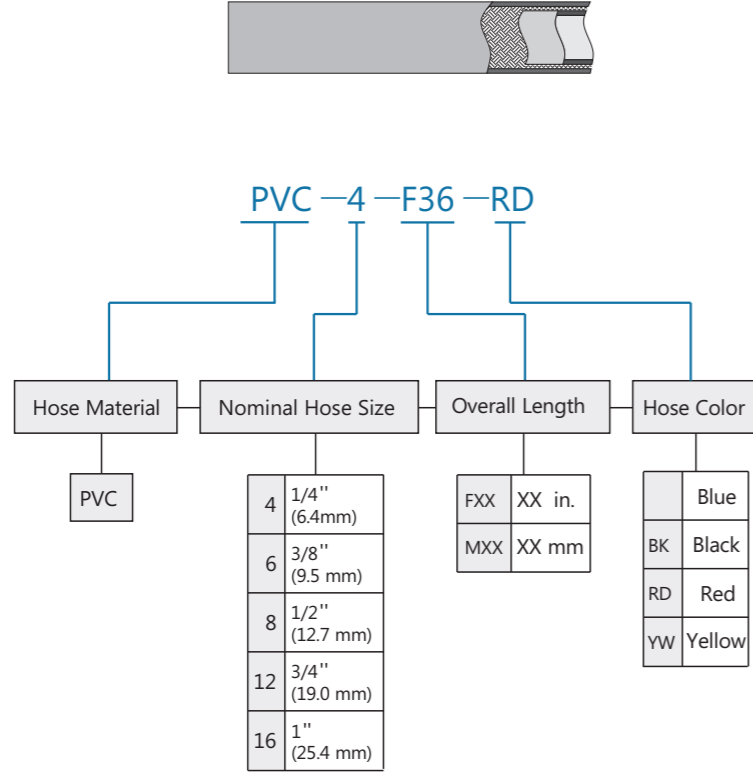
Cleaning and Packaging

FD-LOK PVC hose components are cleaned in accordance with FD-LOK standard cleaning (FC-01) for general industrial procedures. Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.

Caution:

- Do not reuse hose.

Hose Ordering Information



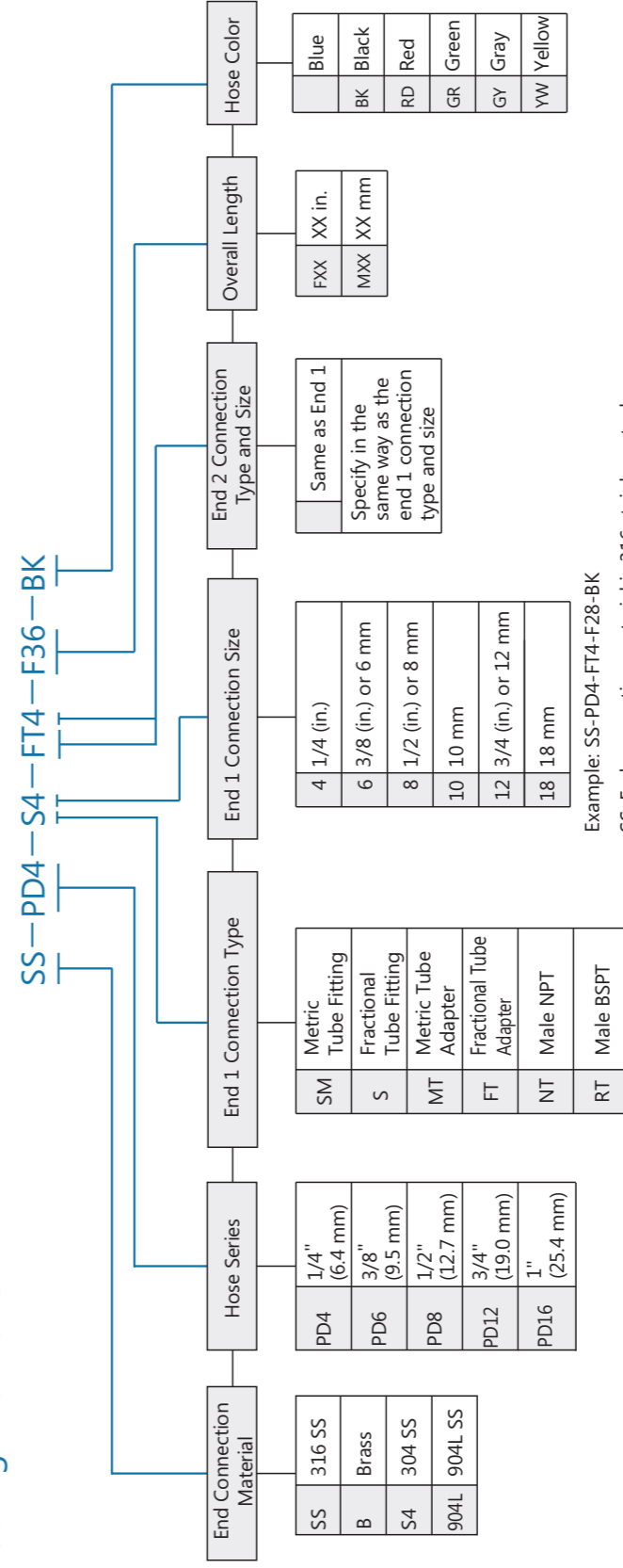
Example: PVC-8-F60-BK
 PVC: Hose Material
 8: Hose size is 1/2".
 F60: Overall length is 60".
 BK: Hose color is black.



Multipurpose Push-On Hose Custom Assemblies



Ordering Information



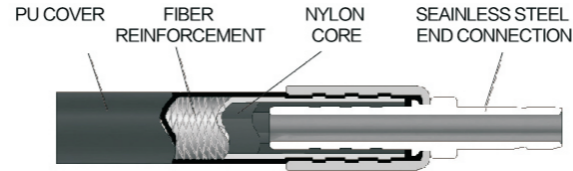
Example: SS-PD4-FT4-F28-BK
 SS: End connection material is 316 stainless steel.
 PD4: PD series, hose size is 1/4".
 FT4: End 1 connection type and size is 1/4" tube adapter.
 End 2 connection type and size is 1/4" tube adapter.
 F28: Overall length is 28".
 BK : Hose color is black.
 End 1 and end 2 follow the orders and regulations below:
 1. Metric Double Ferrules - Fractional Double Ferrules - Metric Tube Adapters - Fractional Tube Adapters - NPT Threads - BSPT Threads - SAE/MS Parallel Threads - 37° Flare - Others
 2. Put the sizes from the biggest down to the smallest if they are of the same type.
 3. Put the female before male if they are of the same type and size.

Thermoplastic Hoses

NYH Series

Features

- Nonconductive and anti-radiation
- Low temperature resistance
- Polyurethane cover: resists oil, weather and abrasion
- Reinforcement: double-braid high-strength synthetic fiber
- Core tube: nylon
- Maximum working pressure: 5000 psig (345 bar)
- Hose size: 3/16" to 1"
- Working temperature: -40°F to 200°F (-40°C to 93°C)
- End connections: 1/4" to 1" thread, 1/4" to 1" and 6 mm to 22 mm tube fitting
- End connection materials: stainless steel, brass and carbon steel
- Custom-length available



Technical Data

Thermoplastic Hydraulic Hose (SAE 100R7)

Nominal Hose Size	Hose Series	Min. Inside Bend Radius	Inside Diameter	Temperature Range	Working Pressure at 70°F (20°C)	Min. Burst Pressure at 70°F (20°C)	Specification
in. (mm)		in. (mm)	in. (mm)	°F (°C)	psig (bar)	psig (bar)	
3/16 (4.8)	NYH3	1.58 (40)	0.19 (4.8)	-40 to 200 (-40 to 93)	3000 (207)	12000 (828)	SAE J517 100R7
1/4 (6.4)	NYH4	1.97 (50)	0.25 (6.4)		2750 (189)	11000 (758)	
5/16 (8.0)	NYH5	2.36 (60)	0.31 (7.9)		2500 (173)	10000 (689)	
3/8 (9.6)	NYH6	2.95 (75)	0.38 (9.8)		2250 (155)	9000 (620)	
1/2 (12.7)	NYH8	3.74 (95)	0.50 (12.7)		2000 (137)	8000 (551)	

Thermoplastic Hydraulic Hose (SAE 100R8)

Nominal Hose Size	Hose Series	Min. Inside Bend Radius	Inside Diameter	Temperature Range	Working Pressure at 70°F (20°C)	Min. Burst Pressure at 70°F (20°C)	Specification
in. (mm)		in. (mm)	in. (mm)	°F (°C)	psig (bar)	psig (bar)	
3/16 (4.8)	NYH3	2.00 (50.8)	0.19 (4.8)	-40 to 200 (-40 to 93)	5000 (344)	20000 (1378)	SAE J517 100R8
1/4 (6.4)	NYH4	2.00 (50.8)	0.25 (6.4)		5000 (344)	20000 (1378)	
3/8 (9.6)	NYH6	2.50 (63.5)	0.38 (9.8)		4000 (275)	16000 (1102)	
1/2 (12.7)	NYH8	4.00 (102)	0.50 (12.7)		3500 (241)	14000 (964)	
3/4 (19.0)	NYH12	6.50 (165)	0.75 (19.0)		2250 (155)	9000 (620)	
1 (25.4)	NYH16	10.0 (254)	1.00 (25.4)		2000 (137)	8000 (551)	

Testing

Every FD-LOK thermoplastic hose assembly is factory tested with pure water at 1.5 times the maximum working pressure.

Cleaning and Packaging

FD-LOK thermoplastic hose components are cleaned in accordance with FD-LOK standard cleaning (FC-01) for general industrial procedures.

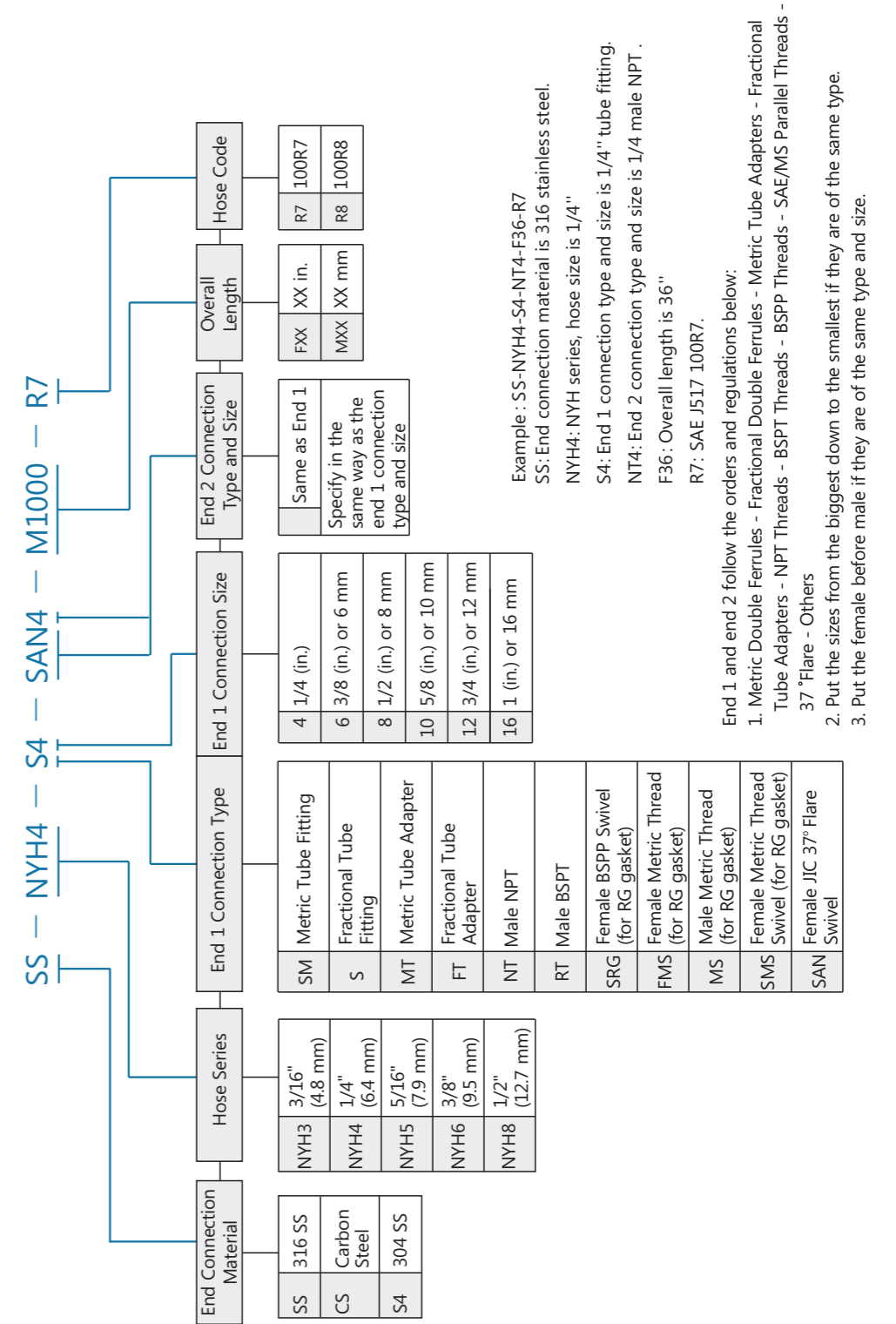
Shorter hoses are packed in cartons with suitable protective material, longer hoses are coiled, bagged and boxed or crated.



Thermoplastic Hose Assemblies



Ordering Information



Hose Connectors and Sleeves

HCS Series

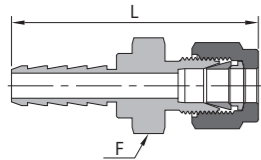
Features

- Used to connect soft plastic or rubber tubing.
- Working pressures and working temperatures are wider than those of the connected hoses.
- Stainless steel or brass is available.
- Shank design holds tubing inside diameter securely.
- Hose connectors are reusable.



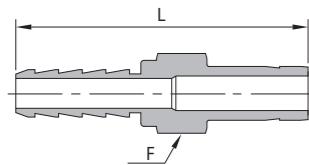
Hose Connectors

Tube Fittings



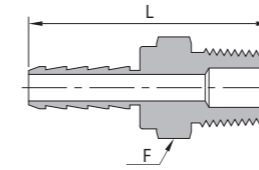
Hose ID	Tube Size	Basic Ordering Number	Dimensions		
			Minimum Inside Diameter in.(mm)	F in.	L in.(mm)
in.	in.				
1/8	1/8	-HCS-F2-S2	0.08 (2.0)	7/16	1.42 (36.1)
1/4	1/8	-HCS-F4-S2	0.09 (2.3)	7/16	1.81 (46.0)
	1/4	-HCS-F4-S4	0.19 (4.8)	9/16	1.92 (48.8)
3/8	1/4	-HCS-F6-S4	0.19 (4.8)	9/16	1.99 (50.6)
	3/8	-HCS-F6-S6	0.28 (7.1)	3/4	2.06 (52.3)
1/2	1/2	-HCS-F8-S8	0.38 (9.7)	7/8	2.24 (56.9)
mm	mm		mm (in.)	mm	mm (in.)
6	6	-HCS-M6-SM6	4.8 (0.19)	14	49.5 (1.95)
8	8	-HCS-M8-SM8	6.4 (0.25)	16	49.8 (1.96)
	10	-HCS-M8-SM10	6.4 (0.25)	18	51.6 (2.03)
10	10	-HCS-M10-SM10	7.9 (0.31)	19	52.3 (2.06)
12	12	-HCS-M12-SM12	9.7 (0.38)	22	57.4 (2.26)

Tube Adapters



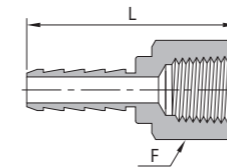
Hose ID	Tube Size	Basic Ordering Number	Dimensions		
			Minimum Inside Diameter in.(mm)	F in.	L in.(mm)
in.	in.				
1/8	1/8	-HCS-F2-FT2	0.08 (2.0)	5/16	1.37 (34.8)
	1/4	-HCS-F2-FT4	0.09 (2.3)	3/8	1.47 (37.3)
1/4	1/4	-HCS-F4-FT4	0.19 (4.8)	7/16	1.86 (47.2)
	3/8	-HCS-F4-FT6	0.19 (4.8)	7/16	1.92 (48.8)
5/16	1/4	-HCS-F5-FT4	0.19 (4.8)	7/16	1.94 (49.3)
3/8	1/4	-HCS-F6-FT4	0.19 (4.8)	9/16	1.94 (49.3)
	3/8	-HCS-F6-FT6	0.28 (7.1)	9/16	2.00 (50.8)
	1/2	-HCS-F6-FT8	0.30 (7.6)	5/8	2.26 (57.4)
1/2	3/8	-HCS-F8-FT6	0.28 (7.1)	11/16	2.07 (52.6)
	1/2	-HCS-F8-FT8	0.38 (9.7)	11/16	2.33 (59.2)
3/4	3/4	-HCS-F12-FT12	0.63 (16.0)	13/16	2.50 (63.5)
1	1	-HCS-F16-FT16	0.80 (20.3)	1 3/8	3.03 (77.0)

Male NPT



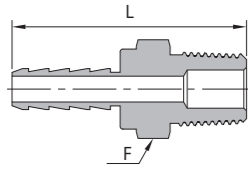
Hose ID	NPT Size	Basic Ordering Number	Dimensions		
			Minimum Inside Diameter in.(mm)	F in.	L in.(mm)
in.					
1/8	1/8	-HCS-F2-NT2	0.08 (2.0)	7/16	1.08 (27.4)
	1/4	-HCS-F2-NT4	0.08 (2.0)	9/16	1.26 (32.0)
3/16	1/8	-HCS-F3-NT2	0.13 (3.3)	7/16	1.27 (32.2)
	1/4	-HCS-F3-NT4	0.13 (3.3)	9/16	1.45 (36.8)
1/4	1/8	-HCS-F4-NT2	0.19 (4.8)	7/16	1.47 (37.3)
	1/4	-HCS-F4-NT4	0.19 (4.8)	9/16	1.65 (41.9)
	3/8	-HCS-F4-NT6	0.19 (4.8)	11/16	1.66 (42.2)
	1/2	-HCS-F4-NT8	0.19 (4.8)	7/8	1.85 (47.0)
5/16	1/8	-HCS-F5-NT2	0.19 (4.8)	7/16	1.55 (39.4)
	1/4	-HCS-F5-NT4	0.19 (4.8)	9/16	1.73 (43.9)
	3/8	-HCS-F5-NT6	0.19 (4.8)	11/16	1.74 (44.2)
	1/2	-HCS-F5-NT8	0.19 (4.8)	7/8	1.96 (49.8)
3/8	1/4	-HCS-F6-NT4	0.30 (7.6)	9/16	1.73 (43.9)
	3/8	-HCS-F6-NT6	0.30 (7.6)	11/16	1.74 (44.2)
	1/2	-HCS-F6-NT8	0.30 (7.6)	7/8	1.96 (49.8)
1/2	1/4	-HCS-F8-NT4	0.30 (7.6)	11/16	1.80 (45.7)
	3/8	-HCS-F8-NT6	0.38 (9.7)	11/16	1.81 (46.0)
	1/2	-HCS-F8-NT8	0.38 (9.7)	7/8	2.03 (51.6)
5/8	3/8	-HCS-F10-NT6	0.38 (9.7)	1 1/16	1.88 (47.8)
	1/2	-HCS-F10-NT8	0.47 (11.9)	1 1/16	2.07 (52.6)
	3/4	-HCS-F10-NT12	0.50 (12.7)	1 1/16	2.07 (52.6)
3/4	1/2	-HCS-F12-NT8	0.47 (11.9)	1 1/16	2.14 (54.4)
	3/4	-HCS-F12-NT12	0.63 (16.0)	1 1/16	2.14 (54.4)
	1	-HCS-F12-NT16	0.63 (16.0)	1 3/8	2.43 (61.7)
1	3/4	-HCS-F16-NT12	0.63 (16.0)	1 3/8	2.38 (60.5)
	1	-HCS-F16-NT16	0.88 (22.4)	1 3/8	2.57 (65.3)

Female NPT



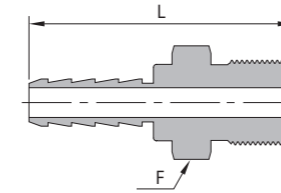
Hose ID	NPT Size	Basic Ordering Number	Dimensions		
			Minimum Inside Diameter in.(mm)	F in.	L in.(mm)
in.					
1/8	1/8	-HCS-F2-FNT2	0.08 (2.0)	9/16	1.11 (28.2)
	1/4	-HCS-F2-FNT4	0.08 (2.0)	3/4	1.26 (32.0)
3/16	1/8	-HCS-F3-FNT2	0.13 (3.3)	9/16	1.29 (32.8)
	1/4	-HCS-F3-FNT4	0.13 (3.3)	3/4	1.44 (36.6)
1/4	1/8	-HCS-F4-FNT2	0.19 (4.8)	9/16	1.47 (37.3)
	1/4	-HCS-F4-FNT4	0.19 (4.8)	3/4	1.64 (41.7)
5/16	3/8	-HCS-F4-FNT6	0.19 (4.8)	7/8	1.71 (43.4)
	1/4	-HCS-F5-FNT4	0.19 (4.8)	3/4	1.73 (43.9)
3/8	3/8	-HCS-F5-FNT6	0.19 (4.8)	7/8	1.82 (46.2)
	1/4	-HCS-F6-FNT4	0.30 (7.6)	3/4	1.69 (42.9)
1/2	3/8	-HCS-F6-FNT6	0.30 (7.6)	7/8	1.78 (45.2)
	1/2	-HCS-F6-FNT8	0.30 (7.6)	1 1/16	2.03 (51.6)
1/2	1/2	-HCS-F8-FNT8	0.38 (9.7)	1 1/16	2.13 (54.1)

Male BSPT



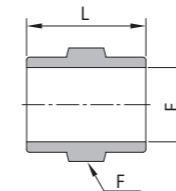
Hose ID	BSPT Size	Basic Ordering Number	Dimensions		
			Minimum Inside Diameter in.(mm)	F in.	L in.(mm)
1/8	1/8	-HCS-F2-RT2	0.08 (2.0)	7/16	1.28 (32.5)
	1/4	-HCS-F2-RT4	0.08 (2.0)	9/16	1.40 (35.5)
3/16	1/8	-HCS-F3-RT2	0.13 (3.3)	7/16	1.40 (35.5)
	1/4	-HCS-F3-RT4	0.13 (3.3)	9/16	1.58 (40.1)
1/4	1/8	-HCS-F4-RT2	0.19 (4.8)	7/16	1.47 (37.3)
	1/4	-HCS-F4-RT4	0.19 (4.8)	9/16	1.65 (41.9)
	3/8	-HCS-F4-RT6	0.19 (4.8)	11/16	1.66 (42.2)
5/16	1/2	-HCS-F4-RT8	0.19 (4.8)	7/8	1.90 (48.3)
	1/8	-HCS-F5-RT2	0.19 (4.8)	7/16	1.67 (42.4)
	1/4	-HCS-F5-RT4	0.19 (4.8)	9/16	1.86 (47.2)
	3/8	-HCS-F5-RT6	0.19 (4.8)	11/16	1.87 (47.5)
3/8	1/2	-HCS-F5-RT8	0.19 (4.8)	7/8	2.10 (53.3)
	1/4	-HCS-F6-RT4	0.30 (7.6)	9/16	1.73 (43.9)
	3/8	-HCS-F6-RT6	0.30 (7.6)	11/16	1.74 (44.2)
1/2	1/2	-HCS-F6-RT8	0.30 (7.6)	7/8	1.96 (49.8)
	1/4	-HCS-F8-RT4	0.30 (7.6)	11/16	1.80 (45.7)
5/8	3/8	-HCS-F8-RT6	0.38 (9.7)	11/16	1.81 (46.0)
	1/2	-HCS-F8-RT8	0.38 (9.7)	7/8	2.03 (51.6)
	3/8	-HCS-F10-RT6	0.38 (9.7)	1 1/16	1.88 (47.8)
3/4	1/2	-HCS-F10-RT8	0.47 (11.9)	1 1/16	2.07 (52.6)
	3/4	-HCS-F10-RT12	0.50 (12.7)	1 1/16	2.07 (52.6)
	1/2	-HCS-F12-RT8	0.47 (11.9)	1 1/16	2.14 (54.4)
1	3/4	-HCS-F12-RT12	0.63 (16.0)	1 1/16	2.14 (54.4)
	1	-HCS-F12-RT16	0.63 (16.0)	1 3/8	2.43 (61.7)
1	3/4	-HCS-F16-RT12	0.63 (16.0)	1 3/8	2.38 (60.5)
	1	-HCS-F16-RT16	0.88 (22.4)	1 3/8	2.57 (65.3)

Metric Thread



Hose ID	Thread Size	Basic Ordering Number	Dimensions		
			Minimum Inside Diameter in.(mm)	F mm	L in.(mm)
6	M10 x 1	-HCS-M6-MS10	4.3 (0.17)	12	39.6 (1.54)
	M12 x 1.5	-HCS-M6-MS12	4.3 (0.17)	14	40.4 (1.59)
	M14 x 1.5	-HCS-M6-MS14	4.3 (0.17)	15	42.2 (1.66)
8	M14 x 1.5	-HCS-M8-MS14	4.8 (0.19)	15	44.2 (1.74)
	M16 x 1.5	-HCS-M8-MS16	4.8 (0.19)	18	46.2 (1.82)
10	M16 x 1.5	-HCS-M10-MS16	7.9 (0.31)	18	46.2 (1.82)
	M18 x 1.5	-HCS-M10-MS18	7.9 (0.31)	19	47.2 (1.86)
12	M20 x 1.5	-HCS-M12-MS20	8.9 (0.35)	22	50.3 (1.98)
	M22 x 1.5	-HCS-M12-MS22	8.9 (0.35)	24	52.8 (2.08)

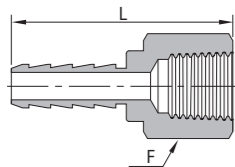
Hose Connector Sleeves



- Material : Aluminum
- Reusable

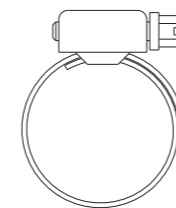
Hose ID	Hose OD in.	Ordering Number	Dimension, in. (mm)		
			E	F	L
1/8	1/4	AL-HCS-F2-F4	0.26 (6.6)	3/8	0.40 (10.2)
1/4	3/8	AL-HCS-F4-F6	0.41 (10.4)	9/16	0.79 (20.1)
1/4	7/16	AL-HCS-F4-F7	0.46 (11.7)	5/8	0.79 (20.1)
1/4	1/2	AL-HCS-F4-F8	0.52 (13.2)	11/16	0.79 (20.1)
5/16	7/16	AL-HCS-F5-F7	0.48 (12.2)	5/8	0.87 (22.1)
3/8	1/2	AL-HCS-F6-F8	0.55 (14.0)	11/16	0.87 (22.1)
3/8	9/16	AL-HCS-F6-F9	0.61 (15.5)	3/4	0.87 (22.1)
7/16	5/8	AL-HCS-F7-F10	0.69 (17.5)	13/16	0.94 (23.9)
1/2	11/16	AL-HCS-F8-F11	0.76 (19.3)	7/8	0.94 (23.9)
3/4	1	AL-HCS-F12-F16	1.10 (27.9)	1 1/4	1.07 (27.2)

Female BSPT



Hose ID	BSPT Size	Basic Ordering Number	Dimensions		
			Minimum Inside Diameter in.(mm)	F in.	L in.(mm)
1/8	1/8	-HCS-F2-FRT2	0.08 (2.0)	9/16	1.11 (28.2)
	1/4	-HCS-F2-FRT4	0.08 (2.0)	3/4	1.26 (32.0)
3/16	1/8	-HCS-F3-FRT2	0.13 (3.3)	9/16	1.29 (32.8)
	1/4	-HCS-F3-FRT4	0.13 (3.3)	3/4	1.44 (36.6)
1/4	1/8	-HCS-F4-FRT2	0.19 (4.8)	9/16	1.47 (37.3)
	1/4	-HCS-F4-FRT4	0.19 (4.8)	3/4	1.64 (41.7)
5/16	3/8	-HCS-F4-FRT6	0.19 (4.8)	7/8	1.71 (43.4)
	1/4	-HCS-F5-FRT4	0.19 (4.8)	3/4	1.73 (43.9)
3/8	3/8	-HCS-F5-FRT6	0.19 (4.8)	7/8	1.82 (46.2)
	1/4	-HCS-F6-FRT4	0.30 (7.6)	3/4	1.69 (42.9)
1/2	3/8	-HCS-F6-FRT6	0.30 (7.6)	7/8	1.78 (45.2)
	1/2	-HCS-F6-FRT8	0.30 (7.6)	1 1/16	2.03 (51.6)
1/2	1/2	-HCS-F8-FRT8	0.38 (9.7)	1 1/16	2.13 (54.1)

Hose Clamps

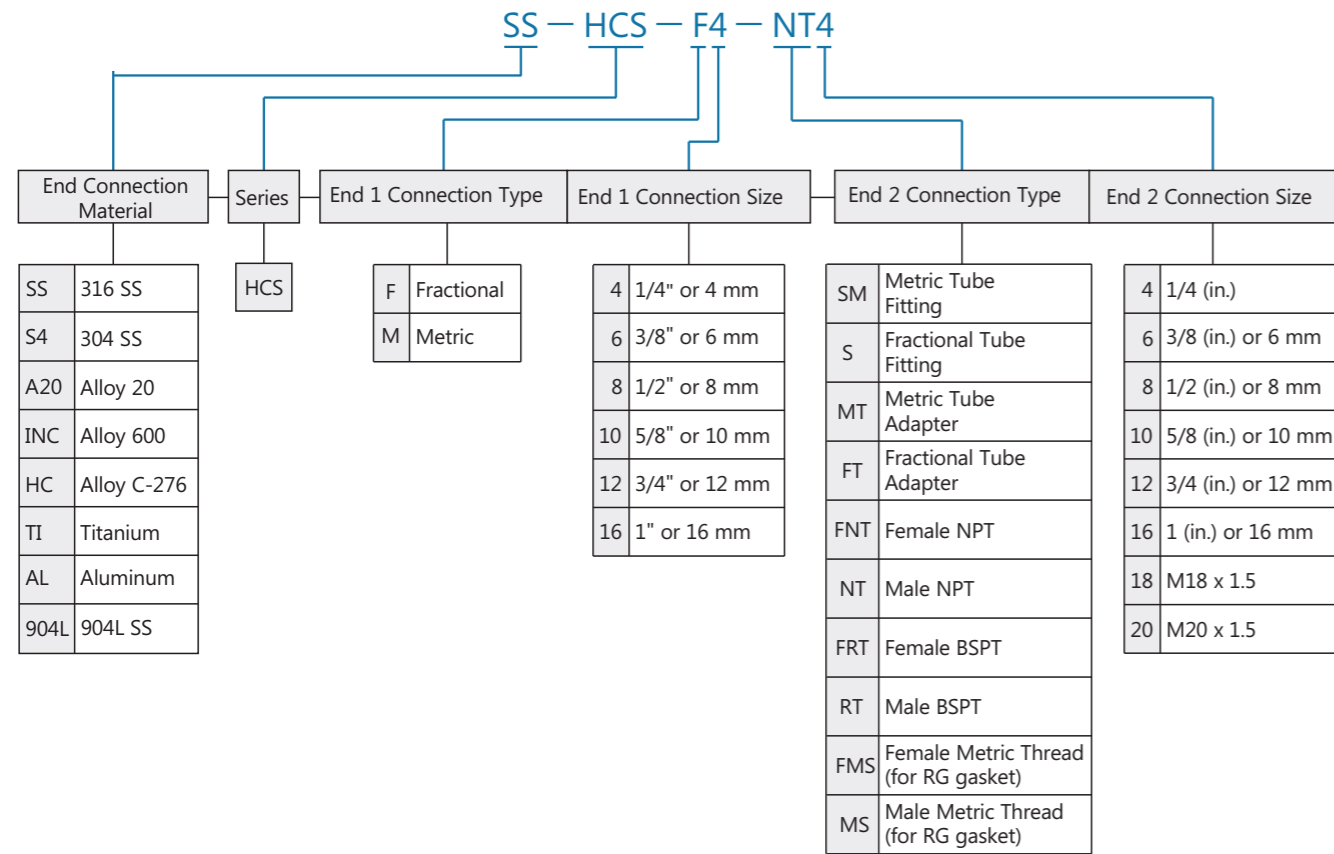


- Material : 304 SS
- Reusable

Min Hose OD mm	Max Hose OD mm	Ordering Number
8	12	CP8-12
10	16	CP10-16
12	20	CP12-20
16	25	CP16-25
20	32	CP20-32
25	40	CP25-40

- Sizes and types listed are standard. Other sizes and types are available upon request, refer to the ordering information.
- All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact the authorized representative or FD-LOK.

Ordering Information



Example: SS-HCS-F4-FT6

SS: End connection material is 316 stainless steel.

HCS: HCS series.

F4: Hose ID is 1/4".

FT6: End 2 connection type and size is 3/8" tube adapter.