



D-lok[®]

TUBE FITTINGS

◀ for Metric



Information

D-lok is a leading tube fitting manufacturer with production facilities equipped with the most modern technology available today. We provide affordable high-quality products for industries worldwide who have interests in marine vessels, nuclear power plants, process plants, pulp and paper mills, and offshore oil production.

Quality Assurance

Our policy is to provide excellent customer support and service while being dedicated to manufacturing an affordable high quality product.

Through every process, from manufacturing to technical support, each team member strives to maintain our quality standards.

D-lok®

Worldwide Distribution



Hyundai Heavy Ind, Co.,Ltd.
Daewoo Shipbuilding & Marine Engineering Co., Ltd.
Samsung Heavy Industries, Co., Ltd.
Dalian Shipyard Goa Shipyard, Ltd.
Mitsui Zosen Garden Reach Shipbuilders & Engineers, Ltd.



- Texaco
- Union Oil, Agip
- San Miguel
- Brown & Root
- O.N.G.C. Lombo
- General Electric
- Westinghouse
- A.E.C.L, Bechtel
- LG Petrochemical
- Hyundai Engineering & Construction. Etc.



- United Kingdom
- Singapore
- India
- Norway
- Japan
- Doosan Heavy Ind, co., Ltd. Etc.



- Samsung Semiconductor
- LG Display Co., Ltd.
- Dongbu ANAM Semiconductor. Etc.



- Kori
- Wolsung
- Young Kwan
- Uljin. etc.

Hardness Information

In general, metal tubing should be fully annealed to work properly with D-LOK tube fittings.

While most stainless steel tubing is restricted to a maximum ROCKWELL HARDNESS of Rb90, many users specify that this hardness be further restricted to Rb80.

Such tubing lowers the installed cost because it is more easily bent and installed.

While D-LOK stainless steel tube fittings may be used on stainless steel tubing with a hardness of Rb90 maximum, we suggest that whenever possible, specify a maximum hardness of Rb80. Refer to Table 1 on this page for working pressures of tubing by material and size,

Note

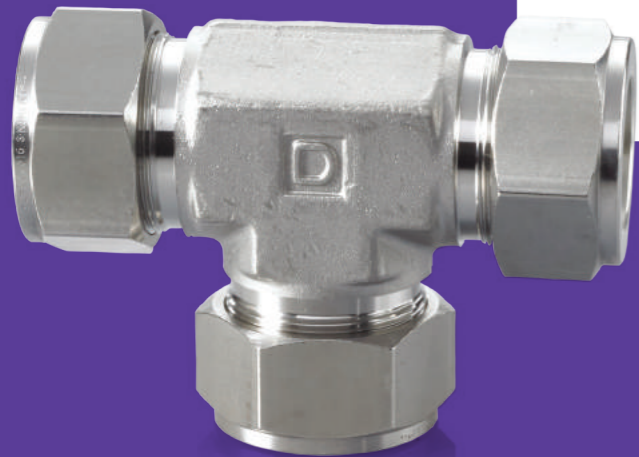
When ordering tubing, remember, tube fittings are designed to be used on similar tube materials, (i.e. stainless on stainless, brass on copper, steel on steel, etc)

Caution

Use of dissimilar fitting and tube materials can lead to a dangerous situation !

Interchangeability

D-lok tube fittings are manufactured to be completely interchangeable with other leading tube fitting manufacturers. Testing and the exceptional quality of the products assure 100% reliability when intermixing component parts of compatible makes and brands.



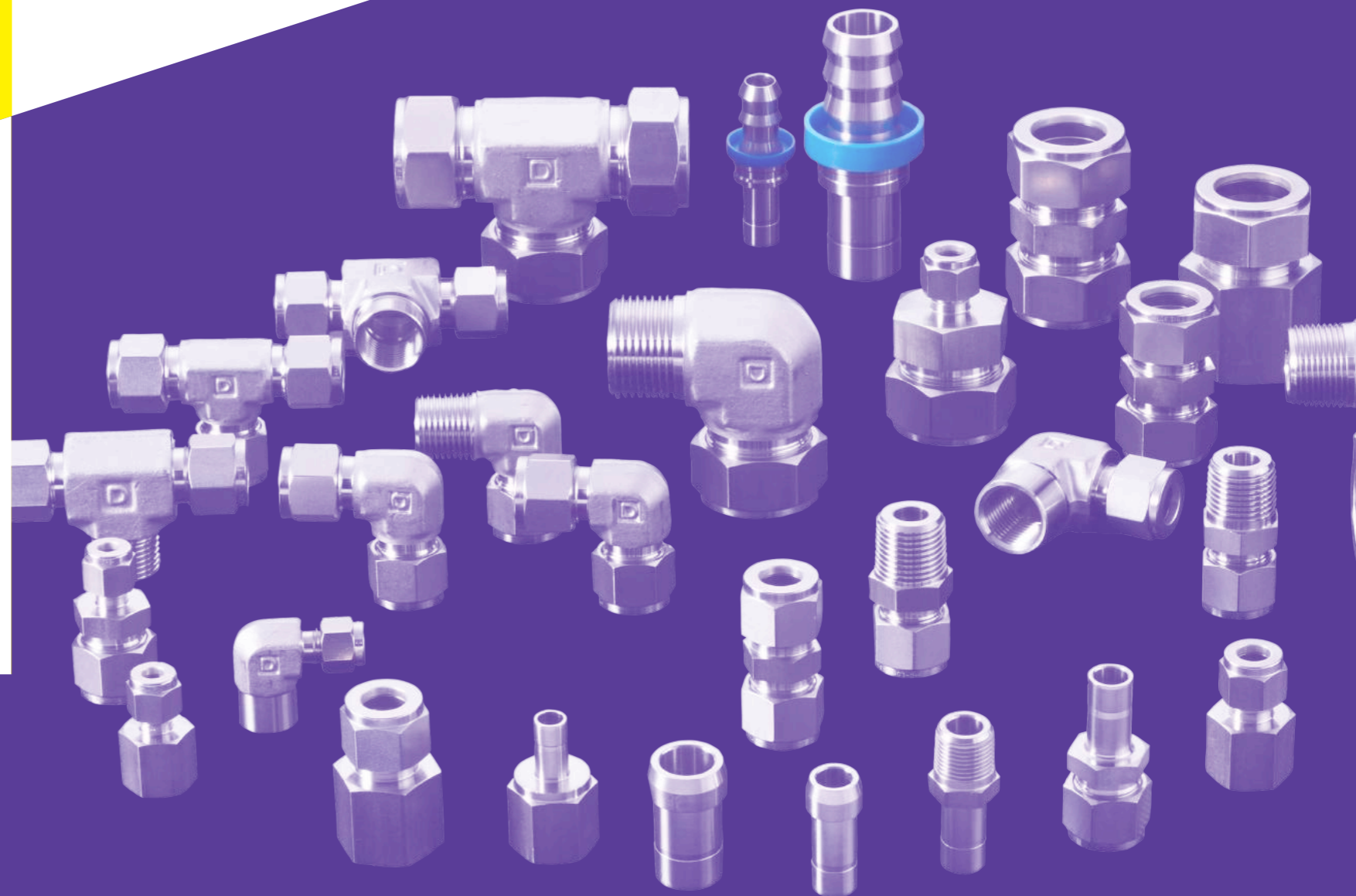
Wall Thickness

The wall thickness selection should be based on the operating pressure, temperature, and shock conditions.

Tube Selection

Proper tubing selection is essential to the performance of a tubing system.

Consider a systems pressure, flow, temperature, environment, and compatibility with the process fluids when choosing the tubing material, size, and wall thickness.



Inspection and Testing

At D-lok, we supply thoroughly inspected and tested high quality products to meet the needs of our clients. All tests are performed in accordance to the specifications provided by our client as well as the American Society for Testing and Materials (ASTM)

Limited Lifetime Warranty

D-lok warrants to the purchaser that D-lok tube fittings are free from defects in materials and workmanship and will perform substantially in accordance with the product specifications. This warranty is extended to Individual components as well as complete assemblies; provided they are in compliance with product installation and operation instructions. Defects resulting from operator abuse, negligence, misapplication; failure to install, adjust, and operate according to manufacturer instructions will not be covered.

If the product should become defective during the warranty period, D-lok will replace it free of charge, provided the defective component is returned along with date of purchase and statement of defect.

D-lok liability is limited to this written warranty. No other warranty is expressed or implied, nor does this warranty cover so-called incidental or consequential damages.

Table 1.

Maximum Allowable Working Pressure AT

Various Temperatures
Using Allowable Stress Factors Table 1.

°F	°C	Copper	304SS	316SS	Monel
200	93	0.8	1.00	1.00	0.88
400	204	0.50	0.93	0.96	0.79
600	316	-	0.82	0.85	0.79
800	427	-	0.76	0.79	0.76
1000	538	-	0.69	0.76	-
1200	649	-	0.30	0.37	-

To determine maximum allowable working pressure at elevated temperatures, multiply working pressure from tables 2,3, and 4 by factor shown in Table 1.

EXAMPLE:

Type 316SS 3/81" O.D. X 0.035" wall
at 1200°F 3300 psi x 0.37 = 1221 psi

Allowable working pressure for 3/8" O.D. x 0.035"
wall type 316SS tubing is therefore 1221 psi at 1200°F.



Table 2.

COPPER TUBING

High quality soft annealed seamless copper tubing ASTM B-75 or equivalent.

Tube O.D. (millimeters)	TUBE WALL THICKNESS (millimeters)							
	0.028	0.035	0.049	0.065	0.083	0.095	0.109	0.120
3	2700	3600						
4	1800	2300	3400					
6	1300	1600	2500	3500				
8		1300	1900	2700				
10		1000	1600	2200				
12		800	1100	1600	2100			
14			900	1200	1600	1900		
16			700	1000	1300	1500	1800	
18			600	800	1100	1300	1500	
22			500	700	900	1100	1300	1500

Allowable Stress = 6,500 psi between -20°F and 100°F

Safety Factor = 5 (considering tensile strength to be 30,000 psi at room temperature)

* working pressure(psi)

Table 3.

STAINLESS STEEL TUBING

Fully annealed high quality (Type 304, 316, etc.) (Seamless or Welded)
Stainless Steel hydraulic tubing ASTM A-269 or A-213 or equivalent.
Hardness = Rb80 or less
Tubing free of scratches, suitable for bending and flaring.

Tube O.D. (millimeters)	TUBE WALL THICKNESS (inches)												
	.010	.012	.014	.016	.020	.028	.035	.049	.065	.083	.095	.109	.120
3	5600	6800	8100	9400	12000								
4						8500	10900						
6						8400	7000	10200					
8						4000	5100	7500	10200				
10							4000	5800	8000				
12							3300	4800	6500				
14							2400	3500	4700	6200			
16								2900	4000	5200	6000		
18								2400	3300	4200	4900	5800	
22								2000	2800	3600	4200	4800	
25									2400	3100	3600	4200	4700

Allowable Stress = 19,500 psi between -20°F and 100°F

Safety Factor = 4 (considering tensile strength to be 75,000 psi at room temperature)

* working pressure(psi)



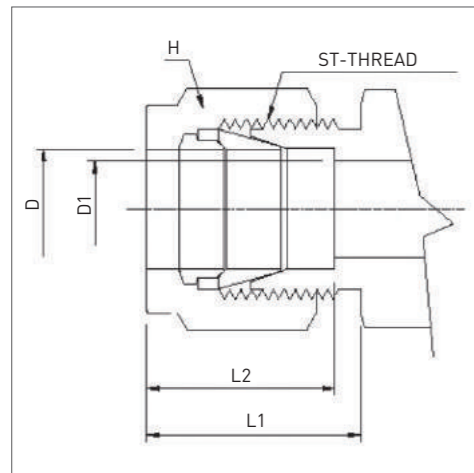
Features

D-lok tube fittings have been specifically designed for use on instrumentation, process and control systems, equipment employed in chemical, petroleum, nuclear power generation, and pulp and paper plants. The D-lok tube fitting has also found extensive application in other fields where a very high quality tube fitting is required.

Construction and Materials

D-lok tube fittings are sequential phase-controlled action, sealing and gripping devices. Superior design, rigid manufacturing tolerances, and strict quality assurance programs produce an all-metal sealing and holding device which performs leak-free when properly installed. D-lok tube fittings consist of a body, a nut, and ferrules and are constructed of one of the following materials: brass, 316/304 stainless steel, steel, nickel alloy, monel, or inconel. Straight fittings are machined from cold finished bar stock and shaped bodies are machined from close grain forgings. The materials used, fully conform to the chemical requirements of one or more of the specifications listed in Table 5 on this page. Nut internals are supplied standard with silver plating. For nuclear and other critical applications, stainless steel D-lok tube fittings are readily available with documented heat code traceability.

Table 4.



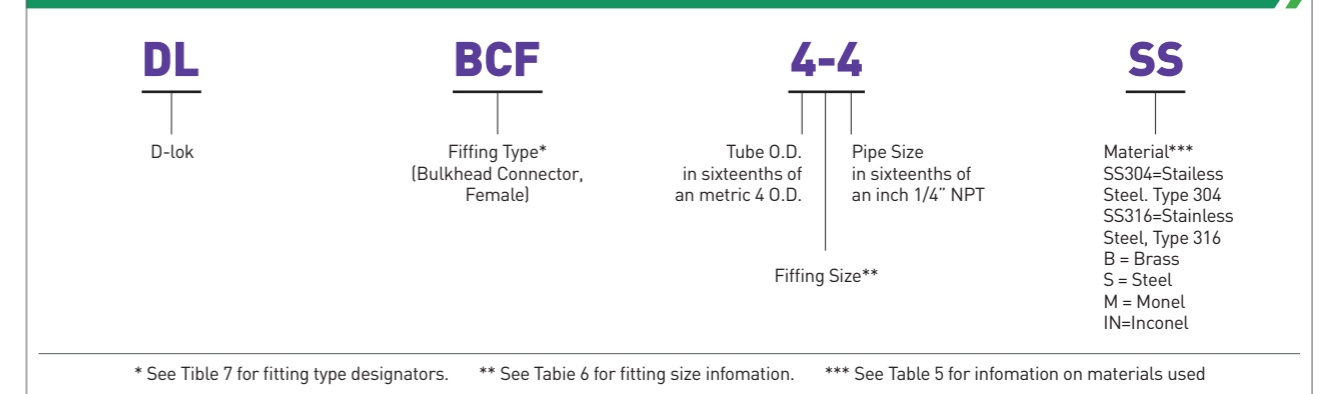
SIZE	tube O.D	STAIRIGHT THREAD	L1	L2	D1	HEX
M3	3	5/16-20UN	15.3	12.9	2.4	12
M4	4	3/8-20UN	16.1	13.7	2.4	12
M6	6	7/16-20UN	17.7	15.3	4.8	14
M8	8	1/2-20UN	18.6	16.2	6.4	16
M10	10	5/8-20 UN	19.5	17.2	7.9	19
M12	12	3/4-20UN	22.0	22.8	9.5	22
M15	15	7/8-20UN	22.0	24.4	11.9	25
M16	16	7/8-20UN	22.0	24.4	12.7	25
M18	18	1-20UN	22.0	24.4	15.1	30
M20	20	1-1/8-20UN	22.0	26.0	15.9	32
M22	22	1-1/8-20UN	22.0	26.0	18.3	32
M25	25	1-5/16-20UN	26.5	31.3	21.8	38

Table 5.

Typical Raw Material Specifications			
Type of Material	Bar Stock	Forging	tube Specification
Brass	ASTM B16 ASTM B453 ALLOY 360 ALLOY 345	ASIM B124 ALLOY 377	ASTM B75 ASME SB75
	JIS H3250 C3604	JIS H3250 C3771	JIS H3300
Stainless Steel	ASTM A479 ASME SA479, ASTM A276 ALLOY S30400 (304) ALLOY S30403 (304L) ALLOY S31600 (316) ALLOY S31603 (316L)	ASWI A182 ASME SA182 F304 F304L F316 F316L	ASTM A213 ASME SA213 ASTM A249 ASTM A269 MIL T8504 MIL T8506
	JIS G4303 SUS 304 SUS 304L SUS 316 SUS 316L	JIS G3214 SUS 304 SUS 304L SUS 316 SUS 316L	JIS G3459
Steel	ASTM A108	ASTM A576	SAE J524B SAE J525B ASTM A179
	JIS G4051	JIS G3201	JIS G3452
Nickel Alloy	ASTM B164	ASTM B164	ASTM B165
Monel	ASTM B166	ASTM B564	ASTM B163
Inconel	ASTM SB166		

How to Order

Nomenclature



D-lok tube fittings listed in this catalog are ordered by part number. The D-lok part numbering system consists of identifiers representing size and style of the fitting and materials used. The part number describes fittings that are completely assembled; with reference to the tubing outside diameter (O.D.) first, then followed by the pipe size, in the largest end is indicated first.

Table 6.

Fitting Sizes		
Identifier	Tube O.D.	P-NPT
M3-2	3	1/8
M3-4	3	1/4
M4-2	4	1/8
M4-4	4	1/4
M6-2	6	1/8
M6-4	6	1/4
M6-6	6	3/8
M6-8	6	1/2
M8-2	8	1/8
M8-4	8	1/4
M8-6	8	3/8
M8-8	8	1/2
M10-2	10	1/8
M10-4	10	1/4
M10-6	10	3/8
M10-8	10	1/2
M12-4	12	1/4
M12-6	12	3/8
M12-8	12	1/2
M12-12	12	3/4
M12-8	12	1/2
M12-12	12	3/4
M15-8	15	1/2
M16-4	16	1/4
M16-6	16	3/8
M16-8	16	1/2
M16-12	16	3/4
M18-8	18	1/2
M18-12	18	3/4
M20-8	20	1/2
M20-12	20	3/4
M22-12	22	3/4
M22-16	22	1
M25-12	25	3/4
M25-16	25	1

Table 7.







Fitting Type Designator	
Identifier	Description
DLAA	Adaptor, AN
DLAF	Adaptor, Female
DLAM	Adaptor, Male
DLBTF	Branch Tee, Female
DLBTM	Branch Tee, Male
DLBA	Bulkhead Adaptor
DLBCF	Bulkhead Connector, Female
DLBCM	Bulkhead Connector, Male
DLBU	Bulkhead Union
DLBUA	Bulkhead Union, AN
DLC	Cap
DLCB	Connector, Buttweld
DLCF	Connector, Female
DLCM	Connector, Male
DLCW	Connector, Socketweld
DLCOM	Connector, 'O' Seal Pipe Thread, Male
DLCOS	Connector, 'O' Seal Straight Thread
DLEB	Elbow, Buttweld
DLEF	Elbow, Female
DLEM	Elbow, Male
DLE45M	Elbow, 45 Degree, Male
DLEW	Elbow, Socketweld
DLFB	Ferrule, Back
DLFF	Ferrule, Front
DLFS	Ferrule, Set
DLN	Nut
DLP	Plug
DLPC	Port Connector
DLR	Reducer
DLRU	Reducing Union
DLRTF	Run Tee, Female
DLRTM	Run Tee, Male
DLU	Union
DLUA	Union, AN

VISUAL INDEX





UNION

	Bulkhead Union DLBU	12		Reducing Union DLRU	12
	Union DLU	13		Union Cross DLUC	13
	Union Elbow DLUE	14		Union Tee DLUT	14

MALE THREAD

	Connector, Male DLCM	15		Branch Tee, Male DLBTM	16
	Run Tee, Male DLRTM	16		Elbow, Male DLEM	17
	Bulkhead Connector, Male DLBCM	17		Bulkhead Connector, Female DLBCF	19




FEMALE THREAD

	Connector, Female DLCF	18		Run Tee, Female DLRTF	20
	Elbow, Female DLECF	19			
	Branch Tee, Female DLBTF	20			



Adaptor

	Adaptor, Male DLAM	21		Adaptor, Female DLAF	21
	Port Connector DLPC	22			

Socket and Butt Weld Fitting

	Connector, Butt weld DLCB	22		Elbow, Butt weld DLEW	23
	Elbow, Butt weld DLEB	23			

Plug and Cap

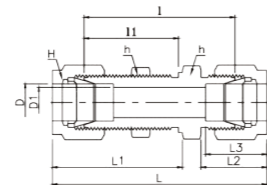
	Cap DLC	24		Plug DLP	24
---	-------------------	----	---	--------------------	----

UNION

	Ferrule, Set DLFS	25		Nut DLN	25
	Ferrule, Back DLFB	26		Ferrule, Front DLFF	26

Bulkhead Union

DLBU

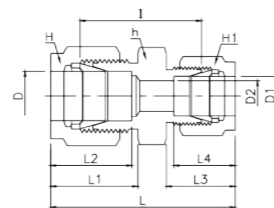


* These figures are for reference purposes only.

Part No.	Tube O.D		Widrh across flat		L3	L2	I	I1	L	L1	Panel Hole Drill Size	Panel Max Thickness
	D	D1 Min	h	H								
DLBU-M3	3	2.4	14	12	12.9	15.3	38.1	24.6	51.3	31.2	8.3	12.7
DLBU-M4	4	2.4	14	12	13.7	16.1	40.4	25.4	53.6	32.0	9.9	12.7
DLBU-M6	6	4.8	16	14	15.3	16.1	42.9	26.2	57.7	33.6	11.5	10.2
DLBU-M8	8	6.4	18	16	16.2	17.7	46.0	28.6	61.0	36.1	13.1	11.2
DLBU-M10	10	7.9	22	19	17.2	18.6	48.5	29.4	63.7	37.0	16.2	11.2
DLBU-M12	12	9.5	24	22	22.8	19.5	50.8	31.8	71.0	41.9	19.5	12.7
DLBU-M15	15	11.9	27	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
DLBU-M16	16	12.7	27	25	24.4	22.0	52.3	32.5	72.5	42.6	22.8	12.7
DLBU-M18	18	15.1	30	30	24.4	22.0	58.7	37.3	78.9	47.4	26.0	16.8
DLBU-M20	20	15.9	35	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	17.0
DLBU-M22	22	18.3	35	32	26.0	22.0	64.3	42.9	84.5	53.0	29.0	19.1
DLBU-M25	25	21.8	41.3	38	31.3	26.5	71.4	45.2	95.9	57.5	33.7	19.1

Reducing Union

DLRU

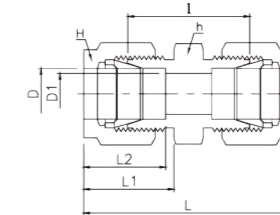


*These figures are for reference purposes only.

Part No.	D	Tube O.D		D2 Min	Widrh across flat			L2	L4	L1	L3	I	L
		D1			h	H	H1						
		h	H										
DLRU M3-2	3	1/8	3.17	2.4	12	12	11.1	12.9	12.8	15.3	15.2	22.1	35.2
DLRU M4-2	4	1/8	3.17	2.4	12	12	11.1	13.7	12.8	16.1	15.2	23.4	36.5
DLRU M4-4	4	1/4	6.35	2.4	14	12	14.3	13.7	15.3	16.1	17.7	25.4	39.4
DLRU M6-2	6	1/8	3.17	2.4	14	14	11.1	15.3	12.8	17.7	15.2	24.6	38.5
DLRU M6-4	6	1/4	6.35	4.8	14	14	14.3	15.3	15.8	17.7	17.7	26.2	41.0
DLRU M6-5	6	5/16	7.93	4.8	14	14	15.9	15.3	16.2	17.7	18.6	27.4	42.3
DLRU M8-4	8	1/4	6.35	4.8	15	16	14.3	16.2	15.3	18.6	17.7	27.4	42.3
DLRU M10-2	10	1/8	3.17	2.4	18	19	11.1	17.2	12.8	19.5	15.2	27.7	41.8
DLRU M10-4	10	1/4	6.35	4.8	18	19	14.3	17.2	15.3	19.5	17.7	29.5	44.5
DLRU M10-5	10	5/16	7.93	6.4	18	19	15.9	17.2	16.2	19.5	18.6	30.3	45.1
DLRU M10-6	10	3/8	9.52	7.1	18	19	17.5	17.2	16.9	19.5	18.6	31.0	45.9
DLRU M12-5	12	5/16	7.93	6.4	22	22	15.9	22.8	16.2	22.0	18.6	30.2	47.8
DLRU M12-6	12	3/8	9.52	7.1	22	22	17.5	22.8	16.9	22.0	19.2	31.0	48.4
DLRU M12-8	12	1/2	12.70	9.5	22	22	22.2	22.8	22.8	22.0	22.0	31.0	51.2
DLRU M15-8	15	1/2	12.70	10.3	24	25	22.2	24.4	22.8	22.0	22.0	31.8	52.0
DLRU M16-10	16	5/8	15.87	12.7	24	25	25.4	24.4	24.4	22.0	22.0	31.8	52.0
DLRU M18-12	18	3/4	19.05	15.1	27	30	28.6	24.4	24.4	22.0	22.0	33.3	53.5
DLRU M20-12	20	3/4	19.05	15.9	30	32	28.3	26.0	24.4	22.0	22.0	34.8	54.9
DLRU M20-16	20	1	25.4	15.9	34.9	32	38.1	26.0	31.2	22.0	26.4	38.2	60.3
DLRU M22-16	22	1	25.4	18.3	34.9	32	38.1	26.0	31.2	22.0	26.4	38.2	60.3

Union

DLU

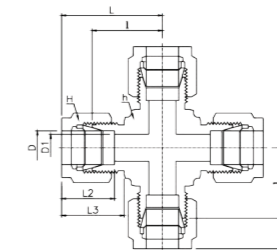


* These figures are for reference purposes only.

Part No.	Tube O.D		Widrh across flat		L2	L1	I	L
	D	D1 Min	h	H				
DLU-M3	3	2.4	12	12	12.9	15.3	22.1	35.3
DLU-M4	4	2.4	12	12	13.7	16.1	24.1	37.3
DLU-M6	6	4.8	14	14	15.3	17.7	26.2	41.0
DLU-M8	8	6.4	15	16	16.2	18.6	28.2	43.2
DLU-M10	10	7.9	18	19	17.2	19.5	31.0	46.2
DLU-M12	12	9.5	22	22	22.8	22.0	31.0	51.2
DLU-M15	15	11.9	24	25	24.4	22.0	31.8	52.0
DLU-M16	16	12.7	24	25	24.4	22.0	31.8	52.0
DLU-M18	18	15.1	27	30	24.4	22.0	33.3	53.5
DLU-M20	20	15.9	30	32	26.0	22.0	34.8	55.0
DLU-M22	22	18.3	30	32	26.0	22.0	34.8	55.0
DLU-M25	25	21.8	35	38	31.3	26.5	40.4	65.0

Union Cross

DLUC

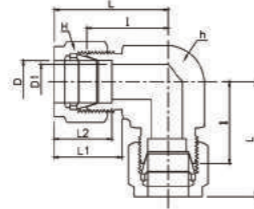


* These figures are for reference purposes only.

Part No.	Tube O.D		Widrh across flat		L2	L3	I	L
	D	D1 Min	h	H				
DLUC-M3	3	2.4	9.5	12	12.9	15.3	15.7	22.3
DLUC-M4	4	2.4	12.7	12	13.7	16.1	18.8	25.4
DLUC-M6	6	4.8	12.7	14	15.3	17.7	19.6	27.0
DLUC-M8	8	6.4	14.3	16	16.2	18.6	21.3	28.8
DLUC-M10	10	7.9	17.5	19	17.2	19.5	23.9	31.5
DLUC-M12	12	9.5	20.6	22	22.8	22.0	25.9	36.0
DLUC-M15	15	11.9	25.4	25	24.4	22.0	28.7	38.8
DLUC-M16	16	12.7	25.4	25	24.4	22.0	28.7	38.8
DLUC-M18	18	15.1	27.0	30	24.4	22.0	29.7	39.8
DLUC-M20	20	15.9	31.8	32	26.0	22.0	32.5	42.6
DLUC-M22	22	18.3	31.8	32	26.0	22.0	32.5	42.6
DLUC-M25	25	21.8	36.0	38	31.3	26.5	36.8	49.1

Union Elbow

DLUE

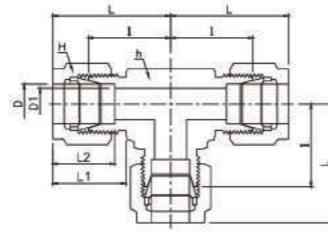


* These figures are for reference purposes only.

Part No.	Tube O.D	D1 Min	Widrh across flat		L2	L1	I	L
	D		h	H				
DLUE-M3	3	2.4	9.5	12	12.9	15.3	15.7	22.3
DLUE-M4	4	2.4	12.7	12	13.7	16.4	18.8	25.4
DLUE-M6	6	4.8	12.7	14	15.3	17.7	19.6	27.0
DLUE-M8	8	6.4	14.3	16	16.2	18.6	21.3	28.8
DLUE-M10	10	7.9	17.5	19	17.2	19.5	23.9	31.5
DLUE-M12	12	9.5	20.6	22	22.8	22.0	25.9	36.0
DLUE-M15	15	11.9	25.4	25	24.4	22.0	28.7	38.8
DLUE-M16	16	12.7	25.4	25	24.4	22.0	28.7	38.8
DLUE-M18	18	15.1	27.0	30	24.4	22.0	29.7	39.8
DLUE-M20	20	15.9	31.8	32	26.0	22.0	32.5	42.6
DLUE-M22	22	18.3	31.8	32	26.0	22.0	32.5	42.6
DLUE-M25	25	21.8	36.0	38	31.3	26.5	36.8	49.1

Union Tee

DLUT

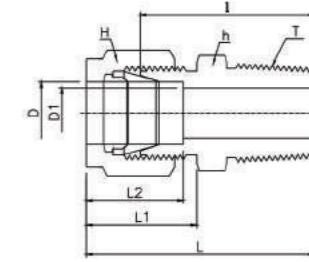


* These figures are for reference purposes only.

Part No.	Tube O.D	D1 Min	Widrh across flat		L2	L1	I	L
	D		h	H				
DLUT-M3	3	2.4	9.5	12	12.9	15.3	15.7	22.3
DLUT-M4	4	2.4	12.7	12	13.7	16.4	18.8	25.4
DLUT-M6	6	4.8	12.7	14	15.3	17.7	19.6	27.0
DLUT-M8	8	6.4	14.3	16	16.2	18.6	21.3	28.8
DLUT-M10	10	7.9	17.5	19	17.2	19.5	23.9	31.5
DLUT-M12	12	9.5	20.6	22	22.8	22.0	25.9	36.0
DLUT-M15	15	11.9	25.4	25	24.4	22.0	28.7	38.8
DLUT-M16	16	12.7	25.4	25	24.4	22.0	28.7	38.8
DLUT-M18	18	15.1	27.0	30	24.4	22.0	29.7	39.8
DLUT-M20	20	15.9	31.8	32	26.0	22.0	32.5	42.6
DLUT-M22	22	18.3	31.8	32	26.0	22.0	32.5	42.6
DLUT-M25	25	21.8	36.0	38	31.3	26.5	36.8	49.1

Connector, Male

DLCM

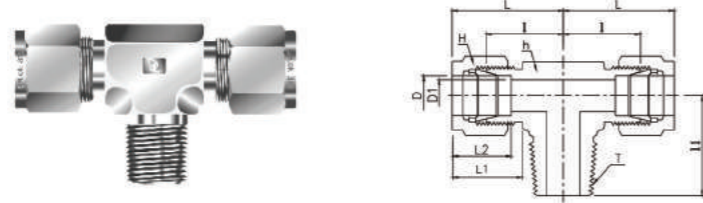


* These figures are for reference purposes only.

Part No.	Tube O.D	T R(PT)	D1 Min	Widrh across flat		L2	L1	I	L
	D			h	H				
DLCM M3-2	3	1/8	2.4	12	12	12.9	15.3	23.1	29.7
DLCM M3-4	3	1/4	2.4	14	12	12.9	15.3	29.0	35.6
DLCM M4-2	4	1/8	2.4	12	12	13.7	16.1	24.6	31.2
DLCM M4-4	4	1/4	2.4	14	12	13.7	16.1	29.7	36.3
DLCM M6-2	6	1/8	4.8	14	14	15.3	17.7	25.4	32.8
DLCM M6-4	6	1/4	4.8	14	14	15.3	17.7	30.2	37.6
DLCM M6-6	6	3/8	4.8	17	14	15.3	17.7	31.0	38.4
DLCM M6-8	6	1/2	4.8	22	14	15.3	17.7	36.6	44.0
DLCM M8-2	8	1/8	4.8	15	16	16.2	18.6	26.7	34.2
DLCM M8-4	8	1/4	6.4	15	16	16.2	18.6	31.2	38.7
DLCM M8-6	8	3/8	6.4	17	16	16.2	18.6	31.8	39.2
DLCM M8-8	8	1/2	6.4	22	16	16.2	18.6	37.3	44.8
DLCM M10-2	10	1/8	4.8	18	19	17.2	19.5	28.7	36.3
DLCM M10-4	10	1/4	7.1	18	19	17.2	19.5	33.3	40.9
DLCM M10-6	10	3/8	7.9	18	19	17.2	19.5	33.3	40.9
DLCM M10-8	10	1/2	7.9	22	19	17.2	19.5	38.1	45.7
DLCM M12-4	12	1/4	7.1	22	22	22.8	22.0	33.3	43.4
DLCM M12-6	12	3/8	9.5	22	22	22.8	22.0	33.3	43.4
DLCM M12-8	12	1/2	9.5	22	22	22.8	22.0	38.1	48.2
DLCM M12-12	12	3/4	9.5	27	22	22.8	22.0	38.9	49.0
DLCM M15-8	15	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DLCM M16-4	16	1/4	7.1	24	25	24.4	22.0	34.1	44.1
DLCM M16-6	16	3/8	9.5	24	25	24.4	22.0	34.0	44.1
DLCM M16-8	16	1/2	11.9	24	25	24.4	22.0	38.9	49.0
DLCM M16-12	16	3/4	12.7	27	25	24.4	22.0	38.9	49.0
DLCM M18-8	18	1/2	11.9	27	30	24.4	22.0	40.4	50.5
DLCM M18-12	18	3/4	15.1	27	30	24.4	22.0	40.4	50.5
DLCM M20-8	20	1/2	11.9	30	32	26.0	22.0	42.2	52.3
DLCM M20-12	20	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DLCM M22-12	22	3/4	15.9	30	32	26.0	22.0	42.2	52.3
DLCM M22-16	22	1	18.3	35	32	26.0	22.0	47.8	57.9
DLCM M25-12	25	3/4	15.9	35	38	31.3	26.5	45.2	57.5
DLCM M25-16	25	1	21.8	35	38	31.3	26.5	50.0	62.3

Branch Tee, Male

DLBTM



* These figures are for reference purposes only.

Part No.	Tube O.D D	T R(PT)	D1 Min	Widrh across flat		L2	L1	I	L	I1
				h	H					
DLBTM M3-2	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DLBTM M3-4	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DLBTM M4-2	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DLBTM M6-2	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DLBTM M6-4	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
DLBTM M8-2	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DLBTM M8-4	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DLBTM M10-4	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
DLBTM M10-6	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	28.2
DLBTM M12-4	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DLBTM M12-6	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DLBTM M12-8	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DLBTM M16-6	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DLBTM M16-8	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
DLBTM M20-12	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7

Run Tee, Male

DLRTM

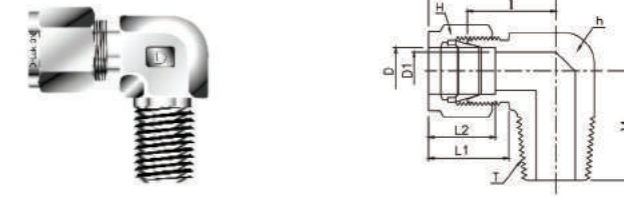


* These figures are for reference purposes only.

Part No.	Tube O.D D	T R(PT)	D1 Min	Widrh across flat		L2	L1	I	L	I1
				h	H					
DLRTM M3-2	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DLRTM M3-4	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DLRTM M4-2	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DLRTM M6-2	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DLRTM M6-4	6	1/4	4.8	14.2	14	15.3	17.7	19.6	27.0	23.4
DLRTM M8-2	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DLRTM M8-4	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DLRTM M10-4	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
DLRTM M10-6	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	28.2
DLRTM M12-4	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DLRTM M12-6	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DLRTM M12-8	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DLRTM M16-6	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DLRTM M16-8	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
DLRTM M20-12	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7

Elbow, Male

DLEM

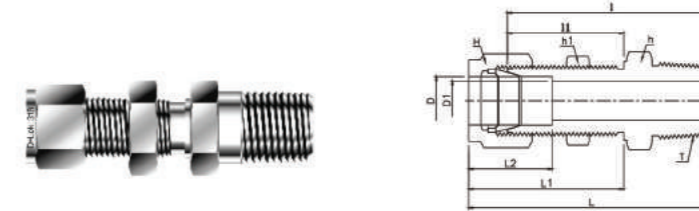


* These figures are for reference purposes only.

Part No.	Tube O.D D	T R(PT)	D1 Min	Widrh across flat		L2	L1	I	L	I1
				h	H					
DLEM M3-2	3	1/8	2.4	12.7	12	12.9	15.3	17.0	23.6	17.8
DLEM M3-4	3	1/4	2.4	12.7	12	12.9	15.3	18.0	24.6	23.4
DLEM M4-2	4	1/8	2.4	12.7	12	13.7	16.1	18.8	25.4	18.8
DLEM M4-4	4	1/4	2.4	12.7	12	13.7	16.1	18.8	25.4	23.4
DLEM M6-2	6	1/8	4.8	12.7	14	15.3	17.7	19.6	27.0	18.8
DLEM M6-4	6	1/4	4.8	12.7	14	15.3	17.7	19.6	27.0	23.4
DLEM M6-6	6	3/8	4.8	17.5	14	15.3	17.7	22.4	29.8	26.2
DLEM M6-8	6	1/2	4.8	20.6	14	15.3	17.7	24.4	31.8	33.0
DLEM M8-2	8	1/8	4.8	14.3	16	16.2	18.6	21.3	28.8	19.8
DLEM M8-4	8	1/4	6.4	14.3	16	16.2	18.6	21.3	28.8	24.4
DLEM M8-6	8	3/8	6.4	17.5	16	16.2	18.6	23.9	31.4	28.5
DLEM M8-8	8	1/2	6.4	20.6	16	16.2	18.6	25.1	32.6	33.0
DLEM M10-2	10	1/8	4.8	17.5	19	17.2	19.5	23.9	31.5	23.6
DLEM M10-4	10	1/4	7.1	17.5	19	17.2	19.5	23.9	31.5	28.2
DLEM M10-6	10	3/8	7.9	17.5	19	17.2	19.5	23.9	31.5	28.2
DLEM M10-8	10	1/2	7.9	20.6	19	17.2	19.5	25.9	33.5	33.0
DLEM M12-2	12	1/8	4.8	20.6	22	22.8	22.0	25.9	36.0	23.6
DLEM M12-4	12	1/4	7.1	20.6	22	22.8	22.0	25.9	36.0	28.2
DLEM M12-6	12	3/8	9.5	20.6	22	22.8	22.0	25.9	36.0	28.2
DLEM M12-8	12	1/2	9.5	20.6	22	22.8	22.0	25.9	36.0	33.0
DLEM M12-12	12	3/4	9.5	27.0	22	22.8	22.0	29.7	39.8	36.8
DLEM M16-6	16	3/8	9.5	25.4	25	24.4	22.0	27.9	38.0	30.2
DLEM M16-8	16	1/2	11.9	25.4	25	24.4	22.0	27.9	38.0	35.1
DLEM M16-12	16	3/4	12.7	27.0	25	24.4	22.0	29.7	39.8	36.8
DLEM M18-8	18	1/2	11.98	27.0	30	24.4	22.0	29.7	39.8	36.8
DLEM M18-12	18	3/4	15.1	27.0	30	24.4	22.0	29.7	39.8	36.8
DLEM M20-8	20	1/2	11.9	31.8	32	26.0	22.0	34.5	44.6	41.7
DLEM M20-12	20	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
DLEM M22-12	22	3/4	15.9	31.8	32	26.0	22.0	34.5	44.6	41.7
DLEM M22-16	22	1	18.3	36.0	32	26.0	22.0	34.5	44.6	46.5
DLEM M25-12	25	3/4	15.9	36.0	38	31.3	26.5	36.8	49.1	41.7
DLEM M25-16	25	1	21.8	36.0	38	31.3	26.5	36.8	49.1	46.5

Bulkhead Connector, Male

DLBCM

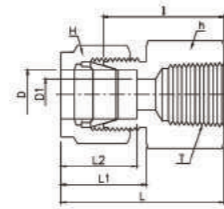


* These figures are for reference purposes only.

Part No.	Tube O.D D	T R(PT)	D1 Min	Widrh across flat		L	L1	L2	I	I1
				h	H					
DLBCM M6-2	6	1/8	4.8	16	14	48.65	33.6	15.3	41.75	26.2
DLBCM M6-4	6	1/4	4.8	16	14	53.22	33.6	15.3	46.32	26.2
DLBCM M8-4	8	1/4	6.4	18	16	56.12	36.1	16.2	49.02	28.6
DLBCM M10-4	10	1/4	7.9	22	19	57.92	37.0	17.2	50.72	29.4
DLBCM M10-6	10	3/8	7.9	22	19	57.92	37.0	17.2	50.72	29.4
DLBCM M10-8	10	1/2	7.9	22	19	62.75	37.0	17.2	55.55	29.4
DLBCM M12-6	12	3/8	9.5	24	22	62.7	41.9	22.8	53.0	31.8
DLBCM M12-8	12	1/2	9.5	24	22	67.53	41.9	22.8	57.83	31.8
DLBCM M15-6	15	3/8	11.9	27	25	64.7	32.4	24.4	54.5	32.5
DLBCM M15-8	15	1/2	11.9	27	25	69.53	32.4	24.4	59.33	32.5

Run Tee, Female

DLCF

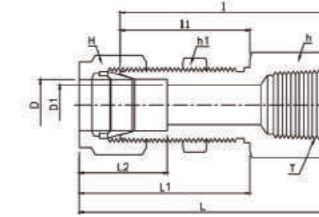


* These figures are for reference purposes only.

Part No.	Tube O.D	T R(PT)	D1 Min	Widrh across flat		L2	L1	I	L
	D			h	H				
DLCF M3-2	3	1/8	2.4	14	12	12.9	15.3	22.1	28.7
DLCF M3-4	3	1/4	2.4	19	12	12.9	15.3	26.9	33.5
DLCF M4-2	4	1/8	2.4	14	12	13.7	16.1	23.1	29.7
DLCF M6-2	6	1/8	4.8	14	14	15.3	17.7	23.9	31.3
DLCF M6-4	6	1/4	4.8	19	14	15.3	17.7	28.4	35.8
DLCF M6-6	6	3/8	4.8	22	14	15.3	17.7	29.5	36.9
DLCF M6-8	6	1/2	4.8	27	14	15.3	17.7	35.1	42.5
DLCF M8-2	8	1/8	6.4	15	16	16.2	18.6	24.6	32.1
DLCF M8-4	8	1/4	6.4	19	16	16.2	18.6	29.5	37.0
DLCF M8-6	8	3/8	6.4	22	16	16.2	18.6	30.2	37.7
DLCF M8-8	8	1/2	6.4	27	16	16.2	18.6	35.8	43.3
DLCF M10-2	10	1/8	7.9	18	19	17.2	19.5	25.4	33.0
DLCF M10-4	10	1/4	7.9	19	19	17.2	19.5	30.2	37.8
DLCF M10-6	10	3/8	7.9	22	19	17.2	19.5	31.0	38.6
DLCF M10-8	10	1/2	7.9	27	19	17.2	19.5	36.6	44.2
DLCF M12-2	12	1/8	8.3	22	22	22.8	22.0	28.4	38.5
DLCF M12-4	12	1/4	9.5	22	22	22.8	22.0	30.2	40.3
DLCF M12-6	12	3/8	9.5	22	22	22.8	22.0	31.0	41.1
DLCF M12-8	12	1/2	9.5	27	22	22.8	22.0	36.6	46.7
DLCF M12-12	12	3/4	9.5	35	22	22.8	22.0	38.9	49.0
DLCF M15-8	15	1/2	11.9	27	25	24.4	22.0	36.6	46.7
DLCF M16-8	16	1/2	12.7	27	25	24.4	22.0	36.8	46.9
DLCF M20-8	20	1/2	15.9	30	32	26.0	22.0	37.8	47.9
DLCF M20-12	20	3/4	15.9	35	32	26.0	22.0	39.6	49.7
DLCF M22-12	22	3/4	18.3	35	32	26.0	22.0	39.6	49.7
DLCF M22-16	22	1	18.3	41	32	26.0	22.0	47.8	57.9
DLCF M25-12	25	3/4	21.8	35	38	31.3	26.5	41.1	53.4
DLCF M25-16	25	1	21.8	41	38	31.3	26.5	50.0	62.3

Bulkhead Connector, Female

DLBCF

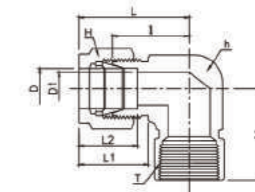


* These figures are for reference purposes only.

Part No.	Tube O.D	T R(PT)	D1 Min	h	Widrh across flat		L2	I	I1	L	L1	Panel Hole Drill Size	Panel Max Thickness
	D				h1	H							
DLBCF M6-2	6	1/8	4.8	15.8	15.8	14	15.3	39.6	26.2	46.90	33.6	11.5	10.2
DLBCF M6-4	6	1/4	4.8	19.0	16.0	14	15.3	44.4	26.2	51.80	33.6	11.5	10.2
DLBCF M8-4	8	1/4	6.3	19.0	17.4	16	16.2	46.7	28.6	53.85	36.1	13.1	11.2
DLBCF M12-8	12	1/2	9.5	27.0	24.0	22	22.8	56.4	31.8	66.50	41.9	19.5	12.7

Elbow, Female

DLEF

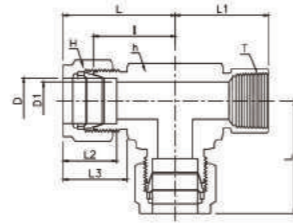


* These figures are for reference purposes only.

Part No.	Tube O.D	T (NPT)	D1 Min	Widrh across flat		L2	L1	I	L	I1
	D			h	H					
DLEF-M6-4	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
DLEF-M6-6	6	3/8	4.8	20.63	14	15.3	17.7	24.4	31.7	22.40
DLEF-M6-8	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.6	28.40
DLEF-M8-4	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
DLEF-M8-8	8	1/2	6.4	20.63	16	16.2	18.6	28.0	35.2	28.40
DLEF-M10-4	10	1/4	7.9	17.46	19	17.2	19.5	25.9	33.5	22.35
DLEF-M10-6	10	3/8	7.9	20.63	19	17.2	19.5	25.9	33.5	22.40
DLEF-M10-8	10	1/2	7.9	25.40	19	17.2	19.5	28.7	36.1	28.40
DLEF-M12-6	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.2	22.35
DLEF-M12-8	12	1/2	9.5	25.40	22	22.8	22.0	28.7	38.8	28.40

Run Tee, Female

DLRTF

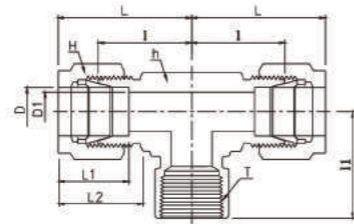


* These figures are for reference purposes only.

Part No.	Tube O.D	T (NPT)	D1 Min	Widrh across flat		L2	L3	I	L	L
	D			h	H					
DLRTF M6-2	6	1/8	4.8	12.70	14	15.3	17.7	19.6	46.0	19.00
DLRTF M6-4	6	1/4	4.8	17.46	14	15.3	17.7	22.4	52.1	22.40
DLRTF M6-8	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.40
DLRTF M8-2	8	1/8	6.4	15.87	16	16.2	18.6	22.4	48.9	19.00
DLRTF M8-4	8	1/4	6.4	17.46	16	16.2	18.6	23.1	53.0	22.40
DLRTF M8-6	8	3/8	6.4	20.63	16	16.2	18.6	25.2	32.4	22.40
DLRTF M8-8	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
DLRTF M12-4	12	1/4	9.5	20.63	22	22.8	22.0	25.9	58.4	22.40
DLRTF M12-6	12	3/8	9.5	20.63	22	22.8	22.0	25.9	58.4	22.40
DLRTF M12-8	12	1/2	9.5	26.98	22	22.8	22.0	29.7	40.0	28.40
DLRTF M16-8	16	1/2	12.7	25.40	25	24.4	22.0	29.7	39.9	28.40

Branch Tee, Female

DLBTF

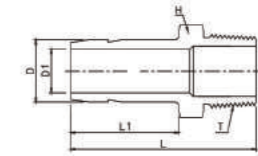


* These figures are for reference purposes only.

Part No.	Tube O.D	T (NPT)	D1 Min	Widrh across flat		L1	L2	I	L	I1
	D			h	H					
DLBTF M6-2	6	1/8	4.8	12.70	14	15.3	17.7	19.6	27.0	19.00
DLBTF M6-4	6	1/4	4.8	17.46	14	15.3	17.7	22.4	29.8	22.40
DLBTF M6-6	6	3/8	4.8	20.63	14	15.3	17.7	24.4	31.7	22.40
DLBTF M6-8	6	1/2	4.8	25.40	14	15.3	17.7	27.2	34.5	28.40
DLBTF M8-2	8	1/8	6.4	15.87	16	16.2	18.6	23.1	29.9	19.00
DLBTF M8-4	8	1/4	6.4	17.46	16	16.2	18.6	23.1	30.6	22.40
DLBTF M8-6	8	3/8	6.4	20.63	16	16.2	18.6	25.2	32.4	22.40
DLBTF M8-8	8	1/2	6.4	25.40	16	16.2	18.6	28.0	35.2	28.40
DLBTF M10-4	10	1/4	7.9	20.63	19	17.2	19.5	25.9	33.5	22.40
DLBTF M10-6	10	3/8	7.9	20.63	19	17.2	19.5	25.9	33.3	22.40
DLBTF M10-8	10	1/2	9.5	25.40	19	17.2	19.5	26.2	33.6	22.40
DLBTF M12-4	12	1/4	9.5	20.63	22	22.8	22.0	25.9	36.0	22.40
DLBTF M12-6	12	3/8	9.5	20.63	22	22.8	22.0	25.9	36.0	22.40
DLBTF M12-8	12	1/2	9.5	25.40	22	22.8	22.0	29.7	40.0	28.40
DLBTF M16-8	16	1/2	12.7	25.40	25	24.4	22.0	29.7	38.8	28.70

Adaptor, Male

DLAM

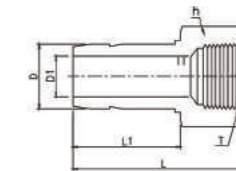


* These figures are for reference purposes only.

Part No.	Tube O.D	T R(PT)	D1 Min	D2 Min	Widrh across flat	L1	L
	D				H		
DLAM M3-2	3	1/8	4.0	1.8	12	13.15	29.4
DLAM M6-2	6	1/8	4.6	4.6	12	15.75	32.8
DLAM M6-4	6	1/4	4.6	4.6	14	15.75	38.1
DLAM M8-4	8	1/4	6.3	6.3	14	16.50	39.1
DLAM M10-4	10	1/4	7.7	7.7	14	17.50	39.9
DLAM M10-6	10	3/8	7.7	7.7	17	17.50	40.6
DLAM M10-8	10	1/2	11.9	7.7	22	17.50	45.2
DLAM M12-4	12	1/4	7.1	9.1	14	23.50	46.5
DLAM M12-6	12	3/8	9.1	9.1	17	23.50	46.2
DLAM M12-8	12	1/2	11.9	9.1	22	23.50	51.8
DLAM M18-8	18	1/2	11.9	13.9	22	24.90	53.2
DLAM M18-12	18	3/4	15.9	13.9	27	24.90	53.2

Adaptor, Female

DLAF

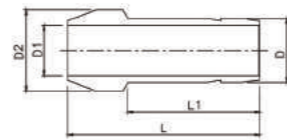


* These figures are for reference purposes only.

Part No.	Tube O.D	T R(PT)	D1 Min	Widrh across flat	L1	L
	D			H		
DLAF M3-2	3	1/8	1.8	14	13.15	31.15
DLAF M6-2	6	1/8	4.6	14	15.75	32.5
DLAF M6-4	6	1/4	4.6	19	15.75	37.1
DLAF M8-4	8	1/4	6.3	19	16.50	37.6
DLAF M10-4	10	1/4	7.7	19	17.50	38.1
DLAF M10-6	10	3/8	7.7	22	17.50	40.1
DLAF M10-8	10	1/2	7.7	27	17.50	46.5
DLAF M12-4	12	1/4	9.1	19	23.50	43.7
DLAF M12-6	12	3/8	9.1	22	23.50	46.0
DLAF M12-8	12	1/2	9.1	27	23.50	52.3
DLAF M18-12	18	3/4	13.9	32	24.90	54.8

Port Connector

DLPC

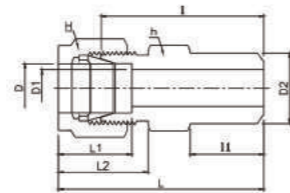


* These figures are for reference purposes only.

Part No.	Tube O.D		D1 Min	D2	L2	L
	D					
DLPC-M3	3		2.1	6.0	15.7	22.2
DLPC-M6	6		4.4	9.0	18.7	24.6
DLPC-M8	8		6.2	11.0	20.0	25.9
DLPC-M10	10		8.2	13.1	20.2	26.1
DLPC-M12	12		9.1	15.0	26.0	35.8
DLPC-M16	16		12.7	19.0	27.6	37.4

Connector Butt weld

DLCB

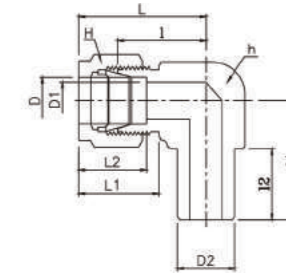


* These figures are for reference purposes only.

Part No.	Tube O.D	Male Pipe Size D2		D1 Min	Width across flat		L1	L2	I	I1	L
		nom.	O.D.		h	H					
		DLCB M3-2	3		1/8	10.3					
DLCB M4-2	4	1/8	10.3	2.4	12	12	13.7	16.1	24.1	9.7	30.7
DLCB M6-2	6	1/8	10.3	4.8	14	14	15.3	17.7	25.4	9.7	32.8
DLCB M6-4	6	1/4	13.7	4.8	14	14	15.3	17.7	30.2	14.2	37.6
DLCB M8-2	8	1/8	10.3	5.1	15	16	16.2	18.6	26.7	9.7	34.2
DLCB M8-4	8	1/4	13.7	6.4	15	16	16.2	18.6	31.2	14.2	38.7
DLCB M8-8	8	1/2	21.3	6.4	22	16	16.2	18.6	37.3	19.0	44.8
DLCB M10-4	10	1/4	13.7	7.1	18	19	17.2	19.5	33.3	14.2	40.9
DLCB M10-6	10	3/8	17.1	7.9	18	19	17.2	19.5	32.5	14.2	40.1
DLCB M10-8	10	1/2	21.3	7.9	22	19	17.2	19.5	38.1	19.0	45.7
DLCB M12-4	12	1/4	13.7	7.1	22	22	22.8	22.0	33.3	14.2	43.4
DLCB M12-6	12	3/8	17.1	9.5	22	22	22.8	22.0	33.3	14.2	43.4
DLCB M12-8	12	1/2	21.3	9.5	22	22	22.8	22.0	38.1	19.0	48.2
DLCB M15-8	15	1/2	21.3	11.9	24	25	24.4	22.0	38.9	19.0	49.0
DLCB M16-8	16	1/2	21.3	12.7	24	25	24.4	22.0	38.9	19.0	49.0
DLCB M18-8	18	1/2	21.3	13.5	27	30	24.4	22.0	40.4	19.0	50.5

Elbow, Butt weld

DLEB

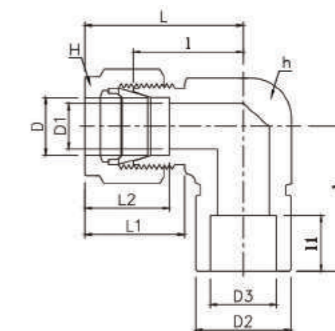


* These figures are for reference purposes only.

Part No.	Male Pipe Size		D	D1	h	H	L	L1	L2	I	I1	I2
	NOM. D2	O.D D2										
DLEB M6-4	1/4	13.7	6	4.8	12.7	14	27.0	17.7	15.3	19.6	23.45	14.2
DLEB M8-4	1/4	13.7	8	6.4	14.3	16	28.8	18.6	16.2	21.3	24.4	14.2
DLEB M10-6	3/8	17.1	10	7.9	17.5	19	31.5	19.5	17.2	23.9	33.3	14.2
DLEB M12-8	1/2	21.3	12	9.5	20.6	22	36.0	22.0	22.8	25.9	32.15	19.0
DLEB M15-8	1/2	21.3	15	11.9	25.4	25	38.8	22.0	24.4	28.7	33.5	19.0
DLEB M16-8	1/2	21.3	16	12.7	25.4	25	38.8	22.0	24.4	28.7	33.5	19.0
DLEB M18-8	1/2	21.3	18	15.1	27.0	30	39.8	22.0	24.4	29.7	34.5	19.0

Elbow, Socket weld

DLEW

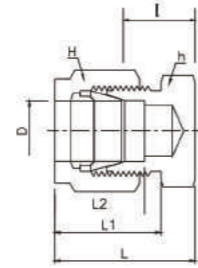


* These figures are for reference purposes only.

Part No.	Male Pipe Size		D1	D2	D3	h	H	L	L1	L2	I	I1
	NOM. D2											
DLEW M6-6	6		4.8	12.3	6.15	12.7	12	27.0	17.7	15.3	19.6	7.87
DLEW M8-8	8		6.4	14.35	8.15	14.3	16	28.8	18.6	16.2	21.3	8.76
DLEW M12-12	12		9.5	19.97	12.2	20.6	22	36.0	22.0	22.8	25.9	12.7

Cap

DLC

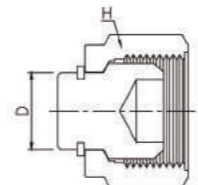


* These figures are for reference purposes only.

Part No.	Tube O.D	Width across flat		L2	L1	I	L
	D	h	H				
DLC-M3	3	12	12	12.9	15.3	13.5	20.1
DLC-M4	4	12	12	13.7	16.1	14.7	21.3
DLC-M6	6	14	14	15.3	17.7	15.7	23.1
DLC-M8	8	15	16	16.2	18.6	17.0	24.5
DLC-M10	10	18	19	17.2	19.5	19.0	26.6
DLC-M12	12	22	22	22.8	22.0	19.0	29.1
DLC-M15	15	24	25	24.4	22.0	19.8	29.9
DLC-M16	16	24	25	24.4	22.0	19.8	29.9
DLC-M18	18	27	30	24.4	22.0	21.3	31.4
DLC-M20	20	30	32	26.0	22.0	23.9	34.0
DLC-M22	22	30	32	26.0	22.0	23.9	34.0
DLC-M25	25	35	38	31.3	26.5	26.2	38.5

Plug

DLP

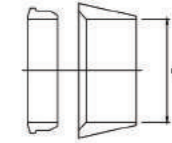


* These figures are for reference purposes only.

Part No.	Tube O.D	H	Part No.	Tube O.D	H
	D			D	
DLP-M2	2	12	DLP-M16	16	25
DLP-M3	3	12	DLP-M18	18	30
DLP-M4	4	12	DLP-M20	20	32
DLP-M6	6	14	DLP-M22	22	32
DLP-M8	8	16	DLP-M25	25	38
DLP-M10	10	19	DLP-M28	28	46
DLP-M12	12	22	DLP-M32	32	50
DLP-M15	15	25	DLP-M38	38	60

Ferrule, Set

DLFS

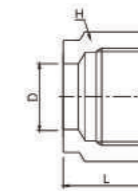


* These figures are for reference purposes only.

Part No.	Tube O.D
	D
DLFS-M2	2
DLFS-M3	3
DLFS-M4	4
DLFS-M6	6
DLFS-M8	8
DLFS-M10	10
DLFS-M12	12
DLFS-M15	15
DLFS-M16	16
DLFS-M18	18
DLFS-M20	20
DLFS-M22	22
DLFS-M25	25

Nut

DLN



* These figures are for reference purposes only.

Part No.	Tube O.D	Width across flat	L
	D	H	
DLN-M3	3	12	11.9
DLN-M4	4	12	11.9
DLN-M6	6	14	12.7
DLN-M8	8	16	13.5
DLN-M10	10	19	15.1
DLN-M12	12	22	17.4
DLN-M15	15	25	17.4
DLN-M16	16	25	17.4
DLN-M18	18	30	17.4
DLN-M20	20	32	17.4
DLN-M22	22	32	17.4
DLN-M25	25	38	20.6

Ferrule, Back

DLFB

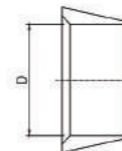


* These figures are for reference purposes only.

Part No.	Tube O.D	
	D	
DLFB-M3	3	
DLFB-M4	4	
DLFB-M6	6	
DLFB-M8	8	
DLFB-M10	10	
DLFB-M12	12	
DLFB-M15	15	
DLFB-M16	16	
DLFB-M18	18	
DLFB-M20	20	
DLFB-M22	22	
DLFB-M25	25	

Ferrule, Front

DLFF



* These figures are for reference purposes only.

Part No.	Tube O.D	Width across flat		L
	D	H		
DLFF- M3	3	12		11.9
DLFF-M4	4	12		11.9
DLFF- M6	6	14		12.7
DLFF- M8	8	16		13.5
DLFF- M10	10	19		15.1
DLFF- M12	12	22		17.4
DLFF- M15	15	25		17.4
DLFF- M16	16	25		17.4
DLFF- M18	18	30		17.4
DLFF- M20	20	32		17.4
DLFF- M22	22	32		17.4
DLFF- M25	25	38		20.6

Installation

ASSEMBLY INSTRUCTIONS

D-lok tube fittings can be installed by using readily available wrenches.

1. Insert the tubing into the D-lok fitting until the tubing sits on the shoulder of the body. Make sure the nut is finger-tight.
2. From the finger-tight position, rotate the nut 3/4 for sizes between 1/16-inch and 3-16-inch; and 1-1/4 turn for the sizes between 1/4-inch and 1-inch



Reassembly Instructions

D-lok tube fittings can be assembled and disassembled repeatedly. The following instructions should be carried out to reassemble a fitting.

1. Insert the tubing with the previously set ferrules into the D-lok fitting until the tubing sits on the shoulder of the body. Make sure the nut is finger-tight.
2. Using a wrench, from the finger-tight position, rotate the nut 3/4 for sizes between 1/16-inch and 3/16-inch; and 1-1/4 turn for the size between 1/4-inch and 1-inch until snug, Then tighten a little more.

