

PRODUCTS CATALOG

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SG-LOK Tube Fittings



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Features

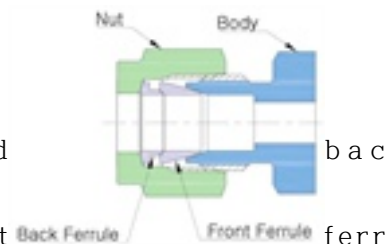
SG-LOK tube fittings have been specifically designed for use on instrumentation, process and control systems and equipment employed in chemical, petroleum, power plant, ship building, semiconductor and solar industries.

SG-LOK tube fittings could also be used in applications of other fields where very high quality tube fittings are required.

Construction

SG-LOK tube fittings are composed of body, nut, front ferrule and back ferrule.

When the nut is screwed forward, the back ferrule advances the front ferrule along the taper of the body, resulting in a tight grip on the tube and no leaks.



Materials

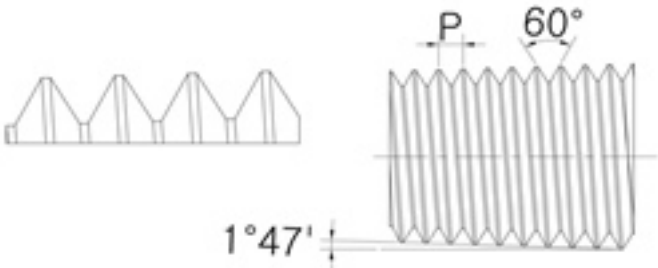
SG-LOK tube fittings are available in various kinds of materials as below. Straight fittings are machined from cold finished bar stock and shaped fittings from forgings.

Materials	Bar Stock	Forgings
316 SS or 316L SS	ASTM A479 ASME SA479	ASTM A182 ASME SA182
Brass	ASTM B16 ASTM B453	ASTM B283
Alloy 400 (Monel)	ASTM B164	ASTM B564 ASME SB564
Alloy 600 (Inconel)	ASTM B166	
Alloy 625 (Inconel)	ASTM B446	
Alloy 825 (Incoloy)	ASTM B425	
Alloy C-276 (Hastelloy C)	ASTM B574	ASTM B564
Duplex (SAF 2205) UNS S31803 / S32205	ASTM A479	ASTM A182
Super Duplex (SAF 2507®) UNS S32750	ASTM A479	
UNS 31254 (Incoloy 25-6MO)	ASTM B649	-

Thread Information

1. NPT Tapered Pipe Thread

NPT (National Pipe Thread) is based on ANSI B1.20.1.

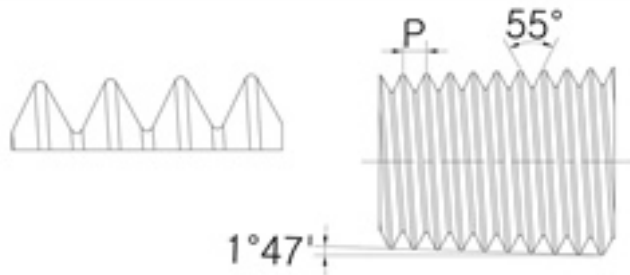


- Tapered thread ($1^{\circ} 47'$)
- Truncation of roots and crests are flat
- 60° thread angle
- Pitch is measured in threads per inch

2. ISO 7/1 Tapered Pipe Thread

International Organization for Standard (ISO 7/1) Tapered (PT)

Equivalent to BSPT (British Standard Pipe Taper Thread), DIN 2999, JIS B0203



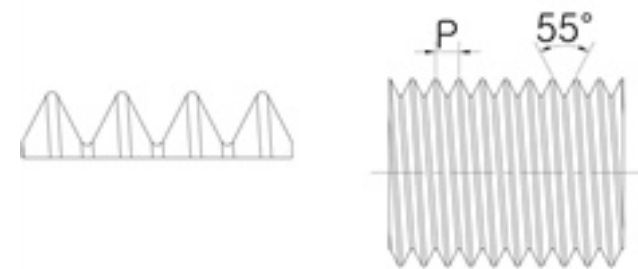
- Tapered thread ($1^{\circ} 47'$)
- Truncation of roots and crests are rounded
- 55° thread angle
- Pitch is measured in threads per inch

3. ISO 228/1 Parallel Pipe Thread

International Organization for Standard (ISO 228/1) Parallel(PF)

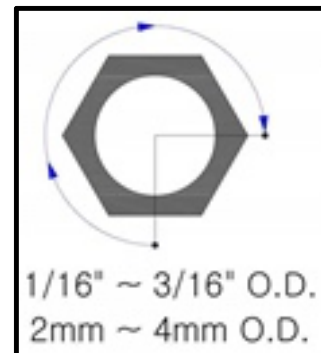
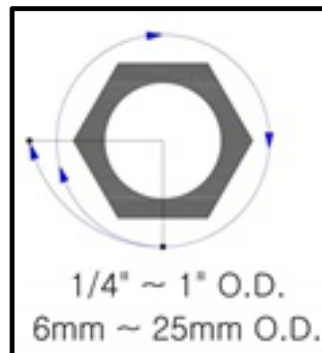
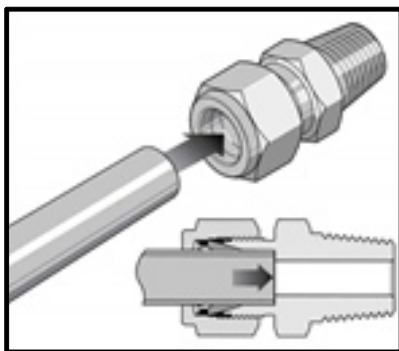
Equivalent to BSPP (British Standard Pipe Parallel Thread), DIN ISO228/1, JIS B0202

Gasket or O-ring is normally used to seal into the parallel female threaded components.



- Straight thread
- Truncation of roots and crests are rounded
- 55° flank angle
- Threads are measured in inches

Installation Instruction



1. Fully insert the tube into the fitting and against the shoulder.
2. Rotate the nut finger-tight.
3. Mark the nut at the 6 o'clock position with pencil or scribe.
4. While holding the fitting body steady, tighten the nut 1-1/4 turns to the 9 o'clock position.
5. The above applies to all fittings from 1/4" to 1" (6mm to 25mm). Fittings from 1/16" to 3/16" (2mm to 4mm), only 3/4 turn is required.

Reassembly - Simply insert tube assembly into fitting body, tighten nut to the original position as indicated by the previous mark, then tighten slightly with a wrench.

Maximum Allowable Working Pressure

1. Stainless Steel Tubing

Fully annealed and seamless stainless steel tubing to comply with ASTM A269 or equivalent.
Hardness should not exceed Rb 80.

Tubing should be free from scratched and suitable for bending and flaring.

Tube O.D. (inch)	Tube Wall Thickness (inch)										
	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
1/8	8550	10950									
3/16	5500	7100	10300								
1/4	4100	5200	7600	10300				Working pressure in psig			
5/16		4100	5900	8100							
3/8		3350	4850	6550							
1/2		2650	3750	5150	6750						
5/8			2950	4050	5250	6050					
3/4			2450	3350	4250	4950	5850				
4/8			2050	2850	3650	4250	4850				
1				2400	3100	3600	4200	4700			
1-1/4					2400	2800	3300	3600	4100	4900	
1-1/2						2300	2700	3000	3400	4000	4900
2							2000	2200	2500	2900	3600

For gas service application, use only tubing with wall thickness on outside of gray areas.
Allowable stress of 20000 psig between -29°C(-20°F) and 37°C(100°F) based on ultimate tensile strength to be 74000 psig.

2. Copper Tubing

Fully annealed and seamless copper tubing to comply with ASTM B75 or equivalent.

Hardness should not exceed Rb 60.

Tube O.D. (inch)	Tube Wall Thickness (inch)							
	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
1/4	1300	1600	2500	3500				
3/8		1000	1600	2200		Working pressure in psig		
1/2		800	1100	1600	2200			
5/8			900	1200	1600	1900		
3/4			700	1000	1300	1500	1800	
1			500	700	900	1100	1300	1500

For gas service application, use only tubing with wall thickness on outside of gray areas.
Allowable stress of 6000 psig between -29°C(-20°F) and 37°C (100°F) based on ultimate tensile strength to be 30000 psig.

3. Monel Tubing

Fully annealed and seamless stainless steel tubing to comply with ASTM B165 or equivalent.

Hardness should not exceed Rockwell Rb 75.

Tube O.D. (inch)	Tube Wall Thickness (inch)						
	0.035	0.049	0.065	0.083	0.095	0.109	0.120
1/4	4800	7000	9500				
3/8	3100	4400	6100		Working pressure in psig		
1/2	2300	3200	4400				
3/4		2200	3000	4000	4600		
1			2200	2900	3400	3900	4300

For gas service application, use only tubing with wall thickness on outside of gray areas.
Allowable stress of 6000 psig between -29°C(-20°F) and 37°C (100°F) based on ultimate tensile strength to be 30000 psig.

How To order

1. Fractional(Inch) Tube fittings

SG-LOK fractional(inch) size tube fittings are ordered by part number as shown below.

G	MC	04	–	08	N	–	SS
SG-LOK Tube Fitting	Fitting Type	Tube O.D.		Pipe Size	Thread Type		Material

Fractional(inch) Tube Designation																
Tube O.D.	inch	1/16	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-1/2	2
	mm	1.50	3.17	4.76	6.35	7.93	9.52	12.70	15.88	19.05	22.22	25.40	28.57	31.75	38.10	50.80
Designator		01	02	03	04	05	06	08	10	12	14	16	18	20	24	32

Pipe Size Designation									
Pipe Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Designator	02	04	06	08	12	16	20	24	32

Thread Type Designation		
Designator	Thread Type	
N	NPT	National Standard Pipe Thread
R	ISO 7/1	Taper Pipe Thread
G	ISO 228/1	Parallel Pipe Thread

Material Designation	
Designator	Materials
SS	316SS
BS	Brass
CS	Carbon Steel
MO	Alloy 400
IN60	Alloy 600

2. Metric Tube fittings

SG-LOK metric size tube fittings are ordered by part number as shown below.

G	MC	04M	–	08	N	–	SS
SG-LOK Tube Fitting	Fitting Type	Tube O.D.		Pipe Size	Thread Type		Material

Metric Tube O.D Designation																		
Tube O.D.	mm	2	3	4	6	8	10	12	14	15	16	18	20	22	25	28	32	38
Designator		02M	03M	04M	06M	08M	10M	12M	14M	15M	16M	18M	20M	22M	25M	28M	32M	38M

= Tube Fitting INDEX =

[Tube to Female Pipe]

GMC	Male Connector	11, 12
GTMC	Male Thermocouple Male Connector	13
GMC-G	Male Connector for Bonded Seal	13, 14
GBMC	Bulkhead Male Connector	15
GMC-M	Male Connector for Metal Gasket	16
GME	Male Elbow	17, 18
GME45D	45° Male Elbow	19
GMRT	Male Run Tee	20
GMBT	Male Branch Tee	21

[Tube to Male Pipe]

GFC	Female Connector	22, 23
GGC	Gauge Connector	24
GBFC	Bulkhead Female Connector	25
GFE	Female Elbow	26
GFRT	Female Run Tee	27
GFBT	Female Branch Tee	28

[Tube to Tube Union]

GU	Union	29
GUO	Orifice Union	30
GRU	Reducing Union	31, 32
GBU	Bulkhead Union	33
GUE	Union Elbow	34
GUT	Union Tee	35

GRBT	Reducing Union Branch Tee	36
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GRRT	Reducing Union Run Tee	36
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GUC	Union Cross	37
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[Stub Tube Connector]

GR	Reducer	38, 39
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GBR	Bulkhead Reducer	40
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GER	Elbow Reducer	40
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GMA	Male Adapter	41
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GFA	Female Adapter	42
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GPC	Port Connector	43
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GRPC	Reducing Port Connector	44
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[Tube To AN Tube]

GAU	AN Union	45
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GABU	AN Bulkhead Union	45
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GAA	AN Adapter	45
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[Tube To SAE O-Ring Seal]

GSMC	SAE Male Connector	46
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GSME	Positionable SAE Male Elbow	46
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GSME45D	Positionable 45° SAE Male Elbow	46
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GSMRT	Positionable SAE Run Tee	47
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GSMBT	Positionable SAE Male Branch Tee	47
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GMOS	Male O-Seal Straight Thread Connector	48
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GMOP	Male O-Seal Pipe Thread Connector	48
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[Tube To Weld Systems]

GMPWC	Male Pipe Weld Connector	49
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GMPWE	Male Pipe Weld Elbow	50
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GTSWC	Tube Socket Weld Connector	50
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GTSWE	Tube Socket Weld Elbow	50
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GMPWA	Male Pipe Weld Adapter	51
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GTSWA	Tube Socket Weld Adapter	51
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[Push-On Hose Connector]

GPHTA	Push-On Hose to Tube Adapter	52
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GPHTF	Push-On Hose to Tube Fitting	52
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GPHMC	Push-On Hose to Male Connector	52
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GPHSU	Push-On Hose to Straight Union	52
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[Plug and Cap]

GP	Tube Plug	53
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GC	Tube Cap	53
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[Components]

GI	Tube Insert	54
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GN	Nut	54
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GFF	Front Ferrule	55
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GBF	Back Ferrule	55
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[Others]

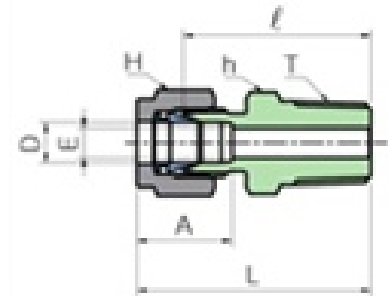
GEC	Eye checker for fittings	56
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Ordering Information & Dimension

[Tube to Female Pipe]

GMC

Male Connector



Connects Fractional(Inch) Tube to Female NPT Thread

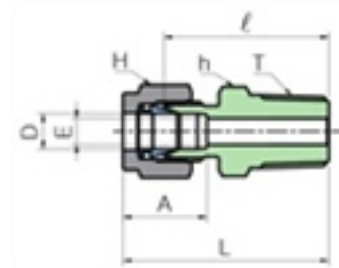
Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)							
	inch	mm		E Min.	h		H		A	ℓ	L
					inch	mm	inch	mm			
GMC 01-01N	1/16	1.58	1/16	1.3	5/16	7.93	5/16	7.93	8.6	20.0	23.8
GMC 01-02N	1/16	1.58	1/8	1.3	7/16	11.11	5/16	7.93	8.6	22.4	26.2
GMC 01-04N	1/16	1.58	1/4	1.3	9/16	14.28	5/16	7.93	8.6	27.2	31.0
GMC 02-01N	1/8	3.17	1/16	2.3	7/16	11.10	7/16	11.10	12.7	23.1	29.7
GMC 02-02N	1/8	3.17	1/8	2.3	7/16	11.10	7/16	11.10	12.7	23.9	30.5
GMC 02-04N	1/8	3.17	1/4	2.3	9/16	14.28	7/16	11.10	12.7	29.0	35.6
GMC 02-06N	1/8	3.17	3/8	2.3	11/16	17.46	7/16	11.10	12.7	29.2	35.8
GMC 02-08N	1/8	3.17	1/2	2.3	7/8	22.22	7/16	11.10	12.7	35.6	42.2
GMC 03-02N	3/16	4.76	1/8	3.0	7/16	11.11	1/2	12.70	13.7	24.6	31.2
GMC 03-04N	3/16	4.76	1/4	3.0	9/16	14.28	1/2	12.70	13.7	29.7	36.3
GMC 04-01N	1/4	6.35	1/16	3.0	1/2	12.70	9/16	14.28	15.2	25.4	32.8
GMC 04-02N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	25.4	32.8
GMC 04-04N	1/4	6.35	1/4	4.8	9/16	14.28	9/16	14.28	15.2	30.5	37.8
GMC 04-06N	1/4	6.35	3/8	4.8	11/16	17.46	9/16	14.28	15.2	31.0	38.4
GMC 04-08N	1/4	6.35	1/2	4.8	7/8	22.22	9/16	14.28	15.2	37.3	44.7
GMC 04-12N	1/4	6.35	3/4	4.8	1-1/16	26.98	9/16	14.28	15.2	38.9	46.2
GMC 05-02N	5/16	7.93	1/8	4.8	9/16	14.28	5/8	15.87	16.3	26.7	34.0
GMC 05-04N	5/16	7.93	1/4	6.4	9/16	14.28	5/8	15.87	16.3	31.2	38.6
GMC 05-06N	5/16	7.93	3/8	6.4	11/16	17.46	5/8	15.87	16.3	31.8	39.1
GMC 06-02N	3/8	9.52	1/8	4.8	5/8	15.87	11/16	17.46	16.8	27.9	35.3
GMC 06-04N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	32.5	39.9
GMC 06-06N	3/8	9.52	3/8	7.1	11/16	17.46	11/16	17.46	16.8	32.5	39.9
GMC 06-08N	3/8	9.52	1/2	7.1	7/8	22.22	11/16	17.46	16.8	38.9	46.2
GMC 06-12N	3/8	9.52	3/4	7.1	1-1/16	26.98	11/16	17.46	16.8	40.4	47.8
GMC 06-16N	3/8	9.52	1	7.1	1-3/8	34.92	11/16	17.46	16.8	47.0	54.4
GMC 08-02N	1/2	12.70	1/8	4.8	13/16	20.63	7/8	22.22	22.9	28.7	38.9
GMC 08-04N	1/2	12.70	1/4	7.1	13/16	20.63	7/8	22.22	22.9	33.3	43.4
GMC 08-06N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	33.3	43.4
GMC 08-08N	1/2	12.70	1/2	10.4	7/8	22.22	7/8	22.22	22.9	38.9	49.0
GMC 08-12N	1/2	12.70	3/4	10.4	1-1/16	26.98	7/8	22.22	22.9	40.4	50.5
GMC 08-16N	1/2	12.70	1	10.4	1-3/8	34.92	7/8	22.22	22.9	47.0	57.2
GMC 10-06N	5/8	15.87	3/8	9.7	15/16	23.81	1	25.40	24.4	34.0	44.2
GMC 10-08N	5/8	15.87	1/2	11.9	15/16	23.81	1	25.40	24.4	38.9	49.0
GMC 10-12N	5/8	15.87	3/4	12.7	1-1/16	26.98	1	25.40	24.4	40.4	50.5
GMC 12-06N	3/4	19.05	3/8	10.4	1-1/16	26.98	1-1/8	28.57	24.4	35.4	45.6
GMC 12-08N	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.57	24.4	40.4	50.5
GMC 12-12N	3/4	19.05	3/4	15.7	1-1/16	26.98	1-1/8	28.57	24.4	40.4	50.5
GMC 12-16N	3/4	19.05	1	15.7	1-3/8	34.92	1-1/8	28.57	24.4	47.0	57.2
GMC 14-12N	7/8	22.22	3/4	15.7	1-3/16	30.16	1-1/4	31.75	25.9	40.4	50.5
GMC 14-16N	7/8	22.22	1	18.3	1-3/8	34.92	1-1/4	31.75	25.9	47.0	57.2
GMC 16-08N	1	25.40	1/2	11.9	1-3/8	34.92	1-1/2	38.10	31.2	45.2	57.4
GMC 16-12N	1	25.40	3/4	15.7	1-3/8	34.92	1-1/2	38.10	31.2	45.2	57.4
GMC 16-16N	1	25.40	1	22.4	1-3/8	34.92	1-1/2	38.10	31.2	50.0	62.2
GMC 20-16N	1-1/4	31.75	1	22.4	1-3/4	44.45	1-7/8	47.63	41.1	55.1	77.2
GMC 20-20N	1-1/4	31.75	1-1/4	27.7	1-3/4	44.45	1-7/8	47.63	41.1	55.1	77.2
GMC 24-24N	1-1/2	38.10	1-1/2	34.0	2-1/8	53.97	2-1/4	57.15	50.0	61.7	88.9
GMC 32-32N	2	50.80	2	46.0	2-3/4	69.85	3	76.20	67.6	76.2	113.5

ISO Tapered threads are available for all fractional GMC. To order, add "R" as a suffix instead of "N".

[Tube to Female Pipe]

GMC

Male Connector



Connects Metric Tube to Female ISO Tapered Thread

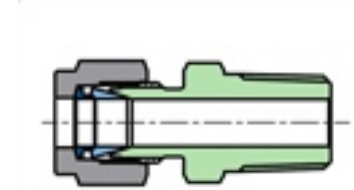
Part No.	Tube O.D. D	T (PT)	Dimensions (mm)					
	mm		E Min.	h	H	A	ℓ	L
GMC 02M-02R	2	1/8	1.7	11.11	11.11	12.9	23.9	30.5
GMC 03M-02R	3	1/8	2.4	11.11	11.11	12.9	23.9	30.5
GMC 03M-04R	3	1/4	2.4	14.28	11.11	12.9	29.0	35.6
GMC 04M-02R	4	1/8	2.4	11.11	12.70	13.7	24.6	31.2
GMC 04M-04R	4	1/4	2.4	14.28	12.70	13.7	29.7	36.3
GMC 06M-02R	6	1/8	4.8	12.70	14.28	15.3	25.4	32.8
GMC 06M-04R	6	1/4	4.8	14.28	14.28	15.3	30.5	37.9
GMC 06M-06R	6	3/8	4.8	17.46	14.28	15.3	31.0	38.4
GMC 06M-08R	6	1/2	4.8	22.22	14.28	15.3	37.3	44.7
GMC 08M-02R	8	1/8	4.8	14.28	15.87	16.2	26.7	34.2
GMC 08M-04R	8	1/4	6.4	14.28	15.87	16.2	31.2	38.7
GMC 08M-06R	8	3/8	6.4	17.46	15.87	16.2	31.8	39.3
GMC 08M-08R	8	1/2	6.4	22.22	15.87	16.2	38.1	45.6
GMC 10M-02R	10	1/8	4.8	17.46	19.05	17.2	28.7	36.3
GMC 10M-04R	10	1/4	7.1	17.46	19.05	17.2	33.3	40.9
GMC 10M-06R	10	3/8	7.9	17.46	19.05	17.2	33.3	40.9
GMC 10M-08R	10	1/2	7.9	22.22	19.05	17.2	38.9	46.5
GMC 12M-02R	12	1/8	4.8	20.63	22.22	22.8	28.7	38.8
GMC 12M-04R	12	1/4	7.1	20.63	22.22	22.8	33.3	43.4
GMC 12M-06R	12	3/8	9.5	20.63	22.22	22.8	33.3	43.4
GMC 12M-08R	12	1/2	9.5	22.22	22.22	22.8	38.9	49.0
GMC 12M-12R	12	3/4	9.5	26.98	22.22	22.8	40.4	50.5
GMC 14M-04R	14	1/4	7.1	22.22	25.40	24.4	34.0	44.1
GMC 14M-06R	14	3/8	9.5	22.22	25.40	24.4	34.0	44.1
GMC 14M-08R	14	1/2	11.1	23.81	25.40	24.4	38.9	49.0
GMC 15M-08R	15	1/2	11.9	23.81	25.40	24.4	38.9	49.0
GMC 16M-06R	16	3/8	9.5	23.81	25.40	24.4	34.0	44.1
GMC 16M-08R	16	1/2	11.9	23.81	25.40	24.4	38.9	49.0
GMC 16M-12R	16	3/4	12.7	26.98	25.40	24.4	40.4	50.5
GMC 18M-08R	18	1/2	11.9	26.98	30.16	24.4	40.4	50.5
GMC 18M-12R	18	3/4	15.1	26.98	30.16	24.4	40.4	50.5
GMC 20M-08R	20	1/2	11.9	30.16	31.75	26.0	42.2	52.3
GMC 20M-12R	20	3/4	15.9	30.16	31.75	26.0	42.2	52.3
GMC 22M-08R	22	1/2	11.9	30.16	31.75	26.0	42.2	52.3
GMC 22M-12R	22	3/4	15.9	30.16	31.75	26.0	42.2	52.3
GMC 25M-08R	25	1/2	11.9	34.92	38.10	31.3	45.2	57.5
GMC 25M-12R	25	3/4	15.9	34.92	38.10	31.3	45.2	57.5
GMC 25M-16R	25	1	21.8	34.92	38.10	31.3	50.0	62.3
GMC 28M-16R	28	1	21.8	44.45	47.63	36.6	51.6	72.4
GMC 28M-20R	28	1-1/4	21.8	47.63	47.63	36.6	52.3	73.1
GMC 30M-20R	30	1-1/4	26.2	47.63	50.80	39.6	55.6	77.2
GMC 32M-20R	32	1-1/4	28.6	47.63	50.80	42.0	56.6	79.6
GMC 38M-24R	38	1-1/2	33.7	55.56	57.15	49.4	64.0	92.6

NPT threads are available for all metric GMC. To order, add "N" as a suffix instead of "R".

[Tube to Female Pipe]

GTMC

Male Thermocouple Male Connector



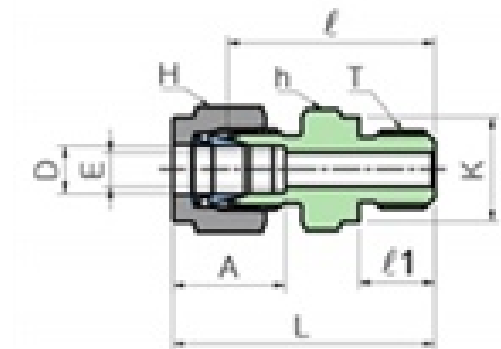
SG-LOK Bored-through Male Connectors accommodate thermocouples or dip tubes.

Most SG-LOK Male Connectors can be bored-through fittings.

Male connectors which tube fitting end is larger than pipe thread end such as GTMC 10M-06R(N), GTMC 08-04R(N) are impractical to make bored-through fittings.

GMC-G

Male Connector for Bonded Seal



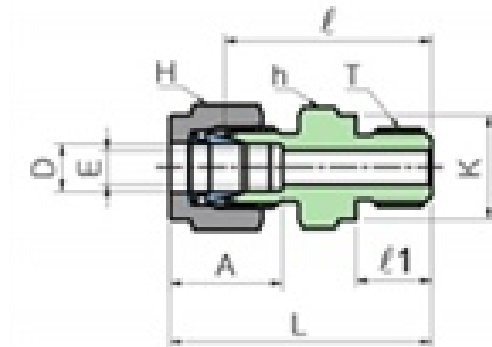
Connects Fractional(Inch) Tube to Female ISO Parallel Thread

Part No.	Tube O.D. D		T (PF)	Dimensions (mm)									
				E Min.	h		H		A	ℓ	ℓ1	L	K
	inch	mm			inch	mm	inch	mm					
GMC 02-02G	1/8	3.17	1/8	2.3	9/16	14.28	7/16	11.11	12.7	23.4	7.1	30.0	13.8
GMC 02-04G	1/8	3.17	1/4	2.3	3/4	19.05	7/16	11.11	12.7	28.7	11.2	35.3	18.0
GMC 02-06G	1/8	3.17	3/8	2.3	7/8	22.22	7/16	11.11	12.7	29.7	11.2	36.3	21.8
GMC 04-02G	1/4	6.35	1/8	4.1	9/16	14.28	9/16	14.28	15.2	24.9	7.1	32.3	13.8
GMC 04-04G	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.2	30.2	11.2	37.6	18.0
GMC 04-06G	1/4	6.35	3/8	4.8	7/8	22.22	9/16	14.28	15.2	31.5	11.2	38.9	21.8
GMC 04-08G	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.2	37.3	14.2	44.7	26.0
GMC 06-04G	3/8	9.52	1/4	5.8	3/4	19.05	11/16	17.46	16.8	31.8	11.2	39.1	18.0
GMC 06-06G	3/8	9.52	3/8	7.1	7/8	22.22	11/16	17.46	16.8	33.0	11.2	40.4	21.8
GMC 06-08G	3/8	9.52	1/2	7.1	1-1/16	26.98	11/16	17.46	16.8	38.9	14.2	46.2	26.0
GMC 08-02G	1/2	12.70	1/8	4.8	7/8	22.22	7/8	22.22	22.9	28.5	7.1	38.7	13.8
GMC 08-04G	1/2	12.70	1/4	5.8	13/16	20.63	7/8	22.22	22.9	32.5	11.2	42.7	18.0
GMC 08-06G	1/2	12.70	3/8	7.9	7/8	22.22	7/8	22.22	22.9	33.0	11.2	43.2	21.8
GMC 08-08G	1/2	12.70	1/2	10.4	1-1/16	26.98	7/8	22.22	22.9	38.9	14.2	49.0	26.0
GMC 12-08G	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.57	24.4	38.9	14.2	49.0	26.0
GMC 12-12G	3/4	19.05	3/4	15.7	1-3/8	34.92	1-1/8	28.57	24.4	42.7	15.7	52.8	32.0
GMC 16-12G	1	25.40	3/4	16.0	1-3/8	34.92	1-1/2	38.10	31.2	45.2	15.7	57.4	32.0
GMC 16-16G	1	25.40	1	19.8	1-5/8	41.27	1-1/2	38.10	31.2	47.8	18.3	59.9	39.0

[Tube to Female Pipe]

GMC-G

Male Connector for Bonded Seal



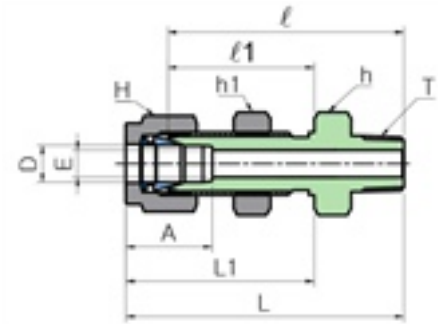
Connects Metric Tube to Female ISO Parallel Thread

Part No.	Tube O.D. D	T (PF)	Dimensions (mm)							
	mm		E Min.	h	H	A	ℓ	ℓ1	L	K
GMC 02M-02G	2	1/8	1.7	14.28	12.70	12.9	23.4	7.1	30.0	13.8
GMC 03M-02G	3	1/8	2.4	14.28	11.11	12.9	23.4	7.1	30.0	13.8
GMC 03M-04G	3	1/4	2.4	19.05	11.11	12.9	28.7	11.2	35.3	18.0
GMC 04M-02G	4	1/8	2.4	14.28	12.70	13.7	24.1	7.1	30.7	13.8
GMC 04M-04G	4	1/4	2.4	19.05	12.70	13.7	29.4	11.2	36.0	18.0
GMC 06M-02G	6	1/8	4.0	14.28	14.28	15.3	24.9	7.1	32.3	13.8
GMC 06M-04G	6	1/4	4.8	19.05	14.28	15.3	30.2	11.2	37.6	18.0
GMC 06M-06G	6	3/8	4.8	22.22	14.28	15.3	31.5	11.2	38.9	21.8
GMC 06M-08G	6	1/2	4.8	26.98	14.28	15.3	37.3	14.2	44.7	26.0
GMC 08M-02G	8	1/8	4.0	15.87	15.87	16.2	25.7	7.1	33.2	13.8
GMC 08M-04G	8	1/4	6.4	19.05	15.87	16.2	31.0	11.2	38.5	18.0
GMC 08M-06G	8	3/8	6.4	22.22	15.87	16.2	32.3	11.2	39.8	21.8
GMC 08M-08G	8	1/2	6.4	26.98	15.87	16.2	38.1	14.2	45.6	26.0
GMC 10M-04G	10	1/4	5.9	19.05	19.05	17.2	31.8	11.2	39.4	18.0
GMC 10M-06G	10	3/8	7.9	22.22	19.05	17.2	33.0	11.2	40.6	21.8
GMC 10M-08G	10	1/2	7.9	26.98	19.05	17.2	38.9	14.2	46.5	26.0
GMC 12M-04G	12	1/4	5.9	22.22	22.22	22.8	32.5	11.2	42.6	18.0
GMC 12M-06G	12	3/8	7.9	22.22	22.22	22.8	33.0	11.2	43.1	21.8
GMC 12M-08G	12	1/2	9.5	26.98	22.22	22.8	38.9	14.2	49.0	26.0
GMC 12M-12G	12	3/4	9.5	34.92	22.22	22.8	42.7	15.7	52.8	32.0
GMC 15M-08G	15	1/2	11.9	26.98	25.40	24.4	38.9	14.2	49.0	26.0
GMC 16M-06G	16	3/8	7.9	23.81	25.40	24.4	33.8	11.2	43.9	21.8
GMC 16M-08G	16	1/2	11.9	26.98	25.40	24.4	38.9	14.2	49.0	26.0
GMC 18M-08G	18	1/2	11.9	26.98	30.16	24.4	38.9	14.2	49.0	26.0
GMC 18M-12G	18	3/4	15.1	34.92	30.16	24.4	42.7	15.7	52.8	32.0
GMC 20M-08G	20	1/2	11.9	30.16	31.75	26.0	40.4	14.2	50.5	26.0
GMC 20M-12G	20	3/4	15.9	34.92	31.75	26.0	42.7	15.7	52.8	32.0
GMC 22M-08G	22	1/2	11.9	30.16	31.75	26.0	40.4	14.2	50.5	26.0
GMC 22M-12G	22	3/4	15.1	34.92	31.75	26.0	42.7	15.7	52.8	32.0
GMC 25M-12G	25	3/4	15.9	34.92	38.10	31.3	45.2	15.7	57.5	32.0
GMC 25M-16G	25	1	19.8	41.27	38.10	31.3	47.8	18.3	60.1	39.0
GMC 28M-16G	28	1	19.8	44.45	47.63	36.6	49.3	18.3	70.1	39.0
GMC 28M-20G	28	1-1/4	21.8	50.80	47.63	36.6	53.1	19.8	73.9	49.0
GMC 32M-20G	32	1-1/4	28.6	50.80	50.80	42.0	55.9	19.8	78.9	49.0
GMC 38M-24G	38	1-1/2	31.8	55.56	57.15	49.4	63.2	22.1	90.8	54.7

[Tube to Female Pipe]

GBMC

Bulkhead Male Connector



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)													
				E Min.	h		h1		H		A	ℓ	ℓ1	L	L1	Panel Hole Size	Max Panel Thickness
	inch	mm			inch	mm	inch	mm	inch	mm							
GBMC 02-02N	1/8	3.17	1/8	2.3	1/2	12.7	1/2	12.7	7/16	11.11	12.7	39.9	24.6	46.5	31.2	8.3	12.7
GBMC 04-02N	1/4	6.35	1/8	4.8	5/8	15.87	5/8	15.87	9/16	14.28	15.2	42.2	26.2	49.5	33.5	11.5	10.2
GBMC 04-04N	1/4	6.35	1/4	4.8	5/8	15.87	5/8	15.87	9/16	14.28	15.2	46	26.2	53.3	33.5	11.5	10.2
GBMC 06-04N	3/8	9.52	1/4	7.1	3/4	19.05	3/4	19.05	11/16	17.46	16.8	50	29.5	57.4	36.8	14.7	11.2
GBMC 06-06N	3/8	9.52	3/8	7.1	3/4	19.05	3/4	19.05	11/16	17.46	16.8	50	29.5	57.4	36.8	14.7	11.2
GBMC 06-08N	3/8	9.52	1/2	7.1	7/8	22.22	3/4	19.05	11/16	17.46	16.8	56.4	29.5	63.8	36.8	14.7	11.2
GBMC 08-06N	1/2	12.7	3/8	9.7	15/16	23.81	15/16	23.81	7/8	22.22	22.9	53.1	31.8	63.2	41.9	19.5	12.7
GBMC 08-08N	1/2	12.7	1/2	10.4	15/16	23.81	15/16	23.81	7/8	22.22	22.9	58.7	31.8	68.8	41.9	19.5	12.7
GBMC 12-12N	3/4	19.05	3/4	15.7	1-3/16	30.16	1-3/16	30.16	1-1/8	28.57	24.4	66	37.3	76.2	47.5	25.8	16.8
GBMC 16-16N	1	25.4	1	22.4	1-5/8	41.27	1-5/8	41.27	1-1/2	38.1	31.2	81	45.2	93.2	57.4	33.7	19.1

ISO Tapered threads are available for all fractional GBMC. To order, add "R" as a suffix instead of "N".

Connects Metric Tube to Female ISO Tapered Thread

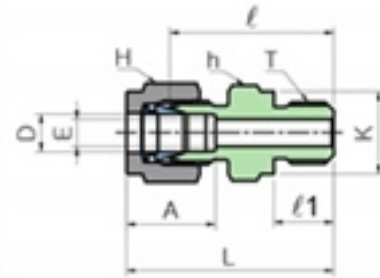
Part No.	Tube O.D. D	T (PT)	Dimensions (mm)										
	mm		E Min.	h	h1	H	A	ℓ	ℓ1	L	L1	Panel Hole Size	Max Panel Thickness
GBMC 03M-02R	3	1/8	2.4	14.28	14.28	11.11	12.9	39.8	24.6	46.5	31.2	8.3	12.7
GBMC 06M-02R	6	1/8	4.8	15.87	15.87	14.28	15.3	42.2	26.2	49.6	33.6	11.5	10.2
GBMC 06M-04R	6	1/4	4.8	15.87	15.87	14.28	15.3	46.2	26.2	53.6	33.6	11.5	10.2
GBMC 08M-04R	8	1/4	6.4	17.46	17.46	15.87	16.2	49	28.6	56.5	36.1	13.1	11.2
GBMC 10M-04R	10	1/4	7.1	22.22	22.22	19.05	17.2	52	29.5	59.7	37	16.2	11.2
GBMC 12M-06R	12	3/8	9.5	23.81	23.81	22.22	22.8	53.1	31.8	63.2	41.9	19.5	12.7
GBMC 12M-08R	12	1/2	9.5	23.81	23.81	22.22	22.8	58.7	31.8	68.8	41.9	19.5	12.7

NPT threads are available for all metric GBMC. To order, add "N" as a suffix instead of "R".

[Tube to Female Pipe]

GMC-M

Male Connector for Metal Gasket



Connects Fractional(Inch) Tube to Female ISO Parallel Thread

Part No.	Tube O.D. D		T (PF)	Dimensions (mm)									
	inch	mm		E Min.	h		H		A	ℓ	ℓ1	L	K
GMC 02-02M	1/8	3.17	1/8	2.3	9/16	14.28	7/16	11.11	12.7	23.4	7.1	30.0	13.8
GMC 02-04M	1/8	3.17	1/4	2.3	3/4	19.05	7/16	11.11	12.7	28.7	11.2	35.3	18.0
GMC 02-06M	1/8	3.17	3/8	2.3	7/8	22.22	7/16	11.11	12.7	29.7	11.2	36.2	21.8
GMC 04-02M	1/4	6.35	1/8	4.1	9/16	14.28	9/16	14.28	15.2	24.9	7.1	32.3	13.8
GMC 04-04M	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.2	30.2	11.2	37.6	18.0
GMC 04-06M	1/4	6.35	3/8	4.8	7/8	22.22	9/16	14.28	15.2	31.5	11.2	38.9	21.8
GMC 04-08M	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.2	37.3	14.2	44.7	26.0
GMC 06-04M	3/8	9.52	1/4	5.8	3/4	19.05	11/16	17.46	16.8	31.8	11.2	39.1	18.0
GMC 06-06M	3/8	9.52	3/8	7.1	7/8	22.22	11/16	17.46	16.8	33.0	11.2	40.4	21.8
GMC 06-08M	3/8	9.52	1/2	7.1	1-1/16	26.98	11/16	17.46	16.8	38.9	14.2	46.2	26.0
GMC 08-04M	1/2	12.70	1/4	5.8	13/16	20.63	7/8	22.22	22.9	32.5	11.2	42.7	18.0
GMC 08-06M	1/2	12.70	3/8	7.9	7/8	22.22	7/8	22.22	22.9	33.0	11.2	43.2	21.8
GMC 08-08M	1/2	12.70	1/2	10.4	1-1/16	26.98	7/8	22.22	22.9	38.9	14.2	49.0	26.0
GMC 12-08M	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.57	24.4	38.9	14.2	49.0	26.0
GMC 12-12M	3/4	19.05	3/4	15.7	1-5/16	31.75	1-1/8	28.57	24.4	42.7	15.7	52.8	32.0
GMC 16-12M	1	25.40	3/4	16.0	1-3/8	34.92	1-1/2	38.10	31.2	45.2	15.7	57.4	32.0
GMC 16-16M	1	25.40	1	19.8	1-5/8	41.27	1-1/2	38.10	31.2	47.8	18.3	59.9	39.0

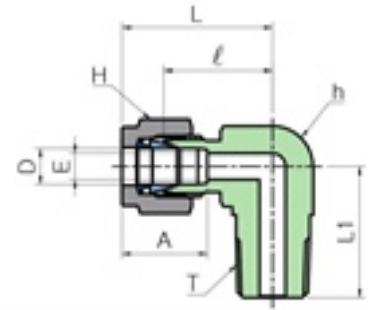
Connects Metric Tube to Female ISO Parallel Thread

Part No.	Tube O.D. D	T (PF)	Dimensions (mm)									
	mm		E Min.	h	H	A	ℓ	ℓ1	L	K		
GMC 03M-02M	3	1/8	2.4	14.28	11.11	12.7	23.4	7.1	30.0	13.8		
GMC 03M-04M	3	1/4	2.4	19.05	11.11	12.7	28.7	11.2	35.3	18.0		
GMC 04M-02M	4	1/8	2.4	14.28	12.70	13.7	24.1	7.1	30.7	13.8		
GMC 04M-04M	4	1/4	2.4	19.05	12.70	13.7	29.4	11.2	36.0	18.0		
GMC 06M-02M	6	1/8	4.0	14.28	14.28	15.3	24.9	7.1	32.3	13.8		
GMC 06M-04M	6	1/4	4.8	19.05	14.28	15.3	30.2	11.2	37.6	18.0		
GMC 06M-06M	6	3/8	4.8	22.22	14.28	15.3	31.5	11.2	38.9	21.8		
GMC 06M-08M	6	1/2	4.8	26.98	14.28	15.3	37.3	14.2	44.7	26.0		
GMC 08M-02M	8	1/8	4.0	15.87	15.87	16.3	25.7	7.1	33.2	13.8		
GMC 08M-04M	8	1/4	6.4	19.05	15.87	16.3	31.0	11.2	38.5	18.0		
GMC 08M-06M	8	3/8	6.4	22.22	15.87	16.3	32.3	11.2	39.8	21.8		
GMC 08M-08M	8	1/2	6.4	26.98	15.87	16.3	38.1	14.2	45.6	26.0		
GMC 10M-04M	10	1/4	5.9	19.05	19.05	17.3	31.8	11.2	39.4	18.0		
GMC 10M-06M	10	3/8	7.9	22.22	19.05	17.3	33.0	11.2	40.6	21.8		
GMC 10M-08M	10	1/2	7.9	26.98	19.05	17.3	38.9	14.2	46.5	26.0		
GMC 12M-04M	12	1/4	5.9	22.22	22.22	22.8	32.5	11.2	42.6	18.0		
GMC 12M-06M	12	3/8	7.9	22.22	22.22	22.8	33.0	11.2	43.1	21.8		
GMC 12M-08M	12	1/2	9.5	26.98	22.22	22.8	38.9	14.2	49.0	26.0		
GMC 12M-12M	12	3/4	9.5	34.92	22.22	22.8	42.7	15.7	52.8	32.0		
GMC 15M-08M	15	1/2	11.9	26.98	25.40	24.4	38.9	14.2	49.0	26.0		
GMC 16M-06M	16	3/8	7.9	23.81	25.40	24.5	33.8	11.2	43.9	21.8		
GMC 16M-08M	16	1/2	11.9	26.98	25.40	24.5	38.9	14.2	49.0	26.0		
GMC 18M-08M	18	1/2	11.9	26.98	30.16	24.5	38.9	14.2	49.0	26.0		
GMC 18M-12M	18	3/4	15.1	34.92	30.16	24.5	42.7	15.7	52.8	32.0		
GMC 20M-08M	20	1/2	11.9	30.16	31.75	26.2	40.4	14.2	50.5	26.0		
GMC 20M-12M	20	3/4	15.9	34.92	31.75	26.2	42.7	15.7	52.8	32.0		
GMC 22M-12M	22	3/4	15.9	34.92	31.75	26.2	42.7	15.7	52.8	32.0		
GMC 25M-12M	25	3/4	15.9	34.92	38.10	31.1	45.2	15.7	57.5	32.0		
GMC 25M-16M	25	1	19.8	41.27	38.10	31.1	47.8	18.3	60.1	39.0		
GMC 28M-16M	28	1	19.8	41.27	47.63	41.1	49.3	18.3	70.1	39.0		
GMC 28M-20M	28	1-1/4	21.8	50.80	47.63	41.1	53.1	19.8	73.9	49.0		
GMC 32M-20M	32	1-1/4	28.6	50.80	50.80	40.9	55.9	19.8	78.9	49.0		
GMC 38M-24M	38	1-1/2	31.8	55.56	57.15	49.9	61.7	20.6	89.3	54.7		

[Tube to Female Pipe]

GME

Male Elbow



Connects Fractional(Inch) Tube to Female NPT Thread

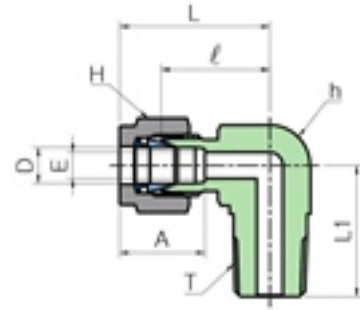
Part No.	Tube O.D.		T (NPT)	Dimensions (mm)								
	D			E Min.	h		H		A	ℓ	L	L1
	inch	mm			inch	mm	inch	mm				
GME 01-01N	1/16	1.68	1/16	1.3	1/2	12.70	5/16	7.93	8.6	15.2	19.1	17.8
GME 01-02N	1/16	1.68	1/8	1.3	1/2	12.70	5/16	7.93	8.6	15.2	19.1	17.8
GME 02-02N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	17.0	23.6	17.8
GME 02-04N	1/8	3.17	1/4	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	23.4
GME 02-06N	1/8	3.17	3/8	2.3	11/16	17.46	7/16	11.11	12.7	22.2	28.8	26.1
GME 02-08N	1/8	3.17	1/2	2.3	13/16	20.63	7/16	11.11	12.7	22.9	29.5	33.0
GME 03-02N	3/16	4.76	1/8	3.0	1/2	12.70	1/2	12.70	13.7	18.8	25.4	18.8
GME 03-04N	3/16	4.76	1/4	3.0	1/2	12.70	1/2	12.70	13.7	18.8	25.4	23.4
GME 04-01N	1/4	6.35	1/16	3.0	1/2	12.70	9/16	14.28	15.2	19.6	26.9	18.8
GME 04-02N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	18.8
GME 04-04N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	23.4
GME 04-06N	1/4	6.35	3/8	4.8	11/16	17.46	9/16	14.28	15.2	22.4	29.7	26.2
GME 04-08N	1/4	6.35	1/2	4.8	13/16	20.63	9/16	14.28	15.2	24.4	31.7	33.0
GME 04-12N	1/4	6.35	3/4	4.8	1-1/16	26.98	9/16	14.28	15.2	28.3	35.6	36.8
GME 05-02N	5/16	7.93	1/8	4.8	9/16	14.28	5/8	15.87	16.3	21.3	28.7	19.8
GME 05-04N	5/16	7.93	1/4	6.4	9/16	14.28	5/8	15.87	16.3	21.3	28.7	24.4
GME 05-06N	5/16	7.93	1/2	6.4	11/16	17.46	5/8	15.87	16.3	23.1	30.5	26.2
GME 06-02N	3/8	9.52	1/8	4.8	5/8	15.87	11/16	17.46	16.8	23.1	30.5	20.8
GME 06-04N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5	25.4
GME 06-06N	3/8	9.52	3/8	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	26.2
GME 06-08N	3/8	9.52	1/2	7.1	13/16	20.63	11/16	17.46	16.8	25.9	33.3	33.0
GME 06-12N	3/8	9.52	3/4	7.1	1-1/16	26.98	11/16	17.46	16.8	29.7	37.1	36.8
GME 08-02N	1/2	12.70	1/8	4.8	13/16	20.63	7/8	22.22	22.9	25.9	36.1	23.3
GME 08-04N	1/2	12.70	1/4	7.1	13/16	20.63	7/8	22.22	22.9	25.9	36.1	28.3
GME 08-06N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	25.9	36.1	28.3
GME 08-08N	1/2	12.70	1/2	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	33.0
GME 08-12N	1/2	12.70	3/4	10.4	1-1/16	26.98	7/8	22.22	22.9	29.7	39.9	36.8
GME 08-16N	1/2	12.70	1	10.4	1-3/8	34.92	7/8	22.22	22.9	34.6	44.8	46.5
GME 10-06N	5/8	15.87	3/8	9.7	15/16	23.81	1	25.40	24.4	27.9	38.1	30.2
GME 10-08N	5/8	15.87	1/2	11.9	15/16	23.81	1	25.40	24.4	27.9	38.1	35.1
GME 10-12N	5/8	15.87	3/4	12.7	1-1/16	26.98	1	25.40	24.4	29.7	39.9	36.8
GME 12-06N	3/4	19.05	3/8	9.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	31.9
GME 12-08N	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	36.8
GME 12-12N	3/4	19.05	3/4	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	36.8
GME 12-16N	3/4	19.05	1	15.7	1-3/8	34.92	1-1/8	28.57	24.4	34.5	44.7	46.5
GME 14-12N	7/8	22.22	3/4	15.7	1-3/8	30.16	1-1/4	31.75	25.9	34.5	44.7	41.7
GME 16-08N	1	25.40	1/2	11.9	1-3/8	34.92	1-1/2	38.10	31.2	36.5	48.7	41.9
GME 16-12N	1	25.40	3/4	15.7	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	41.7
GME 16-16N	1	25.40	1	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	46.5
GME 20-16N	1-1/4	31.75	1	27.7	1-11/16	42.86	1-7/8	47.63	41.1	44.0	66.0	51.3
GME 20-20N	1-1/4	31.75	1-1/4	27.7	1-11/16	42.86	1-7/8	47.63	41.1	44.0	66.0	51.1
GME 24-24N	1-1/2	38.10	1-1/2	34.0	2	50.80	2-1/4	57.15	50.0	50.8	78.0	60.5
GME 32-32N	2	50.80	2	46.0	2-3/4	69.85	3	76.20	67.6	69.8	107.2	70.6

ISO Tapered threads are available for all fractional GME. To order, add "R" as a suffix instead of "N".

[Tube to Female Pipe]

GME

Male Elbow



Connects Metric Tube to Female ISO Tapered Thread

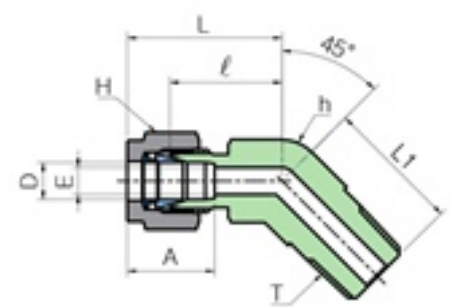
Part No.	Tube O.D.	T (PT)	Dimensions (mm)						
	D		E Min.	h	H	A	ℓ	L	L1
	mm			mm	mm				
GME 03M-02R	3	1/8	2.4	12.70	11.11	12.9	17.0	23.6	17.8
GME 03M-04R	3	1/4	2.4	12.70	11.11	12.9	18.0	24.6	23.4
GME 04M-02R	4	1/8	2.4	12.70	12.70	13.7	18.8	25.4	18.8
GME 04M-04R	4	1/4	2.4	12.70	12.70	13.7	18.8	25.4	23.4
GME 06M-02R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	18.8
GME 06M-04R	6	1/4	4.8	12.70	14.28	15.3	19.6	27.0	23.4
GME 06M-06R	6	3/8	4.8	17.46	14.28	15.3	22.4	29.8	26.2
GME 06M-08R	6	1/2	4.8	20.63	14.28	15.3	24.4	31.8	33.0
GME 08M-02R	8	1/8	4.8	14.28	15.87	16.2	21.3	28.8	19.8
GME 08M-04R	8	1/4	6.4	14.28	15.87	16.2	21.3	28.8	24.4
GME 08M-06R	8	3/8	6.4	17.46	15.87	16.2	23.1	30.6	26.2
GME 08M-08R	8	1/2	6.4	20.63	15.87	16.2	25.1	32.6	33.0
GME 10M-02R	10	1/8	4.8	17.46	19.05	17.2	23.9	31.5	21.6
GME 10M-04R	10	1/4	7.1	17.46	19.05	17.2	23.9	31.5	26.2
GME 10M-06R	10	3/8	7.9	17.46	19.05	17.2	23.9	31.5	26.2
GME 10M-08R	10	1/2	7.9	20.63	19.05	17.2	25.9	33.5	33.0
GME 12M-02R	12	1/8	4.8	20.63	22.22	22.8	25.9	36.0	23.6
GME 12M-04R	12	1/4	7.1	20.63	22.22	22.8	25.9	36.0	28.2
GME 12M-06R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	28.2
GME 12M-08R	12	1/2	9.5	20.63	22.22	22.8	25.9	36.0	33.0
GME 12M-12R	12	3/4	9.5	26.98	22.22	22.8	29.7	39.8	36.8
GME 14M-08R	14	1/2	11.9	23.81	25.40	24.4	27.9	38.0	35.1
GME 15M-08R	15	1/2	11.9	23.81	25.40	24.4	27.9	38.0	35.1
GME 16M-06R	16	3/8	9.5	23.81	25.40	24.4	27.9	38.0	30.2
GME 16M-08R	16	1/2	11.9	23.81	25.40	24.4	27.9	38.0	35.1
GME 16M-12R	16	3/4	12.7	26.98	25.40	24.4	29.7	39.8	36.8
GME 18M-08R	18	1/2	11.9	26.98	30.16	24.4	29.7	39.8	36.8
GME 18M-12R	18	3/4	15.1	26.98	30.16	24.4	29.7	39.8	36.8
GME 20M-08R	20	1/2	11.9	34.92	31.75	26.0	34.5	44.6	41.7
GME 20M-12R	20	3/4	15.9	34.92	31.75	26.0	34.5	44.6	41.7
GME 22M-12R	22	3/4	15.9	34.92	31.75	26.0	34.5	44.6	41.7
GME 25M-12R	25	3/4	15.9	34.92	38.10	31.3	36.8	49.1	41.7
GME 25M-16R	25	1	21.8	34.92	38.10	31.3	36.8	49.1	46.5
GME 30M-20R	30	1-1/4	26.2	46.04	50.80	39.6	48.3	69.9	53.1
GME 32M-20R	32	1-1/4	27.8	46.04	50.80	42.0	49.3	72.3	53.1
GME 38M-32R	38	1-1/2	33.7	55.56	57.15	49.4	56.4	84.0	60.4

NPT threads are available for all metric GME. To order, add "N" as a suffix instead of "R".

[Tube to Female Pipe]

GME45D

45° Male Elbow



Connects Fractional(Inch) Tube to Female NPT Thread

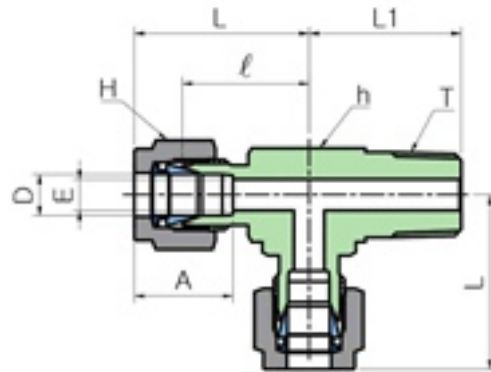
Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)								
	inch	mm		E Min.	h		H		A	ℓ	L	L1
					inch	mm	inch	mm				
GME45D 04-02N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	17.3	24.6	16.5
GME45D 04-04N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.2	17.3	24.6	21.1
GME45D 06-02N	3/8	9.52	1/8	4.8	5/8	15.87	11/16	17.46	16.8	20.6	27.9	18.3
GME45D 06-04N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	20.6	27.9	22.9
GME45D 06-06N	3/8	9.52	3/8	7.1	13/16	20.63	11/16	17.46	16.8	21.8	29.2	24.1
GME45D 08-06N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	21.8	32.0	24.1
GME45D 08-08N	1/2	12.70	1/2	10.4	13/16	20.63	7/8	22.22	22.9	21.8	32.0	29.0
GME45D 12-12N	3/4	19.05	3/4	15.7	1-1/8	28.57	1-1/8	28.57	24.4	23.9	34.0	31.0
GME45D 16-16N	1	25.40	1	22.4	1-3/8	34.92	1-1/2	38.10	31.2	28.2	40.3	37.8

ISO Tapered threads are available for all fractional GME45D. To order, add "R" as a suffix instead of "N".

[Tube to Female Pipe]

GMRT

Male Run Tee



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)								
				E Min.	h		H		A	ℓ	L	L1
	inch	mm			inch	mm	inch	mm				
GMRT 02-02N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	17.0	23.6	17.8
GMRT 02-04N	1/8	3.17	1/4	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	23.4
GMRT 03-02N	3/16	4.76	1/8	3.0	7/16	11.11	1/2	12.70	13.7	17.8	24.4	17.8
GMRT 04-02N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	18.8
GMRT 04-04N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	23.4
GMRT 05-02N	5/16	7.94	1/8	4.8	9/16	14.28	5/8	15.87	16.3	22.4	29.7	20.8
GMRT 06-04N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5	25.4
GMRT 06-06N	3/8	9.52	3/8	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	28.2
GMRT 08-06N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	25.9	36.1	28.2
GMRT 08-08N	1/2	12.70	1/2	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	33.0
GMRT 10-08N	5/8	15.87	1/2	11.9	1	25.40	1	25.40	24.4	27.9	38.1	35.1

ISO Tapered threads are available for all fractional GMRT. To order, add "R" as a suffix instead of "N".

Connects Metric Tube to Female ISO Tapered Thread

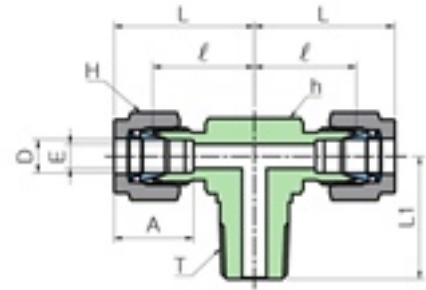
Part No.	Tube O.D.	T (PT)	Dimensions (mm)						
	D		E Min.	h	H	A	ℓ	L	L1
	mm			mm	mm				
GMRT 03M-02R	3	1/8	2.4	12.70	11.11	12.9	17.0	23.6	17.8
GMRT 03M-04R	3	1/4	2.4	12.70	11.11	12.9	18.0	24.6	23.4
GMRT 04M-02R	4	1/8	2.4	12.70	12.70	13.7	18.8	25.4	18.8
GMRT 06M-02R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	18.8
GMRT 06M-04R	6	1/4	4.8	12.70	14.28	15.3	19.6	27.0	23.4
GMRT 08M-02R	8	1/8	4.8	14.28	15.87	16.2	21.3	28.8	19.8
GMRT 08M-04R	8	1/4	6.4	14.28	15.87	16.2	21.3	28.8	24.4
GMRT 10M-04R	10	1/4	7.1	17.46	19.05	17.2	23.9	31.5	28.2
GMRT 10M-06R	10	3/8	7.9	17.46	19.05	17.2	23.9	31.5	28.2
GMRT 12M-04R	12	1/4	7.1	20.63	22.22	22.8	25.9	36.0	28.2
GMRT 12M-06R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	28.2
GMRT 12M-08R	12	1/2	9.5	20.63	22.22	22.8	25.9	36.0	33.0
GMRT 16M-06R	16	3/8	9.5	25.40	25.40	24.4	27.9	38.0	30.2
GMRT 16M-08R	16	1/2	11.9	25.40	25.40	24.4	27.9	38.0	35.1
GMRT 20M-12R	20	3/4	15.9	34.92	31.75	26.0	34.5	44.6	41.7

NPT threads are available for all metric GMRT. To order, add "N" as a suffix instead of "R".

[Tube to Female Pipe]

GMBT

Male Branch Tee



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)								
	inch	mm		E Min.	h		H		A	ℓ	L	L1
					inch	mm	inch	mm				
GMBT 02-02N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	17.0	23.6	17.8
GMBT 02-04N	1/8	3.17	1/4	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	23.4
GMBT 03-02N	3/16	4.76	1/8	3.0	1/2	12.70	1/2	12.70	13.7	17.8	24.4	17.8
GMBT 04-02N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	18.8
GMBT 04-04N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	23.4
GMBT 05-02N	5/16	7.93	1/8	4.8	9/16	14.28	5/8	15.87	16.3	22.4	29.7	20.8
GMBT 06-04N	3/8	9.52	1/4	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5	25.4
GMBT 06-06N	3/8	9.52	3/8	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	28.2
GMBT 08-06N	1/2	12.70	3/8	9.7	13/16	20.63	7/8	22.22	22.9	25.9	36.1	28.2
GMBT 08-08N	1/2	12.70	1/2	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	33.0
GMBT 10-08N	5/8	15.87	1/2	11.9	1	25.40	1	25.40	24.4	28.7	38.9	35.8
GMBT 12-12N	3/4	19.05	3/4	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	36.8

ISO Tapered threads are available for all fractional GMBT. To order, add "R" as a suffix instead of "N".

Connects Metric Tube to Female ISO Tapered Thread

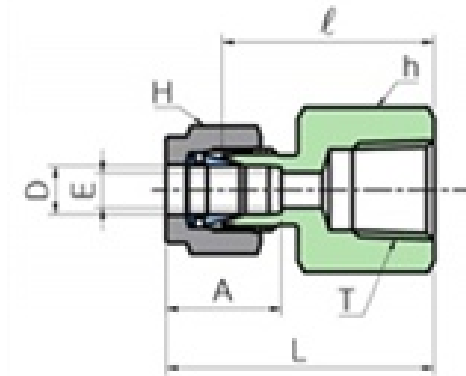
Part No.	Tube O.D. D	T (PT)	Dimensions (mm)						
			E Min.	h mm	H mm	A	ℓ	L	L1
	mm								
GMBT 03M-02R	3	1/8	2.4	12.7	11.11	12.9	17	23.6	17.8
GMBT 03M-04R	3	1/4	2.4	12.7	11.11	12.9	18	24.6	23.4
GMBT 04M-02R	4	1/8	2.4	12.7	12.7	13.7	18.8	25.4	18.8
GMBT 06M-02R	6	1/8	4.8	12.7	14.28	15.3	19.6	27	18.8
GMBT 06M-04R	6	1/4	4.8	12.7	14.28	15.3	19.6	27	23.4
GMBT 08M-02R	8	1/8	4.8	14.28	15.87	16.2	21.3	28.8	19.8
GMBT 08M-04R	8	1/4	6.4	14.28	15.87	16.2	21.3	28.8	24.4
GMBT 10M-04R	10	1/4	7.1	17.46	19.05	17.2	23.9	31.5	28.2
GMBT 10M-06R	10	3/8	7.9	17.46	19.05	17.2	23.9	31.5	28.2
GMBT 12M-04R	12	1/4	7.1	20.63	22.22	22.8	25.9	36	28.2
GMBT 12M-06R	12	3/8	9.5	20.63	22.22	22.8	25.9	36	28.2
GMBT 12M-08R	12	1/2	9.5	20.63	22.22	22.8	25.9	36	33
GMBT 16M-06R	16	3/8	9.5	25.4	25.4	24.4	28.7	38.8	30.9
GMBT 16M-08R	16	1/2	11.9	25.4	25.4	24.4	28.7	38.8	35.8
GMBT 20M-12R	20	3/4	15.9	34.92	31.75	26	36.8	47.1	43.5

NPT threads are available for all metric GMBT. To order, add "N" as a suffix instead of "R".

[Tube to Male Pipe]

GFC

Female Connector



Connects Fractional Tube to Male NPT Thread

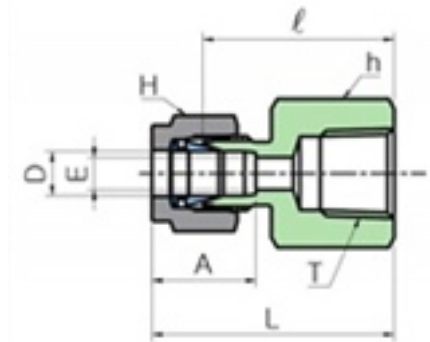
Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)							
	inch	mm		E Min.	h		H		A	ℓ	L
					inch	mm	inch	mm			
GFC 02-02N	1/8	3.17	1/8	2.3	9/16	14.28	7/16	11.11	12.7	22.1	28.7
GFC 02-04N	1/8	3.17	1/4	2.3	3/4	19.05	7/16	11.11	12.7	26.9	33.5
GFC 03-02N	3/16	4.76	1/8	3.0	9/16	14.28	1/2	12.70	13.7	23.1	29.7
GFC 04-02N	1/4	6.35	1/8	4.8	9/16	14.28	9/16	14.28	15.2	23.9	31.2
GFC 04-04N	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.2	28.4	35.8
GFC 04-06N	1/4	6.35	3/8	4.8	7/8	22.22	9/16	14.28	15.2	30.2	37.6
GFC 04-08N	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.2	35.1	42.4
GFC 05-02N	5/16	7.93	1/8	6.4	9/16	14.28	5/8	15.87	16.3	24.6	32.0
GFC 05-04N	5/16	7.93	1/4	6.4	3/4	19.05	5/8	15.87	16.3	29.5	36.8
GFC 06-02N	3/8	9.52	1/8	7.1	5/8	15.87	11/16	17.46	16.8	25.4	32.8
GFC 06-04N	3/8	9.52	1/4	7.1	3/4	19.05	11/16	17.46	16.8	30.2	37.6
GFC 06-06N	3/8	9.52	3/8	7.1	7/8	22.22	11/16	17.46	16.8	31.8	39.1
GFC 06-08N	3/8	9.52	1/2	7.1	1-1/16	26.98	11/16	17.46	16.8	36.6	43.9
GFC 06-12N	3/8	9.52	3/4	7.1	1-5/16	31.75	11/16	17.46	16.8	40.4	47.8
GFC 08-04N	1/2	12.70	1/4	10.4	13/16	20.63	7/8	22.22	22.9	30.2	40.4
GFC 08-06N	1/2	12.70	3/8	10.4	7/8	22.22	7/8	22.22	22.9	31.8	41.9
GFC 08-08N	1/2	12.70	1/2	10.4	1-1/16	26.98	7/8	22.22	22.9	36.6	46.7
GFC 08-12N	1/2	12.70	3/4	10.4	1-5/16	31.75	7/8	22.22	22.9	38.1	48.3
GFC 10-06N	5/8	15.87	3/8	12.7	15/16	23.81	1	25.40	24.4	31.8	41.9
GFC 10-08N	5/8	15.87	1/2	12.7	1-1/16	26.98	1	25.40	24.4	36.6	46.7
GFC 12-08N	3/4	19.05	1/2	15.7	1-1/16	26.98	1-1/8	28.57	24.4	36.6	46.7
GFC 12-12N	3/4	19.05	3/4	15.7	1-5/16	31.75	1-1/8	28.57	24.4	38.1	48.3
GFC 14-12N	7/8	22.22	3/4	18.3	1-5/16	31.75	1-1/4	31.75	25.9	39.6	49.8
GFC 16-12N	1	25.40	3/4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	41.1	53.3
GFC 16-16N	1	25.40	1	22.4	1/5-8	41.27	1-1/2	38.10	31.2	50.0	62.2
GFC 20-20N	1-1/4	31.75	1-1/4	27.7	2-1/8	53.98	1-7/8	47.63	41.1	52.6	74.7
GFC 24-24N	1-1/2	38.10	1-1/2	34.0	2-3/8	60.33	2-1/4	57.15	50.0	56.1	83.3
GFC 32-32N	2	50.80	2	46.0	2-7/8	73.03	3	76.20	67.6	64.3	101.6

ISO Tapered threads are available for all fractional GFC. To order, add "R" as a suffix instead of "N"

[Tube to Male Pipe]

GFC

Female Connector



Connects Metric Tube to Male ISO Tapered Thread

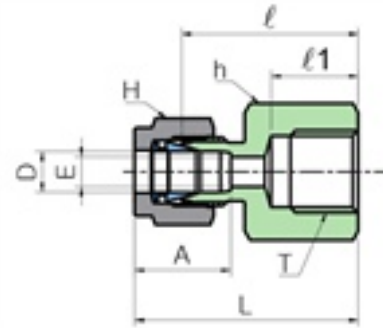
Part No.	Tube O.D. D	T (PT)	Dimensions (mm)					
	mm		E Min.	h mm	H mm	A	ℓ	L
GFC 03M-02R	3	1/8	2.4	14.28	11.11	12.7	22.1	28.7
GFC 03M-04R	3	1/4	2.4	19.05	11.11	12.9	26.9	33.5
GFC 04M-02R	4	1/8	2.4	14.28	12.70	12.9	23.1	29.7
GFC 06M-02R	6	1/8	4.8	14.28	14.28	13.7	23.9	31.3
GFC 06M-04R	6	1/4	4.8	19.05	14.28	15.3	28.4	35.8
GFC 06M-06R	6	3/8	4.8	22.22	14.28	15.3	29.5	36.9
GFC 06M-08R	6	1/2	4.8	26.98	14.28	15.3	35.1	42.5
GFC 08M-02R	8	1/8	6.4	14.28	15.87	15.3	24.6	32.1
GFC 08M-04R	8	1/4	6.4	19.05	15.87	16.2	29.5	37.0
GFC 08M-06R	8	3/8	6.4	22.22	15.87	16.2	30.2	37.7
GFC 08M-08R	8	1/2	6.4	26.98	15.87	16.2	35.8	43.3
GFC 10M-02R	10	1/8	7.9	17.46	19.05	16.2	25.4	33.0
GFC 10M-04R	10	1/4	7.9	19.05	19.05	17.2	30.2	37.8
GFC 10M-06R	10	3/8	7.9	22.22	19.05	17.2	31.0	38.6
GFC 10M-08R	10	1/2	7.9	26.98	19.05	17.2	36.6	44.2
GFC 12M-02R	12	1/8	8.3	22.22	22.22	17.2	28.4	38.5
GFC 12M-04R	12	1/4	9.5	22.22	22.22	22.8	30.2	40.3
GFC 12M-06R	12	3/8	9.5	22.22	22.22	22.8	31.0	41.1
GFC 12M-08R	12	1/2	9.5	26.98	22.22	22.8	36.6	46.7
GFC 12M-12R	12	3/4	9.5	31.75	22.22	22.8	38.9	49.0
GFC 15M-08R	15	1/2	11.9	26.98	25.40	22.8	36.6	46.7
GFC 16M-08R	16	1/2	12.7	26.98	25.40	24.4	36.8	46.9
GFC 20M-08R	20	1/2	15.9	30.16	31.75	24.4	37.8	47.9
GFC 20M-12R	20	3/4	15.9	31.75	31.75	26.0	39.6	49.7
GFC 22M-12R	22	3/4	18.3	34.92	31.75	26.0	39.6	49.7
GFC 22M-16R	22	1	18.3	41.27	31.75	26.0	47.8	57.9
GFC 25M-12R	25	3/4	21.8	34.92	38.10	26.0	41.1	53.4
GFC 25M-16R	25	1	21.8	41.27	38.10	31.3	50.0	62.3

NPT threads are available for all metric GFC. To order, add "N" as a suffix instead of "R".

[Tube to Male Pipe]

GGC

Gauge Connector



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (PF)	Dimensions (mm)								
				E Min.	h		H		A	ℓ	ℓ	L
	inch	mm			inch	mm	inch	mm				
GGC 04-02G	1/4	6.35	1/8	4.8	9/16	14.28	9/16	14.28	15.2	26.3	12	33.6
GGC 04-04G	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.2	30.2	13	37.6
GGC 04-06G	1/4	6.35	3/8	4.8	15/16	23.81	9/16	14.28	15.2	30.2	14.2	37.6
GGC 04-08G	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.2	36.1	18.8	43.4
GGC 05-04G	5/16	7.93	1/4	5.6	3/4	19.05	5/8	15.87	16.3	31	13	38.4
GGC 05-08G	5/16	7.93	1/2	7.1	1-1/16	26.98	5/8	15.87	16.3	33.5	18.8	40.9
GGC 06-04G	3/8	9.52	1/4	5.6	3/4	19.05	11/16	17.46	16.8	31.8	13	39.1
GGC 06-06G	3/8	9.52	3/8	6.6	15/16	23.81	11/16	17.46	16.8	31.2	14.2	38.6
GGC 06-08G	3/8	9.52	1/2	7.1	1-1/16	26.98	11/16	17.46	16.8	34.5	19	41.9
GGC 08-04G	1/2	12.7	1/4	5.6	7/8	22.22	7/8	22.22	22.9	31.8	13	42
GGC 08-06G	1/2	12.7	3/8	6.6	15/16	23.81	7/8	22.22	22.9	34.3	14.2	44.5
GGC 08-08G	1/2	12.7	1/2	7.1	1-1/16	26.98	7/8	22.22	22.9	38.1	19	48.3

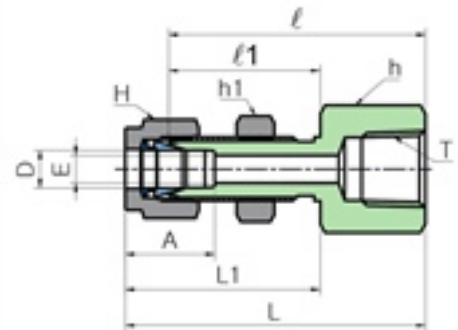
Connects Metric Tube to Female ISO Tapered Thread

Part No.	Tube O.D. D	T (PF)	Dimensions (mm)						
			E Min.	h mm	H mm	A	ℓ	ℓ1	L
	mm								
GGC 03M-04G	3	1/4	2.4	19.05	11.11	12.9	28.7	13.0	35.3
GGC 06M-04G	6	1/4	4.8	19.05	14.28	15.3	30.2	13.0	37.6
GGC 06M-06G	6	3/8	4.8	23.81	14.28	15.3	30.2	14.2	37.6
GGC 06M-08G	6	1/2	4.8	26.98	14.28	15.3	36.3	19.0	43.7
GGC 08M-04G	8	1/4	5.5	19.05	15.87	16.2	31.0	13.0	38.5
GGC 08M-06G	8	3/8	6.5	23.81	15.87	16.2	28.7	14.0	36.2
GGC 08M-08G	8	1/2	7.0	26.98	15.87	16.2	33.0	19.0	40.5
GGC 10M-04G	10	1/4	5.5	19.05	19.05	17.2	31.8	13.0	39.4
GGC 10M-06G	10	3/8	6.5	23.81	19.05	17.2	31.2	14.2	38.8
GGC 10M-08G	10	1/2	7.0	26.98	19.05	17.2	34.5	19.0	42.1
GGC 12M-04G	12	1/4	5.5	22.22	22.22	22.8	31.8	13.0	41.9
GGC 12M-06G	12	3/8	6.5	23.81	22.22	22.8	34.3	14.0	44.4
GGC 12M-08G	12	1/2	7.0	26.98	22.22	22.8	38.1	19.0	48.2
GGC 20M-08G	20	1/2	7.0	30.16	31.75	26.0	44.2	19.0	54.3
GGC 22M-08G	22	1/2	7.0	30.16	31.75	26.0	44.2	19.0	54.3

[Tube to Male Pipe]

GBFC

Bulkhead Female Connector



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)													
				E Min.	h		h1		H		A	ℓ	ℓ1	L	L1	Panel Hole Size	Max Panel Thickness
	inch	mm			inch	mm	inch	mm	inch	mm							
GBFC 02-02N	1/8	3.17	1/8	2.3	9/16	14.28	1/2	12.70	7/16	11.11	12.7	38.1	24.6	44.7	31.2	8.3	12.7
GBFC 04-02N	1/4	6.35	1/8	4.8	5/8	15.87	5/8	15.87	9/16	14.28	15.2	39.6	26.2	47.0	33.5	11.5	10.2
GBFC 04-04N	1/4	6.35	1/4	4.8	3/4	19.05	5/8	15.87	9/16	14.28	15.2	44.5	26.2	51.8	33.5	11.5	10.2
GBFC 06-04N	3/8	9.52	1/4	7.1	3/4	19.05	3/4	19.05	11/16	17.46	16.8	47.8	29.5	55.1	36.8	14.7	11.2
GBFC 08-06N	1/2	12.70	3/8	10.4	15/16	23.81	15/16	23.81	7/8	22.22	22.9	51.6	31.8	61.7	41.9	19.4	12.7
GBFC 08-08N	1/2	12.70	1/2	10.4	1-1/16	26.98	15/16	23.81	7/8	22.22	22.9	56.4	31.8	66.5	41.9	19.4	12.7
GBFC 12-12N	3/4	19.05	3/4	15.7	1-5/16	33.33	1-3/16	30.16	1-1/8	28.57	24.4	63.6	37.3	73.7	47.4	25.8	16.8

ISO Tapered threads are available for all fractional GBFC. To order, add "R" as a suffix instead of "N"

Connects Metric Tube to Female ISO Tapered Thread

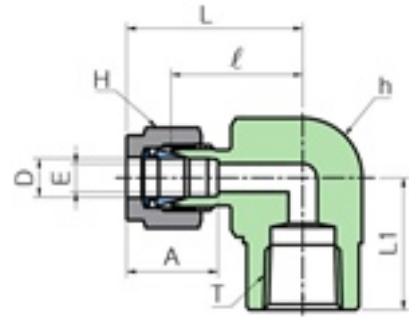
Part No.	Tube O.D. D	T (PT)	Dimensions (mm)										
	mm		E Min.	h	h1	H	A	ℓ	ℓ1	L	L1	Panel Hole Size	Max Panel Thickness
GBFC 06M-02R	6	1/8	4.8	15.87	15.87	14.28	15.3	39.6	26.2	47.0	33.6	11.5	10.2
GBFC 06M-04R	6	1/4	4.8	19.05	15.87	14.28	15.3	44.4	26.2	51.8	33.6	11.5	10.2
GBFC 08M-04R	8	1/4	6.4	19.05	17.46	15.87	16.2	46.7	28.6	54.2	36.1	13.1	11.2
GBFC 12M-08R	12	1/2	9.5	26.98	23.81	22.22	22.8	56.4	31.8	66.5	41.9	19.5	12.7

NPT threads are available for all metric GBFC. To order, add "N" as a suffix instead of "R".

[Tube to Male Pipe]

GFE

Female Elbow



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)								
	inch	mm		E Min.	h		H		A	ℓ	L	L1
					inch	mm	inch	mm				
GFE 02-02N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	19.1
GFE 02-04N	1/8	3.17	1/4	2.3	11/16	17.46	7/16	11.11	12.7	20.8	27.4	22.4
GFE 03-02N	3/16	4.76	1/8	3.0	1/2	12.70	1/2	12.70	13.7	18.8	25.4	19.1
GFE 04-02N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	19.1
GFE 04-04N	1/4	6.35	1/4	4.8	11/16	17.46	9/16	14.28	15.2	22.4	29.7	22.4
GFE 04-06N	1/4	6.35	3/8	4.8	13/16	20.63	9/16	14.28	15.2	24.4	31.8	22.4
GFE 04-08N	1/4	6.35	1/2	4.8	1	25.40	9/16	14.28	15.2	27.2	34.5	28.4
GFE 05-02N	5/16	7.93	1/8	6.4	9/16	14.28	5/8	15.87	16.3	21.3	28.7	19.1
GFE 05-04N	5/16	7.93	1/4	6.4	11/16	17.46	5/8	15.87	16.3	23.1	30.5	22.4
GFE 06-02N	3/8	9.52	1/8	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5	19.1
GFE 06-04N	3/8	9.52	1/4	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	22.4
GFE 06-06N	3/8	9.52	3/8	7.1	13/16	20.63	11/16	17.46	16.8	25.9	33.3	22.4
GFE 06-08N	3/8	9.52	1/2	7.1	1	25.40	11/16	17.46	16.8	28.7	36.1	28.4
GFE 08-04N	1/2	12.70	1/4	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4
GFE 08-06N	1/2	12.70	3/8	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4
GFE 08-08N	1/2	12.70	1/2	10.4	1	25.40	7/8	22.22	22.9	28.7	38.9	28.4
GFE 10-06N	5/8	15.87	3/8	12.7	15/16	23.81	1	25.40	24.4	27.9	38.1	22.4
GFE 10-08N	5/8	15.87	1/2	12.7	1-1/16	26.98	1	25.40	24.4	29.7	39.9	28.4
GFE 12-08N	3/4	19.05	1/2	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9	28.4
GFE 12-12N	3/4	19.05	3/4	15.7	1-3/8	34.92	1-1/8	28.57	24.4	34.5	44.7	31.8
GFE 14-12N	7/8	22.22	3/4	18.3	1-3/8	34.92	1-1/4	31.75	25.9	34.5	44.7	31.8
GFE 16-12N	1	25.40	3/4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	31.8
GFE 16-16N	1	25.40	1	22.4	1-11/16	42.86	1-1/2	38.10	31.2	41.4	53.6	38.1

ISO Tapered threads are available for all fractional GFE. To order, add "R" as a suffix instead of "N"

Connects Metric Tube to Female ISO Tapered Thread

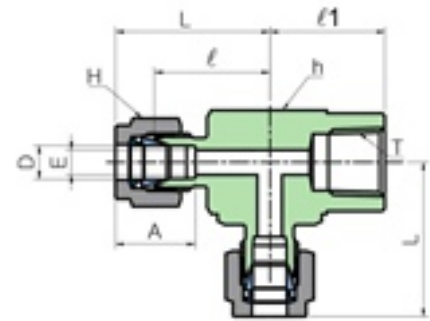
Part No.	Tube O.D. D mm	T (PT)	Dimensions (mm)						
			E Min.	h mm	H mm	A	ℓ	L	L1
GFE 06M-02R	6	1/8	4.8	12.7	14.28	15.3	19.6	27	19
GFE 06M-04R	6	1/4	4.8	17.46	14.28	15.3	22.4	29.8	22.4
GFE 06M-06R	6	3/8	4.8	20.63	14.28	15.3	24.4	31.8	22.4
GFE 06M-08R	6	1/2	4.8	25.4	14.28	15.3	27.2	34.6	28.4
GFE 08M-04R	8	1/4	6.4	17.46	15.87	16.2	23.1	30.6	22.4
GFE 08M-08R	8	1/2	6.4	25.4	15.87	16.2	28	35.5	28.4
GFE 10M-02R	10	1/8	7.9	17.46	19.05	17.2	23.9	31.5	19
GFE 10M-04R	10	1/4	7.9	20.63	19.05	17.2	25.9	33.5	22.4
GFE 10M-06R	10	3/8	7.9	20.63	19.05	17.2	25.9	33.5	22.4
GFE 10M-08R	10	1/2	7.9	25.4	19.05	17.2	28.7	36.3	28.4
GFE 12M-04R	12	1/4	9.5	20.63	22.22	22.8	25.9	36	22.4
GFE 12M-06R	12	3/8	9.5	20.63	22.22	22.8	25.9	36	22.4
GFE 12M-08R	12	1/2	9.5	25.4	22.22	22.8	28.7	38.8	28.4
GFE 16M-08R	20	1/2	12.7	26.98	25.4	24.4	29.7	39.8	28.4

NPT threads are available for all metric GFE. To order, add "N" as a suffix instead of "R".

[Tube to Male Pipe]

GFRT

Female Run Tee



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)								
				E Min.	h		H		A	ℓ	L	ℓ1
	inch	mm			inch	mm	inch	mm				
GFRT 02-02N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	19.1
GFRT 04-02N	1/4	6.35	1/8	4.8	9/16	14.28	9/16	14.28	15.2	19.6	26.9	19.1
GFRT 04-04N	1/4	6.35	1/4	4.8	11/16	17.46	9/16	14.28	15.2	22.4	29.7	22.4
GFRT 06-04N	3/8	9.52	1/4	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	22.4
GFRT 08-06N	1/2	12.70	3/8	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4
GFRT 08-08N	1/2	12.70	1/2	10.4	1-1/16	26.98	7/8	22.22	22.9	28.7	38.9	28.4
GFRT 12-12N	3/4	19.05	3/4	15.7	1-3/8	34.92	1-1/8	28.57	24.4	34.5	44.7	31.8
GFRT 16-12N	1	25.40	3/4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	31.8
GFRT 16-16N	1	25.40	1	22.4	1-11/16	42.86	1-1/2	38.10	31.2	41.4	53.6	38.1

ISO Tapered threads are available for all fractional GFRT. To order, add "R" as a suffix instead of "N"

Connects Metric Tube to Female ISO Tapered Thread

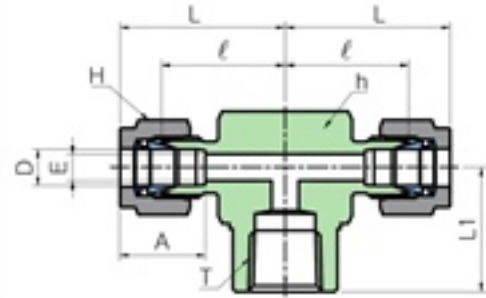
Part No.	Tube O.D. D	T (PT)	Dimensions (mm)						
	mm		E Min.	h mm	H mm	A	ℓ	L	ℓ1
GFRT 06M-02R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	19.0
GFRT 06M-04R	6	1/4	4.8	17.46	14.28	15.3	22.4	29.8	22.4
GFRT 06M-08R	6	1/2	4.8	26.98	14.28	15.3	27.2	34.6	28.4
GFRT 08M-02R	8	1/8	6.4	15.87	15.87	16.2	22.4	29.9	19.0
GFRT 08M-04R	8	1/4	6.4	17.46	15.87	16.2	23.1	30.6	22.4
GFRT 08M-06R	8	3/8	6.4	20.63	15.87	16.2	25.2	32.7	22.4
GFRT 08M-08R	8	1/2	6.4	26.98	25.40	16.2	28.0	35.5	28.4
GFRT 10M-04R	10	1/4	7.9	20.63	19.05	17.2	25.9	33.5	22.4
GFRT 12M-04R	12	1/4	9.5	20.63	22.22	22.8	25.9	36.0	22.4
GFRT 12M-06R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	22.4
GFRT 12M-08R	12	1/2	9.5	26.98	22.22	22.8	29.7	39.8	28.4
GFRT 16M-08R	16	1/2	12.7	26.98	25.40	24.4	29.7	39.8	28.4

NPT threads are available for all metric GFRT. To order, add "N" as a suffix instead of "R".

[Tube to Male Pipe]

GFBT

Female Branch Tee



Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)								
	inch	mm		E Min.	h		H		A	I	L	L1
					inch	mm	inch	mm				
GFBT 02-02N	1/8	3.17	1/8	2.3	1/2	12.70	7/16	11.11	12.7	18.0	24.6	19.1
GFBT 04-02N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9	19.1
GFBT 04-04N	1/4	6.35	1/4	4.8	11/16	17.46	9/16	14.28	15.2	22.4	29.7	22.4
GFBT 06-04N	3/8	9.52	1/4	7.1	11/16	17.46	11/16	17.46	16.8	23.9	31.2	22.4
GFBT 08-04N	1/2	12.70	1/4	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4
GFBT 08-06N	1/2	12.70	3/8	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1	22.4
GFBT 08-08N	1/2	12.70	1/2	10.4	1	25.40	7/8	22.22	22.9	28.7	38.9	28.4
GFBT 10-08N	5/8	15.87	1/2	12.7	1	25.40	1	25.40	24.4	28.7	38.9	28.4
GFBT 12-12N	3/4	19.05	3/4	15.7	1-3/8	34.92	1-1/8	28.57	24.4	34.5	44.7	31.8
GFBT 16-12N	1	25.40	3/4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0	31.8
GFBT 16-16N	1	25.40	1	22.4	1-11/16	42.86	1-1/2	38.10	31.2	41.4	53.6	38.1

ISO Tapered threads are available for all fractional GFBT. To order, add "R" as a suffix instead of "N"

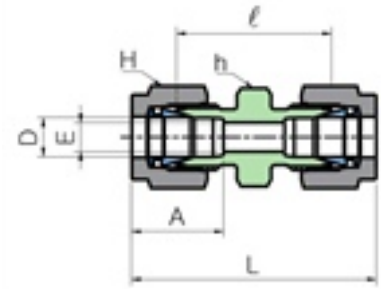
Connects Metric Tube to Female ISO Tapered Thread

Part No.	Tube O.D. D	T (PT)	Dimensions (mm)						
			E Min.	h mm	H mm	A	ℓ	L	L1
	mm								
GFBT 06M-02R	6	1/8	4.8	12.70	14.28	15.3	19.6	27.0	19.0
GFBT 06M-04R	6	1/4	4.8	17.46	14.28	15.3	22.4	29.8	22.4
GFBT 06M-06R	6	3/8	4.8	20.63	14.28	15.3	24.4	31.8	22.4
GFBT 06M-08R	6	1/2	4.8	25.40	14.28	15.3	27.2	34.6	28.4
GFBT 08M-02R	8	1/8	6.4	15.87	15.87	16.2	22.4	29.9	19.0
GFBT 08M-04R	8	1/4	6.4	17.46	15.87	16.2	23.1	30.6	22.4
GFBT 08M-06R	8	3/8	6.4	20.63	15.87	16.2	25.2	32.7	22.4
GFBT 08M-08R	8	1/2	6.4	26.98	15.87	16.2	28.0	35.5	28.4
GFBT 10M-04R	10	1/4	7.9	20.63	19.05	17.2	25.9	33.5	22.4
GFBT 10M-06R	10	3/8	7.9	20.63	19.05	17.2	25.9	33.5	22.4
GFBT 10M-08R	10	1/2	7.9	26.98	19.05	17.2	28.7	36.3	28.4
GFBT 12M-04R	12	1/4	9.5	20.63	22.22	22.8	25.9	36.0	22.4
GFBT 12M-06R	12	3/8	9.5	20.63	22.22	22.8	25.9	36.0	22.4
GFBT 12M-08R	12	1/2	9.5	26.98	22.22	22.8	28.7	38.8	28.4
GFBT 16M-08R	16	1/2	12.7	26.98	25.40	24.4	28.7	38.8	28.4

NPT threads are available for all metric GFBT. To order, add "N" as a suffix instead of "R".

[Tube to Tube Union]

GU Union



Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Dimensions (mm)							
			E Min.	h		H		A	ℓ	L
	inch	mm		inch	mm	inch	mm			
GU 01	1/16	1.58	1.3	5/16	7.93	5/16	7.93	8.6	17.5	25.1
GU 02	1/8	3.17	2.3	7/16	11.11	7/16	11.11	12.7	22.4	35.6
GU 03	3/16	4.76	3.0	7/16	11.11	1/2	12.70	12.7	24.1	37.3
GU 04	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	26.2	40.9
GU 05	5/16	7.93	6.4	9/16	14.28	5/8	15.87	16.3	28.2	42.9
GU 06	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	30.2	45.0
GU 08	1/2	12.70	10.4	13/16	20.63	7/8	22.22	22.9	31.0	51.3
GU 10	5/8	15.87	12.7	15/16	23.81	1	25.40	24.4	31.8	52.1
GU 12	3/4	19.05	15.7	1-1/16	26.98	1-1/8	28.57	24.4	33.3	53.6
GU 14	7/8	22.22	18.3	1-3/16	30.16	1-1/4	31.75	25.9	35.1	55.4
GU 16	1	25.40	22.4	1-3/8	34.92	1-1/2	38.10	31.2	40.4	64.8
GU 20	1-1/4	31.75	27.7	1-3/4	44.45	1-7/8	47.63	41.1	48.0	92.2
GU 24	1-1/2	38.10	34.0	2-1/8	53.97	2-1/4	57.15	50.0	53.6	108.0
GU 32	2	50.80	46.0	2-3/4	69.85	3	76.20	67.6	74.7	149.4

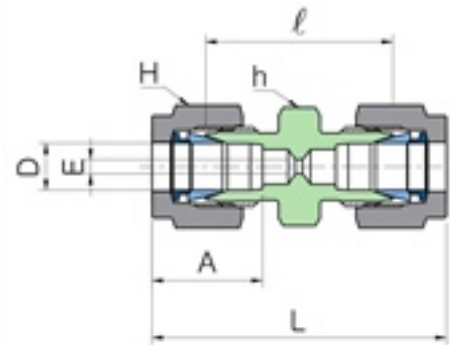
Connects Metric Tube

Part No.	Tube O.D. D	Dimensions (mm)						
		E Min.	h mm	H mm	A	ℓ	L	
	mm							
GU 02M	2	1.7	11.11	11.11	12.9	22.4	35.6	
GU 03M	3	2.4	11.11	11.11	12.9	22.1	35.3	
GU 04M	4	2.4	11.11	12.70	13.7	24.1	37.3	
GU 06M	6	4.8	12.70	14.28	15.3	26.2	41.0	
GU 08M	8	6.4	14.28	15.87	16.2	28.2	43.2	
GU 10M	10	7.9	17.46	19.05	17.2	31.0	46.2	
GU 12M	12	9.5	20.63	22.22	22.8	31.0	51.2	
GU 14M	14	11.1	23.81	25.40	24.4	31.8	52.0	
GU 15M	15	11.9	23.81	25.40	24.4	31.8	52.0	
GU 16M	16	12.7	23.81	25.40	24.4	31.8	52.0	
GU 18M	18	15.1	26.98	30.16	24.4	33.3	53.5	
GU 22M	22	18.3	30.16	31.75	26.0	34.8	55.0	
GU 25M	25	21.8	34.92	38.10	31.3	40.4	65.0	
GU 28M	28	21.8	44.45	47.63	36.6	43.4	85.0	
GU 30M	30	26.2	44.45	50.80	39.6	49.5	92.7	
GU 32M	32	28.6	44.45	50.80	42.0	51.3	97.3	
GU 38M	38	33.7	55.56	57.15	49.4	58.4	114.0	

[Tube to Tube Union]

GUO

Orifice Union



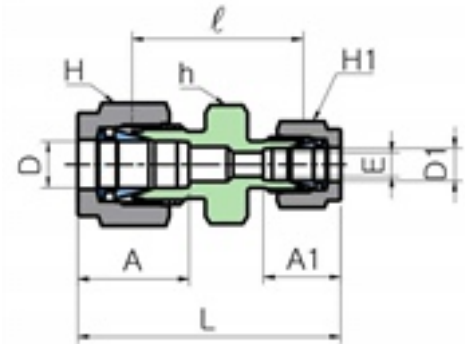
Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Dimensions (mm)							
			E Orifice	h		H		A	l	L
	inch	mm		inch	mm	inch	mm			
GUO 02-05	1/8	3.17	0.5	7/16	11.11	7/16	11.11	12.7	22.4	35.6
GUO 02-12	1/8	3.17	1.2	7/16	11.11	7/16	11.11	12.7	22.4	35.6
GUO 02-15	1/8	3.17	1.5	7/16	11.11	7/16	11.11	12.7	22.4	35.6
GUO 02-20	1/8	3.17	2.0	7/16	11.11	7/16	11.11	12.7	22.4	35.6
GUO 04-05	1/4	6.35	0.5	1/2	12.70	9/16	14.28	15.2	26.2	40.9
GUO 04-12	1/4	6.35	1.2	1/2	12.70	9/16	14.28	15.2	26.2	40.9
GUO 04-15	1/4	6.35	1.5	1/2	12.70	9/16	14.28	15.2	26.2	40.9
GUO 04-20	1/4	6.35	2.0	1/2	12.70	9/16	14.28	15.2	26.2	40.9
GUO 06-05	3/8	9.52	0.5	5/8	15.87	11/16	17.46	16.8	30.2	45.0
GUO 06-12	3/8	9.52	1.2	5/8	15.87	11/16	17.46	16.8	30.2	45.0
GUO 06-15	3/8	9.52	1.5	5/8	15.87	11/16	17.46	16.8	30.2	45.0
GUO 06-20	3/8	9.52	2.0	5/8	15.87	11/16	17.46	16.8	30.2	45.0
GUO 08-05	1/2	12.70	0.5	13/16	20.63	7/8	22.22	22.9	31.0	51.3
GUO 08-12	1/2	12.70	1.2	13/16	20.63	7/8	22.22	22.9	31.0	51.3
GUO 08-15	1/2	12.70	1.5	13/16	20.63	7/8	22.22	22.9	31.0	51.3
GUO 08-20	1/2	12.70	2.0	13/16	20.63	7/8	22.22	22.9	31.0	51.3

[Tube to Tube Union]

GRU

Reducing Union



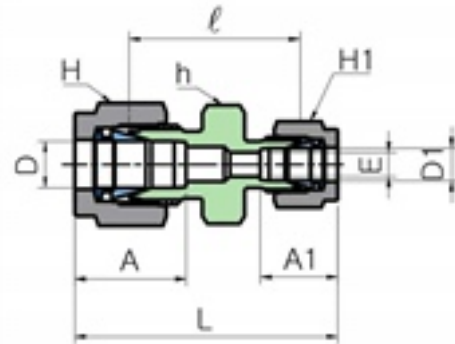
Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Tube O.D. D1		Dimensions (mm)										
	inch	mm	inch	mm	E Min.	h		H		H1		A	A1	ℓ	L
						inch	mm	inch	mm	inch	mm				
GRU 02-01	1/8	3.17	1/16	1.58	1.3	7/16	11.11	7/16	11.11	5/16	7.93	12.7	8.6	20.6	31.0
GRU 03-01	3/16	4.76	1/16	1.58	1.3	7/16	11.11	1/2	12.70	5/16	7.93	13.7	8.6	21.9	32.3
GRU 03-02	3/16	4.76	1/8	3.17	2.3	7/16	11.11	1/2	12.70	7/16	11.11	13.7	12.7	23.4	36.6
GRU 04-01	1/4	6.35	1/16	1.58	1.3	1/2	12.70	9/16	14.28	5/16	7.93	15.2	8.6	23.1	34.3
GRU 04-02	1/4	6.35	1/8	3.17	2.3	1/2	12.70	9/16	14.28	7/16	11.11	15.2	12.7	24.6	38.6
GRU 04-03	1/4	6.35	3/16	4.76	3.0	1/2	12.70	9/16	14.28	1/2	12.70	15.2	13.7	25.4	39.4
GRU 05-02	5/16	7.93	1/8	3.17	2.3	9/16	14.28	5/8	15.87	7/16	11.11	16.3	12.7	25.9	39.6
GRU 05-04	5/16	7.93	1/4	6.35	4.8	9/16	14.28	5/8	15.87	9/16	14.28	16.3	15.2	27.4	42.2
GRU 06-01	3/8	9.52	1/16	1.58	1.3	5/8	15.87	11/16	17.46	5/16	7.93	16.8	8.6	25.4	36.6
GRU 06-02	3/8	9.52	1/8	3.17	2.3	5/8	15.87	11/16	17.46	7/16	11.11	16.8	12.7	26.9	40.9
GRU 06-04	3/8	9.52	1/4	6.35	4.8	5/8	15.87	11/16	17.46	9/16	14.28	16.8	15.2	28.4	43.2
GRU 06-05	3/8	9.52	5/16	7.93	6.4	5/8	15.87	11/16	17.46	5/8	15.87	16.8	16.3	29.5	44.2
GRU 08-02	1/2	12.70	1/8	3.17	2.3	13/16	20.63	7/8	22.22	7/16	11.11	22.9	12.7	28.4	45.2
GRU 08-04	1/2	12.70	1/4	6.35	4.8	13/16	20.63	7/8	22.22	9/16	14.28	22.9	15.2	29.5	47.0
GRU 08-06	1/2	12.70	3/8	9.52	7.1	13/16	20.63	7/8	22.22	11/16	17.46	22.9	16.8	31.0	48.5
GRU 10-06	5/8	15.87	3/8	9.52	7.1	15/16	23.81	1	25.40	11/16	17.46	24.4	16.8	31.8	49.3
GRU 10-08	5/8	15.87	1/2	12.70	10.4	15/16	23.81	1	25.40	7/8	22.22	24.4	22.9	31.8	52.1
GRU 12-04	3/4	19.05	1/4	6.35	4.8	1-1/16	26.98	1-1/8	28.57	9/16	14.28	24.4	15.2	31.8	49.3
GRU 12-06	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.4	16.8	33.3	50.8
GRU 12-08	3/4	19.05	1/2	12.70	10.4	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.4	22.9	33.3	53.6
GRU 12-10	3/4	19.05	5/8	15.87	12.7	1-1/16	26.98	1-1/8	28.57	1	25.40	24.4	24.4	33.3	53.6
GRU 16-08	1	25.40	1/2	12.70	10.4	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.2	22.9	40.9	63.2
GRU 16-12	1	25.40	3/4	19.05	15.7	1-3/8	34.92	1-1/2	38.10	1-1/8	28.57	31.2	24.4	40.9	63.2

[Tube to Tube Union]

GRU

Reducing Union



Connects Metric Tube

Part No.	Tube O.D. D	Tube O.D. D1	Dimensions (mm)							
	mm	mm	E Min.	h	H	H1	A	A1	ℓ	L
				mm	mm	mm				
GRU 06M-03M	6	3	2.4	12.70	14.28	11.11	15.3	12.9	24.6	38.6
GRU 06M-04M	6	4	2.4	12.70	14.28	12.70	15.3	13.7	25.4	39.4
GRU 08M-06M	8	6	4.8	14.28	15.87	14.28	16.2	15.3	27.4	42.3
GRU 10M-06M	10	6	4.8	17.46	19.05	14.28	17.2	15.3	29.5	44.5
GRU 12M-06M	12	6	4.8	20.63	22.22	14.28	22.8	15.3	29.5	47.0
GRU 12M-08M	12	8	6.4	20.63	22.22	15.87	22.8	16.2	30.2	47.8
GRU 12M-10M	12	10	7.9	20.63	22.22	19.05	22.8	17.2	31.0	48.7
GRU 16M-10M	16	10	7.9	23.81	25.40	19.05	24.4	17.2	31.8	49.5
GRU 16M-12M	16	12	9.5	23.81	25.40	22.22	24.4	22.8	31.8	52.0
GRU 18M-12M	18	12	9.5	26.98	30.16	22.22	24.4	22.8	33.3	53.5
GRU 25M-18M	25	18	15.1	34.92	38.10	30.16	31.3	24.4	38.6	61.0
GRU 25M-20M	25	20	15.9	34.92	38.10	31.75	31.3	26.0	39.9	62.3

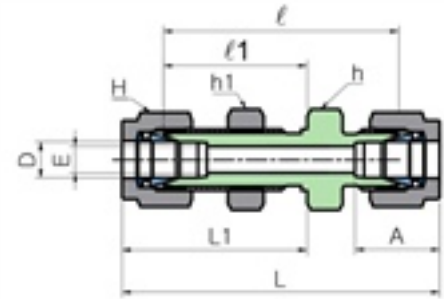
Connects Metric Tube to Fractional(Inch) Tube

Part No.	Tube O.D. D	Tube O.D. D1		Dimensions (mm)								
	mm	inch	mm	E Min.	h	H	H1		A	A1	ℓ	L
					mm	mm	inch	mm				
GRU 04M-02	4	1/8	3.17	2.4	11.11	12.70	7/16	11.11	13.7	12.7	23.4	36.5
GRU 04M-04	4	1/4	6.35	2.4	12.70	12.70	9/16	14.28	13.7	15.2	25.4	39.4
GRU 06M-02	6	1/8	3.17	2.4	12.70	14.28	7/16	11.11	15.3	12.7	24.6	38.5
GRU 06M-04	6	1/4	6.35	4.8	12.70	14.28	9/16	14.28	15.3	15.2	26.2	41.0
GRU 06M-05	6	5/16	7.93	4.8	14.28	14.28	5/8	15.87	15.3	16.3	27.4	42.3
GRU 08M-04	8	1/4	6.35	4.8	14.28	15.87	9/16	14.28	16.2	15.2	27.4	42.3
GRU 10M-04	10	1/4	6.35	4.8	17.46	19.05	9/16	14.28	17.2	15.2	29.5	44.5
GRU 10M-06	10	3/8	9.52	7.1	17.46	19.05	11/16	17.46	17.2	16.8	31.0	45.9
GRU 12M-06	12	3/8	9.52	7.1	20.63	22.22	11/16	17.46	22.8	16.8	31.0	48.4
GRU 12M-08	12	1/2	12.70	9.5	20.63	22.22	7/8	22.22	22.8	22.9	31.0	51.2
GRU 15M-08	15	1/2	12.70	10.4	23.81	25.40	7/8	22.22	24.4	22.9	31.8	52.0

[Tube to Tube Union]

GBU

Bulkhead Union



Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Dimensions (mm)											
			E Min.	h		H		A	ℓ	ℓ1	L	L1	Panel Hole Size	Max Panel Thickness
	inch	mm		inch	mm	inch	mm							
GBU 01	1/16	1.68	1.3	5/16	7.93	5/16	7.93	8.6	23.9	13.5	31.5	17.3	5.2	3.1
GBU 02	1/8	3.17	2.3	1/2	12.70	7/16	11.11	12.7	38.1	24.6	51.3	31.2	8.3	12.7
GBU 03	3/16	4.76	3.0	9/16	14.28	1/2	12.70	13.7	40.4	25.4	53.6	32.0	9.9	12.7
GBU 04	1/4	6.35	4.8	5/8	15.87	9/16	14.28	15.2	42.9	26.2	57.7	33.5	11.5	10.2
GBU 05	5/16	7.93	6.4	11/16	17.46	5/8	15.87	16.3	46.0	28.4	60.7	35.8	13.1	11.2
GBU 06	3/8	9.52	7.1	3/4	19.05	11/16	17.46	16.8	47.5	29.5	62.2	36.8	14.7	11.2
GBU 08	1/2	12.70	10.4	15/16	23.81	7/8	22.22	22.9	50.8	31.8	71.1	41.9	19.4	12.7
GBU 10	5/8	15.87	12.7	1-1/16	26.98	1	25.40	24.4	52.3	32.5	72.6	42.7	22.6	12.7
GBU 12	3/4	19.05	15.7	1-3/16	30.16	1-1/8	28.57	24.4	58.7	37.3	79.0	47.5	25.8	16.8
GBU 14	7/8	22.22	18.3	1-3/8	34.92	1-1/4	31.75	25.9	64.3	42.9	84.6	53.1	29.0	19.1
GBU 16	1	25.40	22.4	1-5/8	41.27	1-1/2	38.10	31.2	71.4	45.2	95.8	57.4	33.7	19.1
GBU 20	1-1/4	31.75	27.7	1-7/8	47.63	1-7/8	47.63	41.1	78.9	47.8	123.2	69.9	41.7	19.1
GBU 24	1-1/2	38.10	34.0	2-1/4	57.15	2-1/4	57.15	50.0	84.8	49.3	139.2	76.5	49.6	19.1
GBU 32	2	50.80	46.0	2-3/4	69.85	3	76.20	67.6	105.7	56.4	180.3	93.7	67.1	19.1

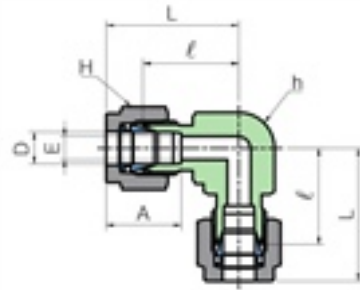
Connects Metric Tube

Part No.	Tube O.D. D	Dimensions (mm)									
		E Min.	h	H	A	ℓ	ℓ1	L	L1	Panel Hole Size	Max Panel Thickness
	mm		mm	mm							
GBU 03M	3	2.4	14.28	11.11	12.9	38.1	24.6	51.3	31.2	8.3	12.7
GBU 04M	4	2.4	14.28	12.7	13.7	40.4	25.4	53.6	32	9.9	12.7
GBU 06M	6	4.8	15.87	14.28	15.3	42.9	26.2	57.7	33.6	11.5	10.2
GBU 08M	8	6.4	17.46	15.87	16.2	46	28.6	61	36.1	13.1	11.2
GBU 10M	10	7.9	22.22	19.05	17.2	48.5	29.4	63.7	37	16.2	11.2
GBU 12M	12	9.5	23.81	22.22	22.8	50.8	31.8	71	41.9	19.5	12.7
GBU 14M	14	11.1	26.98	25.4	24.4	52.3	32.5	72.5	42.6	22.8	12.7
GBU 15M	15	11.9	26.98	25.4	24.4	52.3	32.5	72.5	42.6	22.8	12.7
GBU 16M	16	12.7	26.98	25.4	24.4	52.3	32.5	72.5	42.6	22.8	12.7
GBU 18M	18	15.1	30.16	30.16	24.4	58.7	37.3	78.9	47.4	26	16.8
GBU 20M	20	15.9	34.92	31.75	26	64.3	42.9	84.5	53	29	17
GBU 22M	22	18.3	34.92	31.75	26	64.3	42.9	84.5	53	29	19.1
GBU 25M	25	21.8	41.27	38.1	31.3	71.4	45.2	96	57.5	33.7	19.1
GBU 32M	32	28.6	50.8	50.8	42	82.3	49.5	128.3	72.5	42.5	19
GBU 38M	38	33.7	60.3	57.15	49.4	89.8	51.9	145	79.5	50.5	19

[Tube to Tube Union]

GUE

Union Elbow



Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Dimensions (mm)							
			E Min.	h		H		A	ℓ	L
	inch	mm		inch	mm	inch	mm			
GUE 01	1/16	1.68	1.3	3/8	9.52	5/16	7.92	8.6	14.0	17.8
GUE 02	1/8	3.17	2.3	3/8	9.52	7/16	11.11	12.7	15.7	22.4
GUE 03	3/16	4.76	3.0	1/2	12.70	1/2	12.70	13.7	17.8	24.4
GUE 04	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9
GUE 05	5/16	7.93	6.4	9/16	14.28	5/8	15.87	16.3	21.3	28.7
GUE 06	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5
GUE 08	1/2	12.70	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1
GUE 10	5/8	15.87	12.7	15/16	23.81	1	25.40	24.4	28.7	38.8
GUE 12	3/4	19.05	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9
GUE 14	7/8	22.22	18.3	1-3/16	30.16	1-1/4	31.75	25.9	34.5	44.7
GUE 16	1	25.40	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0
GUE 20	1-1/4	31.75	27.7	1-11/16	42.86	1-7/8	47.63	41.1	44.5	66.5
GUE 24	1-1/2	38.10	34.0	2	50.80	2-1/4	57.15	50.0	50.8	78.0
GUE 32	2	50.80	46.0	2-3/4	69.85	3	76.20	67.6	69.8	107.2

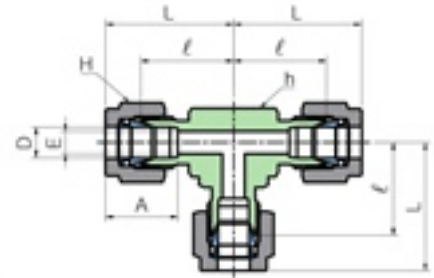
Connects Metric Tube

Part No.	Tube O.D. D	Dimensions (mm)						
		E Min.	h	H	A	ℓ	L	
	mm							
GUE 03M	3	2.4	9.52	11.11	12.9	15.7	22.3	
GUE 04M	4	2.4	12.70	12.70	13.7	18.8	25.4	
GUE 06M	6	4.8	12.70	14.28	15.3	19.6	27.0	
GUE 08M	8	6.4	14.28	15.87	16.2	21.3	28.8	
GUE 10M	10	7.9	17.46	19.05	17.2	23.9	31.5	
GUE 12M	12	9.5	20.63	22.22	22.8	25.9	36.0	
GUE 14M	14	11.1	23.81	25.40	24.4	28.7	38.8	
GUE 15M	15	11.9	23.81	25.40	24.4	28.7	38.8	
GUE 16M	16	12.7	23.81	25.40	24.4	28.7	38.8	
GUE 18M	18	15.1	26.98	30.16	24.4	29.7	39.8	
GUE 20M	20	15.9	34.92	31.75	26.0	34.5	44.6	
GUE 22M	22	18.3	34.92	31.75	26.0	34.5	44.6	
GUE 25M	25	21.8	34.92	38.10	31.3	36.8	49.1	
GUE 28M	28	21.8	42.86	47.63	36.6	43.2	64.0	
GUE 30M	30	26.2	47.63	50.80	39.6	48.3	69.9	
GUE 32M	32	28.6	47.63	50.80	42.0	49.3	72.3	
GUE 38M	38	33.7	55.56	57.15	49.4	56.4	84.0	

[Tube to Tube Union]

GUT

Union Tee



Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Dimensions (mm)							
			E Min.	h		H		A	ℓ	L
	inch	mm		inch	mm	inch	mm			
GUT 01	1/16	1.68	1.3	3/8	9.52	5/16	7.93	8.6	14.0	17.8
GUT 02	1/8	3.17	2.3	3/8	9.52	7/16	11.11	12.7	15.7	22.4
GUT 03	3/16	4.76	3.0	1/2	12.70	1/2	12.70	13.7	17.8	24.4
GUT 04	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9
GUT 05	5/16	7.93	6.4	5/8	15.87	5/8	15.87	16.3	21.3	28.7
GUT 06	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5
GUT 08	1/2	12.7	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1
GUT 10	5/8	15.87	12.7	15/16	23.81	1	25.40	24.4	28.7	38.8
GUT 12	3/4	19.05	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9
GUT 14	7/8	22.22	18.3	1-3/16	30.16	1-1/4	31.75	25.9	34.5	44.7
GUT 16	1	25.4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0
GUT 20	1-1/4	31.75	27.7	1-11/16	42.86	1-7/8	47.63	41.1	44.5	66.5
GUT 24	1-1/2	38.1	34.0	2	50.80	2-1/4	57.15	50.0	50.8	78.0
GUT 32	2	50.8	46.0	2-3/4	69.85	3	76.20	67.6	69.8	107.2

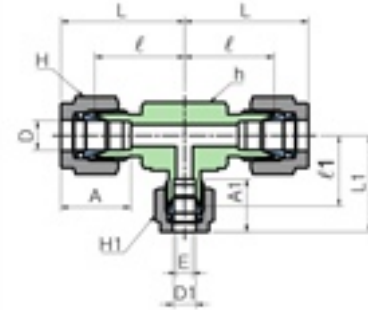
Connects Metric Tube

Part No.	Tube O.D. D	Dimensions (mm)					
		E Min.	h	H	A	ℓ	L
	mm		mm	mm			
GUT 03M	2	1.7	9.52	12.70	12.9	15.7	22.3
GUT 04M	3	2.4	9.52	11.11	12.9	15.7	22.3
GUT 06M	4	2.4	12.70	12.70	13.7	18.8	25.4
GUT 08M	6	4.8	12.70	14.28	15.3	19.6	27.0
GUT 10M	8	6.4	14.28	15.87	16.2	21.3	28.8
GUT 12M	10	7.9	17.46	19.05	17.2	23.9	31.5
GUT 14M	12	9.5	20.63	22.22	22.8	25.9	36.0
GUT 15M	14	11.1	23.81	25.40	24.4	28.7	38.8
GUT 16M	15	11.9	23.81	25.40	24.4	28.7	38.8
GUT 18M	16	12.7	23.81	25.40	24.4	28.7	38.8
GUT 20M	18	15.1	26.98	30.16	24.4	29.7	39.8
GUT 22M	20	15.9	34.92	31.75	26.0	34.5	44.6
GUT 25M	22	18.3	34.92	31.75	26.0	34.5	44.6
GUT 28M	25	21.8	34.92	38.10	31.3	36.8	49.1
GUT 30M	28	21.8	42.86	47.63	36.6	43.2	64.0
GUT 32M	30	26.2	47.63	50.80	39.6	48.3	69.9
GUT 38M	32	28.6	47.63	50.80	42.0	49.3	72.3

[Tube to Tube Union]

GRBT

Reducing Union Branch Tee



Connects Fractional(Inch) Tube

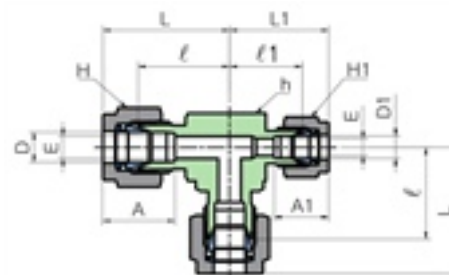
Part No.	Tube O.D. D		Tube O.D. D1		Dimensions (mm)												
	inch	mm	inch	mm	E Min.	h		H		H1		A	A1	ℓ	ℓ1	L	L1
						inch	mm	inch	mm	inch	mm						
GRBT 06-04	3/8	9.52	1/4	6.35	4.8	5/8	15.87	11/16	17.46	9/16	14.28	16.8	15.2	23.1	21.6	30.5	29.0
GRBT 08-04	1/2	12.7	1/4	6.35	4.8	13/16	20.63	7/8	22.22	9/16	14.28	22.9	15.2	25.9	24.4	36.1	31.8
GRBT 08-06	1/2	12.7	3/8	9.52	7.1	13/16	20.63	7/8	22.22	11/16	17.46	22.9	16.8	25.9	25.9	36.1	33.3
GRBT 10-06	5/8	15.87	3/8	9.52	7.1	15/16	23.81	1	25.40	11/16	17.46	24.4	16.8	28.7	28.7	38.9	36.1
GRBT 12-04	3/4	19.05	1/4	6.35	4.8	1-1/16	26.98	1-1/8	28.57	9/16	14.28	24.4	15.2	29.7	29.7	39.9	37.1
GRBT 12-06	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.4	16.8	29.7	29.7	39.9	37.1
GRBT 12-08	3/4	19.05	1/2	12.7	10.4	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.4	22.9	29.7	29.7	39.9	39.9
GRBT 16-04	1	25.4	1/4	6.35	4.8	1-3/8	34.92	1-1/2	38.10	9/16	14.28	31.2	15.2	36.8	33.0	49.0	40.4
GRBT 16-06	1	25.4	3/8	9.52	7.1	1-3/8	34.92	1-1/2	38.10	11/16	17.46	31.2	16.8	36.8	34.5	49.0	41.9
GRBT 16-08	1	25.4	1/2	12.7	10.4	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.2	22.9	36.8	34.5	49.0	44.7
GRBT 16-12	1	25.4	3/4	19.05	15.7	1-3/8	34.92	1-1/2	38.10	1-1/8	28.57	31.2	24.4	36.8	34.5	49.0	44.7
GRBT 24-16	1-1/2	38.1	1	25.4	22.4	2	50.8	2-1/4	57.15	1-1/2	38.10	50.0	31.2	50.8	47.8	78.7	59.9

Connects Metric Tube

Part No.	Tube O.D.	Tube O.D.	Dimensions (mm)									
	D	D1	E Min.	h	H	H1	A	A1	ℓ	ℓ1	L	L1
	mm	mm		mm	mm	mm						
GRBT 08M-06M	8	6	4.8	14.28	15.87	14.28	16.2	15.3	21.3	21.3	28.8	28.7
GRBT 10M-06M	10	6	4.8	17.46	19.05	14.28	17.2	15.3	23.9	22.3	31.5	29.7
GRBT 12M-06M	12	6	4.8	20.63	22.22	14.28	22.8	15.3	25.9	24.4	36.0	31.8
GRBT 16M-12M	16	12	9.5	26.98	25.40	22.22	24.4	22.8	28.7	28.7	38.8	38.8
GRBT 18M-12M	18	12	9.5	26.98	30.16	22.22	24.4	22.8	29.7	29.7	39.8	39.8
GRBT 22M-12M	22	12	9.5	34.92	31.75	22.22	26.0	22.8	34.5	34.5	44.6	44.6
GRBT 25M-12M	25	12	9.5	34.92	38.10	22.22	31.3	22.8	36.8	34.5	49.1	44.6

GRRT

Reducing Union Run Tee



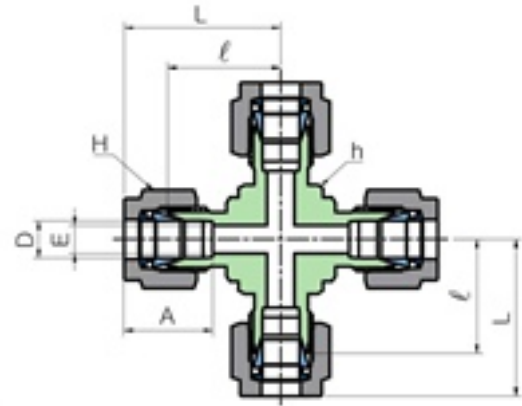
Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Tube O.D. D1		Dimensions (mm)												
	inch	mm	inch	mm	E Min.	h		H		H1		A	A1	ℓ	ℓ1	L	L1
						inch	mm	inch	mm	inch	mm						
GRRT 06-04	3/8	9.52	1/4	6.35	4.8	5/8	15.87	11/16	17.46	9/16	14.28	16.8	15.2	23.1	21.6	30.5	29.0
GRRT 08-04	1/2	12.7	1/4	6.35	4.8	13/16	20.63	7/8	22.22	9/16	14.28	22.9	15.2	25.9	24.4	36.1	31.8
GRRT 08-06	1/2	12.7	3/8	9.52	7.1	13/16	20.63	7/8	22.22	11/16	17.46	22.9	16.8	25.9	25.9	36.1	33.3
GRRT 10-06	5/8	15.87	3/8	9.52	7.1	1	25.40	1	25.40	11/16	17.46	24.4	16.8	28.7	28.7	38.9	36.1
GRRT 12-06	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.4	16.8	29.7	29.7	39.9	37.1
GRRT 12-08	3/4	19.05	1/2	12.7	10.4	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.4	22.9	29.7	29.7	39.9	39.9
GRRT 16-08	1	25.4	1/2	12.7	10.4	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.2	22.9	36.8	34.5	49.0	44.7
GRRT 16-12	1	25.4	3/4	19.05	15.7	1-3/8	34.92	1-1/2	38.10	1-1/8	28.57	31.2	24.4	36.8	34.5	49.0	44.7

[Tube to Tube Union]

GUC

Union Cross



Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Dimensions (mm)							
			E Min.	h		H		A	ℓ	L
	inch	mm		inch	mm	inch	mm			
GUC 02	1/8	3.17	2.3	3/8	9.52	7/16	11.11	12.7	15.7	22.4
GUC 03	3/16	4.76	3.0	1/2	12.70	1/2	12.70	13.7	17.8	24.4
GUC 04	1/4	6.35	4.8	1/2	12.70	9/16	14.28	15.2	19.6	26.9
GUC 05	5/16	7.93	6.4	5/8	15.87	5/8	15.87	16.3	21.3	28.7
GUC 06	3/8	9.52	7.1	5/8	15.87	11/16	17.46	16.8	23.1	30.5
GUC 08	1/2	12.7	10.4	13/16	20.63	7/8	22.22	22.9	25.9	36.1
GUC 10	5/8	15.87	15.9	1-1/16	26.98	1	25.40	24.4	28.7	38.8
GUC 12	3/4	19.05	12.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	39.9
GUC 14	7/8	22.22	18.3	1-3/8	34.92	1-1/4	31.75	25.9	34.5	44.7
GUC 16	1	25.4	22.4	1-3/8	34.92	1-1/2	38.10	31.2	36.8	49.0

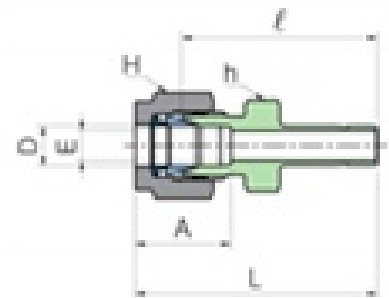
Connects Metric Tube

Part No.	Tube O.D. D	Dimensions (mm)					
		E Min.	h	H	A	ℓ	L
	mm		mm	mm			
GUC 03M	3	2.4	9.52	11.11	12.9	15.7	22.3
GUC 06M	6	4.8	12.70	14.28	15.3	19.6	27.0
GUC 08M	8	6.4	15.87	15.87	16.2	21.3	28.8
GUC 10M	10	7.9	17.46	19.05	17.2	23.9	31.5
GUC 12M	12	9.5	20.63	22.22	22.8	25.9	36.0
GUC 16M	16	12.7	26.98	25.40	24.4	28.7	38.8
GUC 18M	18	15.1	26.98	30.16	24.4	29.7	39.8
GUC 20M	20	15.9	34.92	31.75	26.0	34.5	44.6
GUC 22M	22	18.3	34.92	31.75	26.0	34.5	44.6
GUC 25M	25	21.8	34.92	38.10	31.3	36.8	49.1

[Stub Tube Connector]

GR

Reducer



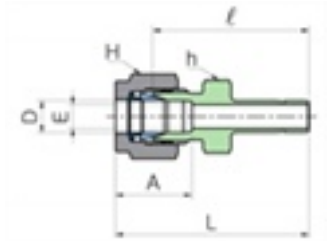
Connects Fractional(Inch) Tube to Fractional SG-LOK port

Part No.	Tube O.D. D		Tube O.D. D1		Dimensions (mm)							
	inch	mm	inch	mm	E Min.	h		H		A	ℓ	L
						inch	mm	inch	mm			
GR 02-02T	1/8	3.17	1/8	3.17	2.0	7/16	11.11	7/16	11.11	12.7	26.9	33.5
GR 02-03T	1/8	3.17	3/16	4.76	2.3	7/16	11.11	7/16	11.11	12.7	27.7	34.3
GR 02-04T	1/8	3.17	1/4	6.35	2.3	7/16	11.11	7/16	11.11	12.7	29.5	36.1
GR 02-06T	1/8	3.17	3/8	9.52	2.3	7/16	11.11	7/16	11.11	12.7	31.0	37.6
GR 02-08T	1/8	3.17	1/2	12.70	2.3	9/16	14.28	7/16	11.11	12.7	37.6	44.2
GR 03-02T	3/16	4.76	1/8	3.17	2.0	7/16	11.11	1/2	12.70	13.7	28.2	34.8
GR 03-04T	3/16	4.76	1/4	6.35	3.0	7/16	11.11	1/2	12.70	13.7	30.5	37.1
GR 04-02T	1/4	6.35	1/8	3.17	2.0	1/2	12.70	9/16	14.28	15.2	29.5	36.8
GR 04-03T	1/4	6.35	3/16	4.76	3.0	1/2	12.70	9/16	14.28	15.2	30.2	37.6
GR 04-04T	1/4	6.35	1/4	6.35	4.3	1/2	12.70	9/16	14.28	15.2	31.8	39.1
GR 04-05T	1/4	6.35	5/16	7.93	4.8	1/2	12.70	9/16	14.28	15.2	32.5	39.9
GR 04-06T	1/4	6.35	3/8	9.52	4.8	1/2	12.70	9/16	14.28	15.2	33.3	40.6
GR 04-08T	1/4	6.35	1/2	12.70	4.8	9/16	14.28	9/16	14.28	15.2	38.9	46.2
GR 04-10T	1/4	6.35	5/8	15.87	4.8	11/16	17.46	9/16	14.28	15.2	40.6	48.0
GR 04-12T	1/4	6.35	3/4	19.05	4.8	13/16	20.63	9/16	14.28	15.2	40.4	47.8
GR 05-06T	5/16	7.93	3/8	9.52	6.4	9/16	14.28	5/8	15.87	16.3	34.5	41.9
GR 05-08T	5/16	7.93	1/2	12.70	6.4	9/16	14.28	5/8	15.87	16.3	40.1	47.5
GR 06-04T	3/8	9.52	1/4	6.35	4.3	5/8	15.87	11/16	17.46	16.8	34.0	41.4
GR 06-06T	3/8	9.52	3/8	9.52	6.9	5/8	15.87	11/16	17.46	16.8	35.8	43.2
GR 06-08T	3/8	9.52	1/2	12.70	7.1	5/8	15.87	11/16	17.46	16.8	41.1	48.5
GR 06-10T	3/8	9.52	5/8	15.87	7.1	11/16	17.46	11/16	17.46	16.8	42.9	50.3
GR 06-12T	3/8	9.52	3/4	19.05	7.1	13/16	20.63	11/16	17.46	16.8	42.9	50.3
GR 08-04T	1/2	12.70	1/4	6.35	4.3	13/16	20.63	7/8	22.22	22.9	34.8	45.0
GR 08-06T	1/2	12.70	3/8	9.52	6.9	13/16	20.63	7/8	22.22	22.9	36.6	46.7
GR 08-08T	1/2	12.70	1/2	12.70	9.4	13/16	20.63	7/8	22.22	22.9	42.2	52.3
GR 08-10T	1/2	12.70	5/8	15.87	10.4	13/16	20.63	7/8	22.22	22.9	43.7	53.8
GR 08-12T	1/2	12.70	3/4	19.05	10.4	13/16	20.63	7/8	22.22	22.9	43.7	53.8
GR 08-16T	1/2	12.70	1	25.40	10.4	1-1/16	26.98	7/8	22.22	22.9	50.0	60.2
GR 10-12T	5/8	15.87	3/4	19.05	12.7	15/16	23.81	1	25.40	24.4	44.5	54.6
GR 10-14T	5/8	15.87	7/8	22.22	12.7	15/16	23.81	1	25.40	24.4	46.0	56.1
GR 10-16T	5/8	15.87	1	25.40	12.7	1-1/16	26.98	1	25.40	24.4	50.8	61.0
GR 12-08T	3/4	19.05	1/2	12.70	9.4	1-1/16	26.98	1-1/8	28.57	24.4	44.5	54.6
GR 12-16T	3/4	19.05	1	25.40	15.7	1-1/16	26.98	1-1/8	28.57	24.4	52.3	62.5
GR 16-20T	1	25.40	1-1/4	31.75	22.4	1-3/8	34.92	1-1/2	38.10	31.2	68.3	80.5
GR 16-24T	1	25.40	1-1/2	38.10	22.4	1-5/8	41.27	1-1/2	38.10	31.2	77.0	89.2
GR 20-24T	1-1/4	31.75	1-1/2	38.10	27.7	1-7/8	47.63	1-7/8	47.63	41.1	82.0	104.1
GR 20-32T	1-1/4	31.75	2	50.80	27.7	1-7/8	47.63	1-7/8	47.63	41.1	103.1	125.2
GR 24-32T	1-1/2	38.10	2	50.80	34.0	2-1/4	57.15	2-1/4	57.15	50.0	104.1	131.3

[Stub Tube Connector]

GR

Reducer



Connects Metric Tube to Metric SG-LOK port

Part No.	Tube O.D. D	Tube O.D. D1	Dimensions (mm)					
	mm	mm	E Min.	h mm	H mm	A	ℓ	L
GR 03M-04MT	3	4	2.4	11.11	11.11	12.9	28.4	35
GR 03M-06MT	3	6	2.4	11.11	11.11	12.9	29.5	36.1
GR 06M-08MT	6	8	4.8	14.28	14.28	15.3	32.5	39.9
GR 06M-10MT	6	10	4.8	14.28	14.28	15.3	33.3	40.7
GR 06M-12MT	6	12	4.8	14.28	14.28	15.3	38.9	46.3
GR 08M-06MT	8	6	4.1	15.87	15.87	16.2	32.8	40.3
GR 08M-10MT	8	10	6.4	14.28	15.87	16.2	34.5	42
GR 08M-12MT	8	12	6.4	15.87	15.87	16.2	40.1	47.6
GR 10M-06MT	10	6	4.1	17.46	19.05	17.2	34.8	42.4
GR 10M-12MT	10	12	7.9	17.46	19.05	17.2	42.2	49.8
GR 12M-06MT	12	6	4.1	22.22	22.22	22.8	34.8	44.9
GR 12M-10MT	12	10	7.1	22.22	22.22	22.8	36.6	46.7
GR 12M-16MT	12	16	9.5	22.22	22.22	22.8	43.7	53.8
GR 12M-18MT	12	18	9.5	22.22	22.22	22.8	43.7	53.8
GR 16M-12MT	16	12	8.8	23.81	25.4	24.4	42.9	53
GR 18M-12MT	18	12	8.8	26.98	30.16	24.4	44.5	54.6
GR 18M-16MT	18	16	12	26.98	30.16	24.4	46	56.1
GR 20M-16MT	20	16	12	30.16	31.75	26	47.8	57.9
GR 20M-18MT	20	18	13.9	30.16	31.75	26	47.8	57.9
GR 22M-20MT	22	20	15.5	30.16	31.75	26	49.3	59.4
GR 22M-25MT	22	25	18.3	30.16	31.75	26	54.1	64.2
GR 25M-18MT	25	18	13.9	34.92	38.1	31.3	50.8	63.1
GR 25M-20MT	25	20	15.5	34.92	38.1	31.3	52.3	64.6

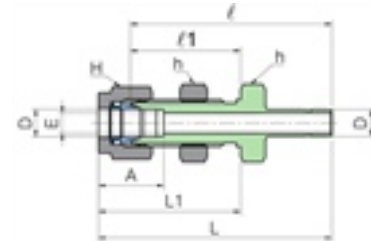
Connects Metric Tube to Fractional(Inch) SG-LOK port

Part No.	Tube O.D. D	Tube O.D. D1		Dimensions (mm)						
				E Min.	h	H		A	ℓ	L
	mm	inch	mm		mm	inch	mm			
GR 03M-02T	3	1/8	3.17	2	12.7	1/2	12.7	12.9	26.9	33.5
GR 03M-04T	3	1/4	6.35	2.4	12.7	1/2	12.7	12.9	29.5	36.1
GR 06M-04T	6	1/4	6.35	4.3	12.7	9/16	14.28	15.3	31.8	39.2
GR 06M-05T	6	5/16	7.93	4.8	14.28	9/16	14.28	15.3	32.5	39.9
GR 06M-06T	6	3/8	9.52	4.8	14.28	9/16	14.28	15.3	33.3	40.7
GR 06M-08T	6	1/2	12.7	4.8	14.28	9/16	14.28	15.3	38.9	46.3
GR 08M-06T	8	3/8	9.52	6.4	14.28	5/8	15.87	16.2	34.5	42
GR 08M-08T	8	1/2	12.7	6.4	15.87	5/8	15.87	16.2	40.1	47.6
GR 10M-06T	10	3/8	9.52	6.9	17.46	3/4	19.05	17.2	36.6	44.2
GR 10M-08T	10	1/2	12.7	7.9	17.46	3/4	19.05	17.2	42.2	49.8
GR 12M-08T	12	1/2	12.7	9.4	20.63	7/8	22.22	22.8	42.2	52.3
GR 12M-12T	12	3/4	19.05	9.5	20.63	7/8	22.22	22.8	43.7	53.8
GR 18M-12T	18	3/4	19.05	14.7	26.98	1-3/16	30.16	24.4	46	56.1
GR 18M-16T	18	1	25.4	15.1	26.98	1-3/16	30.16	24.4	52.3	62.4

[Stub Tube Connector]

GBR

Bulkhead Reducer



Connects Fractional(Inch) Tube to Fractional SG-LOK Port

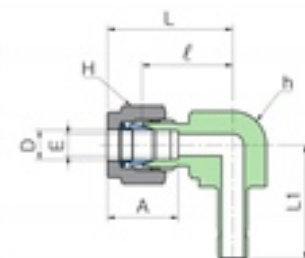
Part No.	Tube O.D. D		Dimensions (mm)										Panel Hole Size	Max Panel Thickness
	inch	mm	E Min.	h		H		A	ℓ	ℓ1	L	L1		
GBR 02-02T	1/8	3.17	2.0	1/2	12.70	7/16	11.11	12.7	42.9	24.6	49.5	31.2	8.3	12.7
GBR 04-04T	1/4	6.35	4.3	5/8	15.87	9/16	14.28	15.2	48.5	26.2	55.9	33.5	11.5	10.2
GBR 06-06T	3/8	9.52	6.9	3/4	19.05	11/16	17.46	16.8	53.8	29.5	61.2	36.8	14.7	11.2
GBR 08-08T	1/2	12.70	9.4	15/16	23.81	7/8	22.22	22.9	62.7	31.8	72.9	41.9	19.4	12.7
GBR 16-16T	1	25.4	20.3	1-5/8	41.27	1-1/2	38.1	31.3	88.1	45.2	100.3	57.4	33.7	19.1

Connects Metric Tube to Metric SG-LOK Port

Part No.	Tube O.D. D	Dimensions (mm)									
		E Min.	h	H	A	ℓ	ℓ1	L	L1	Panel Hole Size	Max Panel Thickness
	mm		mm	mm							
GBR 03M-03MT	3	1.9	12.70	11.11	12.9	43.0	24.6	49.6	31.2	8.3	12.7
GBR 06M-06MT	6	4.1	15.87	14.28	15.3	48.5	26.2	55.9	33.6	11.5	10.2
GBR 08M-08MT	8	5.6	17.46	15.87	16.2	53.1	28.6	60.6	36.1	13.1	11.2
GBR 12M-12MT	12	8.8	23.81	22.22	22.8	62.7	31.8	72.8	41.9	19.5	12.7

GER

Elbow Reducer



Connects Fractional(Inch) Tube to Fractional SG-LOK Port

Part No.	Tube O.D. D		Dimensions (mm)								Panel Hole Size	Max Panel Thickness
	inch	mm	E Min.	h		H		A	ℓ	L		
GER 02-02T	1/8	3.17	2.0	3/8	9.52	7/16	11.11	12.7	15.7	22.3	20.6	
GER 04-04T	1/4	6.35	4.3	1/2	12.70	9/16	14.28	15.2	19.6	27.0	25.0	
GER 06-06T	3/8	9.52	6.9	5/8	15.87	11/16	17.46	16.8	23.1	30.5	29.3	
GER 08-08T	1/2	12.70	9.4	13/16	20.63	7/8	22.22	22.9	25.9	36.0	37.1	

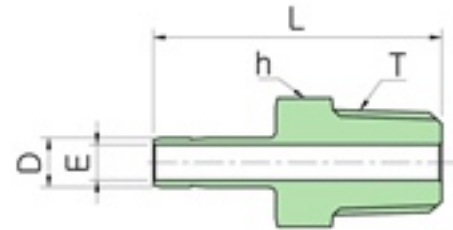
Connects Metric Tube to Metric SG-LOK Port

Part No.	Tube O.D. D	Dimensions (mm)						
		E Min.	h	H	A	ℓ	L	L1
	mm		mm	mm				
GER 03M-03MT	3	1.9	9.52	12.70	12.9	15.7	22.3	20.5
GER 06M-06MT	6	4.1	12.70	14.28	15.3	19.6	27.0	25.6
GER 08M-08MT	8	5.6	15.87	15.87	16.2	22.4	29.9	28.6
GER 10M-10MT	10	7.1	17.46	19.05	17.2	23.1	30.7	27.5
GER 12M-12MT	12	8.8	20.63	22.22	22.8	25.9	36.0	37.3

[Stub Tube Connector]

GMA

Male Adapter



Connects Fractional(Inch) SG-LOK Port to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)			
	inch	mm		E Min.	h		L
					inch	mm	
GMA 02T-02N	1/8	3.17	1/8	2.0	7/16	11.11	29.5
GMA 03T-02N	3/16	4.76	1/8	3.0	7/16	11.11	30.2
GMA 04T-02N	1/4	6.35	1/8	4.3	7/16	11.11	31.8
GMA 04T-04N	1/4	6.35	1/4	4.3	9/16	14.28	37.1
GMA 05T-02N	5/16	7.93	1/8	4.8	7/16	11.11	32.8
GMA 05T-04N	5/16	7.93	1/4	5.6	9/16	14.28	38.1
GMA 06T-04N	3/8	9.52	1/4	6.9	9/16	14.28	38.9
GMA 06T-06N	3/8	9.52	3/8	6.9	11/16	17.46	39.6
GMA 06T-08N	3/8	9.52	1/2	6.9	7/8	22.22	45.2
GMA 08T-04N	1/2	12.70	1/4	7.1	9/16	14.28	44.5
GMA 08T-06N	1/2	12.70	3/8	9.4	11/16	17.46	45.2
GMA 08T-08N	1/2	12.70	1/2	9.4	7/8	22.22	50.5
GMA 10T-08N	5/8	15.87	1/2	11.9	7/8	22.22	52.3
GMA 12T-12N	3/4	19.05	3/4	14.7	1-1/16	26.98	52.3
GMA 14T-12N	7/8	22.22	3/4	15.7	1-1/16	26.98	54.3
GMA 16T-16N	1	25.40	1	20.3	1-3/8	34.92	66.0
GMA 20T-20N	1-1/4	31.75	1-1/4	25.9	1-3/4	44.45	80.3
GMA 24T-24N	1-1/2	38.10	1-1/2	31.8	2-1/8	53.98	94.5
GMA 32T-32N	2	50.80	2	43.7	2-3/4	69.85	119.4

ISO Tapered threads are available for all fractional GMA. To order, add "R" as a suffix instead of "N"

Connects Metric SG-LOK Port to Female ISO Tapered Thread

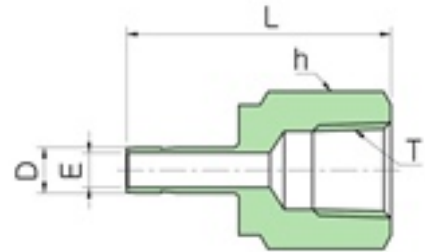
Part No.	Tube O.D.	T (PT)	Dimensions (mm)		
	D		E Min.	h	L
	mm			mm	
GMA 03MT-02R	3	1/8	1.9	12.70	29.4
GMA 06MT-02R	6	1/8	4.1	11.11	32.8
GMA 06MT-04R	6	1/4	4.1	14.28	38.1
GMA 08MT-04R	8	1/4	5.6	14.28	39.1
GMA 10MT-04R	10	1/4	7.1	14.28	39.9
GMA 10MT-06R	10	3/8	7.1	17.46	40.6
GMA 10MT-08R	10	1/2	7.1	22.22	45.2
GMA 12MT-04R	12	1/4	7.1	14.28	46.5
GMA 12MT-06R	12	3/8	8.8	17.46	46.2
GMA 12MT-08R	12	1/2	8.8	22.22	52.0
GMA 18MT-08R	18	1/2	11.9	22.22	53.2
GMA 18MT-12R	18	3/4	13.9	26.98	53.2
GMA 20MT-12R	20	3/4	15.5	26.98	58.0
GMA 25MT-16R	25	1	19.5	34.92	70.7
GMA 28MT-16R	28	1	22.2	34.92	74.7
GMA 28MT-20R	28	1-1/4	22.5	46.04	76.2
GMA 30MT-20R	30	1-1/4	24.3	46.04	80.0
GMA 32MT-20R	32	1-1/4	26.5	46.04	81.0
GMA 38MT-24R	38	1-1/2	31.6	55.56	92.2

NPT threads are available for all metric GMA. To order, add "N" as a suffix instead of "R".

[Stub Tube Connector]

GFA

Female Adapter



Connects Fractional(Inch) SG-LOK Port to Male NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)			
	inch	mm		E Min.	h		L
					inch	mm	
GFA 02T-02N	1/8	3.17	1/8	2.0	9/16	14.28	31.5
GFA 02T-04N	1/8	3.17	1/4	2.0	3/4	19.05	35.3
GFA 03T-02N	3/16	4.76	1/8	3.0	9/16	14.28	32.0
GFA 03T-04N	3/16	4.76	1/4	3.0	3/4	19.05	35.8
GFA 04T-02N	1/4	6.35	1/8	4.3	9/16	14.28	33.0
GFA 04T-04N	1/4	6.35	1/4	4.3	3/4	19.05	37.1
GFA 04T-06N	1/4	6.35	3/8	4.3	7/8	22.22	39.4
GFA 04T-08N	1/4	6.35	1/2	4.3	1-1/16	26.98	45.5
GFA 05T-02N	5/16	7.93	1/8	5.6	9/16	14.28	34.3
GFA 05T-04N	5/16	7.93	1/4	5.6	3/4	19.05	37.6
GFA 06T-02N	3/8	9.52	1/8	6.9	9/16	14.28	34.3
GFA 06T-04N	3/8	9.52	1/4	6.9	3/4	19.05	38.1
GFA 06T-06N	3/8	9.52	3/8	6.9	7/8	22.22	40.4
GFA 06T-08N	3/8	9.52	1/2	6.9	1-1/16	26.98	46.7
GFA 08T-04N	1/2	12.70	1/4	9.4	3/4	19.05	43.4
GFA 08T-06N	1/2	12.70	3/8	9.4	7/8	22.22	45.5
GFA 08T-08N	1/2	12.70	1/2	9.4	1-1/16	26.98	51.8
GFA 10T-06N	5/8	15.87	3/8	11.9	7/8	22.22	48.3
GFA 10T-08N	5/8	15.87	1/2	11.9	1-1/16	26.98	53.1
GFA 10T-12N	5/8	15.87	3/4	11.9	1-1/4	31.75	55.4
GFA 12T-08N	3/4	19.05	1/2	14.7	1-1/16	26.98	52.8
GFA 12T-12N	3/4	19.05	3/4	14.7	1-1/4	31.75	54.9
GFA 12T-16N	3/4	19.05	1	14.7	1-5/8	41.27	58.4
GFA 14T-12N	7/8	22.22	3/4	15.7	1-1/4	31.75	57.2
GFA 16T-12N	1	25.40	3/4	20.3	1-1/4	31.75	60.7
GFA 16T-16N	1	25.40	1	20.3	1-5/8	41.27	64.3
GFA 20T-20N	1-1/4	31.75	1-1/4	25.9	2-1/8	53.98	77.7
GFA 24T-24N	1-1/2	38.10	1-1/2	31.8	2-3/8	60.33	88.9
GFA 32T-32N	2	50.80	2	43.7	2-7/8	73.03	107.4

ISO Tapered threads are available for all fractional GFA. To order, add "R" as a suffix instead of "N"

Connects Metric SG-LOK Port to Male ISO Tapered Thread

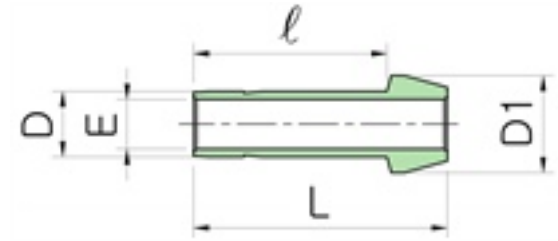
Part No.	Tube O.D. D	T (PT)	Dimensions (mm)		
	mm		E Min.	h	L
			mm		
GFA 03MT-02R	3	1/8	1.9	14.28	31.2
GFA 06MT-02R	6	1/8	4.1	14.28	32.5
GFA 06MT-04R	6	1/4	4.1	19.05	37.1
GFA 08MT-04R	8	1/4	5.6	19.05	37.6
GFA 10MT-04R	10	1/4	7.1	19.05	38.1
GFA 10MT-06R	10	3/8	7.1	22.22	40.1
GFA 10MT-08R	10	1/2	7.1	26.98	46.5
GFA 12MT-04R	12	1/4	8.8	19.05	43.7
GFA 12MT-06R	12	3/8	8.8	22.22	46.0
GFA 12MT-08R	12	1/2	8.8	26.98	52.3
GFA 18MT-12R	18	3/4	13.9	34.92	54.8

NPT threads are available for all metric GFA. To order, add "N" as a suffix instead of "R".

[Stub Tube Connector]

GPC

Port Connector



Connects Fractional(Inch) SG-LOK Port

Part No.	Tube O.D. D		Dimensions (mm)			
	inch	mm	E Min.	D1	ℓ	L
GPC 01	1/16	1.59	1.0	3.30	10.66	13.72
GPC 02	1/8	3.17	1.8	6.09	15.75	22.35
GPC 04	1/4	6.35	4.8	9.39	16.79	24.64
GPC 05	5/16	7.93	6.4	10.92	20.06	25.90
GPC 06	3/8	9.52	7.0	12.70	20.32	26.16
GPC 08	1/2	12.70	10.0	15.74	25.90	35.81
GPC 12	3/4	19.05	15.0	22.09	27.68	37.33
GPC 16	1	25.40	20.0	28.44	34.54	48.00

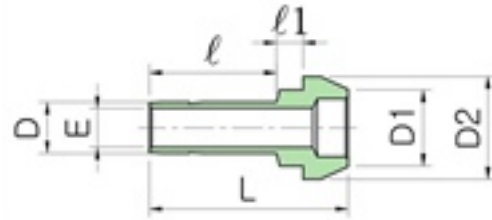
Connects Metric SG-LOK Port

Part No.	Tube O.D. D	Dimensions (mm)			
	mm	E Min.	D1	ℓ	L
GPC 03M	3	2.0	6.0	15.70	22.20
GPC 04M	4	2.0	7.0	16.67	23.81
GPC 06M	6	4.8	9.0	18.70	24.60
GPC 08M	8	6.4	11.0	20.00	25.90
GPC 10M	10	8.0	13.1	20.20	26.10
GPC 12M	12	9.0	15.0	26.00	35.80
GPC 15M	15	12.0	19.0	27.78	37.40
GPC 16M	16	12.0	19.0	27.80	37.40
GPC 18M	18	14.0	21.0	27.91	37.40
GPC 20M	20	15.0	23.0	29.20	38.90
GPC 22M	22	18.0	25.0	29.30	39.20
GPC 25M	25	20.0	28.0	34.50	48.00
GPC 28M	28	24.0	34.3	48.30	63.50
GPC 32M	32	27.0	39.5	52.40	69.70
GPC 38M	38	33.0	47.1	61.40	81.90

[Stub Tube Connector]

GRPC

Reducing Port Connector



Connects Fractional(Inch) SG-LOK Port

Part No.	Tube O.D. D1		Reduced Tube O.D. D		Dimensions (mm)				
	inch	mm	inch	mm	E Min.	D2	ℓ	ℓ1	L
GRPC 02-01	1/8	3.17	1/16	1.59	1.0	6.1	8.64	2.03	17.27
GRPC 04-02	1/4	6.35	1/8	3.17	2.3	9.4	13.45	3.30	22.60
GRPC 06-02	3/8	9.52	1/8	3.17	2.3	12.7	13.45	3.81	23.11
GRPC 06-04	3/8	9.52	1/4	6.35	4.8	12.7	15.75	3.30	24.89
GRPC 08-04	1/2	12.70	1/4	6.35	4.8	15.7	15.75	3.81	29.21
GRPC 08-06	1/2	12.70	3/8	9.52	7.0	15.7	17.67	3.30	30.48
GRPC 12-08	3/4	19.05	1/2	12.70	10.0	22.1	23.20	3.81	37.65
GRPC 16-08	1	25.40	1/2	12.70	10.0	28.4	24.47	4.82	42.67
GRPC 16-12	1	25.40	3/4	19.05	15.0	28.4	25.90	4.06	43.43

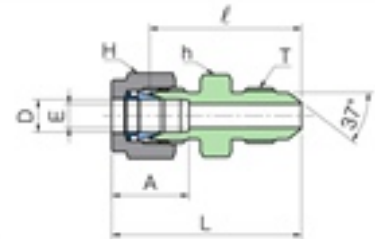
Connects Metric SG-LOK Port

Part No.	Tube O.D. D1	Reduced Tube O.D. D	Dimensions (mm)				
			E Min.	D2	ℓ	ℓ1	L
	mm	mm					
GRPC 06M-03M	6	3	2.3	9.0	13.50	3.2	22.60
GRPC 08M-06M	8	6	4.8	11.0	15.70	3.1	24.70
GRPC 10M-06M	10	6	4.8	13.1	15.70	3.4	25.00
GRPC 10M-08M	10	8	6.4	13.1	16.80	3.1	26.00
GRPC 12M-06M	12	6	4.8	15.0	15.70	3.6	29.10
GRPC 12M-08M	12	8	6.4	15.0	16.80	3.4	29.80
GRPC 12M-10M	12	10	8.0	15.0	17.50	3.1	30.40
GRPC 16M-06M	16	6	4.8	19.0	15.70	3.6	30.40
GRPC 16M-12M	16	12	9.0	19.0	23.10	3.4	36.20
GRPC 28M-25M	28	25	20.0	34.4	33.00	8.2	56.50
GRPC 32M-25M	32	25	20.0	39.5	33.00	9.9	60.30
GRPC 38M-25M	38	25	20.0	47.1	33.00	12.3	65.80

[Tube To AN Tube]

GAU

AN Union

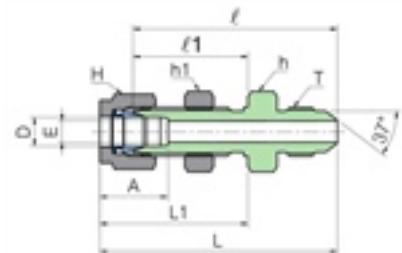


Connects Fractional(Inch) Tube to AN Flared Tube

Part No.	Tube O.D. D		AN Tube Flare Size		Straight Thread T	Dimensions (mm)							
	inch	mm	inch	mm		E Min.	h		H		A	ℓ	L
							inch	mm	inch	mm			
GAU 02-02U	1/8	3.17	1/8	3.17	5/16-24	1.5	7/16	11.11	7/16	11.11	12.7	24.9	31.5
GAU 02-04U	1/8	3.17	1/4	6.35	7/16-20	2.3	1/2	12.70	7/16	11.11	12.7	28.4	35.1
GAU 04-04U	1/4	6.35	1/4	6.35	7/16-20	4.3	1/2	12.70	9/16	14.28	15.2	30.2	37.6
GAU 05-05U	5/16	7.93	5/16	7.93	1/2-20	5.8	9/16	14.28	5/8	15.87	16.3	31.0	38.4
GAU 06-04U	3/8	9.52	1/4	6.35	7/16-20	4.3	5/8	15.87	11/16	17.46	16.8	32.3	39.6
GAU 06-06U	3/8	9.52	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	16.8	32.3	39.6
GAU 08-08U	1/2	12.70	1/2	12.70	3/4-16	9.9	13/16	20.63	7/8	22.22	22.9	35.8	46.0
GAU 12-12U	3/4	19.05	3/4	19.05	1-1/16-12	15.5	1-1/8	28.57	1-1/8	28.57	24.4	43.2	53.3
GAU 16-16U	1	25.40	1	25.40	1-5/16-12	21.3	1-3/8	34.92	1-1/2	38.10	31.2	49.3	61.5

GABU

AN Bulkhead Union

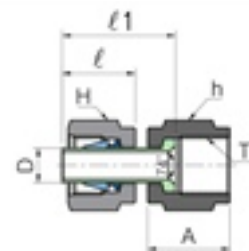


Connects Fractional(Inch) Tube to AN Flared Tube

Part No.	Tube O.D. D		AN Tube Flare Size		Straight Thread T	Dimensions (mm)											
	inch	mm	inch	mm		E Min.	h		H		A	ℓ	ℓ1	L	L1	Panel Hole Size	Max Panel Thickness
							inch	mm	inch	mm							
GABU 04-04U	1/4	6.35	1/4	6.35	7/16-20	4.3	5/8	15.87	9/16	14.28	15.2	46.5	26.2	53.8	33.5	11.5	10.2
GABU 06-06U	3/8	9.52	3/8	9.52	9/16-18	7.1	3/4	19.05	11/16	17.46	16.8	49.8	29.5	57.2	36.8	14.7	11.2
GABU 08-08U	1/2	12.70	1/2	12.70	3/4-16	9.9	15/16	23.81	7/8	22.22	22.9	55.6	31.8	65.8	41.9	19.4	12.7
GABU 12-12U	3/4	19.05	3/4	19.05	1-1/16-12	15.5	1-3/16	30.16	1-1/8	28.57	24.4	68.8	37.3	79.0	47.5	25.8	16.8
GABU 16-16U	1	25.40	1	25.40	1-5/16-12	21.3	1-5/8	41.27	1-1/2	38.10	31.2	80.3	45.2	92.5	57.4	33.7	19.1

GAA

AN Adapter



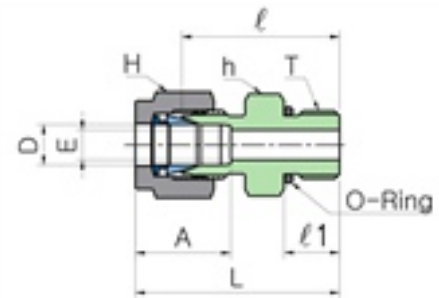
Connects Fractional(Inch) Tube to AN Flared Tube

Part No.	Tube O.D. D		AN Tube Flare Size		Straight Thread T	Dimensions (mm)						
	inch	mm	inch	mm		h		H		A	ℓ	ℓ1
						inch	mm	inch	mm			
GAA 02-01U	1/8	3.17	1/8	3.17	5/16-24	3/8	9.52	7/16	11.11	13.7	13.5	18.5
GAA 02-04U	1/8	3.17	1/4	6.35	7/16-20	9/16	14.28	7/16	11.11	15.7	13.5	19.1
GAA 04-04U	1/4	6.35	1/4	6.35	7/16-20	9/16	14.28	9/16	14.28	15.7	15.7	21.3
GAA 06-06U	3/8	9.52	3/8	9.52	9/16-18	11/16	17.46	11/16	17.46	18.3	17.5	24.9
GAA 08-08U	1/2	12.7	1/2	12.7	3/4-16	7/8	22.22	7/8	22.22	21.6	23.1	31.8

[Tube To SAE O-Ring Seal]

GSMC

SAE Male Connector

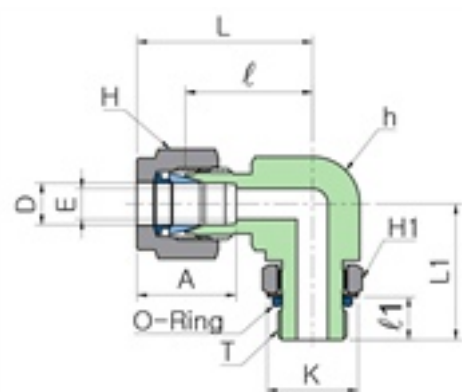


Connects Fractional(Inch) Tube to SAE Straight Thread Boss

Part No.	Tube O.D. D		Straight Thread T	Dimensions (mm)								
	inch	mm		E Min.	h		H		A	ℓ	ℓ1	L
					inch	mm	inch	mm				
GSMC 02-02U	1/8	3.17	5/16-24	2.3	7/16	11.11	7/16	11.11	12.7	23.3	7.6	30.0
GSMC 04-04U	1/4	6.35	7/16-20	4.8	9/16	14.28	9/16	14.28	15.2	26.7	9.1	34.0
GSMC 04-06U	1/4	6.35	9/16-18	4.8	11/16	17.46	9/16	14.28	15.2	28.2	9.9	35.6
GSMC 04-08U	1/4	6.35	3/4-16	4.8	7/8	22.22	9/16	14.28	15.2	30.2	11.2	37.6
GSMC 04-10U	1/4	6.35	7/8-14	4.8	1	25.40	9/16	14.28	15.2	33.3	12.7	40.6
GSMC 05-05U	5/16	7.93	1/2-20	6.4	5/8	15.87	5/8	15.87	16.3	27.4	9.1	34.8
GSMC 06-04U	3/8	9.52	7/16-20	4.6	5/8	15.87	11/16	17.46	16.8	28.2	9.1	35.6
GSMC 06-06U	3/8	9.52	9/16-18	7.1	11/16	17.46	11/16	17.46	16.8	29.7	9.9	37.1
GSMC 06-08U	3/8	9.52	3/4-16	7.1	7/8	22.22	11/16	17.46	16.8	31.8	11.2	39.1
GSMC 06-10U	3/8	9.52	7/8-14	7.1	1	25.40	11/16	17.46	16.8	34.8	12.7	42.2
GSMC 08-06U	1/2	12.70	9/16-18	7.1	13/16	20.63	7/8	22.22	22.9	29.0	9.9	39.1
GSMC 08-08U	1/2	12.70	3/4-16	10.4	7/8	22.22	7/8	22.22	22.9	31.8	11.2	41.9
GSMC 08-10U	1/2	12.70	7/8-14	10.4	1	25.40	7/8	22.22	22.9	34.8	12.7	45.0
GSMC 08-12U	1/2	12.70	1-1/16-12	10.4	1-1/4	31.75	7/8	22.22	22.9	38.9	15.0	49.0
GSMC 10-08U	5/8	15.87	3/4-16	10.7	15/16	23.81	1	25.40	24.4	31.8	11.2	41.9
GSMC 10-10U	5/8	15.87	7/8-14	12.7	1	25.40	1	25.40	24.4	35.1	12.7	45.2
GSMC 12-08U	3/4	19.05	3/4-16	10.7	1-1/16	26.98	1-1/8	28.57	24.4	35.8	11.2	46.0
GSMC 12-12U	3/4	19.05	1-1/16-12	15.7	1-1/4	31.75	1-1/8	28.57	24.4	38.9	15.0	49.0
GSMC 16-12U	1	25.40	1-1/16-12	16.8	1-3/8	34.92	1-1/2	38.10	31.2	41.1	15.0	53.3
GSMC 16-16U	1	25.40	1-5/16-12	22.4	1-1/2	38.10	1-1/2	38.10	31.2	42.2	15.0	54.4

GSME

Positionable SAE Male Elbow



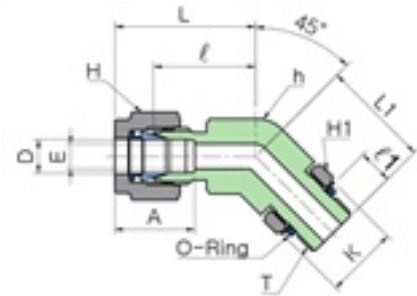
Connects Fractional(Inch) Tube to SAE Straight Thread Boss

Part No.	Tube O.D. D		Straight Thread T	Dimensions (mm)												
	inch	mm		E Min.	h		H		H1		A	ℓ	ℓ1	L	L1	K
					inch	mm	inch	mm	inch	mm						
GSME 04-04U	1/4	6.35	7/16-20	4.8	1/2	12.70	9/16	14.28	9/16	14.28	15.2	21.1	9.9	28.4	28.4	16.5
GSME 05-05U	5/16	7.93	1/2-20	5.8	9/16	14.28	5/8	15.87	5/8	15.87	16.3	22.9	9.9	30.2	39.5	18.3
GSME 06-06U	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	11/16	17.46	16.8	24.6	11.2	32.0	32.3	20.1
GSME 06-08U	3/8	9.52	3/4-16	7.1	13/16	20.63	11/16	17.46	7/8	22.22	16.8	27.4	12.7	34.8	37.8	25.7
GSME 08-08U	1/2	12.70	3/4-16	10.4	13/16	20.63	7/8	22.22	7/8	22.22	22.9	27.4	12.7	37.6	37.8	25.7
GSME 10-10U	5/8	15.87	7/8-14	12.7	1	25.40	1	25.40	1	25.40	24.4	29.5	14.2	39.6	43.4	29.5
GSME 12-12U	3/4	19.05	1-1/16-12	15.7	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.4	31.2	16.8	41.4	48.8	36.6
GSME 16-16U	1	25.40	1-5/16-12	22.4	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.2	38.4	16.8	50.5	53.6	43.9

[Tube To SAE O-Ring Seal]

GSME45D

Positionable 45° SAE Male Elbow

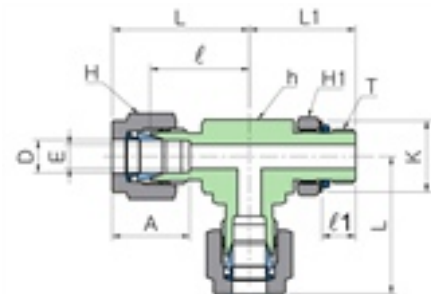


Connects Fractional(Inch) Tube to SAE Straight Thread Boss

Part No.	Tube O.D. D		Straight Thread T	Dimensions (mm)												O-Ring	
	inch	mm		E Min.	h		H		H1		A	ℓ	ℓ1	L	L1		K
					inch	mm	inch	mm	inch	mm							
GSME45D 04-04U	1/4	6.35	7/16-20	4.8	1/2	12.70	9/16	14.28	9/16	14.28	15.2	18.3	9.9	25.7	25.7	16.5	-904
GSME45D 06-06U	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	11/16	17.46	16.8	20.6	11.2	27.9	28.2	20.1	-906
GSME45D 08-08U	1/2	12.70	3/4-16	10.4	13/16	20.63	7/8	22.22	7/8	22.22	22.9	21.8	12.7	32.0	32.3	25.7	-908
GSME45D 12-12U	3/4	19.05	1-1/16-12	15.7	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.4	29.7	16.8	39.9	47.2	36.6	-912
GSME45D 16-16U	1	25.40	1-5/16-12	22.4	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.2	35.3	16.8	47.5	50.5	43.9	-916

GSMRT

Positionable SAE Run Tee

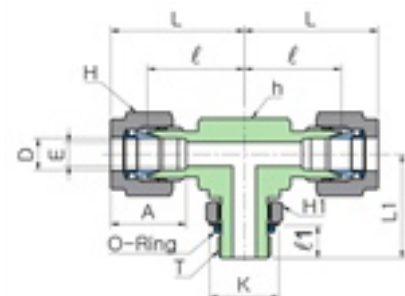


Connects Fractional(Inch) Tube to SAE Straight Thread Boss

Part No.	Tube O.D. D		Straight Thread T	Dimensions (mm)												O-Ring	
	inch	mm		E Min.	h		H		H1		A	ℓ	ℓ1	L	L1		K
					inch	mm	inch	mm	inch	mm							
GSMRT 04-04U	1/4	6.35	7/16-20	4.8	1/2	12.7	9/16	14.28	9/16	14.28	15.2	21.1	9.9	28.4	28.4	16.5	-904
GSMRT 06-06U	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	11/16	17.46	16.8	24.6	11.2	32	32.3	20.1	-906
GSMRT 08-08U	1/2	12.7	3/4-16	10.4	13/16	20.63	7/8	22.22	7/8	22.22	22.9	27.4	12.7	37.6	37.8	25.7	-908
GSMRT 12-12U	3/4	19.05	1-1/16-12	15.7	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.4	31.2	16.8	41.4	48.8	36.6	-912
GSMRT 16-16U	1	25.4	1-5/16-12	22.4	1-3/8	34.92	1-1/2	38.1	1-1/2	38.1	31.2	38.4	16.8	50.5	53.6	43.9	-916

GSMBT

Positionable SAE Male Branch Tee



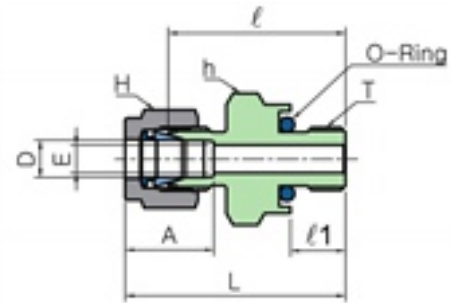
Connects Fractional(Inch) Tube to SAE Straight Thread Boss

Part No.	Tube O.D. D		Straight Thread T	Dimensions (mm)												O-Ring	
	inch	mm		E Min.	h		H		H1		A	ℓ	ℓ1	L	L1		K
					inch	mm	inch	mm	inch	mm							
GSMBT 04-04U	1/4	6.35	7/16-20	4.8	1/2	12.70	9/16	14.28	9/16	14.28	15.2	21.1	9.9	28.4	28.4	16.5	-904
GSMBT 06-06U	3/8	9.52	9/16-18	7.1	5/8	15.87	11/16	17.46	11/16	17.46	16.8	24.6	11.2	32.0	32.3	20.1	-906
GSMBT 08-08U	1/2	12.70	3/4-16	10.4	13/16	20.63	7/8	22.22	7/8	22.22	22.9	27.4	12.7	37.6	37.8	25.7	-908
GSMBT 12-12U	3/4	19.05	1-1/16-12	15.7	1-1/16	26.98	1-1/8	28.57	1-1/4	31.75	24.4	31.2	16.8	41.4	48.8	36.6	-912
GSMBT 16-16U	1	25.40	1-5/16-12	22.4	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	31.2	38.4	16.8	50.5	53.6	43.9	-916

[Tube To SAE O-Ring Seal]

GMOS

Male O-Seal Straight Thread Connector

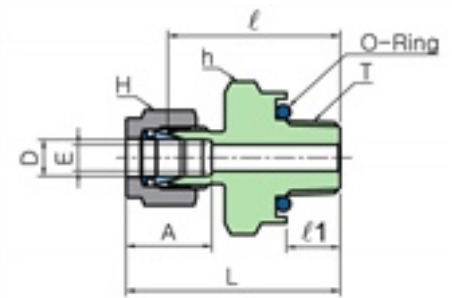


Connects Fractional(Inch) Tube to Female Straight Thread

Part No.	Tube O.D. D		Straight Thread T	Dimensions (mm)									O-Ring
	inch	mm		E Min.	h		H		A	ℓ	ℓ1	L	
					inch	mm	inch	mm					
GMOS 02-02U	1/8	3.17	5/16-24	2.3	9/16	14.28	7/16	11.11	12.7	26.2	8.6	32.8	-011
GMOS 03-03U	3/16	4.76	3/8-24	3.0	5/8	15.87	1/2	12.70	13.7	27.7	9.7	34.3	-012
GMOS 04-04U	1/4	6.35	7/16-20	4.8	3/4	19.05	9/16	14.28	15.2	31.0	10.4	38.4	-013
GMOS 05-05U	5/16	7.93	1/2-20	6.4	7/8	22.22	5/8	15.87	16.3	33.3	11.2	40.6	-112
GMOS 06-06U	3/8	9.52	9/16-18	7.1	15/16	23.81	11/16	17.46	16.8	35.1	11.9	42.4	-113
GMOS 08-08U	1/2	12.70	3/4-16	10.4	1-1/8	28.57	7/8	22.22	22.9	35.8	11.9	46.0	-116
GMOS 12-12U	3/4	19.05	1-1/16-12	15.7	1-1/2	38.10	1-1/8	28.57	24.4	42.2	14.2	52.3	-121
GMOS 16-16U	1	25.40	1-5/16-12	22.4	1-3/4	44.45	1-1/2	38.10	31.2	46.0	14.2	58.2	-125

GMOP

Male O-Seal Pipe Thread Connector



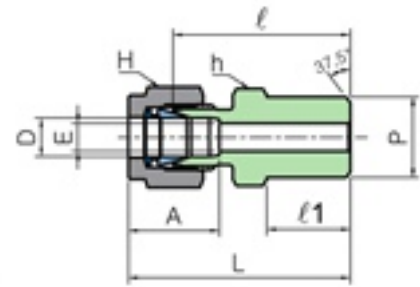
Connects Fractional(Inch) Tube to Female NPT Thread

Part No.	Tube O.D. D		T (NPT)	Dimensions (mm)									O-Ring
	inch	mm		E Min.	h		H		A	ℓ	ℓ1	L	
					inch	mm	inch	mm					
GMOP 02-02N	1/8	3.17	1/8	2.3	3/4	19.05	7/16	11.11	12.7	26.2	7.1	32.8	-013
GMOP 04-02N	1/4	6.35	1/8	4.8	3/4	19.05	9/16	14.28	15.2	27.7	7.1	35.1	-013
GMOP 04-04N	1/4	6.35	1/4	4.8	15/16	23.81	9/16	14.28	15.2	31.0	9.7	38.4	-113
GMOP 06-04N	3/8	9.52	1/4	7.1	15/16	23.81	11/16	17.46	16.8	32.5	9.7	39.9	-113
GMOP 06-06N	3/8	9.52	3/8	7.1	1-1/8	28.57	11/16	17.46	16.8	34.0	10.4	41.4	-116
GMOP 06-08N	3/8	9.52	1/2	7.1	1-5/16	33.33	11/16	17.46	16.8	39.6	13.5	47.0	-118
GMOP 08-08N	1/2	12.70	1/2	10.4	1-5/16	33.33	7/8	22.22	22.9	39.6	13.5	49.8	-118

[Tube To Weld Systems]

GMPWC

Male Pipe Weld Connector



Connects Fractional(Inch) Tube to Pipe Butt Welded System

Part No.	Tube O.D. D		Welding Pipe Size P		Dimensions (mm)								
	inch	mm	Nom	O.D.	E Min.	h		H		A	ℓ	ℓ1	L
						inch	mm	inch	mm				
GMPWC 02-02P	1/8	3.17	1/8	10.30	2.3	7/16	11.11	7/16	11.11	12.7	23.9	9.7	30.5
GMPWC 03-02P	3/16	4.76	1/8	10.30	3.0	7/16	11.11	1/2	12.70	13.7	24.6	9.7	31.2
GMPWC 04-02P	1/4	6.35	1/8	10.30	4.8	1/2	12.70	9/16	14.28	15.2	25.4	9.7	32.8
GMPWC 04-04P	1/4	6.35	1/4	13.70	4.8	9/16	14.28	9/16	14.28	15.2	30.5	14.2	37.8
GMPWC 05-02P	5/16	7.93	1/8	10.30	5.3	9/16	14.28	5/8	15.87	16.3	26.7	9.7	34.0
GMPWC 05-04P	5/16	7.93	1/4	13.70	6.4	9/16	14.28	5/8	15.87	16.3	31.2	14.2	38.6
GMPWC 06-04P	3/8	9.52	1/4	13.70	7.1	5/8	15.87	11/16	17.46	16.8	32.5	14.2	39.9
GMPWC 06-06P	3/8	9.52	3/8	17.10	7.1	11/16	17.46	11/16	17.46	16.8	32.5	14.2	39.9
GMPWC 06-08P	3/8	9.52	1/2	21.30	7.1	7/8	22.22	11/16	17.46	16.8	38.9	19.1	46.2
GMPWC 08-06P	1/2	12.70	3/8	17.10	10.4	13/16	20.63	7/8	22.22	22.9	33.3	14.2	43.4
GMPWC 08-08P	1/2	12.70	1/2	21.30	10.4	7/8	22.22	7/8	22.22	22.9	38.9	19.1	49.0
GMPWC 08-12P	1/2	12.70	3/4	26.67	10.4	1-1/16	26.98	7/8	22.22	22.9	40.4	19.1	50.5
GMPWC 10-08P	5/8	15.87	1/2	21.30	12.7	15/16	23.81	1	25.40	24.4	38.9	19.1	49.0
GMPWC 12-12P	3/4	19.05	3/4	26.67	15.7	1-1/16	26.98	1-1/8	28.57	24.4	40.4	19.1	50.5
GMPWC 16-16P	1	25.40	1	33.40	22.4	1-3/8	34.92	1-1/2	38.10	31.2	50.0	23.9	62.2

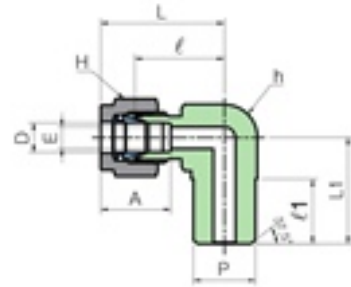
Connects Metric Tube to Pipe Butt Welded System

Part No.	Tube O.D. D	Welding Pipe Size P		Dimensions (mm)						
				E Min.	h	H	A	ℓ	ℓ1	L
	mm	Nom	O.D.		mm	mm				
GMPWC 03M-02P	3	1/8	10.3	2.4	11.11	11.11	12.9	23.1	9.7	29.7
GMPWC 04M-02P	4	1/8	10.3	2.4	11.11	12.70	13.7	24.1	9.7	30.7
GMPWC 06M-02P	6	1/8	10.3	4.8	12.70	14.28	15.3	25.4	9.7	32.8
GMPWC 06M-04P	6	1/4	13.7	4.8	14.28	14.28	15.3	30.5	14.2	37.9
GMPWC 08M-02P	8	1/8	10.3	5.4	14.28	15.87	16.2	26.7	9.7	34.2
GMPWC 08M-04P	8	1/4	13.7	6.4	14.28	15.87	16.2	31.2	14.2	38.7
GMPWC 08M-08P	8	1/2	21.3	6.4	22.22	15.87	16.2	37.3	19.0	44.8
GMPWC 10M-04P	10	1/4	13.7	7.5	17.46	19.05	17.2	33.3	14.2	40.9
GMPWC 10M-06P	10	3/8	17.1	7.9	17.46	19.05	17.2	33.3	14.2	40.9
GMPWC 10M-08P	10	1/2	21.3	7.9	22.22	19.05	17.2	38.1	19.0	45.7
GMPWC 12M-04P	12	1/4	13.7	7.5	20.63	22.22	22.8	33.3	14.2	43.4
GMPWC 12M-06P	12	3/8	17.1	9.5	20.63	22.22	22.8	33.3	14.2	43.4
GMPWC 12M-08P	12	1/2	21.3	9.5	22.22	22.22	22.8	38.9	19.0	49.0
GMPWC 15M-08P	15	1/2	21.3	11.9	23.81	25.40	24.4	38.9	19.0	49.0
GMPWC 16M-08P	16	1/2	21.3	12.7	23.81	25.40	24.4	38.9	19.0	49.0
GMPWC 18M-08P	18	1/2	21.3	13.9	26.98	30.16	24.4	40.4	19.0	50.5

[Tube To Weld Systems]

GMPWE

Male Pipe Weld Elbow

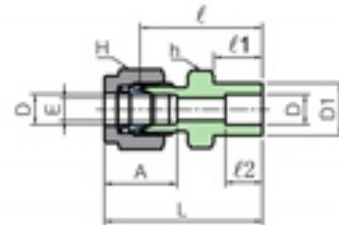


Connects Fractional(Inch) Tube to Pipe Butt Welded System

Part No.	Tube O.D. D		Welding Pipe Size P		Dimensions (mm)									
	inch	mm	Nom	O.D.	E Min.	h		H		A	ℓ	ℓ1	L	L1
GMPWE 02-02P	1/8	3.17	1/8	10.3	2.3	1/2	12.7	7/16	11.11	12.7	18.3	9.7	24.9	18.8
GMPWE 04-04P	1/4	6.35	1/8	13.7	4.8	1/2	12.7	9/16	14.28	15.2	19.6	13.8	26.9	23.4
GMPWE 06-04P	3/8	9.52	1/4	13.7	7.1	5/8	15.87	11/16	17.46	16.8	23.1	14	30.5	25.4
GMPWE 08-08P	1/2	12.7	1/2	21.3	10.4	13/16	20.63	7/8	22.22	22.9	25.9	19	36.1	33
GMPWE 12-12P	3/4	19.05	3/4	26.67	15.7	1-1/16	26.98	1-1/8	28.57	24.4	29.7	19	39.9	36.8

GTSWC

Tube Socket Weld Connector

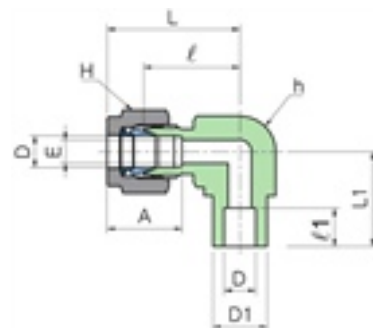


Connects Fractional(Inch) Tube to Tube Socket Welded System

Part No.	Tube O.D. D		Dimensions (mm)										
	inch	mm	E Min.	D1	h		H		A	ℓ	ℓ1	ℓ2	L
GTSWC 02-02T	1/8	3.17	2.3	7.9	7/16	11.11	7/16	11.11	12.7	22.4	8.6	6.4	29.0
GTSWC 04-04T	1/4	6.35	4.8	11.2	1/2	12.70	9/16	14.28	15.2	26.2	10.4	7.9	33.5
GTSWC 06-06T	3/8	9.52	7.1	15.7	5/8	15.87	11/16	17.46	16.8	30.2	11.9	9.7	37.6
GTSWC 08-08T	1/2	12.70	10.4	19.1	13/16	20.63	7/8	22.22	22.9	31.0	11.9	12.7	41.1
GTSWC 12-12T	3/4	19.05	15.7	26.7	1-1/16	26.98	1-1/8	28.57	24.4	33.3	11.9	14.2	43.4
GTSWC 16-16T	1	25.40	22.4	34.5	1-3/8	34.92	1-1/2	38.10	31.2	40.4	14.2	19.1	52.6

GTSWE

Tube Socket Weld Elbow



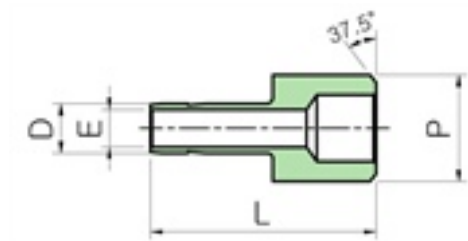
Connects Fractional(Inch) Tube to Tube Socket Welded System

Part No.	Tube O.D. D		Dimensions (mm)										
	inch	mm	E Min.	D1	h		H		A	ℓ	ℓ1	L	L1
GTSWE 04-04T	1/4	6.35	4.8	12.70	1/2	12.70	9/16	14.28	15.2	19.6	7.9	26.9	19.6
GTSWE 06-06T	3/8	9.52	7.1	15.74	5/8	15.87	11/16	17.46	16.8	23.1	9.7	30.5	23.1
GTSWE 08-08T	1/2	12.70	10.4	20.57	13/16	20.63	7/8	22.22	22.9	25.9	12.7	36.1	25.9
GTSWE 12-12T	3/4	19.05	15.7	26.92	1-1/16	26.98	1-1/8	28.57	24.4	29.71	14.22	39.87	29.71
GTSWE 16-16T	1	25.40	22.4	35.05	1-3/8	34.92	1-1/2	38.10	31.2	36.83	19.05	49.02	36.83

[Tube To Weld Systems]

GMPWA

Male Pipe Weld Adapter

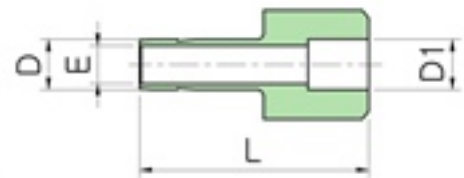


Connects Fractional(Inch) SG-LOK Port to Pipe Butt Welded System

Part No.	Tube O.D. D		Welding Pipe Size P		Dimensions (mm)	
	inch	mm	Nom	O.D.	E Min.	L
GMPWA 04T-04P	1/4	6.35	1/4	13.70	4.3	29.0
GMPWA 06T-08P	3/8	9.52	1/2	21.30	6.9	37.1
GMPWA 08T-08P	1/2	12.70	1/2	21.30	9.4	42.2
GMPWA 08T-12P	1/2	12.70	3/4	26.67	9.4	42.7
GMPWA 12T-12P	3/4	19.05	3/4	26.67	14.7	47.5

GTSWA

Tube Socket Weld Adapter



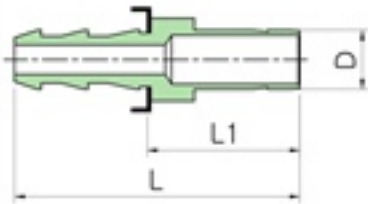
Connects Fractional(Inch) SG-LOK Port to Tube Socket Welded System

Part No.	Tube O.D. D		D1		Dimensions (mm)	
	inch	mm	Nom	O.D.	E Min.	L
GTSWA 04T-04P	1/4	6.35	1/4	6.35	4.3	29.0
GTSWA 06T-06P	3/8	9.52	3/8	9.52	6.9	37.1
GTSWA 08T-08P	1/2	12.70	1/2	12.70	9.4	42.2
GTSWA 12T-12P	3/4	19.05	3/4	19.05	14.7	47.5

[Push-On Hose Connector]

GPHTA

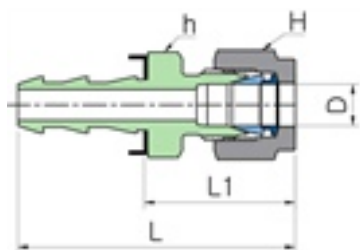
Push-On Hose to Tube Adapter



Part No.	Hose I.D. (inch)	Tube O.D. D (inch)	Dimensions			
			L		L1	
			inch	mm	inch	mm
GPHTA 04-04	1/4	1/4	1.93	45.0	1.17	26.2
GPHTA 06-06	3/8	3/8	2.03	51.6	1.16	30.5
GPHTA 08-08	1/2	1/2	2.47	63.0	1.42	37
GPHTA 12-12	3/4	3/4	3.14	79.5	1.47	38.1
GPHTA 16-16	1	1	4.13	90.0	1.91	47.0

GPHTF

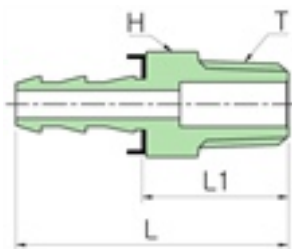
Push-On Hose to Tube Fitting



Part No.	Hose I.D. (inch)	Tube O.D. D (inch)	Dimensions							
			h		H		L		L1	
			inch	mm	inch	mm	inch	mm	inch	mm
GPHTF 04-04	1/4	1/4	9/16	14.28	9/16	14.28	1.97	50.0	1.21	30.7
GPHTF 06-06	3/8	3/8	11/16	17.46	11/16	17.46	2.11	53.6	1.24	31.5
GPHTF 08-08	1/2	1/2	7/8	22.22	7/8	22.22	2.47	62.7	1.42	36.1
GPHTF 12-12	3/4	3/4	1-1/8	28.57	1-1/8	28.57	3.15	80.0	1.45	36.8

GPHMC

Push-On Hose to Male Connector

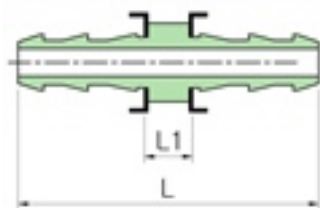


Part No.	Hose I.D. (inch)	Pipe Thread T (NPT)	Dimensions					
			H		L		L1	
			inch	mm	inch	mm	inch	mm
GPHMC 04-04N	1/4	1/4	9/16	14.28	1.68	42.7	0.92	23.4
GPHMC 06-06N	3/8	3/8	11/16	17.46	1.80	45.7	0.93	23.6
GPHMC 08-08N	1/2	1/2	7/8	22.22	2.19	55.6	1.14	29.0
GPHMC 12-12N	3/4	3/4	1-1/16	26.98	2.81	71.4	1.15	29.2
GPHMC 16-16N	1	1	1-3/8	34.92	3.78	96.0	1.55	39.4

* ISO Tapered threads are available for all GPHMC. To order, add "R" as a suffix instead of "N"

GPHSU

Push-On Hose to Straight Union



Part No.	Hose I.D. (inch)	Dimensions (mm)			
		L		L1	
		inch	mm	inch	mm
GPHSU 04-04	1/4	2.07	52.6	0.55	14.0
GPHSU 06-06	3/8	2.25	57.2	0.51	13.0
GPHSU 08-08	1/2	2.73	69.4	0.51	13.0
GPHSU 12-12	3/4	3.97	100.8	0.51	13.0

Push-On Hose Assembly Instruction

1. Cut a hose end as a clean and vertical edge.
2. Cover first barb of connector end with hose. (Lubricating fitting stem with light oil may ease assembly.)
3. Hold end connection against flat surface, grip hose and push with a steady force until hose seats into blue finishing.

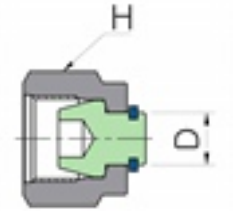
Push-On Hose Disassembly Instruction

1. Slit hose lengthwise from blue finishing cap to end of barb. Do not damage barbs.
2. Bend hose to expose barbs, then remove hose with a quick pull.

[Plug and Cap]

GP

Tube Plug



Connects Fractional(Inch) Tube

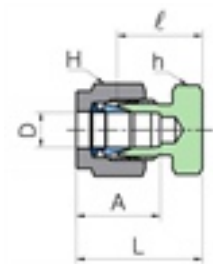
Part No.	Tube O.D. D		Dimensions (mm)	
			H	
	inch	mm	inch	mm
GP 02	1/8	3.17	7/16	11.11
GP 03	3/16	4.76	1/2	12.70
GP 04	1/4	6.35	9/16	14.28
GP 05	5/16	7.93	5/8	15.87
GP 06	3/8	9.52	11/16	17.46
GP 08	1/2	12.70	7/8	22.22
GP 10	5/8	15.87	1	25.40
GP 12	3/4	19.05	1-1/8	28.57
GP 14	7/8	22.22	1-1/4	31.75
GP 16	1	25.40	1-1/2	38.10
GP 20	1-1/4	31.75	1-7/8	47.62
GP 24	1-1/2	38.10	2-1/4	57.15
GP 32	2	50.80	3	76.20

Connects Metric Tube

Part No.	Tube O.D. D (mm)	Dimensions (mm)
		H
GP 03M	3	11.11
GP 04M	4	12.70
GP 06M	6	14.28
GP 08M	8	15.87
GP 10M	10	19.05
GP 12M	12	22.22
GP 15M	15	25.40
GP 16M	16	25.40
GP 18M	18	30.16
GP 20M	20	31.75
GP 22M	22	31.75
GP 25M	25	38.10
GP 28M	28	47.63
GP 30M	30	50.80
GP 32M	32	50.80
GP 38M	38	57.15

GC

Tube Cap



Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		Dimensions (mm)						
			h		H		A	ℓ	L
	inch	mm	inch	mm	inch	mm			
GC 02	1/8	3.17	7/16	11.11	7/16	11.11	12.7	13.5	20.1
GC 03	3/16	4.76	7/16	11.11	1/2	12.70	13.7	14.7	21.3
GC 04	1/4	6.35	1/2	12.70	9/16	14.28	15.2	16.0	23.3
GC 05	5/16	7.93	9/16	14.28	5/8	15.87	16.3	17.0	24.4
GC 06	3/8	9.52	5/8	15.87	11/16	17.46	16.8	18.3	25.7
GC 08	1/2	12.70	13/16	20.63	7/8	22.22	22.9	19.1	29.2
GC 10	5/8	15.87	15/16	23.81	1	25.40	24.4	19.8	30.0
GC 12	3/4	19.05	1-1/16	26.98	1-1/8	28.57	24.4	21.3	31.5
GC 14	7/8	22.22	1-3/16	30.16	1-1/4	31.75	25.9	23.9	34.0
GC 16	1	25.40	1-3/8	34.92	1-1/2	38.10	31.2	26.2	38.4
GC 20	1-1/4	31.75	1-3/4	44.45	1-7/8	47.62	41.1	31.2	53.3
GC 24	1-1/2	38.10	2-1/8	53.97	2-1/4	57.15	50.0	37.3	64.5
GC 32	2	50.80	2-3/4	69.85	3	76.20	67.6	49.3	86.6

Connects Metric Tube

Part No.	Tube O.D. D (mm)	Dimensions (mm)					
		h	H	A	ℓ	L	
GC 03	3	11.11	11.11	12.9	13.5	20.1	
GC 04	4	11.11	12.70	13.7	14.7	21.3	
GC 06	6	14.28	14.28	15.3	15.7	23.1	
GC 08	8	15.87	15.87	16.2	17.0	24.5	
GC 10	10	17.46	19.05	17.2	19.0	26.6	
GC 12	12	22.22	22.22	22.8	19.0	29.1	
GC 15	15	23.81	25.40	24.4	19.8	29.9	
GC 16	16	23.81	25.40	24.4	19.8	29.9	
GC 18	18	26.98	30.16	24.4	21.3	31.4	
GC 20	20	30.16	31.75	26.0	23.9	34.0	
GC 22	22	30.16	31.75	26.0	23.9	34.0	
GC 25	25	34.92	38.10	31.3	26.2	38.5	
GC 28	28	41.27	47.63	36.6	27.7	48.5	
GC 30	30	47.63	50.80	39.6	31.8	53.4	
GC 32	32	47.63	50.80	42.0	32.8	55.8	
GC 38	38	55.56	57.15	49.4	37.8	65.4	

[Components]

GI

Tube Insert



[Straight Type]



[Hook Type]

Connects Fractional(Inch) Tube

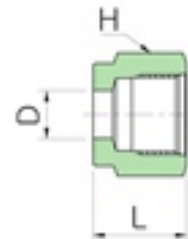
Part No.	Tube O.D. D		Tube O.D. D1	
	inch	mm	inch	mm
GI 03-02	3/16	4.76	1/8	3.17
GI 04-02	1/4	6.35	1/8	3.17
GI 04-03	1/4	6.35	3/16	4.76
GI 05-02	5/16	7.93	1/8	3.17
GI 05-03	5/16	7.93	3/16	4.76
GI 05-04	5/16	7.93	1/4	6.35
GI 06-03	3/8	9.52	3/16	4.76
GI 06-04	3/8	9.52	1/4	6.35
GI 08-04	1/2	12.70	1/4	6.35
GI 08-06	1/2	12.70	3/8	9.52
GI 10-06	5/8	15.87	3/8	9.52
GI 10-08	5/8	15.87	1/2	12.70
GI 12-08	3/4	19.05	1/2	12.70
GI 12-10	3/4	19.05	5/8	15.87
GI 16-12	1	25.40	3/4	19.05

Connects Metric Tube

Part No.	Tube O.D. D (mm)	Tube O.D. D1 (mm)
GI 06M-04M	6	4
GI 08M-06M	8	6
GI 10M-08M	10	8
GI 12M-08M	12	8
GI 12M-10M	12	10

GN

Nut



Connects Fractional(Inch) Tube

Part No.	Tube O.D. D		H		L (mm)
	inch	mm	inch	mm	
GN 02	1/8	3.17	7/16	11.11	11.9
GN 03	3/16	4.76	1/2	12.70	11.9
GN 04	1/4	6.35	9/16	14.28	12.7
GN 05	5/16	7.93	5/8	15.87	13.5
GN 06	3/8	9.52	11/16	17.46	14.2
GN 08	1/2	12.70	7/8	22.22	17.5
GN 10	5/8	15.87	1	25.40	17.5
GN 12	3/4	19.05	1-1/8	28.57	17.5
GN 14	7/8	22.22	1-1/4	31.75	17.5
GN 16	1	25.40	1-1/2	38.10	20.6
GN 20	1-1/4	31.75	1-7/8	47.63	31.7
GN 24	1-1/2	38.10	2-1/4	57.15	38.1
GN 32	2	50.80	3	76.20	52.3

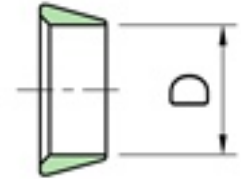
Connects Metric Tube

Part No.	Tube O.D. D (mm)	H (mm)	L (mm)
GN 03M	3	11.11	11.9
GN 04M	4	12.70	11.9
GN 06M	6	14.28	12.7
GN 08M	8	15.87	13.5
GN 10M	10	19.05	15.1
GN 12M	12	22.22	17.5
GN 15M	15	25.40	17.5
GN 16M	16	25.40	17.5
GN 18M	18	30.16	17.5
GN 20M	20	31.75	17.5
GN 22M	22	31.75	17.5
GN 25M	25	38.10	20.6
GN 28M	28	47.63	30.6
GN 30M	30	50.80	32.7
GN 32M	32	50.80	34.4
GN 38M	38	57.15	40.6

[Components]

GFF

Front Ferrule



Connects Fractional(Inch) Tube

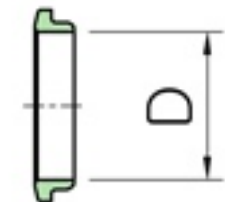
Part No.	Tube O.D. D	
	inch	mm
GFF 02	1/8	3.17
GFF 03	3/16	4.76
GFF 04	1/4	6.35
GFF 05	5/16	7.93
GFF 06	3/8	9.52
GFF 08	1/2	12.70
GFF 10	5/8	15.87
GFF 12	3/4	19.05
GFF 14	7/8	22.22
GFF 16	1	25.40
GFF 20	1-1/4	31.75
GFF 24	1-1/2	38.10
GFF 32	2	50.80

Connects Metric Tube

Part No.	Tube O.D. D (mm)
GFF 03M	3
GFF 04M	4
GFF 06M	6
GFF 08M	8
GFF 10M	10
GFF 12M	12
GFF 15M	15
GFF 16M	16
GFF 18M	18
GFF 20M	20
GFF 22M	22
GFF 25M	25
GFF 28M	28
GFF 30M	30
GFF 32M	32
GFF 38M	38

GBF

Back Ferrule



Connects Fractional(Inch) Tube

Part No.	Tube O.D. D	
	inch	mm
GBF 02	1/8	3.17
GBF 03	3/16	4.76
GBF 04	1/4	6.35
GBF 05	5/16	7.93
GBF 06	3/8	9.52
GBF 08	1/2	12.70
GBF 10	5/8	15.87
GBF 12	3/4	19.05
GBF 14	7/8	22.22
GBF 16	1	25.40
GBF 20	1-1/4	31.75
GBF 24	1-1/2	38.10
GBF 32	2	50.80

Connects Metric Tube

Part No.	Tube O.D. D (mm)
GBF 03M	3
GBF 04M	4
GBF 06M	6
GBF 08M	8
GBF 10M	10
GBF 12M	12
GBF 15M	15
GBF 16M	16
GBF 18M	18
GBF 20M	20
GBF 22M	22
GBF 25M	25
GBF 28M	28
GBF 30M	30
GBF 32M	32
GBF 38M	38

SG-LOK eye checker for fittings



[Patent registered]



- Patent registration number: 1027273450000
- Design registration number: 30-1206248

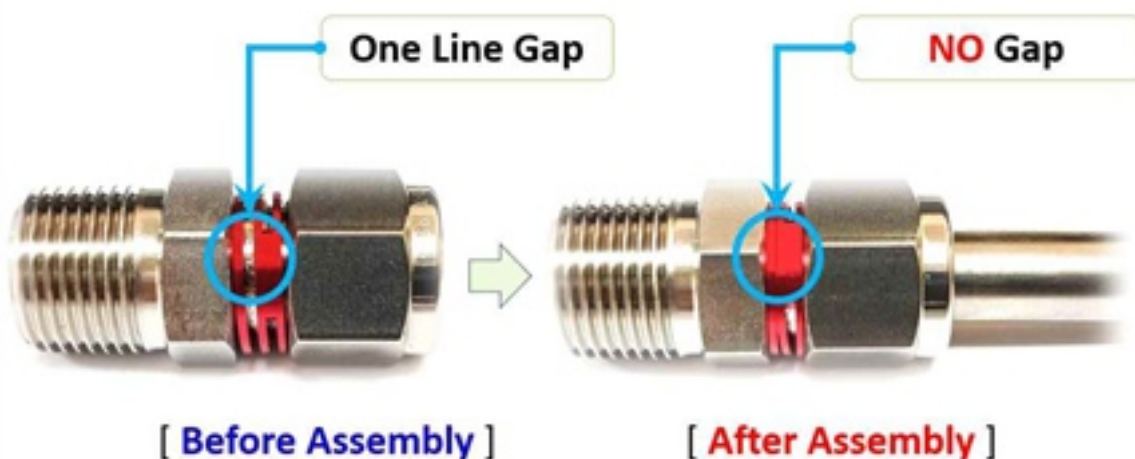
◇ Application effect

- Check the normal assembly of fittings
- Identifies overassembly and loosening during use
- Classification and management of piping lines by color

◇ How to assemble and use

1. Insert the tube up to the inner jaw of the fitting body.
2. Tighten the nut sufficiently by hand.
3. Mark a straight line on the nut and fitting body with a pen.
4. Fix the body and tighten the nut 1 and 1/4 turns with a spanner.
5. Check with eyes whether the one line gap of the ring is tightly closed.

※ Caution: Over-assembly may cause damage.



SG-LOK Pipe Fittings



Samwon Green Co., Ltd.

101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea

Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /

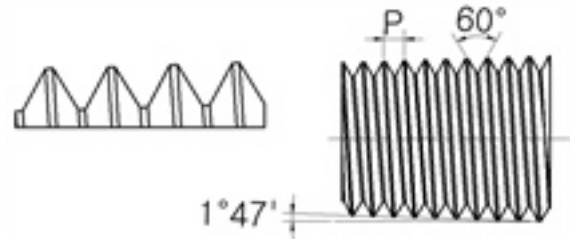
e-mail: sglok@sglok.com

Thread Information

1. NPT Tapered Pipe Thread

NPT (National Pipe Thread) is based on ANSI B1.20.1.

- Tapered thread ($1^{\circ} 47'$)
- Truncation of roots and crests are flat
- 60° thread angle
- Pitch is measured in threads per inch

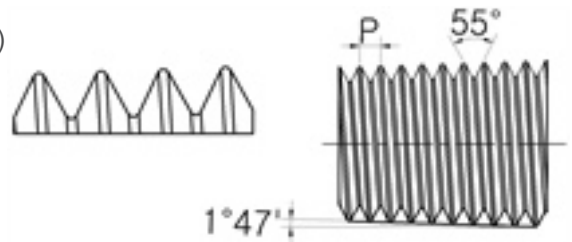


2. ISO 7/1 Tapered Pipe Thread

International Organization for Standard (ISO 7/1) Tapered (PT)

Equivalent to BSPT, DIN 2999, JIS B0203

- Tapered thread ($1^{\circ} 47'$)
- Truncation of roots and crests are rounded
- 55° thread angle
- Pitch is measured in threads per inch

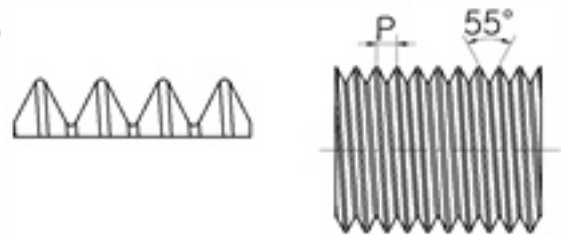


3. ISO 228/1 Parallel Pipe Thread

International Organization for Standard (ISO 228/1) Parallel(PF)

Equivalent to BSPP, DIN ISO228/1, JIS B0202

- Straight thread
- Truncation of roots and crests are rounded
- 55° thread angle
- Pitch is measured in threads per inch



How To order

SG-LOK pipe fittings are ordered by part number as shown below.

Example: The following part number, SHRN-12N-08N-SS is designated for Hex Reducing Nipple with 3/4" Male NPT and 1/2" Male NPT, 316SS.

S	HRN	12	N	08	N	SS
SG-LOK Pipe Fitting	Fitting Type	Pipe Thread Size	Thread Type	Pipe Thread Size	Thread Type	Material

Fitting Type

Refer to the part number in the dimension table.

Pipe Thread Size Designation

Pipe Size (inch)	1/8	1/4	3/8	1/2	3/4	1
Designator	02	04	06	08	12	16

Thread Type Designation

Thread Type		Designator
NPT	National Pipe Thread	N
PT	ISO 7/1 Tapered Pipe Thread	R
PF	ISO 228/1 Parallel Pipe Thread	G

Material Designation

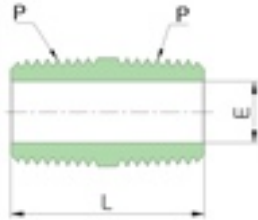
Material	Designator
316SS	SS
Brass	BS
Alloy 400	MO

Ordering Information & Dimension

[Connects Female Pipe to Female Pipe]

SCN

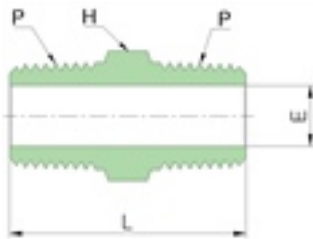
Close Nipple



Part No.	P (NPT)	Dimensions (mm)	
		L	E
SCN-02N	1/8	19.1	4.8
SCN-04N	1/4	28.4	7.0
SCN-06N	3/8	28.4	10.0
SCN-08N	1/2	38.1	12.0
SCN-12N	3/4	38.1	16.0
SCN-16N	1	47.8	22.0

SHN

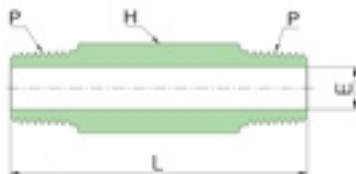
Hex Nipple



Part No.	P (NPT)	Dimensions (mm)			
		L	E	H	
				inch	mm
SHN-02N	1/8	25	4.8	7/16	11.11
SHN-04N	1/4	35	7.0	9/16	14.28
SHN-06N	3/8	36	10.0	11/16	17.46
SHN-08N	1/2	47	12.0	7/8	22.22
SHN-12N	3/4	47	16.0	1-1/16	26.98
SHN-16N	1	59	22.0	1-3/8	34.92

SHLN

Hex Long Nipple



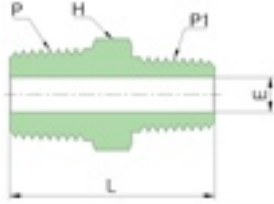
Part No.	P (NPT)	Dimensions (mm)			
		L	E	H	
				inch	mm
SHLN-02N-1.5	1/8	40	4.8	7/16	11.11
SHLN-02N-2.0		50			
SHLN-02N-2.5		65			
SHLN-02N-3.0		75			
SHLN-02N-4.0		100			
SHLN-04N-1.5	1/4	40	7.0	9/16	14.28
SHLN-04N-2.0		50			
SHLN-04N-2.5		65			
SHLN-04N-3.0		75			
SHLN-04N-4.0		100			
SHLN-04N-6.0		150			
SHLN-06N-2.0	3/8	50	10.0	11/16	17.46
SHLN-06N-3.0		75			
SHLN-06N-4.0		100			
SHLN-08N-2.0	1/2	50	12.0	7/8	22.22
SHLN-08N-3.0		75			
SHLN-08N-4.0		100			
SHLN-08N-6.0		150			
SHLN-12N-3.0	3/4	75	16.0	1-1/16	26.98
SHLN-12N-4.0		100			
SHLN-16N-3.0	1	75	22.0	1-3/8	34.92
SHLN-16N-4.0		100			

ISO7/1 Tapered Threads (PT) are available for all fractional sizes of pipe Fitting. Add "R" as a suffix instead of "N".
Dimensions are for reference only and are subject to change without prior notice.

[Connects Female Pipe to Female Pipe]

SHRN

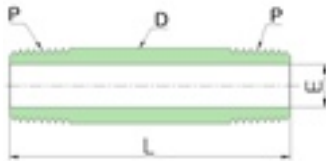
Hex Reducing Nipple



Part No.	P (NPT)	P1 (NPT)	Dimensions (mm)			
			L	E	H	
					inch	mm
SHRN-04N02N	1/4	1/8	31.0	4.8	9/16	14.28
SHRN-06N04N	3/8	1/4	36.0	7.0	11/16	17.46
SHRN-08N04N	1/2	1/4	42.0	7.0	7/8	22.22
SHRN-08N06N	1/2	3/8	42.0	10.0	7/8	22.22
SHRN-12N06N	3/4	3/8	44.0	10.0	1-1/16	26.98
SHRN-12N08N	3/4	1/2	49.0	12.0	1-1/16	26.98
SHRN-16N08N	1	1/2	54.0	12.0	1-3/8	34.92
SHRN-16N12N	1	3/4	54.0	16.0	1-3/8	34.92

SLN

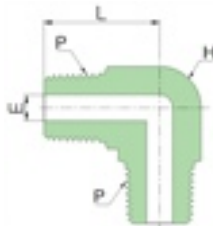
Hex Long Nipple



Part No.	P (NPT)	Dimensions (mm)		
		L	E	D
SLN-02N-1.5	1/8	40	5.7	Φ10.5
SLN-02N-2.0		50		
SLN-02N-2.5		65		
SLN-02N-3.0		75		
SLN-02N-4.0		100		
SLN-04N-1.5	1/4	40	7.8	Φ13.8
SLN-04N-2.0		50		
SLN-04N-2.5		65		
SLN-04N-3.0		75		
SLN-04N-4.0		100		
SLN-04N-6.0		150		
SLN-06N-2.0	3/8	50	10.9	Φ17.3
SLN-06N-3.0		75		
SLN-06N-4.0		100		
SLN-08N-2.0	1/2	50	14.3	Φ21.7
SLN-08N-3.0		75		
SLN-08N-4.0		100		
SLN-08N-6.0		150		
SLN-12N-3.0	3/4	75	19.4	Φ27.2
SLN-12N-4.0		100		
SLN-16N-3.0	1	75	25.0	Φ34.0
SLN-16N-4.0		100		

SME

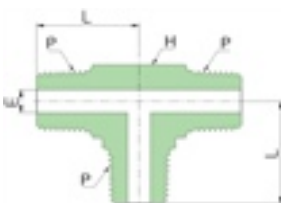
Male Elbow



Part No.	P (NPT)	Dimensions (mm)			
		L	E	H	
				inch	mm
SME-02N	1/8	19.5	4.8	7/16	11.11
SME-04N	1/4	23.4	7.0	1/2	12.70
SME-06N	3/8	28.0	10.0	11/16	17.46
SME-08N	1/2	36.8	12.0	13/16	20.63

SMT

Male Tee



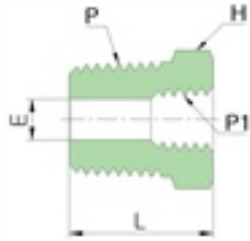
Part No.	P (NPT)	Dimensions (mm)			
		L	E	H	
				inch	mm
SMT-02N	1/8	19.5	4.8	1/2	12.70
SMT-04N	1/4	23.4	7.0	1/2	12.70
SMT-06N	3/8	28.0	10.0	11/16	17.46
SMT-08N	1/2	36.8	12.0	13/16	20.63

ISO7/1 Tapered Threads (PT) are available for all fractional sizes of pipe Fitting. Add "R" as a suffix instead of "N".
Dimensions are for reference only and are subject to change without prior notice.

[Connects Female Pipe to Male Pipe]

SRB

Reducing Bushing

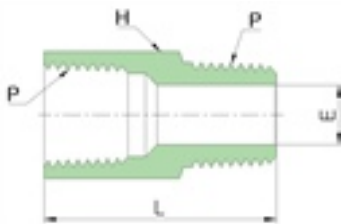


Part No.	P (male NPT)	P1 (female NPT)	Dimensions (mm)			
			L	E	H	
					inch	mm
SRB-04N-02N	1/4	1/8	22.0	8.0	9/16	14.28
SRB-06N-04N	3/8	1/4	23.0	11.0	11/16	17.46
SRB-08N-04N	1/2	1/4	28.0	11.0	7/8	22.22
SRB-08N-06N	1/2	3/8	28.0	15.0	7/8	22.22
SRB-12N-04N	3/4	1/4	31.0	11.0	1-1/16	26.98
SRB-12N-06N	3/4	3/8	31.0	15.0	1-1/16	26.98
SRB-12N-08N	3/4	1/2	31.0	18.0	1-1/16	26.98
SRB-16N-08N	1	1/2	35.0	18.0	1-3/8	34.92
SRB-16N-12N	1	3/4	35.0	22.0	1-3/8	34.92

[Connects Male Pipe to Female Pipe]

SA

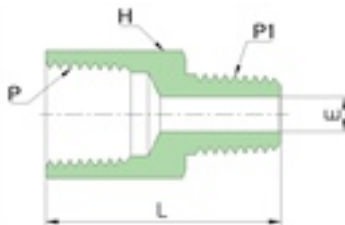
Adapter



Part No.	P (NPT)	Dimensions (mm)			
		L	E	H	
				inch	mm
SA-02N	1/8	28.0	4.8	9/16	14.28
SA-04N	1/4	33.0	7.0	3/4	19.05
SA-06N	3/8	36.0	10.0	7/8	22.22
SA-08N	1/2	45.0	12.0	1-1/16	26.98
SA-12N	3/4	50.0	16.0	1-1/4	31.75
SA-16N	1	58.0	22.0	1-5/8	41.27

SRA

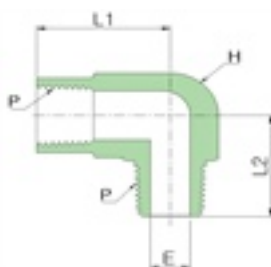
Reducing Adapter



Part No.	P (female NPT)	P1 (male NPT)	Dimensions (mm)			
			L	E	H	
					inch	mm
SRA-04N02N	1/4	1/8	30.0	4.8	3/4	19.05
SRA-06N04N	3/8	1/4	35.0	7.0	7/8	22.22
SRA-08N04N	1/2	1/4	39.0	7.0	1-1/16	26.98
SRA-08N06N	1/2	3/8	41.0	10.0	1-1/16	26.98
SRA-12N06N	3/4	3/8	44.0	10.0	1-1/4	31.75
SRA-12N08N	3/4	1/2	48.0	12.0	1-1/4	31.75
SRA-16N08N	1	1/2	52.0	12.0	1-5/8	41.27
SRA-16N12N	1	3/4	55.0	16.0	1-5/8	41.27

SSE

Street Elbow



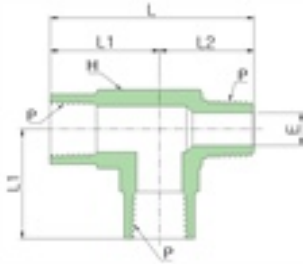
Part No.	P (NPT)	Dimensions (mm)				
		L1	L2	E	H	
					inch	mm
SSE-02N	1/8	26.4	22.1	4.8	1/2	12.70
SSE-04N	1/4	29.7	29.7	7.0	11/16	17.46
SSE-06N	3/8	36.1	32.0	10.0	13/16	20.63
SSE-08N	1/2	39.6	39.6	12.0	1	25.40

ISO7/1 Tapered Threads (PT) are available for all fractional sizes of pipe Fitting. Add "R" as a suffix instead of "N".
Dimensions are for reference only and are subject to change without prior notice.

[Connects Male Pipe to Female Pipe]

SST

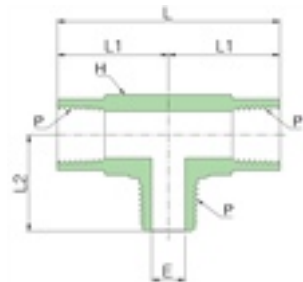
Street Tee



Part No.	P (NPT)	Dimensions (mm)				
		L1	L2	E	H	
					inch	mm
SST-02N	1/8	26.4	22.1	4.8	1/2	12.70
SST-04N	1/4	29.7	29.7	7.0	11/16	17.46
SST-06N	3/8	36.1	32.0	10.0	13/16	20.63
SST-08N	1/2	39.6	39.6	12.0	1	25.40

SBT

Branch Tee

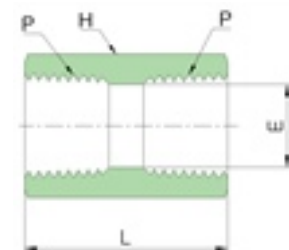


Part No.	P (NPT)	Dimensions (mm)				
		L1	L2	E	H	
					inch	mm
SBT-02N	1/8	26.4	22.1	4.8	1/2	12.70
SBT-04N	1/4	29.7	29.7	7.0	11/16	17.46
SBT-06N	3/8	36.1	32.0	10.0	13/16	20.63
SBT-08N	1/2	39.6	39.6	12.0	1	25.40

[Connects Male Pipe to Male Pipe]

SC

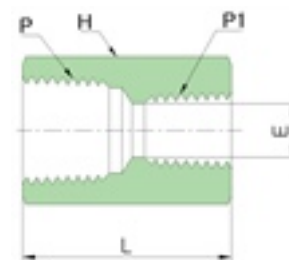
Coupling



Part No.	P (NPT)	Dimensions (mm)			
		L	E	H	
				inch	mm
SC-02N	1/8	21.0	8.0	9/16	14.28
SC-04N	1/4	30.0	11.0	3/4	19.05
SC-06N	3/8	30.0	15.0	7/8	22.22
SC-08N	1/2	40.0	18.0	1-1/16	26.98
SC-12N	3/4	42.0	22.0	1-1/4	31.75
SC-16N	1	51.0	25.0	1-5/8	41.27

SRC

Reducing Coupling



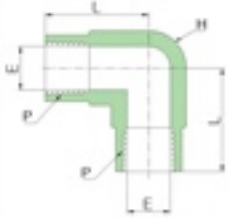
Part No.	P (NPT)	P1 (NPT)	Dimensions (mm)			
			L	E	H	
					inch	mm
SRC-04N02N	1/4	1/8	30.0	8.0	3/4	19.05
SRC-06N04N	3/8	1/4	30.0	11.0	7/8	22.22
SRC-08N04N	1/2	1/4	40.0	11.0	1-1/16	26.98
SRC-08N06N	1/2	3/8	40.0	15.0	1-1/16	26.98
SRC-12N06N	3/4	3/8	42.0	15.0	1-1/4	31.75
SRC-12N08N	3/4	1/2	42.0	18.0	1-1/4	31.75
SRC-16N08N	1	1/2	51.0	18.0	1-5/8	41.27
SRC-16N12N	1	3/4	51.0	22.0	1-5/8	41.27

ISO7/1 Tapered Threads (PT) are available for all fractional sizes of pipe Fitting. Add "R" as a suffix instead of "N".
Dimensions are for reference only and are subject to change without prior notice.

[Connects Male Pipe to Male Pipe]

SFE

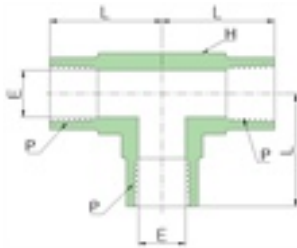
Female Elbow



Part No.	P (NPT)	Dimensions (mm)			
		L	E	H	
				inch	mm
SFE-02N	1/8	26.4	8.6	1/2	12.70
SFE-04N	1/4	29.7	11.4	11/16	17.46
SFE-06N	3/8	36.0	14.9	13/16	20.63
SFE-08N	1/2	39.6	18.5	1	25.40

SFT

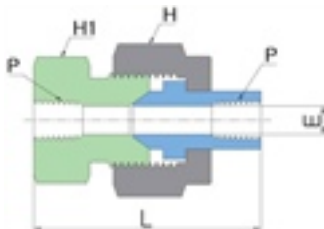
Female Tee



Part No.	P (NPT)	Dimensions (mm)			
		L	E	H	
				inch	mm
SFT-02N	1/8	26.4	8.6	1/2	12.70
SFT-04N	1/4	29.7	11.4	11/16	17.46
SFT-06N	3/8	36.1	14.9	13/16	20.63
SFT-08N	1/2	39.6	18.5	1	25.40

SUBJ

Union Ball Joints

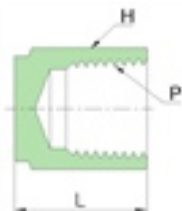


Part No.	P (NPT)	Dimensions (mm)					
		L	E	H		H1	
				inch	mm	inch	mm
SUBJ-04N	1/4	59.4	9.1	1-3/8	34.92	1-3/16	30.16
SUBJ-06N	3/8	63.5	13.2	1-1/2	38.10	1-1/4	31.75
SUBJ-08N	1/2	68.3	15.7	1-3/4	44.45	1-5/8	41.27
SUBJ-12N	3/4	79.2	22.4	2-1/8	53.97	1-7/8	47.62
SUBJ-16N	1	90.4	26.2	2-1/2	63.50	2-3/8	60.32

[Connects Male Pipe]

SPC

Pipe Cap



Part No.	P (NPT)	Dimensions (mm)		
		L	H	
			inch	mm
SPC-02N	1/8	19.0	9/16	14.28
SPC-04N	1/4	23.0	3/4	19.05
SPC-06N	3/8	23.0	7/8	22.22
SPC-08N	1/2	34.0	1-1/16	26.98
SPC-12N	3/4	34.0	1-1/4	31.75
SPC-16N	1	41.0	1-5/8	41.27

[Connects Female Pipe]

SPP

Pipe Plug



Part No.	P (NPT)	Dimensions (mm)		
		L	H	
			inch	mm
SPP-02N	1/8	19.0	7/16	11.11
SPP-04N	1/4	24.0	9/16	14.28
SPP-06N	3/8	25.0	11/16	17.46
SPP-08N	1/2	31.0	7/8	22.22
SPP-12N	3/4	31.0	1-1/16	26.98
SPP-16N	1	38.0	1-3/8	34.92

ISO7/1 Tapered Threads (PT) are available for all fractional sizes of pipe Fitting. Add "R" as a suffix instead of "N".
Dimensions are for reference only and are subject to change without prior notice.

SG-LOK Hex Ball Valve



Samwongreen Corp.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

- Compact designed with 316SS hexagon bar-stock for high integrity.
- Working pressure rating up to 1000psig (69bar) with standard PTFE seats.
- Micro-finished ball ensures a leak-tight shut-off on pressure.
- Easy to operate owing to low torque quarter turn actuation.
- Selection of handle : Regular, lever, butterfly type
- Wide choice of end connections : SG-LOK tube fittings, Female NPT or ISO7/1(PT) thread

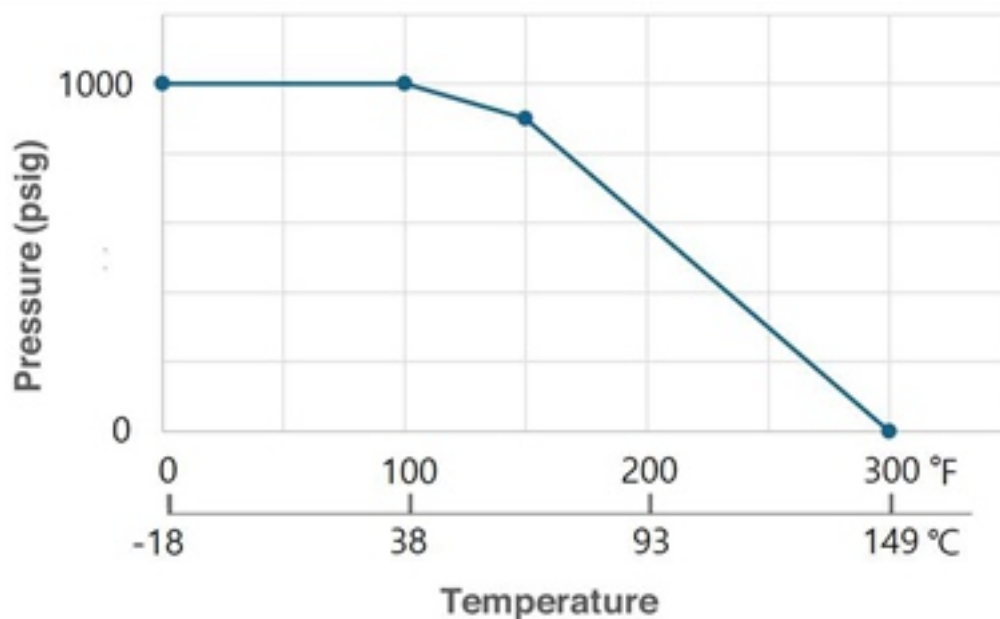
Tehcnical Data

Specifications

Maximum Working Pressure	1,000 psig (69 bar) @ 100°F (38°C)
Working Temperature Range	0°F to 302°F (-18°C to 150°C)
Body Material	316SS
Port Connections	1/4" to 1" and 6mm to 16mm
Orifice	5mm to 16mm

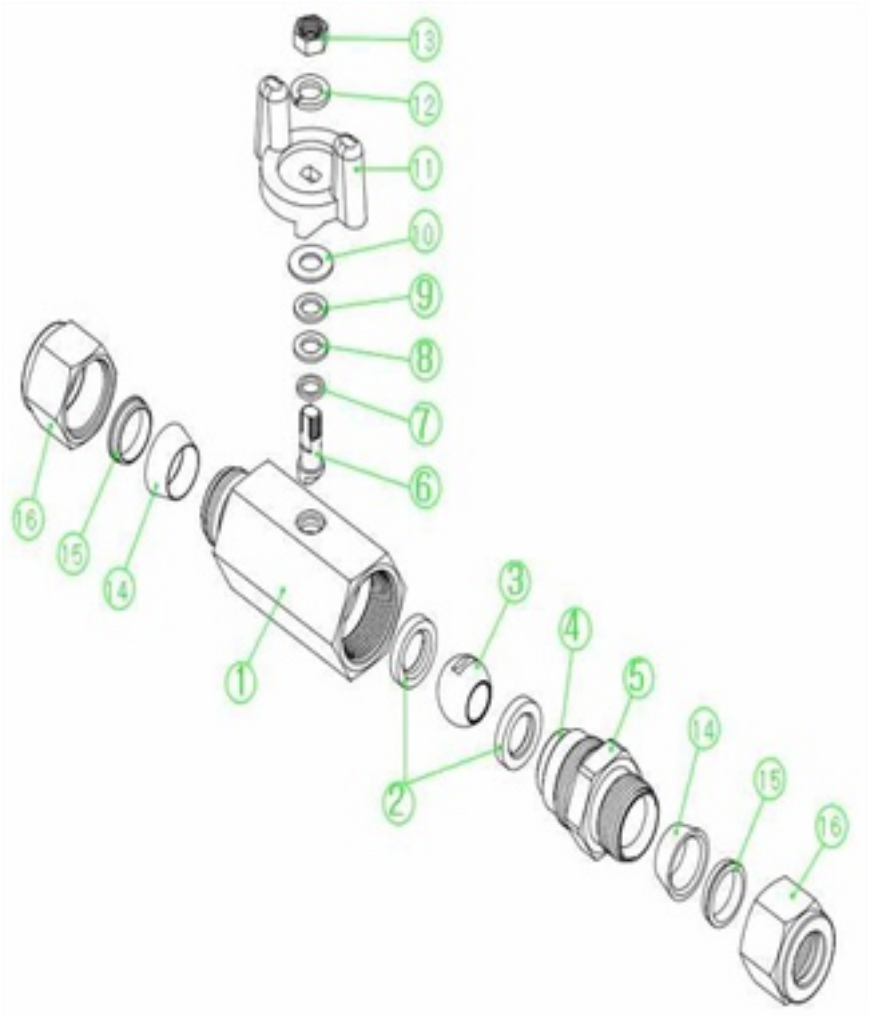
Temperature - Working Pressure Rating

Temperature, °F (°C)	Working Pressure, psig (bar)
0 (-18) to 100 (38)	1000 (69)
150 (65)	900 (62)



Materials of Construction

No.	Description	Materials
1	Body	316SS
2	Ball Seat	PTFE
3	Ball	316SS
4	O-Ring	Viton
5	Connector	316SS
6	Stem	316SS
7	Inner Packing	PTFE
8	Outer Packing	PTFE
9	Gland	316SS
10	Washer	316SS
11	Handle*	Zinc
12	Spring Washer	304SS
13	Nut	304SS
14	Front Ferrule	316SS
15	Back Ferrule	316SS
16	Nut	316SS



* Butterfly: Zinc Alloy / Lever: 304SS+PVC coated / Regular: Plastic

How To order

- SG-LOK Hex Ball Valves are ordered by part number as shown below.

Example:

The following part number, SG-HBVU-12T-B is designated for hex ball valve with 3/4" both SG-LOK tube fitting and butterfly handle.

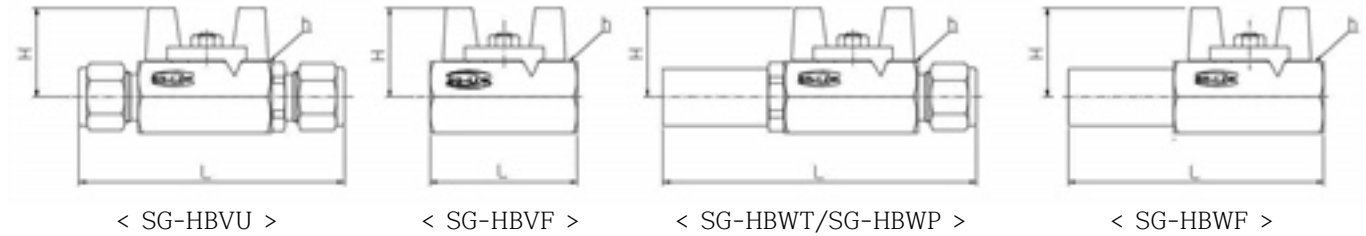
SG	—	HB	—	VU	—	12T	—	B
SG-LOK		Hex Ball Valve		End Connection Type		Connection Size		Handle Type

End Connection Type	VU	Both SG-LOK Tube Fitting
	VF	Both Female NPT or PT
	WT	Tube Butt Weld & SG-LOK Tube Fitting
	WP	Pipe Butt Weld & SG-LOK Tube Fitting
	WF	Butt Weld & Female NPT or PT

Connection Size	Fractional (Inch) Tube O.D. Designation						
	Tube O.D.	inch	1/4	3/8	1/2	3/4	1
		mm	6.35	9.52	12.7	19.05	25.4
	Designator		04T	06T	08T	12T	16T
	Metric Tube O.D. Designation						
	Tube O.D.	mm	6	10	12	18	25
	Designator		06M	10M	12M	18M	25M
	Pipe Thread Designation						
	Thread Size	inch	1/2		3/4		1
	Designator	PT	08R		12R		16R
		NPT	08N		12N		16N
	Weld Tube Size Designation						
	Tube Size	inch	1/2		3/4		1
	Designator		08T		12T		16T
Weld Pipe O.D. Designation							
Pipe O.D.	inch	1/2		3/4		1	
	mm	21.7		27.2		34	
Designator		15A		20A		25A	

Handle Type		
R (Regular)	L (Lever)	B (Butterfly)
		

Ordering Information & Dimension



Part No.		End Connections		Orifice	Cv	Dimensions (mm)		
		Inlet	Outlet			h(Hex)	L	H
SG-HBVU	04T	1/4" SG-LOK		5.0	1.2	17.46	79.7	26.7
	06T	3/8" SG-LOK		7.5	2.5	20.63	91.3	30.7
	08T	1/2" SG-LOK		9.0	9.3	26.98	101.6	35.5
	12T	3/4" SG-LOK		12.5	12.6	31.75	106.9	40.1
	16T	1" SG-LOK		16.0	17.4	38.10	132.7	44.5
	06M	6mm SG-LOK		5.0	1.2	17.46	79.7	26.7
	08M	8mm SG-LOK					81.7	
	10M	10mm SG-LOK		7.5	2.5	20.63	91.3	30.7
	12M	12mm SG-LOK		9.0	9.3	26.98	101.6	35.5
	25M	25mm SG-LOK		16.0	17.4	38.10	132.7	44.5
SG-HBVF	04N	1/4" Female NPT		5.0	1.2	17.46	40.0	26.7
	06N	3/8" Female NPT		7.5	2.5	20.63	45.0	30.7
	08N	1/2" Female NPT		9.0	9.3	26.98	56.0	35.5
	12N	3/4" Female NPT		12.5	12.6	31.75	63.0	40.1
	16N	1" Female NPT		16.0	17.4	38.10	78.0	44.5
SG-HBWT	04T04T	1/4" Tube	1/4" SG-LOK	5.0	1.2	17.46	79.5	26.7
	06T06T	3/8" Tube	3/8" SG-LOK	7.5	2.5	20.63	108.7	30.7
	08T08T	1/2" Tube	1/2" SG-LOK	9.0	9.3	26.98	114.7	35.5
	12T12T	3/4" Tube	3/4" SG-LOK	12.5	12.6	31.75	121.2	40.1
	16T16T	1" Tube	1" SG-LOK	16.0	17.4	38.10	146.3	44.5
SG-HBWP	15A08T	15A Pipe	1/2" SG-LOK	9.0	9.3	26.98	114.7	35.5
	20A12T	20A Pipe	3/4" SG-LOK	12.5	12.6	31.75	121.2	40.1
	25A16T	25A Pipe	1" SG-LOK	16.0	17.4	38.10	146.3	44.5
SG-HBWF	15A08N	15A Pipe	1/2" Female NPT	9.0	9.3	26.98	97.0	35.5
	20A12N	20A Pipe	3/4" Female NPT	12.5	12.6	31.75	99.0	40.1
	25A16N	25A Pipe	1" Female NPT	16.0	17.4	38.10	115.0	44.5

Female ISO7/1 Tapered Threads (PT) are available for all fractional sizes of hex ball valves. Add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.

SG-LOK

Key Lock Ball Valve



Samwon Green Co., Ltd.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

General

The SG-HBVK series are the moderate-pressure ball valves for general service. These valves are compact in size and structure and have relatively large ports for high flow, tight shutoff, long-life service and low operating torque and this series can be used for bi-directional flow. These perform on/off service.

SG-HBVK series is rated to max. 1000 psig (69 bar) with standard PTFE seat.

- Maximum Allowable Working Pressure : 1000psig (69bar) with PTFE seat
- Maximum Allowable Working Temperature : 38°C (100°F) with PTFE, 170°C (338°F) with PEEK
- Flow Coefficient (Cv) : 1.4 to 17.4
- Size range : 1/4" to 1" or 6mm to 25mm

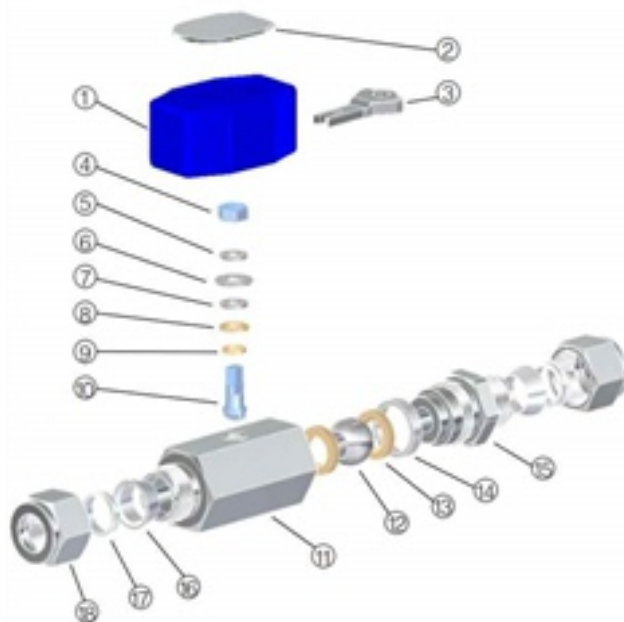


Features

- Locking handle in on and off position
- Blow-out proof design with internally loaded stem
- Floating Ball design providing seat wear compensation
- Micro-finished ball ensures a leak-tight shut-off on pressure
- Low torque for easy operation
- Compact and one piece ball valve with female configuration

Materials of Construction

No.	Description	Materials
1	Handle for Locking	Nylon
2	Name Plate	AL
3	Key	304SS
4	Locking Nut	304SS
5	Spring Washer	304SS
6	Disc Washer	304SS
7	Flat Washer	304SS
8	Stem Packing	PTFE
9	Stem Seat	PTFE
10	Stem	316SS
11	Body	316SS
12	Ball	316SS
13*	Ball Seat	PTFE or Others
14	Gasket	PTFE
15	Connector	316SS
16	Front Ferrule	316SS
17	Back Ferrule	316SS
18	Nut	316SS



* Ball Seat : PTFE(standard), PCTFE, PEEK(option)

How To order

- SG-HBVK series ball valves are ordered by part number as shown as below.

Example:

The following part number, SG-HBVKU-08T-R is designated for key lock ball valve with 1/2" both SG-LOK tube fitting, red colored handle, and PTFE seat.

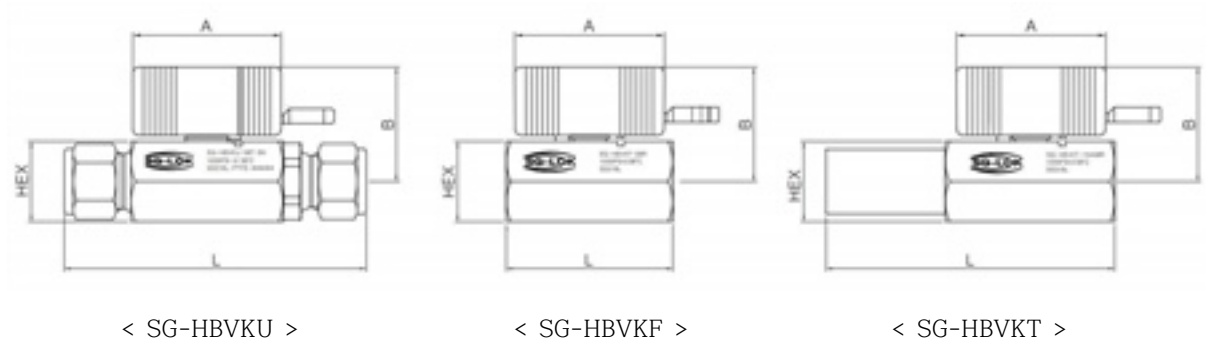
SG	-	HBVK	-	U	-	08T	-	R	-	
SG-LOK		Key Lock Ball Valve		End Connection Type		Connection Size		Handle Color		Seat Material

End Connection Type	U	Both SG-LOK Tube Fitting
	F	Both Female NPT or PT
	T	Tube Butt Weld & SG-LOK Tube Fitting

Connection Size	Fractional (Inch) Tube O.D. Designation						
	Tube O.D.	inch	1/4	3/8	1/2	3/4	1
		mm	6.35	9.52	12.7	19.05	25.4
	Designator		04T	06T	08T	12T	16T
	Metric Tube O.D. Designation						
	Tube O.D.	mm	6	10	12	18	25
	Designator		06M	10M	12M	18M	25M
	Pipe Thread Designation						
	Thread Size	inch	1/2		3/4		1
	Designator	PT	08R		12R		16R
		NPT	08N		12N		16N
	Weld Tube Size Designation						
	Pipe Size	inch	1/2		3/4		1
	Designator		08T		12T		16T
	Weld Pipe O.D. Designation						
	Pipe O.D.	inch	1/2		3/4		1
mm		21.7		27.2		34	
Designator		15A		20A		25A	

Handle Color	B	Blue	Seat Material	none	PTFE
	R	Red		C	PCTFE
	BK	Black		P	PEEK

Ordering Information & Dimension



End Connection Type		Designation	Orifice (mm)	Cv	Dimensions (mm)			
					L	A	B	Hex
U	04T	1/4" SG-LOK	5.0	1.4	79.7	50.4	35.5	20.63
	06T	3/8" SG-LOK	7.5	2.6	91.3	50.4	35.5	20.63
	08T	1/2" SG-LOK	9.0	9.3	101.6	50.4	38.5	26.98
	12T	3/4" SG-LOK	12.5	12.7	106.9	50.4	40.9	31.75
	16T	1" SG-LOK	16.0	17.4	132.7	50.4	44.5	38.10
	06M	6mm SG-LOK	5.0	1.4	88.4	50.4	35.5	20.63
	10M	10mm SG-LOK	7.5	2.6	91.3	50.4	35.5	20.63
	12M	12mm SG-LOK	9.0	9.3	101.6	50.4	38.5	26.98
	18M	18mm SG-LOK	12.5	12.7	106.9	50.4	40.9	31.75
	25M	25mm SG-LOK	16.0	17.4	134.0	50.4	44.5	38.10
F	04R(N)	1/4" Female (N)PT	5.0	1.4	45.0	50.4	35.5	20.63
	06R(N)	3/8" Female (N)PT	7.5	2.6	45.0	50.4	35.5	20.63
	08R(N)	1/2" Female (N)PT	9.0	9.3	56.0	50.4	38.5	26.98
	12R(N)	3/4" Female (N)PT	12.5	12.7	63.0	50.4	40.9	31.75
	16R(N)	1" Female (N)PT	16.0	17.4	78.0	50.4	44.5	38.10
T	08T-FP(N)	1/2"Tube-F(N)PT 1/2	9.0	9.3	97.0	50.4	38.5	26.98
	12T-FP(N)	3/4"Tube-F(N)PT 3/4	12.5	12.7	99.0	50.4	40.9	31.75
	16T-FP(N)	1"Tube-F(N)PT 1"	16.0	17.4	115.0	50.4	44.5	38.10
	15A-FP(N)	1/2"Pipe-F(N)PT 1/2	9.0	9.3	97.0	50.4	38.5	26.98
	20A-FP(N)	3/4"Pipe-F(N)PT 3/4	12.5	12.7	99.0	50.4	40.9	31.75
	25A-FP(N)	1"Pipe-F(N)PT 1	16.0	17.4	115.0	50.4	44.5	38.10

Dimensions are for reference only and are subject to change without prior notice.

SG-LOK Rec. Ball Valve



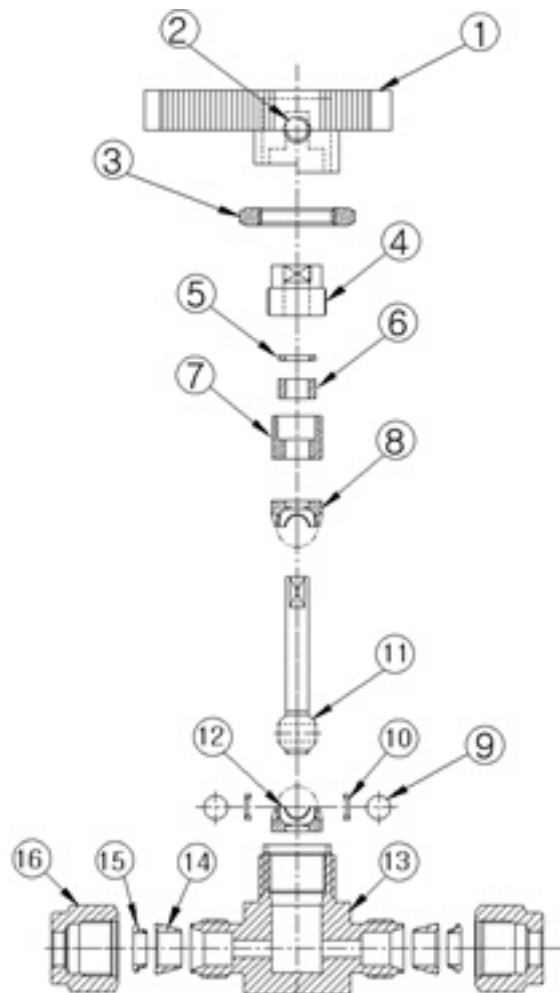
Samwon Green Co., Ltd.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

Features

- Pressure rating with standard PTFE seats is 3000psig (206bar) only for the valves with orifice 4.8 and 2500psig (172bar) for the other valves.
- Temperature rating from 10 °C(50 °F) to 65 °C(150 °F) with standard PTFE packing.
- Compact designed one piece body to reduce space and possible leak point.
- One piece integral ball stem to eliminate backlash and to encapsulate ball seats perfectly.
- Panel mounting for easy installation.
- Wide choice of end connections : SG-LOK tube fittings, Female NPT or ISO7/1(PT) thread

Materials of Construction

No.	Description	Materials
1	Handle	Nylon
2	Set Screw	304SS
3	Panel Nut	304SS
4	Packing Bolt	316SS
5	Upper Gland	316 SS
6	Lower Bushing	PTFE
7	Lower Gland	316SS
8	Upper Packing	PTFE
9	Side Disk-close	316 SS
10	Side Disk-open	316 SS
11	Ball Stem	316 SS
12	Lower Packing	PTFE
13	Body	316SS
14	Front Ferrule	316SS
15	Back Ferrule	316SS
16	Nut	316SS



How To order

- SG-LOK Rectangular Ball Valves are ordered by part number as shown below.

Example:

The following part number, SG-RBV1T-04 is designated for a RBV1 series ball valve with 1/4" SG-LOK tube fitting, SS316.

SG	–	RBV		1		T	–	04
SG-LOK		Valve Type		Body Size		End Connection Type		Connection Size

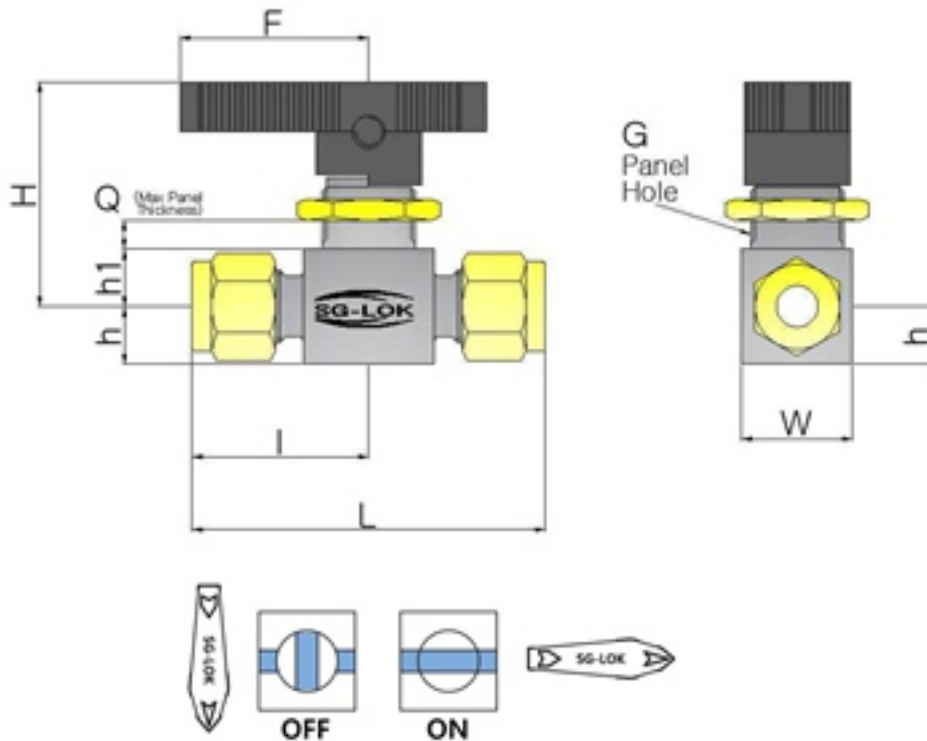
Valve Type	RBV means 2 way type rectangular ball valve.
------------	--

Body Size	Refer to 1~4 Body Size in dimension table.
-----------	--

End Connection Type	T	SG-LOK Tube Fitting
	F	Female NPT or PT

Connection Size	Fractional (Inch) Tube O.D. Designation					
	Tube O.D.	inch	1/8	1/4	3/8	1/2
		mm	3.17	6.35	9.52	12.7
	Designator		02	04	06	08
	Metric Tube O.D. Designation					
	Tube O.D.	mm	6	10	12	
	Designator		06M	10M	12M	
	Pipe Size Designation (NPT or PT)					
	Pipe Size		1/4	3/8	1/2	
	Designator		04N/R	06N/R	08N/R	

Ordering Information & Dimension



Part No.		End Connections		Orifice	CV	Dimensions (mm)								
		Inlet	Outlet			L	I	h	h1	H	G	Q	W	F
RBV1	T-02	1/8" SG-LOK		2.3	0.2	51	25.5	8.8	8.8	34	15	4.8	14.6 or 17	28
	T-03M	3mm SG-LOK			0.2	50.8	25.4							
	T-04	1/4" SG-LOK		3.2	0.6	55.4	27.7							
	T-06M	6mm SG-LOK			0.6	55.4	27.7							
	F-02N	1/8" Female NPT			0.5	41.2	20.6							
RBV2	T-04	1/4" SG-LOK		4.8	1.4	62.6	31.3	10	10.6	39.6	19.8	4.8	19.8	40
	T-06	3/8" SG-LOK			1.5	66.6	33.3							
	T-06M	6mm SG-LOK			1.4	62.6	31.3							
	T-08M	8mm SG-LOK			1.5	63.2	31.6							
	F-02N	1/8" Female NPT			1.2	50.8	25.4							
	F-04N	1/4" Female NPT			0.9	52.4	26.2							
RBV3	T-06	3/8" SG-LOK		7.1	6	77.8	38.9	14.3	14.5	52.8	28	9	28.6	51
	T-10M	10mm SG-LOK			6	77.8	38.9							
	F-04N	1/4" Female NPT			3	63.6	31.8							
	F-06N	3/8" Female NPT			2.6	63.6	31.8							
RBV4	T-08	1/2" SG-LOK		10.3	12	98.6	49.3	18	17.5	61.9	38.1	9.4	38.1	76.2
	T-12	3/4" SG-LOK			6.4	99.2	49.6							
	T-12M	12mm SG-LOK			12	98.8	49.4							
	T-20M	20mm SG-LOK			6.4	100	50							
	F-08N	1/2" Female NPT			6.3	80	40							

Female ISO7/1 Tapered Threads (PT) are available for all fractional sizes of RBV series valves.
Add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.

SG-LOK Needle Valves



Samwon Green Co., Ltd.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

Features

- Pressure rating up to 5000psig (340bar) @38°C (100°F)
- Temperature rating from -53°C(-65°F) to 232°C (450°F) with standard PTFE packing, up to 315°C(600°F) with PEEK packing
- Compact forged body with straight and angle pattern for design of miniaturized fluid systems
- Hardened stem threads and forged body for long cycle life
- Integral bonnet design to eliminate unintentional stem back-out
- Panel mounting without packing disruption
- Wide choice of end connections : SG-LOK tube fittings, Male & Female NPT or ISO7/1(PT) thread.

Cleaning

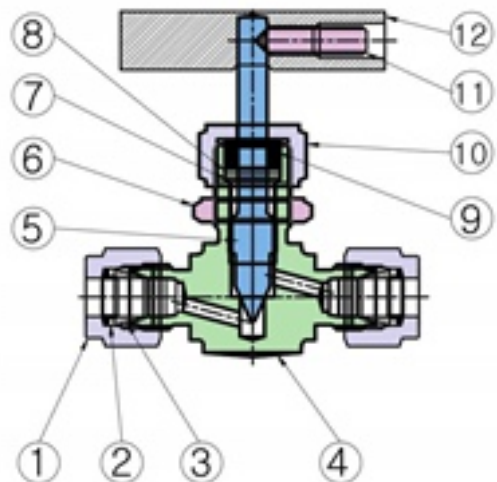
- SG-LOK Needle Valves are free from machining oils, loose particles and grease throughout the close cleaning process.

Testing

- Every needle valve is 100% factory tested with air and nitrogen at 1000psig (69bar) for leakage at the seat and packing.
- Each test is performed to a maximum allowable leak rate of 0.1scc/min

Materials of Construction

No.	Description	Materials
1	Nut	316SS
2	Back Ferrule	316SS
3	Front Ferrule	316SS
4	Body	316SS
5	Stem	316SS
6	Panel Nut	316SS
7	Packing Ring	316SS
8	Packing	PTFE
9	Packing Gland	316SS
10	Packing Nut	316SS
11	Handle Screw	304SS
12	Handle	316SS



How To order

- SG-LOK Needle Valves are ordered by part number as shown below.

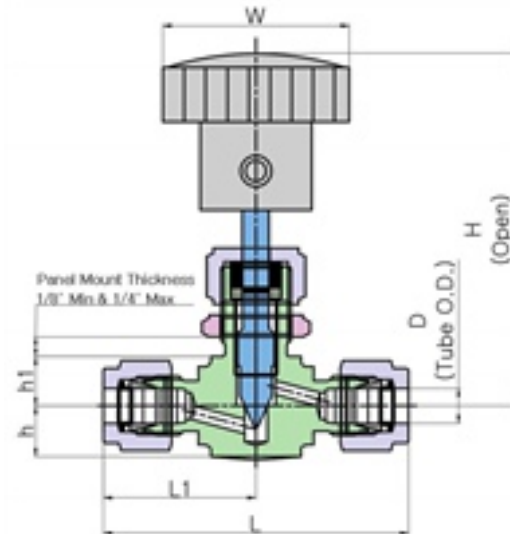
Example:

The following part number, SG-NVU-12T is designated for a needle valve with 3/4" SG-LOK tube fitting, Vee Stem, Nylon Round Handle.

SG-NV	U	12T		
SG-LOK Needle Valve	End Connection Type	Connection Size	Stem Type	Handle Type

Valve Type		Connection Size							Stem Type	
NV	Straight Pattern Needle Valve	Fractional(Inch) Tube O.D. Designation							None	Vee Stem
		Tube O.D.	inch	1/8	1/4	3/8	1/2	3/4	1	R
AV	Angle Pattern Needle Valve		mm	3.17	6.35	9.52	12.70	19.05	25.40	S
		Designator		02T	04T	06T	08T	12T	16T	
		Metric Tube O.D. Designation								
		Tube O.D.	mm	6	8	10	12	16		
		Designator		M06T	M08T	M10T	M12T	M16T		
		Thread Size Designation (NPT or ISO7/1-PT)							Handle Type	
U	SG-LOK Tube Fitting	Thread Size		1/8	1/4	3/8	1/2	None	Nylon Round Handle	
F	Female NPT or ISO7/1(PT)	Designator		02N/R	04N/R	06N/R	08N/R	B	Bar Handle	
M	Male NPT or ISO7/1(PT)									

Ordering Information & Dimension



Part No.		End Connections		Orifice	CV	Dimensions (mm)						Panel Hole Drill Size
		Inlet	Outlet			L	L1	h	h1	Round Handle		
										H(open)	W	
SG-NV	U-02T-	1/8" SG-LOK		2.0	0.09	49.3	24.9	11.2	7.9	57.9	25.4	11.9
	U-03MT-	3mm SG-LOK				49.3	24.9					12.2
	F-02N-	1/8" Female NPT				47.8	23.9					11.9
	M-02N-	1/8" Male NPT				38.1	19.1					
	U-04T-	1/4" SG-LOK		4.3	0.37	56.3	28.2	9.5	9.5	65.9	34.7	13.5
	U-06MT-	6mm SG-LOK				56.8	28.4					
	U-08MT-	8mm SG-LOK				59.0	29.5					
	F-02N-	1/8" Female NPT				42.0	21.0					
	M-02N-	1/8" Male NPT				41.2	20.6					
	M-04N-	1/4" Male NPT				50.0	25.5					
	U-06T-	3/8" SG-LOK		6.3	0.73	67.8	33.9	12.5	13.5	80.6	46.7	20.0
	U-08T-	1/2" SG-LOK				73.2	36.6					
	U-10MT-	10mm SG-LOK				67.4	33.7					
	U-12MT-	12mm SG-LOK				73.4	36.7					
	F-04N-	1/4" Female NPT				54.0	27.0					
	M-06N-	3/8" Male NPT				53.0	26.5					
	MF-04N-	1/4" Male NPT	1/4" Female NPT			55.6	26.5					
	U-08T-	1/2" SG-LOK		9.5	1.80	83.2	41.6	17.0	17.0	97.0	55.5	23.0
	U-12T-	3/4" SG-LOK				83.2	41.6					
	F-06N-	3/8" Female NPT				54.0	27.0					
	F-08N-	1/2" Female NPT				65.0	32.5					
	M-08N-	1/2" Male NPT				66.0	33.0					
	MF-08N-	1/2" Male NPT	1/2" Female NPT			66.0	33.0					
	U-16T-	1" SG-LOK		12.7	3.20	99.2	49.6	20.0	20.0	86.7	85	29.0
	F-12N-	3/4" Female NPT				75.0	37.5			87.2		
	F-16N-	1" Female NPT				89.0	44.5					

ISO7/1 Tapered Threads (PT) are available for all fractional sizes of SG-NV valves. Add "R" as a suffix instead of "N"

Dimensions are for reference only and are subject to change without prior notice.

SG-LOK Check Valves



Samwon Green Co., Ltd.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

Features

- Pressure rating 3000psig (206bar) at 21°C (70°F).
- Temperature rating from 20°C (-4°F) to 190°C (374°F) with Viton seal.
- Wide choice of end connections : SG-LOK tube fittings, Male & Female NPT or ISO7/1(PT) thread.

Cleaning

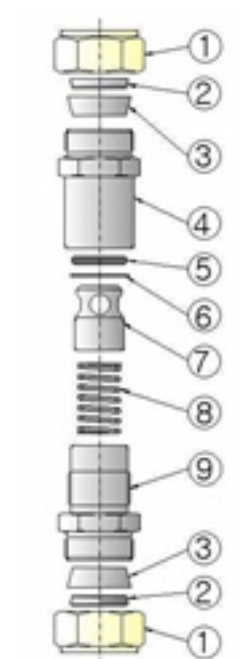
- SG-LOK Check Valves are free from machining oils, loose particles and grease throughout the close cleaning process.

Testing

- Every check valve is 100% factory tested with nitrogen for cracking and reseal performance.
- The special cleaning for high purity application is available upon request.

Materials of Construction

No.	Description	Materials
1	Nut	316SS
2	Back Ferrule	316SS
3	Front Ferrule	316SS
4	Inlet Body	316SS
5	O-ring	Viton
6	Gasket	316SS
7	Poppet	316SS
8	Spring	304SS
9	Outlet Body	316SS



How To order

- SG-LOK Check Valves are ordered by part number as shown below.

Example:

The following part number, SG-CVU-12T-01 is designated for a check valve with 3/4" SG-LOK tube fitting, 1 psig cracking pressure.

SG-CV	U	12T	01
SG-LOK Check Valve	End Connection Type	Connection Size	Cracking Pressure

End Connection Type	T	SG-LOK Tube Fitting
	M	Male NPT or PT
	F	Female NPT or PT

Connection Size	Fractional (Inch) Tube O.D. Designation							
	Tube O.D.	inch	1/8	1/4	3/8	1/2	3/4	1
		mm	3.17	6.35	9.52	12.7	19.05	25.4
	Designator		02T	04T	06T	08T	12T	16T
	Metric Tube O.D. Designation							
	Tube O.D.	mm	3	6	8	10	12	25
	Designator		03M	06M	08M	10M	12M	25M
	Pipe Size Designation (NPT or PT)							
	Pipe Size		1/8	1/4	3/8	1/2	3/4	1
	Designator		02N/R	04N/R	06N/R	08N/R	12N/R	16N/R

Cracking Pressure	psig	1/3	1	3	10	25	100
	Designator	1/3	01	03	10	25	100

Ordering Information & Dimension



Part Number	End Connections		Cv	Dimensions (mm)		
	Inlet	Outlet		L	H	h
U-02T	1/8" SG-LOK		0.16	54.5	11.11	15.87
U-04T	1/4" SG-LOK		0.47	59	14.28	
U-06MT	6mm SG-LOK			59		
F-02N	1/8" Female NPT			46.5	-	
M-02N	1/8" Male NPT			47.3		
M-04N	1/4" Male NPT			52.6		
F-04N	1/4" Female NPT		1.48	54.5	-	19.05
U-06T	3/8" SG-LOK			80.4	17.46	
U-10MT	10mm SG-LOK			81.7	19.05	
M-06N	3/8" Male NPT			70.6	-	
U-08T	1/2" SG-LOK		1.7	85.6	22.22	22.22
U-12MT	12mm SG-LOK			86		
F-06N	3/8" Female NPT			76.2	-	26.98
M-08N	1/2" Male NPT			83		
F-08N	1/2" Female NPT			83		
U-10T	5/8" SG-LOK		2.6	88	25.4	28.58
F-08N	1/2" Female NPT			91.2	-	
U-12T	3/4" SG-LOK		5.2	91.8	28.58	31.75
F-12N	3/4" Female NPT			87.5	-	
M-12N	3/4" Male NPT			86		
U-16T	1" SG-LOK		8	106.3	38.1	34.93
M-16N	1" Male NPT			102.3	-	
F-16N	1" Female NPT			123		

Female ISO7/1 Tapered Threads (PT) are available for all fractional sizes of SG-CV series valves. Add "R" as a suffix instead of "N".

Dimensions are for reference only and are subject to change without prior notice.

SG-LOK INSTRUMENT MANIFOLDS



Samwon Green Co., Ltd.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

Features

SG-LOK's many years of experience in manufacturing valves for the oil and gas industry has led to the creation of a range of manifold blocks specifically designed to be compact and simple to install.

The SG-LOK manifold mounting system allows manifolds to be installed seamlessly in the field.

Using impulse lines before introducing a transducer or transmitter avoids the unnecessary risk of damaging equipment during the construction phase and allows equipment to be removed for calibration and maintenance without disturbing auxiliary piping.

Technical Specifications

- Pressures to 6000 psi / 413 Bar at 100°F (38°C)
- Temperature rating : PTFE-450°F (232°C), Grafoil-700°F (371°C)
- End connection : NPT, PT, Socket weld.
- Optional Sour gas service valves available confirming to NACE Standard MR-0175.
- All valves are 100% factory tested before shipping.

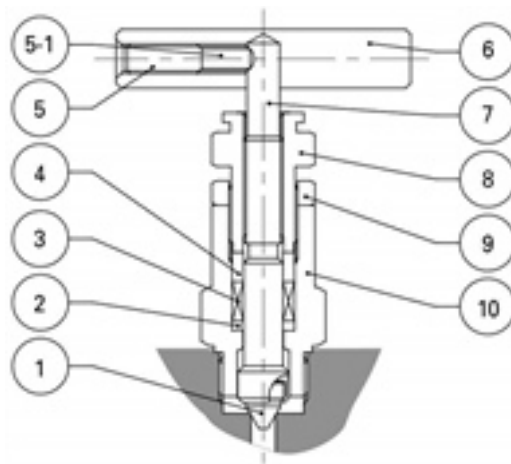
Materials of Construction

- 316SS is standard.
- Other special materials are available. (304SS, Monel, Hastelloy C276, Titanium.)

Application

- Oil refinery, liquefied petroleum gas processing plant, petrochemical plant
- Systems that are difficult to protect from solid dust, rust, dirt, etc.

Bonnet Assembly



No.	Description	Materials
1	Stem Tip	316SS
2	Packing Ring	316SS
3	Packing	PTFE
4	Gland	316SS
5	Set Screw	A193-B8
5-1	Handle Pin	304SS
6	Handle	304SS
7	Stem	316SS
8	Packing Bolt	316SS
9	Lock Nut	304SS
10	Bonnet	316SS

- Screwed bonnet design.
- Bonnet back seated blow out proof.
- Stem tip-none rotating tip shut off type. (Vee tip is standard. Ball tip is optional)
- Maximum sealing integrity with minimum operation torque.
- Greatly improved packing life.

How To order

SG-LOK Manifold Valves are ordered by part number as shown below.

Example:

The following part number, "SGM2-15N-S-V-T" is designated for 2 valve block with 1/2" NPT end connection, 316SS, vee stem tip, and PTFE packing.

SG	M	2	-	15N	-	S	-	V	-	T
SG-LOK	Manifold Valves	Model No.		End Connection		Material Designator		Stem Tip		Packing Designator

Model Number	
2	2 Valve Block
2V	2 Valve Vertical
2H	2 Valve Horizontal
2SF	2 Valve Single Flange
2BF	2 Valve Single Block Flange
3	3 Valve Block
3A	3 Valve Block Type A
3V	3 Valve Vertical
3SF	3 Valve Single Flange
3BF	3 Valve Single Block Flange
3BFA	3 Valve Single Block Flange Type A
3VBF	3 Valve Vertical Single Block Flange
5	5 Valve Block
5A	5 Valve Block Type A
5V	5 Valve Vertical
5SF	5 Valve Single Flange
5BF	5 Valve Single Block Flange
5BFA	5 Valve Single Block Flange Type A
5BFB	5 Valve Single Block Flange Type B

End Connection (Inlet/Outlet)	
8N	1/4" NPT
15N	1/2" NPT
F	Both Flange

Material Designator	
S	316
SL	316L
D	Duplex
H	Hastelloy
T	Titanium
M	Monel

Stem Tip	
V	Vee Tip
B	Ball Tip

Packing Designator	
T	PTFE
G	Grafoil

2-Valve Manifolds

Purpose

2-valve manifolds combine facilities for isolation, calibration, test and ventilation of instrument and considerable material and installation cost savings will be made by incorporating all these functions in one block,

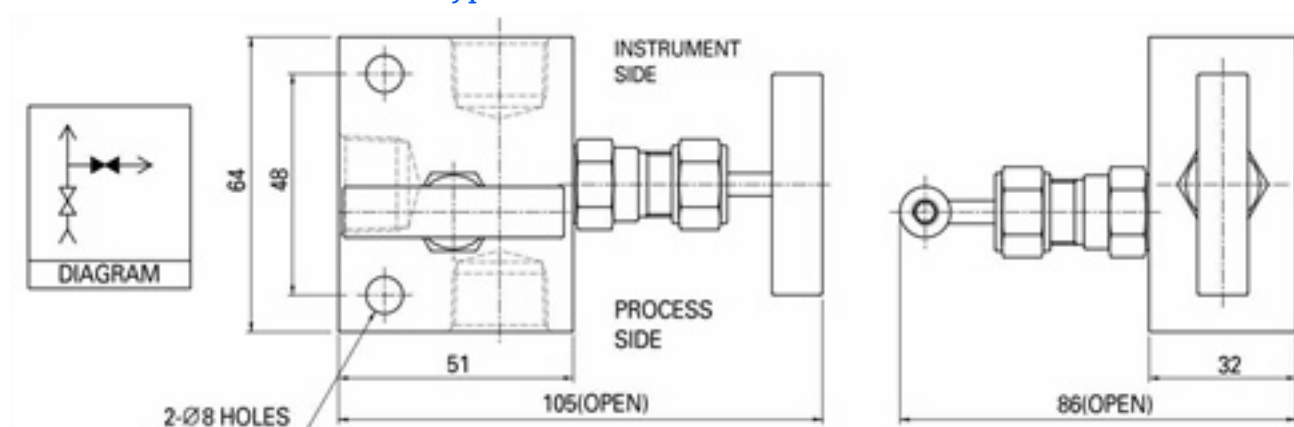
The manifold is designed for use with pressure gauges, pressure transmitters, pressure switches and similar pressure measurement equipment.

The manifold is available in a number of configurations to suit every type of installation, port connections are standard in NPT and BSP Taper.

A variety of manifold mounting / support methods are possible.

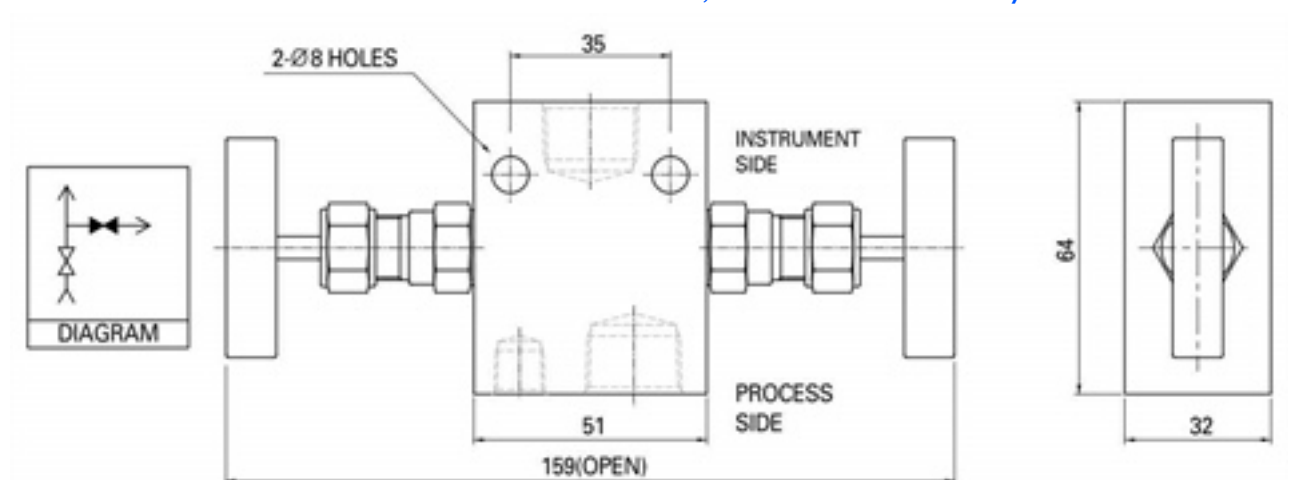
Remote Mounting.

2-Valve Manifold - Block Type.



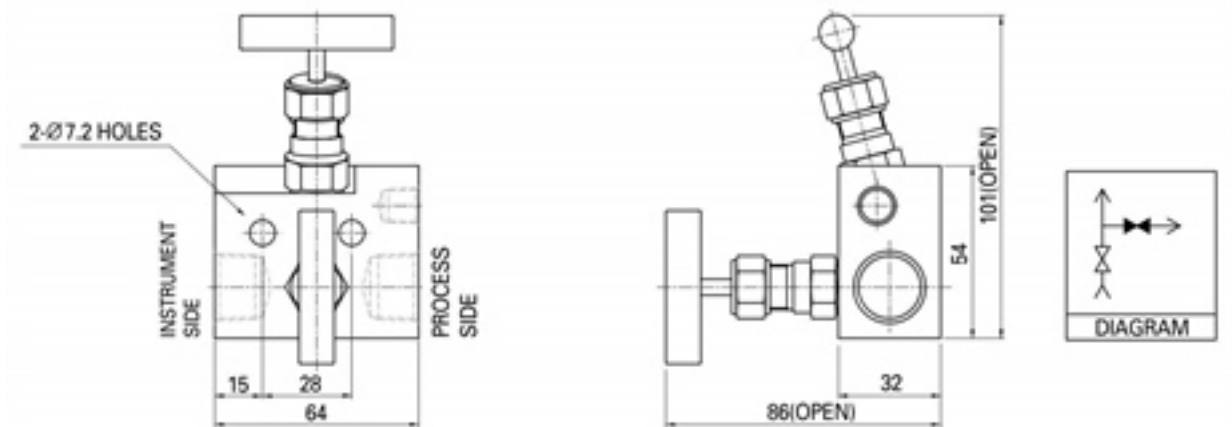
Model No.	Inlet	Outlet	Drain / Test
SGM2	1/2" NPT female	1/2" NPT female	1/4", 1/2" NPT female

2-Valve Manifold - With Vertical Port Inlet, Outlet and Drain / Test Connection



Model No.	Inlet	Outlet	Drain / Test
SGM2V	1/2" NPT female	1/2" NPT female	1/4" NPT female

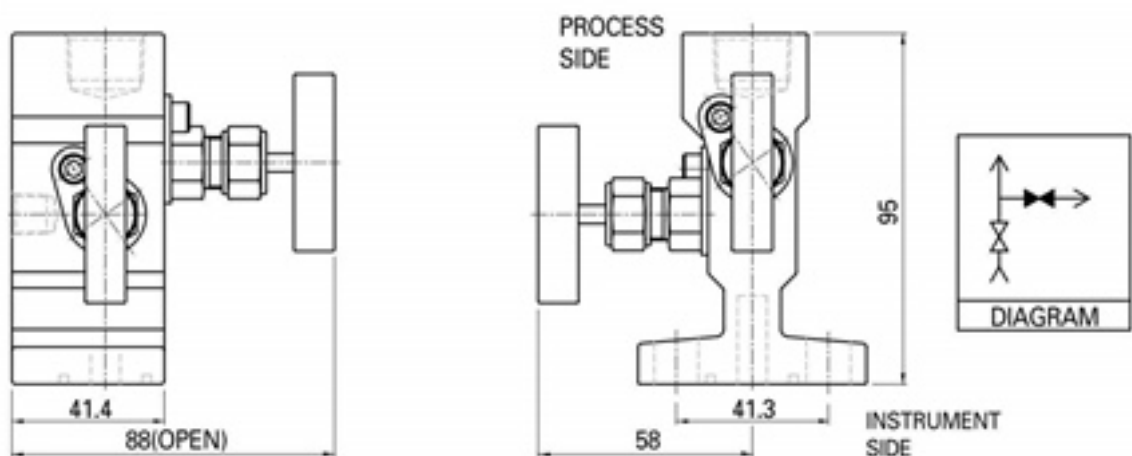
2-Valve Manifold - Horizontal or Vertical Port Entry.



Model No.	Inlet	Outlet	Drain / Test
SGM2H	1/2" NPT female	1/2" NPT female	1/4" NPT female

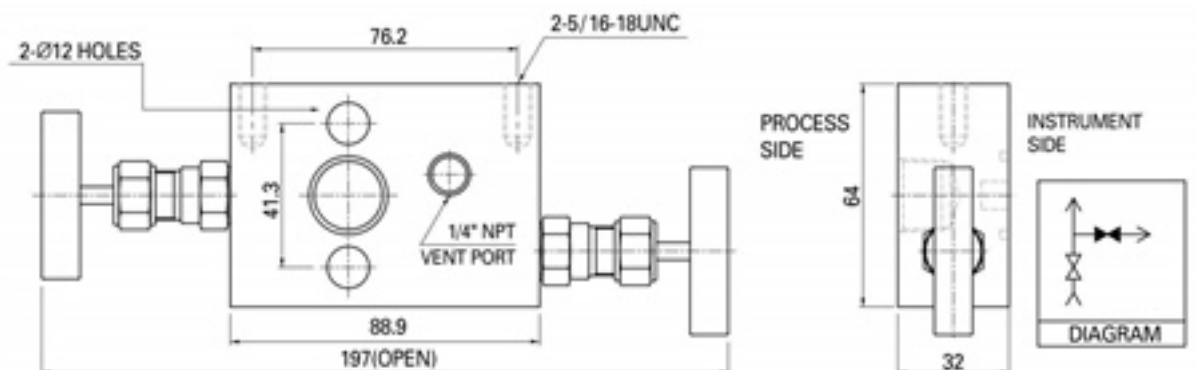
DIRECT(DRAIN / TEST) MOUNTING.

2-Valve Manifold - Single Flange Type.



Model No.	Inlet	Outlet	Drain / Test
SGM2SF	1/2" NPT female	Flange	1/4" NPT female

2-Valve Manifold - Single Block Flange Type.



Model No.	Inlet	Outlet	Drain / Test
SGM2BF	1/2" NPT female	Flange	1/4" NPT female

3-VALVE MANIFOLDS

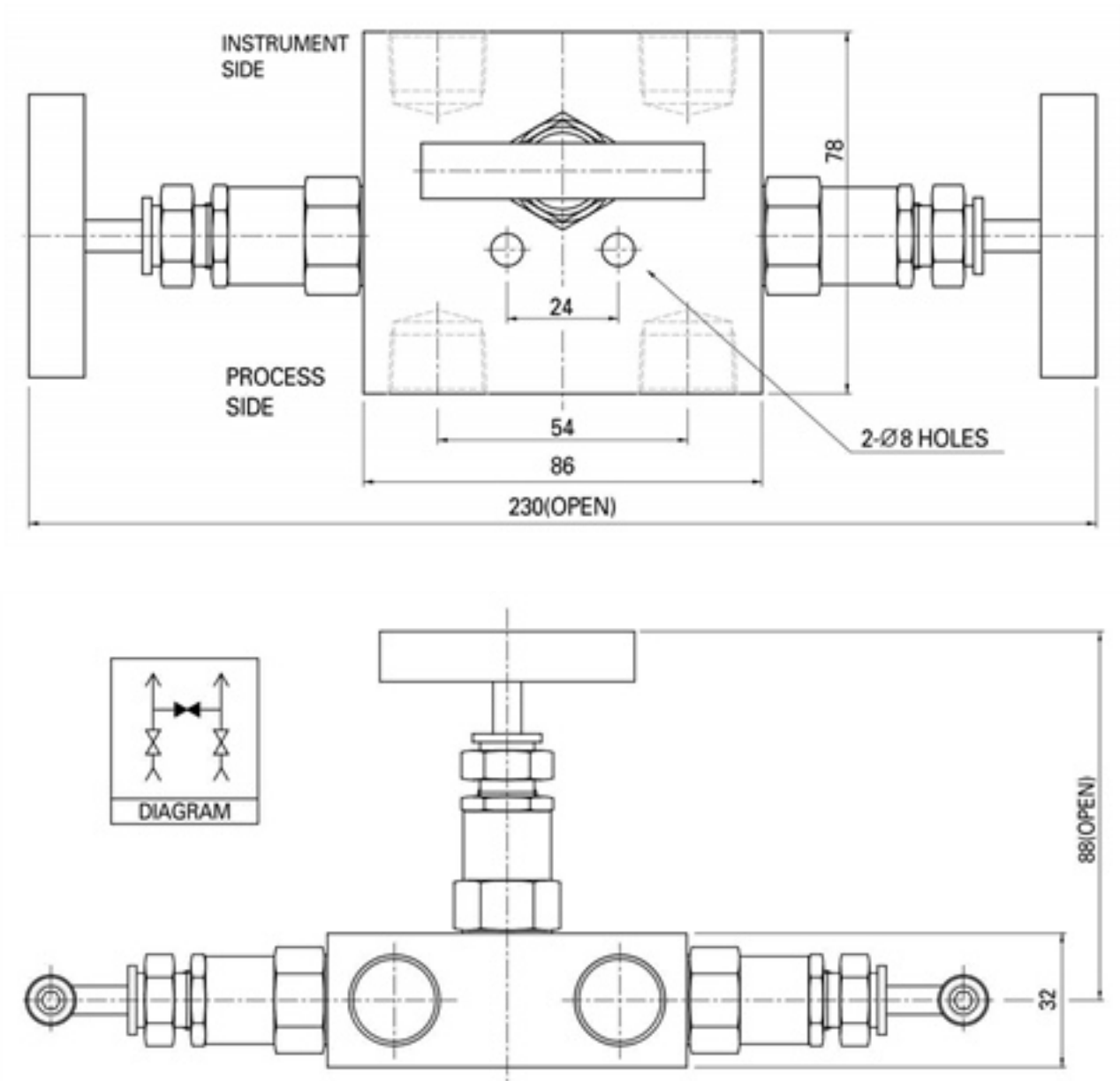
Purpose

3-valve manifolds are used in conjunction with differential pressure transmitters, they combine instrument isolation and equalizing in one block resulting in lower installation costs.

The manifold designs have facilities for direct mounting to differential pressure transmitters or remote mounting from transmitters.

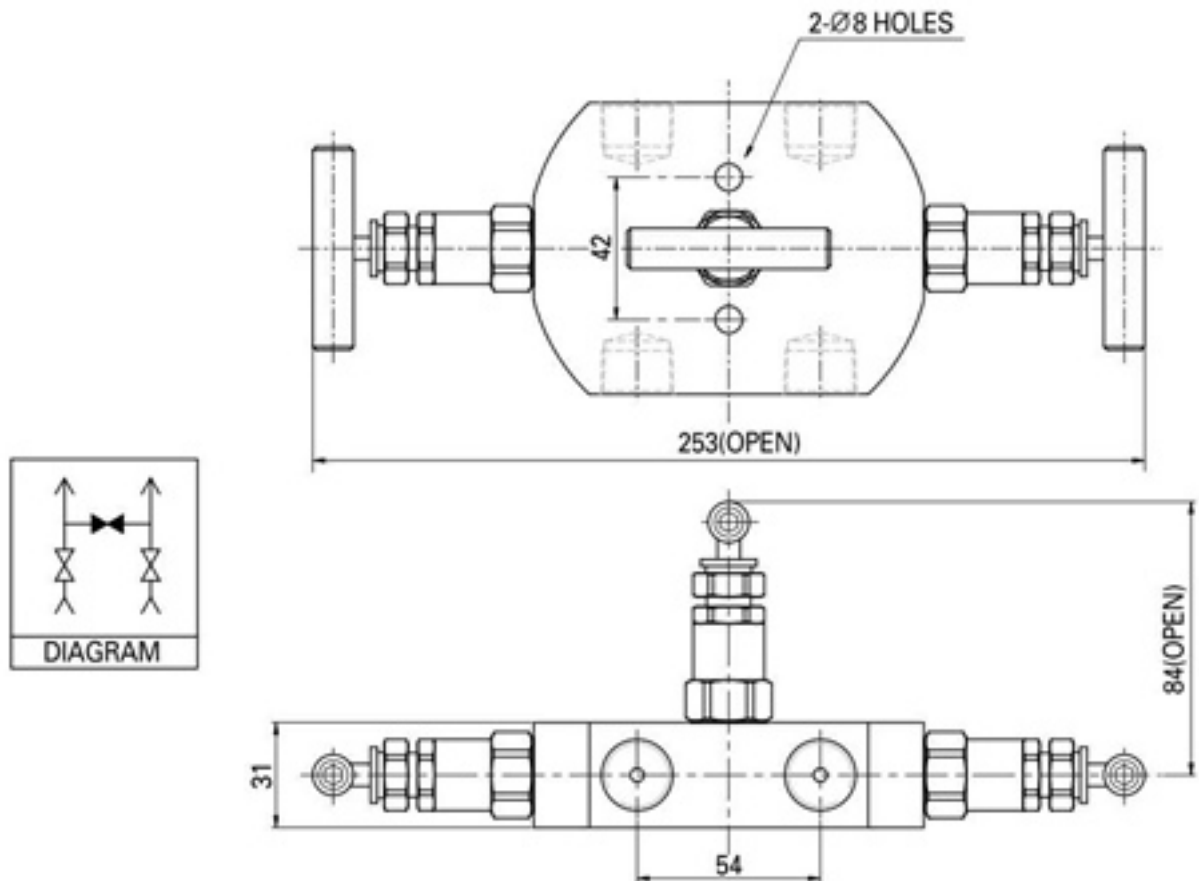
Remote Mounting.

3-Valve Manifold - Block.



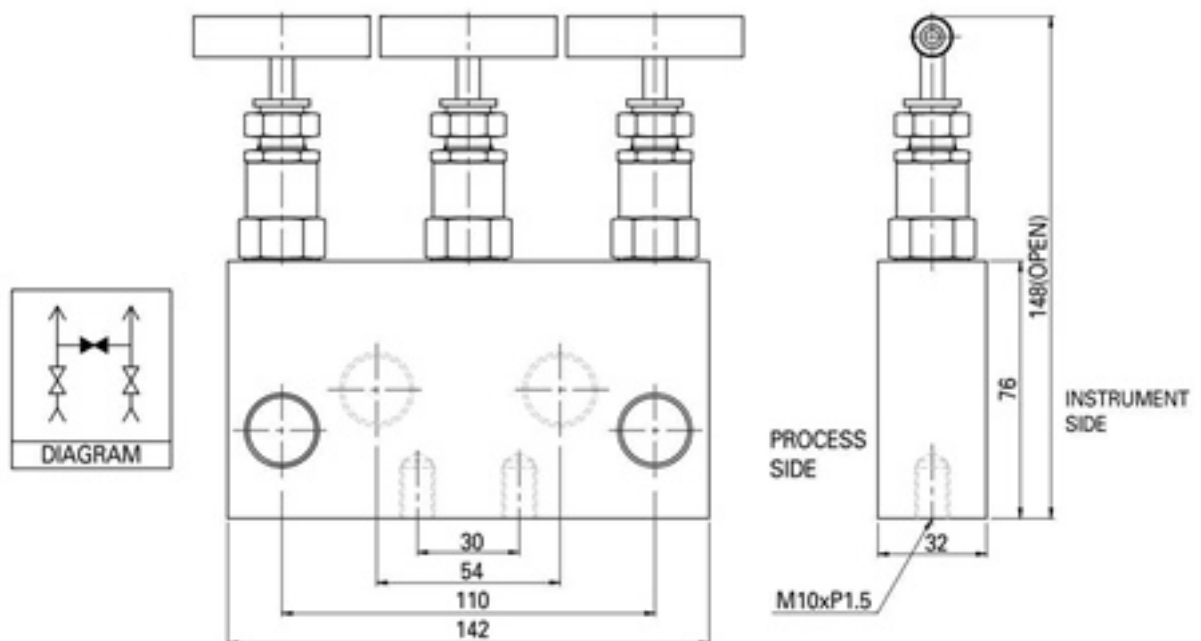
Model No.	Inlet	Outlet
SGM3	1/2" NPT female	1/2" NPT female

3-Valve Manifold - Block. Type - A



Model No.	Inlet	Outlet
SGM3A	1/2" NPT female	1/2" NPT female

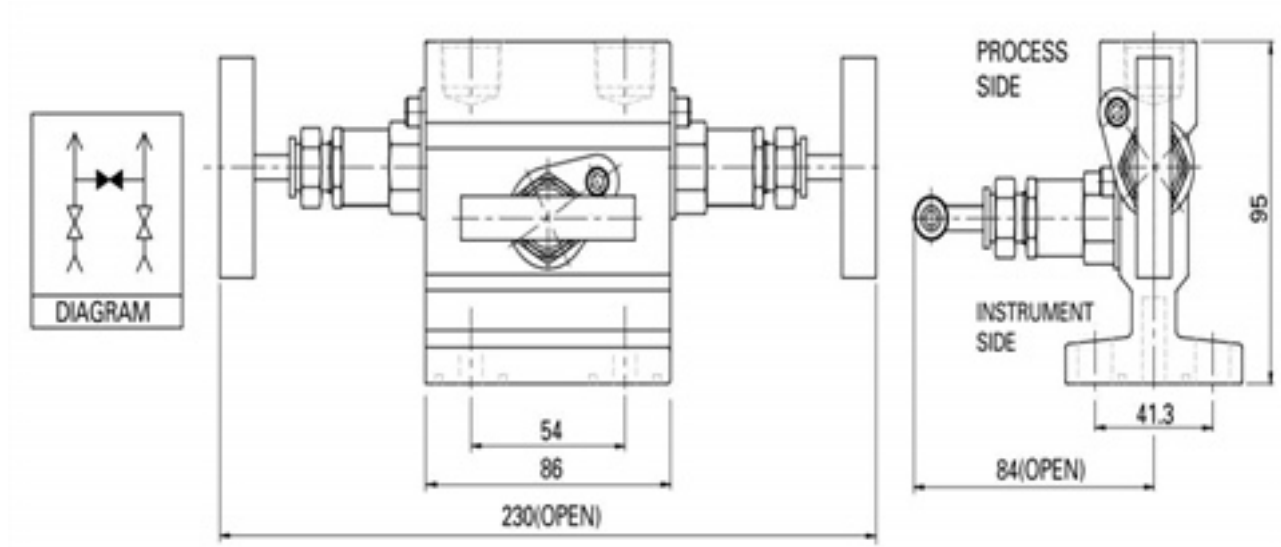
3-Valve Manifold - For Line or Remote Installation.



Model No.	Inlet	Outlet
SGM3V	1/2" NPT female	1/2" NPT female

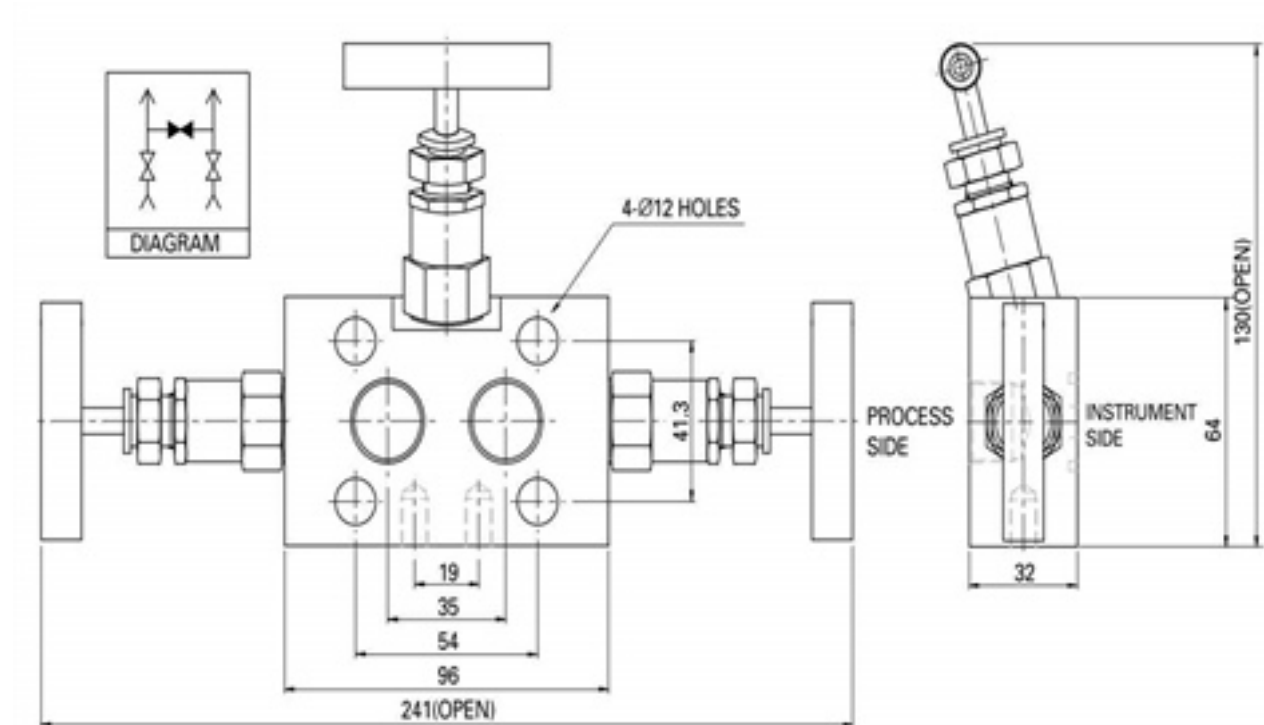
Direct(or Flange) Mounting.

3-Valve Manifold - Single Flange.



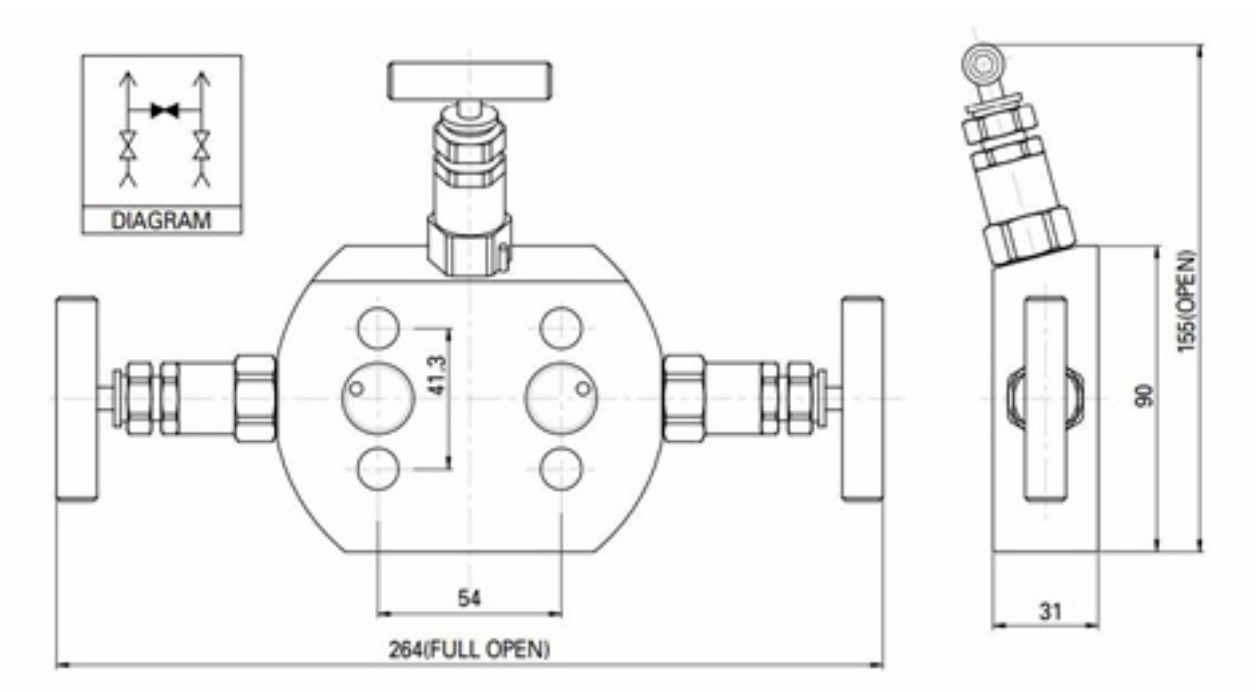
Model No.	Inlet	Outlet
SGM3SF	1/2" NPT female	Flange

3-Valve Manifold - Single Block Flange.



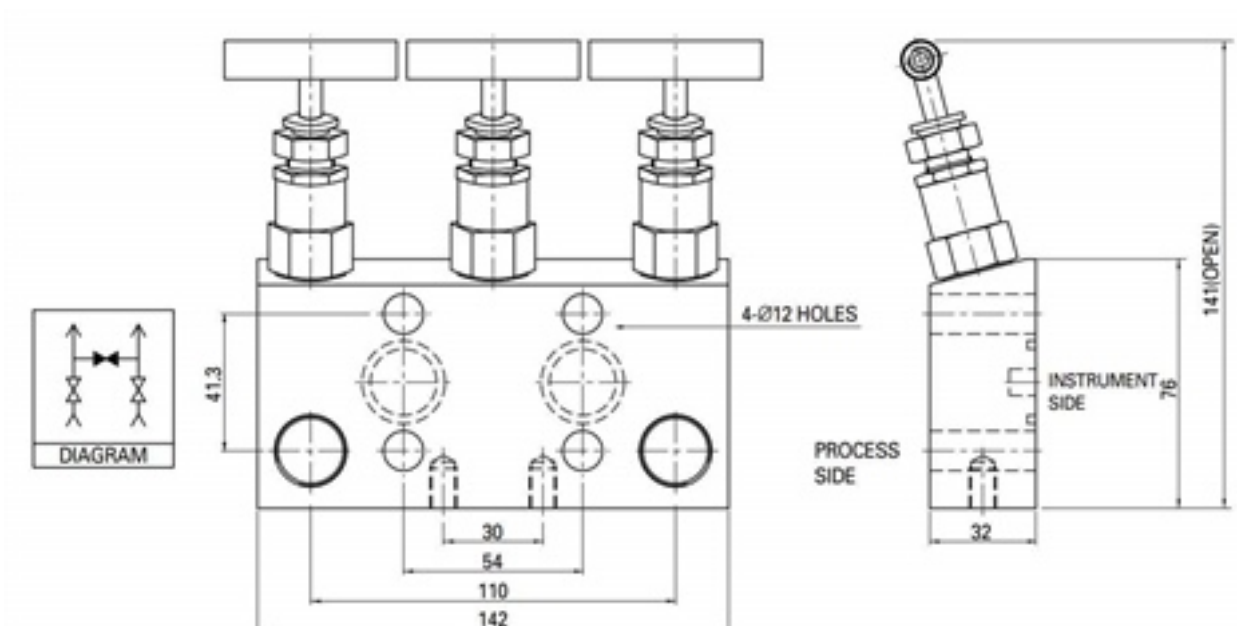
Model No.	Inlet	Outlet
SGM3BF	1/2" NPT female	Flange

3-Valve Manifold - Single Block Flange. Type - A



Model No.	Inlet	Outlet
SGM3BFA	1/2" NPT female	Flange

3-Valve Manifold - Vertical Single Block Flange.



Model No.	Inlet	Outlet
SGM3VBF	1/2" NPT female	Flange

5-VALVE MANIFOLDS

Purpose

5-Valve manifold are used in combination with differential pressure transmitters providing isolation, equalizing and drain / test functions.

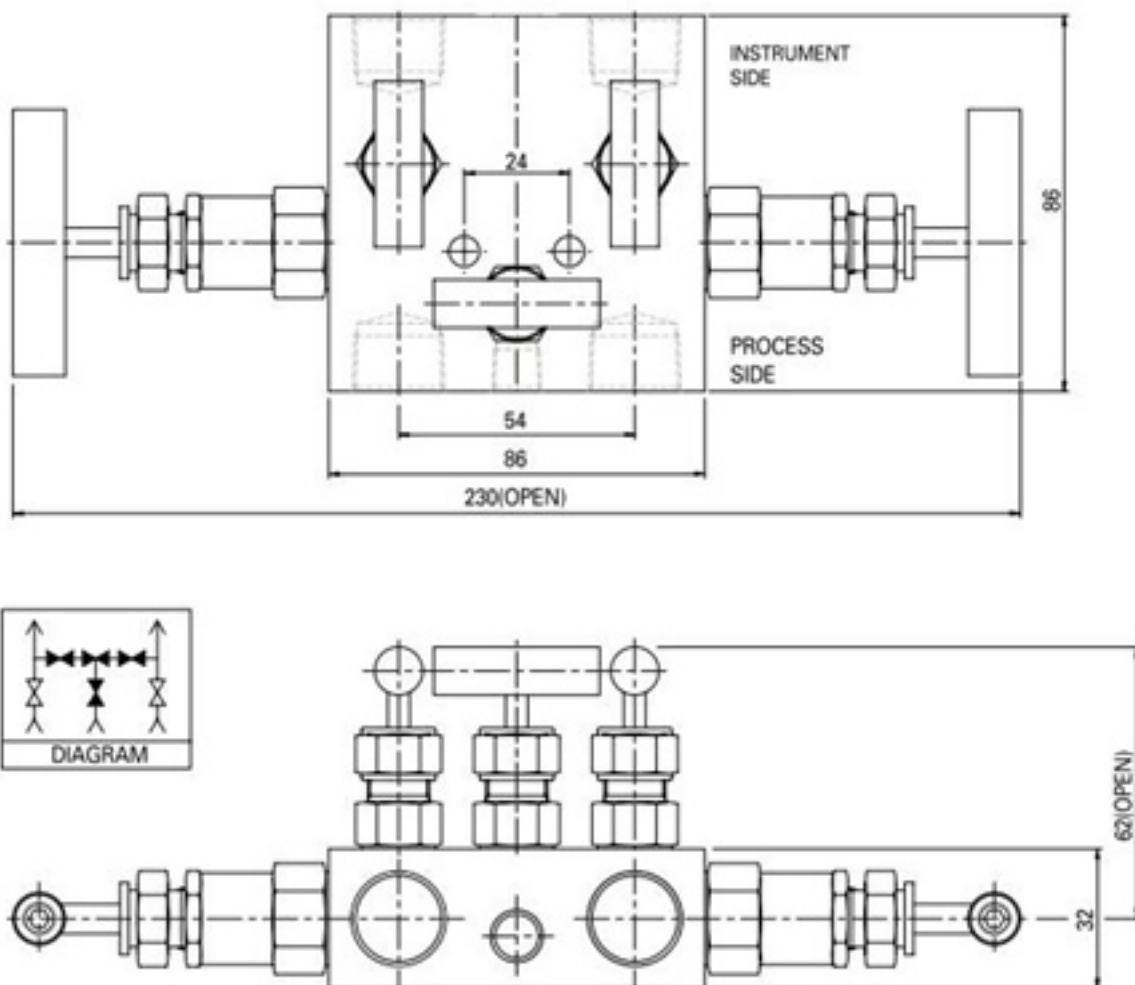
The manifold allows operators to isolate, zero adjust the instrument and safety drain any trapped medium.

The drain ports have a dual function, they can also be used as test or calibration connections after the draining operation has been completed.

Manifold designs cover both direct mount and remote installation.

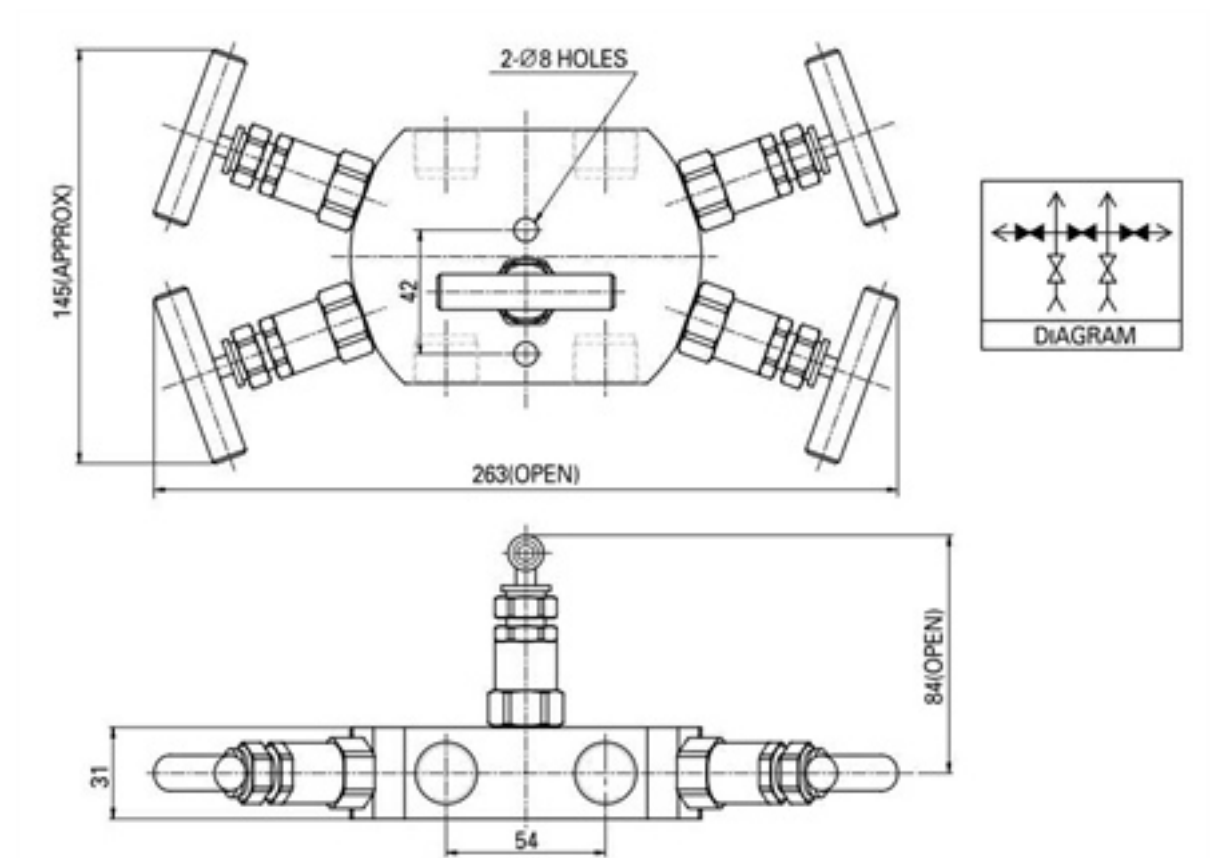
Remote Mounting.

5-Valve Manifold - Block.



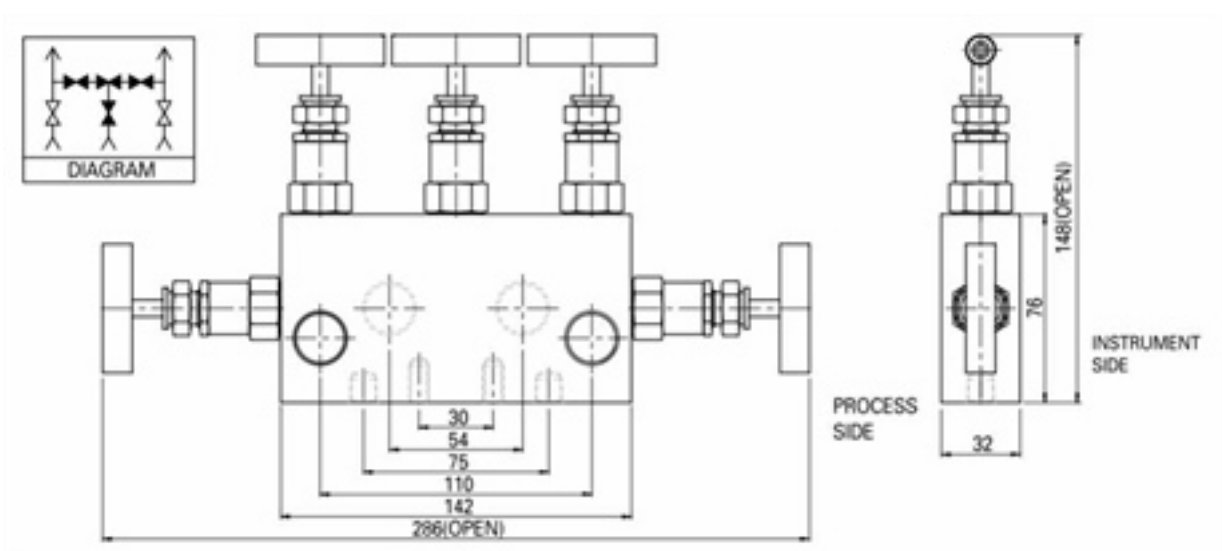
Model No.	Inlet	Outlet	Drain / Test
SGM5	1/2" NPT female	1/2" NPT female	1/4" NPT female

5-Valve Manifold - Block. Type -A



Model No.	Inlet	Outlet	Drain / Test
SGM5A	1/2" NPT female	1/2" NPT female	1/4" NPT female

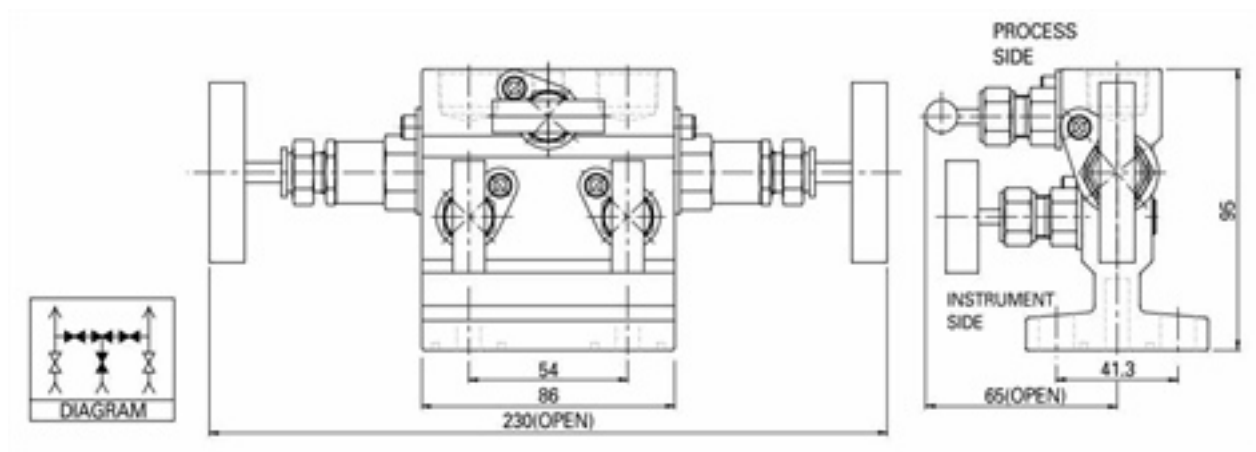
5-Valve Manifold - For Line or Remote Mounting.



Model No.	Inlet	Outlet	Drain / Test
SGM5V	1/2" NPT female	1/2" NPT female	1/4" NPT female

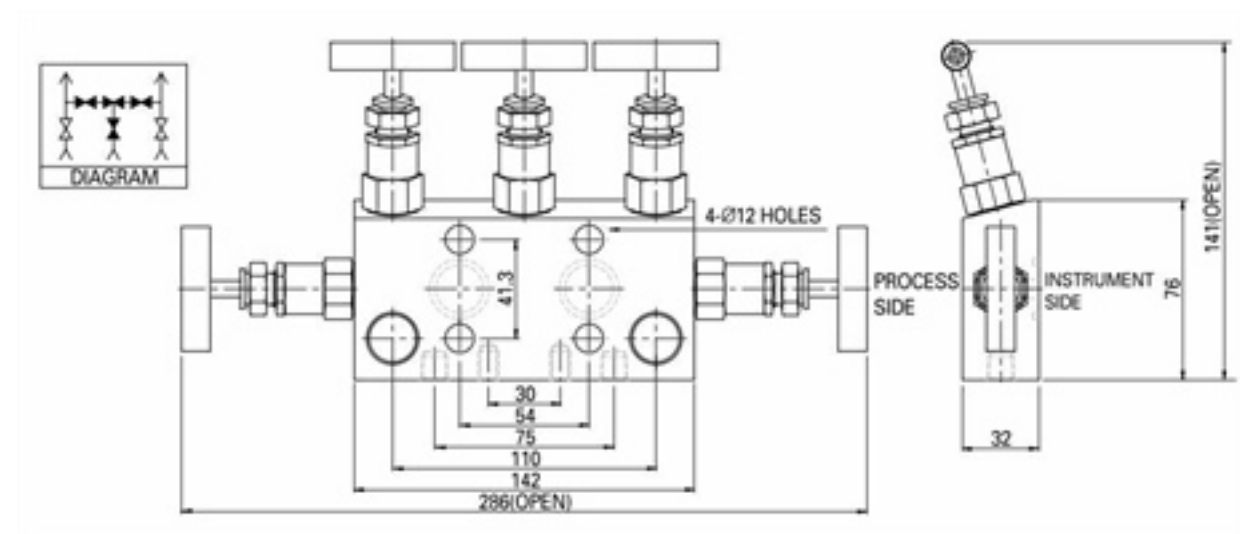
Direct (or Flange) Mounting.

5-Valve Manifold - Single Flange.



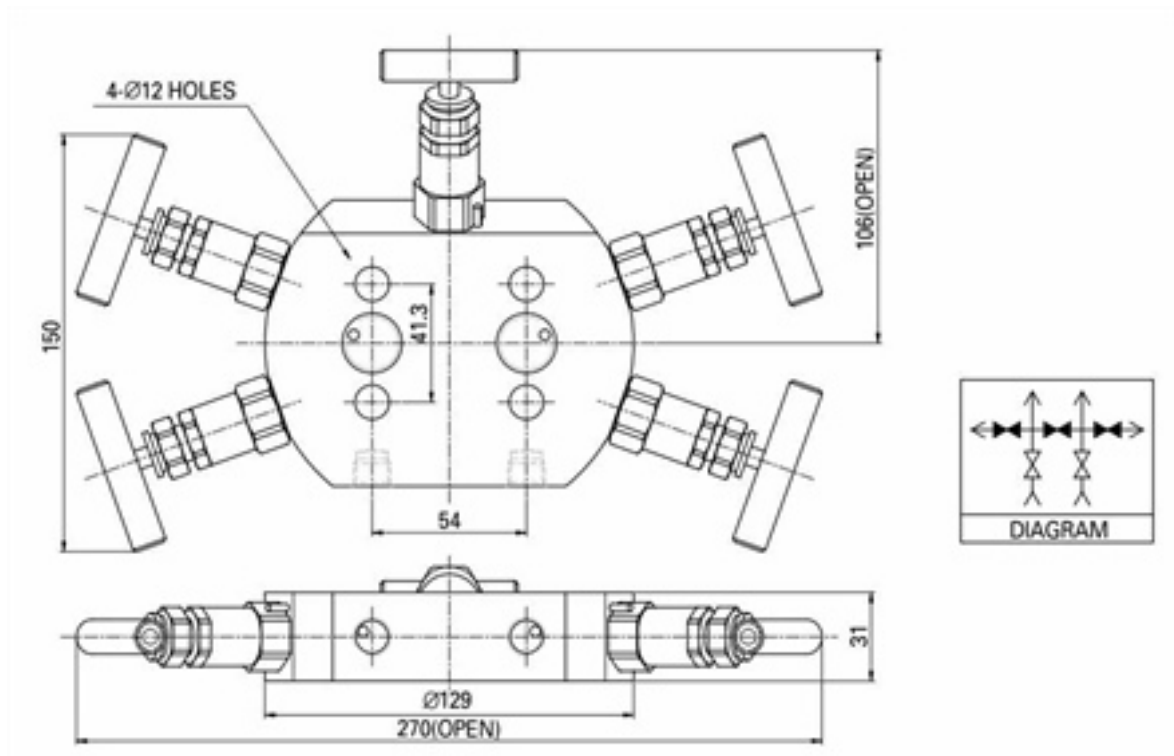
Model No.	Inlet	Outlet	Drain / Test
SGM5SF	1/2" NPT female	Flange	1/4" NPT female

5-Valve Manifold - Single Block Flange.



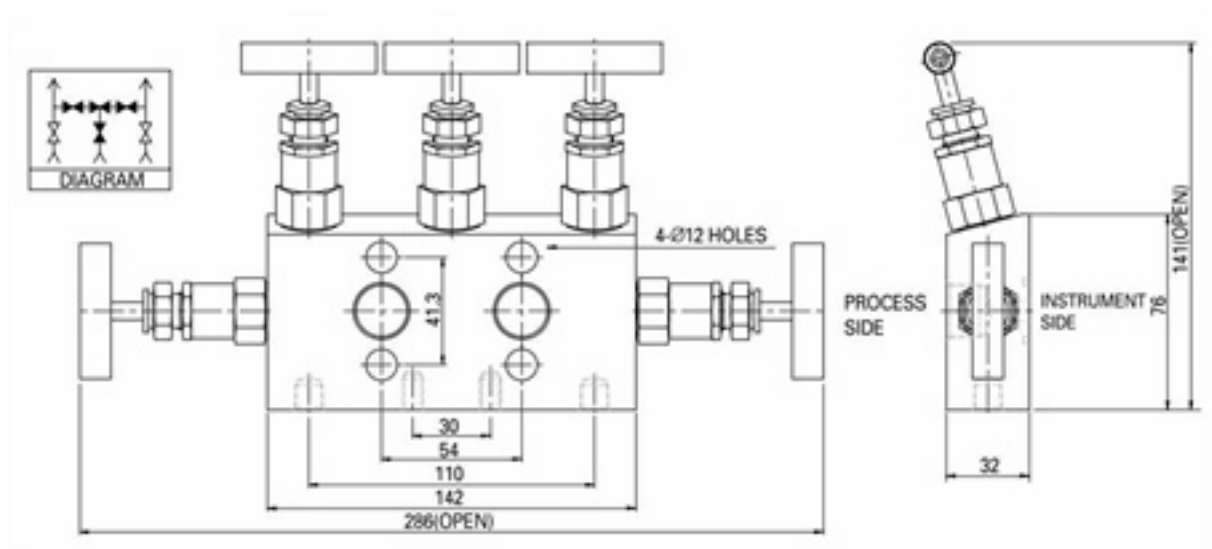
Model No.	Inlet	Outlet	Drain / Test
SGM5BF	1/2" NPT female	Flange	1/4" NPT female

5-Valve Manifold - Single Block Flange. Type - A



Model No.	Inlet	Outlet	Drain / Test
SGM5BFA	1/2" NPT female	Flange	1/4" NPT female

5-Valve Manifold - Single Block Flange. Type - B



Model No.	Inlet	Outlet	Drain / Test
SGM5BFB	1/2" NPT female	Flange	1/4" NPT female

MANIFOLD SUPPORT

Manifold support brackets and blocks are recommended when an instrument is to be directly mounted to the manifold.

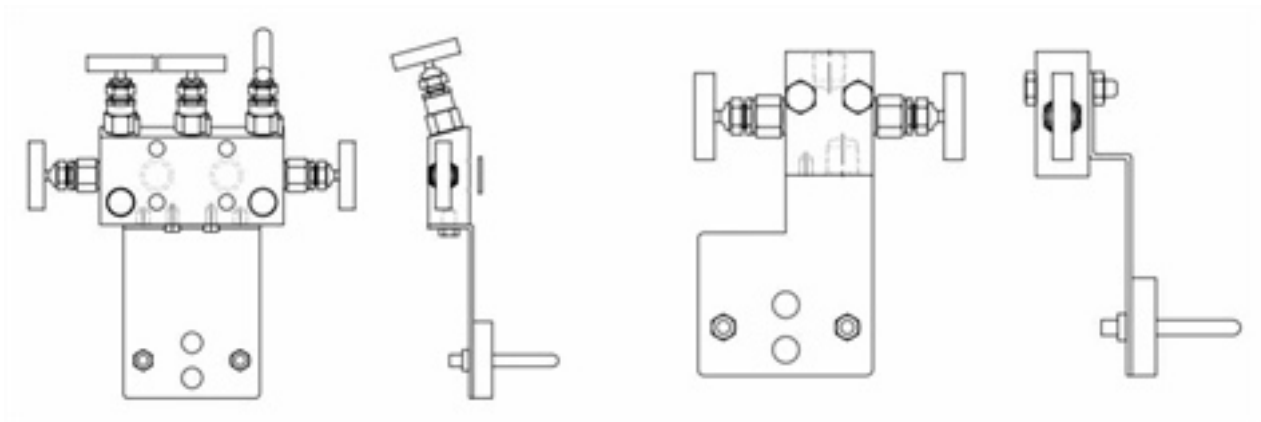
Most manifolds are suitable for base / bracket mounting and can be supplied with the necessary mounting supports. By mounting the manifold the user will ensure that when / if the instrument is to be removed the manifold remains fully supported.

Another advantage of the "mount the manifold" philosophy is that the installation piping can proceed without the need to assemble the instrument.

Manifold base support / bracket kits can be supplied in either shot blasted and zinc sprayed steel or stainless steel upon request.

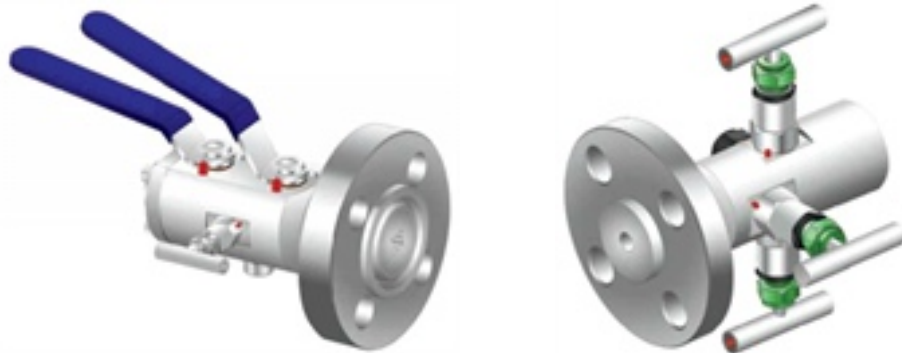
Each kit includes appropriate bracket, U bolt nuts and bracket nuts / pins.

Bracket are suitable for 2" NB standpipe or uni-strut mounting.



SG-LOK

Double Block and Bleed Valves



Samwon Green Co., Ltd.

101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea

Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /

e-mail: sglok@sglok.com

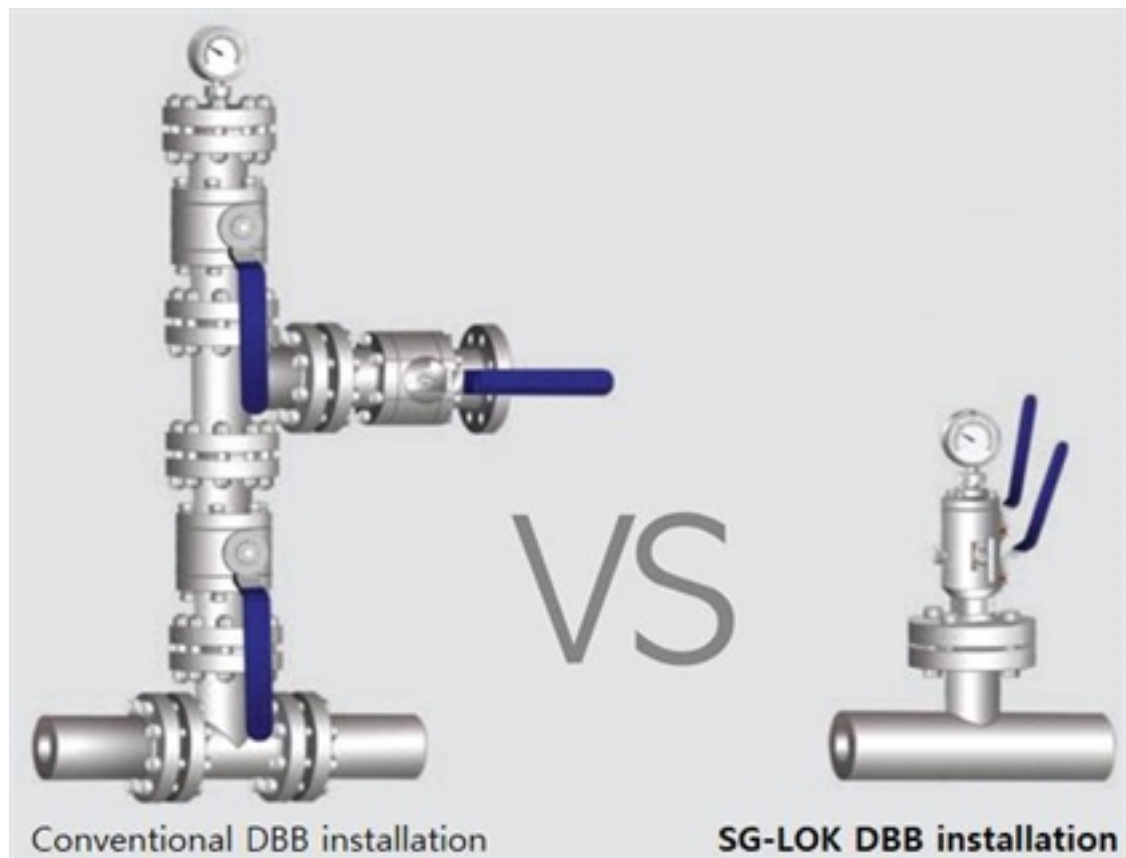
Contents

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Ball valve and Needle globe valve specifications	4
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Flange to flange Double Block and Bleed Valves	
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Applications and Installations

In prior double block and bleed system, 2 blocked(off) the valves and 1 bleed valve should be assembled with flange or piping screws to pipe tee. The problem is that installation is costly because it needs too many parts and leakage would increase. And the size of the system is big and it needs huge space for the installation and it is vulnerable to vibration.

SG-LOK Double Block and Bleed Valve has been developed to solve these problems. Compactly designed 1-piece or a 2-piece body with 2 blocked(off) valve and 1 bleed valve can replace the existing double block and bleed system with 1 double block and bleed valve and it can reduce installation space and time.



● Benefits of SG-LOK Double Block and Bleed Valve

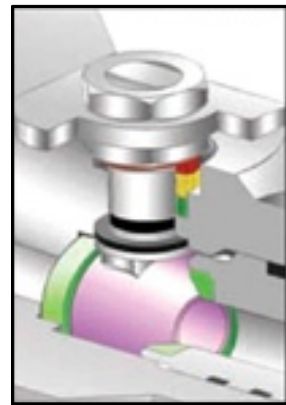
- Compact assembly
- Easy installation and maintenance
- Reduced installation cost
- Space and weight saving
- Reduced leakage points
- Reduced effect of system vibration

Technical Specifications

- SG-LOK Double Block and Bleed (DBB) valve is designed and manufactured in conformance with specification of API 6D and ASME B 16.34.
- SG-LOK DBB valve is available in variety of size (1/2" through 12"), working pressure and configurations.
- SG-LOK DBB valves are available in full range of materials and options to meet the individual user requirements.
- Each and every DBB valve is completely tested before leaving the factory to ensure adherence to customer specifications and proper performance.

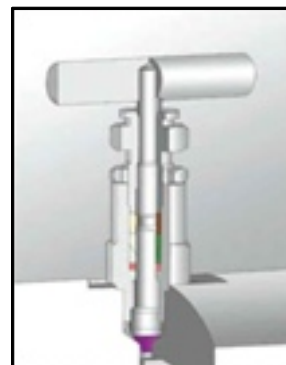
Ball Valve Specifications

- Floating ball design for improved performance and smooth, low torque operation.
- Bubble tight shut off .
- Available to antistatic device.
- Anti blowout stem.
- Bi-directional design.
- Fire safety according to API 607 4th edition.
- Available to metal seated construction.
- Pressure rating up to 6000 psig [414 bar]



Needle Globe Valve Specifications

- Heavy duty needle type globe valve in designed to ensuring bubble tight.
- Non-rotating stem tip.
- PTFE or Graphite packing.
- Rolled stem operating threads prevent galling.
- Backseat design.
- Available to outside screw and yoke(OS&Y) type globe valve.
- Fire safety according to API 607 4th edition.
- Pressure rating up to 6000 psig [414 bar]

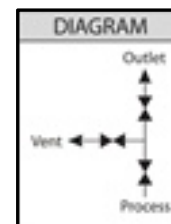


Flange To Screw Double Block And Bleed Valves

- 2 Ball, 1 Needle Pattern

● FEATURES & BENEFITS

- Integral flange
- 2 ball 1 needle pattern
- 1/2" PT or NPT threaded female outlet
- ANSI B 16.5 flanged inlet connections
- 1/2" NPT threaded bleed connection
- 14mm ball valve bore
- Floating ball design
- Pressure ratings : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5
RF and RTJ

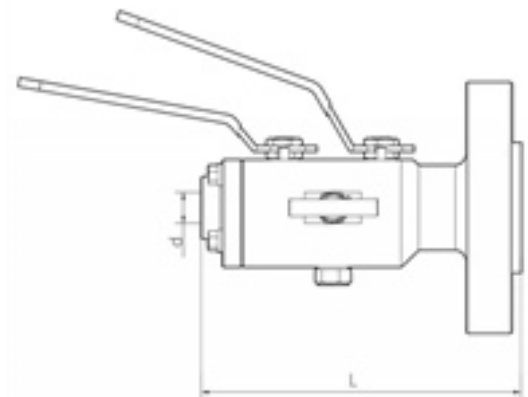


● MATERIALS

316, 316L, 304, 304L, A105, LF2, Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Chemical injection
- Sampling
- Flow measurement



< TABLE 1 - FLANGE TO SCREW DBB VALVE >

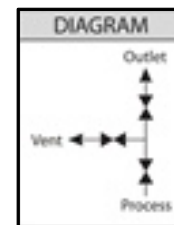
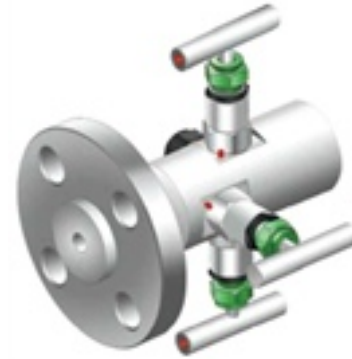
Rating Flange size	150				300				600				900/1500				2500			
	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)
1/2"	156	-	14	3.5	164	163	14	3.9	164	163	14	3.9	212	212	14	8.8	220	220	12	11.0
3/4"	160	-	14	3.9	166	171	14	4.3	166	171	14	4.3	212	212	14	9.1	222	222	12	13.5
1"	164	169	14	4.3	175	180	14	4.9	175	180	14	5.1	221	221	14	10.5	228	228	12	21.
1-1/4"	168	173	14	5.1	178	183	14	5.7	178	183	14	5.9	224	224	14	11.5	231	231	12	23.0
1-1/2"	173	178	14	6.2	185	190	14	6.9	185	190	14	7.1	227	227	14	12.3	240	240	12	27.5
2"	175	183	14	7.3	187	195	14	8.0	187	195	14	8.2	230	232	14	18.0	242	242	12	42.3

Flange To Screw Double Block And Bleed Valves

- 3 Needle Pattern

● FEATURES & BENEFITS

- Integral flange
- 3 needle pattern
- 1/2" PT or NPT threaded female outlet
- ANSI B 16.5 flanged inlet connections
- 1/2" NPT threaded bleed connection
- Pressure ratings : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5 RF and RTJ

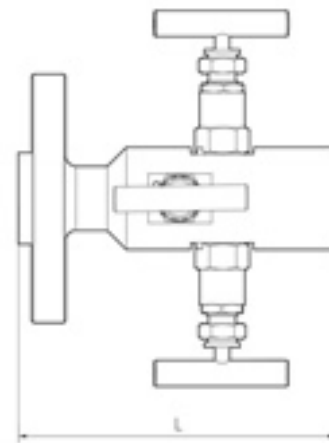


● MATERIALS

316, 316L, 304, 304L, A105, LF2, Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Chemical injection
- Sampling
- Flow measurement



< TABLE 2 - FLANGE TO SCREW (3 NEEDLE PATTERN) DBB VALVE >

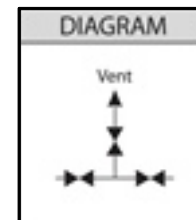
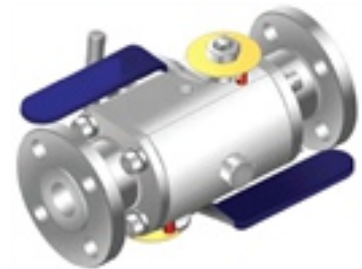
Rating Flange size	150			300			600			900/1500			2500		
	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)
1/2"	135	-	2.5	135	140	2.6	145	145	3.3	160	160	5.2	170	170	6.3
3/4"	135	-	3.2	135	140	3.4	150	150	3.9	165	160	6.0	180	180	7.0
1"	135	140	3.8	135	140	3.9	153	153	4.5	168	160	7.3	183	183	9.5
1-1/4"	155	160	4.3	155	160	4.5	160	160	5.4	175	175	9.2	188	188	13.8
1-1/2"	160	165	4.8	160	165	5.0	170	170	7.0	185	185	10.2	190	190	15.5
2"	160	168	7.0	160	168	7.2	174	177	8.3	185	187	12.3	193	195	21.3

Flange To Flange Double Block And Bleed Valves

- 2 Ball, 1 Needle Pattern

● FEATURES & BENEFITS

- 3-piece construction
- 2 ball 1 needle pattern
- ANSI B 16.5 flanged connections
- 1/2" NPT threaded bleed connection
- Floating or trunnion ball design
- 10mm to 50mm ball valve bore
- Pressure rating : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5 RF and RTJ

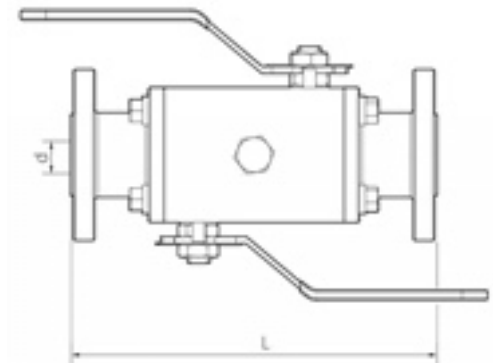


● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



< TABLE 3 - FLANGE TO FLANGE DBB VALVE >

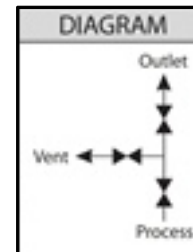
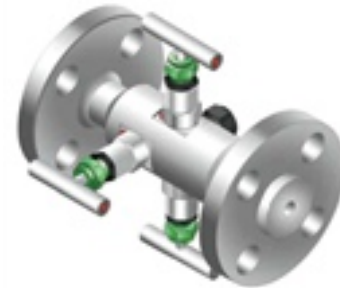
Rating Flange size	150				300				600				900/1500				2500			
	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)	L(RF)	L(RTJ)	d	Approx Weight(kg)
1/2"	174	-	11	4.4	186	194	11	4.7	211	209	11	7.5	240	240	11	9.0	340	340	9	19.6
	175	-	14	5.2	190	198	14	5.6	215	215	14	8.0	245	245	14	12.2	346	346	12	24.9
3/4"	183	-	14	5.8	197	206	14	6.3	234	234	14	8.9	267	267	14	13.7	355	355	12	27.2
	205	-	20	9.2	215	224	20	10.2	252	252	20	12.9	288	288	20	17.3	363	363	16	30.8
1"	211	220	20	9.8	215	224	20	11.5	278	278	20	13.5	312	312	20	20.6	398	398	16	36.2
	234	243	25	13.7	236	245	25	14.7	286	286	25	17.0	324	324	25	24.6	408	408	22	47.0
1-1/4"	241	250	25	15.3	248	247	25	16.0	293	293	25	19.3	349	349	25	27.0	449	449	22	55.0
	245	254	32	17.8	256	265	32	18.3	308	308	32	25.0	356	356	32	32.0	516	516	26	82.3
1-1/2"	254	267	32	18.3	269	278	32	21.0	320	320	32	28.5	384	384	32	45.2	554	554	26	88.6
	290	300	38	24.5	294	303	38	26.1	328	328	38	33.0	477	477	38	78.0	563	563	32	105.2
2"	296	309	38	26.3	303	316	38	27.5	379	379	38	38.6	540	543	38	96.8	630	630	32	125.0
	319	331	50	38.7	330	343	50	42.3	395	395	50	52.3	553	556	48	112.0	683	683	42	145.6

Flange To Flange Double Block And Bleed Valves

- 3 Needle Pattern

● FEATURES & BENEFITS

- 1-piece construction
- 3 needle pattern
- ANSI B 16.5 flanged connections
- 1/2" NPT threaded bleed connection
- Pressure rating : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5 RF and RTJ

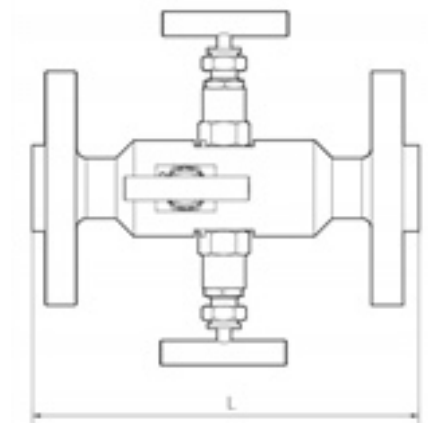


● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



< TABLE 4 - FLANGE TO FLANGE(3 NEEDLE PATTERN) DBB VALVE >

Rating Flange size	150			300			600			900/1500			2500		
	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)	L(RF)	L(RTJ)	Approx Weight(kg)
1/2"	168	-	3.5	173	173	3.8	173	173	4.5	203	203	5.5	210	210	7.1
3/4"	168	-	3.9	173	173	4.0	173	173	4.7	210	210	7.0	233	233	8.3
1"	175	185	4.5	180	180	5.3	180	180	5.8	261	261	15.3	272	272	18.0
1-1/4"	185	195	6.4	205	205	7.0	205	205	6.6	275	275	18.0	308	308	35.3
1-1/2"	225	165	7.5	252	252	8.9	252	252	12.5	293	293	22.3	330	330	44.2
2"	233	168	11.3	260	260	13.3	260	260	18.3	305	305	33.5	350	350	56.5

Instrument Double Block And Bleed Valves

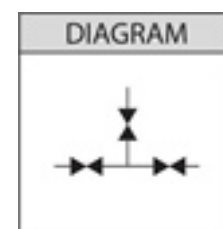
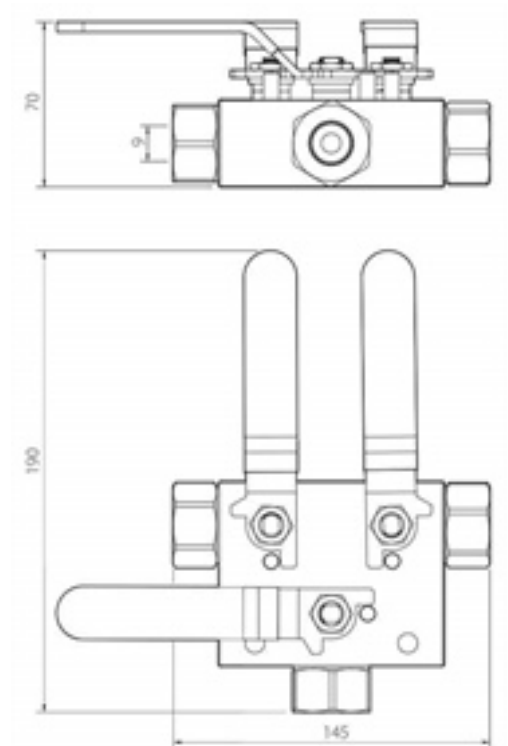
- 3 Ball Pattern

● FEATURES & BENEFITS

- 3 ball pattern
- FNPT threaded connections
- 1/2" NPT threaded bleed connection
- Floating ball design
- 10mm ball valve bore
- Pressure ratings : 6000 psi
- Available to Fire safe to API 607
- Available to NACE MR-01-75

● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.



● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting

Instrument Double Block And Bleed Valves

- 2 Ball 1 Needle Pattern

● FEATURES & BENEFITS

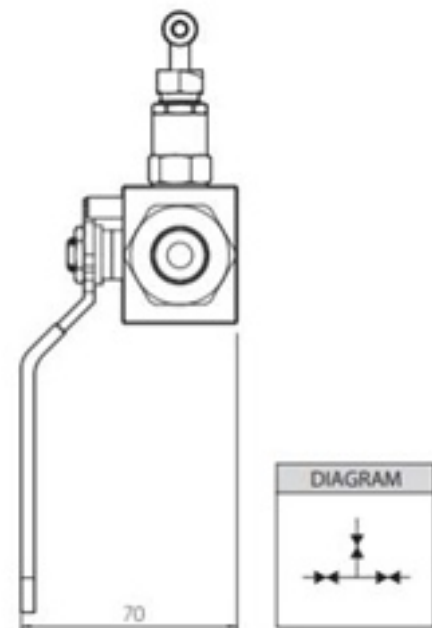
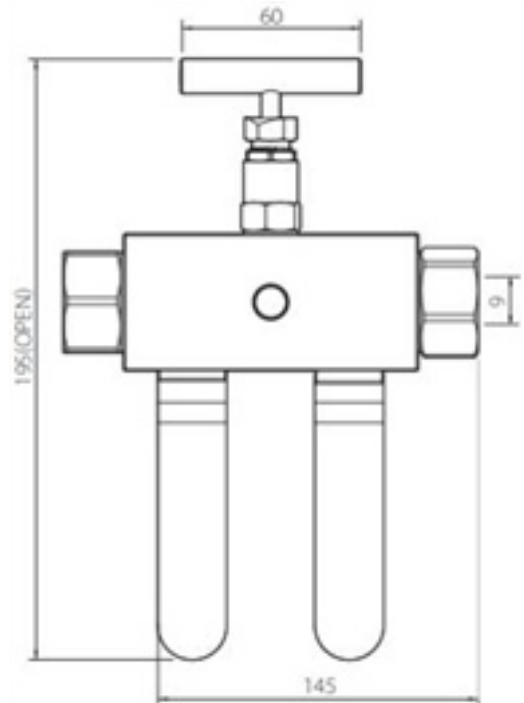
- 2 ball 1 needle pattern
- FNPT threaded connections
- 1/4" NPT threaded bleed connection
- Floating ball design
- 10mm ball valve bore
- Pressure ratings : 6000 psi
- Available to Fire safe to API 607
- Available to NACE MR-01-75

● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting

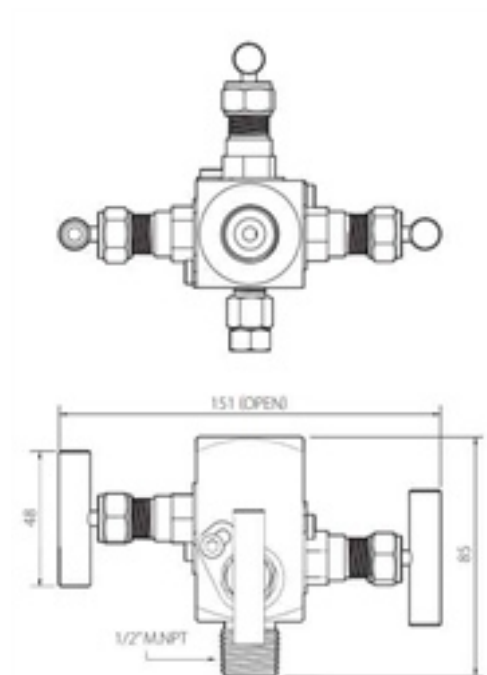


Instrument Double Block And Bleed Valves

- 3 Needle Pattern

● FEATURES & BENEFITS

- 3 needle pattern
- FNPT threaded connections
- 1/4" NPT threaded bleed connection
- Pressure ratings : 6000 psi
- Available to Fire safe to API 607
- Available to NACE MR-01-75

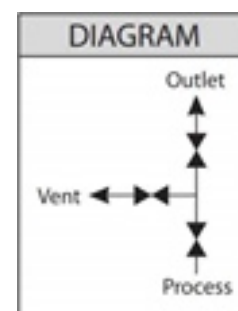


● MATERIALS

316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



How To Order SG-LOK Double Block And Bleed Valves

SG-LOK Double Block And Bleed Valves are ordered by part number as shown below.

Example:

The following part number, "SGDBB-A-1-50R-15N-15-16-P-F" is designated for integral flange 2 ball 1 needle pattern Double Block and Bleed Valve with class 150 seat pressure ratings, 2" RF flange inlet, 1/2" female NPT outlet, 1/2" NPT vent, 316SS material, PTFE ball valve seat material, and fire safe.

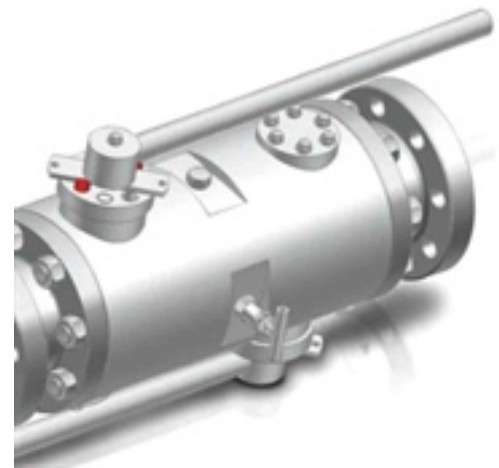
SG	DBB	A	1	50R	15N	15	16	P	F
SG-LOK	Model	Type	Ratings	Inlet	Outlet	Vent	Material	Ball valve Seat material	Option

Model		Inlet		Vent		Ball valve Seat material																											
Double block and bleed		1/2"	15	1/4" NPT	08	PTFE	P																										
		3/4"	20	3/8" NPT	10	RTEE	R																										
		1"	25	1/2" NPT	15	PEEK	K																										
		1-1/4"	32	3/4" NPT	20	DEVLON	N																										
		1-1/2"	40	1" NPT	25	NYLON	D																										
		2"	50			METAL TO METAL	MS																										
		Female NPT	N	<table><tr><th colspan="2">Material</th></tr><tr><td>316</td><td>16</td></tr><tr><td>316L</td><td>16L</td></tr><tr><td>304</td><td>04</td></tr><tr><td>304L</td><td>04L</td></tr><tr><td>A105</td><td>05</td></tr><tr><td>LF2</td><td>F2</td></tr><tr><td>Monel</td><td>MO</td></tr><tr><td>Titanium</td><td>TI</td></tr><tr><td>Hastelloy C276</td><td>HC</td></tr><tr><td>Alloy 20</td><td>A20</td></tr><tr><td>Inconel 625</td><td>IN</td></tr><tr><td>F51(Duplex)</td><td>F5</td></tr></table>				Material		316	16	316L	16L	304	04	304L	04L	A105	05	LF2	F2	Monel	MO	Titanium	TI	Hastelloy C276	HC	Alloy 20	A20	Inconel 625	IN	F51(Duplex)	F5
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		RF Flange	R																														
		RTJ	RJ																														
		Stub	ST																														
		Socket weld	S																														
		Butt weld	B																														
Type		Outlet		<table><tr><th colspan="2">Option</th></tr><tr><td>Fire safe</td><td>F</td></tr><tr><td>Anti static device</td><td>A</td></tr><tr><td>Locking device</td><td>LO</td></tr><tr><td>Injection quill</td><td>Q</td></tr><tr><td>Graphite seals</td><td>GP</td></tr><tr><td>NACE MR-01-75</td><td>N</td></tr></table>				Option		Fire safe	F	Anti static device	A	Locking device	LO	Injection quill	Q	Graphite seals	GP	NACE MR-01-75	N												
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NACE MR-01-75	N																																
A	integral flange 2 ball 1 needle pattern	1/2"	15																														
S	3-piece type 2 ball 1 needle pattern	3/4"	20																														
I	instrument 3 ball pattern	1"	25																														
N	instrument 3 needle pattern	1-1/4"	32																														
H	instrument 2 ball 1 needle pattern	1-1/2"	40																														
		2"	50																														
		Female NPT	N																														
		RF Flange	R																														
		RTJ	RJ																														
		Stub	ST																														
		Socket weld	S																														
		Butt weld	B																														
Ratings																																	
150#	1																																
300#	3																																
600#	6																																
900#	9																																
1500#	15																																
2500#	25																																
3000psi	3P																																
6000psi	6P																																

Large Bore Double Block And Bleed Valves

● FEATURES & BENEFITS

- 2 isolate ball valve pattern
- ANSI B 16.5 flanged connections
- Floating or trunnion ball design
- Pressure ratings : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Size range 2" ~ 12"

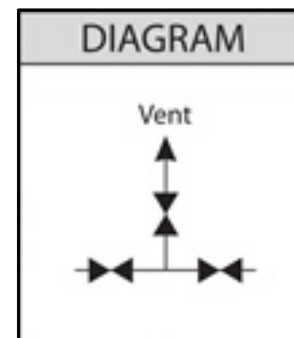


● MATERIALS

316, 316L, 304, 304L, A105, LF2, WCB, CF8, CF8M, CF3, CF3M and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Sampling
- Venting



Flange To Screw Single Block And Bleed Valves

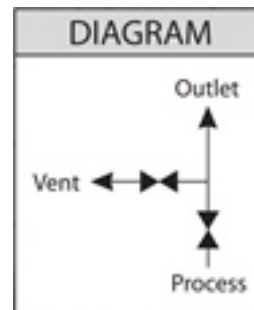
● FEATURES & BENEFITS

- Integral flange
- 1 ball 1 needle pattern
- 1/2" PT or NPT threaded female outlet
- ANSI B 16.5 flanged inlet connections
- 1/2" NPT threaded bleed connection
- Size Range : 1/2" ~ 4"
- Pressure ratings : class 150 to class 1500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Flanged connections according to ASME B 16.5
RF and RTJ



● MATERIALS

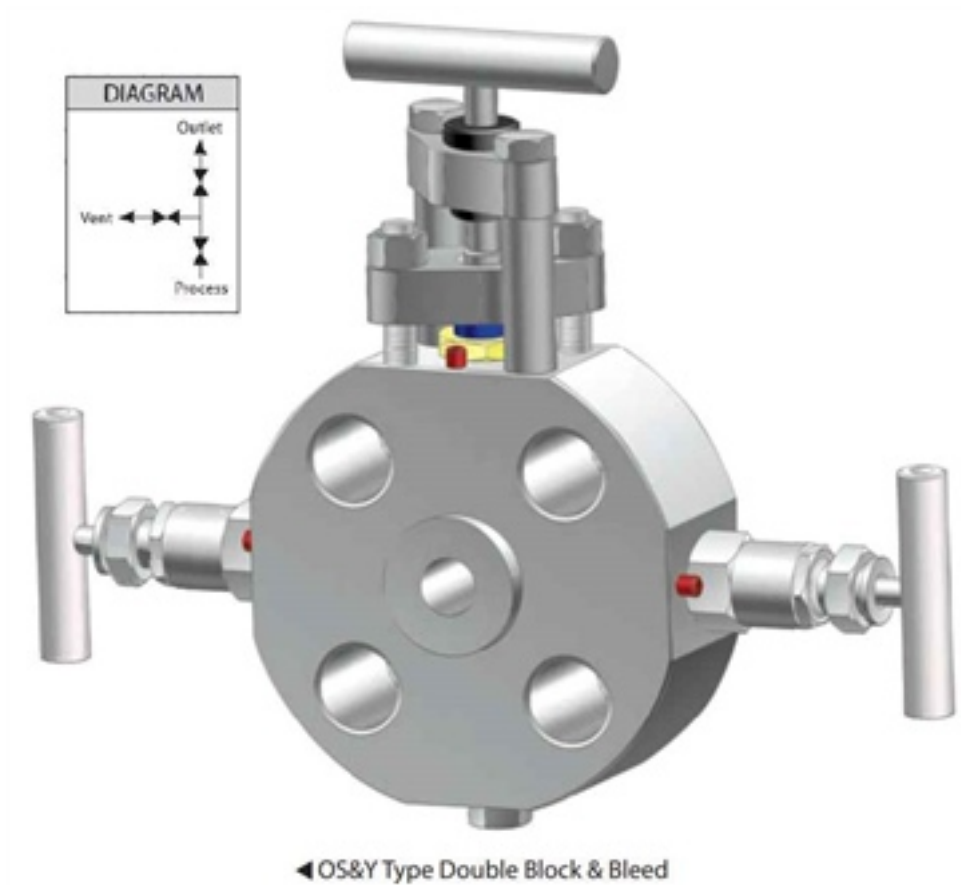
316, 316L, 304, 304L, A105, LF2. Titanium, monel, inconel625, C95800 and other special materials are available to customer spec.



● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Chemical injection
- Sampling
- Flow measurement

Monoflange Valves



● FEATURES & BENEFITS

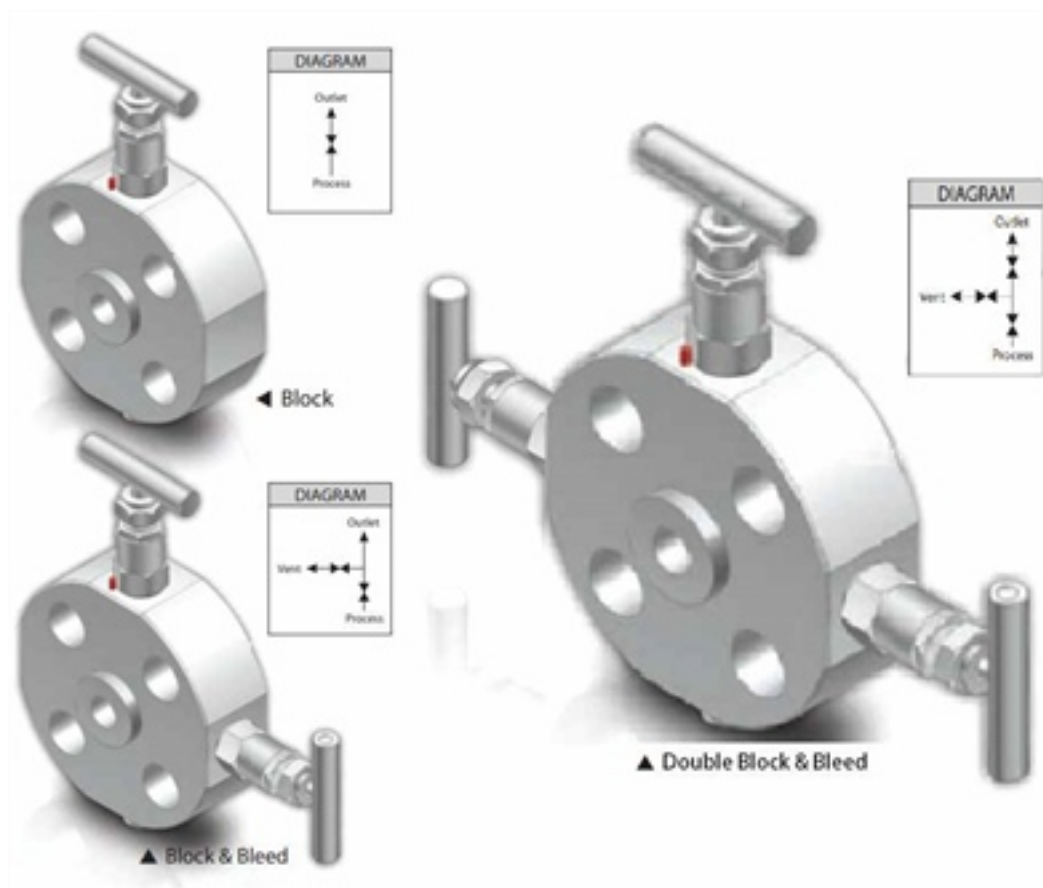
- 3 Needle pattern
- 1/2" PT or N PT threaded female outlet
- ANSI B 16.5 flanged inlet connections
- 1/2" NPT threaded bleed connection
- Pressure ratings : class 150 to class 2500
- Available to Fire safe to API 607
- Available to NACE MR-01-75
- Single block and bleed type is available
- Flanged connections according to ASME B 16.5 RF and RT

● MATERIALS

316, 316L, 304, 304L, A105, LF2, C95800, Titanium, monel, inconel625, and other special materials are available to customer spec.

● TYPICAL APPLICATIONS

- Double block and bleed applications
- Primary isolation
- Chemical injection
- Sampling
- Flow measurement



How To Order SG-LOK Monoflange Valves

SG-LOK Monoflange Valves are ordered by part number as shown below.

SG	M	D	F50A	15N	15	16	F
SG-LOK	Model	Type	Flange Detail	Outlet	Vent	Material	Option

Model
Monoflange

Flange Detail	
RF	F
RTJ	R
1/2"	15
3/4"	20
1"	25
1-1/4"	32
1-1/2"	40
2"	50
150#	A
300#	B
600#	C
900#	D
1500#	F
2500#	G

Outlet*	
1/4" NPT	8N
3/8" NPT	10N
1/2" NPT	15N

Vent	
1/4" NPT	08
3/8" NPT	10
1/2" NPT	15

Option	
Fire safe	F
Locking device	LO
Graphite seals	GP
NACE MR-01-75	N

Material	
316	16
316L	16L
304	04
304L	04L
A105	05
LF2	F2
Monel	MO
Titanium	TI
Hastelloy C276	HC
Alloy 20	A20
Inconel 625	IN
F51(Duplex)	F5

Type	
D	Double block & Bleed
B	Block
E	Block & Bleed

* Other thread connections are available.

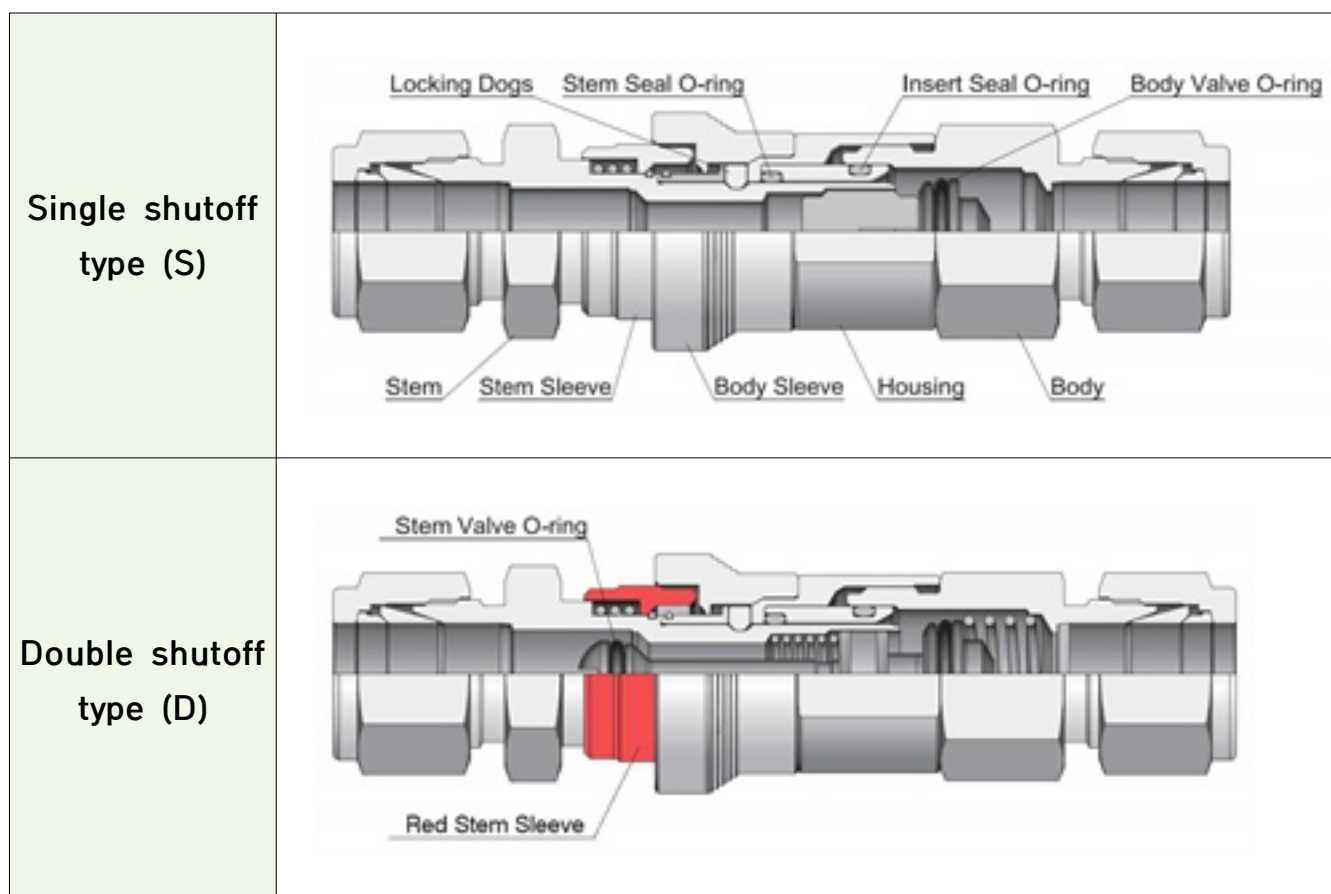
SG-LOK Quick Connectors



Samwon Green Co., Ltd.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

Features

- Quick and easy to operate.
- It was designed to flow in both directions.
- Coupling and uncoupling without tools.
- Compact and lightweight design.
- There are two kinds of stems, single shutoff type & double shutoff type.
- Single type stems have no valve and double type stems have valve.



Materials of Construction

Component	Material
Body, Body insert, Housing, Body sleeve, Stem, Stem sleeve, Valves	SS316
Locking dogs	SS316 (powdered metal)
O-rings	FKM
Springs, C-rings	SS304

Operation

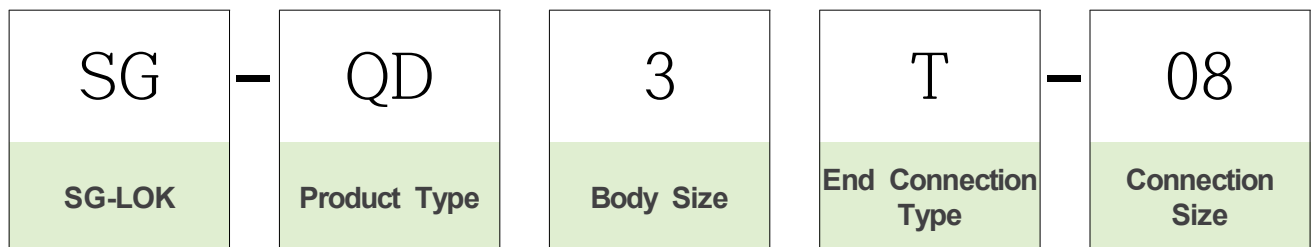
- Coupling
 1. Align the stem and the body straight.
 2. Push the stem into the body until it clicks.
- Uncoupling
 1. Pull the body sleeve toward stem.
 2. Remove the stem from body.
- Do not couple or uncouple at pressures exceeding 250 psi (17.2 bar).

How To order

- SG-LOK Quick Connectors are ordered by part number as shown below.

Example:

The following part number, SG-QD3T-08 is designated for a double shutoff stem of SGQD3 series with 1/2" SG-LOK tube fitting, SS316.



Product Type	
Body	QB
Single Shutoff Stem	QS
Double Shutoff Stem	QD
Bulkhead Body	BQB
Bulkhead Single Shutoff Stem	BQS
Bulkhead Double Shutoff Stem	BQD

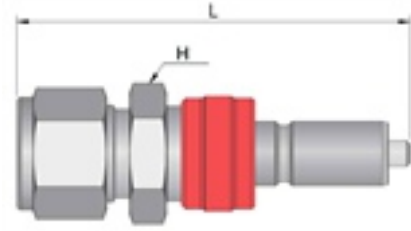
Body Size
Refer to 1~3 Body Size in dimension table.

Connection Type	
T	SG-LOK Tube Fitting
F	Female NPT or PT
M	Male NPT or PT

End Connection Size					
Fractional (Inch) Tube O.D. Designation					
Tube O.D.	inch	1/8	1/4	3/8	1/2
	mm	3.17	6.35	9.52	12.7
Designator		02	04	06	08
Metric Tube O.D. Designation					
Tube O.D.	mm	6	10	12	
Designator		06M	10M	12M	
Pipe Size Designation (NPT or PT)					
Pipe Size		1/4	3/8	1/2	
Designator		04N/R	06N/R	08N/R	

Ordering Information & Dimension

[Stems]



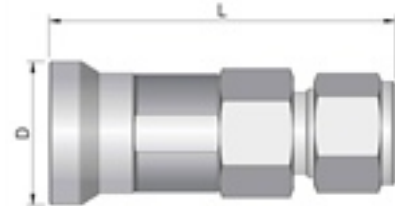
Part Number		End Connection	Cv		Dimensions (mm)			
			S*	D*	L		H	
					S*	D*	inch	mm
SG-QS1 SG-QD1	T-02	1/8" SG-LOK	0.08	0.08	58.9	70.4	5/8	15.87
	T-04	1/4" SG-LOK	0.3	0.2	59.9	61.5	5/8	15.87
	T-06M	6 mm SG-LOK	0.3	0.2	59.9	61.5	5/8	15.87
	M-02N	1/8" Male NPT	0.3	0.2	52.6	54.1	5/8	15.87
	M-04N	1/4" Male NPT	0.3	0.2	56.4	57.9	5/8	15.87
	F-02N	1/8" Female NPT	0.3	0.2	51.1	52.6	5/8	15.87
	F-04N	1/4" Female NPT	0.3	0.2	57.4	58.9	3/4	19.05
SG-QS2 SG-QD2	T-06	3/8" SG-LOK	1	0.5	64	67.1	3/4	19.05
	T-10M	10 mm SG-LOK	1	0.5	67.3	70.4	3/4	19.05
	M-04N	1/4" Male NPT	0.9	0.5	58.9	61.9	3/4	19.05
	M-06N	3/8" Male NPT	0.8	0.5	59.7	62.7	3/4	19.05
	F-04N	1/4" Female NPT	0.9	0.5	59.7	62.7	3/4	19.05
	F-06N	3/8" Female NPT	0.8	0.5	59.7	62.7	7/8	22.22
SG-QS3 SG-QD3	T-08	1/2" SG-LOK	2.4	1.5	75.2	80.3	15/16	23.81
	T-12M	12mm SG-LOK	2.4	1.5	75.2	80.3	15/16	23.81
	M-08N	1/2" Male NPT	2	1.3	72.1	77.2	15/16	23.81
	F-08N	1/2" Female NPT	2	1.3	71.6	76.7	15/16	23.81

* S: Single shutoff stem, D: Double shutoff stem.

* PT threads are available for all Stems. To order, add "R" as a suffix instead of "N".

Ordering Information & Dimension

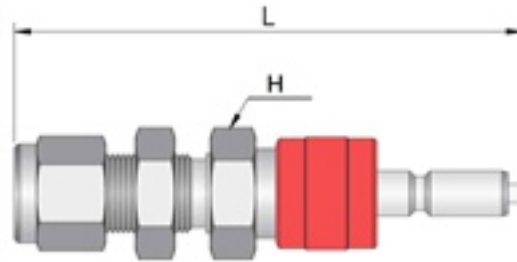
[Bodies]



Part Number		End Connection	Dimensions (mm)	
			L	D
SG-QB1	T-02	1/8" SG-LOK	57.4	23.1
	T-04	1/4" SG-LOK	56.4	23.1
	T-06M	6mm SG-LOK	58.4	23.1
	M-02N	1/8" Male NPT	51.1	23.1
	M-04N	1/4" Male NPT	54.9	23.1
	F-02N	1/8" Female NPT	54.9	23.1
	F-04N	1/4" Female NPT	61.5	23.1
SG-QB2	T-06	3/8" SG-LOK	65.5	26.2
	T-10M	10mm SG-LOK	68.1	26.2
	M-04N	1/4" Male NPT	60.5	26.2
	M-06N	3/8" Male NPT	60.5	26.2
	F-04N	1/4" Female NPT	64.5	26.2
	F-06N	3/8" Female NPT	65.3	26.2
SG-QB3	T-08	1/2" SG-LOK	78.5	30.7
	T-12M	12mm SG-LOK	78.5	30.7
	M-08N	1/2" Male NPT	75.4	30.7
	F-08N	1/2" Female NPT	81.8	30.7

* PT threads are available for all Bodies. To order, add "R" as a suffix instead of "N".

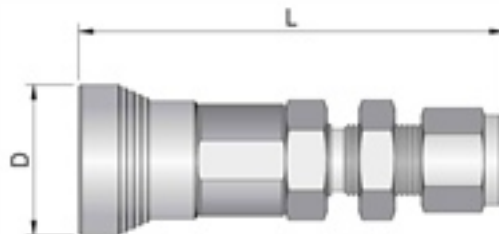
Ordering Information & Dimension - Bulkhead Stems



Part Number		End Connection	Dimensions (mm)					
			Panel Thickness Max.	Panel Hole Dia Min.	L		H	
					S*	D*	inch	mm
SG-BQS1	T-04	1/4" SG-LOK	6.4	11.9	69.6	71.1	5/8	15.88
SG-BQD1	T-06M	6mm SG-LOK	6.4	11.5	69.6	71.1	11/16	17.46
SG-BQS2	T-06	3/8" SG-LOK	6.9	15.1	74.2	76	3/4	19.05
SG-BQD2	T-10M	10mm SG-LOK	6.9	16.7	77.7	78.7	7/8	22.22
SG-BQS3	T-08	1/2" SG-LOK	6.6	19.8	87.1	92.2	15/16	23.81
SG-BQD3	T-12M	12mm SG-LOK	6.6	19.4	87.1	92.2	1	25.4

* S: Single shutoff stem, D: Double shutoff stem.

Ordering Information & Dimension - Bulkhead Bodies



Part Number		End Connection	Dimensions (mm)			
			Panel Thickness Max.	Panel Hole Dia Min.	L	D
SG-BQB1	T-04	1/4" SG-LOK	6.4	11.9	67.8	23.1
	T-06M	6mm SG-LOK	6.4	11.9	67.8	23.1
SG-BQB2	T-06	3/8" SG-LOK	6.9	15.1	75.7	26.2
	T-10M	10mm SG-LOK	6.9	16.7	75.9	26.2
SG-BQB3	T-08	1/2" SG-LOK	6.6	19.8	90.4	30.7
	T-12M	12mm SG-LOK	6.6	19.4	90.4	30.7

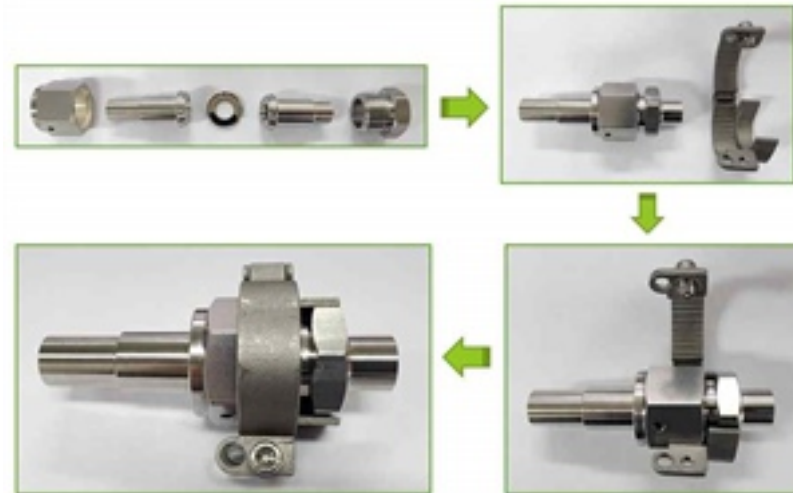
SG-LOK Lock Device



Samwon Green Co., Ltd.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

Features

- SG-LOK Lock Device is a safety device installed to prevent loosening of GCR (Metal Seal) fitting used when connecting pipes by tightening the male and female nut.



- Easy to fasten by applying serrations and ribs.
- Since a rib is installed on the product itself, it is fixed to the fitting groove during vertical piping work, making easy installation regardless of direction.
- Blue, red, and silver colors enable identification of gas type in toxic gas lines and line type such as supply, return, etc.



- The materials are SUS304, which is corrosion-resistant and durable for 1/4" to 1/2", and TITANIUM, which is light and has excellent physical properties, is used for 3/4" to 1".
- This product has acquired a patent.
(patent number: 10-2137782).

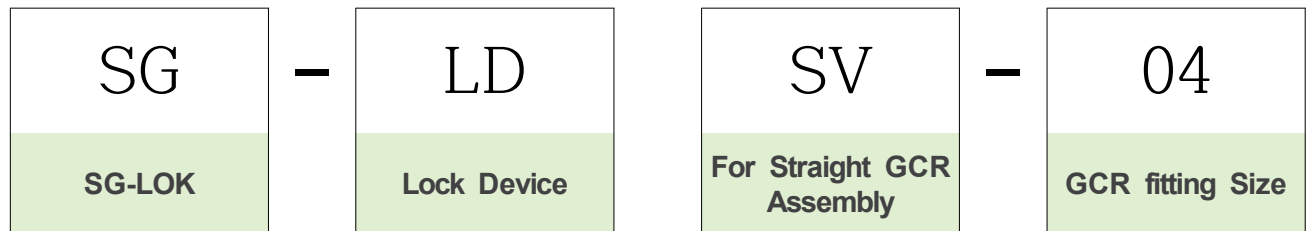


How To order

- SG-LOK Lock Devices are ordered by part number as shown below.

Example:

The following part number, SG-LDSV-04 is designated for SG-LOK Lock Device for straight GCR assembly with 1/4" both SG-LOK GCR fittings.



Ordering Information & Dimension

Part No.	GCR fitting Size		GCR Nut Hex Size (mm)	
	inch	mm	Female	Male
SG-LDSV-04	1/4	6.35	19.05	15.88
SG-LDSV-08	1/2	12.70	26.98	23.81
SG-LDSV-12	3/4	19.05	38.10	34.92
SG-LDSV-16	1	25.40	46.04	41.27

* Dimensions are for reference only and are subject to change without prior notice.

Example usage



SG-LOK TUBES



Samwon Green Co., Ltd.
101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea
Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

Features

- Fully bright annealed for outstanding corrosion resistance.
- Excellent internal roughness due to state of art process technology and precise cleaning.
- Exact dimension and Mechanical Test (Hardness, Tensile, Yield, etc...).
- Strict size tolerance control in accordance with ASTM standards.
- Exact hardness for proper tubing.
- ECT (Eddy Current Test) for every piece of tubing.
- Guaranteed application for all SG-LOK tube fittings and valves with SG-LOK ports.

Materials of Construction

- TP316/316L in accordance with ASTM A213/A269 is available for SG-LOK seamless tubes.

Standard Products Size (Seamless tubes)

Tube O.D.	Fractional (Inch) Tube							Metric Tube (mm)			
	inch	1/8	1/4	3/8	1/2	3/4	1	6	8	10	12
	mm	3.17	6.35	9.53	12.7	19.05	25.4				
Wall Thickness (mm)		0.89	0.89	0.89	0.89	-	-	1	1	1	1
		1.24	1.24	1.24	1.24	1.24	-				
		-	-	-	1.65	1.65	1.65				
		-	-	-	-	2.11	2.11				
		-	-	-	-	-	2.77				

Chemical Composition

Chemical Composition (%) - TP316/316L (ASTM A269)							
C	Mn	Si	P	S	Ni	Cr	Mo
≤0.035	≤2.00	≤1.00	≤0.045	≤0.030	10.00 ~ 14.00	16.00 ~ 18.00	2.00 ~ 3.00

Mechanical Characteristic (ASTM A370)

Yield Strength Rp0.2(MPa)	Tensile Strength Rm (MPa)	Elongation (%)	Hardness (HRB)
≥170	≥505	≥35%	≤90

How To order

SG-LOK tubes are ordered by part number as shown below.

Example: The following part number, SGT-S-04-T089-L06-BA is designated for SG-LOK SS316/316L straight tube, 1/4" Tube O.D., 0.89mm Nominal Wall Thickness, 6m length, Bright Annealing.

SGT	S	04	T089	L06	BA
SG-LOK Tube	Shape	Tube O.D.	Nominal Wall Thickness	Length	Surface Finish Level

Shape	
S	Straight
C	Coil

Tube O.D.							
Fractional (Inch) Tube O.D. Designation							
Tube O.D.	inch	1/8	1/4	3/8	1/2	3/4	1
	mm	3.17	6.35	9.52	12.7	19.05	25.4
Designator		02	04	06	08	12	16
Metric Tube O.D. Designation							
Tube O.D.		6 mm	8 mm	10 mm	12 mm		
Designator		6M	8M	10M	12M		

Nominal Wall Thickness(mm)	
T089	0.89
T124	1.24
T165	1.65
T211	2.11
T277	2.77

Length (m)	
L03	3
L06	6

Surface Finish Level	
AP	Annealing & Pickling
BA	Bright Annealing
EP	Electro Polishing

SG-LOK

37° Flare Fittings (SAE J514)



Samwon Green Co., Ltd.
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Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /
e-mail: sglok@sglok.com

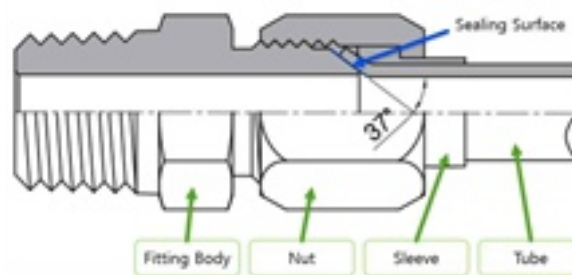
Design Standards

SG-LOK 37° Flare Fittings consists of body, sleeve and nut and meets the requirements of SAE J514 and ISO 8434-2 standards.

Tapered threads meet the requirements of ASME B 1.20.1 (NPT), ISO 7/1, BS 21 (BSPT), JIS B 0203 (PT).

Parallel threads meet the requirements of ASME B 1.1 (UN/UNF), ISO 228/1, BS 2799 (BSPP), JIS B 0202 (PF).

Construction



SG-LOK 37° Flare Fittings are composed of body, nut, sleeve and tube.

The male end has a straight thread and a 37° cone taper. The female end has a straight thread and a nut captured on tubing with a mating 37° flare or a 37° tapered gland. The seal takes place between the male taper and the inside diameter of the tapered gland or flared tubing

A Material Standards

Materials / Material designator	Body		Nut & Sleeve	Applicable Tubing Spec.
	Bar Stock	Forging		
Stainless Steel 316, 316L / S6	ASTM A276/A479 Type 316/316L	ASTM A182 F316/F316L	ASTM A276/A479 Type 316/316L	ASTM A269/A213

A Working Pressure Ratings

SAE Dash Size	Tube O.D		SAE Thread	Union & Bulkhead		Fitting with Female Swivel		Fitting with Pipe Thread	
	inch	mm		psi	bar	psi	bar	psi	bar
2	1/8	3	5/16-24	5000	345	5000	345	5000	345
3	3/16	4	3/8 - 24	5000	345	5000	345	5000	345
4	1/4	6	7/16-20	5000	345	4500	310	5000	345
5	5/16	8	1/2-20	5000	345	4000	275	5000	345
6	3/8	10	9/16-18	5000	345	4000	275	4000	275
8	1/2	12	3/4-16	4500	310	4000	275	3000	210
10	5/8	16	7/8-14	3500	240	3000	210	3000	210
12	3/4	18, 20	1 1/16-12	3500	240	3000	210	2500	170
14	7/8	22	1 3/16-12	3000	210	2500	170	2500	170
16	1	25	1 5/16-12	3000	210	2500	170	2000	140
20	1-1/4	32	1 5/8 -12	2500	170	2000	140	1150	80
24	1-1/2	38	1 7/8 -12	2000	140	1500	105	1000	70
32	2	50	2 1/2-12	1500	105	1125	80	1000	70

How To order

SG-LOK 37° Flare Fittings are ordered by part number as shown below.

GF	MC	04T	-	08	N	-	A
SG-LOK 37° Flare Fitting	Part Type	Tube O.D.		Pipe Thread Size	Thread Type		Accessory

Fractional (inch) Tube O.D. Designation																
Tube O.D.	inch	1/16	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	1-1/2	2
Designator		01T	02T	03T	04T	05T	06T	08T	10T	12T	14T	16T	18T	20T	24T	32

Metric Tube O.D. Designation																		
Tube O.D.	mm	2	3	4	6	8	10	12	14	15	16	18	20	22	25	28	32	38
Designator		02M	03M	04M	06M	08M	10M	12M	14M	15M	16M	18M	20M	22M	25M	28M	32M	38M

Pipe Thread Size Designation									
Thread Size	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Designator	02	04	06	08	12	16	20	24	32

Pipe Thread Type Designation		
Designator	Thread Type	
N	NPT	National Standard Pipe Thread
R	PT, ISO 7/1	Taper Pipe Thread
G	PF, ISO 228/1	Parallel Pipe Thread

Unified Thread Size Designation													
Thread Size	5/16-24	3/8-24	7/16-20	1/2-20	9/16-18	3/4-16	7/8-14	1-1/16-12	1-3/16-12	1-5/16-12	1-5/8-12	1-7/8-12	2-1/2-12
Designator	02U	03U	04U	05U	06U	08U	10U	12U	14U	16U	20U	24U	32U

Accessory		
Designator	None	A
Type	Without Nut & Sleeve	With Nut & Sleeve

= INDEX =

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[Spare Parts]

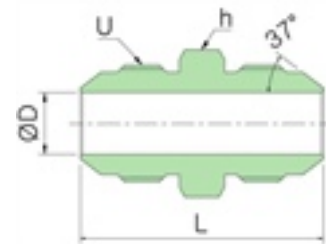
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Ordering Information & Dimension

[Tube to Tube Union]

GFU

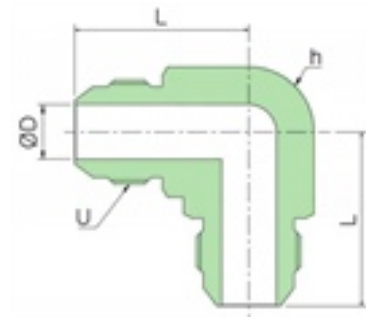
Union (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	L	h (HEX)
	inch	mm				
GFU-2T	1/8	3	5/16-24	1.6	29.7	11.1
GFU-3T	3/16	4	3/8-24	3.2	31.2	11.1
GFU-4T	1/4	6	7/16-20	4.4	34.8	12.7
GFU-5T	5/16	8	1/2-20	6.0	34.8	14.3
GFU-6T	3/8	10	9/16-18	7.5	35.8	15.8
GFU-8T	1/2	12	3/4-16	9.9	41.1	20.6
GFU-10T	5/8	16	7/8-14	12.3	47.8	23.8
GFU-12T	3/4	18, 20	1 1/16-12	15.5	54.9	28.5
GFU-14T	7/8	22	1 3/16-12	18.3	56.1	31.7
GFU-16T	1	25	1 5/16-12	21.4	57.2	34.9
GFU-20T	1-1/4	32	1 5/8-12	27.4	61.7	46.0
GFU-24T	1-1/2	38	1 7/8-12	33.3	69.8	50.8
GFU-32T	2	50	2 1/2-12	45.2	86.4	70.0

GFUE

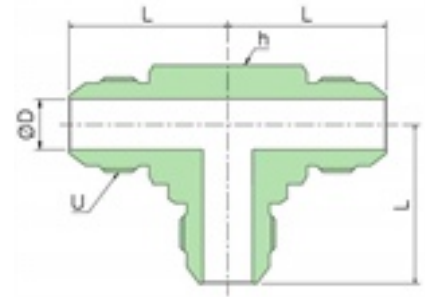
Union Elbow (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	L	h (HEX)
	inch	mm				
GFUE-2T	1/8	3	5/16-24	1.6	19.6	11.1
GFUE-3T	3/16	4	3/8-24	3.2	21.1	11.1
GFUE-4T	1/4	6	7/16-20	4.4	22.6	11.1
GFUE-5T	5/16	8	1/2-20	6.0	24.1	14.3
GFUE-6T	3/8	10	9/16-18	7.5	26.9	14.3
GFUE-8T	1/2	12	3/4-16	9.9	31.8	19.0
GFUE-10T	5/8	16	7/8-14	12.3	36.8	22.2
GFUE-12T	3/4	18, 20	1 1/16-12	15.5	42.2	27.0
GFUE-14T	7/8	22	1 3/16-12	18.3	45.7	33.3
GFUE-16T	1	25	1 5/16-12	21.4	46.0	33.3
GFUE-20T	1-1/4	32	1 5/8-12	27.4	52.3	41.3
GFUE-24T	1-1/2	38	1 7/8-12	33.3	59.2	47.6
GFUE-32T	2	50	2 1/2-12	45.2	77.7	63.5

GFUT

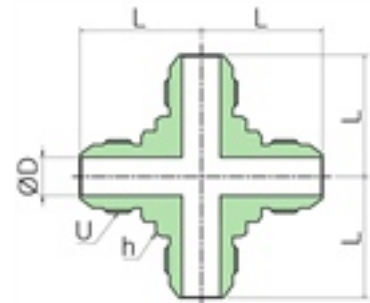
Union Tee (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	L	h (HEX)
	inch	mm				
GFUT-2T	1/8	3	5/16-24	1.6	19.6	11.1
GFUT-3T	3/16	4	3/8-24	3.2	21.1	11.1
GFUT-4T	1/4	6	7/16-20	4.4	22.6	11.1
GFUT-5T	5/16	8	1/2-20	6.0	24.1	14.3
GFUT-6T	3/8	10	9/16-18	7.5	26.9	14.3
GFUT-8T	1/2	12	3/4-16	9.9	31.8	19.0
GFUT-10T	5/8	16	7/8-14	12.3	36.8	22.2
GFUT-12T	3/4	18, 20	1 1/16-12	15.5	42.2	27.0
GFUT-14T	7/8	22	1 3/16-12	18.3	45.7	33.3
GFUT-16T	1	25	1 5/16-12	21.4	46.0	33.3
GFUT-20T	1-1/4	32	1 5/8-12	27.4	52.3	41.3
GFUT-24T	1-1/2	38	1 7/8-12	33.3	59.2	47.6
GFUT-32T	2	50	2 1/2-12	45.2	77.7	63.5

GFUC

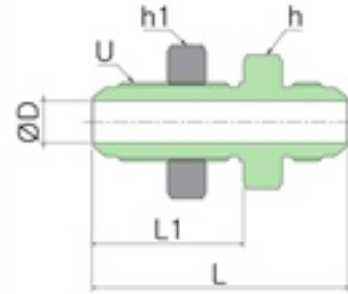
Union Cross (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	L	h (HEX)
	inch	mm				
GFUC-2T	1/8	3	5/16-24	1.6	19.6	11.1
GFUC-3T	3/16	4	3/8-24	3.2	21.1	11.1
GFUC-4T	1/4	6	7/16-20	4.4	22.6	11.1
GFUC-5T	5/16	8	1/2-20	6.0	24.1	14.3
GFUC-6T	3/8	10	9/16-18	7.5	26.9	14.3
GFUC-8T	1/2	12	3/4-16	9.9	31.8	19.0
GFUC-10T	5/8	16	7/8-14	12.3	36.8	22.2
GFUC-12T	3/4	18, 20	1 1/16-12	15.5	42.2	27.0
GFUC-14T	7/8	22	1 3/16-12	18.3	45.7	33.3
GFUC-16T	1	25	1 5/16-12	21.4	46.0	33.3
GFUC-20T	1-1/4	32	1 5/8-12	27.4	52.3	41.3
GFUC-24T	1-1/2	38	1 7/8-12	33.3	59.2	47.6
GFUC-32T	2	50	2 1/2-12	45.2	77.7	63.5

GFBU

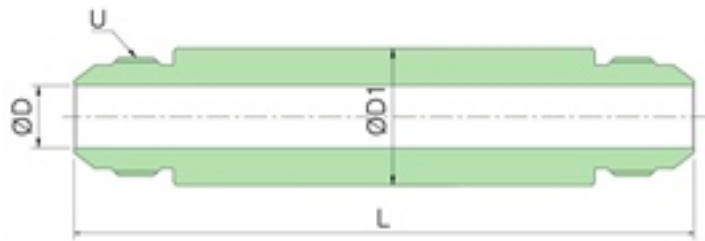
Bulkhead Union (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	L	L1	h (HEX)	h1 (HEX)
	inch	mm						
GFBU-2T	1/8	3	5/16-24	1.6	47.5	28.2	11.1	14.3
GFBU-3T	3/16	4	3/8-24	3.2	48.3	28.2	11.1	15.8
GFBU-4T	1/4	6	7/16-20	4.4	52.6	30.5	12.7	17.4
GFBU-5T	5/16	8	1/2-20	6.0	52.6	30.5	14.3	19.0
GFBU-6T	3/8	10	9/16-18	7.5	55.4	32.5	15.8	20.6
GFBU-8T	1/2	12	3/4-16	9.9	62.0	36.6	20.6	25.4
GFBU-10T	5/8	16	7/8-14	12.3	69.6	40.1	23.8	28.5
GFBU-12T	3/4	18, 20	1 1/16-12	15.5	78.5	44.4	28.5	34.9
GFBU-14T	7/8	22	1 3/16-12	18.3	79.2	44.4	31.7	38.1
GFBU-16T	1	25	1 5/16-12	21.4	79.8	44.4	34.9	41.2
GFBU-20T	1-1/4	32	1 5/8-12	27.4	84.1	45.7	46.0	47.6
GFBU-24T	1-1/2	38	1 7/8-12	33.3	89.4	46.0	53.9	53.9
GFBU-32T	2	50	2 1/2-12	45.2	106.7	53.1	70.0	69.8

GFWBU

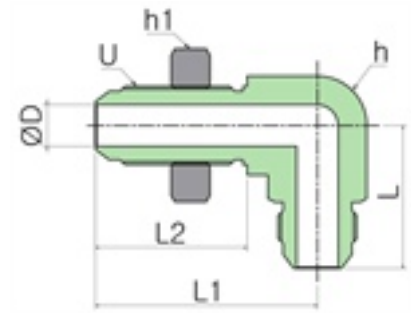
Weld Bulkhead Union (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	D1	L
	inch	mm				
GFWBU-2T	1/8	3	5/16-24	1.6	11.0	70.0
GFWBU-3T	3/16	4	3/8-24	3.2	11.0	70.0
GFWBU-4T	1/4	6	7/16-20	4.4	14.0	80.0
GFWBU-5T	5/16	8	1/2-20	6.0	16.0	100.0
GFWBU-6T	3/8	10	9/16-18	7.5	17.0	100.0
GFWBU-8T	1/2	12	3/4-16	9.9	22.0	100.0
GFWBU-10T	5/8	16	7/8-14	12.3	25.0	110.0
GFWBU-12T	3/4	18, 20	1 1/16-12	15.5	30.0	120.0
GFWBU-14T	7/8	22	1 3/16-12	18.3	32.0	130.0
GFWBU-16T	1	25	1 5/16-12	21.4	40.0	130.0
GFWBU-20T	1-1/4	32	1 5/8-12	27.4	46.0	140.0
GFWBU-24T	1-1/2	38	1 7/8-12	33.3	50.0	140.0
GFWBU-32T	2	50	2 1/2-12	45.2	70.0	150.0

GFBUE

Bulkhead Union Elbow (37° Flare Fitting)

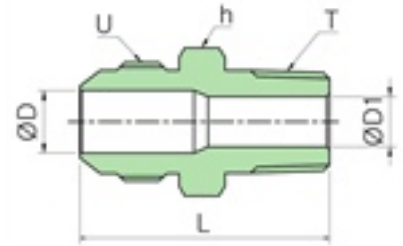


Part No.	Tube O.D		U (UN/UNF)	D	L	L1	L2	h (HEX)	h1 (HEX)
	inch	mm							
GFBUE-2T	1/8	3	5/16-24	1.6	22.4	38.1	23.4	11.1	14.3
GFBUE-3T	3/16	4	3/8-24	3.2	23.9	38.1	23.4	11.1	15.8
GFBUE-4T	1/4	6	7/16-20	4.4	24.6	40.4	25.9	11.1	17.4
GFBUE-5T	5/16	8	1/2-20	6.0	26.9	43.7	25.9	14.3	19.0
GFBUE-6T	3/8	10	9/16-18	7.5	27.7	46.0	27.7	14.3	20.6
GFBUE-8T	1/2	12	3/4-16	9.9	34.5	53.6	31.8	19.0	25.4
GFBUE-10T	5/8	16	7/8-14	12.3	39.6	60.7	35.3	22.2	28.5
GFBUE-12T	3/4	18, 20	1 1/16-12	15.5	45.2	67.8	39.6	27.0	34.9
GFBUE-14T	7/8	22	1 3/16-12	18.3	48.8	71.1	39.6	33.3	38.1
GFBUE-16T	1	25	1 5/16-12	21.4	49.3	71.1	39.6	33.3	41.2
GFBUE-20T	1-1/4	32	1 5/8-12	27.4	55.1	79.2	40.9	41.3	47.6
GFBUE-24T	1-1/2	38	1 7/8-12	33.3	59.4	86.9	41.1	47.6	53.9
GFBUE-32T	2	50	2 1/2-12	45.2	73.4	104.4	48.5	63.5	69.8

[Tube to Male Pipe]

GFMC

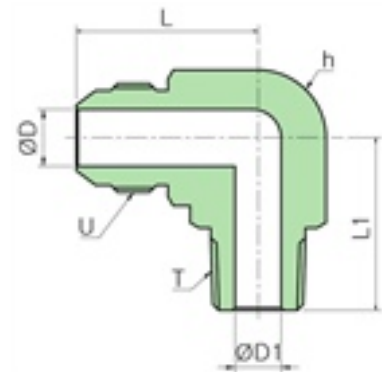
Male Connector (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	D1	L	h (HEX)
	inch	mm						
GFMC-2T-01N	1/8	3	5/16-24	1/8	1.6	4.8	28.2	11.1
GFMC-3T-01N	3/16	4	3/8-24	1/8	3.2	4.8	29.0	11.1
GFMC-4T-01N	1/4	6	7/16-20	1/8	4.4	4.8	31.0	12.7
GFMC-5T-01N	5/16	8	1/2-20	1/8	6.0	4.8	31.0	14.3
GFMC-6T-02N	3/8	10	9/16-18	1/4	7.5	7.0	36.3	15.8
GFMC-8T-03N	1/2	12	3/4-16	3/8	9.9	10.3	38.9	20.6
GFMC-10T-04N	5/8	16	7/8-14	1/2	12.3	13.5	48.0	23.8
GFMC-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	18.3	52.3	28.5
GFMC-14T-06N	7/8	22	1 3/16-12	3/4	18.3	18.3	53.1	31.7
GFMC-16T-08N	1	25	1 5/16-12	1	21.4	23.8	58.4	34.9
GFMC-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	31.7	62.2	46.0
GFMC-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	38.0	68.1	50.8
GFMC-32T-16N	2	50	2 1/2-12	2	45.2	49.0	79.0	70.0

GFME

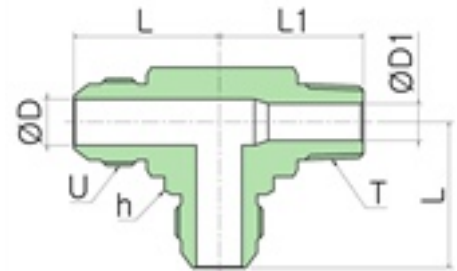
Male Elbow (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	D1	L	L1	h (HEX)
	inch	mm							
GFME-2T-01N	1/8	3	5/16-24	1/8	1.6	4.8	19.6	18.3	11.1
GFME-3T-01N	3/16	4	3/8-24	1/8	3.2	4.8	21.1	18.3	11.1
GFME-4T-01N	1/4	6	7/16-20	1/8	4.4	4.8	22.6	19.8	11.1
GFME-5T-01N	5/16	8	1/2-20	1/8	6.0	4.8	24.1	19.8	14.3
GFME-6T-02N	3/8	10	9/16-18	1/4	7.5	7.0	26.9	27.7	14.3
GFME-8T-03N	1/2	12	3/4-16	3/8	9.9	10.3	31.8	31.0	19.0
GFME-10T-04N	5/8	16	7/8-14	1/2	12.3	13.5	36.8	37.3	22.2
GFME-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	18.3	42.2	40.4	27.0
GFME-14T-06N	7/8	22	1 3/16-12	3/4	18.3	18.3	45.7	42.9	33.3
GFME-16T-08N	1	25	1 5/16-12	1	21.4	23.8	46.0	50.0	33.3
GFME-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	31.7	52.3	60.5	41.3
GFME-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	38.0	59.2	67.1	47.6
GFME-32T-16N	2	50	2 1/2-12	2	45.2	49.0	77.7	76.2	63.5

GFMRT

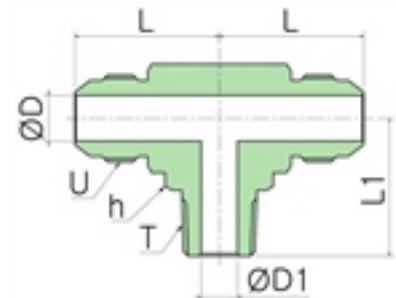
Male Run Tee (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	D1	L	L1	h (HEX)
	inch	mm							
GFMRT-2T-01N	1/8	3	5/16-24	1/8	1.6	4.8	19.6	18.3	11.1
GFMRT-3T-01N	3/16	4	3/8-24	1/8	3.2	4.8	21.1	18.3	11.1
GFMRT-4T-01N	1/4	6	7/16-20	1/8	4.4	4.8	22.6	19.8	11.1
GFMRT-5T-01N	5/16	8	1/2-20	1/8	6.0	4.8	24.1	19.8	14.3
GFMRT-6T-02N	3/8	10	9/16-18	1/4	7.5	7.0	26.9	27.7	14.3
GFMRT-8T-03N	1/2	12	3/4-16	3/8	9.9	10.3	31.8	31.0	19.0
GFMRT-10T-04N	5/8	16	7/8-14	1/2	12.3	13.5	36.8	37.3	22.2
GFMRT-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	18.3	42.2	40.4	27.0
GFMRT-14T-06N	7/8	22	1 3/16-12	3/4	18.3	18.3	45.7	42.9	33.3
GFMRT-16T-08N	1	25	1 5/16-12	1	21.4	23.8	46.0	50.0	33.3
GFMRT-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	31.7	52.3	60.5	41.3
GFMRT-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	38.0	59.2	67.1	47.6
GFMRT-32T-16N	2	50	2 1/2-12	2	45.2	49.0	77.7	76.2	63.5

GFMBT

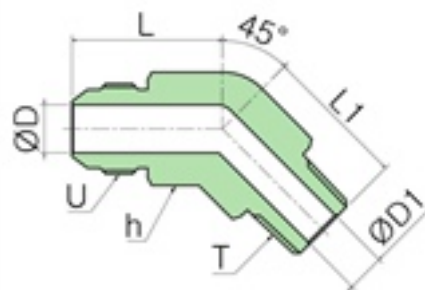
Male Branch Tee (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	D1	L	L1	h (HEX)
	inch	mm							
GFMBT-2T-01N	1/8	3	5/16-24	1/8	1.6	4.8	19.6	18.3	11.1
GFMBT-3T-01N	3/16	4	3/8-24	1/8	3.2	4.8	21.1	18.3	11.1
GFMBT-4T-01N	1/4	6	7/16-20	1/8	4.4	4.8	22.6	19.8	11.1
GFMBT-5T-01N	5/16	8	1/2-20	1/8	6.0	4.8	24.1	19.8	14.3
GFMBT-6T-02N	3/8	10	9/16-18	1/4	7.5	7.0	26.9	27.7	14.3
GFMBT-8T-03N	1/2	12	3/4-16	3/8	9.9	10.3	31.8	31.0	19.0
GFMBT-10T-04N	5/8	16	7/8-14	1/2	12.3	13.5	36.8	37.3	22.2
GFMBT-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	18.3	42.2	40.4	27.0
GFMBT-14T-06N	7/8	22	1 3/16-12	3/4	18.3	18.3	45.7	42.9	33.3
GFMBT-16T-08N	1	25	1 5/16-12	1	21.4	23.8	46.0	50.0	33.3
GFMBT-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	31.7	52.3	60.5	41.3
GFMBT-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	38.0	59.2	67.1	47.6
GFMBT-32T-16N	2	50	2 1/2-12	2	45.2	49.0	77.7	76.2	63.5

GF45ME

45° Male Elbow (37° Flare Fitting)

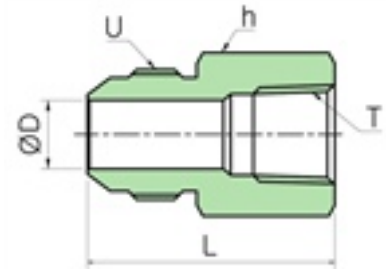


Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	D1	L	L1	h (HEX)
	inch	mm							
GF45ME-2T-01N	1/8	3	5/16-24	1/8	1.6	4.8	17.5	13.2	11.1
GF45ME-3T-01N	3/16	4	3/8-24	1/8	3.2	4.8	17.5	13.2	11.1
GF45ME-4T-01N	1/4	6	7/16-20	1/8	4.4	4.8	18.3	16.3	11.1
GF45ME-5T-01N	5/16	8	1/2-20	1/8	6.0	4.8	19.6	16.3	14.3
GF45ME-6T-02N	3/8	10	9/16-18	1/4	7.5	7.0	21.1	21.8	14.3
GF45ME-8T-03N	1/2	12	3/4-16	3/8	9.9	10.3	24.9	24.1	19.0
GF45ME-10T-04N	5/8	16	7/8-14	1/2	12.3	13.5	28.2	29.7	22.2
GF45ME-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	18.3	32.5	30.5	27.0
GF45ME-14T-06N	7/8	22	1 3/16-12	3/4	18.3	18.3	36.8	33.0	33.3
GF45ME-16T-08N	1	25	1 5/16-12	1	21.4	23.8	37.3	37.6	33.3
GF45ME-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	31.7	40.4	42.4	41.3
GF45ME-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	38.0	45.2	45.0	47.6
GF45ME-32T-16N	2	50	2 1/2-12	2	45.2	49.0	56.4	53.6	63.5

[Tube to Female Pipe]

GFFC

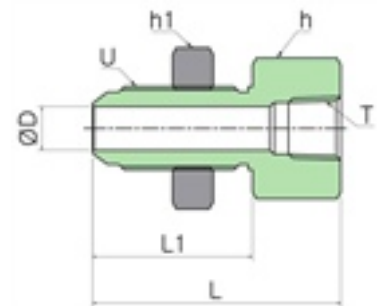
Female Connector (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	L	h (HEX)
	inch	mm					
GFFC-2T-01N	1/8	3	5/16-24	1/8	1.6	28.4	14.3
GFFC-3T-01N	3/16	4	3/8-24	1/8	3.2	28.7	14.3
GFFC-4T-01N	1/4	6	7/16-20	1/8	4.4	30.2	14.3
GFFC-5T-01N	5/16	8	1/2-20	1/8	6.0	29.7	14.3
GFFC-6T-02N	3/8	10	9/16-18	1/4	7.5	35.6	19.0
GFFC-8T-03N	1/2	12	3/4-16	3/8	9.9	39.6	22.2
GFFC-10T-04N	5/8	16	7/8-14	1/2	12.3	48.0	28.5
GFFC-12T-06N	3/4	18,20	1 1/16-12	3/4	15.5	52.3	34.9
GFFC-14T-06N	7/8	22	1 3/16-12	3/4	18.3	52.3	34.9
GFFC-16T-08N	1	25	1 5/16-12	1	21.4	59.7	41.2
GFFC-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	63.2	50.8
GFFC-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	66.5	60.3
GFFC-32T-16N	2	50	2 1/2-12	2	45.2	75.4	73.0

GFBFC

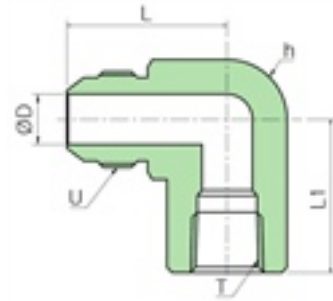
Bulkhead Female Connector (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	L	L1	h (HEX)	h1 (HEX)
	inch	mm							
GFBFC-2T-01N	1/8	3	5/16-24	1/8	1.6	41.2	28.2	14.3	14.3
GFBFC-3T-01N	3/16	4	3/8-24	1/8	3.2	41.2	28.2	14.3	15.8
GFBFC-4T-01N	1/4	6	7/16-20	1/8	4.4	46.7	30.5	14.3	17.4
GFBFC-5T-01N	5/16	8	1/2-20	1/8	6.0	43.5	30.5	14.3	19.0
GFBFC-6T-02N	3/8	10	9/16-18	1/4	7.5	52.3	32.5	19.0	20.6
GFBFC-8T-03N	1/2	12	3/4-16	3/8	9.9	54.4	36.6	22.2	25.4
GFBFC-10T-04N	5/8	16	7/8-14	1/2	12.3	67.5	40.1	28.5	28.5
GFBFC-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	73.9	44.4	34.9	34.9
GFBFC-14T-06N	7/8	22	1 3/16-12	3/4	18.3	73.4	44.4	34.9	38.1
GFBFC-16T-08N	1	25	1 5/16-12	1	21.4	78.5	44.4	41.2	41.2
GFBFC-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	80.7	45.7	50.8	47.6
GFBFC-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	85.1	46.0	60.3	53.9
GFBFC-32T-16N	2	50	2 1/2-12	2	45.2	93.1	53.1	73.0	69.8

GFFE

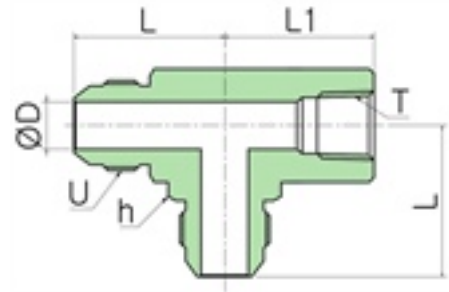
Female Elbow (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	L	L1	h (HEX)
	inch	mm						
GFFE-2T-01N	1/8	3	5/16-24	1/8	1.6	25.4	16.8	14.3
GFFE-3T-01N	3/16	4	3/8-24	1/8	3.2	26.2	16.8	14.3
GFFE-4T-01N	1/4	6	7/16-20	1/8	4.4	27.4	16.8	14.3
GFFE-5T-01N	5/16	8	1/2-20	1/8	6.0	27.4	16.8	14.3
GFFE-6T-02N	3/8	10	9/16-18	1/4	7.5	31.2	22.4	19.0
GFFE-8T-03N	1/2	12	3/4-16	3/8	9.9	36.1	25.9	22.2
GFFE-10T-04N	5/8	16	7/8-14	1/2	12.3	41.7	31.2	27.0
GFFE-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	48.0	34.5	33.3
GFFE-14T-06N	7/8	22	1 3/16-12	3/4	18.3	47.2	36.1	33.3
GFFE-16T-08N	1	25	1 5/16-12	1	21.4	55.1	41.1	41.3
GFFE-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	59.2	43.2	47.6
GFFE-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	73.4	52.8	65.1
GFFE-32T-16N	2	50	2 1/2-12	2	45.2	83.8	60.7	71.4

GFFRT

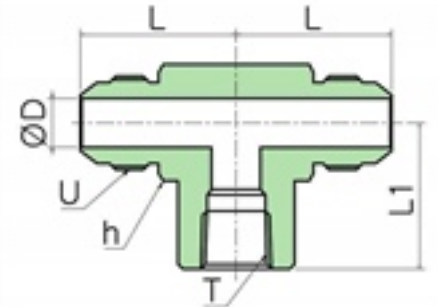
Female Run Tee (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	L	L1	h (HEX)
	inch	mm						
GFFRT-2T-01N	1/8	3	5/16-24	1/8	1.6	25.4	16.8	14.3
GFFRT-3T-01N	3/16	4	3/8-24	1/8	3.2	26.2	16.8	14.3
GFFRT-4T-01N	1/4	6	7/16-20	1/8	4.4	27.4	16.8	14.3
GFFRT-5T-01N	5/16	8	1/2-20	1/8	6.0	27.4	16.8	14.3
GFFRT-6T-02N	3/8	10	9/16-18	1/4	7.5	31.2	22.4	19.0
GFFRT-8T-03N	1/2	12	3/4-16	3/8	9.9	36.1	25.9	22.2
GFFRT-10T-04N	5/8	16	7/8-14	1/2	12.3	41.7	31.2	27.0
GFFRT-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	48.0	34.5	33.3
GFFRT-14T-06N	7/8	22	1 3/16-12	3/4	18.3	47.2	36.1	33.3
GFFRT-16T-08N	1	25	1 5/16-12	1	21.4	55.1	41.1	41.3
GFFRT-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	59.2	43.2	47.6
GFFRT-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	73.4	52.8	65.1
GFFRT-32T-16N	2	50	2 1/2-12	2	45.2	83.8	60.7	71.4

GFFBT

Female Branch Tee (37° Flare Fitting)

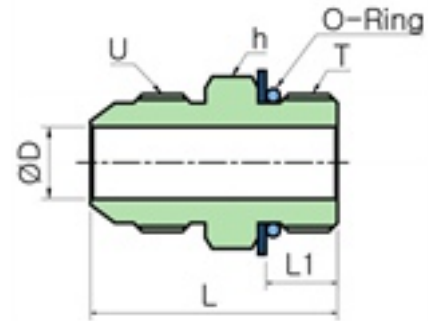


Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	L	L1	h (HEX)
	inch	mm						
GFFBT-2T-01N	1/8	3	5/16-24	1/8	1.6	25.4	16.8	14.3
GFFBT-3T-01N	3/16	4	3/8-24	1/8	3.2	26.2	16.8	14.3
GFFBT-4T-01N	1/4	6	7/16-20	1/8	4.4	27.4	16.8	14.3
GFFBT-5T-01N	5/16	8	1/2-20	1/8	6.0	27.4	16.8	14.3
GFFBT-6T-02N	3/8	10	9/16-18	1/4	7.5	31.2	22.4	19.0
GFFBT-8T-03N	1/2	12	3/4-16	3/8	9.9	36.1	25.9	22.2
GFFBT-10T-04N	5/8	16	7/8-14	1/2	12.3	41.7	31.2	27.0
GFFBT-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	48.0	34.5	33.3
GFFBT-14T-06N	7/8	22	1 3/16-12	3/4	18.3	47.2	36.1	33.3
GFFBT-16T-08N	1	25	1 5/16-12	1	21.4	55.1	41.1	41.3
GFFBT-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	59.2	43.2	47.6
GFFBT-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	73.4	52.8	65.1
GFFBT-32T-16N	2	50	2 1/2-12	2	45.2	83.8	60.7	71.4

[Tube to Straight Thread]

GFOMC-G

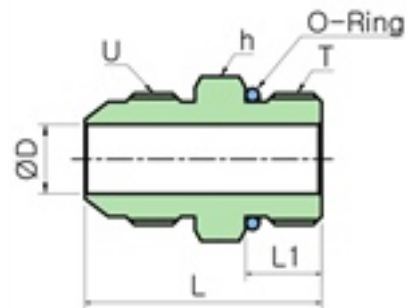
O-Seal Male Connector (PF) (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (PF)	D	L	L1	h (HEX)
	inch	mm						
GFOMC-4T-01G	1/4	6	7/16-20	1/8	4.4	28.7	6.2	17.0
GFOMC-5T-01G	5/16	8	1/2-20	1/8	6.0	28.7	6.2	17.0
GFOMC-6T-02G	3/8	10	9/16-18	1/4	7.5	32.0	9.3	19.1
GFOMC-8T-03G	1/2	12	3/4-16	3/8	9.9	36.0	9.3	22.2
GFOMC-10T-04G	5/8	16	7/8-14	1/2	12.3	43.9	12.6	30.0
GFOMC-12T-06G	3/4	18, 20	1 1/16-12	3/4	15.5	47.5	12.6	36.0
GFOMC-16T-08G	1	25	1 5/16-12	1	21.4	53.6	15.9	46.0
GFOMC-20T-10G	1-1/4	32	1 5/8-12	1-1/4	27.4	56.4	15.9	50.0
GFOMC-24T-12G	1-1/2	38	1 7/8-12	1-1/2	33.3	61.0	15.9	55.0
GFOMC-32T-16G	2	50	2 1/2-12	2	45.2	80.5	25.0	70.0

GFOMC-U

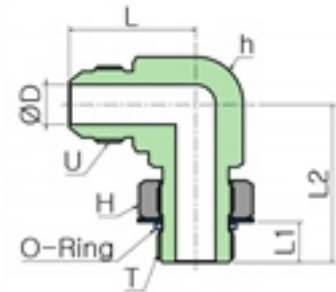
O-Seal Male Connector (UNF) (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (UN/UNF)	D	L	L1	h (HEX)
	inch	mm						
GFOMC-2T-02U	1/8	3	5/16-24	5/16-24	1.6	26.9	7.5	11.1
GFOMC-3T-03U	3/16	4	3/8-24	3/8 - 24	3.2	27.9	7.5	12.7
GFOMC-4T-04U	1/4	6	7/16-20	7/16-20	4.4	31.2	9.1	14.3
GFOMC-5T-05U	5/16	8	1/2-20	1/2-20	6.0	31.2	9.1	15.8
GFOMC-6T-06U	3/8	10	9/16-18	9/16-18	7.5	33.0	9.9	17.4
GFOMC-8T-08U	1/2	12	3/4-16	3/4-16	9.9	37.6	11.1	22.2
GFOMC-10T-10U	5/8	16	7/8-14	7/8-14	12.3	43.2	12.7	25.4
GFOMC-12T-12U	3/4	18, 20	1 1/16-12	1 1/16-12	15.5	50.0	15.1	31.7
GFOMC-14T-14U	7/8	22	1 3/16-12	1 3/16-12	18.3	50.5	15.1	34.9
GFOMC-16T-16U	1	25	1 5/16-12	1 5/16-12	21.4	51.8	15.1	38.1
GFOMC-20T-20U	1-1/4	32	1 5/8-12	1 5/8-12	27.4	55.1	15.1	47.6
GFOMC-24T-24U	1-1/2	38	1 7/8-12	1 7/8-12	33.3	60.2	15.1	53.9
GFOMC-32T-32U	2	50	2 1/2-12	2 1/2-12	45.2	70.6	15.1	69.8

GFOME-U

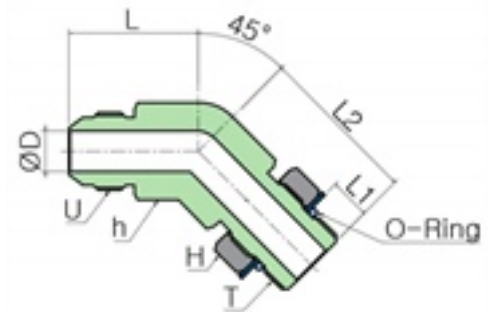
O-Seal Male Elbow (UNF) (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (UN/UNF)	D	L	L1	L2	h (HEX)	H (HEX)
	inch	mm								
GFOME-2T-02U	1/8	3	5/16-24	5/16-24	1.6	19.6	8.4	23.9	11.1	14.3
GFOME-3T-03U	3/16	4	3/8-24	3/8-24	3.2	21.1	8.5	23.9	11.1	15.8
GFOME-4T-04U	1/4	6	7/16-20	7/16-20	4.4	22.6	9.8	26.2	11.1	17.4
GFOME-5T-05U	5/16	8	1/2-20	1/2-20	6.0	24.1	9.8	28.7	14.3	19.0
GFOME-6T-06U	3/8	10	9/16-18	9/16-18	7.5	26.9	11.0	31.8	14.3	20.6
GFOME-8T-08U	1/2	12	3/4-16	3/4-16	9.9	31.8	12.5	36.8	19.0	25.4
GFOME-10T-10U	5/8	16	7/8-14	7/8-14	12.3	36.8	14.3	43.2	22.2	28.5
GFOME-12T-12U	3/4	18, 20	1 1/16-12	1 1/16-12	15.5	42.2	16.5	49.3	27.0	34.9
GFOME-14T-14U	7/8	22	1 3/16-12	1 3/16-12	18.3	45.7	16.5	50.8	33.3	38.1
GFOME-16T-16U	1	25	1 5/16-12	1 5/16-12	21.4	46.0	16.5	52.1	33.3	41.2
GFOME-20T-20U	1-1/4	32	1 5/8-12	1 5/8-12	27.4	52.3	16.5	57.2	41.3	47.6
GFOME-24T-24U	1-1/2	38	1 7/8-12	1 7/8-12	33.3	59.2	16.5	60.7	47.6	53.9
GFOME-32T-32U	2	50	2 1/2-12	2 1/2-12	45.2	77.7	16.5	73.4	63.5	69.8

GFO45ME-U

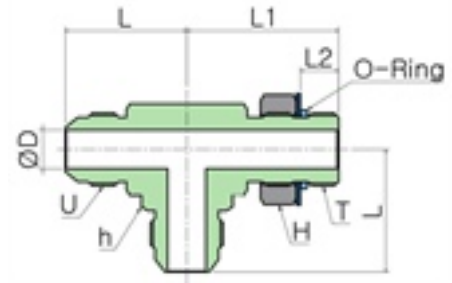
O-Seal 45° Male Elbow (UNF) (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (UN/UNF)	D	L	L1	L2	h (HEX)	H (HEX)
	inch	mm								
GFO45ME-2T-02U	1/8	3	5/16-24	5/16-24	1.6	17.5	8.4	22.4	11.1	14.3
GFO45ME-3T-03U	3/16	4	3/8-24	3/8-24	3.2	17.5	9.5	22.4	11.1	15.8
GFO45ME-4T-04U	1/4	6	7/16-20	7/16-20	4.4	18.3	9.8	26.7	11.1	17.4
GFO45ME-5T-05U	5/16	8	1/2-20	1/2-20	6.0	19.6	9.8	26.7	14.3	19.0
GFO45ME-6T-06U	3/8	10	9/16-18	9/16-18	7.5	21.1	11.0	29.0	14.3	20.6
GFO45ME-8T-08U	1/2	12	3/4-16	3/4-16	9.9	24.9	12.5	33.0	19.0	25.4
GFO45ME-10T-10U	5/8	16	7/8-14	7/8-14	12.3	28.2	14.3	38.6	22.2	28.5
GFO45ME-12T-12U	3/4	18, 20	1 1/16-12	1 1/16-12	15.5	32.5	16.5	43.9	27.0	34.9
GFO45ME-14T-14U	7/8	22	1 3/16-12	1 3/16-12	18.3	36.8	16.5	47.2	33.3	38.1
GFO45ME-16T-16U	1	25	1 5/16-12	1 5/16-12	21.4	37.3	16.5	47.2	33.3	41.2
GFO45ME-20T-20U	1-1/4	32	1 5/8-12	1 5/8-12	27.4	40.4	16.5	48.5	41.3	47.6
GFO45ME-24T-24U	1-1/2	38	1 7/8-12	1 7/8-12	33.3	45.2	16.5	48.5	47.6	53.9
GFO45ME-32T-32U	2W	50	2 1/2-12	2 1/2-12	45.2	56.4	16.5	47.2	63.5	69.8

GFORT-U

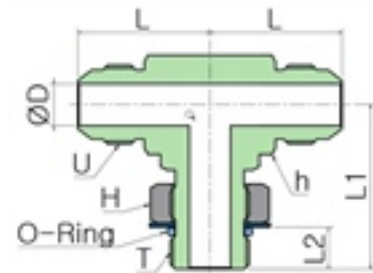
O-Seal Run Tee (UNF) (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (UN/UNF)	D	L	L1	L2	h (HEX)	H (HEX)
	inch	mm								
GFORT-2T-02U	1/8	3	5/16-24	5/16-24	1.6	19.6	23.9	8.4	11.1	14.3
GFORT-3T-03U	3/16	4	3/8-24	3/8-24	3.2	21.1	23.9	8.5	11.1	15.8
GFORT-4T-04U	1/4	6	7/16-20	7/16-20	4.4	22.6	26.2	9.8	11.1	17.4
GFORT-5T-05U	5/16	8	1/2-20	1/2-20	6.0	24.1	28.7	9.8	14.3	19.0
GFORT-6T-06U	3/8	10	9/16-18	9/16-18	7.5	26.9	31.8	11.0	14.3	20.6
GFORT-8T-08U	1/2	12	3/4-16	3/4-16	9.9	31.8	36.8	12.5	19.0	25.4
GFORT-10T-10U	5/8	16	7/8-14	7/8-14	12.3	36.8	43.2	14.3	22.2	28.5
GFORT-12T-12U	3/4	18, 20	1 1/16-12	1 1/16-12	15.5	42.2	49.3	16.5	27.0	34.9
GFORT-14T-14U	7/8	22	1 3/16-12	1 3/16-12	18.3	45.7	50.8	16.5	33.3	38.1
GFORT-16T-16U	1	25	1 5/16-12	1 5/16-12	21.4	46.0	52.1	16.5	33.3	41.2
GFORT-20T-20U	1-1/4	32	1 5/8-12	1 5/8-12	27.4	52.3	57.2	16.5	41.3	47.6
GFORT-24T-24U	1-1/2	38	1 7/8-12	1 7/8-12	33.3	59.2	60.7	16.5	47.6	53.9
GFORT-32T-32U	2	50	2 1/2-12	2 1/2-12	45.2	77.7	73.4	16.5	63.5	69.8

GFOBT-U

O-Seal Branch Tee (UNF) (37° Flare Fitting)

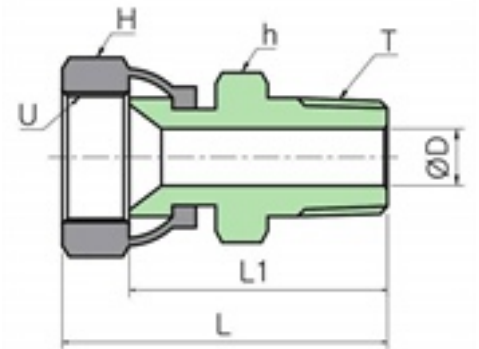


Part No.	Tube O.D		U (UN/UNF)	T (UN/UNF)	D	L	L1	L2	h (HEX)	H (HEX)
	inch	mm								
GFOBT-2T-02U	1/8	3	5/16-24	5/16-24	1.6	19.6	23.9	8.4	11.1	14.3
GFOBT-3T-03U	3/16	4	3/8-24	3/8-24	3.2	21.1	23.9	8.5	11.1	15.8
GFOBT-4T-04U	1/4	6	7/16-20	7/16-20	4.4	22.6	26.2	9.8	11.1	17.4
GFOBT-5T-05U	5/16	8	1/2-20	1/2-20	6.0	24.1	28.7	9.8	14.3	19.0
GFOBT-6T-06U	3/8	10	9/16-18	9/16-18	7.5	26.9	31.8	11.0	14.3	20.6
GFOBT-8T-08U	1/2	12	3/4-16	3/4-16	9.9	31.8	36.8	12.5	19.0	25.4
GFOBT-10T-10U	5/8	16	7/8-14	7/8-14	12.3	36.8	43.2	14.3	22.2	28.5
GFOBT-12T-12U	3/4	18,20	1 1/16-12	1 1/16-12	15.5	42.2	49.3	16.5	27.0	34.9
GFOBT-14T-14U	7/8	22	1 3/16-12	1 3/16-12	18.3	45.7	50.8	16.5	33.3	38.1
GFOBT-16T-16U	1	25	1 5/16-12	1 5/16-12	21.4	46.0	52.1	16.5	33.3	41.2
GFOBT-20T-20U	1-1/4	32	1 5/8-12	1 5/8-12	27.4	52.3	57.2	16.5	41.3	47.6
GFOBT-24T-24U	1-1/2	38	1 7/8-12	1 7/8-12	33.3	59.2	60.7	16.5	47.6	53.9
GFOBT-32T-32U	2	50	2 1/2-12	2 1/2-12	45.2	77.7	73.4	16.5	63.5	69.8

[Swivel Fittings]

GFSC

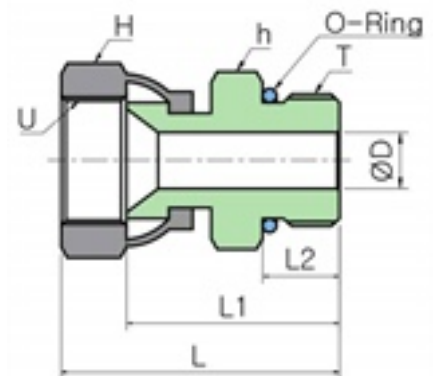
Swivel Connector (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	L	L1	h (HEX)	H (HEX)
	inch	mm							
GFSC-4T-01N	1/4	6	7/16-20	1/8	4.4	28.7	20.0	12.7	14.3
GFSC-6T-02N	3/8	10	9/16-18	1/4	7.5	40.4	30.9	15.8	17.4
GFSC-8T-03N	1/2	12	3/4-16	3/8	9.9	41.9	32.2	20.6	22.2
GFSC-10T-04N	5/8	16	7/8-14	1/2	12.3	52.1	39.4	20.6	25.4
GFSC-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	54.6	40.3	28.5	31.7
GFSC-16T-08N	1	25	1 5/16-12	1	21.4	63.5	48.4	34.9	38.1
GFSC-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	70.1	54.2	42.8	50.8
GFSC-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	77.5	58.9	50.8	57.1
GFSC-32T-16N	2	50	2 1/2-12	2	45.2	85.9	62.1	66.6	69.8

GFOSC-U

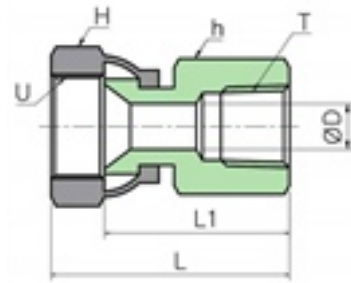
O-Seal Swivel Connector (UNF) (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (UN/UNF)	D	L	L1	L2	h (HEX)	H (HEX)
	inch	mm								
GFOSC-4T-04U	1/4	6	7/16-20	7/16-20	4.4	33.3	24.6	9.1	14.3	14.3
GFOSC-5T-05U	5/16	8	1/2-20	1/2-20	6.0	34.3	24.8	9.1	15.8	15.8
GFOSC-6T-06U	3/8	10	9/16-18	9/16-18	7.5	36.3	26.8	9.9	17.4	17.4
GFOSC-8T-08U	1/2	12	3/4-16	3/4-16	9.9	40.9	30.2	11.1	22.2	22.2
GFOSC-10T-10U	5/8	16	7/8-14	7/8-14	12.3	46.7	34.0	12.7	25.4	25.4
GFOSC-12T-12U	3/4	18, 20	1 1/16-12	1 1/16-12	15.5	52.6	38.3	15.1	31.7	31.7
GFOSC-16T-16U	1	25	1 5/16-12	1 5/16-12	21.4	57.9	42.8	15.1	38.1	38.1
GFOSC-20T-20U	1-1/4	32	1 5/8-12	1 5/8-12	27.4	63.2	47.4	15.1	50.8	50.8

GFSFC

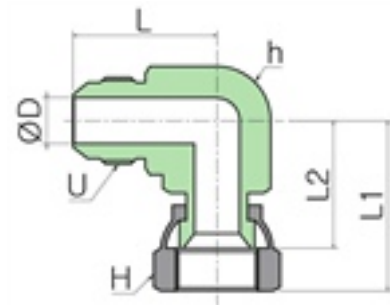
Swivel Female Connector (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	T (NPT)	D	L	L1	h (HEX)	H (HEX)
	inch	mm							
GFSFC-4T-01N	1/4	6	7/16-20	1/8	4.4	32.1	23.4	14.3	14.3
GFSFC-6T-02N	3/8	10	9/16-18	1/4	7.5	36.4	26.9	19.0	17.4
GFSFC-8T-03N	1/2	12	3/4-16	3/8	9.9	40.7	31.2	22.2	22.2
GFSFC-10T-04N	5/8	16	7/8-14	1/2	12.3	48.0	37.3	28.5	25.4
GFSFC-12T-06N	3/4	18, 20	1 1/16-12	3/4	15.5	51.1	38.4	34.9	31.7
GFSFC-16T-08N	1	25	1 5/16-12	1	21.4	62.1	47.0	41.2	38.1
GFSFC-20T-10N	1-1/4	32	1 5/8-12	1-1/4	27.4	71.0	55.1	50.8	50.8
GFSFC-24T-12N	1-1/2	38	1 7/8-12	1-1/2	33.3	76.0	57.4	60.3	57.1
GFSFC-32T-16N	2	50	2 1/2-12	2	45.2	86.0	62.2	73.0	69.8

GFSE

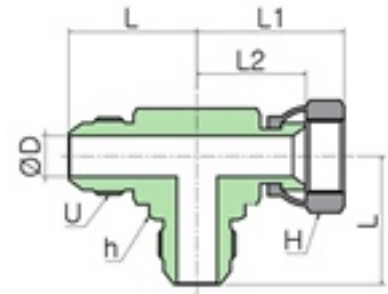
Swivel Elbow (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	L	L1	L2	h (HEX)	H (HEX)
	inch	mm							
GFSE-2T	1/8	3	5/16-24	1.6	19.6	24.6	16.7	11.1	11.1
GFSE-3T	3/16	4	3/8-24	3.2	21.1	25.4	17.1	11.1	12.7
GFSE-4T	1/4	6	7/16-20	4.4	22.6	25.4	16.7	11.1	14.2
GFSE-5T	5/16	8	1/2-20	6.0	24.1	26.9	17.4	14.3	15.8
GFSE-6T	3/8	10	9/16-18	7.5	26.9	31.8	22.3	14.3	17.4
GFSE-8T	1/2	12	3/4-16	9.9	31.8	35.1	24.4	19.0	22.2
GFSE-10T	5/8	16	7/8-14	12.3	36.8	41.1	28.4	22.2	25.4
GFSE-12T	3/4	18, 20	1 1/16-12	15.5	42.2	44.4	30.1	27.0	31.7
GFSE-14T	7/8	22	1 3/16-12	18.3	45.7	45.2	30.5	33.3	34.9
GFSE-16T	1	25	1 5/16-12	21.4	46.0	50.8	35.7	33.3	38.1
GFSE-20T	1-1/4	32	1 5/8-12	27.4	52.3	58.7	42.8	41.3	50.8
GFSE-24T	1-1/2	38	1 7/8-12	33.3	59.2	65.8	47.2	47.6	57.1
GFSE-32T	2	50	2 1/2-12	45.2	77.7	85.9	62.1	63.5	69.8

GFSRT

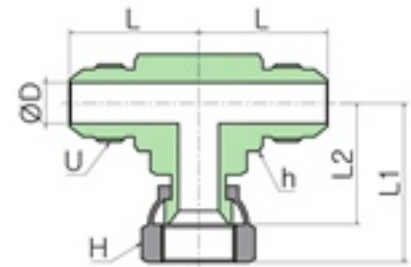
Swivel Run Tee (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	L	L1	L2	h (HEX)	H (HEX)
	inch	mm							
GFSRT-2T	1/8	3	5/16-24	1.6	19.6	24.6	16.7	11.1	11.1
GFSRT-3T	3/16	4	3/8-24	3.2	21.1	25.4	17.1	11.1	12.7
GFSRT-4T	1/4	6	7/16-20	4.4	22.6	25.4	16.7	11.1	14.2
GFSRT-5T	5/16	8	1/2-20	6.0	24.1	26.9	17.4	14.3	15.8
GFSRT-6T	3/8	10	9/16-18	7.5	26.9	31.8	22.3	14.3	17.4
GFSRT-8T	1/2	12	3/4-16	9.9	31.8	35.1	24.4	19.0	22.2
GFSRT-10T	5/8	16	7/8-14	12.3	36.8	41.1	28.4	22.2	25.4
GFSRT-12T	3/4	18, 20	1 1/16-12	15.5	42.2	44.4	30.1	27.0	31.7
GFSRT-14T	7/8	22	1 3/16-12	18.3	45.7	45.2	30.5	33.3	34.9
GFSRT-16T	1	25	1 5/16-12	21.4	46.0	50.8	35.7	33.3	38.1
GFSRT-20T	1-1/4	32	1 5/8-12	27.4	52.3	58.7	42.8	41.3	50.8
GFSRT-24T	1-1/2	38	1 7/8-12	33.3	59.2	65.8	47.2	47.6	57.1
GFSRT-32T	2	50	2 1/2-12	45.2	77.7	85.9	62.1	63.5	69.8

GFSBT

Swivel Branch Tee (37° Flare Fitting)

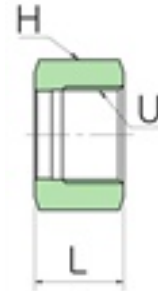


Part No.	Tube O.D		U (UN/UNF)	D	L	L1	L2	h (HEX)	H (HEX)
	inch	mm							
GFSBT-2T	1/8	3	5/16-24	1.6	19.6	24.6	16.7	11.1	11.1
GFSBT-3T	3/16	4	3/8-24	3.2	21.1	25.4	17.1	11.1	12.7
GFSBT-4T	1/4	6	7/16-20	4.4	22.6	25.4	16.7	11.1	14.2
GFSBT-5T	5/16	8	1/2-20	6.0	24.1	26.9	17.4	14.3	15.8
GFSBT-6T	3/8	10	9/16-18	7.5	26.9	31.8	22.3	14.3	17.4
GFSBT-8T	1/2	12	3/4-16	9.9	31.8	35.1	24.4	19.0	22.2
GFSBT-10T	5/8	16	7/8-14	12.3	36.8	41.1	28.4	22.2	25.4
GFSBT-12T	3/4	18, 20	1 1/16-12	15.5	42.2	44.4	30.1	27.0	31.7
GFSBT-14T	7/8	22	1 3/16-12	18.3	45.7	45.2	30.5	33.3	34.9
GFSBT-16T	1	25	1 5/16-12	21.4	46.0	50.8	35.7	33.3	38.1
GFSBT-20T	1-1/4	32	1 5/8-12	27.4	52.3	58.7	42.8	41.3	50.8
GFSBT-24T	1-1/2	38	1 7/8-12	33.3	59.2	65.8	47.2	47.6	57.1
GFSBT-32T	2	50	2 1/2-12	45.2	77.7	85.9	62.1	63.5	69.8

[Spare Parts]

GFN

Nut (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	L	H (HEX)
	inch	mm			
GFN-2T	1/8	-	5/16-24	14.0	9.5
GFN-3T	3/16	-	3/8-24	15.5	11.0
GFN-4T	1/4	6	7/16-20	15.8	14.3
GFN-5T	5/16	8	1/2-20	17.3	15.8
GFN-6T	3/8	10	9/16-18	18.5	17.4
GFN-8T	1/2	12	3/4-16	21.6	22.2
GFN-10T	5/8	16	7/8-14	24.9	25.4
GFN-12T	3/4	18	1 1/16-12	26.2	31.7
GFN-20M	-	20	1 1/16-12	26.2	31.7
GFN-14T	7/8	22	1 3/16-12	27.7	34.9
GFN-16T	1	25	1 5/16-12	28.7	38.1
GFN-20T	1-1/4	32	1 5/8-12	31.2	50.8
GFN-24T	1-1/2	38	1 7/8-12	36.1	57.1
GFN-32T	2	50	2 1/2-12	44.5	73.0

GFS

Sleeve (37° Flare Fitting)

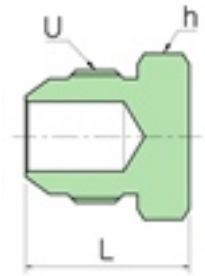


Part No.	Tube O.D	L
	inch	
GFS-2T	1/8	8.6
GFS-3T	3/16	8.6
GFS-4T	1/4	10.4
GFS-5T	5/16	11.2
GFS-6T	3/8	12.7
GFS-8T	1/2	14.2
GFS-10T	5/8	16.8
GFS-12T	3/4	17.3
GFS-14T	7/8	19.3
GFS-16T	1	19.8
GFS-20T	1-1/4	23.1
GFS-24T	1-1/2	28.4
GFS-32T	2	30.2

Part No.	Tube O.D	L
	mm	
GFS-3M	3	8.6
GFS-4M	4	8.6
GFS-6M	6	10.4
GFS-8M	8	11.2
GFS-10M	10	12.7
GFS-12M	12	14.2
GFS-16M	16	16.8
GFS-18M	18	17.3
GFS-20M	20	17.3
GFS-22M	22	19.3
GFS-25M	25	19.8
GFS-32M	32	23.1
GFS-38M	38	28.4

GFP

Plug (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	L	H (HEX)
	inch	mm			
GFP-2T	1/8	3	5/16-24	17.8	11.1
GFP-3T	3/16	4	3/8-24	18.5	11.1
GFP-4T	1/4	6	7/16-20	20.3	12.7
GFP-5T	5/16	8	1/2-20	20.3	14.2
GFP-6T	3/8	10	9/16-18	21.3	15.8
GFP-8T	1/2	12	3/4-16	23.9	20.6
GFP-10T	5/8	16	7/8-14	27.9	20.6
GFP-12T	3/4	18, 20	1 1/16-12	32.5	28.5
GFP-14T	7/8	22	1 3/16-12	33.3	31.7
GFP-16T	1	25	1 5/16-12	33.8	34.9
GFP-20T	1-1/4	32	1 5/8-12	36.8	46.0
GFP-24T	1-1/2	38	1 7/8-12	41.9	50.8
GFP-32T	2	50	2 1/2-12	52.1	70.0

GFCP

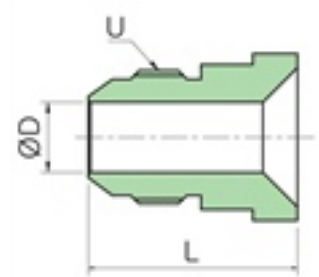
Cap (37° Flare Fitting)



Part No.	Tube O.D		L
	inch	mm	
GFCP-2T	1/8	3	9.5
GFCP-3T	3/16	4	9.5
GFCP-4T	1/4	6	8.7
GFCP-5T	5/16	8	10.3
GFCP-6T	3/8	10	11.9
GFCP-8T	1/2	12	13.5
GFCP-10T	5/8	16	13.5
GFCP-12T	3/4	18, 20	16.7
GFCP-14T	7/8	22	15.9
GFCP-16T	1	25	15.9
GFCP-20T	1-1/4	32	19.1
GFCP-24T	1-1/2	38	23.8
GFCP-32T	2	50	30.1

GFPR

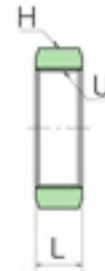
Fitting Port Reducer (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	D	L
	inch	mm			
GFPR-6T-4T	3/8 x 1/4	19.0 x 12.7	7/16-20	4.4	24.6
GFPR-8T-4T	1/2 x 1/4	25.4 x 12.7	7/16-20	4.4	25.4
GFPR-8T-6T	1/2 x 3/8	25.4 x 19.0	9/16-18	7.5	25.4
GFPR-10T-4T	5/8 x 1/4	31.8 x 12.7	7/16-20	4.4	26.2
GFPR-10T-6T	5/8 x 3/8	31.8 x 19.0	9/16-18	7.5	26.2
GFPR-12T-4T	3/4 x 1/4	38.1 x 12.7	7/16-20	4.4	27.7
GFPR-12T-6T	3/4 x 3/8	38.1 x 19.0	9/16-18	7.5	27.7
GFPR-12T-8T	3/4 x 1/2	38.1 x 25.4	3/4-16	10.0	30.2
GFPR-16T-12T	1 x 3/4	50.8 x 38.1	1 1/16-12	15.5	37.3
GFPR-20T-12T	1-1/4 x 3/4	50.8 x 38.1	1 1/16-12	15.5	38.3
GFPR-20T-16T	1-1/4 x 1	50.8 x 50.8	1 5/16-12	21.4	40.3
GFPR-24T-20T	1-1/2 x 1-1/4	63.5 x 50.8	1 5/8-12	27.4	42.9

GFLN

Bulkhead Lock Nut (37° Flare Fitting)



Part No.	Tube O.D		U (UN/UNF)	L	H (HEX)
	inch	mm			
GFLN-2T	1/8	3	5/16-24	5.6	14.3
GFLN-3T	3/16	4	3/8-24	5.6	15.8
GFLN-4T	1/4	6	7/16-20	7.1	17.4
GFLN-5T	5/16	8	1/2-20	7.1	19.0
GFLN-6T	3/8	10	9/16-18	6.9	20.6
GFLN-8T	1/2	12	3/4-16	7.9	25.4
GFLN-10T	5/8	16	7/8-14	9.1	28.5
GFLN-12T	3/4	18, 20	1 1/16-12	10.4	34.9
GFLN-14T	7/8	22	1 3/16-12	10.4	38.1
GFLN-16T	1	25	1 5/16-12	10.4	41.2
GFLN-20T	1-1/4	32	1 5/8-12	10.4	47.6
GFLN-24T	1-1/2	38	1 7/8-12	10.4	53.9
GFLN-32T	2	50	2 1/2-12	10.4	69.8

SG-LOK UHP

Weld Fittings & Metal Face Seal Fittings



Samwon Green Co., Ltd.

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e-mail: sglok@sglok.com

How To order

SG-LOK weld fittings are ordered by part number as shown below.

Example: The following part number, HMGS-0804-DM-EP is designated for Micro Gland S, 1/2" GCR, 1/4" Tube O.D, Double Melting SS316L, Electro Polished.

H	MGS	08	04	DM	EP
SG-LOK Clean Fitting	Fitting Type	Connection Size	Connection Size	Material	Surface Finish Level

Fitting Type	Refer to the part number in the dimension table.
--------------	--

Connection Size							
Fractional (Inch) Tube O.D. Designation							
Tube O.D.	inch	1/8	1/4	3/8	1/2	3/4	1
	mm	3.17	6.35	9.52	12.7	19.05	25.4
Designator		02	04	06	08	12	16
GCR (Metal Face Seal) Size Designator							
GCR Size		1/4	1/2	3/4	1		
Designator		04	08	12	16		

Materials		
DM	SS316L - Double	Melting
SM	SS316L - Single	Melting
SL	SS316L	
NI	Nickel	

Surface Finish Level		
BA	BA - Bright	Annealing
EP	EP - Electro	Polished

Typical Assemblies



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[Weld Fittings]

HME

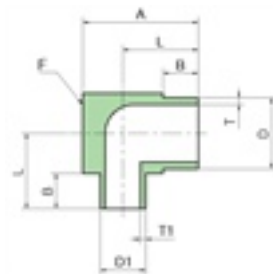
Micro Elbow 90°



Part No.	Tube O.D. D		Tube W.T. T		Dimension (mm)		Body Cube	
	inch	mm	inch	mm	A	B	L	F
HME-02-	1/8	3.17	0.028	0.71	14.29	6.35	10.32	7.94
HME-04-	1/4	6.35	0.039	1	17.46		11.91	11.11
HME-06-	3/8	9.52		1	20.64		13.5	14.29
HME-08-	1/2	12.7	0.049	1.24	27		16.67	20.65
HME-12-	3/4	19.05	0.065	1.65				

HMRE

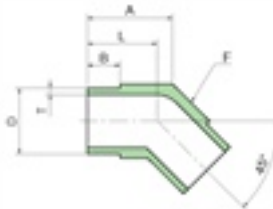
Micro Reducing Elbow 90°



Part No.	Tube O.D. D		Tube W.T. T		Tube O.D. D1		Tube W.T. T1		Dimension (mm)		Body Cube	
	inch	mm	inch	mm	inch	mm	inch	mm	A	B	L	F
HMRE-0402-	1/4	6.35	0.039	1	1/8	3.17	0.028	0.71	14.29	6.35	10.32	7.94
HMRE-0604-	3/8	9.52		1	1/4	6.35		1	17.46		11.91	11.11
HMRE-0804-	1/2	12.7	0.049	1.24	1/4	6.35	0.039	1	20.64		13.5	14.29
HMRE-0806-	1/2	12.7	0.049	1.24	3/8	9.52		1				

HMVE

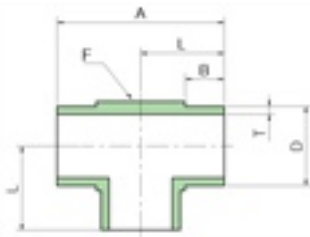
Micro Elbow 45°



Part No.	Tube O.D. D		Tube W.T. T		Dimension (mm)		Body Cube	
	inch	mm	inch	mm	A	B	L	F
HMVE-04-	1/4	6.35	0.039	1	11.96	6.35	10.32	7.94
HMVE-06-	3/8	9.52		1	14.21		11.91	11.11
HMVE-08-	1/2	12.7	0.049	1.24	16.46		13.5	14.29

HMT

Micro Tee

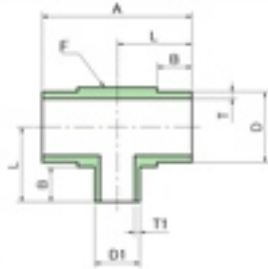


Part No.	Tube O.D. D		Tube W.T. T		Dimension (mm)		Body Cube	
	inch	mm	inch	mm	A	B	L	F
HMT-02-	1/8	3.17	0.028	0.71	20.64	6.35	10.32	7.94
HMT-04-	1/4	6.35	0.039	1	23.81		11.91	11.11
HMT-06-	3/8	9.52		1	26.99		13.5	14.29
HMT-08-	1/2	12.7	0.049	1.24	33.35		16.67	20.65
HMT-12-	3/4	19.05	0.065	1.65				

[Weld Fittings]

HMRT

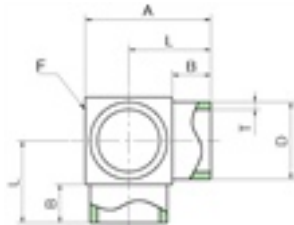
Micro Reducing Tee



Part No.	Tube O.D. D		Tube W.T. T		Tube O.D. D1		Tube W.T. T1		Dimension (mm)				Body Cube
	inch	mm	inch	mm	inch	mm	inch	mm	A	B	L	F	
HMRT-0402-	1/4	6.35	0.039	1	1/8	3.17	0.028	0.71	20.64	6.35	10.32	7.94	
HMRT-0604-	3/8	9.52		1	1/4	6.35		1	23.81		11.91	11.11	
HMRT-0804-	1/2	12.7	0.049	1.24	1/4	6.35	0.039	1	26.99		13.5	14.29	
HMRT-0806-	1/2	12.7	0.049	1.24	3/8	9.52		1					

HMTB

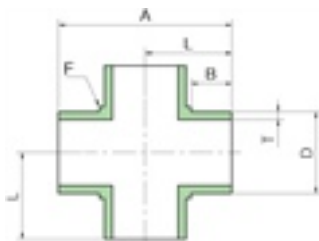
Micro Tribow



Part No.	Tube O.D. D		Tube W.T. T		Dimension (mm)			Body Cube
	inch	mm	inch	mm	B	L	F	
HMTB-04-	1/4	6.35	0.039	1	6.35	10.32	7.94	
HMTB-06-	3/8	9.52				11.91	11.11	
HMTB-08-	1/2	12.7	0.049	1.24		13.5	14.29	

HMC

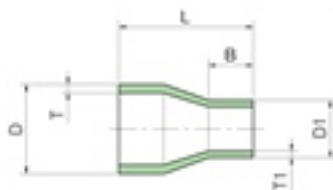
Micro Cross



Part No.	Tube O.D. D		Tube W.T. T		Dimension (mm)			Body Cube
	inch	mm	inch	mm	A	B	L	
HMC-04-	1/4	6.35	0.039	1	20.64	6.35	10.32	7.94
HMC-06-	3/8	9.52			23.81		11.91	11.11
HMC-08-	1/2	12.7	0.049	1.24	26.99		13.5	14.29

HMRU

Micro Reducing Union

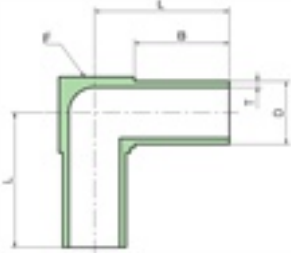


Part No.	Tube O.D. D		Tube W.T. T		Tube O.D. D1		Tube W.T. T1		Dimension (mm)	
	inch	mm	inch	mm	inch	mm	inch	mm	B	L
HMRU-0402-	1/4	6.35	0.039	1	1/8	3.17	0.028	0.71	6.35	19.05
HMRU-0604-	3/8	9.52		1	1/4	6.35		1		
HMRU-0804-	1/2	12.7	0.049	1.24	1/4	6.35		1		
HMRU-0806-	1/2	12.7	0.049	1.24	3/8	9.52	0.039	1		
HMRU-1204-	3/4	19.05	0.065	1.65	1/4	6.35		1		
HMRU-1206-	3/4	19.05	0.065	1.65	3/8	9.52		1		
HMRU-1208-	3/4	19.05	0.065	1.65	1/2	12.7	0.049	1.24		

[Weld Fittings]

HLE

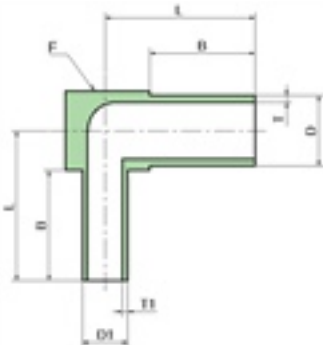
Long Elbow 90°



Part No.	Tube O.D. D		Tube W.T. T		Dimension (mm)		Body Cube
	inch	mm	inch	mm	B	L	F
HLE-04-	1/4	6.35	0.039	1	20	25	9
HLE-06-	3/8	9.52		1	19		11
HLE-08-	1/2	12.7	0.049	1.24		27	15
HLE-12-	3/4	19.05	0.065	1.65		31.5	22
HLE-16	1	25.4	0.049	1.65		34	30

HLRE

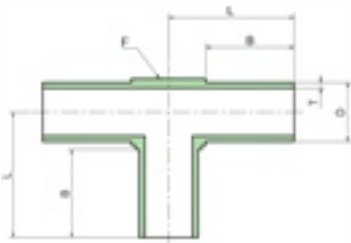
Long Reducing Elbow 90°



Part No.	Tube O.D. D		Tube W.T. T		Tube O.D. D1		Tube W.T. T1		Dimension (mm)		Body Cube
	inch	mm	inch	mm	inch	mm	inch	mm	B	L	
HLRE-0604-	3/8	9.52	0.039	1	1/4	6.35	0.039	1	19	25	11
HLRE-0804-	1/2	12.7	0.049	1.24	1/4	6.35		1		27	15
HLRE-0806-	1/2	12.7	0.049	1.24	3/8	9.53		1			
HLRE-1204-	3/4	19.05	0.065	1.65	1/4	6.35		1		31.5	22
HLRE-1206-	3/4	19.05	0.065	1.65	3/8	9.52	0.049	1			
HLRE-1208-	3/4	19.05	0.065	1.65	1/2	12.7		1.24			

HLT

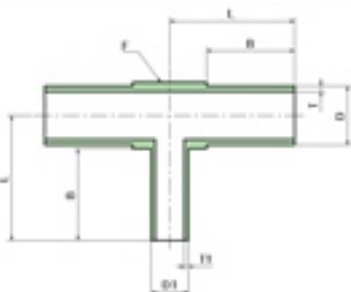
Long Tee



Part No.	Tube O.D. D		Tube W.T. T		Dimension (mm)		Body Cube
	inch	mm	inch	mm	B	L	F
HLT-04-	1/4	6.35	0.039	1	20	25	9
HLT-06-	3/8	9.52		1	19		11
HLT-08-	1/2	12.7	0.049	1.24		27	15
HLT-12-	3/4	19.05	0.065	1.65		31.5	22
HLT-16-	1	25.4	0.065	1.65		34	30

HLRT

Long Reducing Tee

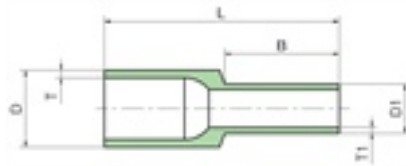


Part No.	Tube O.D. D		Tube W.T. T		Tube O.D. D1		Tube W.T. T1		Dimension (mm)		Body Cube
	inch	mm	inch	mm	inch	mm	inch	mm	B	L	
HLRT-0604-	3/8	9.52	0.039	1	1/4	6.35	0.039	1	19	25	11
HLRT-0804-	1/2	12.7	0.049	1.24	1/4	6.35		1		27	15
HLRT-0806-	1/2	12.7	0.049	1.24	3/8	9.52		1			
HLRT-1204-	3/4	19.05	0.065	1.65	1/4	6.35		1		31.5	22
HLRT-1206-	3/4	19.05	0.065	1.65	3/8	9.52	0.049	1			
HLRT-1208-	3/4	19.05	0.065	1.65	1/2	12.7		1.24			

[Weld Fittings]

HLRU

Long Reducing Union

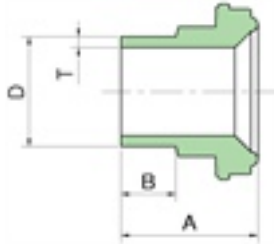


Part No.	Tube O.D. D		Tube W.T. T		Tube O.D. D1		Tube W.T. T1		Dimension (mm)	
	inch	mm	inch	mm	inch	mm	inch	mm	B	L
HLRU-0604-	3/8	9.52	0.039	1	1/4	6.35	0.039	1	19	39
HLRU-0804-	1/2	12.7	0.049	1.24	1/4	6.35		1		
HLRU-0806-	1/2	12.7	0.049	1.24	3/8	9.52		1		
HLRU-1204-	3/4	19.05	0.065	1.65	1/4	6.35		1		
HLRU-1206-	3/4	19.05	0.065	1.65	3/8	9.52	0.049	1		42.9
HLRU-1208-	3/4	19.05	0.065	1.65	1/2	12.7		1.24		
HLRU-1604-	1	25.4	0.065	1.65	1/4	6.35	0.039	1		44.5
HLRU-1606-	1	25.4	0.065	1.65	3/8	9.52		1		
HLRU-1608-	1	25.4	0.065	1.65	1/2	12.7	0.049	1.24		
HLRU-1612-	1	25.4	0.065	1.65	3/4	19.05	0.065	1.65		

[Metal Face Seal (GCR) Fittings - Glands]

HMGS

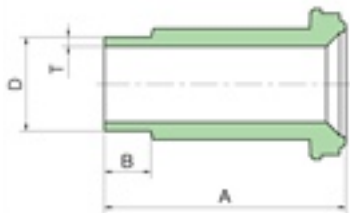
Micro Gland S



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)	
	inch	inch	mm	inch	mm	A	B
HMGS-04-	1/4	1/4	6.35	0.039	1	15.3	6.35
HMGS-0804-	1/2	1/4	6.35		1	15.8	
HMGS-0806-	1/2	3/8	9.52		1		
HMGS-08-	1/2	1/2	12.7	0.049	1.24		

HMGL

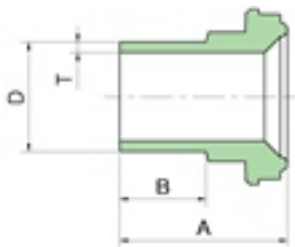
Micro Gland L



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)	
	inch	inch	mm	inch	mm	A	B
HMGL-04-	1/4	1/4	6.35	0.039	1	30.5	6.35
HMGL-0804-	1/2	1/4	6.35		1	32.8	
HMGL-0806-	1/2	3/8	9.52		1		
HMGL-08-	1/2	1/2	12.7	0.049	1.24		

HSGS

Short Gland S



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)	
	inch	inch	mm	inch	mm	A	B
HSGS-04-	1/4	1/4	6.35	0.039	1	18.95	10
HSGS-0804-	1/2	1/4	6.35		1	19.45	
HSGS-0806-	1/2	3/8	9.52		1		
HSGS-08-	1/2	1/2	12.7	0.049	1.24		

HSGL

Short Gland L

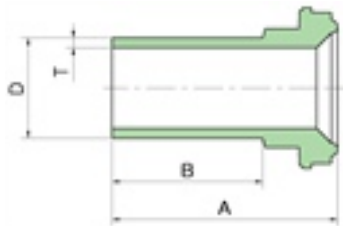


Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)	
	inch	inch	mm	inch	mm	A	B
HSGL-0402-	1/4	1/8	3.17	0.028	0.71	28	10
HSGL-04-	1/4	1/4	6.35	0.039	1	34.15	
HSGL-0804-	1/2	1/4	6.35		1	36.45	
HSGL-0806-	1/2	3/8	9.52		1		
HSGL-08-	1/2	1/2	12.7	0.049	1.24		

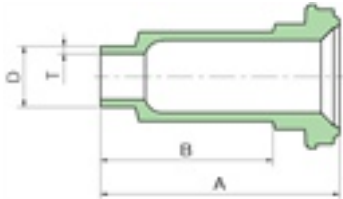
[Metal Face Seal (GCR) Fittings - Glands]

HLGS

Long Gland S



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)	
	inch	inch	mm	inch	mm	A	B
HLGS-0402-	1/4	1/8	3.17	0.028	0.71	28	19.05
HLGS-04-	1/4	1/4	6.35	0.039	1		
HLGS-0804-	1/2	1/4	6.35		1	28.5	
HLGS-0806-	1/2	3/8	9.52		1		
HLGS-08-	1/2	1/2	12.7	0.049	1.24	32	20.6
HLGS-12-	3/4	3/4	19.05	0.065	1.65		
HLGS-16-	1	1	25.4	0.065	1.65	38.6	19.05



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)	
	inch	inch	mm	inch	mm	A	B
HLGS-0402-33.5-	1/4	1/8	3.17	0.028	0.71	33.5	20

HLGL

Long Gland L



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)	
	inch	inch	mm	inch	mm	A	B
HLGL-04-	1/4	1/4	6.35	0.039	1	43.2	19.05
HLGL-0804-	1/2	1/4	6.35		1	45.5	
HLGL-0806-	1/2	3/8	9.52		1		
HLGL-08-	1/2	1/2	12.7	0.049	1.24		
HLGL-12-	3/4	3/4	19.05	0.065	1.65	52	20.6
HLGL-16-	1	1	25.4	0.065	1.65	58.9	19.05

[Metal Face Seal (GCR) Fittings - Glands]

HSGSW

Short Gland

Socket Weld

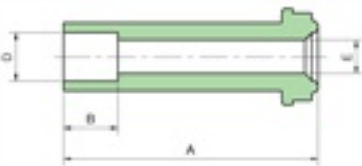


Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)		
	inch	inch	mm	inch	mm	A	B	E
HSGSW-04T-	1/4	1/4	6.35	0.039	1	12.7	7.1	4.35

HLGSW

Long Gland

Socket Weld

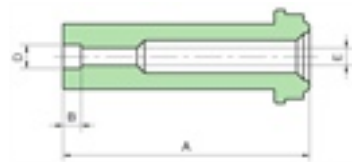


Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)		
	inch	inch	mm	inch	mm	A	B	E
HLGSW-04-	1/4	1/4	6.35	0.039	1	33.3	7.1	4.35
HLGSW-0806-	1/2	3/8	9.52		1	38.1	7.9	7.53
HLGSW-08-	1/2	1/2	12.7	0.049	1.24		9.6	10.22
HLGSW-12-	3/4	3/4	19.05	0.065	1.65	50.8	11.2	15.75
HLGSW-16-	1	1	25.4	0.065	1.65	56.4	15.7	22.1

HLGRSW

Long Gland

Reducing Socket Weld



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)		
	inch	inch	mm	inch	mm	A	B	E
HLGRSW-0402-	1/4	1/8	3.17	0.028	0.71	33.3	2.5	2.3
HLGRSW-0804-	1/2	1/4	6.35	0.039	1	38.1	7.1	4.35

HBG

Blind Gland

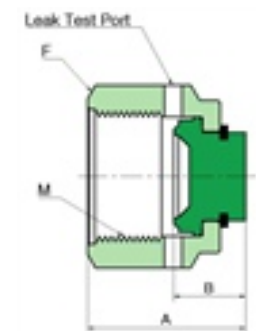


Part No.	GCR Size	Tube O.D. D		Dimension (mm)
	inch	inch	mm	A
HBG-04-	1/4	1/4	6.35	33.3
HBG-08-	1/2	1/2	12.7	38.1
HBG-12-	3/4	3/4	19.05	50.8
HBG-16-	1	1	25.4	50.4

[Metal Face Seal (GCR) Fittings - Caps, Plugs, Nuts & Gaskets]

HCP

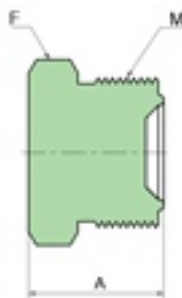
GCR Cap



Part No.	GCR Size	Dimension (mm)			M
	inch	A	B	F	
HCP-04-	1/4	22.9	11.3	19.05	9/16-18UNF
HCP-08-	1/2	25.6	12.2	26.98	7/8-14UNF
HCP-12-	3/4	32.8	13.7	38.1	1 1/4-18UNF
HCP-16-	1	39.4	16	46.04	1 1/2-20UNF

HP

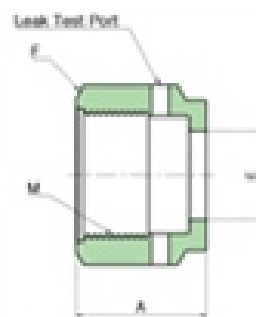
GCR Plug



Part No.	GCR Size	Dimension (mm)		M
	inch	A	F	
HP-04-	1/4	23.2	17.46	9/16-18UNF
HP-08-	1/2	27.3	23.81	7/8-14UNF
HP-12-	3/4	36.3	34.92	1 1/4-18UNF
HP-16-	1	38.6	47.68	1 1/2-20UNF

HFN

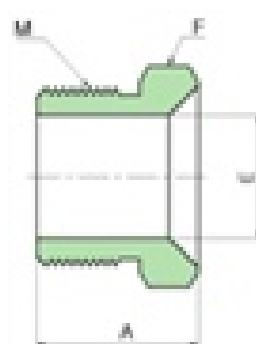
GCR Female Nut



Part No.	GCR Size	Dimension (mm)			M
	inch	A	E	F	
HFN-04-	1/4	20.5	9	19.05	9/16-18UNF
HFN-08-	1/2	22.5	15.3	26.98	7/8-14UNF
HFN-12-	3/4	28.4	22.6	38.1	1 1/4-18UNF
HFN-16-	1	34	30.5	46.04	1 1/2-20UNF

HMN

GCR Male Nut



Part No.	GCR Size	Dimension (mm)			M
	inch	A	E	F	
HMN-04-	1/4	18	9.1	15.88	9/16-18UNF
HMN-08-	1/2	20	15	23.81	7/8-14UNF
HMN-12-	3/4	25.4	22.6	34.92	1 1/4-18UNF
HMN-16-	1	30.2	30.5	41.27	1 1/2-20UNF

[Metal Face Seal (GCR) Fittings - Caps, Plugs, Nuts & Gaskets]

HGT

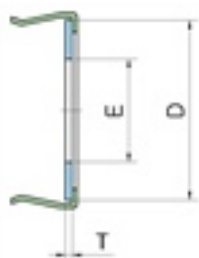
GCR Gasket



Part No.	GCR Size	Dimension (mm)		
	inch	E	D	T
HGT-04-	1/4	5.6	11.8	0.75
HGT-08-	1/2	11	19.3	
HGT-12-	3/4	17	28.1	
HGT-16-	1	22.6	34.8	

HGTR

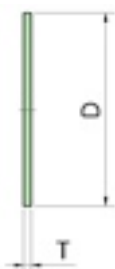
GCR Gasket Retained



Part No.	GCR Size	Dimension (mm)		
	inch	E	D	T
HGTR-04-	1/4	5.6	11.8	0.75
HGTR-08-	1/2	11	19.3	
HGTR-12-	3/4	17	28.1	
HGTR-16-	1	22.6	34.8	

HGTB

GCR Gasket Blind



Part No.	GCR Size	Dimension (mm)	
	inch	D	T
HGTB-04-	1/4	11.8	0.75
HGTB-08-	1/2	19.3	
HGTB-12-	3/4	28.1	
HGTB-16-	1	34.8	

Materials of Gaskets

Every gaskets are available with Nickel and SS316L.

To order, add the material designator to the end of part number.

[Examples]

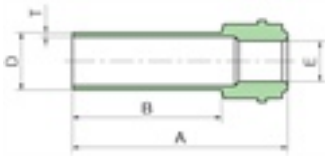
◆ HGT-08-NI : Gasket, 1/2", Nickel

◆ HGTR-04-SS : Retained Gasket, 1/4", SS316L

[Metal Face Seal (GCR) Fittings - High Flow Components]

HHG

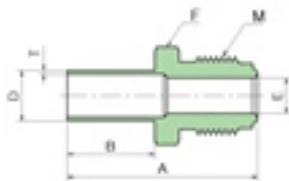
High Flow Gland



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)		
	inch	inch	mm	inch	mm	A	B	E
HHG-0406-	1/4	3/8	9.52	0.039	1	28.7	19.05	6.2
HHG-0406L-	1/4	3/8	9.52	0.039	1	33.3	28.5	6.2

HHA

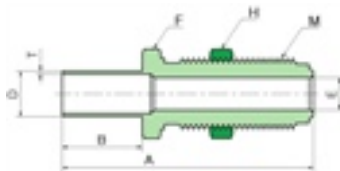
High Flow Adapter



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)				M
	inch	inch	mm	inch	mm	A	B	E	F	
HHA-0406-	1/4	3/8	9.52	0.039	1	42.7	19.05	6.35	17.46	9/16-18UNF

HHBA

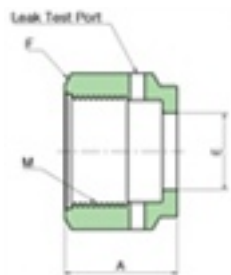
High Flow Bulkhead Adapter



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)					M	Panel Hole Size
	inch	inch	mm	inch	mm	A	B	E	F	H		
HHBA-0406-	1/4	3/8	9.52	0.039	1	59.8	19.05	6.3	19.05	19.05	9/16-18UNF	15

HHFN

High Flow Female Nut



Part No.	GCR Size	Dimension (mm)			M
	inch	A	E	F	
HHFN-04-	1/4	17.3	11.5	19.05	9/16-18UNF

HHMN

High Flow Male Nut

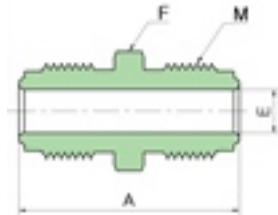


Part No.	GCR Size	Dimension (mm)			M
	inch	A	E	F	
HHMN-04-	1/4	18	9.9	15.88	9/16-18UNF

[GCR Threaded Fittings - GCR to GCR]

HDMU

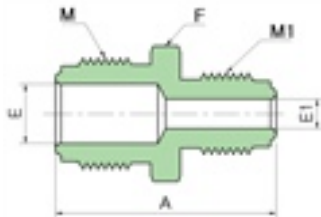
Double Male Union



Part No.	GCR Size	Dimension (mm)			M
	inch	A	E	F	
HDMU-04-	1/4	39.4	4.57	15.87	9/16-18UNF
HDMU-08-	1/2	47.2	10.22	23.8	7/8-14UNF
HDMU-12-	3/4	62	15.7	33.33	1 1/4-18UNF
HDMU-16-	1	65.8	22.1	41.27	1 1/2-20UNF

HDRMU

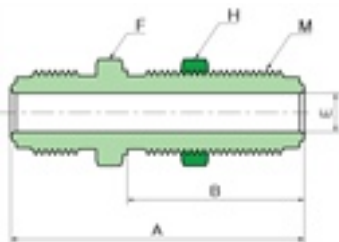
Double Reducing Male Union



Part No.	GCR Size	GCR Size	Dimension (mm)				M	M1
	inch	inch	A	E	E1	F		
HDRMU-0804-	1/2	1/4	43.4	10.22	4.57	23.8	7/8-14UNF	9/16-18UNF

HDBMU

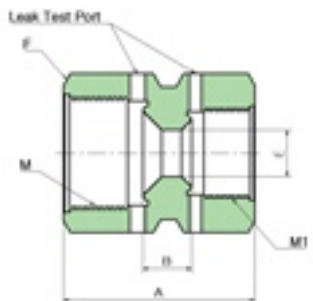
Double Bulkhead Male Union



Part No.	GCR Size	Dimension (mm)					M	Panel Hole Size
	inch	A	B	E	F	H		
HDBMU-04-	1/4	56.6	33.7	4.57	19.05	19.05	9/16-18UNF	15
HDBMU-08-	1/2	65.3	37.6	10.22	26.98	26.98	7/8-14UNF	23

HDRFU

Double Reducing Female Union

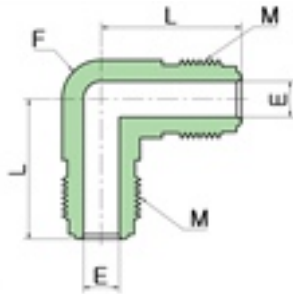


Part No.	GCR Size	GCR Size	Dimension (mm)				M	M1
	inch	inch	A	B	E	F		
HDRFU-0804-	1/2	1/4	34.6	6	4.35	26.98	7/8-14UNF	9/16-18UNF

[GCR Threaded Fittings - GCR to GCR]

HUE

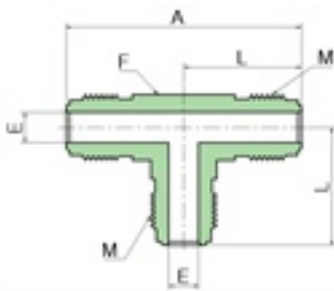
Union Elbow



Part No.	GCR Size	Dimension (mm)			M
	inch	L	E	F	
HUE-04-	1/4	27.2	4.35	12.7	9/16-18UNF
HUE-08-	1/2	36.8	10.22	20.63	7/8-14UNF
HUE-12-	3/4	48.8	15.75	31.75	1 1/4-18UNF
HUE-16-	1	50.8	22.1	42.86	1 1/2-20UNF

HUT

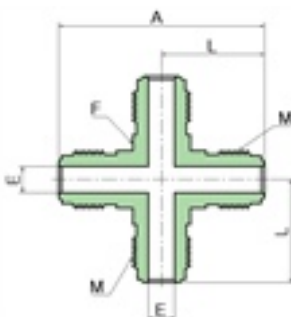
Union Tee



Part No.	GCR Size	Dimension (mm)				M
	inch	A	E	L	F	
HUT-04-	1/4	54.4	4.35	27.2	12.7	9/16-18UNF
HUT-08-	1/2	73.87	10.22	36.8	20.63	7/8-14UNF
HUT-12-	3/4	97.5	15.75	48.8	31.75	1 1/4-18UNF
HUT-16-	1	102	22.1	50.8	42.86	1 1/2-20UNF

HUC

Union Cross

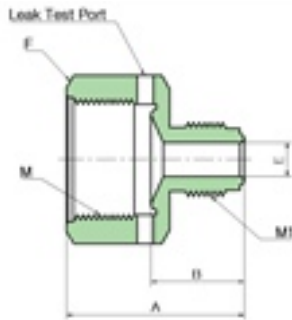


Part No.	GCR Size	Dimension (mm)				M
	inch	A	E	L	F	
HUC-04-	1/4	54.4	4.35	27.2	12.7	9/16-18UNF
HUC-08-	1/2	73.87	10.22	36.8	20.63	7/8-14UNF
HUC-12-	3/4	97.5	15.75	48.8	31.75	1 1/4-18UNF
HUC-16-	1	102	22.1	50.8	42.86	1 1/2-20UNF

[GCR Threaded Fittings - GCR to GCR]

HRA

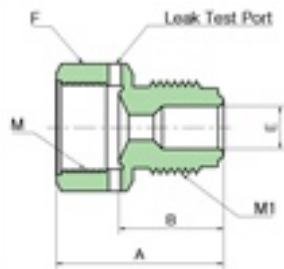
Reducing Adapter



Part No.	GCR Size	GCR Size	Dimension (mm)				M(Female)	M1(Male)
	inch	inch	A	B	E	F		
HRA-0804-	1/2	1/4	35.8	21.6	4.35	26.98	7/8-14UNF	9/16-18UNF

HRB

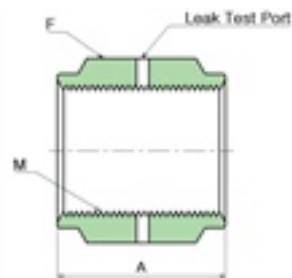
Reducing Bushing



Part No.	GCR Size	GCR Size	Dimension (mm)				M(Female)	M1(Male)
	inch	inch	A	B	E	F		
HRB-0804-	1/2	1/4	35.8	23.1	4.35	23.81	9/16-18UNF	7/8-14UNF

HC

Coupling

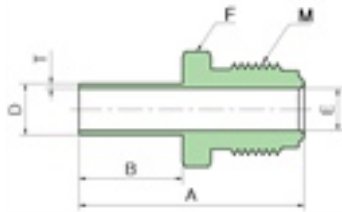


Part No.	GCR Size	Dimension (mm)		M(Female)
	inch	A	H	
HC-04-	1/4	30.2	19.05	9/16-18UNF
HC-08-	1/2	33.3	26.98	7/8-14UNF
HC-12-	3/4	42.7	38.1	1 1/4-18UNF
HC-16-	1	51.8	44.45	1 1/2-20UNF

[GCR Threaded Fittings - GCR to TBW (Tube Butt Weld)]

HBWA

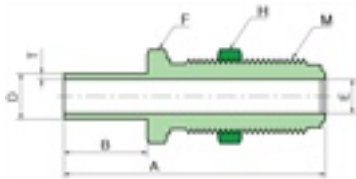
TBW Adapter



Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)				M
	inch	inch	mm	inch	mm	A	B	E	F	
HBWA-04-	1/4	1/4	6.35	0.039	1	42.65	19.05	4.35	15.88	9/16-18UNF
HBWA-0806-	1/2	3/8	9.52		1	46.7		10.22	23.81	7/8-14UNF
HBWA-08-	1/2	1/2	12.7	0.049	1.24	46.7		10.22	23.81	7/8-14UNF

HBWBA

TBW Bulkhead Adapter

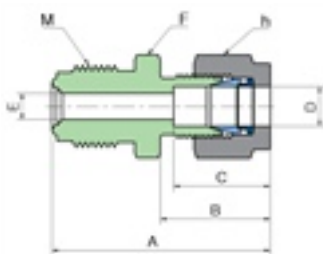


Part No.	GCR Size	Tube O.D. D		Tube W.T. T		Dimension (mm)				M	Panel Hole Size
	inch	inch	mm	inch	mm	A	B	F	H		
HBWBA-04-	1/2	1/4	6.35	0.039	1	59.85	19.05	19.05	19.05	9/16-18UNF	15
HBWBA-0804-	1/2	3/8	9.52		1	65.25		26.98	26.98	7/8-14UNF	23
HBWBA-08-	1/2	1/2	12.7	0.049	1.24	71.3		38.1	38.1	1 1/4-18UNF	32

[GCR Threaded Fittings - GCR to SG-LOK]

HGC

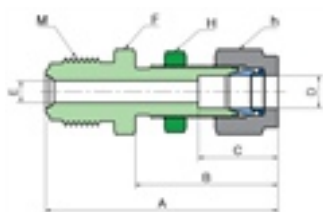
SG-LOK Connector



Part No.	GCR Size	Tube O.D. D		Dimension (mm)						M
	inch	inch	mm	A	B	C	E	F	h	
HGC-0402-	1/4	1/8	3.17	38.9	15.2	12.7	2.3	15.87	11.11	9/16-18UNF
HGC-04-	1/4	1/4	6.35	41.1	17.8	15.2	4.6	15.87	14.28	9/16-18UNF
HGC-0806-	1/2	3/8	9.52	46.7	19.3	16.8	7.1	23.81	17.46	7/8-14UNF
HGC-08-	1/2	1/2	12.7	49.5	21.8	22.9	10.2	23.81	22.22	7/8-14UNF

HGBC

SG-LOK Bulkhead Connector

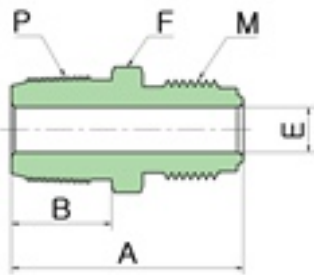


Part No.	GCR Size	Tube O.D. D	Dimension (mm)								M	Panel Hole Size
	inch	inch	mm	A	B	C	E	F	H	h		
HGBC-04	1/4	1/4	6.35	57.2	33.5	15.2	4.6	15.87	15.87	14.28	9/16-18UNF	11.5
HGBC-0806-	1/2	3/8	9.52	64.5	36.8	16.8	7.1	23.81	23.81	17.46	7/8-14UNF	14.7
HGBC-08-	1/2	1/2	12.7	69.6	41.9	22.9	10.2	23.81	23.81	22.22	7/8-14UNF	19.4

[GCR Threaded Fittings - GCR to Thread]

HUMC

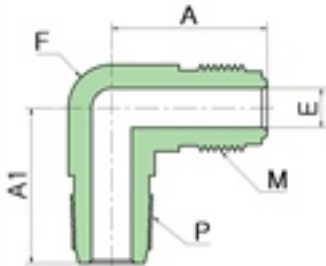
GCR Male Connector



Part No.	GCR Size	Thread Size P-NPT	Dimension (mm)				M
	inch	inch	A	B	E	F	
HUMC-0402N-	1/4	1/8	33.3	9.6	4.35	15.9	9/16-18UNF
HUMC-0404N-	1/4	1/4	37.84	14.22	4.35	15.9	9/16-18UNF
HUMC-0804N-	1/2	1/4	41.87	14.22	10.22	23.8	7/8-14UNF
HUMC-0806N-	1/2	3/8	41.87	14.22	7.53	23.8	7/8-14UNF
HUMC-0808N-	1/2	1/2	46.74	19.05	10.22	23.8	7/8-14UNF
HUMC-1212N-	3/4	3/4	55.63	19.05	15.75	33.3	1 1/4-18UNF
HUMC-1616N-	1	1	62.74	23.88	22.1	42.4	1 1/2-20UNF

HUME

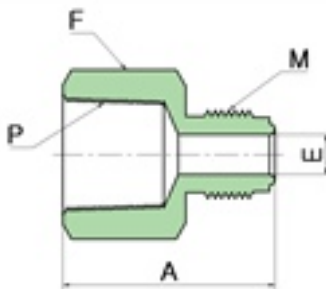
GCR Male Elbow



Part No.	GCR Size	Thread Size P-NPT	Dimension (mm)				M
	inch	inch	A	A1	E	F	
HUME-0404N-	1/4	1/4	27.18	27.18	4.35	15.95	9/16-18UNF
HUME-0806N-	1/2	3/8	36.83	32	10.22	23.8	9/16-18UNF
HUME-0808N-	1/2	1/2	36.83	36.83	10.22	23.8	7/8-14UNF
HUME-1212N-	3/4	3/4	48.8	43.5	15.75	33.3	7/8-14UNF

HUFC

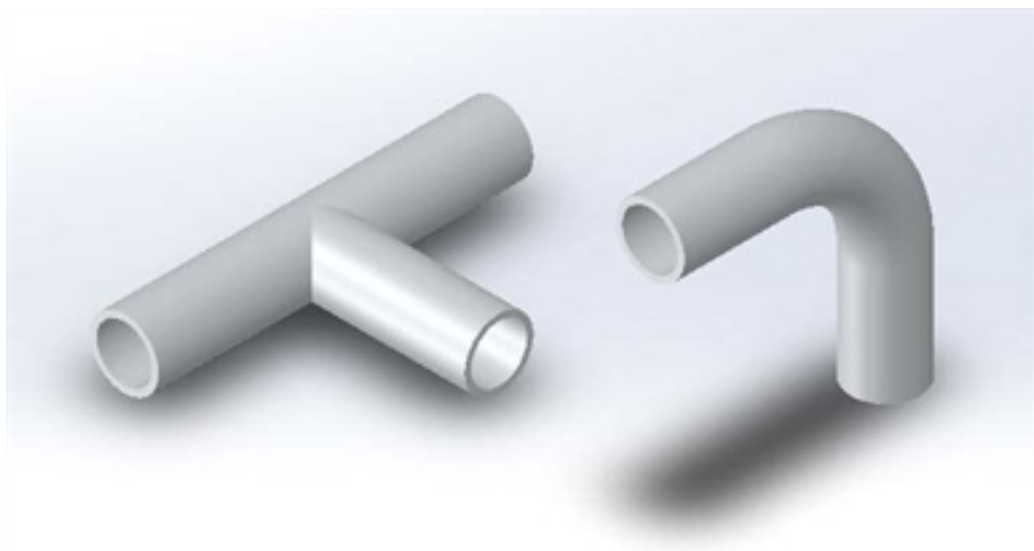
GCR Female Connector



Part No.	GCR Size	Thread Size P-NPT	Dimension (mm)			M
	inch	inch	A	E	F	
HUFC-0402N-	1/4	1/8	35.8	4.35	15.9	9/16-18UNF
HUFC-0404N-	1/4	1/4	39.1	4.35	19.05	9/16-18UNF
HUFC-0806N-	1/2	3/8	44.7	7.53	23.81	7/8-14UNF
HUFC-0808N-	1/2	1/2	50.5	10.22	26.98	7/8-14UNF
HUFC-1212N-	3/4	3/4	59.9	15.75	33.33	1 1/4-18UNF
HUFC-1616N-	1	1	63.8	22.1	41.27	1 1/2-20UNF

SG-LOK

Clean Fitting & Flanges



Samwon Green Co., Ltd.

101, Mayu-ro 20beon-gil, Siheung-si, Gyeonggi-do, Republic of Korea

Tel. 031-431-3452 / Mobile. 010-5592-0098 / Fax. 031-431-3460 /

e-mail: sglok@sglok.com

Features

SG-LOK Clean fitting & flanges are designed and manufactured as high performance and high purity components by our own know-how to be accumulated throughout the years.

- Superior surface finished BA and EP grade for UHP application
- Exact dimensional tolerance
- Permanent laser markings for identification of manufacturer, material and process

How To order

SG-LOK Clean fitting & flanges are ordered by part number as shown below.

Example: The following part number, HPT-25A-S05-SLS-EP is designated for Tee Clean Fitting, 25A Pipe Size, 5S Wall Thickness, 316LSS, Seamless, EP.

H	P	T	25A	S05	SL	S	EP
SG-LOK Clean Products	Products Type	Fitting/Flange Type	Connection Size	Wall Thickness	Material	Method of Manufacture	Surface Finish Level

Products Type	P	Clean Pipe & Tube Fittings
	F	Clean Flanges

Fitting/Flange Type	Refer to the part number in the dimension table.
---------------------	--

Connection Size														
Fractional (inch) Tube O.D. Designation														
Tube	inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	3	4	5	6
O.D.	mm	3.17	6.35	9.52	12.70	19.05	25.40	31.80	38.10	50.80	76.20	101.60	127.00	152.40
Designator		02	04	06	08	12	16	20	24	32	48	64	80	96

Pipe Size O.D. Designation																			
Pipe	Nominal	8A	10A	15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A
O.D.	mm	13.8	17.3	21.7	27.2	34.0	42.7	48.6	60.5	76.3	89.1	114.3	139.8	165.2	216.3	267.4	318.5	355.6	406.4
Designator		8A	10A	15A	20A	25A	32A	40A	50A	65A	80A	100A	125A	150A	200A	250A	300A	350A	400A

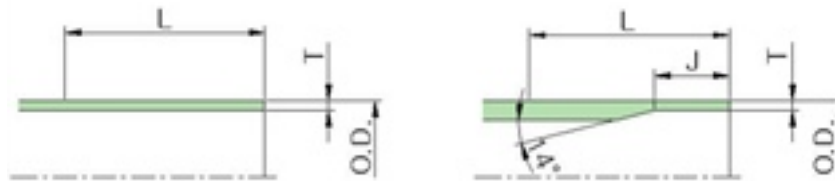
Wall Thickness									
Nominal or inch	Pipe		Tube						
	5S	10S	0.035	0.039	0.049	0.065	0.083	0.109	0.120
mm	-	-	0.89	1.00	1.24	1.65	2.11	2.77	3.05
Designator	S05	S10	T089	T100	T124	T165	T211	T277	T305

Material Designation	
Material	Designator
304SS	S4
316SS	SS
316LSS	SL

Surface Finish Level	
S	Seamless
W	Welded

Surface Finish Level	
BA	Bright Annealed (Ra≤0.6)
EP	Electro Polished (Ra≤0.25)

Pipe/Tube Size & Weld Bevel End Manufacture Form



Pipe Size O.D.		Wall Thickness T		Straight End Length L	Thinning Length J	
		5S	10S		5S	10S
Normal	mm	mm		mm	mm	
8A	13.80	1.20	1.65	29	4	7
10A	17.30	1.20	1.65	36	4	7
15A	21.70	1.65	2.10	36	5	7
20A	27.20	1.65	2.10	36	5	7
25A	34.00	1.65	2.80	36	5	7
32A	42.70	1.65	2.80	46	5	7
40A	48.60	1.65	2.80	46	5	7
50A	60.50	1.65	2.80	46	5	7
65A	76.30	2.10	3.00	51	6	11
80A	89.10	2.10	3.00	51	6	11
100A	114.30	2.10	3.00	51	6	11
125A	139.80	2.80	3.40	-	7	-
150A	165.20	2.80	3.40	-	7	-
200A	216.30	2.80	4.00	-	7	-
250A	267.40	3.40	4.00	-	-	-
300A	318.50	4.00	4.50	-	-	-
350A	355.60	4.00	4.80	-	-	-
400A	406.40	4.20	4.80	-	-	-

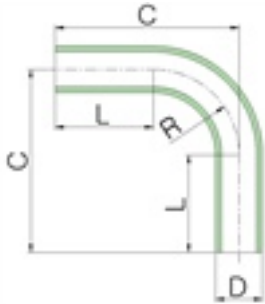
Tube Size O.D.		Wall Thickness T	Straight End Length L	Thinning Length J
inch	mm	mm	mm	mm
1/4	6.35	1.00(0.89)	29	7
3/8	9.53	1.00(0.89)	29	7
1/2	12.70	1.00(1.24/1.65)	29	7
5/8	15.88	1.00(1.24)	36	7
3/4	19.05	1.65(1.24)	36	7
1	25.40	1.65(1.24)	36	7
1 1/4	31.80	1.65	36	7
1 1/2	38.10	1.65	46	7
2	50.80	1.65	46	7
2 1/2	63.50	1.65	51	7
3	76.20	1.65	51	11
4	101.60	2.11	51	11
5	127.00	2.77(3.05)	56	11
6	152.40	2.77(3.05)	56	11

Ordering Information & Dimension

[Clean Pipe & Tube Fittings]

HPE

90° Elbow

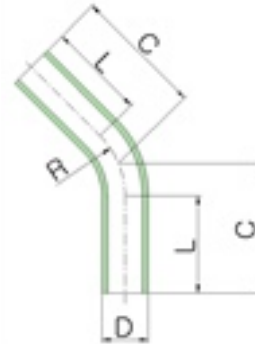


Pipe Size - Long Radius

Part No.	Pipe O.D. D		Dimension (mm)		
	Nominal	mm	C	R	L
HPE-8A-	8A	13.80	55.0	25.4	29.0
HPE-10A-	10A	17.30	62.0	25.4	36.0
HPE-15A-	15A	21.70	75.0	38.1	36.0
HPE-20A-	20A	27.20	75.0	38.1	36.0
HPE-25A-	25A	34.00	75.0	38.1	36.0
HPE-32A-	32A	42.70	94.0	47.6	46.0
HPE-40A-	40A	48.60	104.0	57.2	46.0
HPE-50A-	50A	60.50	123.0	76.2	46.0
HPE-65A-	65A	76.30	115.0	63.5	51.0
HPE-80A-	80A	89.10	128.0	76.2	51.0
HPE-100A-	100A	114.30	153.0	101.6	51.0

HPVE

45° Elbow



Pipe Size - Long Radius

Part No.	Pipe O.D. D		Dimension (mm)		
	Nominal	mm	C	R	L
HPVE-20A-	20A	27.20	52.0	38.1	36.0
HPVE-25A-	25A	34.00	52.0	38.1	36.0
HPVE-32A-	32A	42.70	66.0	47.6	46.0
HPVE-40A-	40A	48.60	70.0	57.2	46.0
HPVE-50A-	50A	60.50	78.0	76.2	46.0
HPVE-65A-	65A	76.30	91.0	95.3	51.0
HPVE-80A-	80A	89.10	99.0	114.3	51.0
HPVE-100A-	100A	114.30	115.0	152.4	51.0

Tube Size - Long Radius

Part No.	Tube O.D. D		Dimension (mm)		
	inch	mm	C	R	L
HPE-04-	1/4	6.35	49.0	20.0	29.0
HPE-06-	3/8	9.52	52.0	23.0	29.0
HPE-08-	1/2	12.70	54.0	25.0	29.0
HPE-12-	3/4	19.05	66.0	30.0	36.0
HPE-16-	1	25.40	69.0	33.0	36.0
HPE-20-	1 1/4	31.80	84.0	47.6	36.0
HPE-24-	1 1/2	38.10	104.0	57.2	46.0
HPE-32-	2	50.80	123.0	76.2	46.0

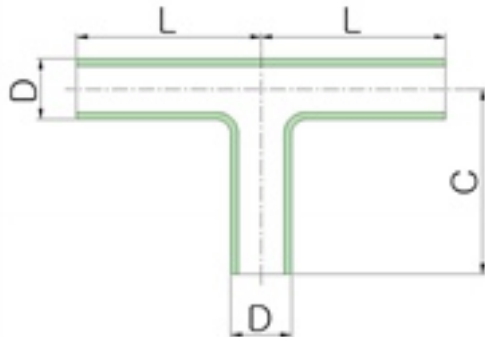
Tube Size - Long Radius

Part No.	Tube O.D. D		Dimension (mm)		
	inch	mm	C	R	L
HPVE-08-	1/2	12.70	40.0	25.0	29.0
HPVE-12-	3/4	19.05	49.0	30.0	36.0
HPVE-16-	1	25.40	50.0	33.0	36.0
HPVE-20-	1 1/4	31.80	56.0	47.6	36.0
HPVE-24-	1 1/2	38.10	70.0	57.2	46.0
HPVE-32-	2	50.80	78.0	76.2	46.0

[Clean Pipe & Tube Fittings]

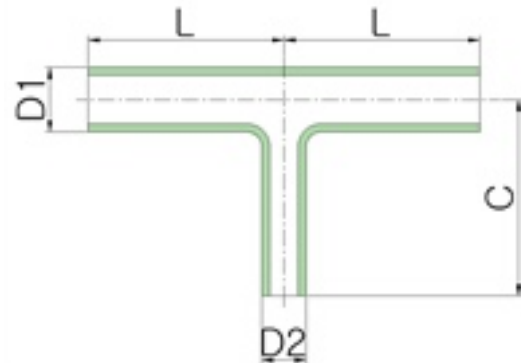
HPT

Tee



HPRT

Reducing Tee



Pipe Size

Part No.	Pipe O.D. D		Dimension (mm)	
	Nominal	mm	L	C
HPT-8A-	8A	13.80	42.0	42.0
HPT-10A-	10A	17.30	49.0	49.0
HPT-15A-	15A	21.70	59.0	59.0
HPT-20A-	20A	27.20	65.0	65.0
HPT-25A-	25A	34.00	68.0	68.0
HPT-32A-	32A	42.70	88.0	88.0
HPT-40A-	40A	48.60	95.0	95.0
HPT-50A-	50A	60.50	102.0	102.0
HPT-65A-	65A	76.30	121.0	121.0
HPT-80A-	80A	89.10	130.0	130.0
HPT-100A-	100A	114.3	145.0	145.0

Pipe Size

Part No.	Pipe O.D.								Dimension (mm)	
	D1	D2*							L	C
HPRT-8A-*	8A	1/4"	3/8"	1/2"					42.0	42.0
HPRT-10A-*	10A	8A	1/4"	3/8"	1/2"				47.0	44.0
HPRT-15A-*	15A	8A	1/4"	3/8"	1/2"				47.0	44.0
		10A	15A	3/4"	5/8"				52.0	52.0
HPRT-20A-*	20A	8A	1/4"	3/8"	1/2"				47.0	47.0
		10A	15A	3/4"	5/8"	1"			55.0	55.0
HPRT-25A-*	25A	8A	1/4"	3/8"	1/2"				47.0	50.0
		10A	15A	20A	3/4"	5/8"	1"		59.0	59.0
HPRT-32A-*	32A	8A	1/4"	3/8"	1/2"				57.0	54.0
		10A	15A	20A	25A	3/4"	5/8"	1"	68.0	62.0
HPRT-40A-*	40A	8A	1/4"	3/8"	1/2"				57.0	57.0
		10A	15A	20A	25A	3/4"	5/8"	1"	68.0	65.0
		32A	40A	1-1/2"					77.0	77.0
HPRT-50A-*	50A	8A	1/4"	3/8"	1/2"				57.0	63.0
		10A	15A	20A	25A	3/4"	5/8"	1"	68.0	71.0
		32A	40A	1-1/2"	2"				83.0	83.0
HPRT-65A-*	65A	8A	1/4"	3/8"	1/2"				61.0	71.0
		10A	15A	20A	25A	3/4"	5/8"	1"	72.0	79.0
		32A	40A	50A	1-1/2"	2"			88.0	90.0
HPRT-80A-*	80A	8A	1/4"	3/8"	1/2"				61.0	77.0
		10A	15A	20A	25A	3/4"	5/8"	1"	72.0	85.0
		32A	40A	50A	1-1/2"	2"			88.0	96.0
		65A							103.0	103.0
HPRT-100A-*	100A	8A	1/4"	3/8"	1/2"				61.0	90.0
		10A	15A	20A	25A	3/4"	5/8"	1"	72.0	98.0
		32A	40A	50A	1-1/2"	2"			88.0	109.0
		65A	80A						116.0	116.0

Tube Size

Part No.	Tube O.D. D		Dimension (mm)	
	inch	mm	L	C
HPT-04-	1/4	6.35	35.0	35.0
HPT-06-	3/8	9.52	37.0	37.0
HPT-08-	1/2	12.70	39.0	39.0
HPT-12-	3/4	19.05	52.0	52.0
HPT-16-	1	25.40	55.0	55.0
HPT-20-	1 1/4	31.80	59.0	59.0
HPT-24-	1 1/2	38.10	74.0	74.0
HPT-32-	2	50.80	77.0	77.0

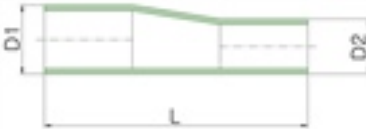
[Clean Pipe & Tube Fittings]

HPCR

Concentric Reducer



[Concentric Reducer - HPCR]



[Eccentric Reducer - HPER]

Pipe Size

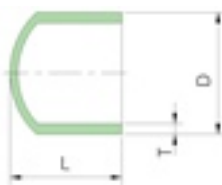
Part No.	Pipe O.D.					Dimension (mm)
	D1	D2				L
HPCR-20A*-	20A	15A				105.0
HPCR-25A*-	25A	15A	20A	3/8"	1/2"	120.0
HPCR-32A*-	32A	15A	20A	25A	1/2"	125.0
HPCR-40A*-	40A	20A	25A	32A	1/2"	130.0
HPCR-50A*-	50A	25A	32A	40A	1/2"	140.0
HPCR-65A*-	65A	32A	40A	50A	1/2"	165.0
HPCR-80A*-	80A	40A	50A	65A	1/2"	170.0
HPCR-100A*-	100A	50A	65A	80A	1/2"	180.0

Order to Eccentric Reducer, replace C with E.

Example: HPER-25AS05-08-SLS-EP

HPC

Cap

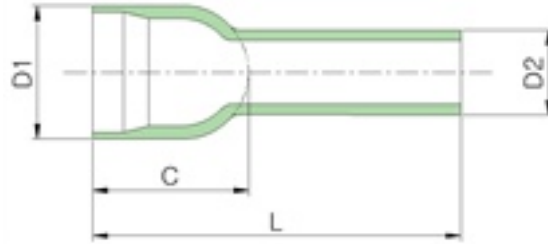


Pipe Size

Part No.	Pipe O.D. D		Dimension (mm)	
	Nominal	mm	L	T
HPC-8A-	8A	13.80	12.7	1.20
HPC-10A-	10A	17.30	19.1	1.20
HPC-15A-	15A	21.70	25.4	1.65
HPC-20A-	20A	27.20	25.4	1.65
HPC-25A-	25A	34.00	38.1	1.65
HPC-32A-	32A	42.70	38.1	1.65
HPC-40A-	40A	48.60	38.1	1.65
HPC-50A-	50A	60.50	38.1	1.65
HPC-65A-	65A	76.30	38.1	2.10
HPC-80A-	80A	89.10	50.8	2.10
HPC-100A-	100A	114.30	63.5	2.10

HPCAR

Cap Reducer



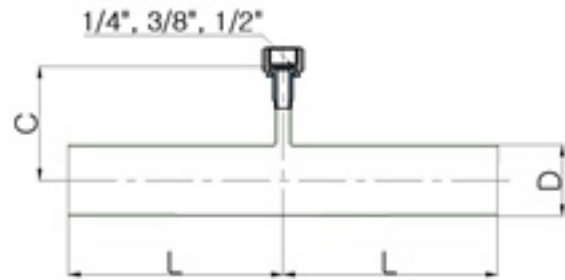
Pipe Size

Part No.	Pipe O.D.								Dimension (mm)	
	D1	D2							L	C
HPCR-8A*-	8A	1/4"	3/8"	1/2"					-	-
HPCR-10A*-	10A	8A	1/4"	3/8"	1/2"				-	-
HPCR- 15A*-	15A	8A	1/4"	3/8"	1/2"				60.0	25.4
		10A	15A	3/4"	5/8"				(67.0)	
HPCR- 20A*-	20A	8A	1/4"	3/8"	1/2"				60.0	25.4
		10A	15A	3/4"	5/8"	1"			67.0	
HPCR- 25A*-	25A	8A	1/4"	3/8"	1/2"				73.0	38.1
		10A	15A	20A	3/4"	5/8"	1"		(80.0)	
HPCR- 32A*-	32A	8A	1/4"	3/8"	1/2"				73.0	38.1
		10A	15A	20A	25A	3/4"	5/8"	1"	80.0	
HPCR- 40A*-	40A	8A	1/4"	3/8"	1/2"				73.0	38.1
		10A	15A	20A	25A	3/4"	5/8"	1"	80.0	
		32A	40A	1-1/2"					(90.0)	
HPCR- 50A*-	50A	8A	1/4"	3/8"	1/2"				73.0	38.1
		10A	15A	20A	25A	3/4"	5/8"	1"	80.0	
		32A	40A	1-1/2"	2"				(90.0)	
HPCR- 65A*-	65A	8A	1/4"	3/8"	1/2"				73.0	38.1
		10A	15A	20A	25A	3/4"	5/8"	1"	80.0	
		32A	40A	50A	1-1/2"	2"			(90.0)	
HPCR- 80A*-	80A	8A	1/4"	3/8"	1/2"				85.0	50.8
		10A	15A	20A	25A	3/4"	5/8"	1"	92.0	
		32A	40A	50A	1-1/2"	2"			102.0	
		65A							(110.0)	
HPCR- 100A*-	100A	8A	1/4"	3/8"	1/2"				98.0	63.5
		10A	15A	20A	25A	3/4"	5/8"	1"	105.0	
		32A	40A	50A	1-1/2"	2"			115.0	
		65A	80A						125.0	

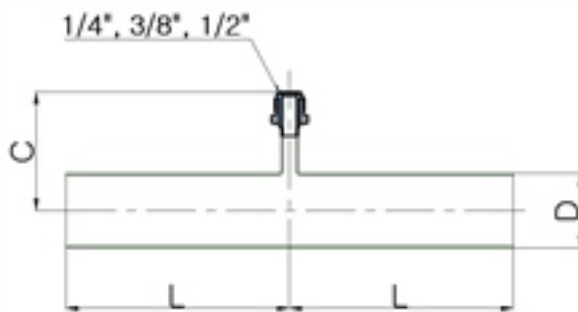
[Clean Pipe & Tube Fittings]

HPJT

Joint Tee



[Female Cap Type]



[Male Plug Type]

Pipe Size

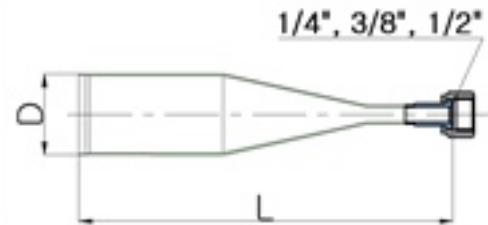
Part No.	Pipe O.D. D		Dimension (mm)		
	Nominal	mm	L	Female	Male
				C	C
HPJT-10A-	10A	17.30	52.0	37.0	47.0
HPJT-15A-	15A	21.70	52.0	39.5	49.5
HPJT-20A-	20A	27.20	55.0	42.5	52.5
HPJT-25A-	25A	34.00	59.0	46.5	56.5
HPJT-32A-	32A	42.70	68.0	51.0	61.0
HPJT-40A-	40A	48.60	68.0	54.0	64.0
HPJT-50A-	50A	60.50	68.0	60.0	70.0
HPJT-65A-	65A	76.30	72.0	68.0	78.0
HPJT-80A-	80A	89.10	72.0	74.5	84.5
HPJT-100A-	100A	114.30	72.0	87.0	97.0

Tube Size

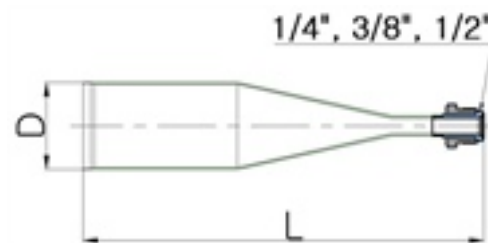
Part No.	Tube O.D. D		Dimension (mm)		
	inch	mm	L	Female	Male
				C	C
HPJT-08-	1/2	12.70	45.0	35.0	45.0
HPJT-12-	3/4	19.05	52.0	38.0	48.0
HPJT-16-	1	25.40	55.0	42.0	52.0
HPJT-20-	1 1/4	31.80	59.0	45.5	55.5
HPJT-24-	1 1/2	38.10	68.0	48.0	58.0
HPJT-32-	2	50.80	68.0	55.0	65.0

HPJR

Joint Reducer



[Female Cap Type]



[Male Plug Type]

Pipe Size

Part No.	Pipe O.D. D		Dimension (mm)	
	Nominal	mm	Female	Male
			L	L
HPJR-10A-	10A	17.30	100.0	110.0
HPJR-15A-	15A	21.70	110.0	120.0
HPJR-20A-	20A	27.20	115.0	125.0
HPJR-25A-	25A	34.00	130.0	140.0

Tube Size

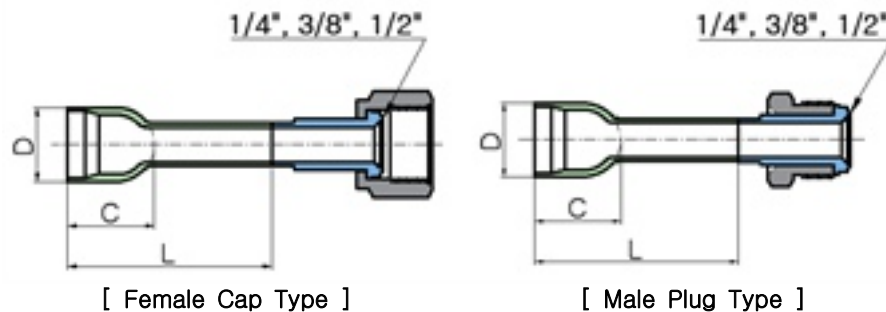
Part No.	Tube O.D. D		Dimension (mm)	
	inch	mm	Female	Male
			L	L
HPJR-08-	1/2	12.70	85.0	95.0
HPJR-12-	3/4	19.05	110.0	120.0
HPJR-16-	1	25.40	115.0	125.0

Every joint fittings are available with 1/4", 3/8" and 1/2" of SG-LOK UCR Cap or UCR Plug.

[Clean Pipe & Tube Fittings]

HPJC

Joint Cap



Pipe Size

Part No.	Pipe O.D. D		Dimension (mm)		
	Nominal	mm	C	Female	Male
				L	L
HPJC-10A-	10A	17.30	19.1	48.0	58.0
HPJC-15A-	15A	21.70	25.4	55.0	65.0
HPJC-20A-	20A	27.20	25.4	55.0	65.0
HPJC-25A-	25A	34.00	38.1	68.0	78.0
HPJC-32A-	32A	42.70	38.1	68.0	78.0
HPJC-40A-	40A	48.60	38.1	68.0	78.0
HPJC-50A-	50A	60.50	38.1	68.0	78.0
HPJC-65A-	65A	76.30	38.1	68.0	78.0
HPJC-80A-	80A	89.10	50.8	81.0	91.0
HPJC-100A-	100A	114.30	63.5	94.0	104.0

Tube Size

Part No.	Tube O.D. D		Dimension (mm)		
	inch	mm	C	Female	Male
				L	L
HPJC-08-	1/2	12.70	12.7	41.2	58.2
HPJC-12-	3/4	19.05	19.1	48.0	58.0
HPJC-16-	1	25.40	25.4	55.0	65.0
HPJC-20-	1 1/4	31.80	38.1	68.0	78.0
HPJC-24-	1 1/2	38.10	38.1	68.0	78.0
HPJC-32-	2	50.80	38.1	68.0	78.0

Joint Fittings Ordering Information

Every joint fittings are available with 1/4", 3/8" and 1/2" of SG-LOK UCR Cap or UCR Plug.

To order, add the designator next to part number. (Example: HBJC-15AS05-04CP-SLS-EP)

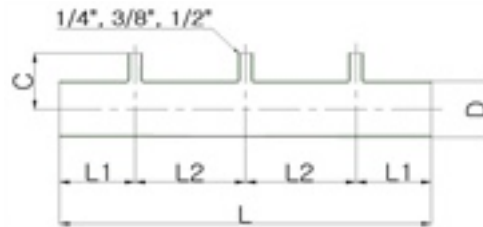
Designator	Joint Type
-04CP	1/4" UCR Female Cap
-06CP	3/8" UCR Female Cap
-08CP	1/2" UCR Female Cap

Designator	Joint Type
-04PG	1/4" UCR Male Plug
-06PG	3/8" UCR Male Plug
-08PG	1/2" UCR Male Plug

[Clean Pipe & Tube Fittings]

HPMT

Multi Header Tee

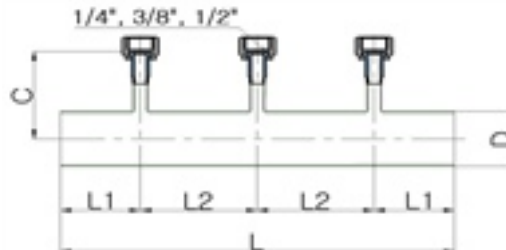


Pipe Size

Part No.	Pipe O.D. D		Dimension (mm)						
	Nominal	mm	L				L1	L2	Tube-End
			Number of Branches						C
			2	3	4	5			
HPMT-10A-	10A	17.30	245.0	370.0	495.0	620.0	60.0	125.0	44.0
HPMT-15A-	15A	21.70							44.0
HPMT-20A-	20A	27.20							47.0
HPMT-25A-	25A	34.00							50.0
HPMT-32A-	32A	42.70							54.0
HPMT-40A-	40A	48.60							57.0
HPMT-50A-	50A	60.50							63.0
HPMT-65A-	65A	76.30	285.0	430.0	575.0	720.0	70.0	145.0	71.0
HPMT-80A-	80A	89.10							77.0
HPMT-100A-	100A	114.30							90.0

HPMJT

Multi Header Joint Tee



Pipe Size

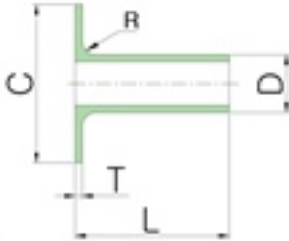
Part No.	Pipe O.D. D		Dimension (mm)						
	Nominal	mm	L				L1	L2	Female
			Number of Branches						C
			2	3	4	5			
HPMJT-10A-	10A	17.30	308.0	433.0	558.0	683.0	29.0	125.0	37.0
HPMJT-15A-	15A	21.70	312.0	437.0	562.0	687.0	31.0		39.5
HPMJT-20A-	20A	27.20	318.0	443.0	568.0	693.0	34.0		42.5
HPMJT-25A-	25A	34.00	334.0	459.0	584.0	709.0	42.0		46.5
HPMJT-32A-	32A	42.70	342.0	467.0	592.0	717.0	46.0		51.0
HPMJT-40A-	40A	48.60	348.0	473.0	598.0	723.0	49.0		54.0
HPMJT-50A-	50A	60.50	370.0	495.0	620.0	745.0	60.0		60.0
HPMJT-65A-	65A	76.30	426.0	571.0	716.0	861.0	68.0	145.0	68.0
HPMJT-80A-	80A	89.10	439.0	584.0	729.0	874.0	74.5		74.5
HPMJT-100A-	100A	114.30	460.0	605.0	750.0	895.0	85.0		87.0

To order Multi Header Tee & Multi Header Joint Tee, add '-branches size' and '-number of branches'.
(Example: HPMT-20AS05-08-5-SLS-EP)

[Clean Flanges]

HFLJ

Lab Joint Flange

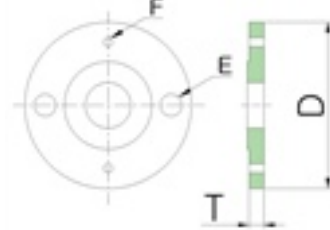


Pipe Size

Part No.	Pipe O.D. D		Dimension (mm)				
	N.S.	mm	L	JIS 10K	JIS 5K	R	T
				C			
HFLJ-10A-	10A	17.3	55.0	46.0	39.0	3.0	2.5
HFLJ-15A-	15A	21.7	55.0	51.0	44.0	3.0	2.5
HFLJ-20A-	20A	27.2	55.0	56.0	49.0	3.0	2.5
HFLJ-25A-	25A	34.0	55.0	67.0	59.0	3.0	2.5
HFLJ-32A-	32A	42.7	70.0	76.0	70.0	3.0	2.5
HFLJ-40A-	40A	48.6	70.0	81.0	75.0	3.0	2.5
HFLJ-50A-	50A	60.5	70.0	96.0	85.0	4.0	2.5
HFLJ-65A-	65A	76.3	75.0	116.0	110.0	4.0	2.5
HFLJ-80A-	80A	89.1	75.0	126.0	121.0	5.0	2.5
HFLJ-100A-	100A	114.3	75.0	151.0	141.0	5.0	2.5

HFJR

JIS RF Flange

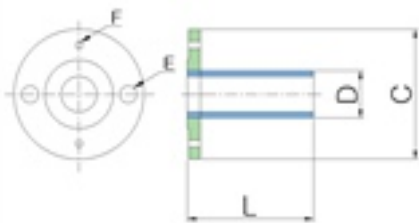


Pipe Size

Part No.	Pipe O.D. D			Dimension (mm)							
	JIS	5K	10K	5K				10K			
		mm	mm	D	E	F	T	D	E	F	T
HFJR-10A-	10A	75	90	75	M10	4.0	9.0	90	M12	4.0	12.0
HFJR-15A-	15A	80	95	80	M10	4.0	9.0	95	M12	4.0	12.0
HFJR-20A-	20A	85	100	85	M10	4.0	10.0	100	M12	4.0	14.0
HFJR-25A-	25A	95	125	95	M10	4.0	10.0	125	M16	4.0	14.0
HFJR-32A-	32A	115	135	115	M12	4.0	12.0	135	M16	4.0	16.0
HFJR-40A-	40A	120	140	120	M12	4.0	12.0	140	M16	4.0	16.0
HFJR-50A-	50A	130	155	130	M12	4.0	14.0	155	M16	4.0	16.0
HFJR-65A-	65A	155	175	155	M12	4.0	14.0	175	M16	4.0	18.0
HFJR-80A-	80A	180	185	180	M16	4.0	14.0	185	M16	8.0	18.0
HFJR-100A-	100A	200	210	200	M16	8.0	16.0	210	M16	8.0	18.0

HFP

Pipe Flange

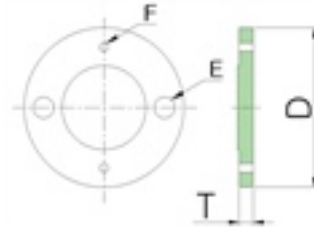


Pipe Size

Part No.	Pipe O.D. D		Dimension (mm)			
	N.S.	mm	L	C	E	F
HFP-10A-	10A	17.3	100.0	90.0	M12	4.0
HFP-15A-	15A	21.7	100.0	95.0	M12	4.0
HFP-20A-	20A	27.2	100.0	100.0	M12	4.0
HFP-25A-	25A	34.0	100.0	125.0	M16	4.0
HFP-32A-	32A	42.7	100.0	135.0	M16	4.0
HFP-40A-	40A	48.6	100.0	140.0	M16	4.0
HFP-50A-	50A	60.5	100.0	155.0	M16	4.0
HFP-65A-	65A	76.3	100.0	175.0	M16	4.0
HFP-80A-	80A	89.1	100.0	185.0	M16	4.0
HFP-100A-	100A	114.3	100.0	210.0	M16	4.0

HFJB

JIS Blind Flange



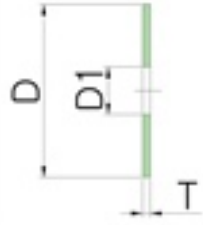
Pipe Size

Part No.	Pipe O.D. D			Dimension (mm)							
	JIS	5K	10K	5K				10K			
		mm	mm	D	E	F	T	D	E	F	T
HFJB-10A-	10A	75	90	75	M10	4.0	9.0	90	M12	4.0	12.0
HFJB-15A-	15A	80	95	80	M10	4.0	9.0	95	M12	4.0	12.0
HFJB-20A-	20A	85	100	85	M10	4.0	10.0	100	M12	4.0	14.0
HFJB-25A-	25A	95	125	95	M10	4.0	10.0	125	M16	4.0	14.0
HFJB-32A-	32A	115	135	115	M12	4.0	12.0	135	M16	4.0	16.0
HFJB-40A-	40A	120	140	120	M12	4.0	12.0	140	M16	4.0	16.0
HFJB-50A-	50A	130	155	130	M12	4.0	14.0	155	M16	4.0	16.0
HFJB-65A-	65A	155	175	155	M12	4.0	14.0	175	M16	4.0	18.0
HFJB-80A-	80A	180	185	180	M16	4.0	14.0	185	M16	8.0	18.0
HFJB-100A-	100A	200	210	200	M16	8.0	16.0	210	M16	8.0	18.0

[Clean Flanges]

HFJG

JIS Flange Gasket-PTFE



Pipe Size

Part No.	Pipe O.D. D			Dimension (mm)			
	JIS	5K	10K	5K		10K	
		mm	mm	D1	T	D1	T
HFJG-10A-	10A	45	53	18	2	18	2
HFJG-15A-	15A	50	58	22	2	22	2
HFJG-20A-	20A	55	63	28	2	28	2
HFJG-25A-	25A	65	74	35	2	35	2
HFJG-32A-	32A	78	84	43	2	43	2
HFJG-40A-	40A	83	89	49	2	49	2
HFJG-50A-	50A	93	104	61	2	61	2
HFJG-65A-	65A	118	124	77	2	77	2
HFJG-80A-	80A	129	134	90	2	90	2
HFJG-100A-	100A	149	159	115	2	115	2

JIS Flange Ordering Information

Part Number - Pressure Rating

(Example: HFJG-20AS05-5K)



<http://www.sglok.com/>

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