


















Medium-pressure Fittings



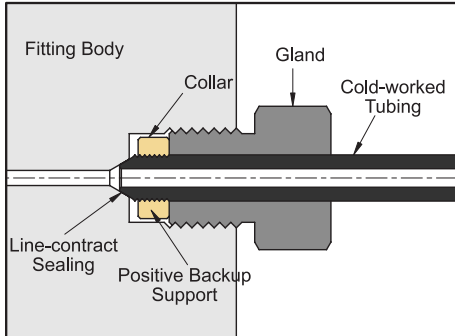
Medium-pressure Fittings Index

 <p>SMPSC Straight Coupling</p> <p>5P</p>	 <p>SMPUA Union Adapter</p> <p>7P</p>	 <p>SMPP Plug</p> <p>9P</p>
 <p>SMPUC Union Coupling (Slip Type)</p> <p>5P</p>	 <p>SMPFA Female Adapter</p> <p>7P</p>	 <p>SMPCP Cap</p> <p>9P</p>
 <p>SMPBC Bulkhead Coupling</p> <p>5P</p>	 <p>SMPMA Male Adapter</p> <p>7P</p>	 <p>SMPN Nipple</p> <p>9P</p>
 <p>SMPE Elbow</p> <p>218P</p>	 <p>SMPFC Female Connector</p> <p>8P</p>	
 <p>SMPT Tee</p> <p>6P</p>	 <p>SMPMC Male Connector</p> <p>8P</p>	
 <p>SMPC Cross</p> <p>6P</p>	 <p>SMPG Gland</p> <p>8P</p>	
 <p>SMPA Adapter</p> <p>7P</p>	 <p>SMPCR Collar</p> <p>8P</p>	

Medium-pressure Fittings

(Cone & Threaded Type)

SMP Series

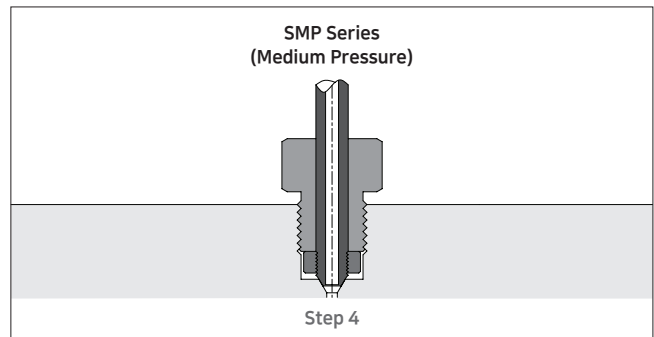
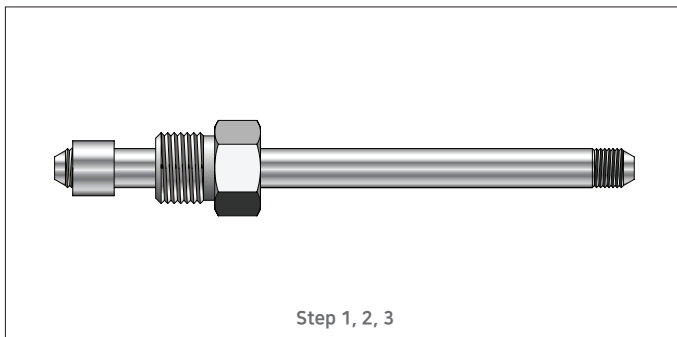


Features

- Pressure: up to 20,000psi (1380 bar)
- Coned and Threaded connection.
- Available sizes: 1/4", 3/8", 9/16", 3/4", and 1" .
- Fittings manufactured from cold worked 316 stainless steel.
- Operating temperatures: -423°F (-252°C) to 1200°F (649°C)

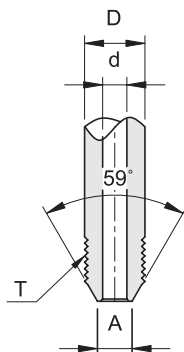
Installation Instructions

Medium Pressure Coned & Threaded Tube Connections



1. Apply a process-compatible lubricant to the gland threads.
2. Slip the gland onto the tube, then thread the collar onto the tube end.
3. A small amount of process-compatible lubricant applied to the tube cone will facilitate sealing. Insert the tubing into the connection and tighten finger tight.
4. Tighten gland slightly with the wrench.

Tube Size & End Dimension



Tube Size. mm				Flow Area mm ²	Working Pressure. psi				
O.D (D)	I.D (d)	A	Thread (T)		-325 to 100°F (-198 to 37.8°C)	200°F (93°C)	400°F (204°C)	600°F (316°C)	800°F (427°C)
1/4" (6.35)	2.77	3.57	1/4" - 28 L.H.	5.81	20,000	20,000	19,250	18,050	16,800
3/8" (9.53)	5.16	6.35	3/8" - 24 L.H.	20.65	20,000	20,000	19,250	18,050	16,800
9/16" (14.29)	7.92	10.32	9/16" - 18 L.H.	49.03	20,000	20,000	19,250	18,050	16,800
	9.12			65.16	15,000	15,000	14,400	13,650	12,670
3/4" (19.05)	11.13	14.29	3/4" - 16 L.H.	97.42	20,000	20,000	19,250	18,050	16,800
	13.11			134.84	15,000	15,000	14,400	13,650	12,670
1" (25.40)	14.27	18.26	1" - 14 L.H.	160.00	20,000	20,000	19,250	18,050	16,800
	17.48			239.35	15,000	15,000	14,400	13,650	12,670

Ordering Information

Example 1:	$\frac{\text{SMPSC}}{1} - \frac{\text{MP4}}{2-1}$
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Example 2:	$\frac{\text{SMPA}}{1} - \frac{\text{MP4}}{2-1} - \frac{\text{MP6}}{2-2}$
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*316 Stainless Steel is Standard Body Material

1. Type of Fitting

Please refer to Cone & Thread Medium Pressure Fitting Index on page 2.

- | | |
|---|--|
| <input type="checkbox"/> SMPSC = Straight Coupling | <input type="checkbox"/> SMPMA = Male Adapter |
| <input type="checkbox"/> SMPUC = Union Coupling | <input type="checkbox"/> SMPFC = Female Connector |
| <input type="checkbox"/> SMPBC = Bulkhead Coupling | <input type="checkbox"/> SMPMC = Male Connector |
| <input type="checkbox"/> SMPE = Elbow | <input type="checkbox"/> SMPG = Gland |
| <input type="checkbox"/> SMPT = Tee | <input type="checkbox"/> SMPCR = Collar |
| <input type="checkbox"/> SMPC = Cross | <input type="checkbox"/> SMPP = Plug |
| <input type="checkbox"/> SMPA = Adapter | <input type="checkbox"/> SMPC = Cap |
| <input type="checkbox"/> SMPUA = Union Adapter | <input type="checkbox"/> SMPN = Nipple |
| <input type="checkbox"/> SMPFA = Female Adapter | |

2. Size

2-1. Tube O.D

Size (inch)	1/4	3/8	9/16	3/4	1
Medium Pressure C&T	MP4	MP6	MP9	MP12	MP16

2-2. Tube O.D or NPT

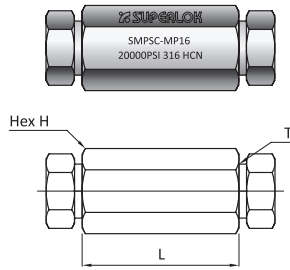
* No designator is required for the fittings with identical tube ports. This designator is applicable for the second end connection or dropsize fittings.

Size (inch)	1/8	1/4	3/8	9/16	3/4	1
Medium Pressure C&T	-	MP4	MP6	MP9	MP12	MP16
High Pressure C&T	HP2	HP4	HP6	HP9	HP12	HP16
NPT Thread	-	4N	6N	8N	12N	16N

※ For special sizes and configurations, please consult BMT (SUPERLOK) sales representative.

SMPSC

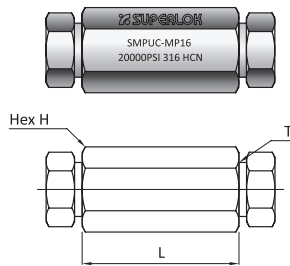
Straight Coupling



Part No.	Tube Size (in)	Hex H (in)	Orifice	L	T	Pressure Rating (psi)
SMPSC-MP4	1/4"	5/8"	3.2	39.7	7/16" - 20 UNF	20,000
SMPSC-MP6	3/8"	3/4"	5.6	44.5	9/16" - 18 UNF	20,000
SMPSC-MP9	9/16"	1"	9.1	54.0	13/16" - 16 UNF	20,000
SMPSC-MP12	3/4"	1 - 3/8"	13.1	63.5	3/4" - 14 NPSM	20,000
SMPSC -MP16	1"	1 - 3/4"	17.5	88.9	1-3/8" - 12 UNF	20,000

SMPUC

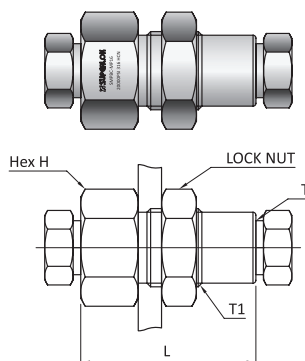
Union Coupling (Slip Type)



Part No.	Tube Size (in)	Hex H (in)	Orifice	L	T	Pressure Rating (psi)
SMPUC-MP4	1/4"	5/8"	3.2	39.7	7/16" - 20 UNF	20,000
SMPUC-MP6	3/8"	3/4"	5.6	44.5	9/16" - 18 UNF	20,000
SMPUC-MP9	9/16"	1"	9.1	54.0	13/16" - 16 UNF	20,000
SMPUC-MP12	3/4"	1 - 3/8"	13.1	63.5	3/4" - 14 NPSM	20,000
SMPUC-MP16	1"	1 - 3/4"	17.5	88.9	1-3/8" - 12 UNF	20,000

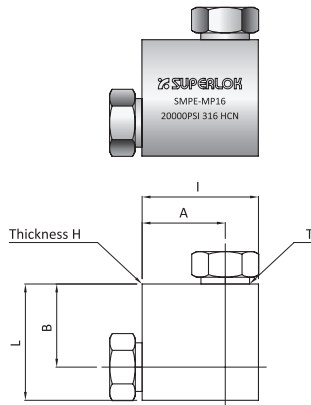
SMPBC

Bulkhead Coupling



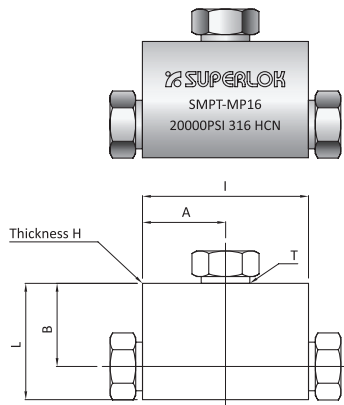
Part No.	Tube Size (in)	Hex H (in)	Orifice	L	T	T1	Pressure Rating (psi)
SMPBC-MP4	1/4"	1"	3.2	47.6	7/16" - 20 UNF	3/4" - 16 UNF	20,000
SMPBC-MP6	3/8"	1"	5.6	50.8	9/16" - 18 UNF	7/8" - 14 UNF	20,000
SMPBC-MP9	9/16"	1-3/8"	9.1	60.3	13/16" - 16 UNF	1-1/16" - 12 UNF	20,000
SMPBC-MP12	3/4"	1-7/8"	13.1	66.7	3/4" - 14 NPSM	1-5/8" - 12 UNF	20,000
SMPBC-MP16	1"	2-1/8"	17.5	88.9	1-3/8" - 12 UNF	1-7/8" - 12 UNF	20,000

SMPE Elbow



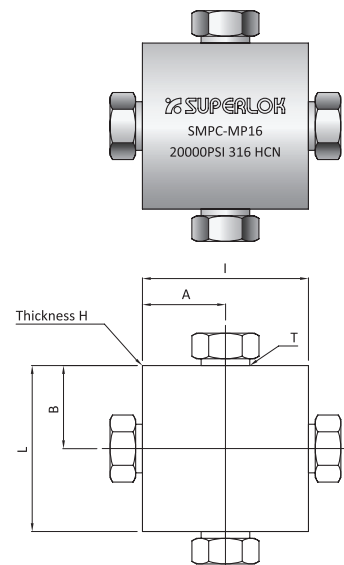
Part No.	Tube Size (in)	d	A	B	I	L	H	T	Pressure Rating (psi)
SMPE-MP4	1/4"	3.2	22.2	17.5	30.2	25.4	15.9	7/16" - 20 UNF	20,000
SMPE-MP6	3/8"	5.6	25.4	25.4	34.9	34.9	19.1	9/16" - 18 UNF	20,000
SMPE-MP9	9/16"	9.1	31.8	31.8	44.5	44.5	25.4	13/16" - 16 UNF	20,000
SMPE-MP12	3/4"	13.1	38.1	38.1	57.2	57.2	34.9	3/4" - 14 NPSM	20,000
SMPE-MP16	1"	17.5	52.4	52.4	76.2	76.2	44.5	1-3/8" - 12 UNF	20,000

SMPT Tee



Part No.	Tube Size (in)	d	A	B	I	L	H	T	Pressure Rating (psi)
SMPT-MP4	1/4"	3.2	22.2	17.5	44.5	25.4	15.9	7/16" - 20 UNF	20,000
SMPT-MP6	3/8"	5.6	25.4	25.4	50.8	34.9	19.1	9/16" - 18 UNF	20,000
SMPT-MP9	9/16"	9.1	31.8	31.8	63.5	44.5	25.4	13/16" - 16 UNF	20,000
SMPT-MP12	3/4"	13.1	38.1	38.1	76.2	57.2	34.9	3/4" - 14 NPSM	20,000
SMPT-MP16	1"	17.5	52.4	52.4	104.8	76.2	44.5	1-3/8" - 12 UNF	20,000

SMPC Cross

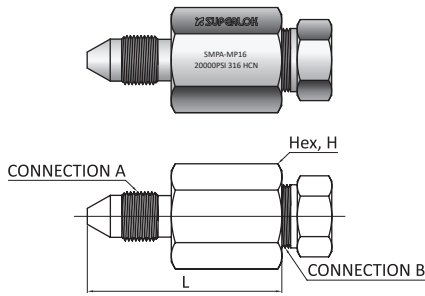


Part No.	Tube Size (in)	d	A	B	I	L	H	T	Pressure Rating (psi)
SMPC-MP4	1/4"	3.2	22.2	17.5	44.5	34.9	15.9	7/16" - 20 UNF	20,000
SMPC-MP6	3/8"	5.6	25.4	25.4	50.8	50.8	19.1	9/16" - 18 UNF	20,000
SMPC-MP9	9/16"	9.1	31.8	31.8	63.5	63.5	25.4	13/16" - 16 UNF	20,000
SMPC-MP12	3/4"	13.1	38.1	38.1	76.2	76.2	34.9	3/4" - 14 NPSM	20,000
SMPC-MP16	1"	17.5	52.4	52.4	104.8	104.8	44.5	1-3/8" - 12 UNF	20,000

- Dimensions and Drawings are for reference only and are subject to change without prior notice.
 - Unless otherwise specified, all dimensions are in millimeters.
 - Sizes, pressure classes, and end connections not listed are available upon request.

SMPA

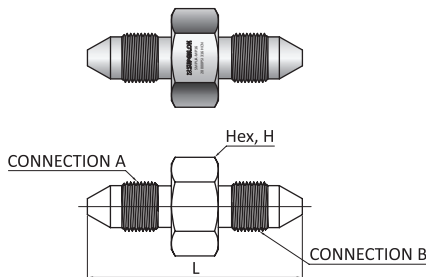
Adapter



Part No.	Connection A	Connection B	Hex, H (in)	L	Pressure Rating (psi)
SMPA-MP4	MP4	MP4	5/8"	37.3	20,000
SMPA-MP6	MP6	MP6	3/4"	42.2	20,000
SMPA-MP9	MP9	MP9	1"	50.8	20,000
SMPA-MP12	MP12	MP12	1 - 3/8"	65	20,000

SMPUA

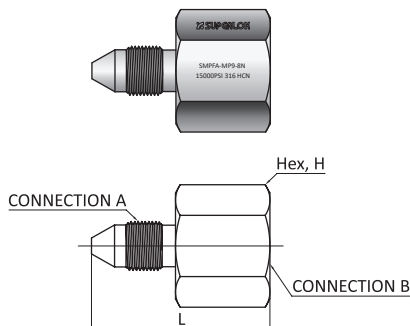
Union Adapter



Part No.	Connection A	Connection B	Hex H	L	Pressure Rating (psi)
SMPUA-MP4	MP4	MP4	1/2"	42.9	20,000
SMPUA-MP6	MP6	MP6	5/8"	57.1	20,000
SMPUA-MP9	MP9	MP9	15/16"	63.5	20,000
SMPUA-MP12	MP12	MP12	1 - 3/16"	79.3	20,000
SMPUA-MP16	MP16	MP16	1 - 3/8"	111.1	20,000

SMPFA

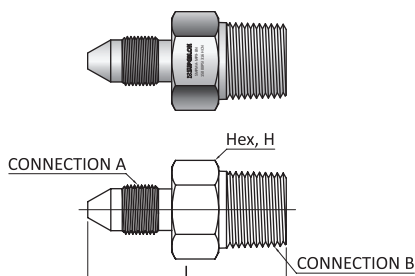
Female Adapter



Part No.	Connection A	Connection B	Hex H	L	Pressure Rating (psi)
SMPFA-MP4-4N	MP4	1/4" NPT	3/4"	40.5	15,000
SMPFA-MP6-6N	MP6	3/8" NPT	1"	47.6	15,000
SMPFA-MP9-8N	MP9	1/2" NPT	1 - 3/16"	61.9	15,000
SMPFA-MP12-12N	MP12	3/4" NPT	1 - 3/8"	79.3	10,000
SMPFA-MP16-16N	MP16	1" NPT	1 - 3/4"	81.0	10,000

SMPMA

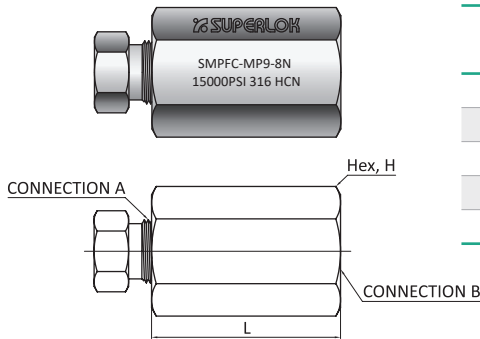
Male Adapter



Part No.	Connection A	Connection B	Hex H	L	Pressure Rating (psi)
SMPMA-MP4-4N	MP4	1/4" NPT	5/8"	44.5	15,000
SMPMA-MP6-6N	MP6	3/8" NPT	3/4"	50.8	15,000
SMPMA-MP9-8N	MP9	1/2" NPT	15/16"	65.0	15,000
SMPMA-MP12-12N	MP12	3/4" NPT	1 - 3/16"	71.4	10,000
SMPMA-MP16-16N	MP16	1" NPT	1 - 1/2"	101.6	10,000

SMPFC

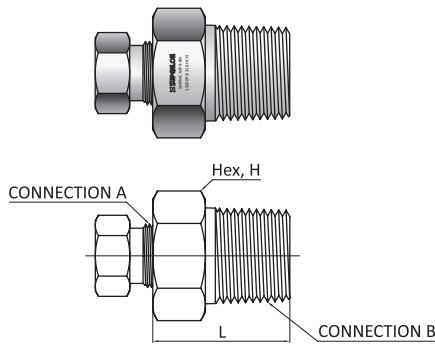
Female Connector



Part No.	Connection A	Connection B	Hex H	L	Pressure Rating (psi)
SMPFC-MP4-4N	MP4	1/4" NPT	3/4"	41.4	15,000
SMPFC-MP6-6N	MP6	3/8" NPT	15/16"	46.2	15,000
SMPFC-MP9-8N	MP9	1/2" NPT	1 - 3/16"	57.2	15,000
SMPFC-MP12-12N	MP12	3/4" NPT	1 - 1/2"	66.7	10,000
SMPFC-MP16-16N	MP16	1" NPT	1 - 3/4"	73.0	10,000

SMPMC

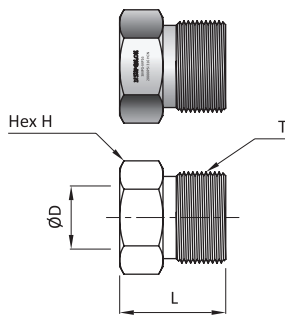
Male Connector



Part No.	Connection A	Connection B	Hex H	L	Pressure Rating (psi)
SMPMC-MP4-4N	MP4	1/4" NPT	5/8"	35.1	15,000
SMPMC-MP6-6N	MP6	3/8" NPT	3/4"	38.1	15,000
SMPMC-MP9-8N	MP9	1/2" NPT	1"	49.2	15,000
SMPMC-MP12-12N	MP12	3/4" NPT	1 - 3/8"	57.2	10,000
SMPMC-MP16-16N	MP16	1" NPT	1 - 3/4"	77.8	10,000

SMPG

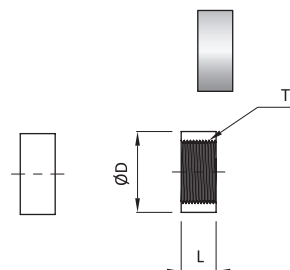
Gland



Part No.	Tube Size (in)	Hex H(in)	D	L	Thread T	Pressure Rating (psi)
SMPG-MP4	1/4"	1/2"	6.4	17.5	7/16" - 20 UNF	20,000
SMPG-MP6	3/8"	5/8"	9.5	20.6	9/16" - 18 UNF	20,000
SMPG-MP9	9/16"	7/8"	14.3	27.0	13/16" - 16 UNF	20,000
SMPG-MP12	3/4"	1-1/8"	19.1	28.6	3/4" - 14 NPSM	20,000
SMPG-MP16	1"	1-3/8"	25.4	38.1	1-3/8" - 12 UNF	20,000

SMPCR

Collar

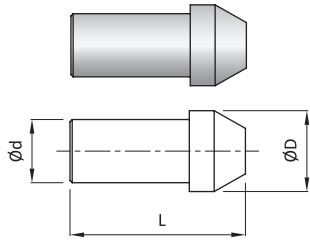


Part No.	Tube Size (in)	D	L	Thread T	Pressure Rating (psi)
SMPCR-MP4	1/4"	9.5	5.6	1/4" - 28 L.H.	20,000
SMPCR-MP6	3/8"	11.9	6.4	3/8" - 24 L.H.	20,000
SMPCR-MP9	9/16"	18.3	7.9	9/16" - 18 L.H.	20,000
SMPCR-MP12	3/4"	23.8	9.5	3/4" - 16 L.H.	20,000
SMPCR-MP16	1"	31.8	12.7	1" - 14 L.H.	20,000

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SMPP

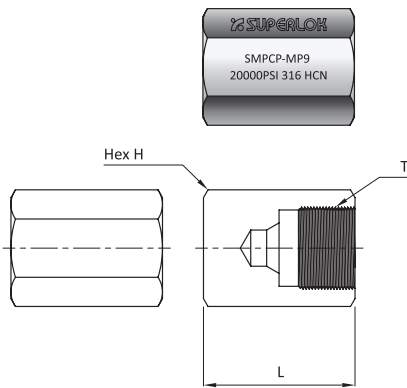
Plug



Part No.	Tube Size (in)	d	D	L	Pressure Rating (psi)
SMPP-MP4	1/4"	6.4	9.5	25.4	20,000
SMPP-MP6	3/8"	9.5	11.9	31.8	20,000
SMPP-MP9	9/16"	14.3	18.3	39.7	20,000
SMPP-MP12	3/4"	19.1	23.9	44.5	20,000
SMPP-MP16	1"	25.4	31.8	60.3	20,000

SMPCP

Cap



Part No.	Tube Size (in)	Hex H (in)	L	T	Pressure Rating (psi)
SMPCP-MP4	1/4"	5/8"	22.2	7/16" - 20 UNF	20,000
SMPCP-MP6	3/8"	3/4"	34.9	9/16" - 18 UNF	20,000
SMPCP-MP9	9/16"	1"	38.1	13/16" - 16 UNF	20,000
SMPCP-MP12	3/4"	1 - 3/8"	63.5	3/4" - 14 NPSM	20,000
SMPCP-MP16	1"	1 - 3/4"	76.2	1-3/8" - 12 UNF	20,000

SMPN

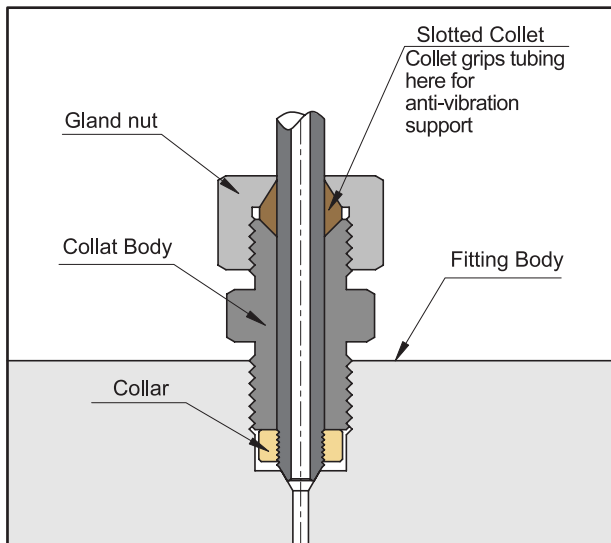
Nipple

For rapid system make-up, BMT (SUPERLOK) supplies precut, coned-and-threaded nipples in various sizes and lengths for SUPERLOK medium pressure fittings.

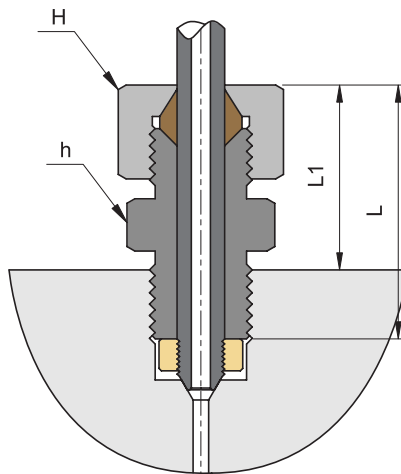


Part No.							Tube Size in (mm)		Working Pressure at 100°F (psi)
Nipple Length in (mm)							O.D.	I.D.	
2.75" (69.9)	3" (76.2)	4" (101.6)	6" (152.4)	8" (203.2)	10" (254)	12" (304.8)	1/4" (6.35)	0.109" (2.77)	20,000
SMPN-4-2.75L	SMPN-4-3L	SMPN-4-4L	SMPN-4-6L	SMPN-4-8L	SMPN-4-10L	SMPN-4-12L			
	SMPN-6-3L	SMPN-6-4L	SMPN-6-6L	SMPN-6-8L	SMPN-6-10L	SMPN-6-12L	3/8" (9.53)	0.203" (5.16)	20,000
		SMPN-9-4L	SMPN-9-6L	SMPN-9-8L	SMPN-9-10L	SMPN-9-12L			
			SMPN-12-6L	SMPN-12-8L	SMPN-12-10L	SMPN-12-12L	3/4" (19.05)	0.438" (11.13)	20,000
			SMPN10-12-6L	SMPN10-12-8L	SMPN10-12-10L	SMPN10-12-12L			
			SMPN-16-6L	SMPN-16-8L	SMPN-16-10L	SMPN-16-12L	1" (25.4)	0.562" (14.27)	20,000
			SMPN10-16-6L	SMPN10-16-8L	SMPN10-16-10L	SMPN10-16-12L			
								0.687" (17.45)	10,000

Anti-vibration Collet Gland - Pressure up to 20,000psi



For extreme conditions of vibration and/or shock in tubing systems such as an unsupported line near a compressor, coned and threaded connections are offered with the SUPERLOK anti-vibration collet gland assembly. Completely interchangeable with standard SUPERLOK medium pressure connections, the collet gland assembly provides equally effective pressure handling capability. In standard connection systems, the bending stresses on the threaded area of the tubing imposed by excessive vibration or movement may cause premature fatigue failure of the tubing at the back of the thread. By moving the stress concentration back to the unthreaded part of the tubing and providing a wedge-type gripping action, the SUPERLOK anti-vibration collet gland assembly strengthens the entire structure. With stress concentration reduced and overall stress level maintained well below the endurance limit of the material, virtually unlimited vibrational fatigue life can be attained.



Part No.	Tube Size (in)	Hex H (in)		L1	L	Collar
		h	H			
SMP-AVCG- 4H	1/4"	1/2"	5/8"	23.9	30.2	SMPCR- 4
SMP-AVCG- 6H	3/8"	5/8"	3/4"	30.2	38.1	SMPCR- 6
SMP-AVCG- 9H	9/16"	7/8"	7/8"	35.8	45.2	SMPCR- 9
SMP-AVCG-12H	3/4"	1 - 1/8"	1 - 1/8"	40.4	50.8	SMPCR-12
SMP-AVCG-16H	1"	1 - 3/8"	1 - 3/8"	42.9	60.5	SMPCR-16

- Dimensions and Drawings are for reference only and are subject to change without prior notice.
 - Unless otherwise specified, all dimensions are in millimeters.
 - Sizes, pressure classes, and end connections not listed are available upon request.

Memo



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