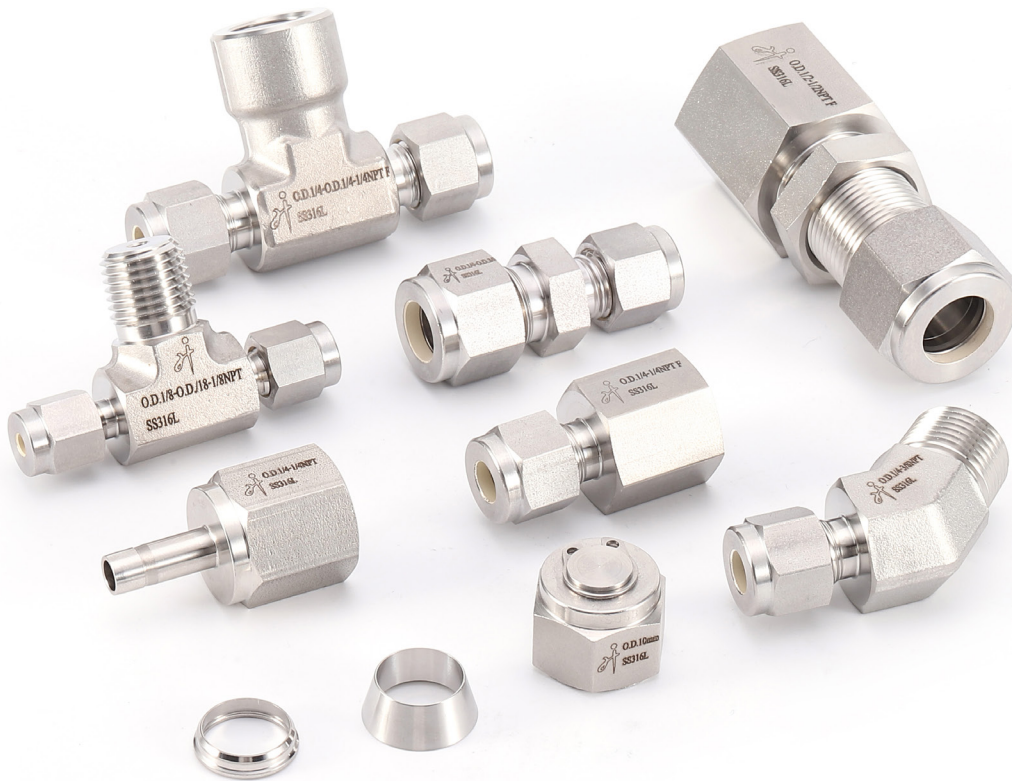




Tube Fitting

Dual Ferrule Types



Seamless flow. Effortless control

ANHUI HONGJI INSTRUMENT & VALVE MANUFACTURING CO., LTD.

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ABOUT US <<<<<<<<<

Hongji Instrument& Valve Manufacturing Co., Ltd. was founded in 2009. It covers approximately 4.3 hectares and is located in Tianchang City, Anhui Province, China. Total capital investment was about 5.5 million US dollars and continually growing. Our plants and office buildings have been established on a high standard level and applied to the ISO quality system to ensure the products we build and the service we provide meet the standard requirement. Our company has committed to producing needle valves, bleed valves, instrumentation manifolds, ball valves, and tube fittings since then. With years of dedication, we have developed and maintained good business relationships with many leading companies in different industries: oil& gas, power plant, clean energy, semi-conductor, etc. To fulfill the increasing needs in terms of harsh application usage from our client side, Hongji has made a partial acquisition of another valve plant in 2020, the engineering and technical team members have been increased to 10 personnel, total manufacturing capacity includes but is not limited 50 CNCs, 48 high precision horizontal lathes, 4 hydraulic test facilities, and 2 pneumatic test facilities. To utilize the manufacturing process effectively. Our target aims to provide clients with the best products and services.

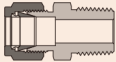
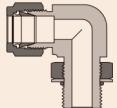
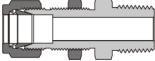
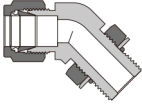
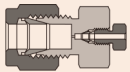
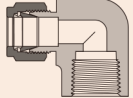
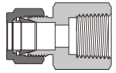
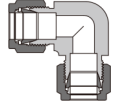
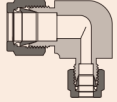
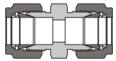
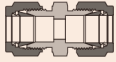
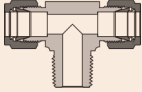
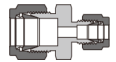
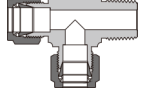
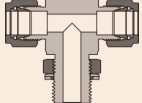
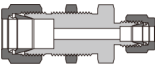
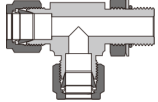
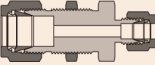
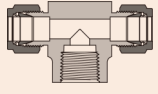
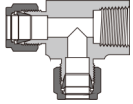
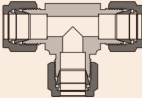
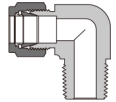
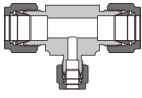
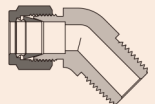
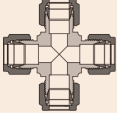


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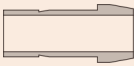
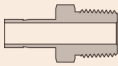
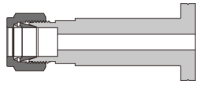
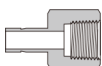
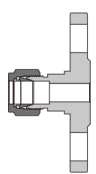
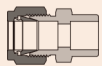
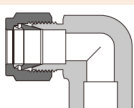
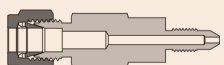
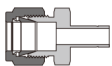
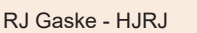
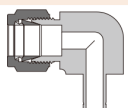
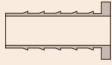


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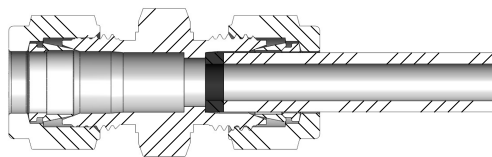
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Features

- Sizes range from 1/16" to 2" and 2 mm to 50 mm
- Stainless steel tube hardness: the hardness of the tube shall be not greater than 85 HRB
- Threads with rolling forming rather than lathe machining are more smooth and avoid galling
- Female nut threads are silver-plated to reduce the friction against the body threads
- Integral Forged body for elbows, tees, or crosses provides strengthen body and pressure endurance
- Multiple materials are available: 304,316 stainless steel, steel, brass, aluminum, nickel-copper, Hastelloy C, 6Mo, Incoloy 625 and 825
- Every fitting is marked with size, material, and manufacturing number



Performance

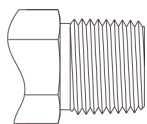
- Hydraulic leakage test (1.5 times the maximum permissible working pressure): no leakage
- Minimum hydrostatic pressure test (4 times the maximum permissible ambient pressure rating): no leakage
- Pneumatic pressure vibration test (The frequency of vibration shall be set at 45 Hz and complete 20 × 106 cycles): without failure
- Fire test (in accordance with BS ISO 19921): no leakage
- Corrosion resistance test (the duration of exposure at least 168 h): no visible evidence of corrosion
- Dismantling and reassembly test (dismantle ten times): no leakage
- Crack test (microscopes optical inspection): no visible crack detected

Technical Data

Thread Ends

NPT Threads (NPT)

- Comply with ASME B1.20.1, SAE AS71051.



- 60 thread angle
- Pitch measured in inch
- Truncation of root and crest are parallel
- Taper 1:16
- Type of sealing: thread sealant

Thread Data

Thread Size	Thread/in.	Dia. at Reference Plane(mm)			Handtight Engagement	
		Max. Dia.	Pitch Dia.	Min. Dia.	(mm)	Threads
1/16	27	7.894	7.142	6.389	4.064	4.32
1/8		10.242	9.489	8.737	4.102	4.36
1/4	18	13.616	12.487	11.358	5.785	4.10
3/8		17.055	15.926	14.797	6.096	4.32
1/2	14	21.224	19.772	18.321	8.128	4.48
3/4		26.569	25.117	23.666	8.618	4.75
1	11.5	33.228	31.461	29.694	10.160	4.60
1 1/4		41.985	40.218	38.451	10.668	4.83
1 1/2		48.054	46.287	44.520	10.668	4.83
2		60.092	58.325	56.558	11.065	5.01

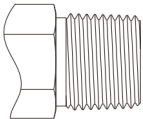
Working Pressures of NPT Thread Ends

Thread Size	316 Stainless Steel and Carbon Steel				Brass			
	Male		Female		Male		Female	
	psig	bar	psig	bar	psig	bar	psig	bar
1/16	11000	757	6700	460	5500	378	3300	227
1/8	10000	690	6500	447	5000	344	3200	220
1/4	8000	551	6600	454	4000	275	3300	227
3/8	7800	537	5300	365	3900	268	2600	179
1/2	7700	530	4900	337	3800	261	2400	165
3/4	7300	502	4600	316	3600	248	2300	158
1	5300	365	4400	303	2600	179	2200	151
1 1/4	6000	410	5000	344	3000	200	2500	172
1 1/2	5000	344	4600	317	2500	172	2300	158
2	3900	268	3900	268	1900	130	1900	130

Working pressure is based on ANSI/ASME B31.3 at ambient temperature.

ISO Tapered Threads (R, R1, R2, RC, RT, PT, BSPT, ZG)

◎ Comply with ISO 7-1, EN 10226-1, BS 21, DIN 2999, JIS B0203.



- 55 thread angle
- Pitch measured in inch
- Truncation of root and crest are round
- Taper 1:16
- Type of sealing: thread sealant

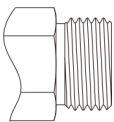
Thread Data

Thread Size	Thread/ in.	Dia. at Reference Plane(mm)			Gauge Length	
		Max. Dia.	Pitch Dia.	Min. Dia.	(mm)	Threads
1/16	28	7.723	7.142	6.561	4.0	4.4
1/8		9.728	9.147	8.566	4.0	4.4
1/4	19	13.157	12.301	11.445	6.0	4.5
3/8		16.662	15.806	14.950	6.4	4.8
1/2	14	20.955	19.793	18.631	8.2	4.5
3/4		26.441	25.279	24.117	9.5	5.2
1	11	33.249	31.770	30.291	10.4	4.5
1 1/4		41.910	40.431	38.952	12.7	5.5
1 1/2		47.803	46.324	44.845	12.7	5.5
2		59.614	58.135	56.656	15.9	6.9

Working Pressures of ISO Tapered Thread Ends

The working pressures of ISO tapered thread ends are the same as that of the NPT thread ends.

ISO Parallel Threads (G, RP, PF, BSPP)



- 55 thread angle
- Pitch measured in inch
- Truncation of root and crest are round

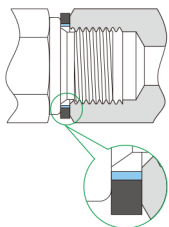
Thread Data

Thread Size	Thread/ in.	Basic Dia. (mm)		
		Max. Dia.	Pitch Dia.	Min. Dia.
1/16	28	7.723	7.142	6.561
1/8		9.728	9.147	8.566
1/4	19	13.157	12.301	11.445
3/8		16.662	15.806	14.950
1/2	14	20.955	19.793	18.631
5/8		22.911	21.749	20.587
3/4		26.441	25.279	24.117
7/8		30.201	29.039	27.877
1	11	33.249	31.770	30.291
1 1/8		37.897	36.418	34.939
1 1/4		41.910	40.431	38.952
1 1/2		47.803	46.324	44.845
1 3/4		53.746	52.267	50.788
2		59.614	58.135	56.656

◎ Comply with ISO 228-1, DIN ISO 228-1, JIS B0202, BS 2779.

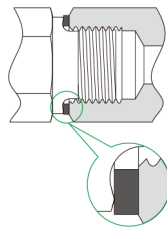


Types of Sealing for ISO Parallel Threads



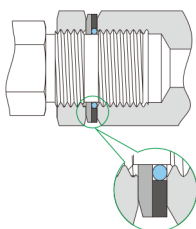
1. RS Stud End, RS Gasket and RP Port

- ☐ RS stud end complies with DIN 3852-2 type A
- ☐ For RS gasket
- ☐ RP port complies with DIN 3852-2 type X



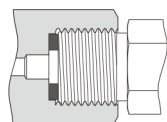
2. RP Stud End, RP Gasket and RP Port

- ☐ RP stud end complies with DIN 3852-2 type B
- ☐ For RP gasket
- ☐ RP port complies with DIN 3852-2 type X



3. PP Stud End and RP Port

- ☐ PP Stud end complies with ISO 1179-3
- ☐ RP port complies with DIN 3852-2 type X



4. RG Port, RG Gasket and BP Stud End

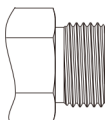
- ☐ RG port complies with EN 837-1/3
- ☐ For RG gasket

Working Pressures of Positionable ISO Parallel Thread Ends (PP)

Thread Size	316 Stainless Steel and Carbon Steel	
	psig	bar
1/8	4568	315
1/4		
3/8		
1/2	2320	160
3/4		
1		

SAE/MS Threads (UN, UNJ)

◎ Comply with ASME B1.1, ISO R725.



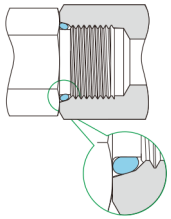
- ☐ 60 thread angle
- ☐ Pitch measured in inch
- ☐ Truncation of root and crest are parallel

Thread Data

Thread Size	Thread/ in.	Basic Dia. (mm)		
		Max. Dia.	Pitch Dia.	Min. Dia.
5/16-24	24	7.938	7.249	6.792
3/8-24	24	9.525	8.837	8.380
7/16-20	20	11.113	10.287	9.738
1/2-20	20	12.700	11.875	11.326
9/16-18	18	14.288	13.325	12.761
3/4-16	16	19.050	18.019	17.330
7/8-14	14	22.225	21.046	20.262
1 1/16-12	12	26.988	25.613	24.719
1 3/16-12	12	30.163	28.788	27.871
1 5/16-12	12	33.338	31.963	31.046
1 5/8-12	12	41.275	39.901	38.984
1 7/8-12	12	47.625	46.251	45.324
2 1/2-12	12	63.500	62.126	61.209

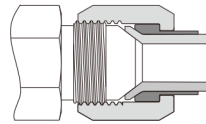


Types of Sealing for SAE/MS Threads



1. ST Stud End and SAE J1926-1 Port

- ST stud end complies with SAE J1926-3
- For O-ring



2. 37° Flare (AN) Stud and Flared Tubing

- The type of sealing complies with SAE J514

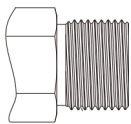
Working Pressures of SAE/MS Thread Ends

SAE Nominal Size	Thread Size	316 Stainless Steel and Carbon Steel			
		Non-Positionable		Positionable	
		psig	bar	psig	bar
2	5/16-24	5075	350	5075	350
3	3/8-24			4568	315
4	7/16-20				
5	1/2-20			4060	280
6	9/16-18				
8	3/4-16	4568	315	3045	210
10	7/8-14	3626	250		
12	1 1/16-12				
14	1 3/16-12	3045	210	2538	175
16	1 5/16-12				
20	1 5/8-12	2538	175	2030	140
24	1 7/8-12				
32	2 1/2-12	2030	140	1523	105

Working pressures are based on SAE J1926-3 at ambient temperature.

Metric Threads (M)

- Comply with ISO 261.



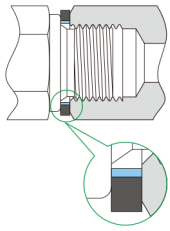
- 60 thread angle
- Pitch measured in mm
- Truncation of root and crest are parallel

Thread Data

Thread Size	Pitch (mm)	Basic Dia. (mm)		
		Max. Dia.	Pitch Dia.	Min. Dia.
M6 x 1	1	6.000	5.350	4.917
M8 x 1		8.000	7.350	6.917
M10 x 1		10.000	9.350	8.917
M12 x 1.5		12.000	11.026	10.376
M14 x 1.5	1.5	14.000	13.026	12.376
M16 x 1.5		16.000	15.026	14.376
M18 x 1.5		18.000	17.026	16.376
M20 x 1.5		20.000	19.026	18.376
M22 x 1.5		22.000	21.026	20.376
M24 x 1.5		24.000	23.026	22.376
M27 x 2		27.000	25.701	24.835
M30 x 2	2	30.000	28.701	27.835
M33 x 2		33.000	31.701	30.835
M36 x 2		36.000	34.701	33.835
M39 x 2		39.000	37.701	36.835
M42 x 2		42.000	40.701	39.835
M45 x 2		45.000	43.701	42.835
M48 x 2		48.000	46.701	45.835

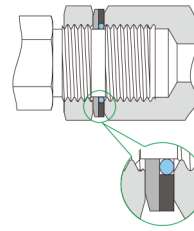


Types of Sealing for Metric Threads



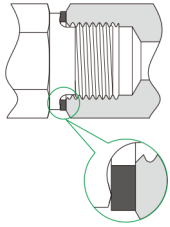
1. MRS Stud End, RS-M gasket and MS Port

- MRS stud end complies with DIN 3852-1 type A
- For RS-M gasket



2. MS Stud End, RG-M gasket and MS Port

- For RG-M gasket



3. MST Stud End and ISO 6149-1 Port

- MST stud end complies with ISO 6149-3
- For O-ring

Working Pressures for MST Stud Ends

Thread Size	Stainless Steel and Carbon Steel			
	Non-Positionable		Positionable	
	psig	bar	psig	bar
M8 x 1	5800	400	4568	315
M10 x 1				
M12 x 1.5				
M14 x 1.5				
M16 x 1.5	4568	315	3626	250
M18 x 1.5				
M22 x 1.5				
M27 x 2				
M30 x 2	2900	200	2320	160
M33 x 2				
M42 x 2				
M48 x 2				
M60 x 2	2320	160	1450	100

Working Temperatures

Thread Ends

The working temperatures of the thread ends may be limited by the Teflon tape or thread sealant or, when applicable, the gaskets or O-rings as follows:

Component	Material	Minimum Temperature	Maximum Temperature
RS Gasket	Buna N	-13°F(-25°C)	230°F(110°C)
	Fluorocarbon FKM	5°F(-15°C)	400°F(204°C)
RP/RG Gasket	Copper	-325°F(-198°C)	400°F(204°C)
	Stainless Steel	-425°F(-254°C)	1000°F(538°C)
RG Gasket	PTFE	-65°F(-54°C)	450°F(232°C)
	Vulcanized Fibre	-76°F(-60°C)	221°F(105°C)
O-ring	Buna N	-22°F(-30°C)	230°F(110°C)
	Fluorocarbon FKM	-4°F(-20°C)	400°F(204°C)



Working Pressures

1. The working performance of temperature and pressure is designed and tested according to ASTM and EN standards.
2. The maximum working pressures of the thread ends at ambient temperature are indicated above.
3. The working pressure of fitting is indicated as the lowest working pressure of the whole connection ends in the system.

Material	Bar Stock	Forging	Designator
316 stainless steel	ASTM A479 ASME SA479 EN 1.4401	ASTM A182 ASME SA182 EN 1.4401	SS
316L stainless steel	ASTM A479 ASME SA479 EN 1.4404	ASTM A182 ASME SA182 EN 1.4404	SL
304 stainless steel	ASTM A479 ASME SA479 EN 1.4301	ASTM A182 ASME SA182 EN 1.4301	S4
321 stainless steel	ASTM A479 ASME SA479 EN 1.4541	ASTM A182 ASME SA182 EN 1.4541	S21
316Ti stainless steel	ASTM A479 ASME SA479 EN 1.4571	ASTM A182 ASME SA182 EN 1.4571	S6T
6Mo (S31254)	ASTM A479	ASTM A182	S12
904L stainless steel	ASTM A479	ASTM A182	904L
Titanium(grade 4)	ASTM B348	ASTM B381	TI
Duplex 2205	ASTM A479	ASTM A182	D22
Super duplex 2507	ASTM A479	ASTM A182	D25
Alloy 20	ASTM A479	ASTM B462	A20
Alloy 400	ASTM B164 ASME SB164	ASTM B564 ASME SB564	M4
Alloy 600	ASTM B166 ASME SB166	ASTM B564 ASME SB564	INC6
Alloy 625	ASTM B446	ASTM B564 ASME SB564	A62
Alloy 718	ASTM B637	ASTM B637	A718
Alloy 825	ASTM B425	ASTM B564	A825
Alloy C-276	ASTM B574	ASTM B564	HC
Carbon steel	ASTM A108	ASTM A105	CS
Brass	ASTM B16/B453	ASTM B283	MS
Nylon	ASTM D4066	/	PA
PTFE	ASTM D1710	/	P



Ordering Number Description

HJ	KM	YZ8		NPT8		P3 and P4	SS
HJ	Fitting Type	P1 Type	P1 Size	P2 Type	P2 Size	P3 and P4	Material
KM	Male Connector	GZ	1 Metric Ferrule	Except the same as the P1, the other type follows:	Except the same as the P1, the other size follows:	Specify in the same way as the P2	SS
CKM	Bulkhead Male Connector	YZ	2 Fractional Ferrule	NPT	5 M5 x 0.8 or 5/16-24		316 SS
KF	Female Connector	FT	3 Fractional Tube	ON	6 M6 x 1 or 3/8-24		SL
CKF	Bulkhead Female Connector	MT	4 Metric Tube	RT	7 7/16-20		S4
KU	Union		5 5/16"	ISO Tapered Thread	8 M8 x 1 or 1/2-20		S21
CKU	Bulkhead Union		6 3/8" or 6mm	ISO Parallel Thread (For RS)	9 9/16-18		S12
KML	Male Elbow		8 1/2" or 8mm	ISO Parallel Thread (For RP)	10 M10 x 1		6Mo (S31254)
KMV	45o Male Elbow		10 5/8" or 10mm	ISO Parallel Thread (Gauge)	12 M12 x 1.5 or 3/4-16		904L SS
TMV	45o Positionable Male Elbow		12 3/4" or 12mm	RJ	14 M14 x 1.5 or 7/8-14		Ti
TML	Positionable Male Elbow		14 7/8" or 14mm	PR	16 M16 x 1.5		D22
KFL	Female Elbow		15 15mm	ST	17 1 1/16-12		D25
KL	Union Elbow		16 1" or 16mm	OST	18 M18 x 1.5		A20
CKL	Bulkhead Union Elbows		18 1 1/8" or 18mm	AN	19 1 3/16-12		M4
ZMT	Male Run Tee		20 1 1/4" or 20mm	MS	20 M20 x 1.5		INC6
BMT	Male Branch Tee		22 22mm	TS	21 1 5/16-12		A62
TZT	Positionable Male Run Tee		24 1 1/2" or 24mm	PB	22 M22 x 1.5		HC
TBT	Positionable Male Branch Tee		25 25mm		24 M24 x 1.5		CS
ZFT	Female Run Tee		28 28mm		26 1 5/8-12		MS
BFT	Female Branch Tee		30 30mm		27 M27 x 2		PA
KT	Union Tee		32 2" or 32mm		30 1 7/8-12		P
KS	Union Cross		38 38mm				
CA	Cap		50 50mm				
KD	Plug						
KG	Reducer						
PC	Port Connector						
GM	Male Adapter						
GF	Female Adapter						
KH	Weld Connector						
KHL	Weld Elbow						

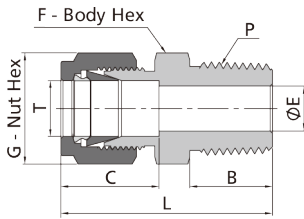
○ P1, P2, P3 and P4 shall be described in the following orders:
○ Ferrule - Tube - NPT Thread - ISO Tapered Thread - ISO Parallel Thread - SAE/MS Straight Thread - 37o Flare - Pipe Butt Weld - Fractional Tube Socket Weld - Others
○ Describe in descending order as per size if the end connection types are the same
○ Describe the end of P1 if all end connections are the same



Dimensions

Dimensions are for reference only and are subject to change

Male Connectors

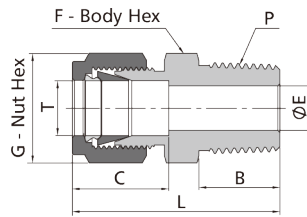


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube			NPT Thread					
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/16	1/16	HJKM-YZ1-NPT1-	0.94(23.9)	0.38(9.7)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.31(7.9)
1/16	1/8	HJKM-YZ1-NPT2-	1.03 (26.2)	0.38 (9.7)	0.34(8.6)	0.05(1.3)	0.31 (7.9)	0.44(11.1)
1/16	1/4	HJKM-YZ1-NPT4-	1.22 (31.0)	0.56 (14.2)	0.34 8.6)	0.05(1.3)	0.31 (7.9)	0.56(14.3)
1/8	1/16	HJKM-YZ2-NPT1-	1.17 (29.7)	0.38 (9.7)	0.50(12.7)	0.09(2.3)	0.44 (11.1)	0.44(11.1)
1/8	1/8	HJKM-YZ2-NPT2-	1.20 (30.5)	0.38 (9.7)	0.50(12.7)	0.09(2.3)	0.44 (11.1)	0.44(11.1)
1/8	1/4	HJKM-YZ2-NPT4-	1.40 (35.6)	0.56 (14.2)	0.50(12.7)	0.09(2.3)	0.44 (11.1)	0.56(14.3)
1/8	3/8	HJKM-YZ2-NPT6-	1.41 (35.8)	0.56 (14.2)	0.50(12.7)	0.09(2.3)	0.44 (11.1)	0.69(17.5)
1/8	1/2	HJKM-YZ2-NPT8-	1.66 (42.2)	0.75 (19.1)	0.50(12.7)	0.09(2.3)	0.44 (11.1)	0.87(22.2)
3/16	1/16	HJKM-YZ3-NPT1-	1.23 (31.2)	0.38 (9.7)	0.54(13.7)	0.12(3.0)	0.50 (12.7)	0.44(11.1)
3/16	1/8	HJKM-YZ3-NPT2-	1.23 (31.2)	0.38 (9.7)	0.54(13.7)	0.12(3.0)	0.50 (12.7)	0.44 (11.1)
3/16	1/4	HJKM-YZ3-NPT4-	1.43 (36.3)	0.56 (14.2)	0.54(13.7)	0.12(3.0)	0.50 (12.7)	0.56 (14.3)
1/4	1/16	HJKM-YZ4-NPT1-	1.29 (32.8)	0.38 (9.7)	0.60(15.2)	0.12(3.0)	0.56 (14.3)	0.50 (12.7)
1/4	1/8	HJKM-YZ4-NPT2-	1.29 (32.8)	0.38 (9.7)	0.60(15.2)	0.19(4.8)	0.56 (14.3)	0.50 (12.7)
1/4	1/4	HJKM-YZ4-NPT4-	1.49 (37.8)	0.56 (14.2)	0.60(15.2)	0.19(4.8)	0.56 (14.3)	0.56 (14.3)
1/4	3/8	HJKM-YZ4-NPT6-	1.51 (38.4)	0.56 (14.2)	0.60(15.2)	0.19(4.8)	0.56 (14.3)	0.69 (17.5)
1/4	1/2	HJKM-YZ4-NPT8-	1.76 (44.7)	0.75 (19.1)	0.60(15.2)	0.19(4.8)	0.56 (14.3)	0.87 (22.2)
1/4	3/4	HJKM-YZ4-NPT12-	1.82 (46.2)	0.75 (19.1)	0.60(15.2)	0.19(4.8)	0.56 (14.3)	1.06 (27.0)
5/16	1/8	HJKM-YZ5-NPT2-	1.34 (34.0)	0.38 (9.7)	0.64(16.3)	0.19 (4.8)	0.63 (15.9)	0.56 (14.3)
5/16	1/4	HJKM-YZ5-NPT4-	1.52 (38.6)	0.38 (9.7)	0.64(16.3)	0.25(6.4)	0.63 (15.9)	0.56 (14.3)
5/16	3/8	HJKM-YZ5-NPT6-	1.54 (39.1)	0.56 (14.2)	0.64(16.3)	0.25 (6.4)	0.63 (15.9)	0.69 (17.5)
5/16	1/2	HJKM-YZ5-NPT8-	1.79 (45.5)	0.75 (19.1)	0.64(16.3)	0.25(6.4)	0.63 (15.9)	0.87 (22.2)
3/8	1/8	HJKM-YZ6-NPT2-	1.39 (35.3)	0.38 (9.7)	0.66(16.8)	0.19(4.8)	0.69 (17.5)	0.63 (15.9)
3/8	1/4	HJKM-YZ6-NPT4-	1.57 (39.9)	0.56 (14.2)	0.66(16.8)	0.28(7.1)	0.69 (17.5)	0.63 (15.9)
3/8	3/8	HJKM-YZ6-NPT6-	1.57 (39.9)	0.56 (14.2)	0.66(16.8)	0.28(7.1)	0.69 (17.5)	0.69 (17.5)
3/8	1/2	HJKM-YZ6-NPT8-	1.82 (46.2)	0.75 (19.1)	0.66(16.8)	0.28(7.1)	0.69 (17.5)	0.87 (22.2)
3/8	3/4	HJKM-YZ6-NPT12-	1.88 (47.8)	0.75 (19.1)	0.66(16.8)	0.28(7.1)	0.69 (17.5)	1.06 (27.0)
3/8	1	HJKM-YZ6-NPT16-	2.14 (54.4)	0.94 (23.9)	0.66(16.8)	0.28(7.1)	0.69 (17.5)	1.37 (34.9)
1/2	1/8	HJKM-YZ8-NPT2-	1.53 (38.9)	0.38 (9.7)	0.90(22.9)	0.19(4.8)	0.87 (22.2)	0.81 (20.6)
1/2	1/4	HJKM-YZ8-NPT4-	1.71 (43.4)	0.56 (14.2)	0.90(22.9)	0.28(7.1)	0.87 (22.2)	0.81 (20.6)
1/2	3/8	HJKM-YZ8-NPT6-	1.71 (43.4)	0.56 (14.2)	0.90 (22.9)	0.38(9.7)	0.87 (22.2)	0.81 (20.6)
1/2	1/2	HJKM-YZ8-NPT8-	1.93 (49.0)	0.75 (19.1)	0.90(22.9)	0.41(10.4)	0.87 (22.2)	0.87 (22.2)
1/2	3/4	HJKM-YZ8-NPT12-	1.99 (50.5)	0.75 (19.1)	0.90(22.9)	0.41(10.4)	0.87 (22.2)	1.06 (27.0)
1/2	1	HJKM-YZ8-NPT16-	2.25 (57.2)	0.94 (23.9)	0.90(22.9)	0.41(10.4)	0.87 (22.2)	1.37 (34.9)
5/8	1/4	HJKM-YZ10-NPT4-	1.74 (44.2)	0.56 (14.2)	0.96(24.4)	0.28(7.1)	1.00 (25.4)	0.94 (23.8)
5/8	3/8	HJKM-YZ10-NPT6-	1.74 (44.2)	0.56 (14.2)	0.96(24.4)	0.38 (9.7)	1.00 (25.4)	0.94 (23.8)
5/8	1/2	HJKM-YZ10-NPT8-	1.93 (49.0)	0.75 (19.1)	0.96 (24.4)	0.47 (11.9)	1.00 (25.4)	0.94 (23.8)
5/8	3/4	HJKM-YZ10-NPT12-	1.99 (50.5)	0.75 (19.1)	0.96 (24.4)	0.50(12.7)	1.00 (25.4)	1.06 (27.0)
3/4	3/8	HJKM-YZ12-NPT6-	1.80 (45.7)	0.56 (14.2)	0.96 (24.4)	0.41(10.4)	1.13 (28.6)	1.06 (27.0)
3/4	1/2	HJKM-YZ12-NPT8-	1.99 (50.5)	0.75 (19.1)	0.96 (24.4)	0.47(11.9)	1.13 (28.6)	1.06 (27.0)
3/4	3/4	HJKM-YZ12-NPT12-	1.99 (50.5)	0.75(19.1)	0.96 (24.4)	0.62(15.7)	1.13 (28.6)	1.06 (27.0)
3/4	1	HJKM-YZ12-NPT16-	2.25 (57.2)	0.94 (23.9)	0.96 (24.4)	0.62(15.7)	1.13 (28.6)	1.37 (34.9)
7/8	1/2	HJKM-YZ14-NPT8-	1.99 (50.5)	0.75 (19.1)	1.02 (25.9)	0.47(11.9)	1.25 (31.8)	1.19 (30.2)
7/8	3/4	HJKM-YZ14-NPT12-	1.99 (50.5)	0.75 (19.1)	1.02 (25.9)	0.62(15.7)	1.25 (31.8)	1.19 (30.2)
7/8	1	HJKM-YZ14-NPT16-	2.25 (57.2)	0.94 (23.9)	1.02 (25.9)	0.72(18.3)	1.25 (31.8)	1.37 (34.9)
1	1/2	HJKM-YZ16-NPT8-	2.26 (57.4)	0.75 (19.1)	1.23 (31.2)	0.47(11.9)	1.50 (38.1)	1.37 (34.9)
1	3/4	HJKM-YZ16-NPT12-	2.26 (57.4)	0.75 (19.1)	1.23 (31.2)	0.62(15.7)	1.50 (38.1)	1.37 (34.9)
1	1	HJKM-YZ16-NPT16-	2.45 (62.2)	0.94 (23.9)	1.23 (31.2)	0.88(22.4)	1.50 (38.1)	1.37 (34.9)
1 1/8	1	HJKM-YZ18-NPT16-	2.45 (62.2)	0.94 (23.9)	1.44(36.7)	0.88(22.4)	1.75(44.5)	1.63 (41.3)
1 1/4	1	HJKM-YZ20-NPT16-	3.04 (77.2)	0.94 (23.9)	1.62 (41.1)	0.88(22.4)	1.87 (47.6)	1.75 (44.5)
1 1/4	1 1/4	HJKM-YZ20-NPT20-	3.04 (77.2)	0.94 (23.9)	1.62 (41.1)	1.09 (27.7)	1.87 (47.6)	1.75 (44.5)
1 1/2	1 1/2	HJKM-YZ24-NPT24-	3.50 (88.9)	1.03 (26.2)	1.97 (50.0)	1.34 (34.0)	2.25 (57.2)	2.13 (54.0)



Male Connectors

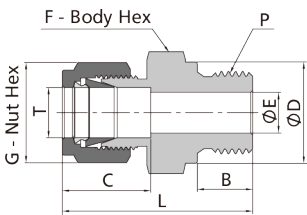


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube

ISO Tapered Thread (RT)

T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/8	1/8	HJKM-YZ2-RT2-	1.20(30.5)	0.38(9.7)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.44(11.1)
1/8	1/4	HJKM-YZ2-RT4-	1.40(35.6)	0.56(14.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)
1/4	1/8	HJKM-YZ4-RT2-	1.29(32.8)	0.38(9.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.50(12.7)
1/4	1/4	HJKM-YZ4-RT4-	1.49(37.8)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	3/8	HJKM-YZ4-RT6-	1.51(38.4)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.69(17.5)
1/4	1/2	HJKM-YZ4-RT8-	1.76(44.7)	0.75(19.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
5/16	1/8	HJKM-YZ5-RT2-	1.34(34.0)	0.38(9.7)	0.64(16.3)	0.19(4.8)	0.63(15.9)	0.56(14.3)
5/16	1/4	HJKM-YZ5-RT4-	1.52(38.6)	0.56(14.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.56(14.3)
3/8	1/8	HJKM-YZ6-RT2-	1.39(35.3)	0.38(9.7)	0.66(16.8)	0.19(4.8)	0.69(17.5)	0.63(15.9)
3/8	1/4	HJKM-YZ6-RT4-	1.57(39.9)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)
3/8	3/8	HJKM-YZ6-RT6-	1.57(39.9)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.69(17.5)
3/8	1/2	HJKM-YZ6-RT8-	1.82(46.2)	0.75(19.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	3/4	HJKM-YZ6-RT12-	1.88(47.8)	0.75(19.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	1/4	HJKM-YZ8-RT4-	1.71(43.4)	0.56(14.2)	0.90(22.9)	0.28(7.1)	0.87(22.2)	0.81(20.6)
1/2	3/8	HJKM-YZ8-RT6-	1.71(43.4)	0.56(14.2)	0.90(22.9)	0.38(9.7)	0.87(22.2)	0.81(20.6)
1/2	1/2	HJKM-YZ8-RT8-	1.93(49.0)	0.75(19.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	3/4	HJKM-YZ8-RT12-	1.99(50.5)	0.75(19.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)
5/8	1/2	HJKM-YZ10-RT8-	1.93(49.0)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.00(25.4)	0.94(23.8)
3/4	3/4	HJKM-YZ12-RT12-	1.99(50.5)	0.75(19.1)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)
3/4	1	HJKM-YZ12-RT16-	2.25(57.2)	0.94(23.9)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.37(34.9)
1	3/4	HJKM-YZ16-RT12-	2.26(57.4)	0.75(19.1)	1.23(31.2)	0.62(15.7)	1.50(38.1)	1.37(34.9)
1	1	HJKM-YZ16-RT16-	2.45(62.2)	0.94(23.9)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)



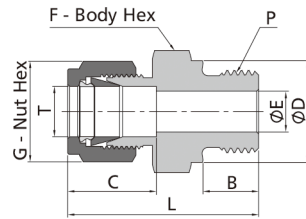
The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube

ISO Parallel Thread (RS)

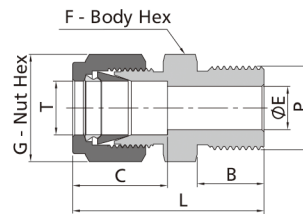
T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimensions, in. (mm)						
			L	B	C	E	G	F	D
1/8	1/8	HJKM-YZ2-RS2-	1.18(30.0)	0.28(7.1)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)	0.54(13.7)
1/8	1/4	HJKM-YZ2-RS4-	1.39(35.3)	0.44(11.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)	0.71(18.0)
1/8	3/8	HJKM-YZ2-RS6-	1.43(36.3)	0.44(11.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.87(22.2)	0.86(21.8)
1/4	1/8	HJKM-YZ4-RS2-	1.27(32.3)	0.28(7.1)	0.60(15.2)	0.16(4.0)	0.56(14.3)	0.56(14.3)	0.54(13.7)
1/4	1/4	HJKM-YZ4-RS4-	1.48(37.6)	0.44(11.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.71(18.0)
1/4	3/8	HJKM-YZ4-RS6-	1.53(38.9)	0.44(11.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)	0.86(21.8)
1/4	1/2	HJKM-YZ4-RS8-	1.76(44.7)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)	1.02(25.9)
3/8	1/8	HJKM-YZ6-RS2-	1.49(37.8)	0.28(7.1)	0.66(16.8)	0.16(4.0)	0.69(17.5)	0.63(15.9)	0.54(13.7)
3/8	1/4	HJKM-YZ6-RS4-	1.54(39.1)	0.44(11.2)	0.66(16.8)	0.23(5.9)	0.69(17.5)	0.75(19.1)	0.71(18.0)
3/8	3/8	HJKM-YZ6-RS6-	1.59(40.4)	0.44(11.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)	0.86(21.8)
3/8	1/2	HJKM-YZ6-RS8-	1.82(46.2)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)	1.02(25.9)
1/2	1/4	HJKM-YZ8-RS4-	1.68(42.7)	0.44(11.2)	0.90(22.9)	0.23(5.9)	0.87(22.2)	0.81(20.6)	0.71(18.0)
1/2	3/8	HJKM-YZ8-RS6-	1.70(43.2)	0.44(11.2)	0.90(22.9)	0.31(7.9)	0.87(22.2)	0.87(22.2)	0.86(21.8)
1/2	1/2	HJKM-YZ8-RS8-	1.93(49.0)	0.56(14.2)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)	1.02(25.9)
3/4	1/2	HJKM-YZ12-RS8-	1.93(49.0)	0.56(14.2)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)	1.02(25.9)
3/4	3/4	HJKM-YZ12-RS12-	2.08(52.9)	0.62(15.7)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.31(33.3)	1.26(32.0)
1	1/2	HJKM-YZ16-RS8-	2.19(55.5)	0.56(14.2)	1.23(31.2)	0.47(11.9)	1.50(38.1)	1.37(34.9)	1.02(25.9)
1	3/4	HJKM-YZ16-RS12-	2.27(57.7)	0.62(15.7)	1.23(31.2)	0.63(16.0)	1.50(38.1)	1.37(34.9)	1.26(32.0)
1	1	HJKM-YZ16-RS16-	2.36(59.9)	0.72(18.3)	1.23(31.2)	0.78(19.8)	1.50(38.1)	1.63(41.3)	1.54(39.1)

Male Connectors



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube			ISO Tapered Thread (RP)						
T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimensions, in. (mm)						
			L	B	C	E	G	F	D
1/8	1/8	HJKM-YZ2-RP2-	1.18(30.0)	0.28(7.1)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)	0.54(13.8)
1/8	1/4	HJKM-YZ2-RP4-	1.39(35.3)	0.44(11.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)	0.70(17.8)
1/4	1/8	HJKM-YZ4-RP2-	1.27(32.3)	0.28(7.1)	0.60(15.2)	0.16(4.1)	0.56(14.3)	0.56(14.3)	0.54(13.8)
1/4	1/4	HJKM-YZ4-RP4-	1.48(37.6)	0.44(11.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.70(17.8)
1/2	3/8	HJKM-YZ8-RP6-	1.79(45.5)	0.44(11.2)	0.90(22.9)	0.31(7.9)	0.87(22.2)	0.87(22.2)	0.86(21.8)
1/2	1/2	HJKM-YZ8-RP8-	1.93(49.0)	0.56(14.2)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)	1.02(25.9)
3/4	1/2	HJKM-YZ12-RP8-	1.93(49.0)	0.56(14.2)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)	1.02(25.9)
3/4	3/4	HJKM-YZ12-RP12-	2.08(52.9)	0.62(15.7)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.31(33.3)	1.26(32.0)
1	1	HJKM-YZ16-RP16-	2.36(59.9)	0.72(18.3)	1.23(31.2)	0.78(19.8)	1.50(38.1)	1.63(41.3)	1.53(38.8)

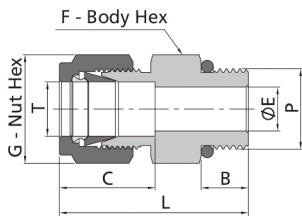


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube			ISO Parallel Thread (BP)						
T-Tube O.D. (in.)	P-BP Size	Basic Ordering Number	Dimensions, in. (mm)						
			L	B	C	E	G	F	
1/4	3/8	HJKM-YZ4-BP6--	1.51(38.4)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.69(17.5)	
3/8	3/8	HJKM-YZ6-BP6--	1.57(39.9)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.69(17.5)	



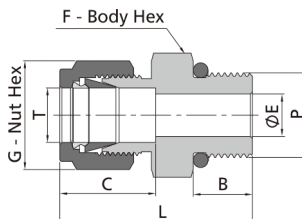
Male Connectors



1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of SAE J1926-1, ISO 11926-1 and MS 16142.

Fractional Tube				SAE/MS Straight Threads (ST)					
T-Tube O.D. (in.)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, in. (mm)					
				L	B	C	E	G	F
1/16	2	5/16-24	HJKM-YZ1-ST5-	0.92(23.4)	0.30(7.6)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)
1/8	2	5/16-24	HJKM-YZ2-ST5-	1.18(30.0)	0.30(7.6)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.44(11.1)
1/8	4	7/16-20	HJKM-YZ2-ST7-	1.24(31.5)	0.36(9.1)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)
1/8	6	9/16-18	HJKM-YZ2-ST9-	1.31(33.3)	0.39(9.9)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.69(17.5)
3/16	3	3/8-24	HJKM-YZ3-ST6-	1.20(30.5)	0.30(7.6)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.50(12.7)
1/4	2	5/16-24	HJKM-YZ4-ST5-	1.27(32.3)	0.30(7.6)	0.60(15.2)	0.12(3.0)	0.56(14.3)	0.50(12.7)
1/4	4	7/16-20	HJKM-YZ4-ST7-	1.34(34.0)	0.36(9.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	6	9/16-18	HJKM-YZ4-ST9-	1.40(35.6)	0.39(9.9)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.69(17.5)
1/4	8	3/4-16	HJKM-YZ4-ST12-	1.48(37.6)	0.44(11.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
1/4	10	7/8-14	HJKM-YZ4-ST14-	1.60(40.6)	0.50(12.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.00(25.4)
5/16	5	1/2-20	HJKM-YZ5-ST8-	1.37(34.8)	0.36(9.1)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.63(15.9)
3/8	4	7/16-20	HJKM-YZ6-ST7-	1.40(35.6)	0.36(9.1)	0.66(16.8)	0.20(5.1)	0.69(17.5)	0.63(15.9)
3/8	6	9/16-18	HJKM-YZ6-ST9-	1.46(37.1)	0.39(9.9)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.69(17.5)
3/8	8	3/4-16	HJKM-YZ6-ST12-	1.54(39.1)	0.44(11.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	10	7/8-14	HJKM-YZ6-ST14-	1.66(42.2)	0.50(12.7)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.00(25.4)
1/2	6	9/16-18	HJKM-YZ8-ST9-	1.54(39.1)	0.39(9.9)	0.90(22.9)	0.28(7.1)	0.87(22.2)	0.81(20.6)
1/2	8	3/4-16	HJKM-YZ8-ST12-	1.65(41.9)	0.44(11.2)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	10	7/8-14	HJKM-YZ8-ST14-	1.77(45.0)	0.50(12.7)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.00(25.4)
1/2	12	1 1/16-12	HJKM-YZ8-ST17-	1.93(49.0)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.25(31.8)
5/8	8	3/4-16	HJKM-YZ10-ST12-	1.65(41.9)	0.44(11.2)	0.96(24.4)	0.42(10.7)	1.00(25.4)	0.94(23.8)
5/8	10	7/8-14	HJKM-YZ10-ST14-	1.78(45.2)	0.50(12.7)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.00(25.4)
3/4	8	3/4-16	HJKM-YZ12-ST12-	1.81(46.0)	0.44(11.2)	0.96(24.4)	0.42(10.7)	1.13(28.6)	1.06(27.0)
3/4	12	1 1/16-12	HJKM-YZ12-ST17-	1.93(49.0)	0.59(15.0)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.25(31.8)
3/4	16	1 5/16-12	HJKM-YZ12-ST21-	1.96(49.8)	0.59(15.0)	0.96(24.4)	0.63(16.0)	1.13(28.6)	1.50(38.1)
7/8	14	1 3/16-12	HJKM-YZ14-ST19-	1.93(49.0)	0.59(15.0)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.37(34.9)
1	12	1 1/16-12	HJKM-YZ16-ST17-	2.10(53.3)	0.59(15.0)	1.23(31.2)	0.66(16.8)	1.50(38.1)	1.37(34.9)
1	16	1 5/16-12	HJKM-YZ16-ST21-	2.14(54.4)	0.59(15.0)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.50(38.1)
1 1/4	20	1 5/8-12	HJKM-YZ20-ST26-	2.69(68.3)	0.59(15.0)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.87(47.6)
1 1/2	24	1 7/8-12	HJKM-YZ24-ST30-	3.06(77.7)	0.59(15.0)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.13(54.0)

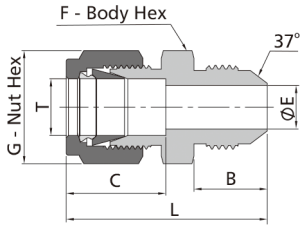


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube				SAE/MS Straight Threads (ST)					
T-Tube O.D. (in.)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, in. (mm)					
				L	B	C	E	G	F
1/4	4	7/16-20	HJKML-YZ4-ST7-	2.26(57.4)	0.36(9.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/2	8	3/4-16	HJKML-YZ8-ST12-	3.01(76.5)	0.44(11.2)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)

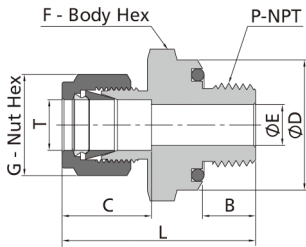


Male Connectors



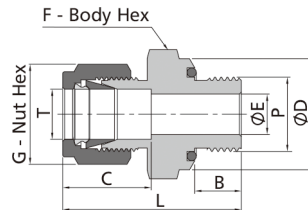
The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube			37° Flare (AN)					
T-Tube O.D. (in.)	AN Tube Flare Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/16	1/8	HJKM-YZ1-AN2-	1.07(27.2)	0.45(11.4)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)
1/8	1/8	HJKM-YZ2-AN2-	1.27(32.3)	0.45(11.4)	0.50(12.7)	0.06(1.5)	0.44(11.1)	0.44(11.1)
1/8	1/4	HJKM-YZ2-AN4-	1.38(35.1)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.50(12.7)
3/16	3/16	HJKM-YZ3-AN3-	1.32(33.5)	0.48(12.2)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.44(11.1)
1/4	1/4	HJKM-YZ4-AN4-	1.48(37.6)	0.55(14.0)	0.60(15.2)	0.17(4.3)	0.56(14.3)	0.50(12.7)
5/16	5/16	HJKM-YZ5-AN5-	1.51(38.4)	0.55(14.0)	0.64(16.2)	0.23(5.8)	0.63(15.9)	0.56(14.3)
3/8	1/4	HJKM-YZ6-AN4-	1.56(39.6)	0.55(14.0)	0.66(16.8)	0.17(4.3)	0.69(17.5)	0.63(15.9)
3/8	3/8	HJKM-YZ6-AN6-	1.56(39.6)	0.56(14.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)
1/2	1/2	HJKM-YZ8-AN8-	1.81(46.0)	0.66(16.7)	0.90(22.8)	0.39(9.9)	0.87(22.2)	0.81(20.6)
5/8	5/8	HJKM-YZ10-AN10-	1.93(49.0)	0.76(19.3)	0.96(24.5)	0.48(12.3)	1.00(25.4)	0.94(23.8)
3/4	3/4	HJKM-YZ12-AN12-	2.10(53.3)	0.86(21.9)	0.96(24.4)	0.61(15.5)	1.13(28.6)	1.13(28.6)
1	1	HJKM-YZ16-AN16-	2.42(61.5)	0.91(23.1)	1.23(31.2)	0.84(21.3)	1.50(38.1)	1.37(34.9)



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube			O-Seal with NPT Thread						
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)						
			L	B	C	E	G	F	D
1/8	1/8	HJKM-YZ2-ONS2-	1.29(32.8)	0.28(7.1)	0.34(8.6)	0.09(2.3)	0.47(11.9)	0.75(19.1)	0.74(18.8)
1/4	1/8	HJKM-YZ4-ONS2-	1.38(35.1)	0.28(7.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.74(18.8)
1/4	1/4	HJKM-YZ4-ONS4-	1.51(38.4)	0.38(9.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.94(23.8)	0.93(23.6)
3/8	1/4	HJKM-YZ6-ONS4-	1.57(39.9)	0.38(9.7)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.94(23.8)	0.93(23.6)
3/8	3/8	HJKM-YZ6-ONS6-	1.63(41.4)	0.41(10.4)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.13(28.6)	1.12(28.4)
3/8	1/2	HJKM-YZ6-ONS8-	1.85(47.0)	0.53(13.5)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.31(33.3)	1.30(33.0)
1/2	1/2	HJKM-YZ8-ONS8-	1.96(49.8)	0.53(13.5)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.31(33.3)	1.30(33.0)

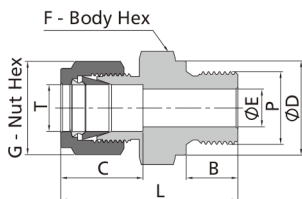


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube				SAE/MS Straight Threads (OST)						
T-Tube O.D. (in.)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, in. (mm)						
				L	B	C	E	G	F	D
1/16	2	5/16-24	HJKM-YZ1-OST5-	1.05(26.7)	0.34(8.6)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.56(14.3)	0.55(14.0)
1/8	2	5/16-24	HJKM-YZ2-OST5-	1.29(32.8)	0.34(8.6)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)	0.55(14.0)
3/16	3	3/8-24	HJKM-YZ3-OST6-	1.35(34.3)	0.38(9.7)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.63(15.9)	0.62(15.7)
1/4	4	7/16-20	HJKM-YZ4-OST7-	1.51(38.4)	0.41(10.4)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.74(18.8)
5/16	5	1/2-20	HJKM-YZ5-OST8-	1.60(40.6)	0.44(11.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.87(22.2)	0.86(21.8)
3/8	6	9/16-18	HJKM-YZ6-OST9-	1.67(42.4)	0.47(11.9)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.94(23.8)	0.93(23.6)
1/2	8	3/4-16	HJKM-YZ8-OST12-	1.81(46.0)	0.47(11.9)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.13(28.6)	1.12(28.4)
3/4	12	1 1/16-12	HJKM-YZ12-OST17-	2.06(52.3)	0.56(14.2)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.50(38.1)	1.49(37.8)
1	16	1 5/16-12	HJKM-YZ16-OST21-	2.29(58.2)	0.56(14.2)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.75(44.5)	1.74(44.2)

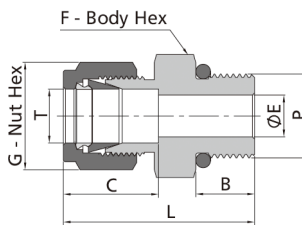


Male Connectors



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

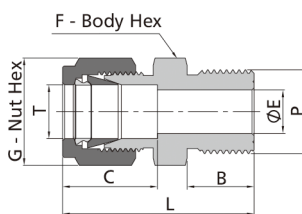
Fractional Tube			Metric Thread (MRS)							
T-Tube O.D. (in.)	P-Metric Thread Size	Basic Ordering Number	Dimensions, in. (mm)							
			L	B	C	E	G	F	D	
1/8	M14 x 1.5	HJKM-YZ2-MRS14-	1.44(36.7)	0.47(12.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)	0.75(19.0)	
1/8	M16 x 1.5	HJKM-YZ2-MRS16-	1.48(37.5)	0.47(12.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.87(22.2)	0.83(21.0)	
1/8	M18 x 1.5	HJKM-YZ2-MRS18-	1.52(38.5)	0.47(12.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.94(23.8)	0.91(23.0)	
1/8	M20 x 1.5	HJKM-YZ2-MRS20-	1.62(41.1)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	1.00(25.4)	0.98(25.0)	
1/4	M14 x 1.5	HJKM-YZ4-MRS14-	1.50(38.0)	0.47(12.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.75(19.0)	
1/4	M16 x 1.5	HJKM-YZ4-MRS16-	1.57(39.9)	0.47(12.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)	0.83(21.0)	
1/4	M18 x 1.5	HJKM-YZ4-MRS18-	1.61(40.8)	0.47(12.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.94(23.8)	0.91(23.0)	
1/4	M20 x 1.5	HJKM-YZ4-MRS20-	1.72(43.6)	0.55(14.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.00(25.4)	0.98(25.0)	
3/8	M14 x 1.5	HJKM-YZ6-MRS14-	1.63(41.3)	0.47(12.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.0)	
3/8	M16 x 1.5	HJKM-YZ6-MRS16-	1.63(41.3)	0.47(12.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)	0.83(21.0)	
3/8	M18 x 1.5	HJKM-YZ6-MRS18-	1.65(41.8)	0.47(12.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.94(23.8)	0.91(23.0)	
3/8	M20 x 1.5	HJKM-YZ6-MRS20-	1.78(45.1)	0.55(14.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.00(25.4)	0.98(25.0)	
1/2	M16 x 1.5	HJKM-YZ8-MRS16-	1.73(44.0)	0.47(12.0)	0.90(22.8)	0.35(9.0)	0.87(22.2)	0.87(22.2)	0.83(21.0)	
1/2	M18 x 1.5	HJKM-YZ8-MRS18-	1.73(44.0)	0.47(12.0)	0.90(22.9)	0.39(10.0)	0.87(22.2)	0.94(23.8)	0.91(23.0)	
1/2	M20 x 1.5	HJKM-YZ8-MRS20-	1.89(47.9)	0.55(14.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.00(25.4)	0.98(25.0)	
1/2	M22 x 1.5	HJKM-YZ8-MRS22-	1.91(48.5)	0.55(14.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)	1.06(27.0)	



1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of ISO 6149-1.

Fractional Tube			Metric Thread (MST)					
T-Tube O.D. (in.)	P-Metric Thread Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/4	M14X1.5	HJKM-YZ4-MST14-	1.39(35.2)	0.43(11.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)
3/8	M14X1.5	HJKM-YZ6-MST14-	1.44(36.7)	0.43(11.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)
3/8	M20X1.5	HJKM-YZ6-MST20-	1.62(41.2)	0.55(14.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	M14X1.5	HJKM-YZ8-MST14-	1.58(40.2)	0.43(11.0)	0.90(22.9)	0.30(7.5)	0.87(22.2)	0.81(20.6)
1/2	M20X1.5	HJKM-YZ8-MST20-	1.73(44.0)	0.55(14.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)

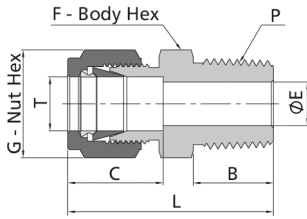


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube			Metric Thread (MS)					
T-Tube O.D. (in.)	P-Metric Thread Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/16	M5 x 0.8	HJKM-YZ1-MS5-	0.86(21.8)	0.31(8.0)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.31(7.9)
1/8	M14 x 1.5	HJKM-YZ2-MS14-	1.37(34.8)	0.51(13.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.63(15.9)
1/8	M16 x 1.5	HJKM-YZ2-MS16-	1.41(35.8)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.69(17.5)
1/8	M18 x 1.5	HJKM-YZ2-MS18-	1.46(37.2)	0.59(15.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)
1/8	M20 x 1.5	HJKM-YZ2-MS20-	1.50(38.1)	0.63(16.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.87(22.2)
1/4	M14 x 1.5	HJKM-YZ4-MS14-	1.45(36.9)	0.51(13.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)
1/4	M16 x 1.5	HJKM-YZ4-MS16-	1.50(38.1)	0.55(14.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.69(17.5)
1/4	M18 x 1.5	HJKM-YZ4-MS18-	1.56(39.5)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)
1/4	M20 x 1.5	HJKM-YZ4-MS20-	1.60(40.7)	0.63(16.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
3/8	M10 x 1.0	HJKM-YZ6-MS10-	1.43(36.4)	0.43(11.0)	0.66(16.8)	0.19(4.8)	0.69(17.5)	0.63(15.9)
3/8	M14 x 1.5	HJKM-YZ6-MS14-	1.55(39.3)	0.51(13.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)
3/8	M16 x 1.5	HJKM-YZ6-MS16-	1.56(39.7)	0.55(14.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.69(17.5)
3/8	M18 x 1.5	HJKM-YZ6-MS18-	1.63(41.5)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)
3/8	M20 x 1.5	HJKM-YZ6-MS20-	1.67(42.3)	0.63(16.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
1/2	M16 x 1.5	HJKM-YZ8-MS16-	1.70(43.2)	0.55(14.0)	0.90(22.9)	0.33(8.4)	0.87(22.2)	0.81(20.6)
1/2	M18 x 1.5	HJKM-YZ8-MS18-	1.72(43.7)	0.59(15.0)	0.90(22.9)	0.38(9.6)	0.87(22.2)	0.81(20.6)
1/2	M20 x 1.5	HJKM-YZ8-MS20-	1.77(44.9)	0.63(16.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	M22 x 1.5	HJKM-YZ8-MS22-	1.85(47.0)	0.67(17.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)



Male Connectors

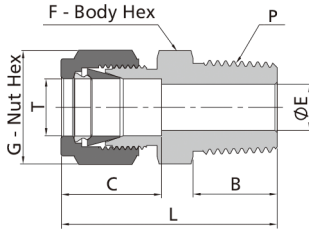


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Metric Tube			NPT Thread					
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
2	1/8	HJKM-GZ2-NPT2-	30.5(1.20)	9.7(0.38)	12.9(0.51)	1.7(0.07)	12.0(0.47)	12.0(0.47)
3	1/8	HJKM-GZ3-NPT2-	30.5(1.20)	9.7(0.38)	12.9(0.51)	2.4(0.09)	12.0(0.47)	12.0(0.47)
3	1/4	HJKM-GZ3-NPT4-	35.6(1.40)	14.2(0.56)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)
4	1/8	HJKM-GZ4-NPT2-	31.2(1.23)	9.7(0.38)	13.7(0.54)	2.4(0.09)	12.0(0.47)	12.0(0.47)
4	1/4	HJKM-GZ4-NPT4-	36.3(1.43)	14.2(0.56)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)
6	1/8	HJKM-GZ6-NPT2-	32.8(1.29)	9.7(0.38)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	HJKM-GZ6-NPT4-	37.9(1.49)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	3/8	HJKM-GZ6-NPT6-	38.4(1.51)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	18.0(0.71)
6	1/2	HJKM-GZ6-NPT8-	44.7(1.76)	19.1(0.75)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)
8	1/8	HJKM-GZ8-NPT2-	34.2(1.35)	9.7(0.38)	16.2(0.64)	4.8(0.19)	16.0(0.63)	15.0(0.59)
8	1/4	HJKM-GZ8-NPT4-	38.7(1.52)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	15.0(0.59)
8	3/8	HJKM-GZ8-NPT6-	39.3(1.55)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)
8	1/2	HJKM-GZ8-NPT8-	45.6(1.80)	19.1(0.75)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)
10	1/8	HJKM-GZ10-NPT2-	36.3(1.43)	9.7(0.38)	17.2(0.68)	4.8(0.19)	19.0(0.75)	18.0(0.71)
10	1/4	HJKM-GZ10-NPT4-	40.9(1.61)	14.2(0.56)	17.2(0.68)	7.1(0.28)	19.0(0.75)	18.0(0.71)
10	3/8	HJKM-GZ10-NPT6-	40.9(1.61)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	18.0(0.71)
10	1/2	HJKM-GZ10-NPT8-	46.5(1.83)	19.1(0.75)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
10	3/4	HJKM-GZ10-NPT12-	48.0(1.89)	19.1(0.75)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)
10	1	HJKM-GZ10-NPT16-	54.6(2.15)	23.9(0.94)	17.2(0.68)	7.9(0.31)	19.0(0.75)	35.0(1.38)
12	1/8	HJKM-GZ12-NPT2-	38.8(1.53)	9.7(0.38)	22.8(0.90)	4.8(0.19)	22.0(0.87)	22.0(0.87)
12	1/4	HJKM-GZ12-NPT4-	43.4(1.71)	14.2(0.56)	22.8(0.90)	7.1(0.28)	22.0(0.87)	22.0(0.87)
12	3/8	HJKM-GZ12-NPT6-	43.4(1.71)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	1/2	HJKM-GZ12-NPT8-	49.0(1.93)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	3/4	HJKM-GZ12-NPT12-	49.1(1.93)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
14	1/8	HJKM-GZ14-NPT2-	39.9(1.57)	9.7(0.38)	24.4(0.96)	4.8(0.19)	25.0(0.98)	24.0(0.94)
14	1/4	HJKM-GZ14-NPT4-	44.1(1.74)	14.2(0.56)	24.4(0.96)	7.1(0.28)	25.0(0.98)	24.0(0.94)
14	3/8	HJKM-GZ14-NPT6-	44.1(1.74)	14.2(0.56)	24.4(0.96)	9.5(0.37)	25.0(0.98)	24.0(0.94)
14	1/2	HJKM-GZ14-NPT8-	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.1(0.44)	25.0(0.98)	24.0(0.94)
14	3/4	HJKM-GZ14-NPT12-	49.1(1.93)	19.1(0.75)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)
15	1/2	HJKM-GZ15-NPT8-	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.9(0.47)	25.0(0.98)	24.0(0.94)
15	3/4	HJKM-GZ15-NPT12-	50.5(1.99)	19.1(0.75)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)
15	1	HJKM-GZ15-NPT16-	57.1(2.25)	23.9(0.94)	24.4(0.96)	11.9(0.47)	25.0(0.98)	35.0(1.38)
16	1/4	HJKM-GZ16-NPT4-	44.1(1.74)	14.2(0.56)	24.4(0.96)	7.1(0.28)	25.0(0.98)	24.0(0.94)
16	3/8	HJKM-GZ16-NPT6-	44.1(1.74)	14.2(0.56)	24.4(0.96)	9.5(0.37)	25.0(0.98)	24.0(0.94)
16	1/2	HJKM-GZ16-NPT8-	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.9(0.47)	25.0(0.98)	24.0(0.94)
16	3/4	HJKM-GZ16-NPT12-	50.5(1.99)	19.1(0.75)	24.4(0.96)	12.7(0.5)	25.0(0.98)	27.0(1.06)
18	3/8	HJKM-GZ18-NPT6-	45.6(1.80)	14.2(0.56)	24.4(0.96)	9.5(0.37)	30.0(1.18)	27.0(1.06)
18	1/2	HJKM-GZ18-NPT8-	50.5(1.99)	19.1(0.75)	24.4(0.96)	11.9(0.47)	30.0(1.18)	27.0(1.06)
18	3/4	HJKM-GZ18-NPT12-	50.5(1.99)	19.1(0.75)	24.4(0.96)	15.1(0.59)	30.0(1.18)	27.0(1.06)
20	1/2	HJKM-GZ20-NPT8-	52.3(2.06)	19.1(0.75)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
20	3/4	HJKM-GZ20-NPT12-	52.3(2.06)	19.1(0.75)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
20	1	HJKM-GZ20-NPT16-	57.1(2.25)	23.9(0.94)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)
22	1/2	HJKM-GZ22-NPT8-	52.3(2.06)	19.1(0.75)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
22	3/4	HJKM-GZ22-NPT12-	52.3(2.06)	19.1(0.75)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
22	1	HJKM-GZ22-NPT16-	57.1(2.25)	23.9(0.94)	26.0(1.02)	18.3(0.72)	32.0(1.26)	35.0(1.38)
25	1/2	HJKM-GZ25-NPT8-	57.5(2.26)	19.1(0.75)	31.3(1.23)	11.9(0.47)	38.0(1.50)	35.0(1.38)
25	3/4	HJKM-GZ25-NPT12-	57.5(2.26)	19.1(0.75)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)
25	1	HJKM-GZ25-NPT16-	62.3(2.45)	23.9(0.94)	31.3(1.23)	21.8(0.86)	38.0(1.50)	35.0(1.38)
28	1	HJKM-GZ28-NPT16-	72.4(2.85)	23.9(0.94)	36.6(1.44)	21.8(0.86)	46.0(1.81)	41.0(1.61)
28	1 1/4	HJKM-GZ28-NPT20-	73.1(2.88)	23.9(0.94)	36.6(1.44)	21.8(0.86)	46.0(1.81)	46.0(1.81)
30	1 1/4	HJKM-GZ30-NPT20-	77.2(3.04)	23.9(0.94)	39.6(1.56)	26.2(1.03)	50.0(1.97)	46.0(1.81)
32	1 1/4	HJKM-GZ32-NPT20-	79.6(3.13)	23.9(0.94)	42.0(1.65)	28.6(1.13)	50.0(1.97)	46.0(1.81)
38	1 1/2	HJKM-GZ38-NPT24-	91.6(3.61)	26.2(1.03)	49.4(1.94)	33.7(1.33)	60.0(2.36)	55.0(2.17)



Male Connectors

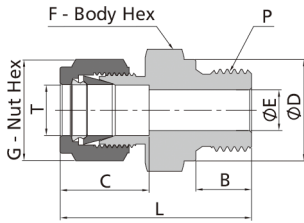


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Metric Tube			ISO Tapered Thread (RT)					
T-Tube O.D. (mm)	P-RT Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
2	1/8	HJKM-GZ2-RT2-	30.5(1.20)	9.7(0.38)	12.9(0.51)	1.7(0.07)	12.0(0.47)	12.0(0.47)
3	1/8	HJKM-GZ3-RT2-	30.5(1.20)	9.7(0.38)	12.9(0.51)	2.4(0.09)	12.0(0.47)	12.0(0.47)
3	1/4	HJKM-GZ3-RT4-	35.6(1.40)	14.2(0.56)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)
4	1/8	HJKM-GZ4-RT2-	31.2(1.23)	9.7(0.38)	13.7(0.54)	2.4(0.09)	12.0(0.47)	12.0(0.47)
4	1/4	HJKM-GZ4-RT4-	36.3(1.43)	14.2(0.56)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)
6	1/8	HJKM-GZ6-RT2-	32.8(1.29)	9.7(0.38)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	HJKM-GZ6-RT4-	37.9(1.49)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	3/8	HJKM-GZ6-RT6-	38.4(1.51)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	18.0(0.71)
6	1/2	HJKM-GZ6-RT8-	44.7(1.76)	19.1(0.75)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)
8	1/8	HJKM-GZ8-RT2-	34.2(1.35)	9.7(0.38)	16.2(0.64)	4.8(0.19)	16.0(0.63)	15.0(0.59)
8	1/4	HJKM-GZ8-RT4-	38.7(1.52)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	15.0(0.59)
8	3/8	HJKM-GZ8-RT6-	39.2(1.54)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)
8	1/2	HJKM-GZ8-RT8-	45.6(1.80)	19.1(0.75)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)
10	1/8	HJKM-GZ10-RT2-	36.3(1.43)	9.7(0.38)	17.2(0.68)	4.8(0.19)	19.0(0.75)	18.0(0.71)
10	1/4	HJKM-GZ10-RT4-	40.9(1.61)	14.2(0.56)	17.2(0.68)	7.1(0.28)	19.0(0.75)	18.0(0.71)
10	3/8	HJKM-GZ10-RT6-	40.9(1.61)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	18.0(0.71)
10	1/2	HJKM-GZ10-RT8-	46.5(1.83)	19.1(0.75)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
10	3/4	HJKM-GZ10-RT12-	48.0(1.89)	19.1(0.75)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)
12	1/8	HJKM-GZ12-RT2-	38.9(1.53)	9.7(0.38)	22.8(0.90)	4.8(0.19)	22.0(0.87)	22.0(0.87)
12	1/4	HJKM-GZ12-RT4-	43.4(1.71)	14.2(0.56)	22.8(0.90)	7.1(0.28)	22.0(0.87)	22.0(0.87)
12	3/8	HJKM-GZ12-RT6-	43.4(1.71)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	1/2	HJKM-GZ12-RT8-	49.0(1.93)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	3/4	HJKM-GZ12-RT12-	50.5(1.99)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
14	1/8	HJKM-GZ14-RT2-	39.9(1.57)	9.7(0.38)	24.4(0.96)	4.8(0.19)	25.0(0.98)	24.0(0.94)
14	1/4	HJKM-GZ14-RT4-	44.1(1.74)	14.2(0.56)	24.4(0.96)	7.1(0.28)	25.0(0.98)	24.0(0.94)
14	3/8	HJKM-GZ14-RT6-	44.1(1.74)	14.2(0.56)	24.4(0.96)	9.5(0.37)	25.0(0.98)	24.0(0.94)
14	1/2	HJKM-GZ14-RT8-	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.1(0.44)	25.0(0.98)	24.0(0.94)
14	3/4	HJKM-GZ14-RT12-	50.5(1.99)	19.1(0.75)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)
15	1/2	HJKM-GZ15-RT8-	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.9(0.47)	25.0(0.98)	24.0(0.94)
16	1/4	HJKM-GZ16-RT4-	44.1(1.74)	14.2(0.56)	24.4(0.96)	7.1(0.28)	25.0(0.98)	24.0(0.94)
16	3/8	HJKM-GZ16-RT6-	44.1(1.74)	14.2(0.56)	24.4(0.96)	9.5(0.37)	25.0(0.98)	24.0(0.94)
16	1/2	HJKM-GZ16-RT8-	49.0(1.93)	19.1(0.75)	24.4(0.96)	11.9(0.47)	25.0(0.98)	24.0(0.94)
16	3/4	HJKM-GZ16-RT12-	50.5(1.99)	19.1(0.75)	24.4(0.96)	12.7(0.5)	25.0(0.98)	27.0(1.06)
18	1/2	HJKM-GZ18-RT8-	50.5(1.99)	19.1(0.75)	24.4(0.96)	11.9(0.47)	30.0(1.18)	27.0(1.06)
18	3/4	HJKM-GZ18-RT12-	50.5(1.99)	19.1(0.75)	24.4(0.96)	15.1(0.59)	30.0(1.18)	27.0(1.06)
20	1/2	HJKM-GZ20-RT8-	52.3(2.06)	19.1(0.75)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)
20	3/4	HJKM-GZ20-RT12-	52.3(2.06)	19.1(0.75)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
22	3/4	HJKM-GZ22-RT12-	52.3(2.06)	19.1(0.75)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
22	1	HJKM-GZ22-RT16-	57.1(2.25)	23.9(0.94)	26.0(1.02)	18.3(0.72)	32.0(1.26)	35.0(1.38)
25	1/2	HJKM-GZ25-RT8-	57.5(2.26)	19.1(0.75)	31.3(1.23)	11.9(0.47)	38.0(1.50)	35.0(1.38)
25	3/4	HJKM-GZ25-RT12-	57.5(2.26)	19.1(0.75)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)
25	1	HJKM-GZ25-RT16-	62.3(2.45)	23.9(0.94)	31.3(1.23)	21.8(0.86)	38.0(1.50)	35.0(1.38)
28	1	HJKM-GZ28-RT16-	72.4(2.85)	23.9(0.94)	36.6(1.44)	21.8(0.86)	46.0(1.81)	41.0(1.61)
28	1 1/4	HJKM-GZ28-RT20-	73.1(2.88)	23.9(0.94)	36.6(1.44)	21.8(0.86)	46.0(1.81)	46.0(1.81)
30	1 1/4	HJKM-GZ30-RT20-	77.2(3.04)	23.9(0.94)	39.6(1.56)	26.2(1.03)	50.0(1.97)	46.0(1.81)
32	1 1/4	HJKM-GZ32-RT20-	79.6(3.13)	23.9(0.94)	42.0(1.65)	28.6(1.13)	50.0(1.97)	46.0(1.81)
38	1 1/2	HJKM-GZ38-RT24-	91.6(3.61)	26.2(1.03)	49.4(1.94)	33.7(1.33)	60.0(2.36)	55.0(2.17)



Male Connectors

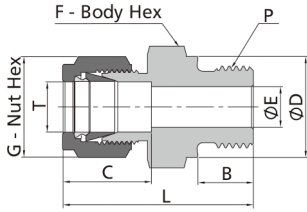


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Metric Tube			ISO Parallel Thread (RS)						
T-Tube O.D. (mm)	P-RS Size	Basic Ordering Number	Dimensions, mm (in.)						
			L	B	C	E	G	F	D
2	1/8	HJKM-GZ2-RS2-	30.0(1.18)	7.1(0.28)	12.9(0.51)	1.7(0.07)	12.0(0.47)	14.0(0.55)	13.7(0.54)
3	1/8	HJKM-GZ3-RS2-	30.0(1.18)	7.1(0.28)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)	13.7(0.54)
3	1/4	HJKM-GZ3-RS4-	35.3(1.39)	11.2(0.44)	12.9(0.51)	2.4(0.09)	12.0(0.47)	19.0(0.75)	18.0(0.71)
4	1/8	HJKM-GZ4-RS2-	30.7(1.21)	7.1(0.28)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)	13.7(0.54)
4	1/4	HJKM-GZ4-RS4-	36.0(1.42)	11.2(0.44)	13.7(0.54)	2.4(0.09)	12.0(0.47)	19.0(0.75)	18.0(0.71)
6	1/8	HJKM-GZ6-RS2-	32.3(1.27)	7.1(0.28)	15.3(0.60)	4.0(0.16)	14.0(0.55)	14.0(0.55)	13.7(0.54)
6	1/4	HJKM-GZ6-RS4-	37.6(1.48)	11.2(0.44)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)	18.0(0.71)
6	3/8	HJKM-GZ6-RS6-	38.9(1.53)	11.2(0.44)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)	21.6(0.85)
6	1/2	HJKM-GZ6-RS8-	44.7(1.76)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)	25.9(1.02)
8	1/8	HJKM-GZ8-RS2-	33.2(1.31)	7.1(0.28)	16.2(0.64)	4.0(0.16)	16.0(0.63)	15.0(0.59)	13.7(0.54)
8	1/4	HJKM-GZ8-RS4-	38.5(1.52)	11.2(0.44)	16.2(0.64)	6.4(0.25)	16.0(0.63)	19.0(0.75)	18.0(0.71)
8	3/8	HJKM-GZ8-RS6-	39.8(1.57)	11.2(0.44)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)	21.6(0.85)
8	1/2	HJKM-GZ8-RS8-	45.6(1.80)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)	25.9(1.02)
8	3/4	HJKM-GZ8-RS12-	49.5(1.95)	15.7(0.62)	16.2(0.64)	6.4(0.25)	16.0(0.63)	35.0(1.38)	32.0(1.26)
10	1/4	HJKM-GZ10-RS4-	39.4(1.55)	11.2(0.44)	17.2(0.68)	5.9(0.23)	19.0(0.75)	19.0(0.75)	18.0(0.71)
10	3/8	HJKM-GZ10-RS6-	40.6(1.60)	11.2(0.44)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	21.6(0.85)
10	1/2	HJKM-GZ10-RS8-	46.5(1.83)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)	25.9(1.02)
12	1/4	HJKM-GZ12-RS4-	42.6(1.68)	11.2(0.44)	22.8(0.90)	5.9(0.23)	22.0(0.87)	22.0(0.87)	18.0(0.71)
12	3/8	HJKM-GZ12-RS6-	43.1(1.70)	11.2(0.44)	22.8(0.90)	7.9(0.31)	22.0(0.87)	22.0(0.87)	21.6(0.85)
12	1/2	HJKM-GZ12-RS8-	49.0(1.93)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)	25.9(1.02)
12	3/4	HJKM-GZ12-RS12-	52.8(2.08)	15.7(0.62)	22.8(0.90)	9.5(0.37)	22.0(0.87)	35.0(1.38)	32.0(1.26)
14	1/4	HJKM-GZ14-RS4-	44.2(1.74)	11.2(0.44)	24.4(0.96)	6.4(0.25)	25.0(0.98)	24.0(0.94)	18.0(0.71)
14	3/8	HJKM-GZ14-RS6-	43.9(1.73)	11.2(0.44)	24.4(0.96)	7.9(0.31)	25.0(0.98)	24.0(0.94)	21.6(0.85)
14	1/2	HJKM-GZ14-RS8-	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)	25.9(1.02)
14	3/4	HJKM-GZ14-RS12-	52.8(2.08)	15.7(0.62)	24.4(0.96)	11.1(0.44)	25.0(0.98)	35.0(1.38)	32.0(1.26)
15	3/8	HJKM-GZ15-RS6-	43.9(1.73)	11.2(0.44)	24.4(0.96)	7.9(0.31)	25.0(0.98)	24.0(0.94)	21.6(0.85)
15	1/2	HJKM-GZ15-RS8-	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	25.9(1.02)
15	3/4	HJKM-GZ15-RS12-	52.8(2.08)	15.7(0.62)	24.4(0.96)	11.9(0.47)	25.0(0.98)	35.0(1.38)	32.0(1.26)
16	3/8	HJKM-GZ16-RS6-	43.9(1.73)	11.2(0.44)	24.4(0.96)	7.9(0.31)	25.0(0.98)	24.0(0.94)	21.6(0.85)
16	1/2	HJKM-GZ16-RS8-	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	25.9(1.02)
16	3/4	HJKM-GZ16-RS12-	52.8(2.08)	15.7(0.62)	24.4(0.96)	12.7(0.5)	25.0(0.98)	35.0(1.38)	32.0(1.26)
18	1/2	HJKM-GZ18-RS8-	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	30.0(1.18)	27.0(1.06)	25.9(1.02)
18	3/4	HJKM-GZ18-RS12-	52.8(2.08)	15.7(0.62)	24.4(0.96)	15.1(0.59)	30.0(1.18)	35.0(1.38)	32.0(1.26)
20	1/2	HJKM-GZ20-RS8-	50.5(1.99)	14.2(0.56)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)	25.9(1.02)
20	3/4	HJKM-GZ20-RS12-	52.8(2.08)	15.7(0.62)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	32.0(1.26)
22	3/4	HJKM-GZ22-RS12-	52.8(2.08)	15.7(0.62)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	32.0(1.26)
22	1	HJKM-GZ22-RS16-	55.3(2.18)	18.3(0.72)	26.0(1.02)	18.3(0.72)	32.0(1.26)	41.0(1.61)	39.1(1.54)
25	3/4	HJKM-GZ25-RS12-	57.5(2.26)	15.7(0.62)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)	32.0(1.26)
25	1	HJKM-GZ25-RS16-	60.1(2.37)	18.3(0.72)	31.3(1.23)	19.8(0.78)	38.0(1.50)	41.0(1.61)	39.1(1.54)
28	1	HJKM-GZ28-RS16-	70.1(2.76)	18.3(0.72)	36.6(1.44)	19.8(0.78)	46.0(1.81)	41.0(1.61)	39.1(1.54)
28	1 1/4	HJKM-GZ28-RS20-	73.9(2.91)	19.8(0.78)	36.6(1.44)	21.8(0.86)	46.0(1.81)	50.0(1.97)	49.0(1.93)
30	1 1/4	HJKM-GZ30-RS20-	79.2(3.12)	19.8(0.78)	39.6(1.56)	26.2(1.03)	50.0(1.97)	50.0(1.97)	49.0(1.93)
32	1 1/4	HJKM-GZ32-RS20-	78.9(3.11)	19.8(0.78)	42.0(1.65)	28.6(1.13)	50.0(1.97)	50.0(1.97)	49.0(1.93)
38	1 1/2	HJKM-GZ38-RS24-	90.8(3.57)	20.6(0.81)	49.4(1.94)	31.8(1.25)	60.0(2.36)	55.0(2.17)	54.7(2.15)

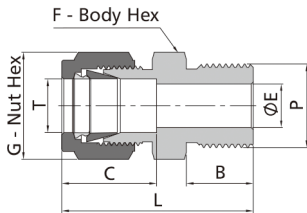


Male Connectors



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Metric Tube			ISO Parallel Thread (RP)						
T-Tube O.D. (mm)	P-RP Size	Basic Ordering Number	Dimensions, mm (in.)						
			L	B	C	E	G	F	D
3	1/8	HJKM-GZ3-RP2-	30.0(1.18)	7.1(0.28)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)	13.8(0.54)
3	1/4	HJKM-GZ3-RP4-	35.3(1.39)	11.2(0.44)	12.9(0.51)	2.4(0.09)	12.0(0.47)	19.0(0.75)	18.0(0.71)
4	1/8	HJKM-GZ4-RP2-	30.7(1.21)	7.1(0.28)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)	13.8(0.54)
6	1/8	HJKM-GZ6-RP2-	32.3(1.27)	7.1(0.28)	15.3(0.60)	4.0(0.16)	14.0(0.55)	14.0(0.55)	13.8(0.54)
6	1/4	HJKM-GZ6-RP4-	37.6(1.48)	11.2(0.44)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)	18.0(0.71)
6	3/8	HJKM-GZ6-RP6-	38.9(1.53)	11.2(0.44)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)	21.8(0.86)
6	1/2	HJKM-GZ6-RP8-	44.7(1.76)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)	26.0(1.02)
8	1/8	HJKM-GZ8-RP2-	33.3(1.31)	7.1(0.28)	16.2(0.64)	4.0(0.16)	16.0(0.63)	15.0(0.59)	13.8(0.54)
8	1/4	HJKM-GZ8-RP4-	38.5(1.52)	11.2(0.44)	16.2(0.64)	5.9(0.23)	16.0(0.63)	19.0(0.75)	18.0(0.71)
8	3/8	HJKM-GZ8-RP6-	39.8(1.57)	11.2(0.44)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)	21.8(0.86)
8	1/2	HJKM-GZ8-RP8-	45.6(1.80)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)	26.0(1.02)
10	1/4	HJKM-GZ10-RP4-	39.4(1.55)	11.2(0.44)	17.2(0.68)	5.9(0.23)	19.0(0.75)	19.0(0.75)	18.0(0.71)
10	3/8	HJKM-GZ10-RP6-	42.8(1.69)	11.2(0.44)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	21.8(0.86)
10	1/2	HJKM-GZ10-RP8-	46.5(1.83)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)	26.0(1.02)
12	1/4	HJKM-GZ12-RP4-	42.6(1.68)	11.2(0.44)	22.8(0.90)	5.9(0.23)	22.0(0.87)	22.0(0.87)	18.0(0.71)
12	3/8	HJKM-GZ12-RP6-	43.1(1.70)	11.2(0.44)	22.8(0.90)	7.9(0.31)	22.0(0.87)	22.0(0.87)	21.8(0.86)
12	1/2	HJKM-GZ12-RP8-	52.1(2.05)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)	26.0(1.02)
12	3/4	HJKM-GZ12-RP12-	52.8(2.08)	15.7(0.62)	22.8(0.90)	9.5(0.37)	22.0(0.87)	35.0(1.38)	32.0(1.26)
15	1/2	HJKM-GZ15-RP8-	47.5(1.87)	14.2(0.56)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	26.0(1.02)
16	3/8	HJKM-GZ16-RP6-	43.9(1.73)	11.2(0.44)	24.4(0.96)	7.9(0.31)	25.0(0.98)	24.0(0.94)	21.8(0.86)
16	1/2	HJKM-GZ16-RP8-	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	26.0(1.02)
18	1/2	HJKM-GZ18-RP8-	49.0(1.93)	14.2(0.56)	24.4(0.96)	11.9(0.47)	30.0(1.18)	27.0(1.06)	26.0(1.02)
18	3/4	HJKM-GZ18-RP12-	52.8(2.08)	15.7(0.62)	24.4(0.96)	15.1(0.59)	30.0(1.18)	35.0(1.38)	32.0(1.26)
20	1/2	HJKM-GZ20-RP8-	50.5(1.99)	14.2(0.56)	26.0(1.02)	11.9(0.47)	32.0(1.26)	30.0(1.18)	26.0(1.02)
20	3/4	HJKM-GZ20-RP12-	52.8(2.08)	15.7(0.62)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	32.0(1.26)
22	3/4	HJKM-GZ22-RP12-	52.8(2.08)	15.7(0.62)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	32.0(1.26)
22	1	HJKM-GZ22-RP16-	55.3(2.18)	18.3(0.72)	26.0(1.02)	18.3(0.72)	32.0(1.26)	41.0(1.61)	39.0(1.54)
25	3/4	HJKM-GZ25-RP12-	57.5(2.26)	15.7(0.62)	31.3(1.23)	15.9(0.63)	38.0(1.50)	35.0(1.38)	32.0(1.26)
25	1	HJKM-GZ25-RP16-	60.1(2.37)	18.3(0.72)	31.3(1.23)	19.8(0.78)	38.0(1.50)	41.0(1.61)	39.0(1.54)
28	1	HJKM-GZ28-RP16-	70.1(2.76)	18.3(0.72)	36.6(1.44)	19.8(0.78)	46.0(1.81)	41.0(1.61)	39.0(1.54)
28	1 1/4	HJKM-GZ28-RP20-	73.9(2.91)	19.8(0.78)	36.6(1.44)	21.8(0.86)	46.0(1.81)	50.0(1.97)	49.0(1.93)
30	1 1/4	HJKM-GZ30-RP20-	76.5(3.01)	19.8(0.78)	39.6(1.56)	26.2(1.03)	50.0(1.97)	50.0(1.97)	49.0(1.93)
32	1 1/4	HJKM-GZ32-RP20-	78.9(3.11)	19.8(0.78)	42.0(1.65)	28.6(1.13)	50.0(1.97)	50.0(1.97)	49.0(1.93)
38	1 1/2	HJKM-GZ38-RP24-	89.3(3.52)	20.6(0.81)	49.4(1.94)	31.8(1.25)	60.0(2.36)	55.0(2.17)	54.7(2.15)

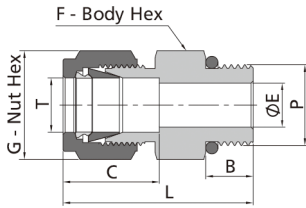


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Metric Tube			ISO Parallel Thread (BP)					
T-Tube O.D. (mm)	P-BP Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
6	1/4	HJKM-GZ6-BP4-	36.9(1.45)	12.9(0.51)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	3/8	HJKM-GZ6-BP6-	39.5(1.56)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	18.0(0.71)
8	1/8	HJKM-GZ8-BP2-	33.9(1.33)	9.8(0.39)	16.2(0.64)	4.0(0.16)	16.0(0.63)	14.0(0.55)
8	1/4	HJKM-GZ8-BP4-	37.0(1.46)	12.9(0.51)	16.2(0.64)	6.4(0.25)	16.0(0.63)	14.0(0.55)
8	3/8	HJKM-GZ8-BP6-	39.3(1.55)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)
8	1/2	HJKM-GZ8-BP8-	45.4(1.79)	18.8(0.74)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)
10	1/4	HJKM-GZ10-BP4-	39.5(1.56)	12.9(0.51)	17.2(0.68)	5.9(0.23)	19.0(0.75)	18.0(0.71)
10	1/2	HJKM-GZ10-BP8-	46.3(1.82)	18.8(0.74)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
12	3/8	HJKM-GZ12-BP6-	44.2(1.74)	14.2(0.56)	22.8(0.90)	7.9(0.31)	22.0(0.87)	22.0(0.87)
12	1/2	HJKM-GZ12-BP8-	52.1(2.05)	18.8(0.74)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
14	1/4	HJKM-GZ14-BP4-	42.9(1.69)	12.9(0.51)	24.4(0.96)	5.9(0.23)	25.0(0.98)	24.0(0.94)
16	3/8	HJKM-GZ16-BP6-	43.4(1.71)	14.2(0.56)	24.4(0.96)	7.9(0.31)	25.0(0.98)	24.0(0.94)
16	1/2	HJKM-GZ16-BP8-	47.9(1.89)	18.8(0.74)	24.4(0.96)	9.5(0.37)	25.0(0.98)	24.0(0.94)
18	1/2	HJKM-GZ18-BP8-	49.8(1.96)	18.8(0.74)	24.4(0.96)	9.5(0.37)	30.0(1.18)	27.0(1.06)

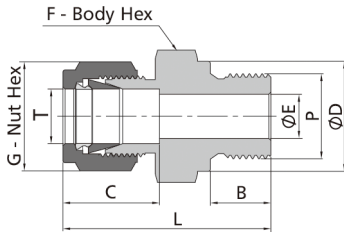


Male Connectors

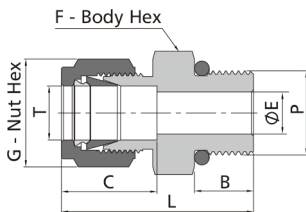


1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of SAE J1926-1, ISO 11926-1 and MS 16142.



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.



1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of ISO 6149-1.

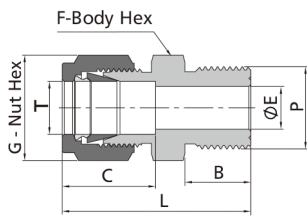
Metric Tube				SAE/MS Straight Threads (ST)					
T-Tube O.D. (mm)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, mm (in.)					
				L	B	C	E	G	F
6	6	9/16-18	HJKM-GZ6-ST9-	35.6(1.40)	9.9(0.39)	15.3(0.60)	4.8(0.19)	14.0(0.55)	18.0(0.71)
10	6	9/16-18	HJKM-GZ10-ST9-	37.3(1.47)	9.9(0.39)	17.2(0.68)	7.1(0.28)	19.0(0.75)	18.0(0.71)
10	8	3/4-16	HJKM-GZ10-ST12-	39.4(1.55)	11.2(0.44)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
12	4	7/16-20	HJKM-GZ12-ST7-	40.6(1.60)	9.1(0.36)	22.8(0.90)	5.2(0.20)	22.0(0.87)	22.0(0.87)
12	6	9/16-18	HJKM-GZ12-ST9-	39.9(1.57)	9.9(0.39)	22.8(0.90)	7.1(0.28)	22.0(0.87)	22.0(0.87)

Metric Tube			Metric Thread (MRS)						
T-Tube O.D. (mm)	P-Metric Thread Size	Basic Ordering Number	Dimensions, mm (in.)						
			L	B	C	E	G	F	D
6	M8 x 1	HJKM-GZ6-MRS8-	33.3(1.31)	8.0(0.31)	8.0(0.31)	3.0(0.12)	14.0(0.55)	14.0(0.55)	12.0(0.47)
6	M10 x 1	HJKM-GZ6-MRS10-	33.3(1.31)	8.0(0.31)	8.0(0.31)	4.0(0.16)	14.0(0.55)	14.0(0.55)	14.0(0.55)
6	M12 x 1.5	HJKM-GZ6-MRS12-	38.2(1.50)	12.0(0.47)	12.0(0.47)	4.8(0.19)	14.0(0.55)	18.0(0.71)	17.0(0.67)
6	M14 x 1.5	HJKM-GZ6-MRS14-	39.7(1.56)	12.0(0.47)	12.0(0.47)	4.8(0.19)	14.0(0.55)	22.0(0.87)	19.0(0.75)
8	M8 x 1	HJKM-GZ8-MRS8-	34.1(1.34)	8.0(0.31)	8.0(0.31)	3.0(0.12)	16.0(0.63)	14.0(0.55)	12.0(0.47)
8	M10 x 1	HJKM-GZ8-MRS10-	34.1(1.34)	8.0(0.31)	8.0(0.31)	5.0(0.20)	16.0(0.63)	14.0(0.55)	14.0(0.55)
8	M12 x 1.5	HJKM-GZ8-MRS12-	40.4(1.59)	12.0(0.47)	12.0(0.47)	6.0(0.24)	16.0(0.63)	18.0(0.71)	17.0(0.67)
8	M14 x 1.5	HJKM-GZ8-MRS14-	40.4(1.59)	12.0(0.47)	12.0(0.47)	6.4(0.25)	16.0(0.63)	19.0(0.75)	19.0(0.75)
10	M12 x 1.5	HJKM-GZ10-MRS12-	40.7(1.60)	12.0(0.47)	12.0(0.47)	6.0(0.24)	19.0(0.75)	18.0(0.71)	17.0(0.67)
10	M14 x 1.5	HJKM-GZ10-MRS14-	39.5(1.56)	12.0(0.47)	12.0(0.47)	7.9(0.31)	19.0(0.75)	19.0(0.75)	19.0(0.75)
12	M16 x 1.5	HJKM-GZ12-MRS16-	45.5(1.79)	12.0(0.47)	12.0(0.47)	9.0(0.35)	22.0(0.87)	22.0(0.87)	21.0(0.83)
12	M20 x 1.5	HJKM-GZ12-MRS20-	47.2(1.86)	14.0(0.55)	14.0(0.55)	9.5(0.37)	22.0(0.87)	25.0(0.98)	25.0(0.98)
12	M22 x 1.5	HJKM-GZ12-MRS22-	47.5(1.87)	14.0(0.55)	14.0(0.55)	9.5(0.37)	22.0(0.87)	27.0(1.06)	27.0(1.06)
14	M14 x 1.5	HJKM-GZ14-MRS14-	44.9(1.77)	12.0(0.47)	12.0(0.47)	8.0(0.31)	25.0(0.98)	24.0(0.94)	19.0(0.75)
14	M20 x 1.5	HJKM-GZ14-MRS20-	48.0(1.89)	14.0(0.55)	14.0(0.55)	11.1(0.44)	25.0(0.98)	27.0(1.06)	25.0(0.98)
16	M20 x 1.5	HJKM-GZ16-MRS20-	48.0(1.89)	14.0(0.55)	14.0(0.55)	12.0(0.47)	25.0(0.98)	25.0(0.98)	25.0(0.98)
18	M20 x 1.5	HJKM-GZ18-MRS20-	48.5(1.91)	14.0(0.55)	14.0(0.55)	12.0(0.47)	30.0(1.18)	27.0(1.06)	25.0(0.98)
20	M20 x 1.5	HJKM-GZ20-MRS20-	50.0(1.97)	14.0(0.55)	14.0(0.55)	12.0(0.47)	32.0(1.26)	30.0(1.18)	25.0(0.98)
22	M24 x 1.5	HJKM-GZ22-MRS24-	50.5(1.99)	14.0(0.55)	14.0(0.55)	15.0(0.59)	32.0(1.26)	30.0(1.18)	28.8(1.13)
25	M27 x 2	HJKM-GZ25-MRS27-	57.5(2.26)	16.0(0.63)	16.0(0.63)	16.8(0.66)	38.0(1.50)	35.0(1.38)	32.0(1.26)

Metric Tube			SAE/MS Straight Threads (ST)					
T-Tube O.D. (mm)	P-SAE Nominal Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
6	M14 x 1.5	HJKM-GZ6-MST14-	38.7(1.52)	11.0(0.43)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
10	M14 x 1.5	HJKM-GZ10-MST14-	40.0(1.57)	11.0(0.43)	17.2(0.68)	7.5(0.30)	19.0(0.75)	19.0(0.75)
10	M20 x 1.5	HJKM-GZ10-MST20-	47.2(1.86)	14.0(0.55)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)
12	M14 x 1.5	HJKM-GZ12-MST14-	40.2(1.58)	11.0(0.43)	22.8(0.90)	7.5(0.30)	22.0(0.87)	22.0(0.87)
12	M20 x 1.5	HJKM-GZ12-MST20-	47.2(1.86)	14.0(0.55)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)



Male Connectors

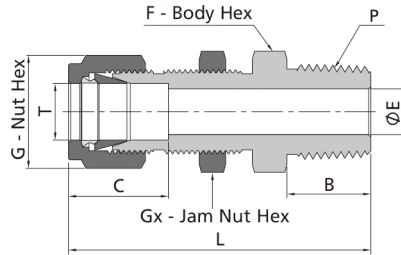


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Metric Tube			ISO Parallel Thread (BP)					
T-Tube O.D. (mm)	P-BP Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
6	M6 x 1	HJKM-GZ6-MS6-	32.4(1.28)	8.0(0.31)	2.0(0.08)	2.0(0.08)	14.0(0.55)	14.0(0.55)
6	M8 x 1	HJKM-GZ6-MS8-	35.3(1.39)	9.0(0.35)	3.0(0.12)	3.0(0.12)	14.0(0.55)	14.0(0.55)
6	M10 x 1	HJKM-GZ6-MS10-	34.7(1.37)	11.0(0.43)	4.7(0.19)	4.7(0.19)	14.0(0.55)	14.0(0.55)
6	M12 x 1.5	HJKM-GZ6-MS12-	36.4(1.43)	12.0(0.47)	4.8(0.19)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	M14 x 1.5	HJKM-GZ6-MS14-	36.5(1.44)	13.0(0.51)	4.8(0.19)	4.8(0.19)	14.0(0.55)	16.0(0.63)
6	M16 x 1.5	HJKM-GZ6-MS16-	38.4(1.51)	14.0(0.55)	4.8(0.19)	4.8(0.19)	14.0(0.55)	18.0(0.71)
6	M18 x 1.5	HJKM-GZ6-MS18-	40.0(1.57)	15.0(0.59)	4.8(0.19)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	M20 x 1.5	HJKM-GZ6-MS20-	41.7(1.64)	16.0(0.63)	4.8(0.19)	4.8(0.19)	14.0(0.55)	22.0(0.87)
8	M8 x 1	HJKM-GZ8-MS8-	34.5(1.36)	9.0(0.35)	3.0(0.12)	3.0(0.12)	16.0(0.63)	14.0(0.55)
8	M10 x 1	HJKM-GZ8-MS10-	36.6(1.44)	11.0(0.43)	4.7(0.19)	4.7(0.19)	16.0(0.63)	14.0(0.55)
8	M12 x 1.5	HJKM-GZ8-MS12-	36.6(1.44)	12.0(0.47)	6.0(0.24)	6.0(0.24)	16.0(0.63)	14.0(0.55)
8	M14 x 1.5	HJKM-GZ8-MS14-	37.7(1.48)	13.0(0.51)	6.4(0.25)	6.4(0.25)	16.0(0.63)	16.0(0.63)
8	M20 x 1.5	HJKM-GZ8-MS20-	42.5(1.67)	16.0(0.63)	6.4(0.25)	6.4(0.25)	16.0(0.63)	22.0(0.87)
10	M12 x 1.5	HJKM-GZ10-MS12-	38.7(1.52)	12.0(0.47)	6.0(0.24)	6.0(0.24)	19.0(0.75)	18.0(0.71)
10	M14 x 1.5	HJKM-GZ10-MS14-	39.7(1.56)	13.0(0.51)	7.2(0.28)	7.2(0.28)	19.0(0.75)	18.0(0.71)
10	M20 x 1.5	HJKM-GZ10-MS20-	43.5(1.71)	16.0(0.63)	7.9(0.31)	7.9(0.31)	19.0(0.75)	22.0(0.87)
12	M12 x 1.5	HJKM-GZ12-MS12-	41.2(1.62)	12.0(0.47)	6.0(0.24)	6.0(0.24)	22.0(0.87)	22.0(0.87)
12	M16 x 1.5	HJKM-GZ12-MS16-	43.2(1.70)	14.0(0.55)	8.4(0.33)	8.4(0.33)	22.0(0.87)	22.0(0.87)
12	M18 x 1.5	HJKM-GZ12-MS18-	44.2(1.74)	15.0(0.59)	9.5(0.37)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	M20 x 1.5	HJKM-GZ12-MS20-	45.2(1.78)	16.0(0.63)	9.5(0.37)	9.5(0.37)	22.0(0.87)	22.0(0.87)
14	M14 x 1.5	HJKM-GZ14-MS14-	42.5(1.67)	13.0(0.51)	7.2(0.28)	7.2(0.28)	25.0(0.98)	24.0(0.94)
14	M16 x 1.5	HJKM-GZ14-MS16-	43.9(1.73)	14.0(0.55)	8.4(0.33)	8.4(0.33)	25.0(0.98)	24.0(0.94)
14	M20 x 1.5	HJKM-GZ14-MS20-	45.1(1.78)	16.0(0.63)	10.8(0.43)	10.8(0.43)	25.0(0.98)	24.0(0.94)
16	M20 x 1.5	HJKM-GZ16-MS20-	46.1(1.81)	16.0(0.63)	10.8(0.43)	10.8(0.43)	25.0(0.98)	24.0(0.94)
18	M20 x 1.5	HJKM-GZ18-MS20-	47.5(1.87)	16.0(0.63)	10.8(0.43)	10.8(0.43)	30.0(1.18)	27.0(1.06)
18	M22 x 1.5	HJKM-GZ18-MS22-	48.5(1.91)	17.0(0.67)	12.0(0.47)	12.0(0.47)	30.0(1.18)	27.0(1.06)
20	M20 x 1.5	HJKM-GZ20-MS20-	49.5(1.95)	16.0(0.63)	10.8(0.43)	10.8(0.43)	32.0(1.26)	30.0(1.18)
22	M24 x 1.5	HJKM-GZ22-MS24-	50.5(1.99)	17.0(0.67)	14.4(0.57)	14.4(0.57)	32.0(1.26)	30.0(1.18)
25	M27 x 2	HJKM-GZ25-MS27-	57.0(2.24)	18.0(0.71)	16.1(0.63)	16.1(0.63)	38.0(1.50)	35.0(1.38)



Bulkhead Male Connectors



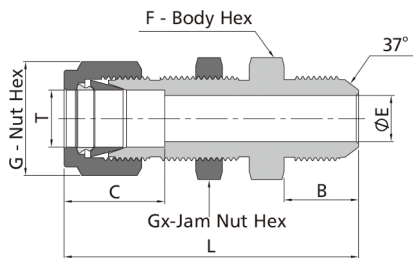
The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube										NPT Thread	
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	G	F	Gx		
1/16	1/16	HJCKM-YZ1-NPT1-	1.19(30.2)	0.38(9.7)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.31(7.9)	0.31(7.9)	0.20(5.2)	0.25(6.4)
1/16	1/8	HJCKM-YZ1-NPT2-	1.27(32.3)	0.38(9.7)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)	0.31(7.9)	0.20(5.2)	0.25(6.4)
1/8	1/8	HJCKM-YZ2-NPT2-	1.83(46.5)	0.38(9.7)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.50(12.7)	0.50(12.7)	0.33(8.3)	0.50(12.7)
3/16	1/8	HJCKM-YZ3-NPT2-	1.89(48.0)	0.38(9.7)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.39(9.9)	0.50(12.7)
1/4	1/8	HJCKM-YZ4-NPT2-	1.95(49.5)	0.38(9.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	1/4	HJCKM-YZ4-NPT4-	2.13(54.1)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	3/8	HJCKM-YZ4-NPT6-	2.16(54.9)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.63(15.9)	0.69(17.5)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	1/2	HJCKM-YZ4-NPT8-	2.37(60.3)	0.75(19.1)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)	0.63(15.9)	0.45(11.5)	0.40(10.2)
5/16	1/8	HJCKM-YZ5-NPT2-	2.08(52.8)	0.38(9.7)	0.64(16.3)	0.19(4.8)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.44(11.2)
5/16	1/4	HJCKM-YZ5-NPT4-	2.27(57.7)	0.56(14.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.44(11.2)
3/8	1/8	HJCKM-YZ6-NPT2-	2.08(52.9)	0.38(9.7)	0.66(16.8)	0.19(4.8)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	1/4	HJCKM-YZ6-NPT4-	2.26(57.4)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	3/8	HJCKM-YZ6-NPT6-	2.26(57.4)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	1/2	HJCKM-YZ6-NPT8-	2.51(63.8)	0.75(19.1)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)	0.87(22.2)	0.58(14.7)	0.44(11.2)
1/2	1/8	HJCKM-YZ8-NPT2-	2.31(58.7)	0.38(9.7)	0.90(22.9)	0.19(4.8)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	1/4	HJCKM-YZ8-NPT4-	2.49(63.2)	0.56(14.2)	0.90(22.9)	0.28(7.1)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	3/8	HJCKM-YZ8-NPT6-	2.49(63.2)	0.56(14.2)	0.90(22.9)	0.38(9.7)	0.87(22.2)	0.94(23.8)	0.87(22.2)	0.76(19.4)	0.50(12.7)
1/2	1/2	HJCKM-YZ8-NPT8-	2.71(68.8)	0.75(19.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
5/8	3/8	HJCKM-YZ10-NPT6-	2.63(66.7)	0.56(14.2)	0.96(24.4)	0.38(9.7)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
5/8	1/2	HJCKM-YZ10-NPT8-	2.81(71.5)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
3/4	1/2	HJCKM-YZ12-NPT8-	3.00(76.2)	0.75(19.1)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.66(16.8)
3/4	3/4	HJCKM-YZ12-NPT12-	3.00(76.2)	0.75(19.1)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.66(16.8)
7/8	3/4	HJCKM-YZ14-NPT12-	3.31(84.1)	0.75(19.1)	1.02(25.9)	0.62(15.7)	1.25(31.8)	1.31(33.3)	1.31(33.3)	1.14(29.0)	0.75(19.1)
1	3/4	HJCKM-YZ16-NPT12-	3.48(88.4)	0.75(19.1)	1.23(31.2)	0.62(15.7)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.75(19.1)
1	1	HJCKM-YZ16-NPT16-	3.67(93.2)	0.94(23.9)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.75(19.1)

Fractional Tube										NPT Thread	
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	G	F	Gx		
6	1/8	HJCKM-GZ6-NPT2-	49.6(1.95)	9.7(0.38)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	16.0(0.63)	11.5(0.45)	10.2(0.40)
6	1/4	HJCKM-GZ6-NPT4-	53.6(2.11)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	16.0(0.63)	11.5(0.45)	10.2(0.40)
8	1/8	HJCKM-GZ8-NPT2-	52.3(2.06)	9.7(0.38)	16.2(0.64)	4.8(0.19)	16.0(0.63)	18.0(0.71)	18.0(0.71)	13.1(0.52)	11.2(0.44)
8	1/4	HJCKM-GZ8-NPT4-	56.6(2.23)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)	18.0(0.71)	13.1(0.52)	11.2(0.44)
10	1/4	HJCKM-GZ10-NPT4-	58.4(2.30)	14.2(0.56)	17.2(0.68)	7.1(0.28)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
10	3/8	HJCKM-GZ10-NPT6-	58.4(2.30)	14.2(0.56)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
10	1/2	HJCKM-GZ10-NPT8-	63.1(2.48)	19.1(0.75)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
12	1/4	HJCKM-GZ12-NPT4-	63.9(2.52)	14.2(0.56)	22.8(0.90)	7.1(0.28)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)
12	3/8	HJCKM-GZ12-NPT6-	63.9(2.52)	14.2(0.56)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)
12	1/2	HJCKM-GZ12-NPT8-	68.8(2.71)	19.1(0.75)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)



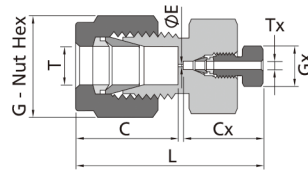
Bulkhead Male Connectors



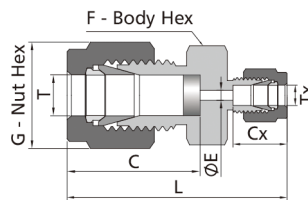
The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube										37° Flare (AN)	
T-Tube O.D. (in.)	AN Tube Flare Size	Basic Ordering Number	Dimensions, in. (mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	G	F	Gx		
1/8	1/8	HJCKM-YZ2-AN2-	1.91(48.5)	0.45(11.4)	0.50(12.7)	0.06(1.5)	0.44(11.1)	0.50(12.7)	0.50(12.7)	0.33(8.3)	0.50(12.7)
1/8	1/4	HJCKM-YZ2-AN4-	2.04(51.8)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.63(15.9)	0.50(12.7)	0.33(8.3)	0.50(12.7)
3/16	3/16	HJCKM-YZ3-AN3-	1.98(50.3)	0.48(12.2)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.39(9.9)	0.50(12.7)
1/4	1/4	HJCKM-YZ4-AN4-	2.12(53.8)	0.55(14.0)	0.60(15.2)	0.17(4.3)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
5/16	5/16	HJCKM-YZ5-AN5-	2.21(56.1)	0.55(14.0)	0.64(16.2)	0.23(5.8)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.56(14.3)
3/8	1/4	HJCKM-YZ6-AN4-	2.25(57.2)	0.55(14.0)	0.66(16.8)	0.17(4.3)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	3/8	HJCKM-YZ6-AN6-	2.25(57.2)	0.56(14.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
1/2	1/2	HJCKM-YZ8-AN8-	2.59(65.8)	0.66(16.8)	0.90(22.8)	0.39(9.9)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
5/8	5/8	HJCKM-YZ10-AN10-	2.74(69.6)	0.76(19.3)	0.96(24.4)	0.48(12.3)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
3/4	3/4	HJCKM-YZ12-AN12-	3.11(79.0)	0.86(21.8)	0.96(24.4)	0.61(15.5)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.66(16.8)
1	1	HJCKM-YZ16-AN16-	3.64(92.5)	0.91(23.1)	1.23(31.2)	0.84(21.3)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.75(19.1)

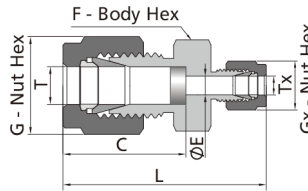
Column End Fittings



Fractional Tube									
T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)						Dead Volume
			L	C	Cx	E	G	Gx	
1/4	1/16	HJKU-YZ4-NYZ1-	1.24(31.5)	0.60(15.2)	0.61(15.5)	0.01(0.3)	0.56(14.3)	0.25(6.4)	$6.8 \times 10^{-5} \text{ cm}^3$
3/8	1/16	HJKU-YZ6-NYZ1-	1.30(33.0)	0.66(16.8)	0.61(15.5)	0.01(0.3)	0.69(17.5)	0.25(6.4)	$6.8 \times 10^{-5} \text{ cm}^3$



Fractional Tube									
T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)						Dead Volume
			L	C	Cx	G	F	E	
1/8	1/16	HJKU-YZ2SN7-YZ1-	1.22(31.0)	0.72(18.3)	0.34(8.6)	0.44(11.1)	0.44(11.1)	0.05(1.3)	$5.4 \times 10^{-3} \text{ cm}^3$
1/4	1/16	HJKU-YZ4SN7-YZ1-	1.35(34.3)	0.82(20.8)	0.34(8.6)	0.56(14.3)	0.50(12.7)	0.05(1.3)	$6.7 \times 10^{-3} \text{ cm}^3$
3/8	1/16	HJKU-YZ6SN7-YZ1-	1.44(36.6)	0.91(23.1)	0.34(8.6)	0.69(17.5)	0.63(15.9)	0.05(1.3)	$6.5 \times 10^{-3} \text{ cm}^3$

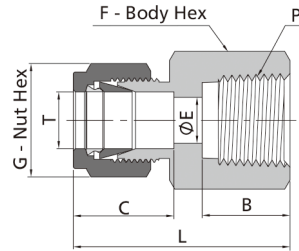


Fractional Tube									
T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)						Dead Volume
			L	C	G	Gx	F	E	
1/8	1/16	HJKU-YZ2SN7-TYZ1-	1.22(31.0)	0.72(18.3)	0.44(11.1)	0.44(11.1)	0.44(11.1)	0.07(1.7)	0
1/4	1/16	HJKU-YZ4SN7-TYZ1-	1.35(34.3)	0.82(20.8)	0.56(14.3)	0.50(12.7)	0.50(12.7)	0.07(1.7)	0
3/8	1/16	HJKU-YZ6SN7-TYZ1-	1.44(36.6)	0.91(23.1)	0.69(17.5)	0.63(15.9)	0.63(15.9)	0.07(1.7)	0
1/2	1/16	HJKU-YZ8SN7-TYZ1-	1.58(40.1)	1.04(26.4)	0.87(22.2)	0.81(20.6)	0.81(20.6)	0.07(1.7)	0

Nominal pore size of SN7 Stainless steel sinter is 7 μm , and other nominal pore sizes are available. Stainless steel sinters are loosely installed to facilitate removal and replacement.



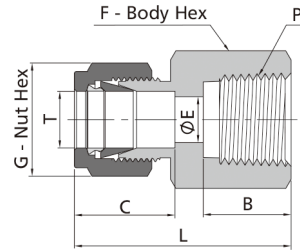
Female Connectors



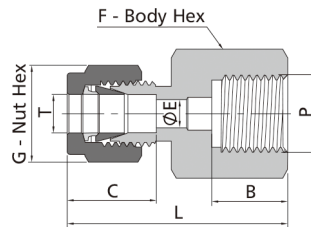
Fractional Tube			NPT Thread					
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/16	1/16	HJKF-YZ1-NPT1-	0.93(23.6)	0.39(9.9)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)
1/16	1/8	HJKF-YZ1-NPT2-	0.96(24.4)	0.41(10.4)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.56(14.3)
1/8	1/8	HJKF-YZ2-NPT2-	1.13(28.7)	0.41(10.4)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)
1/8	1/4	HJKF-YZ2-NPT4-	1.32(33.5)	0.59(15.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)
3/16	1/8	HJKF-YZ3-NPT2-	1.17(29.7)	0.41(10.4)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)
1/4	1/8	HJKF-YZ4-NPT2-	1.23(31.2)	0.41(10.4)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	1/4	HJKF-YZ4-NPT4-	1.41(35.8)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)
1/4	3/8	HJKF-YZ4-NPT6-	1.48(37.6)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
1/4	1/2	HJKF-YZ4-NPT8-	1.67(42.4)	0.78(19.8)	0.60(15.2)	16.3(4.8)	0.56(14.3)	1.06(27.0)
5/16	1/8	HJKF-YZ5-NPT2-	1.26(32.0)	0.41(10.4)	0.64(16.3)	16.3(6.4)	0.63(15.9)	0.56(14.3)
5/16	1/4	HJKF-YZ5-NPT4-	1.45(36.8)	0.59(15.0)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.75(19.1)
3/8	1/8	HJKF-YZ6-NPT2-	1.29(32.8)	0.41(10.4)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)
3/8	1/4	HJKF-YZ6-NPT4-	1.48(37.6)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)
3/8	3/8	HJKF-YZ6-NPT6-	1.54(39.1)	0.59(15.0)	0.66(16.8)	1.34(7.1)	0.69(17.5)	0.88(22.2)
3/8	1/2	HJKF-YZ6-NPT8-	1.73(43.9)	0.78(19.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
3/8	3/4	HJKF-YZ6-NPT12-	1.88(47.8)	0.81(20.6)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.31(33.3)
1/2	1/4	HJKF-YZ8-NPT4-	1.59(40.4)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)
1/2	3/8	HJKF-YZ8-NPT6-	1.65(41.9)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	1/2	HJKF-YZ8-NPT8-	1.84(46.7)	0.78(19.8)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)
1/2	3/4	HJKF-YZ8-NPT12-	1.90(48.3)	0.81(20.6)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.31(33.3)
5/8	3/8	HJKF-YZ10-NPT6-	1.65(41.9)	0.59(15.0)	0.96(24.4)	0.50(12.7)	1.00(25.4)	0.94(23.8)
5/8	1/2	HJKF-YZ10-NPT8-	1.84(46.7)	0.78(19.8)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)
3/4	1/2	HJKF-YZ12-NPT8-	1.84(46.7)	0.78(19.8)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)
3/4	3/4	HJKF-YZ12-NPT12-	1.90(48.3)	0.81(20.6)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.31(33.3)
7/8	3/4	HJKF-YZ14-NPT12-	1.96(49.8)	0.81(20.6)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.31(33.3)
1	3/4	HJKF-YZ16-NPT12-	2.10(53.3)	0.81(20.6)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)
1	1	HJKF-YZ16-NPT16-	2.45(62.2)	1.00(25.4)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)
1 1/4	1 1/4	HJKF-YZ20-NPT20-	2.94(74.7)	1.00(25.4)	1.62(41.1)	1.09(27.7)	1.87(47.6)	2.13(54.0)
1 1/2	1 1/2	HJKF-YZ24-NPT24-	3.30(83.8)	1.09(27.7)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.37(60.3)



Female Connectors



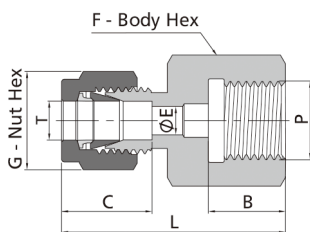
Fractional Tube			ISO Tapered Thread (RT)					
T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/4	1/8	HJKF-YZ4-RT2-	1.23(31.2)	0.41(10.4)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.56(14.3)
1/4	1/4	HJKF-YZ4-RT4-	1.41(35.8)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)
1/4	3/8	HJKF-YZ4-RT6-	1.48(37.6)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
1/4	1/2	HJKF-YZ4-RT8-	1.67(42.4)	0.78(19.8)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)
3/8	1/4	HJKF-YZ6-RT4-	1.48(37.6)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)
3/8	3/8	HJKF-YZ6-RT6-	1.54(39.1)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	1/2	HJKF-YZ6-RT8-	1.73(43.9)	0.78(19.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	1/4	HJKF-YZ8-RT4-	1.59(40.4)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)
1/2	3/8	HJKF-YZ8-RT6-	1.65(41.9)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.87(22.2)
1/2	1/2	HJKF-YZ8-RT8-	1.84(46.7)	0.78(19.8)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)



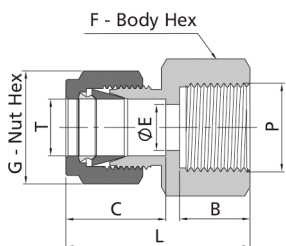
Fractional Tube			ISO Parallel Thread (RG)					
T-Tube O.D. (in.)	P-RG Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/8	1/4	HJKF-YZ2-RG4-	1.39(35.3)	0.51(12.9)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)
1/8	3/8	HJKF-YZ2-RG6-	1.52(38.7)	0.56(14.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.94(23.8)
1/4	1/4	HJKF-YZ4-RG4-	1.48(37.6)	0.51(12.9)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)
1/4	3/8	HJKF-YZ4-RG6-	1.48(37.6)	0.56(14.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.94(23.8)
1/4	1/2	HJKF-YZ4-RG8-	1.71(43.4)	0.74(18.8)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)
5/16	1/4	HJKF-YZ5-RG4-	1.51(38.4)	0.51(12.9)	0.64(16.3)	0.22(5.6)	0.63(15.9)	0.75(19.1)
5/16	3/8	HJKF-YZ5-RG6-	1.45(36.9)	0.56(14.2)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.94(23.8)
5/16	1/2	HJKF-YZ5-RG8-	1.61(40.9)	0.74(18.8)	0.64(16.3)	0.28(7.1)	0.63(15.9)	1.06(27.0)
3/8	1/4	HJKF-YZ6-RG4-	1.54(39.1)	0.51(12.9)	0.66(16.8)	0.22(5.6)	0.69(17.5)	0.75(19.1)
3/8	3/8	HJKF-YZ6-RG6-	1.52(38.6)	0.56(14.2)	0.66(16.8)	0.25(6.4)	0.69(17.5)	0.94(23.8)
3/8	1/2	HJKF-YZ6-RG8-	1.65(41.9)	0.74(18.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	1/4	HJKF-YZ8-RG4-	1.65(41.9)	0.51(12.9)	0.90(22.9)	0.22(5.6)	0.87(22.2)	0.87(22.2)
1/2	3/8	HJKF-YZ8-RG6-	1.75(44.5)	0.56(14.2)	0.90(22.9)	0.25(6.4)	0.87(22.2)	0.94(23.8)
1/2	1/2	HJKF-YZ8-RG8-	1.90(48.3)	0.74(18.8)	0.90(22.9)	0.28(7.1)	0.87(22.2)	1.06(27.0)



Female Connectors



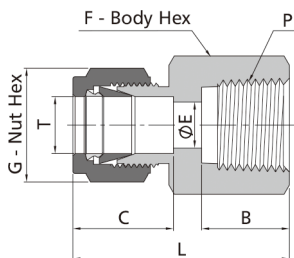
Adapt to Japanese gauge stud
(JIS B7505)



Fractional Tube			ISO Parallel Thread (RJ)					
T-Tube O.D. (in.)	P-RJ Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/4	1/4	HJKF-YJ4-RJ4-	1.48(37.6)	0.51(12.9)	0.60(15.2)	0.18(4.6)	0.56(14.3)	0.75(19.1)
1/4	3/8	HJKF-YJ4-RJ6-	1.48(37.6)	0.62(15.8)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.94(23.8)
1/4	1/2	HJKF-YJ4-RJ8-	1.71(43.4)	0.74(18.8)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)
5/16	1/4	HJKF-YJ5-RJ4-	1.51(38.4)	0.51(12.9)	0.64(16.3)	0.22(5.6)	0.63(15.9)	0.75(19.1)
5/16	1/2	HJKF-YJ5-RJ8-	1.61(40.9)	0.74(18.8)	0.64(16.3)	0.28(7.1)	0.63(15.9)	1.06(27.0)
3/8	1/4	HJKF-YJ6-RJ4-	1.54(39.1)	0.51(12.9)	0.66(16.8)	0.22(5.6)	0.69(17.5)	0.75(19.1)
3/8	3/8	HJKF-YJ6-RJ6-	1.52(38.6)	0.62(15.8)	0.66(16.8)	0.25(6.4)	0.69(17.5)	0.94(23.8)
3/8	1/2	HJKF-YJ6-RJ8-	1.65(41.9)	0.74(18.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	1/4	HJKF-YJ8-RJ4-	1.65(41.9)	0.51(12.9)	0.90(22.9)	0.22(5.6)	0.87(22.2)	0.81(20.6)
1/2	3/8	HJKF-YJ8-RJ6-	1.75(44.5)	0.62(15.8)	0.90(22.9)	0.25(6.4)	0.87(22.2)	0.94(23.8)
1/2	1/2	HJKF-YJ8-RJ8-	1.90(48.3)	0.74(18.8)	0.90(22.9)	0.28(7.1)	0.87(22.2)	1.06(27.0)

Fractional Tube			Metric Thread					
T-Tube O.D. (in.)	P-Metric Thread Size	Basic Ordering Number	Dimensions, in. (mm)					
			L	B	C	E	G	F
1/8	M14 x 1.5	HJKF-YZ2-MS14-	1.22(31.0)	0.51(13.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)
1/8	M16 x 1.5	HJKF-YZ2-MS16-	1.31(33.3)	0.55(14.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.87(22.2)
1/8	M18 x 1.5	HJKF-YZ2-MS18-	1.35(34.3)	0.59(15.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	1.00(25.4)
1/8	M20 x 1.5	HJKF-YZ2-MS20-	1.39(35.3)	0.63(16.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	1.06(27.0)
1/4	M16 x 1.5	HJKF-YZ4-MS16-	1.41(35.8)	0.55(14.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)
1/4	M18 x 1.5	HJKF-YZ4-MS18-	1.45(36.8)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.00(25.4)
1/4	M20 x 1.5	HJKF-YZ4-MS20-	1.49(37.8)	0.63(16.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)
3/8	M14 x 1.5	HJKF-YZ6-MS14-	1.46(37.1)	0.51(13.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)
3/8	M16 x 1.5	HJKF-YZ6-MS16-	1.48(37.5)	0.55(14.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)
3/8	M18 x 1.5	HJKF-YZ6-MS18-	1.52(38.5)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.00(25.4)
3/8	M20 x 1.5	HJKF-YZ6-MS20-	1.56(39.5)	0.63(16.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)
1/2	M16 x 1.5	HJKF-YZ8-MS16-	1.63(41.4)	0.55(14.0)	0.90(22.9)	0.33(8.4)	0.87(22.2)	0.87(22.2)
1/2	M18 x 1.5	HJKF-YZ8-MS18-	1.67(42.4)	0.59(15.0)	0.90(22.9)	0.38(9.6)	0.87(22.2)	1.00(25.4)
1/2	M20 x 1.5	HJKF-YZ8-MS20-	1.71(43.4)	0.63(16.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)
1/2	M22 x 1.5	HJKF-YZ8-MS22-	1.65(41.9)	0.63(16.0)	0.90(22.9)	0.38(9.7)	0.87(22.2)	1.06(27.0)

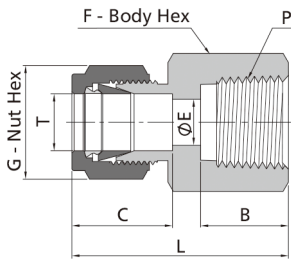
Female Connectors



Metric Tube			NPT Thread					
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
3	1/8	HJKF-GZ3-NPT2-	28.7(1.13)	10.4(0.41)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)
3	1/4	HJKF-GZ3-NPT4-	33.5(1.32)	15.0(0.59)	12.9(0.51)	2.4(0.09)	12.0(0.47)	19.0(0.75)
4	1/8	HJKF-GZ4-NPT2-	29.7(1.17)	10.4(0.41)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)
6	1/8	HJKF-GZ6-NPT2-	31.3(1.23)	10.4(0.41)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	HJKF-GZ6-NPT4-	35.8(1.41)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	3/8	HJKF-GZ6-NPT6-	37.7(1.48)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)
6	1/2	HJKF-GZ6-NPT8-	42.5(1.67)	19.8(0.78)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)
8	1/8	HJKF-GZ8-NPT2-	32.1(1.26)	10.4(0.41)	16.2(0.64)	6.4(0.25)	16.0(0.63)	15.0(0.59)
8	1/4	HJKF-GZ8-NPT4-	37.0(1.46)	15.0(0.59)	16.2(0.64)	6.4(0.25)	16.0(0.63)	19.0(0.75)
8	3/8	HJKF-GZ8-NPT6-	38.5(1.52)	15.0(0.59)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)
8	1/2	HJKF-GZ8-NPT8-	43.3(1.70)	19.8(0.78)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)
10	1/8	HJKF-GZ10-NPT2-	33.0(1.30)	10.4(0.41)	17.2(0.68)	7.9(0.31)	19.0(0.75)	18.0(0.71)
10	1/4	HJKF-GZ10-NPT4-	37.8(1.49)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	19.0(0.75)
10	3/8	HJKF-GZ10-NPT6-	39.4(1.55)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
10	1/2	HJKF-GZ10-NPT8-	44.2(1.74)	19.8(0.78)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)

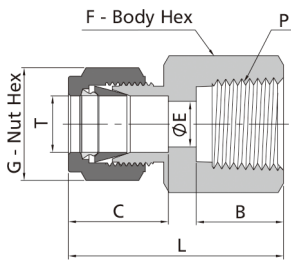


Female Connectors



Metric Tube			NPT Thread					
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
12	1/4	HJKF-GZ12-NPT4-	40.3(1.59)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	3/8	HJKF-GZ12-NPT6-	41.9(1.65)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	1/2	HJKF-GZ12-NPT8-	46.7(1.84)	19.8(0.78)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
12	3/4	HJKF-GZ12-NPT12-	49.1(1.93)	20.6(0.81)	22.8(0.90)	9.5(0.37)	22.0(0.87)	35.0(1.38)
14	3/4	HJKF-GZ14-NPT12-	49.7(1.96)	20.6(0.81)	24.4(0.96)	11.1(0.44)	25.0(0.98)	35.0(1.38)
15	1/2	HJKF-GZ15-NPT8-	46.7(1.84)	19.8(0.78)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)
16	3/8	HJKF-GZ16-NPT6-	41.9(1.65)	15.0(0.59)	24.4(0.96)	12.7(0.50)	25.0(0.98)	27.0(1.06)
16	1/2	HJKF-GZ16-NPT8-	46.9(1.85)	19.8(0.78)	24.4(0.96)	12.7(0.50)	25.0(0.98)	27.0(1.06)
20	1/2	HJKF-GZ20-NPT8-	47.9(1.89)	19.8(0.78)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
20	3/4	HJKF-GZ20-NPT12-	49.7(1.96)	20.6(0.81)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)
22	3/4	HJKF-GZ22-NPT12-	49.7(1.96)	20.6(0.81)	26.0(1.02)	18.3(0.72)	32.0(1.26)	35.0(1.38)
22	1	HJKF-GZ22-NPT16-	57.9(2.28)	25.4(1.00)	26.0(1.02)	18.3(0.72)	32.0(1.26)	41.0(1.61)
25	3/4	HJKF-GZ25-NPT12-	53.4(2.10)	20.6(0.81)	31.3(1.23)	21.8(0.86)	38.0(1.50)	35.0(1.38)
25	1	HJKF-GZ25-NPT16-	62.3(2.45)	25.4(1.00)	31.3(1.23)	21.8(0.86)	38.0(1.50)	41.0(1.61)

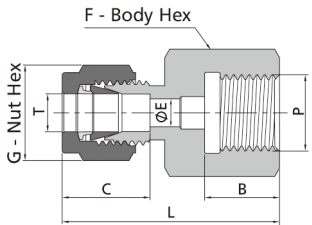
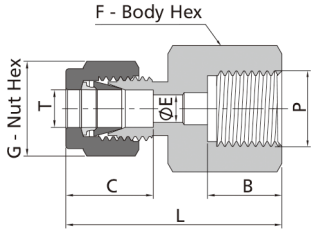
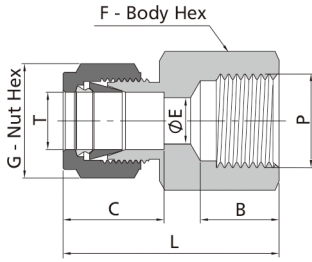
Female Connectors



Metric Tube			ISO Tapered Thread (RT)					
T-Tube O.D. (mm)	P-RT Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
3	1/8	HJKF-GZ3-RT2-	28.7(1.13)	10.4(0.41)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)
6	1/8	HJKF-GZ6-RT2-	31.3(1.23)	10.4(0.41)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	HJKF-GZ6-RT4-	35.8(1.41)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	3/8	HJKF-GZ6-RT6-	37.9(1.49)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	22.0(0.87)
6	1/2	HJKF-GZ6-RT8-	42.5(1.67)	19.8(0.78)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)
8	1/8	HJKF-GZ8-RT2-	32.1(1.26)	10.4(0.41)	16.2(0.64)	6.4(0.25)	16.0(0.63)	15.0(0.59)
8	1/4	HJKF-GZ8-RT4-	37.0(1.46)	15.0(0.59)	16.2(0.64)	6.4(0.25)	16.0(0.63)	19.0(0.75)
8	3/8	HJKF-GZ8-RT6-	38.5(1.52)	15.0(0.59)	16.2(0.64)	6.4(0.25)	16.0(0.63)	22.0(0.87)
8	1/2	HJKF-GZ8-RT8-	43.3(1.70)	19.8(0.78)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)
10	1/8	HJKF-GZ10-RT2-	33.0(1.30)	10.4(0.41)	17.2(0.68)	7.9(0.31)	19.0(0.75)	18.0(0.71)
10	1/4	HJKF-GZ10-RT4-	37.8(1.49)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	19.0(0.75)
10	3/8	HJKF-GZ10-RT6-	39.4(1.55)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)
10	1/2	HJKF-GZ10-RT8-	44.2(1.74)	19.8(0.78)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)
12	1/8	HJKF-GZ12-RT2-	35.5(1.40)	10.4(0.41)	22.8(0.90)	8.3(0.33)	22.0(0.87)	22.0(0.87)
12	1/4	HJKF-GZ12-RT4-	40.3(1.59)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	3/8	HJKF-GZ12-RT6-	41.9(1.65)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	22.0(0.87)
12	1/2	HJKF-GZ12-RT8-	46.7(1.84)	19.8(0.78)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)
12	3/4	HJKF-GZ12-RT12-	49.0(1.93)	20.6(0.81)	22.8(0.90)	9.5(0.37)	22.0(0.87)	35.0(1.38)
15	1/2	HJKF-GZ15-RT8-	46.7(1.84)	19.8(0.78)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)
16	1/2	HJKF-GZ16-RT8-	48.4(1.91)	19.8(0.78)	24.4(0.96)	12.7(0.50)	25.0(0.98)	27.0(1.06)
16	3/4	HJKF-GZ16-RT12-	49.7(1.96)	20.6(0.81)	24.4(0.96)	12.7(0.50)	25.0(0.98)	35.0(1.38)
20	1/2	HJKF-GZ20-RT8-	47.9(1.89)	19.8(0.78)	26.0(1.02)	15.9(0.63)	32.0(1.26)	30.0(1.18)
20	3/4	HJKF-GZ20-RT12-	49.7(1.96)	20.6(0.81)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)
22	3/4	HJKF-GZ22-RT12-	49.7(1.96)	20.6(0.81)	26.0(1.02)	18.3(0.72)	32.0(1.26)	35.0(1.38)
22	1	HJKF-GZ22-RT16-	57.9(2.28)	25.4(1.00)	26.0(1.02)	18.3(0.72)	32.0(1.26)	41.0(1.61)
25	3/4	HJKF-GZ25-RT12-	53.4(2.10)	20.6(0.81)	31.3(1.23)	21.8(0.86)	38.0(1.50)	35.0(1.38)
25	1	HJKF-GZ25-RT16-	62.3(2.45)	25.4(1.00)	31.3(1.23)	21.8(0.86)	38.0(1.50)	41.0(1.61)



Female Connectors



Adapt to Japanese gauge stud
(JIS B7505)

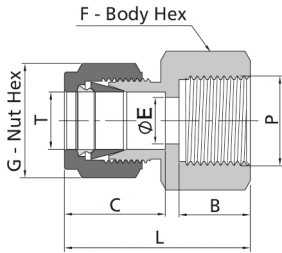
Metric Tube			ISO Parallel Thread (RP)					
T-Tube O.D. (mm)	P-RP Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
6	1/8	HJKF-GZ6-RP2-	33.5(1.32)	15.5(0.61)	15.3(0.60)	4.8(0.19)	14.0(0.55)	14.0(0.55)
6	1/4	HJKF-GZ6-RP4-	39.4(1.55)	15.5(0.61)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
22	3/4	HJKF-GZ22-RP12-	53.3(2.10)	20.5(0.81)	26.0(1.02)	18.3(0.72)	32.0(1.26)	35.0(1.38)
25	1	HJKF-GZ25-RP16-	63.9(2.52)	23.5(0.93)	31.3(1.23)	21.8(0.86)	38.0(1.50)	40.0(1.57)

Metric Tube			ISO Parallel Thread (RG)					
T-Tube O.D. (mm)	P-RG Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
3	1/4	HJKF-GZ3-RG4-	35.3(1.39)	12.9(0.51)	12.9(0.51)	2.4(0.09)	12.0(0.47)	19.0(0.75)
6	1/4	HJKF-GZ6-RG4-	37.6(1.48)	12.9(0.51)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	3/8	HJKF-GZ6-RG6-	37.6(1.48)	14.2(0.56)	15.3(0.60)	4.8(0.19)	14.0(0.55)	24.0(0.94)
6	1/2	HJKF-GZ6-RG8-	43.5(1.71)	18.8(0.74)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)
8	1/4	HJKF-GZ8-RG4-	38.5(1.52)	12.9(0.51)	16.2(0.64)	5.5(0.22)	16.0(0.63)	19.0(0.75)
8	3/8	HJKF-GZ8-RG6-	36.2(1.43)	14.2(0.56)	16.2(0.64)	6.4(0.25)	16.0(0.63)	24.0(0.94)
8	1/2	HJKF-GZ8-RG8-	41.0(1.61)	18.8(0.74)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)
10	1/4	HJKF-GZ10-RG4-	39.4(1.55)	12.9(0.51)	17.2(0.68)	5.5(0.22)	19.0(0.75)	19.0(0.75)
10	3/8	HJKF-GZ10-RG6-	38.8(1.53)	14.2(0.56)	17.2(0.68)	6.4(0.25)	19.0(0.75)	24.0(0.94)
10	1/2	HJKF-GZ10-RG8-	42.1(1.66)	18.8(0.74)	17.2(0.68)	7.9(0.31)	19.0(0.75)	27.0(1.06)
12	1/4	HJKF-GZ12-RG4-	41.9(1.65)	12.9(0.51)	22.8(0.90)	5.5(0.22)	22.0(0.87)	22.0(0.87)
12	3/8	HJKF-GZ12-RG6-	44.4(1.75)	14.2(0.56)	22.8(0.90)	6.4(0.25)	22.0(0.87)	24.0(0.94)
12	1/2	HJKF-GZ12-RG8-	48.2(1.90)	18.8(0.74)	22.8(0.90)	7.1(0.28)	22.0(0.87)	27.0(1.06)
20	1/2	HJKF-GZ20-RG8-	54.3(2.14)	18.8(0.74)	26.0(1.02)	7.1(0.28)	32.0(1.26)	30.0(1.18)
22	1/2	HJKF-GZ22-RG8-	54.3(2.14)	18.8(0.74)	26.0(1.02)	7.1(0.28)	32.0(1.26)	30.0(1.18)

Metric Tube			ISO Parallel Thread (RJ)					
T-Tube O.D. (mm)	P-RJ Size	Basic Ordering Number	Dimensions, mm (in.)					
			L	B	C	E	G	F
6	1/4	HJKF-GZ6-RJ4-	37.6(1.48)	12.9(0.51)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)
6	3/8	HJKF-GZ6-RJ6-	37.6(1.48)	15.8(0.62)	15.3(0.60)	4.8(0.19)	14.0(0.55)	24.0(0.94)
6	1/2	HJKF-GZ6-RJ8-	43.5(1.71)	18.8(0.74)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)
8	1/4	HJKF-GZ8-RJ4-	38.5(1.52)	12.9(0.51)	16.2(0.64)	5.5(0.22)	16.0(0.63)	19.0(0.75)
8	3/8	HJKF-GZ8-RJ6-	36.2(1.43)	15.8(0.62)	16.2(0.64)	6.5(0.26)	16.0(0.63)	24.0(0.94)
8	1/2	HJKF-GZ8-RJ8-	41.0(1.61)	18.8(0.74)	16.2(0.64)	7.0(0.28)	16.0(0.63)	27.0(1.06)
10	1/4	HJKF-GZ10-RJ4-	39.4(1.55)	12.9(0.51)	17.2(0.68)	5.5(0.22)	19.0(0.75)	19.0(0.75)
10	3/8	HJKF-GZ10-RJ6-	38.8(1.53)	15.8(0.62)	17.2(0.68)	6.5(0.26)	19.0(0.75)	24.0(0.94)
10	1/2	HJKF-GZ10-RJ8-	42.1(1.66)	18.8(0.74)	17.2(0.68)	7.0(0.28)	19.0(0.75)	27.0(1.06)
12	1/4	HJKF-GZ12-RJ4-	41.9(1.65)	12.9(0.51)	22.8(0.90)	5.5(0.22)	22.0(0.87)	22.0(0.87)
12	3/8	HJKF-GZ12-RJ6-	44.4(1.75)	15.8(0.62)	22.8(0.90)	6.5(0.26)	22.0(0.87)	24.0(0.94)
12	1/2	HJKF-GZ12-RJ8-	48.2(1.90)	18.8(0.74)	22.8(0.90)	7.0(0.28)	22.0(0.87)	27.0(1.06)

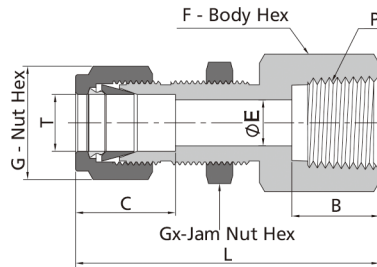


Female Connectors



Metric Tube			Metric Thread						
T-Tube O.D. (mm)	P-Metric Thread Size	Basic Ordering Number	Dimensions, mm (in.)						
			L	B	C	E	G	F	
6	M10 x 1	HJKF-GZ6-MS10-	32.7(1.29)	11.0(0.43)	15.3(0.60)	4.7(0.19)	14.0(0.55)	16.0(0.63)	
6	M14 x 1.5	HJKF-GZ6-MS14-	36.1(1.42)	13.0(0.51)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)	
6	M20 x 1.5	HJKF-GZ6-MS20-	37.7(1.48)	16.0(0.63)	15.3(0.60)	4.8(0.19)	14.0(0.55)	27.0(1.06)	
8	M8 x 1	HJKF-GZ8-MS8-	31.6(1.24)	9.0(0.35)	16.2(0.64)	3.0(0.12)	16.0(0.63)	14.0(0.55)	
8	M10 x 1	HJKF-GZ8-MS10-	33.6(1.32)	11.0(0.43)	16.2(0.64)	4.0(0.16)	16.0(0.63)	16.0(0.63)	
8	M14 x 1.5	HJKF-GZ8-MS14-	35.6(1.40)	13.0(0.51)	16.2(0.64)	6.4(0.25)	16.0(0.63)	19.0(0.75)	
8	M20 x 1.5	HJKF-GZ8-MS20-	38.6(1.52)	16.0(0.63)	16.2(0.64)	6.4(0.25)	16.0(0.63)	27.0(1.06)	
10	M16 x 1.5	HJKF-GZ10-MS16-	38.1(1.50)	14.0(0.55)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	
12	M20 x 1.5	HJKF-GZ12-MS20-	44.9(1.77)	16.0(0.63)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)	
14	M10 x 1	HJKF-GZ14-MS10-	42.5(1.67)	11.0(0.43)	24.4(0.96)	4.0(0.16)	25.0(0.98)	24.0(0.94)	
14	M20 x 1.5	HJKF-GZ14-MS20-	44.9(1.77)	16.0(0.63)	24.4(0.96)	10.8(0.43)	25.0(0.98)	27.0(1.06)	
14	M22 x 1.5	HJKF-GZ14-MS22-	45.9(1.81)	17.0(0.67)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)	
16	M20 x 1.5	HJKF-GZ16-MS20-	44.9(1.77)	16.0(0.63)	24.4(0.96)	10.8(0.43)	25.0(0.98)	27.0(1.06)	
20	M20 x 1.5	HJKF-GZ20-MS20-	46.5(1.83)	16.0(0.63)	26.0(1.02)	10.8(0.43)	32.0(1.26)	30.0(1.18)	
25	M27 x 2	HJKF-GZ25-MS27-	54.4(2.14)	18.0(0.71)	31.3(1.23)	16.1(0.63)	38.0(1.50)	35.0(1.38)	

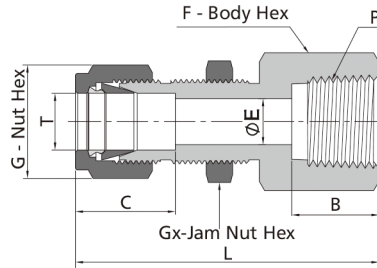
Bulkhead Female Connectors



Fractional Tube										NPT Thread	
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	G	F	Gx		
1/16	1/16	HJCKF-YZ1-NPT1-	1.19(30.2)	0.39(9.9)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.44(11.1)	0.31(7.9)	0.20(5.2)	0.13(3.2)
1/16	1/8	HJCKF-YZ1-NPT2-	1.20(30.7)	0.41(10.4)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.56(14.3)	0.31(7.9)	0.20(5.2)	0.13(3.2)
1/8	1/8	HJCKF-YZ2-NPT2-	1.76(44.7)	0.41(10.4)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.56(14.3)	0.50(12.7)	0.33(8.3)	0.50(12.7)
1/8	1/4	HJCKF-YZ2-NPT4-	1.95(49.6)	0.59(15.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.75(19.1)	0.50(12.7)	0.33(8.3)	0.50(12.7)
3/16	1/8	HJCKF-YZ3-NPT2-	1.79(45.5)	0.41(10.4)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.39(9.9)	0.50(12.7)
1/4	1/8	HJCKF-YZ4-NPT2-	1.85(47.0)	0.41(10.4)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	1/4	HJCKF-YZ4-NPT4-	2.04(51.8)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.75(19.1)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	3/8	HJCKF-YZ4-NPT6-	2.10(53.3)	0.59(15.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.87(22.2)	0.63(15.9)	0.45(11.5)	0.40(10.2)
1/4	1/2	HJCKF-YZ4-NPT8-	2.29(58.2)	0.78(19.8)	0.60(15.2)	0.19(4.8)	0.56(14.3)	1.06(27.0)	0.63(15.9)	0.45(11.5)	0.40(10.2)
5/16	1/8	HJCKF-YZ5-NPT2-	1.96(49.8)	0.41(10.4)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.44(11.2)
5/16	1/4	HJCKF-YZ5-NPT4-	2.38(60.5)	0.59(15.0)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.75(19.1)	0.69(17.5)	0.52(13.1)	0.44(11.2)
3/8	1/8	HJCKF-YZ6-NPT2-	1.98(50.3)	0.41(10.4)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	1/4	HJCKF-YZ6-NPT4-	2.17(55.1)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	3/8	HJCKF-YZ6-NPT6-	2.23(56.6)	0.59(15.0)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.87(22.2)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	1/2	HJCKF-YZ6-NPT8-	2.42(61.5)	0.78(19.8)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.06(27.0)	0.75(19.1)	0.58(14.7)	0.44(11.2)
3/8	3/4	HJCKF-YZ6-NPT12-	2.57(65.3)	0.81(20.6)	0.66(16.8)	0.28(7.1)	0.69(17.5)	1.31(33.3)	0.75(19.1)	0.58(14.7)	0.44(11.2)
1/2	1/4	HJCKF-YZ8-NPT4-	2.37(60.2)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	3/8	HJCKF-YZ8-NPT6-	2.43(61.7)	0.59(15.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	1/2	HJCKF-YZ8-NPT8-	2.62(66.5)	0.78(19.8)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.06(27.0)	0.94(23.8)	0.76(19.4)	0.50(12.7)
1/2	3/4	HJCKF-YZ8-NPT12-	2.68(68.1)	0.81(20.6)	0.90(22.9)	0.41(10.4)	0.87(22.2)	1.31(33.3)	0.94(23.8)	0.76(19.4)	0.50(12.7)



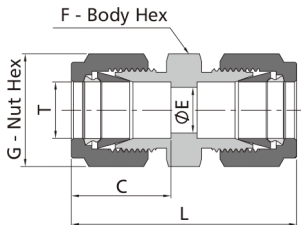
Bulkhead Female Connectors



Fractional Tube										NPT Thread	
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)							Panel Hole Size in. (mm)	Max. Panel Thickness in. (mm)
			L	B	C	E	G	F	Gx		
5/8	3/8	HJCKF-YZ10-NPT6-	2.46(62.5)	0.59(15.0)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
5/8	1/2	HJCKF-YZ10-NPT8-	2.65(67.3)	0.78(19.8)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.59(15.1)
3/4	1/2	HJCKF-YZ12-NPT8-	2.84(72.2)	0.78(19.8)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.78(19.8)
3/4	3/4	HJCKF-YZ12-NPT12-	2.90(73.7)	0.81(20.6)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.31(33.3)	1.19(30.2)	1.02(25.8)	0.78(19.8)
7/8	3/4	HJCKF-YZ14-NPT12-	3.18(80.8)	0.81(20.6)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.31(33.3)	1.31(33.3)	1.14(29.0)	0.94(23.8)
1	3/4	HJCKF-YZ16-NPT12-	3.33(84.7)	0.81(20.6)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.94(23.8)
1	1	HJCKF-YZ16-NPT16-	3.68(93.5)	1.00(25.4)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.94(23.8)

Metric Tube										NPT Thread	
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm (in.)							Panel Hole Size mm (in.)	Max. Panel Thickness mm (in.)
			L	B	C	E	G	F	Gx		
6	1/8	HJCKF-GZ6-NPT2-	47.2(1.86)	10.4(0.41)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	16.0(0.63)	11.5(0.45)	10.2(0.40)
6	1/4	HJCKF-GZ6-NPT4-	51.8(2.04)	15.0(0.59)	15.3(0.60)	4.8(0.19)	14.0(0.55)	19.0(0.75)	16.0(0.63)	11.5(0.45)	10.2(0.40)
8	1/8	HJCKF-GZ8-NPT2-	49.6(1.95)	10.4(0.41)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)	18.0(0.71)	13.1(0.52)	11.2(0.44)
10	1/4	HJCKF-GZ10-NPT4-	55.2(2.17)	15.0(0.59)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
12	3/8	HJCKF-GZ12-NPT6-	62.9(2.48)	15.0(0.59)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)
12	1/2	HJCKF-GZ12-NPT8-	66.5(2.62)	19.8(0.78)	22.8(0.90)	9.5(0.37)	22.0(0.87)	27.0(1.06)	24.0(0.94)	19.5(0.77)	12.7(0.50)
1	1	HJCKF-YZ16-NPT16-	3.68(93.5)	1.00(25.4)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.94(23.8)

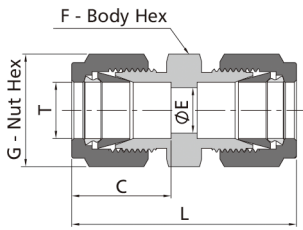
Unions



Metric Tube		NPT Thread				
T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm (in.)				
		L	C	G	F	E
1/16	HJKU-YZ1-	0.99(25.1)	0.34(8.6)	0.31(7.9)	0.31(7.9)	0.05(1.3)
1/8	HJKU-YZ2-	1.40(35.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)
3/16	HJKU-YZ3-	1.47(37.3)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)
1/4	HJKU-YZ4-	1.61(40.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
5/16	HJKU-YZ5-	1.69(42.9)	0.64(16.2)	0.63(15.9)	0.56(14.3)	0.25(6.4)
3/8	HJKU-YZ6-	1.77(45.0)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
1/2	HJKU-YZ8-	2.02(51.3)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
5/8	HJKU-YZ10-	2.05(52.1)	0.96(24.4)	1.00(25.4)	0.94(23.9)	0.50(12.7)
3/4	HJKU-YZ12-	2.11(53.6)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
7/8	HJKU-YZ14-	2.19(55.7)	1.02(25.9)	1.25(31.8)	1.19(30.2)	0.72(18.3)
1	HJKU-YZ16-	2.55(64.8)	1.23(31.2)	1.5(38.1)	1.37(34.9)	0.88(22.4)
1 1/8	HJKU-YZ18-	3.47(88.2)	1.44(36.7)	1.75(44.5)	1.63(41.3)	0.97(24.6)
1 1/4	HJKU-YZ20-	3.63(92.2)	1.62(41.1)	1.87(47.6)	1.75(44.5)	1.09(27.7)
1 1/2	HJKU-YZ24-	4.25(108.0)	1.97(50.0)	2.25(57.2)	2.13(54.0)	1.34(34.0)



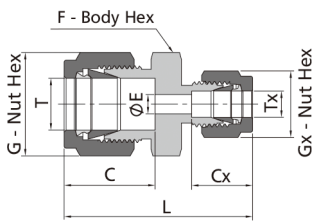
Unions



Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number	Dimensions,mm(in.)				
		L	C	G	F	E
2	HJKU-GZ2-	35.6(1.40)	12.9(0.51)	12.0(0.47)	12.0(0.47)	1.7(0.07)
3	HJKU-GZ3-	35.3(1.39)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)
4	HJKU-GZ4-	37.3(1.47)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)
6	HJKU-GZ6-	41.0(1.61)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
8	HJKU-GZ8-	43.2(1.70)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
10	HJKU-GZ10-	46.2(1.82)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.9(0.31)
12	HJKU-GZ12-	51.2(2.02)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
14	HJKU-GZ14-	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	11.1(0.44)
15	HJKU-GZ15-	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	11.9(0.47)
16	HJKU-GZ16-	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	12.7(0.50)
18	HJKU-GZ18-	53.5(2.11)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	HJKU-GZ20-	55.0(2.17)	26.0(1.02)	32.0(1.26)	30.0(1.18)	15.9(0.63)
22	HJKU-GZ22-	55.0(2.17)	26.0(1.02)	32.0(1.26)	30.0(1.18)	18.3(0.72)
25	HJKU-GZ25-	65.0(2.56)	31.3(1.23)	38.0(1.50)	35.0(1.38)	21.8(0.86)
28	HJKU-GZ28-	85.0(3.35)	36.6(1.44)	46.0(1.81)	41.0(1.61)	21.8(0.86)
30	HJKU-GZ30-	92.7(3.65)	39.6(1.56)	50.0(1.97)	46.0(1.81)	26.2(1.03)
32	HJKU-GZ32-	97.3(3.83)	42.0(1.65)	50.0(1.97)	46.0(1.81)	28.6(1.13)
38	HJKU-GZ38-	113.6(4.47)	49.4(1.94)	60.0(2.36)	55.0(2.17)	33.7(1.33)

Conversion Unions



Fractional Tube

T-Tube O.D. (in.)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions,in.(mm)						
			L	C	G	F	E	Cx	Gx
1/8	3	HJKU-YZ2-GZ3-	1.39(35.2)	0.50(12.7)	0.44(11.1)	0.47(12.0)	0.09(2.3)	0.51(12.9)	0.47(12.0)
1/4	4	HJKU-YZ4-GZ4-	1.55(39.4)	0.60(15.2)	0.56(14.3)	0.55(14.0)	0.09(2.4)	0.54(13.7)	0.47(12.0)
1/4	6	HJKU-YZ4-GZ6-	1.62(41.2)	0.60(15.2)	0.56(14.3)	0.55(14.0)	0.19(4.8)	0.60(15.3)	0.55(14.0)
3/8	6	HJKU-YZ6-GZ6-	1.72(43.7)	0.66(16.8)	0.69(17.5)	0.63(16.0)	0.19(4.8)	0.60(15.3)	0.55(14.0)
3/8	8	HJKU-YZ6-GZ8-	1.75(44.5)	0.66(16.8)	0.69(17.5)	0.63(16.0)	0.25(6.4)	0.64(16.2)	0.63(16.0)
1/2	6	HJKU-YZ8-GZ6-	1.88(47.7)	0.90(22.9)	0.87(22.2)	0.87(22.0)	0.19(4.8)	0.60(15.3)	0.55(14.0)
1/2	10	HJKU-YZ8-GZ10-	1.93(48.9)	0.90(22.9)	0.87(22.2)	0.87(22.0)	0.31(7.9)	0.68(17.2)	0.75(19.0)
1/2	12	HJKU-YZ8-GZ12-	2.02(51.4)	0.90(22.9)	0.87(22.2)	0.87(22.0)	0.37(9.5)	0.90(22.8)	0.87(22.0)
3/4	12	HJKU-YZ12-GZ12-	2.13(54.2)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.37(9.5)	0.90(22.8)	0.87(22.0)
3/4	16	HJKU-YZ12-GZ16-	2.12(53.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.50(12.7)	0.96(24.4)	0.98(25.0)
3/4	18	HJKU-YZ12-GZ18-	2.11(53.6)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.59(15.1)	0.96(24.4)	1.18(30.0)
1	25	HJKU-YZ16-GZ25-	2.65(67.4)	1.23(31.2)	1.50(38.1)	1.38(35.0)	0.86(21.8)	1.23(31.3)	1.50(38.0)

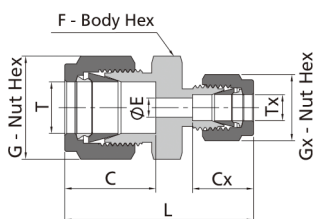
Metric Tube

Fractional Tube

T-Tube O.D. (In.)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions,mm(in.)						
			L	C	G	F	E	Cx	Gx
4	1/8	HJKU-GZ4-YZ2-	36.5(1.44)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)	12.7(0.50)	11.1(0.44)
6	1/8	HJKU-GZ6-YZ2-	38.5(1.52)	15.3(0.60)	14.0(0.55)	14.0(0.55)	2.4(0.09)	12.7(0.50)	11.1(0.44)
8	1/4	HJKU-GZ8-YZ4-	42.3(1.67)	16.2(0.64)	16.0(0.63)	15.0(0.59)	4.8(0.19)	15.2(0.60)	14.3(0.56)
10	1/8	HJKU-GZ10-YZ2-	41.8(1.65)	17.2(0.68)	19.0(0.75)	18.0(0.71)	2.4(0.09)	12.7(0.50)	11.1(0.44)
10	1/4	HJKU-GZ10-YZ4-	44.5(1.75)	17.2(0.68)	19.0(0.75)	18.0(0.71)	4.8(0.19)	15.2(0.60)	14.3(0.56)
10	5/16	HJKU-GZ10-YZ5-	45.1(1.78)	17.2(0.68)	19.0(0.75)	18.0(0.71)	6.4(0.25)	16.2(0.64)	15.9(0.63)
10	3/8	HJKU-GZ10-YZ6-	45.9(1.81)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.1(0.28)	16.8(0.66)	17.5(0.69)
12	5/16	HJKU-GZ12-YZ5-	47.8(1.88)	22.8(0.90)	22.0(0.87)	22.0(0.87)	6.4(0.25)	16.2(0.64)	15.9(0.63)
12	3/8	HJKU-GZ12-YZ6-	48.4(1.91)	22.8(0.90)	22.0(0.87)	22.0(0.87)	7.1(0.28)	16.8(0.66)	17.5(0.69)
15	1/2	HJKU-GZ15-YZ8-	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	10.4(0.41)	22.9(0.90)	22.2(0.87)
16	5/8	HJKU-GZ16-YZ10-	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	12.7(0.50)	24.4(0.96)	25.4(1.00)
20	1/2	HJKU-GZ20-YZ8-	55.0(2.17)	26.0(1.02)	32.0(1.26)	30.0(1.18)	10.4(0.41)	22.9(0.90)	22.2(0.87)

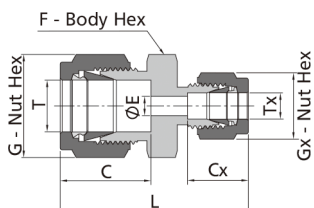


Reducing Unions



Fractional Tube

T-Tube O.D. (In.)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions, in.(mm)						
			L	C	G	F	E	Cx	Gx
1/8	1/16	HJKU-YZ2-YZ1-	1.22(31.0)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.05(1.3)	0.34(8.6)	0.31(7.9)
3/16	1/16	HJKU-YZ3-YZ1-	1.27(32.3)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.05(1.3)	0.34(8.6)	0.31(7.9)
3/16	1/8	HJKU-YZ3-YZ2-	1.44(36.6)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.09(2.3)	0.50(12.7)	0.44(11.1)
1/4	1/16	HJKU-YZ4-YZ1-	1.35(34.3)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.05(1.3)	0.34(8.6)	0.31(7.9)
1/4	1/8	HJKU-YZ4-YZ2-	1.52(38.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.09(2.3)	0.50(12.7)	0.44(11.1)
1/4	3/16	HJKU-YZ4-YZ3-	1.55(39.4)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.12(3.0)	0.54(13.7)	0.50(12.7)
5/16	1/8	HJKU-YZ5-YZ2-	1.56(39.6)	0.64(16.2)	0.63(15.9)	0.56(14.3)	0.09(2.3)	0.50(12.7)	0.44(11.1)
5/16	1/4	HJKU-YZ5-YZ4-	1.66(42.2)	0.64(16.2)	0.63(15.9)	0.56(14.3)	0.19(4.8)	0.60(15.2)	0.56(14.3)
3/8	1/16	HJKU-YZ6-YZ1-	1.44(36.6)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.05(1.3)	0.34(8.6)	0.31(7.9)
3/8	1/8	HJKU-YZ6-YZ2-	1.61(40.9)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.09(2.3)	0.50(12.7)	0.44(11.1)
3/8	1/4	HJKU-YZ6-YZ4-	1.70(43.2)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.19(4.8)	0.60(15.2)	0.56(14.3)
3/8	5/16	HJKU-YZ6-YZ5-	1.74(44.2)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.25(6.4)	0.64(16.2)	0.63(15.9)
1/2	1/8	HJKU-YZ8-YZ2-	1.78(45.2)	0.90(22.8)	0.87(22.2)	0.81(20.6)	0.09(2.3)	0.50(12.7)	0.44(11.1)
1/2	1/4	HJKU-YZ8-YZ4-	1.85(47.0)	0.90(22.8)	0.87(22.2)	0.81(20.6)	0.19(4.8)	0.60(15.2)	0.56(14.3)
1/2	3/8	HJKU-YZ8-YZ6-	1.91(48.5)	0.90(22.8)	0.87(22.2)	0.81(20.6)	0.28(7.1)	0.66(16.8)	0.69(17.5)
5/8	3/8	HJKU-YZ10-YZ6-	1.94(49.3)	0.96(24.4)	1.00(25.4)	0.94(23.9)	0.28(7.1)	0.66(16.8)	0.69(17.5)
5/8	1/2	HJKU-YZ10-YZ8-	2.05(52.1)	0.96(24.4)	1.00(25.4)	0.94(23.9)	0.41(10.4)	0.90(22.8)	0.87(22.2)
3/4	1/4	HJKU-YZ12-YZ4-	1.94(49.3)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.19(4.8)	0.60(15.2)	0.56(14.3)
3/4	3/8	HJKU-YZ12-YZ6-	2.00(50.8)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.28(7.1)	0.66(16.8)	0.69(17.5)
3/4	1/2	HJKU-YZ12-YZ8-	2.11(53.6)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.41(10.4)	0.90(22.8)	0.87(22.2)
3/4	5/8	HJKU-YZ12-YZ10-	2.11(53.6)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.50(12.7)	0.96(24.4)	1.00(25.4)
1	1/2	HJKU-YZ16-YZ8-	2.38(60.5)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.41(10.4)	0.90(22.8)	0.87(22.2)
1	3/4	HJKU-YZ16-YZ12-	2.38(60.5)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.96(24.4)	1.13(28.6)

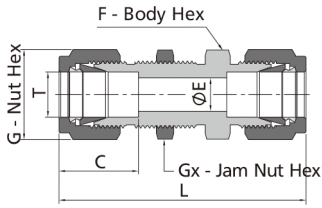


Metric Tube

T-Tube O.D. (In.)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm(in.)						
			L	C	G	F	E	Cx	Gx
3	2	HJKU-GZ3-GZ2-	35.3(1.39)	12.9(0.51)	12.0(0.47)	12.0(0.47)	1.7(0.07)	12.9(0.51)	12.0(0.47)
6	2	HJKU-GZ6-GZ2-	38.6(1.52)	15.3(0.60)	14.0(0.55)	14.0(0.55)	1.7(0.07)	12.9(0.51)	12.0(0.47)
6	3	HJKU-GZ6-GZ3-	38.6(1.52)	15.3(0.60)	14.0(0.55)	14.0(0.55)	2.4(0.09)	12.9(0.51)	12.0(0.47)
6	4	HJKU-GZ6-GZ4-	39.4(1.55)	15.3(0.60)	14.0(0.55)	14.0(0.55)	2.4(0.09)	13.7(0.54)	12.0(0.47)
8	6	HJKU-GZ8-GZ6-	42.3(1.67)	16.3(0.64)	16.0(0.63)	15.0(0.59)	4.8(0.19)	15.3(0.60)	14.0(0.55)
10	6	HJKU-GZ10-GZ6-	44.5(1.75)	17.2(0.68)	19.0(0.75)	18.0(0.71)	4.8(0.19)	15.3(0.60)	14.0(0.55)
10	8	HJKU-GZ10-GZ8-	45.1(1.78)	17.2(0.68)	19.0(0.75)	18.0(0.71)	6.4(0.25)	16.3(0.64)	16.0(0.63)
12	6	HJKU-GZ12-GZ6-	47.0(1.85)	22.8(0.90)	22.0(0.87)	22.0(0.87)	4.8(0.19)	15.3(0.60)	4.0(0.55)
12	8	HJKU-GZ12-GZ8-	47.8(1.88)	22.8(0.90)	22.0(0.87)	22.0(0.87)	6.4(0.25)	16.3(0.64)	16.0(0.63)
12	10	HJKU-GZ12-GZ10-	48.7(1.92)	22.8(0.90)	22.0(0.87)	22.0(0.87)	7.9(0.31)	17.2(0.68)	19.0(0.75)
16	10	HJKU-GZ16-GZ10-	49.5(1.95)	24.4(0.96)	25.0(0.98)	24.0(0.94)	7.9(0.31)	17.2(0.68)	19.0(0.75)
16	12	HJKU-GZ16-GZ12-	52.0(2.05)	24.4(0.96)	25.0(0.98)	24.0(0.94)	9.5(0.37)	22.8(0.90)	22.0(0.87)
18	12	HJKU-GZ18-GZ12-	53.5(2.11)	24.4(0.96)	30.0(1.18)	27.0(1.06)	9.5(0.37)	22.8(0.90)	22.0(0.87)
25	18	HJKU-GZ25-GZ18-	61.0(2.40)	31.3(1.23)	38.0(1.50)	35.0(1.38)	15.1(0.59)	24.4(0.96)	30.0(1.18)
25	20	HJKU-GZ25-GZ20-	62.3(2.45)	31.3(1.23)	38.0(1.50)	35.0(1.38)	15.9(0.63)	26.0(1.02)	32.0(1.26)
30	18	HJKU-GZ30-GZ18-	75.4(2.97)	39.6(1.56)	50.0(1.97)	46.0(1.81)	15.1(0.59)	24.4(0.96)	30.0(1.18)
30	20	HJKU-GZ30-GZ20-	75.4(2.97)	39.6(1.56)	50.0(1.97)	46.0(1.81)	15.9(0.63)	26.0(1.02)	32.0(1.26)
30	25	HJKU-GZ30-GZ25-	80.1(3.15)	39.6(1.56)	50.0(1.97)	46.0(1.81)	21.8(0.86)	31.3(1.23)	38.0(1.50)
32	18	HJKU-GZ32-GZ18-	77.8(3.06)	42.0(1.65)	50.0(1.97)	46.0(1.81)	15.1(0.59)	24.4(0.96)	30.0(1.18)
32	20	HJKU-GZ32-GZ20-	77.8(3.06)	42.0(1.65)	50.0(1.97)	46.0(1.81)	15.9(0.63)	26.0(1.02)	32.0(1.26)
32	25	HJKU-GZ32-GZ25-	82.3(3.24)	42.0(1.65)	50.0(1.97)	46.0(1.81)	21.8(0.86)	31.3(1.23)	38.0(1.50)
38	20	HJKU-GZ38-GZ20-	87.5(3.44)	49.4(1.94)	60.0(2.36)	55.0(2.17)	15.9(0.63)	26.0(1.02)	32.0(1.26)
38	25	HJKU-GZ38-GZ25-	92.0(3.62)	49.4(1.94)	60.0(2.36)	55.0(2.17)	21.8(0.86)	31.3(1.23)	38.0(1.50)
38	30	HJKU-GZ38-GZ30-	104.6(4.12)	49.4(1.94)	60.0(2.36)	55.0(2.17)	26.2(1.03)	39.6(1.56)	50.0(1.97)



Bulkhead Unions



Fractional Tube

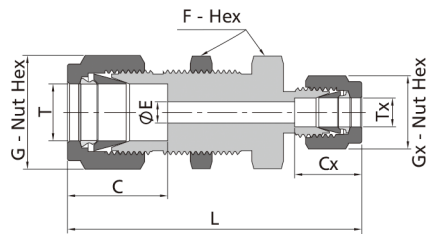
Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in.(mm)						Panel Hole Size in.(mm)	Max. Panel Thickness in.(mm)
		L	C	E	G	F	Gx		
1/16	HJCKU-YZ1-	1.24(31.5)	0.34(8.6)	0.05(1.3)	0.31(7.9)	0.31(7.9)	0.31(7.9)	0.20(5.2)	0.12(3.0)
1/8	HJCKU-YZ2-	2.02(51.3)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.50(12.7)	0.50(12.7)	0.33(8.3)	0.50(12.7)
3/16	HJCKU-YZ3-	2.11(53.6)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.39(9.9)	0.50(12.7)
1/4	HJCKU-YZ4-	2.27(57.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.45(11.5)	0.40(10.2)
5/16	HJCKU-YZ5-	2.39(60.7)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.52(13.1)	0.44(11.2)
3/8	HJCKU-YZ6-	2.45(62.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.58(14.7)	0.44(11.2)
1/2	HJCKU-YZ8-	2.80(71.1)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.76(19.4)	0.50(12.7)
5/8	HJCKU-YZ10-	2.86(72.6)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.89(22.6)	0.50(12.7)
3/4	HJCKU-YZ12-	3.11(79.0)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.19(30.2)	1.19(30.2)	1.02(25.8)	0.66(16.8)
7/8	HJCKU-YZ14-	3.35(85.2)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.38(34.9)	1.37(34.9)	1.14(29.0)	0.75(19.1)
1	HJCKU-YZ16-	3.77(95.8)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.63(41.3)	1.63(41.3)	1.33(33.7)	0.75(19.1)
1 1/4	HJCKU-YZ20-	4.85(123.2)	1.62(41.1)	1.09(27.8)	1.87(47.6)	1.87(47.6)	1.87(47.6)	1.64(41.7)	0.75(19.1)
1 1/2	HJCKU-YZ24-	5.48(139.2)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.25(57.2)	2.25(57.2)	1.95(49.6)	0.75(19.1)

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm(in.)						Panel Hole Size mm(in.)	Max. Panel Thickness mm(in.)
		L	C	E	G	F	Gx		
3	HJCKU-GZ3-	51.3(2.02)	12.9(0.51)	2.4(0.09)	12.0(0.47)	14.0(0.55)	14.0(0.55)	8.3(0.33)	12.7(0.50)
4	HJCKU-GZ4-	53.6(2.11)	13.7(0.54)	2.4(0.09)	12.0(0.47)	14.0(0.55)	14.0(0.55)	9.9(0.39)	12.7(0.50)
6	HJCKU-GZ6-	57.7(2.27)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	16.0(0.63)	11.5(0.45)	10.2(0.40)
8	HJCKU-GZ8-	61.0(2.40)	16.2(0.64)	6.4(0.25)	16.0(0.63)	18.0(0.71)	18.0(0.71)	13.1(0.52)	11.2(0.44)
10	HJCKU-GZ10-	63.7(2.51)	17.2(0.68)	7.9(0.31)	19.0(0.75)	22.0(0.87)	22.0(0.87)	16.3(0.64)	11.2(0.44)
12	HJCKU-GZ12-	71.0(2.80)	22.8(0.90)	9.5(0.37)	22.0(0.87)	24.0(0.94)	24.0(0.94)	19.5(0.77)	12.7(0.50)
14	HJCKU-GZ14-	72.5(2.85)	24.4(0.96)	11.1(0.44)	25.0(0.98)	27.0(1.06)	27.0(1.06)	22.5(0.89)	12.7(0.50)
15	HJCKU-GZ15-	72.5(2.85)	24.4(0.96)	11.9(0.47)	25.0(0.98)	27.0(1.06)	27.0(1.06)	22.8(0.90)	12.7(0.50)
16	HJCKU-GZ16-	72.5(2.85)	24.4(0.96)	12.7(0.50)	25.0(0.98)	27.0(1.06)	27.0(1.06)	22.8(0.90)	12.7(0.50)
18	HJCKU-GZ18-	78.9(3.11)	24.4(0.96)	15.1(0.59)	30.0(1.18)	30.0(1.18)	30.0(1.18)	26.0(1.02)	16.8(0.66)
20	HJCKU-GZ20-	84.5(3.33)	26.0(1.02)	15.9(0.63)	32.0(1.26)	35.0(1.38)	35.0(1.38)	29.0(1.14)	19.0(0.75)
25	HJCKU-GZ25-	96.0(3.78)	31.3(1.23)	21.8(0.86)	38.0(1.5)	41.0(1.61)	41.0(1.61)	34.0(1.34)	19.0(0.75)
30	HJCKU-GZ30-	124.0(4.88)	39.6(1.56)	26.2(1.03)	50.0(1.97)	50.0(1.97)	50.0(1.97)	40.5(1.59)	19.0(0.75)
32	HJCKU-GZ32-	128.0(5.04)	42.0(1.65)	28.6(1.13)	50.0(1.97)	50.0(1.97)	50.0(1.97)	42.5(1.67)	19.0(0.75)
38	HJCKU-GZ38-	145.0(5.71)	49.4(1.94)	33.7(1.33)	60.0(2.36)	60.0(2.36)	60.0(2.36)	50.5(1.99)	19.0(0.75)



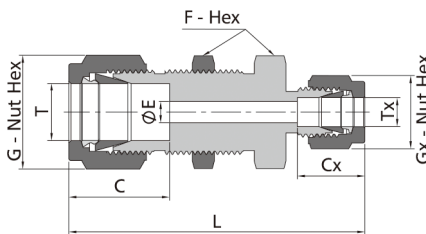
Bulkhead Reducing Unions



Metric Tube

T-Tube O.D. (mm)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions,in.(mm)							PanelHole Size mm(in.)	Max.Panel Thickness mm(in.)
			L	C	E	G	F	Cx	Gx		
1/4	1/8	HJCKU-YZ4-YZ2-	2.17(55.1)	0.60(15.2)	0.09(2.3)	0.56(14.3)	0.63(15.9)	0.50(12.7)	0.44(11.1)	0.45(11.5)	0.40(10.2)
3/8	1/4	HJCKU-YZ6-YZ4-	2.39(60.7)	0.66(16.8)	0.19(4.8)	0.69(17.5)	0.75(19.1)	0.60(15.2)	0.56(14.3)	0.58(14.7)	0.44(11.2)
1/2	1/4	HJCKU-YZ8-YZ4-	2.63(66.8)	0.90(22.9)	0.19(4.8)	0.87(22.2)	0.94(23.8)	0.60(15.2)	0.56(14.3)	0.76(19.4)	0.50(12.7)

Bulkhead Reducing Unions



Metric Tube

T-Tube O.D. (mm)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions,mm(in.)								PanelHole Size mm(in.)	Max.Panel Thickness mm(in.)
			L	C	E	G	F	Cx	Gx			
6	3	HJCKU-GZ6-GZ3-	55.1(2.17)	15.3(0.60)	2.4(0.09)	14.0(0.55)	16.0(0.63)	12.9(0.51)	12.0(0.47)	11.5(0.45)	10.2(0.40)	
8	6	HJCKU-GZ8-GZ6-	60.1(2.37)	16.2(0.64)	4.8(0.19)	16.0(0.63)	18.0(0.71)	15.3(0.60)	14.0(0.55)	13.1(0.52)	11.2(0.44)	
12	8	HJCKU-GZ12-GZ8-	67.6(2.66)	22.8(0.90)	6.4(0.25)	22.0(0.87)	24.0(0.94)	16.2(0.64)	16.0(0.63)	19.5(0.77)	12.7(0.50)	

Bulkhead Conversion Unions

Fractional Tube

T-Tube O.D. (in.)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions,in.(mm)							PanelHole Size mm(in.)	Max.Panel Thickness mm(in.)
			L	C	E	G	F	Cx	Gx		
1/4	6	HJCKU-YZ4-GZ6-	2.27(57.7)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	0.60(15.3)	0.55(14.0)	0.45(11.5)	0.40(10.2)

Metric Tube

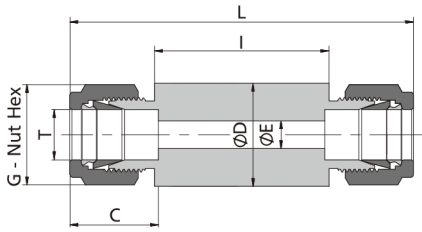
Metric Tube										FractionalTube	
T-Tube O.D. (mm)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions,mm(in.)							PanelHole Size mm(in.)	Max.Panel Thickness mm(in.)
			L	C	E	G	F	Cx	Gx		
6	1/8	HJCKU-GZ6-YZ2-	55.1(2.17)	15.3(0.60)	2.3(0.09)	14.0(0.55)	16.0(0.63)	12.7(0.5)	11.0(0.43)	11.5(0.45)	10.2(0.40)
6	1/4	HJCKU-GZ6-YZ4-	57.7(2.27)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	15.2(0.6)	14.3(0.56)	11.5(0.45)	10.2(0.40)

Fractional Tube

Inlet Tube			Dimensions,mm(in.)								Panel Hole	
T-Tube O.D. (mm)	Tx-Tube O.D. (in.)	Basic Ordering Number									Panel Hole Size mm(in.)	Max. Panel Thickness mm(in.)
			L	C	E	G	F	Cx	Gx			
6	1/8	HJCKU-GZ6-YZ2-	55.1(2.17)	15.3(0.60)	2.3(0.09)	14.0(0.55)	16.0(0.63)	12.7(0.5)	11.0(0.43)	11.5(0.45)	10.2(0.40)	
6	1/4	HJCKU-GZ6-YZ4-	57.7(2.27)	15.3(0.60)	4.8(0.19)	14.0(0.55)	16.0(0.63)	15.2(0.6)	14.3(0.56)	11.5(0.45)	10.2(0.40)	



Weld Bulkhead Unions



Fractional Tube

Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in.(mm)					
		L	C	E	G	D	I
1/8	HJCKU-YZ2-OD12-	3.16(80.2)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.47(12.0)	1.97(50.0)
3/16	HJCKU-YZ3-OD12-	3.24(82.2)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.47(12.0)	1.97(50.0)
1/4	HJCKU-YZ4-OD14-	3.35(85.2)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.55(14.0)	1.97(50.0)
5/16	HJCKU-YZ5-OD16-	3.43(87.2)	0.64(16.2)	0.25(6.4)	0.63(15.9)	0.63(16.0)	1.97(50.0)
3/8	HJCKU-YZ6-OD19-	3.49(88.6)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.75(19.0)	1.97(50.0)
1/2	HJCKU-YZ8-OD23-	3.69(93.8)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.91(23.0)	1.97(50.0)
5/8	HJCKU-YZ10-OD28-	3.69(93.6)	0.96(24.4)	0.50(12.7)	1.00(25.4)	1.10(28.0)	1.97(50.0)
3/4	HJCKU-YZ12-OD32-	3.72(94.4)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.26(32.0)	1.97(50.0)
7/8	HJCKU-YZ14-OD32-	3.72(94.4)	1.02(25.9)	0.72(18.3)	1.25(31.8)	1.26(32.0)	1.97(50.0)
1	HJCKU-YZ16-OD35-	4.06(103.2)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.38(35.0)	1.97(50.0)
1-1/4	HJCKU-YZ20-OD50-	5.05(128.2)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.97(50.0)	1.97(50.0)
1-1/2	HJCKU-YZ24-OD55-	5.54(140.8)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.17(55.0)	1.97(50.0)
2	HJCKU-YZ32-OD80-	6.93(176.0)	2.67(67.8)	1.81(46.0)	3.00(76.2)	3.15(80.0)	1.97(50.0)

Metric Tube

Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm(in.)					
		L	C	E	G	D	I
3	HJCKU-GZ3-OD12-	80.8(3.18)	12.9(0.51)	2.4(0.09)	12.0(0.47)	12.0(0.47)	50.0(1.97)
4	HJCKU-GZ4-OD12-	82.4(3.24)	13.7(0.54)	2.4(0.09)	12.0(0.47)	12.0(0.47)	50.0(1.97)
6	HJCKU-GZ6-OD12-	86.0(3.39)	15.3(0.60)	4.8(0.19)	14.0(0.55)	12.0(0.47)	50.0(1.97)
8	HJCKU-GZ8-OD16-	87.4(3.44)	16.2(0.64)	6.4(0.25)	16.0(0.63)	16.0(0.63)	50.0(1.97)
10	HJCKU-GZ10-OD19-	89.0(3.50)	17.2(0.68)	7.9(0.31)	19.0(0.75)	19.0(0.75)	50.0(1.97)
12	HJCKU-GZ12-OD23-	94.2(3.71)	22.8(0.90)	9.5(0.37)	22.0(0.87)	23.0(0.91)	50.0(1.97)
15	HJCKU-GZ15-OD25-	93.8(3.69)	24.4(0.96)	11.9(0.47)	25.0(0.98)	25.0(0.98)	50.0(1.97)
16	HJCKU-GZ16-OD28-	94.4(3.72)	24.4(0.96)	12.7(0.50)	25.0(0.98)	28.0(1.10)	50.0(1.97)
18	HJCKU-GZ18-OD28-	94.0(3.70)	24.4(0.96)	15.1(0.59)	30.0(1.18)	28.0(1.10)	50.0(1.97)
20	HJCKU-GZ20-OD32-	94.0(3.70)	26.0(1.02)	15.9(0.63)	32.0(1.26)	32.0(1.26)	50.0(1.97)
22	HJCKU-GZ22-OD32-	94.0(3.70)	26.0(1.02)	18.3(0.72)	32.0(1.26)	32.0(1.26)	50.0(1.97)
25	HJCKU-GZ25-OD38-	103.2(4.06)	31.3(1.23)	21.8(0.86)	38.0(1.50)	38.0(1.50)	50.0(1.97)
28	HJCKU-GZ28-OD45-	123.2(4.85)	36.6(1.44)	21.8(0.86)	46.0(1.81)	45.0(1.77)	50.0(1.97)
32	HJCKU-GZ32-OD50-	133.2(5.24)	42.0(1.65)	28.6(1.13)	50.0(1.97)	50.0(1.97)	50.0(1.97)
38	HJCKU-GZ38-OD60-	146.2(5.76)	49.4(1.94)	33.7(1.33)	60.0(2.36)	60.0(2.36)	50.0(1.97)

Bulkhead Locknuts



Fractional Tube

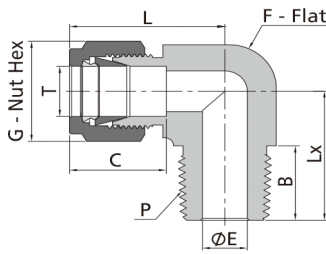
T-Tube O.D. (in.)	Basic Ordering Number
1/16	HJKN-YZ1-
1/8	HJKN-YZ2-
3/16	HJKN-YZ3-
1/4	HJKN-YZ4-
5/16	HJKN-YZ5-
3/8	HJKN-YZ6-
1/2	HJKN-YZ8-
5/8	HJKN-YZ10-
3/4	HJKN-YZ12-
7/8	HJKN-YZ14-
1	HJKN-YZ16-
1 1/4	HJKN-YZ20-
1 1/2	HJKN-YZ24-

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number
3	HJKN-GZ3-
4	HJKN-GZ4-
6	HJKN-GZ6-
8	HJKN-GZ8-
10	HJKN-GZ10-
12	HJKN-GZ12-
14	HJKN-GZ14-
18	HJKN-GZ18-
20	HJKN-GZ20-
22	HJKN-GZ22-
25	HJKN-GZ25-
28	HJKN-GZ28-
30	HJKN-GZ30-
32	HJKN-GZ32-
38	HJKN-GZ38-



Male Elbows



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube

NPT Thread

T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)						
			L	C	G	F	E	B	Lx
1/16	1/16	HJKML-YZ1-NPT1-	0.75(19.1)	0.34(8.6)	0.31(7.9)	0.44(11.1)	0.05(1.3)	0.38(9.7)	0.70(17.8)
1/16	1/8	HJKML-YZ1-NPT2-	0.75(19.1)	0.34(8.6)	0.31(7.9)	0.44(11.1)	0.05(1.3)	0.38(9.7)	0.70(17.8)
1/8	1/16	HJKML-YZ2-NPT1-	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.4)	0.38(9.7)	0.70(17.8)
1/8	1/8	HJKML-YZ2-NPT2-	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.4)	0.38(9.7)	0.70(17.8)
1/8	1/4	HJKML-YZ2-NPT4-	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.4)	0.56(14.2)	0.92(23.4)
3/16	1/8	HJKML-YZ3-NPT2-	1.00(25.4)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)	0.38(9.7)	0.74(18.8)
3/16	1/4	HJKML-YZ3-NPT4-	1.00(25.4)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)	0.56(14.2)	0.92(23.4)
1/4	1/16	HJKML-YZ4-NPT1-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.12(3.0)	0.38(9.7)	0.74(18.8)
1/4	1/8	HJKML-YZ4-NPT2-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.74(18.8)
1/4	1/4	HJKML-YZ4-NPT4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.92(23.4)
1/4	3/8	HJKML-YZ4-NPT6-	1.17(29.7)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)	0.56(14.2)	1.03(26.2)
1/4	1/2	HJKML-YZ4-NPT8-	1.25(31.8)	0.60(15.2)	0.56(14.3)	0.81(20.6)	0.19(4.8)	0.75(19.1)	1.30(33.0)
5/16	1/8	HJKML-YZ5-NPT2-	1.13(28.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.19(4.8)	0.38(9.7)	0.78(19.8)
5/16	1/4	HJKML-YZ5-NPT4-	1.13(28.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)	0.56(14.2)	0.96(24.4)
5/16	3/8	HJKML-YZ5-NPT6-	1.20(30.5)	0.64(16.3)	0.63(15.9)	0.69(17.5)	0.25(6.4)	0.56(14.2)	1.03(26.2)
3/8	1/8	HJKML-YZ6-NPT2-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.19(4.8)	0.38(9.7)	0.82(20.8)
3/8	1/4	HJKML-YZ6-NPT4-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	1.00(25.4)
3/8	3/8	HJKML-YZ6-NPT6-	1.23(31.2)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.56(14.2)	1.03(26.2)
3/8	1/2	HJKML-YZ6-NPT8-	1.31(33.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.75(19.1)	1.30(33.0)
3/8	3/4	HJKML-YZ6-NPT12-	1.46(37.1)	0.66(16.8)	0.69(17.5)	1.06(27.0)	0.28(7.1)	0.75(19.1)	1.45(36.8)
1/2	1/4	HJKML-YZ8-NPT4-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.28(7.1)	0.56(14.2)	1.11(28.2)
1/2	3/8	HJKML-YZ8-NPT6-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	1.11(28.2)
1/2	1/2	HJKML-YZ8-NPT8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.75(19.1)	1.30(33.0)
1/2	3/4	HJKML-YZ8-NPT12-	1.57(39.9)	0.90(22.9)	0.87(22.2)	1.06(27.0)	0.41(10.4)	0.75(19.1)	1.45(36.8)
5/8	3/8	HJKML-YZ10-NPT6-	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.38(9.7)	0.56(14.2)	1.19(30.2)
5/8	1/2	HJKML-YZ10-NPT8-	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.47(11.9)	0.75(19.1)	1.38(35.1)
5/8	3/4	HJKML-YZ10-NPT12-	1.57(39.9)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.50(12.7)	0.75(19.1)	1.45(36.8)
3/4	1/2	HJKML-YZ12-NPT8-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.47(11.9)	0.75(19.1)	1.45(36.8)
3/4	3/4	HJKML-YZ12-NPT12-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.45(36.8)
7/8	3/4	HJKML-YZ14-NPT12-	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.62(15.7)	0.75(19.1)	1.64(41.7)
1	3/4	HJKML-YZ16-NPT12-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.75(19.1)	1.64(41.7)
1	1	HJKML-YZ16-NPT16-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.83(46.5)
1 1/4	1 1/4	HJKML-YZ20-NPT20-	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)	0.94(23.9)	2.06(52.4)
1 1/2	1 1/2	HJKML-YZ24-NPT24-	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)	1.03(26.2)	2.38(60.5)

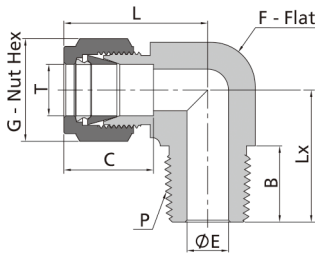
Fractional Tube

ISO Tapered Thread (RT)

T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimensions, in. (mm)						
			L	C	G	F	E	B	Lx
1/8	1/8	HJKML-YZ2-RT2-	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.4)	0.38(9.7)	0.87(22.2)
1/8	1/4	HJKML-YZ2-RT4-	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.4)	0.56(14.2)	0.92(23.4)
1/4	1/8	HJKML-YZ4-RT2-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.74(18.8)
1/4	1/4	HJKML-YZ4-RT4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.92(23.4)
1/4	3/8	HJKML-YZ4-RT6-	1.17(29.7)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)	0.56(14.2)	1.03(26.2)
1/4	1/2	HJKML-YZ4-RT8-	1.25(31.8)	0.60(15.2)	0.56(14.3)	0.81(20.6)	0.19(4.8)	0.75(19.1)	1.30(33.0)
5/16	1/4	HJKML-YZ5-RT4-	1.13(28.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)	0.56(14.2)	0.96(24.4)
3/8	1/8	HJKML-YZ6-RT2-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.19(4.8)	0.38(9.7)	0.82(20.8)
3/8	1/4	HJKML-YZ6-RT4-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	1.00(25.4)
3/8	3/8	HJKML-YZ6-RT6-	1.23(31.2)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.56(14.2)	1.03(26.2)
1/2	3/8	HJKML-YZ8-RT6-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	1.11(28.2)
1/2	1/2	HJKML-YZ8-RT8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.75(19.1)	1.30(33.0)
3/4	1/2	HJKML-YZ12-RT8-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.37(9.5)	0.75(19.1)	1.45(36.8)
1	1	HJKML-YZ16-RT16-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.83(46.5)



Male Elbows

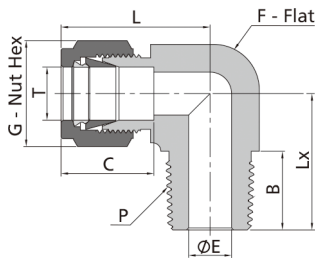


The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end

Metric Tube			NPT Thread						
T-Tube O.D (mm)	P-NPT Size	Basic Ordering Number	Dimensions,mm(in.)						
			L	C	G	F	E	B	Lx
3	1/8	HJKML-GZ3-NPT2-	23.6(0.93)	12.9(0.51)	12.0(0.47)	11.1(0.44)	2.4(0.09)	9.7(0.38)	17.8(0.70)
3	1/4	HJKML-GZ3-NPT4-	24.6(0.97)	12.9(0.51)	12.0(0.47)	12.7(0.50)	2.4(0.09)	14.2(0.56)	23.4(0.92)
4	1/8	HJKML-GZ4-NPT2-	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)	9.7(0.38)	18.8(0.74)
4	1/4	HJKML-GZ4-NPT4-	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)	14.2(0.56)	23.4(0.92)
6	1/8	HJKML-GZ6-NPT2-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	18.8(0.74)
6	1/4	HJKML-GZ6-NPT4-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	23.4(0.92)
6	3/8	HJKML-GZ6-NPT6-	29.8(1.17)	15.3(0.60)	14.0(0.55)	17.5(0.69)	4.8(0.19)	14.2(0.56)	26.2(1.03)
6	1/2	HJKML-GZ6-NPT8-	31.8(1.25)	15.3(0.60)	14.0(0.55)	20.6(0.81)	4.8(0.19)	19.1(0.75)	33.0(1.30)
8	1/8	HJKML-GZ8-NPT2-	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	4.8(0.19)	9.7(0.38)	19.8(0.78)
8	1/4	HJKML-GZ8-NPT4-	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	6.4(0.25)	14.2(0.56)	24.4(0.96)
8	3/8	HJKML-GZ8-NPT6-	30.6(1.20)	16.2(0.64)	16.0(0.63)	17.5(0.69)	6.4(0.25)	14.2(0.56)	26.2(1.03)
8	1/2	HJKML-GZ8-NPT8-	32.6(1.28)	16.2(0.64)	16.0(0.63)	20.6(0.81)	6.4(0.25)	19.1(0.75)	33.0(1.30)
10	1/8	HJKML-GZ10-NPT2-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	4.8(0.19)	9.7(0.38)	21.6(0.85)
10	1/4	HJKML-GZ10-NPT4-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.1(0.28)	14.2(0.56)	26.2(1.03)
10	3/8	HJKML-GZ10-NPT6-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)	14.2(0.56)	26.2(1.03)
10	1/2	HJKML-GZ10-NPT8-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	19.1(0.75)	33.0(1.30)
12	1/8	HJKML-GZ12-NPT2-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	4.8(0.19)	9.7(0.38)	23.6(0.93)
12	1/4	HJKML-GZ12-NPT4-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	7.1(0.28)	14.2(0.56)	28.2(1.11)
12	3/8	HJKML-GZ12-NPT6-	36.1.42	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	28.2(1.11)
12	1/2	HJKML-GZ12-NPT8-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	33.0(1.30)
12	3/4	HJKML-GZ12-NPT12-	39.8(1.57)	24.4(0.96)	22.0(0.87)	27.0(1.06)	9.5(0.37)	19.1(0.75)	36.8(1.45)
15	1/2	HJKML-GZ15-NPT8-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.1(1.38)
16	1/4	HJKML-GZ16-NPT4-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	7.1(0.28)	14.2(0.56)	30.2(1.19)
16	3/8	HJKML-GZ16-NPT6-	38.1.50	24.4(0.96)	25.0(0.98)	23.8(0.94)	9.5(0.37)	14.2(0.56)	30.2(1.19)
16	1/2	HJKML-GZ16-NPT8-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.1(1.38)
16	3/4	HJKML-GZ16-NPT12-	39.8(1.57)	24.4(0.96)	25.0(0.98)	27.0(1.06)	12.7(0.50)	19.1(0.75)	36.8(1.45)
18	1/2	HJKML-GZ18-NPT8-	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	11.9(0.47)	19.1(0.75)	36.8(1.45)
18	3/4	HJKML-GZ18-NPT12-	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)	19.1(0.75)	36.8(1.45)
20	1/2	HJKML-GZ20-NPT8-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	11.9(0.47)	19.1(0.75)	41.7(1.64)
20	3/4	HJKML-GZ20-NPT12-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
22	3/4	HJKML-GZ22-NPT12-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
22	1	HJKML-GZ22-NPT16-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)	23.9(0.94)	46.5(1.83)
25	3/4	HJKML-GZ25-NPT12-	49.1(1.93)	31.3(1.23)	38.0(1.50)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
25	1	HJKML-GZ25-NPT16-	49.1(1.93)	31.3(1.23)	38.0(1.50)	34.9(1.37)	21.8(0.86)	23.9(0.94)	46.5(1.83)
30	1 1/4	HJKML-GZ30-NPT20-	69.9(2.75)	39.6(1.56)	50.0(1.97)	42.9(1.69)	26.2(1.03)	23.9(0.94)	53.1(2.09)
32	1 1/4	HJKML-GZ32-NPT20-	72.3(2.85)	42.0(1.65)	50.0(1.97)	42.9(1.69)	27.8(1.09)	23.9(0.94)	53.1(2.09)
38	1 1/2	HJKML-GZ38-NPT24-	84.0(3.31)	49.4(1.94)	60.0(2.36)	50.8(2.00)	33.7(1.33)	26.2(1.03)	60.4(2.38)



Male Elbows



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

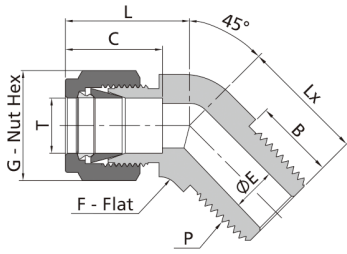
Metric Tube

ISO Tapered Thread(RT)

T-Tube O.D. (mm)	P-RT Size	Basic Ordering Number	Dimensions,mm(in.)						
			L	C	G	F	E	B	Lx
3	1/8	HJKML-GZ3-RT2-	23.6(0.93)	12.9(0.51)	12.0(0.47)	11.1(0.44)	2.4(0.09)	9.7(0.38)	17.8(0.70)
3	1/4	HJKML-GZ3-RT4-	24.6(0.97)	12.9(0.51)	12.0(0.47)	12.7(0.50)	2.4(0.09)	14.2(0.56)	23.4(0.92)
4	1/8	HJKML-GZ4-RT2-	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)	9.7(0.38)	18.8(0.74)
4	1/4	HJKML-GZ4-RT4-	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)	14.2(0.56)	23.4(0.92)
6	1/8	HJKML-GZ6-RT2-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	18.8(0.74)
6	1/4	HJKML-GZ6-RT4-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	23.4(0.92)
6	3/8	HJKML-GZ6-RT6-	29.8(1.17)	15.3(0.60)	14.0(0.55)	17.5(0.69)	4.8(0.19)	14.2(0.56)	26.2(1.03)
6	1/2	HJKML-GZ6-RT8-	31.8(1.25)	15.3(0.60)	14.0(0.55)	20.6(0.81)	4.8(0.19)	19.1(0.75)	33.0(1.30)
8	1/8	HJKML-GZ8-RT2-	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	4.8(0.19)	9.7(0.38)	19.8(0.78)
8	1/4	HJKML-GZ8-RT4-	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	6.4(0.25)	14.2(0.56)	24.4(0.96)
8	3/8	HJKML-GZ8-RT6-	30.6(1.20)	16.2(0.64)	16.0(0.63)	17.5(0.69)	6.4(0.25)	14.2(0.56)	26.2(1.03)
8	1/2	HJKML-GZ8-RT8-	32.6(1.28)	16.2(0.64)	16.0(0.63)	20.6(0.81)	6.4(0.25)	19.1(0.75)	33.0(1.30)
10	1/8	HJKML-GZ10-RT2-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	4.8(0.19)	9.7(0.38)	21.6(0.85)
10	1/4	HJKML-GZ10-RT4-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.1(0.28)	14.2(0.56)	26.2(1.03)
10	3/8	HJKML-GZ10-RT6-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)	14.2(0.56)	26.2(1.03)
10	1/2	HJKML-GZ10-RT8-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	19.1(0.75)	33.0(1.30)
12	1/8	HJKML-GZ12-RT2-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	4.8(0.19)	9.7(0.38)	23.6(0.93)
12	1/4	HJKML-GZ12-RT4-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	7.1(0.28)	14.2(0.56)	28.2(1.11)
12	3/8	HJKML-GZ12-RT6-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	28.2(1.11)
12	1/2	HJKML-GZ12-RT8-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	33.0(1.30)
12	3/4	HJKML-GZ12-RT12-	39.8(1.57)	22.8(0.90)	22.0(0.87)	27.0(1.06)	9.5(0.37)	19.1(0.75)	36.8(1.45)
14	1/2	HJKML-GZ14-RT8-	38.1(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.1(0.44)	19.1(0.75)	35.1(1.38)
15	1/2	HJKML-GZ15-RT8-	38.1(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.1(1.38)
16	1/4	HJKML-GZ16-RT4-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	7.1(0.28)	14.2(0.56)	30.2(1.19)
16	3/8	HJKML-GZ16-RT6-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	9.5(0.37)	14.2(0.56)	30.2(1.19)
16	1/2	HJKML-GZ16-RT8-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.1(1.38)
16	3/4	HJKML-GZ16-RT12-	39.8(1.57)	24.4(0.96)	25.0(0.98)	27.0(1.06)	12.7(0.50)	19.1(0.75)	36.8(1.45)
18	1/2	HJKML-GZ18-RT8-	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	11.9(0.47)	19.1(0.75)	36.8(1.45)
18	3/4	HJKML-GZ18-RT12-	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)	19.1(0.75)	36.8(1.45)
20	1/2	HJKML-GZ20-RT8-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	11.9(0.47)	19.1(0.75)	41.7(1.64)
20	3/4	HJKML-GZ20-RT12-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
22	3/4	HJKML-GZ22-RT12-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
22	1	HJKML-GZ22-RT16-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)	23.9(0.94)	46.5(1.83)
25	3/4	HJKML-GZ25-RT12-	49.1(1.93)	31.3(0.90)	38.0(1.50)	34.9(1.37)	15.9(0.63)	19.1(0.75)	41.7(1.64)
25	1	HJKML-GZ25-RT16-	49.1(1.93)	31.3(0.90)	38.0(1.50)	34.9(1.37)	21.8(0.86)	23.9(0.94)	46.5(1.83)
28	1	HJKML-GZ28-RT16-	64.0(2.52)	36.6(0.90)	46.0(1.81)	42.9(1.69)	21.8(0.86)	23.9(0.94)	53.1(2.09)



45° Male Elbows



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

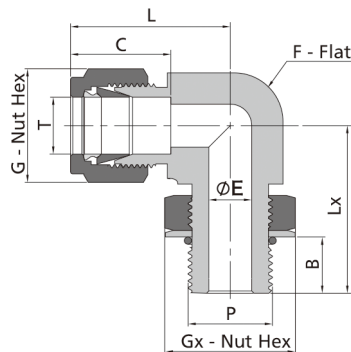
Fractional Tube			NPT Thread						
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions,in.(mm)						
			L	C	G	F	E	B	Lx
1/16	1/16	HJKMV-YZ1-NPT1-	0.82(20.8)	0.34(8.6)	0.31(7.9)	0.44(11.1)	0.05(1.3)	0.38(9.7)	0.66(16.8)
1/8	1/8	HJKMV-YZ2-NPT2-	0.82(20.8)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)	0.38(9.7)	0.66(16.8)
3/16	1/8	HJKMV-YZ3-NPT2-	0.85(21.6)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)	0.38(9.7)	0.58(14.7)
1/4	1/8	HJKMV-YZ4-NPT2-	0.97(24.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.65(16.5)
1/4	1/4	HJKMV-YZ4-NPT4-	0.97(24.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.83(21.1)
5/16	1/8	HJKMV-YZ5-NPT2-	0.94(24.0)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.19(4.8)	0.38(9.7)	0.66(16.8)
3/8	1/8	HJKMV-YZ6-NPT2-	1.10(27.9)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.19(4.8)	0.38(9.7)	0.72(18.3)
3/8	1/4	HJKMV-YZ6-NPT4-	1.10(27.9)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	0.90(22.9)
3/8	3/8	HJKMV-YZ6-NPT6-	1.15(29.2)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.56(14.2)	0.95(24.1)
1/2	3/8	HJKMV-YZ8-NPT6-	1.26(32.0)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	0.95(24.1)
5/8	1/2	HJKMV-YZ10-NPT8-	1.20(30.4)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.47(11.9)	0.56(14.2)	1.17(29.7)
3/4	3/4	HJKMV-YZ12-NPT12-	1.34(34.0)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.22(31.0)
7/8	3/4	HJKMV-YZ14-NPT12-	1.59(40.4)	1.02(25.9)	1.25(31.8)	1.25(31.8)	0.62(15.7)	0.75(19.1)	1.27(32.3)
1	1	HJKMV-YZ16-NPT16-	1.59(40.4)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.49(37.8)

Metric Tube			NPT Thread							
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions,mm(in.)							
			L	C	G	F	E	B	Lx	
6	1/8	HJKMV-GZ6-NPT2-	23.4(0.92)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	16.8(0.66)	
6	1/4	HJKMV-GZ6-NPT4-	23.4(0.92)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	21.8(0.86)	
8	1/8	HJKMV-GZ8-NPT2-	24.3(0.96)	16.2(0.64)	16.0(0.63)	15.9(0.63)	4.8(0.19)	9.7(0.38)	16.8(0.66)	
10	1/4	HJKMV-GZ10-NPT4-	26.6(1.05)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)	14.2(0.56)	24.1(0.95)	
12	3/8	HJKMV-GZ12-NPT6-	29.1(1.15)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	24.1(0.95)	
12	1/2	HJKMV-GZ12-NPT8-	30.7(1.21)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	29.7(1.17)	
16	1/2	HJKMV-GZ16-NPT8-	30.4(1.20)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	29.7(1.17)	



Positionable Male Elbows

SAE/MS Straight Thread



1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of SAE J1926-1, ISO 11926-1 and MS 16142.

Fractional Tube

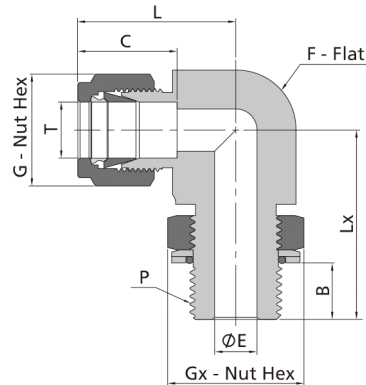
SAE/MS Straight Thread

T-Tube O.D. (in.)	P-SAE Nomina Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, in. (mm)							
				L	B	C	G	E	F	Lx	Gx
1/4	4	7/16-20	HJTML-YZ4-ST7-	1.12(28.4)	0.39(9.9)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.50(12.7)	1.06(27.0)	0.56(14.3)
1/4	6	9/16-18	HJTML-YZ4-ST9-	1.20(30.5)	0.44(11.2)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.63(15.9)	1.27(32.3)	0.69(17.5)
5/16	5	1/2-20	HJTML-YZ5-ST8-	1.19(30.2)	0.39(9.9)	0.64(16.3)	0.63(15.9)	0.23(5.8)	0.56(14.3)	1.16(29.5)	0.63(15.9)
3/8	4	7/16-20	HJTML-YZ6-ST7-	1.31(33.3)	0.39(9.9)	0.66(16.8)	0.69(17.5)	0.20(5.1)	0.63(15.9)	1.24(31.5)	0.56(14.3)
3/8	6	9/16-18	HJTML-YZ6-ST9-	1.26(32.0)	0.44(11.2)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.63(15.9)	1.27(32.3)	0.69(17.5)
3/8	8	3/4-16	HJTML-YZ6-ST12-	1.37(34.8)	0.50(12.7)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.81(20.6)	1.49(37.8)	0.87(22.2)
1/2	6	9/16-18	HJTML-YZ8-ST9-	1.48(37.6)	0.44(11.2)	0.90(22.9)	0.87(22.2)	0.28(7.1)	0.81(20.6)	1.48(37.5)	0.69(17.5)
1/2	8	3/4-16	HJTML-YZ8-ST12-	1.48(37.6)	0.50(12.7)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.81(20.6)	1.49(37.8)	0.87(22.2)
5/8	10	7/8-14	HJTML-YZ10-ST14-	1.56(39.6)	0.56(14.2)	0.96(24.4)	1.00(25.4)	0.50(12.7)	0.94(23.8)	1.71(43.4)	1.00(25.4)
3/4	12	1 1/16-12	HJTML-YZ12-ST17-	1.63(41.4)	0.66(16.8)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.92(48.8)	1.25(31.8)
7/8	14	1 3/16-12	HJTML-YZ14-ST19-	1.70(43.2)	0.66(16.8)	1.02(25.9)	1.25(31.8)	0.72(18.3)	1.25(31.8)	1.99(50.5)	1.37(34.9)
1	16	1 5/16-12	HJTML-YZ16-ST21-	1.99(50.5)	0.66(16.8)	1.23(31.2)	1.50(38.1)	0.88(22.4)	1.37(34.9)	2.11(53.6)	1.50(38.1)
1 1/4	20	1 5/8-12	HJTML-YZ20-ST26-	2.67(67.8)	0.66(16.8)	1.62(41.1)	1.87(47.6)	1.09(27.7)	1.69(42.9)	2.29(58.2)	1.87(47.6)
1 1/2	24	1 7/8-12	HJTML-YZ24-ST30-	3.07(78.0)	0.66(16.8)	1.97(50.0)	2.25(57.2)	1.34(34.0)	2.00(50.8)	2.38(60.5)	2.13(54.0)



Positionable Male Elbows

ISO Parallel Thread



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

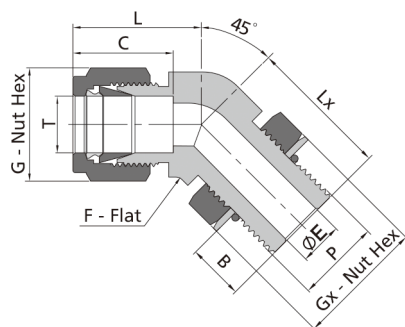
Fractional Tube			ISO Parallel Thread(PP)							
T-Tube O.D. (in.)	P-ISOParallel Thread Size	Basic Ordering Number	Dimensions,in.(mm)							
			L	B	C	G	E	F	Lx	Gx
1/4	1/8	HJTML-YZ4-PP2-	1.06(26.9)	0.26(6.6)	0.60(15.2)	0.56(14.3)	0.16(4.1)	0.50(12.7)	1.04(26.4)	0.56(14.3)
1/4	1/4	HJTML-YZ4-PP4-	1.14(29.0)	0.35(9.0)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.63(15.9)	1.27(32.3)	0.75(19.1)
3/8	1/4	HJTML-YZ6-PP4-	1.20(30.5)	0.35(9.0)	0.66(16.8)	0.69(17.5)	0.23(5.8)	0.63(15.9)	1.27(32.3)	0.75(19.1)
3/8	3/8	HJTML-YZ6-PP6-	1.31(33.3)	0.37(9.4)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.81(20.6)	1.46(37.1)	0.87(22.2)
1/2	1/4	HJTML-YZ8-PP4-	1.42(36.1)	0.35(9.0)	0.90(22.9)	0.87(22.2)	0.23(5.8)	0.81(20.6)	1.38(35.1)	0.75(19.1)
1/2	3/8	HJTML-YZ8-PP6-	1.42(36.1)	0.37(9.4)	0.90(22.9)	0.87(22.2)	0.31(7.9)	0.81(20.6)	1.46(37.1)	0.87(22.2)
1/2	1/2	HJTML-YZ8-PP8-	1.50(38.1)	0.51(13.0)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.94(23.8)	1.71(43.4)	1.06(27.0)
5/8	1/2	HJTML-YZ10-PP8-	1.50(38.1)	0.51(13.0)	0.96(24.4)	1.00(25.4)	0.47(11.9)	0.94(23.8)	1.71(43.4)	1.06(27.0)
3/4	1/2	HJTML-YZ12-PP8-	1.57(39.9)	0.51(13.0)	0.96(24.4)	1.13(28.6)	0.47(11.9)	1.06(27.0)	1.78(45.2)	1.06(27.0)
3/4	3/4	HJTML-YZ12-PP12-	1.57(39.9)	0.51(13.0)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.92(48.8)	1.37(34.9)
1	3/4	HJTML-YZ16-PP12-	1.93(49.0)	0.51(13.0)	1.23(31.2)	1.50(38.1)	0.62(15.7)	1.37(34.9)	2.10(53.3)	1.37(34.9)
1	1	HJTML-YZ16-PP16-	1.93(49.0)	0.52(13.2)	1.23(31.2)	1.50(38.1)	0.78(19.8)	1.37(34.9)	2.11(53.6)	1.63(41.3)

Metric Tube			ISO Parallel Thread(PP)							
T-Tube O.D. (mm)	P-ISOParallel Thread Size	Basic Ordering Number	Dimensions,mm(in.)							
			L	B	C	G	E	F	Lx	Gx
6	1/8	HJTML-GZ6-PP2-	27.0(1.06)	6.6(0.26)	15.3(0.60)	14.0(0.55)	4.0(0.16)	12.7(0.50)	26.4(1.04)	14.3(0.56)
6	1/4	HJTML-GZ6-PP4-	29.0(1.14)	9.0(0.35)	15.3(0.60)	14.0(0.55)	4.8(0.19)	15.9(0.63)	32.3(1.27)	19.1(0.75)
8	1/8	HJTML-GZ8-PP2-	28.8(1.13)	6.6(0.26)	16.2(0.64)	16.0(0.63)	4.0(0.16)	14.3(0.56)	27.4(1.08)	14.3(0.56)
8	1/4	HJTML-GZ8-PP4-	29.9(1.18)	9.0(0.35)	16.2(0.64)	16.0(0.63)	5.9(0.23)	15.9(0.63)	32.2(1.27)	19.1(0.75)
10	1/4	HJTML-GZ10-PP4-	33.5(1.32)	9.0(0.35)	17.2(0.68)	19.0(0.75)	5.9(0.23)	20.6(0.81)	35.0(1.38)	19.1(0.75)
10	3/8	HJTML-GZ10-PP6-	33.5(1.32)	9.4(0.37)	17.2(0.68)	19.0(0.75)	7.9(0.31)	20.6(0.81)	37.1(1.46)	22.2(0.87)
12	1/4	HJTML-GZ12-PP4-	36.0(1.42)	9.0(0.35)	22.8(0.90)	22.0(0.87)	5.9(0.23)	20.6(0.81)	35.0(1.38)	19.1(0.75)
12	3/8	HJTML-GZ12-PP6-	36.0(1.42)	9.4(0.37)	22.8(0.90)	22.0(0.87)	7.9(0.31)	20.6(0.81)	37.1(1.46)	22.2(0.87)
12	1/2	HJTML-GZ12-PP8-	38.0(1.50)	13.0(0.51)	22.8(0.90)	22.0(0.87)	9.5(0.37)	23.8(0.94)	43.4(1.71)	27.0(1.06)
12	3/4	HJTML-GZ12-PP12-	39.8(1.57)	13.0(0.51)	22.8(0.90)	22.0(0.87)	9.5(0.37)	27.0(1.06)	48.8(1.92)	34.9(1.37)



45° Positionable Male Elbows

SAE/MS Straight Thread



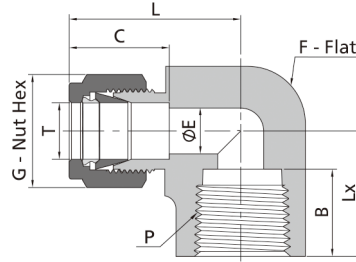
1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of SAE J1926-1, ISO 11926-1 and MS 16142.

Fractional Tube				SAE/MS Straight Thread							
T-Tube O.D. (in.)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions,in.(mm)							
				L	B	C	G	E	F	Lx	Gx
1/4	4	7/16-20	HJTMV-YZ4-ST7-	1.01(25.7)	0.39(9.9)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.50(12.7)	1.01(25.7)	0.56(14.3)
3/8	6	9/16-18	HJTMV-YZ6-ST9-	1.10(27.9)	0.44(11.2)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.63(15.9)	1.11(28.2)	0.69(17.5)
1/2	8	3/4-16	HJTMV-YZ8-ST12-	1.26(32.0)	0.50(12.7)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.81(20.6)	1.27(32.3)	0.87(22.2)
3/4	12	1 1/16-12	HJTMV-YZ12-ST17-	1.57(39.9)	0.66(16.8)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.86(47.2)	1.25(31.8)
1	16	1 5/16-12	HJTMV-YZ16-ST21-	1.87(47.5)	0.66(16.8)	1.23(31.2)	1.50(38.1)	0.88(22.4)	1.37(34.9)	1.99(50.5)	1.50(38.1)



Female Elbows

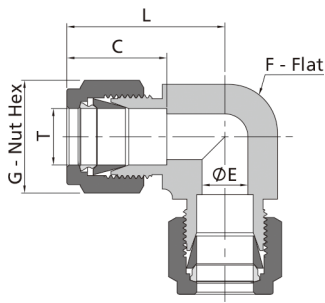


Fractional Tube			NPT Thread						
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in.(mm)						
			L	B	C	G	E	F	Lx
1/16	1/16	HJKFL-YZ1-NPT1-	0.71(18.0)	0.39(9.9)	0.34(8.6)	0.31(7.9)	0.05(1.3)	0.44(11.1)	0.56(14.2)
1/16	1/8	HJKFL-YZ1-NPT2-	0.81(20.6)	0.41(10.4)	0.34(8.6)	0.31(7.9)	0.05(1.3)	0.56(14.3)	0.75(19.1)
1/8	1/8	HJKFL-YZ2-NPT2-	0.97(24.6)	0.41(10.4)	0.50(12.7)	0.44(11.1)	0.09(2.3)	0.50(12.7)	0.75(19.1)
1/8	1/4	HJKFL-YZ2-NPT4-	1.08(27.4)	0.59(15.0)	0.50(12.7)	0.44(11.1)	0.09(2.3)	0.69(17.5)	0.88(22.4)
3/16	1/8	HJKFL-YZ3-NPT2-	1.00(25.4)	0.41(10.4)	0.54(13.7)	0.50(12.7)	0.12(3.0)	0.5(12.7)	0.75(19.1)
1/4	1/8	HJKFL-YZ4-NPT2-	1.06(26.9)	0.41(10.4)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.50(12.7)	0.75(19.1)
1/4	1/4	HJKFL-YZ4-NPT4-	1.17(29.7)	0.59(15.0)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.69(17.5)	0.88(22.4)
1/4	3/8	HJKFL-YZ4-NPT6-	1.25(31.8)	0.59(15.0)	0.60(15.2)	0.56(14.3)	0.19(4.8)	0.81(20.6)	0.88(22.4)
1/4	1/2	HJKFL-YZ4-NPT8-	1.36(34.5)	0.78(19.8)	0.60(15.2)	0.56(14.3)	0.19(4.8)	1.00(25.4)	1.12(28.4)
5/16	1/8	HJKFL-YZ5-NPT2-	1.13(28.7)	0.41(10.4)	0.64(16.3)	0.63(15.9)	0.25(6.4)	0.56(14.3)	0.75(19.1)
5/16	1/4	HJKFL-YZ5-NPT4-	1.20(30.5)	0.59(15.0)	0.64(16.3)	0.63(15.9)	0.25(6.4)	0.69(17.5)	0.88(22.4)
3/8	1/8	HJKFL-YZ6-NPT2-	1.20(30.5)	0.41(10.4)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.63(15.9)	0.75(19.1)
3/8	1/4	HJKFL-YZ6-NPT4-	1.23(31.2)	0.59(15.0)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.69(17.5)	0.88(22.4)
3/8	3/8	HJKFL-YZ6-NPT6-	1.31(33.3)	0.59(15.0)	0.66(16.8)	0.69(17.5)	0.28(7.1)	0.81(20.6)	0.88(22.4)
3/8	1/2	HJKFL-YZ6-NPT8-	1.42(36.1)	0.78(19.8)	0.66(16.8)	0.69(17.5)	0.28(7.1)	1.00(25.4)	1.12(28.4)
1/2	1/4	HJKFL-YZ8-NPT4-	1.42(36.1)	0.59(15.0)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.81(20.6)	0.88(22.4)
1/2	3/8	HJKFL-YZ8-NPT6-	1.42(36.1)	0.59(15.0)	0.90(22.9)	0.87(22.2)	0.41(10.4)	0.81(20.6)	0.88(22.4)
1/2	1/2	HJKFL-YZ8-NPT8-	1.53(38.9)	0.78(19.8)	0.90(22.9)	0.87(22.2)	0.41(10.4)	1.00(25.4)	1.12(28.4)
5/8	3/8	HJKFL-YZ10-NPT6-	1.50(38.1)	0.59(15.0)	0.96(24.4)	1.00(25.4)	0.50(12.7)	0.94(23.8)	0.88(22.4)
5/8	1/2	HJKFL-YZ10-NPT8-	1.57(39.9)	0.78(19.8)	0.96(24.4)	1.00(25.4)	0.50(12.7)	1.06(27.0)	1.12(28.4)
3/4	1/2	HJKFL-YZ12-NPT8-	1.57(39.9)	0.78(19.8)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.06(27.0)	1.12(28.4)
3/4	3/4	HJKFL-YZ12-NPT12-	1.76(44.7)	0.81(20.6)	0.96(24.4)	1.13(28.6)	0.62(15.7)	1.37(34.9)	1.25(31.8)
7/8	3/4	HJKFL-YZ14-NPT12-	1.76(44.7)	0.81(20.6)	1.02(25.9)	1.25(31.8)	0.72(18.3)	1.37(34.9)	1.25(31.8)
1	3/4	HJKFL-YZ16-NPT12-	1.93(49.0)	0.81(20.6)	1.23(31.2)	1.50(38.1)	0.88(22.4)	1.37(34.9)	1.25(31.8)
1	1	HJKFL-YZ16-NPT16-	2.11(53.6)	1.00(25.4)	1.23(31.2)	1.50(38.1)	0.88(22.4)	1.69(42.9)	1.50(38.1)

Metric Tube			NPT Thread						
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm(in.)						
			L	B	C	G	E	F	Lx
6	1/8	HJKFL-GZ6-NPT2-	27.0(1.06)	10.4(0.41)	15.3(0.60)	14.0(0.55)	4.8(0.19)	12.7(0.50)	19.0(0.75)
6	1/4	HJKFL-GZ6-NPT4-	29.8(1.17)	15.0(0.59)	15.3(0.60)	14.0(0.55)	4.8(0.19)	17.5(0.69)	22.4(0.88)
8	1/8	HJKFL-GZ8-NPT2-	28.8(1.13)	10.4(0.41)	16.2(0.64)	16.0(0.63)	6.4(0.25)	14.3(0.56)	19.1(0.75)
8	1/4	HJKFL-GZ8-NPT4-	30.6(1.20)	15.0(0.59)	16.2(0.64)	16.0(0.63)	6.4(0.25)	17.5(0.69)	22.4(0.88)
10	1/4	HJKFL-GZ10-NPT4-	33.5(1.32)	15.0(0.59)	17.2(0.68)	19.0(0.75)	7.9(0.31)	20.6(0.81)	22.4(0.88)
10	3/8	HJKFL-GZ10-NPT6-	33.5(1.32)	15.0(0.59)	17.2(0.68)	19.0(0.75)	7.9(0.31)	20.6(0.81)	22.4(0.88)
10	1/2	HJKFL-GZ10-NPT8-	36.6(1.44)	19.8(0.78)	17.2(0.68)	19.0(0.75)	7.9(0.31)	25.4(1.00)	28.5(1.12)
12	1/4	HJKFL-GZ12-NPT4-	36.0(1.42)	15.0(0.59)	22.8(0.90)	22.0(0.87)	9.5(0.37)	20.6(0.81)	22.4(0.88)
12	3/8	HJKFL-GZ12-NPT6-	36.0(1.42)	15.0(0.59)	22.8(0.90)	22.0(0.87)	9.5(0.37)	20.6(0.81)	22.4(0.88)
12	1/2	HJKFL-GZ12-NPT8-	38.8(1.53)	19.8(0.78)	22.8(0.90)	22.0(0.87)	9.5(0.37)	25.4(1.00)	28.4(1.12)
16	3/8	HJKFL-GZ16-NPT6-	39.5(1.56)	15.0(0.59)	24.4(0.96)	25.0(0.98)	12.7(0.50)	27.0(1.06)	23.6(0.93)
16	1/2	HJKFL-GZ16-NPT8-	39.5(1.56)	19.8(0.78)	24.4(0.96)	25.0(0.98)	12.7(0.50)	27.0(1.06)	28.5(1.12)



Union Elbows



Fractional Tube

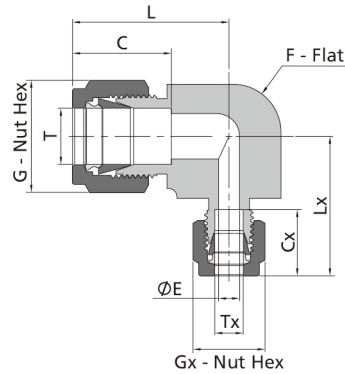
T-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in.(mm)				
		L	C	G	F	E
1/16	HJKL-YZ1-	0.70(17.8)	0.34(8.6)	0.31(7.9)	0.37(9.5)	0.05(1.3)
1/8	HJKL-YZ2-	0.88(22.4)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.09(2.3)
3/16	HJKL-YZ3-	1.00(25.4)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)
1/4	HJKL-YZ4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
5/16	HJKL-YZ5-	1.13(28.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)
3/8	HJKL-YZ6-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
1/2	HJKL-YZ8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
5/8	HJKL-YZ10-	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.5(12.7)
3/4	HJKL-YZ12-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
7/8	HJKL-YZ14-	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)
1	HJKL-YZ16-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)
1 1/8	HJKL-YZ18-	2.63(66.9)	1.44(36.7)	1.75(44.5)	1.69(42.9)	0.97(24.6)
1 1/4	HJKL-YZ20-	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)
1 1/2	HJKL-YZ24-	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm(in.)				
		L	C	G	F	E
3	HJKL-GZ3-	22.3(0.88)	12.9(0.51)	12.0(0.47)	9.5(0.37)	2.4(0.09)
4	HJKL-GZ4-	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)
6	HJKL-GZ6-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)
8	HJKL-GZ8-	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	6.4(0.25)
10	HJKL-GZ10-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)
12	HJKL-GZ12-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)
14	HJKL-GZ14-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.0(0.43)
15	HJKL-GZ15-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)
16	HJKL-GZ16-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	12.7(0.50)
18	HJKL-GZ18-	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	HJKL-GZ20-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)
22	HJKL-GZ22-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)
25	HJKL-GZ25-	49.1(1.93)	31.3(1.23)	38.0(1.5)	34.9(1.37)	21.8(0.86)
28	HJKL-GZ28-	64.0(2.52)	36.6(1.44)	46.0(1.81)	42.9(1.69)	21.8(0.86)
30	HJKL-GZ30-	69.9(2.75)	39.6(1.56)	50.0(1.97)	42.9(1.69)	26.2(1.03)
32	HJKL-GZ32-	72.3(2.85)	42.0(1.65)	50.0(1.97)	42.9(1.69)	28.6(1.13)
38	HJKL-GZ38-	84.0(3.31)	49.4(1.94)	60.0(2.36)	50.8(2.00)	33.7(1.33)



Union Reducing Elbows



Dual Ferrule Types

Fractional Tube

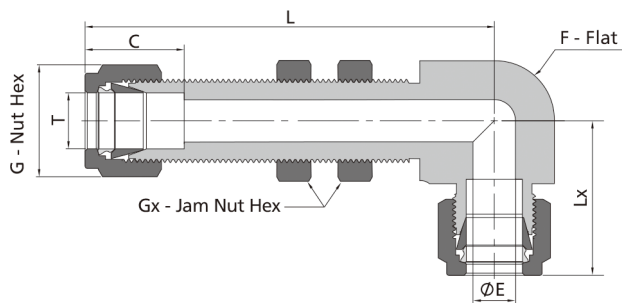
T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in.(mm)							
			L	C	G	F	E	Cx	Gx	Lx
3/16	1/8	HJKL-YZ3-YZ2-	1.00(25.4)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.09(2.3)	0.50(12.7)	0.44(11.1)	0.97(24.7)
1/4	1/8	HJKL-YZ4-YZ2-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.09(2.3)	0.50(12.7)	0.44(11.1)	1.00(25.4)
5/16	1/8	HJKL-YZ5-YZ2-	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.09(2.3)	0.50(12.7)	0.44(11.1)	1.04(26.4)
5/16	1/4	HJKL-YZ5-YZ4-	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.19(4.8)	0.60(15.2)	0.56(14.3)	1.14(29.0)
3/8	1/8	HJKL-YZ6-YZ2-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.09(2.3)	0.50(12.7)	0.44(11.1)	1.04(26.4)
3/8	1/4	HJKL-YZ6-YZ4-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.19(4.8)	0.60(15.2)	0.56(14.3)	1.14(29.0)
3/8	5/16	HJKL-YZ6-YZ5-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.25(6.4)	0.64(16.3)	0.63(15.9)	1.17(29.7)
1/2	1/4	HJKL-YZ8-YZ4-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.19(4.8)	0.60(15.2)	0.56(14.3)	1.27(32.2)
1/2	5/16	HJKL-YZ8-YZ5-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.25(6.4)	0.64(16.3)	0.63(15.9)	1.28(32.5)
1/2	3/8	HJKL-YZ8-YZ6-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.28(7.1)	0.66(16.8)	0.69(17.5)	1.32(33.6)
5/8	3/8	HJKL-YZ10-YZ6-	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.28(7.1)	0.66(16.8)	0.69(17.5)	1.40(35.6)
5/8	1/2	HJKL-YZ10-YZ8-	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.41(10.4)	0.90(22.9)	0.87(22.2)	1.50(38.1)
3/4	1/4	HJKL-YZ12-YZ4-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.19(4.8)	0.60(15.2)	0.56(14.3)	1.41(35.9)
3/4	3/8	HJKL-YZ12-YZ6-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.28(7.1)	0.66(16.8)	0.69(17.5)	1.47(37.4)
3/4	1/2	HJKL-YZ12-YZ8-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.41(10.4)	0.90(22.9)	0.87(22.2)	1.57(39.9)
7/8	1/4	HJKL-YZ14-YZ4-	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.19(4.8)	0.60(15.2)	0.56(14.3)	1.60(40.7)
1	1/2	HJKL-YZ16-YZ8-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.41(10.4)	0.90(22.9)	0.87(22.2)	1.75(44.4)
1	3/4	HJKL-YZ16-YZ12-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.96(24.4)	1.13(28.6)	1.85(47.1)

Metric Tube

T-Tube O.D. (mm)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm(in.)							
			L	C	G	F	E	Cx	Gx	Lx
8	6	HJKL-GZ8-GZ6-	28.8(1.13)	16.2(0.64)	16.0(0.63)	14.3(0.56)	4.8(0.19)	15.3(0.60)	14.0(0.55)	27.9(1.10)
10	8	HJKL-GZ10-GZ8-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	6.4(0.25)	16.2(0.64)	16.0(0.63)	30.5(1.20)
12	8	HJKL-GZ12-GZ8-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	6.4(0.25)	16.2(0.64)	16.0(0.63)	32.6(1.28)
14	8	HJKL-GZ14-GZ8-	38.8(1.53)	24.4(0.96)	25.0(0.98)	23.8(0.94)	6.4(0.25)	16.2(0.64)	16.0(0.63)	34.7(1.37)
14	10	HJKL-GZ14-GZ10-	38.8(1.53)	24.4(0.96)	25.0(0.98)	23.8(0.94)	7.9(0.31)	17.2(0.68)	19.0(0.75)	35.5(1.40)



Bulkhead Union Elbows

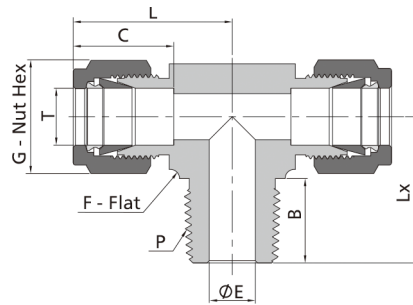


Fractional Tube

T-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in.(mm)							Panel Hole Size in.(mm)	Max. Panel Thickness in.(mm)
		L	C	E	G	F	Lx	Gx		
1/8	HJCKL-YZ2-	1.93(49.0)	0.50(12.7)	0.09(2.3)	0.44(11.1)	0.37(9.5)	0.88(22.4)	0.50(12.7)	0.33(8.3)	0.60(15.2)
3/16	HJCKL-YZ3-	2.03(51.6)	0.54(13.7)	0.12(3.0)	0.50(12.7)	0.50(12.7)	1.00(25.4)	0.56(14.3)	0.39(9.9)	0.61(15.5)
1/4	HJCKL-YZ4-	2.10(53.3)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.50(12.7)	1.06(26.9)	0.63(15.9)	0.45(11.5)	0.61(15.5)
5/6	HJCKL-YZ5-	2.30(58.4)	0.64(16.3)	0.25(6.4)	0.63(15.9)	0.63(15.9)	1.13(28.7)	0.69(17.5)	0.52(13.1)	0.74(18.8)
3/8	HJCKL-YZ6-	2.36(59.9)	0.66(16.8)	0.28(7.1)	0.69(15.7)	0.63(15.9)	1.20(30.5)	0.75(19.1)	0.58(14.7)	0.74(18.8)
1/2	HJCKL-YZ8-	2.67(67.8)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)	1.42(36.1)	0.94(23.8)	0.76(19.4)	0.74(18.8)
5/8	HJCKL-YZ10-	2.82(71.6)	0.96(24.4)	0.50(12.7)	1.00(25.4)	0.94(23.8)	1.50(38.1)	1.06(27.0)	0.89(22.6)	0.50(12.7)
3/4	HJCKL-YZ12-	3.08(78.2)	0.96(24.4)	0.62(12.7)	1.13(28.6)	1.06(27.0)	1.57(39.9)	1.19(30.2)	1.02(25.8)	0.66(16.8)



Male Branch Tees



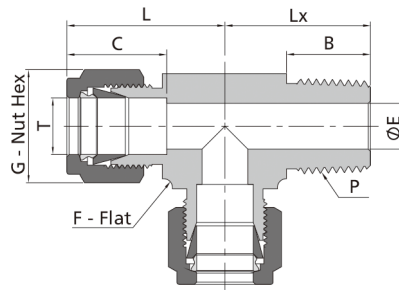
The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube			NPT Thread						
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in.(mm)						
			L	C	G	F	E	B	Lx
1/8	1/8	HJBMT-YZ2-NPT2-	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)	0.38(9.7)	0.70(17.8)
1/8	1/4	HJBMT-YZ2-NPT4-	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.3)	0.56(14.2)	0.92(23.4)
3/16	1/8	HJBMT-YZ3-NPT2-	0.96(24.4)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)	0.38(9.7)	0.70(17.8)
1/4	1/8	HJBMT-YZ4-NPT2-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.74(18.8)
1/4	1/4	HJBMT-YZ4-NPT4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.92(23.4)
5/16	1/8	HJBMT-YZ5-NPT2-	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.63(15.9)	0.19(4.8)	0.38(9.7)	0.82(20.8)
5/16	1/4	HJBMT-YZ5-NPT4-	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.63(15.9)	0.25(6.4)	0.56(14.2)	1.01(25.7)
3/8	1/4	HJBMT-YZ6-NPT4-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	1.00(25.4)
3/8	3/8	HJBMT-YZ6-NPT6-	1.31(33.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.56(14.2)	1.11(28.2)
1/2	3/8	HJBMT-YZ8-NPT6-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	1.11(28.2)
1/2	1/2	HJBMT-YZ8-NPT8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.75(19.1)	1.30(33.0)
5/8	1/2	HJBMT-YZ10-NPT8-	1.53(38.9)	0.96(24.4)	1.00(25.4)	1.00(25.4)	0.47(11.9)	0.75(19.1)	1.41(35.8)
3/4	3/4	HJBMT-YZ12-NPT12-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.45(36.8)
7/8	3/4	HJBMT-YZ14-NPT12-	1.88(47.8)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.62(15.7)	0.75(19.1)	1.87(47.5)
1	3/4	HJBMT-YZ16-NPT12-	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.75(19.1)	1.87(47.5)
1	1	HJBMT-YZ16-NPT16-	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.84(46.7)

Metric Tube			NPT Thread						
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm(in.)						
			L	C	G	F	E	B	Lx
6	1/8	HJBMT-GZ6-NPT2-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	18.8(0.74)
6	1/4	HJBMT-GZ6-NPT4-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	23.4(0.92)
8	1/8	HJBMT-GZ8-NPT2-	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	4.8(0.19)	9.7(0.38)	20.8(0.82)
8	1/4	HJBMT-GZ8-NPT4-	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)	14.2(0.56)	25.4(1.00)
10	1/4	HJBMT-GZ10-NPT4-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.1(0.28)	14.2(0.56)	28.2(1.11)
10	3/8	HJBMT-GZ10-NPT6-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	14.2(0.56)	28.2(1.11)
12	1/4	HJBMT-GZ12-NPT4-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	7.1(0.28)	14.2(0.56)	28.2(1.11)
12	3/8	HJBMT-GZ12-NPT6-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	28.2(1.11)
12	1/2	HJBMT-GZ12-NPT8-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	33.0(1.30)
16	1/2	HJBMT-GZ16-NPT8-	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	11.9(0.47)	19.1(0.75)	35.8(1.41)



Male Run Tees



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube

NPT Thread

T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in.(mm)						
			L	C	G	F	E	B	Lx
1/8	1/8	HJZMT-YZ2-NPT2-	0.93(23.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)	0.38(9.7)	0.70(17.8)
1/8	1/4	HJZMT-YZ2-NPT4-	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.3)	0.56(14.2)	0.92(23.4)
3/16	1/8	HJZMT-YZ3-NPT2-	0.96(24.4)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)	0.38(9.7)	0.70(17.8)
1/4	1/8	HJZMT-YZ4-NPT2-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.38(9.7)	0.74(18.8)
1/4	1/4	HJZMT-YZ4-NPT4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.56(14.2)	0.92(23.4)
5/16	1/8	HJZMT-YZ5-NPT2-	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.63(15.9)	0.19(4.8)	0.38(9.7)	0.82(20.8)
5/16	1/4	HJZMT-YZ5-NPT4-	1.17(29.7)	0.64(16.3)	0.63(15.9)	0.63(15.9)	0.25(6.4)	0.56(14.2)	1.01(25.7)
3/8	1/4	HJZMT-YZ6-NPT4-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)	0.56(14.2)	1.00(25.4)
3/8	3/8	HJZMT-YZ6-NPT6-	1.31(33.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.56(14.2)	1.11(28.2)
1/2	3/8	HJZMT-YZ8-NPT6-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.56(14.2)	1.11(28.2)
1/2	1/2	HJZMT-YZ8-NPT8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.75(19.1)	1.3(33.0)
5/8	1/2	HJZMT-YZ10-NPT8-	1.50(38.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.47(11.9)	0.75(19.1)	1.41(35.8)
3/4	3/4	HJZMT-YZ12-NPT12-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)	0.75(19.1)	1.45(36.8)
7/8	3/4	HJZMT-YZ14-NPT12-	1.88(47.8)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.62(15.7)	0.75(19.1)	1.87(47.5)
1	3/4	HJZMT-YZ16-NPT12-	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.75(19.1)	1.87(47.5)
1	1	HJZMT-YZ16-NPT16-	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.94(23.9)	1.84(46.7)

Metric Tube

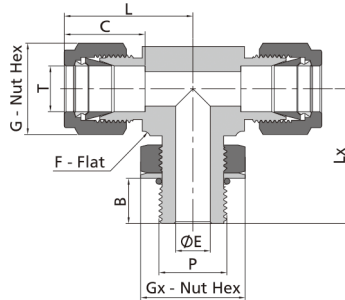
NPT Thread

T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm(in.)						
			L	C	G	F	E	B	Lx
6	1/8	HJZMT-GZ6-NPT2-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	9.7(0.38)	18.0(0.71)
6	1/4	HJZMT-GZ6-NPT4-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	14.2(0.56)	23.4(0.92)
8	1/8	HJZMT-GZ8-NPT2-	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	4.8(0.19)	9.7(0.38)	20.8(0.82)
8	1/4	HJZMT-GZ8-NPT4-	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)	14.2(0.56)	25.4(1.00)
10	1/4	HJZMT-GZ10-NPT4-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.1(0.28)	14.2(0.56)	28.2(1.11)
10	1/2	HJZMT-GZ10-NPT8-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	19.1(0.75)	33.0(1.3)
12	1/4	HJZMT-GZ12-NPT4-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	7.1(0.28)	14.2(0.56)	28.2(1.11)
12	3/8	HJZMT-GZ12-NPT6-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	14.2(0.56)	28.2(1.11)
12	1/2	HJZMT-GZ12-NPT8-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	19.1(0.75)	33.0(1.30)
16	1/2	HJZMT-GZ16-NPT8-	38.0(1.50)	24.4(0.96)	25.0(0.98)	23.8(0.94)	11.9(0.47)	19.1(0.75)	35.0(1.38)



Positionable Male Branch Tees

SAE/MS Straight Thread



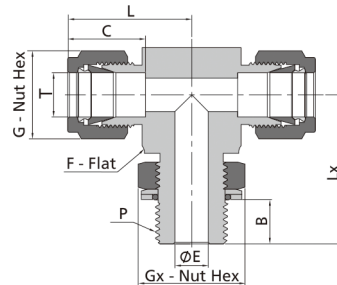
1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of SAE J1926-1, ISO 11926-1 and MS 16142.

Metric Tube				SAE/MS Straight Thread							
T-Tube O.D. (in.)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, in.(mm)							
				L	B	C	E	G	F	Lx	Gx
1/4	4	7/16-20	HJTB-TYZ4-ST7-	1.12(28.5)	0.39(9.9)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.50(12.7)	1.06(27.0)	0.56(14.3)
3/8	6	9/16-18	HJTB-TYZ6-ST9-	1.26(32.0)	0.44(11.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)	1.27(32.3)	0.69(17.5)
1/2	8	3/4-16	HJTB-TYZ8-ST12-	1.48(37.6)	0.50(12.7)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)	1.49(37.8)	0.87(22.2)
3/4	12	11/16-12	HJTB-TYZ12-ST17-	1.63(41.4)	0.66(16.8)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)	1.92(48.8)	1.25(31.8)
1	16	15/16-12	HJTB-TYZ16-ST21-	1.99(50.5)	0.66(16.8)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)	2.11(53.6)	1.50(38.1)
1 1/4	20	15/8-12	HJTB-TYZ20-ST26-	2.67(67.8)	0.66(16.8)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.69(42.9)	2.29(58.2)	1.87(47.6)
1 1/2	24	17/8-12	HJTB-TYZ24-ST30-	3.07(78.0)	0.66(16.8)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.00(50.8)	2.38(60.5)	2.13(54.0)

Positionable Male Branch Tees

ISO Parallel Thread



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end and welding end.

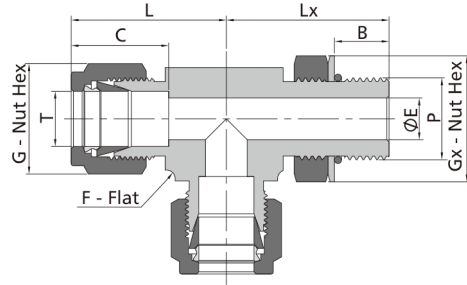
Fractional Tube				ISO Parallel Thread (PP)							
T-Tube O.D. (in.)	P-ISOParallel Thread Size	Basic Ordering Number		Dimensions, in.(mm)							
				L	B	C	E	G	F	Lx	Gx
1/4	1/8	HJTB-TYZ4-PP2-		1.06(26.9)	0.26(6.6)	0.60(15.2)	0.16(4.1)	0.56(14.3)	0.50(12.7)	1.04(26.4)	0.56(14.3)
1/4	1/4	HJTB-TYZ4-PP4-		1.14(29.0)	0.35(9.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	1.27(32.3)	0.75(19.1)
3/8	1/4	HJTB-TYZ6-PP4-		1.20(30.5)	0.35(9.0)	0.66(16.8)	0.23(5.8)	0.69(17.5)	0.63(15.9)	1.27(32.3)	0.75(19.1)
1/2	3/8	HJTB-TYZ8-PP6-		1.42(36.1)	0.37(9.4)	0.90(22.9)	0.31(7.9)	0.87(22.2)	0.81(20.6)	1.46(37.1)	0.87(22.2)
1/2	1/2	HJTB-TYZ8-PP8-		1.50(38.1)	0.51(13.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	1.71(43.4)	1.06(27.0)
5/8	1/2	HJTB-TYZ10-PP8-		1.50(38.1)	0.51(13.0)	0.96(24.4)	0.47(11.9)	1.00(25.4)	0.94(23.8)	1.71(43.4)	1.06(27.0)
3/4	1/2	HJTB-TYZ12-PP8-		1.57(39.9)	0.51(13.0)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)	1.78(45.2)	1.06(27.0)
3/4	3/4	HJTB-TYZ12-PP12-		1.57(39.9)	0.51(13.0)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)	1.92(48.8)	1.37(34.9)
1	1	HJTB-TYZ16-PP16-		1.93(49.0)	0.52(13.2)	1.23(31.2)	0.78(19.8)	1.50(38.1)	1.37(34.9)	2.11(53.6)	1.63(41.3)

Metric Tube				ISO Parallel Thread (PP)							
T-Tube O.D. (mm)	P-ISO Parallel Thread Size	Basic Ordering Number		Dimensions, mm (in.)							
				L	B	C	E	G	F	Lx	Gx
6	1/8	HJTB-TYZ6-PP2-		27.0(1.06)	6.6(0.26)	15.3(0.60)	4.0(0.16)	14.0(0.55)	12.7(0.50)	26.4(1.04)	14.3(0.56)
6	1/4	HJTB-TYZ6-PP4-		29.0(1.14)	9.0(0.35)	15.3(0.60)	4.8(0.19)	14.0(0.55)	15.9(0.63)	32.2(1.27)	19.1(0.75)
8	1/8	HJTB-TYZ8-PP2-		28.8(1.13)	6.6(0.26)	16.2(0.64)	4.0(0.16)	16.0(0.63)	14.3(0.56)	27.5(1.08)	14.3(0.56)
8	1/4	HJTB-TYZ8-PP4-		29.9(1.18)	9.0(0.35)	16.2(0.64)	5.9(0.23)	16.0(0.63)	15.9(0.63)	32.2(1.27)	19.1(0.75)
10	1/4	HJTB-TYZ10-PP4-		33.5(1.32)	9.0(0.35)	17.2(0.68)	5.9(0.23)	19.0(0.75)	20.6(0.81)	35.1(1.38)	19.1(0.75)
12	3/8	HJTB-TYZ12-PP6-		36.0(1.42)	9.4(0.37)	22.8(0.90)	7.9(0.31)	22.0(0.87)	20.6(0.81)	37.1(1.46)	22.2(0.87)
12	1/2	HJTB-TYZ12-PP8-		38.0(1.50)	13.0(0.51)	22.8(0.90)	9.5(0.37)	22.0(0.87)	23.8(0.94)	43.5(1.71)	27.0(1.06)



Positionable Male Run Tees

SAE/MS Straight Thread



1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of SAE J1926-1, ISO 11926-1 and MS 16142.

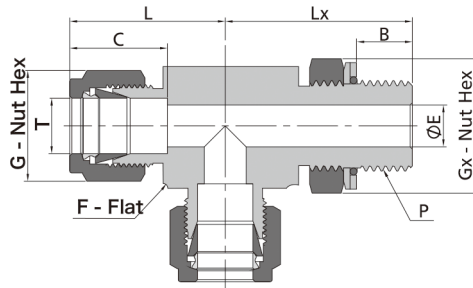
Fractional Tube

SAE/MS Straight Thread

T-Tube O.D. (in.)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, in. (mm)							
				L	B	C	E	G	F	Lx	Gx
1/4	4	7/16-20	HJTZT-YZ4-ST7-	1.12(28.5)	0.39(9.9)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.50(12.7)	1.06(27.0)	0.56(14.3)
3/8	6	9/16-18	HJTZT-YZ6-ST9-	1.26(32.0)	0.44(11.2)	0.66(16.8)	0.28(7.1)	0.69(17.5)	0.63(15.9)	1.27(32.3)	0.69(17.5)
1/2	8	3/4-16	HJTZT-YZ8-ST12-	1.48(37.6)	0.50(12.7)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.81(20.6)	1.49(37.8)	0.87(22.2)
3/4	12	1 1/16-12	HJTZT-YZ12-ST17-	1.63(41.4)	0.66(16.8)	0.96(24.4)	0.62(15.7)	1.25(31.75)	1.06(27.0)	1.92(48.8)	1.25(31.8)
1	16	1 5/16-12	HJTZT-YZ16-ST21-	1.99(50.5)	0.66(16.8)	1.23(31.2)	0.88(22.4)	1.50(38.1)	1.37(34.9)	2.11(53.6)	1.50(38.1)
1 1/4	20	1 5/8-12	HJTZT-YZ20-ST26-	2.67(67.8)	0.66(16.8)	1.62(41.1)	1.09(27.7)	1.87(47.6)	1.69(42.9)	2.29(58.2)	1.87(47.6)
1 1/2	24	1 7/8-12	HJTZT-YZ24-ST30-	3.07(78.0)	0.66(16.8)	1.97(50.0)	1.34(34.0)	2.25(57.2)	2.00(50.8)	2.38(60.5)	2.13(54.0)

Positionable Male Run Tees

ISO Parallel Thread



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube

ISO Parallel Thread (PP)

T-Tube O.D. (in.)	P-ISO Parallel Thread Size	Basic Ordering Number	Dimensions, in. (mm)							
			L	B	C	E	G	F	Lx	Gx
1/4	1/8	HJTZT-YZ4-PP2-	1.06(26.9)	0.26(6.6)	0.60(15.2)	0.16(4.1)	0.56(14.3)	0.50(12.7)	1.04(26.4)	0.56(14.3)
1/4	1/4	HJTZT-YZ4-PP4-	1.14(29.0)	0.35(9.0)	0.60(15.2)	0.19(4.8)	0.56(14.3)	0.63(15.9)	1.27(32.3)	0.75(19.1)
3/8	1/4	HJTZT-YZ6-PP4-	1.20(30.5)	0.35(9.0)	0.66(16.8)	0.23(5.8)	0.69(17.5)	0.63(15.9)	1.27(32.3)	0.75(19.1)
1/2	3/8	HJTZT-YZ8-PP6-	1.42(36.1)	0.37(9.4)	0.90(22.9)	0.31(7.9)	0.87(22.2)	0.81(20.6)	1.46(37.1)	0.87(22.2)
1/2	1/2	HJTZT-YZ8-PP8-	1.50(38.1)	0.51(13.0)	0.90(22.9)	0.41(10.4)	0.87(22.2)	0.94(23.8)	1.71(43.4)	1.06(27.0)
5/8	1/2	HJTZT-YZ10-PP8-	1.50(38.1)	0.51(13.0)	0.96(24.4)	0.47(11.9)	1.00(25.4)	0.94(23.8)	1.71(43.4)	1.06(27.0)
3/4	1/2	HJTZT-YZ12-PP8-	1.57(39.9)	0.51(13.0)	0.96(24.4)	0.47(11.9)	1.13(28.6)	1.06(27.0)	1.78(45.2)	1.06(27.0)
3/4	3/4	HJTZT-YZ12-PP12-	1.57(39.9)	0.51(13.0)	0.96(24.4)	0.62(15.7)	1.13(28.6)	1.06(27.0)	1.92(48.8)	1.37(34.9)
1	1	HJTZT-YZ16-PP16-	1.93(49.0)	0.52(13.2)	1.23(31.2)	0.78(19.8)	1.50(38.1)	1.37(34.9)	2.11(53.6)	1.63(41.3)

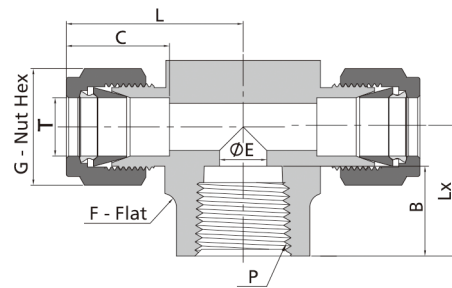
Metric Tube

ISO Parallel Thread (PP)

T-Tube O.D. (mm)	P-ISO Parallel Thread Size	Basic Ordering Number	Dimensions, mm (in.)							
			L	B	C	E	G	F	Lx	Gx
6	1/8	HJTZT-GZ6-PP2-	27.0(1.06)	6.6(0.26)	15.3(0.60)	4.0(0.16)	14.0(0.55)	12.7(0.50)	26.4(1.04)	14.3(0.56)
6	1/4	HJTZT-GZ6-PP4-	29.0(1.14)	9.0(0.35)	15.3(0.60)	4.8(0.19)	14.0(0.55)	15.9(0.63)	32.2(1.27)	19.1(0.75)
8	1/8	HJTZT-GZ8-PP2-	28.8(1.13)	6.6(0.26)	16.2(0.64)	4.0(0.16)	16.0(0.63)	14.3(0.56)	27.5(1.08)	14.3(0.56)
8	1/4	HJTZT-GZ8-PP4-	29.9(1.18)	9.0(0.35)	16.2(0.64)	5.9(0.23)	16.0(0.63)	15.9(0.63)	32.2(1.27)	19.1(0.75)
10	1/4	HJTZT-GZ10-PP4-	33.5(1.32)	9.0(0.35)	17.2(0.68)	5.9(0.23)	19.0(0.75)	20.6(0.81)	35.1(1.38)	19.1(0.75)
12	3/8	HJTZT-GZ12-PP6-	36.0(1.42)	9.4(0.37)	22.8(0.90)	7.9(0.31)	22.0(0.87)	20.6(0.81)	37.1(1.46)	22.2(0.87)
12	1/2	HJTZT-GZ12-PP8-	38.0(1.50)	13.0(0.51)	22.8(0.90)	9.5(0.37)	22.0(0.87)	23.8(0.94)	43.5(1.71)	27.0(1.06)



Female Branch Tees

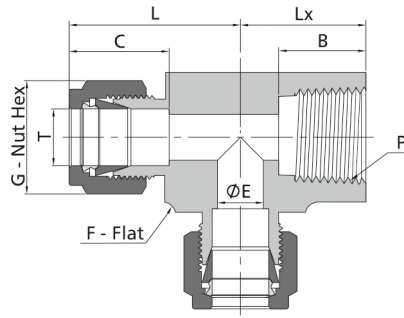


Fractional Tube			NPT Thread						
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)						
			L	C	G	F	E	B	Lx
1/8	1/8	HJBFT-YZ2-NPT2-	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.3)	0.41(10.4)	0.75(19.1)
3/16	1/8	HJBFT-YZ3-NPT2-	1.01(25.7)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)	0.41(10.4)	0.75(19.1)
1/4	1/8	HJBFT-YZ4-NPT2-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.41(10.4)	0.75(19.1)
1/4	1/4	HJBFT-YZ4-NPT4-	1.17(29.7)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)	0.59(15.0)	0.88(22.4)
5/16	1/8	HJBFT-YZ5-NPT2-	1.17(29.7)	0.64(16.2)	0.63(15.9)	0.63(15.9)	0.25(6.4)	0.41(10.4)	0.75(19.1)
3/8	1/4	HJBFT-YZ6-NPT4-	1.23(31.2)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.59(15.0)	0.88(22.4)
3/8	3/8	HJBFT-YZ6-NPT6-	1.31(33.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)	0.59(15.0)	0.88(22.4)
3/8	1/2	HJBFT-YZ6-NPT8-	1.42(36.1)	0.66(16.8)	0.69(17.5)	1.00(25.4)	0.28(7.1)	0.78(19.8)	1.12(28.4)
1/2	1/4	HJBFT-YZ8-NPT4-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.59(15.0)	0.88(22.4)
1/2	3/8	HJBFT-YZ8-NPT6-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.59(15.0)	0.88(22.4)
1/2	1/2	HJBFT-YZ8-NPT8-	1.53(38.9)	0.90(22.9)	0.87(22.2)	1.00(25.4)	0.41(10.4)	0.78(19.8)	1.12(28.4)
5/8	1/2	HJBFT-YZ10-NPT8-	1.53(38.9)	0.96(24.4)	1.00(25.4)	1.00(25.4)	0.50(12.7)	0.78(19.8)	1.12(28.4)
3/4	3/4	HJBFT-YZ12-NPT12-	1.76(44.7)	0.96(24.4)	1.13(28.6)	1.37(34.9)	0.62(15.7)	0.81(20.6)	1.25(31.8)
7/8	3/4	HJBFT-YZ14-NPT12-	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)	0.81(20.6)	1.25(31.8)
1	3/4	HJBFT-YZ16-NPT12-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.81(20.6)	1.25(31.8)
1	1	HJBFT-YZ16-NPT16-	2.11(53.6)	1.23(31.2)	1.50(38.1)	1.69(42.9)	0.88(22.4)	1.00(25.4)	1.50(38.1)

Metric Tube			NPT Thread						
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm (in.)						
			L	C	G	F	E	B	Lx
6	1/8	HJBFT-GZ6-NPT2-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	10.4(0.41)	19.0(0.75)
6	1/4	HJBFT-GZ6-NPT4-	29.8(1.17)	15.3(0.60)	14.0(0.55)	17.5(0.69)	4.8(0.19)	15.0(0.59)	22.4(0.88)
8	1/8	HJBFT-GZ8-NPT2-	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)	10.4(0.41)	19.0(0.75)
8	1/4	HJBFT-GZ8-NPT4-	30.6(1.2)	16.2(0.64)	16.0(0.63)	17.5(0.69)	6.4(0.25)	15.0(0.59)	22.4(0.88)
10	1/4	HJBFT-GZ10-NPT4-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	15.0(0.59)	22.4(0.88)
12	1/8	HJBFT-GZ12-NPT2-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	6.4(0.25)	10.4(0.41)	22.3(0.88)
12	1/4	HJBFT-GZ12-NPT4-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	15.0(0.59)	22.4(0.88)
12	3/8	HJBFT-GZ12-NPT6-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	15.0(0.59)	22.4(0.88)
12	1/2	HJBFT-GZ12-NPT8-	38.8(1.53)	22.8(0.90)	22.0(0.87)	25.4(1.00)	9.5(0.37)	19.8(0.78)	28.5(1.12)
16	1/2	HJBFT-GZ16-NPT8-	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	12.7(0.50)	19.8(0.78)	28.4(1.12)



Female Run Tees

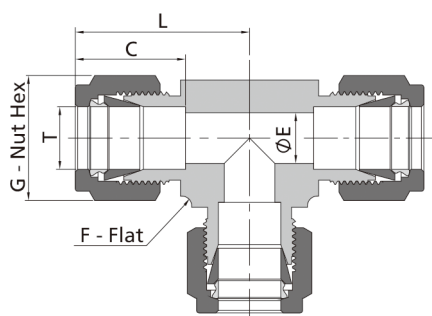


Fractional Tube			NPT Thread						
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in. (mm)						
			L	C	G	F	E	B	Lx
1/8	1/8	HJZFT-YZ2-NPT2-	0.97(24.6)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.09(2.3)	0.41(10.4)	0.75(19.1)
3/16	1/8	HJZFT-YZ3-NPT2-	1.01(25.7)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.12(3.0)	0.41(10.4)	0.75(19.1)
1/4	1/8	HJZFT-YZ4-NPT2-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)	0.41(10.4)	0.75(19.1)
1/4	1/4	HJZFT-YZ4-NPT4-	1.17(29.7)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)	0.59(15.0)	0.88(22.4)
5/16	1/8	HJZFT-YZ5-NPT2-	1.17(29.7)	0.64(16.2)	0.63(15.9)	0.63(15.9)	0.25(6.4)	0.41(10.4)	0.75(19.1)
3/8	1/4	HJZFT-YZ6-NPT4-	1.23(31.2)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)	0.59(15.0)	0.88(22.4)
1/2	1/4	HJZFT-YZ8-NPT4-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.59(15.0)	0.88(22.4)
1/2	3/8	HJZFT-YZ8-NPT6-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)	0.59(15.0)	0.88(22.4)
1/2	1/2	HJZFT-YZ8-NPT8-	1.57(39.9)	0.90(22.9)	0.87(22.2)	1.06(27.0)	0.41(10.4)	0.78(19.8)	1.12(28.4)
5/8	1/2	HJZFT-YZ10-NPT8-	1.57(39.9)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.50(12.7)	0.78(19.8)	1.12(28.4)
3/4	3/4	HJZFT-YZ12-NPT12-	1.76(44.7)	0.96(24.4)	1.13(28.6)	1.37(34.9)	0.62(15.7)	0.81(20.6)	1.25(31.8)
7/8	1/2	HJZFT-YZ14-NPT8-	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.62(15.7)	0.78(19.8)	1.12(28.4)
7/8	3/4	HJZFT-YZ14-NPT12-	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)	0.81(20.6)	1.25(31.8)
1	3/4	HJZFT-YZ16-NPT12-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)	0.81(20.6)	1.25(31.8)
1	1	HJZFT-YZ16-NPT16-	2.11(53.6)	1.23(31.2)	1.50(38.1)	1.69(42.9)	0.88(22.4)	1.00(25.4)	1.50(38.1)

Metric Tube			NPT Thread						
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions, mm(in.)						
			L	C	G	F	E	B	Lx
6	1/8	HJZFT-GZ6-NPT2-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)	10.4(0.41)	19.0(0.75)
6	1/4	HJZFT-GZ6-NPT4-	29.8(1.17)	15.3(0.60)	14.0(0.55)	17.5(0.69)	4.8(0.19)	15.0(0.59)	22.4(0.88)
8	1/8	HJZFT-GZ8-NPT2-	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)	10.4(0.41)	19.0(0.75)
8	1/4	HJZFT-GZ8-NPT4-	30.6(1.20)	16.2(0.64)	16.0(0.63)	17.5(0.69)	6.4(0.25)	15.0(0.59)	22.4(0.88)
10	1/4	HJZFT-GZ10-NPT4-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)	15.0(0.59)	22.4(0.88)
12	1/4	HJZFT-GZ12-NPT4-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	15.0(0.59)	22.4(0.88)
12	3/8	HJZFT-GZ12-NPT6-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)	15.0(0.59)	23.1(0.91)
12	1/2	HJZFT-GZ12-NPT8-	38.8(1.53)	22.8(0.90)	22.0(0.87)	25.4(1.00)	9.5(0.37)	19.8(0.78)	28.5(1.12)
16	1/2	HJZFT-GZ16-NPT8-	39.8(1.57)	24.4(0.96)	25.0(0.98)	27.0(1.06)	12.7(0.50)	19.8(0.78)	28.4(1.12)



Union Tees

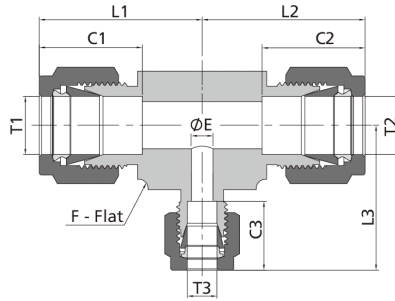


Fractional Tube						
T-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)				
		L	C	G	F	E
1/16	HJKT-YZ1-	0.70(17.8)	0.34(8.6)	0.31(7.9)	0.37(9.5)	0.05(1.3)
1/8	HJKT-YZ2-	0.87(22.2)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.09(2.3)
3/16	HJKT-YZ3-	0.96(24.4)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)
1/4	HJKT-YZ4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
5/16	HJKT-YZ5-	1.17(29.7)	0.64(16.2)	0.63(15.9)	0.63(15.9)	0.25(6.4)
3/8	HJKT-YZ6-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
1/2	HJKT-YZ8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
5/8	HJKT-YZ10-	1.53(38.9)	0.96(24.4)	1.00(25.4)	1.00(25.4)	0.50(12.7)
3/4	HJKT-YZ12-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
7/8	HJKT-YZ14-	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)
1	HJKT-YZ16-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)
1 1/8	HJKT-YZ18-	2.63(66.9)	1.44(36.7)	1.75(44.5)	1.69(42.9)	0.97(24.6)
1 1/4	HJKT-YZ20-	2.62(66.5)	1.62(41.1)	1.87(47.6)	1.69(42.9)	1.09(27.7)
1 1/2	HJKT-YZ24-	3.07(78.0)	1.97(50.0)	2.25(57.2)	2.00(50.8)	1.34(34.0)

Metric Tube						
T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm (in.)				
		L	C	G	F	E
2	HJKT-GZ2-	22.3(0.88)	12.9(0.51)	12.0(0.47)	9.5(0.37)	1.7(0.07)
3	HJKT-GZ3-	22.3(0.88)	12.9(0.51)	12.0(0.47)	9.5(0.37)	2.4(0.09)
4	HJKT-GZ4-	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)
6	HJKT-GZ6-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)
8	HJKT-GZ8-	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)
10	HJKT-GZ10-	31.5(1.24)	17.2(0.68)	19.0(0.75)	17.5(0.69)	7.9(0.31)
12	HJKT-GZ12-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)
14	HJKT-GZ14-	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	11.1(0.44)
15	HJKT-GZ15-	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	11.9(0.47)
16	HJKT-GZ16-	38.8(1.53)	24.4(0.96)	25.0(0.98)	25.4(1.00)	12.7(0.50)
18	HJKT-GZ18-	39.8(1.57)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	HJKT-GZ20-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)
22	HJKT-GZ22-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)
25	HJKT-GZ25-	49.1(1.93)	31.3(1.23)	38.0(1.50)	34.9(1.37)	21.8(0.86)
28	HJKT-GZ28-	64.0(2.52)	36.6(1.44)	46.0(1.81)	42.9(1.69)	21.8(0.86)
30	HJKT-GZ30-	69.9(2.75)	39.6(1.56)	50.0(1.97)	42.9(1.69)	26.2(1.03)
32	HJKT-GZ32-	72.3(2.85)	42.0(1.65)	50.0(1.97)	42.9(1.69)	28.6(1.13)
38	HJKT-GZ38-	84.0(3.31)	49.4(1.94)	60.0(2.36)	50.8(2.00)	33.7(1.33)



Reducing Union Tees

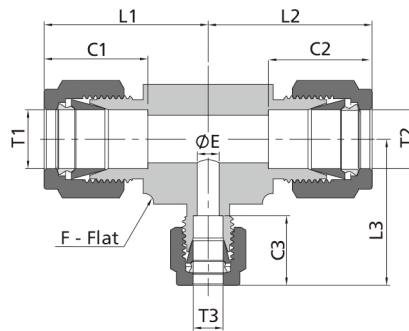


Fractional Tube

T1-Tube O.D. (in.)	T2-Tube O.D. (in.)	T3-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)							
				L1	L2	L3	C1	C2	C3	F	E
1/4	1/4	1/8	HJKT-YZ4-YZ4-YZ2-	1.05(26.7)	1.05(26.7)	0.96(24.4)	0.60(15.2)	0.60(15.2)	0.50(12.7)	0.50(12.7)	0.09(2.3)
3/8	1/4	1/4	HJKT-YZ6-YZ4-YZ4-	1.20(30.5)	1.14(29.0)	1.14(29.0)	0.66(16.8)	0.60(15.2)	0.60(15.2)	0.63(15.9)	0.19(4.8)
3/8	1/4	3/8	HJKT-YZ6-YZ4-YZ6-	1.20(30.5)	1.14(29.0)	1.20(30.5)	0.66(16.8)	0.60(15.2)	0.66(16.8)	0.63(15.9)	0.19(4.8)
3/8	3/8	1/4	HJKT-YZ6-YZ6-YZ4-	1.20(30.5)	1.20(30.5)	1.14(29.0)	0.66(16.8)	0.66(16.8)	0.60(15.2)	0.63(15.9)	0.19(4.8)
1/2	1/4	1/4	HJKT-YZ8-YZ4-YZ4-	1.42(36.1)	1.22(30.9)	1.22(30.9)	0.90(22.9)	0.60(15.2)	0.60(15.2)	0.81(20.6)	0.19(4.8)
1/2	1/4	1/2	HJKT-YZ8-YZ4-YZ8-	1.42(36.1)	1.25(31.8)	1.42(36.1)	0.90(22.9)	0.60(15.2)	0.90(22.9)	0.81(20.6)	0.19(4.8)
1/2	3/8	3/8	HJKT-YZ8-YZ6-YZ6-	1.42(36.1)	1.31(33.3)	1.31(33.3)	0.90(22.9)	0.66(16.8)	0.66(16.8)	0.81(20.6)	0.28(7.1)
1/2	3/8	1/2	HJKT-YZ8-YZ6-YZ8-	1.42(36.1)	1.31(33.3)	1.42(36.1)	0.90(22.9)	0.66(16.8)	0.90(22.9)	0.81(20.6)	0.28(7.1)
1/2	1/2	1/4	HJKT-YZ8-YZ8-YZ4-	1.42(36.1)	1.42(36.1)	1.25(31.8)	0.90(22.9)	0.90(22.9)	0.60(15.2)	0.81(20.6)	0.19(4.8)
1/2	1/2	3/8	HJKT-YZ8-YZ8-YZ6-	1.42(36.1)	1.42(36.1)	1.31(33.3)	0.90(22.9)	0.90(22.9)	0.66(16.8)	0.81(20.6)	0.28(7.1)
5/8	3/8	3/8	HJKT-YZ10-YZ6-YZ6-	1.53(38.9)	1.42(36.1)	1.42(36.1)	0.96(24.4)	0.66(16.8)	0.66(16.8)	1.00(25.4)	0.28(7.1)
5/8	3/8	1/2	HJKT-YZ10-YZ6-YZ8-	1.53(38.9)	1.42(36.1)	1.53(38.9)	0.96(24.4)	0.66(16.8)	0.90(22.9)	1.00(25.4)	0.28(7.1)
5/8	1/2	3/8	HJKT-YZ10-YZ8-YZ6-	1.53(38.9)	1.53(38.9)	1.42(36.1)	0.96(24.4)	0.90(22.9)	0.66(16.8)	1.00(25.4)	0.28(7.1)
5/8	1/2	1/2	HJKT-YZ10-YZ8-YZ8-	1.53(38.9)	1.53(38.9)	1.53(38.9)	0.96(24.4)	0.90(22.9)	0.90(22.9)	1.00(25.4)	0.41(10.4)
5/8	5/8	3/8	HJKT-YZ10-YZ10-YZ6-	1.53(38.9)	1.53(38.9)	1.42(36.1)	0.96(24.4)	0.96(24.4)	0.66(16.8)	1.00(25.4)	0.28(7.1)
5/8	5/8	1/2	HJKT-YZ10-YZ10-YZ8-	1.53(38.9)	1.53(38.9)	1.53(38.9)	0.96(24.4)	0.96(24.4)	0.90(22.9)	1.00(25.4)	0.41(10.4)
3/4	3/8	3/8	HJKT-YZ12-YZ6-YZ6-	1.56(39.6)	1.45(36.9)	1.45(36.9)	0.96(24.4)	0.66(16.8)	0.66(16.8)	1.06(27.0)	0.28(7.1)
3/4	1/2	3/8	HJKT-YZ12-YZ8-YZ6-	1.56(39.6)	1.56(39.6)	1.45(36.9)	0.96(24.4)	0.90(22.9)	0.66(16.8)	1.06(27.0)	0.28(7.1)
3/4	1/2	1/2	HJKT-YZ12-YZ8-YZ8-	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.90(22.9)	0.90(22.9)	1.06(27.0)	0.41(10.4)
3/4	5/8	3/8	HJKT-YZ12-YZ10-YZ6-	1.56(39.6)	1.56(39.6)	1.45(36.9)	0.96(24.4)	0.96(24.4)	0.66(16.8)	1.06(27.0)	0.28(7.1)
3/4	5/8	1/2	HJKT-YZ12-YZ10-YZ8-	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.96(24.4)	0.90(22.9)	1.06(27.0)	0.41(10.4)
3/4	5/8	5/8	HJKT-YZ12-YZ10-YZ10-	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.96(24.4)	0.96(24.4)	1.06(27.0)	0.50(12.7)
3/4	3/4	1/4	HJKT-YZ12-YZ12-YZ4-	1.56(39.6)	1.56(39.6)	1.43(36.3)	0.96(24.4)	0.96(24.4)	0.60(15.2)	1.06(27.0)	0.19(4.8)
3/4	3/4	3/8	HJKT-YZ12-YZ12-YZ6-	1.56(39.6)	1.56(39.6)	1.45(36.9)	0.96(24.4)	0.96(24.4)	0.66(16.8)	1.06(27.0)	0.28(7.1)
3/4	3/4	1/2	HJKT-YZ12-YZ12-YZ8-	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.96(24.4)	0.90(22.9)	1.06(27.0)	0.41(10.4)
3/4	3/4	5/8	HJKT-YZ12-YZ12-YZ10-	1.56(39.6)	1.56(39.6)	1.56(39.6)	0.96(24.4)	0.96(24.4)	0.96(24.4)	1.06(27.0)	0.50(12.7)
7/8	1/2	3/4	HJKT-YZ14-YZ8-YZ12-	1.76(44.7)	1.76(44.7)	1.76(44.7)	1.02(25.9)	0.90(22.9)	0.96(24.4)	1.37(34.9)	0.41(10.4)
7/8	5/8	3/8	HJKT-YZ14-YZ10-YZ6-	1.76(44.7)	1.76(44.7)	1.65(41.9)	1.02(25.9)	0.96(24.4)	0.66(16.8)	1.37(34.9)	0.28(7.1)
7/8	3/4	3/8	HJKT-YZ14-YZ12-YZ6-	1.76(44.7)	1.76(44.7)	1.65(41.9)	1.02(25.9)	0.96(24.4)	0.66(16.8)	1.37(34.9)	0.28(7.1)
7/8	3/4	1/2	HJKT-YZ14-YZ12-YZ8-	1.76(44.7)	1.76(44.7)	1.76(44.7)	1.02(25.9)	0.96(24.4)	0.90(22.9)	1.37(34.9)	0.41(10.4)
7/8	3/4	3/4	HJKT-YZ14-YZ12-YZ12-	1.76(44.7)	1.76(44.7)	1.76(44.7)	1.02(25.9)	0.96(24.4)	0.96(24.4)	1.37(34.9)	0.62(15.7)
7/8	7/8	1/4	HJKT-YZ14-YZ14-YZ4-	1.76(44.7)	1.76(44.7)	1.59(40.4)	1.02(25.9)	1.02(25.9)	0.60(15.2)	1.37(34.9)	0.19(4.8)
7/8	7/8	3/8	HJKT-YZ14-YZ14-YZ6-	1.76(44.7)	1.76(44.7)	1.65(41.9)	1.02(25.9)	1.02(25.9)	0.66(16.8)	1.37(34.9)	0.28(7.1)
1	3/8	3/8	HJKT-YZ16-YZ6-YZ6-	1.94(49.3)	1.65(41.9)	1.65(41.9)	1.23(31.2)	0.66(16.8)	0.66(16.8)	1.37(34.9)	0.28(7.1)
1	1/2	1/4	HJKT-YZ16-YZ8-YZ4-	1.94(49.3)	1.76(44.7)	1.59(40.4)	1.23(31.2)	0.90(22.9)	0.60(15.2)	1.37(34.9)	0.19(4.8)
1	1/2	3/8	HJKT-YZ16-YZ8-YZ6-	1.94(49.3)	1.76(44.7)	1.65(41.9)	1.23(31.2)	0.90(22.9)	0.66(16.8)	1.37(34.9)	0.28(7.1)
1	1/2	1/2	HJKT-YZ16-YZ8-YZ8-	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	0.90(22.9)	0.90(22.9)	1.37(34.9)	0.41(10.4)
1	1/2	1	HJKT-YZ16-YZ8-YZ16-	1.94(49.3)	1.76(44.7)	1.94(49.3)	1.23(31.2)	0.90(22.9)	1.23(31.2)	1.37(34.9)	0.41(10.4)
1	5/8	3/8	HJKT-YZ16-YZ10-YZ6-	1.94(49.3)	1.76(44.7)	1.65(41.9)	1.23(31.2)	0.96(24.4)	0.66(16.8)	1.37(34.9)	0.28(7.1)
1	3/4	3/8	HJKT-YZ16-YZ12-YZ6-	1.94(49.3)	1.76(44.7)	1.65(41.9)	1.23(31.2)	0.96(24.4)	0.66(16.8)	1.37(34.9)	0.28(7.1)
1	3/4	1/2	HJKT-YZ16-YZ12-YZ8-	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	0.96(24.4)	0.90(22.9)	1.37(34.9)	0.41(10.4)
1	3/4	5/8	HJKT-YZ16-YZ12-YZ10-	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	0.96(24.4)	0.96(24.4)	1.37(34.9)	0.50(12.7)
1	3/4	1	HJKT-YZ16-YZ12-YZ16-	1.94(49.3)	1.76(44.7)	1.94(49.3)	1.23(31.2)	0.96(24.4)	1.23(31.2)	1.37(34.9)	0.62(15.7)
1	7/8	1/4	HJKT-YZ16-YZ14-YZ4-	1.94(49.3)	1.76(44.7)	1.59(40.4)	1.23(31.2)	1.02(25.9)	0.60(15.2)	1.37(34.9)	0.19(4.8)
1	7/8	3/8	HJKT-YZ16-YZ14-YZ6-	1.94(49.3)	1.76(44.7)	1.65(41.9)	1.23(31.2)	1.02(25.9)	0.66(16.8)	1.37(34.9)	0.28(7.1)
1	7/8	1/2	HJKT-YZ16-YZ14-YZ8-	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	1.02(25.9)	0.90(22.9)	1.37(34.9)	0.41(10.4)
1	7/8	3/4	HJKT-YZ16-YZ14-YZ12-	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	1.02(25.9)	0.96(24.4)	1.37(34.9)	0.62(15.7)
1	7/8	7/8	HJKT-YZ16-YZ14-YZ14-	1.94(49.3)	1.76(44.7)	1.76(44.7)	1.23(31.2)	1.02(25.9)	1.02(25.9)	1.37(34.9)	0.72(18.3)
1	1	1/4	HJKT-YZ16-YZ16-YZ4-	1.94(49.3)	1.94(49.3)	1.59(40.4)	1.23(31.2)	1.23(31.2)	0.60(15.2)	1.37(34.9)	0.19(4.8)
1	1	3/8	HJKT-YZ16-YZ16-YZ6-	1.94(49.3)	1.94(49.3)	1.65(41.9)	1.23(31.2)	1.23(31.2)	0.66(16.8)	1.37(34.9)	0.28(7.1)
1	1	1/2	HJKT-YZ16-YZ16-YZ8-	1.94(49.3)	1.94(49.3)	1.76(44.7)	1.23(31.2)	1.23(31.2)	0.90(22.9)	1.37(34.9)	0.41(10.4)
1	1	5/8	HJKT-YZ16-YZ16-YZ10-	1.94(49.3)	1.94(49.3)	1.76(44.7)	1.23(31.2)	1.23(31.2)	0.96(24.4)	1.37(34.9)	0.50(12.7)
1	1	3/4	HJKT-YZ16-YZ16-YZ12-	1.94(49.3)	1.94(49.3)	1.76(44.7)	1.23(31.2)	1.23(31.2)	0.96(24.4)	1.37(34.9)	0.62(15.7)
1	1	7/8	HJKT-YZ16-YZ16-YZ14-	1.94(49.3)	1.94(49.3)	1.76(44.7)	1.23(31.2)	1.23(31.2)	1.02(25.9)	1.37(34.9)	0.72(18.3)
1 1/4	1 1/4	1	HJKT-YZ20-YZ20-YZ16-	2.67(67.8)	2.67(67.8)	2.17(55.1)	1.62(41.2)	1.62(41.2)	1.23(31.3)	1.69(42.9)	0.88(22.4)
1 1/2	1 1/2	1	HJKT-YZ24-YZ24-YZ16-	3.10(78.7)	3.10(78.7)	2.36(60.0)	1.97(50.0)	1.97(50.0)	1.23(31.3)	2.00(50.8)	0.88(22.4)



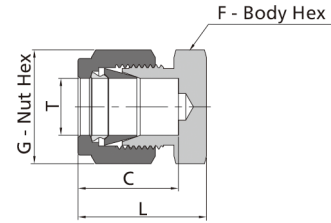
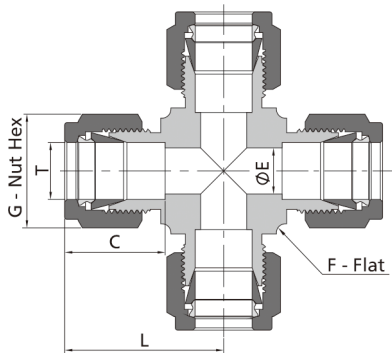
Reducing Union Tees



Metric Tube												
T1-Tube O.D. (mm)	T2-Tube O.D. (mm)	T3-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm (in.)								
				L1	L2	L3	C1	C2	C3	F	E	
3	3	6	HJKT-GZ3-GZ3-GZ6-	24.7(0.97)	24.7(0.97)	27.0(1.06)	12.9(0.51)	12.9(0.51)	15.3(0.60)	12.7(0.50)	2.4(0.09)	
6	6	3	HJKT-GZ6-GZ6-GZ3-	27.0(1.06)	27.0(1.06)	24.7(0.97)	15.3(0.60)	15.3(0.60)	12.9(0.51)	12.7(0.50)	2.4(0.09)	
6	6	8	HJKT-GZ6-GZ6-GZ8-	28.0(1.10)	28.0(1.10)	28.8(1.13)	15.3(0.60)	15.3(0.60)	16.2(0.64)	14.3(0.56)	4.8(0.19)	
8	8	6	HJKT-GZ8-GZ8-GZ6-	30.0(1.18)	30.0(1.18)	29.0(1.14)	16.2(0.64)	16.2(0.64)	15.3(0.60)	15.9(0.63)	4.8(0.19)	
8	8	12	HJKT-GZ8-GZ8-GZ12-	35.2(1.39)	35.2(1.39)	36.0(1.42)	16.2(0.64)	16.2(0.64)	22.8(0.90)	20.6(0.81)	6.4(0.25)	
10	10	6	HJKT-GZ10-GZ10-GZ6-	31.5(1.24)	31.5(1.24)	29.9(1.18)	17.2(0.68)	17.2(0.68)	15.3(0.60)	17.5(0.69)	4.8(0.19)	
10	10	8	HJKT-GZ10-GZ10-GZ8-	31.5(1.24)	31.5(1.24)	30.7(1.21)	17.2(0.68)	17.2(0.68)	16.2(0.64)	17.5(0.69)	6.4(0.25)	
12	12	6	HJKT-GZ12-GZ12-GZ6-	36.0(1.42)	36.0(1.42)	31.8(1.25)	22.8(0.90)	22.8(0.90)	15.3(0.60)	20.6(0.81)	4.8(0.19)	
12	12	8	HJKT-GZ12-GZ12-GZ8-	36.0(1.42)	36.0(1.42)	32.0(1.26)	22.8(0.90)	22.8(0.90)	16.2(0.64)	20.6(0.81)	6.4(0.25)	
12	12	14	HJKT-GZ12-GZ12-GZ14-	38.0(1.50)	38.0(1.50)	38.0(1.50)	22.8(0.90)	22.8(0.90)	24.4(0.96)	25.4(1.00)	9.5(0.37)	
12	12	18	HJKT-GZ12-GZ12-GZ18-	39.8(1.57)	39.8(1.57)	39.8(1.57)	22.8(0.90)	22.8(0.90)	24.4(0.96)	27.0(1.06)	9.5(0.37)	
14	14	8	HJKT-GZ14-GZ14-GZ8-	38.0(1.50)	38.0(1.50)	35.5(1.40)	24.4(0.96)	24.4(0.96)	16.2(0.64)	25.4(1.00)	6.4(0.25)	
14	14	10	HJKT-GZ14-GZ14-GZ10-	38.0(1.50)	38.0(1.50)	36.7(1.44)	24.4(0.96)	24.4(0.96)	17.2(0.68)	25.4(1.00)	7.9(0.31)	
15	15	12	HJKT-GZ15-GZ15-GZ12-	38.8(1.53)	38.8(1.53)	38.8(1.53)	24.4(0.96)	24.4(0.96)	22.8(0.90)	25.4(1.00)	9.5(0.37)	
16	8	16	HJKT-GZ16-GZ8-GZ16-	38.8(1.53)	35.5(1.40)	38.8(1.53)	24.4(0.96)	16.2(0.64)	24.4(0.96)	25.4(1.00)	6.4(0.25)	
16	16	12	HJKT-GZ16-GZ16-GZ12-	38.8(1.53)	38.8(1.53)	38.9(1.53)	24.4(0.96)	24.4(0.96)	22.8(0.90)	25.4(1.00)	9.5(0.37)	
18	18	8	HJKT-GZ18-GZ18-GZ8-	39.8(1.57)	39.8(1.57)	39.0(1.54)	24.4(0.96)	24.4(0.96)	16.2(0.64)	27.0(1.06)	6.4(0.25)	
18	18	10	HJKT-GZ18-GZ18-GZ10-	39.8(1.57)	39.8(1.57)	37.4(1.47)	24.4(0.96)	24.4(0.96)	17.2(0.68)	27.0(1.06)	7.9(0.31)	
18	18	12	HJKT-GZ18-GZ18-GZ12-	39.8(1.57)	39.8(1.57)	39.8(1.57)	24.4(0.96)	24.4(0.96)	22.8(0.90)	27.0(1.06)	9.5(0.37)	
18	18	14	HJKT-GZ18-GZ18-GZ14-	39.8(1.57)	39.8(1.57)	39.8(1.57)	24.4(0.96)	24.4(0.96)	24.4(0.96)	27.0(1.06)	11.1(0.44)	
20	20	14	HJKT-GZ20-GZ20-GZ14-	44.6(1.76)	44.6(1.76)	44.6(1.76)	26.0(1.02)	26.0(1.02)	24.4(0.96)	34.9(1.37)	11.1(0.44)	
22	22	12	HJKT-GZ22-GZ22-GZ12-	44.6(1.76)	44.6(1.76)	44.6(1.76)	26.0(1.02)	26.0(1.02)	22.8(0.90)	34.9(1.37)	9.5(0.37)	
25	25	12	HJKT-GZ25-GZ25-GZ12-	49.1(1.93)	49.1(1.93)	44.7(1.76)	31.3(1.23)	31.3(1.23)	22.8(0.90)	34.9(1.37)	9.5(0.37)	



Union Crosses



Fractional Tube

T-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)				
		L	C	G	F	E
1/8	HJKS-YZ2-	0.88(22.4)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.09(2.3)
3/16	HJKS-YZ3-	0.96(24.4)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)
1/4	HJKS-YZ4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
5/16	HJKS-YZ5-	1.17(29.7)	0.64(16.2)	0.63(15.9)	0.63(15.9)	0.25(6.4)
3/8	HJKS-YZ6-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
1/2	HJKS-YZ8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
5/8	HJKS-YZ10-	1.53(38.8)	0.96(24.4)	1.00(25.4)	1.0(25.4)	0.50(12.7)
3/4	HJKS-YZ12-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
7/8	HJKS-YZ14-	1.76(44.7)	1.02(25.9)	1.25(31.8)	1.37(34.9)	0.72(18.3)
1	HJKS-YZ16-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm(in.)				
		L	C	G	F	E
3	HJKS-GZ3-	22.3(0.88)	12.9(0.51)	12.0(0.47)	9.5(0.37)	2.4(0.09)
4	HJKS-GZ4-	25.4(1.00)	13.7(0.54)	12.0(0.47)	12.7(0.50)	2.4(0.09)
6	HJKS-GZ6-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.8(0.19)
8	HJKS-GZ8-	29.9(1.18)	16.2(0.64)	16.0(0.63)	15.9(0.63)	6.4(0.25)
10	HJKS-GZ10-	33.5(1.32)	17.2(0.68)	19.0(0.75)	20.6(0.81)	7.9(0.31)
12	HJKS-GZ12-	36.0(1.42)	22.8(0.90)	22.0(0.87)	20.6(0.81)	9.5(0.37)
16	HJKS-GZ16-	37.0(1.46)	24.4(0.96)	25.0(0.98)	23.8(0.94)	12.7(0.50)
18	HJKS-GZ18-	38.3(1.51)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	HJKS-GZ20-	44.6(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	15.9(0.63)
22	HJKS-GZ22-	44.7(1.76)	26.0(1.02)	32.0(1.26)	34.9(1.37)	18.3(0.72)
25	HJKS-GZ25-	49.2(1.94)	31.3(1.23)	38.0(1.50)	34.9(1.37)	21.8(0.86)

Fractional Tube

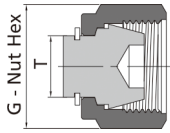
T-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)			
		L	C	G	F
1/16	HJCA-YZ1-	0.59(15.0)	0.34(8.6)	0.31(7.9)	0.31(7.9)
1/8	HJCA-YZ2-	0.79(20.1)	0.50(12.7)	0.44(11.1)	0.44(11.1)
3/16	HJCA-YZ3-	0.84(21.3)	0.54(13.7)	0.50(12.7)	0.44(11.1)
1/4	HJCA-YZ4-	0.92(23.4)	0.60(15.2)	0.56(14.3)	0.50(12.7)
5/16	HJCA-YZ5-	0.96(24.4)	0.64(16.3)	0.63(15.9)	0.56(14.3)
3/8	HJCA-YZ6-	1.01(25.7)	0.66(16.8)	0.69(17.5)	0.63(15.9)
1/2	HJCA-YZ8-	1.15(29.2)	0.90(22.9)	0.87(22.2)	0.81(20.6)
5/8	HJCA-YZ10-	1.18(30.0)	0.96(24.4)	1.00(25.4)	0.94(23.8)
3/4	HJCA-YZ12-	1.24(31.5)	0.96(24.4)	1.13(28.6)	1.06(27.0)
7/8	HJCA-YZ14-	1.34(34.0)	1.02(25.9)	1.25(31.8)	1.19(30.2)
1	HJCA-YZ16-	1.51(38.4)	1.23(31.2)	1.50(38.1)	1.37(34.9)
1 1/8	HJCA-YZ18-	1.51(38.4)	1.44(36.7)	1.75(44.5)	1.63(41.3)
1 1/4	HJCA-YZ20-	2.10(53.3)	1.62(41.1)	1.87(47.6)	1.75(44.5)
1 1/2	HJCA-YZ24-	2.54(64.5)	1.97(50.0)	2.25(57.2)	2.13(54.0)

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm (in.)			
		L	C	G	F
2	HJCA-GZ2-	20.1(0.79)	12.9(0.51)	12.0(0.47)	12.0(0.47)
3	HJCA-GZ3-	20.1(0.79)	12.9(0.51)	12.0(0.47)	12.0(0.47)
4	HJCA-GZ4-	21.3(0.84)	13.7(0.54)	12.0(0.47)	12.0(0.47)
6	HJCA-GZ6-	23.1(0.91)	15.3(0.60)	14.0(0.55)	14.0(0.55)
8	HJCA-GZ8-	24.5(0.96)	16.2(0.64)	16.0(0.63)	15.0(0.59)
10	HJCA-GZ10-	26.6(1.05)	17.2(0.68)	19.0(0.75)	18.0(0.71)
12	HJCA-GZ12-	29.1(1.15)	22.8(0.90)	22.0(0.87)	22.0(0.87)
14	HJCA-GZ14-	29.9(1.18)	24.4(0.96)	25.0(0.98)	24.0(0.94)
15	HJCA-GZ15-	29.9(1.18)	24.4(0.96)	25.0(0.98)	24.0(0.94)
16	HJCA-GZ16-	29.9(1.18)	24.4(0.96)	25.0(0.98)	24.0(0.94)
18	HJCA-GZ18-	31.4(1.24)	24.4(0.96)	30.0(1.18)	27.0(1.06)
20	HJCA-GZ20-	34.0(1.34)	26.0(1.02)	32.0(1.26)	30.0(1.18)
22	HJCA-GZ22-	34.0(1.34)	26.0(1.02)	32.0(1.26)	30.0(1.18)
25	HJCA-GZ25-	38.5(1.52)	31.3(1.23)	38.0(1.50)	35.0(1.38)
28	HJCA-GZ28-	48.5(1.91)	36.6(1.44)	46.0(1.81)	41.0(1.61)
30	HJCA-GZ30-	53.4(2.10)	39.6(1.56)	50.0(1.97)	46.0(1.81)
32	HJCA-GZ32-	55.8(2.20)	42.0(1.65)	50.0(1.97)	46.0(1.81)
38	HJCA-GZ38-	65.4(2.57)	49.4(1.94)	60.0(2.36)	55.0(2.17)



Plugs



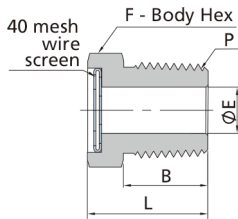
Fractional Tube

T-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)
		G
1/16	HJKD-YZ1-	0.31(7.9)
1/8	HJKD-YZ2-	0.44(11.1)
3/16	HJKD-YZ3-	0.50(12.7)
1/4	HJKD-YZ4-	0.56(14.3)
5/16	HJKD-YZ5-	0.63(15.9)
3/8	HJKD-YZ6-	0.69(17.5)
1/2	HJKD-YZ8-	0.87(22.2)
5/8	HJKD-YZ10-	1.00(25.4)
3/4	HJKD-YZ12-	1.13(28.6)
7/8	HJKD-YZ14-	1.25(31.8)
1	HJKD-YZ16-	1.50(38.1)
1 1/4	HJKD-YZ20-	1.87(47.6)
1 1/2	HJKD-YZ24-	2.25(57.2)

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm (in.)
		G
2	HJKD-GZ2-	12.0(0.47)
3	HJKD-GZ3-	12.0(0.47)
4	HJKD-GZ4-	12.0(0.47)
6	HJKD-GZ6-	14.0(0.55)
8	HJKD-GZ8-	16.0(0.63)
10	HJKD-GZ10-	19.0(0.75)
12	HJKD-GZ12-	22.0(0.87)
14	HJKD-GZ14-	25.0(0.98)
15	HJKD-GZ15-	25.0(0.98)
16	HJKD-GZ16-	25.0(0.98)
18	HJKD-GZ18-	30.0(1.18)
20	HJKD-GZ20-	32.0(1.26)
22	HJKD-GZ22-	32.0(1.26)
25	HJKD-GZ25-	38.0(1.50)
28	HJKD-GZ28-	46.0(1.81)
30	HJKD-GZ30-	50.0(1.97)
32	HJKD-GZ32-	50.0(1.97)
38	HJKD-GZ38-	60.0(2.36)

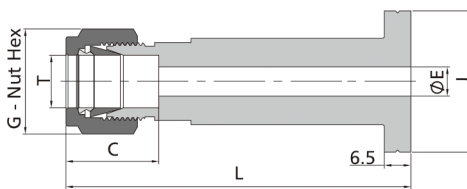
Vent Protectors



40 mesh 300 series stainless steel wire screen assembly

NPT Thread

P-NPT Size	Ordering Number	Dimensions, in. (mm)			
		L	F	B	E
1/8	HJPF-NPT2-	0.56(14.2)	0.50(12.7)	0.38(9.7)	0.19(4.8)
1/4	HJPF-NPT4-	0.78(19.8)	0.56(14.3)	0.56(14.2)	0.28(7.1)
3/8	HJPF-NPT6-	0.81(20.6)	0.69(17.5)	0.56(14.2)	0.41(10.4)
1/2	HJPF-NPT8-	1.03(26.2)	0.87(22.2)	0.75(19.1)	0.50(12.7)
3/4	HJPF-NPT12-	1.06(26.9)	1.06(27.0)	0.76(19.2)	0.72(18.3)
1	HJPF-NPT16-	1.37(34.8)	1.37(34.9)	0.94(23.9)	0.88(22.4)



- Standard material is 316 or Monel.
- The flange ends are used with NPS 1/2 lap joint pipe flanges.
- The flange ends are dimensioned to meet "ASME B16.5 Class 2500" flange specifications.
- The Flange Seal A means surface finish Ra 3.2-6.3 m, the flange Seal B means Ra 6.3-12.5 m.

Fractional Tube

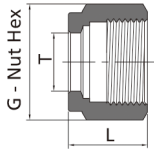
T-Tube O.D. (in.)	Flange Seal	Basic Ordering Number	Dimensions, in. (mm)				
			L	G	C	E	J
1/4	A	HJKFA-YZ4A-	3.18(80.8)	0.56(14.3)	0.60(15.2)	0.19(4.8)	1.36(34.5)
1/4	B	HJKFA-YZ4B-	3.18(80.8)	0.56(14.3)	0.60(15.2)	0.19(4.8)	1.36(34.5)
3/8	A	HJKFA-YZ6A-	3.24(82.3)	0.69(17.5)	0.66(16.8)	0.28(7.1)	1.36(34.5)
3/8	B	HJKFA-YZ6B-	3.24(82.3)	0.69(17.5)	0.66(16.8)	0.28(7.1)	1.36(34.5)
1/2	A	HJKFA-YZ8A-	3.35(85.1)	0.87(22.2)	0.90(22.9)	0.31(7.9)	1.36(34.5)
1/2	B	HJKFA-YZ8B-	3.35(85.1)	0.87(22.2)	0.90(22.9)	0.31(7.9)	1.36(34.5)

Metric Tube

T-Tube O.D. (mm)	Flange Seal	Basic Ordering Number	Dimensions, mm (in.)				
			L	G	C	E	J
10	A	HJKFA-GZ10A-	82.6(3.25)	19.0(0.75)	17.2(0.68)	7.9(0.31)	34.5(1.36)
10	B	HJKFA-GZ10B-	82.6(3.25)	19.0(0.75)	17.2(0.68)	7.9(0.31)	34.5(1.36)



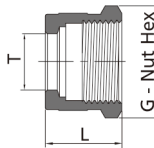
Female Nuts



Fractional Tube			
T-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)	
		L	G
1/16	HJN-YZ1-	0.31(7.9)	0.31(7.9)
1/8	HJN-YZ2-	0.47(11.9)	0.44(11.1)
3/16	HJN-YZ3-	0.47(11.9)	0.50(12.7)
1/4	HJN-YZ4-	0.50(12.7)	0.56(14.3)
5/16	HJN-YZ5-	0.53(13.5)	0.63(15.9)
3/8	HJN-YZ6-	0.56(14.2)	0.69(17.5)
1/2	HJN-YZ8-	0.69(17.5)	0.87(22.2)
5/8	HJN-YZ10-	0.69(17.5)	1.00(25.4)
3/4	HJN-YZ12-	0.69(17.5)	1.13(28.6)
7/8	HJN-YZ14-	0.69(17.5)	1.25(31.8)
1	HJN-YZ16-	0.81(20.6)	1.50(38.1)
1 1/8	HJN-YZ18-	1.21(30.8)	1.75(44.5)
1 1/4	HJN-YZ20-	1.25(31.8)	1.87(47.6)
1 1/2	HJN-YZ24-	1.50(38.1)	2.25(57.2)

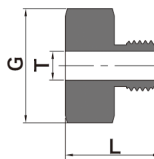
Metric Tube			
T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm (in.)	
		L	G
2	HJN-GZ2-	11.9(0.47)	12.0(0.47)
3	HJN-GZ3-	11.9(0.47)	12.0(0.47)
4	HJN-GZ4-	11.9(0.47)	12.0(0.47)
6	HJN-GZ6-	12.7(0.50)	14.0(0.55)
8	HJN-GZ8-	13.5(0.53)	16.0(0.63)
10	HJN-GZ10-	15.1(0.59)	19.0(0.75)
12	HJN-GZ12-	17.4(0.69)	22.0(0.87)
14	HJN-GZ14-	17.4(0.69)	25.0(0.98)
15	HJN-GZ15-	17.4(0.69)	25.0(0.98)
16	HJN-GZ16-	17.4(0.69)	25.0(0.98)
18	HJN-GZ18-	17.4(0.69)	30.0(1.18)
20	HJN-GZ20-	17.4(0.69)	32.0(1.26)
22	HJN-GZ22-	17.4(0.69)	32.0(1.26)
25	HJN-GZ25-	20.6(0.81)	38.0(1.50)
28	HJN-GZ28-	30.6(1.20)	46.0(1.81)
30	HJN-GZ30-	32.7(1.29)	50.0(1.97)
32	HJN-GZ32-	34.4(1.35)	50.0(1.97)
38	HJN-GZ38-	40.6(1.60)	60.0(2.36)

Knurled Nuts



To order a knurled nut add -K to the nut ordering number.
Example: HJKN-YZ8-SS

Male Nuts

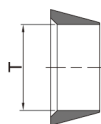


Fractional Tube			
T-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)	
		L	G
1/16	HJMN-YZ1-	0.38(9.7)	0.25(6.4)
1/8	HJMN-YZ2-	0.53(13.5)	0.37(9.5)
1/4	HJMN-YZ4-	0.62(15.7)	0.50(12.7)
1/2	HJMN-YZ8-	0.87(22.1)	0.94(23.8)

Metric Tube			
T-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm (in.)	
		L	G
3	HJMN-GZ3-	13.5(0.53)	10.0(0.39)
6	HJMN-GZ6-	15.7(0.62)	14.0(0.55)
10	HJMN-GZ10-	22.1(0.87)	22.0(0.87)
12	HJMN-GZ12-	22.1(0.87)	24.0(0.94)



Front Ferrules



Fractional Tube	
T-Tube O.D (in.)	Basic Ordering Number
1/16	HJQK-YZ1-
1/8	HJQK-YZ2-
3/16	HJQK-YZ3-
1/4	HJQK-YZ4-
5/16	HJQK-YZ5-
3/8	HJQK-YZ6-
1/2	HJQK-YZ8-
5/8	HJQK-YZ10-
3/4	HJQK-YZ12-
7/8	HJQK-YZ14-
1	HJQK-YZ16-
1 1/8	HJQK-YZ18-
1 1/4	HJQK-YZ20-
1 1/2	HJQK-YZ24-

Metric Tube	
T-Tube O.D (mm)	Basic Ordering Number
2	HJQK-GZ2-
3	HJQK-GZ3-
4	HJQK-GZ4-
6	HJQK-GZ6-
8	HJQK-GZ8-
10	HJQK-GZ10-
12	HJQK-GZ12-
14	HJQK-GZ14-
15	HJQK-GZ15-
16	HJQK-GZ16-
18	HJQK-GZ18-
20	HJQK-GZ20-
22	HJQK-GZ22-
25	HJQK-GZ25-
28	HJQK-GZ28-
30	HJQK-GZ30-
32	HJQK-GZ32-
38	HJQK-GZ38-

Rear Ferrules



Fractional Tube	
T-Tube O.D. (in.)	Basic Ordering Number
1/16	HJHK-YZ1-
1/8	HJHK-YZ2-
3/16	HJHK-YZ3-
1/4	HJHK-YZ4-
5/16	HJHK-YZ5-
3/8	HJHK-YZ6-
1/2	HJHK-YZ8-
5/8	HJHK-YZ10-
3/4	HJHK-YZ12-
7/8	HJHK-YZ14-
1	HJHK-YZ16-
1 1/8	HJHK-YZ18-
1 1/4	HJHK-YZ20-
1 1/2	HJHK-YZ24-

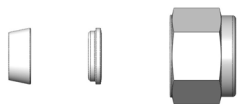
Metric Tube	
T-Tube O.D. (mm)	Basic Ordering Number
2	HJHK-GZ2-
3	HJHK-GZ3-
4	HJHK-GZ4-
6	HJHK-GZ6-
8	HJHK-GZ8-
10	HJHK-GZ10-
12	HJHK-GZ12-
14	HJHK-GZ14-
15	HJHK-GZ15-
16	HJHK-GZ16-
18	HJHK-GZ18-
20	HJHK-GZ20-
22	HJHK-GZ22-
25	HJHK-GZ25-
28	HJHK-GZ28-
30	HJHK-GZ30-
32	HJHK-GZ32-
38	HJHK-GZ38-

Notes:

1. Stainless steel front ferrules over 1 in. or 25 mm are silver plated.



Nut-Ferrule Sets



The nut-ferrule set contains 1 nut, 1 rear ferrule and 1 front ferrule.

Fractional Tube

T-Tube O.D. (in.)	Basic Ordering Number
1/16	HJNZ-YZ1-
1/8	HJNZ-YZ2-
3/16	HJNZ-YZ3-
1/4	HJNZ-YZ4-
5/16	HJNZ-YZ5-
3/8	HJNZ-YZ6-
1/2	HJNZ-YZ8-
5/8	HJNZ-YZ10-
3/4	HJNZ-YZ12-

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number
2	HJNZ-GZ2-
3	HJNZ-GZ3-
4	HJNZ-GZ4-
6	HJNZ-GZ6-
8	HJNZ-GZ8-
10	HJNZ-GZ10-
12	HJNZ-GZ12-
14	HJNZ-GZ14-
15	HJNZ-GZ15-
16	HJNZ-GZ16-
18	HJNZ-GZ18-

Ferrule Sets



The ferrule set contains 1 rear ferrule and 1 front ferrule.

Fractional Tube

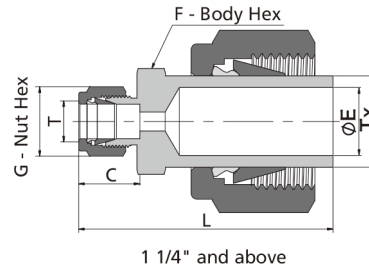
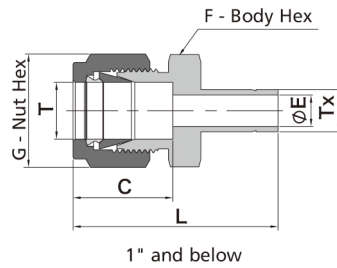
T-Tube O.D. (in.)	Basic Ordering Number
1/16	HJKZ-YZ1-
1/8	HJKZ-YZ2-
3/16	HJKZ-YZ3-
1/4	HJKZ-YZ4-
5/16	HJKZ-YZ5-
3/8	HJKZ-YZ6-
1/2	HJKZ-YZ8-
5/8	HJKZ-YZ10-
3/4	HJKZ-YZ12-

Metric Tube

T-Tube O.D. (mm)	Basic Ordering Number
2	HJKZ-GZ2-
3	HJKZ-GZ3-
4	HJKZ-GZ4-
6	HJKZ-GZ6-
8	HJKZ-GZ8-
10	HJKZ-GZ10-
12	HJKZ-GZ12-
14	HJKZ-GZ14-
15	HJKZ-GZ15-
16	HJKZ-GZ16-
18	HJKZ-GZ18-



Reducers

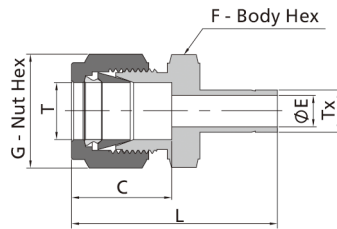


Fractional Tube

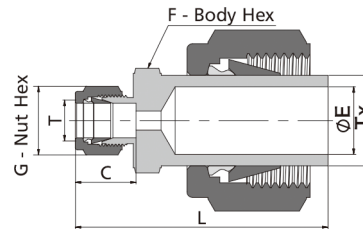
T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in.(mm)				
			L	C	G	F	E
1/16	1/8	HJKG-YZ1-FT2-	1.15(29.2)	0.34(8.6)	0.31(7.9)	0.31(7.9)	0.05(1.3)
1/16	3/16	HJKG-YZ1-FT3-	1.18(30.0)	0.34(8.6)	0.31(7.9)	0.31(7.9)	0.05(1.3)
1/16	1/4	HJKG-YZ1-FT4-	1.24(31.5)	0.34(8.6)	0.31(7.9)	0.31(7.9)	0.05(1.3)
1/8	1/16	HJKG-YZ2-FT1-	1.14(29.0)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.03(0.8)
1/8	1/8	HJKG-YZ2-FT2-	1.32(33.5)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.08(2.0)
1/8	3/16	HJKG-YZ2-FT3-	1.35(34.3)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)
1/8	1/4	HJKG-YZ2-FT4-	1.42(36.1)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)
1/8	3/8	HJKG-YZ2-FT6-	1.48(37.6)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)
1/8	1/2	HJKG-YZ2-FT8-	1.74(44.2)	0.50(12.7)	0.44(11.1)	0.56(14.3)	0.09(2.3)
3/16	1/8	HJKG-YZ3-FT2-	1.37(34.8)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.08(2.0)
3/16	1/4	HJKG-YZ3-FT4-	1.46(37.1)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.12(3.0)
1/4	1/8	HJKG-YZ4-FT2-	1.45(36.8)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.08(2.0)
1/4	3/16	HJKG-YZ4-FT3-	1.48(37.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.12(3.0)
1/4	1/4	HJKG-YZ4-FT4-	1.54(39.1)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.17(4.3)
1/4	5/16	HJKG-YZ4-FT5-	1.57(39.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
1/4	3/8	HJKG-YZ4-FT6-	1.60(40.6)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.19(4.8)
1/4	1/2	HJKG-YZ4-FT8-	1.82(46.2)	0.60(15.2)	0.56(14.3)	0.56(14.3)	0.19(4.8)
1/4	5/8	HJKG-YZ4-FT10-	1.89(48.0)	0.60(15.2)	0.56(14.3)	0.69(17.5)	0.19(4.8)
1/4	3/4	HJKG-YZ4-FT12-	1.88(47.8)	0.60(15.2)	0.56(14.3)	0.81(20.6)	0.19(4.8)
5/16	3/8	HJKG-YZ5-FT6-	1.65(41.9)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)
5/16	1/2	HJKG-YZ5-FT8-	1.87(47.5)	0.64(16.3)	0.63(15.9)	0.56(14.3)	0.25(6.4)
3/8	1/4	HJKG-YZ6-FT4-	1.63(41.4)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.17(4.3)
3/8	3/8	HJKG-YZ6-FT6-	1.70(43.2)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.27(6.9)
3/8	1/2	HJKG-YZ6-FT8-	1.91(48.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.28(7.1)
3/8	5/8	HJKG-YZ6-FT10-	1.98(50.3)	0.66(16.8)	0.69(17.5)	0.69(17.5)	0.28(7.1)
3/8	3/4	HJKG-YZ6-FT12-	1.98(50.3)	0.66(16.8)	0.69(17.5)	0.81(20.6)	0.28(7.1)
1/2	1/4	HJKG-YZ8-FT4-	1.77(45.0)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.17(4.3)
1/2	3/8	HJKG-YZ8-FT6-	1.84(46.7)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.27(6.9)
1/2	1/2	HJKG-YZ8-FT8-	2.06(52.3)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.37(9.4)
1/2	5/8	HJKG-YZ8-FT10-	2.12(53.8)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
1/2	3/4	HJKG-YZ8-FT12-	2.12(53.8)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.41(10.4)
1/2	1	HJKG-YZ8-FT16-	2.37(60.2)	0.90(22.9)	0.87(22.2)	1.06(27.0)	0.41(10.4)
5/8	3/4	HJKG-YZ10-FT12-	2.15(54.6)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.50(12.7)
5/8	7/8	HJKG-YZ10-FT14-	2.21(56.1)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.50(12.7)
5/8	1	HJKG-YZ10-FT16-	2.40(61.0)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.50(12.7)
3/4	1/2	HJKG-YZ12-FT8-	2.15(54.6)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.37(9.4)
3/4	1	HJKG-YZ12-FT16-	2.46(62.5)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.62(15.7)
1	1 1/4	HJKG-YZ16-FT20-	3.17(80.5)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.88(22.4)
1	1 1/2	HJKG-YZ16-FT24-	3.51(89.2)	1.23(31.2)	1.50(38.1)	1.63(41.3)	0.88(22.4)
1	2	HJKG-YZ16-FT32-	4.43(112.5)	1.23(31.2)	1.50(38.1)	2.13(54.0)	0.88(22.4)
1 1/4	1 1/2	HJKG-YZ20-FT24-	4.10(104.1)	1.62(41.1)	1.87(47.6)	1.87(47.6)	1.09(27.7)



Reducers



25 mm and below



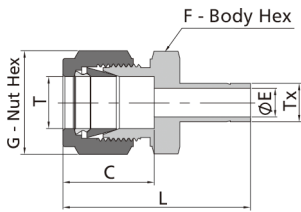
28 mm and above

Metric Tube

T-Tube O.D. (mm)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm(in.)				
			L	C	G	F	E
2	3	HJKG-GZ2-MT3-	33.5(1.32)	12.9(0.51)	12.0(0.47)	12.0(0.47)	1.7(0.07)
3	4	HJKG-GZ3-MT4-	35.0(1.38)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)
3	6	HJKG-GZ3-MT6-	36.1(1.42)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)
3	10	HJKG-GZ3-MT10-	38.4(1.51)	12.9(0.51)	12.0(0.47)	14.0(0.55)	2.4(0.09)
4	6	HJKG-GZ4-MT6-	37.1(1.46)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)
6	3	HJKG-GZ6-MT3-	36.9(1.45)	15.3(0.60)	14.0(0.55)	14.0(0.55)	1.9(0.07)
6	8	HJKG-GZ6-MT8-	39.9(1.57)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	10	HJKG-GZ6-MT10-	40.7(1.60)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	12	HJKG-GZ6-MT12-	46.3(1.82)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	18	HJKG-GZ6-MT18-	49.6(1.95)	15.3(0.60)	14.0(0.55)	22.0(0.87)	4.8(0.19)
8	6	HJKG-GZ8-MT6-	40.3(1.59)	16.2(0.64)	16.0(0.63)	15.0(0.59)	4.1(0.16)
8	10	HJKG-GZ8-MT10-	42.0(1.65)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
8	12	HJKG-GZ8-MT12-	47.6(1.87)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
10	6	HJKG-GZ10-MT6-	42.4(1.67)	17.2(0.68)	19.0(0.75)	18.0(0.71)	4.1(0.16)
10	8	HJKG-GZ10-MT8-	43.4(1.71)	17.2(0.68)	19.0(0.75)	18.0(0.71)	5.6(0.22)
10	12	HJKG-GZ10-MT12-	49.8(1.96)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.9(0.31)
10	15	HJKG-GZ10-MT15-	51.3(2.02)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.9(0.31)
10	18	HJKG-GZ10-MT18-	51.3(2.02)	17.2(0.68)	19.0(0.75)	22.0(0.87)	7.9(0.31)
12	6	HJKG-GZ12-MT6-	44.9(1.77)	22.8(0.90)	22.0(0.87)	22.0(0.87)	4.1(0.16)
12	8	HJKG-GZ12-MT8-	45.9(1.81)	22.8(0.90)	22.0(0.87)	22.0(0.87)	5.6(0.22)
12	10	HJKG-GZ12-MT10-	46.7(1.84)	22.8(0.90)	22.0(0.87)	22.0(0.87)	7.1(0.28)
12	16	HJKG-GZ12-MT16-	53.8(2.12)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
12	18	HJKG-GZ12-MT18-	53.8(2.12)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
12	20	HJKG-GZ12-MT20-	56.1(2.21)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
12	22	HJKG-GZ12-MT22-	56.1(2.21)	22.8(0.90)	22.0(0.87)	24.0(0.94)	9.5(0.37)
12	25	HJKG-GZ12-MT25-	62.4(2.46)	22.8(0.90)	22.0(0.87)	27.0(1.06)	9.5(0.37)
16	12	HJKG-GZ16-MT12-	53.0(2.09)	24.4(0.96)	25.0(0.98)	24.0(0.94)	8.8(0.35)
18	12	HJKG-GZ18-MT12-	54.6(2.15)	24.4(0.96)	30.0(1.18)	27.0(1.06)	8.8(0.35)
18	16	HJKG-GZ18-MT16-	56.1(2.21)	24.4(0.96)	30.0(1.18)	27.0(1.06)	12.0(0.47)
18	20	HJKG-GZ18-MT20-	57.6(2.27)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
18	22	HJKG-GZ18-MT22-	57.6(2.27)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
18	25	HJKG-GZ18-MT25-	62.4(2.46)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
20	16	HJKG-GZ20-MT16-	57.9(2.28)	26.0(1.02)	32.0(1.26)	30.0(1.18)	12.0(0.47)
20	18	HJKG-GZ20-MT18-	57.9(2.28)	26.0(1.02)	32.0(1.26)	30.0(1.18)	13.9(0.55)
20	22	HJKG-GZ20-MT22-	59.4(2.34)	26.0(1.02)	32.0(1.26)	30.0(1.18)	15.9(0.63)
20	25	HJKG-GZ20-MT25-	64.2(2.53)	26.0(1.02)	32.0(1.26)	30.0(1.18)	15.8(0.62)
22	18	HJKG-GZ22-MT18-	57.9(2.28)	26.0(1.02)	32.0(1.26)	30.0(1.18)	13.9(0.55)
22	20	HJKG-GZ22-MT20-	59.4(2.34)	26.0(1.02)	32.0(1.26)	30.0(1.18)	15.5(0.61)
22	25	HJKG-GZ22-MT25-	64.2(2.53)	26.0(1.02)	32.0(1.26)	30.0(1.18)	18.3(0.72)
25	18	HJKG-GZ25-MT18-	63.1(2.48)	31.3(1.23)	38.0(1.50)	35.0(1.38)	13.9(0.55)
25	20	HJKG-GZ25-MT20-	64.6(2.54)	31.3(1.23)	38.0(1.50)	35.0(1.38)	15.5(0.61)



Reducers



Metric Tube

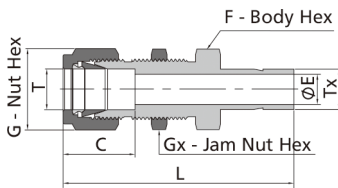
T-Tube O.D. (mm)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions,mm(in.)				
			L	C	G	F	E
2	1/8	HJKG-GZ2-FT2-	33.5(1.32)	12.9(0.51)	12.0(0.47)	12.0(0.47)	1.7(0.07)
3	1/8	HJKG-GZ3-FT2-	33.5(1.32)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.0(0.08)
3	1/4	HJKG-GZ3-FT4-	36.1(1.42)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)
4	1/4	HJKG-GZ4-FT4-	37.1(1.46)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)
6	1/8	HJKG-GZ6-FT2-	36.9(1.45)	15.3(0.60)	14.0(0.55)	14.0(0.55)	2.0(0.08)
6	1/4	HJKG-GZ6-FT4-	39.2(1.54)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.4(0.17)
6	5/16	HJKG-GZ6-FT5-	39.9(1.57)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	3/8	HJKG-GZ6-FT6-	40.7(1.60)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
6	1/2	HJKG-GZ6-FT8-	46.3(1.82)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)
8	1/4	HJKG-GZ8-FT4-	40.3(1.59)	16.2(0.64)	16.0(0.63)	15.0(0.59)	4.4(0.17)
8	3/8	HJKG-GZ8-FT6-	42.0(1.65)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
8	1/2	HJKG-GZ8-FT8-	47.6(1.87)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)
10	3/8	HJKG-GZ10-FT6-	44.4(1.75)	17.2(0.68)	19.0(0.75)	18.0(0.71)	6.8(0.27)
10	1/2	HJKG-GZ10-FT8-	49.8(1.96)	17.2(0.68)	19.0(0.75)	18.0(0.71)	7.9(0.31)
12	1/2	HJKG-GZ12-FT8-	52.3(2.06)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.3(0.37)
12	3/4	HJKG-GZ12-FT12-	53.8(2.12)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)
18	3/4	HJKG-GZ18-FT12-	56.1(2.21)	24.4(0.96)	30.0(1.18)	27.0(1.06)	14.7(0.58)
18	1	HJKG-GZ18-FT16-	62.4(2.46)	24.4(0.96)	30.0(1.18)	27.0(1.06)	15.1(0.59)
25	1	HJKG-GZ25-FT16-	69.5(2.74)	31.3(1.23)	38.0(1.50)	35.0(1.38)	20.2(0.80)

Fractional Tube

T-Tube O.D. (in.)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions,in.(mm)				
			L	C	G	F	E
1/8	6	HJCKG-YZ2-MT6-	1.42(36.1)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.09(2.3)

Metric Tube

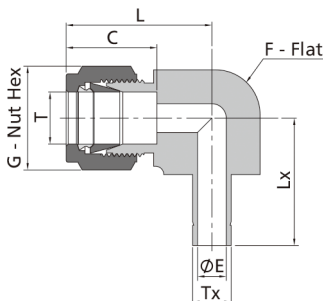
Bulkhead Reducers



Fractional Tube

T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions,in.(mm)					E
			L	C	G	F	Gx	
1/8	1/8	HJCKG-YZ2-FT2-	1.95(49.5)	0.50(12.7)	0.44(11.1)	0.50(12.7)	0.50(12.7)	0.08(2.0)
1/4	1/4	HJCKG-YZ4-FT4-	2.20(55.9)	0.60(15.2)	0.56(14.3)	0.63(15.9)	0.63(15.9)	0.17(4.3)
3/8	3/8	HJCKG-YZ6-FT6-	2.41(61.2)	0.66(16.8)	0.69(17.5)	0.75(19.1)	0.75(19.1)	0.27(6.9)
1/2	1/2	HJCKG-YZ8-FT8-	2.87(72.9)	0.90(22.9)	0.87(22.2)	0.94(23.8)	0.94(23.8)	0.37(9.4)
5/8	5/8	HJCKG-YZ10-FT10-	2.96(75.2)	0.96(24.4)	1.00(25.4)	1.06(27.0)	1.06(27.0)	0.47(11.9)
3/4	3/4	HJCKG-YZ12-FT12-	3.21(81.5)	0.96(24.4)	1.13(28.6)	1.19(30.2)	1.19(30.2)	0.58(14.7)
1	1	HJCKG-YZ16-FT16-	3.95(100.3)	1.23(31.2)	1.50(38.1)	1.63(41.3)	1.63(41.3)	0.80(20.3)

Reducer Elbows

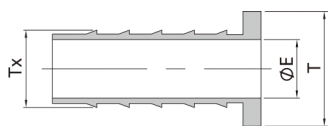


Metric Tube

T-Tube O.D. (mm)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions,mm(in.)					Lx
			L	C	G	F	E	
6	6	HJCKGL-GZ6-MT6-	27.0(1.06)	15.3(0.60)	14.0(0.55)	12.7(0.50)	4.1(0.16)	25.0(0.98)
12	12	HJCKGL-GZ12-MT12-	38.1(1.50)	22.8(0.90)	22.0(0.87)	23.8(0.94)	8.8(0.35)	39.2(1.54)

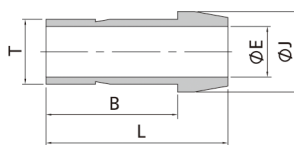


Insert for Soft Plastic Tubings

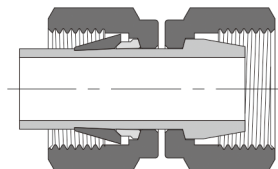


Insert for soft plastic tubing is used to protect soft plastic tubing used with tube fittings. To determine the correct size of the insert for soft plastic tubing, the outside and inside diameter of the soft plastic tubing should be determined first.

Port Connectors



1" /25 mm and below



1 1/4" /28 mm and above

Fractional Tube

T-Tube O.D. (in.)	Tx-Tube I.D. (in.)	Basic Ordering Number	E in.(mm)
3/16	1/8	HJRC-3-2-	0.09(2.3)
1/4	1/8	HJRC-4-2-	0.09(2.3)
1/4	0.17	HJRC-4-017-	0.11(2.8)
1/4	3/16	HJRC-4-3-	0.14(3.5)
5/16	1/8	HJRC-5-2-	0.09(2.3)
5/16	3/16	HJRC-5-3-	0.12(3.0)
5/16	1/4	HJRC-5-4-	0.19(4.8)
3/8	3/16	HJRC-6-3-	0.12(3.0)
3/8	1/4	HJRC-6-4-	0.19(4.8)
1/2	1/4	HJRC-8-4-	0.19(4.8)
1/2	3/8	HJRC-8-6-	0.31(7.9)
5/8	3/8	HJRC-10-6-	0.31(7.9)
5/8	1/2	HJRC-10-8-	0.44(11.1)
3/4	1/2	HJRC-12-8-	0.44(11.1)
3/4	5/8	HJRC-12-10-	0.56(14.2)
1	3/4	HJRC-16-12-	0.69(17.5)

Fractional Tube

T-Tube O.D. (in.)	Basic Ordering Number	Dimensions,in.(mm)			
		L	B	E	J
1/16	HJDJ-YZ1-	0.54(13.7)	0.42(10.7)	0.03(0.8)	0.13(3.3)
1/8	HJDJ-YZ2-	0.88(22.4)	0.62(15.7)	0.08(2.0)	0.24(6.1)
1/4	HJDJ-YZ4-	0.97(24.6)	0.74(18.8)	0.17(4.3)	0.37(9.4)
5/16	HJDJ-YZ5-	1.02(25.9)	0.79(20.1)	0.22(5.6)	0.43(10.9)
3/8	HJDJ-YZ6-	1.03(26.2)	0.80(20.3)	0.27(6.9)	0.50(12.7)
1/2	HJDJ-YZ8-	1.41(35.8)	1.02(25.9)	0.37(9.4)	0.62(15.7)
5/8	HJDJ-YZ10-	1.64(41.7)	1.11(28.1)	0.47(11.9)	0.81(20.5)
3/4	HJDJ-YZ12-	1.65(41.9)	1.09(27.7)	0.58(14.7)	0.87(22.1)
1	HJDJ-YZ16-	1.89(48.0)	1.36(34.5)	0.80(20.3)	1.12(28.4)
1 1/4	HJDJ-YZ20-	2.72(69.1)	1.99(50.6)	1.02(25.9)	1.47(37.4)
1 1/2	HJDJ-YZ24-	3.48(88.4)	2.5(63.6)	1.24(31.5)	1.85(47.0)

Metric Tube

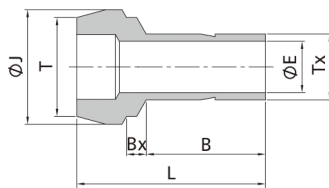
T-Tube O.D. (mm)	Tx-Tube I.D. (mm)	Basic Ordering Number	E mm(in.)
6	4	HJRC-6M-4M-	2.8(0.11)
8	6	HJRC-8M-6M-	4.4(0.17)
10	8	HJRC-10M-8M-	6.4(0.25)
12	8	HJRC-12M-8M-	6.4(0.25)
12	10	HJRC-12M-10M-	8.3(0.33)

Metric Tube

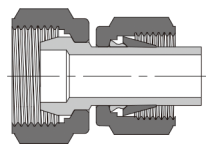
T-Tube O.D. (mm)	Basic Ordering Number	Dimensions,mm(in.)			
		L	B	E	J
3	HJDJ-GZ3-	22.2(0.87)	15.7(0.62)	1.9(0.07)	6.0(0.24)
6	HJDJ-GZ6-	24.6(0.97)	18.7(0.74)	4.1(0.16)	9.0(0.35)
8	HJDJ-GZ8-	25.9(1.02)	20.0(0.79)	5.6(0.22)	11.0(0.43)
10	HJDJ-GZ10-	26.1(1.03)	20.2(0.80)	7.1(0.28)	13.1(0.52)
12	HJDJ-GZ12-	35.8(1.41)	26.0(1.02)	8.8(0.35)	15.0(0.59)
15	HJDJ-GZ15-	37.8(1.49)	27.6(1.09)	11.2(0.44)	19.6(0.77)
16	HJDJ-GZ16-	37.8(1.49)	27.6(1.09)	12.0(0.47)	20.6(0.81)
18	HJDJ-GZ18-	37.8(1.49)	27.7(1.09)	13.9(0.55)	21.0(0.83)
20	HJDJ-GZ20-	39.4(1.55)	29.2(1.15)	15.5(0.61)	24.6(0.97)
25	HJDJ-GZ25-	49.3(1.94)	34.5(1.36)	19.9(0.78)	31.2(1.23)
28	HJDJ-GZ28-	63.5(2.5)	48.3(1.90)	22.5(0.89)	34.4(1.35)
30	HJDJ-GZ30-	67.6(2.66)	52.2(2.06)	24.3(0.96)	37.4(1.47)
32	HJDJ-GZ32-	69.7(2.74)	52.4(2.06)	26.5(1.04)	39.4(1.55)
38	HJDJ-GZ38-	81.9(3.22)	61.4(2.42)	31.6(1.24)	45.8(1.80)



Reducing Port Connectors



1"/25mm and below



1 1/4" /28 mm and above

Fractional Tube

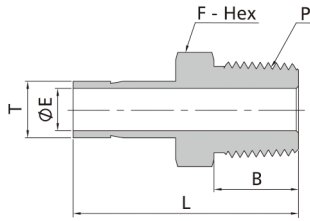
T-Tube O.D. (in.)	Tx-Tube O.D. (in.)	Basic Ordering Number	Dimensions, in. (mm)				
			L	B	E	Bx	J
1/8	1/16	HJDJ-YZ2-YZ1-	0.68(17.3)	0.34(8.6)	0.03(0.8)	0.08(2.0)	0.24(6.1)
1/4	1/16	HJDJ-YZ4-YZ1-	0.71(18.0)	0.34(8.6)	0.03(0.8)	0.14(3.6)	0.37(9.4)
1/4	1/8	HJDJ-YZ4-YZ2-	0.89(22.6)	0.53(13.5)	0.08(2.0)	0.13(3.3)	0.37(9.4)
3/8	1/8	HJDJ-YZ6-YZ2-	0.91(23.1)	0.53(13.5)	0.08(2.0)	0.15(3.8)	0.50(12.7)
3/8	1/4	HJDJ-YZ6-YZ4-	0.98(24.9)	0.62(15.7)	0.17(4.3)	0.13(3.3)	0.50(12.7)
1/2	1/4	HJDJ-YZ8-YZ4-	1.15(29.2)	0.62(15.7)	0.17(4.3)	0.15(3.8)	0.62(15.7)
1/2	3/8	HJDJ-YZ8-YZ6-	1.20(30.5)	0.69(17.5)	0.27(6.9)	0.13(3.3)	0.62(15.7)
3/4	1/2	HJDJ-YZ12-YZ8-	1.49(37.8)	0.91(23.1)	0.37(9.4)	0.15(3.8)	0.87(22.1)
1	1/2	HJDJ-YZ16-YZ8-	1.69(42.9)	0.96(24.4)	0.37(9.4)	0.19(4.8)	1.12(28.5)
1	3/4	HJDJ-YZ16-YZ12-	1.72(43.7)	1.02(25.9)	0.58(14.7)	0.16(4.1)	1.12(28.5)

Metric Tube

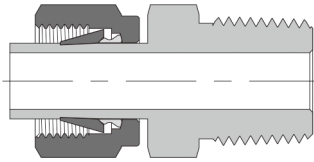
T-Tube O.D. (mm)	Tx-Tube O.D. (mm)	Basic Ordering Number	Dimensions, mm (in.)				
			L	B	E	Bx	J
6	3	HJDJ-GZ6-GZ3-	22.6(0.89)	13.5(0.53)	1.9(0.07)	3.2(0.13)	9.0(0.35)
8	6	HJDJ-GZ8-GZ6-	24.7(0.97)	15.7(0.62)	4.1(0.16)	3.1(0.12)	11.0(0.43)
10	6	HJDJ-GZ10-GZ6-	25.0(0.98)	15.7(0.62)	4.1(0.16)	3.4(0.13)	13.1(0.52)
10	8	HJDJ-GZ10-GZ8-	26.3(1.04)	17.0(0.67)	5.6(0.22)	3.1(0.12)	13.1(0.52)
12	6	HJDJ-GZ12-GZ6-	29.6(1.17)	15.7(0.62)	4.1(0.16)	3.6(0.14)	15.0(0.59)
12	8	HJDJ-GZ12-GZ8-	29.8(1.17)	16.8(0.66)	5.6(0.22)	3.4(0.13)	15.0(0.59)
12	10	HJDJ-GZ12-GZ10-	30.4(1.20)	17.5(0.69)	7.1(0.28)	3.1(0.12)	15.0(0.59)
16	12	HJDJ-GZ16-GZ12-	36.2(1.43)	23.1(0.91)	8.8(0.35)	3.4(0.13)	19.0(0.75)
28	25	HJDJ-GZ28-GZ25-	56.5(2.22)	33.0(1.30)	19.8(0.78)	8.2(0.32)	34.3(1.35)
32	25	HJDJ-GZ32-GZ25-	60.3(2.37)	33.0(1.30)	19.8(0.78)	9.9(0.39)	39.5(1.56)
38	25	HJDJ-GZ38-GZ25-	65.8(2.59)	33.0(1.30)	19.8(0.78)	12.3(0.48)	47.1(1.85)



Male Adapters



1" and below



1 1/4" and above

The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube

NPT Thread

T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in.(mm)			
			L	B	E	F
1/16	1/8	HJGM-FT1-NPT2-	1.00(25.4)	0.38(9.7)	0.03(0.8)	0.44(11.1)
1/8	1/8	HJGM-FT2-NPT2-	1.16(29.5)	0.38(9.7)	0.08(2.0)	0.44(11.1)
1/8	1/4	HJGM-FT2-NPT4-	1.37(34.8)	0.56(14.2)	0.08(2.0)	0.56(14.3)
3/16	1/8	HJGM-FT3-NPT2-	1.19(30.2)	0.38(9.7)	0.12(3.0)	0.44(11.1)
3/16	1/4	HJGM-FT3-NPT4-	1.40(35.6)	0.56(14.2)	0.12(3.0)	0.56(14.3)
1/4	1/8	HJGM-FT4-NPT2-	1.25(31.8)	0.38(9.7)	0.17(4.3)	0.44(11.1)
1/4	1/4	HJGM-FT4-NPT4-	1.46(37.1)	0.56(14.2)	0.17(4.3)	0.56(14.3)
1/4	3/8	HJGM-FT4-NPT6-	1.49(37.8)	0.56(14.2)	0.17(4.3)	0.69(17.5)
1/4	1/2	HJGM-FT4-NPT8-	1.71(43.4)	0.75(19.1)	0.17(4.3)	0.87(22.2)
5/16	1/8	HJGM-FT5-NPT2-	1.29(32.8)	0.38(9.7)	0.19(4.8)	0.44(11.1)
5/16	1/4	HJGM-FT5-NPT4-	1.50(38.1)	0.56(14.2)	0.22(5.6)	0.56(14.3)
5/16	3/8	HJGM-FT5-NPT6-	1.53(38.9)	0.56(14.2)	0.22(5.6)	0.69(17.5)
5/16	1/2	HJGM-FT5-NPT8-	1.74(44.2)	0.75(19.1)	0.22(5.6)	0.87(22.2)
3/8	1/8	HJGM-FT6-NPT2-	1.32(33.5)	0.38(9.7)	0.19(4.8)	0.44(11.1)
3/8	1/4	HJGM-FT6-NPT4-	1.53(38.9)	0.56(14.2)	0.27(6.9)	0.56(14.3)
3/8	3/8	HJGM-FT6-NPT6-	1.56(39.6)	0.56(14.2)	0.27(6.9)	0.69(17.5)
3/8	1/2	HJGM-FT6-NPT8-	1.78(45.2)	0.75(19.1)	0.27(6.9)	0.87(22.2)
1/2	1/4	HJGM-FT8-NPT4-	1.75(44.5)	0.56(14.2)	0.28(7.1)	0.56(14.3)
1/2	3/8	HJGM-FT8-NPT6-	1.78(45.2)	0.56(14.2)	0.37(9.4)	0.69(17.5)
1/2	1/2	HJGM-FT8-NPT8-	2.00(50.8)	0.75(19.1)	0.37(9.4)	0.87(22.2)
5/8	1/2	HJGM-FT10-NPT8-	2.06(52.3)	0.75(19.1)	0.47(11.9)	0.87(22.2)
3/4	1/2	HJGM-FT12-NPT8-	2.06(52.3)	0.75(19.1)	0.47(11.9)	0.87(22.2)
3/4	3/4	HJGM-FT12-NPT12-	2.06(52.3)	0.75(19.1)	0.58(14.7)	1.06(27.0)
3/4	1	HJGM-FT12-NPT16-	2.41(61.2)	0.94(23.9)	0.58(14.7)	1.37(34.9)
1	3/4	HJGM-FT16-NPT12-	2.31(58.7)	0.75(19.1)	0.62(15.7)	1.06(27.0)
1	1	HJGM-FT16-NPT16-	2.60(66.0)	0.94(23.9)	0.80(20.3)	1.37(34.9)
1 1/4	1 1/4	HJGM-FT20-NPT20-	3.16(80.3)	0.94(23.9)	1.02(25.9)	1.75(44.5)
1 1/2	1 1/2	HJGM-FT24-NPT24-	3.72(94.5)	1.03(26.2)	1.25(31.8)	2.13(54.0)

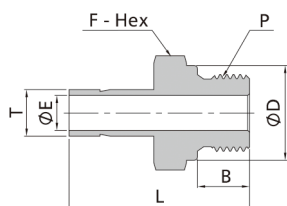
Fractional Tube

ISO Tapered Thread (RT)

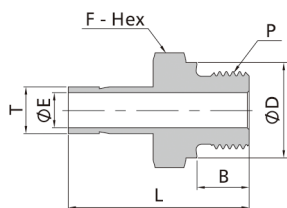
T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimensions, in.(mm)			
			L	B	E	F
1/8	1/8	HJGM-FT2-RT2-	1.16(29.5)	0.38(9.7)	0.08(2.0)	0.44(11.1)
1/8	1/4	HJGM-FT2-RT4-	1.37(34.8)	0.56(14.2)	0.08(2.0)	0.56(14.3)
1/4	1/8	HJGM-FT4-RT2-	1.25(31.8)	0.38(9.7)	0.17(4.3)	0.44(11.1)
1/4	1/4	HJGM-FT4-RT4-	1.46(37.1)	0.56(14.2)	0.17(4.3)	0.56(14.3)
1/4	3/8	HJGM-FT4-RT6-	1.49(37.8)	0.56(14.2)	0.17(4.3)	0.69(17.5)
1/4	1/2	HJGM-FT4-RT8-	1.71(43.4)	0.75(19.1)	0.17(4.3)	0.87(22.2)
5/16	1/8	HJGM-FT5-RT2-	1.29(32.8)	0.38(9.7)	0.19(4.8)	0.44(11.1)
5/16	1/4	HJGM-FT5-RT4-	1.50(38.1)	0.56(14.2)	0.22(5.6)	0.56(14.3)
3/8	1/4	HJGM-FT6-RT4-	1.53(38.9)	0.56(14.2)	0.27(6.9)	0.56(14.3)
3/8	3/8	HJGM-FT6-RT6-	1.56(39.6)	0.56(14.2)	0.27(6.9)	0.69(17.5)
3/8	1/2	HJGM-FT6-RT8-	1.78(45.2)	0.75(19.1)	0.27(6.9)	0.87(22.2)
1/2	1/4	HJGM-FT8-RT4-	1.75(44.5)	0.56(14.2)	0.28(7.1)	0.56(14.3)
1/2	3/8	HJGM-FT8-RT6-	1.78(45.2)	0.56(14.2)	0.37(9.4)	0.69(17.5)
1/2	1/2	HJGM-FT8-RT8-	2.00(50.8)	0.75(19.1)	0.37(9.4)	0.87(22.2)
5/8	3/8	HJGM-FT10-RT6-	1.91(48.5)	0.56(14.2)	0.37(9.5)	0.69(17.5)
5/8	1/2	HJGM-FT10-RT8-	2.06(52.3)	0.75(19.1)	0.47(11.9)	0.87(22.2)
3/4	3/4	HJGM-FT12-RT12-	2.06(52.3)	0.75(19.1)	0.58(14.7)	1.06(27.0)
1	1	HJGM-FT16-RT16-	2.60(66.0)	0.94(23.9)	0.80(20.3)	1.37(34.9)



Male Adapters



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.



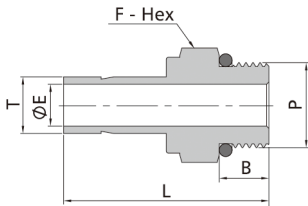
The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube			ISO Parallel Thread (RS)				
T-Tube O.D. (in.)	P-RS Size	Basic Ordering Number	Dimensions, in.(mm)				
			L	B	E	F	D
1/8	1/8	HJGM-FT2-RS2-	1.22(31.0)	0.28(7.1)	0.08(2.0)	0.56(14.3)	0.54(13.7)
1/8	1/4	HJGM-FT2-RS4-	1.41(35.8)	0.44(11.2)	0.08(2.0)	0.75(19.1)	0.70(17.8)
1/4	1/8	HJGM-FT4-RS2-	1.31(33.3)	0.28(7.1)	0.16(4.1)	0.56(14.3)	0.54(13.7)
1/4	1/4	HJGM-FT4-RS4-	1.50(38.1)	0.44(11.2)	0.17(4.3)	0.75(19.1)	0.70(17.8)
3/8	1/8	HJGM-FT6-RS2-	1.29(32.8)	0.28(7.1)	0.16(4.1)	0.56(14.3)	0.54(13.7)
3/8	1/4	HJGM-FT6-RS4-	1.57(39.9)	0.44(11.2)	0.23(5.8)	0.75(19.1)	0.70(17.8)
3/8	3/8	HJGM-FT6-RS6-	1.60(40.6)	0.44(11.2)	0.27(6.9)	0.87(22.2)	0.85(21.6)
3/8	1/2	HJGM-FT6-RS8-	1.69(42.9)	0.56(14.2)	0.28(7.1)	1.06(27.0)	1.02(25.9)
1/2	1/4	HJGM-FT8-RS4-	1.79(45.5)	0.44(11.2)	0.23(5.8)	0.75(19.1)	0.70(17.8)
1/2	3/8	HJGM-FT8-RS6-	1.82(46.2)	0.44(11.2)	0.31(7.9)	0.87(22.2)	0.85(21.6)
1/2	1/2	HJGM-FT8-RS8-	1.94(49.2)	0.56(14.2)	0.37(9.4)	1.06(27.0)	1.02(25.9)
5/8	1/2	HJGM-FT10-RS8-	1.97(50.0)	0.56(14.2)	0.47(11.9)	1.06(27.0)	1.02(25.9)
3/4	3/4	HJGM-FT12-RS12-	2.16(54.9)	0.63(16.0)	0.58(14.7)	1.31(33.3)	1.26(32.0)
1	1	HJGM-FT16-RS16-	2.54(64.5)	0.72(18.3)	0.80(20.3)	1.63(41.3)	1.53(38.9)

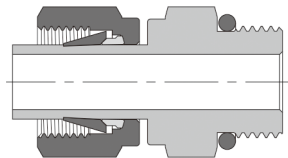
Fractional Tube			ISO Parallel Thread (RP)				
T-Tube O.D. (in.)	P-RP Size	Basic Ordering Number	Dimensions, in.(mm)				
			L	B	E	F	D
1/8	1/8	HJGM-FT2-RP2-	1.09(27.7)	0.28(7.1)	0.08(2.0)	0.56(14.3)	0.54(13.7)
1/8	1/4	HJGM-FT2-RP4-	1.31(33.3)	0.44(11.2)	0.08(2.0)	0.75(19.1)	0.70(17.8)
1/4	1/8	HJGM-FT4-RP2-	1.19(30.2)	0.28(7.1)	0.16(4.1)	0.56(14.3)	0.54(13.7)
1/4	1/4	HJGM-FT4-RP4-	1.50(38.1)	0.44(11.2)	0.18(4.6)	0.75(19.1)	0.70(17.8)
3/8	1/8	HJGM-FT6-RP2-	1.34(34.0)	0.28(7.1)	0.16(4.1)	0.75(19.1)	0.54(13.7)
3/8	1/4	HJGM-FT6-RP4-	1.47(37.3)	0.44(11.2)	0.25(6.4)	0.75(19.1)	0.70(17.8)
3/8	3/8	HJGM-FT6-RP6-	1.50(38.1)	0.44(11.2)	0.27(6.9)	0.87(22.2)	0.85(21.6)
3/8	1/2	HJGM-FT6-RP8-	1.69(42.9)	0.56(14.2)	0.27(6.9)	1.06(27.0)	1.02(25.9)
1/2	1/4	HJGM-FT8-RP4-	1.69(42.9)	0.44(11.2)	0.25(6.4)	0.75(19.1)	0.70(17.8)
1/2	3/8	HJGM-FT8-RP6-	1.72(43.7)	0.44(11.2)	0.31(7.9)	0.87(22.2)	0.85(21.6)
1/2	1/2	HJGM-FT8-RP8-	1.94(49.3)	0.56(14.2)	0.37(9.4)	1.06(27.0)	1.02(25.9)
5/8	1/2	HJGM-FT10-RP8-	1.97(50.0)	0.56(14.2)	0.47(11.9)	1.06(27.0)	1.02(25.9)
3/4	3/4	HJGM-FT12-RP12-	2.09(53.1)	0.63(16.0)	0.58(14.7)	1.32(33.5)	1.26(32.0)
1	1	HJGM-FT16-RP16-	2.49(63.3)	0.72(18.3)	0.78(19.8)	1.63(41.3)	1.53(38.9)



Male Adapters



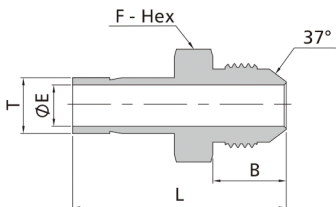
1" and below



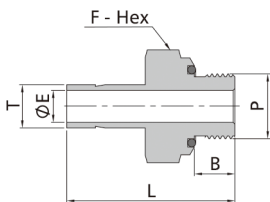
1 1/4" and above

1. The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

2. Adapt to straight thread boss of SAE J1926-1, ISO 11926-1 and MS 16142.



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.



The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Fractional Tube

SAE/MS Straight Threads (ST)

T-Tube O.D. (in.)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, in. (mm)			
				L	B	E	F
1/8	2	5/16-24	HJGM-FT2-ST5-	1.20(30.5)	0.30(7.6)	0.08(2.0)	0.44(11.1)
1/4	4	7/16-20	HJGM-FT4-ST7-	1.39(35.3)	0.36(9.1)	0.17(4.3)	0.56(14.3)
3/8	4	7/16-20	HJGM-FT6-ST7-	1.46(37.1)	0.36(9.1)	0.20(5.1)	0.56(14.3)
3/8	6	9/16-18	HJGM-FT6-ST9-	1.52(38.6)	0.39(9.9)	0.27(6.9)	0.69(17.5)
3/8	8	3/4-16	HJGM-FT6-ST12-	1.60(40.6)	0.44(11.2)	0.27(6.9)	0.87(22.2)
1/2	6	9/16-18	HJGM-FT8-ST9-	1.74(44.2)	0.39(9.9)	0.28(7.1)	0.69(17.5)
1/2	8	3/4-16	HJGM-FT8-ST12-	1.82(46.2)	0.44(11.2)	0.37(9.4)	0.87(22.2)
5/8	10	7/8-14	HJGM-FT10-ST14-	1.94(49.3)	0.50(12.7)	0.47(11.9)	1.00(25.4)
3/4	12	1 1/16-12	HJGM-FT12-ST17-	2.10(53.3)	0.59(15.0)	0.58(14.7)	1.25(31.8)
1	16	1 5/16-12	HJGM-FT16-ST21-	2.41(61.2)	0.59(15.0)	0.80(20.3)	1.50(38.1)
1 1/4	20	1 5/8-12	HJGM-FT20-ST26-	2.81(71.4)	0.59(15.0)	1.02(25.9)	1.87(47.6)
1 1/2	24	1 7/8-12	HJGM-FT24-ST30-	3.28(83.3)	0.59(15.0)	1.25(31.8)	2.13(54.0)

Fractional Tube

37° Flare (AN)

T-Tube O.D. (in.)	AN Tube Flare Size	Basic Ordering Number	Dimensions, in. (mm)			
			L	B	E	F
1/4	1/4	HJGM-FT4-AN4-	1.46(37.1)	0.55(14.0)	0.17(4.3)	0.50(12.7)
3/8	1/4	HJGM-FT6-AN4-	1.53(38.9)	0.55(14.0)	0.17(4.3)	0.50(12.7)
3/8	3/8	HJGM-FT6-AN6-	1.56(39.6)	0.56(14.2)	0.27(6.9)	0.63(15.9)
1/2	1/2	HJGM-FT8-AN8-	1.91(48.5)	0.66(16.8)	0.37(9.4)	0.81(20.6)
3/4	3/4	HJGM-FT12-AN12-	2.21(56.1)	0.86(21.8)	0.58(14.7)	1.13(28.6)
1	1	HJGM-FT16-AN16-	2.58(65.5)	0.91(23.1)	0.80(20.3)	1.37(34.9)

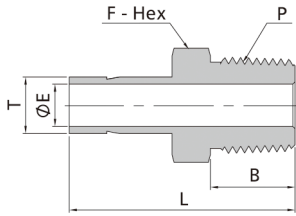
Fractional Tube

SAE/MS Straight Threads (OST)

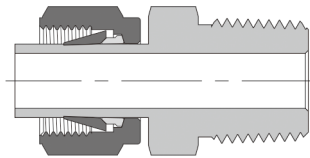
T-Tube O.D. (in.)	P-SAE Nominal Size	P-SAE/MS Thread Specification	Basic Ordering Number	Dimensions, in. (mm)			
				L	B	E	F
1/8	2	5/16-24	HJGM-FT2-OST5-	1.28(32.5)	0.34(8.6)	0.08(2.0)	0.56(14.3)
3/16	3	3/8-24	HJGM-FT3-OST6-	1.38(35.1)	0.38(9.7)	0.12(3.0)	0.63(15.9)
1/4	4	7/16-20	HJGM-FT4-OST7-	1.54(39.1)	0.41(10.4)	0.17(4.3)	0.75(19.1)
5/16	5	1/2-20	HJGM-FT5-OST8-	1.64(41.7)	0.44(11.2)	0.22(5.6)	0.87(22.2)
3/8	6	9/16-18	HJGM-FT6-OST9-	1.70(43.2)	0.47(11.9)	0.27(6.9)	0.94(23.8)
1/2	8	3/4-16	HJGM-FT8-OST12-	1.95(49.5)	0.47(11.9)	0.37(9.4)	1.13(28.6)



Male Adapters



25 mm and below



28 mm and above

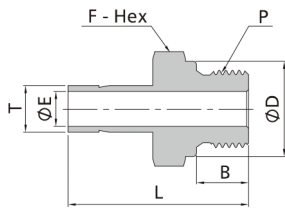
The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Metric Tube			NPT Thread			
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions,mm(in.)			
			L	B	E	F
3	1/8	HJGM-MT3-NPT2-	29.4(1.16)	9.7(0.38)	1.8(0.07)	12.0(0.47)
4	1/8	HJGM-MT4-NPT2-	29.4(1.16)	9.7(0.38)	2.4(0.09)	12.0(0.47)
6	1/8	HJGM-MT6-NPT2-	32.8(1.29)	9.7(0.38)	4.1(0.16)	12.0(0.47)
6	1/4	HJGM-MT6-NPT4-	38.1(1.50)	14.2(0.56)	4.1(0.16)	14.0(0.55)
6	3/8	HJGM-MT6-NPT6-	39.2(1.54)	14.2(0.56)	4.1(0.16)	18.0(0.71)
6	1/2	HJGM-MT6-NPT8-	42.1(1.66)	19.1(0.75)	4.1(0.16)	22.0(0.87)
8	1/4	HJGM-MT8-NPT4-	39.1(1.54)	14.2(0.56)	5.6(0.22)	14.0(0.55)
8	3/8	HJGM-MT8-NPT6-	39.9(1.57)	14.2(0.56)	5.6(0.22)	19.0(0.75)
10	1/4	HJGM-MT10-NPT4-	39.9(1.57)	14.2(0.56)	7.1(0.28)	14.0(0.55)
10	3/8	HJGM-MT10-NPT6-	40.6(1.60)	14.2(0.56)	7.1(0.28)	18.0(0.71)
10	1/2	HJGM-MT10-NPT8-	46.2(1.82)	19.1(0.75)	7.1(0.28)	22.0(0.87)
12	1/4	HJGM-MT12-NPT4-	46.5(1.83)	14.2(0.56)	7.1(0.28)	14.0(0.55)
12	3/8	HJGM-MT12-NPT6-	46.2(1.82)	14.2(0.56)	8.8(0.35)	18.0(0.71)
12	1/2	HJGM-MT12-NPT8-	52.1(2.05)	19.1(0.75)	8.8(0.35)	22.0(0.87)
16	1/2	HJGM-MT16-NPT8-	50.8(2.00)	19.1(0.75)	11.9(0.47)	22.0(0.87)
16	3/4	HJGM-MT16-NPT12-	51.6(2.03)	19.1(0.75)	12.0(0.47)	27.0(1.06)
18	1/2	HJGM-MT18-NPT8-	50.8(2.00)	19.1(0.75)	11.9(0.47)	27.0(1.06)
18	3/4	HJGM-MT18-NPT12-	51.6(2.03)	19.1(0.75)	14.0(0.55)	27.0(1.06)
20	1/2	HJGM-MT20-NPT8-	53.3(2.1)	19.1(0.75)	11.9(0.47)	22.0(0.87)
20	3/4	HJGM-MT20-NPT12-	53.8(2.12)	19.1(0.75)	15.5(0.61)	27.0(1.06)
25	1	HJGM-MT25-NPT16-	65.9(2.59)	23.9(0.94)	19.8(0.78)	35.0(1.38)
28	1	HJGM-MT28-NPT16-	74.7(2.94)	23.9(0.94)	22.2(0.87)	35.0(1.38)
28	1 1/4	HJGM-MT28-NPT20-	76.2(3.00)	23.9(0.94)	22.5(0.89)	46.0(1.81)
30	1	HJGM-MT30-NPT16-	79.2(3.12)	23.9(0.94)	22.2(0.87)	41.0(1.61)
30	1 1/4	HJGM-MT30-NPT20-	80.0(3.15)	23.9(0.94)	24.3(0.96)	46.0(1.81)
32	1 1/4	HJGM-MT32-NPT20-	81.0(3.19)	23.9(0.94)	26.5(1.04)	46.0(1.81)
38	1 1/2	HJGM-MT38-NPT24-	92.2(3.63)	26.2(1.03)	31.6(1.24)	55.0(2.17)

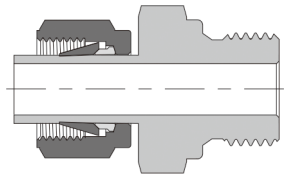
Metric Tube			ISO Tapered Thread (RT)			
T-Tube O.D. (mm)	P-RT Size	Basic Ordering Number	Dimensions,mm(in.)			
			L	B	E	F
3	1/8	HJGM-MT3-RT2-	29.4(1.16)	9.7(0.38)	2.4(0.09)	12.0(0.47)
4	1/8	HJGM-MT4-RT2-	29.4(1.16)	9.7(0.38)	2.0(0.08)	12.0(0.47)
6	1/8	HJGM-MT6-RT2-	32.8(1.29)	9.7(0.38)	4.1(0.16)	12.0(0.47)
6	1/4	HJGM-MT6-RT4-	38.1(1.50)	14.2(0.56)	4.1(0.16)	14.0(0.55)
8	1/4	HJGM-MT8-RT4-	39.1(1.54)	14.2(0.56)	5.6(0.22)	14.0(0.55)
8	3/8	HJGM-MT8-RT6-	39.9(1.57)	14.2(0.56)	5.6(0.22)	18.0(0.71)
10	1/4	HJGM-MT10-RT4-	39.9(1.57)	14.2(0.56)	7.1(0.28)	14.0(0.55)
10	3/8	HJGM-MT10-RT6-	40.6(1.60)	14.2(0.56)	7.1(0.28)	18.0(0.71)
10	1/2	HJGM-MT10-RT8-	44.5(1.75)	19.1(0.75)	7.1(0.28)	22.0(0.87)
12	1/4	HJGM-MT12-RT4-	46.5(1.83)	14.2(0.56)	7.1(0.28)	16.0(0.63)
12	3/8	HJGM-MT12-RT6-	46.2(1.82)	14.2(0.56)	8.8(0.35)	18.0(0.71)
12	1/2	HJGM-MT12-RT8-	51.8(2.04)	19.1(0.75)	8.8(0.35)	22.0(0.87)
16	1/2	HJGM-MT16-RT8-	50.8(2.00)	19.1(0.75)	11.9(0.47)	22.0(0.87)
18	3/4	HJGM-MT18-RT12-	51.6(2.03)	19.1(0.75)	14.0(0.55)	27.0(1.06)
20	3/4	HJGM-MT20-RT12-	52.4(2.06)	19.1(0.75)	15.5(0.61)	27.0(1.06)
25	1	HJGM-MT25-RT16-	65.9(2.59)	23.9(0.94)	19.8(0.78)	35.0(1.38)
28	1	HJGM-MT28-RT16-	74.7(2.94)	23.9(0.94)	22.2(0.87)	35.0(1.38)
28	1 1/4	HJGM-MT28-RT20-	76.2(3.00)	23.9(0.94)	22.5(0.89)	46.0(1.81)
30	1 1/4	HJGM-MT30-RT20-	80.0(3.15)	23.9(0.94)	24.3(0.96)	46.0(1.81)
32	1 1/4	HJGM-MT32-RT20-	81.0(3.19)	23.9(0.94)	26.5(1.04)	46.0(1.81)
38	1 1/2	HJGM-MT38-RT24-	92.2(3.63)	26.2(1.03)	31.6(1.24)	55.0(2.17)



Male Adapters

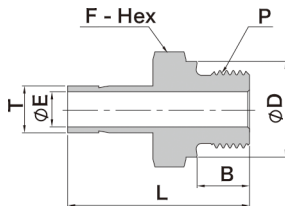


25 mm and below

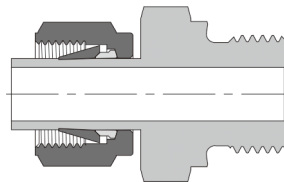


28 mm and above

The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.



25 mm and below



28 mm and above

The E dimension refers to the smallest nominal orifice. It might be larger at tapered thread end, straight thread end.

Metric Tube

ISO Parallel Thread (RS)

T-Tube O.D. (mm)	P-RS Size	Basic Ordering Number	Dimensions,mm(in.)				
			L	B	E	F	D
3	1/8	HJGM-MT3-RS2-	31.0(1.22)	7.1(0.28)	1.8(0.07)	14.0(0.55)	13.7(0.54)
4	1/8	HJGM-MT4-RS2-	31.8(1.25)	7.1(0.28)	2.4(0.09)	14.0(0.55)	13.7(0.54)
6	1/8	HJGM-MT6-RS2-	34.3(1.35)	7.1(0.28)	4.0(0.16)	14.0(0.55)	13.7(0.54)
6	1/4	HJGM-MT6-RS4-	39.1(1.54)	11.2(0.44)	4.1(0.16)	19.0(0.75)	17.8(0.70)
8	1/4	HJGM-MT8-RS4-	39.6(1.56)	11.2(0.44)	5.6(0.22)	19.0(0.75)	17.8(0.70)
10	1/4	HJGM-MT10-RS4-	40.9(1.61)	11.2(0.44)	5.9(0.23)	19.0(0.75)	17.8(0.70)
10	3/8	HJGM-MT10-RS6-	41.7(1.64)	11.2(0.44)	7.1(0.28)	22.0(0.87)	21.6(0.85)
10	1/2	HJGM-MT10-RS8-	44.7(1.76)	14.2(0.56)	7.1(0.28)	27.0(1.06)	25.9(1.02)
12	1/4	HJGM-MT12-RS4-	46.7(1.84)	11.2(0.44)	5.9(0.23)	19.0(0.75)	17.8(0.70)
12	3/8	HJGM-MT12-RS6-	47.2(1.86)	11.2(0.44)	7.9(0.31)	22.0(0.87)	21.6(0.85)
12	1/2	HJGM-MT12-RS8-	50.5(1.99)	14.2(0.56)	8.8(0.35)	27.0(1.06)	25.9(1.02)
16	1/2	HJGM-MT16-RS8-	50.8(2.00)	14.2(0.56)	11.9(0.47)	27.0(1.06)	25.9(1.02)
18	3/4	HJGM-MT18-RS12-	55.9(2.20)	16.0(0.63)	13.9(0.55)	35.0(1.38)	32.0(1.26)
20	3/4	HJGM-MT20-RS12-	57.0(2.24)	16.0(0.63)	15.5(0.61)	35.0(1.38)	32.0(1.26)
25	1	HJGM-MT25-RS16-	65.1(2.56)	18.3(0.72)	19.8(0.78)	41.0(1.61)	38.9(1.53)
28	1	HJGM-MT28-RS16-	71.9(2.83)	18.3(0.72)	19.8(0.78)	41.0(1.61)	38.9(1.53)
28	1 1/4	HJGM-MT28-RS20-	77.0(3.03)	19.8(0.78)	22.5(0.89)	50.0(1.97)	49.0(1.93)
30	1 1/4	HJGM-MT30-RS20-	80.8(3.18)	19.8(0.78)	24.3(0.96)	50.0(1.97)	49.0(1.93)
32	1 1/4	HJGM-MT32-RS20-	81.8(3.22)	19.8(0.78)	26.5(1.04)	50.0(1.97)	49.0(1.93)
38	1 1/2	HJGM-MT38-RS24-	94.5(3.72)	20.6(0.81)	31.6(1.24)	55.0(2.17)	54.7(2.15)

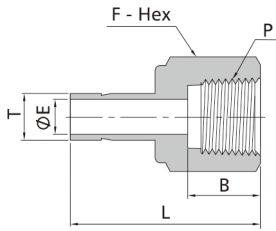
Metric Tube

ISO Parallel Thread (RP)

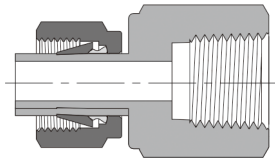
T-Tube O.D. (mm)	P-RP Size	Basic Ordering Number	Dimensions,mm(in.)				
			L	B	E	F	D
3	1/8	HJGM-MT3-RP2-	31.0(1.22)	7.1(0.28)	1.8(0.07)	14.0(0.55)	13.7(0.54)
4	1/8	HJGM-MT4-RP2-	31.8(1.25)	7.1(0.28)	2.0(0.08)	14.0(0.55)	13.7(0.54)
6	1/8	HJGM-MT6-RP2-	34.3(1.35)	7.1(0.28)	4.0(0.16)	14.0(0.55)	13.7(0.54)
6	1/4	HJGM-MT6-RP4-	38.1(1.50)	11.2(0.44)	4.0(0.16)	19.0(0.75)	17.8(0.70)
8	1/4	HJGM-MT8-RP4-	38.9(1.53)	11.2(0.44)	5.6(0.22)	19.0(0.75)	17.8(0.70)
10	1/4	HJGM-MT10-RP4-	38.9(1.53)	11.2(0.44)	6.4(0.25)	19.0(0.75)	17.8(0.70)
10	3/8	HJGM-MT10-RP6-	39.7(1.56)	11.2(0.44)	7.1(0.28)	22.0(0.87)	21.6(0.85)
10	1/2	HJGM-MT10-RP8-	42.9(1.69)	14.2(0.56)	7.1(0.28)	27.0(1.06)	25.9(1.02)
12	1/4	HJGM-MT12-RP4-	43.7(1.72)	11.2(0.44)	6.4(0.25)	19.0(0.75)	17.8(0.70)
12	3/8	HJGM-MT12-RP6-	44.5(1.75)	11.2(0.44)	7.9(0.31)	22.0(0.87)	21.6(0.85)
12	1/2	HJGM-MT12-RP8-	49.2(1.94)	14.2(0.56)	9.1(0.36)	27.0(1.06)	25.9(1.02)
16	1/2	HJGM-MT16-RP8-	50.8(2.00)	14.2(0.56)	11.9(0.47)	27.0(1.06)	25.9(1.02)
18	3/4	HJGM-MT18-RP12-	53.2(2.09)	16.0(0.63)	14.0(0.55)	33.0(1.30)	32.0(1.26)
20	3/4	HJGM-MT20-RP12-	54.0(2.13)	16.0(0.63)	15.5(0.61)	33.0(1.30)	32.0(1.26)
25	1	HJGM-MT25-RP16-	65.1(2.56)	18.3(0.72)	19.8(0.78)	41.0(1.61)	38.9(1.53)
28	1	HJGM-MT28-RP16-	72.7(2.86)	18.3(0.72)	19.8(0.78)	41.0(1.61)	38.9(1.53)
28	1 1/4	HJGM-MT28-RP20-	77.3(3.04)	19.8(0.78)	22.5(0.89)	50.0(1.97)	49.0(1.93)
30	1 1/4	HJGM-MT30-RP20-	80.8(3.18)	19.8(0.78)	24.3(0.96)	50.0(1.97)	49.0(1.93)
32	1 1/4	HJGM-MT32-RP20-	82.1(3.23)	19.8(0.78)	26.5(1.04)	50.0(1.97)	49.0(1.93)
38	1 1/2	HJGM-MT38-RP24-	94.5(3.72)	20.6(0.81)	31.6(1.24)	55.0(2.17)	54.7(2.15)



Female Adapters



1" and below



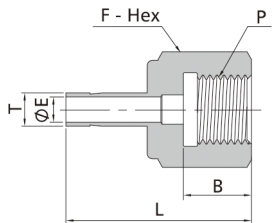
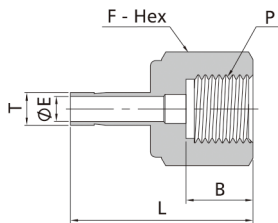
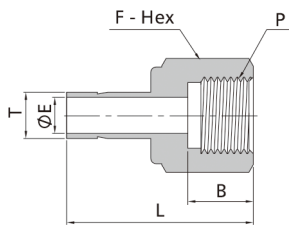
1 1/4" and above

Fractional Tube			NPT Thread			
T-Tube O.D. (in.)	P-NPT Size	Basic Ordering Number	Dimensions, in.(mm)			
			L	B	E	F
1/16	1/8	HJGF-FT1-NPT2-	1.07(27.2)	0.41(10.4)	0.03(0.8)	0.56(14.3)
1/8	1/8	HJGF-FT2-NPT2-	1.24(31.5)	0.41(10.4)	0.08(2.0)	0.56(14.3)
1/8	1/4	HJGF-FT2-NPT4-	1.39(35.3)	0.59(15.0)	0.08(2.0)	0.75(19.1)
3/16	1/8	HJGF-FT3-NPT2-	1.25(31.8)	0.41(10.4)	0.11(2.9)	0.56(14.3)
3/16	1/4	HJGF-FT3-NPT4-	1.41(35.8)	0.59(15.0)	0.12(3.0)	0.75(19.1)
1/4	1/8	HJGF-FT4-NPT2-	1.30(33.0)	0.41(10.4)	0.17(4.3)	0.56(14.3)
1/4	1/4	HJGF-FT4-NPT4-	1.46(37.1)	0.59(15.0)	0.17(4.3)	0.75(19.1)
1/4	3/8	HJGF-FT4-NPT6-	1.55(39.4)	0.59(15.0)	0.17(4.3)	0.87(22.2)
1/4	1/2	HJGF-FT4-NPT8-	1.79(45.5)	0.78(19.8)	0.17(4.3)	1.06(27.0)
5/16	1/8	HJGF-FT5-NPT2-	1.34(34.0)	0.41(10.4)	0.22(5.6)	0.56(14.3)
5/16	1/4	HJGF-FT5-NPT4-	1.48(37.6)	0.59(15.0)	0.22(5.6)	0.75(19.1)
5/16	3/8	HJGF-FT5-NPT6-	1.59(40.4)	0.59(15.0)	0.22(5.6)	0.87(22.2)
3/8	1/8	HJGF-FT6-NPT2-	1.35(34.3)	0.41(10.4)	0.27(6.9)	0.56(14.3)
3/8	1/4	HJGF-FT6-NPT4-	1.50(38.1)	0.59(15.0)	0.27(6.9)	0.75(19.1)
3/8	3/8	HJGF-FT6-NPT6-	1.59(40.4)	0.59(15.0)	0.27(6.9)	0.87(22.2)
3/8	1/2	HJGF-FT6-NPT8-	1.84(46.7)	0.78(19.8)	0.27(6.9)	1.06(27.0)
1/2	1/4	HJGF-FT8-NPT4-	1.71(43.4)	0.59(15.0)	0.37(9.4)	0.75(19.1)
1/2	3/8	HJGF-FT8-NPT6-	1.79(45.5)	0.59(15.0)	0.37(9.4)	0.87(22.2)
1/2	1/2	HJGF-FT8-NPT8-	2.04(51.8)	0.78(19.8)	0.37(9.4)	1.06(27.0)
5/8	3/8	HJGF-FT10-NPT6-	1.86(47.2)	0.59(15.0)	0.47(11.9)	0.87(22.2)
5/8	1/2	HJGF-FT10-NPT8-	2.09(53.1)	0.78(19.8)	0.47(11.9)	1.06(27.0)
3/4	1/2	HJGF-FT12-NPT8-	2.08(52.8)	0.78(19.8)	0.58(14.7)	1.06(27.0)
3/4	3/4	HJGF-FT12-NPT12-	2.16(54.9)	0.81(20.6)	0.58(14.7)	1.31(33.3)
3/4	1	HJGF-FT12-NPT16-	2.30(58.4)	1.00(25.4)	0.58(14.7)	1.63(41.3)
7/8	3/4	HJGF-FT14-NPT12-	2.22(56.4)	0.81(20.6)	0.58(14.7)	1.31(33.3)
1	3/4	HJGF-FT16-NPT12-	2.39(60.7)	0.81(20.6)	0.80(20.3)	1.31(33.3)
1	1	HJGF-FT16-NPT16-	2.53(64.3)	1.00(25.4)	0.80(20.3)	1.63(41.3)
1 1/4	1 1/4	HJGF-FT20-NPT20-	3.06(77.7)	1.00(25.4)	1.02(25.9)	2.13(54.0)
1 1/2	1 1/2	HJGF-FT24-NPT24-	3.50(88.9)	1.09(27.7)	1.25(31.8)	2.37(60.3)

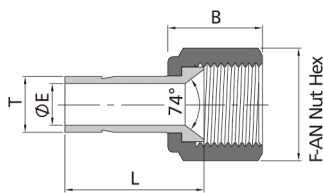
Fractional Tube			ISO Tapered Thread (RT)			
T-Tube O.D. (in.)	P-RT Size	Basic Ordering Number	Dimensions, in.(mm)			
			L	B	E	F
1/4	1/8	HJGF-FT4-RT2-	1.30(33.0)	0.41(10.4)	0.17(4.3)	0.56(14.3)
1/4	1/4	HJGF-FT4-RT4-	1.45(36.8)	0.59(15.0)	0.17(4.3)	0.75(19.1)
3/8	1/4	HJGF-FT6-RT4-	1.50(38.1)	0.59(15.0)	0.27(6.9)	0.75(19.1)
3/8	3/8	HJGF-FT6-RT6-	1.59(40.4)	0.59(15.0)	0.27(6.9)	0.87(22.2)
1/2	1/4	HJGF-FT8-RT4-	1.71(43.4)	0.59(15.0)	0.37(9.4)	0.75(19.1)
1/2	3/8	HJGF-FT8-RT6-	1.80(45.7)	0.59(15.0)	0.37(9.4)	0.87(22.2)
1/2	1/2	HJGF-FT8-RT8-	2.05(52.1)	0.78(19.8)	0.37(9.4)	1.06(27.0)



Female Adapters



Adapt to Japanese gauge stud.



Fractional Tube			ISO Parallel Thread(RP)			
T-Tube O.D. (in.)	P-RP Size	Basic Ordering Number	Dimensions,in.(mm)			
			L	B	E	F
1/8	1/8	HJGF-FT2-RP2-	1.17(29.7)	0.40(10.2)	0.08(2.0)	0.56(14.3)
1/4	1/8	HJGF-FT4-RP2-	1.25(31.8)	0.40(10.2)	0.17(4.3)	0.56(14.3)
1/4	1/4	HJGF-FT4-RP4-	1.50(38.1)	0.61(15.5)	0.17(4.3)	0.75(19.1)
3/8	1/4	HJGF-FT6-RP4-	1.55(39.4)	0.61(15.5)	0.27(6.9)	0.75(19.1)
3/8	3/8	HJGF-FT6-RP6-	1.57(39.9)	0.60(15.2)	0.27(6.9)	0.94(23.8)
1/2	3/8	HJGF-FT8-RP6-	1.78(45.2)	0.60(15.2)	0.38(9.7)	0.94(23.8)
1/2	1/2	HJGF-FT8-RP8-	1.95(49.5)	0.73(18.5)	0.38(9.7)	1.06(27.0)

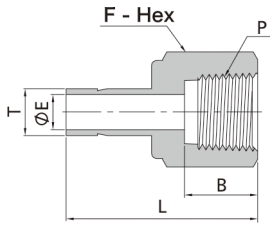
Fractional Tube			ISO Parallel Thread (RG)			
T-Tube O.D. (in.)	P-RG Size	Basic Ordering Number	Dimensions,in.(mm)			
			L	B	E	F
1/4	1/4	HJGF-FT4-RG4-	1.39(35.3)	0.51(12.9)	0.17(4.3)	0.75(19.1)
3/8	3/8	HJGF-FT6-RG6-	1.55(39.4)	0.56(14.2)	0.26(6.6)	0.94(23.8)
1/2	1/2	HJGF-FT8-RG8-	1.80(45.7)	0.74(18.8)	0.28(7.1)	1.06(27.0)

Fractional Tube			ISO Parallel Thread (RJ)			
T-Tube O.D. (in.)	P-RJ Size	Basic Ordering Number	Dimensions,in.(mm)			
			L	B	E	F
1/4	1/4	HJGF-FT4-RJ4-	1.39(35.3)	0.51(12.9)	0.17(4.3)	0.75(19.1)
3/8	3/8	HJGF-FT6-RJ6-	1.55(39.4)	0.62(15.8)	0.26(6.6)	0.94(23.8)
1/2	1/2	HJGF-FT8-RJ8-	1.94(49.3)	0.74(18.8)	0.28(7.1)	1.06(27.0)

Fractional Tube			AN Thread			
T-Tube O.D. (in.)	ANTube Flare Size(in.)	Basic Ordering Number	Dimensions,in.(mm)			
			L	B	E	F
1/8	1/8	HJGF-FT2-AN2-	0.88(22.4)	0.55(14.0)	0.08(2.0)	0.37(9.5)
1/8	1/4	HJGF-FT2-AN4-	0.88(22.4)	0.62(15.8)	0.16(4.0)	0.56(14.3)
1/4	1/4	HJGF-FT4-AN4-	0.96(24.4)	0.62(15.8)	0.18(4.6)	0.56(14.3)
3/8	3/8	HJGF-FT6-AN6-	0.98(24.9)	0.73(18.5)	0.27(6.8)	0.75(19.05)
1/2	1/2	HJGF-FT8-AN8-	1.42(36.1)	0.85(21.6)	0.37(9.4)	0.87(22.2)
3/4	3/4	HJGF-FT12-AN12-	1.49(37.8)	1.03(26.2)	0.58(14.7)	1.25(31.8)

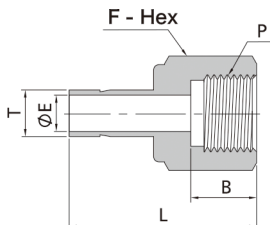


Female Adapters



Metric Tube			NPT Thread			
T-Tube O.D. (mm)	P-NPT Size	Basic Ordering Number	Dimensions,mm(in.)			
			L	B	E	F
3	1/8	HJGF-MT3-NPT2-	28.8(1.13)	10.4(0.41)	1.3(0.05)	14.0(0.55)
4	1/8	HJGF-MT4-NPT2-	33.3(1.31)	10.4(0.41)	2.4(0.09)	14.0(0.55)
6	1/8	HJGF-MT6-NPT2-	32.5(1.28)	10.4(0.41)	4.1(0.16)	14.0(0.55)
6	1/4	HJGF-MT6-NPT4-	37.1(1.46)	15.0(0.59)	4.1(0.16)	19.0(0.75)
8	1/8	HJGF-MT8-NPT2-	35.1(1.38)	10.4(0.41)	5.6(0.22)	14.0(0.55)
8	1/4	HJGF-MT8-NPT4-	37.6(1.48)	15.0(0.59)	5.6(0.22)	19.0(0.75)
8	3/8	HJGF-MT8-NPT6-	36.5(1.44)	15.0(0.59)	5.6(0.22)	22.0(0.87)
10	1/4	HJGF-MT10-NPT4-	38.1(1.50)	15.0(0.59)	7.1(0.28)	19.0(0.75)
10	3/8	HJGF-MT10-NPT6-	40.1(1.58)	15.0(0.59)	7.1(0.28)	22.0(0.87)
10	1/2	HJGF-MT10-NPT8-	46.5(1.83)	19.8(0.78)	7.1(0.28)	27.0(1.06)
12	1/4	HJGF-MT12-NPT4-	43.7(1.72)	15.0(0.59)	8.8(0.35)	19.0(0.75)
12	3/8	HJGF-MT12-NPT6-	42.9(1.69)	15.0(0.59)	8.8(0.35)	22.0(0.87)
12	1/2	HJGF-MT12-NPT8-	52.3(2.06)	19.8(0.78)	8.8(0.35)	27.0(1.06)
16	1/2	HJGF-MT16-NPT8-	49.2(1.94)	19.8(0.78)	12.0(0.47)	27.0(1.06)
18	3/4	HJGF-MT18-NPT12-	52.4(2.06)	20.6(0.81)	14.0(0.55)	32.0(1.26)
20	1/2	HJGF-MT20-NPT8-	50.0(1.97)	19.8(0.78)	15.5(0.61)	27.0(1.06)
20	3/4	HJGF-MT20-NPT12-	57.2(2.25)	20.6(0.81)	15.5(0.61)	35.0(1.38)
25	1	HJGF-MT25-NPT16-	66.7(2.63)	25.4(1.00)	19.8(0.78)	41.0(1.61)

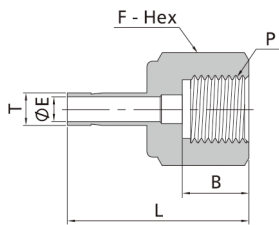
Metric Tube			ISO Tapered Thread (RT)			
T-Tube O.D. (mm)	P-RT Size	Basic Ordering Number	Dimensions,mm(in.)			
			L	B	E	F
3	1/8	HJGF-MT3-RT2-	28.8(1.13)	10.4(0.41)	1.8(0.07)	14.0(0.55)
4	1/8	HJGF-MT4-RT2-	28.6(1.13)	10.4(0.41)	2.4(0.09)	14.0(0.55)
6	1/8	HJGF-MT6-RT2-	33.0(1.30)	10.4(0.41)	4.1(0.16)	14.0(0.55)
8	1/4	HJGF-MT8-RT4-	37.6(1.48)	15.0(0.59)	5.6(0.22)	19.0(0.75)
10	1/4	HJGF-MT10-RT4-	38.1(1.50)	15.0(0.59)	7.1(0.28)	19.0(0.75)
10	3/8	HJGF-MT10-RT6-	36.5(1.44)	15.0(0.59)	7.1(0.28)	22.0(0.87)
10	1/2	HJGF-MT10-RT8-	41.3(1.63)	19.8(0.78)	7.1(0.28)	27.0(1.06)
12	1/4	HJGF-MT12-RT4-	43.7(1.72)	15.0(0.59)	8.8(0.35)	19.0(0.75)
12	3/8	HJGF-MT12-RT6-	43.7(1.72)	15.0(0.59)	8.8(0.35)	22.0(0.87)
12	1/2	HJGF-MT12-RT8-	46.8(1.84)	19.8(0.78)	8.8(0.35)	27.0(1.06)
16	1/2	HJGF-MT16-RT8-	48.4(1.91)	19.8(0.78)	12.0(0.47)	27.0(1.06)
18	3/4	HJGF-MT18-RT12-	52.4(2.06)	20.6(0.81)	14.0(0.55)	32.0(1.26)
20	3/4	HJGF-MT20-RT12-	52.4(2.06)	20.6(0.81)	15.5(0.61)	32.0(1.26)
25	1	HJGF-MT25-RT16-	66.7(2.63)	25.4(1.00)	19.8(0.78)	41.0(1.61)



Metric Tube			ISO Parallel			
T-Tube O.D. (mm)	P-RP Size	Basic Ordering Number	Dimensions,mm(in.)			
			L	B	E	F
6	1/8	HJGF-MT6-RP2-	32.0(1.26)	10.2(0.40)	4.1(0.16)	14.0(0.55)
6	1/4	HJGF-MT6-RP4-	37.8(1.49)	15.2(0.60)	4.1(0.16)	19.0(0.75)
12	1/2	HJGF-MT12-RP8-	49.8(1.96)	18.8(0.74)	8.8(0.35)	27.0(1.06)



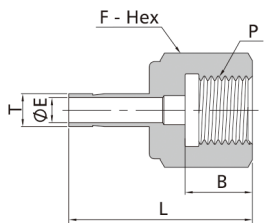
Female Adapters



Metric Tube

ISO Parallel Thread (RG)

T-Tube O.D. (mm)	P-RG Size	Basic Ordering Number	Dimensions,mm(in.)			
			L	B	E	F
3	1/8	HJGF-MT3-RG2-	28.6(1.13)	9.8(0.39)	1.9(0.07)	14.0(0.55)
3	1/4	HJGF-MT3-RG4-	33.5(1.32)	12.9(0.50)	1.9(0.07)	19.0(0.75)
4	1/8	HJGF-MT4-RG2-	29.4(1.16)	9.8(0.39)	2.4(0.09)	14.0(0.55)
6	1/8	HJGF-MT6-RG2-	29.1(1.15)	9.8(0.39)	4.1(0.16)	14.0(0.55)
6	1/4	HJGF-MT6-RG4-	35.3(1.39)	12.9(0.50)	4.1(0.16)	19.0(0.75)
6	3/8	HJGF-MT6-RG6-	38.4(1.51)	14.2(0.56)	4.1(0.16)	24.0(0.94)
6	1/2	HJGF-MT6-RG8-	42.9(1.69)	18.8(0.74)	4.1(0.16)	27.0(1.06)
8	1/4	HJGF-MT8-RG4-	33.0(1.30)	12.9(0.50)	5.5(0.22)	19.0(0.75)
8	3/8	HJGF-MT8-RG6-	38.9(1.53)	14.2(0.56)	5.6(0.22)	24.0(0.94)
8	1/2	HJGF-MT8-RG8-	43.7(1.72)	18.8(0.74)	5.6(0.22)	27.0(1.06)
10	1/4	HJGF-MT10-RG4-	34.5(1.36)	12.9(0.50)	5.5(0.22)	19.0(0.75)
10	3/8	HJGF-MT10-RG6-	36.1(1.42)	14.2(0.56)	6.5(0.26)	24.0(0.94)
10	1/2	HJGF-MT10-RG8-	41.1(1.62)	18.8(0.74)	7.1(0.28)	27.0(1.06)
12	1/4	HJGF-MT12-RG4-	40.1(1.58)	12.9(0.50)	5.5(0.22)	19.0(0.75)
12	3/8	HJGF-MT12-RG6-	44.7(1.76)	14.2(0.56)	6.5(0.26)	24.0(0.94)
12	1/2	HJGF-MT12-RG8-	48.8(1.92)	18.8(0.74)	7.0(0.28)	27.0(1.06)
16	1/2	HJGF-MT16-RG8-	49.0(1.93)	18.8(0.74)	7.0(0.28)	27.0(1.06)
18	1/2	HJGF-MT18-RG8-	49.3(1.94)	18.8(0.74)	7.0(0.28)	27.0(1.06)



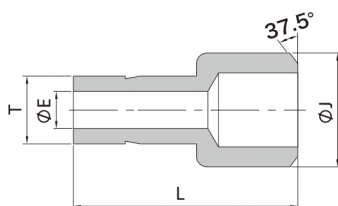
Adapt to Japanese gauge stud.

Metric Tube

ISO Parallel Thread (RJ)

T-Tube O.D. (mm)	P-RJ Size	Basic Ordering Number	Dimensions,mm(in.)			
			L	B	E	F
6	1/4	HJGF-MT6-RJ4-	35.3(1.39)	12.9(0.50)	4.1(0.16)	19.0(0.75)
6	3/8	HJGF-MT6-RJ6-	38.6(1.52)	15.8(0.62)	4.1(0.16)	24.0(0.94)
6	1/2	HJGF-MT6-RJ8-	42.9(1.69)	18.8(0.74)	4.1(0.16)	27.0(1.06)
8	1/4	HJGF-MT8-RJ4-	33.0(1.30)	12.9(0.50)	5.5(0.22)	19.0(0.75)
8	3/8	HJGF-MT8-RJ6-	39.4(1.55)	15.8(0.62)	5.6(0.22)	24.0(0.94)
8	1/2	HJGF-MT8-RJ8-	43.7(1.72)	18.8(0.74)	5.6(0.22)	27.0(1.06)
10	1/4	HJGF-MT10-RJ4-	34.5(1.36)	12.9(0.50)	5.5(0.22)	19.0(0.75)
10	3/8	HJGF-MT10-RJ6-	36.1(1.42)	15.8(0.62)	6.5(0.26)	24.0(0.94)
10	1/2	HJGF-MT10-RJ8-	41.1(1.62)	18.8(0.74)	7.1(0.28)	27.0(1.06)
12	1/4	HJGF-MT12-RJ4-	40.1(1.58)	12.9(0.50)	5.5(0.22)	19.0(0.75)
12	3/8	HJGF-MT12-RJ6-	44.7(1.76)	15.8(0.62)	6.5(0.26)	24.0(0.94)
12	1/2	HJGF-MT12-RJ8-	48.8(1.92)	18.8(0.74)	7.0(0.28)	27.0(1.06)

Weld Adapters



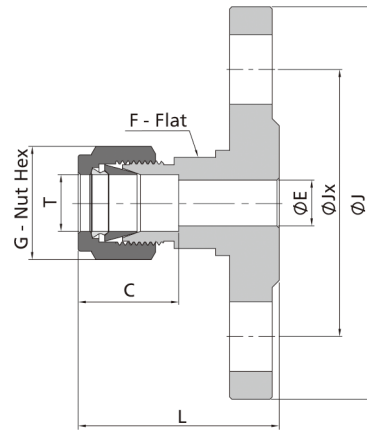
Fractional Tube

Pipe Weld

T-Tube O.D. (in.)	PipeWeld Size	Basic Ordering Number	Dimensions,in.(mm)		
			L	J	E
1/4	1/4	HJAW-FT4-PB4-	1.14(29.0)	0.54(13.7)	0.17(4.3)
3/8	1/2	HJAW-FT6-PB8-	1.46(37.1)	0.84(21.3)	0.27(6.9)
1/2	1/2	HJAW-FT8-PB8-	1.66(42.2)	0.84(21.3)	0.37(9.4)
1/2	3/4	HJAW-FT8-PB12-	1.68(42.7)	1.05(26.7)	0.37(9.4)
3/4	3/4	HJAW-FT12-PB12-	1.87(47.5)	1.05(26.7)	0.58(14.7)



Female Adapters



- ✓ Integrally forged body.
- ✓ ASME flanges comply with ASME B16.5.
- ✓ DIN flanges comply with DIN 2501/2526.
- ✓ GB flanges comply with GB/T 9123.1.
- ✓ EN flanges comply with EN 1092-1.
- ✓ JIS flanges comply with JIS B 2220.

ASME Flanges

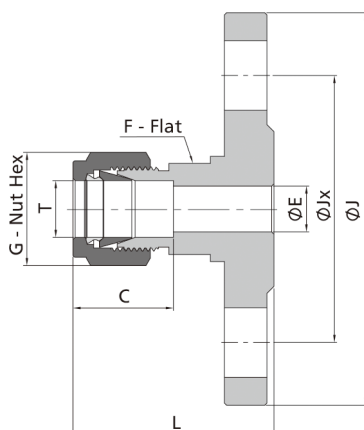
T-Tube O.D. (in.)	ASME Flange NPS	Class	Basic Ordering Number Raised Face Flange	Dimensions, in. (mm)						
				L	J	Jx	E	C	G	F
1/2	1/2	150	HJFAL-YZ4-F8-150-	1.61(40.9)	3.50(88.9)	2.38(60.5)	0.19(4.8)	0.60(15.2)	0.56(14.3)	0.81(20.6)
1/2	1/2	150	HJFAL-YZ6-F8-300-	1.79(45.5)	3.75(95.3)	2.62(66.5)	0.28(7.1)	0.66(16.8)	0.69(17.5)	0.81(20.6)
1/2	1/2	150	HJFAL-YZ8-F8-150-	1.78(45.2)	3.50(88.9)	2.38(60.5)	0.41(10.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)
3/8	1	300	HJFAL-YZ8-F16-150-	1.90(48.3)	4.25(108.0)	3.12(79.2)	0.41(10.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)
1/4	2	150	HJFAL-YZ8-F32-150-	2.09(53.1)	6.00(152.4)	4.76(121.0)	0.41(10.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)
3/4	1	150	HJFAL-YZ12-F16-150-	1.98(50.3)	4.25(108.0)	3.12(79.2)	0.62(15.7)	0.96(24.4)	1.13(28.6)	1.25(31.8)
1	1	150	HJFAL-YZ16-F16-150-	2.38(60.5)	4.25(108.0)	3.12(79.2)	0.88(22.4)	1.23(31.2)	1.50(38.1)	1.37(34.9)

DIN/GB Flanges, Pressure Class PN 40

T-Tube O.D. (mm)	DIN Flange Size DN	Basic Ordering Number Raised Face Flange	Dimensions, mm (in.)						
			L	J	Jx	E	C	G	F
6	25	HJFAL-GZ6-F25-40B1-	47.5(1.87)	115.0(4.53)	85.0(3.35)	4.8(0.19)	15.3(0.60)	14.0(0.55)	20.0(0.79)
12	15	HJFAL-GZ12-F15-40B1-	48.5(1.91)	95.0(3.74)	65.0(2.56)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
12	25	HJFAL-GZ12-F25-40B1-	50.5(1.99)	115.0(4.53)	85.0(3.35)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
12	50	HJFAL-GZ12-F50-40B1-	55.3(2.18)	165.0(6.50)	125.0(4.92)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
18	15	HJFAL-GZ18-F15-40B1-	51.8(2.04)	95.0(3.74)	65.0(2.56)	15.1(0.59)	24.4(0.96)	30.0(1.18)	32.0(1.26)
18	25	HJFAL-GZ18-F25-40B1-	53.8(2.12)	115.0(4.53)	85.0(3.35)	15.1(0.59)	24.4(0.96)	30.0(1.18)	32.0(1.26)
25	25	HJFAL-GZ25-F25-40B1-	64.0(2.52)	115.0(4.53)	85.0(3.35)	21.8(0.86)	31.3(1.23)	38.0(1.50)	35.0(1.38)



Female Adapters



- ✓ Integrally forged body.
- ✓ ASME flanges comply with ASME B16.5.
- ✓ DIN flanges comply with DIN 2501/2526.
- ✓ GB flanges comply with GB/T 9123.1.
- ✓ EN flanges comply with EN 1092-1.
- ✓ JIS flanges comply with JIS B 2220.

EN Flanges, Pressure Class PN 40

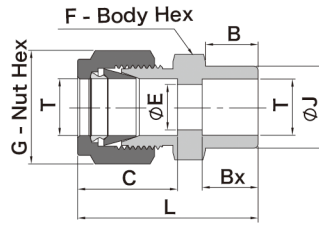
T-Tube O.D. (mm)	EN Flange Size DN	Basic Ordering Number Raised Face Flange	Dimensions, in.(mm)						
			L	J	Jx	E	C	G	F
6	25	HJFAL-GZ6-F25E-40B1-	47.5(1.87)	115.0(4.53)	85.0(3.35)	4.8(0.19)	15.3(0.60)	14.0(0.55)	20.0(0.79)
12	15	HJFAL-GZ12-F15E-40B1-	48.5(1.91)	95.0(3.74)	65.0(2.56)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
12	25	HJFAL-GZ12-F25E-40B1-	50.5(1.99)	115.0(4.53)	85.0(3.35)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
12	50	HJFAL-GZ12-F50E-40B1-	55.3(2.18)	165.0(6.50)	125.0(4.92)	9.5(0.37)	22.8(0.90)	22.0(0.87)	20.0(0.79)
18	15	HJFAL-GZ18-F15E-40B1-	51.8(2.04)	95.0(3.74)	65.0(2.56)	15.1(0.59)	24.4(0.96)	30.0(1.18)	32.0(1.26)
18	25	HJFAL-GZ18-F25E-40B1-	53.8(2.12)	115.0(4.53)	85.0(3.35)	15.1(0.59)	24.4(0.96)	30.0(1.18)	32.0(1.26)
25	25	HJFAL-GZ25-F25E-40B1-	64.0(2.52)	115.0(4.53)	85.0(3.35)	21.8(0.86)	31.3(1.23)	38.0(1.50)	35.0(1.38)

JIS Flanges, Pressure Class 10K

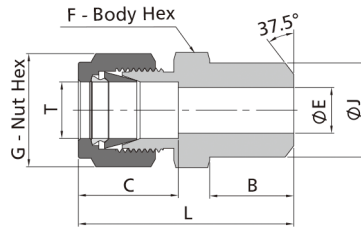
T-Tube O.D.	JIS Flange Size DN	Basic Ordering Number Raised Face Flange	Dimensions, in.(mm)						
			L	J	Jx	E	C	G	F
1/4"	15	-FA-FL4-F15-10KRF-	1.66(42.2)	3.74(95.0)	2.76(70.1)	0.19(4.8)	0.60(15.2)	0.56(14.3)	0.81(20.6)
3/8"	15	-FA-FL6-F15-10KRF-	1.72(43.7)	3.74(95.0)	2.76(70.1)	0.28(7.1)	0.66(16.8)	0.69(17.5)	0.81(20.6)
1/2"	15	-FA-FL8-F15-10KRF-	1.83(46.5)	3.74(95.0)	2.76(70.1)	0.41(10.4)	0.90(22.9)	0.87(22.2)	0.81(20.6)
3/4"	15	-FA-FL12-F15-10KRF-	1.91(48.5)	3.74(95.0)	2.76(70.1)	0.62(15.7)	0.96(24.4)	1.13(28.6)	1.25(31.8)
1"	25	-FA-FL16-F25-10KRF-	2.40(61.0)	4.92(125.0)	3.54(89.9)	0.88(22.4)	1.23(31.2)	1.50(38.1)	1.37(34.9)
12mm	15	HJFAL-GZ12-F15-10KRF-	1.83(46.5)	3.74(95.0)	2.76(70.0)	0.37(9.5)	0.90(22.8)	0.87(22.0)	0.79(20.0)
18mm	15	HJFAL-GZ18-F15-10KRF-	1.91(48.5)	3.74(95.0)	2.76(70.0)	0.59(15.1)	0.96(24.4)	1.18(30.0)	1.26(32.0)
25mm	25	HJFAL-GZ25-F25-10KRF-	2.40(61.0)	4.92(125.0)	3.54(90.0)	0.86(21.8)	1.23(31.3)	1.50(38.0)	1.38(35.0)



Weld Connectors



Fractional Tube						Tube Socket Weld			
T-Tube O.D. (mm)	Basic Ordering Number Raised Face Flange	Dimensions,in.(mm)							
		L	C	G	F	B	E	Bx	J
1/8	HJKH-YZ2-TS2-	1.14(29.0)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.34(8.6)	0.09(2.3)	0.10(2.5)	0.31(7.9)
3/16	HJKH-YZ3-TS3-	1.17(29.7)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.13(3.3)	0.19(4.8)	0.42(10.7)
1/4	HJKH-YZ4-TS4-	1.32(33.5)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.41(10.4)	0.19(4.8)	0.28(7.1)	0.48(12.2)
3/8	HJKH-YZ6-TS6-	1.48(37.6)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.47(11.9)	0.28(7.1)	0.31(7.9)	0.62(15.7)
1/2	HJKH-YZ8-TS8-	1.62(41.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.47(11.9)	0.41(10.4)	0.50(12.7)	0.75(19.1)
5/8	HJKH-YZ10-TS10-	1.65(41.9)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.47(11.9)	0.50(12.7)	0.41(10.4)	0.92(23.4)
3/4	HJKH-YZ12-TS12-	1.71(43.4)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.47(11.9)	0.62(15.7)	0.44(11.1)	1.05(26.7)
1	HJKH-YZ16-TS16-	2.07(52.6)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.56(14.2)	0.88(22.4)	0.62(15.7)	1.36(34.5)

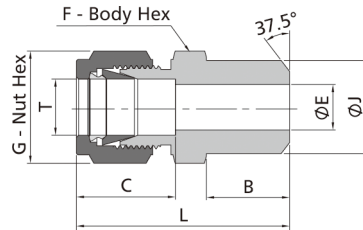


The E dimension refers to the smallest nominal orifice. It might be larger at welding end.

Fractional Tube			Pipe Butt Weld						
T-Tube O.D. (in.)	Pipe Weld Size	Basic Ordering Number	Dimensions, in.(mm)						
			L	C	G	F	E	B	J
1/8	1/8	HJKH-YZ2-PB2-	1.20(30.5)	1.23(31.2)	1.29(32.8)	1.49(37.8)	1.34(34.0)	1.52(38.6)	1.57(39.9)
3/16	1/8	HJKH-YZ3-PB2-	1.57(39.9)	1.82(46.2)	1.88(47.8)	1.71(43.4)	1.93(49.0)	1.99(50.5)	1.93(49.0)
1/4	1/8	HJKH-YZ4-PB2-	1.99(50.5)	1.99(50.5)	2.45(62.2)	3.04(77.2)	3.50(88.9)	0.50(12.7)	0.54(13.7)
1/4	1/4	HJKH-YZ4-PB4-	0.60(15.2)	0.60(15.2)	0.64(16.3)	0.64(16.3)	0.66(16.8)	0.66(16.8)	0.66(16.8)
5/16	1/8	HJKH-YZ5-PB2-	0.66(16.8)	0.90(22.9)	0.90(22.9)	0.90(22.9)	0.96(24.4)	0.96(24.4)	0.96(24.4)
5/16	1/4	HJKH-YZ5-PB4-	1.23(31.2)	1.62(41.1)	1.97(50.0)	0.44(11.1)	0.50(12.7)	0.56(14.3)	0.56(14.3)
3/8	1/4	HJKH-YZ6-PB4-	0.63(15.9)	0.63(15.9)	0.69(17.5)	0.69(17.5)	0.69(17.5)	0.69(17.5)	0.87(22.2)
3/8	3/8	HJKH-YZ6-PB6-	0.87(22.2)	0.87(22.2)	1.00(25.4)	1.13(28.6)	1.13(28.6)	1.50(38.1)	1.87(47.6)
3/8	1/2	HJKH-YZ6-PB8-	2.25(57.2)	0.44(11.1)	0.44(11.1)	0.50(12.7)	0.56(14.3)	0.56(14.3)	0.56(14.3)
3/8	3/4	HJKH-YZ6-PB12-	0.63(15.9)	0.69(17.5)	0.87(22.2)	1.06(27.0)	0.81(20.6)	0.87(22.2)	1.06(27.0)
1/2	3/8	HJKH-YZ8-PB6-	0.94(23.8)	1.06(27.0)	1.06(27.0)	1.37(34.9)	1.75(44.5)	2.13(54.0)	0.09(2.3)
1/2	1/2	HJKH-YZ8-PB8-	0.12(3.0)	0.19(4.8)	0.19(4.8)	0.21(5.3)	0.25(6.4)	0.28(7.1)	0.28(7.1)
1/2	3/4	HJKH-YZ8-PB12-	0.28(7.1)	0.28(7.1)	0.41(10.4)	0.41(10.4)	0.41(10.4)	0.50(12.7)	0.55(14.0)
5/8	1/2	HJKH-YZ10-PB8-	0.62(15.7)	0.88(22.4)	1.09(27.7)	1.34(34.0)	0.38(9.7)	0.38(9.7)	0.38(9.7)
3/4	1/2	HJKH-YZ12-PB8-	0.56(14.2)	0.38(9.7)	0.56(14.2)	0.56(14.2)	0.56(14.2)	0.75(19.1)	0.75(19.1)
3/4	3/4	HJKH-YZ12-PB12-	0.56(14.2)	0.75(19.1)	0.75(19.1)	0.75(19.1)	0.75(19.1)	0.75(19.1)	0.94(23.9)
1	1	HJKH-YZ16-PB16-	0.94(23.9)	1.03(26.2)	0.41(10.3)	0.41(10.3)	0.41(10.3)	0.54(13.7)	0.41(10.3)
1 1/4	1 1/4	HJKH-YZ20-PB20-	0.54(13.7)	0.54(13.7)	0.67(17.1)	0.84(21.3)	1.05(26.7)	0.67(17.1)	0.84(21.3)
1 1/2	1 1/2	HJKH-YZ24-PB24-	1.05(26.7)	0.84(21.3)	0.84(21.3)	1.05(26.7)	1.31(33.4)	1.66(42.2)	1.90(48.3)

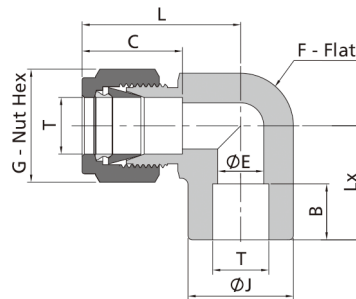


Weld Connectors



The E dimension refers to the smallest nominal orifice. It might be larger at welding end.

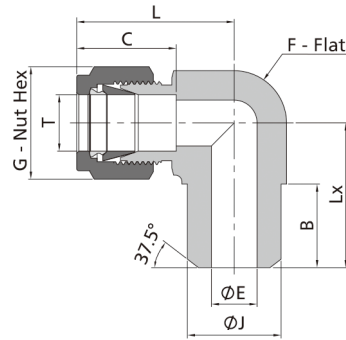
Metric Tube			Pipe Butt Weld						
T-Tube O.D. (mm)	EN Flange Size DN	Basic Ordering Number Raised Face Flange	Dimensions, in.(mm)						
			L	J	Jx	E	C	G	F
3	1/8	HJKH-GZ3-PB2-	30.5(1.20)	12.9(0.51)	12.0(0.47)	12.0(0.47)	2.4(0.09)	9.7(0.38)	10.3(0.41)
4	1/8	HJKH-GZ4-PB2-	31.5(1.24)	13.7(0.54)	12.0(0.47)	12.0(0.47)	2.4(0.09)	9.7(0.38)	10.3(0.41)
6	1/8	HJKH-GZ6-PB2-	32.8(1.29)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)	9.7(0.38)	10.3(0.41)
6	1/4	HJKH-GZ6-PB4-	37.9(1.49)	15.3(0.60)	14.0(0.55)	14.0(0.55)	4.8(0.19)	14.2(0.56)	13.7(0.54)
8	1/8	HJKH-GZ8-PB2-	34.2(1.35)	16.2(0.64)	16.0(0.63)	15.0(0.59)	5.4(0.21)	9.7(0.38)	10.3(0.41)
8	1/4	HJKH-GZ8-PB4-	38.7(1.52)	16.2(0.64)	16.0(0.63)	15.0(0.59)	6.4(0.25)	14.2(0.56)	13.7(0.54)
8	1/2	HJKH-GZ8-PB8-	45.6(1.80)	16.2(0.64)	16.0(0.63)	22.0(0.87)	6.4(0.25)	19.1(0.75)	21.3(0.84)
10	1/4	HJKH-GZ10-PB4-	40.9(1.60)	17.2(0.70)	19.0(0.75)	18.0(0.71)	7.5(0.30)	14.2(0.56)	13.7(0.54)
10	3/8	HJKH-GZ10-PB6-	40.9(1.60)	17.2(0.70)	19.0(0.75)	18.0(0.71)	7.9(0.31)	14.2(0.56)	17.1(0.67)
10	1/2	HJKH-GZ10-PB8-	46.5(1.80)	17.2(0.70)	19.0(0.75)	22.0(0.87)	7.9(0.31)	19.1(0.75)	21.3(0.84)
12	1/4	HJKH-GZ12-PB4-	43.4(1.70)	22.8(0.90)	22.0(0.87)	22.0(0.87)	7.5(0.30)	14.2(0.56)	13.7(0.54)
12	3/8	HJKH-GZ12-PB6-	43.4(1.70)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)	14.2(0.56)	17.1(0.67)
12	1/2	HJKH-GZ12-PB8-	49.0(1.90)	22.8(0.90)	22.0(0.87)	22.0(0.87)	9.5(0.37)	19.1(0.75)	21.3(0.84)
14	3/8	HJKH-GZ14-PB6-	44.1(1.70)	24.4(0.96)	25.0(0.98)	24.0(0.94)	10.7(0.42)	14.2(0.56)	17.1(0.67)
15	1/2	HJKH-GZ15-PB8-	49.0(1.90)	24.4(0.96)	25.0(0.98)	24.0(0.94)	11.9(0.47)	19.1(0.75)	21.3(0.84)
16	1/2	HJKH-GZ16-PB8-	49.0(1.90)	24.4(0.96)	25.0(0.98)	24.0(0.94)	12.7(0.50)	19.1(0.75)	21.3(0.84)
18	1/2	HJKH-GZ18-PB8-	50.5(2.00)	24.4(0.96)	30.0(1.18)	27.0(1.06)	13.9(0.55)	19.1(0.75)	21.3(0.84)
30	1 1/4	HJKH-GZ30-PB20-	77.2(3.00)	39.6(1.60)	50.0(1.97)	46.0(1.81)	26.2(1.03)	23.9(0.94)	42.2(1.66)
32	1 1/4	HJKH-GZ32-PB20-	79.6(3.10)	42.0(1.70)	50.0(1.97)	46.0(1.81)	28.6(1.13)	23.9(0.94)	42.2(1.66)
38	1 1/2	HJKH-GZ38-PB24-	91.6(3.60)	49.4(1.90)	60.0(2.36)	55.0(2.17)	33.7(1.33)	26.2(1.03)	48.3(1.9)



Fractional Tube								Tube Socket Weld	
T-Tube O.D. (mm)	EN Flange Size DN	Dimensions,in.(mm)							
		L	C	G	F	B	E	Lx	J
1/8	HJKHL-YZ2-TS2-	0.66(16.8)	0.50(12.7)	0.44(11.1)	0.37(9.5)	0.10(2.5)	0.09(2.3)	0.63(16.0)	0.38(9.7)
3/16	HJKHL-YZ3-TS3-	0.72(18.3)	0.54(13.7)	0.50(12.7)	0.44(11.1)	0.19(4.8)	0.13(3.3)	0.69(17.5)	0.44(11.2)
1/4	HJKHL-YZ4-TS4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.28(7.1)	0.19(4.8)	0.77(19.6)	0.50(12.7)
3/8	HJKHL-YZ6-TS6-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.31(7.9)	0.28(7.1)	0.91(23.1)	0.62(15.7)
1/2	HJKHL-YZ8-TS8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.38(9.7)	0.41(10.4)	1.02(25.9)	0.81(20.6)
5/8	HJKHL-YZ10-TS10-	1.16(29.5)	0.96(24.4)	1.00(25.4)	1.06(27.0)	0.41(10.4)	0.50(12.7)	1.16(29.5)	0.94(23.9)
3/4	HJKHL-YZ12-TS12-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.44(11.2)	0.62(15.7)	1.17(29.7)	1.06(26.9)
1	HJKHL-YZ16-TS16-	1.93(49.0)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.62(15.7)	0.88(22.4)	1.45(36.8)	1.38(35.1)



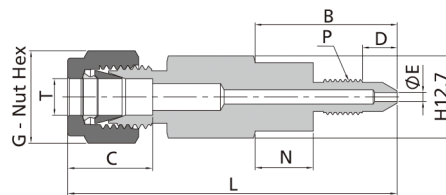
Weld Elbows



The E dimension refers to the smallest nominal orifice. It might be larger at welding end.

Fractional Tube			Pipe Butt Weld							
T-Tube O.D. (in.)	Pipe Weld Size	Basic Ordering Number	Dimensions, in.(mm)							
			L	C	G	F	B	E	Lx	J
1/8	1/8	HJKHL-YZ2-PB2-	0.92(23.4)	0.50(12.7)	0.44(11.1)	0.44(11.1)	0.38(9.7)	0.09(2.3)	0.72(18.3)	0.41(10.3)
3/16	1/8	HJKHL-YZ3-PB2-	1.01(25.7)	0.54(13.7)	0.50(12.7)	0.50(12.7)	0.38(9.7)	0.12(3.0)	0.74(18.8)	0.41(10.3)
1/4	1/8	HJKHL-YZ4-PB2-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.38(9.7)	0.19(4.8)	0.74(18.8)	0.41(10.3)
1/4	1/4	HJKHL-YZ4-PB4-	1.06(26.9)	0.60(15.2)	0.56(14.3)	0.50(12.7)	0.56(14.2)	0.19(4.8)	0.92(23.4)	0.54(13.7)
3/8	1/4	HJKHL-YZ6-PB4-	1.20(30.5)	0.66(16.8)	0.69(17.5)	0.63(15.9)	0.56(14.2)	0.28(7.1)	1.00(25.4)	0.54(13.7)
1/2	3/8	HJKHL-YZ8-PB6-	1.37(34.8)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.56(14.2)	0.41(10.4)	1.13(28.8)	0.67(17.1)
1/2	1/2	HJKHL-YZ8-PB8-	1.42(36.1)	0.90(22.9)	0.87(22.2)	0.81(20.6)	0.75(19.1)	0.41(10.4)	1.30(33.0)	0.84(21.3)
5/8	1/2	HJKHL-YZ10-PB8-	1.43(36.3)	0.96(24.4)	1.00(25.4)	0.94(23.8)	0.75(19.1)	0.50(12.7)	1.38(35.1)	0.84(21.3)
3/4	3/4	HJKHL-YZ12-PB12-	1.57(39.9)	0.96(24.4)	1.13(28.6)	1.06(27.0)	0.75(19.1)	0.62(15.7)	1.45(36.8)	1.05(26.7)
1	3/4	HJKHL-YZ16-PB12-	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.75(19.1)	0.74(18.8)	1.65(41.9)	1.05(26.7)
1	1	HJKHL-YZ16-PB16-	1.94(49.3)	1.23(31.2)	1.50(38.1)	1.37(34.9)	0.94(23.9)	0.88(22.4)	1.84(46.7)	1.31(33.4)

Calibration Fittings



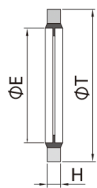
- The calibration fittings can be connected directly with the bleed port of the transmitter so that the calibration process can be simplified.
- Two types are available to fit the bleed ports of the transmitters.

Fractional Tube			Pipe Butt Weld						
T-Tube O.D. (in.)	P-SAE/MS Thread Size	Basic Ordering Number	Dimensions, in.(mm)						
			L	B	C	D	E	G	N
1/4	1/4-28	HJKC-YZ4-1428-	1.69(42.9)	0.78(19.8)	0.60(15.2)	0.43(10.9)	0.06(1.5)	0.56(14.3)	—
1/4	5/16-24	HJKC-YZ4-51624-	2.32(58.9)	1.41(35.8)	0.60(15.2)	0.40(10.2)	0.06(1.5)	0.56(14.3)	0.41(10.4)



RS, RSD Gaskets

RS



RSD



The RS and RSD gaskets provide a seal with male ISO parallel threads. The gasket consists of a fluorocarbon FKM or Buna inner ring bonded to a carbon steel or stainless steel outer ring.

ISO Parallel Thread Size	Basic Ordering Number	Dimensions, in. (mm)		
		T	E	H
1/8	HJRS-2-	0.63(16.0)	0.41(10.4)	0.08(2.0)
1/4	HJRS-4-	0.81(20.6)	0.54(13.7)	
3/8	HJRS-6-	0.94(23.9)	0.68(17.3)	
1/2	HJRS-8-	1.13(28.7)	0.85(21.6)	0.10(2.5)
3/4	HJRS-12-	1.38(35.1)	1.06(26.9)	
1	HJRS-16-	1.69(42.9)	1.33(33.8)	
1/8	HJRSD-2-	0.58(14.7)	0.47(12)	0.05(1.25)
1/4	HJRSD-4-	0.74(18.7)	0.62(15.75)	
3/8	HJRSD-6-	0.89(22.7)	0.76(19.25)	
1/2	HJRSD-8-	1.05(26.7)	0.93(23.55)	0.08(2)
3/4	HJRSD-12-	1.28(32.5)	1.15(29.2)	
1	HJRSD-16-	1.56(39.5)	1.42(36.1)	

RS, RSD Gaskets

Metric Thread Size	Basic Ordering Number	Dimensions, mm(in.)		
		T	E	H
M8 x 1	HJRS-M8-	13.0(0.51)	8.7(0.34)	1.0(0.04)
M10 x 1	HJRS-M10-	16.0(0.63)	10.7(0.42)	
M12 x 1.5	HJRS-M12-	18.0(0.63)	12.7(0.42)	
M14 x 1.5	HJRS-M14-	22.0(0.71)	14.7(0.50)	1.5(0.06)
M16 x 1.5	HJRS-M16-	24.0(0.87)	16.7(0.66)	
M18 x 1.5	HJRS-M18-	26.0(0.94)	18.7(0.74)	
M20 x 1.5	HJRS-M20-	28.0(1.02)	20.7(0.81)	2.0(0.08)
M22 x 1.5	HJRS-M22-	30.0(1.10)	22.7(0.89)	
M24 x 1.5	HJRS-M24-	32.0(1.20)	24.7(1.00)	
M27 x 2	HJRS-M27-	36.0(1.30)	27.2(1.10)	2.5(0.10)
M30 x 2	HJRS-M30-	39.0(1.40)	30.7(1.20)	
M33 x 2	HJRS-M33-	42.0(1.50)	33.7(1.30)	
M36 x 2	HJRS-M36-	48.0(1.70)	37.0(1.50)	3.0(0.12)
M39 x 2	HJRS-M39-	51.0(1.90)	40.0(1.60)	
M42 x 2	HJRS-M42-	53.0(2.00)	42.7(1.70)	
M45 x 2	HJRS-M45-	57.0(2.10)	46.0(1.80)	3.0(0.12)
M48 x 2	HJRS-M48-	59.0(2.20)	48.7(1.90)	

Ordering Information

Add the material designator as a prefix to the basic ordering number to complete the ordering number.

Ring		Designator
Outer	Inner	
Stainless Steel	FKM	SSF
Carbon Steel	FKM	CSF
	Buna-N	CSB

Example:

1. A RS gasket with a Buna inner ring bonded to carbon steel outer ring provides a seal with 1/8 male ISO parallel thread. The complete ordering number is RS-2-CSB.
2. A RSD gasket with an FKM inner ring bonded to stainless steel outer ring provides a seal with 1/4 male ISO parallel thread. The complete ordering number is RSD-4-SSF. The RS and RSD gaskets can be used with RS fitting only.

RP Gaskets



The RP gasket provides a seal with male ISO parallel threads. The RP gasket may be used with a RS fitting.

ISO Parallel Thread Size	Basic Ordering Number	Dimensions, in. (mm)		
		T	E	H
1/8	HJRP-2-	0.59(15.0)	0.39(9.9)	0.04(1.0)
1/4	HJRP-4-	0.75(19.1)	0.52(13.2)	
3/8	HJRP-6-	0.91(23.1)	0.66(16.8)	
1/2	HJRP-8-	1.06(26.9)	0.83(21.1)	0.06(1.5)
3/4	HJRP-12-	1.30(33.0)	1.05(26.7)	
1	HJRP-16-	1.58(40.1)	1.31(33.2)	

RP-M Gaskets

Metric Thread Size	Basic Ordering Number	Dimensions, mm(in.)		
		T	E	H
M8 x 1	HJRP-M8-	13.2(0.52)	8.2(0.32)	1.5(0.06)
M10 x 1	HJRP-M10-	15.2(0.60)	10.2(0.40)	
M12 x 1.5	HJRP-M12-	18.2(0.60)	12.2(0.40)	
M14 x 1.5	HJRP-M14-	20.2(0.72)	14.2(0.48)	2.0(0.08)
M16 x 1.5	HJRP-M16-	22.2(0.80)	16.2(0.64)	
M18 x 1.5	HJRP-M18-	24.2(0.87)	18.2(0.72)	
M20 x 1.5	HJRP-M20-	26.2(0.95)	20.2(0.80)	2.5(0.10)
M22 x 1.5	HJRP-M22-	28.2(1.03)	22.2(0.87)	
M24 x 1.5	HJRP-M24-	30.2(1.10)	24.2(1.00)	
M27 x 2	HJRP-M27-	33.3(1.20)	27.2(1.10)	3.0(0.12)
M30 x 2	HJRP-M30-	37.3(1.30)	30.2(1.20)	
M33 x 2	HJRP-M33-	40.3(1.50)	33.2(1.30)	
M36 x 2	HJRP-M36-	43.3(1.60)	36.2(1.40)	3.0(0.12)
M39 x 2	HJRP-M39-	47.3(1.70)	39.2(1.50)	
M42 x 2	HJRP-M42-	50.3(1.90)	42.2(1.70)	
M45 x 2	HJRP-M45-	53.3(2.00)	45.2(1.80)	3.0(0.12)
M48 x 2	HJRP-M48-	56.3(2.10)	48.2(1.90)	



RG Gaskets

The RG gasket provides a seal on pressure gauges equipped with male ISO parallel threads.

ISO Parallel Thread Size	Basic Ordering Number	Dimensions, in. (mm)		
		T	E	H
1/4	HJRG-4-	0.42(10.7)	0.30(7.6)	0.07(1.8)
3/8	HJRG-6-	0.56(14.2)	0.34(8.6)	0.09(2.3)
1/2	HJRG-8-	0.70(17.8)	0.36(9.1)	0.10(2.5)

RG-M Gaskets

ISO Parallel Thread Size	Basic Ordering Number	Dimensions, in. (mm)		
		T	E	H
M10 x 1	HJRG-M10-	8.3(0.33)	3.3(0.13)	1.5(0.06)
M12 x 1.5	HJRG-M12-	9.7(0.38)	5.4(0.21)	
M14 x 1.5	HJRG-M14-	11.7(0.38)	6.4(0.21)	
M16 x 1.5	HJRG-M16-	13.7(0.46)	8.4(0.25)	
M18 x 1.5	HJRG-M18-	15.7(0.54)	10.0(0.39)	2.0(0.08)
M20 x 1.5	HJRG-M20-	17.6(0.62)	11.4(0.45)	
M22 x 1.5	HJRG-M22-	19.6(0.69)	13.4(0.53)	
M24 x 1.5	HJRG-M24-	21.6(0.77)	14.8(0.58)	
M27 x 2	HJRG-M27-	24.0(0.90)	13.9(0.50)	
M30 x 2	HJRG-M30-	27.0(0.90)	19.5(0.80)	
M33 x 2	HJRG-M33-	30.0(1.10)	21.5(0.80)	
M36 x 2	HJRG-M36-	33.0(1.20)	23.5(0.90)	2.5(0.10)
M39 x 2	HJRG-M39-	36.0(1.30)	24.5(1.00)	
M42 x 2	HJRG-M42-	38.9(1.40)	29.5(1.20)	
M45 x 2	HJRG-M45-	41.9(1.50)	30.0(1.20)	
M48 x 2	HJRG-M48-	44.9(1.60)	32.5(1.30)	

RJ Gaskets

The RJ gasket provides a seal on Japanese pressure gauges equipped with male ISO parallel threads.

ISO Parallel Thread Size	Basic Ordering Number	Dimensions, in. (mm)		
		T	E	H
1/4	HJRJ-4-	0.43(10.9)	0.22(5.6)	0.04(1.0)
3/8	HJRJ-6-	0.55(13.9)	0.22(5.6)	0.04(1.0)
1/2	HJRJ-8-	0.70(17.8)	0.22(5.6)	0.04(1.0)

Ordering Information

The complete ordering number shall be assembled by adding code for material.

Material	Designator
Copper	CU
316L SS	SL
Vulcanized Fibre	QB
PTFE	T

Vulcanized Fibre and PTFE cannot be used for RP gasket.

Example:

RP-2-CU, RG-6-SL, RG-M20-QB.

O-rings



O-rings for Fittings with SAE/MS Straight Threads

SAE/MS Thread Size	Ordering Number	Material
5/16-24	HJVI9-902-	90 Durometer Fluorocarbon FKM
3/8-24	HJVI9-903-	
7/16-20	HJVI9-904-	
1/2-20	HJVI9-905-	
9/16-18	HJVI9-906-	
3/4-16	HJVI9-908-	
7/8-14	HJVI9-910-	
1 1/16-12	HJVI9-912-	
1 3/16-12	HJVI9-914-	
1 5/16-12	HJVI9-916-	
1 5/8-12	HJVI9-920-	
1 7/8-12	HJVI9-924-	

O-rings for Fittings with O-Seal Pipe Threads

SAE/MS Thread Size	Ordering Number	Material
1/8	HJBN7-013-	70 Durometer NBR
1/4	HJBN7-113-	
3/8	HJBN7-116-	
1/2	HJBN7-118-	



O-rings for Positionable Fittings with ISO Parallel Threads

ISO Parallel Thread Size	Ordering Number	Material
1/8	HJVI9-502-	90 Durometer Fluorocarbon FKM
1/4	HJVI9-111-	
3/8	HJVI9-113-	
1/2	HJVI9-508-	
3/4	HJVI9-119-	
1	HJVI9-217-	

O-rings for Fittings with O-Seal Straight Threads

SAE/MS Thread Size	Ordering Number	Material
5/16-24	HJBN7-011-	70 Durometer NBR
3/8-24	HJBN7-012-	
7/16-20	HJBN7-013-	
1/2-20	HJBN7-112-	
9/16-18	HJBN7-113-	
3/4-16	HJBN7-116-	
1 1/16-12	HJBN7-121-	
1 5/16-12	HJBN7-125-	

O-rings for Fittings with Metric Threads

SAE/MS Thread Size	Ordering Number	Material
M14 x 1.5	HJBN9-M14-	90 Durometer NBR
M20 x 1.5	HJBN9-M20-	



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