

HOSES

HANDBOOK





Index

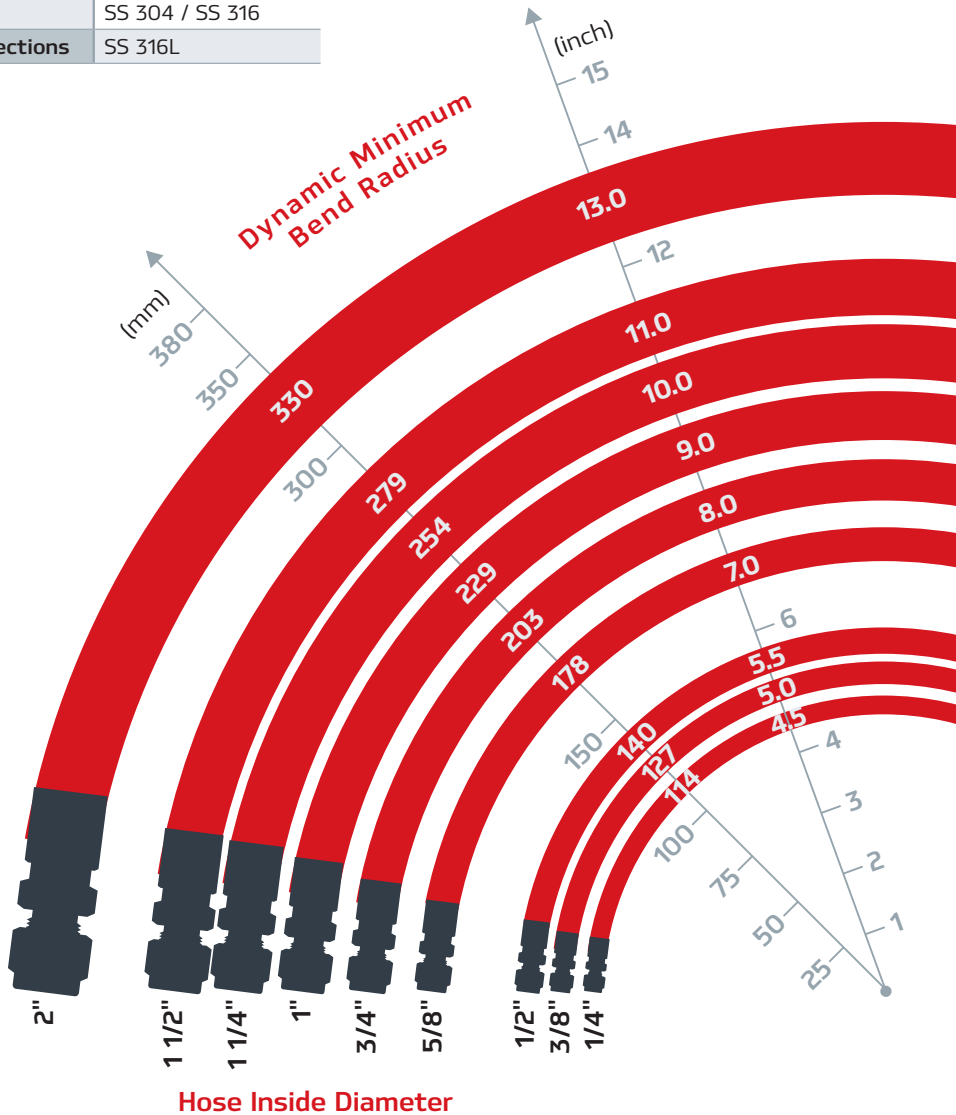
SHF SERIES	General Use Standard product	4
SHU SERIES	Ultra High Pressure	6
SHV SERIES	Vacuum / Formable Stay-put Application	8
SHE SERIES	Extra Flexible Most Flexible	10
SHH SERIES	High Pressure Helical High Pressure	12
THT SERIES	Smooth Core PTFE Metal Braided Hose	14
THS SERIES	Silicon Covered Smooth Core PTFE Metal Braided Hose	16
THC SERIES	Convolute PTFE Core SS Braided Hose	18
Metal Hoses End Connections Selection		20
PTFE Hoses End Connections Selection		21
Metal Hoses - Ordering Information		22
PTFE Hoses - Ordering Information		23

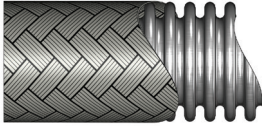
SHF SERIES

General Use Standard Product

Materials of Construction

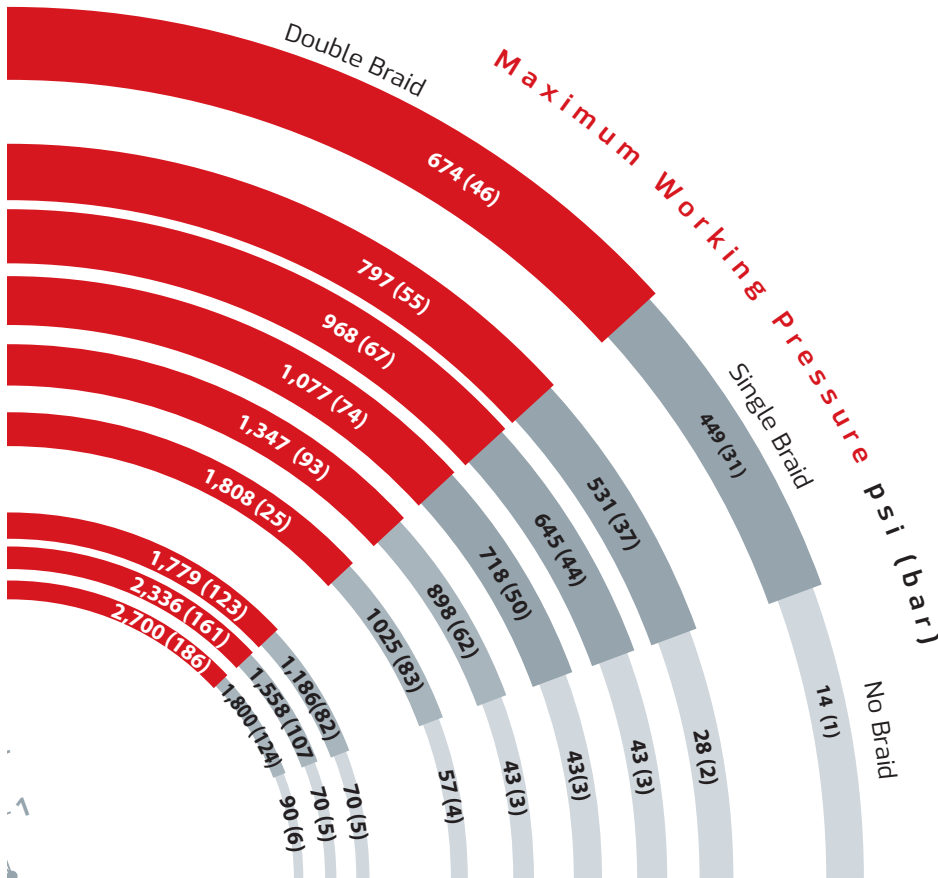
Part	Material
Tube	SS 316L / SS 321
Braid	SS 304 / SS 316
End Connections	SS 316L





Features

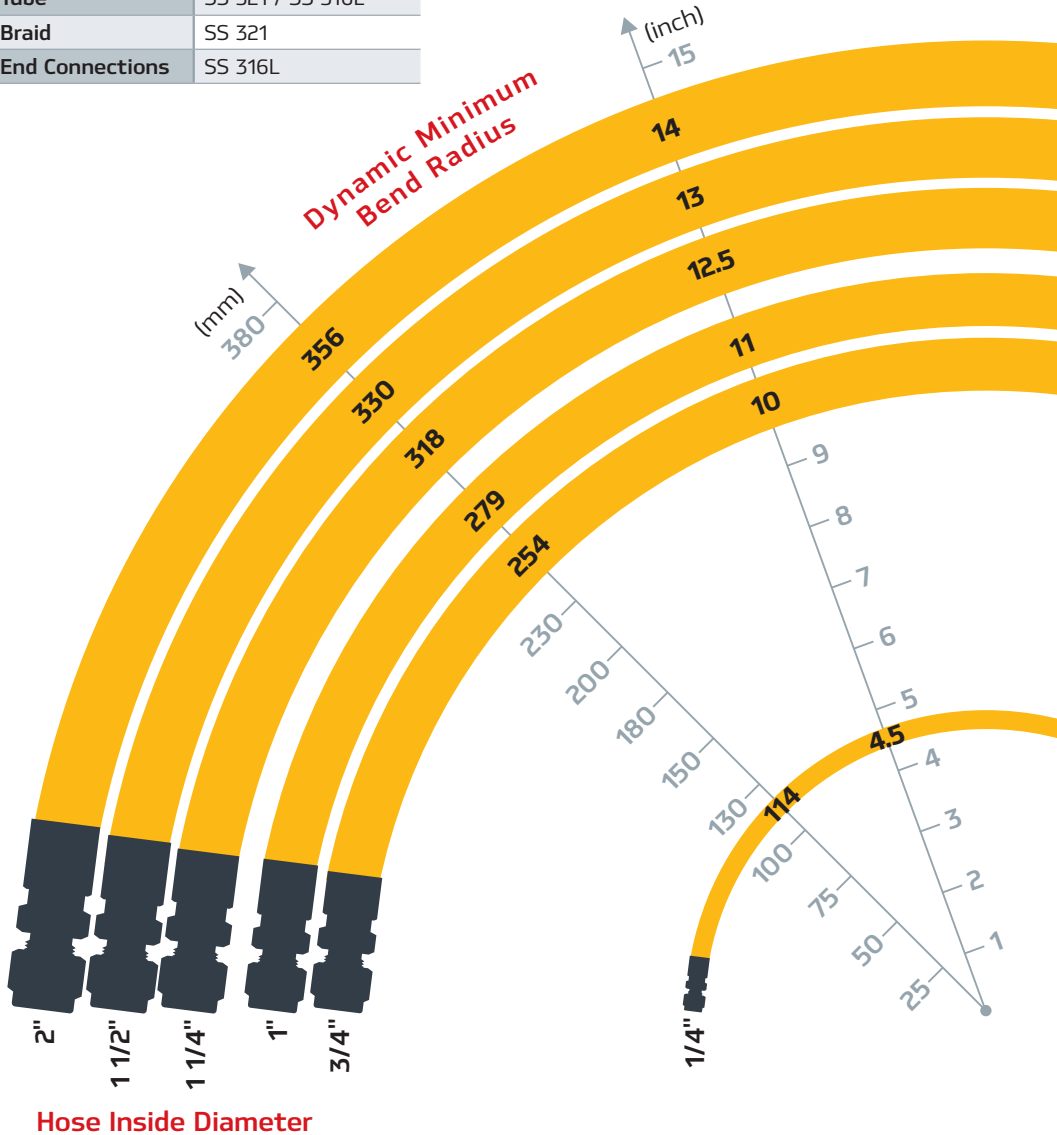
- Braided, double braided or unbraided corrugated tube assembly
- Core tube is made of 316L stainless steel, 321 stainless steel core tube is available.
- Braid is made of 304 stainless steel, 316 stainless steel braid is available.
- Annular Hydroformed Corrugation
- Tube ID from ¼" to 2"
- Max. pressure 2700psi (186bar)
- Min. static bend radius for braided hose 1.0inch (25mm)
- Min. dynamic bend radius for braided hose 4.5inch (114mm)
- Full range of end connections

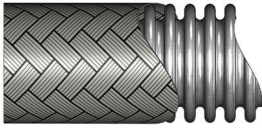


SHU SERIES Ultra High Pressure

Materials of Construction

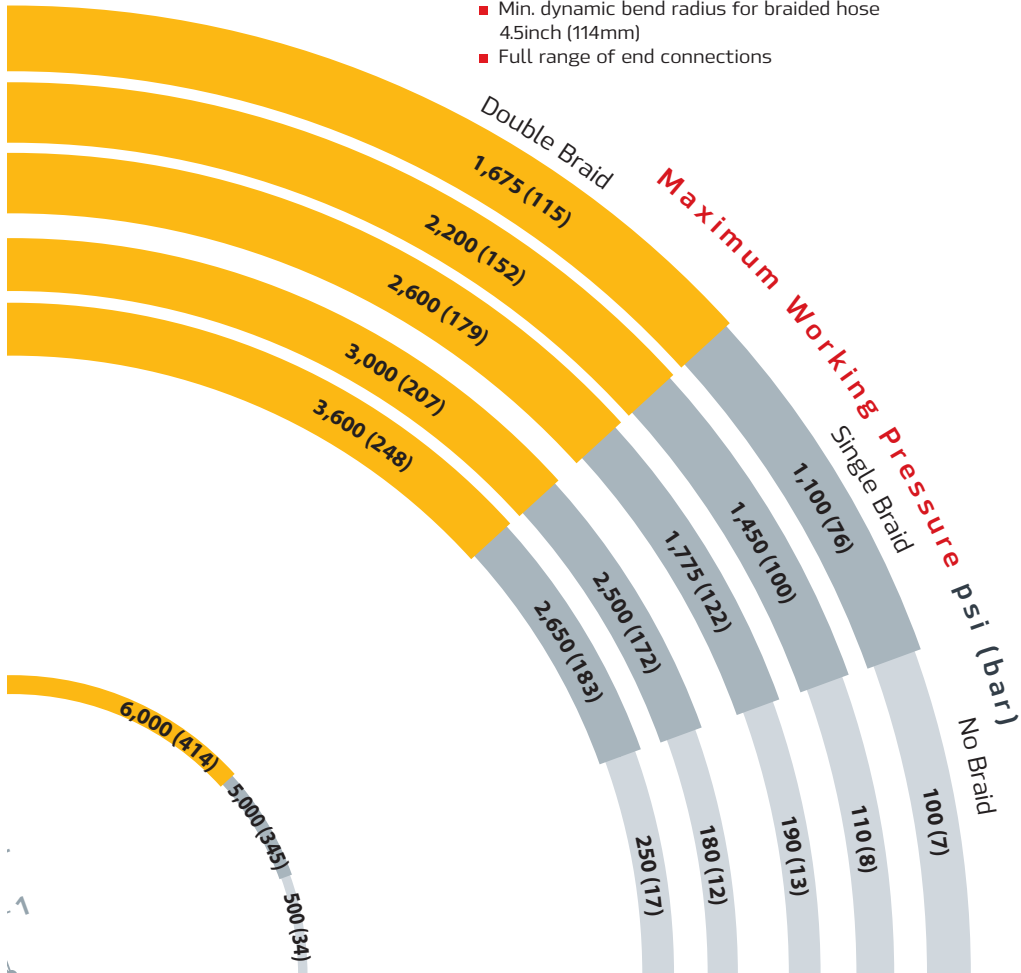
Part	Material
Tube	SS 321 / SS 316L
Braid	SS 321
End Connections	SS 316L





Features

- Braided, double braided or unbraided corrugated tube assembly
- Core tube is made of 321 stainless steel, 316L stainless steel core tube is available.
- Braid is made of 304 stainless steel, 316 stainless steel braid is available.
- Annular Hydroformed corrugation
- Tube ID 1/4", 3/4" up to 2"
- Max. pressure 6000psi (414bar), 4 to 1 safety rate factor
- Min. static bend radius for braided hose 0.9 inch (23mm)
- Min. dynamic bend radius for braided hose 4.5inch (114mm)
- Full range of end connections



SHV SERIES

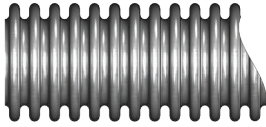
Vacuum / Formable Stay-Put Application

Materials of Construction

Part	Material
Tube	SS 316L / SS 321
Braid	SS 304
End Connections	SS 316L



Hose Inside Diameter



Features

- Braided or unbraided corrugated tube assembly.
- Core tube is made of 321 stainless steel, 316L stainless steel core tube is available.
- Braid is made of 304 stainless steel
- Annular Hydroformed corrugation
- Tube ID 1/4", 3/8", 1/2"
- Max. pressure 900psi (62bar)
- Min. static bend radius for braided hose 1.0inch (25mm)
- Full range of end connections

Maximum Working Pressure psi (bar)

Single Braid No Braid

655 (46) **70 (5)**

800 (55) **70 (5)**

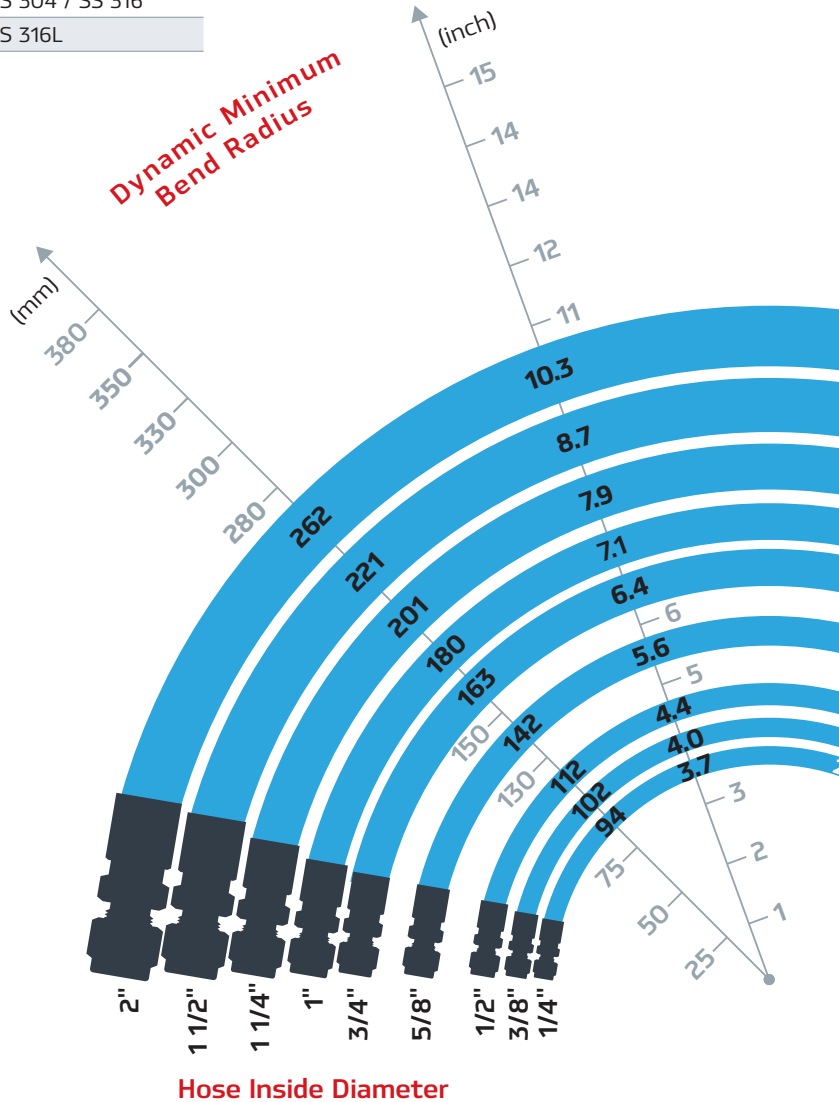
900 (62) **90 (6)**

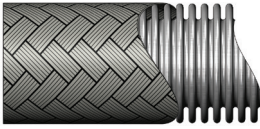
SHE SERIES

Extra Flexible Most Flexible

Materials of Construction

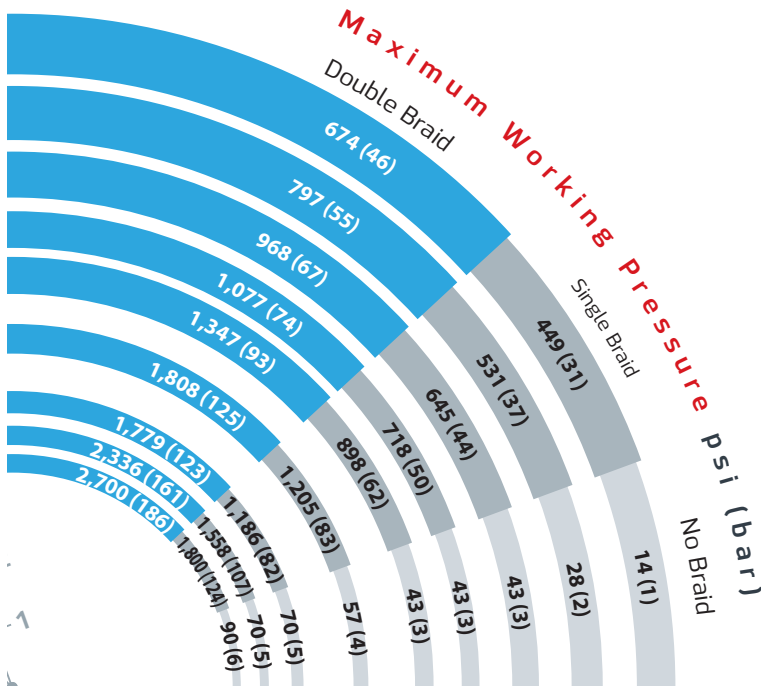
Part	Material
Tube	SS 316L / SS 321
Braid	SS 304 / SS 316
End Connections	SS 316L





Features

- Braided, double braided or unbraided corrugated tube assembly
- Core tube is made of 316L stainless steel, 321 stainless steel core tube is available.
- Braid is made of 304 stainless steel, 316 stainless steel braid is available.
- Annular Hydroformed Corrugation
- Tube ID from 1/4" to 2"
- Max. pressure 2700psi (186bar)
- Min. static bend radius for braided hose 0.9inch (23mm)
- Min. dynamic bend radius for braided hose 3.7inch (94mm)
- Full range of end connections

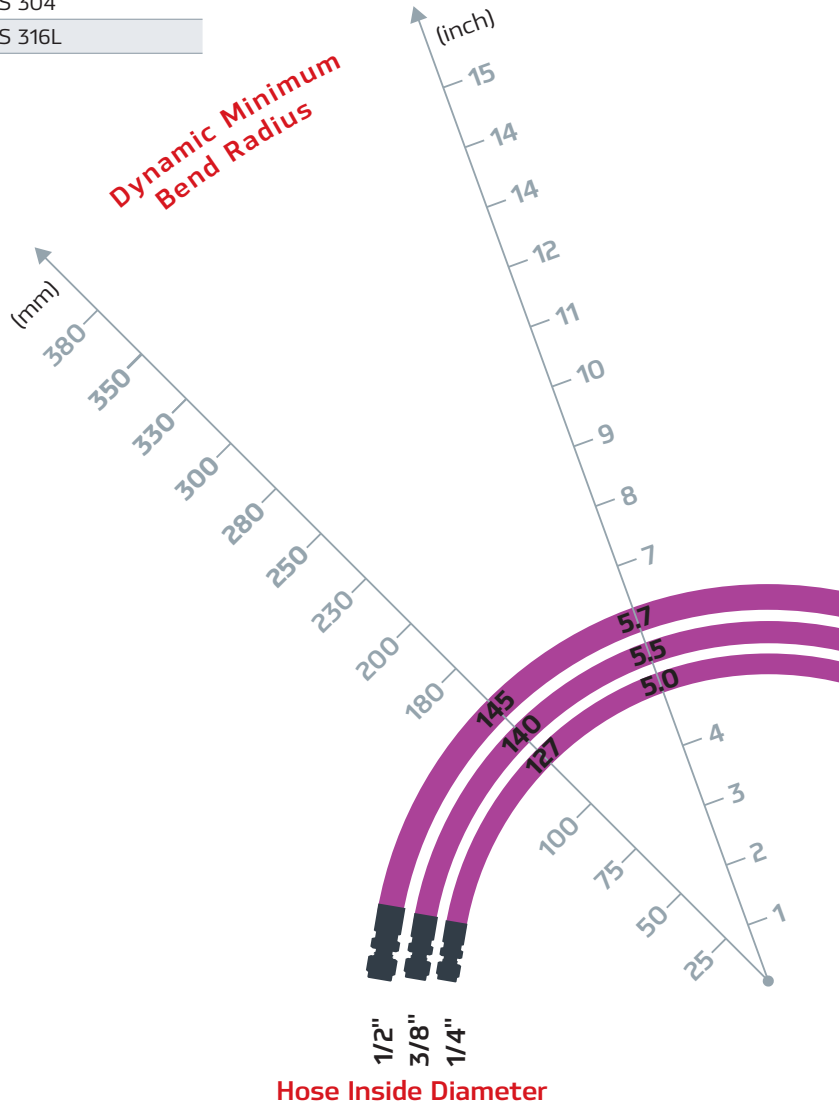


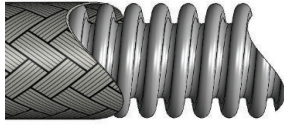
SHH SERIES

High Pressure Helical High Pressure

Materials of Construction

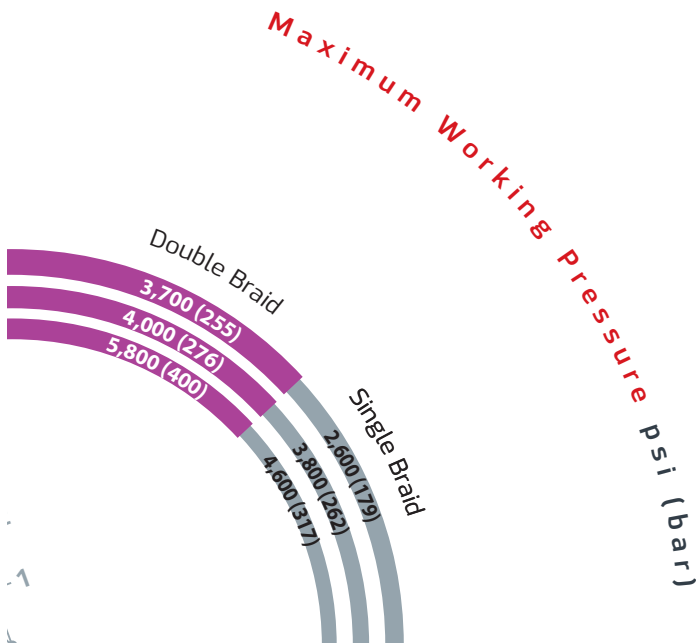
Part	Material
Tube	SS 316L
Braid	SS 304
End Connections	SS 316L





Features

- Braided corrugated tube assembly.
- Core tube is made of 316L stainless steel, 321 stainless steel core tube is available.
- Braid is made of 304 stainless steel, 316 stainless steel braid is available
- Spiral double-walled welded corrugation
- Tube ID 1/4", 3/8", 1/2"
- Max. pressure 5800psi (400bar)
- Min. static bend radius for braided hose 1.1inch (28mm)
- Min. dynamic bend radius for braided hose 5.0inch (127mm)
- Full range of end connections

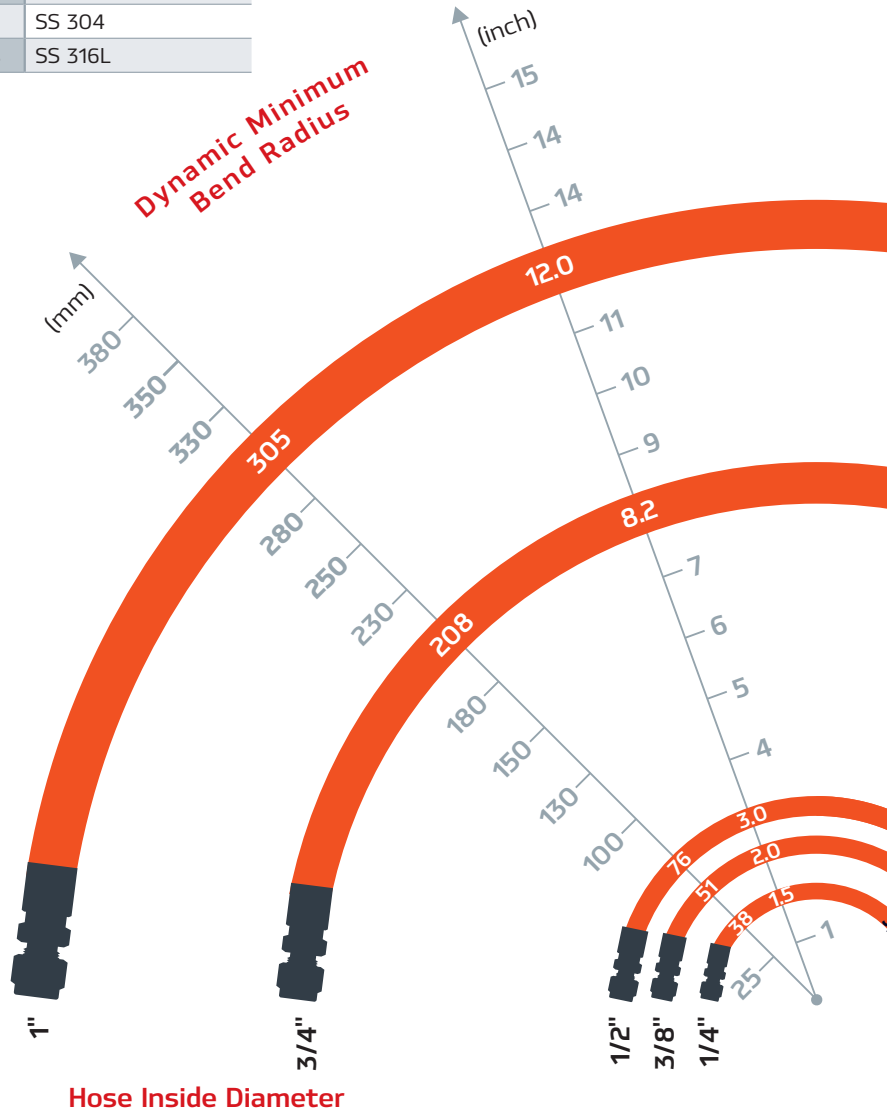


THT SERIES

Smooth Core PTFE Metal Braided Hose

Materials of Construction

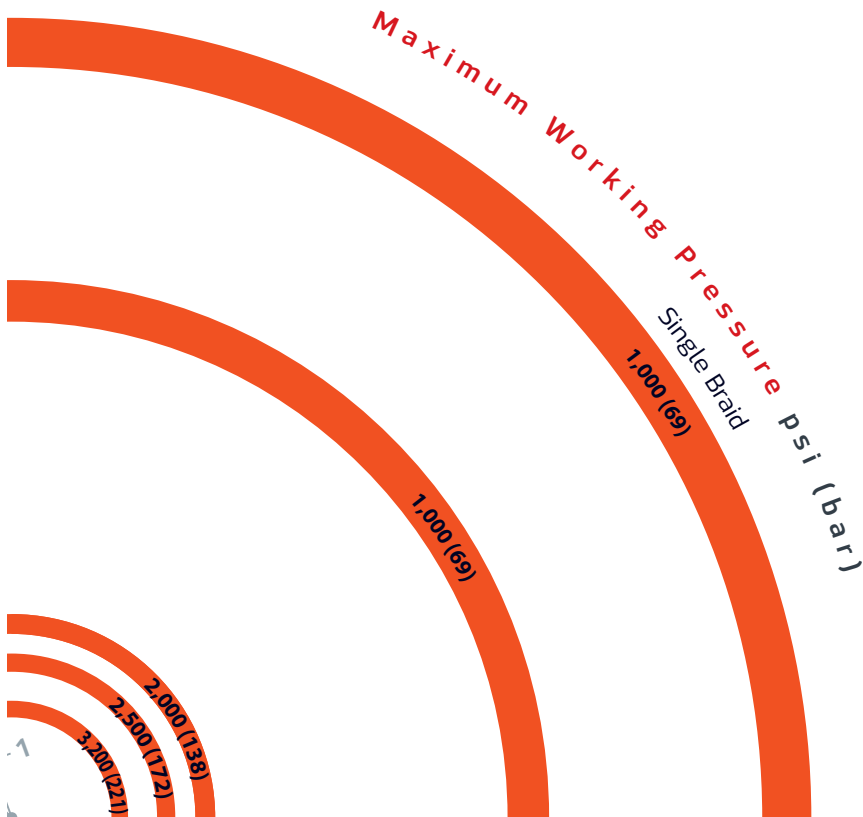
Part	Material
Tube	PTFE
Braid	SS 304
End Connections	SS 316L





Features

- Tube I.D. 1/4" up to 1"
- Pressure rating vacuum to 3200psi (240 bar)
- Min bend radius 1.5inch (38.1mm)
- Conductive inner lining available

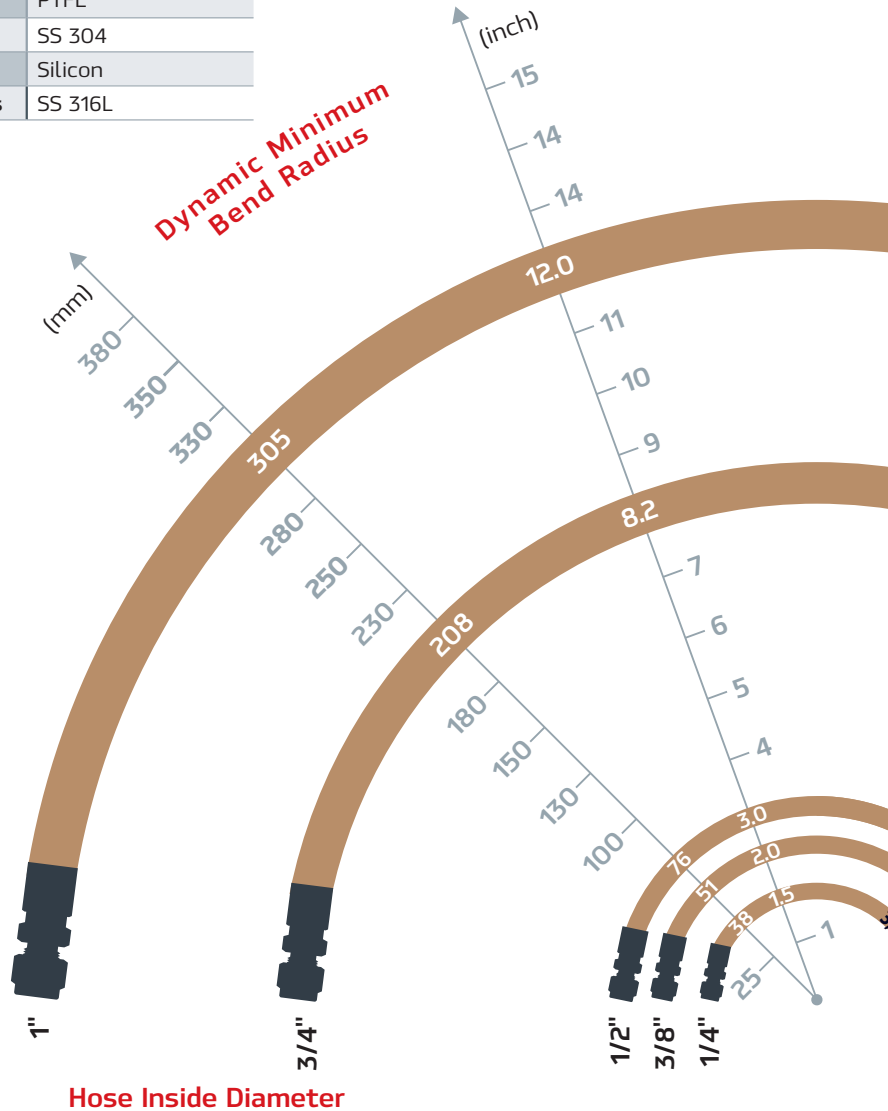


THS SERIES

Silicon Covered Smooth Core PTFE Metal Braided Hose

Materials of Construction

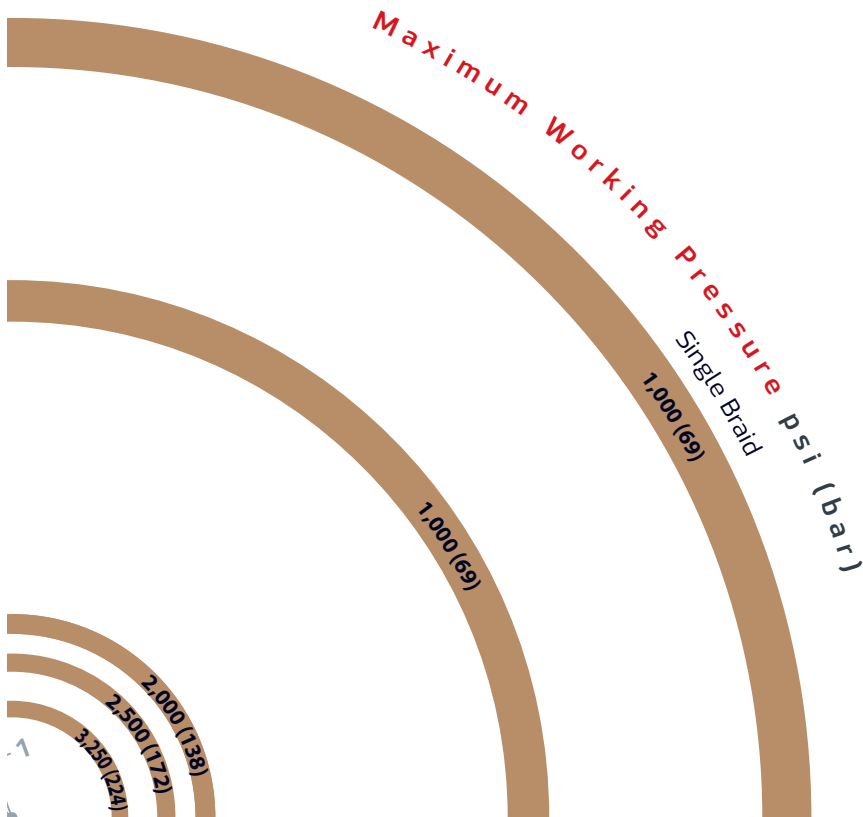
Part	Material
Tube	PTFE
Braid	SS 304
External cover	Silicon
End Connections	SS 316L





Features

- Tube I.D. 1/4" up to 1"
- Pressure rating Vacuum to 3250psi (224bar)
- Min Bend radius 1.5inch (38.1mm)

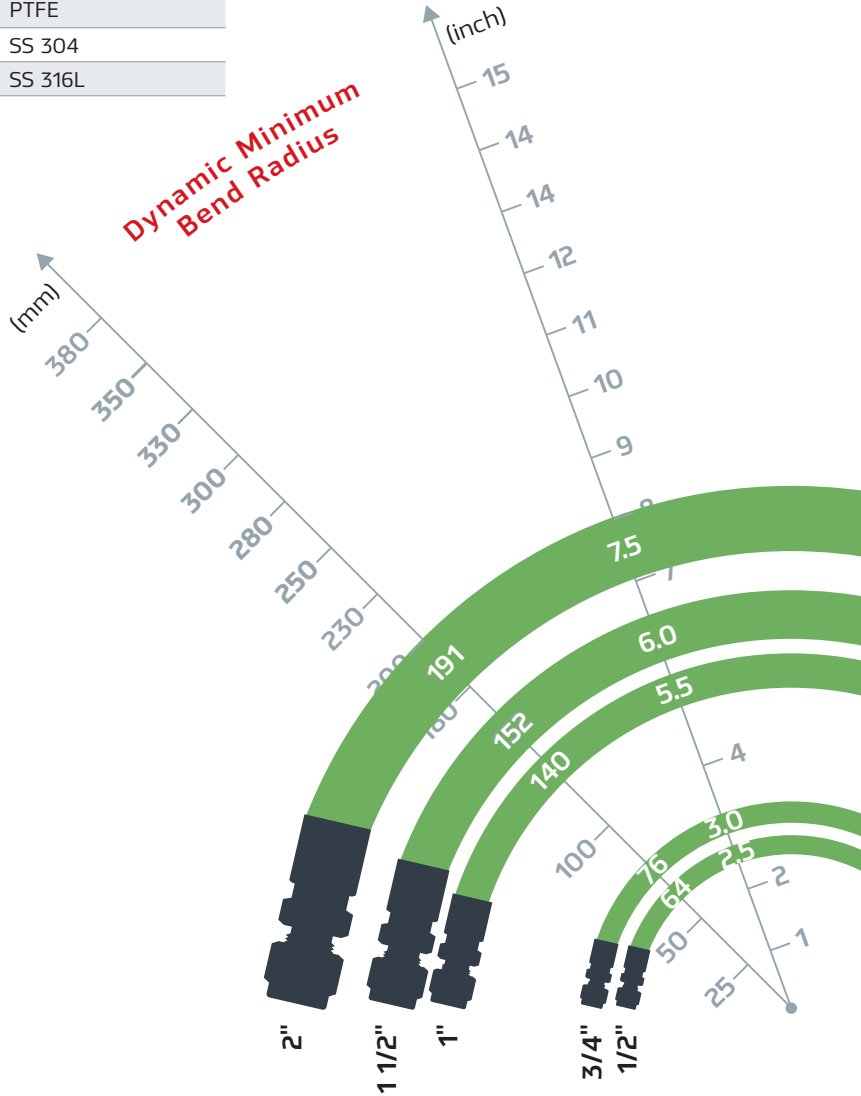


THC SERIES

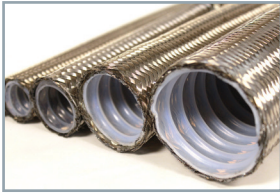
Convoluted PTFE Core SS Braided Hose

Materials of Construction

Part	Material
Tube	PTFE
Braid	SS 304
End Connections	SS 316L



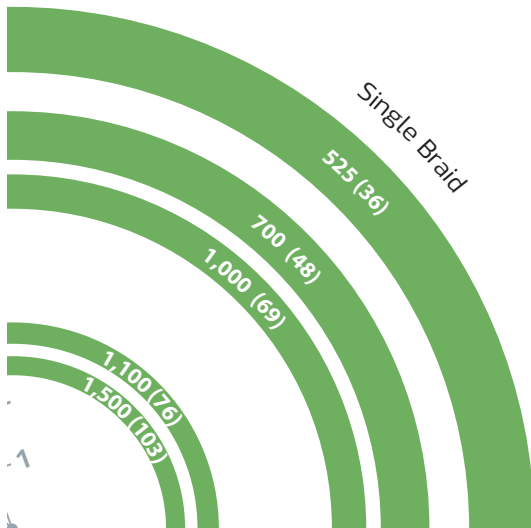
Hose Inside Diameter
















Features

- Tube I.D. 1/2" up to 2"
- Pressure rating up to 1500psi (103bar)
- Min Bend radius 2.5inch (63.5mm)











Maximum Working Pressure psi (bar)



End Connections Selection **Metal Hoses**


		Hose Inside Diameter								
End connection Type		1/4"		3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
LET-LOK		1/4 6m	3/8 8m	3/8 10m	1/2 12m	3/4 18m	1 25m	1 1/4	1 1/2 38m	2
Tube Adapter		1/4 6m	8m	3/8 10m	1/2 12m	3/4 18m	1 25m	1 1/4	1 1/2 38m	
ONE-LOK		1/4 6m	3/8 8m	3/8 10m	1/2 12m					
UH-LINE		1/4	3/8	3/8	1/2	3/4	1			
Male NPT		1/4	1/2	1/4 3/8 1/2	3/8 1/2	3/4	1	1 1/4	1 1/2	2
Male BSPP		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2		
Female NPT		1/4	3/8	1/2	3/4	1		1 1/2		
Female BSPP		1/4		1/2						
Butt Weld		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2		
Male Face Seal Swivel		1/4		1/2	3/4	1				
Female Face Seal Swivel		1/4		1/2	3/4	1				
Male JIC 37° Flare		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	
Female JIC 37° Flare		1/4	3/8	1/2	3/4					

End Connections Selection PTFE Hoses

		Hose Inside Diameter						
		1/4"	3/8"	1/2"	3/4"	1"	1 1/2"	2"
End connection Type								
LET-LOK		1/4 6m	3/8 10m	1/2 12m	3/4 18m	1 25m	1 1/2 38m	2
Tube Adapter		1/4 6m 8m	3/8 10m	3/8 1/2 12m	3/4 1 18m	3/4 1 25m	1 1/2 38m	
Male NPT		1/4	1/4 3/8	1/4 3/8 1/2	1/2 3/4	3/4 1	1 1/2	2
Male BSPP		1/4	3/8	1/2	3/4	1	1 1/2	
Female NPT		1/4	1/4 3/8	1/2	3/4	1	1 1/2	
Female BSPP		1/4	3/8	1/2	3/4	1	1 1/2	
Butt Weld		1/4	3/8	1/2	3/4	1	1 1/2	2
Female Face Seal Swivel		1/4	3/8	1/2	3/4	1		
Male JIC 37° Flare		1/4	3/8	1/2	3/4	1	1 1/2	2
Female JIC 37° Flare		1/4	3/8	1/2	3/4			

Metal Hoses - Ordering Information

OPTIONAL

Line	Hoses	Series	Configuration	Tube ID	End Connection 1	End Connection 2	Overall Length (OAL)	Options
S	SS	F	1	04	LK 1/4	TS 6M	XXX inch	
A	Alloy 276	U	04	06			XXXC Centimeter	
		V		08			XXXM Meter	
		E		12				
		H		16				
				20				
				24				
				32				

Configuration

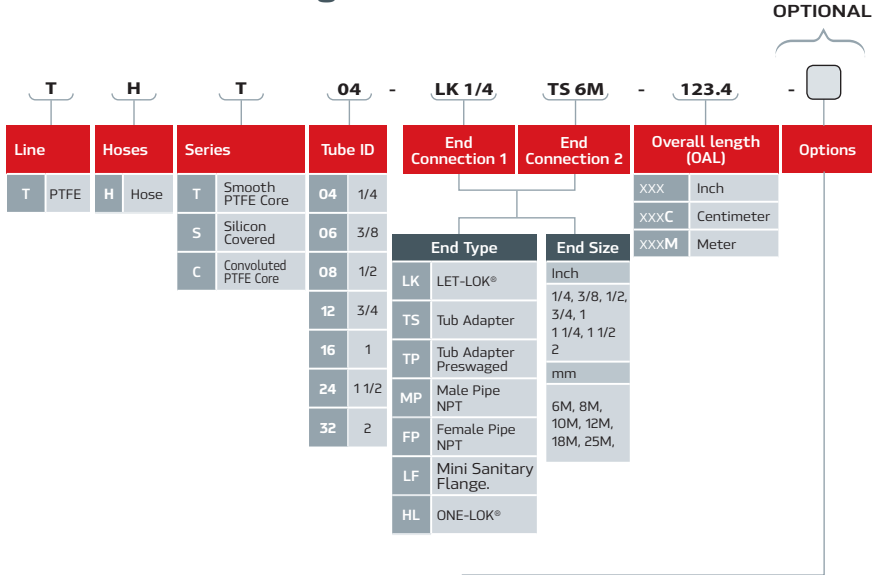
Series	Configuration	Tube Material	Braid Material	# of braids
F	0	316L	-	0
	1	316L	304	1
	2	316L	304	2
	3	321	-	0
	4	321	304	1
	5	321	304	2
	6	316L	316	1
	7	316L	316	2
	8	321	316	1
9	321	316	2	
U	0	321	-	0
	1	321	321	1
	2	321	321	2
	3	316L	-	0
	4	316L	321	1
5	316L	321	2	
V	0	321	-	0
	1	321	304	1
	2	316L	-	0
	3	316L	304	1
E	0	316L	-	0
	1	316L	304	1
	2	316L	304	2
	3	321	-	0
	4	321	304	1
	5	321	304	2
	6	316L	316	1
	7	316L	316	2
	8	321	316	1
9	321	316	2	
H	0	316	-	0
	1	316	304	1
	2	316	304	2

End Type	End Size	Test
LK LET-LOK®	inch	H Helium Leak Test 1x10 ⁻⁹
TS Tub Adapter	1/4, 3/8, 1/2, 3/4, 1 1/4, 1 1/2 2	Y Hydraulic Test
TP Tub Adapter Preswaged	mm	Cleaning O Oxygen Cleaning
GF Face Seal Female Swivel	6M, 8M, 10M, 12M, 16M, 25M, 38M	Internal Lamina L Liner
GM Face Seal Male Swivel		Outer Cover G Spring Guard R Protective Cover J Insulating Jacket A Armor
FP Female Pipe NPT		Extras V Protective Cable N Interlock bend restrictor
MP Male Pipe NPT		Tagging T Paper Tag M Metal Tag ⁽¹⁾ P Plastic Tag
FG Female BSP-P		None On One End
MG Male BSP-P		B Both Ends
BW Butt Weld Adapter		
HL ONE-LOK®		
UH UH-Line (Vacuum only)		
FF Female Flare 37°		
MF Male Flare 37°		


(1) One end metal tag with MWP marking - supplied as standard (no need to mark this option to have this tag)

Warning! The system designer and user have the sole responsibility for selecting products suitable for their special application requirements, ensuring their safe and trouble-free installation, operation, and maintenance. Application details, material compatibility and product ratings should all be considered for each selected product. Improper selection, installation or use of products can cause property damage or personal injury.


PTFE Hoses - Ordering Information




Test	Internal lamina	Outer cover	Tagging			
H Helium Leak Test	C Conductive Carbon Lining	G Spring Guard	T	Paper Tag	None	On one end
		J Insulating Jacket	M	Metal Tag	B	Both ends
			P	Plastic Tag		




Spring Guard
A mechanical guard can be installed with the hose assembly. This type of guard consists of a metal spring that is attached behind the fitting.



Protective Cover
For lighter protection of the corrugated hose and braid, plastic scuff guards can be installed with the hose.



Insulating Jacket
High temperature insulation of the hose exterior. Braided fiberglass insulation, covered and impregnated with silicone rubber installed over the corrugated hose and sealed. It can also be used to prevent ambient heat from being conveyed to the media or to reduce media heat loss.



Tagging
Customer or system information can be marked on hose assemblies using cardboard, plastic, and metal tags or permanently engraved onto braid collars. Tags and markings can be applied on single or both ends of assemblies.



Certifications
Materials, Standard Conformance and testing certificates are available. Other customer specific certificates are available upon request.

www.ham-let.com



HAM-LET HOSES
qr.ham-let.com/hose

HAM-LET USA

12565 West Airport Blvd.
Sugar Land, Texas 77478
Tel: +1 281 5664900
Fax: +1 281 5664910
e-mail: usa@ham-let.com

HAM-LET Canada

3190 Ridgeway Drive, Unit 33
Mississauga, Ontario, L5L 5S8
Tel: +1 905 6089996
Fax: +1 905 6088661
e-mail: canada@ham-let.com

HAM-LET UK

Unit 1, Lindfield Enterprise Park
Lewes Road, Lindfield
Haywards Heath, West Sussex
RH16 2LH
Tel: +44 1444 487555
Fax: +44 1444 487666
e-mail: uk@ham-let.com

HAM-LET Germany

Dornacher Strasse 3a
D-85622 Feldkirchen
Tel: +49 89 90778060
Fax: +49 89 90778070
e-mail: gmbh@ham-let.com

HAM-LET France

Siège Social, Park Avenir
Zone de Sacuny
Avenue Marcel Merieux
bâtiment B7, 69530, BRIGNAIS
Tel: +33 4 78950342
Fax: +33 4 72310576
e-mail: france@ham-let.com

HAM-LET BENELUX B.V.

Industrieweg 30, 7944 HS,
Meppel, The Netherlands
Tel: +31 620166779
Fax: +31 522237040
e-mail: benelux@ham-let.com

HAM-LET Russia

127083, Russian Federation, Moscow,
8 Marta Street 10, B.12, Off. 107
Tel: +7 495 6516238
Fax: +7 495 6516238
e-mail: russia@ham-let.com

HAM-LET Singapore

211 Woodlands Avenue 9 Spectrum II
building #05-88
Singapore 738960
Tel: +65 62578313
Fax: +65 62578315
e-mail: singapore@ham-let.com

HAM-LET Motoyama Japan (HMJ)

TSI Hakozaki Bldg. 4F,
20-5, Hakozaki-cho, Nihonbashi,
Chuo-ku, Tokyo, 103-0015
Tel: +81 3 36685321
Fax: +81 3 36647027
e-mail: hmj@ham-let.com

This document is proprietary to HAM-LET Group and may not be copied, duplicated or used without the permission of HAM-LET Group. HAM-LET Group reserves the right to make changes to any portion of this document at any time without notice. The information furnished by HAM-LET Group in this document is believed to be accurate and reliable. However, HAM-LET Group assumes no responsibility for its use or for errors or omissions. All company and brand products are trademarks or registered trademarks of their respective holders.