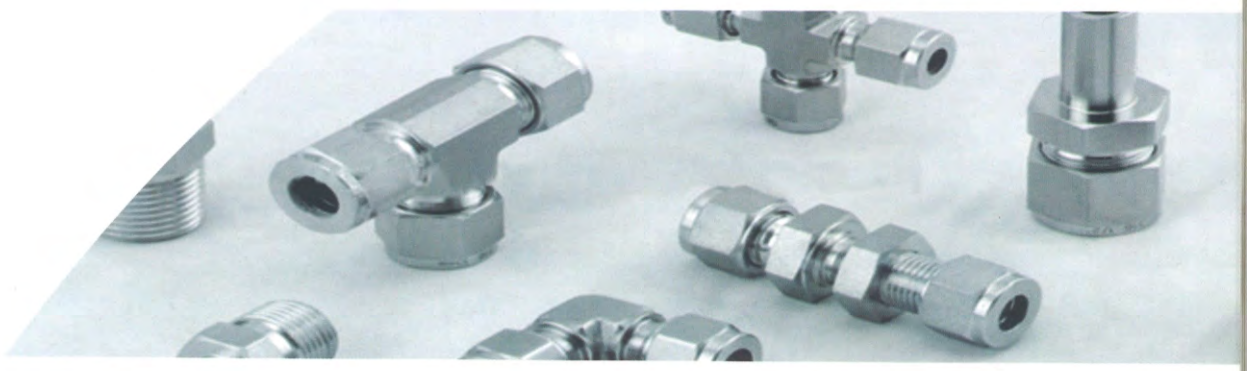
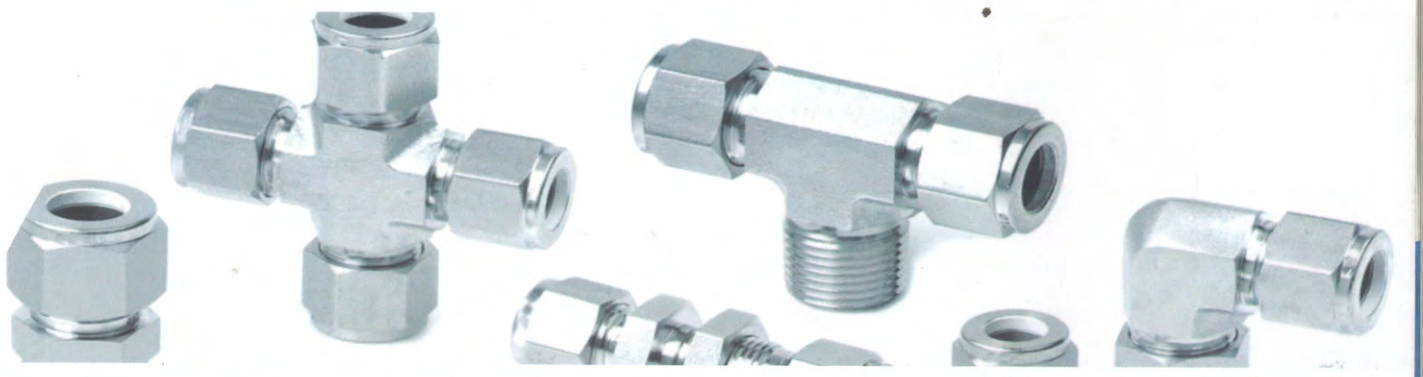
MISTRY

ENGINEERING WORKS PVT. LTD.

Excellence in Precision Jobs

TUBE FITTINGS





COMPANY PROFILE

MISTRY ENGINEERING WORKS PVT. LTD.
is the reputed and renowned company Since 1967 in Goregaon, Mumbai.
We are in to customized mechanic work.
We are specialized in customized jobs.
The product manufactured as per customer's drawing and requirement.

We are ISO 9001:2015 certified company by SWISO INDIA PVT. LTD. Switzerland based accreditation & NABC approved certification body for the scope of machining components as per customer's requirement.

We do precision machining work for all alloy steels, ferrous & non ferrous material for original equipment manufactures in different field like automobile industries, industrial fans, nozzles manufactirer and exporter
We are also manufacturing and supplying some of the critical machining components for a German based Company situated at Mumbai. Morover, we have honored with a rating certificate of Grade "A" from them and other customers too.

"CUSTOMERS SATISFACTION & CONSISTENCY IN QUALITY IS OUR MAIN OBJECTIVE"

SWISSCERT

Certificate

SWISS CERT Pvt. Ltd. hereby certify that the Quality Management System of

MISTRY ENGINEERING WORKS PVT. LTD.
117, VIVEK INDUSTRIAL ESTATE, WALBHAT ROAD,
GOREGAON EAST, MUMBAI – 400 063, MAHARASHTRA, INDIA

has been assessed and found to be in accordance with the requirements of

Quality Management System ISO 9001:2015

and scope of activities are detailed below

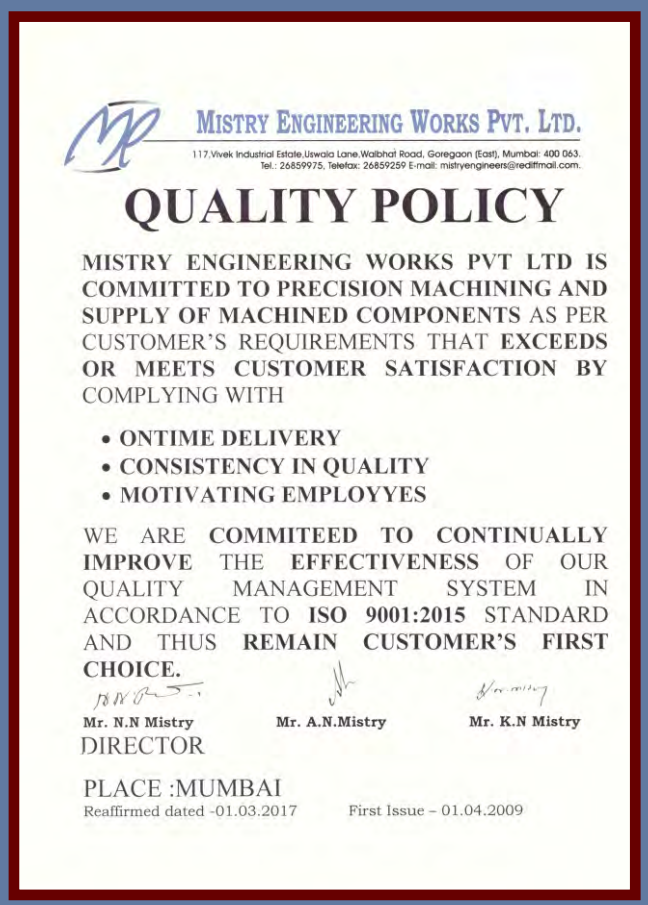
PRECISION MACHINING AND SUPPLY OF COMPONENTS AS PER CUSTOMER REQUIREMENTS.

This Certificate is valid for a period of Three years from: 30.07.2017 until: 29.07.2020
And remains valid Subject to satisfactory completion of surveillance audits.

Certificate Number: 210040
Rev No: 00
Date of Initial Certification: 30.09.2008

ISO 9001 CB 004 Director

SWISS CERT PVT. LTD.
412, BEST SKY TOWER, NETAJI SUBHASH PLACE, PITAMPURA, DELHI - 110 034, INDIA.
This certificate is the property of SWISS CERT PRIVATE LIMITED and shall be returned upon request.
All Interested parties are advised to verify the validity of the certificate from SWISSCERT (info@swisoindia.com)



MISTRY ENGINEERING WORKS PVT. LTD.
117,Vivek Industrial Estate,Uswala Lane,Walbhat Road, Goregaon (East), Mumbai- 400 063.
Tel.: 26859975, Telefax: 26859259 E-mail: mistryengineers@rediffmail.com.

QUALITY POLICY

MISTRY ENGINEERING WORKS PVT LTD IS COMMITTED TO PRECISION MACHINING AND SUPPLY OF MACHINED COMPONENTS AS PER CUSTOMER'S REQUIREMENTS THAT EXCEEDS OR MEETS CUSTOMER SATISFACTION BY COMPLYING WITH

- ONTIME DELIVERY
- CONSISTENCY IN QUALITY
- MOTIVATING EMPLOYYES

WE ARE COMMITEED TO CONTINUALLY IMPROVE THE EFFECTIVENESS OF OUR QUALITY MANAGEMENT SYSTEM IN ACCORDANCE TO ISO 9001:2015 STANDARD AND THUS REMAIN CUSTOMER'S FIRST CHOICE.

Mr. N.N Mistry Mr. A.N.Mistry Mr. K.N Mistry
DIRECTOR

PLACE :MUMBAI
Reaffirmed dated -01.03.2017 First Issue – 01.04.2009

PRODUCT LOCATOR

ORDERING CODES

FRACTIONAL SIZE TUBING

D-□ □□-□.□

- Code for Double Ferrule Fittings (No Symbol for conversion fittings)
- Fitting Type Designator
- Tube O.D. in multiples of 1/16"
- Pipe thread size in multiples of 1/16" Reduced tube O.D. in multiples of 1/16"
- Pipe thread specification

NPT Threads to ANSI B 1.20.1 - 1983	N
ISO Parallel Threads to ISO : 228/1	Rp
ISO Taper Threads to ISO : 7/1	Rx
UNF threads to ANSI B 1.1 - 1964	U

MATERIAL DESIGNATOR

Carbon Steel	CS
Brass	B
304 or 304LStainless Steel	S/SL
316 or 316LStainless Steel	SS/SSL
Monel	M
Titanium	Ti

METRIC SIZE TUBING

D□-□M□-□.□

- Code for Double Ferrule Fittings (No Symbol for conversion fittings)
- Fitting Type Designator
- Tube O.D. in mm
- Metric O.D.
- Pipe thread size in multiples of 1/16"
- Pipe thread specification

NPT Threads to ANSI B 1.20.1 - 1983	N
ISO Parallel Threads to ISO : 228/1	Rp
ISO Taper Threads to ISO : 7/1	Rx
UNF threads to ANSI B 1.1 - 1964	U

MATERIAL DESIGNATOR

Carbon Steel	CS
Brass	B
304 or 304LStainless Steel	S/SL
316 or 316LStainless Steel	SS/SSL
Monel	M
Titanium	Ti

FITTING TYPE

ITEM	DESIGNATOR
Front Ferrule	DFF
Back Ferrule	DBF
Nut	Dn
Tube End Closure	DPC
Fitting End Closure	DFC
Union	DC
Bulkhead Union	DCB
Union Elbow	DE
Union Tee	DT
Union Cross	DK
Male Connector	DCM-N
Male Connector	DCM-Rx
Male Connector	DCM-Rp
Male Elbow	DEM-N
Male Elbow	DEM-Rx
45° Male Elbow	DEM/45-N
Male Run Tee	DTRM-N
Male Run Tee	DTRM-Rx
Male Branch Tee	DTBM-N
Male Branch Tee	DTBM-Rx
Female Connector	DCF-N
Female Connector	DCF-Rx
Bulkhead Female Connector	DCFB-N
Female Run Tee	DTRF-N
Female Branch Tee	DTBF-N
Male Pipe Weld Connector	DCWC
Reducer	DR
Male Adapter	DAM-N
Male Adapter	DAM-Rx
Reducing Union	DCR
Reducing Union Tee	DTR
Bulkhead Male Connector	DCBM-N
Bulkhead Adapter	DCRB
Female Elbow	DEF-N
Female Adapter	DAF-N
Female Adapter	DAF-Rx
O-Seal Pipe Thread Connector	DCO

GENERAL INFORMATION

DESIGN AND MANUFACTURE

Mistry Engg. flareless double ferrule compression tube fittings have been designed and manufactured with great care to meet the specifications required for a wide range of applications in chemical, petro-chemical, oil refineries, power generation, shipbuilding, pulp and papers, micro-electronics etc. Each **Mistry Engg.** tube fitting consists of four parts body, front ferrule, back ferrule, and nut. The two-ferrule design front and back compensates for any tolerances in tube O.D., wall thickness, material hardness and always ensures outstanding leak-tight connections.

Mistry Engg. tube fittings are manufactured under **Mistry Engg.** strict quality control program.

TORQUE AND DISTORTION DURING INSTALLATION

When the nut is tightened, the back and front ferrules move axially. This axial movement does not allow and torque transfer from the fitting to the tubing, and the mechanical properties of tubing are maintained.

During makeup, the back ferrule moves in such a controlled manner that the tubing is not overstressed and the tubing I.D. is not excessively reduced, resulting in safe operation under high pressure or vibration. The front ferrule does not force the body to expand, which allows the nut to be back off easily for disassembly and allows multiple remakes.

CONSTRUCTION AND TUBE END DIMENSIONS

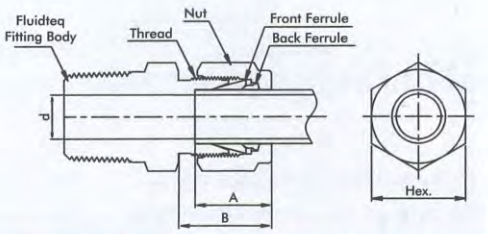
The construction and tube end dimensions of both fractional and metric sizes are shown below with the nut in finger tight position. These dimensions are applicable to all the fitting throughout this catalogue and also to all **Mistry Engg.** ends used as end connections of **Mistry Engg.** ball valves, needle valves, valve manifolds, check valves and relief valves etc.

EASY REFERENCE

Heads of tables are differentiated with colour :

Shows Fractional

Shows Metric



CONSTRUCTION OF MISTRY ENGG. FITTINGS

Table 1. MISTRY ENGG. Inch Tube End Dimensions / Unit :mm

Size	Tube O.D	A	B	d	Hex.
1	1/16	8.63	10.92	1.27	7.90
2	1/8	12.70	15.24	2.28	11.10
3	3/16	13.70	16.00	3.04	12.70
4	1/4	15.24	17.78	4.80	14.20
5	5/16	16.25	18.54	6.35	15.80
6	3/8	16.76	19.30	7.10	17.40
8	1/2	22.86	21.84	10.40	22.20
10	5/8	24.38	21.84	12.70	25.40
12	3/4	24.38	21.84	15.70	28.60
14	7/8	25.90	21.84	18.20	31.80
16	1	31.24	26.61	22.40	38.10
20	1-1/4	41.14	38.86	27.70	47.62
24	1-1/2	50.03	45.21	34.00	57.15
32	2	67.73	62.73	46.00	76.20

Table MISTRY ENGG. Metric Tube End Dimensions / Unit :mm

Size	Tube O.D	A	B	d	Hex.
2M	2mm	12.9	15.3	1.7	12.0
3M	3mm	12.9	15.3	2.4	12.0
4M	4mm	13.7	16.1	2.4	12.0
6M	6mm	15.3	17.7	4.8	14.0
8M	8mm	16.2	18.6	6.4	16.0
10M	10mm	17.2	19.5	7.9	19.0
12M	12mm	22.8	22.0	9.5	22.0
15M	15mm	24.4	22.0	11.9	25.0
16M	16mm	24.4	22.0	12.7	25.0
18M	18mm	24.4	22.0	15.1	30.0
20M	20mm	26.0	22.0	15.9	32.0
22M	22mm	31.3	26.5	21.8	38.0
28M	28mm	36.6	36.6	21.8	46.0
32M	32mm	42.0	41.6	28.6	50.0
38M	38mm	49.4	47.9	33.7	60.0

Note: Dimension A and B in table 2 are shown with Fluidteq nut in finger tight position.

GENERAL INFORMATION

MATERIALS

Mistry Engg. Double Ferrule Compression tube fittings are available as standard in stainless steel, brass and monel. Straight fittings are machined from cold finished bar stock and shaped bodies from forgings. Specifications for fitting materials and tubings are listed below.

Table 3. Typical Material Specification

Fitting Material	Bar Stock	Forging	Tubing
S. Steel Type 316	ASTM A479 ASME SA479 ASTM A276 Project 70 - ASTM A276 ASTM A479 JIS G4303	ASTM A182 F316 ASME SA182 F316 JIS G3214	ASTM A269 ASTM A213 ASTM A249 ASME SA213 MIL-T-8504 MIL-T-8506
Brass	ASTM B16 Alloy 360 ASTM B453 Alloy 345 QQ-B626 Alloy 360	ASTM B124 Alloy 377 QQ-B626 Alloy 377	ASTM B68 ASTM B75 ASTM B88 ASME SB75
Monel 400™	QQ-N-281 Alloy 405 QQ-N-286 Alloy K500 ASTM B164	QQ-N281-Alloy 400 ASTM B164	ASTM B165

PRESSURE RATING

Mistry Engg. tube fittings are rated to the maximum working pressure of tubing recommended for use with **Mistry Engg.** Tube fittings. The maximum working pressure of tubings are listed in MAWP table on the following pages.

NOTE: Material strength and allowable working pressure decrease as the temperature increases.

Temperature Ratings

The following temperature ratings are applicable

- 316 Stainless Steel : -321°F to 1,200°F (-196°C to 649°C)
- Brass : -65°F to 400°F (-54°C to 204°C)
- Monel : -65°F to 800°F (-54°C to 427°C)

TUBING

Variety of tubing materials and wide range of wall thickness can be used with **Mistry Engg.** Fittings. However, it is essential to specify, select and handle the tubing with care in order to ensure reliable, safe, leak, tight installtion using Fluidteq, double ferrule compression tube fittings.

Some general rules are shown below:

1) The tubing material must be compatible with process fluid.

2) Temperature, pressure, vibration and shock conditions must be considered when selecting the wall thickness, Further, extremely thick wall may not be properly deformed and extremely thin wall may be collapsed by ferrule action.

3) The metal tubing must be softer than the fitting materials. When tubing and fitting are of the same material, the tubing must be fully annealed.

4) For leak tight installation, the tubing surface finish must be smooth and free from weld seam, scratched and draw marks.

5) The tubing with high tolerance in ovality or O.D. may not fit in the fitting or may cause improper performance.

6) Best performance is achieved when the tubing ends are squarely cut and deburred property

The followings are the recommended tubing specifications for best performance with **Mistry Engg.** Fittings.

STAINLESS STEEL TUBING

Fully annealed seamless type 304, 316 to ASTM A269 or equivalent with hardness Rockwell Rb80 or less.

COPPER TUBING

Seamless soft annealed temper O60 with hardness 60 max. to ASTM B75, or seamless water tubing type K or type L annealed temper O06 with hardness 50 max. in coils or annealed temper O50 with hardness 55 max. in straight lengths to ASTM B68, or equivalent.

MONEL TUBING

Fully annealed seamless Alloy 400 to ASTM B165 or equivalent with hardness Rb75 max.

GENERAL INFORMATION

GAS SERVICE

Gases have very small molecules and can escape through minute leak paths due to surface imperfections. These imperfections can be coined out when heavy wall tubing is used as it resists the ferrule action more than thin wall does. The minimum wall thickness for gas service is shown below:

FRACTIONAL TUBING

Tubing O.D	Nominal Min. Wall Thickness	Tubing O.D	Nominal Min. Wall Thickness
1/8"	0.028"	3/4"	.065"
3/16"	0.028"	7/8"	.083"
1/4"	0.028"	1"	.083"
5/16"	0.035"	1 1/4"	.104"
3/8"	0.035"	1 1/2"	.109"
1/2"	0.049"	2"	.107"
5/8"	0.065"		

METRIC TUBING

Tubing O.D	Nominal Min. Wall Thickness	Tubing O.D	Nominal Min. Wall Thickness
3mm	0.8mm	18mm	2.0mm
6mm	0.8mm	20mm	1.8mm
8mm	1.0mm	22mm	2.0mm
10mm	1.5mm	25mm	2.2mm
12mm	1.0mm	28mm	2.0mm
14mm	1.2mm	32mm	3.0mm
16mm	1.5mm	38mm	2.76mm

TEMPERATURE DERATING

The working pressure varies depending upon the temperature. The working pressure at various temperatures can be obtained by multiplying the working pressure at ambient temperature (-20°F to 100°F or -29°C to 37°C) by the temperature derating factor in the table shown below.

Table 4. Temperature Derating Factors

Temperature(•F)	316SS	304SS	Cooper	Monel 400
100	1.00	1.00	1.00	1.00
200	1.00	0.84	0.80	0.88
300	1.00	0.75	0.78	0.82
400	0.96	0.69	0.50	0.79
500	0.90	0.65	-	0.79
600	0.85	0.61	-	0.79
700	0.82	0.59	-	0.76
800	0.79	0.56	-	0.76
900	0.78	0.54	-	-
1000	0.76	0.52	-	-
1100	0.62	0.47	-	-
1200	0.37	0.31	-	-

EXAMPLE

To obtain the working pressure of SS316 3/8" O.D. x 0.035" wall tube at 1,200°F

- Working pressure of the above tubing at ambient temperature : 3,300 psig
- Temperature derating factor at 1,200°F : 0.37
- Working pressure at 1,200°F : 1221 psig (from 3,300 psig multiplied by 0.37)

TUBE BENDS NEAR FITTING

For leak tight installation, tube bends must not be too close to the fitting. The following is the recommended minimum straight length of tube measured from the tube end to the bend.

Tubing O.D	1/8"	1/4"	3/8"	1/2"	3/4"	1"	11/4"	11/2"	2"
Min Length	18.25 mm	20.64 mm	23.81 mm	30.16 mm	31.75 mm	38.1 mm	50.8 mm	61.11 mm	82.55 mm

Also, the bending radius should not be too short of bending radius may affect the working pressure and may cause insufficient flow. Minimum bending radius is usually recommended by the tube bender manufacturer.

TUBE SELECTION AND HANDLING

Mistry Engg. fittings perform best when good quality tubing is used. Tubing should be considered a fitting component. Tubing selection by relying only on ASTM or other equivalent specifications is not enough. Here are some points to be considered.

- Materials and manufacturing method
- Material hardness
- Surface finish
- Outside diameter and its tolerance
- Wall thickness and its tolerance
- Ovality
- Concentricity
- Packing and transportation

Always try to use good quality tubing for best performance.

Tubings must be handled with great care in transportation and in storage. To avoid damage to the tubing surface. Copper tubings must not be crushed or lose its circularity. If necessary, the tubing must be covered and tubing ends must be plugged to be kept from dirts.

GENERAL INFORMATION

MAXIMUM ALLOWABLE WORKING PRESSURE TABLE

- Working pressure calculated in acccordance with ASME B31.3, Chemical Plant and Petroleum Refinery Piping Code, 1993 Edition

TABLE 5. STAINLESS STEEL TUBING

- Fully annealed 304 or 316 high quality seamless stainless steel tube to ASTM 269 or equivalent. Hardness : Rb80 or less

STAINLESS STEEL FRACTIONAL TUBING

TUBE WALL THICKNESS IN INCHES

Tube O.D (Inches)	0.010	0.012	0.014	0.016	0.020	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156	0.188
1/16"	5,600	6,800	8,100	9,400	12,000											
1/8"						8,500	10,900									
3/16"						5,400	7,000	10,200								
1/4"						4,000	5,100	7,500	10,200							
5/16"							4,000	5,800	8,000							
3/8"							3,300	4,800	6,500							
1/2"							2,600	3,700	5,100	6,700						
5/8"								2,900	4,000	5,200	6,000					
3/4"								2,400	3,300	4,200	4,900	5,800				
7/8"								2,000	2,800	3,600	4,200	4,800				
1"									2,400	3,100	3,600	4,200	4,700			
1-1/4"										2,400	2,800	3,300	3,600	4,100	4,900	
1-1/2"											2,300	2,700	3,000	3,400	4,000	4,900
2"												2,000	2,200	2,500	2,900	3,600

For gas service,applying tube wall thickness only on outside of shade boundary

STAINLESS STEEL METRIC TUBING

TUBE WALL THICKNESS IN MILIMETERS (INCHES)

Tube O.D (mm)	0.71 (0.028)	0.89 (0.035)	1.00	1.25 (0.049)	1.50	1.65 (0.065)	2.00	2.11 (0.083)	2.41 (0.095)	2.50	2.77 (0.109)	3.00	3.50 (0.120)	3.50	4.00	4.50
3	10,800	13,800	15,300													
4	7,900	10,100	11,500	14,400												
6	5,000	6,500	7,400	9,400	11,500	12,700										
8		4,700	5,800	6,800	8,400	9,300										
10		3,700	4,200	5,300	6,500	7,300										
12		3,000	3,400	4,400	5,300	5,900	6,600	7,000								
16			2,500	3,200	3,900	4,300	5,300	5,700	6,600	6,800						
18				2,800	3,400	3,800	4,700	5,000	5,800	6,000	6,700					
20				2,500	3,000	3,400	4,200	4,400	5,100	5,300	6,000					
22				2,300	2,800	3,000	3,800	4,000	4,600	4,800	5,400					
25				2,000	2,400	2,700	3,300	3,500	4,000	4,200	4,700	5,100	5,200			
38										2,300	-	2,900	-	3,400	3,900	4,400

For gas service,applying tube wall thickness only on outside of shade boundary

- Allowable stress of 20,000 psi (137.800 kPa) between -20°F and 100°F (-29°C and 37°C) based on ultimate tensile strength 75,000 psi (516,700 kPa)
- Based on minimum wall thickness and maximum O.D. allowable by ASTM A269
- For welded tubing, the following derating rate to be applied for weld integrity. (ASME B31.3 - 1993 Edition, Table A-1 B)
  for double welded tubing : 0.85
  for single welded tubing : 0.80
- To determine bar, multiply psig by 0.0689 and to determine kPa by 6.89

NOTE:

1. All calculation are based on maximum outside diameter and minimum wall thickness without allowance for corrosion and erosion.
2. Care should be taken for temperature rating if tubing is coated or plated.
3. Figures shown are not for design purpose but for reference only and accuracy of information here is not liability of our company.

GENERAL INFORMATION

TABLE 6. COPPER TUBING

High quality soft annealed seamless copper tube to ASTM B - 75 or eqivalent.
Hardness : Rb 60 or less

COPPER FRACTIONAL TUBING

Tube O.D (Inches)	0.010	0.12	0.012	0.028	0.035	0.049	0.065	0.065	0.083	0.095	0.109	0.120
1/8					2700	3600						
3/16					1800	2300	3400			Working Pressure in psig		
1/4					1300	1600	2500	3500				
3/8						1300	1900	2700				
1/2						1000	1600	2200				
5/8						800	1100	1600	2100			
3/4	For gas service,applying tube wall thickness only on outside of shade boundary						900	1200	1600	1900		
7/8							700	1000	1300	1500	1800	
1							600	800	1100	1300	1500	
							500	700	900	1100	1300	1500

COPPER METRIC TUBING

Tube O.D (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	For gas service,applying tube wall thickness only on outside of shade boundary				75	90	101	112	129
22					59	72	81	90	103
25					52	63	71	78	90

- Allowable stress of of 6,000 psi (41,300kPa) between -20°F and 100°F (-29°C and 37°C) based on ultimate tensile strength 30,000psi (206,700kPa)
- Based on minimum wall thickness and maximum O.D. allowable by ASTM B75
- To determine bar, multiply psig by 0.0689 and to determine kPa by 6.89.

TABLE 7. MONEL 400 TUBING

Fully annealed seamless Monel 400 to ASTM B165 or equivalent.
Hardness : Rb75

MONEL 400 FRACTIONAL TUBING

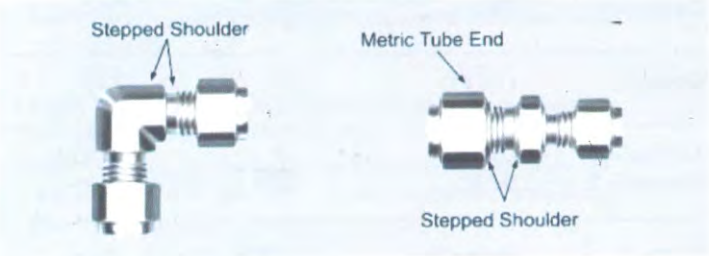
Tube O.D (Inches)	0.010	0.012	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
1/8"			7.900	10.100						
1/4"			3.700	4.800	7.000	9.500				
3/8"				3.100	4.400	6.100				
1/2"	For gas service,applying tube wall thickness only on outside of shade boundary			2.300	3200	4.400	4.000	4.600		
3/4"					2.200	3.300	2.900	3.400	3.900	4.300
1"						2.200				

- Allowable stress of of 18,700 psi (128,800kPa) between -20°F and 100°F (-29°C and 37°C) based on ultimate tensile strength 70,000psi (482,300kPa)
- Based on minimum wall thickness and maximum O.D. allowable by ASTM B165
- To determine bar, multiply psig by 0.0689 and to determine kPa by 6.89.

GENERAL INFORMATION

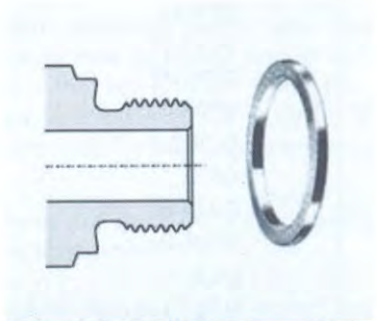
IDENTIFICATION OF FLUIDTEQ METRIC TUBE FITTINGS FROM FRACTIONAL

These two are similar in appearance. To avoid any confusion and for ready identification, the stepped shoulders are machined on the body and on the hex nut of metric size tube fittings as shown. The metric tube nut must not be used on fractional body and vice versa.



ISO PARALLEL AND TAPERED PIPE THREAD

International Standards Organization (ISO) standardized the nomenclature of some international pipe threads. ISO 228/1 is a parallel thread and ISO 7/1 is a tapered thread. With 228/1 parallel thread, the seal is usually made by metal - to - metal contact against the female port or with a gasket. Shown below are two different seals. There are several different descriptions as listed below.

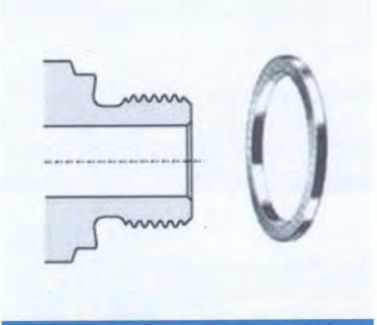


ISO Parallel with Metal Gasket Seal

REFERENCE SPECIFICATIONS

- BD 2779 (BSPP)
- DIN-ISO 228/1
- JIS B0202
- ISO 228/1

A metal (usually copper) gasket performs the sealing between the reverse bevel of the fitting and the surface surrounding the female threads



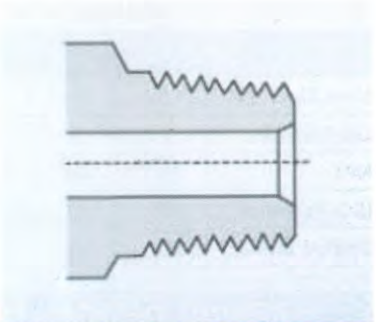
ISO Parallel with Bonded washer Seal

No reverse angle is used. Instead, a self centering taper is used at hex to center a composite washer (usually metal and elastomer) to seal the surface surrounding the female thread.

ISO 7/1 tapered thread looks similar to NPT thread. However, ISO 7/1 has 55° thread angle while NPT has 60° and ISO 7/1 pitch is measured in millimeters while NPT pitch is measured in inches. There are several different descriptions as listed on the right.

REFERENCE SPECIFICATIONS

- BS 21 (BSPT)
- DIN-2999
- JIS B0203
- ISO 7/1



ISO Tapered (Thread Sealant Required)

ORDERING INFORMATION

MISTRY Engg.FITTINGS PART NUMBERS ARE EASILY UNDERSTANDABLE AND BASICALLY COMPOSED OF 3 GROUPS AS SHOWN BELOW.

Designator	First	Second	Third
Group	(1) (11)	(2)	(3)
Example 1	DT	-8	-S316
Example 2	DCM	-4N	
Exam 1	Union Tee	1/2"NPT	Brass
Exam 2	Male Connector With 1/4" Mistry Engg.	1/4"NPT	316Stainless S316

1. The first group in example 1 or former part of first group is example 2 (1) designates the fitting type.

2. The second group in example 1 (2) designates either Mistry Engg. tube end size of unions, union tees, crosses etc. Where all Mistry Engg.tube end sizes are the same or size of Plugs, caps, nuts etc. where only single end exists.

3. The latter part of first group in example 2 (11) designates the Mistry Engg.tube end size and the second group (2) designates pipe thread size, or Mistry Engg.tube end size or tube size of fittings other than the fittings applicable to example 1.

4. The third group designates the fitting material.

5. In tees shown below. "2" is referred to as **run** and "3" is referred to as **branch.**

Table 8. Fitting Type Designator

IDENTIFIER	DESCRIPITION
Front Ferrule	DFF
Back Ferrule	DBF
Nut	Dn
Tube End Closure	DPC
Fitting End Closure	DFC
Union	DC
Bulkhead Union	DCB
Union Elbow	DE
Union Tee	DT
Union Cross	DK
Male Connector	DCM-N
Male Connector	DCM-Rx
Male Connector	DCM-Rp
Male Elbow	DEM-N
Male Elbow	DEM-Rx
45° Male Elbow	DEM/45-N
Male Run Tee	DTRM-N
Male Run Tee	DTRM-Rx
Male Branch Tee	DTBM-N
Male Branch Tee	DTBM-Rx
Female Connector	DCF-N
Female Connector	DCF-Rx
Bulkhead Female Connector	DCFB-N
Female Run Tee	DTRF-N
Female Branch Tee	DTBF-N
Male Pipe Weld Connector	DCWC
Reducer	DR
Male Adapter	DAM-N
Male Adapter	DAM-Rx
Reducing Union	DCR
Reducing Union Tee	DTR
Bulkhead Male Connector	DCBM-N
Bulkhead Adapter	DCRB
Female Elbow	DEF-N
Female Adapter	DAF-N
Female Adapter	DAF-Rx
0-Seal Pipe Thread Connector	DCO

MISTRY ENGG. TUBE END DESIGNATOR

Fractional Tube	O.D	1/6"	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
Metric Tube	O.D.	2mm	3mm	4mm	6mm	8mm	10mm	12mm	16mm	20mm	22mm	25mm	28mm	32mm	38mm
	Designator	2M	3M	4M	6M	8M	10M	12M	16M	20M	22M	25M	28M	32M	38M

PIPE THREAD DESIGNATOR

Nom.Size	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	Applicable Specification
ISO Tapered	2R	4R	6R	8R	12R	16R	20R	24R	32R	JIS B0203(PT),DIN2999,ISO7/1,BS 21 (BSPT)
NPT	2N	4N	6N	8N	12N	16N	20N	24N	32N	ANSI B1.20.1.(NPT)
ISO Paralled	2G	4G	6G	8G	12G	16G	20G	24G	32G	JIS B0202(PF),DIN ISO228/1, BS 2779 (BSPP)
Unitied Screw	2U	4U	6U	8U	12U	16U	20U	24U	32U	American Standard Unified Screw Thread

MATERIAL DESIGNATOR

Material	SS 316	Brass	Monel
Designator	SS	B	M

INSTALLATION INSTRUCTIONS

TUBE PREPARATION

- Check if tubing O.D., wall thickness, ovality, hardness and their tolerance are within specifications for your application. Also check if surface is free from scratches and dirt.
- Make a square cut, (Always use proper tube cutter improper tube cutter can cause excessive tube deformation at the tube end.)
- Remove burs from inner and outer edges of tubing.

Installation instructions for Fluidteq Systems of 1 inch or 25 mm and Under

Mistry Engg. fittings are supplied fully assembled / finger tight and are readily usable. A leak tight and mechanically safe installation is easily made by just turning the nut 1 1/4 turns (or 3/4 turn for small sizes).

- Insert prepared tubing into **Mistry Engg.** Fittings until tubing end is firmly seated on body shoulder and make sure the nut is hand tight. (Do not force the tubing into ferrule it does not go in easily. It may be burred or oval, or there may be foreign materials inside the fitting.)
- Make the nut at 9 o'clock position for identification of starting point
- Tighten the nut 1 1/4 turns* with a wrench keeping the fitting body steady with a back-up wrench. When the nut is tightened 1 1/4 turns, the mark at 9 o'clock position before tightening will be at 12 o'clock position.

Note*: Only 3/4 turn from finger tight is required for 1/16", 1/8", 3/16", 2mm, 3mm and 4mm sizes.

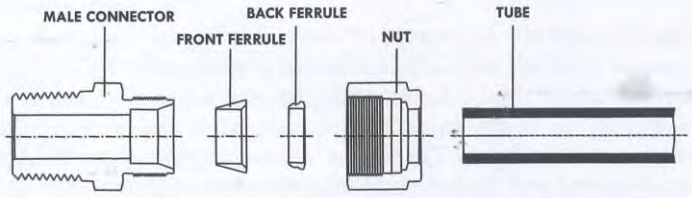
TUBING HIGH PRESSURE APPLICATION

Even though **Mistry Engg.** Fittings are designed to accept the tube variations specified in ASTM or equivalent specifications, it is more desirable to have common starting point, or snug position, for high pressure applications. Make sure that the tubing end is fully seated. Slightly tighten the nut until the tubing can not be rotate by hand. 1 1/4 turns (Or 3/4 turn for small size fittings) from snug position will ensure reliable leak tight installation.

REASSEMBLING INSTRUCTIONS

Mistry Engg. Fittings can be disassembled and reassembled many times and leak tight performance can be obtained each time.

- Insert tubing which is preswaged with ferrules into fitting body.
- Hand tighten the nut and further tighten the nut with a wrench to the original position keeping the body steady with a back-up wrench. A sharp rise in resistance will be felt at the original position, then snug-up slightly with a wrench.



DOUBLE FERRULE FITTINGS CONSTRUCTION

ASSEMBLY

Mistry Engg. TUBE FITTINGS come to you completely assembled, finger-tight. They are ready for immediate use. Dis-assembly before use can result in dirt or foreign material getting into the fitting and causing leak.

MISTRY Engg. TUBE FITTINGS are installed in three easy steps. **MISTRY Engg.**

STEP 1

Insert the tubing into the **MISTRY Engg.** TUBE FITTINGS. Make sure that the tubing rests firmly on the shoulders of the fitting and that the nut is snug tight, in this position the tube does not rotate by hand.

STEP 2

Before tightening the **Mistry Engg.** nut, scribe the nut at the 6.00 o'clock position.

STEP 3

Now while holding the fitting steady with a backup wrench, tighten the nut one and quarter turn*

Watch the scribe mark, make one complete revolution and continue to the 9.00 o'clock position.

INSTALLATION INSTRUCTIONS

HIGH PRESSURE APPLICATION, HIGH SAFETY FACTOR SYSTEMS

Due to the variation of tubing diameters, a common starting point is desirable. Therefore, use a wrench to snug up the nut until the tubing will not turn(by hand) in the fitting. Now tighten the nut one and quarter turns and the fitting is ready to hold pressure well above the working pressure of the tubing.

RE-TIGHTENING INSTRUCTIONS

Connections can be disconnected and re-tightened many, many times and same reliable, leak-proof seal obtained every time the reconnection is made.

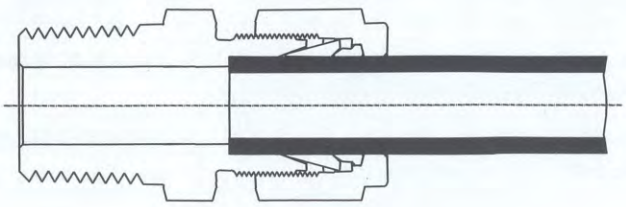
PRE-SWAGING

When **Mistry Engg.** FITTINGS are to be installed in cramped quarters or overhead where ladders must be used. It is some time found advantageous to use a pre-swaging tool on the tubing in an open ground area, thus pre-swaging the ferrules on the tubing. The tubing is then removed from the pre swaging tool and the tubing (with nut and pre-swaging ferrule) can now be attached to tubing merely by following the re-tightening instructions.

- Assemble **MISTRY Engg.** nut and ferrule to pre-swaging tool. Insert tubing until it bottoms in the fitting body, and tighten nut one and quarter turns.
- The nut is loosened and the tubing with pre-swaged ferrule is removed from the pre-swaging tool.
- The connection can now be made by merely snugging up the nut as described in the re-tightening instruction.

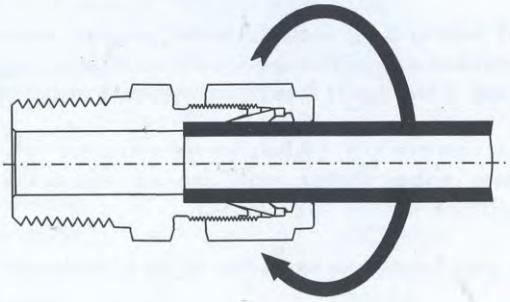
BEFORE ASSEMBLY

Insert the tube into the Mistry Engg. tube fitting, make sure that the tubing rests firmly on the shoulders of the fitting and that the nut is SNUG tight, in this position the tube does not rotate by hand.



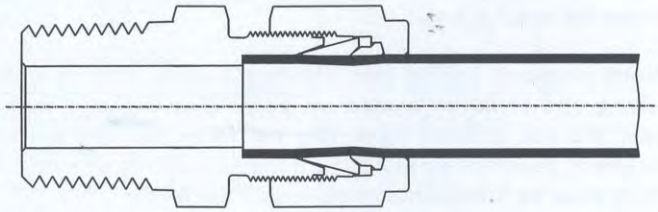
COMPLETE SWAGED JOINTS.

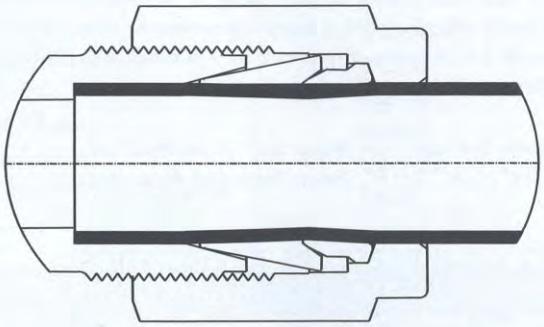
Now while holding the fitting body steady with a backup wrench, tighten the nut one-and-one Quarter turns.



AFTER ASSEMBLY

After nut one-and-one quarter turns the joint is now complete.





COMPLETE SWAGED JOINTS.

AFTER ASSEMBLY TECHNICAL SPECIFICATION TO WHICH FITTINGS PERFORM

There are no standards available for Double Ferrule Compression Fittings.

- The working pressures are restricted by the maximum working pressure of the tubes to be used with the fittings design, in such that the tubes will burst before the breakage of the joint. Accordingly, the working pressure outlined in the section entitled Allowable Pressure Rating for Tubing will prevail as the working pressure for these fittings.
- The maximum working pressure of these fittings is also restricted by the pressure rating for pipe end connection adopted.

INSTALLATION INSTRUCTIONS

THE LOWER OF THE ABOVE TWO MENTIONED WILL BE MAXIMUM WORKING PRESSURE FOR THE FITTINGS.

There are no standard specifications available for the type, test requirement of Double Ferrule Compression Fittings. The attempt has been made by the British Standards Institute to formulate a Standard BS 4368: Part IV 1984. A similar standard has been formulated by Indian Standard Institute vide IS 10103:1982 & American National Standard ASTM F1387 -99. All these standards refer to Single Ferrule Fittings. They can however be adopted for Double Ferrule as well. The standards cover the basic type test requirement for fittings assembled in a standard test assembly as outlined in the Standards. The tests specified by these are as follows:

PROOF PRESSURE TEST

Test assemblies to be subjected to a pressure of 1.5 times the maximum working pressure of the fittings applied at the rate of 200 kg/cm^2 per minute and maintained at final pressure for five minutes without Leak.

DISMANTLING AND REASSEMBLY TEST

Test assemblies successfully completing the Proof Pressure Test above are dis-assembled and assembled twenty five times after which they must pass the Proof Pressure Test.

MINIMUM HYDRAULIC BURST PRESSURE

Apply hydraulic pressure to the test assembly up to a maximum of four times the working pressure at the rate not exceeding 200 kg/cm^2 per minute and maintain for five minute without leak.

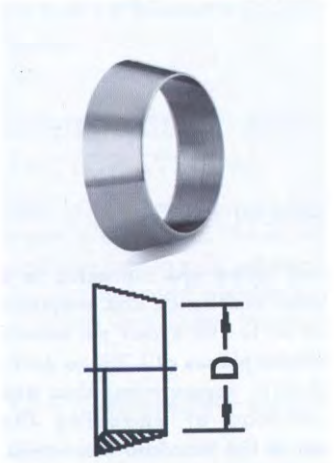
MINIMUM STATIC VACUUM TEST

Test assemblies satisfactorily proof pressure tested are subjected to negative pressure up to 700 Mbar and then isolated from the vacuum pump. The assembly must maintain the vacuum for fifteen minutes. The assemblies are suitably decreased before the test and total exhausted volume should not exceed 20% of the total assembly volume. This test can also be given at low temperatures for cryogenic application.

HYDRAULIC IMPULSE VIBRATION TEST

Test assemblies suitably proof pressure tested are connected to a hydraulic pressure impulse and vibration test bench and subjected simultaneously to Pressure Impulses at 30 to 100 cycles per minute and vibration in two mutually perpendicular planes at 1,300 to 2,820 cycles per minute for a minimum of 5 X10 pressure impulses and $.20X10^5$ vibration cycles. The method of choosing the displacement and the cycles is outlined in the Standard mentioned. The only permissible retightening is allowed after the first 1,000 pressure impulses to allow for bedding in. When subjected to the test described this coupling should not leak in the assembly. Couplings that fail shall be examined for signs of cracking due to fatigue stress.

The above tests have been specified in Standard BS 4368 Part IV: 1984. Some customers working with high temperatures have specified a temperature cycling test, which requires test assemblies to be subjected to suitable temperature cycles, and then subjected to the Proof Pressure Test without leakage. Other customers working with gases have specified a helium leak test with leak rates not exceeding 2 X 10 STD. CC/SEC. **Mistry Engg.** undertakes all these tests at their recognized laboratories to satisfy all customers technical requirements.



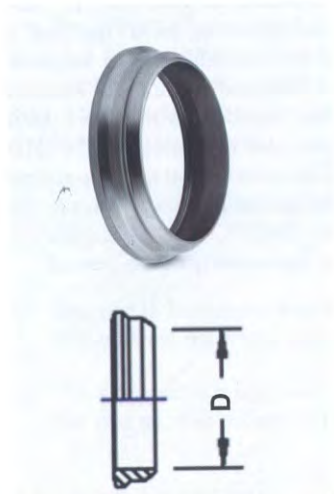
FRONT FERRULE DFF

FRACTIONAL OD TUBE

PART NO.	Tube O.D D
DFF-1	1/16
DFF-2	1/8
DFF-4	1/4
DFF-5	5/16
DFF-6	3/8
DFF-8	1/2
DFF-10	5/8
DFF-12	3/4
DFF-14	7/8
DFF-16	1
DFF-20	1-1/4
DFF-24	1-1/2

METRIC OD TUBE

PART NO.	Tube O.D D
DFF-3M	3
DFF-6M	6
DFF-8M	8
DFF-10M	10
DFF-12M	12
DFF-15M	15
DFF-16M	16
DFF-18M	18
DFF-20M	20
DFF-22M	22
DFF-25M	25
DFF-28M	28
DFF-38M	38



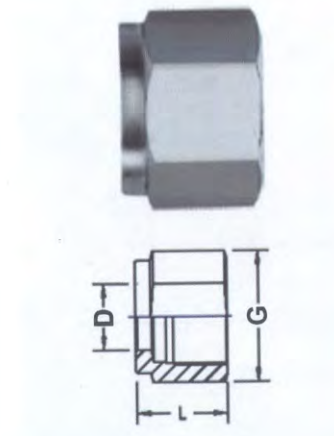
BACK FERRULE DBF

FRACTIONAL OD TUBE

PART NO.	Tube O.D D
DBF-1	1/16
DBF-2	1/8
DBF-4	1/4
DBF-5	5/16
DBF-6	3/8
DBF-8	1/2
DBF-10	5/8
DBF-12	3/4
DBF-14	7/8
DBF-16	1
DBF-20	1-1/4
DBF-24	1-1/2

METRIC OD TUBE

PART NO.	Tube O.D D
DBF-3M	3
DBF-6M	6
DBF-8M	8
DBF-10M	10
DBF-12M	12
DBF-15M	15
DBF-16M	16
DBF-18M	18
DBF-20M	20
DBF-22M	22
DBF-25M	25
DBF-28M	28
DBF-38M	38



NUT DN

FRACTIONAL OD TUBE

Part No.	Tube O.D D	L	G A/F
DN-1	1/16	8.0	8
DN-2	1/8	12.0	11
DN-4	1/4	12.7	14
DN-5	5/16	14.0	16
DN-6	3/8	14.5	17
DN-8	1/2	17.5	22
DN-10	5/8	17.5	25
DN-12	3/4	17.5	28.5
DN-14	7/8	17.5	32
DN-16	1	20.6	38
DN-20	1-1/4	31.8	50
DN-24	1-1/2	38.0	57

METRIC OD TUBE

Part No.	Tube O.D D	L	G A/F
DN-3M	3	12.0	11
DN-6M	6	12.7	14
DN-8M	8	13.5	16
DN-10M	10	15.1	19
DN-12M	12	17.5	22
DN-15M	15	17.5	25
DN-16M	16	17.5	25
DN-18M	18	17.5	28.5
DN-20M	20	17.5	32
DN-22M	22	17.5	32
DN-25M	25	20.6	38
DN-28M	28	30.6	46
DN-38M	38	38.1	50

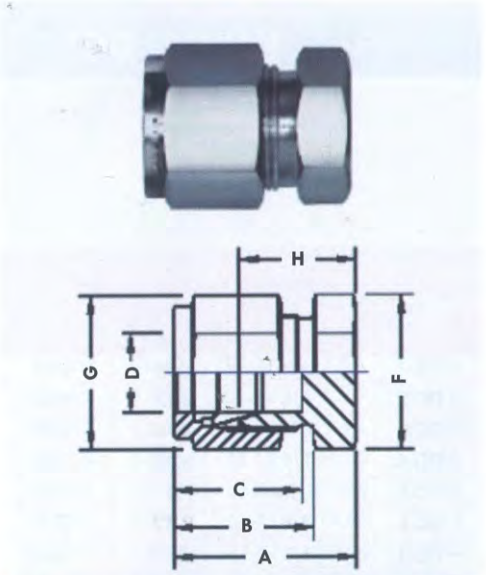
All dimensions are in millimeter unless otherwise specified Dimensions are for reference only. subject to change

FRACTIONAL OD TUBE

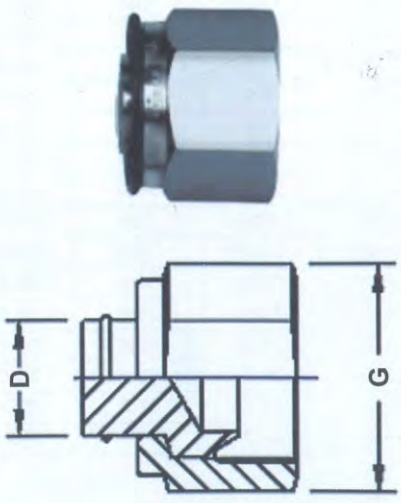
Part No.	Tube O.D D	A	C	D	F A/F	G A/F	H
DPC-1	1/16	13.0	11.0	8.6	11	8	11.2
DPC-2	1/8	20.0	15.3	12.7	11	11	13.5
DPC-4	1/4	23.4	17.8	15.3	14	14	16.0
DPC-5	5/16	24.4	18.5	16.3	16	16	17.0
DPC-6	3/8	25.7	19.3	16.8	17	17	18.3
DPC-8	1/2	29.2	21.8	22.9	22	22	19.0
DPC-10	5/8	30.0	21.8	24.4	24	25	19.8
DPC-12	3/4	31.5	21.8	24.4	27	28.5	21.4
DPC-14	7/8	34.0	21.8	25.9	35	32	23.9
DPC-16	1	38.4	26.4	31.2	35	38	26.2
DPC-20	1-1/4	53.3	38.9	41.2	46	50	31.2
DPC-24	1-1/2	64.5	45.2	50.0	55	57	37.4

METRIC OD TUBE

Part No.	Tube O.D D	A	B	C	F A/F	G A/F	H
DPC-3M	3	20.1	15.3	12.9	11	11	13.5
DPC-6M	6	23.1	17.7	15.3	14	14	15.7
DPC-8M	8	24.5	18.6	16.2	16	16	17.0
DPC-10M	10	26.6	19.5	17.2	17	19	19.0
DPC-12M	12	29.1	22.0	22.8	22	22	19.0
DPC-15M	15	29.9	22.0	24.4	24	25	19.8
DPC-16M	16	29.9	22.0	24.4	24	25	19.8
DPC-18M	18	31.4	22.0	24.4	27	28.5	21.3
DPC-20M	20	34.0	22.0	26.0	32	28.5	23.9
DPC-22M	22	34.0	22.0	26.0	32	32	23.9
DPC-25M	25	38.5	26.5	31.0	35	38	26.2
DPC-28M	28	48.5	36.6	39.6	41	46	27.7
DPC-38M	38	65.4	47.9	49.4	55	57	37.8



TUBE END CLOSURE DPC



FITTING END CLOSURE DFC

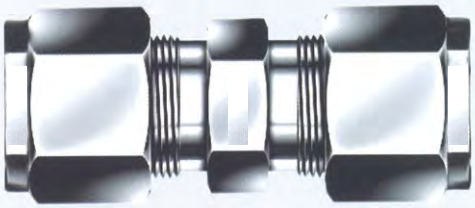
FRACTIONAL OD TUBE

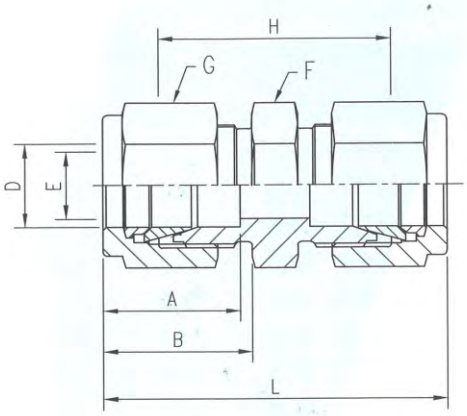
Part No.	Tube O.D D	G A/F
DFC-1	1/16	8
DFC-2	1/8	11
DFC-4	1/4	14
DFC-5	5/16	16
DFC-6	3/8	17
DFC-8	1/2	22
DFC-10	5/8	25
DFC-12	3/4	28.5
DFC-14	7/8	32
DFC-16	1	38
DFC-20	1.1/4	50
DFC-24	1.1/2	57

METRIC OD TUBE

Part No.	Tube O.D D	G A/F
DFC-3M	3	11
DFC-6M	6	14
DFC-8M	8	16
DFC-10M	10	19
DFC-12M	12	22
DFC-15M	15	25
DFC-16M	16	25
DFC-18M	18	28.5
DFC-20M	20	28.5
DFC-22M	22	32
DFC-25M	25	38
DFC-28M	28	46
DFC-38M	38	57

All dimensions are in millimeter unless otherwise specified Dimensions are for reference only. subject to change





UNION DC

CONNECTS FRACTIONAL TUBE

Part No.	Tube O.D. D		E Min.	Width across flat				A	B	H	L
				F		G					
	in.	mm		in.	mm	in.	mm				
DC-1	1/16	1.59	1.27	5/16	7.93	5/16	7.93	8.63	10.92	17.50	25.15
DC-2	1/8	3.17	2.28	7/16	11.11	7/16	11.11	12.70	15.24	22.35	35.56
DC-3	3/16	4.76	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.13	37.33
DC-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	26.16	40.89
DC-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	28.19	42.92
DC-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	30.22	44.95
DC-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	30.98	51.30
DC-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	52.07
DC-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
DC-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
DC-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	40.38	64.77
DC-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
DC-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

CONNECTS METRIC TUBE

Part No.	Tube O.D D	E Min.	Width across flat		A	B	H	L
			F	G				
DC-2M	2	1.7	12	12	12.9	15.3	22.4	35.6
DC-3M	3	2.4	12	12	12.9	15.3	22.1	35.3
DC-4M	4	2.4	12	12	13.7	16.1	24.1	37.3
DC-6M	6	4.8	14	14	15.3	17.7	26.2	41.0
DC-8M	8	6.4	15	16	16.2	18.6	28.2	43.2
DC-10M	10	7.9	18	19	17.2	19.5	31.0	46.2
DC-12M	12	9.5	22	22	22.8	22.0	31.0	51.2
DC-15M	15	11.9	24	25	24.4	22.0	31.8	52.0
DC-16M	16	12.7	24	25	24.4	22.0	31.8	52.0
DC-18M	18	15.1	27	30	24.4	22.0	33.3	53.5
DC-20M	20	15.9	30	32	26.0	22.0	34.8	55.0
DC-22M	22	18.3	30	32	26.0	22.0	34.8	55.0
DC-25M	25	21.8	35	38	31.3	26.5	40.4	65.0
DC-28M	28	21.8	41	46	36.6	36.6	43.4	85.0
DC-35M	35	31.5	50	55	42.1	41.7	51.3	97.6
DC-38M	38	33.7	55	60	49.4	47.9	58.4	113.6

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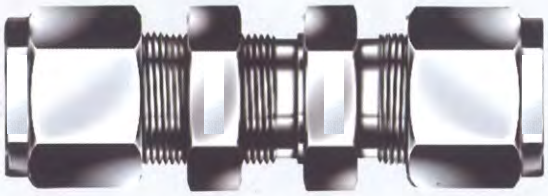
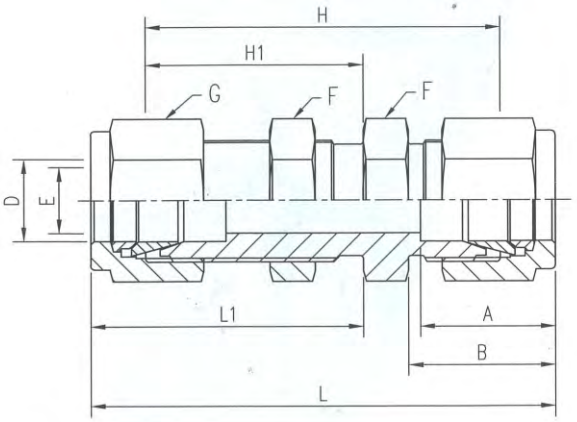


BULKHEAD UNION DCB



CONNECTS FRACTIONAL TUBE

Part No.	Tube O.D D		E Min.	Width across flat F		Width across flat G		A	B	H	H1	L	L1	Panel Hole Drillsize	Panel Max. Thickness
	in.	mm		in.	mm	in.	mm								
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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
DCB-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

CONNECTS METRIC TUBE

Part No.	Tube O.D D	E Min.	Width across flat F	Width across flat G	A	B	H	H1	L	L1	Panel Hole Drillsize	Panel Max. Thickness
DCB-3M	3	2.4	14	12	12.9	15.3	38.1	24.6	51.3	31.2	8.3	12.7
DCB-4M	4	2.4	14	12	13.7	16.1	40.4	25.4	53.6	32.0	9.9	12.7
DCB-6M	6	4.8	16	14	15.3	17.7	42.9	26.2	57.7	33.6	11.5	10.2
DCB-8M	8	6.4	18	16	16.2	18.6	46.0	28.6	61.0	36.1	13.1	11.2
DCB-10M	10	7.9	22	19	17.2	19.5	48.5	29.4	63.7	37.0	16.2	11.2
DCB-12M	12	9.5	24	22	22.8	22.0	50.8	31.8	71.0	41.9	19.5	12.7
DCB-15M	15	11.9	27	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
DCB-16M	16	12.7	27	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
DCB-18M	18	15.1	30	30	24.4	22.0	58.7	37.3	78.9	47.4	26.0	16.8
DCB-20M	20	15.9	35	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	17.0
DCB-22M	22	18.3	35	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	19.0
DCB-25M	25	21.8	41.3	38	31.3	26.5	71.4	45.2	95.9	57.5	33.7	19.0
DCB-38M	38	33.7	60	60	49.4	47.9	89.4	51.5	144.6	79.1	50.5	19.0

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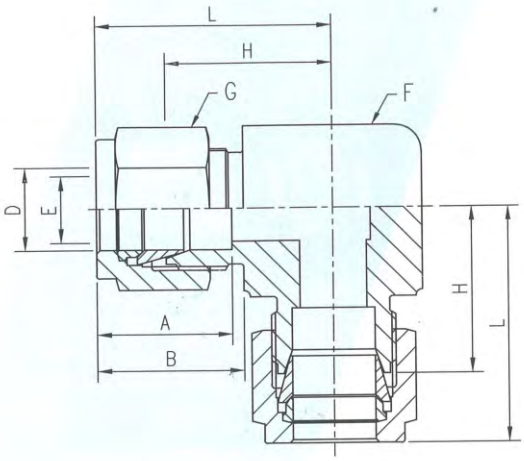
UNION ELBOW DE



CONNECTS FRACTIONAL TUBE

Part No.	Tube O.D. D		E Min.	Width across flat				A	B	H	L
				F		G					
	in.	mm		in.	mm	in.	mm				
DE-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
DE-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
DE-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
DE-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
DE-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
DE-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
DE-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
DE-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
DE-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
DE-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
DE-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02
DE-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
DE-24	1-1/2	38.10	33.90	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97

CONNECTS METRIC TUBE

Part No.	Tube O.D D	E Min.	Width across flat		A	B	H	L
			F	G				
DE-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
DE-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
DE-4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
DE-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
DE-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
DE-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
DE-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
DE-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
DE-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
DE-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
DE-20M	20	15.9	34.92	32	26.0	22.0	32.5	42.6
DE-22M	22	18.3	34.92	32	26.0	22.0	32.5	42.6
DE-25M	25	21.8	34.92	38	31.3	26.5	36.8	49.1
DE-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
DE-38M	38	33.7	50.8	60	49.4	47.9	56.4	84.0

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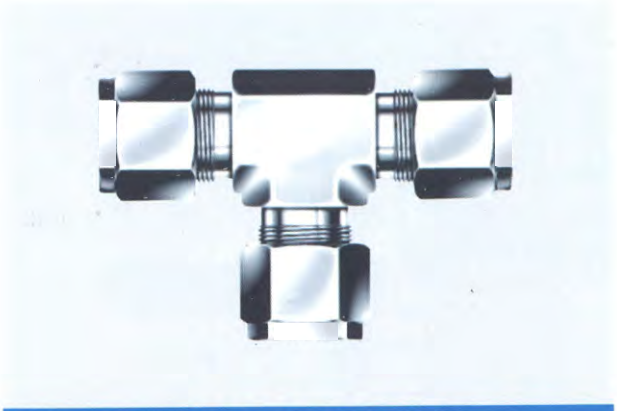
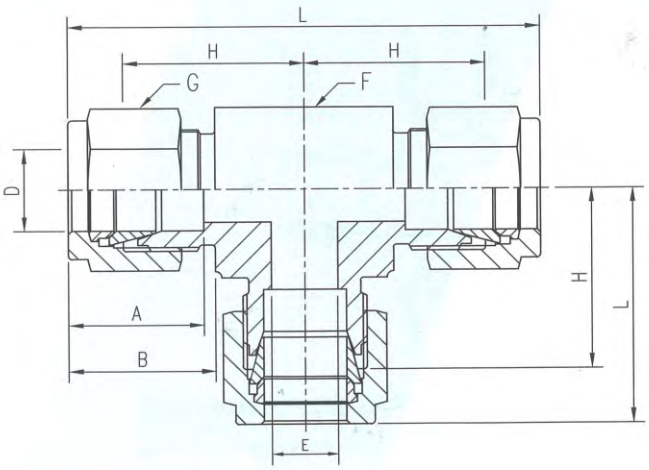


UNION TEE DT



CONNECTS FRACTIONAL TUBE

Part No.	Tube O.D. D		E Min.	Width across flat				A	B	H	L
				F		G					
	in.	mm		in.	mm	in.	mm				
DT-1	1/16	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
DT-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
DT-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
DT-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
DT-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
DT-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
DT-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
DT-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
DT-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
DT-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
DT-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02
DT-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
DT-24	1-1/2	38.10	33.90	2	50.80	2-1/4	57.15	50.03	45.21	50.80	77.97

CONNECTS METRIC TUBE

Part No.	Tube O.D D	E Min.	Width across flat		A	B	H	L
			F	G				
DT-2M	2	1.7	9.5	12	12.9	15.3	15.7	22.3
DT-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
DT-4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
DT-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
DT-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
DT-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
DT-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
DT-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
DT-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
DT-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
DT-20M	20	15.9	34.92	32	26.0	22.0	32.5	42.6
DT-22M	22	18.3	34.92	32	26.0	22.0	32.5	42.6
DT-25M	25	21.8	34.92	38	31.3	26.5	36.8	49.1
DT-28M	28	21.8	41.0	46	36.6	36.6	43.2	64.0
DT-38M	38	33.7	50.8	60	49.4	47.9	56.4	84.0

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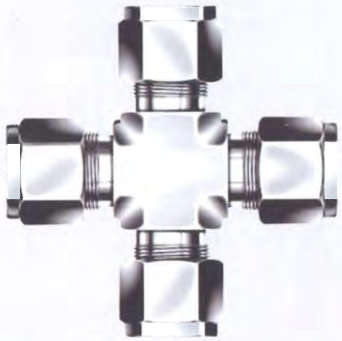

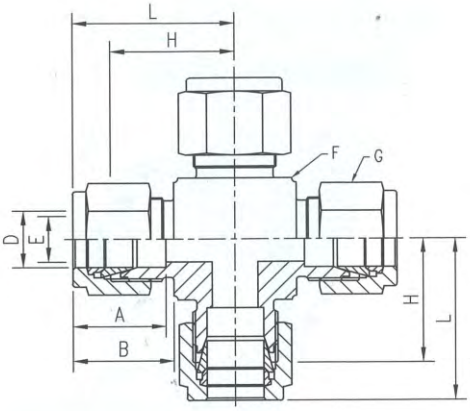

UNION CROSS DK

CONNECTS FRACTIONAL TUBE

Part No.	Tube O.D. D		E Min.	Width across flat				A	B	H	L
				F		G					
	in.	mm		in.	mm	in.	mm				
DK-1	1/6	1.59	1.27	3/8	9.52	5/16	7.93	8.63	10.92	14.00	17.88
DK-2	1/8	3.17	2.28	3/8	9.52	7/16	11.11	12.70	15.24	15.74	22.35
DK-3	3/16	4.76	3.04	1/2	12.70	1/2	12.70	13.71	16.00	17.78	24.38
DK-4	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92
DK-5	5/16	7.93	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70
DK-6	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48
DK-8	1/2	12.70	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06
DK-10	5/8	15.87	12.70	15/16	23.81	1	25.40	24.38	21.84	28.70	38.80
DK-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
DK-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
DK-16	1	25.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02

CONNECTS METRIC TUBE

Part No.	Tube O.D D	E Min.	Width across flat		A	B	H	L
			F	G				
DK-3M	3	2.4	9.5	12	12.9	15.3	15.7	22.3
DK-4M	4	2.4	12.7	12	13.7	16.1	18.8	25.4
DK-6M	6	4.8	12.7	14	15.3	17.7	19.6	27.0
DK-8M	8	6.4	14.3	16	16.2	18.6	21.3	28.8
DK-10M	10	7.9	17.5	19	17.2	19.5	23.9	31.5
DK-12M	12	9.5	20.6	22	22.8	22.0	25.9	36.0
DK-15M	15	11.9	25.4	25	24.4	22.0	28.7	38.8
DK-16M	16	12.7	25.4	25	24.4	22.0	28.7	38.8
DK-18M	18	15.1	27.0	30	24.4	22.0	29.7	39.8
DK-20M	20	15.9	34.92	32	26.0	22.0	32.5	42.6
DK-22M	22	18.3	34.92	32	26.0	22.0	32.5	42.6
DK-25M	25	21.8	34.92	38	31.3	26.5	36.8	49.1

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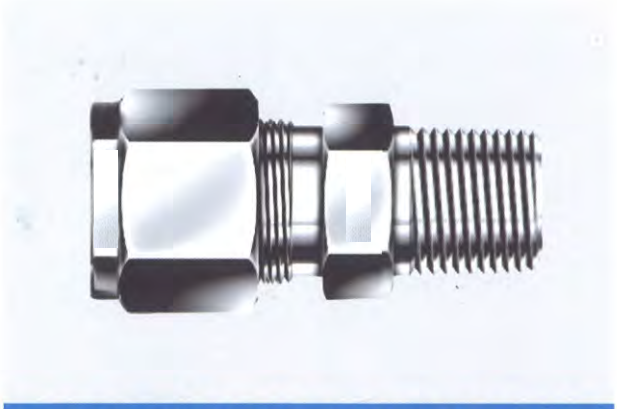

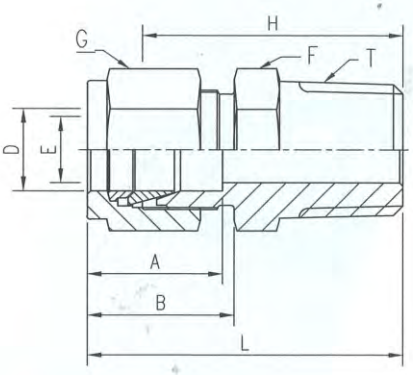

MALE CONNECTOR DCM-N

CONNECTS FRACTIONAL TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D D		T NPT	E Min.	Width across flat				A	B	H	L
					F		G					
	in.	mm			in.	mm	in.	mm				
DCM1-1N	1/16	1.59	1/16	1.27	5/16	7.93	5/16	7.93	8.63	10.92	20.00	23.83
DCM1-2N	1/16	1.59	1/8	1.27	7/16	11.11	5/16	7.93	8.63	10.92	22.35	26.23
DCM1-4N	1/16	1.59	1/4	1.27	9/16	14.28	5/16	7.93	8.63	10.92	27.17	30.98
DCM2-1N	1/8	3.17	1/16	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.11	29.71
DCM2-2N	1/8	3.17	1/8	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	30.48
DCM2-4N	1/8	3.17	1/4	2.28	9/16	14.28	7/16	11.11	12.70	15.24	28.95	35.56
DCM2-6N	1/8	3.17	3/8	2.28	11/16	17.46	7/16	11.11	12.70	15.24	29.21	35.81
DCM2-8N	1/8	3.17	1/2	2.28	7/8	22.22	7/16	11.11	12.70	15.24	35.56	42.16
DCM3-2N	3/16	4.76	1/8	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.63	31.24
DCM3-4N	3/16	4.76	1/4	3.04	9/16	14.28	1/2	12.70	13.71	16.00	29.71	36.32
DCM4-1N	1/4	6.35	1/16	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
DCM4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
DCM4-4N	1/4	6.35	1/4	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	37.84
DCM4-6N	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	30.98	38.35
DCM4-8N	1/4	6.35	1/2	4.82	7/8	22.22	9/16	14.28	15.24	17.78	37.33	44.70
DCM4-12N	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
DCM5-2N	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	26.67	34.03
DCM5-4N	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	38.60
DCM5-6N	5/16	7.93	3/8	6.35	11/16	17.46	5/8	15.87	16.25	18.54	31.75	39.11
DCM6-2N	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	27.94	35.30
DCM6-4N	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	39.87
DCM6-6N	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	39.87
DCM6-8N	3/8	9.52	1/2	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	46.22
DCM6-12N	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
DCM8-2N	1/2	12.70	1/8	4.82	13/16	20.64	7/8	22.22	22.86	21.84	28.70	38.86
DCM8-4N	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
DCM8-6N	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
DCM8-8N	1/2	12.70	1/2	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	49.02
DCM8-12N	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
DCM8-16N	1/2	12.70	1	10.41	1-3/8	34.92	7/8	22.22	22.86	21.84	46.99	57.15
DCM10-6N	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	34.03	44.19
DCM10-8N	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	38.86	49.02
DCM10-12N	15.87	5/8	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	40.38	50.54
DCM12-8N	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
DCM12-12N	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
DCM12-16N	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
DCM14-12N	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
DCM14-16N	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
DCM16-8N	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
DCM16-12N	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
DCM16-16N	1	25.40	1	22.35	1-3/8	34.62	1-1/2	38.10	31.24	26.41	50.03	62.23
DCM20-16N	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
DCM20-20N	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
DCM24-24N	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

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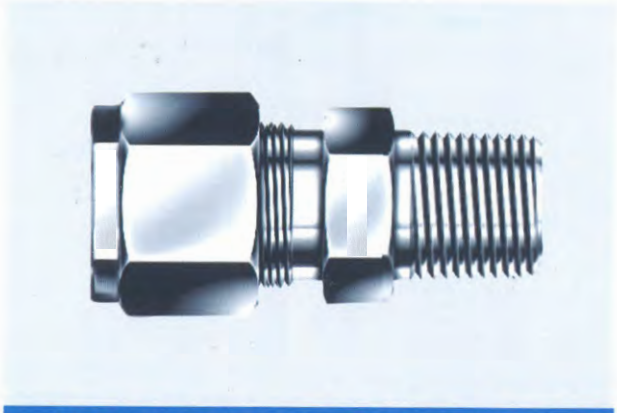

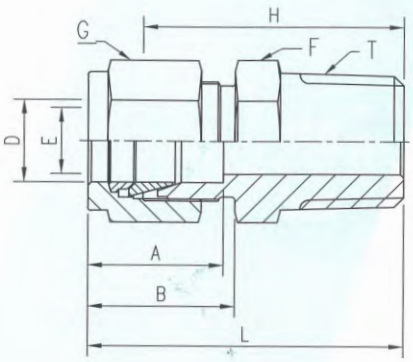

MALE CONNECTOR DCM-N

CONNECTS METRIC TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat		A	B	H	L
				F	G				
DCM2M-2N	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
DCM3M-2N	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
DCM3M-4N	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
DCM4M-2N	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
DCM4M-4N	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
DCM6M-2N	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
DCM6M-4N	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
DCM6M-6N	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
DCM6M-8N	6	1/2	4.8	22	14	15.3	17.7	37.3	44.0
DCM8M-2N	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
DCM8M-4N	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
DCM8M-6N	8	3/8	6.4	18	16	16.2	18.6	31.8	39.2
DCM8M-8N	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
DCM10M-2N	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
DCM10M-4N	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
DCM10M-6N	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
DCM10M-8N	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
DCM12M-4N	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
DCM12M-6N	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
DCM12M-8N	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
DCM12M-12N	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
DCM14M-8N	14	1/2	11.1	24	25	24.4	22.0	34.0	44.1
DCM15M-8N	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DCM16M-4N	16	1/4	7.1	24	25	24.4	22.0	34.0	44.1
DCM16M-6N	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
DCM16M-8N	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DCM16M-12N	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
DCM18M-8N	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
DCM18M-12N	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
DCM20M-8N	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
DCM20M-12N	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DCM22M-12N	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DCM22M-16N	22	1	18.3	35	32	26.0	22.0	47.8	57.9
DCM25M-8N	25	1/2	11.9	35	38	31.3	26.5	45.2	57.5
DCM25M-12N	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
DCM25M-16N	25	1	21.8	35	38	31.3	26.5	50.0	62.3
DCM28M-16N	28	1	21.8	41	46	36.6	36.6	51.6	72.4
DCM28M-20N	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
DCM38M-24N	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

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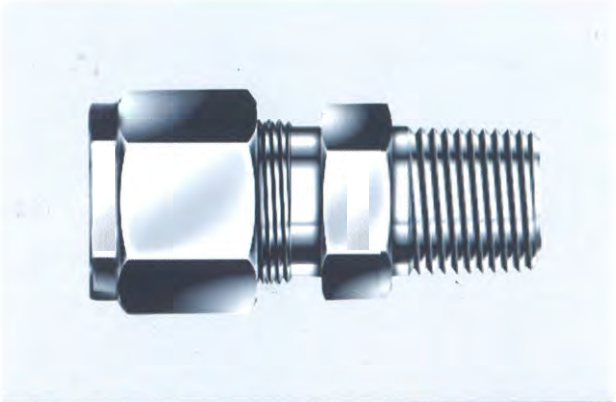

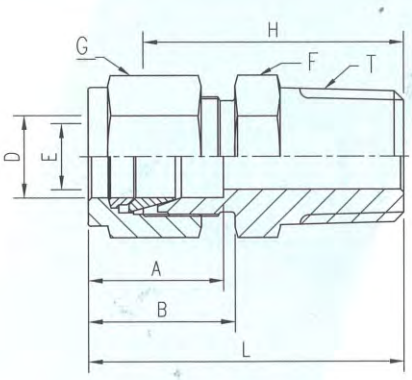

MALE CONNECTOR DCM-Rx

CONNECTS FRACTIONAL TUBE TO FEMALE ISO TAPERED THREAD

Part No.	Tube O.D D		T PT	E Min.	Width across flat				A	B	H	L
					F		G					
	in.	mm			in.	mm	in.	mm				
DCM2-2Rx	1/8	3.17	1/8	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	30.48
DCM2-4Rx	1/8	3.17	1/4	2.28	9/16	14.28	7/16	11.11	12.70	15.24	28.95	35.56
DCM4-2Rx	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	32.76
DCM4-4Rx	1/4	6.35	1/4	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	37.84
DCM4-6Rx	1/4	6.35	3/8	4.82	11/16	17.46	9/16	14.28	15.24	17.78	30.98	38.35
DCM4-8Rx	1/4	6.35	1/2	4.82	7/8	22.22	9/16	14.28	15.24	17.78	37.33	44.70
DCM5-2Rx	5/16	7.93	1/8	4.82	9/16	14.28	5/8	15.87	16.25	18.54	26.67	34.03
DCM5-4Rx	5/16	7.93	1/4	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	38.60
DCM5-16Rx	5/16	7.93	1	6.35	1-3/8	34.92	5/8	15.87	16.25	18.54	46.2	50.0
DCM6-2Rx	3/8	9.52	1/8	4.82	5/8	15.87	11/16	17.46	16.76	19.30	27.94	35.30
DCM6-4Rx	3/8	9.52	1/4	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	39.87
DCM6-6Rx	3/8	9.52	3/8	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	39.87
DCM6-8Rx	3/8	9.52	1/2	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	46.22
DCM6-12Rx	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
DCM8-2Rx	1/2	12.70	1/8	4.82	13/16	20.64	7/8	22.22	22.86	21.84	28.70	38.86
DCM8-4Rx	1/2	12.70	1/4	7.11	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
DCM8-6Rx	1/2	12.70	3/8	9.65	13/16	20.64	7/8	22.22	22.86	21.84	33.27	43.43
DCM8-8Rx	1/2	12.70	1/2	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	49.02
DCM8-12Rx	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
DCM8-16Rx	1/2	12.70	1	10.41	1-3/8	34.92	7/8	22.22	22.86	21.84	46.99	57.15
DCM10-6Rx	5/8	15.87	3/8	9.65	15/16	23.81	1	25.40	24.38	21.84	34.03	44.19
DCM10-8Rx	5/8	15.87	1/2	11.93	15/16	23.81	1	25.40	24.38	21.84	38.86	49.02
DCM10-12Rx	5/8	15.87	3/4	12.70	1-1/16	26.98	1	25.40	24.38	21.84	40.38	50.54
DCM12-8Rx	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
DCM12-12Rx	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
DCM12-16Rx	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
DCM16-12Rx	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
DCM16-16Rx	1	25.40	1	22.35	1-3/8	34.62	1-1/2	38.10	31.24	26.41	50.03	62.23
DCM20-12Rx	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
DCM20-16Rx	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
DCM20-20Rx	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

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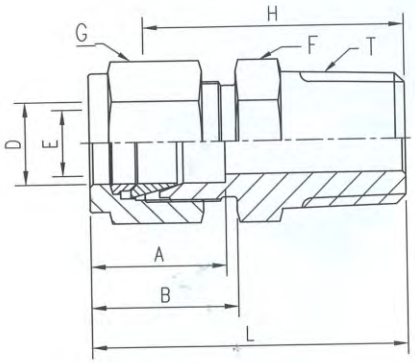

MALE CONNECTOR DCM-Rx

CONNECTS METRIC TUBE TO FEMALE ISO TAPERED THREAD

Part No.	Tube O.D D	T PT	E Min.	Width across flat		A	B	H	L
				F	G				
DCM2M-2Rx	2	1/8	1.7	12	12	12.9	15.3	23.9	30.5
DCM3M-2Rx	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
DCM3M-4Rx	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
DCM4M-2Rx	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
DCM4M-4Rx	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
DCM6M-2Rx	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
DCM6M-4Rx	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
DCM6M-6Rx	6	3/8	4.8	18	14	15.3	17.7	31.0	38.4
DCM6M-8Rx	6	1/2	4.8	22	14	15.3	17.7	37.3	44.0
DCM8M-2Rx	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
DCM8M-4Rx	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
DCM8M-6Rx	8	3/8	6.4	18	16	16.2	18.6	31.8	39.2
DCM8M-8Rx	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
DCM10M-2Rx	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
DCM10M-4Rx	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
DCM10M-6Rx	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
DCM10M-8Rx	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
DCM10M-12Rx	10	3/4	7.9	22	19	17.2	19.5	38.9	46.5
DCM12M-4Rx	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
DCM12M-6Rx	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
DCM12M-8Rx	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
DCM12M-12Rx	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
DCM15M-6Rx	15	3/8	9.5	24	25	24.4	22.0	34.0	44.1
DCM15M-8Rx	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DCM16M-4Rx	16	3/8	7.1	24	25	24.4	22.0	34.0	44.1
DCM16M-6Rx	16	1/2	9.5	24	25	24.4	22.0	34.0	44.1
DCM16M-8Rx	16	1/4	11.9	24	25	24.4	22.0	38.9	49.0
DCM16M-12Rx	16	3/8	12.7	27	25	24.4	22.0	38.9	49.0
DCM18M-8Rx	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
DCM18M-12Rx	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
DCM20M-8Rx	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
DCM20M-12Rx	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DCM22M-8Rx	22	1/2	11.9	30	32	26.0	22.0	42.2	52.3
DCM22M-12Rx	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DCM22M-16Rx	22	1	18.3	35	32	26.0	22.0	47.8	57.9
DCM25M-8Rx	25	1/2	11.9	35	38	31.3	26.5	45.2	57.5
DCM25M-12Rx	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
DCM25M-16Rx	25	1	21.8	35	38	31.3	26.5	50.0	62.3
DCM28M-16Rx	28	1	21.8	41	46	36.6	36.6	51.6	72.4
DCM28M-20Rx	28	1-1/4	21.8	46	46	36.6	36.6	52.3	73.1
DCM38M-24Rx	38	1-1/2	33.7	55	60	49.4	47.9	64.0	91.6

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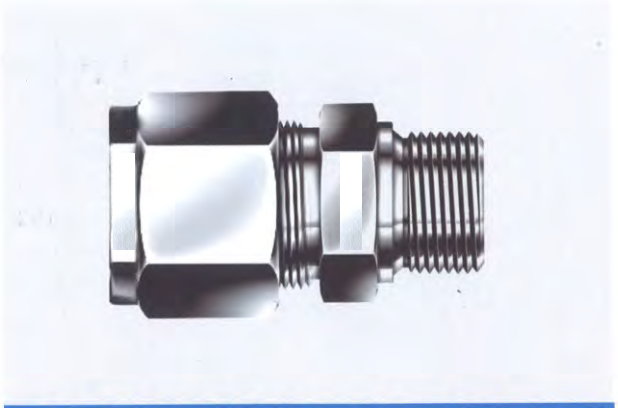

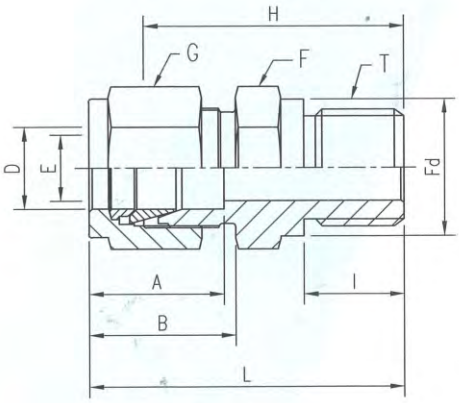

MALE CONNECTOR DCM-Rp

CONNECTS FRACTIONAL TUBE TO FEMALE ISO PARALLEL THREAD

Part No.	Tube O.D D		T PPT	E Min.	Width across flat F		Width across flat G		A	B	H	L	Fd	I
	in.	mm			in.	mm	in.	mm						
DCM2-2Rp	1/8	3.175	1/8	2.4	7/16	11.11	7/16	11.11	12.7	15.3	23.4	30.0	13.7	7.1
DCM2-4Rp	1/8	3.175	1/4	2.4	9/16	14.28	7/16	11.11	12.7	15.3	28.7	35.3	18.0	11.2
DCM4-2Rp	1/4	6.35	1/8	4.8	1/2	12.7	9/16	14.28	15.3	17.8	24.9	32.3	13.7	7.1
DCM4-4Rp	1/4	6.35	1/4	4.8	9/16	14.28	9/16	14.28	15.3	17.8	30.2	37.6	18.0	11.2
DCM4-6Rp	1/4	6.35	3/8	4.8	11/16	17.46	9/16	14.28	15.3	17.8	31.5	38.9	21.8	11.2
DCM4-8Rp	1/4	6.35	1/2	4.8	7/8	22.22	9/16	14.28	15.3	17.8	37.4	44.7	36.0	14.2
DCM6-4Rp	3/8	9.525	1/4	5.8	5/8	15.87	11/16	17.46	16.8	19.3	31.8	39.2	18.0	11.2
DCM6-6Rp	3/8	9.525	3/8	7.1	11/16	17.46	11/16	17.46	16.8	19.3	33.0	40.4	21.8	11.2
DCM6-8Rp	3/8	9.525	1/2	7.1	7/8	22.22	11/16	17.46	16.8	19.3	38.9	46.3	26.0	14.2
DCM8-4Rp	1/2	12.7	1/4	5.8	13/16	20.64	7/8	22.22	22.9	21.8	32.5	42.7	18.0	11.2
DCM8-6Rp	1/2	12.7	3/8	7.9	13/16	20.64	7/8	22.22	22.9	21.8	33.0	43.2	21.8	11.2
DCM8-8Rp	1/2	12.7	1/2	10.4	7/8	22.22	7/8	22.22	22.9	21.8	38.9	49.0	26.0	14.2
DCM8-12Rp	1/2	12.7	3/4	10.4	1-1/16	26.98	7/8	22.22	22.9	21.8	42.7	52.8	32.0	15.7
DCM12-8Rp	3/4	19.05	1/2	11.9	1-1/16	26.98	1-1/8	28.58	24.4	21.8	38.9	49.0	26.0	14.2
DCM12-12Rp	3/4	19.05	3/4	15.8	1-1/16	26.98	1-1/8	28.58	24.4	21.8	42.7	52.8	32.0	15.7
DCM12-16Rp	3/4	19.05	1	15.8	1-3/8	34.92	1-1/8	28.58	24.4	21.8	45.6	55.4	39.0	18.3
DCM16-8Rp	1	25.4	1/2	11.9	1-3/8	34.92	1-1/2	38.10	31.2	26.4	43.7	55.9	26.0	14.2
DCM16-12Rp	1	25.4	3/4	15.8	1-3/8	34.92	1-1/2	38.10	31.2	26.4	45.2	57.5	32.0	15.7
DCM16-16Rp	1	25.4	1	19.8	1-3/8	34.92	1-1/2	38.10	31.2	26.4	47.8	60.0	39.0	18.3
DCM20-20Rp	1.1/4	31.75	1.1/4	25.0	1-3/4	44.45	1-7/8	47.63	41.2	38.9	55.9	78.9	49.0	19.8
DCM24-24Rp	1.1/2	38.1	1.1/2	31.8	2-1/8	53.98	2-1/4	57.15	50.0	45.2	63.2	90.8	54.7	22.1

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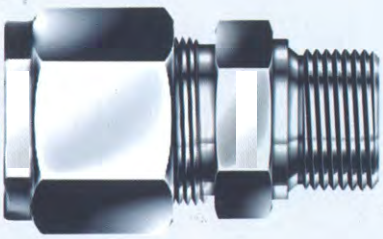

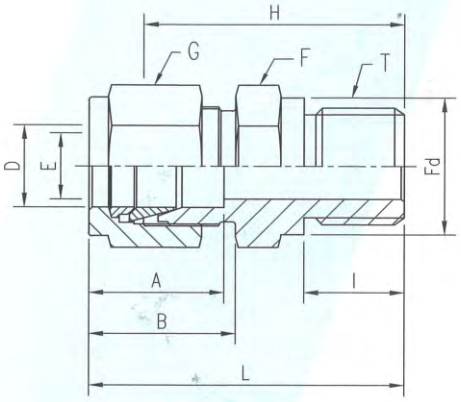

MALE CONNECTOR DCM-Rp

CONNECTS METRIC TUBE TO FEMALE ISO PARALLEL THREAD

Part No.	Tube O.D D	T PPT	E Min.	Width across flat		A	B	H	L	Fd	I
				F	G						
DCM3M-2Rp	3	1/8	2.4	14	11	12.9	15.3	23.4	30.0	13.7	7.1
DCM3M-4Rp	3	1/4	2.4	19	11	12.9	15.3	28.7	35.3	18.0	11.2
DCM6M-2Rp	6	1/8	4.8	14	14	15.3	17.7	24.9	32.3	13.8	7.1
DCM6M-4Rp	6	1/4	4.8	19	14	15.3	17.7	30.2	37.6	18.0	11.2
DCM6M-6Rp	6	3/8	4.8	22	14	15.3	17.7	31.5	38.9	21.8	11.2
DCM6M-8Rp	6	1/2	4.8	27	14	15.3	17.7	37.3	44.7	26.0	14.2
DCM8M-2Rp	8	1/8	4.0	14	16	16.2	18.6	25.7	33.2	13.8	7.1
DCM8M-4Rp	8	1/4	6.4	19	16	16.2	18.6	31.0	38.5	18.0	11.2
DCM8M-6Rp	8	3/8	6.4	22	16	16.2	18.6	32.3	39.8	21.8	11.2
DCM8M-8Rp	8	1/2	6.4	27	16	16.2	18.6	38.1	45.6	26.0	14.2
DCM10M-4Rp	10	1/4	5.9	19	19	17.2	19.5	31.8	39.4	18.0	11.2
DCM10M-6Rp	10	3/8	7.6	22	19	17.2	19.5	33.0	40.6	21.8	11.2
DCM10M-8Rp	10	1/2	7.9	27	19	17.2	19.5	38.9	46.5	26.0	14.2
DCM12M-4Rp	12	1/4	5.9	22	22	22.8	22.0	32.5	42.6	18.0	11.2
DCM12M-6Rp	12	3/8	7.9	22	22	22.8	22.0	33.0	43.1	21.8	11.2
DCM12M-8Rp	12	1/2	9.5	27	22	22.8	22.0	38.9	49.0	26.0	14.2
DCM12M-12Rp	12	3/4	9.5	35	22	22.8	22.0	42.7	52.8	32.0	15.7
DCM16M-6Rp	16	3/8	7.9	24	25	24.4	22.0	33.8	43.9	21.8	11.2
DCM16M-8Rp	16	1 /2	11.9	27	25	24.4	22.0	38.9	49.0	26.0	14.2
DCM20M-8Rp	20	1/2	11.9	30	28.5	26.0	22.0	40.4	50.5	26.0	14.2
DCM20M-12Rp	20	3/4	15.9	35	28.5	26.0	22.0	42.7	52.3	32.0	15.7
DCM22M-12Rp	22	3/4	15.9	35	32	26.0	22.0	42.7	52.3	32.0	15.7
DCM22M-16Rp	22	1	18.3	41	32	26.0	22.0	45.2	55.3	39.0	18.3
DCM25M-12Rp	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5	32.0	15.7
DCM25M-16Rp	25	1	19.8	41	38	31.3	26.5	47.8	60.1	39.0	18.3
DCM28M-16Rp	28	1	19.8	41	46	36.6	36.6	49.3	70.1	39.0	18.3
DCM38M-24Rp	38	1.1/2	31.8	55	57	49.4	47.9	63.2	90.8	54.7	22.1

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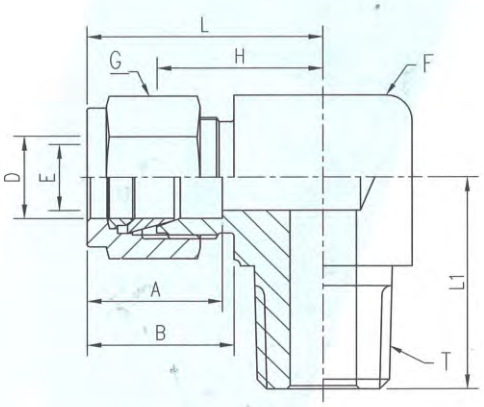

MALE ELBOW DEM-N

CONNECTS FRACTIONAL TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			in.	mm	in.	mm					
DEM1-1N	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
DEM1-2N	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
DEM2-1N	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
DEM2-2N	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
DEM2-4N	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
DEM3-2N	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
DEM3-4N	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
DEM4-1N	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
DEM4-2N	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
DEM4-4N	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
DEM4-6N	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
DEM4-8N	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
DEM5-2N	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
DEM5-4N	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
DEM5-6N	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
DEM6-2N	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
DEM6-4N	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
DEM6-6N	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
DEM6-8N	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
DEM6-12N	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
DEM8-4N	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
DEM8-6N	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
DEM8-8N	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
DEM8-12N	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
DEM10-6N	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
DEM10-8N	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
DEM10-12N	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
DEM12-8N	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
DEM12-12N	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
DEM14-12N	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
DEM16-12N	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
DEM16-16N	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
DEM20-20N	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
DEM24-24N	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

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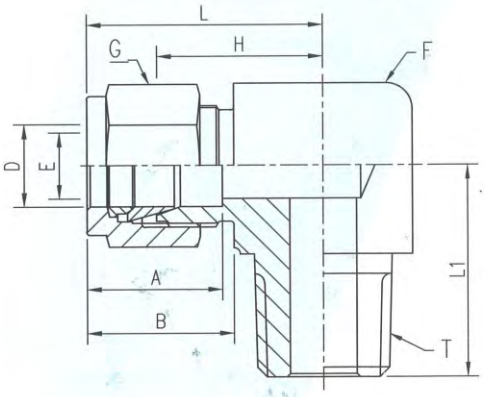

MALE ELBOW DEM-N

CONNECTS METRIC TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat		A	B	H	L	L1
				F	G					
DEM3-1N	3	1/16	2.4	11.1	12	12.9	15.3	17.0	23.6	17.8
DEM3-2N	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DEM3-4N	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DEM4-2N	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DEM4-4N	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DEM6-2N	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DEM6-4N	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
DEM6-6N	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DEM6-8N	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DEM8-2N	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DEM8-4N	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DEM8-6N	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DEM8-8N	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DEM10-2N	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DEM10-4N	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DEM10-6N	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DEM10-8N	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DEM12-4N	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DEM12-6N	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DEM12-8N	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DEM12-12N	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DEM15M-6N	15	3/8	9.5	23.81	25	24.4	22.0	27.9	38.0	30.2
DEM15-8N	15	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
DEM16-6N	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DEM16-8N	16	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
DEM16-12N	16	3/4	12.7	23.81	25	24.4	22.0	29.7	39.8	36.8
DEM18-8N	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DEM18-12N	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DEM20-8N	20	1/2	11.9	34.9	32	26.0	22.0	34.5	44.6	41.7
DEM20-12N	20	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
DEM22-8N	22	1/2	11.9	34.9	32	26.0	22.0	32.5	42.6	39.6
DEM22-12N	22	3/4	15.9	34.9	32	26.0	22.0	34.5	44.6	41.7
DEM22-16N	22	1	18.3	34.9	32	26.0	22.0	34.5	44.6	46.5
DEM25-12N	25	3/4	15.9	34.9	38	31.3	26.5	36.8	49.1	41.7
DEM25-16N	25	1	21.8	34.9	38	31.3	26.5	36.8	49.1	46.5
DEM28-16N	28	1	21.8	41.0	46	36.6	36.6	43.2	64.0	53.7
DEM38-24N	38	1-1/4	33.7	50.8	60	49.4	47.9	56.4	84.0	60.4

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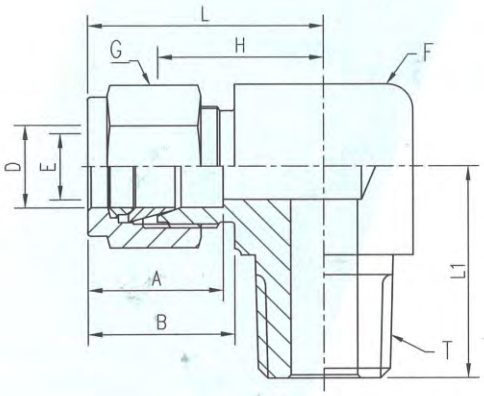
MALE ELBOW DEM-Rx



CONNECTS FRACTIONAL TUBE TO FEMALE ISO TAPERED THREAD

Part No.	Tube O.D. D		T PT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			in.	mm	in.	mm					
DEM2-2Rx	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
DEM2-4Rx	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
DEM3-4Rx	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
DEM4-2Rx	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
DEM4-4Rx	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
DEM4-6Rx	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
DEM4-8Rx	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
DEM5-4Rx	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
DEM5-6Rx	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
DEM6-2Rx	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
DEM6-4Rx	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
DEM6-6Rx	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
DEM6-8Rx	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
DEM6-12Rx	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
DEM8-4Rx	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
DEM8-6Rx	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
DEM8-8Rx	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
DEM8-12Rx	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
DEM10-6Rx	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
DEM10-8Rx	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
DEM10-12Rx	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
DEM12-8Rx	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
DEM12-12Rx	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
DEM12-16Rx	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
DEM16-12Rx	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
DEM16-16Rx	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
DEM20-12Rx	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
DEM20-20Rx	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

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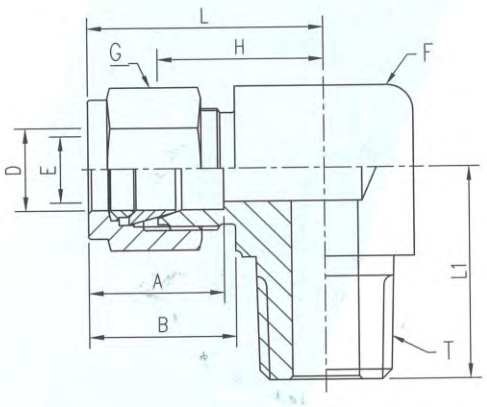

MALE ELBOW DEM-Rx

CONNECTS METRIC TUBE TO FEMALE ISO TAPERED THREAD

Part No.	Tube O.D D	T PT	E Min.	Width across flat		A	B	H	L	L1
				F	G					
DEM3M-1Rx	3	1/16	2.4	11.1	12	12.9	15.3	17.0	23.6	17.8
DEM3M-2Rx	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DEM3M-4Rx	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DEM4M-2Rx	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DEM6M-2Rx	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DEM6M-4Rx	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
DEM6M-6Rx	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DEM6M-8Rx	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DEM8M-2Rx	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DEM8M-4Rx	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DEM8M-6Rx	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DEM8M-8Rx	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DEM10M-2Rx	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DEM10M-4Rx	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DEM10M-6Rx	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DEM10M-8Rx	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DEM12M-2Rx	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
DEM12M-4Rx	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DEM12M-6Rx	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DEM12M-8Rx	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DEM12M-12Rx	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DEM15M-6Rx	15	3/8	9.5	23.81	25	24.4	22.0	27.9	38.0	30.2
DEM15M-8Rx	15	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
DEM16M-6Rx	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DEM16M-8Rx	16	1/2	11.9	23.81	25	24.4	22.0	27.9	38.0	35.1
DEM18M-8Rx	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DEM18M-12Rx	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DEM20M-8Rx	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DEM20M-12Rx	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DEM22M-8Rx	22	1/2	11.9	34.92	32	26.0	22.0	32.5	42.6	39.6
DEM22M-12Rx	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DEM22M-16Rx	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
DEM25M-8Rx	25	1/2	11.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DEM25M-12Rx	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DEM25M-16Rx	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5
DEM28M-16Rx	28	1	21.8	41.0	46	36.6	36.6	43.2	64.0	53.7

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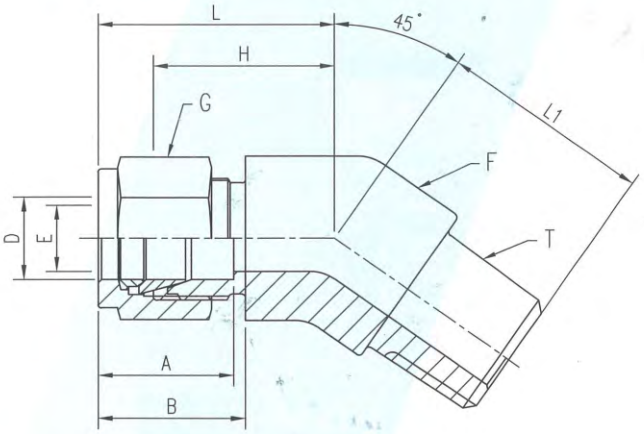

45° MALE ELBOW DEM/45-N

CONNECTS FRACTIONAL TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			in.	mm	in.	mm					
DEM2-2N	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
DEM4-2N	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
DEM4-4N	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
DEM6-2N	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
DEM6-4N	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
DEM6-6N	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
DEM8-6N	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
DEM8-8N	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
DEM12-12N	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
DEM16-16N	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	H	L	L1
				F	G					
DEM6M-4N	6	1/4	4.8	12.7	14.0	15.3	17.7	21.8	29.4	22.9
DEM12M-8N	12	1/2	9.5	20.64	22.0	22.8	22.0	21.8	31.9	29.0

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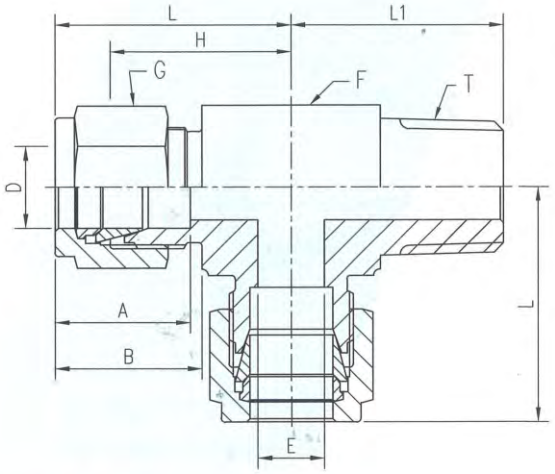

MALE RUN TEE DTRM-N

CONNECTS FRACTIONAL TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			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

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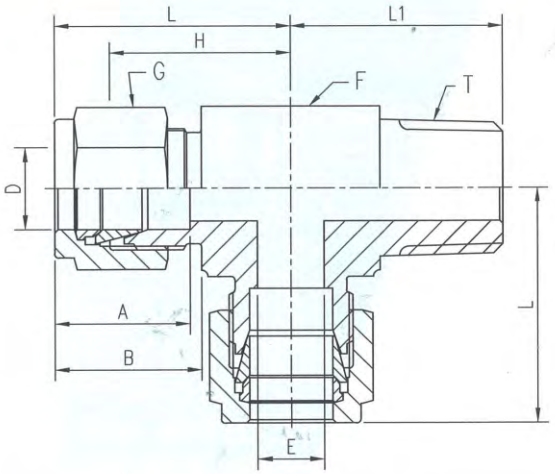
MALE RUN TEE DTRM-Rx



CONNECTS FRACTIONAL TUBE TO FEMALE ISO TAPERED THREAD

Part No.	Tube O.D. D		T PT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			in.	mm	in.	mm					
DTRM6-4Rx	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
DTRM8-6Rx	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
DTRM8-8Rx	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
DTRM10-8Rx	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	H	L	L1
				F	G					
DTRM3M-2Rx	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DTRM3M-4Rx	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DTRM4M-2Rx	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DTRM4M-4Rx	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DTRM6M-2Rx	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DTRM6M-4Rx	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
DTRM6M-6Rx	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DTRM6M-8Rx	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DTRM8M-2Rx	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DTRM8M-4Rx	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DTRM8M-6Rx	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DTRM8M-8Rx	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DTRM10M-2Rx	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DTRM10M-4Rx	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DTRM10M-6Rx	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DTRM10M-8Rx	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DTRM12M-2Rx	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
DTRM12M-4Rx	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DTRM12M-6Rx	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DTRM12M-8Rx	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DTRM12M-12Rx	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DTRM16M-6Rx	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DTRM16M-8Rx	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
DTRM16M-12Rx	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
DTRM18M-8Rx	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DTRM18M-12Rx	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DTRM20M-8Rx	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTRM20M-12Rx	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTRM22M-12Rx	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTRM22M-16Rx	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
DTRM25M-12Rx	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DTRM25M-16Rx	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5

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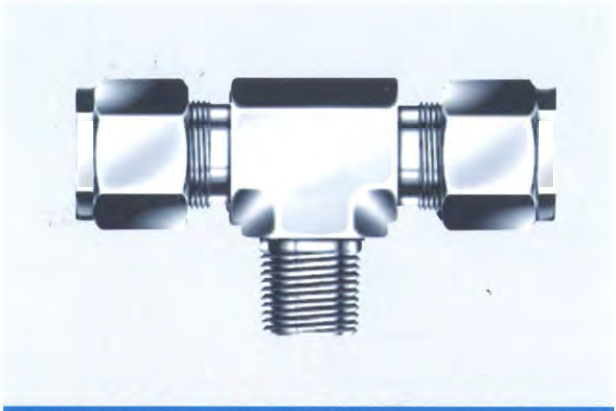
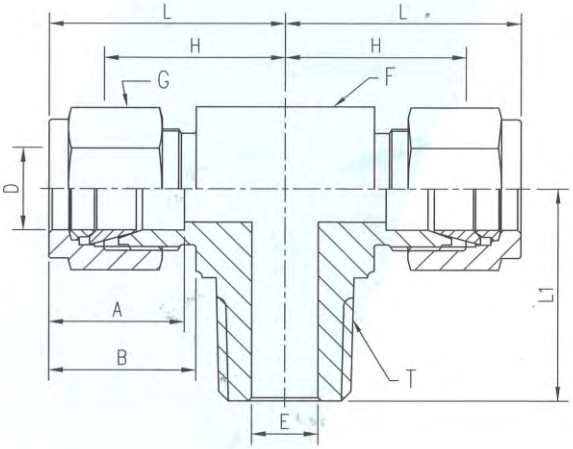


MALE BRANCH TEE DTBM-N



CONNECTS FRACTIONAL TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	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

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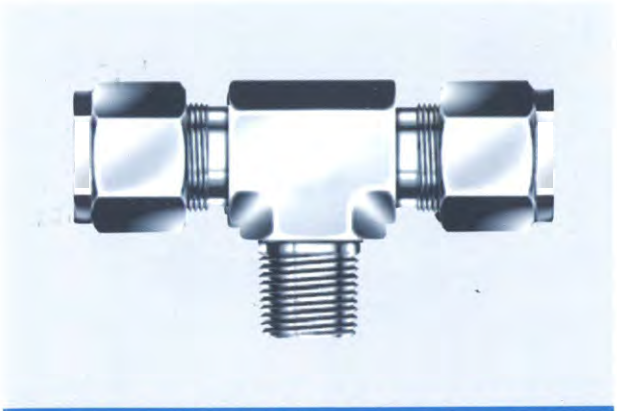
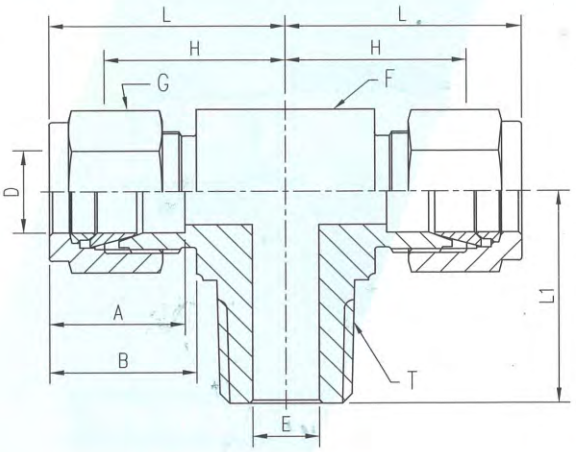


MALE BRANCH TEE DTBM-N



CONNECTS METRIC TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat		A	B	H	L	L1
				F	G					
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

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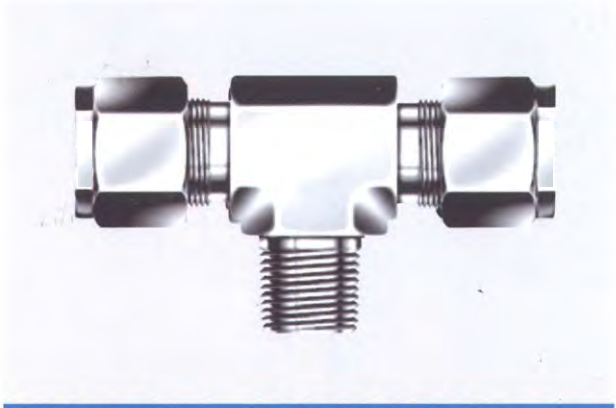

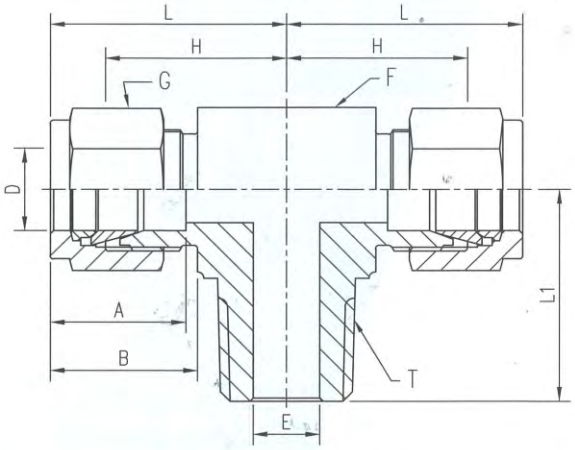

MALE BRANCH TEE DTBM-Rx

CONNECTS FRACTIONAL TUBE TO FEMALE ISO TAPERED THREAD

Part No.	Tube O.D. D		T PT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			in.	mm	in.	mm					
DTBM6-4Rx	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
DTBM8-6Rx	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
DTBM8-8Rx	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
DTBM10-8Rx	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	H	L	L1
				F	G					
DTBM3M-2Rx	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DTBM3M-4Rx	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DTBM4M-2Rx	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DTBM4M-4Rx	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DTBM6M-2Rx	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DTBM6M-4Rx	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
DTBM6M-6Rx	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DTBM6M-8Rx	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DTBM8M-2Rx	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DTBM8M-4Rx	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DTBM8M-6Rx	8	3/8	6.4	17.5	16	16.2	18.6	23.1	30.6	26.2
DTBM8M-8Rx	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DTBM10M-2Rx	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DTBM10M-4Rx	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	26.2
DTBM10M-6Rx	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	26.2
DTBM10M-8Rx	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DTBM12M-2Rx	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
DTBM12M-4Rx	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DTBM12M-6Rx	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DTBM12M-8Rx	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DTBM12M-12Rx	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DTBM16M-6Rx	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DTBM16M-8Rx	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
DTBM16M-12Rx	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
DTBM18M-8Rx	18	1/2	11.9	27.0	30	24.4	22.0	29.7	39.8	36.8
DTBM18M-12Rx	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DTBM20M-8Rx	20	1/2	11.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM20M-12Rx	20	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM22M-12Rx	22	3/4	15.9	34.92	32	26.0	22.0	34.5	44.6	41.7
DTBM22M-16Rx	22	1	18.3	34.92	32	26.0	22.0	34.5	44.6	46.5
DTBM25M-12Rx	25	3/4	15.9	34.92	38	31.3	26.5	36.8	49.1	41.7
DTBM25M-16Rx	25	1	21.8	34.92	38	31.3	26.5	36.8	49.1	46.5

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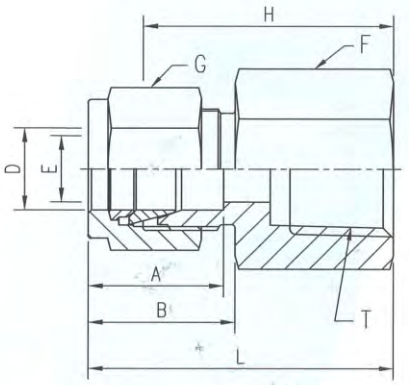

FEMALE CONNECTOR DCF-N

CONNECTS FRACTIONAL TUBE TO MALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	L
					F		G					
	in.	mm			in.	mm	in.	mm				
DCF1-1N	1/16	1.59	1/16	1.27	7/16	11.11	5/16	7.93	8.63	10.92	19.81	23.62
DCF1-2N	1/16	1.59	1/8	1.27	9/16	14.28	5/16	7.93	8.63	10.92	20.57	24.38
DCF2-2N	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	22.09	28.70
DCF2-4N	1/8	3.17	1/4	2.28	3/4	19.05	7/16	11.11	12.70	15.24	26.92	33.52
DCF3-2N	3/16	4.76	1/8	3.04	9/16	14.28	1/2	12.70	13.71	16.00	23.11	29.71
DCF4-2N	1/4	6.35	1/8	4.82	9/16	14.28	9/16	14.28	15.24	17.78	23.87	31.24
DCF4-4N	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	28.44	35.81
DCF4-6N	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	37.59
DCF4-8N	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	35.05	42.41
DCF5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	24.63	32.00
DCF5-4N	5/16	7.93	1/4	6.35	3/4	19.05	5/8	15.87	16.25	18.54	29.46	36.83
DCF6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	25.40	32.76
DCF6-4N	3/8	9.52	1/4	7.11	3/4	19.05	11/16	17.46	16.76	19.30	30.22	37.59
DCF6-6N	3/8	9.52	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.75	39.11
DCF6-8N	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	36.57	43.94
DCF6-12N	3/8	9.52	3/4	7.11	1-5/16	33.33	11/16	17.46	16.76	19.30	40.38	47.75
DCF8-4N	1/2	12.70	1/4	10.41	1-3/16	20.64	7/8	22.22	22.86	21.84	30.22	40.38
DCF8-6N	1/2	12.70	3/8	10.41	7/8	22.22	7/8	22.22	22.86	21.84	31.75	41.91
DCF8-8N	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	36.57	46.73
DCF8-12N	1/2	12.70	3/4	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	38.10	48.26
DCF10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	41.91
DCF10-8N	5/8	15.87	1/2	12.70	1-1/16	26.98	1	25.40	24.38	21.84	36.57	46.73
DCF10-12N	5/8	15.87	3/4	12.70	1-5/16	33.33	1	25.40	24.38	21.84	38.10	48.26
DCF12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	36.57	46.73
DCF12-12N	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	38.10	48.26
DCF14-12N	7/8	22.22	3/4	18.28	1-5/16	33.33	1-1/4	31.75	25.90	21.84	39.62	49.78
DCF16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	41.14	53.34
DCF16-16N	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	50.03	62.23
DCF20-20N	1-1/4	31.75	1-1/4	27.68	2-1/8	53.98	1-7/8	47.63	41.14	38.86	52.57	74.67
DCF24-24N	1-1/2	38.10	1-1/2	34.03	2-3/8	60.33	2-1/4	57.15	50.03	45.21	56.13	83.81
DCF32-32N	2	50.80	2	45.97	2-1/8	73.03	3	76.20	67.56	62.73	64.26	101.60

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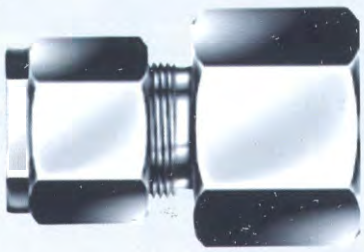

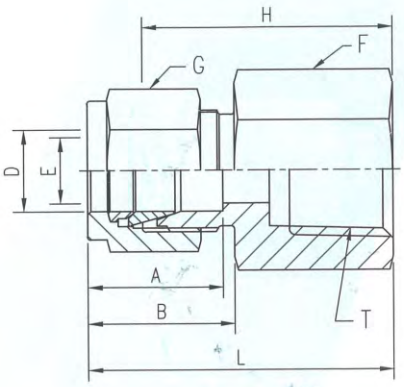

FEMALE CONNECTOR DCF-N

CONNECTS METRIC TUBE TO MALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat		A	B	H	L
				F	G				
DCF3M-2N	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
DCF3M-4N	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
DCF4M-2N	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
DCF6M-2N	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
DCF6M-4N	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
DCF6M-6N	6	3/8	4.8	22	14	15.3	17.7	29.5	36.9
DCF6M-8N	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
DCF8M-2N	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
DCF8M-4N	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
DCF8M-6N	8	3/8	6.4	22	16	16.2	18.6	30.2	37.7
DCF8M-8N	8	1/2	6.4	27	16	16.2	18.6	35.8	43.3
DCF10M-2N	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
DCF10M-4N	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
DCF10M-6N	10	3/8	7.9	22	19	17.2	19.5	31.0	38.6
DCF10M-8N	10	1/2	7.9	27	19	17.2	19.5	36.6	44.2
DCF12M-2N	12	1/8	8.3	22	22	22.8	22.0	28.4	38.5
DCF12M-4N	12	1/4	9.5	22	22	22.8	22.0	30.2	40.3
DCF12M-6N	12	3/8	9.5	22	22	22.8	22.0	31.0	41.1
DCF12M-8N	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
DCF12M-12N	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
DCF15M-8N	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
DCF16M-8N	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
DCF20M-8N	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
DCF20M-12N	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
DCF22M-12N	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
DCF22M-16N	22	1	18.3	41	32	26.0	22.0	47.8	57.9
DCF25M-12N	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
DCF25M-16N	25	1	21.8	41	38	31.3	26.5	50.0	62.3

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FEMALE CONNECTOR DCF-Rx

CONNECTS FRACTIONAL TUBE TO MALE ISO TAPERED THREAD

Part No.	Tube O.D. D		T PT	E Min.	Width across flat				A	B	H	L
					F		G					
	in.	mm			in.	mm	in.	mm				
DCF2-2Rx	1/8	3.17	1/8	2.28	9/16	14.28	7/16	11.11	12.70	15.24	22.09	28.70
DCF4-2Rx	1/4	6.35	1/8	4.82	9/16	14.28	9/16	14.28	15.24	17.78	23.87	31.24
DCF4-4Rx	1/4	6.35	1/4	4.82	3/4	19.05	9/16	14.28	15.24	17.78	28.44	35.81
DCF4-6Rx	1/4	6.35	3/8	4.82	7/8	22.22	9/16	14.28	15.24	17.78	30.22	37.59
DCF4-8Rx	1/4	6.35	1/2	4.82	1-1/16	26.98	9/16	14.28	15.24	17.78	35.05	42.41
DCF6-4Rx	3/8	9.52	1/4	7.11	3/4	19.05	11/16	17.46	16.76	19.30	30.22	37.59
DCF6-6Rx	3/8	9.52	3/8	7.11	7/8	22.22	11/16	17.46	16.76	19.30	31.75	39.11
DCF6-8Rx	3/8	9.52	1/2	7.11	1-1/16	26.98	11/16	17.46	16.76	19.30	36.57	43.94
DCF8-2Rx	1/2	12.70	1/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.40	35.56
DCF8-4Rx	1/2	12.70	1/4	10.41	1-3/16	20.64	7/8	22.22	22.86	21.84	30.22	40.38
DCF8-6Rx	1/2	12.70	3/8	10.41	7/8	22.22	7/8	22.22	22.86	21.84	31.75	41.91
DCF8-8Rx	1/2	12.70	1/2	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	36.57	46.73
DCF8-12Rx	1/2	12.70	3/4	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	38.10	48.26
DCF10-6Rx	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	31.75	41.91
DCF10-8Rx	5/8	15.87	1/2	12.70	1-1/16	26.98	1	25.40	24.38	21.84	36.57	46.73
DCF10-12Rx	5/8	15.87	3/4	12.70	1-5/16	33.33	1	25.40	24.38	21.84	38.10	48.26
DCF12-8Rx	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	36.57	46.73
DCF12-12Rx	3/4	19.05	3/4	15.74	1-5/16	33.33	1-1/8	28.58	24.38	21.84	38.10	48.26
DCF16-12Rx	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	41.14	53.34
DCF16-16Rx	1	25.40	1	22.35	1-5/8	41.27	1-1/2	38.10	31.24	26.41	50.03	62.23
DCF20-16Rx	1-1/4	31.75	1	27.68	1-3/4	44.45	1-7/8	47.63	41.14	38.86	52.57	74.67
DCF20-20Rx	1-1/4	31.75	1-1/4	27.68	2-1/8	53.98	1-7/8	47.63	41.14	38.86	52.57	74.67
DCF24-24Rx	1-1/2	38.10	1-1/2	34.03	2-3/8	60.33	2-1/4	57.15	50.03	45.21	56.13	83.81

CONNECTS METRIC TUBE TO MALE ISO TAPERED THREAD

Part No.	Tube O.D D	T PT	E Min.	Width across flat		A	B	H	L
				F	G				
DCF3M-4Rx	3	1/4	2.4	14	12	12.9	15.3	22.1	28.7
DCF4M-2Rx	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
DCF6M-2Rx	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
DCF6M-4Rx	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
DCF6M-6Rx	6	3/8	4.8	22	14	15.3	17.7	29.5	36.9
DCF6M-8Rx	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
DCF8M-2Rx	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
DCF8M-4Rx	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
DCF8M-6Rx	8	3/8	6.4	22	16	16.2	18.6	30.2	37.7
DCF8M-8Rx	8	1/2	6.4	27	16	16.2	18.6	35.8	43.3
DCF10M-2Rx	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
DCF10M-4Rx	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
DCF10M-6Rx	10	3/8	7.9	22	19	17.2	19.5	31.0	38.6
DCF10M-8Rx	10	1/2	7.9	27	19	17.2	19.5	36.6	44.2
DCF12M-2Rx	12	1/8	8.3	22	22	22.8	22.0	28.4	38.5
DCF12M-4Rx	12	1/4	9.5	22	22	22.8	22.0	30.2	40.3
DCF12M-6Rx	12	3/8	9.5	22	22	22.8	22.0	31.0	41.1
DCF12M-8Rx	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
DCF12M-12Rx	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
DCF15M-8Rx	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
DCF16M-8Rx	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
DCF20M-8Rx	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
DCF20M-12Rx	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
DCF22M-8Rx	22	1/2	18.3	30	32	26.0	22.0	38.0	48.1
DCF22M-12Rx	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
DCF22M-16Rx	22	1	18.3	41	32	26.0	22.0	47.8	57.9
DCF25M-8Rx	25	1/2	21.8	35	38	31.3	26.5	41.1	53.4
DCF25M-12Rx	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
DCF25M-16Rx	25	1	21.8	41	38	31.3	26.5	50.0	62.3

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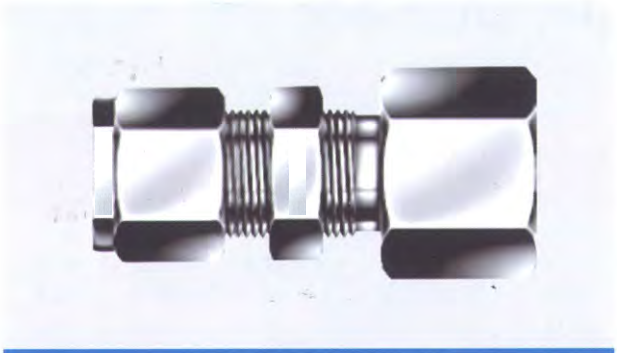
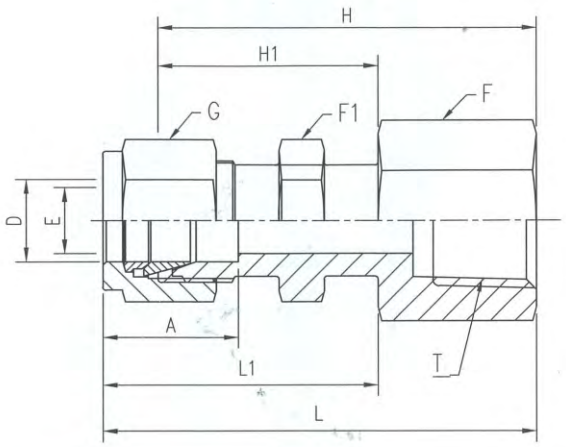


BULKHEAD FEMALE CONNECTOR DCFB-N



CONNECTS FRACTIONAL TUBE TO MALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat						A	H	H1	L	L1	Panel Hole Drillsize	Panel Max. Thickness
					F		Fx		G								
	in.	mm			in.	mm	in.	mm	in.	mm							
DCFB2-2N	1/8	3.17	1/8	2.28	9/16	14.28	1/2	12.70	7/16	11.11	12.70	38.10	24.63	44.70	31.24	8.33	12.70
DCFB4-2N	1/4	6.35	1/8	4.82	5/8	15.87	5/8	15.87	9/16	14.28	15.24	39.62	26.16	46.99	33.52	11.50	10.16
DCFB4-4N	1/4	6.35	1/4	4.82	3/4	19.05	5/8	15.87	9/16	14.28	15.24	44.45	26.16	51.81	33.52	11.50	10.16
DCFB6-4N	3/8	9.52	1/4	7.11	3/4	19.05	3/4	19.05	11/16	17.46	16.76	47.75	29.46	55.11	36.83	14.68	11.17
DCFB6-6N	3/8	9.52	3/8	7.11	7/8	22.22	3/4	19.05	11/16	17.46	16.76	49.41	29.46	56.77	36.83	14.68	11.17
DCFB8-6N	1/2	12.70	3/8	10.41	15/16	23.81	15/16	23.81	7/8	22.22	22.86	51.56	31.75	61.72	41.91	19.44	12.70
DCFB8-8N	1/2	12.70	1/2	10.41	1/16	1-26.98	23.81	15/16	7/8	22.22	22.86	56.38	31.75	66.54	41.91	19.44	12.70
DCFB12-12N	3/4	19.05	3/4	15.74	1-1/4	31.75	1-3/16	30.16	1-1/8	28.57	24.38	63.60	38.30	73.51	47.21	25.79	16.76
DCFB16-16N	1	25.40	1	22.35	1-5/8	41.27	1-5/8	41.27	1-1/2	38.10	31.24	81.04	45.21	93.23	57.40	33.73	19.05
DCFB20-20N	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	83.49	47.75	105.59	69.85	41.67	19.05
DCFB24-24N	1-1/2	38.10	1-1/2	33.90	1-1/4	57.15	2-1/4	57.15	2-1/4	57.15	50.03	87.39	49.27	114.57	76.45	49.61	19.05

CONNECTS METRIC TUBE TO MALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat			A	H	H1	L	L1	Panel Hole Drillsize	Panel Max. Thickness
				F	Fx	G							
DCFB6M-2N	6	1/8	4.8	15.8	15.8	14	15.3	39.6	26.2	46.90	35.00	11.5	10.2
DCFB6M-4N	6	1/4	4.8	19.0	16.0	14	15.3	44.4	26.2	51.80	33.60	11.5	10.2
DCFB8M-4N	8	1/4	6.3	19.0	17.4	16	16.2	46.7	28.6	53.85	35.55	13.1	11.2
DCFB12M-8N	12	1/2	9.5	27.0	24.0	22	22.8	56.4	31.8	66.50	41.90	19.5	12.7

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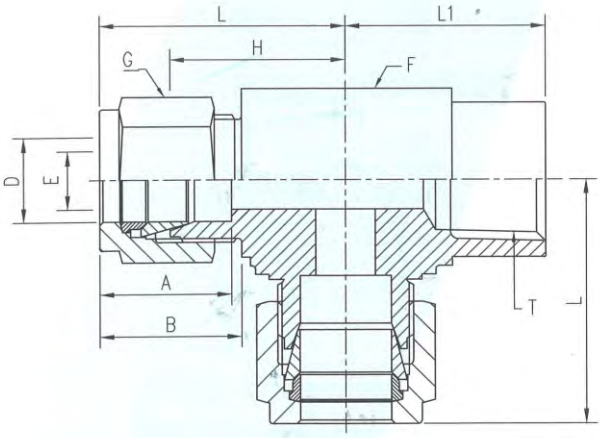

FEMALE RUN TEE DTRF-N

CONNECTS FRACTIONAL TUBE TO MALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			in.	mm	in.	mm					
DTRF2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
DTRF2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
DTRF3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
DTRF4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
DTRF4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.86	29.71	22.35
DTRF4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
DTRF4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
DTRF5-2N	5/16	7.94	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
DTRF5-4N	5/16	7.94	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
DTRF6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
DTRF6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
DTRF6-6N	3/8	9.52	3/8	6.35	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
DTRF6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
DTRF8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
DTRF8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
DTRF8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	29.71	39.87	28.44
DTRF10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
DTRF10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	28.70	38.86	28.44
DTRF12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
DTRF12-12N	3/4	19.05	3/4	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
DTRF14-12N	7/8	22.22	3/4	18.28	1-3/8	34.92	1-1/4	31.75	31.75	21.84	34.54	44.70	31.75
DTRF16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	38.10	26.41	36.83	49.02	31.75
DTRF16-16N	1	25.40	1	22.35	1-1/16	42.86	1-1/2	38.10	38.10	26.41	41.40	50.29	38.10

CONNECTS METRIC TUBE TO MALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat		A	B	H	L	L1
				F	G					
DTRF6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
DTRF6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
DTRF6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
DTRF6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.40
DTRF8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
DTRF8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
DTRF8M-6N	8	3/8	6.4	20.64	16	16.2	18.6	25.2	32.4	22.40
DTRF8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
DTRF10M-2N	10	1/8	7.9	20.64	19	17.2	19.5	23.9	31.5	19.00
DTRF10M-4N	10	1/4	7.9	20.64	19	17.2	19.5	25.9	33.6	22.40
DTRF10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.6	22.40
DTRF10M-8N	10	1/2	7.9	25.40	19	17.2	19.5	26.2	33.6	28.40
DTRF12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
DTRF12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
DTRF12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.40
DTRF16M-8N	16	1/2	12.7	25.40	25	24.4	22.0	29.7	40.0	28.40

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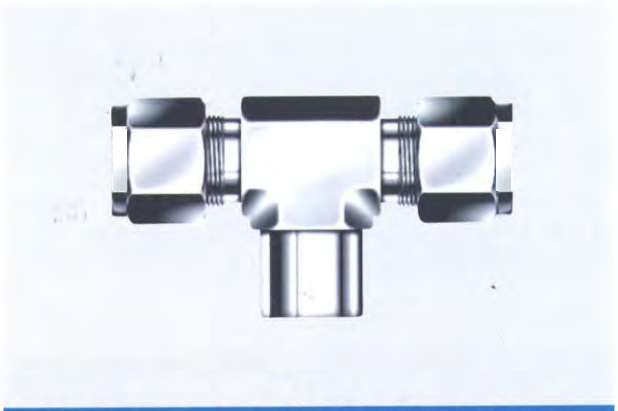

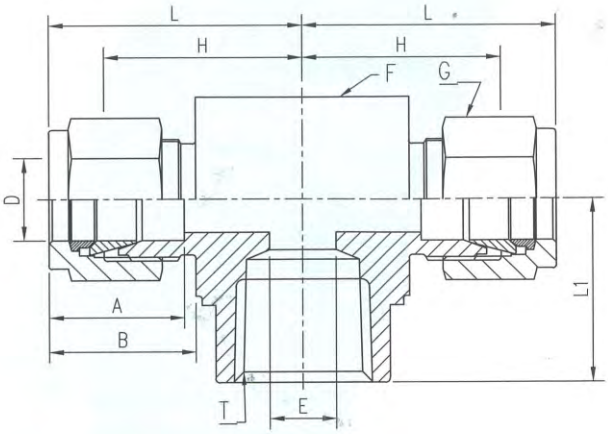

FEMALE BRANCH TEE DTBF-N

CONNECTS FRACTIONAL TUBE TO MALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			in.	mm	in.	mm					
DTBF2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.38	19.05
DTBF2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
DTBF3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
DTBF4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
DTBF4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	22.35
DTBF4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
DTBF4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
DTBF5-2N	5/16	7.94	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
DTBF5-4N	5/16	7.94	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
DTBF6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
DTBF6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
DTBF6-6N	3/8	9.52	3/8	6.35	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
DTBF6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
DTBF8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
DTBF8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
DTBF8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	22.35	29.71	28.44
DTBF10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	39.87
DTBF10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	28.70	38.86	28.44
DTBF12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
DTBF12-12N	3/4	19.05	3/4	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
DTBF14-12N	7/8	22.22	3/4	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
DTBF16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
DTBF16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	53.59	38.10

CONNECTS METRIC TUBE TO MALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat		A	B	H	L	L1
				F	G					
DTBF6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
DTBF6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
DTBF6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
DTBF6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.40
DTBF8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
DTBF8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
DTBF8M-6N	8	3/8	6.4	20.64	16	16.2	18.6	25.2	32.4	22.40
DTBF8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
DTBF10M-2N	10	1/8	7.9	17.50	19	17.2	19.5	23.9	31.5	19.00
DTBF10M-4N	10	1/4	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
DTBF10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
DTBF10M-8N	10	1/2	9.5	25.40	19	17.2	19.5	26.2	33.6	22.40
DTBF12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
DTBF12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
DTBF12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.70
DTBF16M-8N	16	1/2	12.7	25.40	25	24.4	22.0	29.7	40.0	28.70

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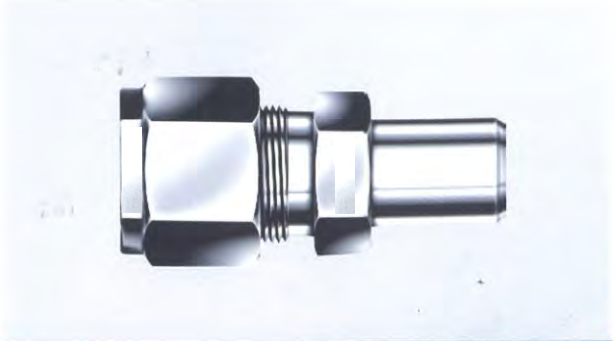
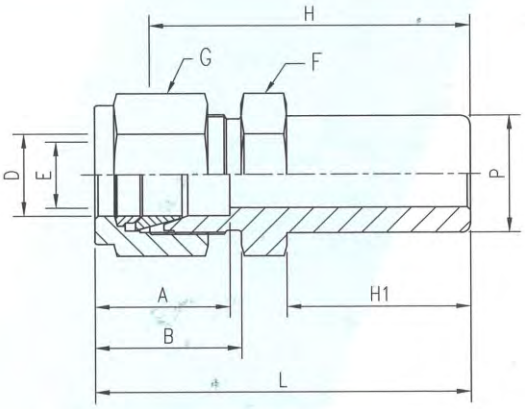


MALE PIPE WELD CONNECTOR-DCWC



CONNECTS FRACTIONAL TUBE TO PIPE

Part No.	Tube O.D. D		Male Pipe Size P		E Min.	Width across flat				A	B	H	H1	L
						F		G						
	in.	mm	Nom.	O.D		in.	mm	in.	mm					
DCWC2-2P	1/8	3.17	1/8	10.29	2.28	7/16	11.11	7/16	11.11	12.70	15.24	23.87	9.65	31.24
DCWC3-2P	3/16	4.76	1/8	10.29	3.04	7/16	11.11	1/2	12.70	13.71	16.00	24.63	9.65	31.24
DCWC4-2P	1/4	6.35	1/8	10.29	4.82	1/2	12.70	9/16	14.28	15.24	17.78	25.40	9.65	32.76
DCWC4-4P	1/4	6.35	1/4	13.72	4.82	9/16	14.28	9/16	14.28	15.24	17.78	30.48	14.22	37.84
DCWC5-2P	5/16	7.93	1/8	10.29	5.08	9/16	14.28	5/8	15.87	16.25	18.54	26.67	9.65	34.03
DCWC5-4P	5/16	7.93	1/4	13.72	6.35	9/16	14.28	5/8	15.87	16.25	18.54	31.24	14.22	38.60
DCWC6-4P	3/8	9.52	1/4	13.72	7.11	5/8	15.87	11/16	17.46	16.76	19.30	32.51	14.22	39.87
DCWC6-6P	3/8	9.52	3/8	17.15	7.11	11/16	17.46	11/16	17.46	16.76	19.30	32.51	14.22	39.87
DCWC6-8P	3/8	9.52	1/2	21.34	7.11	7/8	22.22	11/16	17.46	16.76	19.30	38.86	11.05	43.23
DCWC8-6P	1/2	12.70	3/8	17.15	10.41	13/16	20.64	7/8	22.22	22.86	21.84	33.27	14.22	43.43
DCWC8-8P	1/2	12.70	1/2	21.34	10.41	7/8	22.22	7/8	22.22	22.86	21.84	38.86	19.05	49.02
DCWC8-12P	1/2	12.70	3/4	26.67	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	40.38	19.05	50.54
DCWC10-8P	5/8	15.87	1/2	21.34	12.70	15/16	23.81	1	25.40	24.38	21.84	38.86	19.05	49.02
DCWC12-12P	3/4	19.05	3/4	26.67	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	40.38	19.05	50.54
DCWC16-16P	1	25.40	1	33.40	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	50.03	23.87	62.23
DCWC20-20P	1-1/4	31.75	1-1/4	42.16	27.68	1-3/4	44.45	2	50.80	41.14	38.86	55.11	23.87	77.21
DCWC24-24P	1-1/2	38.10	1-1/2	48.26	34.03	2-1/8	53.98	2-1/4	57.15	50.03	45.21	61.72	26.16	88.90

CONNECTS METRIC TUBE TO PIPE

Part No.	Tube O.D. D	Male Pipe Size P		E Min.	Width across flat		A	B	H	H1	L
		Nom.	O.D		F	G					
DCWC3M-2P	3	1/8	10.29	2.4	12	12	12.9	15.3	23.1	9.7	29.7
DCWC4M-2P	4	1/8	10.29	2.4	12	12	13.7	16.1	24.1	9.7	30.7
DCWC6M-2P	6	1/8	10.29	4.8	14	14	15.3	17.7	25.4	9.7	32.8
DCWC6M-4P	6	1/4	13.72	4.8	14	14	15.3	17.7	30.2	14.2	37.6
DCWC8M-2P	8	1/8	10.29	5.1	15	16	16.2	18.6	26.7	9.7	34.2
DCWC8M-4P	8	1/4	13.72	6.4	15	16	16.2	18.6	31.2	14.2	38.7
DCWC8M-8P	8	1/2	21.34	6.4	22	16	16.2	18.6	37.3	19.0	44.8
DCWC10M-4P	10	1/4	13.72	7.1	18	19	17.2	19.5	33.3	14.2	40.9
DCWC10M-6P	10	3/8	17.15	7.9	18	19	17.2	19.5	32.5	14.2	40.1
DCWC10M-8P	10	1/2	21.34	7.9	22	19	17.2	19.5	38.1	19.0	45.7
DCWC12M-4P	12	1/4	13.72	7.1	22	22	22.8	22.0	33.3	14.2	43.4
DCWC12M-6P	12	3/8	17.15	9.5	22	22	22.8	22.0	33.3	14.2	43.4
DCWC12M-8P	12	1/2	21.34	9.5	22	22	22.8	22.0	38.1	19.0	48.2
DCWC15M-8P	15	1/2	21.34	11.9	24	25	24.4	22.0	38.9	19.0	49.0
DCWC16M-8P	16	1/2	21.34	12.7	24	25	24.4	22.0	38.9	19.0	49.0
DCWC18M-8P	18	1/2	21.34	13.5	27	30	24.4	22.0	40.4	19.0	50.5
DCWC38M-24P	38	1-1/2	48.26	33.7	55	60	49.4	47.9	64.0	26.2	91.6

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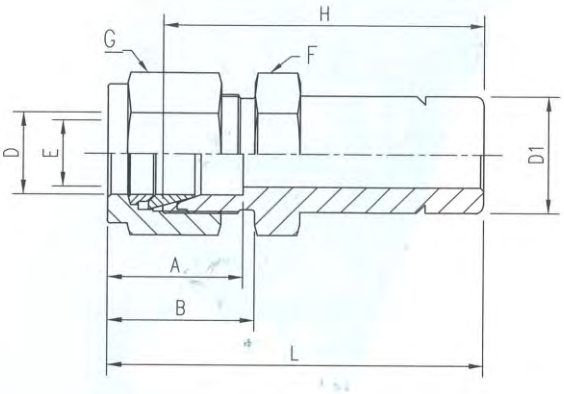

REDUCER DR

CONNECTS FRACTIONAL TUBE TO FRACTIONAL O.D PORTS

Part No.	Tube O.D.				E Min.	Width across flat				A	B	H	L
	D		D1			F		G					
	in.	mm	in.	mm		in.	mm	in.	mm				
DR1-2	1/16	1.59	1/8	3.17	1.27	5/16	7.93	5/16	7.93	8.63	10.92	25.40	29.21
DR1-4	1/16	1.59	1/4	6.35	1.27	5/16	7.93	5/16	7.93	8.63	10.92	27.68	31.49
DR2-1	1/8	3.17	1/16	1.59	1.76	7/16	11.11	7/16	11.11	12.70	15.24	22.35	28.95
DR2-2	1/8	3.17	1/8	3.17	2.03	7/16	11.11	7/16	11.11	12.70	15.24	26.92	33.52
DR2-3	1/8	3.17	3/16	4.76	2.28	7/16	11.11	7/16	11.11	12.70	15.24	27.68	34.29
DR2-4	1/8	3.17	1/4	6.35	2.28	7/16	11.11	7/16	11.11	12.70	15.24	29.46	36.06
DR2-6	1/8	3.17	3/8	9.52	2.28	7/16	11.11	7/16	11.11	12.70	15.24	30.98	37.59
DR2-8	1/8	3.17	1/2	12.70	2.28	9/16	14.28	7/16	11.11	12.70	15.24	37.59	44.19
DR3-2	3/16	4.76	1/8	3.17	2.03	7/16	11.11	1/2	12.70	13.71	16.00	28.19	34.79
DR3-4	3/16	4.76	1/4	6.35	3.04	7/16	11.11	1/2	12.70	13.71	16.00	30.48	37.08
DR4-2	1/4	6.35	1/8	3.17	2.03	1/2	12.70	9/16	14.28	15.24	17.78	29.46	36.83
DR4-3	1/4	6.35	3/16	4.76	3.04	1/2	12.70	9/16	14.28	15.24	17.78	30.22	37.59
DR4-4	1/4	6.35	1/4	6.35	4.82	1/2	12.70	9/16	14.28	15.24	17.78	31.75	39.11
DR4-5	1/4	6.35	5/16	7.93	4.82	1/2	12.70	9/16	14.28	15.24	17.78	32.51	39.87
DR4-6	1/4	6.35	3/8	9.52	4.82	1/2	12.70	9/16	14.28	15.24	17.78	33.27	40.64
DR4-8	1/4	6.35	1/2	12.70	4.82	9/16	14.28	9/16	14.28	15.24	17.78	38.86	46.22
DR4-10	1/4	6.35	5/8	15.87	4.82	11/16	17.46	9/16	14.28	15.24	17.78	40.64	48.00
DR4-12	1/4	6.35	3/4	19.05	4.82	13/16	20.64	9/16	14.28	15.24	17.78	40.38	47.75
DR5-6	5/16	7.93	3/8	9.52	6.35	9/16	14.28	5/8	15.87	16.25	18.54	34.54	41.91
DR5-8	5/16	7.93	1/2	12.70	6.35	9/16	14.28	5/8	15.87	16.25	18.54	40.13	47.49
DR6-4	3/8	9.52	1/4	6.35	4.82	5/8	15.87	11/16	17.46	16.76	19.30	34.03	41.40
DR6-6	3/8	9.52	3/8	9.52	7.11	5/8	15.87	11/16	17.46	16.76	19.30	35.81	43.18
DR6-8	3/8	9.52	1/2	12.70	7.11	5/8	15.87	11/16	17.46	16.76	19.30	41.14	45.81
DR6-10	3/8	9.52	5/8	15.87	7.11	11/16	17.46	11/16	17.46	16.76	19.30	42.92	50.29
DR6-12	3/8	9.52	3/4	19.05	7.11	13/16	20.64	11/16	17.46	16.76	19.30	42.92	50.29
DR8-4	1/2	12.70	1/4	6.35	4.82	13/16	20.64	7/8	22.22	22.86	21.84	34.79	44.95
DR8-6	1/2	12.70	3/8	9.52	7.11	13/16	20.64	7/8	22.22	22.86	21.84	36.57	46.73
DR8-8	1/2	12.70	1/2	12.70	9.90	13/16	20.64	7/8	22.22	22.86	21.84	42.16	52.32
DR8-10	1/2	12.70	5/8	15.87	10.41	13/16	20.64	7/8	22.22	22.86	21.84	43.68	53.84
DR8-12	1/2	12.70	3/4	19.05	10.41	13/16	20.64	7/8	22.22	22.86	21.84	43.68	53.84
DR8-16	1/2	12.70	1	25.40	10.41	1-1/16	26.98	7/8	22.22	22.86	21.84	50.03	60.19
DR10-12	5/8	15.87	3/4	19.05	12.70	15/16	23.81	1	25.40	24.38	21.84	44.45	54.61
DR10-14	5/8	15.87	7/8	22.22	12.70	15/16	23.81	1	25.40	24.38	21.84	45.97	56.13
DR10-16	5/8	15.87	1	25.40	12.70	1-1/16	26.98	1	25.40	24.38	21.84	50.80	60.96
DR12-8	3/4	19.05	1/2	12.70	9.90	1-1/16	26.98	1-1/8	28.57	24.38	21.84	44.45	54.61
DR12-16	3/4	19.05	1	25.40	15.74	1-1/16	26.98	1-1/8	28.57	24.38	21.84	52.32	62.48
DR16-20	1	25.40	1-1/4	31.75	22.35	1-3/8	34.93	1-1/2	38.10	31.24	26.41	68.32	80.51
DR16-24	1	25.40	1-1/2	38.10	22.35	1-5/8	41.28	1-1/2	38.10	31.24	26.41	76.96	89.15
DR20-24	1-1/4	31.75	1-1/2	38.10	27.68	1-7/8	47.63	1-7/8	57.15	41.14	38.86	82.04	104.14

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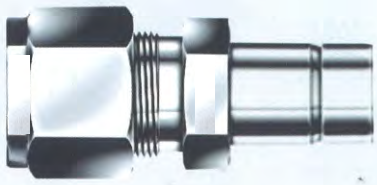

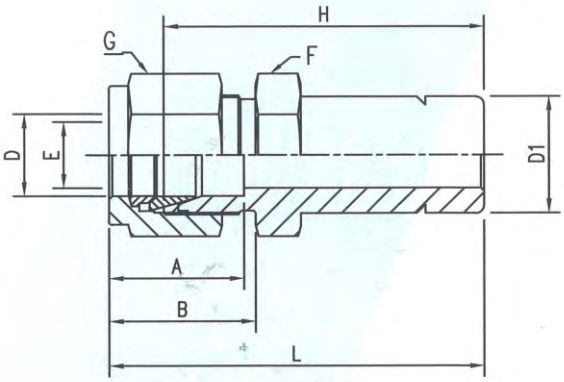

REDUCER DR

CONNECTS METRIC TUBE TO METRIC O.D PORTS

Part No.	Tube O.D.		E Min.	Width across flat		A	B	H	L
	D	D1		F	G				
DR2M-3M	2	3	1.7	12	12	12.9	15.3	26.9	35.3
DR3M-4M	3	4	2.4	12	12	12.9	15.3	28.4	35.0
DR3M-6M	3	6	2.4	12	12	12.9	15.3	29.5	36.1
DR3M-10M	3	10	2.4	12	12	12.9	15.3	31.8	38.4
DR4M-6M	4	6	2.4	12	12	13.7	16.1	30.5	37.1
DR6M-3M	6	3	1.8	14	14	15.3	17.7	29.5	36.9
DR6M-8M	6	8	4.8	14	14	15.3	17.7	32.5	39.9
DR6M-10M	6	10	4.8	14	14	15.3	17.7	33.3	40.7
DR6M-12M	6	12	4.8	14	14	15.3	17.7	38.9	46.3
DR8M-6M	8	6	4.6	15	16	16.2	18.6	32.8	40.3
DR8M-10M	8	10	6.4	15	16	16.2	18.6	34.5	42.0
DR8M-12M	8	12	6.4	15	16	16.2	18.6	40.1	47.6
DR10M-6M	10	6	4.6	18	19	17.2	19.5	34.8	42.4
DR10M-12M	10	12	7.9	18	19	17.2	19.5	42.2	49.8
DR10M-15M	10	15	7.9	18	19	17.2	19.5	43.7	51.3
DR10M-18M	10	18	7.9	19	19	17.2	19.5	43.7	51.3
DR12M-6M	12	6	4.6	22	22	22.8	22.0	34.8	44.9
DR12M-10M	12	10	7.7	22	22	22.8	22.0	36.6	46.7
DR12M-16M	12	16	9.5	22	22	22.8	22.0	43.7	53.8
DR12M-18M	12	18	9.5	22	22	22.8	22.0	43.7	53.8
DR12M-20M	12	20	9.5	22	22	22.8	22.0	46.0	56.1
DR12M-22M	12	22	9.5	24	22	22.8	22.0	46.0	56.1
DR12M-25M	12	25	9.5	27	22	22.8	22.0	52.3	62.4
DR16M-12M	16	12	9.1	24	25	24.4	22.0	42.9	53.0
DR18M-12M	18	12	9.1	27	30	24.4	22.0	44.5	54.6
DR18M-16M	18	16	12.7	27	30	24.4	22.0	46.0	56.1
DR18M-20M	18	20	15.1	27	30	24.4	22.0	47.5	57.6
DR18M-22M	18	22	15.1	27	30	24.4	22.0	47.5	57.6
DR18M-25M	18	25	15.1	27	30	24.4	22.0	52.3	62.4
DR20M-16M	20	16	12.7	30	32	26.0	22.0	47.8	57.9
DR20M-18M	20	18	13.9	30	32	26.0	22.0	47.8	57.9
DR20M-22M	20	22	15.8	30	32	26.0	22.0	49.3	59.4
DR20M-25M	20	25	15.8	30	32	26.0	22.0	54.1	64.2
DR22M-18M	22	18	13.9	30	32	26.0	22.0	47.8	57.9
DR22M-20M	22	20	15.1	30	32	26.0	22.0	49.3	59.4
DR22M-25M	22	25	18.3	30	32	26.0	22.0	54.1	64.2
DR25M-18M	25	18	13.9	35	38	31.3	26.5	50.8	63.1
DR25M-20M	25	20	15.1	35	38	31.3	26.5	52.3	64.6

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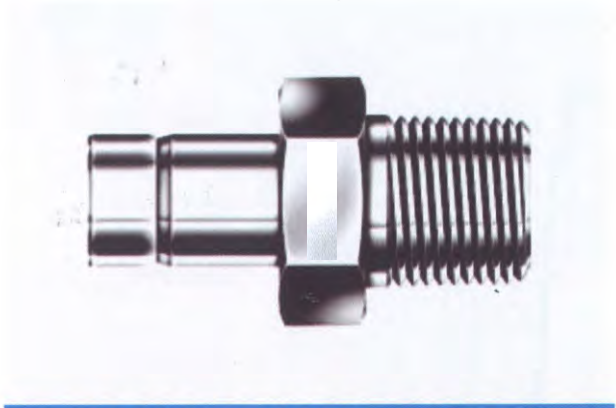

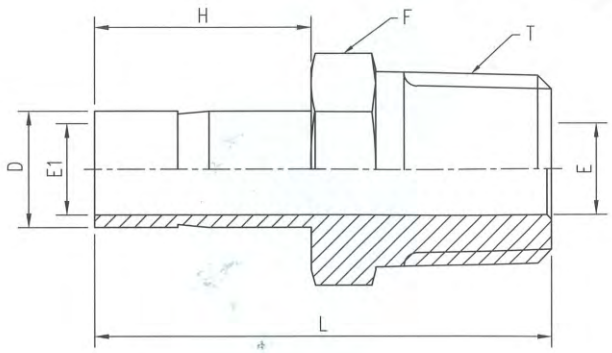

MALE ADAPTER DAM-N

CONNECTS FRACTIONAL PORT TO FEMALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	E1	Width across flat F		H	L
	in.	mm				in.	mm		
DAM2-2N	1/8	3.17	1/8	4.57	1.77	7/16	11.11	13.45	29.50
DAM2-4N	1/8	3.17	1/4	7.11	1.77	9/16	14.28	13.45	34.80
DAM3-2N	3/16	4.76	1/8	4.57	3.04	7/16	11.11	14.20	30.22
DAM3-4N	3/16	4.76	1/4	7.11	3.04	9/16	14.28	14.20	35.56
DAM4-2N	1/4	6.35	1/8	4.57	4.57	7/16	11.11	15.75	31.80
DAM4-4N	1/4	6.35	1/4	7.11	4.57	9/16	14.28	15.75	37.08
DAM4-6N	1/4	6.35	3/8	10.41	4.57	11/16	17.46	15.75	37.84
DAM4-8N	1/4	6.35	1/2	12.70	4.57	7/8	22.22	15.75	43.43
DAM5-2N	5/16	7.93	1/8	4.57	6.35	7/16	11.11	16.80	32.76
DAM5-4N	5/16	7.93	1/4	7.11	6.35	9/16	14.28	16.80	38.10
DAM6-2N	3/8	9.52	1/8	4.57	7.11	7/16	11.11	17.50	33.50
DAM6-4N	3/8	9.52	1/4	7.11	7.11	9/16	14.28	17.50	38.90
DAM6-6N	3/8	9.52	3/8	10.41	7.11	11/16	17.46	17.50	39.60
DAM6-8N	3/8	9.52	1/2	12.70	7.11	7/8	22.22	17.50	45.20
DAM8-4N	1/2	12.70	1/4	7.11	9.90	9/16	14.28	23.20	44.50
DAM8-6N	1/2	12.70	3/8	10.41	9.90	11/16	17.46	23.20	45.20

CONNECTS METRIC PORT TO FEMALE NPT THREAD

Part No.	Tube O.D. D	T PT	E Min.	E1	Width across flat F	H	L
DAM3M-2N	3	1/8	4.0	1.8	12	13.15	29.4
DAM6M-2N	6	1/8	4.6	4.6	12	15.70	32.8
DAM6M-4N	6	1/4	4.6	4.6	14	15.70	38.1
DAM8M-4N	8	1/4	6.3	6.3	14	16.80	39.1
DAM10M-4N	10	1/4	7.7	7.7	14	17.50	39.9
DAM10M-6N	10	3/8	7.7	7.7	17	17.50	40.6
DAM10M-8N	10	1/2	11.9	7.7	22	17.50	45.2
DAM12M-4N	12	1/4	7.1	9.1	14	23.10	46.5
DAM12M-6N	12	3/8	9.1	9.1	17	23.10	46.5
DAM12M-8N	12	1/2	11.9	9.1	22	23.10	51.8
DAM18M-8N	18	1/2	11.9	13.9	22	24.60	53.2
DAM18M-12N	18	3/4	15.9	13.9	27	24.60	53.2
DAM28M-16N	28	1	22.2	-	35	31.70	74.7
DAM28M-20N	28	1-1/4	23.8	-	46	31.70	76.2
DAM32M-20N	32	1-1/4	27.4	-	46	40.00	81.0
DAM38M-24N	38	1-1/2	33.3	-	55	51.50	92.2

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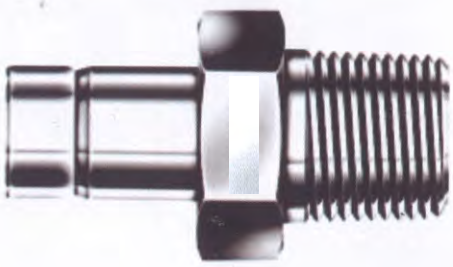

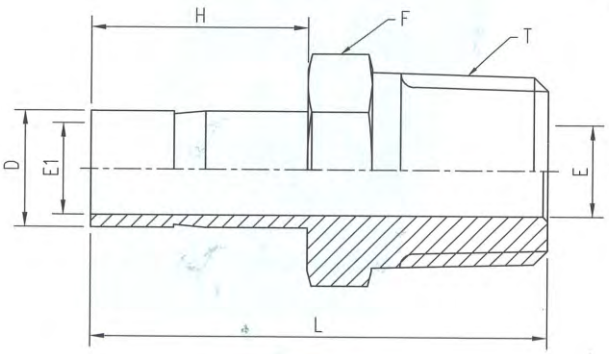

MALE ADAPTER DAM-Rx

CONNECTS FRACTIONAL PORT TO FEMALE ISO TAPERED THREAD

Part No.	Tube O.D. D		T PT	E Min.	E1	Width across flat F		H	L
	in.	mm				in.	mm		
DAM2-2Rx	1/8	3.17	1/8	4.57	1.77	7/16	11.11	13.45	29.50
DAM2-4Rx	1/8	3.17	1/4	7.11	1.77	9/16	14.28	13.45	34.80
DAM4-2Rx	1/4	6.35	1/8	4.57	4.57	7/16	11.11	15.75	31.80
DAM4-4Rx	1/4	6.35	1/4	7.11	4.57	9/16	14.28	15.75	37.08
DAM4-6Rx	1/4	6.35	3/8	10.41	4.57	11/16	17.46	15.75	37.84
DAM6-4Rx	3/8	9.52	1/4	7.11	7.11	9/16	14.28	17.50	38.90
DAM6-6Rx	3/8	9.52	3/8	10.41	7.11	11/16	17.46	17.50	39.60
DAM6-8Rx	3/8	9.52	1/2	12.70	7.11	7/8	22.22	17.50	45.20
DAM8-4Rx	1/2	12.70	1/4	7.11	9.90	9/16	14.28	23.10	44.50
DAM8-6Rx	1/2	12.70	3/8	10.41	9.90	11/16	17.46	23.10	45.20
DAM8-8Rx	1/2	12.70	1/2	12.70	9.90	7/8	22.22	23.10	50.50
DAM8-12Rx	1/2	12.70	3/4	15.74	9.90	1-1/16	26.98	23.10	50.70
DAM12-8Rx	3/4	19.05	1/2	12.70	14.98	7/8	22.22	24.70	52.30
DAM12-12Rx	3/4	19.05	3/4	14.98	14.98	1-1/16	26.98	24.70	52.30

CONNECTS METRIC PORT TO FEMALE ISO TAPERED THREAD

Part No.	Tube O.D. D	T PT	E Min.	E1	Width across flat F	H	L
DAM3M-2Rx	3	1/8	4.0	1.8	12	13.15	29.4
DAM6M-2Rx	6	1/8	4.6	4.6	12	15.70	32.8
DAM6M-4Rx	6	1/4	4.6	4.6	14	15.70	38.1
DAM8M-4Rx	8	1/4	6.3	6.3	14	16.80	39.1
DAM10M-4Rx	10	1/4	7.7	7.7	14	17.50	39.9
DAM10M-6Rx	10	3/8	7.7	7.7	17	17.50	40.6
DAM10M-8Rx	10	1/2	11.9	7.7	22	17.50	45.2
DAM12M-4Rx	12	1/4	7.1	9.1	14	23.10	46.5
DAM12M-6Rx	12	3/8	9.1	9.1	17	23.10	46.5
DAM12M-8Rx	12	1/2	11.9	9.1	22	23.10	51.8
DAM18M-8Rx	18	1/2	11.9	13.9	22	24.60	53.2
DAM18M-12Rx	18	3/4	15.9	13.9	27	24.60	53.2
DAM25M-16Rx	25	1	19.8	19.8	35	31.70	66.0
DAM28M-16Rx	28	1	22.2	-	35	31.70	74.7
DAM28M-20Rx	28	1-1/4	23.8	-	46	31.70	76.2
DAM38M-24Rx	38	1-1/2	33.3	-	55	51.50	92.2

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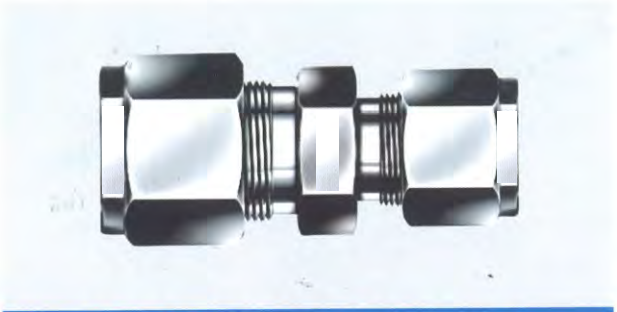

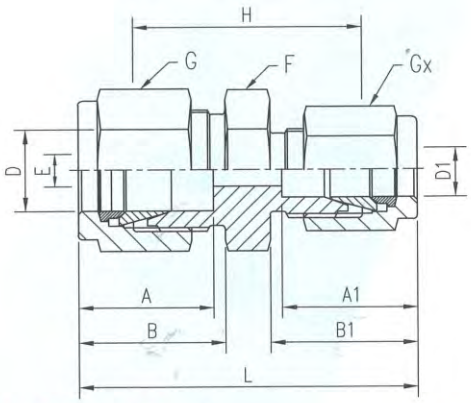

REDUCING UNION DCR

CONNECTS FRACTIONAL TUBE

Part No.	Tube O.D. D				E Min.	Width across flat						A	A1	B	B1	H	L
						F		G		Gx							
	in.	mm	in.	mm		in.	mm	in.	mm	in.	mm						
DCR2-1	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
DCR3-1	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
DCR3-2	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
DCR4-1	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
DCR4-2	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
DCR4-3	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
DCR5-2	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
DCR5-4	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
DCR6-1	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
DCR6-2	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
DCR6-4	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
DCR6-5	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
DCR8-2	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
DCR8-4	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
DCR8-6	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
DCR10-8	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
DCR10-6	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
DCR12-4	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
DCR12-6	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
DCR12-8	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
DCR12-10	3/4	19.05	5/8	15.87	1-1/16	26.98	1-1/8	28.57	1	12.70	25.40	24.38	24.38	21.84	21.84	33.27	53.59
DCR16-8	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
DCR16-12	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	A1	B	B1	H	L
	D	D1		F	G	Gx						
DCR3M-2M	3	2	1.7	12	12	12	12.9	12.9	15.3	15.3	22.1	35.3
DCR6M-2M	6	2	1.7	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
DCR6M-3M	6	3	2.4	14	14	12	15.3	12.9	17.7	15.3	24.6	38.6
DCR6M-4M	6	4	2.4	14	14	12	15.3	13.7	17.7	16.1	25.4	39.4
DCR8M-6M	8	6	4.8	15	16	14	16.2	15.3	18.6	17.7	27.4	42.3
DCR10M-3M	10	3	2.4	18	19	12	17.2	12.9	19.5	15.3	27.7	41.9
DCR10M-4M	10	4	2.4	18	19	12	17.2	13.7	19.5	16.1	28.7	42.9
DCR10M-6M	10	6	4.8	18	19	14	17.2	15.3	19.5	17.7	29.5	44.5
DCR10M-8M	10	8	6.4	18	19	16	17.2	16.2	19.5	18.6	30.0	45.1
DCR12M-6M	12	6	4.8	22	22	14	22.8	15.3	22.0	17.7	29.5	47.0
DCR12M-8M	12	8	6.4	22	22	16	22.8	16.2	22.0	18.6	30.2	47.8
DCR12M-10M	12	10	7.9	22	22	19	22.8	17.2	22.0	19.5	31.0	48.7
DCR15M-12M	15	12	9.8	24	25	22	24.4	17.2	22.0	19.5	31.8	52.5
DCR16M-10M	16	10	7.9	24	25	19	24.4	17.2	22.0	19.5	31.8	49.5
DCR16M-12M	16	12	9.5	24	25	22	24.4	22.8	22.0	22.0	31.8	52.0
DCR18M-10M	18	10	7.9	27	30	19	24.4	17.2	22.0	19.5	33.0	51.0
DCR18M-12M	18	12	9.5	27	30	22	24.4	22.8	22.0	22.0	33.3	53.5
DCR25M-18M	25	18	15.1	35	38	30	31.3	24.4	26.5	22.0	38.6	61.0
DCR25M-20M	25	20	15.9	35	38	32	31.3	26.0	26.5	22.0	39.9	62.3
DCR38M-20M	38	20	15.9	55	60	32	49.4	26.0	47.9	22.0	49.8	87.5
DCR38M-25M	38	25	21.8	55	60	38	49.4	31.3	47.9	26.5	52.1	92.0

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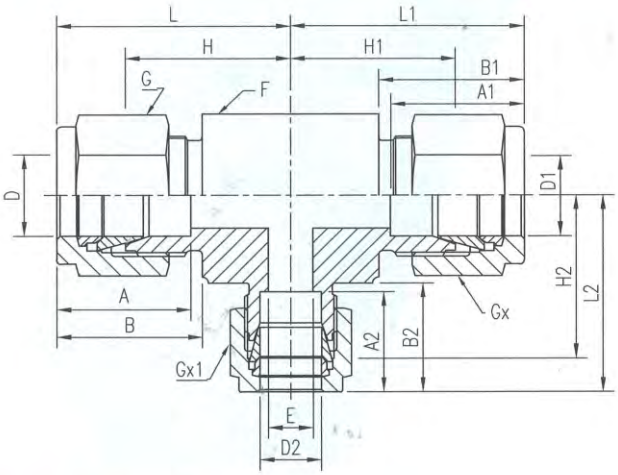

REDUCING UNION TEE DTR

CONNECTS FRACTIONAL TUBE

Part No.	Port 1 D		Port 2 D1		Port 3 D2		E Min.	A	A1	A2	B	B1	B2	Width across flat								H	H1	H2	L	L1	L2
														F		G		Gx		Gx1							
	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	10.41	12.7	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

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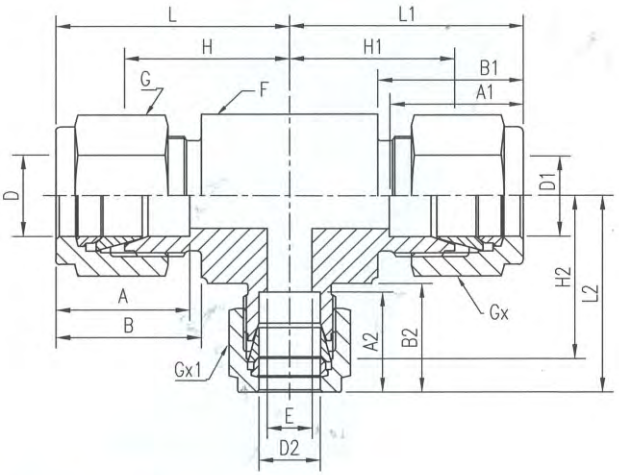

REDUCING UNION TEE DTR

CONNECTS METRIC TUBE

Part No.	Port 1 D	Port 2 D1	Port 3 D2	E Min.	Width across flat				A	A1	A2	B	B1	B2	H	H1	H2	L	L1	L2
					F	G	Gx	Gx1												
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	94.4	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

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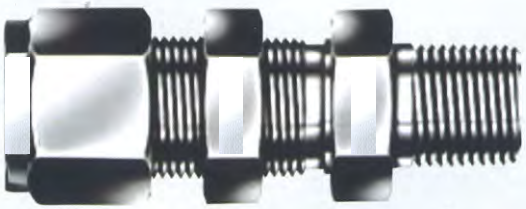

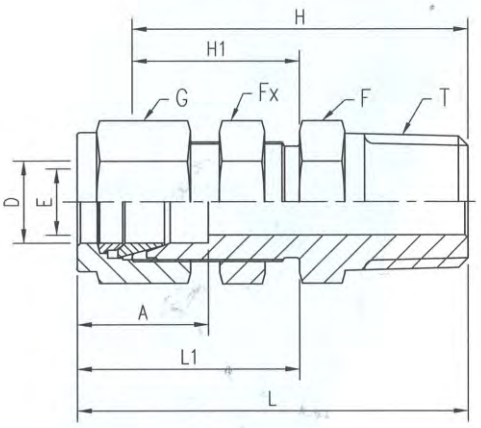

BULKHEAD MALE CONNECTOR-DCBM-N

CONNECTS FRACTIONAL TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat						A	H	H1	L	L1	Panel Hole Drillsize	Panel Max. Thickness
					F		Fx		G								
	in.	mm			in.	mm	in.	mm	in.	mm							
DCBM2-2N	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
DCBM4-2N	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
DCBM4-4N	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
DCBM4-6N	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
DCBM4-8N	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
DCBM6-4N	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
DCBM6-6N	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
DCBM6-8N	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
DCBM8-6N	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
DCBM8-8N	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
DCBM10-6N	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
DCBM12-12N	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
DCBM16-16N	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
DCBM20-20N	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
DCBM24-24N	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

CONNECTS METRIC TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat			A	H	H1	L	L1	Panel Hole Drillsize	Panel Max. Thickness
				F	Fx	G							
DCBM6M-2N	6	1/8	4.8	16	16	14	15.3	42.2	26.2	49.6	33.6	11.5	10.2
DCBM6M-4N	6	1/4	4.8	16	16	14	15.3	46.2	26.2	53.6	33.6	11.5	10.2
DCBM6M-6N	6	3/8	4.8	16	16	14	15.3	46.2	26.2	53.6	33.6	11.5	10.2
DCBM6M-8N	6	1/2	4.8	16	16	14	15.3	52.6	26.2	60.0	33.6	11.5	10.2
DCBM8M-6N	8	3/8	6.4	18	18	16	16.2	50.0	28.6	57.5	36.1	13.1	11.2
DCBM10M-4N	10	1/4	7.1	22	22	19	17.2	50.0	29.4	57.5	37.0	16.2	11.2
DCBM10M-6N	10	3/8	7.9	22	22	19	17.2	50.0	29.4	57.5	37.0	16.2	11.2
DCBM10M-8N	10	1/2	7.9	22	22	19	17.2	55.9	29.4	63.5	37.0	16.2	11.2
DCBM12M-6N	12	3/8	9.8	24	24	22	22.8	53.3	31.8	63.4	41.9	19.5	12.7
DCBM12M-8N	12	1/2	9.8	24	24	22	22.8	58.7	31.8	68.8	41.9	19.5	12.7

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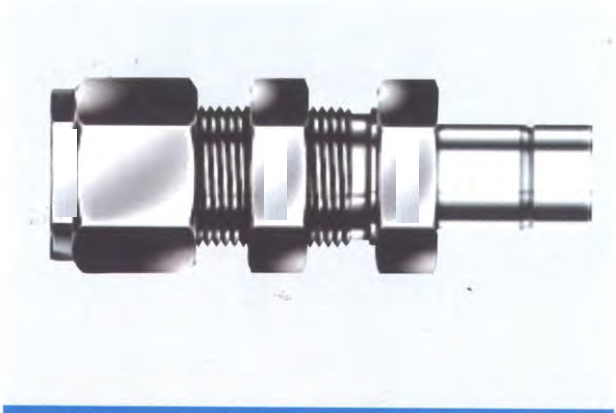

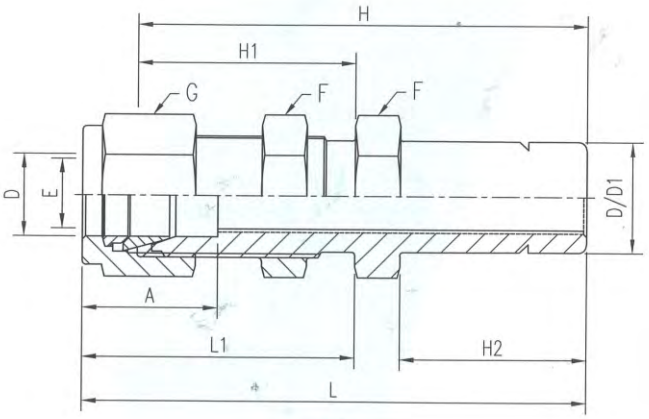

BULKHEAD ADAPTER DCRB

CONNECTS FRACTIONAL TUBE

Part No.	Tube O.D D		E Min.	Width across flat F		Width across flat G		A	H	H1	H2	L	L1	Panel Hole Drillsize	Panel Max. Thickness
	in.	mm		in.	mm	in.	mm								
DCRB2-2	1/8	3.17	2.03	1/2	12.70	7/16	11.11	12.70	42.92	24.63	13.45	49.53	31.24	8.33	12.70
DCRB4-4	1/4	6.35	4.82	5/8	15.87	9/16	14.28	15.24	48.51	26.16	15.74	55.88	33.52	11.50	10.16
DCRB6-6	3/8	9.52	7.11	3/4	19.05	11/16	17.46	16.76	53.84	29.46	17.50	61.21	36.83	14.68	11.17
DCRB8-8	1/2	12.70	10.41	15/16	23.81	7/8	22.22	22.86	62.73	31.75	23.11	72.89	41.91	19.44	12.70
DCRB10-10	5/8	15.87	12.70	1-1/16	1	26.98	25.40	24.38	65.02	32.51	24.70	75.18	42.67	22.62	12.70
DCRB16-16	1	25.40	20.32	1-5/8	41.28	1-1/2	38.10	31.24	88.13	45.21	31.70	100.33	57.40	33.73	19.05
DCRB20-20	1-1/4	31.75	27.68	1-7/8	47.63	1-7/8	47.63	41.14	102.07	47.75	40.00	124.17	69.85	41.67	19.05
DCRB24-24	1-1/2	38.10	34.03	2-1/4	57.15	2-1/4	57.15	50.03	118.33	49.27	51.50	145.51	76.45	49.61	19.05

CONNECTS METRIC TUBE

Part No.	Tube O.D		E Min.	Width across flat		A	H	H1	L	L1	Panel Hole Drillsize	Panel Max. Thickness
	D	D1		F	G							
DCRB6M-3M	6	3	2.0	16	14	15.3	39.7	26.2	47.1	33.6	11.5	10.2
DCRB6M-12M	6	12	9.1	16	14	15.3	49.2	26.2	56.6	33.6	11.5	10.2
DCRB8M-6M	8	6	4.6	17	16	16.2	44.3	28.6	51.8	36.1	13.1	11.2
DCRB8M-12M	8	12	9.1	17	16	16.2	51.6	28.6	59.1	36.1	13.1	11.2
DCRB10M-8M	10	8	6.2	22	19	17.2	46.1	29.4	53.7	37.0	16.3	11.2
DCRB10M-12M	10	12	9.1	22	19	17.2	52.4	29.4	60.0	37.0	16.3	11.2
DCRB12M-6M	12	6	4.6	24	22	22.8	47.5	31.8	57.6	41.9	19.5	12.7
DCRB12M-10M	12	10	8.2	24	22	22.8	49.3	31.8	59.4	41.9	19.5	12.7
DCRB16M-12M	16	12	9.1	27	25	24.4	55.5	32.5	65.6	42.6	22.8	12.7
DCRB20M-16M	20	16	12.7	35	32	26.0	67.5	42.9	77.6	53.0	29.0	19.1
DCRB22M-18M	22	18	13.9	35	32	26.0	67.5	42.9	77.6	53.0	29.0	19.1
DCRB25M-20M	25	20	15.1	35	38	31.2	72.1	45.2	84.3	57.4	33.7	19.1
DCRB25M-22M	25	22	17.1	35	38	31.2	72.1	45.2	84.3	57.4	33.7	19.1
DCRB38M-38M	38	38	33.0	60	60	49.4	100.1	49.3	127.2	76.4	49.6	19.1

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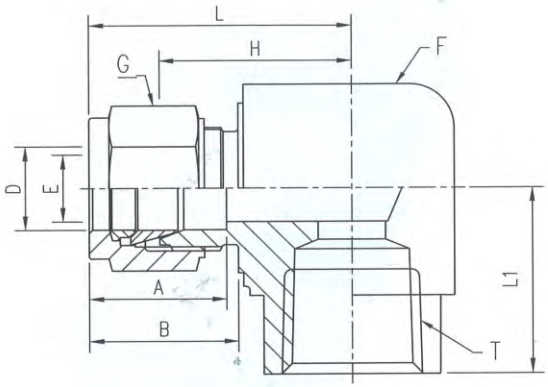

FEMALE ELBOW DEF-N

CONNECTS FRACTIONAL TUBE TO MALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	L	L1
					F		G						
	in.	mm			in.	mm	in.	mm					
DEF2-2N	1/8	3.17	1/8	2.28	1/2	12.70	7/16	11.11	12.70	15.24	18.03	24.63	19.05
DEF2-4N	1/8	3.17	1/4	2.28	11/16	17.46	7/16	11.11	12.70	15.24	20.82	27.43	22.35
DEF3-2N	3/16	4.76	1/8	3.04	1/2	12.70	1/2	12.70	13.71	16.00	18.79	25.40	19.05
DEF4-2N	1/4	6.35	1/8	4.82	1/2	12.70	9/16	14.28	15.24	17.78	19.55	26.92	19.05
DEF4-4N	1/4	6.35	1/4	4.82	11/16	17.46	9/16	14.28	15.24	17.78	22.35	29.71	22.35
DEF4-6N	1/4	6.35	3/8	4.82	13/16	20.64	9/16	14.28	15.24	17.78	24.38	31.75	22.35
DEF4-8N	1/4	6.35	1/2	4.82	1	25.40	9/16	14.28	15.24	17.78	27.17	34.54	28.44
DEF5-2N	5/16	7.93	1/8	6.35	9/16	14.28	5/8	15.87	16.25	18.54	21.33	28.70	19.05
DEF5-4N	5/16	7.93	1/4	6.35	11/16	17.46	5/8	15.87	16.25	18.54	23.11	30.48	22.35
DEF6-2N	3/8	9.52	1/8	7.11	5/8	15.87	11/16	17.46	16.76	19.30	23.11	30.48	19.05
DEF6-4N	3/8	9.52	1/4	7.11	11/16	17.46	11/16	17.46	16.76	19.30	23.87	31.24	22.35
DEF6-6N	3/8	9.52	3/8	7.11	13/16	20.64	11/16	17.46	16.76	19.30	25.90	33.27	22.35
DEF6-8N	3/8	9.52	1/2	7.11	1	25.40	11/16	17.46	16.76	19.30	28.70	36.06	28.44
DEF8-4N	1/2	12.70	1/4	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
DEF8-6N	1/2	12.70	3/8	10.41	13/16	20.64	7/8	22.22	22.86	21.84	25.90	36.06	22.35
DEF8-8N	1/2	12.70	1/2	10.41	1	25.40	7/8	22.22	22.86	21.84	28.70	38.86	28.44
DEF10-6N	5/8	15.87	3/8	12.70	15/16	23.81	1	25.40	24.38	21.84	27.94	38.10	22.35
DEF10-8N	5/8	15.87	1/2	12.70	1	25.40	1	25.40	24.38	21.84	29.71	39.87	28.44
DEF12-8N	3/4	19.05	1/2	15.74	1-1/16	26.98	1-1/8	28.58	24.38	21.84	29.71	39.87	28.44
DEF12-12N	3/4	19.05	3/4	15.74	1-3/8	34.92	1-1/8	28.58	24.38	21.84	34.54	44.70	31.75
DEF14-12N	7/8	22.22	3/4	18.28	1-3/8	34.92	1-1/4	31.75	25.90	21.84	34.54	44.70	31.75
DEF16-12N	1	25.40	3/4	22.35	1-3/8	34.92	1-1/2	38.10	31.24	26.41	36.83	49.02	31.75
DEF16-16N	1	25.40	1	22.35	1-11/16	42.86	1-1/2	38.10	31.24	26.41	41.40	50.29	38.10

CONNECTS METRIC TUBE TO MALE NPT THREAD

Part No.	Tube O.D D	T NPT	E Min.	Width across flat		A	B	H	L	L1
				F	G					
DEF6M-2N	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
DEF6M-4N	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
DEF6M-6N	6	3/8	4.8	20.64	14	15.3	17.7	24.4	31.7	22.40
DEF6M-8N	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.6	28.40
DEF8M-2N	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
DEF8M-4N	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
DEF8M-8N	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
DEF10M-2N	10	1/8	7.9	17.46	19	17.2	19.5	23.9	31.5	19.00
DEF10M-4N	10	1/4	7.9	17.46	19	17.2	19.5	25.9	33.5	22.35
DEF10M-6N	10	3/8	7.9	20.64	19	17.2	19.5	25.9	33.5	22.40
DEF10M-8N	10	1/2	7.9	25.40	19	17.2	19.5	28.7	36.1	28.40
DEF12M-4N	12	1/4	9.5	20.64	22	22.8	22.0	25.9	36.0	22.40
DEF12M-6N	12	3/8	9.5	20.64	22	22.8	22.0	25.9	36.2	22.35
DEF12M-8N	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	28.40
DEF16M-8N	16	1/2	12.7	26.98	25	24.4	22.0	29.7	39.5	28.40

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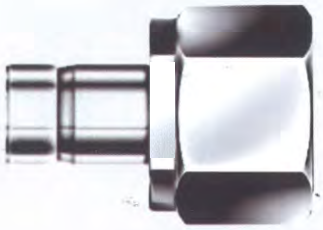

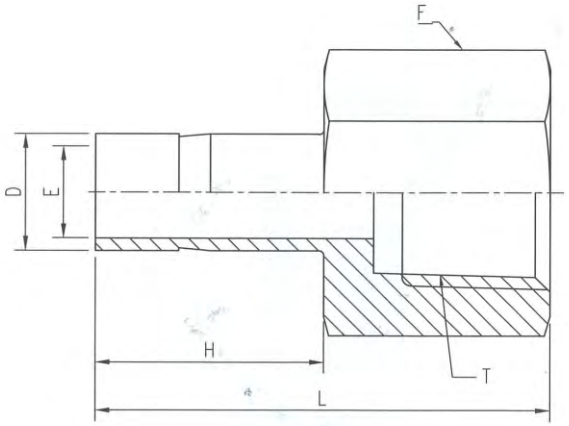

FEMALE ADAPTER DAF-N

CONNECTS FRACTIONAL PORT TO MALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat F		H	L
	in.	mm			in.	mm		
DAF2-2N	1/8	3.17	1/8	1.77	9/16	14.28	13.45	31.50
DAF2-4N	1/8	3.17	1/4	1.77	3/4	19.05	13.45	35.30
DAF3-2N	3/16	4.76	1/8	3.04	9/16	14.28	14.20	32.00
DAF3-4N	3/16	4.76	1/4	3.04	3/4	19.05	14.20	35.81
DAF4-2N	1/4	6.35	1/8	4.57	9/16	14.28	15.75	33.02
DAF4-4N	1/4	6.35	1/4	4.57	3/4	19.05	15.75	37.10
DAF4-6N	1/4	6.35	3/8	4.57	7/8	22.22	15.75	39.37
DAF4-8N	1/4	6.35	1/2	4.57	1-1/16	26.98	15.75	45.50
DAF5-2N	5/16	7.93	1/8	6.35	9/16	14.28	16.80	34.29
DAF5-4N	5/16	7.93	1/4	6.35	3/4	19.05	16.80	37.59
DAF6-2N	3/8	9.52	1/8	7.11	9/16	14.28	17.50	34.29
DAF6-4N	3/8	9.52	1/4	7.11	3/4	19.05	17.50	38.10
DAF6-6N	3/8	9.52	3/8	7.11	7/8	22.22	17.50	40.38
DAF6-8N	3/8	9.52	1/2	7.11	1-1/16	26.98	17.50	46.73
DAF8-4N	1/2	12.70	1/4	9.90	3/4	19.05	23.20	43.43
DAF8-6N	1/2	12.70	3/8	9.90	7/8	22.22	23.20	45.46
DAF8-8N	1/2	12.70	1/2	9.90	1-1/16	26.98	23.20	51.80
DAF10-6N	5/8	15.87	3/8	12.70	7/8	22.22	24.70	48.26
DAF10-8N	5/8	15.87	1/2	12.70	1-1/16	26.98	24.70	53.84
DAF10-12N	5/8	15.87	3/4	12.70	1-5/16	33.33	24.70	55.37
DAF12-8N	3/4	19.05	1/2	14.98	1-1/16	26.98	24.70	52.83
DAF12-12N	3/4	19.05	3/4	14.98	1-5/16	33.33	24.70	54.86
DAF12-16N	3/4	19.05	1	14.98	1-5/8	41.27	24.70	58.42
DAF14-12N	7/8	22.22	3/4	17.27	1-5/16	33.33	26.70	57.15
DAF16-12N	1	25.40	3/4	20.06	1-5/16	33.33	31.70	60.70
DAF16-16N	1	25.40	1	20.06	1-5/8	41.27	31.70	64.26
DAF20-20N	1-1/4	31.75	1-1/4	27.68	2-1/8	53.98	40.00	77.72
DAF24-24N	1-1/2	38.10	1-1/2	33.27	2-3/8	60.33	51.50	88.90

CONNECTS METRIC PORT TO MALE NPT THREAD

Part No.	Tube O.D. D	T NPT	E Min.	Width across flat F	H	L
DAF6M-2N	6	1/8	4.6	14	15.70	32.50
DAF6M-4N	6	1/4	4.6	19	15.70	37.10
DAF8M-4N	8	1/4	6.3	19	16.80	37.60
DAF10M-4N	10	1/4	7.7	19	17.50	38.10
DAF10M-6N	10	3/8	7.7	22	17.50	40.10
DAF10M-8N	10	1/2	7.7	27	17.50	46.50
DAF12M-4N	12	1/4	9.1	19	23.10	43.70
DAF12M-6N	12	3/8	9.1	22	23.10	46.00
DAF12M-8N	12	1/2	9.1	27	23.10	52.30

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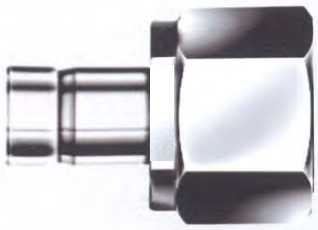

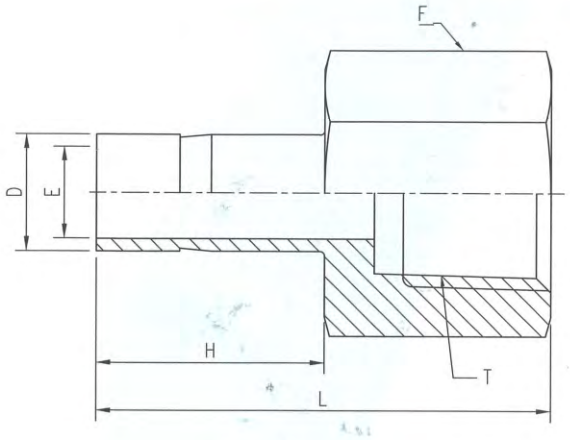

FEMALE ADAPTER DAM-Rx

CONNECTS FRACTIONAL PORT TO MALE ISO TAPERED THREAD

Part No.	Tube O.D. D		T PT	E Min.	Width across flat F		H	L
	in.	mm			in.	mm		
DAF4-2Rx	1/4	6.35	1/8	4.57	9/16	14.28	15.75	33.02
DAF4-4Rx	1/4	6.35	1/4	4.57	3/4	19.05	15.75	37.10
DAF6-4Rx	3/8	9.52	1/4	7.11	3/4	19.05	17.50	38.10
DAF6-6Rx	3/8	9.52	3/8	7.11	7/8	22.22	17.50	40.38
DAF8-4Rx	1/2	12.70	1/4	9.90	3/4	19.05	23.20	43.43
DAF8-6Rx	1/2	12.70	3/8	9.90	7/8	22.22	23.20	45.46
DAF8-8Rx	1/2	12.70	1/2	9.90	1-1/16	26.98	23.20	51.80
DAF10-8Rx	5/8	15.87	1/2	12.70	1-1/16	26.98	24.70	53.84
DAF12-8Rx	3/4	19.05	1/2	14.98	1-1/16	26.98	24.70	52.83
DAF12-12Rx	3/4	19.05	3/4	14.98	1-5/16	33.33	24.70	54.86
DAF16-16Rx	1	25.40	1	20.06	1-5/8	41.27	31.70	64.26

CONNECTS METRIC PORT TO MALE ISO TAPERED THREAD

Part No.	Tube O.D. D	T PT	E Min.	Width across flat F	H	L
DAF6M-2Rx	6	1/8	4.6	14	15.70	32.50
DAF6M-4Rx	6	1/4	4.6	19	15.70	37.10
DAF8M-4Rx	8	1/4	6.3	19	16.80	37.60
DAF10M-4Rx	10	1/4	7.7	19	17.50	38.10
DAF10M-6Rx	10	3/8	7.7	22	17.50	40.10
DAF12M-4Rx	12	1/4	9.1	19	23.10	43.70
DAF12M-6Rx	12	3/8	9.1	22	23.10	46.00
DAF12M-8Rx	12	1/2	9.1	27	23.10	52.30

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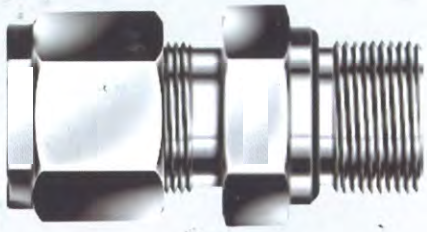
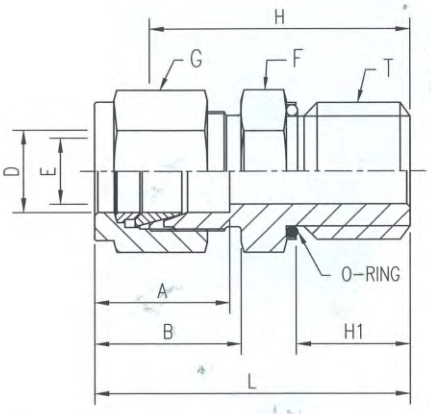
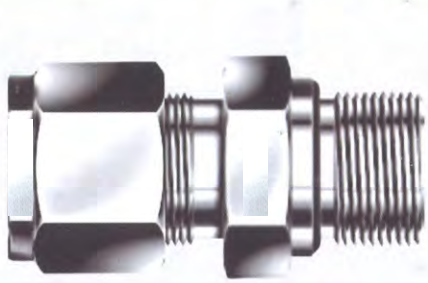


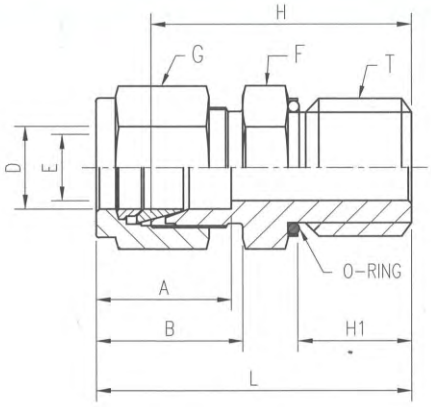


O-SEAL STRAIGHT THREAD CONNECTOR - DCO-UO

CONNECTS FRACTIONAL TUBE TO FEMALE STRAIGHT THREAD

Part No.	Tube O.D. D		Straight thread T(u)	E Min.	Width across flat				A	B	H	H1	L	O-Ring Uniform Size Number
					F		G							
	in.	mm			in.	mm	in.	mm						
DCO2-2UO	1/8	3.17	5/16-20	2.28	9/16	14.28	7/16	11.11	12.70	15.24	26.16	8.63	32.76	-011
DCO3-3UO	3/16	4.76	3/8-24	3.04	5/8	15.87	1/2	12.70	13.71	16.00	27.68	9.65	34.29	-012
DCO4-4UO	1/4	6.35	7/16-20	4.82	3/4	19.05	9/16	14.28	15.24	17.78	30.98	10.41	38.35	-013
DCO5-5UO	5/16	7.93	1/2-20	6.35	7/8	22.22	5/8	15.87	16.25	18.54	33.27	11.17	40.64	-112
DCO6-6UO	3/8	9.52	9/16-18	7.11	15/16	23.81	11/16	17.46	16.76	19.30	35.05	11.93	42.41	-113
DCO8-8UO	1/2	12.70	3/4-16	10.41	1-1/8	28.57	7/8	22.22	22.86	21.84	35.81	11.93	45.97	-116
DCO12-12UO	3/4	19.05	1-1/16-12	15.74	1-1/2	38.10	1-1/8	28.58	24.38	21.84	42.16	14.22	52.32	-121
DCO16-16UO	1	25.40	1-5/16-12	22.35	1-3/4	44.45	1-1/2	38.10	31.24	26.41	45.97	14.22	58.16	-125





O-SEAL PIPE THREAD CONNECTOR - DCO-NO

CONNECTS FRACTIONAL TUBE TO FEMALE NPT THREAD

Part No.	Tube O.D. D		T NPT	E Min.	Width across flat				A	B	H	H1	L	O-Ring Uniform Size Number
					F		G							
	in.	mm			in.	mm	in.	mm						
DCO2-2NO	1/8	3.17	1/8	2.28	3/4	19.05	7/16	11.11	12.70	15.24	26.16	7.11	32.76	-013
DCO4-2NO	1/4	6.35	1/8	4.82	3/4	19.05	9/16	14.28	15.24	17.78	27.68	7.11	35.05	-013
DCO4-4NO	1/4	6.35	1/4	4.82	15/16	23.81	9/16	14.28	15.24	17.78	30.98	9.65	38.35	-113
DCO6-4NO	3/8	9.52	1/4	7.11	15/16	23.81	11/16	17.46	16.76	19.30	32.51	9.65	39.87	-113
DCO6-6NO	3/8	9.52	3/8	7.11	1-1/8	28.58	11/16	17.46	16.76	19.30	34.03	10.41	41.40	-116
DCO6-8NO	3/8	9.52	1/2	7.11	1-5/16	33.33	11/16	17.46	16.76	19.30	39.62	13.46	46.99	-118
DCO8-8NO	1/2	12.70	1/2	10.41	1-5/16	33.33	7/8	22.22	22.86	21.84	39.62	13.46	49.78	-118

INSTALLATION INSTRUCTIONS

O-seal Connectors

1. Lubricate O-ring with a lubricant compatible with the O-ring material and the system luid.
2. Finger-tighten the O-seal connector into the female port.
3. Hand-tighten until the O-ring squeezing on the face of the female port is felt.
4. Tighten slightly further with a wrench to completely compress the O-ring
   Keep the O-seal body still during connecting or disconnecting.

All dimensions are in millimeter unless otherwise specified Dimensions are for reference only. subject to change

From Director's Desk

I Hereby promise to offer all of my customers the quality products with maintenance of consistency and give them the maximum possible attention with a guarantee of the commitment of maintaining delivery schedule.

I further like to draw your kind attention that all of my existing customers are satisfied with our jobs, dealing and delivery.

I also welcome to implement the method directed by our customers to manufacture their products according to their method /system.

I Believe business is successful provided customers is satisfied with the services rendered by my company.

Mr. N.N. Mistry
(Director)

MISTRY ENGINEERING WORKS PVT. LTD.

117, Vivek Industrial Estate, Uswala Lane, Walbhat Road, Goregaon (E), Mumbai - 400 063.
Tel.: 022-26859975 | Telefax - 022-26859259 | Email: info@mistryengineers.in
www.mistryengineers.in