

# Tube Fittings

for DIN2353

With LL, L and S Series

**BITE TYPE FITTINGS**



**Introduction**

**SUPERLOK Bite Type Tube Fitting**

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

Available in three series, the The SUPERLOK bite 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 Bite Type Tube Fittings are designed and manufactured to produced a strong, reliable, leak-free joint upon proper assembly.

**The SUPERLOK Bite Type Body :**

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

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

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

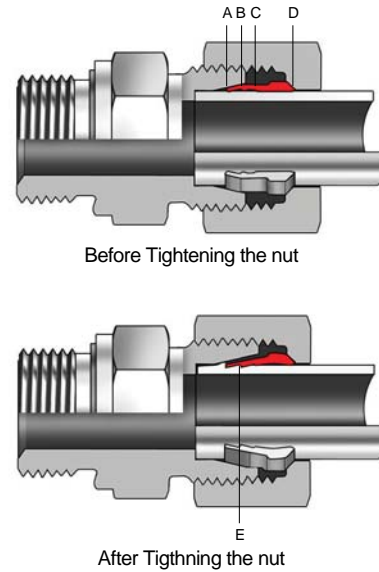
**The SUPERLOK Bite Type Cutting Ring :**

SUPERLOK progressive 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 Bite Type Nut :**

SUPERLOK fitting nuts are either cold formed, hot formed or 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 Progressive Bite Type Tube Fittings**



The SUPERLOK Cutting Ring fitting produces a low to high pressure. leak free connection of tubes and components in fluid systems. The basic function of the Cutting Ring is the controlled progressive 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 designed. This distribution along with the specially designed interior collar (D) of the ring gurantees increased safety, particularly with regard to vibration and flexure stresses. The design and function of the progressive cutting 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**

**Steel Fittings** : Materials see DIN3859

**Stainless Steel Fitting** : X6CrNiMoTi 17122 in accordance with DIN17440, material no. 1.14571

**Brass Fitting** : CuZn35Ni2 in accordance with DIN17660/17672, material no 2.0540.

**Elastomer Seal** : NBR(BUNA - N), DIN 17660FPM(VITON)

**For sealing materials**

Seal Material	Temperature Ratings
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

**Pressure and Temperature Load Capability**

**Working pressure**

Series	Pressure Ratings			
	Steel (DIN3859)/Brass		SS316 (DIN 17440/1.4571)	
	Size	Pressure (bar)	Size	Pressure (bar)
LL (Very light)	4 - 8	100	4 - 12	100
	6 - 18	315	6 - 15	250
L (Light)	-	-	18 - 22	160
	22 - 42	160	28 - 42	100
S (Heavy)	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



**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

Material of Fittings	Temperature Rating	Reduction of Pressure
<b>316 Stainless steel (1.4571)</b>	- 60 °C up to + 20 °C	-
	+ 50 °C	4%
	+ 100 °C	11%
	+ 200 °C	20%
	+ 300 °C	29%
<b>Carbon steel</b>	+ 400 °C	33%
	- 40 °C up to + 120 °C	-
<b>Brass</b>	- 60 °C up to + 175 °C	30%

**Permissible operating temperature (TB) range for fitting materials**

Material of Fittings	Temperature Ratings
<b>316 Stainless steel</b>	- 60 °C up to + 400 °C (DIN17440)
<b>Carbn 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 different material of tubes and fitting.

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

## Tubing guide

### Seamless precision steel tube St 37.4

We recommend the use of seamless precision steel tubes with dimensions to DIN 2391, part 1, material St 37.4 to DIN 1630, TYPE NBK. The following tube wall thickness are suitable for use:

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
		2.5	9	434	417	0.709
		3.0	8	507	487	0.814
16	0.08	3.5	7	576	553	0.906
		4	6	576	553	0.986
		*1.0	13	188	171	0.345
		1.5	12	282	248	0.499
18	0.08	2.0	11	336	321	0.641
		2.5	10	409	391	0.771
		3.0	9	478	458	0.888
		*1.0	14	176	160	0.370
20	0.08	1.5	13	264	234	0.536
		2.0	12	353	303	0.691
		2.5	11	386	370	0.832
		3.0	10	452	433	0.962
		4.0	9	522	502	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
		2.5	25	235	210	1.695
35	0.15	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
44	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 Bite Type Tube Fittings.

## Tubing guide

### Seamless precision stainless steel 1.4571

Stainless steel tube (e.g. 1.4571), code X6CrNiMoTi 17122, must be cold-drawn and seamless, heat -treated without formation of scale, type m to Din 17458, provide tolerances to DIN2391, Part 1

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	
6	±0.1	1.0	4	426	330	0.125
8	±0.1	1.0	6	368	256	0.175
		1.5	5	472	366	0.224
10	±0.08	1.0	8	294	209	0.225
		1.5	7	389	301	0.319
		2.0	6	498	386	0.401
12	±0.08	1.0	10	245	177	0.275
		1.5	9	368	256	0.394
		2.0	8	426	330	0.501
14	±0.08	1.5	11	315	223	0.469
		2.0	10	420	289	0.601
		2.5	9	452	351	0.720
15	±0.08	* 1.0	13	196	143	0.351
		1.5	12	294	209	0.507
		2.0	11	392	271	0.651
16	±0.08	2.0	12	368	256	0.701
		2.5	11	403	312	0.845
		3.0	10	472	366	0.977

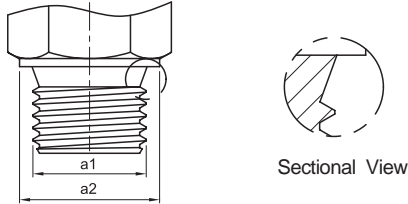
Tube O.D (mm)	Tolerance (mm)	Wall Thickness (mm)	Tube I.D (mm)	Design Pressure(bar)		Weight (kg/m)
				DIN2413 I Static	DIN2413 III Dynamic	
18	±0.08	1.5	15	245	177	0.620
		2.0	14	327	230	0.801
20	±0.08	2.0	16	294	209	0.901
		2.5	15	368	256	1.095
		3.0	14	309	301	1.277
22	±0.08	1.5	19	200	146	0.770
		2.0	18	267	192	1.002
25	±0.08	2.5	2	294	209	1.408
		3.0	19	353	247	1.653
28	±0.08	1.5	25	158	177	0.995
		2.0	24	210	153	1.302
30	±0.08	3.0	24	294	209	2.028
		4.0	22	392	271	2.605
35	±0.15	2.0	31	168	124	1.653
38	±0.15	4.0	3	309	219	3.405
		5.0	28	387	268	4.131
42	±0.2	* 2.0	39	140	104	2.003
		3.0	36	210	153	2.930

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

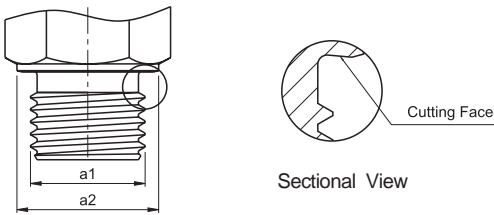
**Stud Ends & Tapered Hold Forms for Tube Fittings**

**Form of Stud Ends**

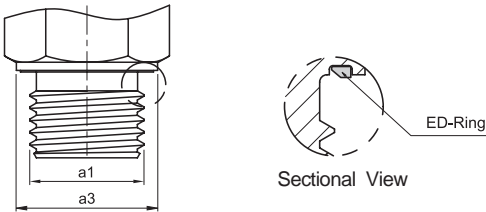
**Form A (DIN3852 Part 1+2) with sealing by washer**



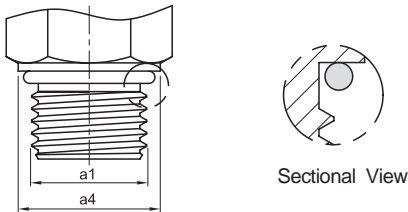
**Form B (DIN 3852 Part 1+2) with sealing by compression against face of body.**



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

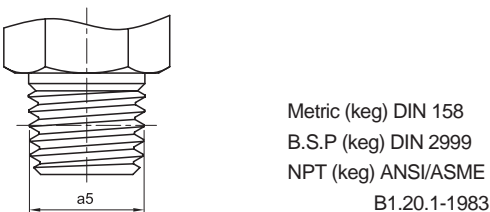


**Form D (DIN 3852 Part 11) with sealing by \*O-Ring**



\* ED-Ring & O-Ring Seals made of NBR Standard (-20 °C to 100 °C)  
Available made of viton Upon Request (-20 °C to 200 °C)

**Form E (DIN 3852 Part 1+2) with sealing in tapered thread**



**Thread size for Form A, B, C, D Stud Ends**

a1	a2	a4 <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 1/16-12UNF	-	-	31.9
1 5/16-12UNF	-	-	38.2
1 5/8-12UNF	-	-	47.4

**Thread size for Form E 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 ×1.5keg	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.

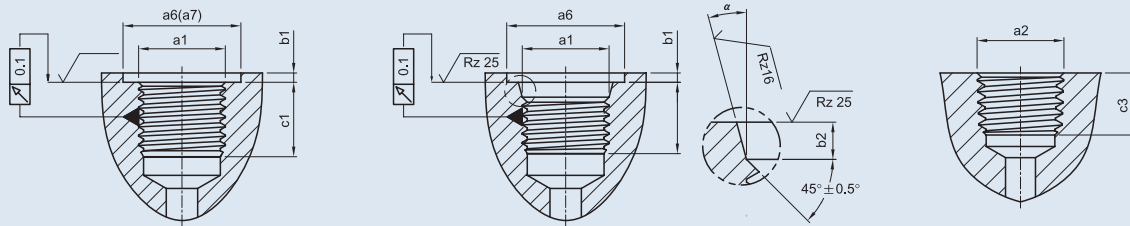
**Stud Ends & Tapered Hold Forms for Tube Fitting**

**From of Tapped Holes**

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

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

**Form H (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.	α° ±1°
Form F,G Tapped Holes a1	Form H 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 1/16-12UNF	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	-

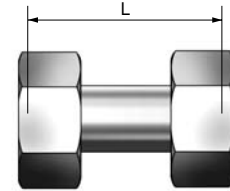


**Assembly in fitting body**

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 x 45° (0.012" x 45°) permissible.

**B) Preparing fittings parts with lubricants**



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



**Assembly in fitting body**

**C) Components**


**6**




Slip nut and progressive ring over tube end.

**7**

correct



incorrect



Ensure progressive ring and nut are facing the right way.

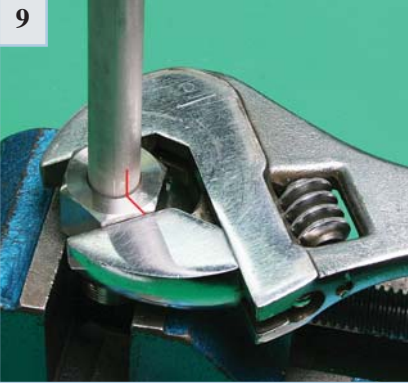
**D) Assembly**

**8**



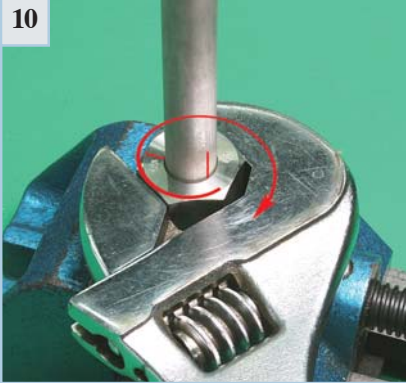
Screw nut manually on to fitting body until fingertight. Hold tube against the shoulder in the cone of fitting body.

**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 edge limits over tightening by increasing tightening torque.

**E) Check**

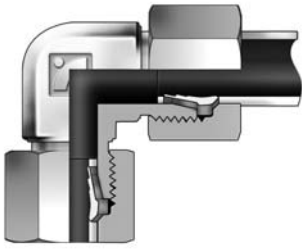
**11**



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.


**Assembly in hardened pre-assembly body**

*with subsequent final assembly*

for frequent assembly of stainless steel tube as well as hose standpipe fittings with pre-assembly tools


**A) Preparing the tube**

**1**




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


**2** **Attention :** Do not use tube cutter!




a) tube cut with tube cutter : heavy burr / bevel cut



b) sawed off tube: very little burr




**3**



Lightly de - burr inside and outside edge.  
Bevel up to 0.2 × 45° (0.010" × 45°) permissible.

**B) Treatment with lubricants**

**4**



Clamp the pre - assembly body - according to tube size and series - in the vice, coat all parts with lubricant.

**Assembly in hardened pre-assembly body**

*with subsequent final assembly*

**C) Components**

**5**




Slip nut and progressive ring over tube end.

**6**

correct



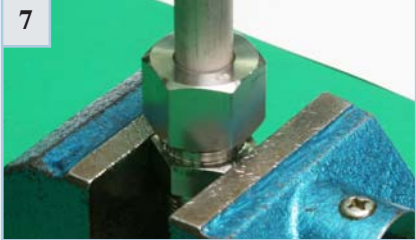
incorrect



Ensure progressive ring and nut are facing the right way.

**D) Pre - assembly**

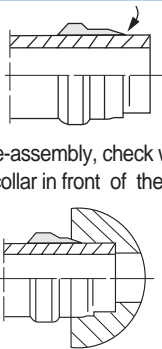
**7**



Screw on nut manually until fingertight, hold tube against stop in internal cone of pre-assembly body. To measure the prescribed turns of the nut, mark nut and body. Turn nut approx. 1-1/4 turn progressive ring will have cut into the tube (tube must not turn.)

**E) Check pre-assembly**

**8**




After the pre-assembly, check whether there is a visible collar in front of the cutting edge.

Check the fit of the pre-assembled tube of the tube stop of a fitting body. Use a partially split fitting for this. The top face of the pre-assembled tube must touch the tube stop of the fitting body.

**F) Final assembly**

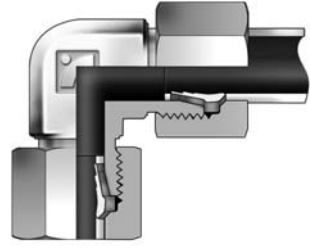
**9**



Put pre - installed tube into fitting body. tighten by approx. 1/4 turns of nut beyond point of clearly perceptible resistance

**G) Final assembly of pre - installed fittings**


**10**



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

**H) Check of Final assembly**


**11**



Loosen the nut, remove tube and check whether a clear visible collar fills space in front of the first cutting edge. The collar for stainless tubes is less than for steel tubes due to the material hardness. It does not matter if the progressive ring can be rotated on the tube end.

**I) Repeated assembly**

**12**



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

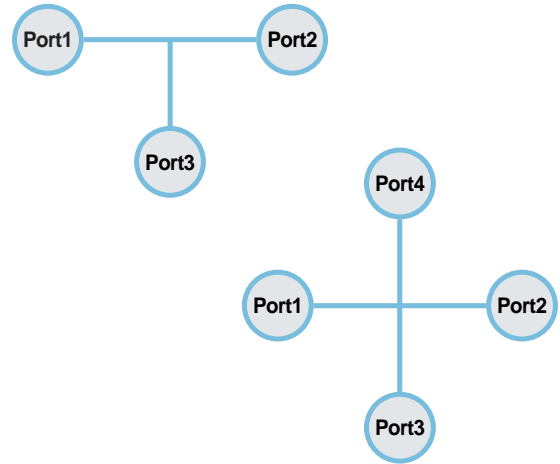
The assembly of stainless steel tube is made easier by unscrewing the nut a few times and treating the thread with lubricant. (This applies for paste and spray - on lubricants). For liquid lubricants, loosening of the nut is sufficient so that lubricant can get between the contact surfaces. It is recommended that test assemblies should be made before hand with tubes of a greater rigidity or special materials. If in doubt, please send us an approx. 30cm long tube end for test assembly.

**Ordering Information**

<b>Example 1</b>	<b>Male Connector</b>
<b>D MC - 10 L 2G ED - SS</b> 	

<b>Example 2</b>	<b>Reducing Union Tee</b>
<b>D RUT - 10 L - 10 L - 8 L - B</b> 	
	* 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	Very Light	Light	Heavy
Identify	LL	L	S

- V : Thread Size : See Thread Specification
- VI : Elastomer : 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"	
NPT	1N	2N	3N	4N	6N	8N	10N	12N	ANSI/ASME B1.20.1
ISO/BSP Parallel	1G	2G	3G	4G	6G	8G	10G	12G	ISO228 (DIN259)
ISO/BSP Tapered	1R	2R	3R	4R	6R	8R	10R	12R	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
Metric Parallel	M8	M10	M12	M14	M16	M18	.....	M42	M48	DIN - 13
Metric Tapered(Keg)	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 1/6-12UNF	1 5/16-12UNF	1 5/8-12UNF
ASME B1.1	4U	6U	8U	10U	12U	16U	20U



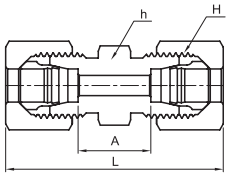
# INDEX

<b>Tube to Tube Part No.</b>			 <b>DMC-G</b> 22 Male Connector	 <b>DABT</b> 30 Adjustable Branch Tee
 <b>DU</b> 15 Union	 <b>DMC-R</b> 23 Male Connector	 <b>DART</b> 31 Adjustable Run Tee		
 <b>DUE</b> 15 Union Elbow	 <b>DMC-M</b> 24 Male Connector	 <b>DSE</b> 31 Swivel Adjustable Elbow		
 <b>DRU</b> 16 Reducing Union	 <b>DMC-MK</b> 24 Male Connector	 <b>DSBT</b> 32 Swivel Adjustable Branch Tee		
 <b>DUT</b> 17 Union Tee	 <b>DMC-GED</b> 25 Male Connector with ED-Ring	 <b>DSRT</b> 32 Swivel Adjustable Run Tee		
 <b>DUC</b> 17 Union Cross	 <b>DMC-MED</b> 26 Male Connector with ED-Ring	 <b>DPR</b> 33 Standpipe Reducer		
 <b>DRUT</b> 18 Reducing Union Tee	 <b>DMC-N</b> 27 Male Connector	 <b>DR</b> 35 Reducer		
 <b>DBHU</b> 19 Bulkhead Union	 <b>DME-R/M</b> 28 Male Elbow	 <b>DSRA</b> 37 Swivel Reducing Adaptor		
 <b>DBUW</b> 19 Weld Bulkhead Union	<b>Tube to Male Thread Part No.</b>			
 <b>DBUE</b> 20 Bulkhead Union Elbow	 <b>DFC-GM</b> 29 Female Connector	<b>Tube Port to Female Port Part No.</b>		
<b>Tube to Female Port Part No.</b>			 <b>DA-GED/MED</b> 39 Adaptor	
<b>Tube to Tube Port (Adjustable Fittings) Part No.</b>			 <b>DSA-GED/MED</b> 40 Swivel Adaptor	
 <b>DOMC-U/M</b> 21 Male Connector with O-Ring	 <b>DAE</b> 30 Adjustable Elbow			

<b>Tube Port to Tube Port Part No.</b>		 <b>DTC</b> 46 Test Coupling	<b>Plugs &amp; Caps Part No.</b>	
 <b>DSU</b> 41 Swivel Union	<b>Weld Fittings Part No.</b>		 <b>DC</b> 51 Tube Cap	
<b>Banjo Fittings Part No.</b>		 <b>DWC</b> 47 Welding Connector	 <b>DP</b> 51 Plug	
 <b>DBE-G/M</b> 42 Banjo Elbow	 <b>DAWC</b> 47 Welding Connector with DWN	 <b>DBP-GED/MED</b> 52 Blanking Plugs for Port with ED-Ring		
 <b>DHBE-G/M</b> 43 High Pressure Banjo Elbow	 <b>DWN</b> 48 Welding Nipple	 <b>DBP-M</b> 52 Blanking Plugs with ED-Ring		
 <b>DHBT-G/M</b> 44 High Pressure Banjo Tee	 <b>DRWN</b> 48 Reducing Welding	<b>Spare Part Part No.</b>		
<b>Gauge Connector &amp; Test Couplings Part No.</b>		<b>Male &amp; Female Adaptors Part No.</b>		
 <b>DGC-G</b> 45 Pressure Gauge Connector	 <b>DMFC</b> 49 Male Female Connector	 <b>DN</b> 53 Nut		
 <b>DSGA-G</b> 45 Pressure Gauge Swivel Connector	 <b>DMFG</b> 49 Male Female Gauge Connector	 <b>DS</b> 53 Cutting Ring		
 <b>DGA-G</b> 45 Gauge Adaptor	 <b>DMFC-ED</b> 50 Male Female Connector with ED-Ring	 <b>DED</b> 53 ED-Ring		
 <b>DTPC</b> 46 Tee Test Point Connector	 <b>DMFG-ED</b> 50 Male Female Gauge Connector with ED-Ring	 <b>DOR</b> 53 O-Ring		
				

# DU

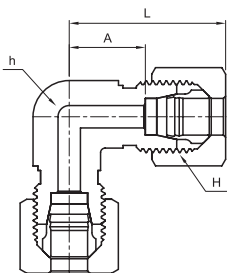
## Union



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

# DUE

## Union Elbow



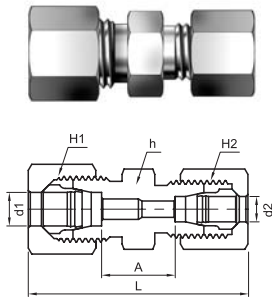
Series	Part Number	Tube O.D.	Dimension (mm)			
			H	h	L	A
<b>LL</b> Very Light PN 100	DUE-04LL	4	10.0	9.0	21.0	11.0
	DUE-06LL	6	12.0	9.0	21.0	9.5
	DUE-08LL	8	14.0	12.0	23.0	11.5
	DUE-10LL	10	17.0	14.0	24.0	12.5
	DUE-12LL	12	19.0	17.0	25.0	13.0
<b>L</b> Light PN 315	DUE-06L	6	14.0	12.0	27.0	12.0
	DUE-08L	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

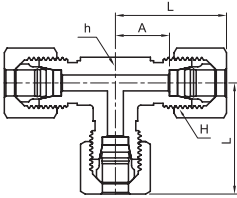


Series	Part Number	Tube O.D.		Dimension (mm)				
		d1	d2	H1	H2	h	L	A
<b>L Light PN 315</b>	DRU 08L-06L	8	6	17.0	14.0	14.0	40.0	11.0
	DRU 10L-06L	10	6	19.0	14.0	17.0	41.0	12.0
	DRU 10L-08L	10	8	19.0	17.0	17.0	41.0	12.0
	DRU 12L-06L	12	6	22.0	14.0	19.0	42.0	13.0
	DRU 12L-08L	12	8	22.0	17.0	19.0	42.0	13.0
	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

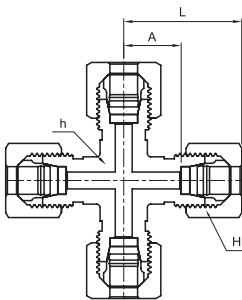
## Union Tee



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
<b>L</b> Light PN 315	DUT-12LL	12	19.0	14.0	27.0	15.0
	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
	DUT-08S	8	19.0	14.0	32.0	17.0
<b>PN 400</b>	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
	DUT-16S	16	30.0	24.0	43.0	24.5
<b>PN 315</b>	DUT-20S	20	36.0	27.0	48.0	26.5
	DUT-25S	25	46.0	36.0	54.0	30.0
	DUT-30S	30	50.0	41.0	62.0	35.5
<b>PN 315</b>	DUT-38S	38	60.0	50.0	72.0	41.0

# DUC

## Union Cross

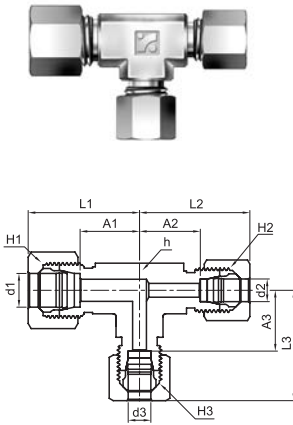


Series	Part Number	Tube O.D.	Dimension (mm)			
			H	h	L	A
<b>LL</b> Very Light PN 100	DUC-04LL	4	10.0	9.0	21.0	11.0
	DUC-06LL	6	12.0	9.0	21.0	9.5
	DUC-08LL	8	14.0	12.0	23.0	11.5
	DUC-10LL	10	17.0	14.0	24.0	12.5
	DUC-12LL	12	19.0	14.0	27.0	15.0
<b>L</b> Light PN 315	DUC-06L	6	14.0	12.0	27.0	12.0
	DUC-08L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

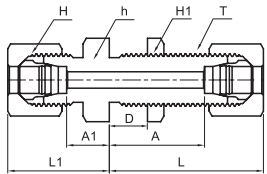
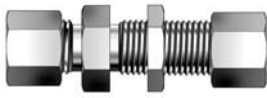


Series	Part Number	Tube O.D.			Dimension (mm)									
		d1	d2	d3	H1	H2	H3	h	L1	L2	L3	A1	A2	A3
<b>L Light</b> <b>PN 316</b>	DRUT 06L-06L-08L	6	6	8	14	14	17	14	29	29	29	14.0	14.0	14.0
	DRUT 08L-08L-06L	8	8	6	17	17	14	14	29	29	29	14.0	14.0	14.0
<b>PN 315</b>	DRUT 06L-06L-10L	6	6	10	14	14	19	14	30	30	30	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
<b>PN 315</b>	DRUT 10L-06L-10L	10	6	10	19	14	19	14	30	30	30	15.0	15.0	15.0
	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
<b>PN 315</b>	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
	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
<b>PN 315</b>	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
	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
<b>PN 315</b>	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
	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
<b>PN 160</b>	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
	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
<b>PN 160</b>	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
	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
<b>S Heavy</b> <b>PN 630</b>	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
	DRUT 16S-16S-12S	16	16	12	30	30	24	24	43	43	42	24.5	24.5	25.5
<b>PN 400</b>	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
	DRUT 20S-20S-12S	20	20	12	36	36	24	27	48	48	46	26.5	26.5	29.5
<b>PN 400</b>	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
	DRUT 25S-25S-20S	25	25	20	46	46	36	36	54	54	53	30.0	30.0	31.5
<b>PN 400</b>	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

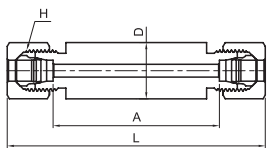


D=16mm Max Bulkhead thickness

Series	Part Number	Tube O.D.	Dimension (mm)							
			H	H1	h	L	L1	A	A1	T
<b>L Light</b> <b>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</b> <b>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
	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

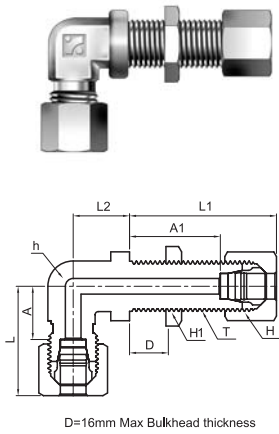


Series	Part Number	Tube O.D.	Dimension (mm)			
			H	D	L	A
<b>L Light</b> <b>PN 315</b>	DBUW-06L	6	14.0	18.0	85.0	56.0
	DBUW-08L	8	17.0	20.0	85.0	56.0
	DBUW-10L	10	19.0	22.0	87.0	58.0
	DBUW-12L	12	22.0	25.0	87.0	58.0
	DBUW-15L	15	27.0	28.0	100.0	70.0
	DBUW-18L	18	32.0	32.0	101.0	69.0
<b>PN 315</b>	DBUW-22L	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</b> <b>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
	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



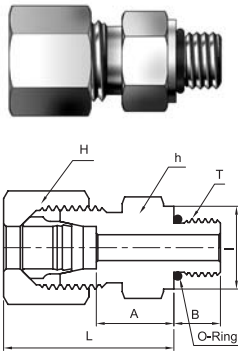
Series	Part Number	Tube O.D.	Dimension (mm)								
			H	H1	h	L	L1	L2	A	A1	T
<b>L Light</b>	DBUE-06L	6	14.0	17.0	12.0	27.0	42.0	14.0	12.0	27.0	M12 ×1.5
	DBUE-08L	8	17.0	19.0	12.0	29.0	42.0	17.0	14.0	27.0	M14 ×1.5
	DBUE-10L	10	19.0	22.0	14.0	30.0	43.0	18.0	15.0	28.0	M16 ×1.5
	DBUE-12L	12	22.0	24.0	17.0	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 315</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>PN 160</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
<b>PN 630</b>	DBUE-12S	12	24.0	27.0	17.0	38.0	47.0	21.0	21.5	30.5	M20 ×1.5
	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
<b>PN 400</b>	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
	DBUE-30S	30	50.0	50.0	41.0	62.0	64.0	39.0	35.5	37.5	M42 ×2.0
<b>PN 315</b>	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.

# DOMC-U/M (Unified/Metric Parallel)

## Male Connector with O-Ring

### Unified Thread Type



Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	l	L	A	B	T
<b>L Light</b> <b>PN 315</b>	DOMC 08L-04U	8	17.0	17.0	14.4	25.0	9.0	10.0	7/16-20UNF-2A
	DOMC 10L-04U	10	19.0	17.0	14.4	26.0	10.0	11.0	7/16-20UNF-2A
	DOMC 12L-06U	12	22.0	19.0	17.6	26.0	10.0	11.0	9/16-18UNF-2A
	DOMC 12L-08U	12	22.0	24.0	22.3	28.0	11.0	13.0	3/4-16UNF-2A
	DOMC 12L-10U	12	22.0	27.0	25.5	29.0	12.7	14.3	7/8-14UNF-2A
	DOMC 15L-08U	15	27.0	24.0	22.3	29.0	11.0	14.0	3/4-16UNF-2A
	DOMC 15L-10U	15	27.0	27.0	25.5	30.0	12.7	15.3	7/8-14UNF-2A
	DOMC 18L-08U	18	32.0	27.0	22.3	31.0	11.0	14.5	3/4-16UNF-2A
DOMC 18L-10U	18	32.0	27.0	25.5	31.0	12.7	14.8	7/8-14UNF-2A	
<b>PN 160</b>	DOMC 22L-10U	22	36.0	32.0	25.5	33.0	12.7	16.8	7/8-14UNF-2A
	DOMC 22L-12U	22	36.0	32.0	31.9	33.0	15.0	16.5	1 1/16-12UN-2A
	DOMC 22L-16U	22	36.0	41.0	38.2	34.0	15.0	17.5	1 5/16-12UN-2A
	DOMC 28L-12U	28	41.0	41.0	31.9	34.0	15.0	17.5	1 1/16-12UN-2A
	DOMC 28L-16U	28	41.0	41.0	38.2	34.0	15.0	17.5	1 5/16-12UN-2A
	DOMC 35L-16U	35	50.0	46.0	38.2	39.0	15.0	17.5	1 5/16-12UN-2A
	DOMC 35L-20U	35	50.0	50.0	47.7	39.0	15.0	17.5	1 5/8-12UN-2A
DOMC 42L-20U	42	60.0	55.0	47.7	42.0	15.0	19.0	1 5/8-12UN-2A	
<b>S Heavy</b> <b>PN 630</b>	DOMC 08S-04U	8	19.0	17.0	16.0	30.0	9.0	15.0	7/16-20UNF-2A
	DOMC 10S-06U	10	22.0	19.0	17.6	31.0	10.0	14.5	9/16-18UNF-2A
	DOMC 12S-06U	12	24.0	22.0	17.6	31.0	10.0	14.5	9/16-18UNF-2A
	DOMC12S-08U	12	24.0	24.0	22.3	34.0	11.0	17.5	3/4-16UNF-2A
<b>PN 400</b>	DOMC 16S-08U	16	30.0	24.0	22.3	34.0	11.0	15.5	3/4-16UNF-2A
	DOMC 16S-10U	16	30.0	27.0	25.5	37.0	12.7	18.8	7/8-14UNF-2A
	DOMC 20S-08U	20	36.0	32.0	22.3	42.0	11.0	20.5	3/4-16UNF-2A
	DOMC 20S-10U	20	36.0	32.0	25.5	42.0	12.7	20.8	7/8-14UNF-2A
	DOMC 20S-12U	20	36.0	32.0	31.9	42.0	15.0	20.5	1 1/16-12UN-2A
	DOMC 25S-12U	25	46.0	36.0	31.9	47.0	15.0	23.0	1 1/16-12UN-2A
	DOMC 25S-16U	25	46.0	41.0	38.2	47.0	15.0	23.0	1 5/16-12UN-2A
	DOMC 30S-16U	30	50.0	46.0	38.2	50.0	15.0	23.5	1 5/16-12UN-2A
DOMC 30S-20U	30	50.0	50.0	47.7	50.0	15.0	23.5	1 5/8-12UN-2A	
<b>PN 315</b>	DOMC 38S-20U	38	60.0	55.0	47.7	57.0	15.0	26.0	1 5/8-12UN-2A

### Metric Parallel Tread Type

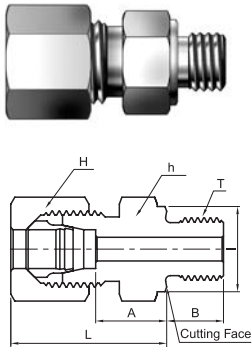
Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	l	L	A	B	T
<b>L Light</b> <b>PN 315</b>	DOMC 06L-M10	6	14.0	14.0	-	23.0	10.0	8.5	M10 × 1.0
	DOMC 08L-M12	8	17.0	17.0	-	25.0	11.5	10.0	M12 × 1.5
	DOMC 10L-M14	10	19.0	19.0	-	26.0	11.5	11.0	M14 × 1.5
	DOMC 12L-M16	12	22.0	22.0	-	27.0	13.0	12.0	M16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

# DMC-G (BSP Parallel)

## Male Connector

### BSP Parallel Thread Type



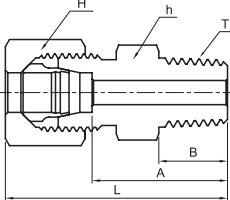
Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	l	L	A	B	T
<b>L Light PN 315</b>	DMC 06L-01G	6	14.0	14.0	14.0	23.0	8.5	8.0	PF 1/8
	DMC 06L-02G	6	14.0	19.0	18.0	25.0	10.0	12.0	PF 1/4
	DMC 06L-03G	6	14.0	22.0	22.0	26.0	11.5	12.0	PF 3/8
	DMC 06L-04G	6	14.0	27.0	26.0	27.0	12.0	14.0	PF 1/2
	DMC 08L-01G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



# DMC-R (BSP Tapered)

## Male Connector



### BSP Tapered Thread Type

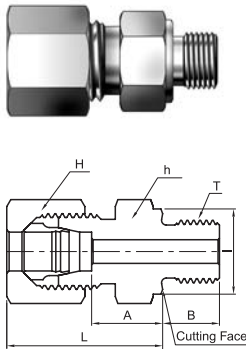
Series	Part Number	Tube O.D.	Dimension (mm)					
			H	h	L	A	B	T
<b>LL</b> <b>Very Light</b> <b>PN 100</b>	DMC 04LL-01R	4	10.0	11.0	26.0	16.0	8.0	PT 1/8
	DMC 06LL-01R	6	12.0	11.0	26.0	14.5	8.0	PT 1/8
	DMC 08LL-01R	8	14.0	12.0	28.0	16.5	8.0	PT 1/8
	DMC 08LL-02R	8	14.0	14.0	32.0	20.5	12.0	PT 1/4
	DMC 10LL-02R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

# DMC-M (Metric Parallel)

## Male Connector

### Metric Parallel Thread Type

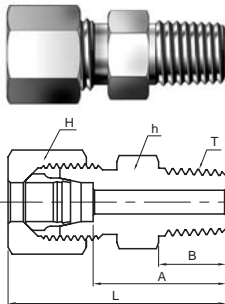


Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	l	L	A	B	T
<b>L Light</b> <b>PN 315</b>	DMC 06L-M10	6	14.0	14.0	14.0	23.0	8.5	8.0	M10 × 1.0
	DMC 08L-M12	8	17.0	17.0	17.0	25.0	10.0	12.0	M12 × 1.5
	DMC 08L-M18	8	17.0	24.0	23.0	26.0	11.5	12.0	M18 × 1.5
	DMC 10L-M14	10	19.0	19.0	19.0	26.0	11.0	12.0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

# DMC-MK (Metric Tapered)

## Male Connector

### Metric Tapered Thread Type

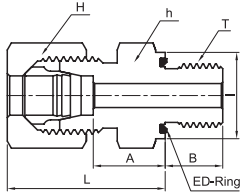


Series	Part Number	Tube O.D.	Dimension (mm)					
			H	h	L	A	B	T
<b>LL Very Light</b> <b>PN 100</b>	DMC 04LL-M06K	4	10	9	26	16	8	M6 × 1keg
	DMC 04LL-M08K	4	10	10	26	16	8	M8 × 1keg
	DMC 06LL-M10K	6	12	11	26	14.5	8	M10 × 1keg
	DMC 08LL-M10K	8	14	12	28	16.5	8	M10 × 1keg

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

# DMC-GED (BSP Parallel with ED-Ring)

## Male Connector with ED-Ring



### BSP Parallel Thread Type

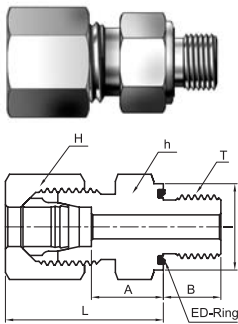
Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	l	L	A	B	T
<b>L Light PN 315</b>	DMC 06L-01GED	6	14.0	14.0	14.0	23.0	8.5	8.0	PF 1/8
	DMC 06L-02GED	6	14.0	19.0	19.0	25.0	10.0	12.0	PF 1/4
	DMC 08L-01GED	8	17.0	14.0	14.0	24.0	9.5	8.0	PF 1/8
	DMC 08L-02GED	8	17.0	19.0	19.0	25.0	10.0	12.0	PF 1/4
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

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

## Male Connector with ED-Ring

### Metric Parallel Thread Type

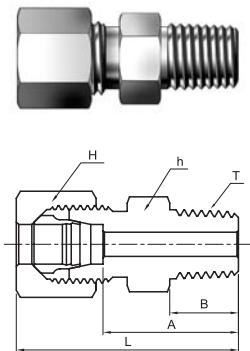


Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	l	L	A	B	T
<b>L Light</b>	DMC 06L-M10ED	6	14.0	14.0	14.0	23.0	8.5	8.0	M10 × 1.0
	DMC 08L-M12ED	8	17.0	17.0	17.0	25.0	10.0	12.0	M12 × 1.5
	DMC 10L-M14ED	10	19.0	19.0	19.0	26.0	11.0	12.0	M14 × 1.5
	DMC 12L-M16ED	12	22.0	22.0	22.0	27.0	12.5	12.0	M16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

# DMC-N (NPT Thread)

## Male Connector



### NPT Thread Type

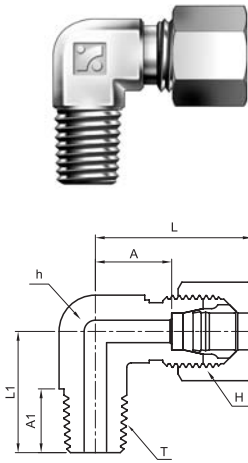
Series	Part Number	Tube O.D.	Dimension (mm)					
			H	h	L	A	B	T
<b>LL Very Light PN 100</b>	DMC 04LL-01N	4	10.0	11.0	28.0	18.5	9.9	NPT 1/8
	DMC 06LL-01N	6	12.0	11.0	28.0	16.5	9.9	NPT 1/8
	DMC 08LL-01N	8	14.0	12.0	30.0	18.5	9.9	NPT 1/8
<b>L Light PN 315</b>	DMC 06L-01N	6	14.0	12.0	32.0	17.0	9.9	NPT 1/8
	DMC 06L-02N	6	14.0	17.0	38.0	23.0	14.2	NPT 1/4
	DMC 08L-02N	8	17.0	17.0	38.0	23.0	14.2	NPT 1/4
	DMC 10L-02N	10	19.0	17.0	39.0	24.0	14.2	NPT 1/4
	DMC 10L-03N	10	19.0	19.0	40.0	25.0	14.2	NPT 3/8
	DMC 12L-02N	12	22.0	19.0	40.0	25.0	14.2	NPT 1/4
	DMC 12L-03N	12	22.0	19.0	40.0	25.0	14.2	NPT 3/8
	DMC 12L-04N	12	22.0	22.0	45.0	30.0	19.1	NPT 1/2
	DMC 15L-04N	15	27.0	24.0	46.0	31.0	19.1	NPT 1/2
DMC 18L-04N	18	32.0	27.0	48.0	31.5	19.1	NPT 1/2	
<b>PN 160</b>	DMC 22L-06N	22	36.0	32.0	50.0	33.5	19.1	NPT 3/4
	DMC 28L-08N	28	41.0	41.0	56.0	39.5	23.9	NPT 1
	DMC 35L-10N	35	50.0	46.0	62.0	40.5	23.9	NPT 1 1/4
	DMC 42L-12N	42	60.0	55.0	65.0	42.0	25.4	NPT 1 1/2
<b>S Heavy PN 630</b>	DMC 06S-02N	6	17.0	17.0	43.0	28.0	14.2	NPT 1/4
	DMC 08S-02N	8	19.0	17.0	43.0	28.0	14.2	NPT 1/4
	DMC 10S-02N	10	22.0	19.0	44.0	27.5	14.2	NPT 1/4
	DMC 10S-03N	10	22.0	19.0	44.0	27.5	14.2	NPT 3/8
	DMC 12S-02N	12	24.0	22.0	46.0	29.5	14.2	NPT 1/4
	DMC 12S-03N	12	24.0	22.0	46.0	29.5	14.2	NPT 3/8
	DMC 12S-04N	12	24.0	22.0	51.0	34.5	19.1	NPT 1/2
DMC 14S-04N	14	27.0	24.0	54.0	36.0	19.1	NPT 1/2	
<b>PN 400</b>	DMC 16S-04N	16	30.0	27.0	54.0	35.5	19.1	NPT 1/2
	DMC 20S-06N	20	36.0	32.0	59.0	37.5	19.1	NPT 3/4
	DMC 25S-08N	25	46.0	41.0	69.0	45.0	23.9	NPT 1
	DMC 30S-10N	30	50.0	46.0	73.0	46.5	23.9	NPT 1 1/4
<b>PN 315</b>	DMC 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/M (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	32.0	22.0	19.0	PT 1/2
	DME 16S-04R	16.0	30.0	24.0	43.0	32.0	24.5	19.0	PT 1/2

### Metric Tapered Thread Type

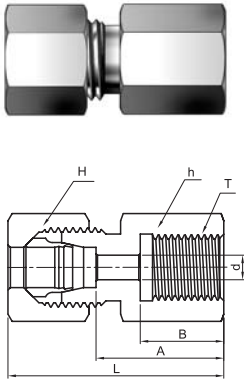
Series	Part Number	Tube O.D.	Dimension (mm)						
			H	h	L	L1	A	A1	T
<b>LL Very Light PN 100</b>	DME 04LL-M08K	4	10.0	9.0	21.0	17.0	11.0	8.0	M8 × 1.0Keg
	DME 06LL-M10K	6	12.0	9.0	21.0	17.0	9.5	8.0	M10 × 1.0Keg
	DME 08LL-M10K	8	14.0	12.0	23.0	20.0	11.5	8.0	M10 × 1.0Keg
<b>L Light PN 315</b>	DME 06L-M10K	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.

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

### Metric Parallel Thread Type

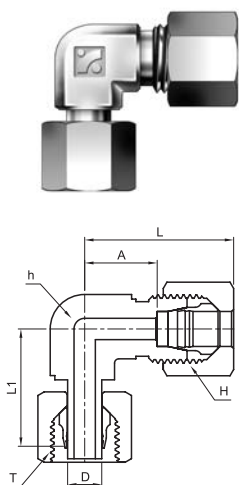
Series	Part Number	Tube O.D.	Dimension (mm)						
			d	H	h	L	A	B	T
<b>L Light</b> <b>PB 315</b>	DFC 06L-M10	6	4.0	14.0	14.0	34.0	19.5	12.5	M10 × 1.0
	DFC 08L-M12	8	6.0	17.0	17.0	39.0	24.0	17.0	M12 × 1.5
	DFC 10L-M14	10	8.0	19.0	19.0	40.0	25.0	17.0	M14 × 1.5
	DFC 12L-M16	12	10.0	22.0	22.0	41.0	26.0	17.0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

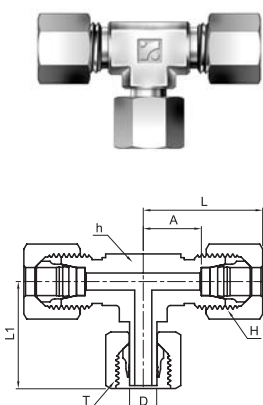
## Adjustable Elbow



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
<b>PN 160</b>	DAE -18L	18	18	32.0	24.0	40.0	35.5	23.5	M26 × 1.5
	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
<b>S Heavy</b> <b>PN 630</b>	DAE -42L	42	42	60.0	50.0	63.0	56.0	40.0	M52 × 2.0
	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
<b>PN 400</b>	DAE -14S	14	14	27.0	19.0	40.0	35.0	22.0	M22 × 1.5
	DAE -16S	16	16	30.0	24.0	43.0	36.5	24.5	M24 × 1.5
	DAE -20S	20	20	36.0	27.0	48.0	44.5	26.5	M30 × 2.0
<b>PN 315</b>	DAE -25S	25	25	46.0	36.0	54.0	50.0	30.0	M36 × 2.0
	DAE -30S	30	30	50.0	41.0	62.0	55.0	35.5	M42 × 2.0
<b>PN 315</b>	DAE -38S	38	38	60.0	50.0	72.0	63.0	41.0	M52 × 2.0

# DABT

## Adjustable Branch Tee

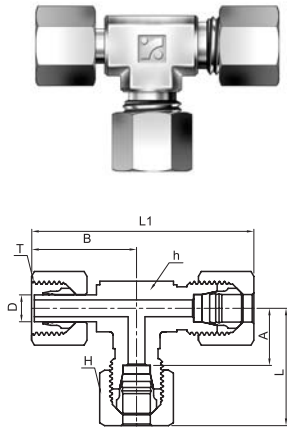


Series	Part Number	Tube O.D.	Dimension (mm)						
			D	H	h	L	L1	A	T
<b>L Light</b> <b>PN 315</b>	DABT -06L	6	6	14.0	12.0	27.0	26.0	12.0	M12 × 1.5
	DABT -08L	8	8	17.0	12.0	29.0	27.5	14.0	M14 × 1.5
	DABT -10L	10	10	19.0	14.0	30.0	29.0	15.0	M16 × 1.5
	DABT -12L	12	12	22.0	17.0	32.0	29.5	17.0	M18 × 1.5
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

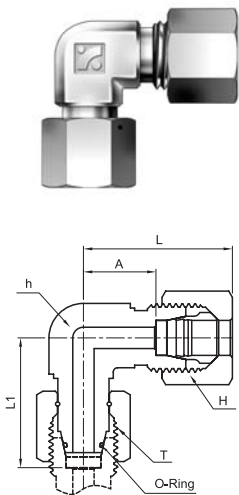
## Adjustable Run Tee



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
<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	36.5	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

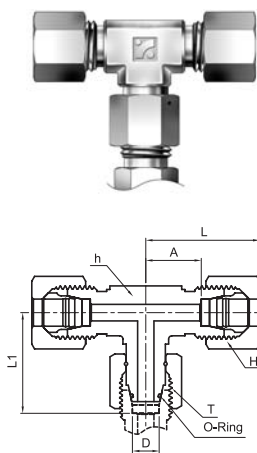


Series	Part Number	Tube O.D.	Dimension (mm)					
			H	h	L	L1	A	T
<b>L Light</b> <b>PN 315</b>	DSE -06L	6	14.0	12.0	27.0	26.0	12.0	M12 × 1.5
	DSE -08L	8	17.0	12.0	29.0	27.5	14.0	M14 × 1.5
	DSE -10L	10	19.0	14.0	30.0	29.0	15.0	M16 × 1.5
	DSE -12L	12	22.0	17.0	32.0	29.5	17.0	M18 × 1.5
	DSE -15L	15	27.0	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	36.0	36.0	54.0	50.0	30.0	M36 × 2.0
	DSE -30S	30	50.0	41.0	62.0	55.0	35.5	M42 × 2.0
<b>PN 315</b>	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

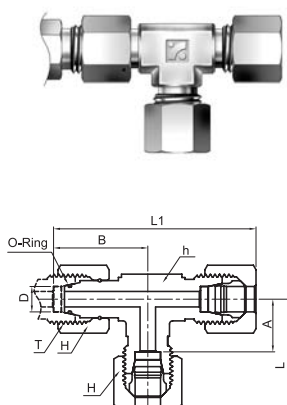
### Swivel Adjustable Branch Tee



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
	DSBT 30S	30	50.0	41.0	62.0	55.0	35.5	M42 × 2.0
<b>PN 315</b>	DSBT 38S	38	60.0	50.0	72.0	63.0	41.0	M52 × 2.0

## DSRT

### Swivel Adjustable Run Tee

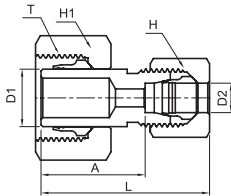


Series	Part Number	Tube O.D. (D)	Dimension (mm)						
			H	h	L	L1	A	B	T
<b>L Light</b> <b>PN 315</b>	DSRT 06L	6	14.0	12.0	27.0	53.0	12.0	26.0	M12 × 1.5
	DSRT 08L	8	17.0	12.0	29.0	56.0	14.0	27.5	M14 × 1.5
	DSRT 10L	10	19.0	14.0	30.0	59.0	15.0	29.0	M16 × 1.5
	DSRT 12L	12	22.0	17.0	32.0	61.0	17.0	29.5	M18 × 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
	DSRT 30S	30	50.0	41.0	62.0	117.0	35.5	55.0	M42 × 2.0
<b>PN 315</b>	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.

**DPR**

**Standpipe Reducer**

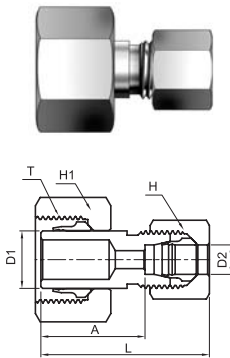


Series	Part Number	Tube O.D.		Dimension (mm)				
		D1	D2	H1	H	L	A	T
<b>L Light PN 315</b>	DPR 08L-06L	8	6	17.0	14.0	38	23.5	M14 × 1.5
	DPR 10L-06L	10	6	19.0	14.0	38	23.5	M16 × 1.5
	DPR 10L-08L	10	8	19.0	17.0	38	23.5	M16 × 1.5
	DPR 12L-06L	12	6	22.0	14.0	38	23.5	M18 × 1.5
	DPR 12L-08L	12	8	22.0	17.0	38	23.5	M18 × 1.5
	DPR 12L-10L	12	10	22.0	19.0	39	24.5	M18 × 1.5
	DPR 15L-06L	15	6	27.0	14.0	38	23.5	M22 × 1.5
	DPR 15L-08L	15	8	27.0	17.0	38	23.5	M22 × 1.5
	DPR 15L-10L	15	10	27.0	19.0	39	24.5	M22 × 1.5
	DPR 15L-12L	15	12	27.0	22.0	39	24.5	M22 × 1.5
	DPR 18L-06L	18	6	32.0	14.0	39	24.5	M26 × 1.5
	DPR 18L-08L	18	8	32.0	17.0	39	24.5	M26 × 1.5
	DPR 18L-10L	18	10	32.0	19.0	40	25.5	M26 × 1.5
	DPR 18L-12L	18	12	32.0	22.0	40	25.5	M26 × 1.5
DPR 18L-15L	18	15	32.0	27.0	42	26.5	M26 × 1.5	
<b>PN 160</b>	DPR 22L-06L	22	6	36.0	14.0	40	25.5	M30 × 2.0
	DPR 22L-08L	22	8	36.0	17.0	40	25.5	M30 × 2.0
	DPR 22L-10L	22	10	36.0	19.0	41	26.5	M30 × 2.0
	DPR 22L-12L	22	12	36.0	22.0	41	26.5	M30 × 2.0
	DPR 22L-15L	22	15	36.0	27.0	43	27.5	M30 × 2.0
	DPR 22L-18L	22	18	36.0	32.0	43	27.0	M30 × 2.0
	DPR 28L-06L	28	6	41.0	14.0	41	26.5	M36 × 2.0
	DPR 28L-08L	28	8	41.0	17.0	41	26.5	M36 × 2.0
	DPR 28L-10L	28	10	41.0	19.0	42	27.5	M36 × 2.0
	DPR 28L-12L	28	12	41.0	22.0	42	27.5	M36 × 2.0
	DPR 28L-15L	28	15	41.0	27.0	44	28.5	M36 × 2.0
	DPR 28L-18L	28	18	41.0	32.0	44	28.0	M36 × 2.0
	DPR 28L-22L	28	22	41.0	36.0	46	30.0	M36 × 2.0
	DPR 35L-06L	35	6	50.0	14.0	46	31.5	M45 × 2.0
	DPR 35L-08L	35	8	50.0	17.0	46	31.5	M45 × 2.0
	DPR 35L-10L	35	10	50.0	19.0	47	32.5	M45 × 2.0
	DPR 35L-12L	35	12	50.0	22.0	47	32.5	M45 × 2.0
	DPR 35L-15L	35	15	50.0	27.0	49	33.5	M45 × 2.0
	DPR 35L-18L	35	18	50.0	32.0	49	33.0	M45 × 2.0
	DPR 35L-22L	35	22	50.0	36.0	51	35.0	M45 × 2.0
	DPR 35L-28L	35	28	50.0	41.0	52	35.0	M45 × 2.0
	DPR 42L-10L	42	10	60.0	19.0	48	33.5	M52 × 2.0
DPR 42L-12L	42	12	60.0	22.0	48	33.5	M52 × 2.0	
DPR 42L-15L	42	15	60.0	27.0	50	34.5	M52 × 2.0	
DPR 42L-18L	42	18	60.0	32.0	50	34.0	M52 × 2.0	
DPR 42L-22L	42	22	60.0	36.0	52	36.0	M52 × 2.0	
DPR 42L-28L	42	28	60.0	41.0	53	36.0	M52 × 2.0	
DPR 42L-35L	42	35	60.0	50.0	57	35.0	M52 × 2.0	

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

# DPR

## Standpipe Reducer

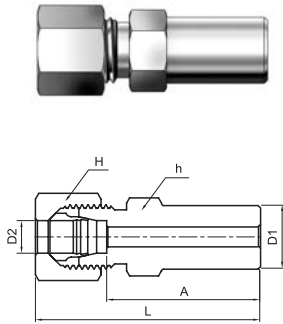


Series	Part Number	Tube O.D.		Dimension (mm)				
		D1	D2	H1	H	L	A	T
<b>S Heavy PN 630</b>	DPR 08S-06S	8	6	19.0	17.0	40.0	25.0	M16 × 1.5
	DPR 10S-06S	10	6	22.0	17.0	41.0	26.0	M18 × 1.5
	DPR 10S-08S	10	8	22.0	19.0	41.0	26.0	M18 × 1.5
	DPR 12S-06S	12	6	24.0	17.0	42.0	27.0	M20 × 1.5
	DPR 12S-08S	12	8	24.0	19.0	42.0	27.0	M20 × 1.5
	DPR 12S-10S	12	10	24.0	22.0	43.0	26.5	M20 × 1.5
	DPR 14S-06S	14	6	27.0	17.0	44.0	29.0	M22 × 1.5
	DPR 14S-08S	14	8	27.0	19.0	44.0	29.0	M22 × 1.5
	DPR 14S-10S	14	10	27.0	22.0	45.0	28.5	M22 × 1.5
	DPR 14S-12S	14	12	27.0	24.0	45.0	28.5	M22 × 1.5
<b>PN 400</b>	DPR 16S-06S	16	6	30.0	17.0	44.0	29.0	M24 × 1.5
	DPR 16S-08S	16	8	30.0	19.0	44.0	29.0	M24 × 1.5
	DPR 16S-10S	16	10	30.0	22.0	45.0	28.5	M24 × 1.5
	DPR 16S-12S	16	12	30.0	24.0	45.0	28.5	M24 × 1.5
	DPR 16S-14S	16	14	30.0	27.0	48.0	30.0	M24 × 1.5
	DPR 20S-06S	20	6	36.0	17.0	49.0	34.0	M30 × 2.0
	DPR 20S-08S	20	8	36.0	19.0	49.0	34.0	M30 × 2.0
	DPR 20S-10S	20	10	36.0	22.0	50.0	33.5	M30 × 2.0
	DPR 20S-12S	20	12	36.0	24.0	50.0	33.5	M30 × 2.0
	DPR 20S-14S	20	14	36.0	27.0	53.0	35.0	M30 × 2.0
	DPR 20S-16S	20	16	36.0	30.0	53.0	34.5	M30 × 2.0
	DPR 25S-06S	25	6	46.0	17.0	52.0	37.0	M36 × 2.0
	DPR 25S-08S	25	8	46.0	19.0	52.0	37.0	M36 × 2.0
	DPR 25S-10S	25	10	46.0	22.0	53.0	36.5	M36 × 2.0
	DPR 25S-12S	25	12	46.0	24.0	53.0	36.5	M36 × 2.0
	DPR 25S-14S	25	14	46.0	27.0	55.0	37.0	M36 × 2.0
	DPR 25S-16S	25	16	46.0	30.0	55.0	36.5	M36 × 2.0
	DPR 25S-20S	25	20	46.0	36.0	59.0	37.5	M36 × 2.0
	DPR 30S-06S	30	6	50.0	17.0	54.0	39.0	M42 × 2.0
	DPR 30S-08S	30	8	50.0	19.0	54.0	39.0	M42 × 2.0
DPR 30S-10S	30	10	50.0	22.0	55.0	38.5	M42 × 2.0	
DPR 30S-12S	30	12	50.0	24.0	55.0	38.5	M42 × 2.0	
DPR 30S-14S	30	14	50.0	27.0	58.0	40.0	M42 × 2.0	
DPR 30S-16S	30	16	50.0	30.0	58.0	39.5	M42 × 2.0	
DPR 30S-20S	30	20	50.0	36.0	61.0	39.5	M42 × 2.0	
DPR 30S-25S	30	25	50.0	46.0	64.0	40.0	M42 × 2.0	
<b>PN 315</b>	DPR 38S-06S	38	6	60.0	17.0	58.0	43.0	M52 × 2.0
	DPR 38S-08S	38	8	60.0	19.0	58.0	43.0	M52 × 2.0
	DPR 38S-10S	38	10	60.0	22.0	59.0	42.5	M52 × 2.0
	DPR 38S-12S	38	12	60.0	24.0	59.0	42.5	M52 × 2.0
	DPR 38S-14S	38	14	60.0	27.0	62.0	44.0	M52 × 2.0
	DPR 38S-16S	38	16	60.0	30.0	62.0	43.5	M52 × 2.0
	DPR 38S-20S	38	20	60.0	36.0	65.0	43.5	M52 × 2.0
	DPR 38S-25S	38	25	60.0	46.0	68.0	44.0	M52 × 2.0
DPR 38S-30S	38	30	60.0	50.0	71.0	44.5	M52 × 2.0	

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

**DR**

**Reducer**

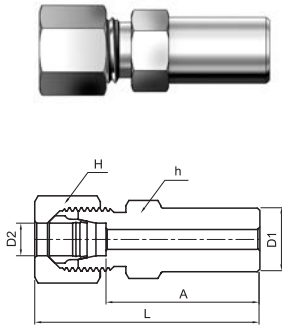


Series	Part Number	Tube O.D.		Dimension (mm)			
		D1	D2	H	h	L	A
<b>L Light PN 315</b>	DR 08L-06L	8	6	14.0	12.0	40.0	25.5
	DR 10L-06L	10	6	14.0	12.0	42.0	27.5
	DR 10L-08L	10	8	17.0	14.0	43.0	27.5
	DR 12L-06L	12	6	14.0	14.0	42.0	27.5
	DR 12L-08L	12	8	17.0	14.0	43.0	27.5
	DR 12L-10L	12	10	19.0	17.0	44.0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

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

# DR

## Reducer

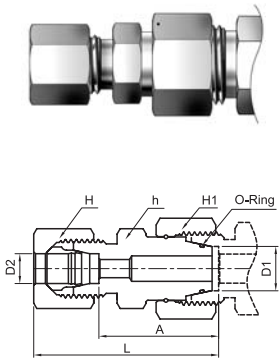


Series	Part Number	Tube O.D.		Dimension (mm)			
		D1	D2	H	h	L	A
<b>S Heavy PN 630</b>	DR 08S-06S	8	6	17.0	14.0	43.0	28.0
	DR 10S-06S	10	6	17.0	14.0	45.0	30.5
	DR 10S-08S	10	8	19.0	17.0	45.0	30.5
	DR 12S-06S	12	6	17.0	14.0	47.0	32.5
	DR 12S-08S	12	8	19.0	17.0	47.0	32.5
	DR 12S-10S	12	10	22.0	19.0	48.0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

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

# DSRA

## Swivel Reducing Adaptor



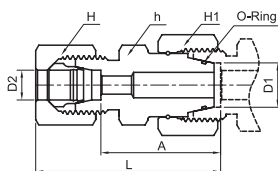
Series	Part Number	Tube O.D.		Dimension (mm)				
		D1	D2	H1	H	h	L	A
<b>L Light PN 315</b>	DSRA 08L-06L	8	6	17.0	14.0	14.0	39.0	24.5
	DSRA 10L-06L	10	6	19.0	14.0	17.0	39.5	24.5
	DSRA 10L-08L	10	8	19.0	17.0	17.0	39.5	24.5
	DSRA 12L-06L	12	6	22.0	14.0	17.0	40.0	25.0
	DSRA 12L-08L	12	8	22.0	17.0	17.0	40.0	25.0
	DSRA 12L-10L	12	10	22.0	19.0	17.0	41.0	26.0
	DSRA 15L-06L	15	6	27.0	14.0	22.0	42.0	27.5
	DSRA 15L-08L	15	8	27.0	17.0	22.0	42.0	27.5
	DSRA 15L-10L	15	10	27.0	19.0	22.0	43.0	28.5
	DSRA 15L-12L	15	12	27.0	22.0	22.0	43.0	28.5
	DSRA 18L-06L	18	6	32.0	14.0	25.0	43.0	28.0
	DSRA 18L-08L	18	8	32.0	17.0	25.0	43.0	28.0
	DSRA 18L-10L	18	10	32.0	19.0	25.0	44.5	29.5
	DSRA 18L-12L	18	12	32.0	22.0	25.0	44.5	29.5
DSRA 18L-15L	18	15	32.0	27.0	25.0	45.5	30.5	
<b>PN 160</b>	DSRA 22L-06L	22	6	36.0	14.0	28.5	47.0	32.0
	DSRA 22L-08L	22	8	36.0	17.0	28.5	47.0	32.0
	DSRA 22L-10L	22	10	36.0	19.0	28.5	48.0	33.0
	DSRA 22L-12L	22	12	36.0	22.0	28.5	48.0	33.0
	DSRA 22L-15L	22	15	36.0	27.0	28.5	49.0	34.0
	DSRA 22L-18L	22	18	36.0	32.0	28.5	50.0	33.5
	DSRA 28L-06L	28	6	41.0	14.0	36.0	49.0	34.0
	DSRA 28L-08L	28	8	41.0	17.0	36.0	49.0	34.0
	DSRA 28L-10L	28	10	41.0	19.0	36.0	50.0	35.0
	DSRA 28L-12L	28	12	41.0	22.0	36.0	50.0	35.0
	DSRA 28L-15L	28	15	41.0	27.0	36.0	51.0	36.0
	DSRA 28L-18L	28	18	41.0	32.0	36.0	52.0	35.5
	DSRA 28L-22L	28	22	41.0	36.0	36.0	54.0	37.5
	DSRA 35L-06L	35	6	50.0	14.0	46.0	55.0	40.0
	DSRA 35L-08L	35	8	50.0	17.0	46.0	55.0	40.0
	DSRA 35L-10L	35	10	50.0	19.0	46.0	56.0	41.0
	DSRA35L-12L	35	12	50.0	22.0	46.0	56.0	41.0
	DSRA 35L-15L	35	15	50.0	27.0	46.0	57.0	42.0
	DSRA 35L-18L	35	18	50.0	32.0	46.0	58.0	41.5
	DSRA 35L-22L	35	22	50.0	36.0	46.0	60.0	43.5
	DSRA 35L-28L	35	28	50.0	41.0	46.0	60.0	43.5
	DSRA 42L-06L	42	6	60.0	14.0	50.0	55.0	40.5
DSRA 42L-08L	42	8	60.0	17.0	50.0	55.0	40.5	
DSRA 42L-10L	42	10	60.0	19.0	50.0	56.0	41.5	
DSRA 42L-12L	42	12	60.0	22.0	50.0	56.0	41.5	
DSRA 42L-15L	42	15	60.0	27.0	50.0	58.0	42.5	
DSRA 42L-18L	42	18	60.0	32.0	50.0	58.0	42.0	
DSRA 42L-22L	42	22	60.0	36.0	50.0	60.0	44.0	
DSRA 42L-28L	42	28	60.0	41.0	50.0	61.0	44.0	
DSRA 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.



# DSRA

## Swivel Reducing Adaptor



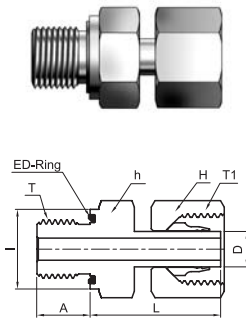
Series	Part Number	Tube O.D.		Dimension (mm)				
		D1	D2	H1	H	h	L	A
<b>S Heavy PN 630</b>	DSRA 08S-06S	8	6	19.0	17.0	17.0	44.0	28.0
	DSRA 10S-06S	10	6	22.0	17.0	17.0	44.0	29.5
	DSRA 10S-08S	10	8	22.0	19.0	17.0	44.0	29.5
	DSRA 12S-06S	12	6	24.0	17.0	19.0	45.0	30.0
	DSRA 12S-08S	12	8	24.0	19.0	19.0	45.0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

# DA-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>	DA 06L-01GED	6	14.0	14.0	14.0	24.5	8.0	PF 1/8	M12 × 1.5
	DA 08L-02GED	8	17.0	19.0	19.0	29.5	12.0	PF 1/4	M14 × 1.5
	DA 10L-02GED	10	19.0	19.0	19.0	27.5	12.0	PF 1/4	M16 × 1.5
	DA 12L-03GED	12	22.0	22.0	22.0	34.0	12.0	PF 3/8	M18 × 1.5
	DA 15L-04GED	15	27.0	27.0	27.0	32.0	14.0	PF 1/2	M22 × 1.5
	DA 18L-04GED	18	32.0	27.0	27.0	31.5	14.0	PF 1/2	M26 × 1.5
<b>PN 160</b>	DA 22L-06GED	22	36.0	32.0	32.0	32.5	16.0	PF 3/4	M30 × 2.0
	DA 28L-08GED	28	41.0	41.0	40.0	35.0	18.0	PF 1	M36 × 2.0
	DA 35L-10GED	35	50.0	50.0	50.0	42.5	20.0	PF 1 1/4	M45 × 2.0
	DA 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>	DA 06S-02GED	6	17.0	19.0	19.0	27.0	12.0	PF 1/4	M14 × 1.5
	DA 08S-02GED	8	19.0	19.0	19.0	29.5	12.0	PF 1/4	M16 × 1.5
	DA 10S-03GED	10	22.0	22.0	22.0	32.0	12.0	PF 3/8	M18 × 1.5
	DA 12S-03GED	12	24.0	22.0	22.0	34.0	12.0	PF 3/8	M20 × 1.5
	DA 12S-04GED	12	24.0	27.0	27.0	34.5	14.0	PF 1/2	M20 × 1.5
	DA 14S-04GED	14	27.0	27.0	27.0	36.5	14.0	PF 1/2	M22 × 1.5
<b>PN 400</b>	DA 16S-04GED	16	30.0	27.0	27.0	37.0	14.0	PF 1/2	M24 × 1.5
	DA 16S-06GED	16	30.0	32.0	32.0	39.0	16.0	PF 3/4	M24 × 1.5
	DA 20S-06GED	20	36.0	32.0	32.0	43.0	16.0	PF 3/4	M30 × 2.0
	DA 25S-08GED	25	46.0	41.0	40.0	48.0	18.0	PF 1	M36 × 2.0
DA 30S-10GED	30	50.0	50.0	50.0	51.0	20.0	PF 1 1/4	M42 × 2.0	
<b>PN 315</b>	DA 38S-12GED	38	60.0	55.0	55.0	60.0	22.0	PF 1 1/2	M52 × 2.0

### Metric Parallel Thread Type

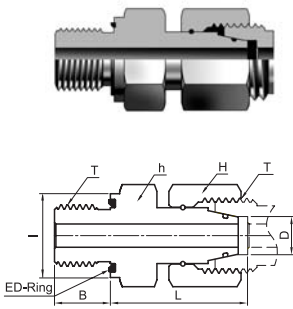
Series	Part Number	Tube O.D. (D)	Dimension (mm)						
			H	h	I	L	A	T	T1
<b>L Light PN315</b>	DA 06L-M10ED	6	14.0	14.0	14.0	24.5	8.0	M10 × 1.0	M12 × 1.5
	DA 08L-M12ED	8	17.0	17.0	17.0	26.5	12.0	M12 × 1.5	M14 × 1.5
	DA 10L-M14ED	10	19.0	19.0	19.0	27.5	12.0	M14 × 1.5	M16 × 1.5
	DA 12L-M16ED	12	22.0	22.0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

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

### Metric Parallel Thread Type

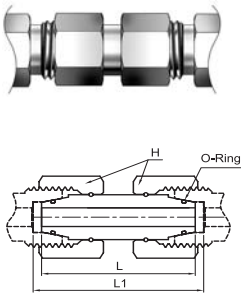
Series	Part Number	Tube O.D. (D)	Dimension (mm)						
			H	h	I	L	A	T	T1
<b>L Light</b> <b>PN315</b>	DSA 06L-M10ED	6	14.0	14.0	14.0	24.5	8.0	M10 × 1.0	M12 × 1.5
	DSA 08L-M12ED	8	17.0	19.0	17.0	26.5	12.0	M12 × 1.5	M14 × 1.5
	DSA 10L-M14ED	10	19.0	19.0	19.0	27.5	12.0	M14 × 1.5	M16 × 1.5
	DSA 12L-M16ED	12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

# DSU

## Swivel Union

### BSP Parallel Thread Type

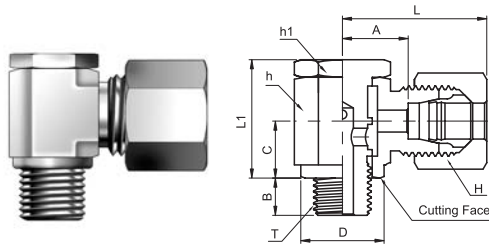


Series	Part Number	Tube O.D.	Dimension (mm)		
			H	L	L1
<b>L</b> <b>Light</b> <b>PN500</b>	DSU-06L	6	17.0	34.0	36.0
	DSU-08L	8	17.0	34.0	36.0
	DSU-10L	10	19.0	36.0	37.0
<b>PB 400</b>	DSU-12L	12	22.0	36.0	37.0
	DSU-15L	15	27.0	39.0	40.0
	DSU-18L	18	32.0	40.5	42.5
<b>PB 250</b>	DSU-22L	22	36.0	45.0	47.0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

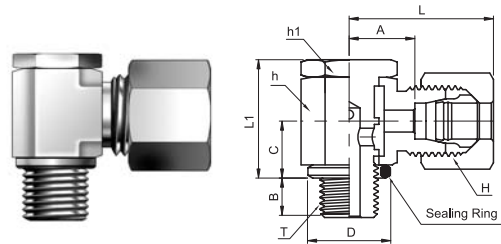
All dimensions in millimeters. Dimensions given approximate length with tightened nut.

# 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</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
<b>PB 250</b>	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
	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
<b>PB 160</b>	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
	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
<b>S Heavy</b>	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

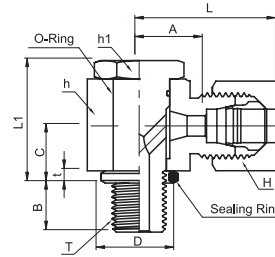
### Metric Parallel Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)									
			D	H	h	h1	L	L1	A	B	C	T
<b>L Light</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
<b>PB 250</b>	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
	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
<b>PB 160</b>	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
	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
<b>S Heavy</b>	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</b> <b>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
	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
<b>PB 160</b>	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
	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
<b>S Heavy</b> <b>PB 400</b>	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
	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
<b>PB 250</b>	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

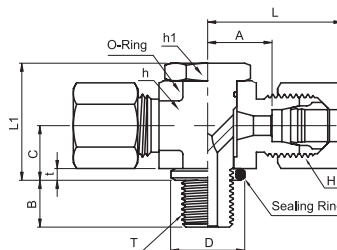
### Metric Parallel Thread Type

Series	Part Number	Tube O.D.	Dimension (mm)										
			D	H	h	h1	L	L1	A	B	C	t	T
<b>L Light</b> <b>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
	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
<b>PB 160</b>	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
	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
<b>S Heavy</b> <b>PB 400</b>	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
	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
<b>PB 160</b>	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
<b>L Light PB 315</b>	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
<b>PB 160</b>	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
	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
<b>S Heavy PB 400</b>	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
	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
<b>PB 250</b>	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
	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
<b>PB 250</b>	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

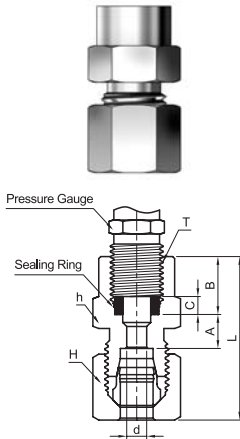
Series	Part Number	Tube O.D.	Dimension (mm)										
			D	H	h	h1	L	L1	A	B	C	t	T
<b>L Light PB 315</b>	DHBT 06L-M10	6	14.0	14.0	17.0	17.0	27.0	24.0	12.0	8.0	10.5	2.5	M10 ×1.0
	DHBT 08L-M12	8	17.0	17.0	22.0	19.0	29.0	30.0	14.5	12.0	14.0	3.0	M12 ×1.5
	DHBT 10L-M14	10	19.0	19.0	22.0	19.0	30.0	30.0	15.5	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
<b>PB 160</b>	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
<b>S Heavy PB 400</b>	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
<b>PB 250</b>	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
	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.



## DGC-G (BSP Parallel)

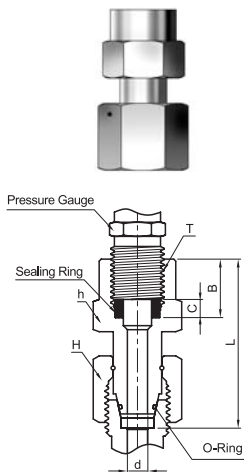
### Pressure Gauge Connector



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

## DSGA-G (BSP Parallel)

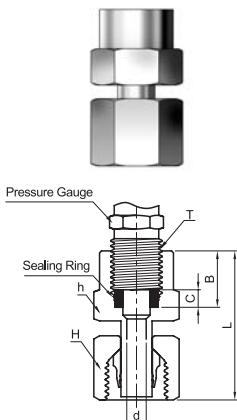
### Pressure Gauge Swivel Connector



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

## DGA-G (BSP Parallel)

### Gauge Adaptor

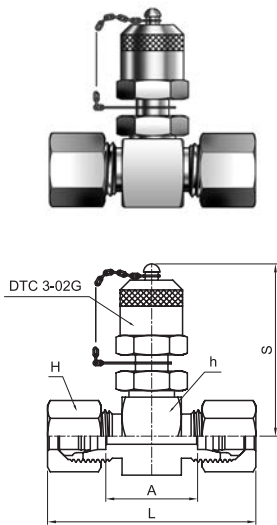


Series	Part Number	Tube O.D.	Dimension (mm)						
			d	H	h	L	B	C	T
<b>L Light</b> PN 315	DGA 06L-02G	6	3.5	14.0	19.0	38.0	14.5	4.5	PF 1/4
	DGA 08L-02G	8	5.5	17.0	19.0	38.0	14.5	4.5	PF 1/4
	DGA 10L-02G	10	7.5	19.0	19.0	39.5	14.5	4.5	PF 1/4
	DGA 12L-02G	12	9.0	22.0	19.0	40.5	14.5	4.5	PF 1/4
<b>S Heavy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

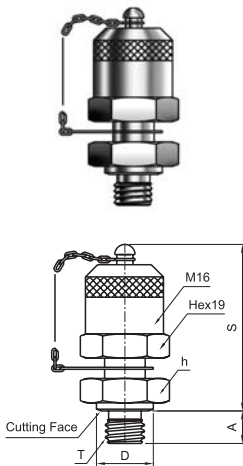
## Tee Test Point Connector



Series	Part Number	Tube O.D.	Dimension (mm)				
			H	h	L	A	S
<b>L Light</b> <b>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</b> <b>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
	DTPC 3-30S	30	50	46	81	27.5	61
<b>PN 315</b>	DTPC 3-38S	38	60	55	90	29	65

# DTC

## Test Coupling

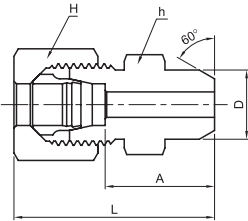


Series	Part Number	Dimension (mm)				
		h	D	S	A	T
<b>PB 630</b>	DTC 3-01G	17	14	41	8	PF 1/8
	DTC 3-02G	19	18	41	10	PF 1/4
	DTC 3-03G	22	22	41	12	PF 3/8
	DTC 3-04G	27	26	41	14	PF 1/2
	DTC 3-M10	17	14	41	8	M10 ×1.0
	DTC 3-M12	17	17	41	12	M12 ×1.5
	DTC 3-M14	19	19	41	12	M14 ×1.5
	DTC 3-M16	22	21	41	12	M16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

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

# DWC

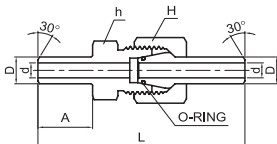
## Welding Connector



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
	DWC - 30S	30	36	50	46	62	35.5
<b>PN 315</b>	DWC - 38S	38	44	60	55	69	38

# DAWC

## Welding Connector with DWN

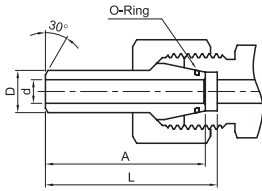


Series S MAX. Pressure	Part Number	Tube O.D. D	Dimension (mm)				
			d	H	h	L	A
<b>PB248</b>	DAWC10 × 1.0	10	8	22	19	58	10
<b>PB357</b>	DAWC10 × 1.5		7				
<b>PB458</b>	DAWC10 × 2.0		6				
<b>PB303</b>	DAWC12 × 1.5	12	9	24	22	65	15
<b>PB391</b>	DAWC12 × 2.0		8				
<b>PB474</b>	DAWC12 × 2.5		7				
<b>PB234</b>	DAWC16 × 1.5	16	13	30	27	74.5	16.5
<b>PB303</b>	DAWC16 × 2.0		12				
<b>PB370</b>	DAWC16 × 2.5		11				
<b>PB433</b>	DAWC16 × 3.0		10				
<b>PB249</b>	DAWC20 × 2.0		20				
<b>PB305</b>	DAWC20 × 2.5	15					
<b>PB357</b>	DAWC20 × 3.0	14					
<b>PB458</b>	DAWC20 × 4.0	12					
<b>PB292</b>	DAWC25 × 3.0	25	19	46	41	94.5	19.5
<b>PB378</b>	DAWC25 × 4.0		17				
<b>PB458</b>	DAWC25 × 5.0		15				
<b>PB248</b>	DAWC30 × 3.0		30				
<b>PB321</b>	DAWC30 × 4.0	22					
<b>PB391</b>	DAWC30 × 5.0	20					
<b>PB460</b>	DAWC30 × 6.0	18					
<b>PB260</b>	DAWC38 × 4.0	38		30	60	55	111
<b>PB318</b>	DAWC38 × 5.0		28				
<b>PB373</b>	DAWC38 × 6.0		26				
<b>PB427</b>	DAWC38 × 7.0		24				

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

# DWN

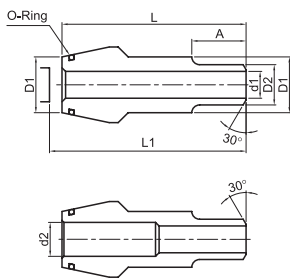
## Welding Nipple



Pressure Rating		Part Number	TUBE O.D.		Dimension (mm)		
Fittings	DWN and Tube		D	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



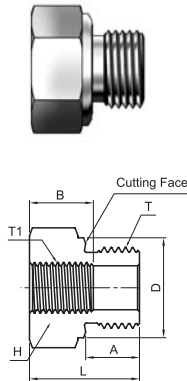
Pressure Rating		Part Number	Tube O.D.		Dimension (mm)				
Fitting	DRWN and Tube		D1	D2	d1	d2	L1	L	A
PN630	PB 526	DRWN10- 6 × 1.5	10	6	3	5	37.5	35	12
	PB 526	DRWN10- 8 × 2.0	10	8	4	-	37.5	35	12
	PB 526	DRWN12- 8 × 2.0	12	8	4	6	37.5	35	14
	PB 357	DRWN12-10 × 1.5	12	10	7	-	37.5	35	14
PN400	PB 474	DRWN16-12 × 2.5	16	12	7	-	46.5	43	15
	PB 474	DRWN20-12 × 2.5	20	12	7	-	51.5	47.5	15
	PB 433	DRWN20-16 × 3.0	20	16	10	-	53.5	49.5	17
	PB 433	DRWN25-16 × 3.0	25	16	10	-	56.5	51	17
	PB 458	DRWN25-20 × 4.0	25	20	12	-	59.5	54	20
	PB 303	DRWN30-16 × 2.0	30	16	12	-	67	60	17
	PB 303	DRWN30-20 × 2.5	30	20	15	-	70	63	20
	PB 292	DRWN30-25 × 3.0	30	25	19	-	70	63	20
PN315	PB 303	DRWN38-16 × 2.0	38	16	12	-	79	69.5	17
	PB 303	DRWN38-20 × 2.5	38	20	15	-	82	72.5	20
	PB 292	DRWN38-25 × 3.0	38	25	19	-	82	72.5	20
	PB 321	DRWN38-30 × 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

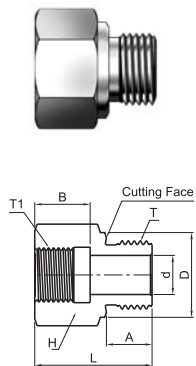


Series	Part Number	Dimension (mm)						
		H	D	L	A	B	T	T1
PB 630	DMFC 03-01G	22	22	22.5	12	8	PF 3/8	PF 1/8
	DMFC 04-01G	27	26	24	14	8	PF 1/2	PF 1/8
PB 400	DMFC 04-02G	27	26	24	14	12	PF 1/2	PF 1/4
	DMFC 06-02G	32	32	26	16	12	PF 3/4	PF 1/4
PB 400	DMFC 06-03G	32	32	26	16	12	PF 3/4	PF 3/8
	DMFC 08-02G	41	39	29	18	12	PF1	PF 1/4
	DMFC 08-03G	41	39	29	18	12	PF1	PF 3/8
PB 400	DMFC 08-04G	41	39	29	18	14	PF1	PF 1/2
	DMFC10-04G	50	49	32	20	14	PF 1 1/4	PF 1/2
PB 250	DMFC 10-06G	50	49	32	20	16	PF 1 1/4	PF 3/4
	DMFC 12-04G	55	55	36	22	14	PF 1 1/2	PF 1/2
PB 250	DMFC 12-06G	55	55	36	22	16	PF 1 1/2	PF 3/4
	DMFC 12-08G	55	55	36	22	18	PF 1 1/2	PF1

# DMFG

## Male Female Gauge Connector

### BSP Parallel Thread Type



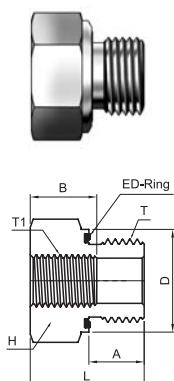
Series	Part Number	Dimension (mm)							
		H	d	D	L	A	B	T	T1
PB 630	DMFG01-02G	19	4	14	31	8	17	PF 1/8	PF 1/4
	DMFG01-03G	24	4	14	32	8	17	PF 1/8	PF 3/8
	DMFG02-01G	19	5	18	28	12	12	PF 1/4	PF 1/8
	DMFG02-03G	24	5	18	36	12	17	PF 1/4	PF 3/8
	DMFG02-04G	30	5	18	40	12	20	PF 1/4	PF 1/2
PB 400	DMFG02-06G	36	5	18	43	12	22	PF 1/4	PF 3/4
PB 630	DMFG03-02G	22	8	22	36	12	17	PF 3/8	PF 1/4
	DMFG03-04G	30	8	22	41	12	20	PF 3/8	PF 1/2
PB 250	DMFG03-06G	36	8	22	44	12	22	PF 3/8	PF 3/4
PB 400	DMFG04-03G	27	12	26	36	14	17	PF 1/2	PF 3/8
	DMFG04-06G	36	12	26	46	14	22	PF 1/2	PF 3/4
	DMFG04-08G	41	12	26	49	14	24.5	PF 1/2	PF 1
PB 250	DMFG04-10G	55	10	26	53	14	26.5	PF 1/2	PF 1 1/4
PB 400	DMFG06-04G	32	16	32	41	16	20	PF 3/4	PF 1/2
	DMFG06-08G	41	16	32	51	16	24.5	PF 3/4	PF 1
	DMFG06-10G	55	16	32	55	16	26.5	PF 3/4	PF 1 1/4
PB 250	DMFG06-12G	60	16	32	57	16	28.5	PF 3/4	PF 1 1/2
PB 400	DMFG08-06G	41	20	39	47	18	22	PF 1	PF 3/4
	DMFG08-10G	55	20	39	57	18	26.5	PF 1	PF 1 1/4
PB 250	DMFG08-12G	60	20	39	59	18	28.5	PF 1	PF 1 1/2
	DMFG10-08G	50	25	49	52	20	24.5	PF 1 1/4	PF 1
	DMFG10-12G	60	25	49	60	20	28.5	PF 1 1/4	PF 1 1/2
	DMFG12-10G	55	32	55	58	22	26.5	PF 1 1/2	PF 1 1/4
	DMFG16-12G	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

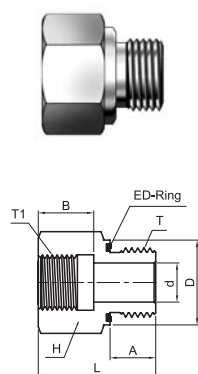


Series	Part Number	Dimension (mm)							
		H	D	L	A	B	T	T1	
<b>PB 630</b>	DMFC 03ED-01G	22	22	22.5	12	8	PF 3/8	PF 1/8	
<b>PB 630</b>	DMFC 04ED-01G	27	26	24	14	8	PF 1/2	PF 1/8	
<b>PB 400</b>	DMFC 04ED-02G	27	26	24	14	12	PF 1/2	PF 1/4	
<b>PB 400</b>	DMFC 06ED-02G	32	32	26	16	12	PF 3/4	PF 1/4	
	DMFC 06ED-03G	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

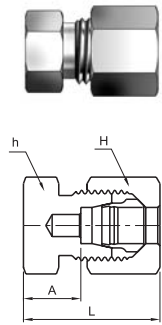


Series	Part Number	Dimension (mm)							
		H	d	D	L	A	B	T	T1
<b>PB 630</b>	DMFG01ED-02G	19	4	14	31	8	17	PF 1/8	PF 1/4
	DMFG01ED-03G	24	4	14	32	8	17	PF 1/8	PF 3/8
	DMFG02ED-01G	19	5	18	28	12	12	PF 1/4	PF 1/8
	DMFG02ED-03G	24	5	18	36	12	17	PF 1/4	PF 3/8
<b>PB450</b>	DMFG02ED-04G	30	5	18	40	12	20	PF 1/4	PF 1/2
	DMFG02ED-06G	36	5	18	43	12	22	PF 1/4	PF 3/4
<b>PB630</b>	DMFG03ED-02G	22	8	22	36	12	17	PF 3/8	PF 1/4
	DMFG03ED-04G	30	8	22	41	12	20	PF 3/8	PF 1/2
<b>PB400</b>	DMFG03ED-06G	36	8	22	44	12	22	PF 3/8	PF 3/4
<b>PB400</b>	DMFG04ED-03G	27	12	26	36	14	17	PF 1/2	PF 3/8
	DMFG04ED-06G	36	12	26	46	14	22	PF 1/2	PF 3/4
	DMFG04ED-08G	41	12	26	49	14	24.5	PF 1/2	PF 1
<b>PB250</b>	DMFG04ED-10G	55	10	26	53	14	26.5	PF 1/2	PF 1 1/4
<b>PB400</b>	DMFG06ED-04G	32	16	32	41	16	20	PF 3/4	PF 1/2
	DMFG06ED-08G	41	16	32	51	16	24.5	PF 3/4	PF 1
	DMFG06ED-10G	55	16	32	55	16	26.5	PF 3/4	PF 1 1/4
<b>PB250</b>	DMFG06ED-12G	60	16	32	57	16	28.5	PF 3/4	PF 1 1/2
<b>PB400</b>	DMFG08ED-06G	41	20	39	47	18	22	PF 1	PF 3/4
<b>PB250</b>	DMFG08ED-10G	55	20	39	57	18	26.5	PF 1	PF 1 1/4
	DMFG08ED-12G	60	20	39	59	18	28.5	PF 1	PF 1 1/2
	DMFG10ED-08G	50	25	49	52	20	24.5	PF 1 1/4	PF 1
	DMFG10ED-12G	60	25	49	60	20	28.5	PF 1 1/4	PF 1 1/2
	DMFG12ED-10G	55	32	55	58	22	26.5	PF 1 1/2	PF 1 1/4
	DMFG16ED-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**

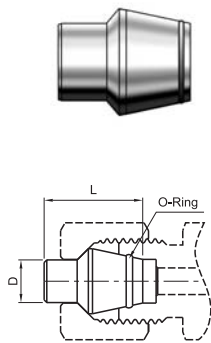
**Tube Cap**



Series	Part Number	Tube O.D.	Dimension (mm)			
			H	h	L	A
<b>L Light</b> <b>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</b> <b>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
<b>PN 315</b>	DC-30S	30	50	46	47	20.5
	DC-38S	38	60	55	54	23.0

**DP**

**Pulg**



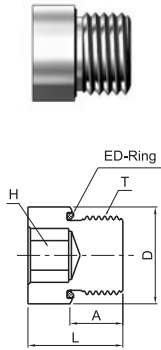
Series	Part Number	Tube O.D.	Dimension (mm)	
			D	L
<b>L Light</b> <b>PN 315</b>	DP-06L	6	6	18.5
	DP-08L	8	8	18.5
	DP-10L	10	10	20
	DP-12L	12	12	20.5
	DP-15L	15	15	20.5
	DP-18L	18	18	22.5
<b>PN 160</b>	DP-22L	22	22	25
	DP-28L	28	28	25.5
	DP-35L	35	35	30
	DP-42L	42	42	30
<b>S Heavy</b> <b>PN 630</b>	DP-06S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

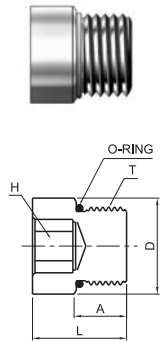


Series	Part Number(M)	Part Number(G)	T		Dimension (mm)			
			M(Metric)	G(PF)	D	H	L	A
<b>PB 400</b>	DBP-M10ED	DBP-01GED	M10 × 1.0	1/8	14.0	5	12.0	8
	DBP-M12ED	-	M12 × 1.5	-	17.0	6	17.0	12
	DBP-M14ED	DBP-02GED	M14 × 1.5	1/4	19.0	6	17.0	12
	DBP-M16ED	DBP-03GED	M16 × 1.5	3/8	22.0	8	17.0	12
	DBP-M18ED	-	M18 × 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
<b>PB 250</b>	DBP-M33ED	DBP-08GED	M33 × 2.0	1	39.9	17	22.5	16
	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)

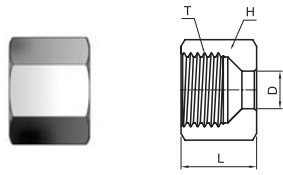


Series	Part Number	T M(Metric)	Dimension (mm)			
			D	H	L	A
<b>PB 630</b>	DBP-M10	M10 × 1	13	5	14	10
	DBP-M12	M12 × 1.5	17	6	16.5	11.5
	DBP-M14	M14 × 1.5	19	6	16.5	11.5
	DBP-M16	M16 × 1.5	21	6	18	13
	DBP-M18	M18 × 1.5	23	8	19.5	14.5
<b>PB 400</b>	DBP-M22	M22 × 1.5	27	10	20.5	15.5
	DBP-M26	M26 × 1.5	31	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.

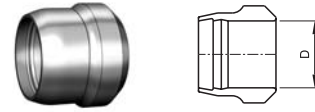
**DN**

**NUT**



**DS**

**Cutting Ring**

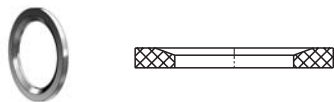


**BSP Parallel**

Series	Nut Part Number	Cutting Ring Part Number	Tube O.D	Dimension (mm)			
				D	H	L	T
<b>LL Very Light</b>	DN-04LL	DS-04LL	4	4	10	11.5	M8 × 1.0
	DN-06LL	DS-06LL	6	6	12	12	M10 × 1.0
	DN-08LL	DS-08LL	8	8	14	12.5	M12 × 1.0
	DN-10LL	DS-10LL	10	10	17	12.5	M14 × 1.0
	DN-12LL	DS-12LL	12	12	19	13	M16 × 1.0
<b>L Light</b>	DN-06L	DS-06L	6	6	14	15	M12 × 1.5
	DN-08L	DS-08L	8	8	17	15	M14 × 1.5
	DN-10L	DS-10L	10	10	19	16	M16 × 1.5
	DN-12L	DS-12L	12	12	22	16	M18 × 1.5
	DN-15L	DS-15L	15	15	27	17.5	M22 × 1.5
	DN-18L	DS-18L	18	18	32	18	M26 × 1.5
	DN-22L	DS-22L	22	22	36	20.5	M30 × 2.0
	DU-28L	DS-28L	28	28	41	21	M36 × 2.0
	DN-35L	DS-35L	35	35	50	24	M45 × 2.0
DN-42L	DS-42L	42	42	60	24	M52 × 2.0	
<b>S Heavy</b>	DN-06S	DS-06S	6	6	17	16.5	M14 × 1.5
	DN-08S	DS-08S	8	8	19	16.5	M16 × 1.5
	DN-10S	DS-10S	10	10	22	17.5	M18 × 1.5
	DN-12S	DS-12S	12	12	24	18	M20 × 1.5
	DN-14S	DS-14S	14	14	27	20.5	M22 × 1.5
	DN-16S	DS-16S	16	16	30	21	M24 × 1.5
	DN-20S	DS-20S	20	20	36	24	M30 × 2.0
	DN-25S	DS-25S	25	25	46	27	M36 × 2.0
	DN-30S	DS-30S	30	30	50	29.5	M42 × 2.0
DN-38S	DS-38S	38	38	60	32.5	M52 × 2.0	

**DED**

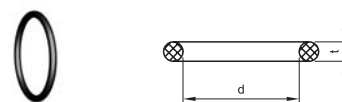
**ED-Ring**



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.



## 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
- Trunion 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

- 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

- MCPD(Molded Case Power Distributor)

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