

DK-LOK

Fittings & Valves

DK-Lok Tube Fittings

No. 01-09

November 2017



Tube to Tube Union

Union		11
DU		
Union Elbow		12
DL		
Union Tee		13
DT		
Union Cross		14
DX		
Bulkhead Union		15
DUB		
Bulkhead Retainer		16
DBR		
Bulkhead Elbow Union		16
DBL		
Reducing Union		17
DUR		
Reducing Union Elbow		18
DLR		
Reducing Union Cross		18
DXR		
Reducing Union Tee		19 20
DTR		

Tube to Male Pipe

Male Connector		21 22
DMC-N		
Male Connector		23 24
DMC-R		
Thermocouple Connector		23
DMCT		

Male Connector for Bonded Gasket Seal

DMC-G  25

Male Connector for Metal Gasket

DMC-GB, -G  25
26

Bulkhead Male Connector

DMCB-N  28
29

45° Male Elbow

DLBM  29

Male Elbow

DLM-N  30
31

Male Elbow

DLM-R  32
33

Male Run Tee

DTRM-N  34

Male Run Tee

DTRM-R  35

Male Branch Tee

DTBM-N, -R  36

Male Branch Tee

DTBM-N  37

Male Branch Tee

DTBM-R  38

Tube to Female Pipe

 Female Connector  39
40

DCF-N

 Female Connector  41

DCF-R

Gauge Connector

DCF-GG  42

Bulkhead Female Connector

DCBF-N  43

Female Elbow

DLF-N  44

Female Run Tee

DTRF-N  45

Female Branch Tee

DTBF-N  46

Tube Stub Connector

Reducer

DR  47
48

Bulkhead Adapter

DAB  49

Male Adapter

DAM-N  49
50

Male Adapter

DAM-R  51

Male Adapter

DAM-G  52

Male Adapter

DAM-U  53

Male Adapter

DAM-UO  53

Female Adapter

DAF-N  54

Female Adapter

DAF-R  55

Female Adapter

DAF-GR  55

Female Gauge Adapter

DAF-GG  56

Elbow Adapter

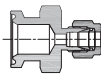
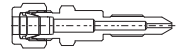
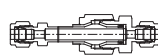
DLA  57

Run Tee Adapter

DTRA  57

Branch Tee Adapter

DTBA  57

Port Connector DCP/DCPZ		58	Positionable SAE Male Run Tee DTRS-UP		66	Sanitary Fitting DSFC		75
Reducing Port Connector DCRP		59	Positionable SAE Male Branch Tee DTBS-UP		66	Chromatography Fitting DCHU		75
DK-Lok Flanges			Positionable Male Elbow ISO Parallel thread DLM-GP		67	Spare Parts		
DK-Lok Flanges DF		59 60	Tube To Weld End			Gasket DGV/DGB DGC/DGG		27
Lab Joint Flange Connector DLJ		60	Male Pipe Weld Connector DCW		68	Nut DN		76
Tube to AN Tube			Male Pipe Weld Elbow DLW		69	Ferrule Set DFS		76
AN Union DUA		61	Tube Socket Weld Connector DCSW		69	Nut-Ferrule Set DFSN		76
AN Bulkhead Union DUBA		61	Tube Socket Weld Elbow DLSW		70	Front Ferrule DFF		77
Male AN adapter DMAA		62	Welding Bulkhead Union DBUW		70	Back Ferrule DFB		77
AN Adapter DAA		62	Plug, Cap, Insert			Tools		
Tube to Non-Positionable O-Seal			Plug DP		70	Preswaging Tool DPS		77
O-Seal Straight Thread Connector DMC-UO		63	Cap DC		71	Gap Gauge DIG		78
O-Seal Pipe Thread Connector DMC-NO		63	Tube Insert DI		72	Tube Depth Marking Tool DTM		78
Non-Positionable SAE Male Connector DMCS-U		64	Additional Products			Pre-Swaging Unit DHS-2A		78
Tube to Positionable Straight Thread			Fuse Plug DFA		72	Pre-Swaging Unit DES-1A		78
Positionable SAE Male Elbow DLS-UP		65	Vent Protector DMD		73	Hand Tube Bender DHTB		79
Positionable 45° SAE Male Elbow DLBS-UP		66	Calibration Fittings DPCM		73	Tube Cutter DTC		79
			Dielectric Fittings DEU		74	Tube Deburring Tool DTDT		79

The Premium Quality DK-Lok Tube Fittings

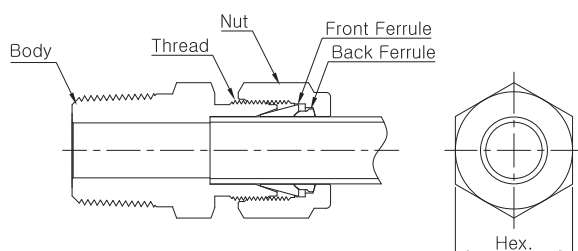
DK-Lok Tube Fitting is designed using industrial codes and specifications with additional Cutting-Edge Engineering on swaging action and sealing integrity. DK-Lok provides excellent leak-free sealing on high pressure gas, vacuum, impulse, thermal shock, heavy vibration, and many other stringent applications.

DK-Lok brings you truly excellent quality, outstanding customer service, and availability.
 Enjoy DK-Lok tube fitting working on your application!

Construction of DK-Lok Tube Fittings

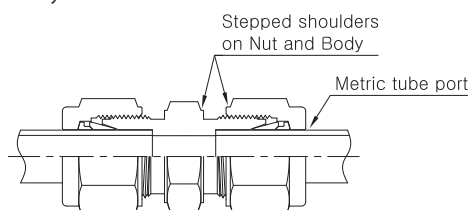
DK-Lok Tube Fitting consists of body, front ferrule, back ferrule and nut. The features include;

- Excellent product range up to 2 in. and 50 mm OD.
- Additional engineering on sealing integrity and swaging action.
- Re-usable and predictable quality.
- Gaugable.
- Excellent leak-free sealing integrity on heavy vibration, vacuum and impulse.
- Heat-Code Traceability.
- No torque transferring to connective tubing during installation.



Identification of Metric DK-Lok Tube Fitting

Metric DK-Lok tube fitting has stepped shoulder on body and nut hex. Shaped fitting such as tee, elbow, and cross forging has such step on body as well.



Product Cleaning

Every DK-Lok tube fitting is cleaned to remove surface contamination, iron particles from cutting tools, oil from cutting fluid, and loose particles. For further information refer to DK cleaning standard DC-01. Special cleaning for oxygen service application is available on request. Refer to special cleaning standard DC-11.

Table 1. DK-Lok Material Standards

Material	Bar stock	Forging
Stainless Steel316	ASTM A276	ASTM A182
	ASTM A479	ASME SA182
	ASME SA479	JIS G3214
	JIS G4303	
Brass	ASTM B16 UNS C36000	ASTM B283 UNS C37700
	ASTM B453 UNS C35300	JIS H3250 Alloy C3771
	JIS H3250 Alloy C3604	
Carbon Steel	ASTM A675 Gr.60-90	ASTM A105
	JIS G4051 S20C - S48C	JIS G4051 S20C - S48C
Duplex	ASTM A276 S31803	ASTM A182 F51
	ASTM A479 S31803	
Super Duplex	ASTM A479 S32750	ASTM A182 F53
Aluminum	ASTM B211 Alloy 2024 T6	ASTM B247
Alloy 20	ASTM B473 UNS N08020	ASTM B462 UNS N08020
Hastelloy C276	ASTM B574 UNS N10276	ASTM B564 UNS N10276
Alloy 400	ASTM B164 UNS N04400	ASTM B564 UNS N04400
Alloy 600	ASTM B166 UNS N06600	ASTM B564 UNS N06600
Alloy 625	ASTM B446 UNS N06625	ASTM B564 UNS N06625
Alloy 825	ASTM B425 UNS N08825	ASTM B564 UNS N08825
Titanium Gr. 2	ASTM B348 Gr.2	ASTM B381 F3
PTFE	ASTM D1710	ASTM D3293

Carbon Steel DK-Lok Tube Fittings



Carbon steel fittings are white zinc plated. Every carbon steel fitting is supplied with SS316 back ferrule and Carbon Steel front ferrule with black fast plated.

O-ring

DK-Lok fitting pipe end with O-ring is supplied; 70 durometer NBR O-ring on Brass and Carbon steel fittings, 90 durometer FKM O-ring on Stainless steel fitting. Other O-ring is available on request.

DK-Lok Port Dimension

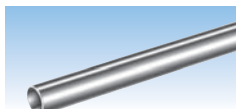
Dimensions on DK-Lok Port in the catalog are approximate figures and shown in finger-tight position.

Alternative Fuels

Stainless steel316 DK-Lok Tube Fittings are tested to the requirements of ECE R110, EIHP Draft, ECE R67 and certified by TUV.

Tubing

For safe, reliable and leak-free DK-Lok fitting system, tubing should be considered as one of fitting components.



- Tubing is assembled by simple wrench make-up on DK-Lok fitting. This results in less assembly and maintenance costs.
- Tubing assembly on DK-Lok fitting is re-usable.
- Tubing is bendable. It allows lower pressure drop with fewer connections. This in turn reduces system costs because of less fabricating manpower.
- Pipe threading or welding is difficult to disassemble and re-assemble
- Piping requires skilled worker for welding & threading

Tubing Selection

Hardness

- Tubing must be softer than fitting material. The metal tubing must be fully annealed and suitable for bending and flaring.
- Tubing hardness must be selected according to the information in the table 2 to 13.

Surface

- Tubing must have a surface free from scratches, draw mark, dirt, dust and flat spots.

Ovality

- Tubing in oval or out-of-roundness way not fit into the fitting. Do not force the tubing into the fitting; it may damage the fitting sealing system on nut, ferrules, and body.

Wallthickness

- The table 2 to 13 list tubing working pressure ratings in a wide range of wall thickness. A too thin wall may collapse and a too thick wall may not properly be deformed by the ferrule action.
- Do not use tubing wall thickness not listed in the table 2 to 13.

Weld tubing

- Welded tubing should have a not measurable bead on its outside diameter.

Tubing Handling

Careful handling and storage practices will protect tubing from unnecessary scratches, nicks, or degrading the good tubing surface finish.

- Tubing ends should be capped so any foreign materials will not fall inside during transportation and storage.
- Do not drag across tubing rack, cement, gravel or any rough surface.
- Do use correct tube cutter for tube material. The wrong cutter may result in excessive deformation of the tube end.
- Do not cut deep with each turn of cutting.
- Tube cutters and hacksaws should be sharp enough.
- Hacksaw blades should have at least 32 teeth per inch.
- Do deburr tube ends before inserting in fittings.

DK-Lok Tube Fitting Pressure Rating

- The pressure rating of DK-Lok Tube Fitting is rated to the working pressure of connective tubing.
- The allowable working pressure of tubing in various materials is listed in the table 2 to 13.

Material

Using like tubing and fitting material is essential for leak-free sealing system.

Unlike material may have different mechanical properties that may adversely affect the fitting seal on tubing.

The only exception is copper tubing with brass DK-Lok fitting.

Gas Application

DK-Lok tube fitting is designed for a wide range of leak-free application including gas leak proof and vacuum tight service.

Gases (helium, hydrogen, nitrogen, air, etc.) can escape even the most minute leak-path due to their very small molecules.

Tube therefore must be handled not to have scratches, draw mark, nicks, flat spots, dirt, and dust

Use NOT thin wall tubing for gas applications.

Heavier wall tubing resists the ferrule action whereas thin wall tubing may collapse with little resistance to ferrule action.

For Gas service, use the tubing wall listed on un-shadowed section in table 2 to 13.

Vacuum Application

DK-Lok Tube Fittings have been proved to be excellent vacuum tight seal in many applications including analytical industry.

DK-Lok Tube Fittings comply with the leakage requirements of TA-LUFT 2002.

Cryogenic Application

DK-Lok Fittings in SS316 Stainless Steel provide highly reliable performance on cryogenic application.

Cryogenic temperature is considered to be temperatures below -100°F (-73°C).

High Pressure Application

Pressure 500 psig (34.5 bar) or higher is considered generally high pressure. In the high pressure system scratches, draw mark, nicks, flat spots, and dirt on tubing may cause leakage.

- For gas application, select the gas applicable tubing wall thickness from Table 2 to 13.
- Follow the suggestion on tubing selection, handling, and installation.

Stainless Steel Tubing

Table 2. **Fractional Seamless Stainless Steel Tubing**

Fully annealed austenitic Type 304 or 316 seamless tubing ASTM A269 or ASTM A213, or equivalent. Tubing to be free from scratches, draw mark, dirt, dust, flat spots, and suitable for bending and flaring. Recommended hardness : 80 HRB or less.

OD in.	Wall Thickness (in.)														
	0.012	0.014	0.016	0.02	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.12	0.134	0.156	0.188
1/16	6800	8100	9400	12000											
1/8					8500	10900									
3/16					5400	7000	10200								
1/4					4000	5100	7500	10200							
5/16						4000	5800	8000							
3/8						3300	4800	6500	7500						
1/2						2400	3500	4700	6200						
5/8							2900	4000	5200	6000					
3/4							2400	3300	4200	4900	5800				
7/8							2000	2800	3600	4200	4800				
1								2400	3100	3600	4200	4700			
1 1/4									2400	2800	3300	3600	4100	4900	
1 1/2										2300	2700	3000	3400	4000	4900
2											2000	2200	2500	2900	3600

Table 3. **Metric Seamless Stainless Steel Tubing**

OD mm	Wall Thickness (mm)												
	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0	3.5	4.0	4.5
3	710												
6	330	420	520	670									
8		310	380	490									
10		240	300	380									
12		200	240	310	380	430							
14		180	220	280	340	390	430						
15		170	200	260	320	360	400						
16			190	240	300	330	370						
18			170	210	260	290	320	370					
20			150	190	230	260	290	330	380				
22			130	170	210	230	260	300	340				
25					180	200	230	260	300	320			
28						180	200	230	260	280	330		
30						170	190	210	240	260	310		
32						160	170	200	230	240	290	330	
38							140	170	190	200	240	280	310
50										150	180	210	240

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at -20 to 100°F (-28 to 37°C) using S value of 20,000 psi.
- Pressure calculations are based on **maximum O.D. and minimum wall thickness** and no allowance is made for corrosion and erosion. i.e., ASTM A269 1/2 in. OD x 0.035 in. WT: OD tolerance ± 0.005 in., WT tolerance ± 15%. Calculations are based on 0.505 in.OD x 0.0298 in. WT.
- Safety Factor is 3.75 to 1, considering ultimate tensile strength of 75,000 psi.

Weld Stainless Steel Tubing Allowable Working Pressure

To determine the working pressure of weld tubing to the requirements of ASME B31.3 Code, de-rating factors below must be applied. For single weld tubing multiply by 0.80, and for double weld tubing multiply by 0.85.

Example: SS316 seamless 1/2 in. O.D. x 0.065 in. WT allowable working pressure: 4700 psi.

To determine the work pressure of the single weld tubing, multiply 4700 psi by 0.80.

4700 psig x 0.80 = 3760 psig at -20 to 100°F (-28 to 37°C).

Copper Tubing

Table 4. **Fractional Seamless Copper Tubing**

Soft annealed seamless copper tubing ASME B75 or equivalent. Soft annealed (Temper 0) copper water tube, type K or Type L to ASTM B88. Recommended hardness: 60 HRB or less.

OD in.	Wall Thickness (in.)									
	0.010	0.012	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
1/8			2700	3600						
3/16			1800	2300	3400					
1/4			1300	1600	2500	3500				
5/16				1300	1900	2700				
3/8				1000	1600	2200				
1/2				800	1100	1600	2100			
5/8					900	1200	1600	1900		
3/4					700	1000	1300	1500	1800	
7/8					600	800	1100	1300	1500	
1					500	700	900	1100	1300	1500

Table 5. **Metric Seamless Copper Tubing**

OD mm	Wall Thickness (mm)								
	0.7	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5
3	225	260							
4	165	191	244	295					
6		122	157	192	245				
8			114	140	179				
10			89	109	140				
12			73	89	114	140	158		
14			62	76	96	118	133		
16					83	102	114	127	147
18					74	90	101	112	129
22					59	72	81	90	103
25					52	63	71	78	90

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at -20 to 100°F (-28 to 37°C) using S value of 6000 psi.
- Safety Factor is 5 to 1, considering ultimate tensile strength of 30,000 psi.

Carbon Steel Tubing

Table 6. **Fractional Seamless Carbon Steel Tubing**

Soft annealed seamless carbon steel hydraulic tubing ASTM A179 or equivalent. Tubing to be free from scratches, draw mark, dirt, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 72 HRB or less.

OD in.	Wall Thickness (in.)												
	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.148	0.165	0.180	0.220
1/8	8000	10200											
3/16	5100	6600	9600										
1/4	3700	3700	7000	9600						Working Pressure in psig			
5/16		3800	5500	7600									
3/8		3100	4500	6200									
1/2		2300	3300	4500	5900								
5/8		1800	2600	3500	4600	5300							
3/4			2100	2900	3700	4300	5100						
7/8			1800	2400	3200	3700	4300						
1			1500	2100	2700	3200	3700	4100					
1 1/4				1600	2100	2500	2900	3200	3600	4000	4600	5000	
1 1/2					1800	2000	2400	2600	3000	3300	3700	4100	5100
2						1500	1700	1900	2200	2400	2700	3000	3700

Table 7. Metric Seamless Carbon Steel Tubing

OD mm	Wall Thickness (mm)												
	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0	3.5	4.0	4.5
3	670	830											
6	310	400	490	630									
8		290	360	460									
10		230	280	360									
12		190	230	290	360	410	450						
14		160	190	250	300	340	380						
15		150	180	230	280	320	350						
16			170	210	260	290	330	380					
18			150	190	230	260	290	330					
20			130	170	200	230	250	290	330				
22			120	150	180	210	230	260	300				
25					160	180	200	230	260	280			
28						160	180	200	230	250	290		
30						150	160	190	210	230	270		
32						140	150	170	200	210	250	290	
38							130	140	160	180	210	240	280

- Allowable working pressure calculated at -20 to 100°F (-28 to 37°C) using S value of 15,700 psi according to ASME B31.3 Process Piping Code.
- Safety Factor is 3 to 1, considering ultimate tensile strength of 47,000 psi.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME B31.3 rating by 0.85

Table 8. Fractional Seamless Alloy 400 Tubing

Fully annealed seamless Alloy 400 Tubing ASTM B165 or equivalent. Tubing to be free from scratches, draw mark, dirt, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 75 HRB or less.

OD in.	Wall Thickness (in.)							
	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
1/8	7900	10100						
1/4	3700	4800	7000	9500		Working Pressure in psig		
3/8		3100	4400	6100				
1/2		2300	3200	4400				
3/4			2200	3000	4000	4600		
1				2200	2900	3400	3900	4300

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at -20 to 100°F (-28 to 37°C) using S value of 18,700 psi.
- Safety Factor is 3.74 to 1, considering ultimate tensile strength of 70,000 psi.

Table 9. Fractional Seamless Alloy C276 Tubing

Fully annealed seamless Alloy C276 Tubing ASTM B622 or equivalent. Tubing to be free from scratches, draw mark, dirt, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 100 HRB or less.

OD in.	Wall Thickness (in.)			
	0.028	0.035	0.049	0.065
1/4	4000	5100	7500	10200
5/16		4000	5800	7800
3/8		3300	4800	6500
1/2		2600	3700	5100

* Working Pressure in psig

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at ambient temperature using S value of 27,300 psi.
- Safety Factor is 3.66 to 1, considering ultimate tensile strength of 100,000 psi.

Table 10. Fractional Seamless Alloy 825 Tubing

Fully annealed seamless Alloy 825 Tubing ASTM B423 or equivalent. Tubing to be free from scratches, draw mark, dirt, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 95 HRB or less.

OD in.	Wall Thickness (in.)		
	0.035	0.049	0.065
1/4	6400	9300	11600
3/8	4100	5900	8200
1/2	3000	4300	5900

* Working Pressure in psig

- According to the requirements of ASME B31.3 Process Piping Code and ASME B31.1 Power Piping Code, allowable working pressure calculated at ambient temperature using S value of 23,300 psi.
- Safety Factor is 3.64 to 1, considering ultimate tensile strength of 85,000 psi.

Table 11. Fractional Seamless Alloy 625 Tubing

Fully annealed seamless Alloy 625 Tubing ASTM B444 Grade 1 or equivalent.

Tubing to be free from scratches, draw mark, dirt, dust, flat spots, and suitable for bending and flaring.

OD in.	Wall Thickness (in.)		
	0.035	0.049	0.065
1/4	7300	10700	14600
3/8	4700	6800	9400
1/2	3500	5000	6800

* Working Pressure in psig

- Allowable working pressure is calculated at ambient temperature using S value of 40,000 psi according to ASME B31.3 Code.
- Safety Factor is 3 to 1, considering ultimate tensile strength of 120,000 psi.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME B31.3 rating by 0.86.

Table 12. Fractional Seamless Super Duplex Tubing

Fully annealed Super Duplex Tubing ASTM A789 S32750 or equivalent. Tubing to be free from scratches, draw mark, dirt, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 32 HRC or less.

OD in.	Wall Thickness (in.)				
	0.035	0.049	0.065	0.083	0.095
1/4	10000	15000			
3/8	6500	10100	12700		
1/2	5000	7200	10100	12900	
5/8		5800	7600	10100	
3/4		4700	6300	8500	10000

* Working Pressure in psig

- Allowable working pressure calculated at ambient temperature using S value of 38,700 psi according to ASME B31.3 Code.
- Safety Factor is 3 to 1, considering ultimate tensile strength of 116,000 psi.

Table 13. Fractional Seamless Alloy 20 Tubing

Fully annealed seamless Alloy 20 Tubing ASTM B729 or equivalent. Tubing to be free from scratches, draw mark, dirt, dust, flat spots, and suitable for bending and flaring. Recommended hardness: 95 HRB or less.

OD in.	Wall Thickness (in.)			
	0.028	0.035	0.049	0.065
1/8	Working Pressure in psig			
3/16				
1/4	4500	5100	7500	10200
5/16				
3/8		3300	4800	6500
1/2		2600	3700	5100

* Working Pressure in psig

- Allowable working pressure calculated at ambient temperature using S value of 23,300 psi according to ASME B31.3 Process Piping Code.
- To determine working pressure of ASME B31.1 Power Piping Code, multiply the ASME B31.3 rating by 0.98.

Temperature De-rating Factors

The pressure rating of DK-Lok port is governed by the connective tubing pressure rating.

To determine allowable working pressure at elevated temperature, multiply working pressure by applicable factor shown in table 14.

Example: SS316 seamless tubing 1/2 in. O.D. x 0.065 in.WT at 700 °F. 4700 psig x 0.82 = 3854 psi.

Allowable working pressure of SS316 seamless 1/2 in. O.D. x 0.065 in. WT is 3854 psi at 700 °F.

Table 14.

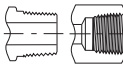
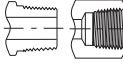
Temp.		Stainless		C.steel	Copper	825	C276	625	20	400	Super Duplex
°F	°C	304	316	A179	B75	B423	B622	B444	B729	B165	A789
100	38	1	1	1	1	1	1	1	1	1	1
200	93	1	1	0.96	0.8	0.92	1	1	0.9	0.88	0.9
300	149	1	1	0.9	0.78	0.87	1	1	0.86	0.79	0.85
400	204	0.94	0.97	0.86	0.5	0.83	1	1	0.83	0.79	0.82
500	260	0.88	0.9	0.82	0.13	0.79	0.98	0.97	0.79	0.79	0.81
600	316	0.82	0.85	0.77		0.76	0.93	0.95	0.77	0.79	0.8
700	371	0.8	0.82	0.73		0.74	0.87	0.93	0.76	0.79	
800	427	0.76	0.8	0.59		0.73	0.84	0.93	0.73	0.76	
900	482	0.73	0.78			0.73	0.81	0.93			
1000	538	0.69	0.77			0.71	0.79	0.93			
1200	649	0.3	0.37				0.35	0.33			

DK-Lok Pipe End Pressure Rating

Pressure ratings of DK-Lok tube port is governed by the connective tubing pressure rating. The allowable working pressure of those fittings with both DK-Lok port and pipe end port are determined by the lower pressure port.

Table 15. DK-Lok Pipe Thread Designator

Legends • DK: DK-Lok pipe thread designator. • E: Equivalent.

	DK	Reference Specification	Thread Configuration	E
Tapered Pipe Thread	N	ASME B1.20.1 (NPT) SAE AS71051		
	R	ISO 7-1 BS EN 10226-1 (BSPT) DIN 2999 (male thread only) JIS B0202 (PT)		RT
Parallel Pipe Thread	G	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM A		RS
	GB	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM B		RP
	GP	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) SAE J475 SAE J1926		PR
Parallel Pipe Thread	GG	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) EN 837-1 & EN 837-3		RG
	GR	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM Z		RP
	GY	ISO 228-1 BS 2779 (BSPP) JIS B0202 (PF) DIN 3852 FORM Y		RJ
SAE Straight Thread	U	ASME B1.1 ISO R725 SAE J475 SAE J514		SR
	UO	ASME B1.1 ISO R725 SAE J475 SAE J514		OR
	UP	ASME B1.1, ISO R725 SAE J475 SAE J514		ST
	NO	ASME B1.20.1, SAE AS71051 SAE J514		OR

Pipe Thread Sealants

Pipe thread sealant for tapered pipe thread assembly is essential to ensure leak-free thread sealing. Sealant usually contains a lubricant. Thread sealant fills the voids between the threads and prevents thread galling.

Wrap PTFE tape clockwise from first thread. Do not overhang the first thread; the tape may get into the fluid system.

Pressure Equivalents:

1 bar = 100 kPa = 14.503 psi 1 kPa = 0.01 bar = 0.145 psi
 1 psi = 0.069 bar = 6.89 kPa 1 kg/cm² = 0.98 bar = 14.22 psi

Table 16. Tapered Pipe Thread Pressure Ratings

Applicable to DK-Lok thread designator: N and R

ISO/NPT Pipe Size	SS316 and Carbon Steel				Brass			
	Male		Female		Male		Female	
	psig	bar	psig	bar	psig	bar	psig	bar
S value	20ksi				10ksi			
1/16	14000	965	6600	455	7400	510	3300	227
1/8	10000	689	6400	441	5000	345	3200	220
1/4	8300	572	6500	448	4100	282	3200	220
3/8	8000	551	5200	358	4000	275	2600	179
1/2	7800	537	4800	331	3900	269	2400	165
3/4	7500	517	4600	317	3700	255	2300	158
1	5300	365	4400	303	2600	179	2200	152
1 1/4	6200	427	5000	345	3100	214	2500	172
1 1/2	5100	351	4500	310	2500	172	2200	152
2	4000	276	3900	269	2000	138	1900	131

Allowable Working Pressure

DK-Lok ISO Parallel Male Pipe Thread End

Applicable to DK-Lok thread designator: G, GB, and GP.
 SS316 and carbon steel fitting thread ends up to 1 in. are rated to 5900 psi (406 bar)

DK-Lok SAE Straight Thread End

Applicable to DK-Lok thread designator: U, UO, and UP.
 SS316 and carbon steel fitting thread ends up to 16U (1 5/16-12) are rated to 6000 psi (413 bar)

DK-Lok Tube Socket Weld End

Applicable to DK-Lok tube fitting part number: DCSW and DLSW.
 SS316 and carbon steel fitting tube socket ends up to 1/2 in. (-8) are rated to 7,000 psi (482 bar)

DK-Lok Pipe Butt Weld End

Applicable to DK-Lok tube fitting part number: DCW and DLW.
 SS316 and carbon steel fitting pipe butt weld ends up to 3/4 in. (-12P) are rated to 6,000 psi (413 bar)

- Pressure ratings are based on ASME B31.3 Process Piping Code, at ambient temperature.
- For further information about each size end rating, contact the authorized DK-Lok distributor in your region.

Table 17. Elastomer seal temperature ratings

Elastomer O-ring	Rating
NBR	-40 to 110°C (-40 to 230°F)
FKM	-28 to 204°C (-18 to 400°F)
FFKM (Kalrez®)	-30 to 275°C (-22 to 527°F)

Care must be taken as fitting with elastomer O-ring seal may have lower temperature rating.

Kalrez®: Dupont™

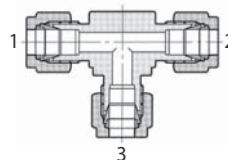
Ordering Information

Suffix the material designator to the part number. Example: DU-8-S

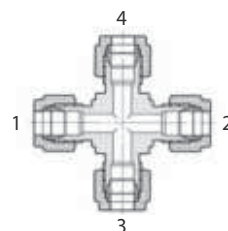
Table 18. Material Designator

Material	Designator
Stainless Steel 316	S
Dual Grade	
Brass	B
Carbon Steel	C
Stainless 310	310
Duplex	D
Super Duplex	SD
Aluminum	AL
Alloy 20	L20
Hastelloy C276	HC
Alloy 400	M
Alloy 600	IN
Alloy 625	L625
Alloy 825	L825
Titanium Gr. 2	TI
PTFE	PE

Tee and Cross Fittings



Tee fitting part number is described by first the run (1 and 2) and next the branch (3).



Cross fitting part number is described by first the run (1 and 2) and next the branch (3 and 4)

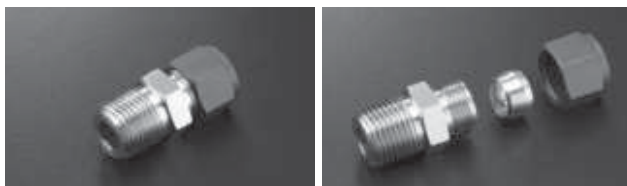
Table 19. Pipe Thread Size Designator

Nom. Size in.	1/16	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Designator	1	2	4	6	8	12	16	20	24	32

Table 20. Tube O.D. Designator

OD in.	1/16	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	2		
Designator	1	2	3	4	5	6	8	10	12	14	16	20	24	32		
OD mm	2mm	3 mm	4 mm	6 mm	8mm	10 mm	12 mm	16 mm	20 mm	22 mm	25 mm	28 mm	32 mm	38 mm	42 mm	50 mm
Designator	2M	3 M	4 M	6 M	8 M	10 M	12 M	16 M	20 M	22 M	25 M	28 M	32 M	38 M	42 M	50 M

Z series DK-Lok



DK-Lok Z Series single ferrule tube fitting is designed and manufactured to the highest quality standards.

This fitting includes single ferrule with standard DK-Lok fitting body and nut.

To help identify DK-Lok Z series from DK-Lok Tube fitting, nut is black Molybdenum Disulfide (MoS₂) coated.

Material

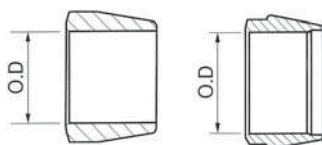
DK-Lok Z Series single ferrule tube fitting is manufactured in stainless steel 316.

Pressure and Temperature Ratings

DK-Lok Z Series fittings are identical to DK-Lok Tube Fittings in pressure and temperature ratings.

Z Series Ferrule

Part No.	Tube O.D.
DFZ-4-S	1/4
DFZ-6-S	3/8
DFZ-8-S	1/2
DFZ-12-S	3/4
DFZ-16-S	1



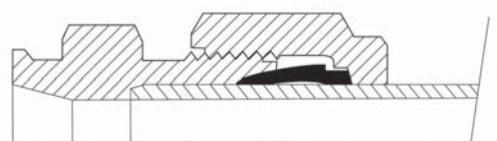
Dimensions

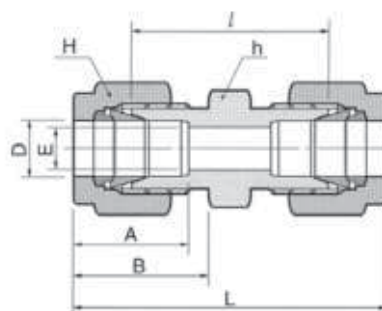
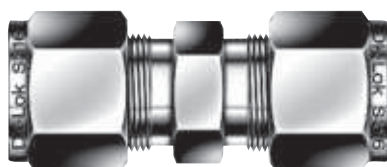
DK-Lok Z Series fittings are dimensionally identical to DK-Lok Tube Fittings.

Ordering Information

To order Z series, insert Z in the standard DK-Lok tube fitting part number.

Examples: DUZ-8-S, DMCZ8-8N-S, DNZ-4-S




Connects fractional tube

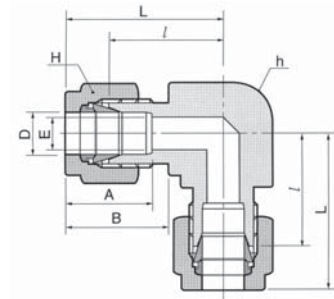
Part No.	Tube O.D. D		E Min.	Width across flat				A	B	l	L
	h			H							
in.	mm	in.	mm								
DU-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	17.50	25.15
DU-2	1/8	3.17	2.28	7/16	11.11	7/16	11.11	12.70	15.24	22.35	35.56
DU-3	3/16	4.76	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.13	37.33
DU-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	26.16	40.89
DU-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	28.19	42.92
DU-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	30.22	44.95
DU-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	30.98	51.30
DU-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	52.07
DU-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	33.27	53.59
DU-14	7/8	22.22	18.28	1-3/16	30.16	1-1/4	31.75	25.90	21.84	35.05	55.37
DU-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	40.38	64.77
DU-20	1-1/4	31.75	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	48.00	92.20
DU-24	1-1/2	38.10	33.90	2-1/8	53.97	2-1/4	57.15	50.03	45.21	53.60	107.95
DU-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	74.70	149.35

Connects metric tube

Part No.	Tube O.D. D	E Min.	Width across flat		A	B	l	L
			h	H				
DU-2M	2	1.7	12	12	12.9	15.3	22.4	35.6
DU-3M	3	2.4	12	12	12.9	15.3	22.1	35.3
DU-4M	4	2.4	12	12	13.7	16.1	24.1	37.3
DU-6M	6	4.8	14	14	15.3	17.7	26.2	41.0
DU-8M	8	6.4	15	16	16.2	18.6	28.2	43.2
DU-10M	10	7.9	18	19	17.2	19.5	31.0	46.2
DU-12M	12	9.5	22	22	22.8	22.0	31.0	51.2
DU-14M	14	11.1	24	25	24.4	22.0	31.8	52.0
DU-15M	15	11.9	24	25	24.4	22.0	31.8	52.0
DU-16M	16	12.7	24	25	24.4	22.0	31.8	52.0
DU-18M	18	15.1	27	30	24.4	22.0	33.3	53.5
DU-20M	20	15.9	30	32	26.0	22.0	34.8	55.0
DU-22M	22	18.3	30	32	26.0	22.0	34.8	55.0
DU-25M	25	21.8	35	38	31.3	26.5	40.4	65.0
DU-28M	28	21.8	41	46	36.6	36.6	43.4	85.0
DU-30M	30	26.2	46	50	39.7	39.3	49.5	92.9
DU-32M	32	28.6	46	50	42.0	41.6	51.3	97.3
DU-35M	35	31.5	50	55	42.1	41.7	51.3	97.6
DU-38M	38	33.7	55	60	49.4	47.9	58.4	113.6
DU-42M	42	36.8	60	65	49.3	47.8	58.4	113.4
DU-50M	50	45.2	70	76	67.2	62.5	74.7	149

Union Elbow

DL



Connects fractional tube

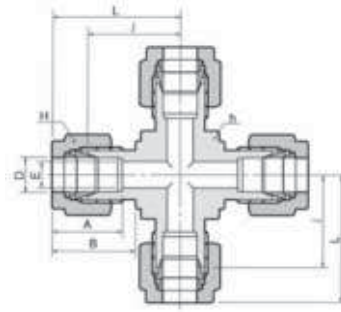
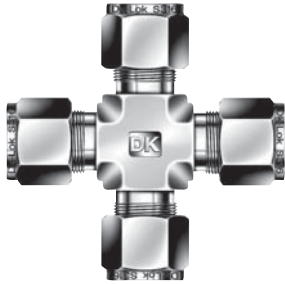
Part No.	Tube O.D. D		E	Width across flat				A	B	l	L
	h			H							
	in.	mm		in.	mm						
DL-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
DL-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
DL-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
DL-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
DL-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
DL-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
DL-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
DL-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
DL-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87
DL-14	7/8	22.22	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70
DL-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02
DL-20	1-1/4	31.75	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54
DL-24	1-1/2	38.10	33.90	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97
DL-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18

Connects metric tube

Part No.	Tube O.D. D	E Min.	Width across flat		A	B	l	L
			h	H				
DL-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
DL-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
DL-4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
DL-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
DL-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
DL-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
DL-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
DL-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
DL-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
DL-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
DL-20M	20	15.9	34.92	32	26.0	22.0	32.5	42.6
DL-22M	22	18.3	34.92	32	26.0	22.0	32.5	42.6
DL-25M	25	21.8	34.92	38	31.3	26.5	36.8	49.1
DL-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
DL-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
DL-38M	38	33.7	50.8	60	49.4	47.9	56.4	84.0
DL-42M	42	36.8	60	65	49.3	47.8	55	82.5
DL-50M	50	45.2	70	76	67.2	62.5	69.9	107

Union Cross

DX



Note : Cross may be made out of bar stock.

Connects fractional tube

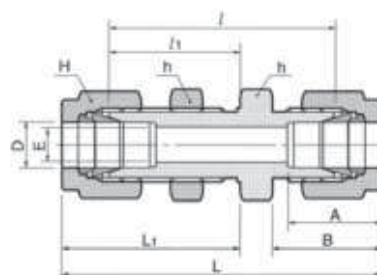
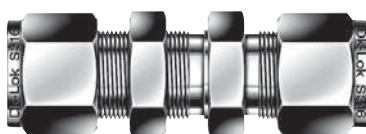
Part No.	Tube O.D. D		E Min.	Width across flat				A	B	ℓ	L
				h		H					
				in.	mm	in.	mm				
DX-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
DX-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
DX-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
DX-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
DX-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
DX-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
DX-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
DX-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
DX-12	3/4	19.05	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87
DX-14	7/8	22.22	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70
DX-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02
DX-20	1-1/4	31.75	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54
DX-24	1-1/2	38.10	33.90	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97
DX-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18

Connects metric tube

Part No.	Tube O.D. D	E Min.	Width across flat		A	B	ℓ	L
			h	H				
DX-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
DX-4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
DX-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
DX-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
DX-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
DX-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
DX-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
DX-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
DX-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
DX-20M	20	15.9	34.92	32	26.0	22.0	32.5	42.6
DX-22M	22	18.3	34.92	32	26.0	22.0	32.5	42.6
DX-25M	25	21.8	34.92	38	31.3	26.5	36.8	49.1
DX-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
DX-32M	32	28.6	46.0	50	42.0	41.6	49.3	72.3
DX-38M	38	33.7	50.8	60	49.4	47.9	56.4	84.0

Bulkhead Union

DUB



Connects fractional tube

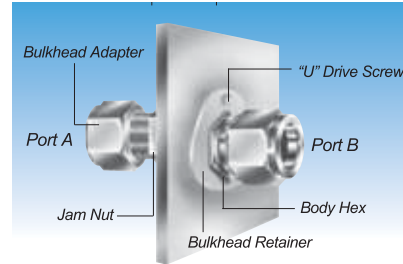
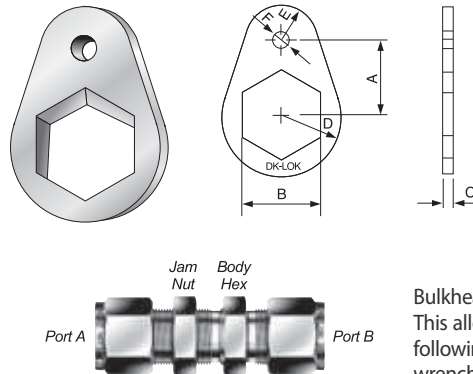
Part No.	Tube O.D. D		E	Width across flat				A	B	l	l ₁	L	L ₁	Panel Hole Drill size	Panel Max Thickness
				h		H									
	in.	mm		Min.	in.	mm	in.								
DUB-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	23.87	13.46	31.50	17.27	5.16	3.05
DUB-2	1/8	3.17	2.28	1/2	12.70	7/16	11.11	12.70	15.24	38.10	24.63	51.30	31.24	8.33	12.70
DUB-3	3/16	4.76	3.04	9/16	14.28	1/2	12.70	13.71	16.00	40.38	25.40	53.59	32.00	9.92	12.70
DUB-4	1/4	6.35	4.82	5/8	15.87	9/16	14.28	15.24	17.78	42.92	26.16	57.65	33.52	11.50	10.16
DUB-5	5/16	7.93	6.35	11/16	17.46	5/8	15.87	16.25	18.54	45.97	28.44	60.70	35.81	13.09	11.17
DUB-6	3/8	9.52	7.11	3/4	19.05	11/16	17.46	16.76	19.30	47.49	29.46	62.23	36.83	14.68	11.17
DUB-8	1/2	12.70	10.41	15/16	23.81	7/8	22.22	22.86	21.84	50.80	31.75	71.12	41.91	19.44	12.70
DUB-10	5/8	15.87	12.70	1-1/16	26.98	1	25.40	24.38	21.84	52.32	32.51	72.64	42.67	22.62	12.70
DUB-12	3/4	19.05	15.74	1-3/16	30.16	1-1/8	28.58	24.38	21.84	58.67	37.33	78.99	47.49	25.79	16.76
DUB-14	7/8	22.22	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	64.26	42.92	84.58	53.08	28.97	19.05
DUB-16	1	25.40	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	71.37	45.21	95.75	57.40	33.73	19.05
DUB-20	1-1/4	31.75	27.68	1-7/8	47.63	1-7/8	47.63	41.14	38.86	78.99	47.75	123.19	69.85	41.67	19.05
DUB-24	1-1/2	38.10	33.90	2-1/4	57.15	2-1/4	57.15	50.03	45.21	84.83	49.27	139.19	76.45	49.61	19.05
DUB-32	2	50.80	45.97	2-3/4	69.85	3	76.20	67.56	62.73	105.66	56.38	180.34	93.72	57.94	19.05

Connects metric tube

Part No.	Tube O.D. D	E Min.	Width across flat		A	B	l	l1	L	L1	Panel Hole Drill size	Panel Max Thickness
			h	H								
DUB-3M	3	2.4	14	12	12.9	15.3	38.1	24.6	51.3	31.2	8.3	12.7
DUB-4M	4	2.4	14	12	13.7	16.1	40.4	25.4	53.6	32.0	9.9	12.7
DUB-6M	6	4.8	16	14	15.3	17.7	42.9	26.2	57.7	33.6	11.5	10.2
DUB-8M	8	6.4	18	16	16.2	18.6	46.0	28.6	61.0	36.1	13.1	11.2
DUB-10M	10	7.9	22	19	17.2	19.5	48.5	29.4	63.7	37.0	16.2	11.2
DUB-12M	12	9.5	24	22	22.8	22.0	50.8	31.8	71.0	41.9	19.5	12.7
DUB-15M	15	11.9	27	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
DUB-16M	16	12.7	27	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
DUB-18M	18	15.1	30	30	24.4	22.0	58.7	37.3	78.9	47.4	26.0	16.8
DUB-20M	20	15.9	35	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	17.0
DUB-22M	22	18.3	35	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	19.0
DUB-25M	25	21.8	41.3	38	31.3	26.5	71.4	45.2	95.9	57.5	33.7	19.0
DUB-32M	32	28.6	50	50	42.0	41.6	82.3	49.5	128.3	72.5	42.5	19.0
DUB-38M	38	33.7	60	60	49.4	47.9	89.4	51.5	144.6	79.1	50.5	19.0

Bulkhead Retainer

DBR



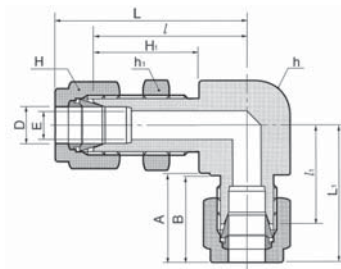
Bulkhead retainer acts as a backup wrench on panel construction. This allows one person to tighten the jam nut on port A side and following tubing connection on port A and B without a backup wrench.

Connects fractional tube

Part No.	DK-Lok O.D.		A	B	C	D	E	F	"U" Drive Screw	Drill Number	Drill Hole Dia
	in.	mm									
DBR-1-S	1/16		9.52	7.94	3.18	7.94	3.97	3.97	#6-3/8	31	3.05
DBR-2-S	1/8		12.7	12.7	3.18	10.31	5.55	3.97	#6-3/8	31	3.05
DBR-3-S	3/16	3M,4M	14.28	14.28	3.18	11.90	6.35	3.97	#6-3/8	31	3.05
DBR-4-S	1/4	6M	15.87	15.87	3.18	12.7	7.14	3.97	#6-3/8	31	3.05
DBR-5-S	5/16		17.46	17.46	3.18	14.28	7.94	3.97	#6-3/8	31	3.05
DBR-8M-S		8M	17.46	18.0	3.18	14.28	7.94	3.97	#6-3/8	31	3.05
DBR-6-S	3/8		19.05	19.05	3.18	15.87	8.73	3.97	#6-3/8	31	3.05
DBR-10M-S		10M	23.81	22.0	3.18	19.05	10.31	5.55	#10-1/2	27	3.66
DBR-8-S	1/2	12M	23.81	23.81	3.18	19.05	10.31	5.55	#10-1/2	27	3.66
DBR-10-S	5/8	15M,16M	25.4	26.98	3.18	20.64	10.31	5.55	#10-1/2	27	3.66
DBR-12-S	3/4	18M	26.98	30.16	3.18	23.02	11.90	5.55	#10-1/2	27	3.66
DBR-14-S	7/8		28.57	33.33	3.18	26.19	13.49	5.55	#10-1/2	27	3.66
DBR-16-S	1		32.54	41.27	3.18	29.37	14.28	5.55	#10-1/2	27	3.66

Bulkhead Elbow Union

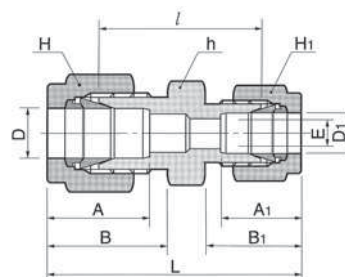
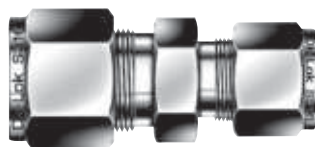
DBL



Connects Metc tube

Part No.	Tube O.D. mm	E Min.	Width across flat			A	B	L	L1	L	L1	Panel Hole Drill size	Panel Max Thickness
			h	h1	H								
DBL-6M	6	4.8	15.8	14.2	14.0	15.3	17.7	36.5	20.6	43.9	30.0	11.5	10.2
DBL-8M	8	6.4	17.4	17.4	16.0	18.6	46.0	40.9	23.2	48.4	30.7	13.1	11.2
DBL-10M	10	7.9	22.0	22.0	19.0	19.5	48.5	44.5	26.9	52.1	34.5	16.2	11.2
DBL-12M	12	9.5	24.0	23.8	22.0	22.0	50.8	46.9	26.9	57.0	37.0	19.5	12.7
DBL-16M	16	13.5	27.0	27.0	25.0	22.0	52.3	53.5	34.1	63.7	44.5	22.8	12.7
DBL-20M	20	15.9	34.9	35.0	32.0	26.0	22.0	68.4	39.0	78.2	48.7	29.0	17.0
DBL-25M	25	21.8	41.0	41.0	38.0	31.3	26.5	74.2	46.1	86.5	58.4	33.7	19.1

Reducing Union

DUR

Connects fractional tube

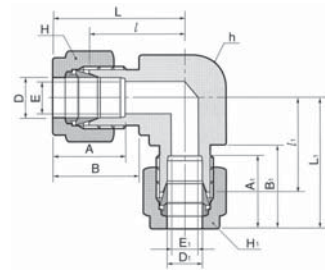
Part No.	Tube O.D.				E Min.	Width across flat						A	A ₁	B	B ₁	ℓ	L
	D		D ₁			h		H		H ₁							
	in.	mm	in.	mm		in.	mm	in.	mm	in.	mm						
DUR2-1	1/8	3.18	1/16	1.59	1.27	7/16	11.11	7/16	11.11	5/16	7.93	12.70	8.63	15.24	10.92	20.60	30.91
DUR3-1	3/16	4.76	1/16	1.59	1.27	7/16	11.11	1/2	12.70	5/16	7.93	13.71	8.63	16.00	10.92	21.84	32.25
DUR3-2	3/16	4.76	1/8	3.17	2.28	7/16	11.11	1/2	12.70	7/16	11.11	13.71	12.70	16.00	15.24	23.36	36.57
DUR4-1	1/4	6.35	1/16	1.59	1.27	1/2	12.70	9/16	14.28	5/16	7.93	15.24	8.63	17.78	10.92	23.11	34.29
DUR4-2	1/4	6.35	1/8	3.17	2.28	1/2	12.70	9/16	14.28	7/16	11.11	15.24	12.70	17.78	15.24	24.63	38.60
DUR4-3	1/4	6.35	3/16	4.76	3.04	1/2	12.70	9/16	14.28	1/2	12.70	15.24	13.71	17.78	16.00	25.40	39.37
DUR5-2	5/16	7.93	1/8	3.17	2.28	9/16	14.28	5/8	15.87	7/16	11.11	16.25	12.70	18.54	15.24	25.90	39.87
DUR5-4	5/16	7.93	1/4	6.35	4.82	9/16	14.28	5/8	15.87	9/16	14.28	16.25	15.24	18.54	17.78	27.43	42.16
DUR6-1	3/8	9.52	1/16	1.59	1.27	5/8	15.87	11/16	17.46	5/16	7.93	16.76	8.63	19.30	10.92	25.40	36.57
DUR6-2	3/8	9.52	1/8	3.17	2.28	5/8	15.87	11/16	17.46	7/16	11.11	16.76	12.70	19.30	15.24	26.92	40.89
DUR6-4	3/8	9.52	1/4	6.35	4.82	5/8	15.87	11/16	17.46	9/16	14.28	16.76	15.24	19.30	17.78	28.44	43.18
DUR6-5	3/8	9.52	5/16	7.93	6.35	5/8	15.87	11/16	17.46	5/8	15.87	16.76	16.25	19.30	18.54	29.46	44.19
DUR8-2	1/2	12.70	1/8	3.17	2.28	13/16	20.64	7/8	22.22	7/16	11.11	22.86	12.70	21.84	15.24	28.44	45.21
DUR8-4	1/2	12.70	1/4	6.35	4.82	13/16	20.64	7/8	22.22	9/16	14.28	22.86	15.24	21.84	17.78	29.46	46.99
DUR8-6	1/2	12.70	3/8	9.52	7.11	13/16	20.64	7/8	22.22	11/16	17.46	22.86	16.76	21.84	19.30	30.98	48.51
DUR10-6	5/8	15.87	3/8	9.52	7.11	15/16	23.81	1	25.40	11/16	17.46	24.38	16.76	21.84	19.30	31.75	49.27
DUR10-8	5/8	15.87	1/2	12.70	10.41	15/16	23.81	1	25.40	7/8	22.22	24.38	22.86	21.84	21.84	31.75	52.07
DUR12-4	3/4	19.05	1/4	6.35	4.82	1-1/16	26.98	1-1/8	28.57	9/16	14.48	24.38	15.24	21.84	17.78	31.75	49.27
DUR12-6	3/4	19.05	3/8	9.52	7.11	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.38	16.76	21.84	19.30	33.27	50.80
DUR12-8	3/4	19.05	1/2	12.70	10.41	1-1/16	26.98	1-1/8	28.57	7/8	22.22	24.38	22.86	21.84	21.84	33.27	53.59
DUR12-10	3/4	19.05	5/8	15.87	12.70	1-1/16	26.98	1-1/8	28.57	1	25.40	24.38	24.38	21.84	21.84	33.27	53.59
DUR16-8	1	25.40	1/2	12.70	10.41	1-3/8	34.92	1-1/2	38.10	7/8	22.22	31.24	22.86	26.41	21.84	40.89	63.24
DUR16-12	1	25.40	3/4	19.05	15.74	1-3/8	34.92	1-1/2	38.10	1-1/8	28.58	31.24	24.38	26.41	21.84	40.38	62.73

Connects metric tube

Part No.	Tube O.D.		E Min.	Width across flat			A	A ₁	B	B ₁	l	L
	D	D ₁		h	H	H ₁						
DUR3M-2M	3	2	1.7	12	12	12	12.9	12.9	15.3	15.3	22.1	35.3
DUR6M-2M	6	2	1.7	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
DUR6M-3M	6	3	2.4	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
DUR6M-4M	6	4	2.4	14	14	12	15.3	13.7	17.7	16.1	25.4	39.4
DUR8M-6M	8	6	4.8	15	16	14	16.2	15.3	18.6	17.7	27.4	42.3
DUR10M-3M	10	3	2.4	18	19	12	17.2	12.9	19.5	15.3	27.7	41.9
DUR10M-4M	10	4	2.4	18	19	12	17.2	13.7	19.5	16.1	28.7	42.9
DUR10M-6M	10	6	4.8	18	19	14	17.2	15.3	19.5	17.7	29.5	44.5
DUR10M-8M	10	8	6.4	18	19	16	17.2	16.2	19.5	18.6	30.0	45.1
DUR12M-6M	12	6	4.8	22	22	14	22.8	15.3	22.0	17.7	29.5	47.0
DUR12M-8M	12	8	6.4	22	22	16	22.8	16.2	22.0	18.6	30.2	47.8
DUR12M-10M	12	10	7.9	22	22	19	22.8	17.2	22.0	19.5	31.0	48.7
DUR15M-12M	15	12	9.8	24	25	22	24.4	17.2	22.0	19.5	31.8	52.5
DUR16M-10M	16	10	7.9	24	25	19	24.4	17.2	22.0	19.5	31.8	49.5
DUR16M-12M	16	12	9.5	24	25	22	24.4	22.8	22.0	22.0	31.8	52.0
DUR18M-10M	18	10	7.9	27	30	19	24.4	17.2	22.0	19.5	33.0	51.0
DUR18M-12M	18	12	9.5	27	30	22	24.4	22.8	22.0	22.0	33.3	53.5
DUR25M-18M	25	18	15.1	35	38	30	31.3	24.4	26.5	22.0	38.6	61.0
DUR25M-20M	25	20	15.9	35	38	32	31.3	26.0	26.5	22.0	39.9	62.3
DUR30M-18M	30	18	15.1	46	50	30	39.7	24.4	39.3	22.0	43.7	75.4
DUR30M-20M	30	20	15.9	46	50	32	39.7	26.0	39.3	22.0	43.7	75.4
DUR30M-25M	30	25	21.8	46	50	38	39.7	31.3	39.3	26.5	46.2	80.1
DUR32M-18M	32	18	15.1	46	50	30	42.0	24.4	41.6	22.0	44.7	77.8
DUR32M-20M	32	20	15.9	46	50	32	42.0	26.0	41.6	22.0	44.7	77.8
DUR32M-25M	32	25	21.8	46	50	38	42.0	31.3	41.6	26.5	47.0	82.3
DUR38M-20M	38	20	15.9	55	60	32	49.4	26.0	47.9	22.0	49.8	87.5
DUR38M-25M	38	25	21.8	55	60	38	49.4	31.3	47.9	26.5	52.1	92.0
DUR38M-30M	30	30	26.2	55	60	50	49.4	39.7	47.9	39.3	55.4	104.6

Reducing Union Elbow

DLR



Connects fractional tube

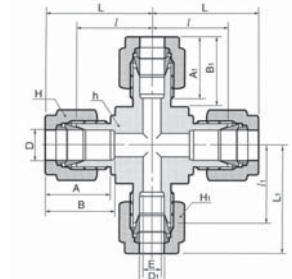
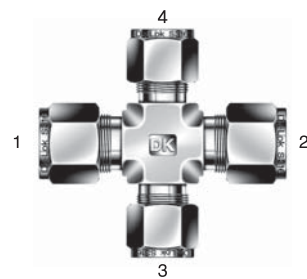
Part No.	Tube O.D.				Width across flat						E	E ₁	A	A ₁	B	B ₁	l	l ₁	L	L ₁
	D		D ₁		h		H		H ₁											
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm										
DLR2-1	1/8	3.17	1/16	1.59	3/8	9.52	7/6	11.11	5/16	7.93	2.4	1.3	12.7	8.63	15.24	10.93	15.74	14.2	22.35	18.0
DLR4-2	1/4	635	1/8	3.17	1/2	12.7	9/16	14.28	7/6	11.11	4.8	2.4	15.24	12.7	17.78	15.24	19.55	17.9	26.92	24.5
DLR6-4	3/8	9.52	1/4	6.35	5/8	15.87	11/16	17.46	9/16	14.28	7.1	4.8	16.76	15.24	19.3	17.78	23.1	21.92	30.47	29.29
DLR8-4	1/2	12.7	1/4	6.35	13/16	20.64	7/8	22.22	9/16	14.28	10.41	4.8	22.86	15.24	21.84	17.78	25.9	24.4	36.06	31.77
DLR8-6	1/2	12.7	3/8	9.52	13/16	20.64	7/8	22.22	11/16	17.46	10.41	7.1	22.86	16.76	21.84	19.30	25.9	25.9	36.06	33.27

Connects metric tube

Part No.	Tube O.D.			Width across flat					E	E ₁	A	A ₁	B	B ₁	ℓ	ℓ ₁	L	L ₁
	D	D ₁		h		H	H ₁											
		in.	mm	in.	mm	mm	in.	mm										
DLR8M-4	8	1/4	6.35	9/16	14.28	16	9/16	14.28	6.4	4.8	16.2	15.24	18.6	17.78	21.3	20.6	28.7	28.0

Reducing Union Cross

DXR



Connects fractional tube

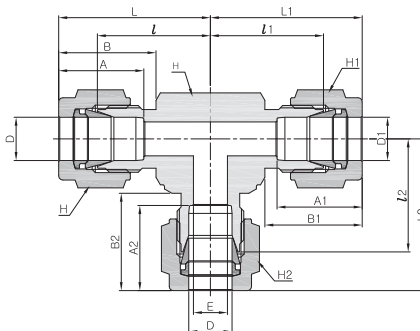
Part No.	Port 1	Port 2	Port 3	Port 4	E Min.	Width across flat						A	A ₁	B	B ₁	ℓ	ℓ ₁	L	L ₁
	D		D ₁			h		H		H ₁									
	in.	mm	in.	mm		in.	mm	in.	mm	in.	mm								
DXR12-12-6-6	3/4	19.05	3/8	9.52	7.1	1-1/16	26.98	1-1/8	28.57	11/16	17.46	24.38	16.76	21.84	19.3	29.71	29.71	39.87	37.07

Connects metric tube

Part No.	Port 1 D	Port 2	Port 3	Port 4	E Min.	Width across flat			A	A ₁	B	B ₁	ℓ	ℓ ₁	L	L ₁			
						D ₁											h	H	H ₁
DXR16M-6M-6M-6M	16	6			4.8	25.4	25	14	24.4	15.3	22.0	17.7	28.7	27.2	38.8	34.6			

Reducing Union Tee

DTR

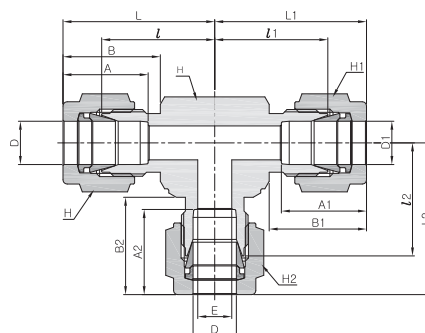


Connects fractional tube

Part No	Port 1 D		Port 2 D ₁		Port 3 D ₂		E Min.	A	A ₁	A ₂	B	B ₁	B ₂	Width across flat								l	l ₁	l ₂	L	L ₁	L ₂
														h		H		H ₁		H ₂							
	in.	mm	in.	mm	in.	mm								in.	mm	in.	mm	in.	mm	in.	mm						
DTR4-4-2	1/4	6.35	1/4	6.35	1/8	3.17	2.4	15.24	15.24	12.7	17.78	17.78	15.24	1/2	12.7	9/16	14.28	9/16	14.28	7/16	11.11	19.55	19.55	17.9	26.91	26.91	24.5
DTR4-4-6	1/4	6.35	1/4	6.35	3/8	9.52	4.8	15.24	15.24	16.76	17.78	17.78	19.3	5/8	15.87	9/16	14.28	9/16	14.28	11/16	17.46	21.92	21.92	23.1	29.28	29.28	30.46
DTR4-8-8	1/4	6.35	1/2	12.7	1/2	12.7	4.8	15.24	22.86	22.86	17.78	21.84	21.84	13/16	20.64	9/16	14.28	7/8	22.22	7/8	22.22	24.4	25.9	25.9	31.76	36.06	36.06
DTR6-4-6	3/8	9.52	1/4	6.35	3/8	9.52	4.8	16.76	15.24	16.76	19.3	17.78	19.3	5/8	15.87	11/16	17.46	9/16	14.28	11/16	17.46	23.1	21.92	23.1	30.46	29.28	30.46
DTR6-6-4	3/8	9.52	3/8	9.52	1/4	6.35	4.8	16.76	16.76	15.24	19.3	19.3	17.78	5/8	15.87	11/16	17.46	11/16	17.46	9/16	14.28	23.1	23.1	21.92	30.46	30.46	29.28
DTR6-6-8	3/8	9.52	3/8	9.52	1/2	12.7	7.1	16.76	16.76	22.86	19.3	19.3	21.84	13/16	20.64	11/16	17.46	11/16	17.46	7/8	22.22	25.9	25.9	25.9	33.26	33.26	36.06
DTR8-4-6	1/2	12.7	1/4	6.35	3/8	9.52	4.8	22.86	15.24	16.76	21.84	17.78	19.3	13/16	20.64	7/8	22.22	9/16	14.28	11/16	17.46	25.9	25.9	25.9	36.06	33.26	33.26
DTR8-4-8	1/2	12.7	1/4	6.35	1/2	12.7	7.1	22.86	15.24	22.86	21.84	17.78	21.84	13/16	20.64	7/8	22.22	9/16	14.28	7/8	22.22	25.9	24.4	25.9	36.06	31.76	36.06
DTR8-6-6	1/2	12.7	3/8	9.52	3/8	9.52	7.1	22.86	16.76	16.76	21.84	19.3	19.3	13/16	20.64	7/8	22.22	11/16	17.46	11/16	17.46	25.9	25.9	25.9	36.06	33.26	33.26
DTR8-8-4	1/2	12.7	1/2	12.7	1/4	6.35	4.8	22.86	22.86	15.24	21.84	21.84	17.78	13/16	20.64	7/8	22.22	7/8	22.22	9/16	14.28	25.9	25.9	24.4	36.06	36.06	31.76
DTR8-8-6	1/2	12.7	1/2	12.7	3/8	9.52	7.1	22.86	22.86	16.76	21.84	21.84	19.3	13/16	20.64	7/8	22.22	7/8	22.22	11/16	17.46	25.9	25.9	25.9	36.06	36.06	33.26
DTR10-10-6	5/8	15.87	5/8	15.87	3/8	9.52	7.1	24.38	24.38	16.76	21.84	21.84	19.3	15/16	23.81	1	25.4	1	25.4	11/16	17.46	28.7	28.7	28.7	38.86	38.86	36.06
DTR12-8-12	3/4	19.05	1/2	12.7	3/4	19.05	10.41	24.38	22.86	24.38	21.84	21.84	21.84	1-1/16	26.98	1-1/8	28.57	7/8	22.22	1-1/8	28.57	29.71	29.71	29.71	39.87	39.87	39.87
DTR12-12-4	3/4	19.05	3/4	19.05	1/4	6.35	4.8	24.38	24.38	15.24	21.84	21.84	17.78	1-1/16	26.98	1-1/8	28.57	1-1/8	28.57	9/16	14.28	29.71	29.71	28.21	39.87	39.87	35.57
DTR12-12-6	3/4	19.05	3/4	19.05	3/8	9.52	7.1	24.38	24.38	16.76	21.84	21.84	19.3	1-1/16	26.98	1-1/8	28.57	1-1/8	28.57	11/16	17.46	29.71	29.71	29.71	39.87	39.87	35.57
DTR12-12-8	3/4	19.05	3/4	19.05	1/2	12.7	10.41	24.38	24.38	22.86	21.84	21.84	21.84	1-1/16	26.98	1-1/8	28.57	1-1/8	28.57	7/8	22.22	29.71	29.71	29.71	39.87	39.87	38.37
DTR12-12-16	3/4	19.05	3/4	19.05	1	25.4	16.0	24.38	24.38	31.24	21.84	21.84	26.41	1-3/8	34.92	1-1/8	28.57	1-1/8	28.57	1-1/2	38.10	34.43	34.43	36.83	49.02	49.02	45.7
DTR12-12-20	3/4	19.05	3/4	19.05	1-1/4	31.75	16.0	24.38	24.38	41.14	21.84	21.84	38.86	1-11/16	42.86	1-1/8	28.57	1-1/8	28.57	1-7/8	47.63	39.41	39.41	44.45	49.57	49.57	66.55
DTR14-14-8	7/8	22.22	7/8	22.22	1/2	12.7	10.41	25.9	25.9	22.86	21.84	21.84	21.84	1-1/4	31.75	1-1/4	31.75	1-1/4	31.75	7/8	22.22	34.54	34.54	34.54	44.7	44.7	44.7
DTR16-12-12	1	25.4	3/4	19.05	3/4	19.05	16.0	31.24	24.38	24.38	26.41	21.84	21.84	1-3/8	34.92	1-1/2	38.10	1-1/8	28.57	1-1/8	28.57	36.83	35.54	35.54	49.02	45.7	45.7
DTR16-16-4	1	25.4	1	25.4	1/4	6.35	4.8	31.24	31.24	15.24	26.41	26.41	17.78	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	9/16	14.28	36.83	36.83	33.04	49.02	49.02	40.4
DTR16-16-6	1	25.4	1	25.4	3/8	9.52	7.1	31.24	31.24	16.76	26.41	26.41	19.3	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	11/16	17.46	36.83	36.83	34.54	49.02	49.02	41.9
DTR16-16-8	1	25.4	1	25.4	1/2	12.7	10.41	31.24	31.24	22.86	26.41	26.41	21.84	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	7/8	22.22	36.83	36.83	34.54	49.02	49.02	44.7
DTR16-16-12	1	25.4	1	25.4	3/4	19.05	16.0	31.24	31.24	24.38	26.41	26.41	21.84	1-3/8	34.92	1-1/2	38.10	1-1/2	38.10	1-1/8	28.57	36.83	36.83	35.54	49.02	49.02	45.7
DTR20-12-12	1 1/4	31.75	3/4	19.05	3/4	19.05	16.0	41.14	24.38	24.38	38.86	21.84	21.84	1-11/16	42.86	1-7/8	47.63	1-1/8	28.57	1-1/8	28.57	44.45	39.41	39.41	66.55	49.57	49.57
DTR20-20-12	1 1/4	31.75	1 1/4	31.75	3/4	19.05	16.0	41.14	41.14	24.38	38.86	38.86	21.84	1-11/16	42.86	1-7/8	47.63	1-7/8	47.63	1-1/8	28.57	44.45	44.45	39.41	66.55	66.55	49.57
DTR24-20-20	1 1/2	38.10	1 1/4	31.75	1 1/4	31.75	27.69	50.03	41.14	41.14	45.21	38.86	38.86	2	50.8	2-1/4	57.15	1-7/8	47.63	1-7/8	47.63	50.8	49.62	49.62	77.97	71.72	71.72
DTR24-24-8	1 1/2	38.10	1 1/2	38.10	1/2	12.7	10.41	50.03	50.03	22.86	45.21	45.21	21.84	2	50.8	2-1/4	57.15	2-1/4	57.15	7/8	22.22	50.8	50.8	44.58	77.97	77.97	54.74
DTR24-24-12	1 1/2	38.10	1 1/2	38.10	3/4	19.05	16.0	50.03	50.03	24.38	45.21	45.21	21.84	2	50.8	2-1/4	57.15	2-1/4	57.15	1-1/8	28.57	50.8	50.8	44.58	77.97	77.97	54.74
DTR24-24-16	1 1/2	38.10	1 1/2	38.10	1	25.4	22.3	50.03	50.03	31.24	45.21	45.21	26.41	2	50.8	2-1/4	57.15	2-1/4	57.15	1-1/2	38.10	50.8	50.8	47.75	77.97	77.97	59.94

Reducing Union Tee

DTR

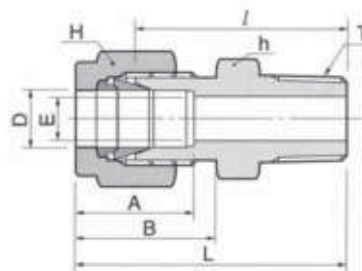


Connects metric tube

Part No.	Port 1 D	Port 2 D ₁	Port 3 D ₂	E Min.	Width across flat				A	A ₁	A ₂	B	B ₁	B ₂	l	l ₁	l ₂	L	L ₁	L ₂
					h	H	H ₁	H ₂												
DTR3M-3M-6M	3	3	6	2.4	12.7	12	12	14	12.9	12.9	15.3	15.3	15.3	17.7	18.0	18.0	19.6	24.6	24.6	27.0
DTR8M-8M-6M	8	8	6	4.8	15	16	16	14	16.2	16.2	15.3	18.6	18.6	17.7	21.3	21.3	20.5	28.8	28.8	28.0
DTR10M-10M-6M	10	10	6	4.8	17.4	19	19	14	17.2	17.2	15.3	19.5	19.5	17.7	23.9	23.9	22.4	31.5	31.5	29.8
DTR10M-10M-12M	10	10	12	7.9	20.6	19	19	22	17.2	17.2	22.8	19.5	19.5	22.0	25.9	25.9	25.9	33.5	33.5	36.0
DTR12M-6M-10M	12	6	10	4.8	20.6	22	14	19	22.8	15.3	17.2	22.0	17.7	19.5	25.9	24.4	25.9	36.0	31.8	33.5
DTR12M-6M-12M	12	6	12	4.8	20.6	22	14	22	22.8	15.3	22.8	22.0	17.7	22.0	25.9	24.4	25.9	36.0	31.8	36.0
DTR12M-10M-10M	12	10	10	7.9	20.6	22	19	19	22.8	17.2	17.2	22.0	19.5	19.5	25.9	25.9	25.9	36.0	33.5	33.5
DTR12M-12M-10M	12	12	10	7.9	20.6	22	22	19	22.8	22.8	17.2	22.0	22.0	19.5	25.9	25.9	25.9	36.0	36.0	33.5
DTR12M-12M-6M	12	12	6	4.8	20.6	22	22	14	22.8	22.8	15.3	22.0	22.0	17.7	25.9	25.9	24.4	36.0	36.0	31.8
DTR15M-15M-12M	15	15	12	9.8	25.4	25	25	22	24.4	24.4	22.8	22.0	22.0	22.0	28.7	28.7	28.7	38.8	38.8	38.8
DTR16M-16M-12M	16	16	12	9.8	25.4	25	25	22	24.4	24.4	22.8	22.0	22.0	22.0	28.7	28.7	28.7	38.8	38.8	38.8
DTR18M-18M-12M	18	18	12	9.8	27	30	30	22	24.4	24.4	22.8	22.0	22.0	22.0	29.7	29.7	28.2	39.8	39.8	38.3
DTR20M-12M-20M	20	12	20	9.8	34.9	32	22	32	26.0	22.8	26.0	22.0	22.0	22.0	32.5	32.5	32.5	42.6	42.6	42.6
DTR20M-20M-6M	20	20	6	4.8	34.9	32	32	14	26.0	26.0	15.3	22.0	22.0	17.7	32.5	32.5	31.0	42.6	42.6	38.4
DTR20M-20M-10M	20	20	10	7.9	34.9	32	32	19	26.0	26.0	17.2	22.0	22.0	19.5	32.5	32.5	32.5	42.6	42.6	40.1
DTR20M-20M-12M	20	20	12	9.8	34.9	32	32	22	26.0	26.0	22.8	22.0	22.0	22.0	32.5	32.5	32.5	42.6	42.6	42.6
DTR20M-20M-25M	20	20	25	15.9	34.9	32	32	38	26.0	26.0	31.3	22.0	22.0	26.5	34.3	34.3	36.8	44.4	44.4	49.1
DTR20M-20M-32M	20	20	32	15.9	46	32	32	50	26.0	26.0	42.0	22.0	22.0	41.6	42.5	42.5	49.3	52.6	52.6	72.3
DTR22M-22M-12M	22	22	12	9.8	34.9	32	32	22	26.0	26.0	22.8	22.0	22.0	22.0	32.5	32.5	32.5	42.6	42.6	42.6
DTR25M-20M-20M	25	20	20	15.9	34.9	38	32	32	31.3	26.0	26.0	26.5	22.0	22.0	36.8	34.3	34.3	49.1	44.4	44.4
DTR25M-25M-10M	25	25	10	7.9	34.9	38	38	19	31.3	31.3	17.2	26.5	26.5	19.5	36.8	36.8	34.3	49.1	49.1	38.9
DTR25M-25M-12M	25	25	12	9.8	34.9	38	38	22	31.3	31.3	22.8	26.5	26.5	22.0	36.8	36.8	34.3	49.1	49.1	44.4
DTR25M-25M-20M	25	25	20	15.9	34.9	38	38	32	31.3	31.3	26.0	26.5	26.5	22.0	36.8	36.8	34.3	49.1	49.1	44.4
DTR32M-32M-20M	32	32	20	15.9	46	38	38	32	42.0	42.0	26.0	41.6	41.6	22.0	49.3	49.3	42.5	72.3	72.3	52.6
DTR38M-32M-32M	38	32	32	28.6	50.8	60	38	38	49.4	42.0	42.0	47.9	41.6	41.6	56.4	54.7	54.7	84.0	77.7	77.7
DTR38M-38M-20M	38	38	20	15.9	50.8	60	60	32	49.4	49.4	26.0	47.9	47.9	22.0	56.4	56.4	47.9	84.0	84.0	58.0
DTR38M-38M-25M	38	38	25	21.8	50.8	60	60	38	49.4	49.4	31.3	47.9	47.9	26.5	56.4	56.4	50.4	84.0	84.0	62.7

Male Connector

DMC-N



Connects fractional tube to female NPT thread

Part No.	Tube O.D.		T NPT	E Min.	Width across flat				A	B	l	L
	D				h		H					
	in.	mm			in.	mm	in.	mm				
DMC1-1N	1/16	1.59	1/16	1.27	5/16	7.93	5/16	7.93	8.63	10.92	20.00	23.83
DMC1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	22.35	26.23
DMC1-4N	1/16	1.59	1/4	1.27	9/16	14.28	5/16	7.93	8.63	10.92	27.17	30.98
DMC2-1N	1/8	3.17	1/16	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.11	29.71
DMC2-2N	1/8	3.17	1/8	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	30.48
DMC2-4N	1/8	3.17	1/4	2.28	9/16	14.28	7/16	11.11	12.70	15.24	28.95	35.56
DMC2-6N	1/8	3.17	3/8	2.28	11/16	17.46	7/16	11.11	12.70	15.24	29.21	35.81
DMC2-8N	1/8	3.17	1/2	2.28	7/8	22.22	7/16	11.11	12.70	15.24	35.56	42.16
DMC3-2N	3/16	4.76	1/8	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.63	31.24
DMC3-4N	3/16	4.76	1/4	3.04	9/16	14.28	1/2	12.70	13.71	16.00	29.71	36.32
DMC4-1N	1/4	6.35	1/16	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
DMC4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
DMC4-4N	1/4	6.35	1/4	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	37.84
DMC4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	30.98	38.35
DMC4-8N	1/4	6.35	1/2	4.82	7/8	22.22	9/16	14.28	15.24	17.78	37.33	44.70
DMC4-12N	1/4	6.35	3/4	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	38.86	46.22
DMC5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	26.67	34.03
DMC5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	38.60
DMC5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	31.75	39.11
DMC5-8N	5/16	7.93	1/2	6.35	7/8	22.22	5/8	15.87	16.25	18.54	38.11	45.60
DMC6-2N	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	27.94	35.30
DMC6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	39.87
DMC6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	39.87
DMC6-8N	3/8	9.52	1/2	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	46.22
DMC6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	40.38	47.75
DMC6-16N	3/8	9.52	1	7.11	1-3/8	34.92	11/16	17.46	16.76	19.30	47.0	54.37
DMC8-2N	1/2	12.70	1/8	4.82	13/16	20.64	7/8	22.22	22.86	21.84	28.70	38.86
DMC8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
DMC8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
DMC8-8N	1/2	12.70	1/2	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	49.02
DMC8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	40.38	50.54
DMC8-16N	1/2	12.70	1	10.41	1-3/8	34.92	7/8	22.22	22.86	21.84	46.99	57.15
DMC10-4N	5/8	15.87	1/4	6.35	15/16	23.81	1	25.40	24.38	21.84	33.80	43.96
DMC10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	34.03	44.19
DMC10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	38.86	49.02
DMC10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	40.38	50.54
DMC12-6N	3/4	19.05	3/8	9.65	1-1/16	26.98	1-1/8	28.58	24.38	21.84	34.03	44.19
DMC12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	50.54
DMC12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	50.54
DMC12-16N	3/4	19.05	1	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	46.99	57.15
DMC14-8N	7/8	22.22	1/2	11.9	1-3/16	30.16	1-1/4	31.75	25.90	21.84	40.38	50.54
DMC14-12N	7/8	22.22	3/4	15.74	1-3/16	30.16	1-1/4	31.75	25.90	21.84	40.38	50.54
DMC14-16N	7/8	22.22	1	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	46.99	57.15
DMC16-6N	1	25.40	3/8	9.65	1-3/8	34.92	1-1/2	38.10	31.24	26.41	40.30	52.49
DMC16-8N	1	25.40	1/2	11.93	1-3/8	34.92	1-1/2	38.10	31.24	26.41	45.21	57.40
DMC16-12N	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	45.21	57.40
DMC16-16N	1	25.40	1	22.35	1-3/8	34.62	1-1/2	38.10	31.24	26.41	50.03	62.23

Connects fractional tube to female NPT thread

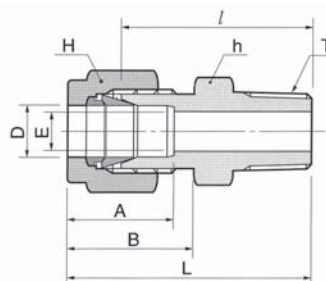
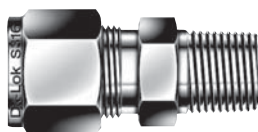
Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	l	L
	in.	mm			h		H					
					in.	mm	in.	mm				
DMC20-16N	1-1/4	31.75	1	22.35	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	77.21
DMC20-20N	1-1/4	31.75	1-1/4	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	77.21
DMC20-24N	1-1/4	31.75	1-1/2	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	60.54	82.64
DMC24-16N	1-1/2	38.10	1	22.30	2-1/8	53.98	2-1/4	57.15	50.03	45.21	59.42	86.60
DMC24-20N	1-1/2	38.10	1-1/4	27.68	2-1/8	53.98	2-1/4	57.15	50.03	45.21	59.42	86.60
DMC24-24N	1-1/2	38.10	1-1/2	33.90	2-1/8	53.98	2-1/4	57.15	50.03	45.21	61.72	88.90
DMC24-32N	1-1/2	38.10	2	33.90	2-3/4	69.85	2-1/4	57.15	50.03	45.21	62.42	99.75
DMC32-8N	2	50.80	1/2	11.93	2-3/4	69.85	3	76.20	67.56	62.73	68.40	105.73
DMC32-20N	2	50.80	1-1/4	45.97	2-3/4	69.85	3	76.20	67.56	62.73	71.40	108.73
DMC32-24N	2	50.80	1-1/2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	75.50	112.83
DMC32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	76.20	113.53

Connects metric tube to female NPT thread

Part No.	Tube O.D. D	T NPT	E Min.	Width across flat		A	B	l	L
				h	H				
DMC2M-2N	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
DMC3M-2N	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
DMC3M-4N	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
DMC4M-2N	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
DMC4M-4N	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
DMC6M-2N	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
DMC6M-4N	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
DMC6M-6N	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
DMC6M-8N	6	1/2	4.8	22	14	15.3	17.7	37.3	44.0
DMC8M-2N	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
DMC8M-4N	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
DMC8M-6N	8	3/8	6.4	18	16	16.2	18.6	31.8	39.2
DMC8M-8N	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
DMC10M-2N	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
DMC10M-4N	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
DMC10M-6N	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
DMC10M-8N	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
DMC10M-12N	10	3/4	7.9	27	19	17.2	19.5	38.9	46.5
DMC12M-2N	12	1/8	4.8	22	22	22.8	22.0	28.7	38.8
DMC12M-4N	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
DMC12M-6N	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
DMC12M-8N	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
DMC12M-12N	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
DMC14M-4N	14	1/4	6.4	24	25	24.4	22.0	34.0	44.1
DMC14M-6N	14	3/8	9.5	24	25	24.4	22.0	34.0	44.1
DMC14M-8N	14	1/2	11.1	24	25	24.4	22.0	34.0	44.1
DMC15M-8N	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DMC16M-4N	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
DMC16M-6N	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
DMC16M-8N	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DMC16M-12N	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
DMC18M-8N	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
DMC18M-12N	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
DMC20M-8N	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
DMC20M-12N	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DMC22M-12N	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DMC22M-16N	22	1	18.3	35	32	26.0	22.0	47.8	57.9
DMC25M-8N	25	1/2	11.9	35	38	31.3	26.5	45.2	57.5
DMC25M-12N	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
DMC25M-16N	25	1	21.8	35	38	31.3	26.5	50.0	62.3
DMC28M-16N	28	1	21.8	41	46	36.6	36.6	51.6	72.4
DMC28M-20N	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
DMC30M-20N	30	1-1/4	26.2	46	50	39.6	39.2	55.6	77.2
DMC32M-20N	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
DMC38M-24N	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

Male Connector

DMC-R

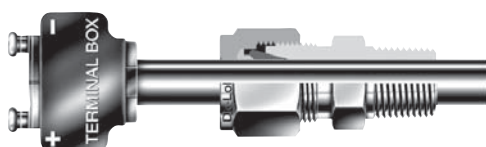


Connects fractional tube to female ISO tapered thread

Part No.	Tube O.D. D		T PT	E Min.	Width across flat				A	B	l	L
	in.	mm			h		H					
					in.	mm	in.	mm				
DMC2-2R	1/8	3.17	1/8	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	30.48
DMC2-4R	1/8	3.17	1/4	2.28	9/16	14.28	7/16	11.11	12.70	15.24	28.95	35.56
DMC4-2R	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
DMC4-4R	1/4	6.35	1/4	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	37.84
DMC4-6R	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	30.98	38.35
DMC4-8R	1/4	6.35	1/2	4.82	7/8	22.22	9/16	14.28	15.24	17.78	37.33	44.70
DMC5-2R	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	26.67	34.03
DMC5-4R	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	38.60
DMC5-16R	5/16	7.93	1	6.35	1-3/8	34.92	5/8	15.87	16.25	18.54	46.2	50.0
DMC6-2R	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	27.94	35.30
DMC6-4R	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	39.87
DMC6-6R	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	39.87
DMC6-8R	3/8	9.52	1/2	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	46.22
DMC6-12R	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	40.38	47.75
DMC8-2R	1/2	12.70	1/8	4.82	13/16	20.64	7/8	22.22	22.86	21.84	28.70	38.86
DMC8-4R	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
DMC8-6R	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
DMC8-8R	1/2	12.70	1/2	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	49.02
DMC8-12R	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	40.38	50.54
DMC8-16R	1/2	12.70	1	10.41	1-3/8	34.92	7/8	22.22	22.86	21.84	46.99	57.15
DMC10-6R	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	34.03	44.19
DMC10-8R	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	38.86	49.02
DMC10-12R	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	40.38	50.54
DMC12-8R	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	50.54
DMC12-12R	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	50.54
DMC12-16R	3/4	19.05	1	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	46.99	57.15
DMC16-12R	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	45.21	57.40
DMC16-16R	1	25.40	1	22.35	1-3/8	34.62	1-1/2	38.10	31.24	26.41	50.03	62.23
DMC20-12R	1-1/4	31.75	3/4	15.74	1-3/4	44.45	1-7/8	47.63	41.14	38.86	50.0	72.10
DMC20-16R	1-1/4	31.75	1	22.35	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	77.21
DMC20-20R	1-1/4	31.75	1-1/4	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	55.11	77.21
DMC32-32R	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	76.20	113.53

Thermocouple Connector

DMCT



Most DK-Lok male connectors can be bored-through thermocouple fittings except those fittings with small male thread like 1/8 in.

To order, insert T in DMC male connector part number. Example: DMCT8-8N-S

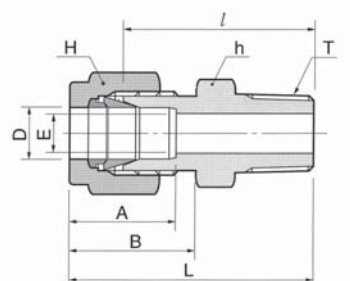
DK-Lok bored-through fittings have no shoulder or sizing angle inside the body. This allows thermocouples or dip tubes to pass beyond the fitting male thread.

Assembly instruction

1. Position the length of thermocouple to pass through fitting male thread and hold it to prevent shifting during assembly.
2. Wrench tightens the nut 1 1/4 turns from finger tight position, keeping the body steady with backup wrench.
 - Tighten the nut 3/4 turn for 1/8, and 3/16; 3, and 4mm Tube Fittings.

Male Connector

DMC-R

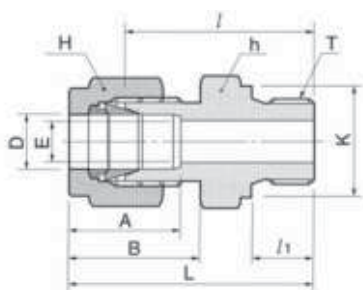


Connects metric tube to female ISO tapered thread

Part No.	Tube O.D. D	T PT	E Min.	Width across flat		A	B	l	L
				h	H				
DMC2M-2R	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
DMC3M-2R	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
DMC3M-4R	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
DMC4M-2R	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
DMC4M-4R	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
DMC6M-2R	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
DMC6M-4R	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
DMC6M-6R	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
DMC6M-8R	6	1/2	4.8	22	14	15.3	17.7	37.3	44.0
DMC8M-2R	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
DMC8M-4R	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
DMC8M-6R	8	3/8	6.4	18	16	16.2	18.6	31.8	39.2
DMC8M-8R	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
DMC10M-2R	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
DMC10M-4R	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
DMC10M-6R	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
DMC10M-8R	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
DMC10M-12R	10	3/4	7.9	27	19	17.2	19.5	38.9	46.5
DMC12M-4R	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
DMC12M-6R	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
DMC12M-8R	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
DMC12M-12R	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
DMC14M-6R	14	3/8	9.5	24	25	24.4	22.0	34.0	44.1
DMC14M-8R	14	1/2	11.1	24	25	24.4	22.0	34.0	44.1
DMC15M-6R	15	3/8	9.5	24	25	24.4	22.0	34.0	44.1
DMC15M-8R	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DMC16M-4R	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
DMC16M-6R	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
DMC16M-8R	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DMC16M-12R	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
DMC18M-8R	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
DMC18M-12R	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
DMC20M-8R	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
DMC20M-12R	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DMC22M-8R	22	1/2	11.9	30	32	26.0	22.0	42.2	52.3
DMC22M-12R	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DMC22M-16R	22	1	18.3	35	32	26.0	22.0	47.8	57.9
DMC25M-8R	25	1/2	11.9	35	38	31.3	26.5	45.2	57.5
DMC25M-12R	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
DMC25M-16R	25	1	21.8	35	38	31.3	26.5	50.0	62.3
DMC28M-16R	28	1	21.8	41	46	36.6	36.6	51.6	72.4
DMC28M-20R	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
DMC30M-20R	30	1-1/4	26.2	46	50	39.6	39.2	55.6	77.2
DMC32M-20R	32	1-1/4	28.6	46	50	42.0	41.6	56.6	79.6
DMC38M-24R	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

Male Connector for Bonded Gasket Seal

DMC-G

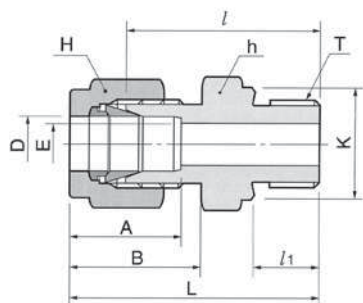


Connects fractional tube to female ISO parallel thread

Part No.	Tube O.D. D		T PF	E Min.	Width across flat				A	B	l	l ₁	L	K		
					h		H									
	in.	mm			in.	mm	in.	mm								
DMC2-2G	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	23.37	7.11	29.97	13.80		
DMC2-4G	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	28.70	11.18	35.31	18.00		
DMC2-6G	1/8	3.17	3/8	2.28	7/8	22.22	7/16	11.11	12.70	15.24	29.72	11.18	36.21	21.80		
DMC4-2G	1/4	6.35	1/8	2.28	9/16	14.28	9/16	14.28	15.24	17.78	24.89	7.11	32.26	13.80		
DMC4-4G	1/4	6.35	1/4	4.8	3/4	19.05	9/16	14.28	15.24	17.78	30.23	11.18	37.59	18.00		
DMC4-6G	1/4	6.35	3/8	4.8	7/8	22.22	9/16	14.28	15.24	17.78	31.50	11.18	38.86	21.80		
DMC4-8G	1/4	6.35	1/2	4.8	1-1/16	26.98	9/16	14.28	15.24	17.78	37.34	14.22	44.70	26.00		
DMC6-2G	3/8	9.52	1/8	4.8	5/8	15.87	11/16	17.46	16.76	19.30	26.40	7.11	33.77	13.80		
DMC6-4G	3/8	9.53	1/4	4.82	3/4	19.05	11/16	17.46	16.76	19.30	31.75	11.18	39.12	18.00		
DMC6-6G	3/8	9.53	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	33.02	11.18	40.39	21.80		
DMC6-8G	3/8	9.53	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	38.86	14.22	46.23	26.00		
DMC8-4G	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	32.51	11.18	42.67	18.00		
DMC8-6G	1/2	12.70	3/8	7.90	7/8	22.22	7/8	22.22	22.86	21.84	33.02	11.18	43.18	21.80		
DMC8-8G	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.86	14.22	49.02	26.00		
DMC12-8G	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	38.86	14.22	49.02	26.00		
DMC12-12G	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	42.67	15.75	52.83	32.00		
DMC16-8G	1	25.40	1/2	11.93	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	14.22	55.88	26.00		
DMC16-12G	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	15.75	55.88	32.00		
DMC16-16G	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	47.75	18.29	59.94	39.00		
DMC20-20G	1-1/4	31.75	1-1/4	27.68	2	50.80	1-7/8	47.63	41.14	38.86	51.16	20.00	73.26	49.00		
DMC24-24G	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	57.57	22.00	84.75	54.70		

Male Connector for Metal Gasket(Previously DOM)

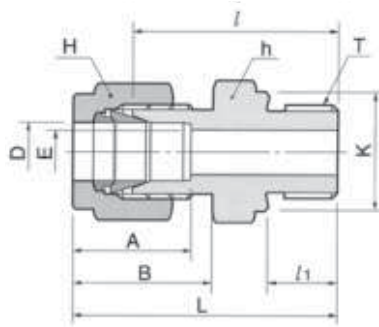
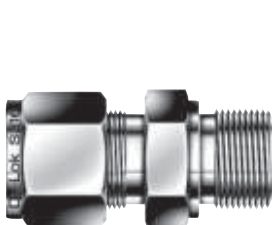
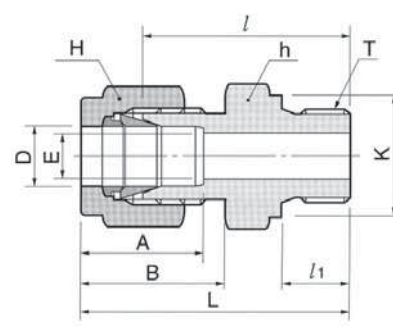
DMC-GB



Connects fractional tube to female ISO parallel thread

Part No.	Tube O.D.D		T PF	E Min.	Width across flat				A	B	l	l ₁	L	K
					h		H							
	in.	mm			in.	mm	in.	mm						
DMC2-2GB	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	23.37	7.11	29.97	13.72
DMC2-4GB	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	28.70	11.18	35.31	18.03
DMC2-6GB	1/8	3.17	3/8	2.28	7/8	22.22	7/16	11.11	12.70	15.24	29.72	11.18	36.21	21.84
DMC4-2GB	1/4	6.35	1/8	2.28	9/16	14.28	9/16	14.28	15.24	17.78	24.89	7.11	32.26	13.72
DMC4-4GB	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.23	11.18	37.59	18.03
DMC4-6GB	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	31.50	11.18	38.86	21.84
DMC4-8GB	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	37.34	14.22	44.70	25.91
DMC6-4GB	3/8	9.53	1/4	4.82	3/4	19.05	11/16	17.46	16.76	19.30	31.75	11.18	39.12	18.03
DMC6-6GB	3/8	9.53	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	33.02	11.18	40.39	21.84
DMC6-8GB	3/8	9.53	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	38.86	14.22	46.23	25.91
DMC8-4GB	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	32.51	11.18	42.67	18.03
DMC8-6GB	1/2	12.70	3/8	9.65	7/8	22.22	7/8	22.22	22.86	21.84	33.02	11.18	43.18	21.84
DMC8-8GB	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	38.86	14.22	49.02	25.91
DMC12-8GB	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	38.86	14.22	49.02	25.91
DMC12-12GB	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	42.67	15.75	52.83	32.00
DMC16-8GB	1	25.40	1/2	11.93	1-3/8	34.92	1-1/2	38.10	31.24	26.41	43.69	14.22	55.88	25.91
DMC16-16GB	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	47.75	18.29	59.94	39.12
DMC20-20GB	1-1/4	31.75	1-1/4	27.68	2	50.80	1-7/8	47.63	41.14	38.86	51.16	20.00	73.26	49.00
DMC24-24GB	1-1/2	38.10	1-1/2	34.03	2-1/4	57.15	2-1/4	57.15	50.03	45.21	57.57	22.00	84.75	54.70

Male Connector for Metal Gasket (previously DOM)

DMC-GB, DMC-G**DMC-GB****DMC-G****Connects metric tube to female ISO parallel thread**

Part No.	Tube O.D. D	T PF	E Min.	Width across flat		A	B	l	l ₁	L	K
				h	H						
DMC3M-2GB(-2G)	3	1/8	2.4	14	12	12.9	15.3	23.4	7.1	30.0	13.8
DMC3M-4GB(-4G)	3	1/4	2.4	19	12	12.9	15.3	28.7	11.2	35.3	18.0
DMC4M-2GB(-2G)	4	1/8	2.4	14	12	13.7	16.1	24.1	7.1	30.7	13.8
DMC6M-2GB(-2G)	6	1/8	4.0	14	14	15.3	17.7	24.9	7.1	32.3	13.8
DMC6M-4GB(-4G)	6	1/4	4.8	19	14	15.3	17.7	30.2	11.2	37.6	18.0
DMC6M-6GB(-6G)	6	3/8	4.8	22	14	15.3	17.7	31.5	11.2	38.9	21.8
DMC6M-8GB(-8G)	6	1/2	4.8	27	14	15.3	17.7	37.3	14.2	44.7	26.0
DMC8M-2GB(-2G)	8	1/8	4.0	15	16	16.2	18.6	25.7	7.1	33.2	13.8
DMC8M-4GB(-4G)	8	1/4	6.4	19	16	16.2	18.6	31.0	11.2	38.5	13.8
DMC8M-6GB(-6G)	8	3/8	6.4	22	16	16.2	18.6	32.3	11.2	39.8	21.8
DMC8M-8GB(-8G)	8	1/2	6.4	27	16	16.2	18.6	38.1	14.2	45.6	26.0
DMC10M-4GB(-4G)	10	1/4	5.9	19	19	17.2	19.5	31.8	11.2	39.4	18.0
DMC10M-6GB(-6G)	10	3/8	7.9	22	19	17.2	19.5	33.0	11.2	40.6	21.8
DMC10M-8GB(-8G)	10	1/2	7.9	27	19	17.2	19.5	38.9	14.2	46.5	26.0
DMC12M-4GB(-4G)	12	1/4	5.9	22	22	22.8	22.0	32.5	11.2	42.6	18.0
DMC12M-6GB(-6G)	12	3/8	7.9	22	22	22.8	22.0	33	11.2	43.1	21.8
DMC12M-8GB(-8G)	12	1/2	9.5	27	22	22.8	22.0	38.9	14.2	49.0	26.0
DMC12M-12GB(-12G)	12	3/4	9.5	35	22	22.8	22.0	42.7	15.7	52.8	32.0
DMC15M-8GB(-8G)	15	1/2	11.9	27	25	24.4	22.0	33.9	14.2	49.0	26.0
DMC16M-6GB(-6G)	16	3/8	7.9	24	25	24.4	22.0	33.8	11.2	43.9	21.8
DMC16M-8GB(-8G)	16	1/2	11.9	27	25	24.4	22.0	38.9	14.2	49.0	26.0
DMC18M-8GB(-8G)	18	1/2	11.9	27	30	24.4	22.0	38.9	14.2	49.0	26.0
DMC18M-12GB(-12G)	18	3/4	15.1	35	30	24.4	22.0	42.7	15.7	52.8	32.0
DMC20M-8GB(-8G)	20	1/2	11.9	30	32	26.0	22.0	40.4	14.2	50.5	26.0
DMC20M-12GB(-12G)	20	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
DMC22M-12GB(-12G)	22	3/4	15.9	35	32	26.0	22.0	42.7	15.7	52.8	32.0
DMC22M-16GB(-16G)	22	1	18.3	41	32	26.0	22.0	45.2	18.3	55.3	39.0
DMC25M-12GB(-12G)	25	3/4	15.9	35	38	31.3	26.5	45.2	15.7	57.5	32.0
DMC25M-16GB(-16G)	25	1	19.8	41	38	31.3	26.5	47.8	18.3	60.1	39.0
DMC28M-16GB(-16G)	28	1	19.8	41	46	36.6	36.6	49.3	18.3	70.1	39.0
DMC28M-20GB(-20G)	28	1-1/4	21.8	50	46	36.6	36.6	53.1	19.8	73.9	49.0
DMC30M-20GB(-20G)	30	1-1/4	21.8	50	46	36.6	36.6	53.1	19.8	73.9	49.0
DMC32M-20GB(-20G)	32	1-1/4	28.6	50	50	42.0	41.6	55.9	19.8	78.9	49.0
DMC38M-24GB(-24G)	38	1-1/2	31.8	55	60	49.4	47.9	61.7	20.6	89.3	54.7

ISO Pipe Thread

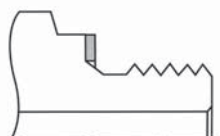
The International Standards Organization prepares the ISO 228-1 and ISO 7-1 international standard to standardize the nomenclature of several international pipe threads.

ISO 228-1

ISO 228-1 represents internal and external parallel pipe threads where pressure-tight joints are not made on the threads. Compressing two tightening surfaces outside the threads or interposing a gasket seal will make the internal and external thread assembly pressure-tight joint.

ISO 228-1 standardizes the following international pipe threads.

1. BS 2779 (BSPP) 2. DIN-ISO 228/1 3. JIS B0202 (PF)



Sealing by compression against the face of the female threaded component.

Reference DIN 3852 Form A

See page on 9

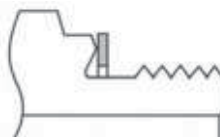
for G end connection

A self-centering taper is constructed at male thread end. This taper centers a bonded gasket to seal up on the face of the female threaded component.

DGB: NBR inner ring bonded to carbon steel outer ring.

DGV: FKM inner ring bonded to stainless steel outer ring.

Part Number		E		H		D	
		mm	in.	mm	in.	mm	in.
DGB-2-C	DGV-2-S	10.4	0.41	2.0	0.08	16	0.63
DGB-4-C	DGV-4-S	13.7	0.54	2.0	0.08	20.6	0.81
DGB-6-C	DGV-6-S	17.3	0.68	2.0	0.08	23.9	0.94
DGB-8-C	DGV-8-S	21.6	0.85	2.5	0.1	28.7	1.13
DGB-12-C	DGV-12-S	26.9	1.06	2.5	0.1	35.1	1.38
DGB-16-C	DGV-16-S	33.8	1.33	2.5	0.1	42.9	1.69
DGB-20-C	DGV-20-S	42.4	1.67	2.5	0.1	51.05	2.01
DGB-24-C	DGV-24-S	48.8	1.92	2.5	0.1	59.18	2.33



Sealing by gasket.

Reference DIN 3852 Form B

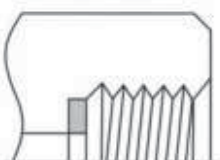
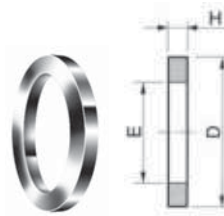
See page on 9

for GB end connection

A Metal Gasket performs the sealing between the reverse bevel of the fitting and the face of the female threaded component.

DGC Copper Gasket

Part Number	E		H		D	
	mm	in.	mm	in.	mm	in.
DGC-2-G	9.9	0.39	1.0	0.04	15.0	0.59
DGC-4-G	13.2	0.52	1.5	0.06	19.1	0.75
DGC-6-G	16.8	0.66	1.5	0.06	23.1	0.91
DGC-8-G	21.1	0.83	1.5	0.06	26.9	1.06
DGC-12-G	26.7	1.05	2.0	0.08	33.0	1.30
DGC-16-G	33.3	1.31	2.0	0.08	40.1	1.58
DGC-20-G	42.2	1.66	2.0	0.08	49.8	1.96
DGC-24-G	48.0	1.89	2.0	0.08	58.4	2.30



Sealing by gasket.

Reference DIN 3852 Form Y

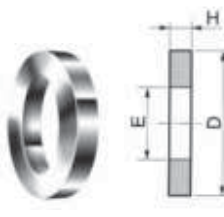
See page on 9

for GY end connection

A gasket is dropped into the flat bottom of the female thread. The face of the male thread exerts a load on the gasket to seal.

DGC Copper Gasket

Part Number	E		H		D	
	mm	in.	mm	in.	mm	in.
DGC-4-	7.6	0.30	1.8	0.07	10.7	0.42
DGC-6-	8.6	0.34	2.3	0.09	14.2	0.56
DGC-8-	9.1	0.36	2.5	0.10	17.8	0.70



Gasket Temperature Ratings	Ratings		
	Gasket	Material	
	DGB	NBR	-40 to 110°C (-40 to 230°F)
	DGV	FKM	-28 to 204°C (-20 to 400°F)
	DGC, DGG	Copper	-198 to 204°C (-325 to 400°F)

ISO Internal Parallel Pipe Thread

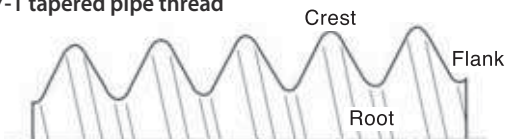
DK-Lok Pipe Thread Designator	ISO Female Parallel Pipe Size	Minimum Full Thread Depth L	Thread Minor Diameter D	Minimum Flat Diameter for DGB & DGC C
2	1/8	0.31	0.337/0.348	0.59
4	1/4	0.47	0.450/0.468	0.75
6	3/8	0.47	0.588/0.606	0.91
8	1/2	0.55	0.733/0.755	1.06
12	3/4	0.63	0.949/0.971	1.30
16	1	0.71	1.193/1.218	1.58

ISO 7-1

ISO 7-1 represents internal and external pipe tapered threads where pressure-tight joints are made by interference fit. This thread requires sealant to fill the voids between male and female threads that also prevents galling on threads. The sealant usually contains lubricant.

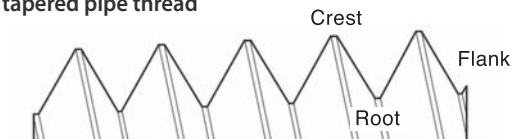
ISO 7-1 standardizes the following international pipe threads.
1. BS 21 (BSPT) 2. JIS B0203 (PT) 3. DIN 2999 (male thread only)

ISO 7-1 tapered pipe thread



- 55° thread angle
- Pitch measured in millimeters
- Truncation of root and crest are round
- Taper angle 1° 47'

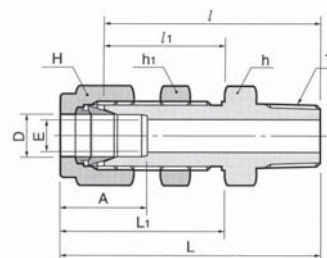
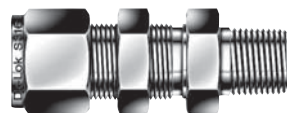
NPT tapered pipe thread



- 60° thread angle
- Pitch measured in inches
- Truncation of root and crest are flat
- Taper angle 1° 47'

Bulkhead Male Connector

DMCB-N

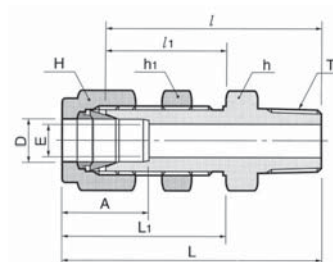
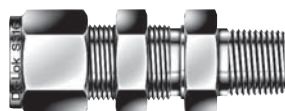


Connects fractional tube to female NPT thread

Part No.	Tube O.D.		T NPT	E Min.	Width across flat						A	L	L ₁	L	L ₁	Panel Hole Drill size	Panel Max Thickness
	D				h		h ₁		H								
	in.	mm			in.	mm	in.	mm	in.	mm							
DMCB2-2N	1/8	3.17	1/8	2.28	1/2	12.70	1/2	12.70	7/16	11.11	12.70	39.87	24.63	46.48	31.24	8.33	12.70
DMCB4-2N	1/4	6.35	1/8	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	42.16	26.16	49.53	33.52	11.50	10.16
DMCB4-4N	1/4	6.35	1/4	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	45.97	26.16	53.34	33.52	11.50	10.16
DMCB4-6N	1/4	6.35	3/8	4.8	3/4	19.05	5/8	15.87	9/16	14.28	15.24	45.97	26.16	53.34	33.52	11.50	10.16
DMCB4-8N	1/4	6.35	1/2	4.8	7/8	22.22	5/8	15.87	9/16	14.28	15.24	53.08	26.16	60.45	33.52	11.50	10.16
DMCB6-4N	3/8	9.52	1/4	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	50.03	29.46	57.40	36.83	14.68	11.17
DMCB6-6N	3/8	9.52	3/8	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	50.03	29.46	57.40	36.83	14.68	11.17
DMCB6-8N	3/8	9.52	1/2	7.11	7/8	22.22	3/4	19.05	11/16	17.46	16.76	56.38	29.46	63.75	36.83	14.68	11.17
DMCB8-6N	1/2	12.70	3/8	9.39	15/16	23.81	15/16	23.81	7/8	22.22	22.86	53.08	31.75	63.24	41.91	19.44	12.70
DMCB8-8N	1/2	12.70	1/2	10.41	15/16	23.81	15/16	23.81	7/8	22.22	22.86	58.67	31.75	68.83	41.91	19.44	12.70
DMCB10-6N	5/8	15.87	3/8	7.93	1-1/16	26.98	1-1/16	26.98	1	25.4	24.38	54.52	32.51	64.68	42.67	22.62	12.70
DMCB12-12N	3/4	19.05	3/4	15.74	1-3/16	30.16	1-3/16	30.16	1-1/8	28.58	24.38	66.04	37.33	76.20	47.49	25.76	16.76
DMCB16-16N	1	25.40	1	22.35	1-5/8	41.28	1-5/8	41.28	1-1/2	38.10	31.24	81.02	45.21	93.21	57.40	33.73	19.05
DMCB20-20N	1-1/4	31.75	1-1/4	27.68	1-7/8	47.63	1-7/8	47.63	1-7/8	47.63	41.14	85.97	47.75	108.07	69.85	41.67	19.05
DMCB24-24N	1-1/2	38.10	1-1/2	33.90	2-1/4	57.15	2-1/4	57.15	2-1/4	57.15	50.03	93.03	49.27	120.21	76.45	49.61	19.05
DMCB32-32N	2	50.80	2	45.97	2-3/4	69.85	2-3/4	69.85	3	76.20	67.56	107.29	56.38	144.62	93.71	16.27	19.05

Bulkhead Male Connector

DMCB-N

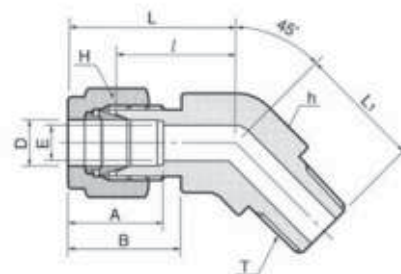
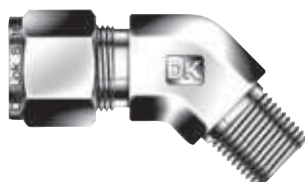


Connects metric tube to female NPT thread

Part No.	Tube O.D. D	T NPT	E Min.	Width across flat			A	l	l ₁	L	L ₁	Panel Hole Drill size	Panel Max Thickness
				h	h ₁	H							
DMCB6M-2N	6	1/8	4.8	16	16	14	15.3	42.2	26.2	49.6	33.6	11.5	10.2
DMCB6M-4N	6	1/4	4.8	16	16	14	15.3	46.2	26.2	53.6	33.6	11.5	10.2
DMCB6M-6N	6	3/8	4.8	16	16	14	15.3	46.2	26.2	53.6	33.6	11.5	10.2
DMCB6M-8N	6	1/2	4.8	16	16	14	15.3	52.6	26.2	60.0	33.6	11.5	10.2
DMCB8M-6N	8	3/8	6.4	18	18	16	16.2	50.0	28.6	57.5	36.1	13.1	11.2
DMCB10M-4N	10	1/4	7.1	22	22	19	17.2	50.0	29.4	57.5	37.0	16.2	11.2
DMCB10M-6N	10	3/8	7.9	22	22	19	17.2	50.0	29.4	57.5	37.0	16.2	11.2
DMCB10M-8N	10	1/2	7.9	22	22	19	17.2	55.9	29.4	63.5	37.0	16.2	11.2
DMCB12M-6N	12	3/8	9.8	24	24	22	22.8	53.3	31.8	63.4	41.9	19.5	12.7
DMCB12M-8N	12	1/2	9.8	24	24	22	22.8	58.7	31.8	68.8	41.9	19.5	12.7

45° Male Elbow

DLBM



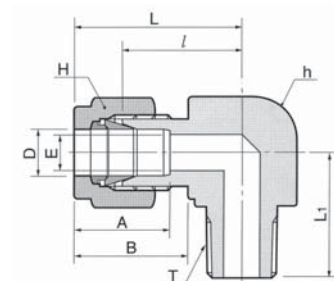
Connects fractional tube to female NPT thread

Part No.	Tube O.D.		T NPT	E Min.	Width across flat				A	B	l	L	L ₁
	D				h		H						
	in.	mm			in.	mm	in.	mm					
DLBM2-2N	1/8	3.17	1/8	2.4	1/2	12.70	7/16	11.11	12.70	15.24	15.77	22.38	16.51
DLBM4-2N	1/4	6.35	1/8	4.8	1/2	12.70	9/16	14.28	15.24	17.78	17.27	24.63	16.51
DLBM4-4N	1/4	6.35	1/4	4.8	1/2	12.70	9/16	14.28	15.24	17.78	17.27	24.63	21.08
DLBM6-2N	3/8	9.52	1/8	4.8	5/8	15.87	11/16	17.46	16.76	19.30	20.57	27.94	18.28
DLBM6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	20.57	27.94	22.86
DLBM6-6N	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	16.76	19.30	21.84	29.21	24.13
DLBM8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	21.84	32.00	24.13
DLBM8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	21.84	32.00	28.95
DLBM12-12N	3/4	19.05	3/4	15.74	1-1/8	28.58	1-1/8	28.58	24.38	21.84	23.87	34.03	30.98
DLBM16-16N	1	25.40	1	22.35	1-3/8	34.93	1-1/2	38.10	31.24	26.41	28.19	40.38	37.84

Connects metric tube to female NPT thread

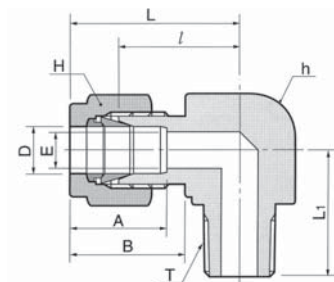
Part No.	Tube O.D. D	T NPT	E Min.	Width across flat		A	B	l	L	L ₁
				h	H					
DLBM6M-4N	6	1/4	4.8	12.7	14.0	15.3	17.7	21.8	29.4	22.9
DLBM12M-8N	12	1/2	9.5	20.64	22.0	22.8	22.0	21.8	31.9	29.0

Male Elbow

DLM-N**Connects fractional tube to female NPT thread**

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	ℓ	L	L ₁
	h				H								
	in.	mm			in.	mm							
DLM1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
DLM1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
DLM2-1N	1/8	3.17	1/16	2.28	7/16	11.11	7/16	11.11	12.70	15.24	17.02	23.63	17.78
DLM2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
DLM2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.26
DLM3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	18.79
DLM3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
DLM4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
DLM4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.47	18.79
DLM4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.81	27.18	23.87
DLM4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	26.20
DLM4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	33.02
DLM5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.81
DLM5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	29.77	24.50
DLM5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	26.20
DLM6-2N	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	20.60
DLM6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
DLM6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	26.20
DLM6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	31.42	33.02
DLM6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
DLM8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DLM8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DLM8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
DLM8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
DLM10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	30.22
DLM10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	35.10
DLM10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
DLM12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	37.00
DLM12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	36.83
DLM14-12N	7/8	22.22	3/4	15.74	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
DLM16-12N	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
DLM16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
DLM20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
DLM24-24N	1-1/2	38.10	1-1/2	33.90	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
DLM32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	62.73	63.73	69.80	107.18	70.61

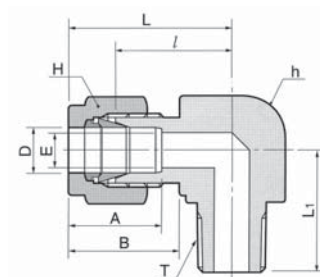
Male Elbow

DLM-N


Connects metric tube to female NPT thread

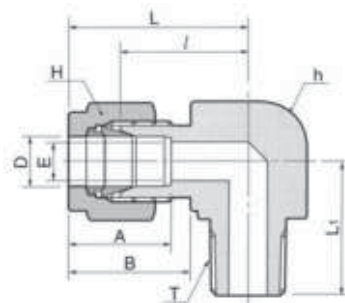
Part No.	Tube O.D. D	T NPT	E Min.	Width across flat		A	B	L	L1	L2
				h	H					
DLM3M-1N	3	1/16	2.4	11.1	12	12.9	15.3	17.0	23.6	17.8
DLM3M-2N	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DLM3M-4N	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DLM4M-2N	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DLM4M-4N	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DLM6M-2N	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DLM6M-4N	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
DLM6M-6N	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DLM6M-8N	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DLM8M-2N	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DLM8M-4N	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DLM8M-6N	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DLM8M-8N	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DLM10M-2N	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DLM10M-4N	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DLM10M-6N	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DLM10M-8N	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DLM12M-4N	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DLM12M-6N	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DLM12M-8N	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DLM12M-12N	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DLM15M-6N	15	3/8	9.5	23.81	25	24.4	22.0	27.9	38.0	30.2
DLM15M-8N	15	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
DLM16M-6N	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DLM16M-8N	16	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
DLM16M-12N	16	3/4	12.7	23.81	25	24.4	22.0	29.7	39.8	36.8
DLM18M-8N	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DLM18M-12N	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DLM20M-8N	20	1/2	11.9	34.9	32	26.0	22.0	34.5	44.6	41.7
DLM20M-12N	20	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
DLM22M-8N	22	1/2	11.9	34.9	32	26.0	22.0	32.5	42.6	39.6
DLM22M-12N	22	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
DLM22M-16N	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
DLM25M-12N	25	3/4	15.9	34.9	38	31.3	26.5	36.8	49.1	41.7
DLM25M-16N	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5
DLM28M-16N	28	1	21.8	41.0	46	36.6	36.6	43.2	64.0	53.7
DLM30M-20N	30	1-1/4	26.2	46.0	50	39.6	39.2	48.3	69.9	53.1
DLM32M-20N	32	1-1/4	27.8	46.0	50	42.0	41.6	49.3	72.3	53.1
DLM38M-24N	38	1-1/2	33.7	50.8	60	49.4	47.9	56.4	84.0	60.4

Male Elbow

DLM-R**Connects fractional tube to female ISO tapered thread**

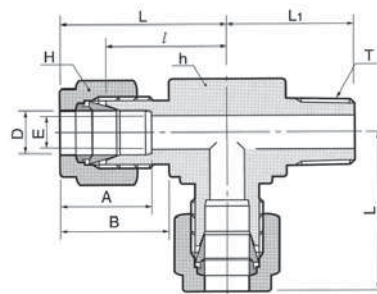
Part No.	Tube O.D. D		T PT	E Min.	Width across flat				A	B	ℓ	L	L ₁
	h				H								
	in.	mm			in.	mm							
DLM2-2R	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
DLM2-4R	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.26
DLM3-4R	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
DLM4-2R	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.47	18.79
DLM4-4R	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.81	27.18	23.87
DLM4-6R	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	26.20
DLM4-8R	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	33.02
DLM5-4R	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	29.77	24.50
DLM5-6R	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	26.20
DLM6-2R	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	20.60
DLM6-4R	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
DLM6-6R	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	26.20
DLM6-8R	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	31.42	33.02
DLM6-12R	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
DLM8-4R	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DLM8-6R	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DLM8-8R	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
DLM8-12R	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
DLM10-6R	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	30.22
DLM10-8R	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	28.00	37.06	35.10
DLM10-12R	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
DLM12-8R	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	37.00
DLM12-12R	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.57	24.38	21.84	29.71	39.87	36.83
DLM12-16R	3/4	19.05	1	16.0	1-3/8	34.92	1-1/8	28.57	24.38	21.84	34.54	44.59	46.48
DLM16-12R	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
DLM16-16R	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
DLM20-12R	1-1/4	31.75	3/4	15.74	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	42.95
DLM20-20R	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75

Male Elbow

DLM-R

Connects metric tube to female ISO tapered thread

Part No.	Tube O.D. D	T PT	E Min.	Width across flat		A	B	L	L	L ₁
				h	H					
DLM3M-1R	3	1/16	2.4	11.1	12	12.9	15.3	17.0	23.6	17.8
DLM3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DLM3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DLM4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DLM4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DLM6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DLM6M-4R	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
DLM6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DLM6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DLM8M-2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DLM8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DLM8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DLM8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DLM10M-2R	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DLM10M-4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DLM10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DLM10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DLM12M-2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
DLM12M-4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DLM12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DLM12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DLM12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DLM14M-8R	14	1/2	11.1	23.81	25	24.4	22.0	27.9	38.0	30.2
DLM15M-6R	15	3/8	9.5	23.81	25	24.4	22.0	27.9	38.0	30.2
DLM15M-8R	15	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
DLM16M-6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DLM16M-8R	16	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
DLM18M-8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DLM18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DLM20M-8R	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DLM20M-12R	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DLM22M-8R	22	1/2	11.9	34.92	32	26.0	22.0	32.5	42.6	39.6
DLM22M-12R	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DLM22M-16R	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
DLM25M-8R	25	1/2	11.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DLM25M-12R	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DLM25M-16R	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5
DLM28M-16R	28	1	21.8	41.0	46	36.6	36.6	43.2	64.0	53.7

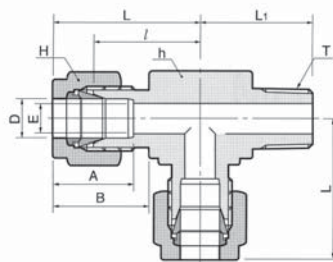
Male Run Tee

DTRM-N**Connects fractional tube to female NPT thread**

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	ℓ	L	L ₁
	h				H								
	in.	mm			in.	mm							
DTRM1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
DTRM1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
DTRM2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
DTRM2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.26
DTRM3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	24.38	18.79
DTRM3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
DTRM4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
DTRM4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	18.79
DTRM4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	27.08	23.87
DTRM4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	28.40
DTRM4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	35.10
DTRM5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.71	19.81
DTRM5-4N	5/16	7.94	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.77	24.50
DTRM5-6N	5/16	7.94	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	28.40
DTRM6-4N	3/8	9.52	1/4	7.11	5/8	15.87	1/16	17.46	16.76	19.30	23.11	30.48	25.40
DTRM6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	28.44
DTRM6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	33.02
DTRM6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
DTRM8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DTRM8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DTRM8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
DTRM8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.84	36.83
DTRM10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	29.40
DTRM10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00
DTRM10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
DTRM12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
DTRM12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.81	36.83
DTRM14-12N	7/8	22.23	3/4	15.74	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
DTRM16-12N	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
DTRM16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
DTRM20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
DTRM24-24N	1-1/2	38.10	1-1/2	33.90	2	50.80	2-14	57.15	50.03	45.21	50.80	77.97	60.45
DTRM32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18	70.61

Male Run Tee

DTRM-R



Connects fractional tube to female ISO tapered thread

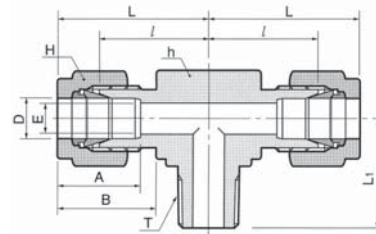
Part No.	Tube O.D. D		T PT	E Min.	Width across flat				A	B	ℓ	L	L ₁
					h		H						
	in.	mm			in.	mm	in.	mm					
DTRM6-4R	3/8	9.52	1/4	7.11	5/8	15.87	1/16	17.46	16.76	19.30	23.11	30.48	25.40
DTRM8-6R	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DTRM8-8R	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
DTRM10-8R	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00

Connects metric tube to female ISO tapered thread

Part No.	Tube O.D. D	T PT	E Min.	Width across flat		A	B	ℓ	L	L ₁
				h	H					
DTRM3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DTRM3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DTRM4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DTRM4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DTRM6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DTRM6M-4R	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
DTRM6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DTRM6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DTRM8M-2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DTRM8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DTRM8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DTRM8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DTRM10M-2R	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DTRM10M-4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DTRM10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DTRM10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DTRM12M-2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
DTRM12M-4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DTRM12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DTRM12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DTRM12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DTRM16M-6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DTRM16M-8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
DTRM16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
DTRM18M-8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DTRM18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DTRM20M-8R	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTRM20M-12R	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTRM22M-12R	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTRM22M-16R	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
DTRM25M-12R	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DTRM25M-16R	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5

Male Branch Tee

DTBM-N, -R



Connects fractional tube to female NPT thread

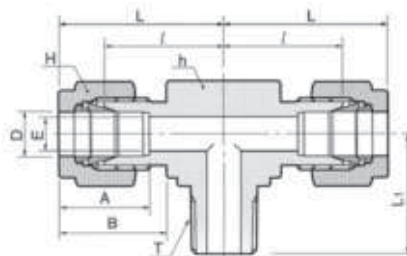
Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	ℓ	L	L ₁
	h				H								
	in.	mm			in.	mm	in.	mm					
DTBM1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
DTBM1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	15.24	19.05	17.78
DTBM2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	18.90
DTBM2-4N	1/8	3.17	1/4	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.30	24.91	23.36
DTBM3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	24.38	18.79
DTBM3-4N	3/16	4.76	1/4	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	23.36
DTBM4-1N	1/4	6.35	1/16	3.04	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.90	18.79
DTBM4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.10
DTBM4-4N	1/4	6.35	1/4	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	27.08	23.87
DTBM4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	28.40
DTBM4-8N	1/4	6.35	1/2	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.60	31.97	35.10
DTBM5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.71	19.81
DTBM5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	22.35	29.77	24.50
DTBM5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	28.40
DTBM6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	25.40
DTBM6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	28.44
DTBM6-8N	3/8	9.52	1/2	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	33.02
DTBM6-12N	3/8	9.52	3/4	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	29.71	37.08	36.83
DTBM8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DTBM8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DTBM8-8N	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
DTBM8-12N	1/2	12.70	3/4	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	29.71	39.87	36.83
DTBM10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	29.40
DTBM10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00
DTBM10-12N	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	29.71	39.87	36.83
DTBM12-8N	3/4	19.05	1/2	11.93	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	37.00
DTBM12-12N	3/4	19.05	3/4	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	36.83
DTBM14-12N	7/8	22.22	3/4	15.74	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	41.65
DTBM16-12N	1	25.40	3/4	15.74	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	42.20
DTBM16-16N	1	25.40	1	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	46.70
DTBM20-20N	1-1/4	31.75	1-1/4	27.68	1-11/16	42.86	1-7/8	47.63	41.14	38.86	44.50	66.54	47.75
DTBM24-24N	1-1/2	38.10	1-1/2	33.90	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97	60.45
DTBM32-32N	2	50.80	2	45.97	2-3/4	69.85	3	76.20	67.56	62.73	69.80	107.18	70.61

Connects fractional tube to female ISO tapered thread

Part No.	Tube O.D. D		T PT	E Min.	Width across flat				A	B	L	L	L ₁
					h		H						
					in.	mm	in.	mm					
DTBM6-4R	3/8	9.52	1/4	7.11	5/8	15.87	1/16	17.46	16.76	19.30	23.11	30.48	25.40
DTBM8-6R	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	28.30
DTBM8-8R	1/2	12.70	1/2	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	33.02
DTBM10-8R	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	27.90	38.10	34.00

Male Branch Tee

DTBM-N

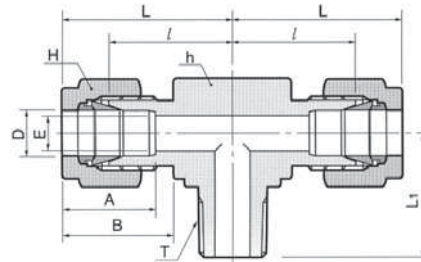


Connects metric tube to female NPT thread

Part No.	Tube O.D. D	T NPT	E Min.	Width across flat		A	B	L	L1	L2
				h	H					
DTBM3M-2N	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DTBM3M-4N	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DTBM4M-2N	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DTBM4M-4N	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DTBM6M-2N	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DTBM6M-4N	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
DTBM6M-6N	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DTBM6M-8N	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DTBM8M-2N	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DTBM8M-4N	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DTBM8M-6N	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DTBM8M-8N	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DTBM10M-2N	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DTBM10M-4N	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DTBM10M-6N	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DTBM10M-8N	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DTBM12M-2N	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
DTBM12M-4N	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DTBM12M-6N	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DTBM12M-8N	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DTBM12M-12N	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DTBM16M-6N	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DTBM16M-8N	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
DTBM16M-12N	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
DTBM18M-8N	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DTBM18M-12N	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DTBM20M-8N	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM20M-12N	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM22M-12N	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM22M-16N	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
DTBM25M-12N	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DTBM25M-16N	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5

Male Branch Tee

DTBM -R



Connects metric tube to female ISO tapered thread

Part No.	Tube O.D. D	T PT	E Min.	Width across flat		A	B	l	L	L ₁
				h	H					
DTBM3M-2R	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DTBM3M-4R	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DTBM4M-2R	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DTBM4M-4R	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DTBM6M-2R	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DTBM6M-4R	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
DTBM6M-6R	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DTBM6M-8R	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DTBM8M-2R	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DTBM8M-4R	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DTBM8M-6R	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DTBM8M-8R	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DTBM10M-2R	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DTBM10M-4R	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DTBM10M-6R	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DTBM10M-8R	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DTBM12M-2R	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
DTBM12M-4R	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DTBM12M-6R	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DTBM12M-8R	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DTBM12M-12R	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DTBM16M-6R	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DTBM16M-8R	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
DTBM16M-12R	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
DTBM18M-8R	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DTBM18M-12R	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DTBM20M-8R	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM20M-12R	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM22M-12R	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM22M-16R	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
DTBM25M-12R	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DTBM25M-16R	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5