

Metal Flexible Hoses

HMF Series

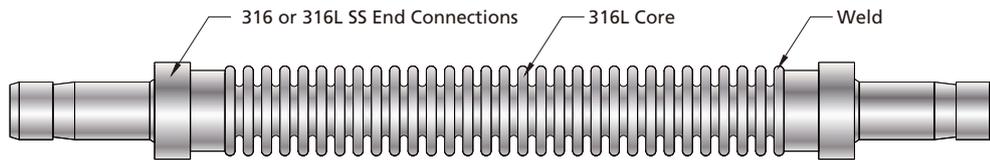


Introduction

HMF Series Metal Flexible Hoses feature an all-metal construction that prevents media permeation, making them ideal for static applications with stringent sealing requirements. These hoses can be manually formed to the desired shape and will retain their form to compensate for pipeline misalignment and vibration under vacuum or low-pressure conditions, thereby improving installation efficiency and overall system reliability.

Features

- ⦿ Core material: 316L stainless steel
- End connection material: 316 or 316L stainless steel
- ⦿ Nominal hose sizes: 1/4" to 1/2"
- ⦿ Working pressure range: Vacuum to 135 psig (9.3 bar)
- ⦿ All-metal construction suitable for applications with strict media permeation requirements
- ⦿ Optional additional helium leak test with a leak rate $\leq 1 \times 10^{-9}$ std-cm³/s
- ⦿ Custom lengths available



Technical Parameters

Nominal Hose Size	Inside Diameter	Outside Diameter	Min. Center Line Bend Radius		Temperature Range	Working Pressure at 70 °F (20 °C)
			Annular Convoluted Core			
			Static	Dynamic ^①		
in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	°F (°C)	psig (bar)
1/4 (6.4)	0.25 (6.4)	0.38 (9.7)	1.00 (25.4)	-	-325 to 1000 (-200 to 537)	135 (9.3)
3/8 (9.7)	0.39 (10.0)	0.59 (15.0)	1.20 (30.5)			70 (4.8)
1/2 (12.7)	0.48 (12.1)	0.73 (18.6)	1.50 (38.1)			70 (4.8)

① Not suitable for dynamic applications

Testing

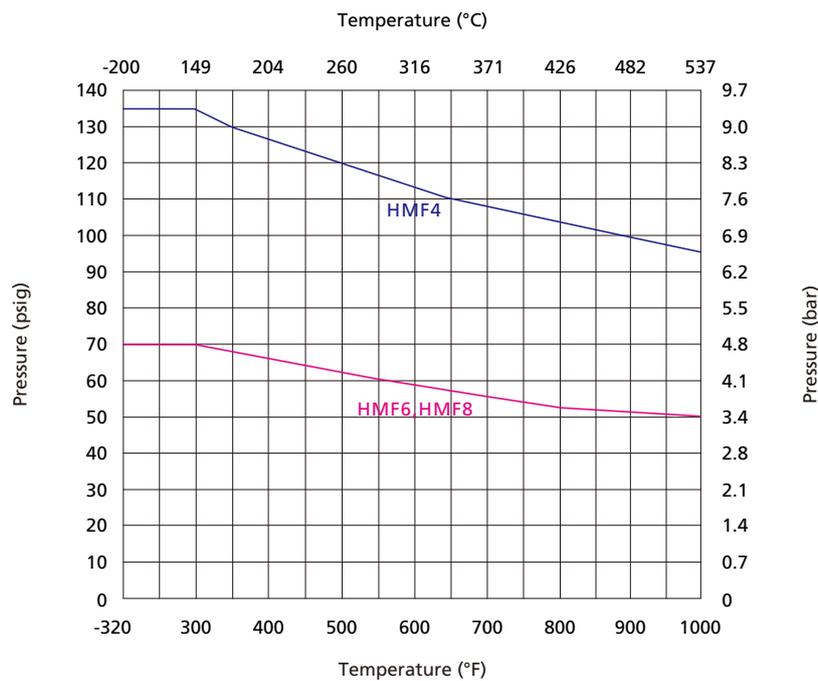
Every FITOK metal flexible hose is factory leak-tested with helium to a maximum leak rate of 1×10^{-7} std·cm³/s. For additional requirements, please contact FITOK Group or our authorized distributors.

Cleaning and Packaging

FITOK metal flexible hoses are cleaned in accordance with the FITOK Standard Cleaning and Packaging Process (FC-01) by default. Products cleaned per the Special Cleaning and Packaging Process (FC-02) are available upon request. Each metal flexible hose is packed in a PC transparent tube or bagged and boxed/crated. Longer hoses are coiled, then bagged and boxed or crated.

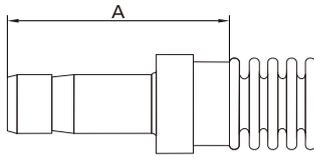
Pressure vs. Temperature

The peak value of pressure fluctuations, vibrations, or pulses in the system must not exceed 50% of the selected flexible hose's rated working pressure.



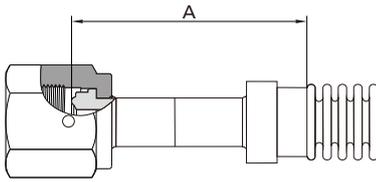
End Connections

Tube Adapters



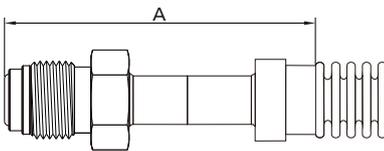
Tube Adapter Size	Nominal Hose Size	End Connection Designator	Dimensions		
			Minimum Inside Diameter	Maximum Outside Dimension	A
in.	in.		in. (mm)		
1/4	1/4	FT4	0.17 (4.3)	0.41 (10.4)	0.96 (24.5)
3/8	3/8	FT6	0.27 (6.8)	0.63 (16.0)	1.03 (26.2)
1/2	1/2	FT8	0.37 (9.4)	0.83 (21.0)	1.30 (33.1)
mm	in.	—	mm (in.)		
6	1/4	MT6	4.1 (0.16)	10.4 (0.41)	24.4 (0.96)
10	3/8	MT10	7.1 (0.28)	16.0 (0.63)	26.2 (1.03)
12	1/2	MT12	8.8 (0.35)	21.0 (0.83)	31.8 (1.25)

Rotatable Female FR Fittings



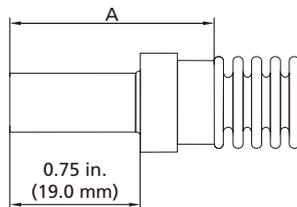
FR Fitting Size	Nominal Hose Size	End Connection Designator	Dimensions		
			Minimum Inside Diameter	Maximum Outside Dimension	A
in.	in.		in. (mm)		
1/4	1/4	SFFR4	0.18 (4.6)	0.87 (22.0)	1.32 (33.5)
1/2	1/2	SFFR8	0.41 (10.4)	1.23 (31.2)	1.38 (35.0)

Rotatable Male FR Fittings



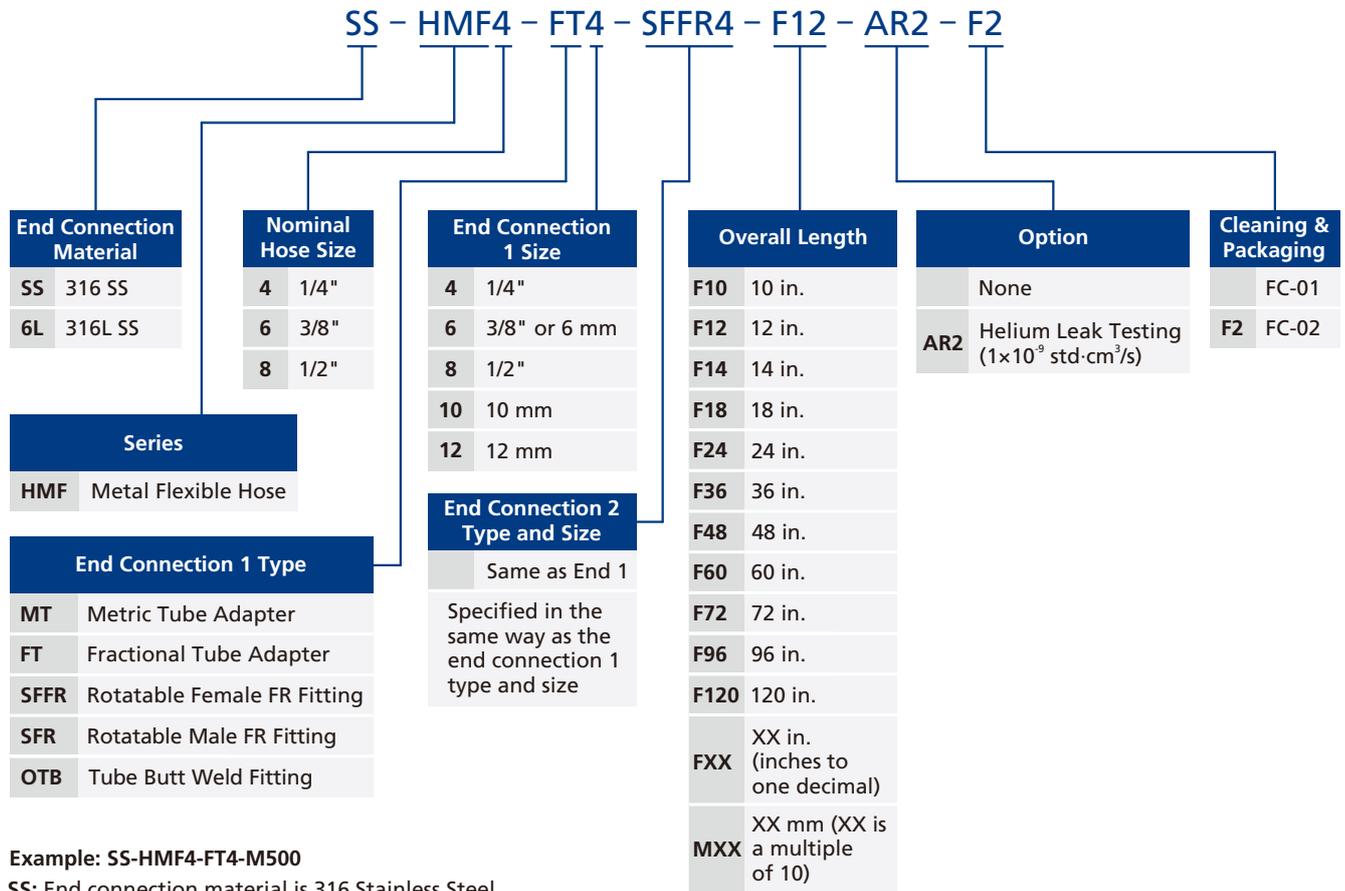
FR Fitting Size	Nominal Hose Size	End Connection Designator	Dimensions		
			Minimum Inside Diameter	Maximum Outside Dimension	A
in.	in.		in. (mm)		
1/4	1/4	SFR4	0.18 (4.6)	0.72 (18.4)	2.04 (51.8)
1/2	1/2	SFR8	0.41 (10.4)	1.08 (27.5)	1.99 (50.5)

Tube Butt Welds



Tube Butt Weld Size	Nominal Hose Size	End Connection Designator	Dimensions		
			Minimum Inside Diameter	Maximum Outside Dimension	A
in.	in.		in. (mm)		
1/4	1/4	OTB4	0.18 (4.6)	0.41 (10.4)	1.09 (27.8)
3/8	3/8	OTB6	0.30 (7.7)	0.63 (16.0)	1.09 (27.8)
1/2	1/2	OTB8	0.40 (10.2)	0.83 (21.0)	1.09 (27.8)

Ordering Number Description



Example: SS-HMF4-FT4-M500

SS: End connection material is 316 Stainless Steel.

HMF4: HMF Series, nominal hose size is 1/4".

FT4: End connection 1 is a 1/4" tube adapter.

End connection 2 is a 1/4" tube adapter.

M500: Overall length is 500 mm

Connections are described based on the following rules:

1. Metric Tube Adapter - Fractional Tube Adapter - FR Fitting - OTB Tube Butt Weld Fitting - Others
2. For connections of the same type, list sizes from largest to smallest.
3. For the same type and size, list female before male.

Note: "Ordering Number Description" is a reference to understand the combination rules of FITOK product part number. Not all combinations are available.