

# Tube Fittings for DIN2353

With LL, L and S Series



 **SUPERLOK<sup>®</sup>**

 **BMT Co., Ltd.**  
[www.superlok.com](http://www.superlok.com)

## Introduction

### SUPERLOK DIN Type Tube Fitting

The SUPERLOK DIN type fitting is a flareless metric fitting that consists of a body, a compression ring (ferrule) and a nut. On assembly, two cutting edges of the compression ring “bite” into the outer surface of the tube ensuring the necessary holding power for high pressure.

Available in three series, the The SUPERLOK DIN type fittings and accessories are manufactured in accordance with DIN2353.

The fittings and components listed in this catalog are intended solely for the assembly of connections for fluid applications.

## Design and Construction

The three components of SUPERLOK DIN Type Tube Fittings are designed and manufactured to produced a strong, reliable, leak-free joint upon proper assembly.

### The SUPERLOK DIN Type Body :

SUPERLOK DIN Type fitting bodies are available in over thirty configurations. The shaped products (i. e., elbows, tees, crosses) are forged, then machined to the stringent SUPERLOK fitting specifications.

The forging process used by “ BMT ” further improves the strength and mechanical properties of the fitting material.

Straight products are made from cold drawn bar stock. The cold drawing operation ensures consistently tight dimensional tolerances, as well as significantly improved strength.

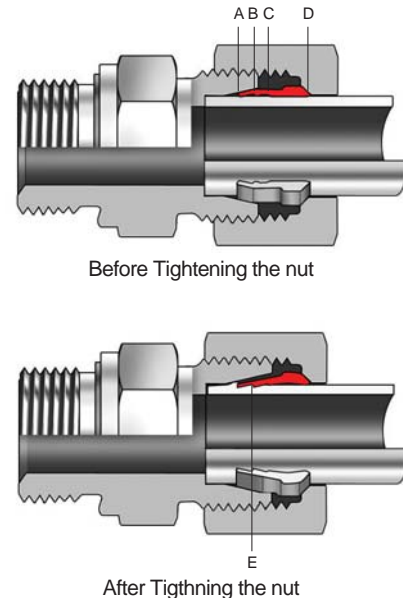
### The SUPERLOK DIN Type compression Ring :

SUPERLOK compression rings are precision machined with all dimensions and surfaces, particularly the critical bite edges, monitored on an ongoing basis. The rings are then heat treated in a manner that provides the hardness, strength, and toughness necessary to satisfy the demanding service conditions that exist in industry today.

### The SUPERLOK DIN Type Nut :

SUPERLOK fitting nuts are either cold formed, machined from cold drawn material. The cold forming and cold drawing operations provide a more tightly packed grain structure, thus improving the material's strength, in addition, cold forming significantly improves the fatigue properties or endurance limits of the nuts.

## Function of DIN Type Tube Fittings



The SUPERLOK DIN Type fitting produces a low to high pressure, leak free connection of tubes and components in fluid systems. The basic function of the compression Ring is the controlled compression bite of the ring into the tube due to a unique internal geometry.

The front cutting edge (A) has already started cutting into the tube before the second cutting edge (B) starts. As soon as both cutting edges have cut the tube to the designed depth further advance is limited by the stop edge (C).

Owing to the design of both cutting edges and stop edge all forces arising are equally distributed. This distribution along with the specially designed interior collar (D) of the ring guarantees increased safety, particularly with regard to vibration and flexure stresses. The design and function of the compression ring ensure that service vibration loading is not present in the areas of the tubing where the bite is made.

The stop edge causes a sharp increase in tightening forces which is clearly perceptible. After assembly, a visible collar (E) of cut tube material must completely fill the space in front of the first cutting edge. With stainless steel tube and hose connection made from free cutting steel, the collar is less due to the harder material.

During assembly, it is absolutely essential that the tube is held firmly against the stop in the inner cone of the fitting; if not, the cutting process will not take place satisfactorily. Reassembly can be performed an unlimited number of times

## Standard Material Specifications

### Material specification

<b>Fitting Materials</b>	<b>Carbon Steel</b>	Materials according to DIN 3859
	<b>Brass</b>	Materials according to DIN 17660 / DIN 17672
	<b>Stainless Steel</b>	Materials according to DIN 17440 (Material No. : 1.4571 & 1.4401)

## Pressure and Temperature Load Capability

### Working pressure

<b>Series</b>	<b>Pressure Ratings</b>			
	<b>Steel (DIN3859)</b>		<b>SS316 (DIN 17440)</b>	
	<b>Size</b>	<b>Pressure (bar)</b>	<b>Size</b>	<b>Pressure (bar)</b>
<b>LL (Very light)</b>	4 - 8	100	4 - 8	100
<b>L (Light)</b>	6 - 18	315	6 - 15	250
	-	-	18 - 22	160
<b>S (Heavy)</b>	22 - 42	160	28 - 42	100
	6 - 14	630	6 - 14	630
	16 - 30	400	16 - 25	400
	38	315	30 - 38	315

\* Working pressure - The nominal pressure (PN) as referred to in DIN2401, part 1 draft

### Permissible operating temperature range

#### - For fitting materials

<b>Material of Fittings</b>	<b>Temperature Ratings</b>
<b>316 Stainless steel</b>	- 60°C up to + 400°C (DIN17440)
<b>Carbon Steel</b>	- 40°C up to + 120°C (DIN 3859)
<b>Brass</b>	- 60°C up to + 175°C

\* The specification in the pressure reductions section are to be observed here.

#### - For sealing materials

<b>Seal Material</b>	<b>Temperature Ratings</b>
NBR	- 35°C up to + 100°C
FPM	- 25°C up to + 200°C
PTFE	- 60°C up to + 240°C

\* ED - Ring and O - Ring of NBR Standard



### CAUTION

When combining the different fitting and sealing materials the lowest temperature limit in each case is applicable

### Pressure Reductions

Recommended pressure reductions ( determined by the fluid medium) for higher service temperature

<b>Material of Fittings</b>	<b>Temperature Rating</b>	<b>Reduction of Pressure</b>
<b>316 Stainless steel</b>	- 60°C up to + 20°C	-
	+ 50°C	4%
	+ 100°C	11%
	+ 200°C	20%
	+ 300°C	29%
	+ 400°C	33%
<b>Carbon steel</b>	- 40°C up to + 120°C	-
<b>Brass</b>	- 60°C up to + 175°C	30%

\* For different material of tubes and fitting.

The tubes must be tested separately concerning the allowed temperature range and the necessary reduction of pressure.

### Gaskets

The gaskets used on valves and fittings are normally manufactured in NBR. All have a working temperature of -35° to +135° C with a hardness of 85 ± 5 shores. For higher temperatures Viton seals are suggested with working temperatures between -25° to 200° C with a hardness of 80 ± 5 shores. All the items that are assembled with gaskets or seals of any kind must be handled according to the Din 7716 norm. (requisites for the stocking of rubber product)

### Seal on thread ends

To obtain the maximum performance, the taper male thread is to be matched with the taper female thread. The cylindrical male thread is to be matched with the cylindrical female thread. It is possible to match a taper male thread with a cylindrical female thread, but this combination is technically valid only in pipings where medium / low performances are required and is never to be used where high pressures are applied.

In case of matching of a cylindrical thread with relatively soft material, it is advisable to use plain gasket type of seal.

## Tubing guide

### Allowed Carbon Steel Tubes on All Series

- For steel tubes in mild carbon steel we advise to use calibrated seamless cold drawn without welding tubes ST 37.4 as per DIN 1630.
- Maximum allowed hardness on the outside diameter of the tube is 75 HRB.
- The indicated pressure are to be intended at a constant pressure rate and with temperatures between -20° and +120°.

Tube O.D (mm)	Tolerance (mm)	Wall Thickness (mm)	Tube I.D (mm)	Design Pressure(bar)		Weight (kg/m)
				DIN2413 I Static	DIN2413 III Dynamic	
4	0.1	0.5	3	313	274	0.047
		0.75	2.5	4.9	391	0.060
		1.0	2	522	502	0.074
5	0.1	1.0	3	432	416	0.099
6	0.1	* 0.75	4.5	333	289	0.103
		1.0	4	389	372	0.123
		1.5	3	549	526	0.166
		2.0	2	692	662	0.197
8	0.1	2.25	5	757	725	0.208
		1.0	6	333	288	0.173
		1.5	5	431	412	0.240
10	0.1	2.0	4	549	526	0.296
		2.5	3	658	630	0.339
		3.0	8	235	209	0.271
12	0.08	1.5	7	373	357	0.314
		2.0	6	478	458	0.395
		2.5	5	576	551	0.462
		3.0	4	666	638	0.518
14	0.08	* 1.0	10	235	209	0.271
		1.5	9	353	303	0.389
		2.0	8	409	391	0.493
		2.5	7	495	474	0.586
		3.0	6	576	551	0.606
15	0.08	3.5	5	651	624	0.734
		* 1	12	201	182	0.321
		1.5	11	302	625	0.462
		2.0	10	403	343	0.592
16	0.08	2.5	9	434	417	0.709
		3.0	8	507	487	0.814
		3.5	7	576	553	0.906
		4	6	576	553	0.986
18	0.08	* 1.0	13	188	171	0.345
		1.5	12	282	248	0.499
		2.0	11	336	321	0.641
		2.5	10	409	391	0.771
20	0.08	3.0	9	478	458	0.888
		* 1.0	14	176	160	0.370
		1.5	13	264	234	0.536
		2.0	12	353	303	0.691
22	0.08	2.5	11	386	370	0.832
		3.0	10	452	433	0.962
		* 1.0	16	157	143	0.419
25	0.08	1.5	15	235	209	0.610
		2.0	14	313	273	0.789
		2.5	13	348	333	0.956
		3.0	12	409	391	1.110

Tube O.D (mm)	Tolerance (mm)	Wall Thickness (mm)	Tube I.D (mm)	Design Pressure(bar)		Weight (kg/m)
				DIN2413 I Static	DIN2413 III Dynamic	
20	0.08	* 1.5	17	212	191	0.684
		2.0	16	282	249	0.888
		2.5	15	353	303	1.080
		3.0	14	373	357	1.260
		3.5	13	426	408	1.424
22	0.08	4.0	12	478	458	1.578
		15.	19	192	174	0.758
		2.0	18	256	227	0.986
		2.5	17	320	278	1.202
25	0.08	3.0	16	343	328	1.406
		2.0	21	226	201	1.134
		2.5	20	282	248	1.387
		3.0	19	338	292	1.628
		4.0	17	394	378	2.072
28	0.08	4.5	16	437	418	2.275
		5.0	15	478	458	2.466
		1.5	25	151	139	0.980
		2.0	24	201	181	1.282
		2.5	23	252	223	1.572
30	0.08	3.0	22	302	264	1.850
		4.0	20	357	342	2.368
		5.0	18	434	415	2.836
		* 2.0	26	188	171	1.381
35	0.15	2.5	25	235	210	1.695
		3.0	24	282	248	2.000
		4.0	22	336	321	2.570
		5.0	20	409	391	3.080
		2.0	31	161	147	1.630
38	0.15	2.5	30	201	181	2.000
		3.0	29	242	215	2.370
		4.0	27	322	280	3.060
		5.0	25	357	342	3.690
		6.0	23	419	401	4.290
42	0.2	* 2.5	33	186	168	2.189
		3.0	32	223	200	2.589
		4.0	30	297	260	3.350
		5.0	28	332	318	4.075
		6.0	26	390	373	4.740
42	0.2	7.0	24	446	427	5.350
		* 2.0	28	134	124	1.973
		3.0	26	203	181	2.890
		4.0	34	269	237	3.750

\* Tube which need a support sleeve for assembly in SUPERLOK DIN Type Tube Fittings.

## Tubing guide

### Allowed Stainless Steel Tubes on All Series

- For steel tubes in stainless steel we advise to use calibrated seamless cold drawn without welding tubes 1.4571 as per DIN 17458 or ASTM A269.
- Maximum allowed hardness on the outside diameter of the tube is 85 HRB.
- The indicated pressure are to be intended a constant pressure rate and with temperatures between -60° and +200°.

Tube O.D (mm)	Tolerance (mm)	Wall Thickness (t mm)	Weight	Design Pressure
			(kg/m)	DIN 2413-1 (bar)
4	±0.1	0.5	0.048	326
		1.0	0.076	544
6	±0.1	1.0	0.125	406
		1.5	0.169	572
		2.0	0.200	721
8	±0.1	1.0	0.225	347
		1.5	0.244	449
		2.0	0.301	572
		2.5	0.344	686
10	±0.1	1.0	0.225	294
		1.5	0.319	389
		2.0	0.401	498
		2.5	0.469	601
		3.0	0.526	694
12	±0.08	* 1.0	0.275	245
		1.5	0.394	368
		2.0	0.500	426
		2.5	0.595	516
		3.0	0.676	601
		3.5	0.745	679
14	±0.08	1.5	0.469	315
		2.0	0.601	420
		2.5	0.720	452
		3.0	0.826	529
		3.5	0.920	601
15	±0.08	1.5	0.507	294
		2.0	0.651	392
		3.0	0.902	498
16	±0.08	** 1.5	0.544	275
		2.0	0.702	368
		2.5	0.845	402
		3.0	0.977	471
18	±0.08	* 1.5	0.619	245

Tube O.D (mm)	Tolerance (mm)	Wall Thickness (t mm)	Weight	Design Pressure(bar)
			(kg/m)	DIN 2413-1 (bar)
18	±0.08	2.0	0.801	326
		2.5	0.971	409
		3.0	1.128	426
20	±0.08	** 2.0	0.902	294
		2.5	1.095	368
		3.0	1.277	389
		3.5	1.446	444
		4.0	1.602	498
22	±0.08	* 2.0	1.001	267
		2.5	1.220	334
		3.0	1.427	401
25	±0.08	* 2.0	1.151	236
		2.5	1.408	294
		3.0	1.653	352
		4.0	2.104	411
28	±0.08	4.5	2.310	456
		* 2.0	1.301	210
		2.5	1.596	263
30	±0.08	3.0	1.878	315
		** 2.0	1.402	175
		2.5	1.721	245
35	±0.15	3.0	2.028	294
		4.0	2.604	392
		* 2.0	2.222	168
		2.5	2.034	210
38	±0.15	3.0	2.403	252
		4.0	3.104	336
		* 3.0	2.628	232
42	±0.2	4.0	3.405	310
		5.0	4.131	387
		3.0	2.929	210
		4.0	3.806	280

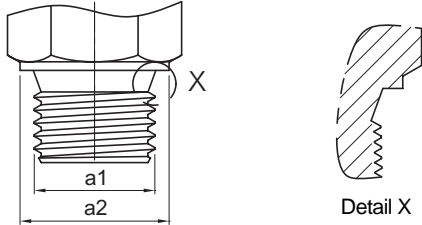
\* Tube which need a support sleeve for assembly in SUPERLOK DIN Type Tube Fittings.

\*\* Tubes to be used for ISO 8434-2 / SAE J514 norm only.

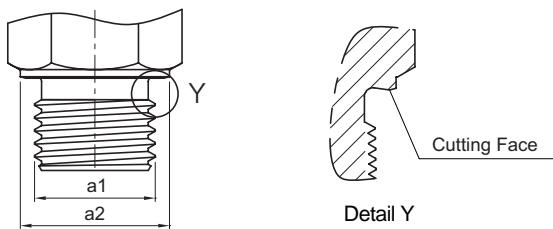
**Stud Ends & Tapered Hold Forms for Tube Fittings**

**Form of Stud Ends**

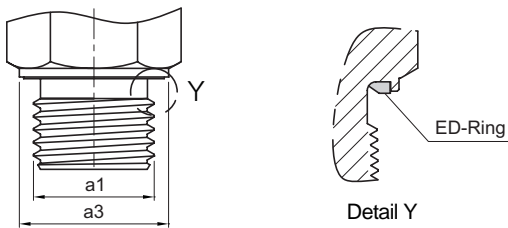
**Form A (DIN3852 Part 1&2) with sealing by washer**



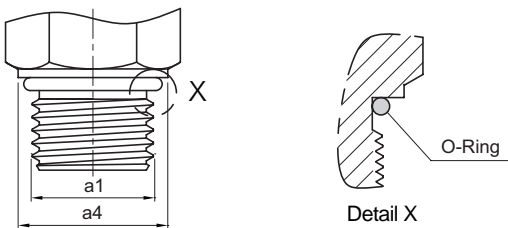
**Form B (DIN 3852 Part 1&2) with sealing by compression against face of body.**



**Form E (DIN 3852 Part 11) with sealing by DIN 3869 ring seals (\*ED-Ring)**



**Form F (DIN 3852 Part 3) with sealing by \*O-Ring**



\* ED-Ring & O-Ring Seals made of NBR Standard (-20°C to 100°C)  
Other Sealing Materials are available on Request.

**Form C (DIN 3852 Part 1&2) with sealing in tapered thread**



**Thread size for Form A, B, E, F Stud Ends**

a1	a2	a3 <sup>0</sup> <sub>-0.2</sub>	a4 <sub>±0.1</sub>
M8 × 1.0	-	-	10.9
M10 × 1.0	14.0	13.9	12.9
M12 × 1.5	17.0	16.9	16.9
M14 × 1.5	19.0	18.9	18.9
M16 × 1.5	21.0	21.9	20.9
M18 × 1.5	23.0	23.9	22.9
M20 × 1.5	25.0	25.9	24.9
M22 × 1.5	27.0	26.9	26.9
M26 × 1.5	31.0	31.9	30.9
M27 × 2.0	32.0	31.9	31.9
M33 × 2.0	39.0	39.9	37.9
M42 × 2.0	49.0	49.9	47.9
M48 × 2.0	55.0	54.9	54.9

G 1/8	14.0	13.9	-
G 1/4	18.0	18.9	-
G 3/8	22.0	21.9	-
G 1/2	26.0	26.9	-
G 3/4	32.0	31.9	-
G 1	39.0	39.9	-
G 1 1/4	49.0	49.9	-
G 1 1/2	55.0	54.9	-

7/16-20UNF	-	-	14.4
9/16-18UNF	-	-	17.6
3/4-16UNF	-	-	22.3
7/8-14UNF	-	-	25.5
1 1/16-12UN	-	-	31.9
1 5/16-12UN	-	-	38.2
1 5/8-12UN	-	-	47.4

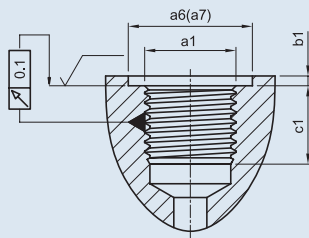
**Thread size for Form C Stud Ends**

a5		
M8 × 1.0 keg.	1/8 NPT	R 1/8 keg.
M10 × 1.0 keg.	1/4 NPT	R 1/4 keg.
M12 × 1.5 keg.	3/8 NPT	R 3/8 keg.
M14 × 1.5 keg.	1/2 NPT	R 1/2 keg.
M16 × 1.5 keg.	3/4 NPT	R 3/4 keg.
M18 × 1.5 keg.	1 NPT	R 1 keg.
M20 × 1.5 keg.	1 1/4 NPT	R 1 1/4 keg.
M22 × 1.5 keg.	1 1/2 NPT	R 1 1/2 keg.

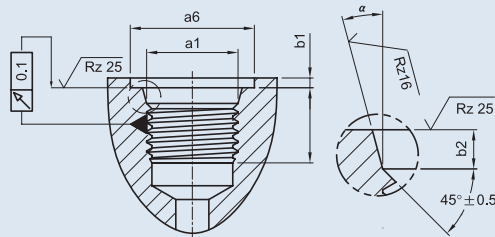
## Stud Ends & Tapered Hold Forms for Tube Fitting

### From of Tapped Holes

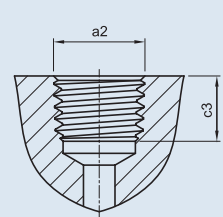
**Form X (DIN 3852 Part 1&2)**  
for parallel Stud Ends. (from A,B)  
\* a7 is Stud Ends Form E



**Form W (DIN 3852 Part 3)**  
for Stud Ends with O-Ring. (Form F)



**Form Z (DIN 3852 Part 1&2)**  
for tapered thread Stud Ends.



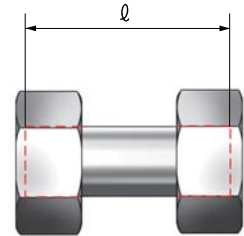
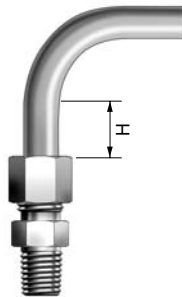
Thread size for		a6 min.	a7	b1 max.	a2 <sup>+0.4</sup> <sub>0</sub>	C1 min.	C2 min.	C3 min.	$\alpha^{\circ} \pm 1^{\circ}$
Form X,W Tapped Holes a1	Form Z Tapped Holes a2								
M8 × 1.0	M8 × 1.0 keg.	13.0	-	1.0	1.6	-	10.0	5.5	12.0
M10 × 1.0	M10 × 1.0 keg.	15.0	15.0	1.0	1.6	8.0	10.0	5.5	12.0
M12 × 1.5	M12 × 1.5 keg.	18.0	18.0	1.5	2.4	12.0	11.5	8.5	12.0
M14 × 1.5	M14 × 1.5 keg.	20.0	20.0	1.5	2.4	12.0	11.5	8.5	15.0
M16 × 1.5	M16 × 1.5 keg.	22.0	23.0	1.5	2.4	12.0	13.0	8.5	15.0
M18 × 1.5	M18 × 1.5 keg.	24.0	25.0	2.0	2.4	12.0	14.5	8.5	15.0
M20 × 1.5	M20 × 1.5 keg.	26.0	27.0	2.0	2.4	14.0	15.0	10.5	15.0
M22 × 1.5	M22 × 1.5 keg.	28.0	28.0	2.5	2.4	14.0	15.5	10.5	15.0
M26 × 1.5	-	32.0	33.0	2.5	3.1	16.0	16.0	-	15.0
M27 × 2.0	-	33.0	33.0	2.5	3.1	16.0	19.0	-	15.0
M33 × 2.0	-	40.0	41.0	2.5	3.1	18.0	19.0	-	15.0
M42 × 2.0	-	50.0	51.0	2.5	3.1	20.0	19.5	-	15.0
M48 × 2.0	-	56.0	56.0	2.5	3.1	22.0	22.0	-	15.0
G 1/8	1/8 NPT	15.0	15.0	1.0	-	8.0	-	6.9	-
G 1/4	1/4 NPT	19.0	20.0	1.5	-	12.0	-	10.0	-
G 3/8	3/8 NPT	23.0	23.0	2.0	-	12.0	-	10.3	-
G 1/2	1/2 NPT	27.0	28.0	2.5	-	14.0	-	13.6	-
G 3/4	3/4 NPT	33.0	33.0	2.5	-	16.0	-	14.1	-
G 1	1 NPT	40.0	41.0	2.5	-	18.0	-	16.8	-
G 1 1/4	1 1/4 NPT	50.0	51.0	2.5	-	20.0	-	17.3	-
G 1 1/2	1 1/2 NPT	56.0	56.0	2.5	-	22.0	-	17.3	-
7/16-20UNF	R 1/8 keg.	21.0	-	1.6	2.4	-	11.5	5.5	12.0
9/16-18UNF	R 1/4 keg.	25.0	-	1.6	2.5	-	12.7	8.5	12.0
3/4-16UNF	R 3/8 keg.	30.0	-	2.4	2.5	-	14.3	8.5	15.0
7/8-14UNF	R 1/2 keg.	34.0	-	2.4	2.5	-	16.7	10.5	15.0
1 1/16-12UN	R 3/4 keg.	41.0	-	2.4	3.3	-	19.0	13.0	15.0
1 5/16-12UN	R 1keg.	49.0	-	3.2	3.3	-	19.0	16.0	15.0
1 5/8-12UN	R 1 1/4 keg.	58.0	-	3.2	3.3	-	19.0	17.0	15.0
	R 1 1/2 keg.	-	-	-	-	-	-	17.0	-

**Assembly in fitting body**

The use of pre-assembly bodies or pre-assembly tools are strongly recommended for all assemblies. Stainless steel tube and fittings as well as standpipe hose ends must be pre-assembled in a pre-assembly tool.

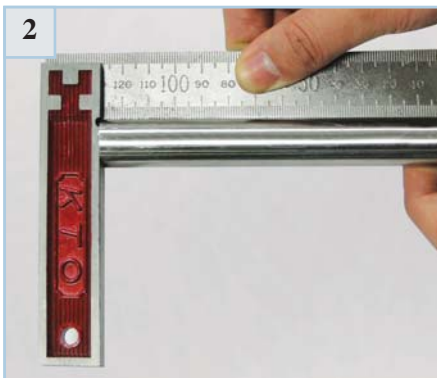
**A) Preparing the tube**

- 1** Maximum height H for straight tube end Minimum length L for short piece of tube



The portion of straight tube H must not deviate from roundness and straightness to the extent that the tube tolerances in DIN 2391 are exceeded.

Series tube o.d	LL				L								S											
	4	5	6	8	6	8	10	12	15	18	22	28	35	42	6	8	10	12	14	16	20	25	30	38
H min	24	25	25	26	31	31	33	33	36	38	41	41	48	48	35	35	37	37	43	43	50	54	58	65
ℓ min	30	32	32	33	39	39	42	42	45	48	53	53	60	60	44	44	47	47	54	54	63	68	73	82



**2** Saw off tube square  
1/2° angle tolerance to the tube axis.



**3** Attention : Do not use tube cutter!  
a) tube cut with tube cutter : heavy burr / bevel cut

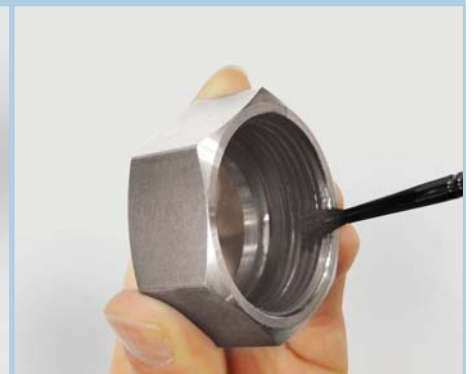


b) sawed off tube: very little burr



**4** Lightly de - burr inside and outside edge. Bevel up to 0.3mm × 45° (0.012" × 45°) permissible.

**B) Preparing fittings parts with lubricants**



Lubricate thread and cone of fitting body, also compression ring and thread of nut.



## Assembly in fitting body

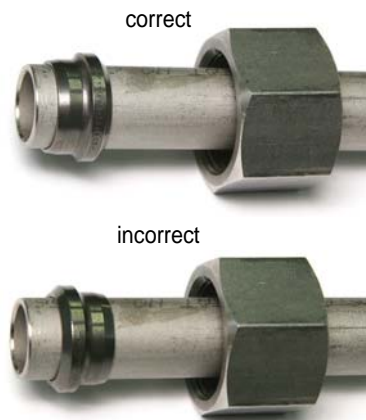
### C) Components

6



Slip nut and compression ring over tube end.

7



Ensure compression ring and nut are facing the right way.

### D) Assembly

8



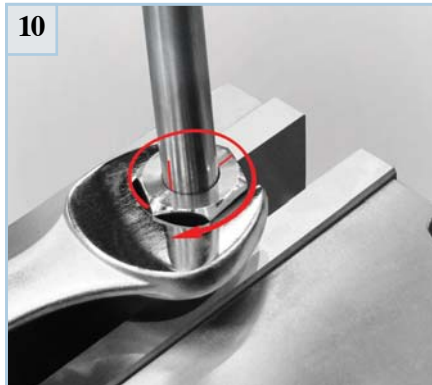
Screw nut manually on to fitting body until fingertight. Hold tube against the shoulder in the cone of fitting body.

9



To measure the prescribed turns of the nut, mark nut and tube.

10



Tighten nut 1-1/2 turns (Tube must not turn with nut). Stop edges limits over tightening by increasing tightening torque.

### E) Check

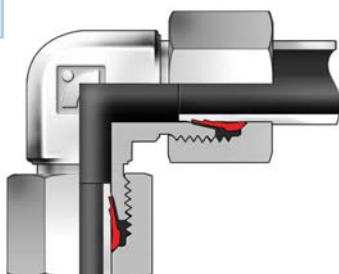
11



Loosen nut. Remove tube from fitting and check if a visible collar fills space in front of 1st cutting edge completely. If not, tighten slightly more. If dose not matter if ring can be roated on tube end.

### F) Final assembly

12



Final assembly of all pre-assembled fittings (DSE, DSBT, DSRT, DSRA) made in the appropriate body (well lubricated) with at least 1/4 turn of the nut beyond the point of a clearly perceptible resistance.

### G) Repeated assembly

13



On remaking joints, nut to be tightened without increased effort. Fitting body to be held tight.

\* After dismantling the tube ends for inspection they should be refitted into the same inner cone of the fitting body in which assembly was carried out.



### WARNING

We warn against using sealing heads, form A, DIN 3868.

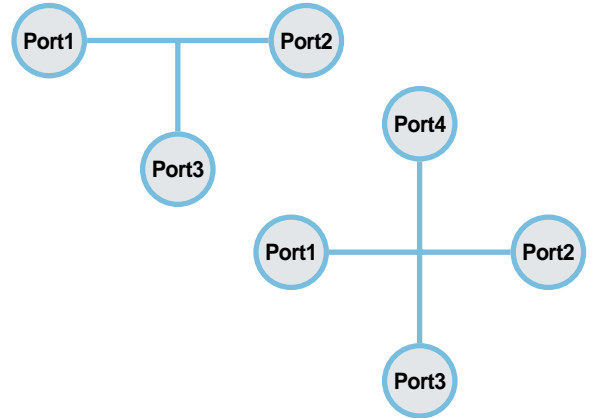
We recommend the use of swivel nuts, from B in conformance with DIN 3865.

**Ordering Information**

<b>Example 1</b>	<b>Male Connector</b>						
<b>D</b>	<b>CM</b>	<b>- 10</b>	<b>L</b>	<b>- 02G</b>	<b>ED</b>	<b>-</b>	<b>SS</b>
I	II	III	IV	V	VI		VII

<b>Example 2</b>	<b>Reducing Union Tee</b>								
<b>D</b>	<b>RUT</b>	<b>- 10</b>	<b>L</b>	<b>- 10</b>	<b>L</b>	<b>- 08</b>	<b>L</b>	<b>-</b>	<b>B</b>
I	II	III	IV	III	IV	III	IV		VII
		* Port1		* port2		* port3			

In tees and crosses shown below port2 is referred to as run and port3, port4 is referred to as branch



- I : SUPERLOK Bite Type Tube Fitting
- II : Name of Fitting :Refer to Index
- III : Tube O.D

Tube O.D	4mm	6mm	8mm	10mm	12mm	15mm	16mm	18mm	20mm	22mm	25mm	28mm	30mm	35mm	38mm	42mm
Identify	4	6	8	10	12	15	16	18	20	22	25	28	30	35	38	42

IV : Series

Series Identify	Very Light	Light	Heavy
	LL	L	S

V : Thread Size : See Thread Specification

VI : Elastiomer : ED-Ring & O - Ring seal (Refer to Seal Material)

VII : Fitting Material

Carbon Steel (DIN3859)	316 Stainless Steel (DIN17440/1.4571)	Brass
C	SS	B

**Thread Specifications**

**Pipe Thread**

Thread Type	Thread Size									Specification
	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	
<b>NPT</b>	01N	02N	03N	04N	06N	08N	10N	12N	16N	ANSI/ASME B1.20.1
<b>ISO/BSP Parallel</b>	01G	02G	03G	04G	06G	08G	10G	12G	16G	ISO228 (DIN259)
<b>ISO/BSP Tapered</b>	01R	02R	03R	04R	06R	08R	10R	12R	16R	DIN - 2999































**Metric Thread**



























Thread Type	Thread Size									Specification
	M8 ×1.0	M10 ×1.0	M12 ×1.5	M14 ×1.5	M16 ×1.5	M18 ×1.5	.....	M42 ×2.0	M48 ×2.0	
<b>Metric Parallel</b>	M8	M10	M12	M14	M16	M18	.....	M42	M48	DIN - 13
<b>Metric Tapered(Keg)</b>	M8K	M10K	M12K	M14K	M16K	M18K	.....	M42K	M48K	DIN - 158

**Unified Thread**

Specification	Thread Size						
	7/16-20UNF	9/16-18UNF	3/4-16UNF	7/8-14UNF	1 1/16-12UN	1 5/16-12UN	1 5/8-12UN
<b>ASME B1.1</b>	4U	6U	8U	10U	12U	16U	20U

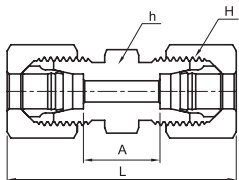
**INDEX**

<i>Tube to Tube Part No.</i>					
	<b>DUS</b> Union	<b>13</b>		<b>DCM-G</b> Male Connector	<b>20</b>
	<b>DUE</b> Union Elbow	<b>13</b>		<b>DCM-R</b> Male Connector	<b>21</b>
	<b>DRU</b> Reducing Union	<b>14</b>		<b>DCM-M</b> Male Connector	<b>22</b>
	<b>DUT</b> Union Tee	<b>15</b>		<b>DCM-MK</b> Male Connector	<b>22</b>
	<b>DUC</b> Union Cross	<b>15</b>		<b>DCM-GED</b> Male Connector with ED-Ring	<b>23</b>
	<b>DRUT</b> Reducing Union Tee	<b>16</b>		<b>DCM-MED</b> Male Connector with ED-Ring	<b>24</b>
	<b>DBHU</b> Bulkhead Union	<b>17</b>		<b>DCM-N</b> Male Connector	<b>25</b>
	<b>DBUW</b> Weld Bulkhead Union	<b>17</b>		<b>DME-R/MK</b> Male Elbow	<b>26</b>
	<b>DBUE</b> Bulkhead Union Elbow	<b>18</b>	<i>Tube to Male Thread Part No.</i>		
<i>Tube to Female Port Part No.</i>				<b>DCF-G/M</b> Female Connector	<b>27</b>
	<b>DCM-UO/MO</b> Male Connector with O-Ring	<b>19</b>	<i>Tube to Tube Port (Adjustable Fittings) Part No.</i>		
				<b>DAE</b> Adjustable Elbow	<b>28</b>
				<b>DABT</b> Adjustable Branch Tee	<b>28</b>
				<b>DART</b> Adjustable Run Tee	<b>29</b>
				<b>DSE</b> Swivel Adjustable Elbow	<b>29</b>
				<b>DSBT</b> Swivel Adjustable Branch Tee	<b>30</b>
				<b>DSRT</b> Swivel Adjustable Run Tee	<b>30</b>
				<b>DRD</b> Reducer	<b>31</b>
				<b>DSRAP</b> Swivel Reducing Adaptor	<b>33</b>
			<i>Tube Port to Female Port Part No.</i>		
				<b>DAP-GED/MED</b> Adaptor	<b>35</b>
				<b>DSAP-GED/MED</b> Swivel Adaptor	<b>36</b>
					

<p><i>Tube Port to Tube Port Part No.</i></p>		 <p><b>DTC</b> 42 Test Coupling</p>	<p><i>Plugs &amp; Caps Part No.</i></p>	
 <p><b>DSL</b> 37 Swivel Union</p>	<p><i>Weld Fittings Part No.</i></p>		 <p><b>DC</b> 47 Tube Cap</p>	
<p><i>Banjo Fittings Part No.</i></p>		 <p><b>DWC</b> 43 Welding Connector</p>	 <p><b>DP</b> 47 Pulg</p>	
 <p><b>DBE-G/M</b> 38 Banjo Elbow</p>	 <p><b>DAWC</b> 43 Welding Connector with DWN</p>	 <p><b>DBP-GED/MED</b> 48 Blanking Plugs for Port with ED-Ring</p>		
 <p><b>DHBE-G/M</b> 39 High Pressure Banjo Elbow</p>	 <p><b>DWN</b> 44 Welding Nipple</p>	 <p><b>DBP-M</b> 48 Blanking Plugs with ED-Ring</p>		
 <p><b>DGBT-G/M</b> 40 High Pressure Banjo Tee</p>	 <p><b>DRWN</b> 44 Reducing Welding</p>	<p><i>Spare Part Part No.</i></p>		
<p><i>Gauge Connector &amp; Test Couplings Part No.</i></p>		<p><i>Male &amp; Female Adaptors Part No.</i></p>		
 <p><b>DFGC-G</b> 41 Pressure Gauge Connector</p>	 <p><b>DMFC</b> 45 Male Female Connector</p>	 <p><b>DNT</b> 49 Nut</p>		
 <p><b>DSGC-G</b> 41 Pressure Gauge Swivel Connector</p>	 <p><b>DMFG</b> 45 Male Female Gauge Connector</p>	 <p><b>DCR</b> 49 Cutting Ring</p>		
 <p><b>DGAP-G</b> 41 Gauge Adaptor</p>	 <p><b>DMFC-ED</b> 46 Male Female Connector with ED-Ring</p>	 <p><b>DED</b> 49 ED-Ring</p>		
 <p><b>DTPC</b> 42 Tee Test Point Connector</p>	 <p><b>DMFG-ED</b> 46 Male Female Gauge Connector with ED-Ring</p>	 <p><b>DOR</b> 49 O-Ring</p>		
				

**DUS**

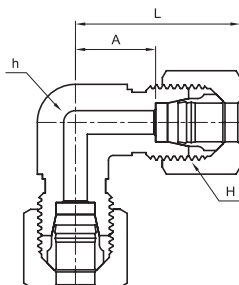
## Union



Series	Part Number	Tube O.D.	Dimension (mm)			
			H	h	L	A
<b>LL</b> Very Light PN 100	DUS-04LL	4	10.0	9.0	31.0	12.0
	DUS-06LL	6	12.0	11.0	32.0	9.0
	DUS-08LL	8	14.0	12.0	35.0	12.0
	DUS-10LL	10	17.0	14.0	35.0	12.0
	DUS-12LL	12	19.0	17.0	35.0	11.0
<b>L</b> Light PN 315	DUS-06L	6	14.0	12.0	39.0	10.0
	DUS-08L	8	17.0	14.0	40.0	11.0
	DUS-10L	10	19.0	17.0	42.0	13.0
	DUS-12L	12	22.0	19.0	43.0	14.0
	DUS-15L	15	27.0	24.0	46.0	16.0
	DUS-18L	18	32.0	27.0	48.0	16.0
<b>PN 160</b>	DUS-22L	22	36.0	32.0	52.0	20.0
	DUS-28L	28	41.0	41.0	54.0	21.0
	DUS-35L	35	50.0	46.0	63.0	20.0
	DUS-42L	42	60.0	55.0	66.0	21.0
<b>S</b> Heavy PN 630	DUS-06S	6	17.0	14.0	45.0	16.0
	DUS-08S	8	19.0	17.0	47.0	18.0
	DUS-10S	10	22.0	19.0	49.0	17.0
	DUS-12S	12	24.0	22.0	51.0	19.0
	DUS-14S	14	27.0	24.0	57.0	22.0
<b>PN 400</b>	DUS-16S	16	30.0	27.0	57.0	21.0
	DUS-20S	20	36.0	32.0	66.0	23.0
	DUS-25S	25	46.0	41.0	74.0	26.0
	DUS-30S	30	50.0	46.0	80.0	27.0
<b>PN 315</b>	DUS-38S	38	60.0	55.0	90.0	29.0

**DUE**

## Union Elbow

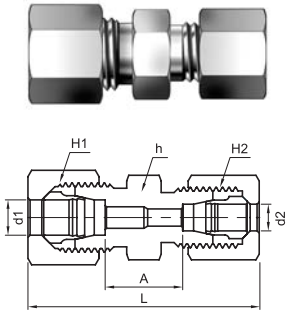


Series	Part Number	Tube O.D.	Dimension (mm)			
			H	h	L	A
<b>LL</b> Very Light PN 100	DUE-04LL	4	10.0	9.0	21.0	11.0
	DUE-06LL	6	12.0	9.0	21.0	9.5
	DUE-08LL	8	14.0	12.0	23.0	11.5
	DUE-10LL	10	17.0	14.0	24.0	12.5
	DUE-12LL	12	19.0	17.0	25.0	13.0
<b>L</b> Light PN 315	DUE-06L	6	14.0	12.0	27.0	12.0
	DUE-08L	8	17.0	12.0	29.0	14.0
	DUE-10L	10	19.0	14.0	30.0	15.0
	DUE-12L	12	22.0	17.0	32.0	17.0
	DUE-15L	15	27.0	19.0	36.0	21.0
	DUE-18L	18	32.0	24.0	40.0	23.5
<b>PN 160</b>	DUE-22L	22	36.0	27.0	44.0	27.5
	DUE-28L	28	41.0	36.0	47.0	30.5
	DUE-35L	35	50.0	41.0	56.0	34.5
	DUE-42L	42	60.0	50.0	63.0	40.0
<b>S</b> Heavy PN 630	DUE-06S	6	17.0	12.0	31.0	16.0
	DUE-08S	8	19.0	14.0	32.0	17.0
	DUE-10S	10	22.0	17.0	34.0	17.5
	DUE-12S	12	24.0	17.0	38.0	21.5
	DUE-14S	14	27.0	19.0	40.0	22.0
<b>PN 400</b>	DUE-16S	16	30.0	24.0	43.0	24.5
	DUE-20S	20	36.0	27.0	48.0	26.5
	DUE-25S	25	46.0	36.0	54.0	30.0
	DUE-30S	30	50.0	41.0	62.0	35.5
<b>PN 315</b>	DUE-38S	38	60.0	50.0	72.0	41.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DRU

## Reducing Union

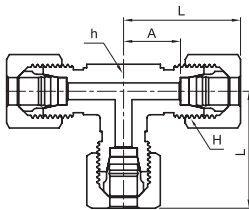


Series	Part Number	Tube O.D.		Dimension (mm)				
		d1	d2	H1	H2	h	L	A
<b>L Light PN 315</b>	DRU-08L-06L	8	6	17.0	14.0	14.0	40.0	11.0
	DRU-10L-06L	10	6	19.0	14.0	17.0	41.0	12.0
	DRU-10L-08L	10	8	19.0	17.0	17.0	41.0	12.0
	DRU-12L-06L	12	6	22.0	14.0	19.0	42.0	13.0
	DRU-12L-08L	12	8	22.0	17.0	19.0	42.0	13.0
	DRU-12L-10L	12	10	22.0	19.0	19.0	43.0	14.0
	DRU-15L-10L	15	10	27.0	19.0	24.0	45.0	15.0
	DRU-15L-12L	15	12	27.0	22.0	24.0	45.0	15.0
	DRU-18L-10L	18	10	32.0	19.0	27.0	46.0	15.5
	DRU-18L-12L	18	12	32.0	22.0	27.0	46.0	15.5
DRU-18L-15L	18	15	32.0	27.0	27.0	48.0	16.5	
<b>PN 160</b>	DRU-22L-12L	22	12	36.0	22.0	32.0	48.0	17.5
	DRU-22L-15L	22	15	36.0	27.0	32.0	50.0	18.5
	DRU-22L-18L	22	18	36.0	32.0	32.0	50.0	18.0
	DRU-28L-18L	28	18	41.0	32.0	41.0	52.0	19.0
	DRU-28L-22L	28	22	41.0	36.0	41.0	54.0	21.0
	DRU-35L-22L	35	22	50.0	36.0	46.0	59.0	21.0
DRU-35L-28L	35	28	50.0	41.0	46.0	59.0	21.0	
<b>S Heavy PN 630</b>	DRU-08S-06S	8	6	19.0	17.0	17.0	47.0	18.0
	DRU-10S-06S	10	6	22.0	17.0	19.0	48.0	17.5
	DRU-10S-08S	10	8	22.0	19.0	19.0	48.0	17.5
	DRU-12S-06S	12	6	24.0	17.0	22.0	50.0	19.5
	DRU-12S-08S	12	8	24.0	19.0	22.0	50.0	19.5
	DRU-12S-10S	12	10	24.0	22.0	22.0	51.0	19.0
	DRU-14S-10S	14	10	27.0	22.0	24.0	54.0	20.5
DRU-14S-12S	14	12	27.0	24.0	24.0	54.0	20.5	
<b>PN 400</b>	DRU-16S-12S	16	12	30.0	24.0	27.0	54.0	20.0
	DRU-16S-14S	16	14	30.0	27.0	27.0	57.0	21.5
	DRU-20S-10S	20	10	36.0	22.0	32.0	60.0	22.0
	DRU-20S-12S	20	12	36.0	24.0	32.0	60.0	22.0
	DRU-20S-16S	20	16	36.0	30.0	32.0	63.0	23.0
	DRU-25S-16S	25	16	46.0	30.0	41.0	68.0	25.0
	DRU-25S-20S	25	20	46.0	36.0	41.0	71.0	25.5
	DRU-30S-20S	30	20	50.0	36.0	46.0	74.0	26.0
DRU-30S-25S	30	25	50.0	46.0	46.0	77.0	26.5	
<b>PN 315</b>	DRU-38S-30S	38	30	60.0	50.0	55.0	87.0	29.5

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

**DUT**

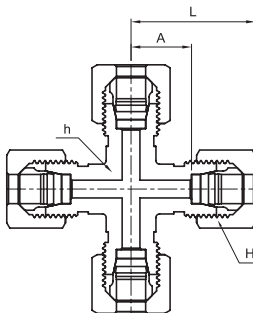
## Union Tee



Series	Part Number	Tube O.D.	Dimension (mm)			
			H	h	L	A
<b>LL</b> Very Light PN 100	DUT-04LL	4	10.0	9.0	21.0	11.0
	DUT-06LL	6	12.0	9.0	21.0	9.5
	DUT-08LL	8	14.0	12.0	23.0	11.5
	DUT-10LL	10	17.0	14.0	24.0	12.5
	DUT-12LL	12	19.0	14.0	27.0	15.0
<b>L</b> Light PN 315	DUT-06L	6	14.0	12.0	27.0	12.0
	DUT-08L	8	17.0	12.0	29.0	14.0
	DUT-10L	10	19.0	14.0	30.0	15.0
	DUT-12L	12	22.0	17.0	32.0	17.0
	DUT-15L	15	27.0	19.0	36.0	21.0
<b>PN 160</b>	DUT-18L	18	32.0	24.0	40.0	23.5
	DUT-22L	22	36.0	27.0	44.0	27.5
	DUT-28L	28	41.0	36.0	47.0	30.5
<b>S</b> Heavy PN 630	DUT-35L	35	50.0	41.0	56.0	34.5
	DUT-42L	42	60.0	50.0	63.0	40.0
	DUT-06S	6	17.0	12.0	31.0	16.0
<b>PN 400</b>	DUT-08S	8	19.0	14.0	32.0	17.0
	DUT-10S	10	22.0	17.0	34.0	17.5
	DUT-12S	12	24.0	17.0	38.0	21.5
	DUT-14S	14	27.0	19.0	40.0	22.0
<b>PN 315</b>	DUT-16S	16	30.0	24.0	43.0	24.5
	DUT-20S	20	36.0	27.0	48.0	26.5
	DUT-25S	25	46.0	36.0	54.0	30.0
<b>PN 315</b>	DUT-30S	30	50.0	41.0	62.0	35.5
	DUT-38S	38	60.0	50.0	72.0	41.0

**DUC**

## Union Cross

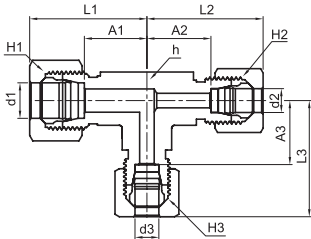


Series	Part Number	Tube O.D.	Dimension (mm)			
			H	h	L	A
<b>LL</b> Very Light PN 100	DUC-04LL	4	10.0	9.0	21.0	11.0
	DUC-06LL	6	12.0	9.0	21.0	9.5
	DUC-08LL	8	14.0	12.0	23.0	11.5
	DUC-10LL	10	17.0	14.0	24.0	12.5
	DUC-12LL	12	19.0	14.0	27.0	15.0
<b>L</b> Light PN 315	DUC-06L	6	14.0	12.0	27.0	12.0
	DUC-08L	8	17.0	12.0	29.0	14.0
	DUC-10L	10	19.0	14.0	30.0	15.0
	DUC-12L	12	22.0	17.0	32.0	17.0
	DUC-15L	15	27.0	19.0	36.0	21.0
<b>PN 160</b>	DUC-18L	18	32.0	24.0	40.0	23.5
	DUC-22L	22	36.0	27.0	44.0	27.5
	DUC-28L	28	41.0	36.0	47.0	30.5
<b>S</b> Heavy PN 630	DUC-35L	35	50.0	41.0	56.0	34.5
	DUC-42L	42	60.0	50.0	63.0	40.0
	DUC-06S	6	17.0	12.0	31.0	16.0
<b>PN 400</b>	DUC-08S	8	19.0	14.0	32.0	17.0
	DUC-10S	10	22.0	17.0	34.0	17.5
	DUC-12S	12	24.0	17.0	38.0	21.5
	DUC-14S	14	27.0	19.0	40.0	22.0
<b>PN 315</b>	DUC-16S	16	30.0	24.0	43.0	24.5
	DUC-20S	20	36.0	27.0	48.0	26.5
	DUC-25S	25	46.0	36.0	54.0	30.0
<b>PN 315</b>	DUC-30S	30	50.0	41.0	62.0	35.5
	DUC-38S	38	60.0	50.0	72.0	41.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DRUT

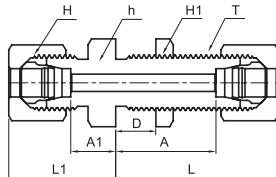
## Reducing Union Tee



Series	Part Number	Tube O.D.			Dimension (mm)									
		d1	d2	d3	H1	H2	H3	h	L1	L2	L3	A1	A2	A3
<b>L Light</b>	DRUT-06L-06L-08L	6	6	8	14	14	17	14	29	29	29	14.0	14.0	14.0
	DRUT-08L-08L-06L	8	8	6	17	17	14	14	29	29	29	14.0	14.0	14.0
<b>PN 315</b>	DRUT-06L-06L-10L	6	6	10	14	14	19	14	30	30	30	15.0	15.0	15.0
	DRUT-08L-08L-10L	8	8	10	17	17	19	14	30	30	30	15.0	15.0	15.0
	DRUT-10L-10L-06L	10	10	6	19	19	14	14	30	30	30	15.0	15.0	15.0
	DRUT-10L-10L-08L	10	10	8	19	19	17	14	30	30	30	15.0	15.0	15.0
	DRUT-10L-06L-10L	10	6	10	19	14	19	14	30	30	30	15.0	15.0	15.0
<b>PN 315</b>	DRUT-08L-08L-12L	8	8	12	17	17	22	17	32	32	32	17.0	17.0	17.0
	DRUT-12L-12L-06L	12	12	6	22	22	14	17	32	32	32	17.0	17.0	17.0
	DRUT-12L-08L-08L	12	8	8	22	17	17	17	32	32	32	17.0	17.0	17.0
	DRUT-12L-12L-08L	12	12	8	22	22	17	17	32	32	32	17.0	17.0	17.0
	DRUT-12L-10L-10L	12	10	10	22	19	19	17	32	32	32	17.0	17.0	17.0
	DRUT-12L-12L-10L	12	12	10	22	22	19	17	32	32	32	17.0	17.0	17.0
	DRUT-12L-10L-12L	12	10	12	22	19	22	17	32	32	32	17.0	17.0	17.0
<b>PN 315</b>	DRUT-10L-10L-15L	10	10	15	19	19	27	19	36	36	36	21.0	21.0	21.0
	DRUT-12L-12L-15L	12	12	15	22	22	27	19	36	36	36	21.0	21.0	21.0
	DRUT-15L-15L-06L	15	15	6	27	27	14	19	36	36	36	21.0	21.0	21.0
	DRUT-15L-15L-10L	15	15	10	27	27	19	19	36	36	36	21.0	21.0	21.0
	DRUT-15L-12L-12L	15	12	12	27	22	22	19	36	36	36	21.0	21.0	21.0
	DRUT-15L-15L-12L	15	15	12	27	27	22	19	36	36	36	21.0	21.0	21.0
<b>PN 315</b>	DRUT-15L-12L-15L	15	12	15	27	22	27	19	36	36	36	21.0	21.0	21.0
	DRUT-12L-12L-18L	12	12	18	22	22	32	24	39	39	40	24.0	24.0	23.5
	DRUT-18L-10L-10L	18	10	10	32	19	19	24	40	39	39	23.5	24.0	24.0
	DRUT-18L-18L-10L	18	18	10	32	32	19	24	40	40	39	23.5	23.5	24.0
	DRUT-18L-18L-12L	18	18	12	32	32	22	24	40	40	39	23.5	23.5	24.0
	DRUT-18L-18L-15L	18	18	15	32	32	27	24	40	40	39	23.5	23.5	24.0
<b>PN 315</b>	DRUT-18L-10L-18L	18	10	18	32	19	32	27	40	39	40	23.5	24.0	23.5
	DRUT-22L-22L-10L	22	22	10	36	36	19	27	44	44	43	27.5	27.5	28.0
	DRUT-22L-22L-12L	22	22	12	36	36	22	27	44	44	43	27.5	27.5	28.0
	DRUT-22L-15L-15L	22	15	15	36	27	27	27	44	43	43	27.5	28.0	28.0
	DRUT-22L-22L-15L	22	22	15	36	36	27	27	44	44	43	27.5	27.5	28.0
	DRUT-22L-18L-18L	22	18	18	36	32	32	27	44	44	44	27.5	27.5	27.5
<b>PN 160</b>	DRUT-22L-22L-18L	22	22	18	36	36	32	27	44	44	44	27.5	27.5	27.5
	DRUT-22L-18L-22L	22	18	22	36	32	36	27	44	44	44	27.5	27.5	27.5
	DRUT-28L-28L-10L	28	28	10	41	41	19	36	47	44	46	30.5	30.5	31.0
	DRUT-28L-28L-12L	28	28	12	41	41	22	36	47	47	46	30.5	30.5	31.0
	DRUT-28L-28L-15L	28	28	15	41	41	27	36	47	47	46	30.5	30.5	31.0
	DRUT-28L-28L-18L	28	28	18	41	41	32	36	47	47	47	30.5	30.5	30.5
<b>PN 160</b>	DRUT-28L-22L-22L	28	22	22	41	36	36	36	47	47	47	30.5	30.5	30.5
	DRUT-28L-28L-22L	28	28	22	41	41	36	36	47	47	47	30.5	30.5	30.5
	DRUT-10S-10S-06S	10	10	6	22	22	17	17	34	34	33	17.5	17.5	18.0
	DRUT-12S-08S-08S	12	8	8	24	19	19	17	38	37	37	21.5	22.0	22.0
	DRUT-12S-12S-08S	12	12	8	24	24	19	17	38	38	37	21.5	21.5	22.0
	DRUT-12S-12S-10S	12	12	10	24	24	22	17	38	38	38	21.5	21.5	21.5
<b>PN 400</b>	DRUT-12S-12S-16S	12	12	16	24	24	30	24	42	42	43	25.5	25.5	24.5
	DRUT-16S-16S-06S	16	16	6	30	30	17	24	43	43	41	24.5	24.5	26.0
	DRUT-16S-16S-08S	16	16	8	30	30	19	24	43	43	41	24.5	24.5	26.0
	DRUT-16S-16S-10S	16	16	10	30	30	22	24	43	43	42	24.5	24.5	25.5
<b>PN 400</b>	DRUT-16S-16S-12S	16	16	12	30	30	24	24	43	43	42	24.5	24.5	25.5
	DRUT-16S-16S-20S	16	16	20	30	30	36	27	47	47	48	28.5	28.5	26.5
	DRUT-20S-20S-10S	20	20	10	36	36	22	27	48	48	46	26.5	26.5	29.5
<b>PN 400</b>	DRUT-20S-20S-12S	20	20	12	36	36	24	27	48	48	46	26.5	26.5	29.5
	DRUT-20S-20S-16S	20	20	16	36	36	30	27	48	48	47	26.5	26.5	28.5
	DRUT-20S-20S-25S	20	20	25	36	36	46	36	53	53	54	31.5	31.5	30.0
	DRUT-25S-25S-16S	25	25	16	46	46	30	36	54	54	52	30.0	30.0	33.5
<b>PN 400</b>	DRUT-25S-25S-20S	25	25	20	46	46	36	36	54	54	53	30.0	30.0	31.5
	DRUT-25S-25S-30S	25	25	30	46	46	50	41	61	61	62	37.0	37.0	35.5

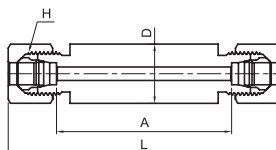
All dimensions in millimeters. Dimensions given approximate length with tightened nut.



**DBHU****Bulkhead Union**

D=16mm Max Bulkhead thickness

Series	Part Number	Tube O.D.	Dimension (mm)							
			H	H1	h	L	L1	A	A1	T
<b>L Light PN 315</b>	DBHU-06L	6	14.0	17.0	17.0	42.0	22.0	27.0	7.0	M12 × 1.5
	DBHU-08L	8	17.0	19.0	19.0	42.0	23.0	27.0	8.0	M14 × 1.5
	DBHU-10L	10	19.0	22.0	22.0	43.0	25.0	28.0	10.0	M16 × 1.5
	DBHU-12L	12	22.0	24.0	24.0	44.0	25.0	29.0	10.0	M18 × 1.5
	DBHU-15L	15	27.0	30.0	27.0	46.0	27.0	31.0	12.0	M22 × 1.5
	DBHU-18L	18	32.0	36.0	32.0	49.0	30.0	32.5	13.5	M26 × 1.5
<b>PN 160</b>	DBHU-22L	22	36.0	41.0	36.0	51.0	33.0	34.5	16.5	M30 × 2.0
	DBHU-28L	28	41.0	46.0	41.0	52.0	35.0	35.5	18.5	M36 × 2.0
	DBHU-35L	35	50.0	55.0	50.0	58.0	40.0	36.5	18.5	M45 × 2.0
	DBHU-42L	42	60.0	65.0	60.0	59.0	42.0	36.0	19.0	M52 × 2.0
<b>S Heavy PN 630</b>	DBHU-06S	6	17.0	19.0	19.0	44.0	27.0	29.0	12.0	M14 × 1.5
	DBHU-08S	8	19.0	22.0	22.0	44.0	28.0	29.0	13.0	M16 × 1.5
	DBHU-10S	10	22.0	24.0	24.0	46.0	31.0	29.5	14.5	M18 × 1.5
	DBHU-12S	12	24.0	27.0	27.0	47.0	31.0	30.5	14.5	M20 × 1.5
	DBHU-14S	14	27.0	30.0	30.0	50.0	35.0	32.0	17.0	M22 × 1.5
<b>PN 400</b>	DBHU-16S	16	30.0	32.0	32.0	50.0	35.0	31.5	16.5	M24 × 1.5
	DBHU-20S	20	36.0	41.0	41.0	55.0	39.0	33.5	17.5	M30 × 2.0
	DBHU-25S	25	46.0	46.0	46.0	59.0	44.0	35.0	20.0	M36 × 2.0
<b>PN 315</b>	DBHU-30S	30	50.0	50.0	50.0	64.0	48.0	37.5	21.5	M42 × 2.0
<b>PN 315</b>	DBHU-38S	38	60.0	65.0	65.0	68.0	53.0	37.0	22.0	M52 × 2.0

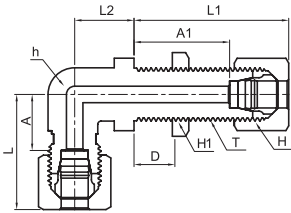
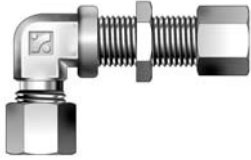
**DBUW****Weld Bulkhead Union**

Series	Part Number	Tube O.D.	Dimension (mm)			
			H	D	L	A
<b>L Light PN 315</b>	DBUW-06L	6	14.0	18.0	85.0	56.0
	DBUW-08L	8	17.0	20.0	85.0	56.0
	DBUW-10L	10	19.0	22.0	87.0	58.0
	DBUW-12L	12	22.0	25.0	87.0	58.0
	DBUW-15L	15	27.0	28.0	100.0	70.0
	DBUW-18L	18	32.0	32.0	101.0	69.0
<b>PN 315</b>	DBUW-22L	22	36.0	36.0	105.0	73.0
	DBUW-28L	28	41.0	40.0	106.0	73.0
	DBUW-35L	35	50.0	50.0	114.0	71.0
	DBUW-42L	42	60.0	60.0	115.0	70.0
<b>S Heavy PN 630</b>	DBUW-06S	6	17.0	20.0	89.0	60.0
	DBUW-08S	8	19.0	22.0	89.0	60.0
	DBUW-10S	10	22.0	25.0	91.0	59.0
	DBUW-12S	12	24.0	28.0	91.0	59.0
	DBUW-14S	14	27.0	30.0	107.0	72.0
<b>PN 400</b>	DBUW-16S	16	30.0	35.0	107.0	71.0
	DBUW-20S	20	36.0	38.0	114.0	71.0
	DBUW-25S	25	46.0	45.0	120.0	72.0
<b>PN 315</b>	DBUW-30S	30	50.0	50.0	126.0	73.0
<b>PN 315</b>	DBUW-38S	38	60.0	60.0	133.0	72.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DBUE

## Bulkhead Union Elbow



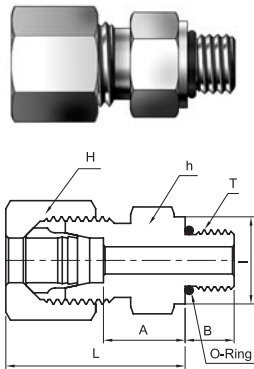
D=16mm Max Bulkhead thickness

Series	Part Number	Tube O.D.	Dimension (mm)									
			H	H1	h	L	L1	L2	A	A1	T	
<b>L Light PN 315</b>	DBUE-06L	6	14.0	17.0	12.0	27.0	42.0	14.0	12.0	27.0	M12 × 1.5	
	DBUE-08L	8	17.0	19.0	12.0	29.0	42.0	17.0	14.0	27.0	M14 × 1.5	
	DBUE-10L	10	19.0	22.0	14.0	30.0	43.0	18.0	15.0	28.0	M16 × 1.5	
	DBUE-12L	12	22.0	24.0	17.0	32.0	44.0	20.0	17.0	29.0	M18 × 1.5	
	DBUE-15L	15	27.0	30.0	19.0	36.0	46.0	23.0	21.0	31.0	M22 × 1.5	
<b>PN 160</b>	DBUE-18L	18	32.0	36.0	24.0	40.0	49.0	24.0	23.5	32.5	M26 × 1.5	
	DBUE-22L	22	36.0	41.0	27.0	44.0	51.0	30.0	27.5	34.5	M30 × 2.0	
	DBUE-28L	28	41.0	46.0	36.0	47.0	52.0	34.0	30.5	35.5	M36 × 2.0	
	DBUE-35L	35	50.0	55.0	41.0	56.0	58.0	39.0	34.5	36.5	M45 × 2.0	
<b>S Heavy PN 630</b>	DBUE-42L	42	60.0	65.0	50.0	63.0	59.0	43.0	40.0	36.0	M52 × 2.0	
	DBUE-06S	6	17.0	19.0	12.0	31.0	44.0	17.0	16.0	29.0	M14 × 1.5	
	DBUE-08S	8	19.0	22.0	14.0	32.0	44.0	18.0	17.0	29.0	M16 × 1.5	
	DBUE-10S	10	22.0	24.0	17.0	34.0	46.0	20.0	17.5	29.5	M18 × 1.5	
	DBUE-12S	12	24.0	27.0	17.0	38.0	47.0	21.0	21.5	30.5	M20 × 1.5	
<b>PN 400</b>	DBUE-14S	14	27.0	30.0	19.0	40.0	50.0	23.0	22.0	32.0	M22 × 1.5	
	DBUE-16S	16	30.0	32.0	24.0	43.0	50.0	24.0	24.5	31.5	M24 × 1.5	
	DBUE-20S	20	36.0	41.0	27.0	48.0	55.0	30.0	26.5	33.5	M30 × 2.0	
	DBUE-25S	25	46.0	46.0	36.0	54.0	59.0	34.0	30.0	35.0	M36 × 2.0	
<b>PN 315</b>	DBUE-30S	30	50.0	50.0	41.0	62.0	64.0	39.0	35.5	37.5	M42 × 2.0	
	DBUE-38S	38	60.0	65.0	50.0	72.0	68.0	43.0	41.0	37.0	M52 × 2.0	

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

## DCM-UO/MO (Unified/Metric Parallel)

### Male Connector with O-Ring



#### Unified Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	I	L	A	B	T
<b>L Light PN 315</b>	DCM-08L-04UO	8	17.0	17.0	14.4	25.0	9.0	10.0	7/16-20UNF-2A
	DCM-10L-04UO	10	19.0	17.0	14.4	26.0	10.0	11.0	7/16-20UNF-2A
	DCM-12L-06UO	12	22.0	19.0	17.6	26.0	10.0	11.0	9/16-18UNF-2A
	DCM-12L-08UO	12	22.0	24.0	22.3	28.0	11.0	13.0	3/4-16UNF-2A
	DCM-12L-10UO	12	22.0	27.0	25.5	29.0	12.7	14.3	7/8-14UNF-2A
	DCM-15L-08UO	15	27.0	24.0	22.3	29.0	11.0	14.0	3/4-16UNF-2A
	DCM-15L-10UO	15	27.0	27.0	25.5	30.0	12.7	15.3	7/8-14UNF-2A
	DCM-18L-08UO	18	32.0	27.0	22.3	31.0	11.0	14.5	3/4-16UNF-2A
DCM-18L-10UO	18	32.0	27.0	25.5	31.0	12.7	14.8	7/8-14UNF-2A	
<b>PN 160</b>	DCM-22L-10UO	22	36.0	32.0	25.5	33.0	12.7	16.8	7/8-14UNF-2A
	DCM-22L-12UO	22	36.0	32.0	31.9	33.0	15.0	16.5	1 1/16-12UN-2A
	DCM-22L-16UO	22	36.0	41.0	38.2	34.0	15.0	17.5	1 5/16-12UN-2A
	DCM-28L-12UO	28	41.0	41.0	31.9	34.0	15.0	17.5	1 1/16-12UN-2A
	DCM-28L-16UO	28	41.0	41.0	38.2	34.0	15.0	17.5	1 5/16-12UN-2A
	DCM-35L-16UO	35	50.0	46.0	38.2	39.0	15.0	17.5	1 5/16-12UN-2A
	DCM-35L-20UO	35	50.0	50.0	47.7	39.0	15.0	17.5	1 5/8-12UN-2A
<b>S Heavy PN 630</b>	DCM-08S-04UO	8	19.0	17.0	16.0	30.0	9.0	15.0	7/16-20UNF-2A
	DCM-10S-06UO	10	22.0	19.0	17.6	31.0	10.0	14.5	9/16-18UNF-2A
	DCM-12S-06UO	12	24.0	22.0	17.6	31.0	10.0	14.5	9/16-18UNF-2A
	DCM-12S-08UO	12	24.0	24.0	22.3	34.0	11.0	17.5	3/4-16UNF-2A
<b>PN 400</b>	DCM-16S-08UO	16	30.0	24.0	22.3	34.0	11.0	15.5	3/4-16UNF-2A
	DCM-16S-10UO	16	30.0	27.0	25.5	37.0	12.7	18.8	7/8-14UNF-2A
	DCM-20S-08UO	20	36.0	32.0	22.3	42.0	11.0	20.5	3/4-16UNF-2A
	DCM-20S-10UO	20	36.0	32.0	25.5	42.0	12.7	20.8	7/8-14UNF-2A
	DCM-20S-12UO	20	36.0	32.0	31.9	42.0	15.0	20.5	1 1/16-12UN-2A
	DCM-25S-12UO	25	46.0	36.0	31.9	47.0	15.0	23.0	1 1/16-12UN-2A
	DCM-25S-16UO	25	46.0	41.0	38.2	47.0	15.0	23.0	1 5/16-12UN-2A
	DCM-30S-16UO	30	50.0	46.0	38.2	50.0	15.0	23.5	1 5/16-12UN-2A
DCM-30S-20UO	30	50.0	50.0	47.7	50.0	15.0	23.5	1 5/8-12UN-2A	
<b>PN 315</b>	DCM-38S-20UO	38	60.0	55.0	47.7	57.0	15.0	26.0	1 5/8-12UN-2A

#### Metric Parallel Tread Type

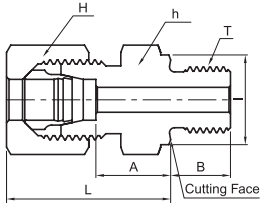
Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	I	L	A	B	T
<b>L Light PN 315</b>	DCM-06L-MO10	6	14.0	14.0	-	23.0	10.0	8.5	M10 × 1.0
	DCM-08L-MO12	8	17.0	17.0	-	25.0	11.5	10.0	M12 × 1.5
	DCM-10L-MO14	10	19.0	19.0	-	26.0	11.5	11.0	M14 × 1.5
	DCM-12L-MO16	12	22.0	22.0	-	27.0	13.0	12.0	M16 × 1.5
	DCM-15L-MO18	15	27.0	24.0	-	29.0	14.5	13.5	M18 × 1.5
	DCM-18L-MO22	18	32.0	27.0	-	30.0	15.5	14.0	M22 × 1.5
<b>PN 160</b>	DCM-22L-MO26	22	36.0	32.0	-	32.0	16.0	16.0	M26 × 1.5
	DCM-28L-MO33	28	41.0	41.0	38.0	34.0	19.0	17.5	M33 × 2.0
	DCM-35L-MO42	35	50.0	50.0	48.0	39.0	19.5	17.5	M42 × 2.0
<b>S Heavy PN 630</b>	DCM-06S-MO12	6	17.0	17.0	-	27.0	11.5	12.0	M12 × 1.0
	DCM-08S-MO14	8	19.0	19.0	-	27.0	11.5	12.0	M14 × 1.5
	DCM-10S-MO16	10	22.0	22.0	-	29.0	13.0	12.5	M16 × 1.5
	DCM-12S-MO18	12	24.0	24.0	-	29.0	14.5	13.0	M18 × 1.5
<b>PN 400</b>	DCM-16S-MO22	16	30.0	27.0	-	33.0	15.5	15.0	M22 × 1.5
	DCM-20S-MO27	20	36.0	32.0	-	37.0	19.0	15.0	M27 × 2.0
	DCM-25S-MO33	25	46.0	41.0	38.0	41.0	19.0	17.0	M33 × 2.0
	DCM-30S-MO42	30	50.0	50.0	48.0	45.0	19.5	18.5	M42 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DCM-G (BSP Parallel)

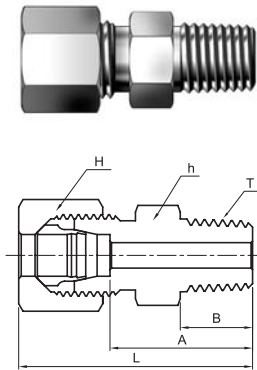
## Male Connector

### BSP Parallel Thread Type



Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	I	L	A	B	T
<b>L Light PN 315</b>	DCM-06L-01G	6	14.0	14.0	14.0	23.0	8.5	8.0	PF 1/8
	DCM-06L-02G	6	14.0	19.0	18.0	25.0	10.0	12.0	PF 1/4
	DCM-06L-03G	6	14.0	22.0	22.0	26.0	11.5	12.0	PF 3/8
	DCM-06L-04G	6	14.0	27.0	26.0	27.0	12.0	14.0	PF 1/2
	DCM-08L-01G	8	17.0	14.0	14.0	23.0	8.5	8.0	PF 1/8
	DCM-08L-02G	8	17.0	19.0	18.0	25.0	10.0	12.0	PF 1/4
	DCM-08L-03G	8	17.0	22.0	22.0	26.0	11.5	12.0	PF 3/8
	DCM-08L-04G	8	17.0	27.0	26.0	27.0	12.0	14.0	PF 1/2
	DCM-10L-02G	10	19.0	19.0	18.0	26.0	11.0	12.0	PF 1/4
	DCM-10L-03G	10	19.0	22.0	22.0	27.0	12.5	12.0	PF 3/8
	DCM-10L-04G	10	19.0	27.0	26.0	28.0	13.0	14.0	PF 1/2
	DCM-12L-02G	12	22.0	19.0	18.0	27.0	12.0	12.0	PF 1/4
	DCM-12L-03G	12	22.0	22.0	22.0	27.0	12.5	12.0	PF 3/8
	DCM-12L-04G	12	22.0	27.0	26.0	28.0	13.0	14.0	PF 1/2
	DCM-12L-06G	12	22.0	32.0	32.0	29.0	14.0	16.0	PF 3/4
	DCM-15L-03G	15	27.0	24.0	22.0	29.0	13.5	12.0	PF 3/8
	DCM-15L-04G	15	27.0	27.0	26.0	29.0	14.0	14.0	PF 1/2
	DCM-15L-06G	15	27.0	32.0	32.0	30.0	15.0	16.0	PF 3/4
DCM-18L-03G	18	32.0	27.0	22.0	29.5	14.0	12.0	PF 3/8	
DCM-18L-04G	18	32.0	27.0	26.0	31.0	14.5	14.0	PF 1/2	
DCM-18L-06G	18	32.0	32.0	32.0	30.0	14.5	16.0	PF 3/4	
<b>PN 160</b>	DCM-22L-04G	22	36.0	32.0	26.0	33.0	16.5	14.0	PF 1/2
	DCM-22L-06G	22	36.0	32.0	32.0	33.0	16.5	16.0	PF 3/4
	DCM-28L-06G	28	41.0	41.0	32.0	34.0	17.5	16.0	PF 3/4
	DCM-28L-08G	28	41.0	41.0	39.0	34.0	17.5	18.0	PF 1
	DCM-35L-08G	35	50.0	46.0	39.0	39.0	17.5	18.0	PF 1
	DCM-35L-10G	35	50.0	50.0	49.0	39.0	17.5	20.0	PF 1 1/4
DCM-42L-12G	42	60.0	55.0	55.0	42.0	19.0	22.0	PF 1 1/2	
<b>S Heavy PB 630</b>	DCM-06S-02G	6	17.0	19.0	18.0	28.0	13.0	12.0	PF 1/4
	DCM-06S-04G	6	17.0	27.0	26.0	33.0	18.0	14.0	PF 1/2
	DCM-08S-02G	8	19.0	19.0	18.0	30.0	15.0	12.0	PF 1/4
	DCM-08S-03G	8	19.0	22.0	22.0	30.0	15.5	12.0	PF 3/8
	DCM-10S-02G	10	22.0	19.0	18.0	31.0	14.5	12.0	PF 1/4
	DCM-10S-03G	10	22.0	22.0	22.0	31.0	15.0	12.0	PF 3/8
	DCM-10S-04G	10	22.0	27.0	26.0	34.0	17.5	14.0	PF 1/2
	DCM-12S-02G	12	24.0	22.0	18.0	33.0	16.5	12.0	PF 1/4
	DCM-12S-03G	12	24.0	22.0	22.0	33.0	17.0	12.0	PF 3/8
	DCM-12S-04G	12	24.0	27.0	26.0	34.0	17.5	14.0	PF 1/2
DCM-14S-03G	14	27.0	24.0	22.0	36.0	18.5	12.0	PF 3/8	
DCM-14S-04G	14	27.0	27.0	26.0	37.0	19.0	14.0	PF 1/2	
<b>PB 400</b>	DCM-16S-03G	16	30.0	27.0	22.0	36.0	18.0	12.0	PF 3/8
	DCM-16S-04G	16	30.0	27.0	26.0	37.0	18.5	14.0	PF 1/2
	DCM-16S-06G	16	30.0	32.0	32.0	39.0	20.5	16.0	PF 3/4
	DCM-20S-04G	20	36.0	32.0	26.0	42.0	20.5	14.0	PF 1/2
	DCM-20S-06G	20	36.0	32.0	32.0	42.0	20.5	16.0	PF 3/4
	DCM-25S-06G	25	46.0	41.0	32.0	47.0	23.0	16.0	PF 3/4
DCM-25S-08G	25	46.0	41.0	39.0	47.0	23.0	18.0	PF 1	
<b>PB 250</b>	DCM-30S-08G	30	50.0	46.0	39.0	50.0	23.5	18.0	PF 1
	DCM-30S-10G	30	50.0	50.0	49.0	50.0	23.5	20.0	PF 1 1/4
	DCM-38S-10G	38	60.0	55.0	49.0	57.0	26.0	20.0	PF 1 1/4
DCM-38S-12G	38	60.0	55.0	55.0	57.0	26.0	22.0	PF 1 1/2	

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

**DCM-R (BSP Tapered)****Male Connector****BSP Tapered Thread Type**

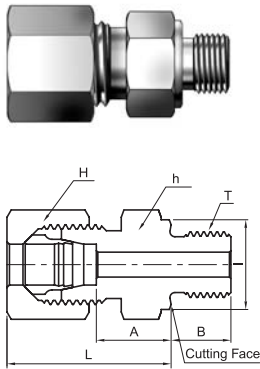
Series	Part Number	Tube O.D.	Dimension (mm)					
			H	h	L	A	B	T
<b>LL</b> <b>Very Light</b> <b>PN 100</b>	DCM-04LL-01R	4	10.0	11.0	26.0	16.0	8.0	PT 1/8
	DCM-06LL-01R	6	12.0	11.0	26.0	14.5	8.0	PT 1/8
	DCM-08LL-01R	8	14.0	12.0	28.0	16.5	8.0	PT 1/8
	DCM-08LL-02R	8	14.0	14.0	32.0	20.5	12.0	PT 1/4
	DCM-10LL-02R	10	17.0	14.0	32.0	20.5	12.0	PT 1/4
	DCM-12LL-02R	12	19.0	17.0	32.0	20.0	12.0	PT 1/4
<b>L</b> <b>Light</b> <b>PN 315</b>	DCM-12LL-03R	12	19.0	17.0	32.0	20.0	12.0	PT 3/8
	DCM-06L-01R	6	14.0	12.0	30.0	15.0	8.0	PT 1/8
	DCM-08L-02R	8	17.0	17.0	35.0	20.0	12.0	PT 1/4
	DCM-10L-02R	10	19.0	17.0	36.0	21.0	12.0	PT 1/4
	DCM-12L-02R	12	22.0	19.0	37.0	22.0	12.0	PT 1/4
	DCM-12L-03R	12	22.0	19.0	37.0	22.0	12.0	PT 3/8
	DCM-12L-04R	12	22.0	24.0	39.0	24.0	14.0	PT 1/2
	DCM-15L-03R	15	27.0	24.0	38.0	23.0	12.0	PT 3/8
DCM-15L-04R	15	27.0	24.0	40.0	25.0	14.0	PT 1/2	
DCM-18L-04R	18	32.0	27.0	41.0	25.5	14.0	PT 1/2	
<b>PN 160</b>	DCM-22L-06R	22	36.0	32.0	46.0	29.5	16.0	PT 3/4

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DCM-M (Metric Parallel)

## Male Connector

### Metric Parallel Thread Type

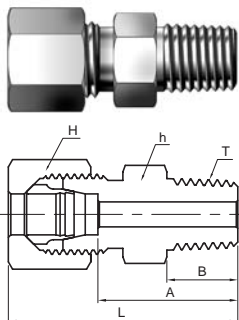


Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	I	L	A	B	T
<b>L Light</b> <b>PN 315</b>	DCM-06L-M10	6	14.0	14.0	14.0	23.0	8.5	8.0	M10 × 1.0
	DCM-08L-M12	8	17.0	17.0	17.0	25.0	10.0	12.0	M12 × 1.5
	DCM-08L-M18	8	17.0	24.0	23.0	26.0	11.5	12.0	M18 × 1.5
	DCM-10L-M14	10	19.0	19.0	19.0	26.0	11.0	12.0	M14 × 1.5
	DCM-10L-M16	10	19.0	22.0	21.0	27.0	12.0	12.0	M16 × 1.5
	DCM-10L-M18	10	19.0	24.0	23.0	27.0	12.5	12.0	M18 × 1.5
	DCM-10L-M22	10	19.0	27.0	27.0	29.0	14.0	14.0	M22 × 1.5
	DCM-12L-M14	12	22.0	19.0	19.0	26.0	11.0	12.0	M14 × 1.5
	DCM-12L-M16	12	22.0	22.0	21.0	27.0	12.5	12.0	M16 × 1.5
	DCM-12L-M18	12	22.0	24.0	23.0	27.0	12.5	12.0	M18 × 1.5
	DCM-12L-M22	12	22.0	27.0	27.0	29.0	14.0	14.0	M22 × 1.5
	DCM-15L-M16	15	27.0	24.0	21.0	28.0	13.0	12.0	M16 × 1.5
	DCM-15L-M18	15	27.0	24.0	23.0	29.0	13.5	12.0	M18 × 1.5
	DCM-15L-M22	15	27.0	27.0	27.0	30.0	15.0	14.0	M22 × 1.5
	DCM-18L-M18	18	32.0	27.0	23.0	30.0	14.0	12.0	M18 × 1.5
DCM-18L-M22	18	32.0	27.0	27.0	31.0	14.5	14.0	M22 × 1.5	
<b>PN 160</b>	DCM-22L-M22	22	36.0	32.0	27.0	33.0	16.5	14.0	M22 × 1.5
	DCM-22L-M26	22	36.0	32.0	31.0	33.0	16.5	16.0	M26 × 1.5
	DCM-28L-M33	28	41.0	41.0	39.0	34.0	17.5	18.0	M33 × 2.0
	DCM-35L-M42	35	50.0	50.0	49.0	39.0	17.5	20.0	M42 × 2.0
	DCM-42L-M48	42	60.0	55.0	55.0	42.0	19.0	22.0	M48 × 2.0
<b>S Heavy</b> <b>PB 630</b>	DCM-06S-M12	6	17.0	17.0	17.0	28.0	13.0	12.0	M12 × 1.5
	DCM-08S-M14	8	19.0	19.0	19.0	30.0	15.0	12.0	M14 × 1.5
	DCM-10S-M16	10	22.0	22.0	21.0	31.0	15.0	12.0	M16 × 1.5
	DCM-12S-M18	12	24.0	24.0	23.0	33.0	17.0	12.0	M18 × 1.5
	DCM-12S-M22	12	24.0	27.0	27.0	34.0	17.5	14.0	M22 × 1.5
	DCM-14S-M20	14	27.0	27.0	25.0	37.0	19.0	14.0	M20 × 1.5
<b>PB 400</b>	DCM-16S-M18	16	30.0	27.0	23.0	36.0	18.0	12.0	M18 × 1.5
	DCM-16S-M22	16	30.0	27.0	27.0	37.0	18.5	14.0	M22 × 1.5
	DCM-20S-M27	20	36.0	32.0	32.0	42.0	20.5	16.0	M27 × 2.0
<b>PB 250</b>	DCM-25S-M33	25	46.0	41.0	39.0	47.0	23.0	18.0	M33 × 2.0
	DCM-30S-M42	30	50.0	50.0	49.0	50.0	23.5	20.0	M42 × 2.0
	DCM-38S-M48	38	60.0	55.0	55.0	57.0	26.0	22.0	M48 × 2.0

# DCM-MK (Metric Tapered)

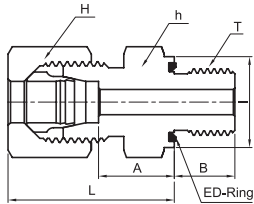
## Male Connector

### Metric Tapered Thread Type



Series	Part Number	Tube O.D.	Dimension (mm)					
			H	h	L	A	B	T
<b>LL Very Light</b> <b>PN 100</b>	DCM-04LL-M06K	4	10	9	26	16	8	M6 × 1keg
	DCM-04LL-M08K	4	10	10	26	16	8	M8 × 1keg
	DCM-06LL-M10K	6	12	11	26	14.5	8	M10 × 1keg
	DCM-08LL-M10K	8	14	12	28	16.5	8	M10 × 1keg

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

**DCM-GED (BSP Parallel with ED-Ring)****Male Connector with ED-Ring****BSP Parallel Thread Type**

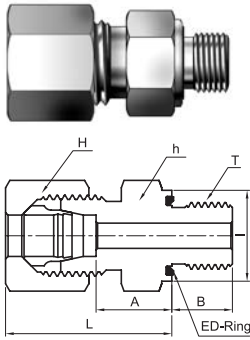
Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	I	L	A	B	T
<b>L Light PN 315</b>	DCM-06L-01GED	6	14.0	14.0	14.0	23.0	8.5	8.0	PF 1/8
	DCM-06L-02GED	6	14.0	19.0	19.0	25.0	10.0	12.0	PF 1/4
	DCM-08L-01GED	8	17.0	14.0	14.0	24.0	9.5	8.0	PF 1/8
	DCM-08L-02GED	8	17.0	19.0	19.0	25.0	10.0	12.0	PF 1/4
	DCM-08L-03GED	8	17.0	22.0	22.0	26.0	11.5	12.0	PF 3/8
	DCM-10L-02GED	10	19.0	19.0	19.0	26.0	11.0	12.0	PF 1/4
	DCM-10L-03GED	10	19.0	22.0	22.0	27.0	12.5	12.0	PF 3/8
	DCM-10L-04GED	10	19.0	27.0	27.0	28.0	13.0	14.0	PF 1/2
	DCM-12L-02GED	12	22.0	19.0	19.0	27.0	12.0	12.0	PF 1/4
	DCM-12L-03GED	12	22.0	22.0	22.0	27.0	12.5	12.0	PF 3/8
	DCM-12L-04GED	12	22.0	27.0	27.0	28.0	13.0	14.0	PF 1/2
	DCM-15L-03GED	15	27.0	24.0	22.0	29.0	13.5	12.0	PF 3/8
	DCM-15L-04GED	15	27.0	27.0	27.0	29.0	14.0	14.0	PF 1/2
	DCM-18L-04GED	18	32.0	27.0	27.0	31.0	14.5	14.0	PF 1/2
DCM-18L-06GED	18	32.0	32.0	32.0	31.0	14.5	16.0	PF 3/4	
<b>PN 160</b>	DCM-22L-06GED	22	36.0	32.0	32.0	33.0	16.5	16.0	PF 3/4
	DCM-28L-08GED	28	41.0	41.0	40.0	34.0	17.5	18.0	PF 1
	DCM-35L-10GED	35	50.0	50.0	50.0	39.0	17.5	20.0	PF 1 1/4
	DCM-42L-12GED	42	60.0	55.0	55.0	42.0	19.0	22.0	PF 1 1/2
<b>S Heavy PB 630</b>	DCM-06S-02GED	6	17.0	19.0	19.0	28.0	13.0	12.0	PF 1/4
	DCM-08S-02GED	8	19.0	19.0	19.0	30.0	15.0	12.0	PF 1/4
	DCM-08S-03GED	8	19.0	22.0	22.0	30.0	15.5	12.0	PF 3/8
	DCM-10S-02GED	10	22.0	19.0	19.0	31.0	14.5	12.0	PF 1/4
	DCM-10S-03GED	10	22.0	22.0	22.0	31.0	15.0	12.0	PF 3/8
	DCM-10S-04GED	10	22.0	27.0	27.0	34.0	17.5	14.0	PF 1/2
	DCM-12S-02GED	12	24.0	22.0	19.0	33.0	16.5	12.0	PF 1/4
	DCM-12S-03GED	12	24.0	22.0	22.0	33.0	17.0	12.0	PF 3/8
	DCM-12S-04GED	12	24.0	27.0	32.0	34.0	17.5	14.0	PF 1/2
DCM-14S-04GED	14	27.0	27.0	27.0	37.0	19.0	14.0	PF 1/2	
<b>PN 400</b>	DCM-16S-03GED	16	30.0	27.0	22.0	36.0	18.0	12.0	PF 3/8
	DCM-16S-04GED	16	30.0	27.0	27.0	37.0	18.5	14.0	PF 1/2
	DCM-16S-06GED	16	30.0	32.0	27.0	39.0	20.5	16.0	PF 3/4
	DCM-20S-06GED	20	36.0	32.0	32.0	42.0	20.5	16.0	PF 3/4
	DCM-25S-04GED	25	46.0	41.0	27.0	47.0	23.0	14.0	PF 1/2
	DCM-25S-06GED	25	46.0	41.0	32.0	47.0	23.0	16.0	PF 3/4
	DCM-25S-08GED	25	46.0	41.0	40.0	47.0	23.0	18.0	PF 1
DCM-30S-10GED	30	50.0	50.0	50.0	50.0	23.5	20.0	PF 1 1/4	
<b>PN 315</b>	DCM-38S-12GED	38	60.0	55.0	55.0	57.0	26.0	22.0	PF 1 1/2

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DCM-MED (Metric Parallel with ED-Ring)

## Male Connector with ED-Ring

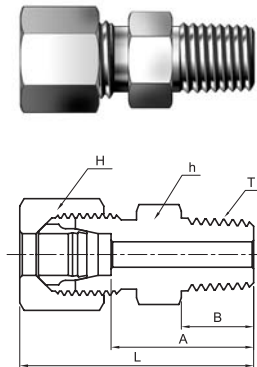
### Metric Parallel Thread Type



Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	I	L	A	B	T
<b>L Light PN315</b>	DCM-06L-M10ED	6	14.0	14.0	14.0	23.0	8.5	8.0	M10 × 1.0
	DCM-08L-M12ED	8	17.0	17.0	17.0	25.0	10.0	12.0	M12 × 1.5
	DCM-10L-M14ED	10	19.0	19.0	19.0	26.0	11.0	12.0	M14 × 1.5
	DCM-12L-M16ED	12	22.0	22.0	22.0	27.0	12.5	12.0	M16 × 1.5
	DCM-12L-M18ED	12	22.0	24.0	24.0	27.0	12.5	12.0	M18 × 1.5
	DCM-12L-M22ED	12	22.0	27.0	27.0	29.0	14.0	14.0	M22 × 1.5
	DCM-15L-M18ED	15	27.0	24.0	24.0	29.0	13.5	12.0	M18 × 1.5
	DCM-15L-M22ED	15	27.0	27.0	27.0	30.0	15.0	14.0	M22 × 1.5
DCM-18L-M22ED	18	32.0	27.0	27.0	31.0	14.5	14.0	M22 × 1.5	
<b>PN 160</b>	DCM-22L-M26ED	22	36.0	32.0	32.0	33.0	16.5	16.0	M26 × 1.5
	DCM-28L-M33ED	28	41.0	41.0	40.0	34.0	17.5	18.0	M33 × 2.0
	DCM-35L-M42ED	35	50.0	50.0	50.0	39.0	17.5	20.0	M42 × 2.0
	DCM-42L-M48ED	42	60.0	55.0	55.0	42.0	19.0	22.0	M48 × 2.0
<b>S Heavy PB 630</b>	DCM-06S-M12ED	6	17.0	17.0	17.0	28.0	13.0	12.0	M12 × 1.5
	DCM-08S-M14ED	8	19.0	19.0	19.0	30.0	15.0	12.0	M14 × 1.5
	DCM-10S-M16ED	10	22.0	22.0	22.0	31.0	15.0	12.0	M16 × 1.5
	DCM-12S-M18ED	12	24.0	24.0	24.0	33.0	17.0	12.0	M18 × 1.5
	DCM-14S-M20ED	14	27.0	27.0	26.0	37.0	19.0	14.0	M20 × 1.5
<b>PN 400</b>	DCM-16S-M22ED	16	30.0	27.0	27.0	37.0	18.5	14.0	M22 × 1.5
	DCM-20S-M27ED	20	36.0	32.0	32.0	42.0	20.5	16.0	M27 × 2.0
	DCM-25S-M33ED	25	46.0	41.0	40.0	47.0	23.0	18.0	M33 × 2.0
	DCM-30S-M42ED	30	50.0	50.0	50.0	50.0	23.5	20.0	M42 × 2.0
<b>PN 315</b>	DCM-38S-M48ED	38	60.0	55.0	55.0	57.0	26.0	22.0	M48 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.



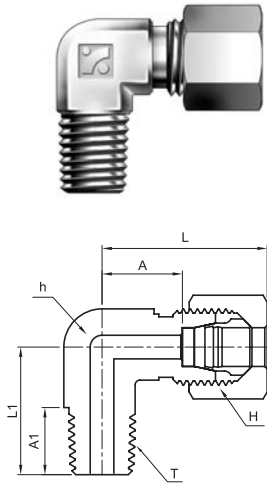
**DCM-N (NPT Thread)****Male Connector****NPT Thread Type**

Series	Part Number	Tube O.D.	Dimension (mm)					
			H	h	L	A	B	T
<b>LL Very Light PN 100</b>	DCM-04LL-01N	4	10.0	11.0	28.0	18.5	9.9	NPT 1/8
	DCM-06LL-01N	6	12.0	11.0	28.0	16.5	9.9	NPT 1/8
	DCM-08LL-01N	8	14.0	12.0	30.0	18.5	9.9	NPT 1/8
<b>L Light PN 315</b>	DCM-06L-01N	6	14.0	12.0	32.0	17.0	9.9	NPT 1/8
	DCM-06L-02N	6	14.0	17.0	38.0	23.0	14.2	NPT 1/4
	DCM-08L-02N	8	17.0	17.0	38.0	23.0	14.2	NPT 1/4
	DCM-10L-02N	10	19.0	17.0	39.0	24.0	14.2	NPT 1/4
	DCM-10L-03N	10	19.0	19.0	40.0	25.0	14.2	NPT 3/8
	DCM-12L-02N	12	22.0	19.0	40.0	25.0	14.2	NPT 1/4
	DCM-12L-03N	12	22.0	19.0	40.0	25.0	14.2	NPT 3/8
	DCM-12L-04N	12	22.0	22.0	45.0	30.0	19.1	NPT 1/2
	DCM-15L-04N	15	27.0	24.0	46.0	31.0	19.1	NPT 1/2
DCM-18L-04N	18	32.0	27.0	48.0	31.5	19.1	NPT 1/2	
<b>PN 160</b>	DCM-22L-06N	22	36.0	32.0	50.0	33.5	19.1	NPT 3/4
	DCM-28L-08N	28	41.0	41.0	56.0	39.5	23.9	NPT 1
	DCM-35L-10N	35	50.0	46.0	62.0	40.5	23.9	NPT 1 1/4
	DCM-42L-12N	42	60.0	55.0	65.0	42.0	25.4	NPT 1 1/2
<b>S Heavy PN 630</b>	DCM-06S-02N	6	17.0	17.0	43.0	28.0	14.2	NPT 1/4
	DCM-08S-02N	8	19.0	17.0	43.0	28.0	14.2	NPT 1/4
	DCM-10S-02N	10	22.0	19.0	44.0	27.5	14.2	NPT 1/4
	DCM-10S-03N	10	22.0	19.0	44.0	27.5	14.2	NPT 3/8
	DCM-12S-02N	12	24.0	22.0	46.0	29.5	14.2	NPT 1/4
	DCM-12S-03N	12	24.0	22.0	46.0	29.5	14.2	NPT 3/8
	DCM-12S-04N	12	24.0	22.0	51.0	34.5	19.1	NPT 1/2
DCM-14S-04N	14	27.0	24.0	54.0	36.0	19.1	NPT 1/2	
<b>PN 400</b>	DCM-16S-04N	16	30.0	27.0	54.0	35.5	19.1	NPT 1/2
	DCM-20S-06N	20	36.0	32.0	59.0	37.5	19.1	NPT 3/4
	DCM-25S-08N	25	46.0	41.0	69.0	45.0	23.9	NPT 1
	DCM-30S-10N	30	50.0	46.0	73.0	46.5	23.9	NPT 1 1/4
<b>PN 315</b>	DCM-38S-12N	38	60.0	55.0	80.0	49.0	25.4	NPT 1 1/2

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DME-R/MK (BSP Tapered/Metric Tapered)

## Male Elbow



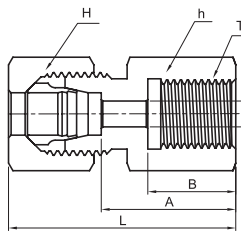
### BSP Tapered Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	L	L1	A	A1	T
<b>LL Very Light PN 100</b>	DME-04LL-01R	4.0	10.0	9.0	21.0	17.0	11.0	10.0	PT 1/8
	DME-06LL-01R	6.0	12.0	9.0	21.0	17.0	9.5	10.0	PT 1/8
	DME-08LL-01R	8.0	14.0	12.0	23.0	20.0	11.5	10.0	PT 1/8
	DME-10LL-02R	10.0	17.0	14.0	24.0	23.0	12.5	14.0	PT 1/4
	DME-12LL-02R	12.0	19.0	17.0	25.0	23.0	13.0	14.0	PT 1/4
<b>L Light PN 315</b>	DME-06L-01R	6.0	14.0	12.0	27.0	20.0	12.0	10.0	PT 1/8
	DME-08L-02R	8.0	17.0	12.0	29.0	26.0	14.0	14.0	PT 1/4
	DME-10L-02R	10.0	19.0	14.0	30.0	27.0	15.0	14.0	PT 1/4
	DME-12L-03R	12.0	22.0	17.0	32.0	28.0	17.0	15.0	PT 3/8
	DME-15L-04R	15.0	27.0	19.0	36.0	34.0	21.0	19.0	PT 1/2
DME-18L-04R	18.0	32.0	24.0	40.0	36.0	23.5	19.0	PT 1/2	
<b>S Heavy PN 400</b>	DME-06S-02R	6.0	17.0	12.0	31.0	26.0	16.0	14.0	PT 1/4
	DME-08S-02R	8.0	19.0	14.0	32.0	27.0	17.0	14.0	PT 1/4
	DME-10S-03R	10.0	22.0	17.0	34.0	28.0	17.5	15.0	PT 3/8
	DME-12S-03R	12.0	24.0	17.0	38.0	28.0	21.5	15.0	PT 3/8
	DME-14S-04R	14.0	27.0	19.0	40.0	34.0	22.0	19.0	PT 1/2
DME-16S-04R	16.0	30.0	24.0	43.0	36.0	24.5	19.0	PT 1/2	

### Metric Tapered Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	L	L1	A	A1	T
<b>LL Very Light PN 100</b>	DME-04LL-M08K	4	10.0	9.0	21.0	17.0	11.0	8.0	M8 × 1.0Keg
	DME-06LL-M10K	6	12.0	9.0	21.0	17.0	9.5	8.0	M10 × 1.0Keg
	DME-08LL-M10K	8	14.0	12.0	23.0	20.0	11.5	8.0	M10 × 1.0Keg
<b>L Light PN 315</b>	DME-06L-M10K	6	14.0	12.0	27.0	20.0	12.0	8.0	M10 × 1.0Keg
	DME-08L-M12K	8	17.0	12.0	29.0	26.0	14.0	12.0	M12 × 1.5Keg
	DME-10L-M14K	10	19.0	14.0	30.0	27.0	15.0	12.0	M14 × 1.5Keg
	DME-12L-M16K	12	22.0	17.0	32.0	28.0	17.0	14.0	M16 × 1.5Keg
	DME-15L-M18K	15	27.0	19.0	36.0	34.0	21.0	14.0	M18 × 1.5Keg
DME-18L-M22K	18	32.0	24.0	40.0	36.0	23.5	17.0	M22 × 1.5Keg	
<b>S Heavy PN 400</b>	DME-06S-M12K	6	17.0	12.0	31.0	26.0	16.0	12.0	M12 × 1.5Keg
	DME-08S-M14K	8	19.0	14.0	32.0	27.0	17.0	12.0	M14 × 1.5Keg
	DME-10S-M16K	10	22.0	17.0	34.0	28.0	17.5	12.0	M16 × 1.5Keg
	DME-12S-M18K	12	24.0	17.0	38.0	28.0	21.5	12.0	M18 × 1.5Keg
	DME-14S-M20K	14	27.0	19.0	40.0	32.0	22.0	14.0	M20 × 1.5Keg
DME-16S-M22K	16	30.0	24.0	43.0	32.0	24.5	17.0	M22 × 1.5Keg	

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

**DCF-G/M (BSP Parallel/Metric Parallel)****Female Connector****BSP Parallel Thread Type**

Series	Part Number	Tube O.D.	Dimension (mm)						
			d	H	h	L	A	B	T
<b>L Light PN 315</b>	DCF-06L-01G	6	4.0	14.0	14.0	34.0	19.0	12.0	PF 1/8
	DCF-08L-02G	8	6.0	17.0	19.0	39.0	24.0	17.0	PF 1/4
	DCF-08L-03G	8	6.0	17.0	24.0	40.0	25.0	17.0	PF 3/8
	DCF-08L-04G	8	6.0	17.0	27.0	44.0	29.0	20.0	PF 1/2
	DCF-10L-02G	10	8.0	19.0	19.0	40.0	25.0	17.0	PF 1/4
	DCF-10L-03G	10	8.0	19.0	24.0	41.0	26.0	17.0	PF 3/8
	DCF-10L-04G	10	8.0	19.0	27.0	45.0	30.0	20.0	PF 1/2
	DCF-12L-03G	12	10.0	22.0	24.0	41.0	26.0	17.0	PF 3/8
	DCF-12L-04G	12	10.0	22.0	27.0	45.0	30.0	20.0	PF 1/2
	DCF-15L-04G	15	12.0	27.0	27.0	46.0	31.0	20.0	PF 1/2
DCF-18L-04G	18	15.0	32.0	27.0	47.0	30.5	20.0	PF 1/2	
<b>PB 160</b>	DCF-22L-06G	22	19.0	36.0	36.0	52.0	35.5	22.0	PF 3/4
	DCF-28L-08G	28	24.0	41.0	41.0	55.0	38.0	24.5	PF 1
	DCF-35L-10G	35	30.0	50.0	55.0	63.0	41.0	26.5	PF 1 1/4
	DCF-42L-12G	42	36.0	60.0	60.0	65.0	42.5	28.5	PF 1 1/2
<b>S Heavy PB 630</b>	DCF-06S-02G	6	4.0	17.0	19.0	41.0	26.0	17.0	PF 1/4
	DCF-08S-02G	8	5.0	19.0	19.0	41.0	26.0	17.0	PF 1/4
	DCF-10S-03G	10	7.0	22.0	24.0	43.0	26.5	17.0	PF 3/8
	DCF-12S-03G	12	8.0	24.0	24.0	43.0	26.5	17.0	PF 3/8
DCF-14S-04G	14	10.0	27.0	30.0	50.0	32.0	20.0	PF 1/2	
<b>PB 400</b>	DCF-16S-04G	16	12.0	30.0	30.0	50.0	31.5	20.0	PF 1/2
	DCF-20S-06G	20	16.0	36.0	36.0	56.0	34.5	22.0	PF 3/4
	DCF-25S-08G	25	20.0	46.0	41.0	62.0	37.5	24.5	PF 1
DCF-30S-10G	30	25.0	50.0	55.0	69.0	42.0	26.5	PF 1 1/4	
<b>PB 315</b>	DCF-38S-12G	38	32.0	60.0	60.0	74.0	43.5	28.5	PF 1 1/2

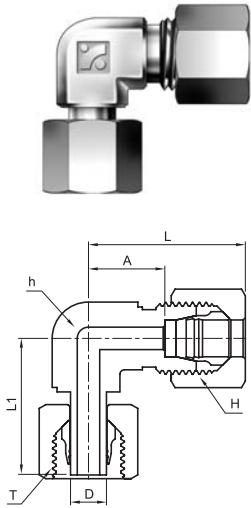
**Metric Parallel Thread Type**

Series	Part Number	Tube O.D.	Dimension (mm)						
			d	H	h	L	A	B	T
<b>L Light PB 315</b>	DCF-06L-M10	6	4.0	14.0	14.0	34.0	19.5	12.5	M10 × 1.0
	DCF-08L-M12	8	6.0	17.0	17.0	39.0	24.0	17.0	M12 × 1.5
	DCF-10L-M14	10	8.0	19.0	19.0	40.0	25.0	17.0	M14 × 1.5
	DCF-12L-M16	12	10.0	22.0	22.0	41.0	26.0	17.0	M16 × 1.5
	DCF-15L-M18	15	12.0	27.0	24.0	43.0	28.0	17.0	M18 × 1.5
	DCF-18L-M22	18	15.0	32.0	30.0	46.0	29.5	19.0	M22 × 1.5
<b>PB 160</b>	DCF-22L-M26	22	19.0	36.0	32.0	51.0	34.5	21.0	M26 × 1.5
	DCF-28L-M33	28	24.0	41.0	41.0	54.0	37.5	24.0	M33 × 2.0
	DCF-35L-M42	35	30.0	50.0	55.0	62.0	40.5	26.0	M42 × 2.0
	DCF-42L-M48	42	36.0	60.0	60.0	65.0	42.0	28.0	M48 × 2.0
<b>S Heavy PB 630</b>	DCF-06S-M12	6	4.0	17.0	17.0	41.0	26.0	17.0	M12 × 1.5
	DCF-08S-M14	8	5.0	19.0	19.0	41.0	26.0	17.0	M14 × 1.5
	DCF-10S-M16	10	7.0	22.0	22.0	43.0	26.5	17.0	M16 × 1.5
	DCF-12S-M18	12	8.0	24.0	24.0	44.0	27.5	17.0	M18 × 1.5
	DCF-14S-M20	14	10.0	27.0	27.0	49.0	31.0	19.0	M20 × 1.5
<b>PB 400</b>	DCF-16L-M22	16	12.0	30.0	30.0	49.0	30.5	19.0	M22 × 1.5
	DCF-20L-M27	20	16.0	36.0	36.0	56.0	34.5	22.0	M27 × 2.0
	DCF-25L-M33	25	20.0	46.0	41.0	61.0	37.0	24.0	M33 × 2.0
DCF-30L-M42	30	25.0	50.0	55.0	68.0	41.5	26.0	M42 × 2.0	
<b>PB 315</b>	DCF-38L-M48	38	32.0	60.0	60.0	74.0	43.0	28.0	M48 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DAE

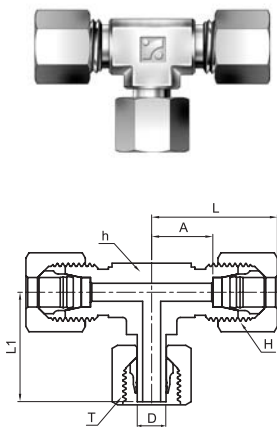
## Adjustable Elbow



Series	Part Number	Tube O.D.	Dimension (mm)						
			D	H	h	L	L1	A	T
<b>L Light</b> <b>PN 315</b>	DAE -06L	6	6	14.0	12.0	27.0	26.0	12.0	M12 × 1.5
	DAE -08L	8	8	17.0	12.0	29.0	27.5	14.0	M14 × 1.5
	DAE -10L	10	10	19.0	14.0	30.0	29.0	15.0	M16 × 1.5
	DAE -12L	12	12	22.0	17.0	32.0	29.5	17.0	M18 × 1.5
	DAE -15L	15	15	27.0	19.0	36.0	32.5	21.0	M22 × 1.5
	DAE -18L	18	18	32.0	24.0	40.0	35.5	23.5	M26 × 1.5
<b>PN 160</b>	DAE -22L	22	22	36.0	27.0	44.0	38.5	27.5	M30 × 2.0
	DAE -28L	28	28	41.0	36.0	47.0	41.5	30.5	M36 × 2.0
	DAE -35L	35	35	50.0	41.0	56.0	51.0	34.5	M45 × 2.0
	DAE -42L	42	42	60.0	50.0	63.0	56.0	40.0	M52 × 2.0
<b>S Heavy</b> <b>PN 630</b>	DAE -06S	6	6	17.0	12.0	31.0	27.0	16.0	M14 × 1.5
	DAE -08S	8	8	19.0	14.0	32.0	27.5	17.0	M16 × 1.5
	DAE -10S	10	10	22.0	17.0	34.0	30.0	17.5	M18 × 1.5
	DAE -12S	12	12	24.0	17.0	38.0	31.0	21.5	M20 × 1.5
	DAE -14S	14	14	27.0	19.0	40.0	35.0	22.0	M22 × 1.5
<b>PN 400</b>	DAE -16S	16	16	30.0	24.0	43.0	40.0	24.5	M24 × 1.5
	DAE -20S	20	20	36.0	27.0	48.0	44.5	26.5	M30 × 2.0
	DAE -25S	25	25	46.0	36.0	54.0	50.0	30.0	M36 × 2.0
<b>PN 315</b>	DAE -30S	30	30	50.0	41.0	62.0	55.0	35.5	M42 × 2.0
	DAE -38S	38	38	60.0	50.0	72.0	63.0	41.0	M52 × 2.0

# DABT

## Adjustable Branch Tee

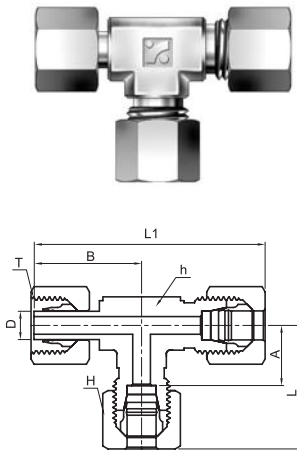


Series	Part Number	Tube O.D.	Dimension (mm)						
			D	H	h	L	L1	A	T
<b>L Light</b> <b>PN 315</b>	DABT -06L	6	6	14.0	12.0	27.0	26.0	12.0	M12 × 1.5
	DABT -08L	8	8	17.0	12.0	29.0	27.5	14.0	M14 × 1.5
	DABT -10L	10	10	19.0	14.0	30.0	29.0	15.0	M16 × 1.5
	DABT -12L	12	12	22.0	17.0	32.0	29.5	17.0	M18 × 1.5
	DABT -15L	15	15	27.0	19.0	36.0	32.5	21.0	M22 × 1.5
	DABT -18L	18	18	32.0	24.0	40.0	35.5	23.5	M26 × 1.5
<b>PN 160</b>	DABT -22L	22	22	36.0	27.0	44.0	38.5	27.5	M30 × 2.0
	DABT -28L	28	28	41.0	36.0	47.0	41.5	30.5	M36 × 2.0
	DABT -35L	35	35	50.0	41.0	56.0	51.0	34.5	M45 × 2.0
	DABT -42L	42	42	60.0	50.0	63.0	56.0	40.0	M52 × 2.0
<b>S Heavy</b> <b>PN 630</b>	DABT -06S	6	6	17.0	12.0	31.0	27.0	16.0	M14 × 1.5
	DABT -08S	8	8	19.0	14.0	32.0	27.5	17.0	M16 × 1.5
	DABT -10S	10	10	22.0	17.0	34.0	30.0	17.5	M18 × 1.5
	DABT -12S	12	12	24.0	17.0	38.0	31.0	21.5	M20 × 1.5
	DABT -14S	14	14	27.0	19.0	40.0	35.0	22.0	M22 × 1.5
<b>PN 400</b>	DABT -16S	16	16	30.0	24.0	43.0	40.0	24.5	M24 × 1.5
	DABT -20S	20	20	36.0	27.0	48.0	44.5	26.5	M30 × 2.0
	DABT -25S	25	25	46.0	36.0	54.0	50.0	30.0	M36 × 2.0
<b>PN 315</b>	DABT -30S	30	30	50.0	41.0	62.0	55.0	35.5	M42 × 2.0
	DABT -38S	38	38	60.0	50.0	72.0	63.0	41.0	M52 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DART

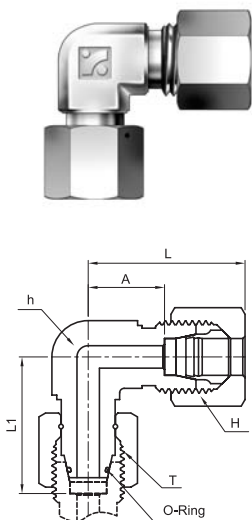
## Adjustable Run Tee



Series	Part Number	Tube O.D.	Dimension (mm)							
			D	H	h	L	L1	A	B	T
<b>L Light</b> <b>PN 315</b>	DART -06L	6	6	14.0	12.0	27.0	53.0	12.0	26.0	M12 × 1.5
	DART -08L	8	8	17.0	12.0	29.0	56.0	14.0	27.5	M14 × 1.5
	DART -10L	10	10	19.0	14.0	30.0	59.0	15.0	29.0	M16 × 1.5
	DART -12L	12	12	22.0	17.0	32.0	62.0	17.0	29.5	M18 × 1.5
	DART -15L	15	15	27.0	19.0	36.0	69.0	21.0	32.5	M22 × 1.5
DART -18L	18	18	32.0	24.0	40.0	75.0	23.5	35.5	M26 × 1.5	
<b>PN 160</b>	DART -22L	22	22	36.0	27.0	44.0	83.0	27.5	38.5	M30 × 2.0
	DART -28L	28	28	41.0	36.0	47.0	91.0	30.5	41.5	M36 × 2.0
	DART -35L	35	35	50.0	41.0	56.0	111.0	34.5	51.0	M45 × 2.0
	DART -42L	42	42	60.0	50.0	63.0	123.0	40.0	56.0	M52 × 2.0
<b>S Heavy</b> <b>PN 630</b>	DART -06S	6	6	17.0	12.0	31.0	58.0	16.0	27.0	M14 × 1.5
	DART -08S	8	8	19.0	14.0	32.0	61.0	17.0	27.5	M16 × 1.5
	DART -10S	10	10	22.0	17.0	34.0	66.0	17.5	30.0	M18 × 1.5
	DART -12S	12	12	24.0	17.0	38.0	71.0	21.5	31.0	M20 × 1.5
	DART -14S	14	14	27.0	19.0	40.0	75.0	22.0	35.0	M22 × 1.5
<b>PN 400</b>	DART -16S	16	16	30.0	24.0	43.0	79.0	24.5	40.0	M24 × 1.5
	DART -20S	20	20	36.0	27.0	48.0	93.0	26.5	44.5	M30 × 2.0
	DART -25S	25	25	46.0	36.0	54.0	105.0	30.0	50.0	M36 × 2.0
<b>PN 315</b>	DART -30S	30	30	50.0	41.0	62.0	119.0	35.5	55.0	M42 × 2.0
	DART -38S	38	38	60.0	50.0	72.0	138.0	41.0	63.0	M52 × 2.0

# DSE

## Swivel Adjustable Elbow

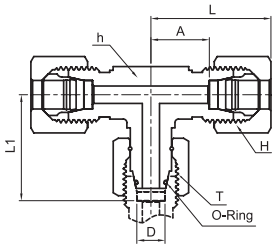


Series	Part Number	Tube O.D.	Dimension (mm)					
			H	h	L	L1	A	T
<b>L Light</b> <b>PN 315</b>	DSE -06L	6	14.0	12.0	27.0	26.0	12.0	M12 × 1.5
	DSE -08L	8	17.0	12.0	29.0	27.5	14.0	M14 × 1.5
	DSE -10L	10	19.0	14.0	30.0	29.0	15.0	M16 × 1.5
	DSE -12L	12	22.0	17.0	32.0	29.5	17.0	M18 × 1.5
	DSE -15L	15	27.0	19.0	36.0	32.5	21.0	M22 × 1.5
	DSE -18L	18	32.0	24.0	40.0	35.5	23.5	M26 × 1.5
<b>PN 160</b>	DSE -22L	22	36.0	27.0	44.0	38.5	27.5	M30 × 2.0
	DSE -28L	28	41.0	36.0	47.0	41.5	30.5	M36 × 2.0
	DSE -35L	35	50.0	41.0	56.0	51.0	34.5	M45 × 2.0
	DSE -42L	42	60.0	50.0	63.0	56.0	40.0	M52 × 2.0
<b>S Heavy</b> <b>PN 630</b>	DSE -06S	6	17.0	12.0	31.0	27.0	16.0	M14 × 1.5
	DSE -08S	8	19.0	14.0	32.0	27.5	17.0	M16 × 1.5
	DSE -10S	10	22.0	17.0	34.0	30.0	17.5	M18 × 1.5
	DSE -12S	12	24.0	17.0	38.0	31.0	21.5	M20 × 1.5
	DSE -14S	14	27.0	19.0	40.0	35.0	22.0	M22 × 1.5
<b>PN 400</b>	DSE -16S	16	30.0	24.0	43.0	36.5	24.5	M24 × 1.5
	DSE -20S	20	36.0	27.0	48.0	44.5	26.5	M30 × 2.0
	DSE -25S	25	46.0	36.0	54.0	50.0	30.0	M36 × 2.0
<b>PN 315</b>	DSE -30S	30	50.0	41.0	62.0	55.0	35.5	M42 × 2.0
	DSE -38S	38	60.0	50.0	72.0	63.0	41.0	M52 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DSBT

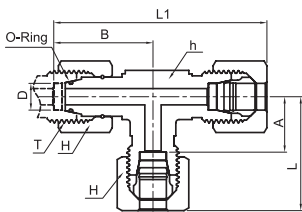
## Swivel Adjustable Branch Tee



Series	Part Number	Tube O.D. (D)	Dimension (mm)					
			H	h	L	L1	A	T
<b>L Light</b> <b>PN 315</b>	DSBT-06L	6	14.0	12.0	27.0	26.0	12.0	M12 × 1.5
	DSBT-08L	8	17.0	12.0	29.0	27.5	14.0	M14 × 1.5
	DSBT-10L	10	19.0	14.0	30.0	29.0	15.0	M16 × 1.5
	DSBT-12L	12	22.0	17.0	32.0	29.5	17.0	M18 × 1.5
	DSBT-15L	15	27.0	19.0	36.0	32.5	21.0	M22 × 1.5
	DSBT-18L	18	32.0	24.0	40.0	35.5	23.5	M26 × 1.5
<b>PN 160</b>	DSBT-22L	22	36.0	27.0	44.0	38.5	27.5	M30 × 2.0
	DSBT-28L	28	41.0	36.0	47.0	41.5	30.5	M36 × 2.0
	DSBT-35L	35	50.0	41.0	56.0	51.0	34.5	M45 × 2.0
	DSBT-42L	42	60.0	50.0	63.0	56.0	40.0	M52 × 2.0
<b>S Heavy</b> <b>PN 630</b>	DSBT-06S	6	17.0	12.0	31.0	27.0	16.0	M14 × 1.5
	DSBT-08S	8	19.0	14.0	32.0	27.5	17.0	M16 × 1.5
	DSBT-10S	10	22.0	17.0	34.0	30.0	17.5	M18 × 1.5
	DSBT-12S	12	24.0	17.0	38.0	31.0	21.5	M20 × 1.5
	DSBT-14S	14	27.0	19.0	40.0	35.0	22.0	M22 × 1.5
<b>PN 400</b>	DSBT-16S	16	30.0	24.0	43.0	36.5	24.5	M24 × 1.5
	DSBT-20S	20	36.0	27.0	48.0	44.5	26.5	M30 × 2.0
	DSBT-25S	25	46.0	36.0	54.0	50.0	30.0	M36 × 2.0
<b>PN 315</b>	DSBT-30S	30	50.0	41.0	62.0	55.0	35.5	M42 × 2.0
	DSBT-38S	38	60.0	50.0	72.0	63.0	41.0	M52 × 2.0

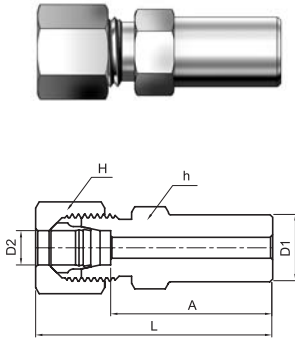
# DSRT

## Swivel Adjustable Run Tee



Series	Part Number	Tube O.D. (D)	Dimension (mm)						
			H	h	L	L1	A	B	T
<b>L Light</b> <b>PN 315</b>	DSRT-06L	6	14.0	12.0	27.0	53.0	12.0	26.0	M12 × 1.5
	DSRT-08L	8	17.0	12.0	29.0	56.0	14.0	27.5	M14 × 1.5
	DSRT-10L	10	19.0	14.0	30.0	59.0	15.0	29.0	M16 × 1.5
	DSRT-12L	12	22.0	17.0	32.0	61.0	17.0	29.5	M18 × 1.5
	DSRT-15L	15	27.0	19.0	36.0	69.0	21.0	32.5	M22 × 1.5
	DSRT-18L	18	32.0	24.0	40.0	75.0	23.5	35.5	M26 × 1.5
<b>PN 160</b>	DSRT-22L	22	36.0	27.0	44.0	82.0	27.5	38.5	M30 × 2.0
	DSRT-28L	28	41.0	36.0	47.0	89.0	30.5	41.5	M36 × 2.0
	DSRT-35L	35	50.0	41.0	56.0	107.0	34.5	51.0	M45 × 2.0
	DSRT-42L	42	60.0	50.0	63.0	119.0	40.0	56.0	M52 × 2.0
<b>S Heavy</b> <b>PN 630</b>	DSRT-06S	6	17.0	12.0	31.0	58.0	16.0	27.0	M14 × 1.5
	DSRT-08S	8	19.0	14.0	32.0	59.0	17.0	27.5	M16 × 1.5
	DSRT-10S	10	22.0	17.0	34.0	64.0	17.5	30.0	M18 × 1.5
	DSRT-12S	12	24.0	17.0	38.0	69.0	21.5	31.0	M20 × 1.5
	DSRT-14S	14	27.0	19.0	40.0	75.0	22.0	35.0	M22 × 1.5
<b>PN 400</b>	DSRT-16S	16	30.0	24.0	43.0	79.0	24.5	36.5	M24 × 1.5
	DSRT-20S	20	36.0	27.0	48.0	93.0	26.5	44.5	M30 × 2.0
	DSRT-25S	25	46.0	36.0	54.0	104.0	30.0	50.0	M36 × 2.0
<b>PN 315</b>	DSRT-30S	30	50.0	41.0	62.0	117.0	35.5	55.0	M42 × 2.0
	DSRT-38S	38	60.0	50.0	72.0	135.0	41.0	63.0	M52 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

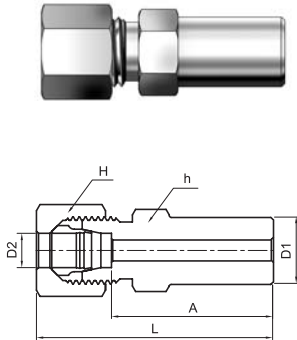
**DRD****Reducer**

Series	Part Number	Tube O.D.		Dimension (mm)			
		D1	D2	H	h	L	A
<b>L Light PN 315</b>	DRD-08L-06L	8	6	14.0	12.0	40.0	25.5
	DRD-10L-06L	10	6	14.0	12.0	42.0	27.5
	DRD-10L-08L	10	8	17.0	14.0	43.0	27.5
	DRD-12L-06L	12	6	14.0	14.0	42.0	27.5
	DRD-12L-08L	12	8	17.0	14.0	43.0	27.5
	DRD-12L-10L	12	10	19.0	17.0	44.0	28.5
	DRD-15L-06L	15	6	14.0	19.0	44.0	29.0
	DRD-15L-08L	15	8	17.0	19.0	44.0	29.0
	DRD-15L-10L	15	10	19.0	19.0	45.0	30.0
	DRD-15L-12L	15	12	22.0	19.0	45.0	30.0
	DRD-18L-06L	18	6	14.0	19.0	46.0	31.0
	DRD-18L-08L	18	8	17.0	19.0	46.0	31.0
	DRD-18L-10L	18	10	19.0	19.0	47.0	32.0
	DRD-18L-12L	18	12	22.0	19.0	47.0	32.0
	DRD-18L-15L	18	15	27.0	22.0	49.0	33.0
<b>PN 160</b>	DRD-22L-06L	22	6	14.0	24.0	48.0	33.0
	DRD-22L-08L	22	8	17.0	24.0	48.0	33.0
	DRD-22L-10L	22	10	19.0	24.0	49.0	34.0
	DRD-22L-12L	22	12	22.0	24.0	49.0	34.0
	DRD-22L-15L	22	15	27.0	24.0	50.0	35.0
	DRD-22L-18L	22	18	32.0	27.0	51.0	34.5
	DRD-28L-06L	28	6	14.0	30.0	48.0	33.0
	DRD-28L-08L	28	8	17.0	30.0	48.0	33.0
	DRD-28L-10L	28	10	19.0	30.0	49.0	34.0
	DRD-28L-12L	28	12	22.0	30.0	49.0	34.0
	DRD-28L-15L	28	15	27.0	30.0	50.0	35.0
	DRD-28L-18L	28	18	32.0	30.0	51.0	36.0
	DRD-28L-22L	28	22	36.0	32.0	53.0	36.5
	DRD-35L-06L	35	6	14.0	36.0	53.0	38.5
	DRD-35L-08L	35	8	17.0	36.0	53.0	38.5
	DRD-35L-10L	35	10	19.0	36.0	55.0	39.5
	DRD-35L-12L	35	12	22.0	36.0	55.0	39.5
	DRD-35L-15L	35	15	27.0	36.0	56.0	40.5
	DRD-35L-18L	35	18	32.0	36.0	56.0	40.0
	DRD-35L-22L	35	22	36.0	36.0	58.0	42.0
	DRD-35L-28L	35	28	41.0	36.0	59.0	42.0
	DRD-42L-06L	42	6	14.0	46.0	56.0	41.0
	DRD-42L-08L	42	8	17.0	46.0	56.0	41.0
	DRD-42L-10L	42	10	19.0	46.0	58.0	42.0
DRD-42L-12L	42	12	22.0	46.0	58.0	42.0	
DRD-42L-15L	42	15	27.0	46.0	60.0	43.0	
DRD-42L-18L	42	18	32.0	46.0	60.0	42.5	
DRD-42L-22L	42	22	36.0	46.0	62.0	44.5	
DRD-42L-28L	42	28	41.0	46.0	64.0	44.5	
DRD-42L-35L	42	35	50.0	46.0	67.0	43.5	

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DRD

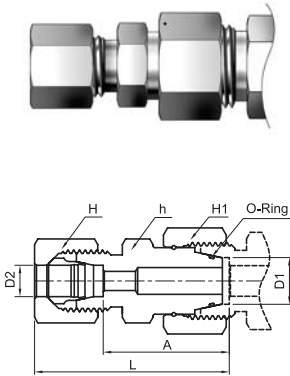
## Reducer



Series	Part Number	Tube O.D.		Dimension (mm)			
		D1	D2	H	h	L	A
<b>S Heavy PN 630</b>	DRD-08S-06S	8	6	17.0	14.0	43.0	28.0
	DRD-10S-06S	10	6	17.0	14.0	45.0	30.5
	DRD-10S-08S	10	8	19.0	17.0	45.0	30.5
	DRD-12S-06S	12	6	17.0	14.0	47.0	32.5
	DRD-12S-08S	12	8	19.0	17.0	47.0	32.5
	DRD-12S-10S	12	10	22.0	19.0	48.0	32.0
	DRD-14S-06S	14	6	17.0	17.0	51.0	36.5
	DRD-14S-08S	14	8	19.0	17.0	51.0	36.5
	DRD-14S-10S	14	10	22.0	19.0	52.0	36.0
	DRD-14S-12S	14	12	24.0	22.0	52.0	36.0
	DRD-16S-06S	16	6	17.0	17.0	53.0	38.5
	DRD-16S-08S	16	8	19.0	17.0	53.0	38.5
	DRD-16S-10S	16	10	22.0	19.0	54.0	38.0
	DRD-16S-12S	16	12	24.0	22.0	55.0	38.5
DRD-16S-14S	16	14	27.0	22.0	57.0	39.5	
<b>PN 400</b>	DRD-20S-06S	20	6	17.0	22.0	58.0	43.0
	DRD-20S-08S	20	8	19.0	22.0	58.0	43.0
	DRD-20S-10S	20	10	22.0	22.0	59.0	42.5
	DRD-20S-12S	20	12	24.0	22.0	59.0	42.5
	DRD-20S-14S	20	14	27.0	22.0	62.0	44.0
	DRD-20S-16S	20	16	30.0	24.0	62.0	43.5
	DRD-25S-06S	25	6	17.0	27.0	62.0	47.5
	DRD-25S-08S	25	8	19.0	27.0	62.0	47.5
	DRD-25S-10S	25	10	22.0	27.0	63.0	47.0
	DRD-25S-12S	25	12	24.0	27.0	63.0	47.0
	DRD-25S-14S	25	14	27.0	27.0	66.0	48.5
	DRD-25S-16S	25	16	30.0	27.0	66.0	48.0
	DRD-25S-20S	25	20	36.0	30.0	70.0	48.0
	DRD-30S-06S	30	6	17.0	32.0	67.0	52.0
	DRD-30S-08S	30	8	19.0	32.0	67.0	52.0
	DRD-30S-10S	30	10	22.0	32.0	68.0	51.5
	DRD-30S-12S	30	12	24.0	32.0	68.0	51.5
DRD-30S-14S	30	14	27.0	32.0	71.0	53.0	
DRD-30S-16S	30	16	30.0	32.0	71.0	52.5	
DRD-30S-20S	30	20	36.0	32.0	74.0	52.5	
DRD-30S-25S	30	25	46.0	36.0	77.0	53.0	
<b>PN 315</b>	DRD-38S-06S	38	6	17.0	41.0	72.0	57.0
	DRD-38S-08S	38	8	19.0	41.0	72.0	57.0
	DRD-38S-10S	38	10	22.0	41.0	73.0	56.5
	DRD-38S-12S	38	12	24.0	41.0	73.0	56.5
	DRD-38S-14S	38	14	27.0	41.0	76.0	58.0
	DRD-38S-16S	38	16	30.0	41.0	76.0	57.5
	DRD-38S-20S	38	20	36.0	41.0	79.0	57.5
	DRD-38S-25S	38	25	46.0	41.0	82.0	58.0
DRD-38S-30S	38	30	50.0	46.0	89.0	58.5	

All dimensions in millimeters. Dimensions given approximate length with tightened nut.



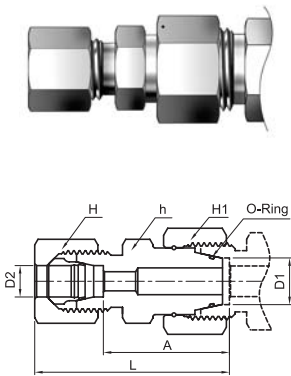
**DSRAP****Swivel Reducing Adaptor**

Series	Part Number	Tube O.D.		Dimension (mm)				
		D1	D2	H1	H	h	L	A
<b>L Light PN 315</b>	DSRAP-08L-06L	8	6	17.0	14.0	14.0	39.0	24.5
	DSRAP-10L-06L	10	6	19.0	14.0	17.0	39.5	24.5
	DSRAP-10L-08L	10	8	19.0	17.0	17.0	39.5	24.5
	DSRAP-12L-06L	12	6	22.0	14.0	17.0	40.0	25.0
	DSRAP-12L-08L	12	8	22.0	17.0	17.0	40.0	25.0
	DSRAP-12L-10L	12	10	22.0	19.0	17.0	41.0	26.0
	DSRAP-15L-06L	15	6	27.0	14.0	22.0	42.0	27.5
	DSRAP-15L-08L	15	8	27.0	17.0	22.0	42.0	27.5
	DSRAP-15L-10L	15	10	27.0	19.0	22.0	43.0	28.5
	DSRAP-15L-12L	15	12	27.0	22.0	22.0	43.0	28.5
	DSRAP-18L-06L	18	6	32.0	14.0	25.0	43.0	28.0
	DSRAP-18L-08L	18	8	32.0	17.0	25.0	43.0	28.0
	DSRAP-18L-10L	18	10	32.0	19.0	25.0	44.5	29.5
	DSRAP-18L-12L	18	12	32.0	22.0	25.0	44.5	29.5
	DSRAP-18L-15L	18	15	32.0	27.0	25.0	45.5	30.5
<b>PN 160</b>	DSRAP-22L-06L	22	6	36.0	14.0	28.5	47.0	32.0
	DSRAP-22L-08L	22	8	36.0	17.0	28.5	47.0	32.0
	DSRAP-22L-10L	22	10	36.0	19.0	28.5	48.0	33.0
	DSRAP-22L-12L	22	12	36.0	22.0	28.5	48.0	33.0
	DSRAP-22L-15L	22	15	36.0	27.0	28.5	49.0	34.0
	DSRAP-22L-18L	22	18	36.0	32.0	28.5	50.0	33.5
	DSRAP-28L-06L	28	6	41.0	14.0	36.0	49.0	34.0
	DSRAP-28L-08L	28	8	41.0	17.0	36.0	49.0	34.0
	DSRAP-28L-10L	28	10	41.0	19.0	36.0	50.0	35.0
	DSRAP-28L-12L	28	12	41.0	22.0	36.0	50.0	35.0
	DSRAP-28L-15L	28	15	41.0	27.0	36.0	51.0	36.0
	DSRAP-28L-18L	28	18	41.0	32.0	36.0	52.0	35.5
	DSRAP-28L-22L	28	22	41.0	36.0	36.0	54.0	37.5
	DSRAP-35L-06L	35	6	50.0	14.0	46.0	55.0	40.0
	DSRAP-35L-08L	35	8	50.0	17.0	46.0	55.0	40.0
	DSRAP-35L-10L	35	10	50.0	19.0	46.0	56.0	41.0
	DSRAP-35L-12L	35	12	50.0	22.0	46.0	56.0	41.0
	DSRAP-35L-15L	35	15	50.0	27.0	46.0	57.0	42.0
	DSRAP-35L-18L	35	18	50.0	32.0	46.0	58.0	41.5
	DSRAP-35L-22L	35	22	50.0	36.0	46.0	60.0	43.5
	DSRAP-35L-28L	35	28	50.0	41.0	46.0	60.0	43.5
	DSRAP-42L-06L	42	6	60.0	14.0	50.0	55.0	40.5
	DSRAP-42L-08L	42	8	60.0	17.0	50.0	55.0	40.5
	DSRAP-42L-10L	42	10	60.0	19.0	50.0	56.0	41.5
DSRAP-42L-12L	42	12	60.0	22.0	50.0	56.0	41.5	
DSRAP-42L-15L	42	15	60.0	27.0	50.0	58.0	42.5	
DSRAP-42L-18L	42	18	60.0	32.0	50.0	58.0	42.0	
DSRAP-42L-22L	42	22	60.0	36.0	50.0	60.0	44.0	
DSRAP-42L-28L	42	28	60.0	41.0	50.0	61.0	44.0	
DSRAP-42L-35L	42	35	60.0	50.0	50.0	65.0	43.0	

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

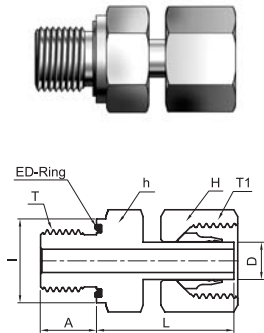
# DSRAP

## Swivel Reducing Adaptor



Series	Part Number	Tube O.D.		Dimension (mm)				
		D1	D2	H1	H	h	L	A
<b>S Heavy PN 630</b>	DSRAP-08S-06S	8	6	19.0	17.0	17.0	44.0	28.0
	DSRAP-10S-06S	10	6	22.0	17.0	17.0	44.0	29.5
	DSRAP-10S-08S	10	8	22.0	19.0	17.0	44.0	29.5
	DSRAP-12S-06S	12	6	24.0	17.0	19.0	45.0	30.0
	DSRAP-12S-08S	12	8	24.0	19.0	19.0	45.0	30.0
	DSRAP-12S-10S	12	10	24.0	22.0	19.0	46.0	29.5
	DSRAP-14S-06S	14	6	27.0	17.0	22.0	47.5	33.0
	DSRAP-14S-08S	14	8	27.0	19.0	22.0	47.5	33.0
	DSRAP-14S-10S	14	10	27.0	22.0	22.0	48.5	32.5
	DSRAP-14S-12S	14	12	27.0	24.0	22.0	48.5	32.5
	DSRAP-16S-06S	16	6	30.0	17.0	24.0	50.0	35.0
	DSRAP-16S-08S	16	8	30.0	19.0	24.0	50.0	35.0
	DSRAP-16S-10S	16	10	30.0	22.0	24.0	51.0	34.5
	DSRAP-16S-12S	16	12	30.0	24.0	24.0	51.0	34.5
DSRAP-16S-14S	16	14	30.0	27.0	24.0	54.0	36.0	
<b>PN 400</b>	DSRAP-20S-06S	20	6	36.0	17.0	28.5	54.0	39.0
	DSRAP-20S-08S	20	8	36.0	19.0	28.5	54.0	39.0
	DSRAP-20S-10S	20	10	36.0	22.0	28.5	55.0	38.5
	DSRAP-20S-12S	20	12	36.0	24.0	28.5	55.0	38.5
	DSRAP-20S-14S	20	14	36.0	27.0	28.5	58.0	40.0
	DSRAP-20S-16S	20	16	36.0	30.0	28.5	58.0	39.5
	DSRAP-25S-06S	25	6	46.0	17.0	36.0	58.0	43.5
	DSRAP-25S-08S	25	8	46.0	19.0	36.0	58.0	43.5
	DSRAP-25S-10S	25	10	46.0	22.0	36.0	59.0	43.0
	DSRAP-25S-12S	25	12	46.0	24.0	36.0	59.0	43.0
	DSRAP-25S-14S	25	14	46.0	27.0	36.0	62.0	44.5
	DSRAP-25S-16S	25	16	46.0	30.0	36.0	62.0	44.0
	DSRAP-25S-20S	25	20	46.0	36.0	36.0	66.0	44.0
	DSRAP-30S-06S	30	6	50.0	17.0	41.0	66.0	51.0
	DSRAP-30S-08S	30	8	50.0	19.0	41.0	66.0	51.0
	DSRAP-30S-10S	30	10	50.0	22.0	41.0	67.0	50.5
	DSRAP-30S-12S	30	12	50.0	24.0	41.0	67.0	50.5
	DSRAP-30S-14S	30	14	50.0	27.0	41.0	70.0	52.0
DSRAP-30S-16S	30	16	50.0	30.0	41.0	70.0	51.5	
DSRAP-30S-20S	30	20	50.0	36.0	41.0	73.0	51.5	
DSRAP-30S-25S	30	25	50.0	46.0	41.0	76.0	52.0	
<b>PN 315</b>	DSRAP-38S-06S	38	6	60.0	17.0	50.0	70.5	56.0
	DSRAP-38S-08S	38	8	60.0	19.0	50.0	70.5	56.0
	DSRAP-38S-10S	38	10	60.0	22.0	50.0	71.5	55.5
	DSRAP-38S-12S	38	12	60.0	24.0	50.0	71.5	55.5
	DSRAP-38S-14S	38	14	60.0	27.0	50.0	74.5	57.0
	DSRAP-38S-16S	38	16	60.0	30.0	50.0	74.5	56.5
	DSRAP-38S-20S	38	20	60.0	36.0	50.0	78.5	56.5
	DSRAP-38S-25S	38	25	60.0	46.0	50.0	81.5	57.0
DSRAP-38S-30S	38	30	60.0	50.0	50.0	85.5	58.5	

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

**DAP-GED/MED (BSP Parallel/Metric Parallel with ED-Ring)****Adaptor****BSP Parallel Thread Type**

Series	Part Number	Tube O.D. (D)	Dimension (mm)						
			H	h	I	L	A	T	T1
<b>L Light PN315</b>	DAP-06L-01GED	6	14.0	14.0	14.0	24.5	8.0	PF 1/8	M12 × 1.5
	DAP-08L-02GED	8	17.0	19.0	19.0	29.5	12.0	PF 1/4	M14 × 1.5
	DAP-10L-02GED	10	19.0	19.0	19.0	27.5	12.0	PF 1/4	M16 × 1.5
	DAP-12L-03GED	12	22.0	22.0	22.0	34.0	12.0	PF 3/8	M18 × 1.5
	DAP-15L-04GED	15	27.0	27.0	27.0	32.0	14.0	PF 1/2	M22 × 1.5
	DAP-18L-04GED	18	32.0	27.0	27.0	31.5	14.0	PF 1/2	M26 × 1.5
<b>PN 160</b>	DAP-22L-06GED	22	36.0	32.0	32.0	32.5	16.0	PF 3/4	M30 × 2.0
	DAP-28L-08GED	28	41.0	41.0	40.0	35.0	18.0	PF 1	M36 × 2.0
	DAP-35L-10GED	35	50.0	50.0	50.0	42.5	20.0	PF 1 1/4	M45 × 2.0
	DAP-42L-12GED	42	60.0	55.0	55.0	46.5	22.0	PF 1 1/2	M52 × 2.0
<b>S Heavy PB 630</b>	DAP-06S-02GED	6	17.0	19.0	19.0	27.0	12.0	PF 1/4	M14 × 1.5
	DAP-08S-02GED	8	19.0	19.0	19.0	29.5	12.0	PF 1/4	M16 × 1.5
	DAP-10S-03GED	10	22.0	22.0	22.0	32.0	12.0	PF 3/8	M18 × 1.5
	DAP-12S-03GED	12	24.0	22.0	22.0	34.0	12.0	PF 3/8	M20 × 1.5
	DAP-12S-04GED	12	24.0	27.0	27.0	34.5	14.0	PF 1/2	M20 × 1.5
<b>PN 400</b>	DAP-14S-04GED	14	27.0	27.0	27.0	36.5	14.0	PF 1/2	M22 × 1.5
	DAP-16S-04GED	16	30.0	27.0	27.0	37.0	14.0	PF 1/2	M24 × 1.5
	DAP-16S-06GED	16	30.0	32.0	32.0	39.0	16.0	PF 3/4	M24 × 1.5
	DAP-20S-06GED	20	36.0	32.0	32.0	43.0	16.0	PF 3/4	M30 × 2.0
	DAP-25S-08GED	25	46.0	41.0	40.0	48.0	18.0	PF 1	M36 × 2.0
<b>PN 315</b>	DAP-30S-10GED	30	50.0	50.0	50.0	51.0	20.0	PF 1 1/4	M42 × 2.0
	DAP-38S-12GED	38	60.0	55.0	55.0	60.0	22.0	PF 1 1/2	M52 × 2.0

**Metric Parallel Thread Type**

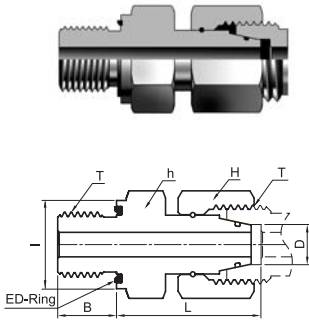
Series	Part Number	Tube O.D. (D)	Dimension (mm)						
			H	h	I	L	A	T	T1
<b>L Light PN315</b>	DAP-06L-M10ED	6	14.0	14.0	14.0	24.5	8.0	M10 × 1.0	M12 × 1.5
	DAP-08L-M12ED	8	17.0	17.0	17.0	26.5	12.0	M12 × 1.5	M14 × 1.5
	DAP-10L-M14ED	10	19.0	19.0	19.0	27.5	12.0	M14 × 1.5	M16 × 1.5
	DAP-12L-M16ED	12	22.0	22.0	22.0	30.5	12.0	M16 × 1.5	M18 × 1.5
	DAP-15L-M18ED	15	27.0	24.0	24.0	31.5	14.0	M18 × 1.5	M22 × 1.5
	DAP-18L-M22ED	18	32.0	27.0	27.0	31.5	14.0	M22 × 1.5	M26 × 1.5
<b>PN 160</b>	DAP-22L-M26ED	22	36.0	32.0	32.0	32.5	16.0	M26 × 1.5	M30 × 2.0
	DAP-28L-M33ED	28	41.0	41.0	40.0	35.0	18.0	M33 × 2.0	M36 × 2.0
	DAP-35L-M42ED	35	50.0	50.0	50.0	42.5	20.0	M42 × 2.0	M45 × 2.0
	DAP-42L-M48ED	42	60.0	55.0	55.0	46.5	22.0	M48 × 2.0	M52 × 2.0
<b>S Heavy PB 630</b>	DAP-06S-M12ED	6	17.0	17.0	17.0	27.0	12.0	M12 × 1.5	M14 × 1.5
	DAP-08S-M14ED	8	19.0	19.0	19.0	29.5	12.0	M14 × 1.5	M16 × 1.5
	DAP-10S-M16ED	10	22.0	22.0	22.0	32.0	12.0	M16 × 1.5	M18 × 1.5
	DAP-12S-M18ED	12	24.0	24.0	24.0	34.0	12.0	M18 × 1.5	M20 × 1.5
	DAP-14S-M20ED	14	27.0	27.0	27.0	36.5	14.0	M20 × 1.5	M22 × 1.5
<b>PN 400</b>	DAP-16S-M22ED	16	30.0	27.0	27.0	37.0	14.0	M22 × 1.5	M24 × 1.5
	DAP-20S-M27ED	20	36.0	32.0	32.0	43.0	16.0	M27 × 2.0	M30 × 2.0
	DAP-25S-M33ED	25	46.0	41.0	40.0	48.0	18.0	M33 × 2.0	M36 × 2.0
	DAP-30S-M42ED	30	50.0	50.0	50.0	51.0	20.0	M42 × 2.0	M42 × 2.0
<b>PN 315</b>	DAP-38S-M48ED	38	60.0	55.0	55.0	60.0	22.0	M48 × 2.0	M52 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DSAP-GED/MED (BSP Parallel/Metric Parallel with ED-Ring)

## Swivel Adaptor

### BSP Parallel Thread Type

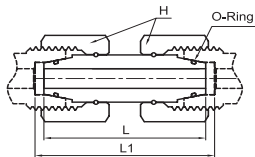


Series	Part Number	Tube O.D. (D)	Dimension (mm)						
			H	h	I	L	A	T	T1
<b>L Light PN315</b>	DSAP-06L-01GED	6	14.0	14.0	14.0	24.5	8.0	PF 1/8	M12 × 1.5
	DSAP-08L-02GED	8	17.0	19.0	19.0	29.5	12.0	PF 1/4	M14 × 1.5
	DSAP-10L-02GED	10	19.0	19.0	19.0	27.5	12.0	PF 1/4	M16 × 1.5
	DSAP-12L-03GED	12	22.0	22.0	22.0	34.0	12.0	PF 3/8	M18 × 1.5
	DSAP-15L-04GED	15	27.0	27.0	27.0	32.0	14.0	PF 1/2	M22 × 1.5
	DSAP-18L-04GED	18	32.0	27.0	27.0	31.5	14.0	PF 1/2	M26 × 1.5
<b>PN 160</b>	DSAP-22L-06GED	22	36.0	32.0	32.0	32.5	16.0	PF 3/4	M30 × 2.0
	DSAP-28L-08GED	28	41.0	41.0	40.0	35.0	18.0	PF 1	M36 × 2.0
	DSAP-35L-10GED	35	50.0	50.0	50.0	42.5	20.0	PF 1 1/4	M45 × 2.0
	DSAP-42L-12GED	42	60.0	55.0	55.0	46.5	22.0	PF 1 1/2	M52 × 2.0
<b>S Heavy PB 630</b>	DSAP-06S-02GED	6	17.0	19.0	19.0	27.0	12.0	PF 1/4	M14 × 1.5
	DSAP-08S-02GED	8	19.0	19.0	19.0	29.5	12.0	PF 1/4	M16 × 1.5
	DSAP-10S-03GED	10	22.0	22.0	22.0	32.0	12.0	PF 3/8	M18 × 1.5
	DSAP-12S-03GED	12	24.0	22.0	22.0	34.0	12.0	PF 3/8	M20 × 1.5
	DSAP-14S-04GED	14	27.0	27.0	27.0	36.5	14.0	PF 1/2	M22 × 1.5
<b>PN 400</b>	DSAP-16S-04GED	16	30.0	27.0	27.0	37.0	14.0	PF 1/2	M24 × 1.5
	DSAP-20S-06GED	20	36.0	32.0	32.0	43.0	16.0	PF 3/4	M30 × 2.0
	DSAP-25S-08GED	25	46.0	41.0	40.0	48.0	18.0	PF 1	M36 × 2.0
	DSAP-30S-10GED	30	50.0	50.0	50.0	51.0	20.0	PF 1 1/4	M42 × 2.0
<b>PN 315</b>	DSAP-38S-12GED	38	60.0	55.0	55.0	60.0	22.0	PF 1 1/2	M52 × 2.0

### Metric Parallel Thread Type

Series	Part Number	Tube O.D. (D)	Dimension (mm)						
			H	h	I	L	A	T	T1
<b>L Light PN315</b>	DSAP-06L-M10ED	6	14.0	14.0	14.0	24.5	8.0	M10 × 1.0	M12 × 1.5
	DSAP-08L-M12ED	8	17.0	19.0	17.0	26.5	12.0	M12 × 1.5	M14 × 1.5
	DSAP-10L-M14ED	10	19.0	19.0	19.0	27.5	12.0	M14 × 1.5	M16 × 1.5
	DSAP-12L-M16ED	12	22.0	22.0	22.0	30.5	12.0	M16 × 1.5	M18 × 1.5
	DSAP-15L-M18ED	15	27.0	24.0	24.0	31.5	12.0	M18 × 1.5	M22 × 1.5
	DSAP-18L-M22ED	18	32.0	27.0	27.0	31.5	14.0	M22 × 1.5	M26 × 1.5
<b>PN 160</b>	DSAP-22L-M26ED	22	36.0	32.0	32.0	32.5	16.0	M26 × 1.5	M30 × 2.0
	DSAP-28L-M33ED	28	41.0	41.0	40.0	35.0	18.0	M33 × 2.0	M36 × 2.0
	DSAP-35L-M42ED	35	50.0	50.0	50.0	42.5	20.0	M42 × 2.0	M45 × 2.0
	DSAP-42L-M48ED	42	60.0	55.0	55.0	46.5	22.0	M48 × 2.0	M52 × 2.0
<b>S Heavy PB 630</b>	DSAP-06S-M12ED	6	17.0	17.0	17.0	27.0	12.0	M12 × 1.5	M14 × 1.5
	DSAP-08S-M14ED	8	19.0	19.0	19.0	29.5	12.0	M14 × 1.5	M16 × 1.5
	DSAP-10S-M16ED	10	22.0	22.0	22.0	32.0	12.0	M16 × 1.5	M18 × 1.5
	DSAP-12S-M18ED	12	24.0	24.0	24.0	34.0	12.0	M18 × 1.5	M20 × 1.5
	DSAP-14S-M20ED	14	27.0	27.0	26.0	36.5	14.0	M20 × 1.5	M22 × 1.5
<b>PN 400</b>	DSAP-16S-M22ED	16	30.0	27.0	27.0	37.0	14.0	M22 × 1.5	M24 × 1.5
	DSAP-20S-M27ED	20	36.0	32.0	32.0	43.0	16.0	M27 × 2.0	M30 × 2.0
	DSAP-25S-M33ED	25	46.0	41.0	40.0	48.0	18.0	M33 × 2.0	M36 × 2.0
	DSAP-30S-M42ED	30	50.0	50.0	50.0	51.0	20.0	M42 × 2.0	M45 × 2.0
<b>PN 315</b>	DSAP-38S-M48ED	38	60.0	55.0	55.0	60.0	22.0	M48 × 2.0	M52 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

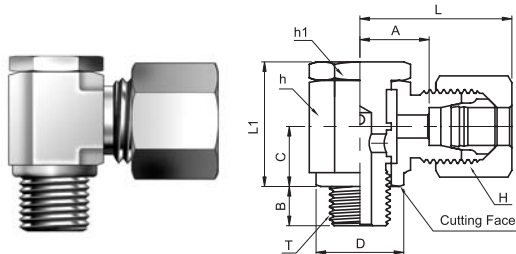
**DSL****Swivel Union**

Series	Part Number	Tube O.D.	Dimension (mm)		
			H	L	L1
<b>L</b> <b>Light</b> <b>PN500</b>	DSL-06L	6	17.0	34.0	36.0
	DSL-08L	8	17.0	34.0	36.0
	DSL-10L	10	19.0	36.0	37.0
<b>PB 400</b>	DSL-12L	12	22.0	36.0	37.0
	DSL-15L	15	27.0	39.0	40.0
	DSL-18L	18	32.0	40.5	42.5
<b>PB 250</b>	DSL-22L	22	36.0	45.0	47.0
	DSL-28L	28	46.0	47.0	49.0
	DSL-35L	35	50.0	53.0	58.0
	DSL-42L	42	60.0	53.0	59.0
<b>S</b> <b>Heavy</b> <b>PB 800</b>	DSL-06S	6	17.0	37.0	39.0
	DSL-08S	8	19.0	37.0	39.0
	DSL-10S	10	22.0	41.0	43.0
<b>PN 630</b>	DSL-12S	12	24.0	43.0	44.0
	DSL-14S	14	27.0	45.0	48.0
	DSL-16S	16	30.0	46.0	50.0
<b>PN 400</b>	DSL-20S	20	36.0	55.0	60.0
	DSL-25S	25	46.0	58.0	66.0
	DSL-30S	30	50.0	62.0	73.0
<b>PN 315</b>	DSL-38S	38	60.0	67.0	83.0

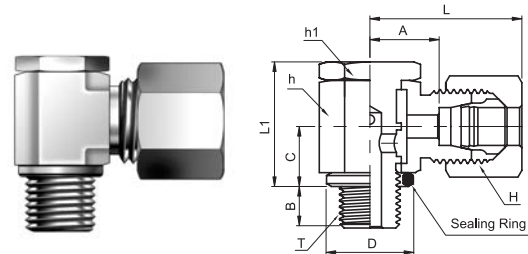
All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DBE-G/M (BSP Parallel/Metric Parallel)

## Banjo Elbow



For Tube O.D. up to 15mm



For Tube O.D. 16mm and larger

### BSP Parallel Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)									
			D	H	h	h1	L	L1	A	B	C	T
<b>L Light PB 250</b>	DBE-06L-01G	6	14.5	14.0	14.0	14.0	25.0	21.0	10.5	6.0	10.0	PF 1/8
	DBE-08L-02G	8	18.5	17.0	19.0	19.0	28.0	27.0	13.0	9.0	13.0	PF 1/4
	DBE-10L-02G	10	18.5	19.0	19.0	19.0	29.0	27.0	14.0	9.0	13.0	PF 1/4
	DBE-12L-03G	12	22.5	22.0	22.0	22.0	30.0	32.0	15.5	9.0	15.0	PF 3/8
	DBE-15L-04G	15	26.5	27.0	27.0	27.0	34.0	37.5	19.0	11.0	18.0	PF 1/2
<b>PB 160</b>	DBE-18L-04G	18	26.0	32.0	30.0	27.0	37.0	44.0	20.5	11.0	21.5	PF 1/2
	DBE-22L-06G	22	32.0	36.0	36.0	32.0	42.0	49.0	25.5	13.0	24.0	PF 3/4
<b>S Heavy PB 250</b>	DBE-06S-02G	6	18.5	17.0	19.0	19.0	30.0	27.0	15.0	9.0	13.0	PF 1/4
	DBE-08S-02G	8	18.5	19.0	19.0	19.0	30.0	27.0	15.0	9.0	13.0	PF 1/4
	DBE-10S-03G	10	22.5	22.0	22.0	22.0	32.0	32.0	16.0	9.0	15.0	PF 3/8
	DBE-12S-03G	12	22.5	24.0	24.0	24.0	33.0	37.0	17.0	9.0	18.0	PF 3/8
	DBE-14S-04G	14	26.5	27.0	27.0	27.0	38.0	37.0	20.0	11.0	18.0	PF 1/2
<b>PB 160</b>	DBE-16S-04G	16	26.0	30.0	30.0	27.0	40.0	44.0	21.5	11.0	21.5	PF 1/2
	DBE-20S-06G	20	32.0	36.0	36.0	32.0	46.0	49.0	24.5	13.0	24.0	PF 3/4

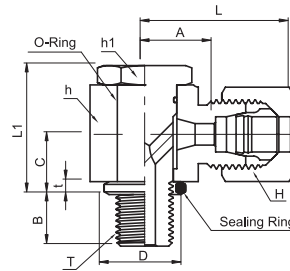
### Metric Parallel Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)									
			D	H	h	h1	L	L1	A	B	C	T
<b>L Light PB 250</b>	DBE-06L-M10	6	14.5	14.0	14.0	14.0	25.0	21.5	10.5	6.0	10.0	M10 × 1.0
	DBE-08L-M12	8	17.5	17.0	17.0	17.0	27.0	25.0	12.0	9.0	12.0	M12 × 1.5
	DBE-10L-M14	10	19.5	19.0	19.0	19.0	29.0	27.0	14.0	9.0	13.0	M14 × 1.5
	DBE-12L-M16	12	21.5	22.0	22.0	22.0	30.0	32.0	15.5	9.0	15.0	M16 × 1.5
	DBE-15L-M18	15	23.5	27.0	24.0	24.0	33.0	37.5	17.5	9.0	18.0	M18 × 1.5
<b>PB 160</b>	DBE-18L-M22	18	27.0	32.0	30.0	27.0	37.0	44.0	20.5	11.0	21.5	M22 × 1.5
	DBE-22L-M26	22	31.0	36.0	36.0	32.0	42.0	49.0	25.5	13.0	24.0	M26 × 1.5
<b>S Heavy PB 250</b>	DBE-06S-M12	6	17.5	17.0	17.0	17.0	29.0	25.0	14.0	9.0	12.0	M12 × 1.5
	DBE-08S-M14	8	19.5	19.0	19.0	19.0	30.0	27.0	15.0	9.0	13.0	M14 × 1.5
	DBE-10S-M16	10	21.5	22.0	22.0	22.0	32.0	32.0	16.0	9.0	15.0	M16 × 1.5
	DBE-12S-M18	12	23.5	24.0	24.0	24.0	33.0	37.0	17.0	9.0	18.0	M18 × 1.5
	DBE-14S-M20	14	25.5	27.0	27.0	27.0	38.0	37.0	20.0	11.0	18.0	M20 × 1.5
<b>PB 160</b>	DBE-16S-M22	16	27.0	30.0	30.0	27.0	40.0	44.0	21.5	11.0	21.5	M22 × 1.5
	DBE-20S-M27	20	32.0	36.0	36.0	32.0	46.0	49.0	24.5	13.0	24.0	M27 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

## DHBE-G/M (BSP Parallel/Metric Parallel)

### High Pressure Banjo Elbow



#### BSP Parallel Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)										
			D	H	h	h1	L	L1	A	B	C	t	T
<b>L Light PB 315</b>	DHBE-06L-01G	6	14.0	14.0	17.0	17.0	27.0	24.0	12.0	8.0	10.5	2.5	PF 1/8
	DHBE-08L-02G	8	18.0	17.0	22.0	19.0	29.0	30.0	14.5	12.0	14.0	3.0	PF 1/4
	DHBE-10L-02G	10	18.0	19.0	22.0	19.0	30.0	30.0	15.5	12.0	14.0	3.0	PF 1/4
	DHBE-12L-03G	12	22.0	22.0	27.0	24.0	33.0	36.0	18.0	12.0	16.5	3.0	PF 3/8
	DHBE-15L-04G	15	26.0	27.0	32.0	30.0	37.0	45.0	21.5	14.0	21.5	4.5	PF 1/2
<b>PB 160</b>	DHBE-18L-04G	18	26.0	32.0	32.0	30.0	37.0	45.0	21.0	14.0	21.5	4.5	PF 1/2
	DHBE-22L-06G	22	32.0	36.0	41.0	36.0	44.0	53.0	27.5	16.0	24.0	3.5	PF 3/4
	DHBE-28L-08G	28	39.0	41.0	50.0	46.0	49.0	66.0	32.0	18.0	30.5	3.5	PF 1
	DHBE-35L-10G	35	49.0	50.0	60.0	55.0	58.0	76.0	36.0	20.0	35.5	3.5	PF 1 1/4
<b>S Heavy PB 400</b>	DHBE-42L-12G	42	55.0	60.0	70.0	60.0	63.0	87.0	40.5	22.0	40.5	3.5	PF 1 1/2
	DHBE-06S-02G	6	18.0	17.0	22.0	19.0	31.0	30.0	16.5	12.0	14.0	3.0	PF 1/4
	DHBE-08S-02G	8	18.0	19.0	22.0	19.0	31.0	30.0	16.5	12.0	14.0	3.0	PF 1/4
	DHBE-10S-03G	10	22.0	22.0	27.0	24.0	35.0	36.0	18.5	12.0	16.5	3.0	PF 3/8
	DHBE-12S-03G	12	22.0	24.0	27.0	24.0	35.0	36.0	18.5	12.0	16.5	3.0	PF 3/8
<b>PB 250</b>	DHBE-16S-04G	16	26.0	30.0	32.0	30.0	40.0	45.0	22.0	14.0	21.5	4.5	PF 1/2
	DHBE-20S-06G	20	32.0	36.0	41.0	36.0	48.0	53.0	26.5	16.0	24.0	3.5	PF 3/4
	DHBE-25S-08G	25	39.0	46.0	50.0	46.0	56.0	66.0	31.5	18.0	30.5	3.5	PF 1
	DHBE-30S-10G	30	49.0	50.0	60.0	55.0	64.0	76.0	37.0	20.0	34.5	3.5	PF 1 1/4
	DHBE-38S-12G	38	55.0	60.0	70.0	60.0	72.0	87.0	41.5	22.0	40.5	3.5	PF 1 1/2

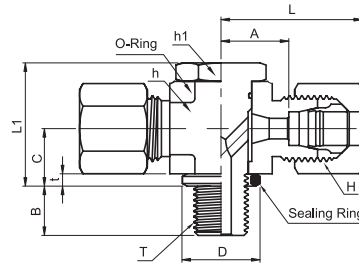
#### Metric Parallel Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)										
			D	H	h	h1	L	L1	A	B	C	t	T
<b>L Light PB 315</b>	DHBE-06L-M10	6	14.0	14.0	17.0	17.0	27.0	24.0	12.0	8.0	10.5	2.5	M10 × 1.0
	DHBE-08L-M12	8	17.0	17.0	22.0	19.0	29.0	30.0	14.5	12.0	14.0	3.0	M12 × 1.5
	DHBE-10L-M14	10	19.0	19.0	22.0	19.0	30.0	30.0	15.5	12.0	14.0	3.0	M14 × 1.5
	DHBE-12L-M16	12	21.0	22.0	27.0	24.0	33.0	36.0	18.0	12.0	16.5	3.0	M16 × 1.5
	DHBE-15L-M18	15	23.0	27.0	30.0	27.0	36.0	39.5	20.5	12.0	18.5	3.0	M18 × 1.5
<b>PB 160</b>	DHBE-18L-M22	18	27.0	32.0	32.0	30.0	37.0	45.0	21.0	14.0	21.5	4.5	M22 × 1.5
	DHBE-22L-M26	22	31.0	36.0	41.0	36.0	44.0	53.0	27.5	16.0	24.0	3.5	M26 × 1.5
	DHBE-28L-M33	28	39.0	41.0	50.0	46.0	49.0	66.0	32.0	18.0	30.5	3.5	M33 × 2.0
	DHBE-35L-M42	35	49.0	50.0	60.0	55.0	58.0	76.0	36.0	20.0	35.5	3.5	M42 × 2.0
<b>S Heavy PB 400</b>	DHBE-42L-M48	42	55.0	60.0	70.0	60.0	63.0	87.0	40.5	22.0	40.5	3.5	M48 × 2.0
	DHBE-06S-M12	6	17.0	17.0	22.0	19.0	31.0	30.0	16.5	12.0	14.0	3.0	M12 × 1.5
	DHBE-08S-M14	8	19.0	19.0	22.0	19.0	31.0	30.0	16.5	12.0	14.0	3.0	M14 × 1.5
	DHBE-10S-M16	10	21.0	22.0	27.0	24.0	35.0	36.0	18.5	12.0	16.5	3.0	M16 × 1.5
	DHBE-12S-M18	12	23.0	24.0	30.0	27.0	36.0	39.5	20.0	12.0	18.5	3.0	M18 × 1.5
<b>PB 160</b>	DHBE-16S-M22	16	27.0	30.0	32.0	30.0	40.0	45.0	22.0	14.0	21.5	4.5	M22 × 1.5
	DHBE-20S-M27	20	32.0	36.0	41.0	36.0	48.0	53.0	26.5	16.0	24.0	3.5	M27 × 2.0
	DHBE-25S-M33	25	39.0	46.0	50.0	46.0	56.0	66.0	31.5	18.0	30.5	3.5	M33 × 2.0
	DHBE-30S-M42	30	49.0	50.0	60.0	55.0	64.0	76.0	37.0	20.0	35.5	3.5	M42 × 2.0
	DHBE-38S-M48	38	55.0	60.0	70.0	60.0	72.0	87.0	41.5	22.0	40.5	3.5	M48 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# DHBT-G/M (BSP Parallel/Metric Parallel)

## High Pressure Banjo Tee



### BSP Parallel Thread Type

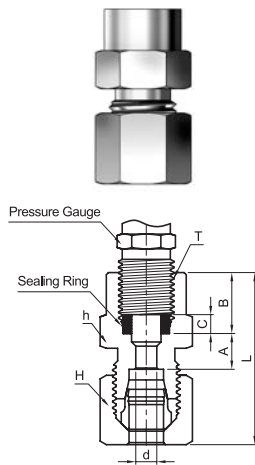
Series	Part Number	Tube O.D.	Dimension (mm)										
			D	H	h	h1	L	L1	A	B	C	t	T
L Light PB 315	DHBT-06L-01G	6	14.0	14.0	17.0	17.0	27.0	24.0	12.0	8.0	10.5	2.5	PF 1/8
	DHBT-08L-02G	8	18.0	17.0	22.0	19.0	29.0	30.0	14.5	12.0	14.0	3.0	PF 1/4
	DHBT-10L-02G	10	18.0	19.0	22.0	19.0	30.0	30.0	15.5	12.0	14.0	3.0	PF 1/4
	DHBT-12L-03G	12	22.0	22.0	27.0	24.0	33.0	36.0	18.0	12.0	16.5	3.0	PF 3/8
	DHBT-15L-04G	15	26.0	27.0	32.0	30.0	37.0	45.0	21.5	14.0	21.5	4.5	PF 1/2
	DHBT-18L-04G	18	26.0	32.0	32.0	30.0	37.0	45.0	21.0	14.0	21.5	4.5	PF 1/2
PB 160	DHBT-22L-06G	22	32.0	36.0	41.0	36.0	44.0	53.0	27.5	16.0	24.0	3.5	PF 3/4
	DHBT-28L-08G	28	39.0	41.0	50.0	46.0	49.0	66.0	32.0	18.0	30.5	3.5	PF 1
	DHBT-35L-10G	35	49.0	50.0	60.0	55.0	58.0	76.0	36.0	20.0	35.5	3.5	PF 1 1/4
	DHBT-42L-12G	42	55.0	60.0	70.0	60.0	63.0	87.0	40.5	22.0	40.5	3.5	PF 1 1/2
S Heavy PB 400	DHBT-06S-02G	6	18.0	17.0	22.0	19.0	31.0	30.0	16.5	12.0	14.0	3.0	PF 1/4
	DHBT-08S-02G	8	18.0	19.0	22.0	19.0	31.0	30.0	16.5	12.0	14.0	3.0	PF 1/4
	DHBT-10S-03G	10	22.0	22.0	27.0	24.0	35.0	36.0	18.5	12.0	16.5	3.0	PF 3/8
	DHBT-12S-03G	12	22.0	24.0	27.0	24.0	35.0	36.0	18.5	12.0	16.5	3.0	PF 3/8
	DHBT-16S-04G	16	26.0	30.0	32.0	30.0	40.0	45.0	22.0	14.0	21.5	4.5	PF 1/2
	DHBT-20S-06G	20	32.0	36.0	41.0	36.0	48.0	53.0	26.5	16.0	24.0	3.5	PF 3/4
PB 250	DHBT-25S-08G	25	39.0	46.0	50.0	46.0	56.0	66.0	31.5	18.0	30.5	3.5	PF 1
	DHBT-30S-10G	30	49.0	50.0	60.0	55.0	64.0	76.0	37.0	20.0	35.5	3.5	PF 1 1/4
	DHBT-38S-12G	38	55.0	60.0	70.0	60.0	72.0	87.0	41.5	22.0	40.5	3.5	PF 1 1/2

### Metric Parallel Thread Type

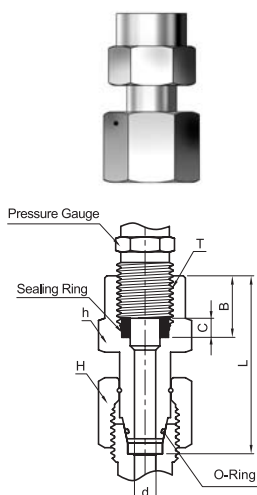
Series	Part Number	Tube O.D.	Dimension (mm)										
			D	H	h	h1	L	L1	A	B	C	t	T
L Light PB 315	DHBT-06L-M10	6	14.0	14.0	17.0	17.0	27.0	24.0	12.0	8.0	10.5	2.5	M10 × 1.0
	DHBT-08L-M12	8	17.0	17.0	22.0	19.0	29.0	30.0	14.5	12.0	14.0	3.0	M12 × 1.5
	DHBT-10L-M14	10	19.0	19.0	22.0	19.0	30.0	30.0	15.5	12.0	14.0	3.0	M14 × 1.5
	DHBT-12L-M16	12	21.0	22.0	27.0	24.0	33.0	36.0	18.0	12.0	16.5	3.0	M16 × 1.5
	DHBT-15L-M18	15	23.0	27.0	30.0	27.0	36.0	39.5	20.5	12.0	18.5	3.0	M18 × 1.5
	DHBT-18L-M22	18	27.0	32.0	32.0	30.0	37.0	45.0	21.0	14.0	21.5	4.5	M22 × 1.5
PB 160	DHBT-22L-M26	22	31.0	36.0	41.0	36.0	44.0	53.0	27.5	16.0	24.0	3.5	M26 × 1.5
	DHBT-28L-M33	28	39.0	41.0	50.0	46.0	49.0	66.0	32.0	18.0	30.5	3.5	M33 × 2.0
	DHBT-35L-M42	35	49.0	50.0	60.0	55.0	58.0	76.0	36.0	20.0	35.5	3.5	M42 × 2.0
	DHBT-42L-M48	42	55.0	60.0	70.0	60.0	63.0	87.0	40.5	22.0	40.5	3.5	M48 × 2.0
S Heavy PB 400	DHBT-06S-M12	6	17.0	17.0	22.0	19.0	31.0	30.0	16.5	12.0	14.0	3.0	M12 × 1.5
	DHBT-08S-M14	8	19.0	19.0	22.0	19.0	31.0	30.0	16.5	12.0	14.0	3.0	M14 × 1.5
	DHBT-10S-M16	10	21.0	22.0	27.0	24.0	35.0	36.0	18.5	12.0	16.5	3.0	M16 × 1.5
	DHBT-12S-M18	12	23.0	24.0	30.0	27.0	36.0	39.5	20.0	12.0	18.5	3.0	M18 × 1.5
	DHBT-16S-M22	16	27.0	30.0	32.0	30.0	40.0	45.0	22.0	14.0	21.5	4.5	M22 × 1.5
	DHBT-20S-M27	20	32.0	36.0	41.0	36.0	48.0	53.0	26.5	16.0	24.0	3.5	M27 × 2.0
PB 250	DHBT-25S-M33	25	39.0	46.0	50.0	46.0	56.0	66.0	31.5	18.0	30.5	3.5	M33 × 2.0
	DHBT-30S-M42	30	49.0	50.0	60.0	55.0	64.0	76.0	37.0	20.0	35.5	3.5	M42 × 2.0
	DHBT-38S-M48	38	55.0	60.0	70.0	60.0	72.0	87.0	41.5	22.0	40.5	3.5	M48 × 2.0

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

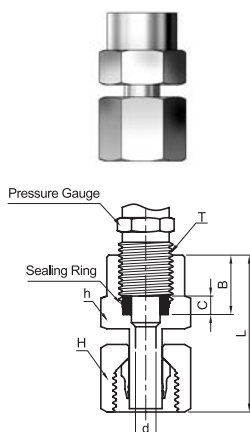


**DFGC-G (BSP Parallel)****Pressure Gauge Connector**

Series	Part Number	Tube O.D.	Dimension (mm)							
			d	H	h	L	A	B	C	T
<b>L Light PN 315</b>	DFGC-06L-02G	6	2.5	14.0	19.0	37.0	7.5	14.5	4.5	PF 1/4
	DFGC-08L-02G	8	5.5	17.0	19.0	37.0	7.5	14.5	4.5	PF 1/4
	DFGC-10L-02G	10	5.5	19.0	19.0	38.0	8.5	14.5	4.5	PF 1/4
	DFGC-12L-02G	12	5.5	22.0	19.0	38.0	8.5	14.5	4.5	PF 1/4
<b>S Heavy PN 630</b>	DFGC-06S-04G	6	3.5	17.0	27.0	46.0	11.0	20.0	5.0	PF 1/2
	DFGC-08S-04G	8	3.5	19.0	27.0	46.0	11.0	20.0	5.0	PF 1/2
	DFGC-10S-04G	10	7.0	22.0	27.0	47.0	10.5	20.0	5.0	PF 1/2
	DFGC-12S-04G	12	7.0	24.0	27.0	47.0	10.5	20.0	5.0	PF 1/2

**DSGC-G (BSP Parallel)****Pressure Gauge Swivel Connector**

Series	Part Number	Tube O.D.	Dimension (mm)						
			d	H	h	L	B	C	T
<b>L Light PN 315</b>	DSGC-06L-02G	6	2.5	14.0	19.0	35.5	14.5	4.5	PF 1/4
	DSGC-08L-02G	8	4.0	17.0	19.0	35.5	14.5	4.5	PF 1/4
	DSGC-10L-02G	10	5.5	19.0	19.0	36.0	14.5	4.5	PF 1/4
	DSGC-12L-02G	12	5.5	22.0	19.0	36.0	14.5	4.5	PF 1/4
<b>S Heavy PN 630</b>	DSGC-06S-02G	6	2.5	17.0	19.0	35.5	14.5	4.5	PF 1/4
	DSGC-08S-02G	8	4.0	19.0	19.0	35.5	14.5	4.5	PF 1/4
	DSGC-10S-02G	10	6.0	22.0	19.0	36.0	14.5	4.5	PF 1/4
	DSGC-12S-02G	12	7.0	24.0	19.0	39.0	14.5	4.5	PF 1/4
	DSGC-06S-04G	6	2.5	17.0	27.0	42.5	20.0	5.0	PF 1/2
	DSGC-08S-04G	8	4.0	19.0	27.0	43.0	20.0	5.0	PF 1/2
	DSGC-10S-04G	10	6.0	22.0	27.0	43.5	20.0	5.0	PF 1/2
	DSGC-12S-04G	12	7.0	24.0	27.0	45.0	20.0	5.0	PF 1/2

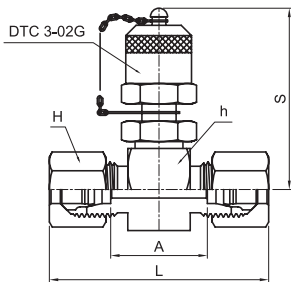
**DGAP-G (BSP Parallel)****Gauge Adaptor**

Series	Part Number	Tube O.D.	Dimension (mm)						
			d	H	h	L	B	C	T
<b>L Light PN 315</b>	DGAP-06L-02G	6	3.5	14.0	19.0	38.0	14.5	4.5	PF 1/4
	DGAP-08L-02G	8	5.5	17.0	19.0	38.0	14.5	4.5	PF 1/4
	DGAP-10L-02G	10	7.5	19.0	19.0	39.5	14.5	4.5	PF 1/4
	DGAP-12L-02G	12	9.0	22.0	19.0	40.5	14.5	4.5	PF 1/4
<b>S Heavy PN 630</b>	DGAP-06S-04G	6	3.5	17.0	27.0	45.0	20.0	5.0	PF 1/2
	DGAP-08S-04G	8	4.5	19.0	27.0	45.0	20.0	5.0	PF 1/2
	DGAP-10S-04G	10	6.5	22.0	27.0	47.0	20.0	5.0	PF 1/2
	DGAP-12S-04G	12	7.5	24.0	27.0	47.5	20.0	5.0	PF 1/2

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

## DTPC

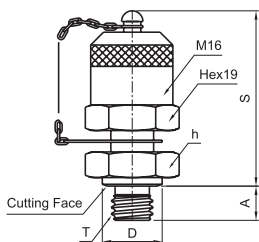
### Tee Test Point Connector



Series	Part Number	Tube O.D.	Dimension (mm)				
			H	h	L	A	S
<b>L Light PN 315</b>	DTPC 3-06L	6	14	24	50	20.5	50
	DTPC 3-08L	8	17	24	50	20.5	50
	DTPC 3-10L	10	19	24	52	22.5	50
	DTPC 3-12L	12	22	24	52	22.5	50
	DTPC 3-15L	15	27	30	55	24.5	53
	DTPC 3-18L	18	32	32	56	23.5	54
<b>PB 160</b>	DTPC 3-22L	22	36	36	60	27.5	56
	DTPC 3-28L	28	41	41	61	27.5	58
	DTPC 3-35L	35	50	46	69	25.5	61
	DTPC 3-42L	42	60	55	70	24.5	65
<b>S Heavy PN 630</b>	DTPC 3-06S	6	17	24	54	24.5	50
	DTPC 3-08S	8	19	24	54	24.5	50
	DTPC 3-10S	10	22	24	56	23.5	50
	DTPC 3-12S	12	24	24	56	23.5	50
	DTPC 3-14S	14	27	27	62	26.5	51
<b>PN 400</b>	DTPC 3-16S	16	30	30	62	25.5	53
	DTPC 3-20S	20	36	36	69	25.5	56
	DTPC 3-25S	25	46	41	75	26.5	58
<b>PN 315</b>	DTPC 3-30S	30	50	46	81	27.5	61
	DTPC 3-38S	38	60	55	90	29	65

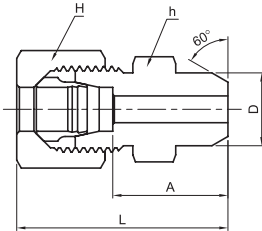
## DTC

### Test Coupling

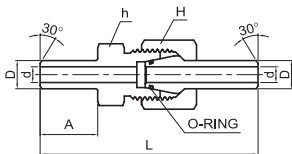


Series	Part Number	Dimension (mm)				
		h	D	S	A	T
<b>PB 630</b>	DTC 3-01G	17	14	41	8	PF 1/8
	DTC 3-02G	19	18	41	10	PF 1/4
	DTC 3-03G	22	22	41	12	PF 3/8
	DTC 3-04G	27	26	41	14	PF 1/2
	DTC 3-M10	17	14	41	8	M10 × 1.0
	DTC 3-M12	17	17	41	12	M12 × 1.5
	DTC 3-M14	19	19	41	12	M14 × 1.5
	DTC 3-M16	22	21	41	12	M16 × 1.5

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

**DWC****Welding Connector**

Series	Part Number	Tube O.D.	Dimension (mm)				
			D	H	h	L	A
<b>L Light PN 315</b>	DWC - 06L	6	10	14	12	29	14
	DWC - 08L	8	12	17	14	31	16
	DWC - 10L	10	14	19	17	33	18
	DWC - 12L	12	16	22	19	33	18
	DWC - 15L	15	19	27	22	37	22
	DWC - 18L	18	22	32	27	40	23.5
<b>PB 160</b>	DWC - 22L	22	27	36	32	45	28.5
	DWC - 28L	28	32	41	41	47	30.5
	DWC - 35L	35	40	50	46	54	32.5
	DWC - 42L	42	46	60	55	58	35
<b>S Heavy PN 630</b>	DWC - 06S	6	11	17	14	34	19
	DWC - 08S	8	13	19	17	36	21
	DWC - 10S	10	15	22	19	39	22.5
	DWC - 12S	12	17	24	22	41	24.5
	DWC - 14S	14	19	27	24	45	27
<b>PN 400</b>	DWC - 16S	16	21	30	27	45	26.5
	DWC - 20S	20	26	36	32	51	29.5
	DWC - 25S	25	31	46	41	56	32
<b>PN 315</b>	DWC - 30S	30	36	50	46	62	35.5
	DWC - 38S	38	44	60	55	69	38

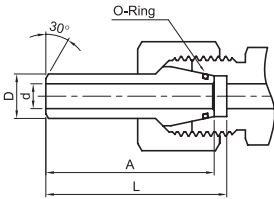
**DAWC****Welding Connector with DWN**

Series S MAX. Pressure	Part Number	Tube O.D. D	Dimension (mm)				
			d	H	h	L	A
<b>PB248</b>	DAWC-10 × 1.0	10	8	22	19	58	10
<b>PB357</b>	DAWC-10 × 1.5		7				
<b>PB458</b>	DAWC-10 × 2.0		6				
<b>PB303</b>	DAWC-12 × 1.5	12	9	24	22	65	15
<b>PB391</b>	DAWC-12 × 2.0		8				
<b>PB474</b>	DAWC-12 × 2.5		7				
<b>PB234</b>	DAWC-16 × 1.5	16	13	30	27	74.5	16.5
<b>PB303</b>	DAWC-16 × 2.0		12				
<b>PB370</b>	DAWC-16 × 2.5		11				
<b>PB433</b>	DAWC-16 × 3.0		10				
<b>PB249</b>	DAWC-20 × 2.0	20	16	36	32	84	19
<b>PB305</b>	DAWC-20 × 2.5		15				
<b>PB357</b>	DAWC-20 × 3.0		14				
<b>PB458</b>	DAWC-20 × 4.0		12				
<b>PB292</b>	DAWC-25 × 3.0	25	19	46	41	94.5	19.5
<b>PB378</b>	DAWC-25 × 4.0		17				
<b>PB458</b>	DAWC-25 × 5.0		15				
<b>PB248</b>	DAWC-30 × 3.0	30	24	50	46	102	23
<b>PB321</b>	DAWC-30 × 4.0		22				
<b>PB391</b>	DAWC-30 × 5.0		20				
<b>PB460</b>	DAWC-30 × 6.0		18				
<b>PB260</b>	DAWC-38 × 4.0	38	30	60	55	111	23
<b>PB318</b>	DAWC-38 × 5.0		28				
<b>PB373</b>	DAWC-38 × 6.0		26				
<b>PB427</b>	DAWC-38 × 7.0		24				

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

## DWN

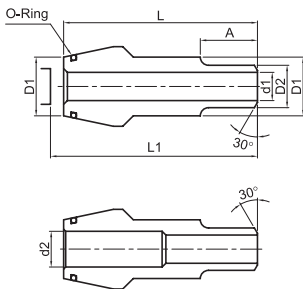
### Welding Nipple



Pressure Rating		Part Number	TUBE O.D. D	Dimension (mm)		
Fittings	DWN and Tube			d	L	A
PN630	PB 248	DWN-10 × 1.0	10	8	35.5	33
	PB 357	DWN-10 × 1.5		7		
	PB 458	DWN-10 × 2.0		6		
PN630	PB 303	DWN-12 × 1.5	12	9	35.5	33
	PB 391	DWN-12 × 2.0		8		
	PB 474	DWN-12 × 2.5		7		
PN400	PB 234	DWN-16 × 1.5	16	13	42.5	39
	PB 303	DWN-16 × 2.0		12		
	PB 370	DWN-16 × 2.5		11		
	PB 433	DWN-16 × 3.0		10		
PN400	PB 249	DWN-20 × 2.0	20	16	47.5	43.5
	PB 303	DWN-20 × 2.5		15		
	PB 357	DWN-20 × 3.0		14		
	PB 458	DWN-20 × 4.0		12		
PN400	PB 292	DWN-25 × 3.0	25	19	55	49.5
	PB 378	DWN-25 × 4.0		17		
	PB 458	DWN-25 × 5.0		15		
PN400	PB 248	DWN-30 × 3.0	30	24	58.5	51.5
	PB 321	DWN-30 × 4.0		22		
	PB 391	DWN-30 × 5.0		20		
	PB 460	DWN-30 × 6.0		18		
PN315	PB 260	DWN-38 × 4.0	38	30	66	56.5
	PB 318	DWN-38 × 5.0		28		
	PB 373	DWN-38 × 6.0		26		
	PB 427	DWN-38 × 7.0		24		

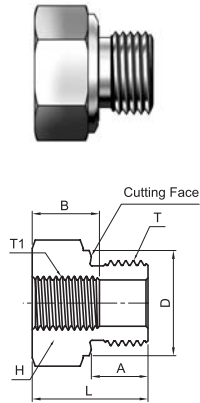
## DRWN

### Reducing Welding

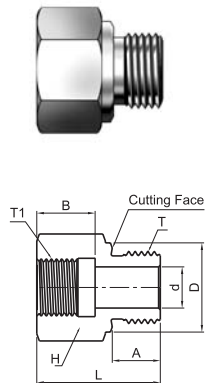


Pressure Rating		Part Number	Tube O.D.		Dimension (mm)				
Fitting	DRWN and Tube		D1	D2	d1	d2	L1	L	A
PN630	PB 526	DRWN-10- 6 × 1.5	10	6	3	5	37.5	35	12
	PB 526	DRWN-10- 8 × 2.0	10	8	4	-	37.5	35	12
	PB 526	DRWN-12- 8 × 2.0	12	8	4	6	37.5	35	14
	PB 357	DRWN-12-10 × 1.5	12	10	7	-	37.5	35	14
PN400	PB 474	DRWN-16-12 × 2.5	16	12	7	-	46.5	43	15
	PB 474	DRWN-20-12 × 2.5	20	12	7	-	51.5	47.5	15
	PB 433	DRWN-20-16 × 3.0	20	16	10	-	53.5	49.5	17
	PB 433	DRWN-25-16 × 3.0	25	16	10	-	56.5	51	17
	PB 458	DRWN-25-20 × 4.0	25	20	12	-	59.5	54	20
	PB 303	DRWN-30-16 × 2.0	30	16	12	-	67	60	17
	PB 303	DRWN-30-20 × 2.5	30	20	15	-	70	63	20
	PB 292	DRWN-30-25 × 3.0	30	25	19	-	70	63	20
PN315	PB 303	DRWN-38-16 × 2.0	38	16	12	-	79	69.5	17
	PB 303	DRWN-38-20 × 2.5	38	20	15	-	82	72.5	20
	PB 292	DRWN-38-25 × 3.0	38	25	19	-	82	72.5	20
	PB 321	DRWN-38-30 × 4.0	38	30	22	-	82	72.5	20

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

**DMFC****Male Female Connector****BSP Parallel Thread Type**

Series	Part Number	Dimension (mm)						
		H	D	L	A	B	T	T1
<b>PB 630</b>	DMFC-03G-01G	22	22	22.5	12	8	PF 3/8	PF 1/8
<b>PB 630</b>	DMFC-04G-01G	27	26	24	14	8	PF 1/2	PF 1/8
<b>PB 400</b>	DMFC-04G-02G	27	26	24	14	12	PF 1/2	PF 1/4
<b>PB 400</b>	DMFC-06G-02G	32	32	26	16	12	PF 3/4	PF 1/4
	DMFC-06G-03G	32	32	26	16	12	PF 3/4	PF 3/8
<b>PB 400</b>	DMFC-08G-02G	41	39	29	18	12	PF1	PF 1/4
	DMFC-08G-03G	41	39	29	18	12	PF1	PF 3/8
	DMFC-08G-04G	41	39	29	18	14	PF1	PF 1/2
<b>PB 250</b>	DMFC-10G-04G	50	49	32	20	14	PF 1 1/4	PF 1/2
	DMFC-10G-06G	50	49	32	20	16	PF 1 1/4	PF 3/4
<b>PB 250</b>	DMFC-12G-04G	55	55	36	22	14	PF 1 1/2	PF 1/2
	DMFC-12G-06G	55	55	36	22	16	PF 1 1/2	PF 3/4
	DMFC-12G-08G	55	55	36	22	18	PF 1 1/2	PF1

**DMFG****Male Female Gauge Connector****BSP Parallel Thread Type**

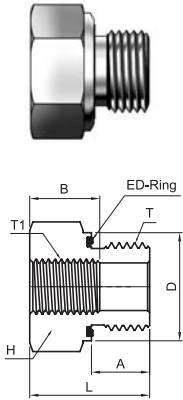
Series	Part Number	Dimension (mm)							
		H	d	D	L	A	B	T	T1
<b>PB 630</b>	DMFG-01G-02G	19	4	14	31	8	17	PF 1/8	PF 1/4
	DMFG-01G-03G	24	4	14	32	8	17	PF 1/8	PF 3/8
	DMFG-02G-01G	19	5	18	28	12	12	PF 1/4	PF 1/8
	DMFG-02G-03G	24	5	18	36	12	17	PF 1/4	PF 3/8
	DMFG-02G-04G	30	5	18	40	12	20	PF 1/4	PF 1/2
<b>PB 400</b>	DMFG-02G-06G	36	5	18	43	12	22	PF 1/4	PF 3/4
<b>PB 630</b>	DMFG-03G-02G	22	8	22	36	12	17	PF 3/8	PF 1/4
	DMFG-03G-04G	30	8	22	41	12	20	PF 3/8	PF 1/2
<b>PB 250</b>	DMFG-03G-06G	36	8	22	44	12	22	PF 3/8	PF 3/4
<b>PB 400</b>	DMFG-04G-03G	27	12	26	36	14	17	PF 1/2	PF 3/8
	DMFG-04G-06G	36	12	26	46	14	22	PF 1/2	PF 3/4
	DMFG-04G-08G	41	12	26	49	14	24.5	PF 1/2	PF 1
<b>PB 250</b>	DMFG-04G-10G	55	10	26	53	14	26.5	PF 1/2	PF 1 1/4
<b>PB 400</b>	DMFG-06G-04G	32	16	32	41	16	20	PF 3/4	PF 1/2
	DMFG-06G-08G	41	16	32	51	16	24.5	PF 3/4	PF 1
	DMFG-06G-10G	55	16	32	55	16	26.5	PF 3/4	PF 1 1/4
<b>PB 250</b>	DMFG-06G-12G	60	16	32	57	16	28.5	PF 3/4	PF 1 1/2
<b>PB 400</b>	DMFG-08G-06G	41	20	39	47	18	22	PF 1	PF 3/4
<b>PB 250</b>	DMFG-08G-10G	55	20	39	57	18	26.5	PF 1	PF 1 1/4
	DMFG-08G-12G	60	20	39	59	18	28.5	PF 1	PF 1 1/2
	DMFG-10G-08G	50	25	49	52	20	24.5	PF 1 1/4	PF 1
	DMFG-10G-12G	60	25	49	60	20	28.5	PF 1 1/4	PF 1 1/2
	DMFG-12G-10G	55	32	55	58	22	26.5	PF 1 1/2	PF 1 1/4
	DMFG-16G-12G	70	40	68	62	24	28.5	PF 2	PF 1 1/2

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

## DMFC-ED

### Male Female Connector with ED-Ring

#### BSP Parallel Thread Type

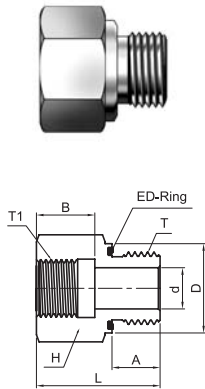


Series	Part Number	Dimension (mm)						
		H	D	L	A	B	T	T1
<b>PB 630</b>	DMFC-03ED-01G	22	22	22.5	12	8	PF 3/8	PF 1/8
<b>PB 630</b>	DMFC-04ED-01G	27	26	24	14	8	PF 1/2	PF 1/8
<b>PB 400</b>	DMFC-04ED-02G	27	26	24	14	12	PF 1/2	PF 1/4
<b>PB 400</b>	DMFC-06ED-02G	32	32	26	16	12	PF 3/4	PF 1/4
	DMFC-06ED-03G	32	32	26	16	12	PF 3/4	PF 3/8
<b>PB 400</b>	DMFC-08ED-02G	41	39	29	18	12	PF1	PF 1/4
	DMFC-08ED-03G	41	39	29	18	12	PF1	PF 3/8
	DMFC-08ED-04G	41	39	29	18	14	PF1	PF 1/2
<b>PB 250</b>	DMFC-10ED-04G	50	49	32	20	14	PF 1 1/4	PF 1/2
	DMFC-10ED-06G	50	49	32	20	16	PF 1 1/4	PF 3/4
<b>PB 250</b>	DMFC-12ED-04G	55	55	36	22	14	PF 1 1/2	PF 1/2
	DMFC-12ED-06G	55	55	36	22	16	PF 1 1/2	PF 3/4
	DMFC-12ED-08G	55	55	36	22	18	PF 1 1/2	PF1

## DMFG-ED

### Male Female Gauge Connector with ED-Ring

#### BSP Parallel Thread Type

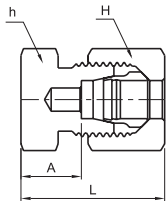


Series	Part Number	Dimension (mm)							
		H	d	D	L	A	B	T	T1
<b>PB 630</b>	DMFG-01ED-02G	19	4	14	31	8	17	PF 1/8	PF 1/4
	DMFG-01ED-03G	24	4	14	32	8	17	PF 1/8	PF 3/8
	DMFG-02ED-01G	19	5	18	28	12	12	PF 1/4	PF 1/8
	DMFG-02ED-03G	24	5	18	36	12	17	PF 1/4	PF 3/8
	DMFG-02ED-04G	30	5	18	40	12	20	PF 1/4	PF 1/2
<b>PB450</b>	DMFG-02ED-06G	36	5	18	43	12	22	PF 1/4	PF 3/4
<b>PB630</b>	DMFG-03ED-02G	22	8	22	36	12	17	PF 3/8	PF 1/4
	DMFG-03ED-04G	30	8	22	41	12	20	PF 3/8	PF 1/2
<b>PB400</b>	DMFG-03ED-06G	36	8	22	44	12	22	PF 3/8	PF 3/4
<b>PB400</b>	DMFG-04ED-03G	27	12	26	36	14	17	PF 1/2	PF 3/8
	DMFG-04ED-06G	36	12	26	46	14	22	PF 1/2	PF 3/4
	DMFG-04ED-08G	41	12	26	49	14	24.5	PF 1/2	PF 1
<b>PB250</b>	DMFG-04ED-10G	55	10	26	53	14	26.5	PF 1/2	PF 1 1/4
<b>PB400</b>	DMFG-06ED-04G	32	16	32	41	16	20	PF 3/4	PF 1/2
	DMFG-06ED-08G	41	16	32	51	16	24.5	PF 3/4	PF 1
	DMFG-06ED-10G	55	16	32	55	16	26.5	PF 3/4	PF 1 1/4
<b>PB250</b>	DMFG-06ED-12G	60	16	32	57	16	28.5	PF 3/4	PF 1 1/2
<b>PB400</b>	DMFG-08ED-06G	41	20	39	47	18	22	PF 1	PF 3/4
<b>PB250</b>	DMFG-08ED-10G	55	20	39	57	18	26.5	PF 1	PF 1 1/4
	DMFG-08ED-12G	60	20	39	59	18	28.5	PF 1	PF 1 1/2
	DMFG-10ED-08G	50	25	49	52	20	24.5	PF 1 1/4	PF 1
	DMFG-10ED-12G	60	25	49	60	20	28.5	PF 1 1/4	PF 1 1/2
	DMFG-12ED-10G	55	32	55	58	22	26.5	PF 1 1/2	PF 1 1/4
	DMFG-16ED-12G	70	40	68	62	24	28.5	PF 2	PF 1 1/2

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

**DC**

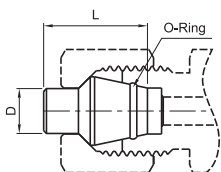
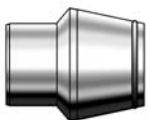
## Tube Cap



Series	Part Number	Tube O.D.	Dimension (mm)			
			H	h	L	A
<b>L Light PN 315</b>	DC-06L	6	14	12	22	7.0
	DC-08L	8	17	14	23	8.0
	DC-10L	10	19	17	24	9.0
	DC-12L	12	22	19	25	10.0
	DC-15L	15	27	24	26	11.0
	DC-18L	18	32	27	28	11.5
<b>PN 160</b>	DC-22L	22	36	32	30	13.5
	DC-28L	28	41	41	31	14.5
	DC-35L	35	50	46	36	14.5
	DC-42L	42	60	55	39	16.0
<b>S Heavy PN 630</b>	DC-06S	6	17	14	26	11.0
	DC-08S	8	19	17	28	13.0
	DC-10S	10	22	19	29	12.5
	DC-12S	12	24	22	31	14.5
	DC-14S	14	27	24	34	16.0
<b>PN 400</b>	DC-16S	16	30	27	34	15.5
	DC-20S	20	36	32	39	17.5
	DC-25S	25	46	41	44	20.0
	DC-30S	30	50	46	47	20.5
<b>PN 315</b>	DC-38S	38	60	55	54	23.0

**DP**

## Plug

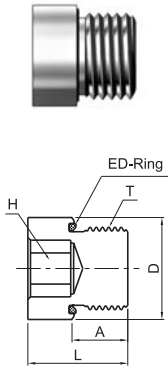


Series	Part Number	Tube O.D.	Dimension (mm)	
			D	L
<b>L Light PN 315</b>	DP-06LS	6	6	18.5
	DP-08LS	8	8	18.5
	DP-10LS	10	10	20
	DP-12LS	12	12	20.5
	DP-15L	15	15	20.5
	DP-18L	18	18	22.5
<b>PN 160</b>	DP-22L	22	22	25
	DP-28L	28	28	25.5
	DP-35L	35	35	30
	DP-42L	42	42	30
<b>S Heavy PN 630</b>	DP-14S	14	14	22.5
<b>PN 400</b>	DP-16S	16	16	23.5
	DP-20S	20	20	28.5
	DP-25S	25	25	29
	DP-30S	30	30	30.5
<b>PN 315</b>	DP-38S	38	38	33

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

## DBP-GED/MED(BSP Parallel/Metric Parallel)

### Blanking Plugs for Port with ED-Ring

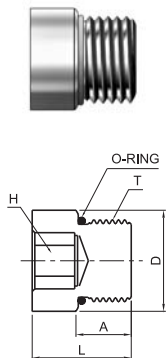


Series	Part Number(M)	Part Number(G)	T		Dimension (mm)			
			M(Metric)	G(PF)	D	H	L	A
PB 400	DBP-M10ED	DBP-01GED	M10 × 1.0	1/8	14.0	5	12.0	8
	DBP-M12ED	-	M12 × 1.5	-	17.0	6	17.0	12
	DBP-M14ED	DBP-02GED	M14 × 1.5	1/4	19.0	6	17.0	12
	DBP-M16ED	DBP-03GED	M16 × 1.5	3/8	22.0	8	17.0	12
	DBP-M18ED	-	M18 × 1.5	-	23.9	8	17.0	12
	DBP-M20ED	-	M20 × 1.5	-	25.9	10	19.0	14
	DBP-M22ED	DBP-04GED	M22 × 1.5	1/2	27.0	10	19.0	14
	DBP-M26ED	-	M26 × 1.5	-	31.9	12	21.0	16
	DBP-M27ED	DBP-06GED	M27 × 2.0	3/4	32.0	12	21.0	16
	DBP-M33ED	DBP-08GED	M33 × 2.0	1	39.9	17	22.5	16
PB 250	DBP-M42ED	DBP-10GED	M42 × 2.0	1 1/4	49.9	22	22.5	16
	DBP-M48ED	DBP-12GED	M48 × 2.0	1 1/2	55.0	24	22.5	16

## DBP-M (Metric Parallel)

### Blanking Plugs with O-Ring

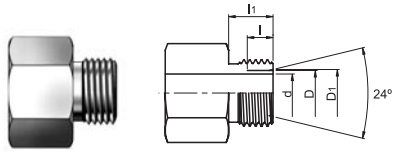
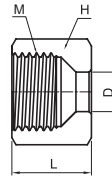
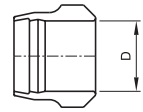
(accord.to ISO 6149-3/DIN 3582)



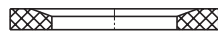
Series	Part Number	T M(Metric)	Dimension (mm)			
			D	H	L	A
PB 630	DBP-M10	M10 × 1	13	5	14	10
	DBP-M12	M12 × 1.5	17	6	16.5	11.5
	DBP-M14	M14 × 1.5	19	6	16.5	11.5
	DBP-M16	M16 × 1.5	21	6	18	13
	DBP-M18	M18 × 1.5	23	8	19.5	14.5
PB 400	DBP-M22	M22 × 1.5	27	10	20.5	15.5
	DBP-M26	M26 × 1.5	31	12	21	16
	DBP-M27	M27 × 2	32	12	24	19
	DBP-M33	M33 × 2	38	17	25.5	19
	DBP-M42	M42 × 2	48	22	26	19.5

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

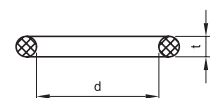


**Tube end Dimension****DNT****NUT****DCR****Cutting Ring**

Series	Nut Part Number	Cutting Ring Part Number	Tube O.D	DN Size	Dimension (mm)							
					D	D1	d	H	L	M	I	h
<b>LL Very Light</b>	DNT-04LL	DCR-04LL	4	3	4	5	3	10	11.5	M8 × 1.0	4	8
	DNT-06LL	DCR-06LL	6	4	6	7.5	4.5	12	12	M10 × 1.0	5.5	8
	DNT-08LL	DCR-08LL	8	6	8	9.5	6	14	12.5	M12 × 1.0	5.5	9
	DNT-10LL	DCR-10LL	10	8	10	11.5	8	17	12.5	M14 × 1.0	6	9
	DNT-12LL	DCR-12LL	12	10	12	13.5	10	19	13	M16 × 1.0	6	9
<b>L Light</b>	DNT-06L	DCR-06	6	4	6	8.1	4	14	15	M12 × 1.5	7	10
	DNT-08L	DCR-08	8	6	8	10.1	6	17	15	M14 × 1.5	7	10
	DNT-10L	DCR-10	10	8	10	12.3	8	19	16	M16 × 1.5	7	11
	DNT-12L	DCR-12	12	10	12	14.3	10	22	16	M18 × 1.5	7	11
	DNT-15L	DCR-15	15	12	15	17.3	12	27	17.5	M22 × 1.5	7	12
	DNT-18L	DCR-18	18	16	18	20.3	15	32	18	M26 × 1.5	7.5	12
	DNT-22L	DCR-22	22	20	22	24.3	19	36	20.5	M30 × 2.0	7.5	14
	DNT-28L	DCR-28	28	25	28	30.3	24	41	21	M36 × 2.0	7.5	14
	DNT-35L	DCR-35	35	32	35	38	30	50	24	M45 × 2.0	10.5	16
DNT-42L	DCR-42	42	40	42	45	36	60	24	M52 × 2.0	11	16	
<b>S Heavy</b>	DNT-06S	DCR-06	6	3	6	8.1	4	17	16.5	M14 × 1.5	7	12
	DNT-08S	DCR-08	8	4	8	10.1	5	19	16.5	M16 × 1.6	7	12
	DNT-10S	DCR-10	10	6	10	12.3	7	22	17.5	M18 × 1.5	7.5	12
	DNT-12S	DCR-12	12	8	12	14.3	8	24	18	M20 × 1.5	7.5	12
	DNT-14S	DCR-14	14	10	14	16.3	10	27	20.5	M22 × 1.5	8	14
	DNT-16S	DCR-16	16	12	16	18.3	12	30	21	M24 × 1.5	8.5	14
	DNT-20S	DCR-20	20	16	20	22.9	16	36	24	M30 × 2.0	10.5	16
	DNT-25S	DCR-25	25	20	25	27.9	20	46	27	M36 × 2.0	12	18
	DNT-30S	DCR-30	30	25	30	33	25	50	29.5	M42 × 2.0	13.5	20
	DNT-38S	DCR-38	38	32	38	41	32	60	32.5	M52 × 2.0	16	22

**DED****ED-Ring**

Part Number	For Male Thread	
DED- M8	M8 × 1.0	-
DED-M10	M10 × 1.0	PF 1/8
DED-M12	M12 × 1.5	-
DED-M14	M14 × 1.5	PF 1/4
DED-M16	M16 × 1.5	-
DED-03G	-	PF 3/8
DED-M18	M18 × 1.5	-
DED-M20	M20 × 1.5	-
DED-04G	-	PF 1/2
DED-M22	M22 × 1.5	--
DED-M26	M26 × 1.5	PF 3/4
DED-M27	M27 × 2.0	
DED-M33	M33 × 2.0	PF 1
DED-M42	M42 × 2.0	PF 1 1/4
DED-M48	M48 × 2.0	PF 1 1/2

**DOR****O-Ring**

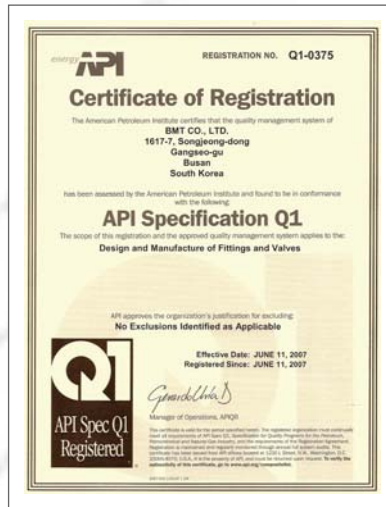
Part Number	d	t
DOR-4	4	1.5
DOR-6	6	1.5
DOR-7.5	7.5	1.5
DOR-9	9	1.5
DOR-10	10	2.0
DOR-12	12	2.0
DOR-15	15	2.0
DOR-16.3	16.3	2.4
DOR-20	20	2
DOR-20.3	20.3	2.4
DOR-25.3	25.3	2.4
DOR-26	26	2
DOR-32	32	2.5
DOR-33.3	33.3	2.4
DOR-38	38	2.5

All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# Certificates



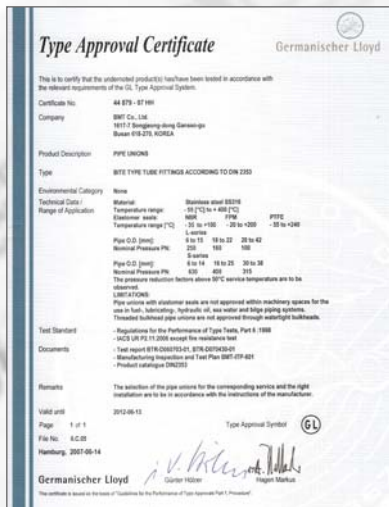
■ **ABS 06-BK152666-PDA**



■ **API-SpecQ1**



■ **DNV P-12317**



■ **GL - BITE TYPE**



■ **ISO 9001**



■ **LR 06-10006**

**SUPERLOK TUBE FITTINGS**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 9000 psig @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : -325 °F(-198°C) TO 1200 °F(648°C)

**BITE TYPE TUBE FITTINGS**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 100-630 barg @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : 800 °F(427°C)

**INSTRUMENT THREAD FITTINGS**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 10000 psig @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : -325 °F(-198°C) TO 1200 °F(648°C)

**BALL VALVE 120 SERIES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 2500 psig @70 °F(21°C)  
 OPERATING TEMPERATURE RANGE : 50 °F(10°C) TO 150 °F(65°C)

**BALL VALVE 210 SERIES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 1000 psig @70 °F(21°C)  
 OPERATING TEMPERATURE RANGE : -65 °F(-54°C) TO 450 °F(232°C)

**BALL VALVE 360 SERIES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 10000 psig @70 °F(21°C)  
 OPERATING TEMPERATURE RANGE : -22 °F(-30°C) TO 265 °F(130°C)

**PLUG VALVES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 3000 psig @70 °F(21°C)  
 OPERATING TEMPERATURE RANGE : -10 °F(-23°C) TO 400 °F(204°C)

**MANIFOLD VALVES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 6000 psig @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : -65 °F(-54°C) TO 450 °F(232°C)

**INTEGRAL BONNET NEEDLE VALVES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 5000 psig @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : -65 °F(-54°C) TO 450 °F(232°C)

**UNION BONNET NEEDLE VALVES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 6000 psig @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : -65 °F(-54°C) TO 1200 °F(648°C)

**CHECK VALVES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 3000 psig @70 °F(21°C)  
 OPERATING TEMPERATURE RANGE : -10 °F(-23°C) TO 375 °F(191°C)

**SWING-OUT BALL VALVES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 3000 psig @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : -20 °F(-28°C) TO 450 °F(232°C)

**TOGGLE VALVES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 300 psig @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : -20 °F(-28°C) TO 200 °F(93°C)

**QUICK CONNECTS**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : 3000 psig @70 °F(21°C)  
 OPERATING TEMPERATURE RANGE : -10 °F(-23°C) TO 400 °F(204°C)

**DOUBLE BLOCK&BLEED VALVES**



- **SPECIFICATIONS**  
 MAXIMUM OPERATING PRESSURE : CLASS2500 (6000 psig) @100 °F(38°C)  
 OPERATING TEMPERATURE RANGE : -65 °F(-54°C) TO 400 °F(204°C)  
 WITH PEEK SEAT

**VACUUM CLAMP**



## Valve Series

- Key Operation Ball Valves
- Key Operation Needle Valves
- Ball Valves
- Integral Bonnet Needle Valves
- Union Bonnet Needle Valves
- Check Valves
- High Pressure Check Valves
- High Pressure Needle Valves
- Plug Valves
- Manifold Valves
- Vacuum Clamps
- Water Regulators
- Flexible Hoses
- Double Block & Bleed Valves
- Swing-Out Ball Valves
- Toggle Valves
- Bleed & Purge Valves
- Quick Connectors
- High Pressure Ball Valves
- Hydraulic Ball Valves
- Trunnion Ball Valves
- Rising Plug Valves
- Relief Valves
- Cryogenic Needle Valves
- Cryogenic Ball Valves
- Micron in-Line Filters
- Gauge Root Valves
- Hydraulic Flange and Components

## Fitting Series

- Integration Tube Fittings
- Tube Fittings (Compression Type)
- Instrument Thread Fittings
- Forged Fittings
- Bite Type Tube Fittings (DIN2353)
- Bite Type Tube Fittings (JIS B2351)
- 37 Flared Tube Fittings (SAE J514)
- O-Ring Face Seal Fittings
- Hose Connectors & Push-On Hose Fittings

## Electric Equipment

- MCPD(Molded Case Power Distributor)
- SPIDER
- Smart Eye Module

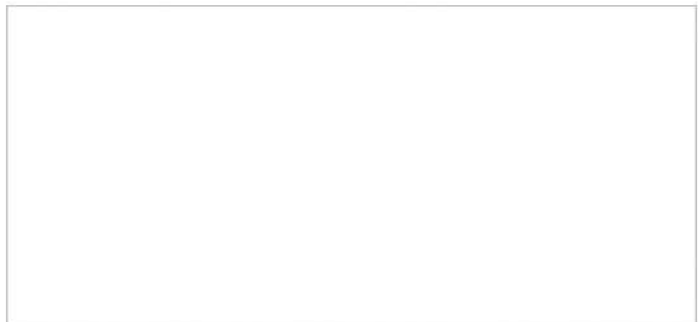


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BMT-CTD Rev. 3 (12. 02. 10)



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