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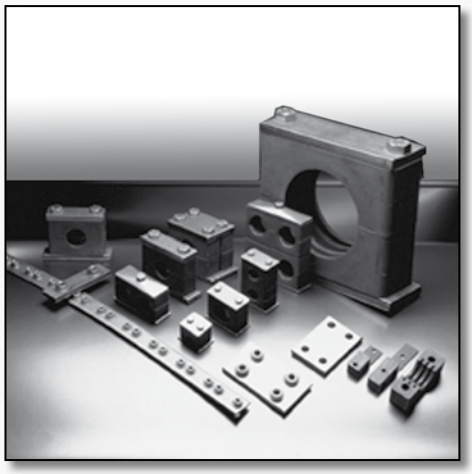

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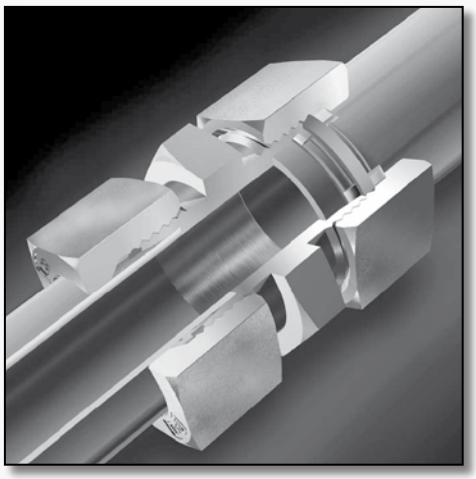


INTRODUCTION

Tube and pipe merchants within Australia offer a range of products suited to hydraulic, pneumatic and instrumentation applications. The data included here is intended as a guide only to the products more commonly used, and should not be construed as representative of products offered for sale by Pirtek.
Specifications and technical data are typical.

Imperial Tube and Pipe

Tabulated burst pressures for imperial tube and pipe size of various sizes are derived from use of Barlow's Formula. Results are converted to bars for convenience.

BP (kg/cm²) = Wall Thickness (cm) x 2 x Tensile Strength (kg/cm²) / Outside Dia. (cm).

Material	Adopted tensile strength	Tabulated
Butt welded wrought steel pipe * (Sched. 40, 80, 160)	275 MPa (2812 kg/cm²)	Yes
Lap welded wrought steel pipe	345 MPa (3515 kg/cm²)	No. Add 20% to above.
Hydraulic Cold Drawn Steel Tube (CDS)	345 MPa (3515 kg/cm²)	Yes
Stainless Steel 302, 303, 304,309, 310, 316, 321, 416	510 MPa (273 kg/cm²)	Yes
Stainless Steel 410, 430	414 MPa (4222 kg/cm²)	No
Stainless Steel 202, 440C	690 MPa (7037 kg/cm²)	No
Copper	220 MPa (2 250 kg/cm²)	No
* Wrought iron pipe	Thicker than wrought steel. Adopt the same burst pressure as butt welded wrought steel.	

Flow Rate / Velocity

Flow rates given in the tables are based on the following guides:

Suction lines:	0.6 - 1.2 m/sec
Return lines:	3 - 4.5 m/sec
Medium Pressure (35 - 140 bar) lines:	4.5 - 6 m/sec
High Pressure lines (≥ 200 bar):	≤ 9 m/sec

Safety Factor

It's recommended that hydraulic systems subjected to shock loads incorporate a 6:1 factor of safety.
Use of a lower factor can be contemplated after due consideration of the system operating parameters.

Quoted working pressures for metric tubing are as per relevant DIN standards.

Copper Tube

Consult page E 8

Metric Tube

Metric steel tubing is designated by the combination of outside diameter and wall thickness. Pirtek recommends the use of precision cold drawn seamless tube manufactured to conform to the requirements of DIN 2391 Part 1. Material grade should be St 37.4, Type NBK, as described in DIN 1630. Maximum exterior hardness 75 HRB.
Tabulated pressure ratings are in accordance with :

DIN 2413-I (static loads using a tensile stress yield point of 235 N/mm²)
DIN 2413-III (dynamic loads using a yield point of 226 N/mm²).

For thick walled tube (ie the ratio of OD to ID exceeds 1.35), the tabulated pressure is as per DIN2413-III, but with the 235 N/mm² yield point. The applicable safety factor in all cases is 1.5.
Allowance factors are:
4 mm tube C = 0.8
6-8 mm tube C = 0.85
8mm tube and larger C = 0.9
No additional provision for corrosion is incorporated.

1.4571 stainless steel tubing is designated by the combination of outside diameter and wall thickness. It should be cold drawn precision seamless tube manufactured in accordance with the provisions of DIN 17458-X6CrNiMoTi17122-m or ASTM A269. Maximum exterior hardness 85 HRB. Tolerances as per DIN/EN/ISO 1127.
Tabulated pressure ratings are in accordance with DIN 2413-I (static loads using a tensile stress yield point of 245 N/mm²).
Pressure ratings for dynamic loads use a yield point of 190 N/mm². Note that no yield stress is published for DIN 17458, so this is a recommended guide only. Calculations are as per DIN 2423-III for dynamic loads.

For thick walled tube (ratio of OD to ID exceeds 1.35), the tabulated pressure is as per DIN2413-III, but with a 245 N/mm² yield point. The applicable safety factor in all cases is 1.5.
Allowance factors are:
C = 0.9
No additional provision for corrosion is incorporated.

Working Temperature

Carbon steel:

Use safely with no reduction in the range of -60° to +120° C. Maximum allowable working temperature 250° C.

Stainless steel:

Use stated working pressures within the range -60° to +20° C

Maximum allowable working temperature 400° C.

Reduce pressures as indicated for the range 20° to 400° C

50° C	4.5%
100° C	11%
200° C	20%
300° C	29%
400° C	33%

Tube Length

Imperial tube 6.1 metres

Metric tube 6 metres

Bending Tube

Use the guide:

Bend Radius ≥ 3 x Tube OD

Bending can cause wall thinning, with a consequent reduction in safe working pressure.

ANSI / ASME B36.10M SCHEDULE 40 (API STANDARD WEIGHT) PIPE

Nominal Size	WP bar	BP bar	Oil flow capacity (lit/min) @ flow velocity (m/sec)				Dimensions mm			Flow Area cm²	Weight kg/m
	Safety Factor 6:1		0.6	1.2	3	4.5	OD	ID	Wall Thickness		
1/8”	154	926	1.3	2.6	6.6	9.9	10.3	6.8	1.73	0.366	
1/4”	150	899	2.4	4.8	12.1	18.1	13.7	9.3	2.24	0.671	0.62
3/8”	124	744	4.4	8.9	22.1	33.2	17.1	12.5	2.31	1.23	0.84
1/2”	119	716	7.1	14.1	35.3	52.9	21.3	15.8	2.77	1.96	1.28
3/4”	99	594	12.4	24.8	61.9	92.9	26.7	20.9	2.87	3.44	1.70
1”	93	558	20.1	40.2	100.4	150.7	33.4	26.6	3.38	5.58	2.52
1.1/4”	77	465	34.7	69.5	173.7	260.6	42.2	35.1	3.56	9.65	3.43
1.1/2”	70	421	47.3	94.5	236.3	354.5	48.3	40.9	3.68	13.13	4.07
2”	60	358	77.9	155.8	389.5	584.3	60.3	52.5	3.91	21.64	5.42
2.1/2”	65	389	111.1	222.3	555.7	833.5	73	62.7	5.16	30.87	8.69
3”	57	340	171.6	343.3	858.2	1287.4	88.9	77.9	5.49	47.68	11.31

ANSI / ASME B36.10M SCHEDULE 80 (API EXTRA STRONG WEIGHT) PIPE

Nominal Size	WP bar	BP bar	Oil flow capacity (lit/min) @ flow velocity (m/sec)				Dimensions mm			Flow Area cm²	Weight kg/m
	Safety Factor 6:1		0.6	1.2	3	4.5	OD	ID	Wall Thickness		
1/8”	220	1319	0.842	1.68	4.2	6.32	10.3	5.5	2.41	0.234	
1/4”	206	1240	1.66	3.33	8.3	12.5	13.7	7.7	3.02	0.462	
3/8”	175	1050	3.26	6.52	16.3	24.5	17.1	10.7	3.2	0.906	1.10
1/2”	164	984	5.44	10.9	27.2	40.8	21.3	13.9	3.73	1.51	1.61
3/4”	137	825	10.04	20.1	50.2	75.3	26.7	18.8	3.91	2.79	2.19
1”	127	766	16.7	33.4	83.5	125.3	33.4	24.3	4.55	4.64	3.21
1.1/4”	108	647	29.77	59.5	148.9	223.3	42.2	32.5	4.85	8.27	4.51
1.1/2”	99	592	41	82	205	307.5	48.3	38.1	5.08	11.39	5.43
2”	86	516	68.54	137.1	342.7	514.1	60.3	49.3	5.54	19.04	7.43
2.1/2”	90	540	98.39	196.8	491.9	737.9	73	59	7.01	27.33	11.39
3”	80	482	153.29	306.6	766.4	1149.7	88.9	73.7	7.62	42.58	15.24

ANSI / ASME B36.10M SCHEDULE 160 (API DOUBLE EXTRA HEAVY WEIGHT) PIPE

Nominal Size	WP bar	BP bar	Oil flow capacity (lit/min) @ flow velocity (m/sec)				Dimensions mm			Flow Area cm²	Weight kg/m
	Safety Factor 6:1		0.6	1.2	3	4.5	OD	ID	Wall Thickness		
1/8”	-	-	-	-	-	-	-	-	-	-	-
1/4”	-	-	-	-	-	-	-	-	-	-	-
3/8”	-	-	-	-	-	-	-	-	-	-	-
1/2”	210	1259	3.92	7.8	19.6	29.4	21.3	11.79	4.775	1.09	1.95
3/4”	195	1173	6.83	13.7	34.2	51.2	26.7	15.54	5.563	1.897	2.91
1”	178	1069	12.11	24.2	60.6	90.8	33.4	20.7	6.35	3.364	4.21
1.1/4”	141	847	24.53	49.1	122.6	184	42.2	29.46	6.35	6.813	5.58
1.1/2”	138.6	832	32.63	65.3	163.2	244.7	48.3	33.99	7.137	9.064	7.21
2”	135.7	815	51.89	103.8	259.4	389.2	60.3	42.85	8.738	14.413	11.1
2.1/2”	122.3	734	82.33	164.7	411.7	617.5	73	53.98	9.525	22.87	14.9
3”	117.2	704	125.54	251.1	627.7	941.5	88.9	66.65	11.125	34.871	21.3

PRECISION SEAMLESS HYDRAULIC TUBE (Imperial)

Size	Gauge	CDS LOW CARBON Note SF 3:1*		316 L STAINLESS STEEL Note SF 3:1*		Oil flow capacity (lit/min) @ flow velocity (m/sec)				Dimensions mm			Weight
		WP bar	BP bar	WP bar	BP bar	1.2 Suction	4.5 Return	6 Med. Press.	9 High Press.	OD	ID	Wall Thick.	Kg/m
1/8”	20G	724	2172	-	-	0.1	0.4	0.6	0.8	3.18	1.40	0.89	0.05
3/16”	20G	483	1448	-	-	0.5	1.9	2.5	3.8	4.76	2.98	0.89	0.08
1/4”	20G	362	1086	493	1478	1.2	4.4	5.9	8.9	6.35	4.57	0.89	0.12
	18G	496	1489	675	2026	0.9	3.2	4.3	6.5	6.35	3.91	1.22	0.15
	16G	663	1989	-	-	0.5	2.0	2.7	4.0	6.35	3.09	1.63	0.19
5/16”	20G	290	869	394	1182	2.1	8.0	10.7	16.1	7.94	6.16	0.89	0.15
	18G	397	1191	540	1620	1.7	6.4	8.5	12.8	7.94	5.50	1.22	0.20
	16G	530	1591	-	-	1.2	4.6	6.2	9.3	7.94	4.68	1.63	0.25
3/8”	20G	241	724	328	985	3.4	12.7	17.0	25.4	9.53	7.75	0.89	0.19
	18G	331	993	450	1350	2.8	10.6	14.2	21.3	9.53	7.09	1.22	0.25
	16G	442	1326	601	1804	2.2	8.3	11.1	16.6	9.53	6.27	1.63	0.32
1/2”	20G	181	543	246	739	6.7	25.3	33.7	50.6	12.70	10.92	0.89	0.26
	18G	248	744	338	1013	6.0	22.3	29.8	44.6	12.70	10.26	1.22	0.35
	16G	332	995	451	1354	5.0	18.9	25.2	37.8	12.70	9.44	1.63	0.45
	14G	-	-	562	1686	4.2	15.8	21.1	31.7	12.70	8.64	2.03	0.53
5/8”	18G	199	596	270	810	10.2	38.3	51.0	76.6	15.88	13.44	1.22	0.44
	16G	265	796	361	1082	9.0	33.7	45.0	67.5	15.88	12.62	1.63	0.57
	14G	330	991	449	1348	7.9	29.6	39.5	59.2	15.88	11.82	2.03	0.69
3/4”	18G	165	496	225	675	15.6	58.5	78.0	117.0	19.05	16.61	1.22	0.54
	16G	221	663	301	902	14.1	52.9	70.5	105.7	19.05	15.79	1.63	0.70
	14G	275	826	375	1124	12.7	47.7	63.5	95.3	19.05	14.99	2.03	0.85
7/8”	18G	-	-	193	579	22.1	83.1	110.7	166.1	22.23	19.79	1.22	0.63
	16G	189	568	258	773	20.3	76.3	101.7	152.5	22.23	18.97	1.63	0.83
	14G	236	708	321	963	18.7	70.0	93.3	139.9	22.23	18.17	2.03	1.01
	12G	-	-	438	1314	15.8	59.1	78.8	118.1	22.23	16.69	2.77	1.33
1”	18G	124	372	169	507	29.8	111.8	149.1	223.6	25.40	22.96	1.22	0.73
	16G	166	497	226	677	27.7	103.9	138.6	207.9	25.40	22.14	1.63	0.96
	14G	206	619	281	843	25.8	96.6	128.8	193.1	25.40	21.34	2.03	1.17
	12G	282	845	383	1150	22.3	83.6	111.5	167.3	25.40	19.86	2.77	1.55
	10G	331	992	-	-	20.2	75.8	101.0	151.5	25.40	18.90	3.25	1.78
1.1/4”	14G	165	496	225	674	43.4	162.6	216.8	325.2	31.75	27.69	2.03	1.49
	12G	225	676	307	920	38.8	145.7	194.2	291.4	31.75	26.21	2.77	1.98
	10G	264	793	360	1080	36.1	135.2	180.3	270.4	31.75	25.25	3.25	2.28
1.1/2”	14G	-	-	187	562	65.5	245.7	327.6	491.4	38.10	34.04	2.03	1.81
	12G	188	563	256	767	60.0	224.8	299.8	449.6	38.10	32.56	2.77	2.41
	10G	220	661	300	900	56.5	211.8	282.3	423.5	38.10	31.60	3.25	2.79
2”	12G	141	423	-	-	115.8	434.4	579.2	868.8	50.80	45.26	2.77	3.28
	10G	165	496	-	-	111.0	416.2	554.9	832.3	50.80	44.30	3.25	3.81
	7G	227	682	-	-	99.1	371.6	495.5	743.2	50.80	41.86	4.47	5.11

* Safety Factor

It’s recommended that hydraulic systems subjected to shock loads incorporate a 6:1 factor of safety.
Use of a lower factor can be contemplated after due consideration of the system operating parameters.

PRECISION SEAMLESS HYDRAULIC STEEL TUBE (Metric)

Ø Tube	Tolerance	Working Pressure (bar) St. 37.4 Carbon steel		Working Pressure (bar) 1.4571 Stainless steel		Oil flow capacity (lit/min) @ flow velocity (m/sec)				Dimensions (mm)			Weight	†
mm	mm	Static DIN2413-I	Dynamic DIN2413-III	Static DIN2413-I	Dynamic (Guide)	1.2 Suction	4.5 Return	6 Med. Press.	9 High Press.	OD	ID	Wall Thick.	Kg/m	pref. size
4	± 0.1	409	467	426	358	0.4	1.3	1.8	2.7	4	2.5	0.75	0.060	†
		522	502	544	422	0.2	0.8	1.1	1.7	4	2	1	0.074	
6	± 0.1	389	374	406	314	0.9	3.4	4.5	6.8	6	4	1	0.123	†
		549	528	572	444	0.5	1.9	2.5	3.8	6	3	1.5	0.166	
		692	665	721	559	0.2	0.8	1.1	1.7	6	2	2	0.197	
8	± 0.1	333	289	347	243	2.0	7.6	10.2	15.3	8	6	1	0.173	†
		431	441	449	371	1.4	5.3	7.1	10.6	8	5	1.5	0.240	†
		549	528	572	444	0.9	3.4	4.5	6.8	8	4	2	0.296	
		658	632	686	561	0.5	1.9	2.5	3.8	8	3	2.5	0.339	
10	± 0.1	282	249	294	209	3.6	13.6	18.1	27.1	10	8	1	0.222	†
		373	358	389	301	2.8	10.4	13.9	20.8	10	7	1.5	0.314	†
		478	460	498	387	2.0	7.6	10.2	15.3	10	6	2	0.395	
		576	553	601	465	1.4	5.3	7.1	10.6	10	5	2.5	0.462	
		666	641	694	539	0.9	3.4	4.5	6.8	10	4	3	0.518	
12	± 0.08	235	210	245	176	5.7	21.2	28.3	42.4	12	10	1 [a]	0.271	†
		353	305	368	256	4.6	17.2	22.9	34.4	12	9	1.5	0.388	†
		409	393	426	330	3.6	13.6	18.1	27.1	12	8	2	0.493	†
		495	476	516	400	2.8	10.4	13.9	20.8	12	7	2.5	0.586	
		576	553	601	465	2.0	7.6	10.2	15.3	12	6	3	0.666	
		651	627	679	527	1.4	5.3	7.1	10.6	12	5	3.5	0.734	
14	± 0.08	302	265	315	223	6.8	25.7	34.2	51.3	14	11	1.5	0.462	
		403	343	420	288	5.7	21.2	28.3	42.4	14	10	2	0.592	†
		434	417	452	351	4.6	17.2	22.9	34.4	14	9	2.5	0.709	
		507	487	529	409	3.6	13.6	18.1	27.1	14	8	3	0.814	
		576	553	601	465	2.8	10.4	13.9	20.8	14	7	3.5	0.906	
15	± 0.08	188	171	196	143	9.6	35.8	47.8	71.7	15	13	1	0.345	
		282	249	294	209	8.1	30.5	40.7	61.1	15	12	1.5	0.499	†
		376	323	392	272	6.8	25.7	34.2	51.3	15	11	2	0.641	
		478	460	498	387	4.6	17.2	22.9	34.4	15	9	3	0.888	
16	± 0.08	264	234	275	196	9.6	35.8	47.8	71.7	16	13	1.5	0.536	†
		353	305	368	256	8.1	30.5	40.7	61.1	16	12	2	0.691	†
		386	372	402	312	6.8	25.7	34.2	51.3	16	11	2.5	0.832	†
		452	435	471	365	5.7	21.2	28.3	42.4	16	10	3	0.962	
18	± 0.08	157	143	130	-	14.5	54.3	72.4	108.6	18	16	1 [a]	0.419	
		235	210	245	177	12.7	47.7	63.6	95.4	18	15	1.5 [a]	0.610	†
		313	274	326	230	11.1	41.6	55.4	83.1	18	14	2	0.789	†
		392	335	409	282	9.6	35.8	47.8	71.7	18	13	2.5	0.956	
		409	393	426	330	8.1	30.5	40.7	61.1	18	12	3	1.110	
20	± 0.08	212	191	-	-	16.3	61.3	81.7	122.6	20	17	1.5	0.684	
		282	249	294	209	14.5	54.3	72.4	108.6	20	16	2	0.888	†
		353	305	368	256	12.7	47.7	63.6	95.4	20	15	2.5	1.079	†
		373	358	389	301	11.1	41.6	55.4	83.1	20	14	3	1.258	
		426	410	444	344	9.6	35.8	47.8	71.7	20	13	3.5	1.424	
		478	460	498	387	8.1	30.5	40.7	61.1	20	12	4	1.578	
22	± 0.08	192	174	200	146	20.4	76.6	102.1	153.1	22	19	1.5 [a]	0.758	
		256	228	267	192	18.3	68.7	91.6	137.4	22	18	2 [a]	0.986	†
		320	280	334	235	16.3	61.3	81.7	122.6	22	17	2.5	1.202	
		385	329	401	276	14.5	54.3	72.4	108.6	22	16	3	1.406	†
		385	329	-	-	11.1	41.6	55.4	83.1	22	14	4	1.776	
25	± 0.08	95	-	-	-	22.6	84.8	113.1	169.7	22	20	1 [a]	0.518	
		226	202	236	170	24.9	93.5	124.7	187.0	25	21	2 [a]	1.134	†
		282	249	294	209	22.6	84.8	113.1	169.7	25	20	2.5	1.387	†
		338	294	352	247	20.4	76.6	102.1	153.1	25	19	3	1.628	†
		394	379	411	318	16.3	61.3	81.7	122.6	25	17	4	2.072	†
		437	420	456	353	14.5	54.3	72.4	108.6	25	16	4.5	2.275	
28	± 0.08	151	139	158	117	35.3	132.5	176.7	265.1	28	25	1.5 [a]	0.980	
		201	182	210	153	32.6	122.1	162.9	244.3	28	24	2 [a]	1.282	†
		252	224	263	188	29.9	112.2	149.6	224.4	28	23	2.5	1.572	
		302	265	315	223	27.4	102.6	136.9	205.3	28	22	3	1.850	
30	± 0.08	168	171	175	144	38.2	143.4	191.1	286.7	30	26	2	1.381	
		235	210	245	476	35.3	132.5	176.7	265.1	30	25	2.5	1.696	
		282	249	294	209	32.6	122.1	162.9	244.3	30	24	3	1.998	†
		376	323	392	271	27.4	102.6	136.9	205.3	30	22	4	2.565	†
35	± 0.15	161	147	168	123	54.3	203.8	271.7	407.6	35	31	2 [a]	1.628	†
		201	182	210	153	50.9	190.9	254.5	381.7	35	30	2.5	2.004	
		242	216	252	182	47.6	178.3	237.8	356.7	35	29	3	2.368	†
		280	-	-	-	44.3	166.3	221.7	332.5	35	28	3.5	2.719	
		322	281	336	236	41.2	154.6	206.1	309.2	35	27	4	3.058	
38	± 0.15	223	200	232	168	57.9	217.2	289.5	434.3	38	32	3	2.590	
		297	261	310	219	50.9	190.9	254.5	381.7	38	30	4	3.354	†
		371	319	387	268	44.3	166.3	221.7	332.5	38	28	5	4.069	†
42	± 0.2	134	124	140	104	81.7	306.2	408.3	612.4	42	38	2	1.973	
		201	182	210	153	73.3	274.8	366.4	549.7	42	36	3	2.885	†
		269	238	280	200	65.4	245.1	326.9	490.3	42	34	4	3.749	†

[a] Use support tube

COPPER TUBE TO AS1432

Product Code			Imperial Size	DN Size	Gauge	O.D.	Wall thickness	Min wall thickness	I.D.	Oil Flow Capacity (Litre/min) @ Flow Velocity (m/sec)				Weight	W.P.	B.P.
Hard drawn 6m	Annealed coil 18m	Annealed coil 30m	ins			mm	mm	mm	mm	0.60	1.20	3.00	4.50	Kg/m	kPa	kPa
Z17122-02	-	Z17222-02	1/8"	DN 3	22 swg	3.18	0.71	0.60	1.76	0.09	0.17	0.44	0.65	0.05	19107	95534
Z17122-03	-	Z17222-03	3/16"	DN 5	22 swg	4.76	0.71	0.60	3.34	0.32	0.63	1.58	2.37	0.08	11820	59099
Z17120-03	Z17220-03	-	3/16"	DN 5	20 swg	4.76	0.91	0.77	2.94	0.24	0.49	1.22	1.84	0.10	15815	79073
Z17122-04	-	Z17222-04	1/4"	DN 6	22 swg	6.35	0.71	0.60	4.93	0.69	1.37	3.44	5.15	0.11	8557	42783
Z17120-04	Z17220-04	-	1/4"	DN 6	20 swg	6.35	0.91	0.77	4.53	0.58	1.16	2.90	4.35	0.14	11315	56577
-	-	●	1/4"	DN 6	20 swg	6.35	0.91	0.77	4.53	0.58	1.16	2.90	4.35	0.14	11315	56577
●	-		5/16"	DN 8	22 swg	7.94	0.71	0.60	6.52	1.20	2.40	6.01	9.01	0.14	6703	33515
-	-	Z17222-05	5/16"	DN 8	22 swg	7.94	0.71	0.60	6.52	1.20	2.40	6.01	9.01	0.14	6703	33515
Z17120-05	Z17220-05	-	5/16"	DN 8	20 swg	7.94	0.91	0.77	6.12	1.06	2.12	5.29	7.94	0.18	8806	44031
-	-	●	5/16"	DN 8	20 swg	7.94	0.91	0.77	6.12	1.06	2.12	5.29	7.94	0.18	8806	44031
●	-		3/8"	DN 10	22 swg	9.53	0.71	0.60	8.11	1.86	3.72	9.30	13.95	0.18	5510	27548
-	-	Z17222-06	3/8"	DN 10	22 swg	9.53	0.71	0.60	8.11	1.86	3.72	9.30	13.95	0.18	5510	27548
-	Z17220-06	-	3/8"	DN 10	20 swg	9.53	0.91	0.77	7.71	1.68	3.36	8.40	12.61	0.22	7208	36039
Z17120-06	-	-	3/8"	DN 10	20 swg	9.53	0.91	0.77	7.71	1.68	3.36	8.40	12.61	0.22	7208	36039
●	-	-	1/2"	DN 15	22 swg	12.70	0.71	0.60	11.28	3.60	7.20	17.99	26.98	0.24	4066	20331
●†	Z17220-08	-	1/2"	DN 15	20 swg	12.70	0.91	0.77	10.88	3.35	6.69	16.73	25.10	0.30	5293	26463
Z17120-08‡			1/2"	DN 15	20 swg	12.70	0.91	0.77	10.88	3.35	6.69	16.73	25.10	0.30	5293	26463
Bendable	-	-	1/2"	DN 15	19 swg	12.70	1.02	0.88	10.66	3.21	6.43	16.06	24.10	0.33	6105	30525
-	Z17220-10	-	5/8"	DN 18	20 swg	15.88	0.91	0.77	14.06	5.59	11.18	27.95	41.92	0.38	4179	20893
-	●	-	5/8"	DN 18	19 swg	15.88	1.02	0.88	13.84	5.42	10.83	27.08	40.62	0.43	4811	24053
●	-	-	5/8"	DN 18	18 swg	15.88	1.22	1.04	13.44	5.11	10.21	25.54	38.30	0.50	5747	28733
-	Z17220-12	-	3/4"	DN 20	20 swg	19.05	0.91	0.77	17.23	8.39	16.79	41.97	62.95	0.46	3454	17270
-	●	-	3/4"	DN 20	19 swg	19.05	1.02	0.88	17.01	8.18	16.36	40.90	61.36	0.52	3971	19857
-	●	-	3/4"	DN 20	17 swg	19.05	1.42	1.21	16.21	7.43	14.86	37.15	55.72	0.70	5562	27808
Bendable	-	-	3/4"	DN 20	17 swg	19.05	1.42	1.21	16.21	7.43	14.86	37.15	55.72	0.70	5562	27808
●		-	1"	DN 25	20 swg	25.40	0.91	0.77	23.58	15.72	31.44	78.60	117.91	0.63	2564	12818
-	Z17220-16	-	1"	DN 25	20 swg	25.40	0.91	0.77	23.58	15.72	31.44	78.60	117.91	0.63	2564	12818
●	-	-	1"	DN 25	18 swg	25.40	1.22	1.04	22.96	14.91	29.81	74.53	111.79	0.83	3501	17504
-	●	-	1"	DN 25	16 swg	25.40	1.63	1.39	22.14	13.86	27.72	69.30	103.95	1.09	4747	23736
●	-	-	1"	DN 25	16 swg	25.40	1.63	1.39	22.14	13.86	27.72	69.30	103.95	1.09	4747	23736
●	-	-	1.1/4"	DN 32	20 swg	31.75	0.91	0.77	29.93	25.33	50.66	126.64	189.96	0.79	2038	10190
●	-	-	1.1/4"	DN 32	18 swg	31.75	1.22	1.04	29.31	24.29	48.58	121.45	182.17	1.05	2777	13885
●	-	-	1.1/4"	DN 32	16 swg	31.75	1.63	1.39	28.49	22.95	45.90	114.75	172.12	1.38	3754	18771
●	-	-	1.1/2"	DN 40	20 swg	38.10	0.91	0.77	36.28	37.22	74.43	186.08	279.12	0.95	1691	8457
●	-	-	1.1/2"	DN 40	18 swg	38.10	1.22	1.04	35.66	35.95	71.91	179.77	269.66	1.26	2301	11506
●	-	-	1.1/2"	DN 40	16 swg	38.10	1.63	1.39	34.84	34.32	68.64	171.60	257.40	1.67	3105	15524
●	-	-	2"	DN 50	20 swg	50.80	0.91	0.77	48.98	67.83	135.66	339.16	508.73	1.28	1262	6310
●	-	-	2"	DN 50	18 swg	50.80	1.22	1.04	48.36	66.12	132.25	330.62	495.94	1.70	1714	8569
●	-	-	2"	DN 50	16 swg	50.80	1.63	1.39	47.54	63.90	127.80	319.51	479.26	2.25	2307	11534
●	-	-	2.1/2"	DN 65	20 swg	63.50	0.91	0.77	61.68	107.57	215.14	537.84	806.76	1.60	1007	5033
●	-	-	2.1/2"	DN 65	18 swg	63.50	1.22	1.04	61.06	105.42	210.83	527.08	790.62	2.13	1365	6827
●	-	-	2.1/2"	DN 65	16 swg	63.50	1.63	1.39	60.24	102.60	205.21	513.02	769.53	2.83	1835	9176
●	-	-	3"	DN 80	18 swg	76.20	1.22	1.04	73.76	153.83	307.66	769.14	1153.71	2.57	1135	5673
●	-	-	3"	DN 80	16 swg	76.20	1.63	1.39	72.94	150.43	300.85	752.13	1128.20	3.41	1524	7618
●	-	-	3"	DN 80	14 swg	76.20	2.03	1.73	72.14	147.14	294.29	735.72	1103.59	4.23	1905	9525
●	-	-	3.1/2"	DN 90	16 swg	88.90	1.63	1.39	85.64	207.37	414.74	1036.85	1555.27	4.00	1302	6512
●	-	-	4"	DN 100	18 swg	101.60	1.22	1.09	99.16	278.01	556.03	1390.07	2085.10	3.44	889	4446
●	-	-	4"	DN 100	16 swg	101.60	1.63	1.47	98.34	273.43	546.87	1367.17	2050.76	4.58	1204	6019
●	-	-	5"	DN 125	16 swg	127.00	1.63	1.47	123.74	432.92	865.85	2164.62	3246.94	5.74	960	4801
●	-	-	5"	DN 125	14 swg	127.00	2.03	1.83	122.94	427.35	854.69	2136.73	3205.09	7.13	1199	5994
●	-	-	6"	DN 150	16 swg	152.40	1.63	1.47	149.14	628.90	1257.80	3144.49	4716.74	6.90	799	3993
●	-	-	6"	DN 150	14 swg	152.40	2.03	1.83	148.34	622.17	1244.34	3110.85	4666.27	8.57	997	4983
●	-	-	6"	DN 150	12 swg	152.40	2.64	2.38	147.12	611.98	1223.96	3059.89	4589.84	11.10	1301	6504
●	-	-	8"	DN 200	12 swg	203.20	2.64	2.24	197.92	1107.57	2215.14	5537.86	8306.79	14.87	914	4570

† Annealed 6 m coil ‡ Bendable ● Available to order

Safe working pressures calculation

WP (kPa) = 2000 x Min. Wall Thickness (mm) x Tensile Strength (MPa) / O.D. (mm)

The design tensile strength is taken as 41MPa up to 50° C.

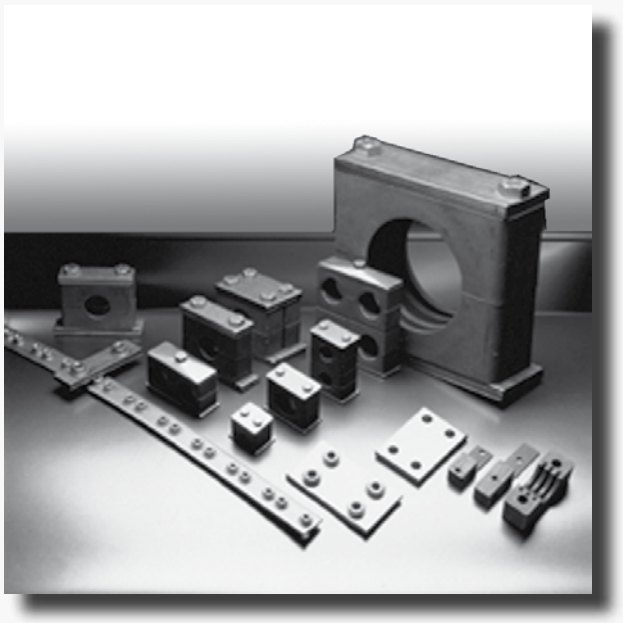
Temperature Allowance

Adjust tabulated working pressures as shown at right

Temp. Range	% of WP
0 - 50° C	100
50° - 75° C	83
75° - 125° C	80
125° - 150° C	74
150° - 175° C	68
175° - 200° C	51

PIRTEK fluid transfer solutions

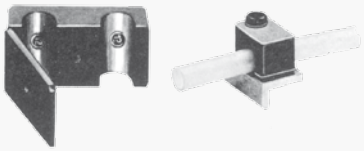
TUBE CLAMPS



Pirtek offers a comprehensive and diversified range designed to meet the practical mounting needs of single or large networks of tubes and pipes.

Materials used in the manufacture of the supports should be chosen according to the application, from a range that includes Polypropylene for temperatures up to 90°C, Polyamide for temperatures up to 140°C and flame retardant with VO rating and aluminium for operating temperatures up to 400°C.

Top and base mounting plates are available in galvanised and CR6-free plated mild steel to maximise corrosion resistance. Steel components can be supplied as AISI 316L stainless steel on request.



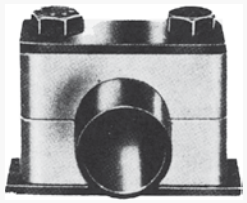
LIGHTWEIGHT SERIES

In polypropylene (PP) for the sizes shown.

Recommended for the fixing of tubes in pneumatic plants.
The clamp can be supplied in either single or double styles, and is available for differing tube diameters within the same clamp.

Low fittings costs, together with the wide range of clamping combinations, make these lightweight supports an essential element of all industrial installations.

Metric • PP from 4 to 25.4 mm
Gas • PP from 1/8" to 1/2"
Imperial • PP from 3/8" to 1/2"



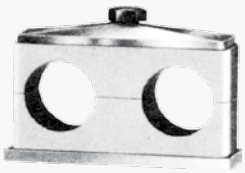
¨CC¨ OR STANDARD SERIES:

In polypropylene (PP), Polyamide (PA) or aluminium (AL) in a range of sizes
and mounting systems:

• weldable plate • elongated plate • double plate • multiple plate
• mounting rail • stacked with upper plate.
This series is recommended for oil-hydraulic installations up to 200 bar

Clamp shells with vibration dampening rubber inserts are available on request

Metric • PP from 6 to 102 mm • AL from 6 to 102 mm
Gas • PP from 1/8" to 3.1/2" • AL from 1/8" to 1.1/2"
Imperial • PP from 1/4" to 4" • AL from 1/4" to 2"



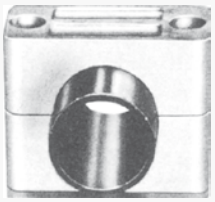
¨CF¨ OR STANDARD TWIN SERIES:

In polypropylene for pipe pairs.

It is recommended that only equally sized pipes be mounted in twin clamps. However, on request, clamps for 2 pipes of different diameter can be supplied. Again, various mounting systems are possible.

• weldable plate • elongated plate • double plate • multiple plate
• mounting rail • stacked with upper plate.
The twin series is recommended for oil-hydraulic installations up to 200 bar.

Metric • PP from 6 to 42.4 mm
Gas • PP from 1/8" to 1-1/4"
Imperial • PP from 1/4" to 1-1/2"



"CP" and "CH" HEAVYWEIGHT SERIES:

In polypropylene (CP) or aluminium (CH) in a range of sizes.

Recommended for complex systems, for high pressures and considerable oil velocities. Upper plates are supplied in this series. High hexagon head bolts VACP are used in stacked mounting configurations
Clamp shells with vibration dampening rubber inserts are available on request.

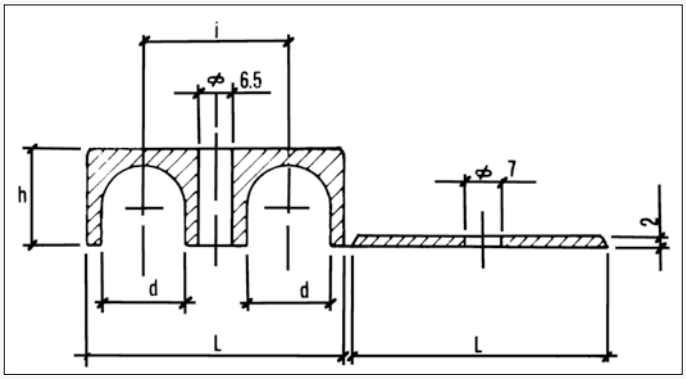
A rail mounting option applies only in Size Groups 1-4 (jaw diameters from 12.7 mm to 63 mm)
Double width welded base plates available up to Size Group 5 (88 mm tube)

Metric • CP from 6 to 324 mm • CH from 6 to 324 mm
Gas • CP from 1/8" to 12" • CH from 1/8" to 12"
Imperial • CP from 1/4" to 8" • CH from 1/4" to 8"

CCA

Lightweight Twin Tube Support for Pneumatic Systems

Material: Polypropylene



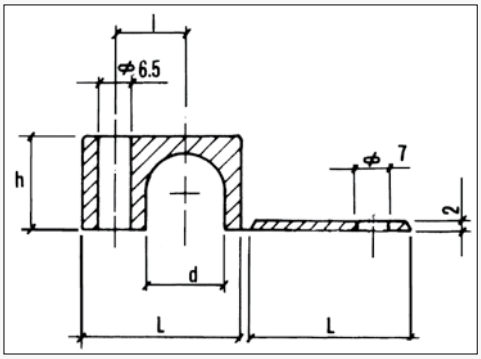
Product Code	Dimension (mm)						
	Ø Tube d	Ø Tube d	h	L	i	Ø Hole	Width
CCA-04	4	4	10.5	31	18	6.5	12.8
CCA-06	6	6	10.5	31	18	6.5	12.8
CCA-08	8	8	10.5	31	18	6.5	12.8
CCA-10	10	10	15	39	22	6.5	16
CCA-12	12	12	15	39	22	6.5	16
CCA-15	15	15	22.5	53	30	6.5	20

Other sizes on request

CCB

Lightweight Single Tube Support for Pneumatic Systems

Material: Polypropylene



Product Code	Dimension (mm)						
	Ø Tube d		h	L	i	Ø Hole	Width
CCB-04	4		10.5	22	9	6.5	12.8
CCB-06	6		10.5	22	9	6.5	12.8
CCB-08	8		10.5	22	9	6.5	12.8
CCB-10	10		15	27	11	6.5	16
CCB-12	12		15	27	11	6.5	16
CCB-15	15		22.5	34	15	6.5	20

Other sizes on request

CCx

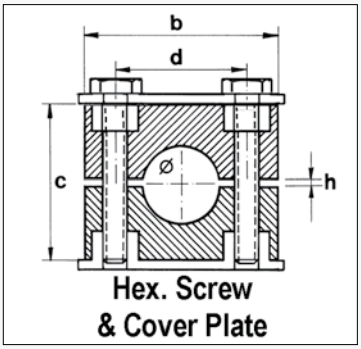
Standard Tube Support
Weld Plate & Cover Plate Configurations

Material: Polypropylene

*Polyamide black flame retardant clamps add PA to part number, eg. CC2PA-13

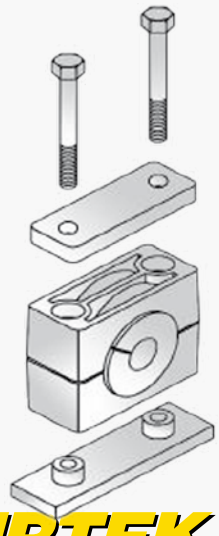
The cover plate can be substituted by 2 CC-B bushes in conjunction with 2 hex screws.

*Elongated weld plates available, refer to page 11



Hex. Screw
& Cover Plate

Clamp Jaws Product Code	Product Codes and Dimensions (mm)									
	Ø Tube	b	c	d	h	Width	Weld Plate	Cover Plate	Hex. Screw (2 needed)	Bushing (2 needed in lieu of cover plate)
CC2-06	6	37	28	20	0.6	30	CC2-01 41 x 30 x 3 Nut 7.5 high	CC2-02 35 x 30 x 3	CC2-03 M6 x 30	CC-B bush 11.5 OD x 6.5 ID x 8 Thick
CC2-07	6.35	37	28	20	0.6	30				
CC2-08	8	37	28	20	0.6	30				
CC2-09	9.52	37	28	20	0.6	30				
CC2-10	10	37	28	20	0.6	30				
CC2-12	12	37	28	20	0.6	30				
CC2-13	12.7	37	28	20	0.6	30				
CC3-14	14	43	33	26	0.8	30	CC3-01 47 x 30 x 3 Nut 7.5 high	CC3-02 41 x 30 x 3	CC3-03 M6 x 35	
CC3-15	15	43	33	26	0.8	30				
CC3-16	16	43	33	26	0.8	30				
CC3-18	18	43	33	26	0.8	30				
CC4-19	19.05	50	36	33	0.8	30	CC4-01 54 x 30 x 3 Nut 7.5 high	CC4-02 48 x 30 x 3	CC4-03 M6 x 40	
CC4-20	20	50	36	33	0.8	30				
CC4-21.3	21.3	50	36	33	0.8	30				
CC4-22	22	50	36	33	0.8	30				
CC4-25	25	50	36	33	0.8	30				
CC4-25.4	25.4	50	36	33	0.8	30				
CC5-27	26.9	57	44	40	1	30	CC5-01 61 x 30 x 3 Nut 7.5 high	CC5-02 56 x 30 x 3	CC5-03 M6 x 45	
CC5-28	28	57	44	40	1	30				
CC5-29	29	57	44	40	1	30				
CC5-30	30	57	44	40	1	30				
CC5-32	31.75	57	44	40	1	30				
CC6-34	33.7	69.5	57	52	1	30	CC6-01 73 x 30 x 3 Nut 7.5 high	CC6-02 69.5 x 30 x 3	CC6-03 M6 x 60	
CC6-35	35	69.5	57	52	1	30				
CC6-38	38	69.5	57	52	1	30				
CC6-42	42	69.5	57	52	1	30				
CC7-48	48.25	86	66	66	1.4	30	CC7-01 88 x 30 x 3 Nut 7.5 high	CC7-02 85.5 x 30 x 3	CC7-03 M6 x 70	
CC7-50	50.8	86	66	66	1.4	30				
CC8-63.5	63.5	120	92	94	1.4	30	CC8-01 122 x 30 x 5	CC8--02 118 x 30 x 5	CC8-03 M6 x 100	



Please enquire about our range of clamp shells with vibration dampening rubber inserts Available in the CCx Series to a maximum tube size of 48.3mm for medium duty applications. Available as a special order only.

PIRTEK fluid transfer solutions

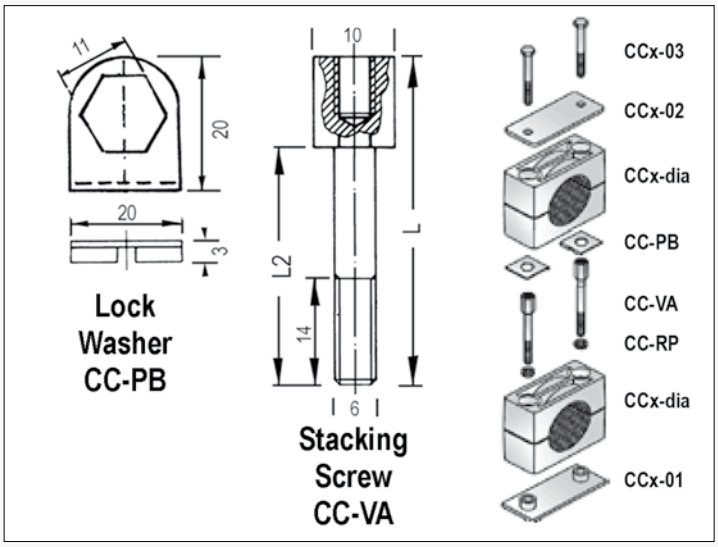
CCx

Standard Tube Support

Stacked Configuration *

Material: Polypropylene

* Please note that the arrangement of hex screws with cover plate CCx-02 as illustrated can be substituted with hex screws and bushes CC-B

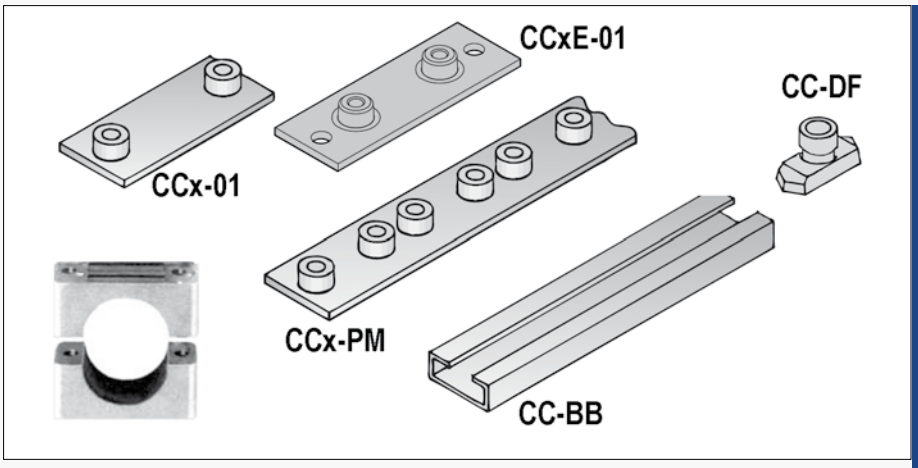


Clamp Jaws Product Code	Product Codes and Dimensions mm						
	Ø Tube	Weld Plate	Cover Plate	Hex. Screw	Stacking Screw	Flat Washer (2 needed)	Lock Washer (2 needed)
CC2-07	6.35	CC2-01 41 x 30 x 3 Nut 7.5 high	CC2-02 35 x 30 x 3	CC2-03 M6 x 30	CC2-VA M6 x 21 L = 35 L2 = 21	CC-RP 11.5 x 6.3 Round 1.5 thick	CC-PB 20 x 20 with 11 mm AF Hex. Hole
CC2-08	8						
CC2-09	9.52						
CC2-10	10						
CC2-12	12						
CC2-13	12.7						
CC3-14	14	CC3-01 47 x 30 x 3 Nut 7.5 high	CC3-02 41 x 30 x 3	CC3-03 M6 x 35	CC3-VA M6 x 27 L = 41 L2 = 27		
CC3-15	15						
CC3-16	16						
CC3-17.2	17.2						
CC3-18	18						
CC4-19	19.05	CC4-01 54 x 30 x 3 Nut 7.5 high	CC4-02 48 x 30 x 3	CC4-03 M6 x 40	CC4-VA M6 x 29 L = 43 L2 = 29		
CC4-20	20						
CC4-22	22						
CC4-25	25						
CC5-27	26.9	CC5-01 61 x 30 x 3 Nut 7.5 high	CC5-02 56 x 30 x 3	CC5-03 M6 x 45	CC5-VA M6 x 39 L = 53 L2 = 39		
CC5-28	28						
CC5-30	30						
CC5-32	31.75						
CC6-34	33.7	CC6-01 73 x 30 x 3 Nut 7.5 high	CC6-02 69.5 x 30 x 3	CC6-03 M6 x 60	CC6-VA M6 x 49 L = 63 L2 = 49		
CC6-35	35						
CC6-38	38						
CC6-42	42						
CC7-48	48.25	CC7-01 88 x 30 x 3 Nut 7.5 high	CC7-02 85.5 x 30 x 3	CC7-03 M6 x 70	CC7-VA M6 x 59 L=73 L2=59		
CC7-50	50.8						

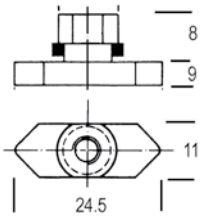
****NEW** - NOW AVAILABLE - STAINLESS STEEL HARDWARE FOR STANDARD SERIES SINGLE CLAMPS and TWIN CLAMPS - WELD PLATES, COVER PLATES, SCREWS & STACKING SCREWS AISI 316L GRADE.** **See Page E21**

CCx

Standard Tube Support
Bottom Mount Options

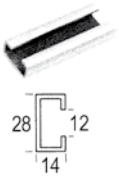


Clamp Jaws Product Code	Product Codes and Dimensions (mm)								
	Ø Tube	Width	Single Weld Plate	Multiple Weld Plate			Rail Mount (fully variable)		
				Details	Max. No. of Clamps	Clamp Spacings	Mounting Nut	O Ring	Rail
CC2-07	6.35	30	**CC2-01** 41 x 30 x 3 Nut 7.5 high **CC2E-01** 64 x 30 x 3 7mm fixing holes	**CC2-PM** 384 x 30 x 4 Nut 6.5 high	10	39			
CC2-08	8	30							
CC2-09	9.52	30							
CC2-10	10	30							
CC2-12	12	30							
CC2-13	12.7	30							
CC3-14	14	30	**CC3-01** 47 x 30 x 3 Nut 7.5 high **CC3E-01** 70 x 30 x 3 7mm fixing holes	**CC3-PM** 443 x 30 x 4 Nut 6.5 high	10	45			
CC3-15	15	30							
CC3-16	16	30							
CC3-17.2	17.2	30							
CC3-18	18	30							
CC4-19	19.05	30	**CC4-01** 54 x 30 x 3 Nut 7.5 high **CC4E-01** 78 x 30 x 3 7mm fixing holes	**CC4-PM** 513 x 30 x 4 Nut 6.5 high	10	52			
CC4-20	20	30							
CC4-22	22	30							
CC4-25	25	30							
CC5-27	26.9	30	**CC5-01** 61 x 30 x 3 Nut 7.5 high **CC5E-01** 87 x 30 x 3 7mm fixing holes	**CC5-PM** 301x 30 x 4 Nut 6.5 high	5	59			
CC5-28	28	30							
CC5-30	30	30							
CC5-32	31.75	30							
CC6-34	33.7	30	**CC6-01** 73 x 30 x 3 Nut 7.5 high **CC6E-01** 100 x 30 x 3 7mm fixing holes	**CC6-PM** 373 x 30 x 4 Nut 6.5 high	5	72			
CC6-35	35	30							
CC6-38	38	30							
CC6-42	42	30							
CC7-48	48.25	30	**CC7-01** 88 x 30 x 3 Nut 7.6 high **CC7E-01** 115 x 30 x 3 7mm fixing holes	**CC7-PM** 447 x 30 x 4 Nut 6.5 high	5	86			
CC7-50	50.8	30							



CC-DF
Rhombus
24.5 x 11
with
nut 8 mm high
(2 req'd
per stack)

CC-AG
O Ring
NBR 70
15 OD
x
10 ID
(2 req'd
per stack)

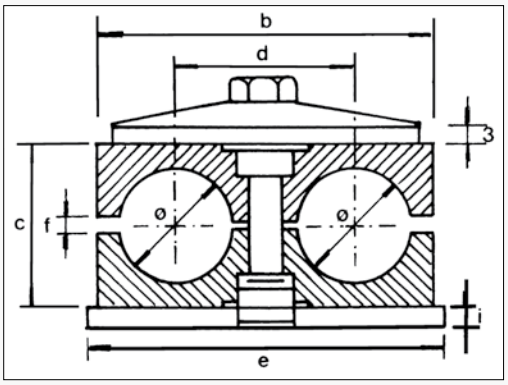


CC-BB
Channel
28 x 14
2 mm thick
2 meter long

CFx

Twin Tube Support
Weld Plate & Top Plate Configuration

Material: Polypropylene



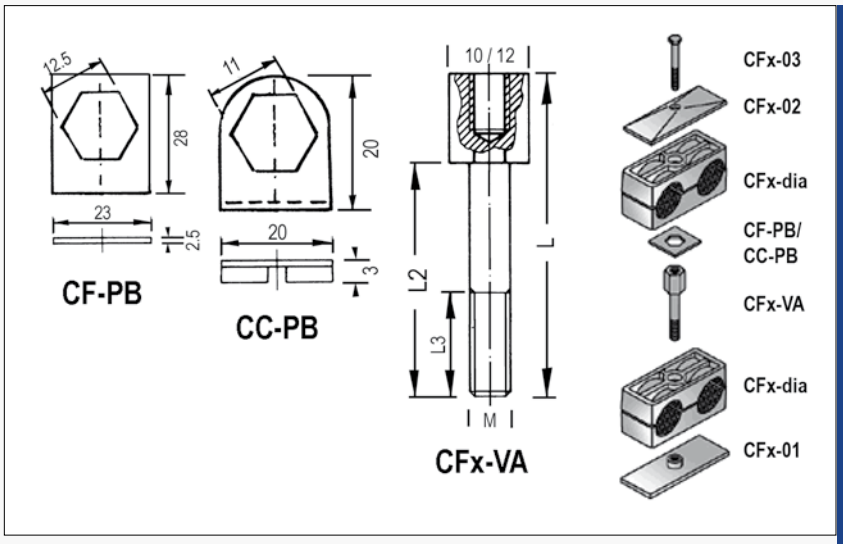
Clamp Jaws Product Code	Product Codes and Dimensions (mm)								
	Ø Tube	b	c	d	f	Width	Weld Plate	Top Plate	Hex. Screw
CF1-07	6.35	36	27	20	0.6	30	CF1-01 37 x 30 x 4 Nut 6.5 high	CF1-02 33.5 x 30 x 7 Hole Ø 7mm	CF1-03 M6 x 35
CF1-08	8	36	27	20	0.6	30			
CF1-09	9.52	36	27	20	0.6	30			
CF1-10	10	36	27	20	0.6	30			
CF1-12	12	36	27	20	0.6	30			
CF1-13	12.7	36	27	20	0.6	30			
CF2-13	12.7	54	27	29	0.8	30	CF2-01 55 x 30 x 4 Nut 6.5 high	CF2-02 50 x 30 x 7 Hole Ø 9 mm	CF2-03 M8 x 35
CF2-13.5	13.5	54	27	29	0.8	30			
CF2-14	14	54	27	29	0.8	30			
CF2-15	15	54	27	29	0.8	30			
CF2-16	16	54	27	29	0.8	30			
CF2-17.2	17.2	54	27	29	0.8	30			
CF2-18	18	54	27	29	0.8	30			
CF3-19	19.05	67	37	36	1	30	CF3-01 70 x 30 x 4 Nut 6.5 high	CF3-02 64 x 30 x 7 Hole Ø 9 mm	CF3-03 M8 x 45
CF3-20	20	67	37	36	1	30			
CF3-21.3	21.3	67	37	36	1	30			
CF3-22	22	67	37	36	1	30			
CF3-25	25	67	37	36	1	30			
CF4-26.9	26.9	81	42	45	1	30	CF4-01 85 x 30 x 4 Nut 6.5 high	CF4-02 79 x 30 x 7 Hole Ø 9 mm	CF4-03 M8 x 50
CF4-28	28	81	42	45	1	30			
CF4-30	30	81	42	45	1	30			
CF5-32	31.75	106	53	56	1.2	30	CF5-01 110 x 30 x 3 Nut 6.5 high	CF5-02 103 x 30 x 7	CF5-03 M8 x 65
CF5-38	38	106	53	56	1.2	30			
CF5-42	42	106	53	56	1.2	30			

****NEW** - NOW AVAILABLE - STAINLESS STEEL HARDWARE FOR STANDARD SERIES SINGLE CLAMPS and TWIN CLAMPS - WELD PLATES, COVER PLATES, SCREWS & STACKING SCREWS AISI 316L GRADE.** **See Page E21**

CFx

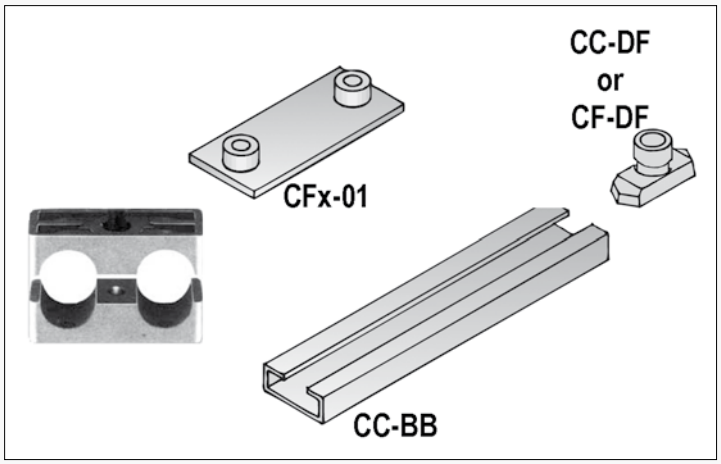
Twin Tube Support
Stacked Configuration

Material: Polypropylene



Twin PP Jaws Product Code	Product Codes and Dimensions (mm)					
	Ø Tube	Twin Weld Plate	Cover Plate	Hex. Screw	Stacking Screw	Lock Washer
CF1-07	6.35	CF1-01 37 x 30 x 4 Nut 6.5 high	CF1-02 33.5 x 30 x 7 Hole Ø 7mm	CF1-03 M6 x 35	CF1-VA M6 x 21 L = 35 L2 = 21 L3 = 14	CC-PB 20 x 20 with 11 mm AF Hex. Hole
CF1-08	8					
CF1-09	9.52					
CF1-10	10					
CF1-12	12					
CF1-13	12.7					
CF2-13	12.7	CF2-01 55 x 30 x 4 Nut 6.5 high	CF2-02 50 x 30 x 7 Hole Ø 9 mm	CF2-03 M8 x 35	CF2-VA M8 x 19.5 L = 30.5 L2 = 19.5 L3 = 15.0	CF-PB 28 x 23 with 12.5 mm AF Hex Hole
CF2-13.5	13.5					
CF2-14	14					
CF2-15	15					
CF2-16	16					
CF2-17.2	17.2					
CF2-18	18					
CF3-19	19.05	CF3-01 70 x 30 x 4 Nut 6.5 high	CF3-02 64 x 30 x 7 Hole Ø 9 mm	CF3-03 M8 x 45	CF3-VA M8 x 29 L = 44.5 L2 = 29.0 L3 = 15.0	
CF3-20	20					
CF3-21.3	21.3					
CF3-22	22					
CF3-25	25					
CF4-28	28	CF4-01 85 x 30 x 4 Nut 6.5 high	CF4-02 79 x 30 x 7 Hole Ø 9 mm	CF4-03 M8 x 50	CF4-VA M8 x 33 L = 48.5 L2 = 39.0 L3 = 15.0	
CF4-30	30					
CF5-32	33.7	CF5-01 110 x 30 x 3 Nut 6.5 high	CF5-02 103 x 30 x 7 Hole Ø 9 mm	CF5-03 M8 x 65	CF5-VA M8 x 45 L = 60.5 L2 = 45.0 L3 = 15.0	
CF5-38	35					
CF5-42	38					

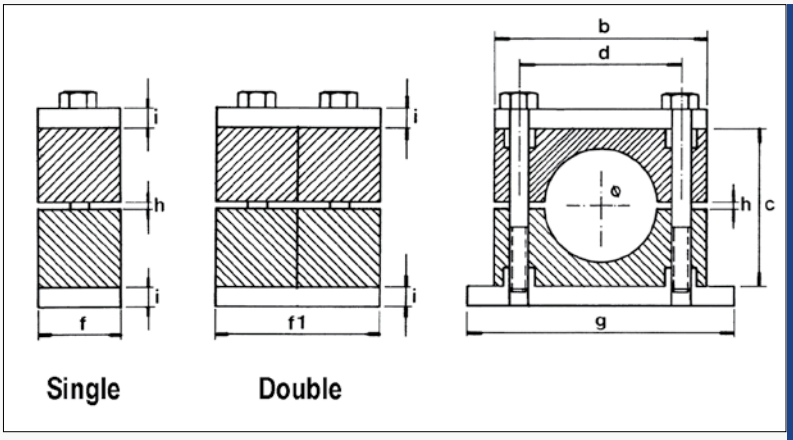
CFx
Twin Tube Support
Bottom Mount Options



Twin PP Jaws Product Code	Product Codes and Dimensions (mm)							
	Ø Tube	Jaw Width	Weld Plate			Rail Mount (fully variable)		
			Twin Weld Plate	Cover Plate	Hex. Screw	Mounting Nut	O Ring	Rail
CF1-07	6.35	30	CF1-01 37 x 30 x 4 Nut 6.5 high	CF1-02 33.5 x 30 x 7 Hole Ø 7mm	CF1-03 M6 x 35	CC-DF Rhombus with 6 mm Nut	CC-AG O Ring NBR 70 15 OD x 10 ID	CC-BB Channel 28 x 14 2 mm thick 2 meter long
CF1-08	8	30						
CF1-09	9.52	30						
CF1-10	10	30						
CF1-12	12	30						
CF1-13	12.7	30						
CF2-13	12.7	30	CF2-01 55 x 30 x 4 Nut 6.5 high	CF2-02 50 x 30 x 7 Hole Ø 9 mm	CF2-03 M8 x 35	CF-DF Rhombus with 8 mm Nut	CC-AG O Ring NBR 70 15 OD x 10 ID	
CF2-14	14	30						
CF2-15	15	30						
CF2-16	16	30						
CF2-18	18	30						
CF3-19	19.05	30	CF3-01 70 x 30 x 4 Nut 6.5 high	CF3-02 64 x 30 x 7 Hole Ø 9 mm	CF3-03 M8 x 45			
CF3-20	20	30						
CF3-22	22	30						
CF3-25	25	30						
CF4-28	28	30	CF4-01 85 x 30 x 4 Nut 6.5 high	CF4-02 79 x 30 x 7 Hole Ø 9 mm	CF4-03 M8 x 50			
CF4-30	30	30						
CF5-32	31.75	30	CF5-01 110 x 30 x 3 Nut 6.5 high	CF5-02 103 x 30 x 7 Hole Ø 9 mm	CF5-03 M8 x 65			
CF5-38	38	30						
CF5-42	42	30						

CPx
Heavy Tube Support
Weld Plate & Top Plate Configuration

Material: Polypropylene



Clamp Jaws Product Code	Dimensions (mm)									Weld Plate		Cover Plate		Hex. Screw
	Ø Tube	b	c	d	g	h	i	f	f1	Single	Double	Single	Double	
CP1-13	12.7	57	33	33	70	1	8	30	60	CP1-01	CP1-DP	CP1-02	CP1-DC	CP1-03 M10 x 45
CP1-16	16	57	33	33	70	1	8	30	60					
CP2-19	19.05	69	49	45	87	1	8	30	60	CP2-01	CP2-DP	CP2-02	CP2-DC	CP2-03 M10 x 60
CP2-20	20	69	49	45	87	1	8	30	60					
CP2-21	21.25	69	49	45	87	1	8	30	60					
CP2-25	25	69	49	45	87	1	8	30	60					
CP2-26	26.75	69	49	45	87	1	8	30	60					
CP3-30	30	84	60	60	105	1.2	8	30	60	CP3-01	CP3-DP	CP3-02	CP3-DC	CP3-03 M10 x 70
CP3-32	31.75	84	60	60	105	1.2	8	30	60					
CP3-33	33.5	84	60	60	105	1.2	8	30	60					
CP3-36	36	84	60	60	105	1.2	8	30	60					
CP3-38	38	84	60	60	105	1.2	8	30	60					
CP3-42	42	84	60	60	105	1.2	8	30	60					
CP4-45	45	117	88	91	140	2	10	45	90	CP4-01	CP4-DP	CP4-02	CP4-DC	CP4-03 M12 x 100
CP4-48	48	117	88	91	140	2	10	45	90					
CP4-50	50.8	117	88	91	140	2	10	45	90					
CP4-53	53	117	88	91	140	2	10	45	90					
CP4-54	53.74	117	88	91	140	2	10	45	90					
CP4-56	56	117	88	91	140	2	10	45	90					
CP4-60	60	117	88	91	140	2	10	45	90					
CP4-63	63	117	88	91	140	2	10	45	90					
CP5-66	66	155	118	122	180	3	10	60	120	CP5-01	CP5-DP	CP5-02	CP5-DC	CP5-03 M16 x 130
CP5-73 †	73.0	155	118	122	180	3	10	60	120					
CP5-76 †	75.5	155	118	122	180	3	10	60	120					
CP5-80	80.0	155	118	122	180	3	10	60	120					
CP5-88	88.25	155	118	122	180	3	10	60	120					
CP6-101	101.2	205	165	168	226	3	15	80	160	CP6-01	not available	CP6-02	not available	CP6-03 M20 x 190
CP6-114	113.5	205	165	168	226	3	15	80	160					
CP6-127	126.5	205	165	168	226	3	15	80	160					
CP7-139	139	245	200	205	270	4	15	80	160	CP7-01	not available	CP7-02	not available	CP7-03 M20 x 220
CP7-152	152	245	200	205	270	4	15	80	160					
CP7-168	168	245	200	205	270	4	15	80	160					
CP8-203	203	320	270	265	340	4	25	120	240	CP8-01	not available	CP8-02	not available	CP8-03 M30 x 300
CP8-219	219	320	270	265	340	4	25	120	240					
CP9-219	219	470	410	395	520	10	30	160	320	CP9-01	not available	CP9-02	not available	CP9-03 M30 x 450

† 2 1/2" NB can be either 73mm OD for ANSI / ASME B36.10M pipe or 76mm OD if DIN 2248 pipe is used

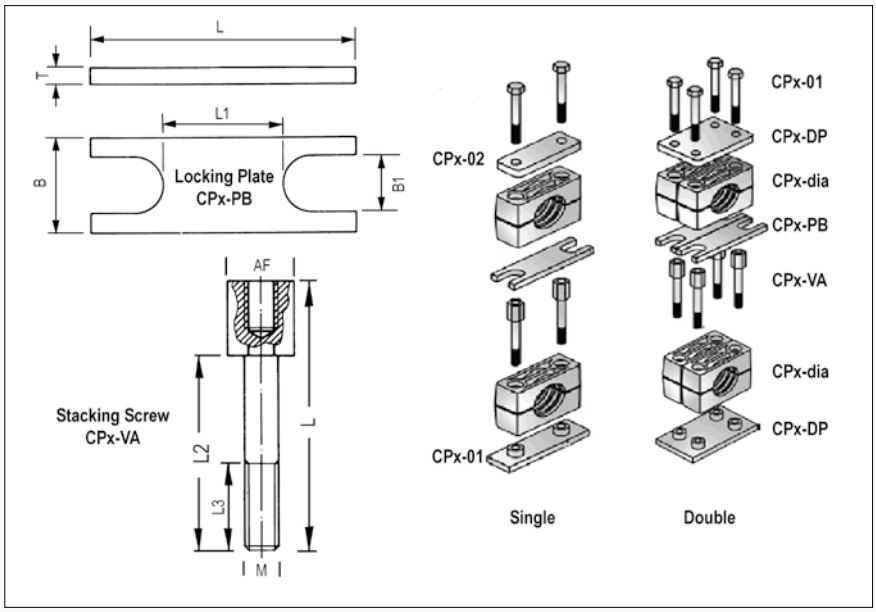
Please enquire about our range of clamp shells with vibration dampening rubber inserts Available in the CPx Series to a maximum tube size of 103mm for heavy duty applications Available as a special order only

PIRTEK fluid transfer solutions

CPx

Heavy Tube Support Stacked Configuration (Single or Double)

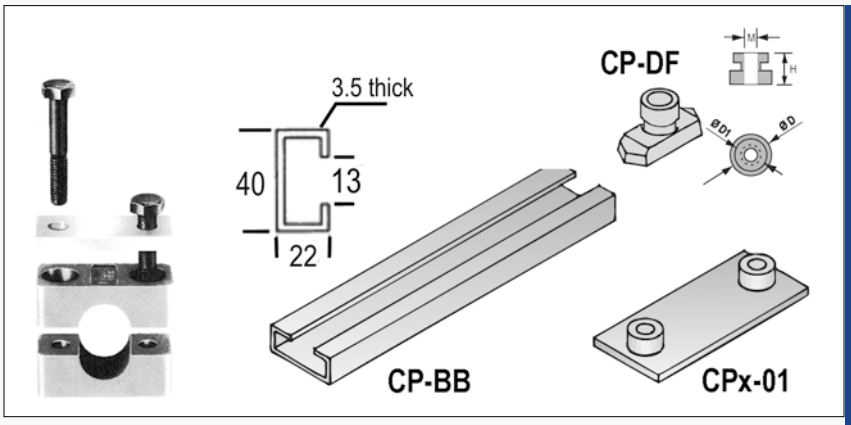
Material: Polypropylene



Clamp Jaws Product Code	Product Codes and Dimensions (mm)								
	Ø Tube	Jaw Width	Weld Plate		Cover Plate		Screws		Locking Plate
			Single	Double	Single	Double	Hex.	Stacking	
CP1-13	12.7	30	**CP1-01**	**CP1-DP**	**CP1-02**	**CP1-DC**	**CP1-03** M10 x 45	**CP1-VA** M10 x 49 L = 49 L2 = 28 L3 = 20 AF = 15	**CP1-PB** L = 55 L1 = 11 B = 30 B1 = 16 T = 6
CP1-16	16	30							
CP2-19	19.05	30	**CP2-01**	**CP2-DP**	**CP2-02**	**CP2-DC**	**CP2-03** M10 x 60	**CP2-VA** M10 x 65 L = 65 L2 = 42 L3 = 20 AF = 15	**CP2-PB** L = 69 L1 = 25 B = 30 B1 = 16 T = 6
CP2-20	20	30							
CP2-21	21.25	30							
CP2-25	25	30							
CP2-26	26.75	30							
CP3-30	30	30	**CP3-01**	**CP3-DP**	**CP3-02**	**CP3-DC**	**CP3-03** M10 x 70	**CP3-VA** M10 x 75 L = 75 L2 = 52 L3 = 20 AF = 15	**CP3-PB** L = 83 L1 = 39 B = 30 B1 = 16 T = 6
CP3-32	31.75	30							
CP3-33	33.5	30							
CP3-38	38	30							
CP3-42	42	30							
CP4-45	45	45	**CP4-01**	**CP4-DP**	**CP4-02**	**CP4-DC**	**CP4-03** M12 x 100	**CP4-VA** M12 x 108 L = 108 L2 = 78 L3 = 25 AF = 17	**CP4-PB** L = 114 L1 = 66 B = 45 B1 = 18 T = 6
CP4-48	48	45							
CP4-50	50.8	45							
CP4-54	53.74	45							
CP4-60	60	45							
CP4-63	63	45							
CP5-66	66	60	**CP5-01**	**CP5-DP**	**CP5-02**	**CP5-DC**	**CP5-03** M16 x 130	**CP5-VA** M16 x 139 L = 139 L2 = 105 L3 = 25 AF = 21	**CP5-PB** L = 148 L1 = 95 B = 60 B1 = 22 T = 6
CP5-73 †	73.0	60							
CP5-76 †	75.5	60							
CP5-88	88.25	60							

† 2 1/2" NB can be either 73mm OD for ANSI / ASME B36.10M pipe or 76mm OD if DIN 2248 pipe is used

CPx
Heavy Tube Support
Bottom Mount Options



Clamp Jaws Product Code	Product Codes and Dimensions (mm)							
	Ø Tube	Jaw Width	Weld Plate	Cover Plate	Hex Screws	Rail Mount (fully variable)		
						Mounting Nut	O Ring	Rail
CP1-13	12.7	30	CP1-01	CP1-02	CP1-03 M10 x 45	CP-DF10 (2 req'd per clamp M = M10 D = 26 D1 = 17.7 H = 20.5	CP-AG O Ring NBR 70 20.24 OD x 15 ID (2 req'd per clamp)	CP-BB Channel 40 x 22 3.5 mm thick 2 meter long
CP1-16	16	30						
CP2-19	19.05	30	CP2-01	CP2-02	CP2-03 M10 x 60			
CP2-20	20	30						
CP2-21	21.25	30						
CP2-25	25	30						
CP2-26	26.75	30						
CP3-30	30	30	CP3-01	CP3-02	CP3-03 M10 x 70			
CP3-32	31.75	30						
CP3-33	33.5	30						
CP3-38	38	30						
CP3-42	42	30						
CP4-45	45	45	CP4-01	CP4-02	CP4-03 M12 x 100	CP-DF12 (2 req'd per clamp) M = M12 D = 26 D1 = 19.6 H = 23		
CP4-48	48	45						
CP4-50	50.8	45						
CP4-54	53.74	45						
CP4-60	60	45						
CP4-63	63	45						
CP5-66	66	60	CP5-01	CP5-02	CP5-03 M16 x 130	Rail Mounting not available in these sizes		
CP5-73 †	73.0	60						
CP5-76 †	75.5	60						
CP5-88	88.25	60						
CP6-101	101.2	80	CP6-01	CP6-02	CP6-03 M20 x 190			
CP6-114	113.5	80						
CP6-127	126.5	80						
CP7-139	139	80	CP7-01	CP7-02	CP7-03 M20 x 220			
CP7-152	152	80						
CP7-168	168	80						
CP8-203	203	120	CP8-01	CP8-02	CP8-03 M30 x 300			
CP8-219	219	120						
CP9-219	219	160	CP9-01	CP9-02	CP9-03 M30 x 450			

† 2 1/2" NB can be either 73mm OD for ANSI / ASME B36.10M pipe or 76mm OD if DIN 2248 pipe is used

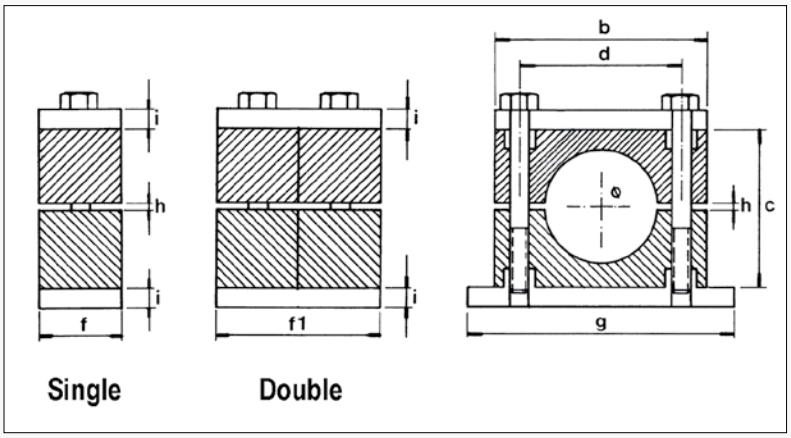
CHx

Heavy Tube Support
Weld Plate & Top Plate Configuration

Material: Aluminium Jaws

PLEASE NOTE:

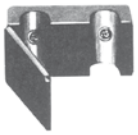
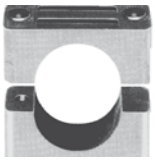
All mounting configurations (weld plate, rail, and stack configurations) are as for heavy duty polypropylene PP clamps, but limited to the tube sizes given below



Aluminium Jaws Product Code	Dimensions (mm)									Weld Plate		Cover Plate		Hex. Screw
	Ø Tube	b	c	d	g	h	i	f	f1	Single	Double	Single	Double	
CH2-20	20	69	49	45	87	1	8	30	60	CP2-01	CP2-DP	CP2-02	CP2-DC	CP2-03 M10 x 60
CH2-25	25	69	49	45	87	1	8	30	60					
CH3-32	31.75	84	60	60	105	1.2	8	30	60	CP3-01	CP3-DP	CP3-02	CP3-DC	CP3-03 M10 x 70
CH3-38	38	84	60	60	105	1.2	8	30	60					
CH3-42	42	84	60	60	105	1.2	8	30	60					

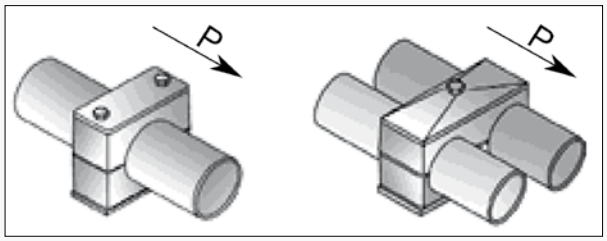
TECHNICAL

Material Specifications of Components

Component	Appearance	Product Code	Material	Composition	Applicable Standard	Corrosion Prevention
Clamps Light		**CCA, CCB**	Polypropylene			
Clamp Jaws		**CC2 - CC7** *(Std.)* **CF1 - CF5** *(Twin)* **CP1 - CP9** *(Hvy.)*	Polypropylene	Vibration dampening polypropylene shells with NBR70 rubber inserts are available in the CCx and CPx Series		
Clamp Jaws		**CH2 - CH3** *(Alum)*	Aluminium			
Bottom Weld Plate Standard		**CC2-01** to **CC7-01**	Steel	Fe P11	UNI EN 10111	CF6 Free
Bottom Weld Plate Heavy		**CP2-01** to **CP9-01** **CP2-DP** to **CP9-DP**	Steel	Fe 430 B	UNI EN 10025	CF6 Free
Cover Plate Standard		**CC2-02** to **CC7-02**	Steel	Fe P11	UNI EN 10111	CF6 Free
Cover Plate Heavy		**CP1-02** to **CP9-02** **CP1-DC** to **CP9-DC**	Steel	Fe 430 B	UNI EN 10025	CF6 Free
Mounting Rail Standard		**CC - BB**	Steel	Fe 360	UNI EN 10025	Galvanised Sendizimir
Mounting Rail Heavy		**CP - BB**	Steel	Fe P11	UNI EN 10111	CF6 Free
Mounting Nuts Standard		**CC - DF** **CC - DF**	Pressure die-cast alloy Zinc	Gp-ZN AL4 Cu1	UNI 3718	
Mounting Nuts Heavy		**CP - DF10** **CP - DF12**	Steel AVP		UNI EN 10277-3	CF6 Free
O-Rings		**CC - AG** **CP - AG**	Rubber	NBR 70	UNI ISO 3601-1	
Locking Plates Standard		**CC - PB** **CF - PB**	Steel	Fe P11	UNI EN 10111	CF6 Free
Locking Plates Heavy		**CP1 - PB** to **CP5 - PB**	Steel	Fe 430 B	UNI EN 10025	CF6 Free
Hex. Screws		**CC2-03** to **CC7-03** **CF1-03** to **CF5-03**	Steel		UNI 24014	
Stacking Screws Standard		**CC2-VA** to **CC7-VA** **CF1-VA** to **CF5-VA**	Steel AVP		UNI EN 10277-3	CF6 Free
Stacking Screws Heavy		**CP1-VA** to **CP5-VA**	Steel AVP		UNI EN 10277-3	CF6 Free
Flat Washers Standard		**CC - RP**	Steel		UNI 6592	
Bushings Standard		**CC - B**	Steel AVP		UNI EN 10277-3	CF6 Free

TECHNICAL

Clamp Shear Force Capability

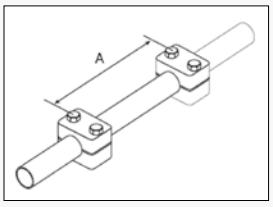


The tabulated data applies for steel pipe St. 35.4.
In each case, hex screws and cover plates have been used to maximise the load capability.

Sliding starts when the shear force 'P' is reached.

Clamp Series	Type	Jaw Material	Bolt	Tightening Torque (Nm)	Max. Shear Force P in the direction of the pipe (kN)
CC2	Standard Single	Polypropylene	M6	8	1.2
CC3	Standard Single		M6	8	1.5
CC4	Standard Single		M6	8	1.7
CC5	Standard Single		M6	8	1.8
CC6	Standard Single		M6	8	2
CC7	Standard Single		M6	8	2.2
CF1	Standard Twin	Polypropylene	M6	6	1.1
CF2	Standard Twin		M8	13	2.5
CF3	Standard Twin		M8	13	2.1
CF4	Standard Twin		M8	13	2.9
CF5	Standard Twin		M8	9	2.2
CP1	Heavy Single	Polypropylene	M10	13	1.8
CP2	Heavy Single		M10	13	3
CP3	Heavy Single		M10	15	3.5
CP4	Heavy Single		M12	30	8.5
CP5	Heavy Single		M16	46	11.5
CP6	Heavy Single		M20	80	15
CP7	Heavy Single		M20	100	30
CP8	Heavy Single		M30	190	41
CP9	Heavy Single		M30	210	125
CH2	Heavy Single	Aluminium	M10	32	16
CH3	Heavy Single		M10	37	16.5

Recommended Clamp Spacings



Tabulated data represents standard values for static loads.
Clamps should always be applied at each side of a bend.

Clamp Series / Pipe OD (mm)	Clamp pitch A (m)
CC2 6 – 13.25	1
CC3 14 – 18	1.2
CC4 20 – 25.4	1.5
CC5 28 – 32	1.5
CC6 32 – 45	2.2
CC7 45 – 54	2.7

Clamp Series / Pipe OD (mm)	Clamp pitch A (m)
CP1 6 - 20	1.0
CP2 20 - 30	1.5
CP3 / CP4 30 - 50	2.2
CP4 / CP5 53 - 73	3
CP5 80 - 90	3.5
CP6 100 - 121	4.5
CP7 133 - 168	5
CP8 / CP9 168 - 219	6

NEW - STAINLESS STEEL HARDWARE FOR STANDARD SERIES SINGLE CLAMPS and TWIN CLAMPS - WELD PLATES, COVER PLATES, SCREWS & STACKING SCREWS - AISI 316L GRADE

Product Code	Description
CC2SS-01	S.D. WELD PLATE (P) 1 REQ'D - STAINLESS STEEL
CC2SS-02	S.D. COVER PLATE (PS) 1 REQ'D - STAINLESS STEEL
CC2SS-03	S.D. HEX SCREW (VE) 2 REQ'D - STAINLESS STEEL
CC2SS-VA	S.D. STACKING SCREW - STAINLESS STEEL
CC3SS-01	S.D. WELD PLATE (P) 1 REQ'D - STAINLESS STEEL
CC3SS-02	S.D. COVER PLATE (PS) 1 REQ'D - STAINLESS STEEL
CC3SS-03	S.D. HEX SCREW (VE) 2 REQ'D - STAINLESS STEEL
CC3SS-VA	S.D. STACKING SCREW - STAINLESS STEEL
CC4SS-01	S.D. WELD PLATE (P) 1 REQ'D - STAINLESS STEEL
CC4SS-02	S.D. COVER PLATE (PS) 1 REQ'D - STAINLESS STEEL
CC4SS-03	S.D. HEX SCREW (VE) 2 REQ'D - STAINLESS STEEL
CC4SS-VA	S.D. STACKING SCREW - STAINLESS STEEL
CC5SS-01	S.D. WELD PLATE (P) 1 REQ'D - STAINLESS STEEL
CC5SS-02	S.D. COVER PLATE (PS) 1 REQ'D - STAINLESS STEEL
CC5SS-03	S.D. HEX SCREW (VE) 2 REQ'D - STAINLESS STEEL
CC5SS-VA	S.D. STACKING SCREW - STAINLESS STEEL
CC6SS-01	S.D. WELD PLATE (P) 1 REQ'D - STAINLESS STEEL
CC6SS-02	S.D. COVER PLATE (PS) 1 REQ'D - STAINLESS STEEL
CC6SS-03	S.D. HEX SCREW (VE) 2 REQ'D - STAINLESS STEEL
CC6SS-VA	S.D. STACKING SCREW - STAINLESS STEEL
CF1SS-01	T.C. WELD PLATE 1 REQ'D - STAINLESS STEEL
CF1SS-02	T.C. COVER PLATE 1 REQ'D - STAINLESS STEEL
CF1SS-03	T.C. HEX SCREW 1 REQ'D - STAINLESS STEEL
CF1SS-VA	T.C. STACKING SCREW - STAINLESS STEEL
CF2SS-01	T.C. WELD PLATE 1 REQ'D - STAINLESS STEEL
CF2SS-02	T.C. COVER PLATE 1 REQ'D - STAINLESS STEEL
CF2SS-03	T.C. HEX SCREW 1 REQ'D - STAINLESS STEEL
CF2SS-VA	T.C. STACKING SCREW - STAINLESS STEEL
CF3SS-01	T.C. WELD PLATE 1 REQ'D - STAINLESS STEEL
CF3SS-02	T.C. COVER PLATE 1 REQ'D - STAINLESS STEEL
CF3SS-03	T.C. HEX SCREW 1 REQ'D - STAINLESS STEEL
CF3SS-VA	T.C. STACKING SCREW - STAINLESS STEEL
CF4SS-01	T.C. WELD PLATE 1 REQ'D - STAINLESS STEEL
CF4SS-02	T.C. COVER PLATE 1 REQ'D - STAINLESS STEEL
CF4SS-03	T.C. HEX SCREW 1 REQ'D - STAINLESS STEEL
CF4SS-VA	T.C. STACKING SCREW - STAINLESS STEEL
CF5SS-01	T.C. WELD PLATE 1 REQ'D - STAINLESS STEEL
CF5SS-02	T.C. COVER PLATE 1 REQ'D - STAINLESS STEEL
CF5SS-03	T.C. HEX SCREW 1 REQ'D - STAINLESS STEEL
CF5SS-VA	T.C. STACKING SCREW - STAINLESS STEEL

S.D. = Standard Duty Single Clamp
T.C. = Twin Clamp - Standard Duty

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Cutting Rings	Tightening Nut	Male Tapered Stud	Male Tapered Stud	Male Parallel Stud Metal Seal	Male Parallel Stud Elastomer Seal
					
D E 31 **DB4**	**M** E 32	**GE-NPT** E 33 **-BSPT** E 34	**GE-Metric** E 37	**GE-BSPP** E 35 **-Metric** E 37	**GE-BSPP** E 36 **-Metric** E 38

Male Parallel Stud O-Ring Seal	Male Parallel Stud Female Nut	Straight Tube Coupling	Straight Equal Female Coupling	Female Stud Coupling	Male-Female Adaptor
					
GE-UN-O E 39	**EVGE-BSPP** E 47 **-Metric** E 47	**G** equal E 39 **GV** reducing E 40	**EDKO** E 41	**GAI-BSPP** E 53	**KOR** E 48-49

Weld Nipple Male	Weld Nipple Female (Nut excluded)	Reducing Bush BSPP Elast. Seal	Socket Head Plugs Elastomer Seal	Blanking Plug Metric	Blanking Cap Metric (Nut excluded)
					
AS E 43	**SKA** E 44	**RI** E 45	**VSTI Metric** E 50 **VSTIR BSPP** E 50	**ROV** E 52	**BUZ** E 51

Bulkhead Coupling Straight	Bulkhead Coupling Elbow	Male Stud Elbow	Adjustable Female Elbow	Banjo Coupling	Male Elbow Coupling
					
SV E 42	**WSV** E 61	**WE-NPT** E 58 **-BSPT** E 59	**EVW** E 64	**DSVW BSPP** E 62 **Metric** E 63	**W** E 60

Male Stud Barrel Tee	Male Stud Branch Tee	Adjustable Barrel Tee	Adjustable Branch Tee	Equal Tee Coupling	Equal Cross Coupling
					
LE-BSPT E 66	**TE-BSPT** E 65	**EVL** E 68	**EVT** E 67	**T** E 69	**K** E 70

Gauge Coupling Male	Gauge Coupling Female	Non Return Valve	Lock Nut	Elastomeric Seal	Adjustable Elbow 45°
					
MAV E 54	**MAVE** E 54	**NRV** E 55	**GM** E 57	**EZ** E 56 Viton	**EVF** E 65

See page E 29 for an explanation of the Pirtek Product Code nomenclature

Click on Description, Code Pre-fix or Page No. to Display that Page

Standards

Pirtek metric compression fittings are manufactured by Cast S.p.A. to ISO 8434-1 / DIN 2353 Standards.

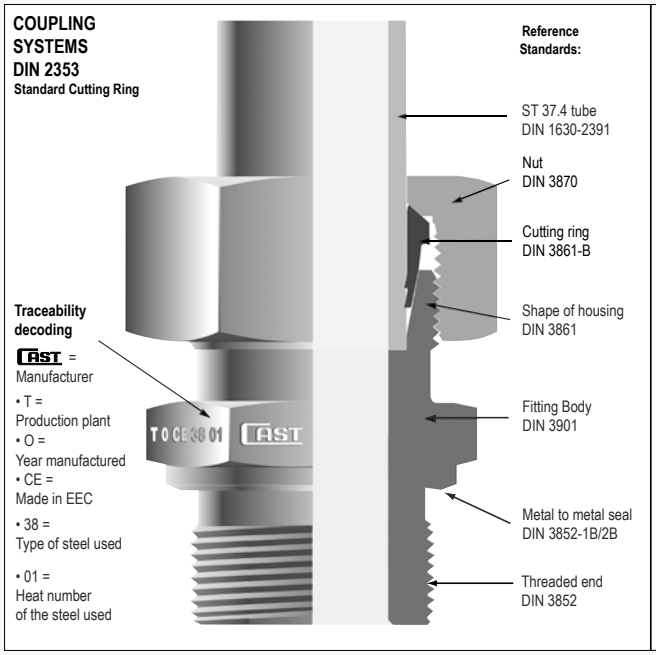
Two cutting rings are available for use with the fittings, both of which incorporate double cutting edges, but only one of which incorporates additional elastomeric seals to enhance sealing performance in adverse conditions (DB4 ring at right).

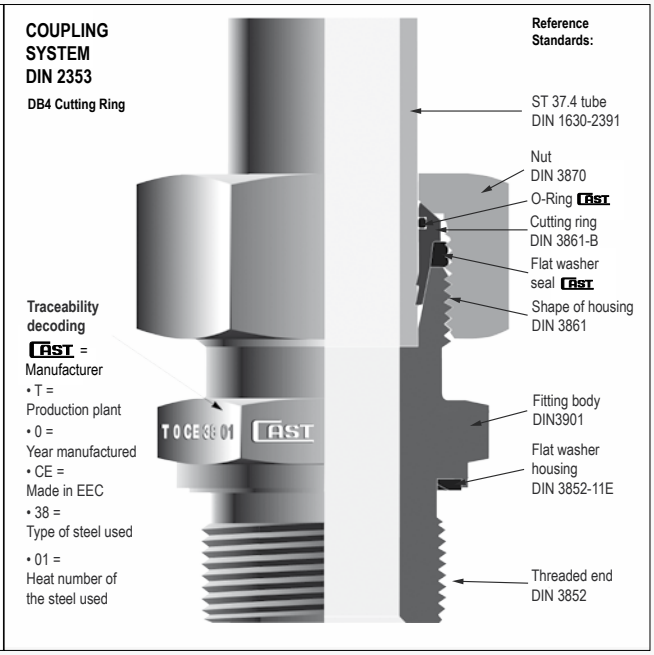
Approvals

All components are manufctured in a Quality Assured environment, and carry the following approvals:

DVGW Certificate No. NG-4502AU0117

Det Norske Veritas (DNV) Certificate No. P-10963





Materials

Carbon steel fittings are manufactured from steels with the following compositions:

Component	Material specification				Reference
Ring / sleeve	CF9SMnPb36	CF9SMnPb28	CF9SMnPb36	CF9SMnPb28	UNI 4838
	11SMnPb37	11SMnPb30	11SMnPb37	11SMnPb30	EN10087
Nut	CF9SMnPb36	CF9SMnPb28	CF9SMnPb36	CF9SMnPb28	UNI 4838
	11SMnPb37	11SMnPb30	11SMnPb37	11SMnPb30	EN10087
Straight body	CF9SMnPb36	CF9SMnPb28	CF9SMnPb36	CF9SMnPb28	UNI 4838
	11SMnPb37	11SMnPb30	11SMnPb37	11SMnPb30	EN10087
Forged body	CF9SMnPb36	CF9SMnPb28	CF9SMnPb36	CF9SMnPb28	UNI 4838
	11SMnPb37	11SMnPb30	11SMnPb37	11SMnPb30	EN10087

Working Temperatures

Carbon steel -20° C to +120° C as per ISO 8434

O Rings

All O Rings are supplied as NBR (Nitrile) with the properties:

Temp. range -35° C to +100° C

Hardness 80-90 Shore

Viton seals are recommended for higher temperatures. Please contact Pirtek for assistance. Viton properties:

Temp. range -25° C to +200° C

Hardness 80-90 Shore

Storage

All fittings incorporating O Rings should be stored in accordance with the provisions of DIN 7716 to avoid problems induced by deterioration of the O Ring

Surface Treatment

Steel fittings are zinc plated to UNI ISO 2081 and 4520

Plating thickness 8 - 12 microns

400 hours resistance to saline fog as per UNI ISO 9227

Anti seize compound

An anti-seize compound with nickel base is recommended for use when tightening compression fittings. The compound should meet the specifications of Mil. A 907 D (USA)

Support Sleeves

Fittings being assembled on thin-walled tubes require the use of support sleeves. Consult the metric tube table on page E 7 for affected sizes

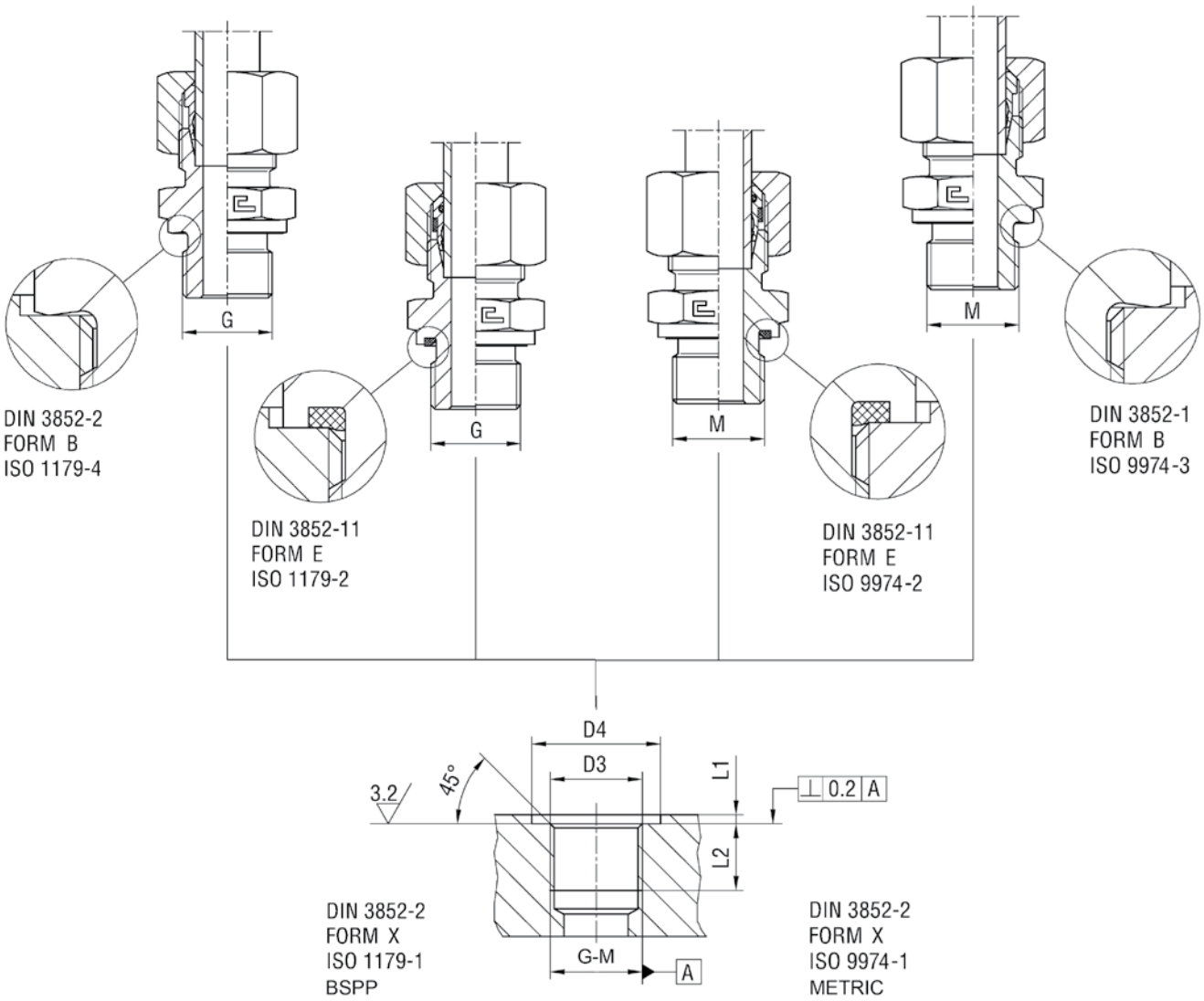
Safety Factors

The nominal working pressures tabulated for the fittings indicate the maximum working pressures including pressure peaks. Higher working pressures should only be contemplated after consultation with Pirtek for specific applications.

The safety factor is 4:1 in the case of static load at a temperature as per DIN 3861 (24° cone). The 4:1 safety factor applies also to parallel threaded port connections with elastomeric seal. Tapered stud fittings or parallel threaded studs with metal to metal sealing faces have only a 2.5:1 safety factor

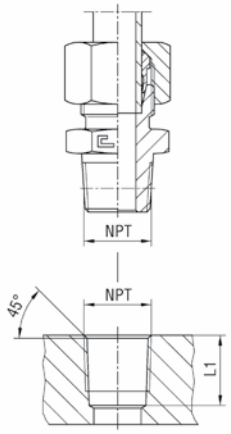
Tightening Torques

Refer to the tables following



Series	ø Tube	BSPP Thread								Metric Parallel Thread							
		Dimensions						Tightening Torque Nm		Dimensions						Tightening Torque Nm	
		Thread	D3	D4 min form B/E	L1 max	L2 min	L rif	form B	form E	Thread	D3	D4 min form B/E	L1 max	L2 min	L rif	form B	form E
L	6	G 1/8	9.8	15	1	8	7.5	20	20	M10x1	10	15	1	8	7.6	20	20
	8	G 1/4	13.2	20	1.5	12	10.2	45	45	M12x1.5	12	18	1.5	12	9.7	30	30
	10	G 1/4	13.2	20	1.5	12	10.2	45	45	M14x1.5	14	20	1.5	12	9.7	45	45
	12	G 3/8	16.7	23	2	12	10.4	70	70	M16x11.5	16	23	1.5	12	10.2	60	55
	15	G 1/2	21	28	2.5	14	13.1	130	85	M18x1.5	18	25	2	12	10.9	80	70
	18	G 1/2	21	28	2.5	14	13.1	130	85	M22x1.5	22	28	2	14	12	130	120
	22	G 3/4	26.5	33	2.5	16	13.5	170	170	M26x1.5	26	33	5	16	-	180	170
	28	G 1	33.3	41	2.5	18	14.7	330	330	M33x2	33	41	2.5	18	13.8	330	330
	35	G 1.1/4	42	51	2.5	20	14.7	510	430	M42x2	42	51	2.5	20	13.8	470	430
	42	G 1.1/2	47.9	56	2.5	22	14.7	600	510	M48x2	48	56	2.5	22	15.3	600	510
S	6	G 1/4	13.2	20	1.5	12	10.2	55	55	M12x1.5	12	18	1.5	12	9.7	40	40
	8	G 1/4	13.2	20	1.5	12	10.2	55	55	M14x1.5	14	20	1.5	12	9.7	55	55
	10	G 3/8	16.7	23	2	12	10.4	85	80	M16x1.5	16	23	1.5	12	10.2	80	70
	12	G 3/8	16.7	23	2	12	10.4	85	80	M18x1.5	18	25	2	12	10.9	105	85
	14	G 1/2	21	28	2.5	14	13.1	150	110	M20x1.5	20	27	2	14	12	150	120
	16	G 1/2	21	28	2.5	14	13.1	150	110	M22x1.5	22	28	2.5	14	12	170	130
	20	G 3/4	26.5	33	2.5	16	13.5	280	170	M27x2	27	33	2.5	16	13.8	200	170
	25	G 1	33.3	41	2.5	18	14.7	330	330	M33x2	33	41	2.5	18	13.8	390	330
	30	G 1.1/4	42	51	2.5	20	14.7	510	430	M42x2	42	51	2.5	20	13.8	510	430
	38	G 1.1/2	47.9	56	2.5	22	14.7	680	510	M48x2	48	56	2.5	22	15.3	680	510

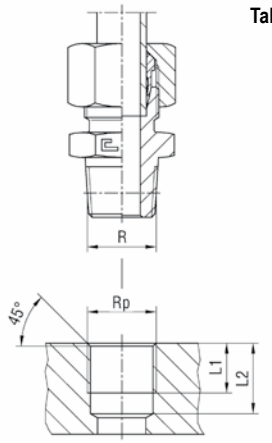
Table 1 refers



ANSI/ASME B1.20.1

ANSI/ASME B1.20.1

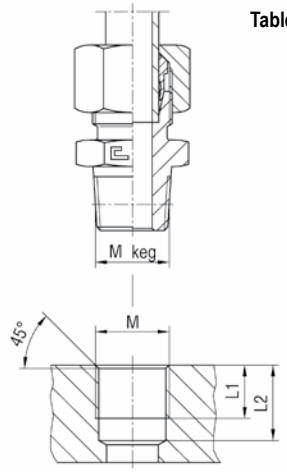
Table 2 refers



DIN 3852-2 FORM C

DIN 3852-2 FORM Z

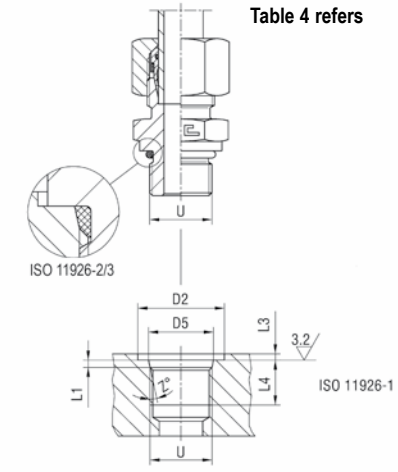
Table 3 refers



DIN 3852-1 FORM C

DIN 3852-1 FORM Z

Table 4 refers



ISO 11926-1

Series	Tube	Table 1 NPT Thread Dimensions mm		Table 2 BSPT Thread Dimensions mm		
		NPT	L1	R	L1	L2
L	6	1/8-18 NPT	11.6	R 1/8	5.5	9.5
	8	1/4-18 NPT	16.4	R 1/4	8.5	13.5
	10	1/4-18 NPT	16.4	R 1/4	8.5	13.5
	12	3/8-18 NPT	17.4	R 3/8	8.5	13.5
	15	1/2-14 NPT	22.6	R 1/2	10.5	16.5
	18	1/2-14 NPT	22.6	R 1/2	10.5	16.5
	22	3/4-14 NPT	23.1	R 3/4	13	19
	28	1-11.5 NPT	27.8	R 1	-	-
	35	1.1/4-11.5 NPT	28.3	R 1.1/4	-	-
	42	1.1/2-11.5 NPT	28.3	R 1.1/2	-	-
S	6	1/4-18 NPT	16.4	R 1/4	8.5	13.5
	8	1/4-18 NPT	16.4	R 1/4	8.5	13.5
	10	3/8-18 NPT	17.4	R 3/8	8.5	13.5
	12	3/8-18 NPT	17.4	R 3/8	8.5	13.5
	14	1/2-14 NPT	22.6	R 1/2	10.5	16.5
	16	1/2-14 NPT	22.6	R 1/2	10.5	16.5
	20	3/4-14 NPT	23.1	R 3/4	13	19
	25	1-11.5 NPT	27.8	R 1	-	-
	30	1.1/4-11.5 NPT	28.3	R 1.1/4	-	-
	38	1.1/2-11.5 NPT	28.3	R 1.1/2	-	-

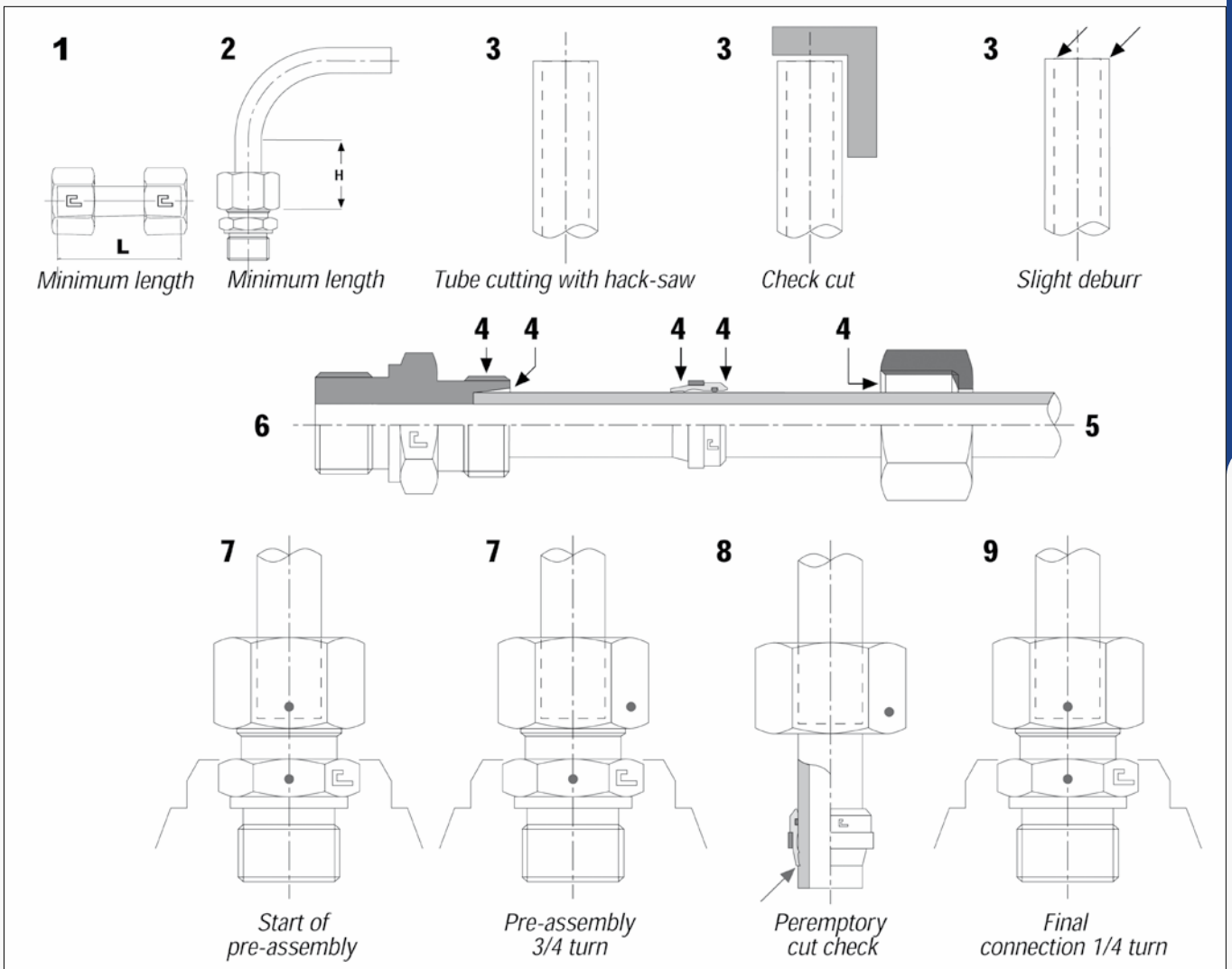
Series	Tube	Table 3 Metric Taper Dimensions mm		
		Metric Taper †	L1	L2
L	6	M10x1 keg	5.5	10
	8	M12x1.5 keg	8.5	13.5
	10	M14x1.5 keg	8.5	13.5
	12	M16x1.5 keg	8.5	13.5
	15	M18x1.5 keg	8.5	13.5
	18	M22x1.5 keg	10.5	15.5
S	6	M12x1.5 keg	8.5	13.5
	8	M14x1.5 keg	8.5	13.5
	10	M16x1.5 keg	8.5	13.5
	12	M18x1.5 keg	8.5	13.5
	14	M20x1.5 keg	10.5	15.5
	16	M22x1.5 keg	10.5	15.5

† 'keg' denotes the German 'kegelig' meaning 'tapered'

Series	Tube	Table 4 UNF/UN-2A Thread U	Dimensions D2 min	D5	L1	L3 max	L4 min	L rif	Z	Torque Nm
L	6	7/16-20 UNF-2A	21	12.45	2.4	1.6	11.5	9.9	12	20
	8	1/2-20 UNF-2A	23	14.05	2.4	1.6	11.5	9.9	12	25
	10	1/2-20 UNF-2A	23	14.05	2.4	1.6	11.5	9.9	12	25
	12	9/16-18 UNF-2A	25	15.7	2.5	1.6	12.7	11.1	12	30
	15	3/4-16 UNF-2A	30	20.65	2.5	2.4	14.3	12.5	15	45
	18	3/4-16 UNF-2A	30	20.65	2.5	2.4	14.3	12.5	15	45
	18	7/8-14 UNF-2A	34	24	2.5	2.4	16.7	14.5	15	55
	22	1.1/16-12 UNF-2A	41	29.2	3.3	2.4	19	16.8	15	85
	28	1.5/16-12 UNF-2A	49	35.55	3.3	3.2	19	16.8	15	130
	35	1.5/8-12 UNF-2A	58	43.55	3.3	3.2	19	16.8	15	170
	42	1.7/8-12 UNF-2A	65	49.9	3.3	3.2	19	16.8	15	180
S	6	1/2-20 UNF-2A	23	14.05	2.4	1.6	11.5	9.9	12	25
	8	1/2-20 UNF-2A	23	14.05	2.4	1.6	11.5	9.9	12	25
	10	9/16-18 UNF-2A	25	15.7	2.5	1.6	12.7	11.1	12	35
	12	9/16-18 UNF-2A	25	15.7	2.5	1.6	12.7	11.1	12	35
	14	3/4-16 UNF-2A	30	20.65	2.5	2.4	14.3	12.5	15	60
	16	3/4-16 UNF-2A	30	20.65	2.5	2.4	14.3	12.5	15	60
	16	7/8-14 UNF-2A	34	24	2.5	2.4	16.7	14.5	15	85
	20	1.1/16-12 UNF-2A	41	29.2	3.3	2.4	19	16.8	15	150
	25	1.5/16-12 UNF-2A	49	35.55	3.3	3.2	19	16.8	15	230
	30	1.5/8-12 UNF-2A	58	43.55	3.3	3.2	19	16.8	15	250
	38	1.7/8-12 UNF-2A	65	49.9	3.3	3.2	19	16.8	15	320

PIRTEK fluid transfer solutions

ASSEMBLY INSTRUCTIONS

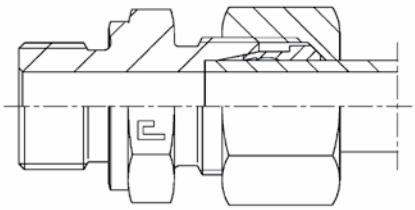


Ø Tube	LL				L										S									
	4	5	6	8	6	8	10	12	15	18	22	28	35	42	6	8	10	12	14	16	20	25	30	38
H min	24	25	25	26	31	31	33	33	36	38	42	42	48	48	35	35	37	37	43	43	50	54	58	65
L min	30	32	32	33	39	39	42	42	45	48	53	53	60	60	44	44	47	47	54	54	63	68	73	82

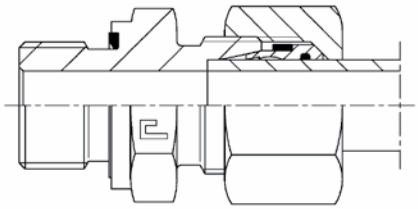
1. Consult the table above for minimum length requirements
2. Cut the tube square with a hacksaw (*not a rolling wheel cutter*)
3. Check that the cut is square
4. Deburr the ends internally and externally
5. Slide the cutting ring and nut on the tube as depicted above
6. Oil all components
7. Mount the assembly piece in a vice (use a new adaptor)
8. Insert the oiled tube end into the assembly piece
9. Hold the tube end firmly against the internal ledge
10. Hand tighten the nut and ring onto the assembly piece
11. Use a spanner to engage the cutting ring onto the tube (about 1/2 turn). This takes up the clearances and prevents tube rotation
12. Place reference marks on the opposing nut and assembly piece - see Start point #7 illustrated
13. Use the reference marks to tighten a further 3/4 turn
14. Dissassemble and check that the cutting ring is buried to at least 80% of its leading edge - Check point #8 illustrated
15. Repeat pre assembly if 80% embedment is not achieved
16. Install the pre-assembled tube into its final location and tighten a further 1/4 turn - Final installation point #9
17. The procedure is the same for all sizes of tube

Cast S.p.A. have developed indicative tightening torques for the pre-assembly of cutting ring fittings based on practical tests in the laboratory, and they are detailed overleaf. If the tables are to be used for shop pre-assembly, the results should be checked as in Step 14 above before final installation and tightening.

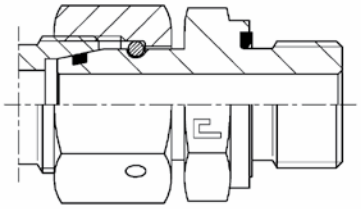
Tightening Torques



D Series Cutting Ring



DB4 Series Cutting Ring



Swivel Nut arrangement

Series	ø	Metric Thread	Cutting Ring Pre-assembly [a] Tightening Torque Nm		Swivel Nut Fittings Torque Nm
			Carbon Steel	Stainless Steel †	Carbon Steel
L	6	M12x1.5	20	30	20
	8	M14x1.5	25	55	35
	10	M16x1.5	30	85	40
	12	M18x1.5	40	120	45
	15	M22x1.5	60	130	55
	18	M26x1.5	90	220	110
	22	M30x2	170	320	130
	28	M36x2	210	500	200
	35	M45x2	360	970	220
	42	M52x2	490	1110	240
S	6	M14x1.5	25	45	40
	8	M16x1.5	30	55	45
	10	M18x1.5	40	90	50
	12	M20x1.5	50	105	60
	14	M22x1.5	70	150	80
	16	M24x1.5	80	180	100
	20	M30x2	140	340	160
	25	M36x2	230	530	240
	30	M45x2	300	610	260
	38	M52x2	430	850	350

† Only available to special order

[a] Refers to pre-assembly tightening only. Please consult the assembly instructions on the previous page for clarification

Nomenclature

The metric compression part numbering adopted by Pirtek is a derivation of a commonly adopted International system. It's basis is to be found within the German language, and is elaborated below to allow the interested reader to perhaps better understand the logic behind the Product Codes. Codes are aligned where possible with those used by Pirtek in Europe

Product Code	German derivation	English equivalent
AS	Anschweissen	Weld on
BUZ	Not derived from German	Sometimes called VKA (German for Verschlusskegel-Adaptor or stopper cone)
D	Doppel	Double (also called DS for Doppel-Schneid or double cutting ring)
DB4	No direct derivation	Used by Cast® to differentiate the elastomeric seal form of cutting ring
DSVW	Drehschwenk-Verschraubung-Winkel	Turn swivel screw together angle (Banjo coupling)
ED	Elastomerisch-Dichtung	Elastomeric seal (soft seal)
EZ	E=elastomerisch (Z suggests Z series bonded seals)	Elastomeric bonded seals for banjo type metric fittings DSVW
WD	Weich-Dicthung	Soft Seal
EDKO	Elastomerisch-Dichtung-Konus	Straight female joiner with elastomeric seals (konus = cone)
EDKOR	Elastomerisch-Dichtung-Konus-Reduzierung	Straight female reducing joiner with elastomeric seals (konus = cone)
EVGE	Einstellbar-Gerade-Einschraubung	Adjustable straight thread (Male stud coupling)
EVGER	Einstellbar-Gerade-Einschraubung-Reduzierung	Adjustable straight reducing thread (Male stud reducing coupling)
EVL	Einstellbar-Verschraubung 'L' pattern	Adjustable screw Tee with L configuration (adjustable barrel tee)
EVT	Einstellbar-Verschraubung 'T' pattern	Adjustable screw Tee with T configuration (adjustable branch tee)
EVW	Einstellbar-Verschraubung-Winkel	Adjustable screw elbow (adjustable elbow)
G	Gerade	Straight (Male Joiner)
GAI	Gerade-Adapter-Innengewinde	Straight adaptor with internal thread (female stud coupling)
GE	Gerade-Einschrauben	Straight screw in (male stud coupling)
GE-BSPP ED	ED suffix (elastomerisch Dichtung)	BSPP thread uses an elastomeric soft seal
GE-BSPP Form B	Form B suffix	BSPP thread uses a Form B type seal (see page E25)
GM	Gegen-Mutter	Against Nut (lock nut)
GSV	Gerade-Schott-Verschraubung	Straight bulkhead screw (straight bulkhead coupling)
GV	Gerade-Verschraubung	Straight threaded connection (reserved for reducing G series within Pirtek)
KOR	Konus-Reduzieranschlusse	Straight conical reducing connector (male female)
LE-BSPT	L configuration Einschraub-Verschraubung	L configuraion screw in BSPT threaded Tee (male stud barrel tee)
M	Mutter	Nut
MAV	Manometer-Anschlussverschraubung	Gauge connection screw thread (gauge coupling male thread)
MAVE	Manometer-Anschlussverschraubung-Einstellbar	Gauge connection adjustable screw thread (gauge coupling female thread)
NRV	Ruckschlag-Ventile	Non return valve
RI	Reduziering-Innengewinde	Reducing Bush
ROV	Rohr-Verschluss	Tube blanking plug
SKA	Schweisskegel-Adapter	Weld taper adaptor (weld nipple)
T	Tee	Equal Tee Coupling
TE-BSPT	T configuration Einschraub-Verschraubung	T configuraion screw in BSPT threaded Tee (male stud branch tee)
VSTI	Verschlussschrauben	Socket Head Port Plug (metric thread)
VSTIR	R suffix	Rohr (BSPP pipe thread)
W	Winkel	Elbow
WE-BSPT	Winkel-Einschrauben	Screw in elbow with BSPT thread
WSV	Winkel-Schott-Verschraubung	Elbow bulkhead threaded connection
'k' or 'keg' Suffix	kegelig	tapered
'R' Suffix	Rohr	BSPT pipe thread (the meaning changes in some contexts to reducing)
'ED' Suffix	Elastomerisch-Dichtung	Elastomeric seal (soft seal)
'N' or 'NPT' Suffix	NPT	NPT thread
'G' Suffix	Gas	BSPP thread

- Metric tube sizes are expressed in millimetres using 2 digits in association with the tube weight eg 12L or 14S
- Metric threads are expressed in the form M27x2 indicating thread diameter and pitch in millimetres
- Imperial thread sizes are expressed as fractions of an inch (eg R1/4 or 1/2NPT) to avoid the use of Dash Sizes that may otherwise resemble metric tube sizes
- Tube weights are denoted as LL, L and S

  LL = super light L = light (from the German 'leicht') S = heavy (from the German 'schwer')

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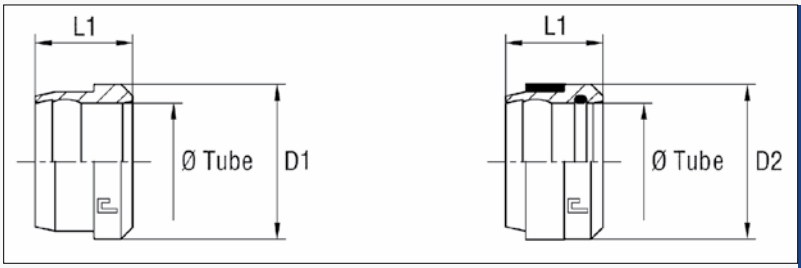
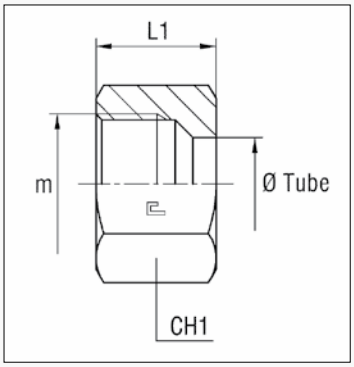
D Cutting Ring
DB4 Cutting Ring Soft Seal



Series	Max. W.P. bar	Product Code		Dimensions mm			
		Standard Ring	Cutting Ring Soft Seal	Ø Tube	L1	D1	D2
LL	100	D-04LL	-	4	6	6	-
		D-06LL	-	6	7	8	-
		D-08LL	-	8	7	10	-
L	315	D-06L/S	DB4-06L/S	6	9.5	10	10
		D-08L/S	DB4-08L/S	8	9.5	12	12
		D-10L/S	DB4-10L/S	10	10	14	14
		D-12L/S	DB4-12L/S	12	10	16	16
		D-15L	DB4-15L	15	10	19	20
		D-18L	DB4-18L†	18	10	23	23
	160	D-22L	DB4-22L†	22	10.5	27	27
		D-28L	DB4-28L†	28	11	33	33
		D-35L	DB4-35L†	35	13	41	41
		D-42L	DB4-42L†	42	13	48	48
S	630	D-06L/S	DB4-06L/S	6	9.5	10	10
		D-08L/S	DB4-08L/S	8	9.5	12	12
		D-10L/S	DB4-10L/S	10	10	14	14
		D-12L/S	DB4-12L/S	12	10	16	16
		D-14S	DB4-14S	14	10	19	19
	400	D-16S	DB4-16S†	16	10.5	21	21
		D-20S	DB4-20S†	20	12	26	26
		D-25S	DB4-25S	25	12	32	32
		D-30S	DB4-30S	30	13	36	38
	315	D-38S	DB4-38S†	38	13	44	48

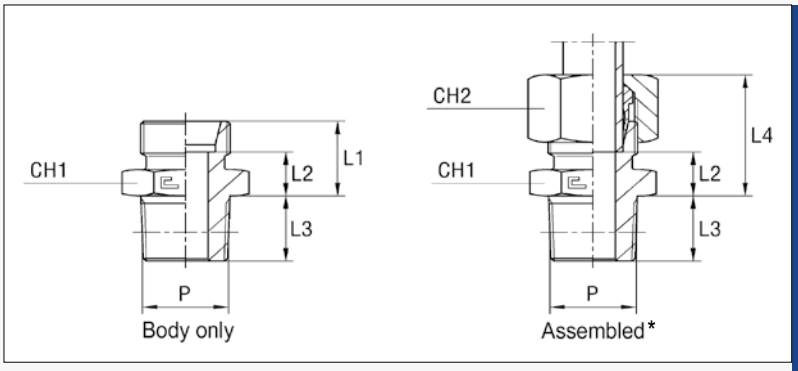
† Limited stock available

M Tightening Nut



Series	Max. W.P. bar	Product Code	Dimensions mm			
			Ø Tube	m	L1	CH1
LL	100	M-04LL	4	8x1	11	10
		M-06LL	6	10x1	11.5	12
		M-08LL	8	12x1	12	14
L	315	M-06L	6	12x1.5	14.5	14
		M-08L	8	14x1.5	14.5	17
		M-10L	10	16x1.5	15.5	19
		M-12L	12	18x1.5	15.5	22
		M-15L	15	22x1.5	17	27
		M-18L	18	26x1.5	18	32
	160	M-22L	22	30x2	20	36
		M-28L	28	36x2	21	41
		M-35L	35	45x2	24	50
		M-42L	42	52x2	24	60
S	630	M-06S	6	14x1.5	16.5	17
		M-08S	8	16x1.5	16.5	19
		M-10S	10	18x1.5	17.5	22
		M-12S	12	20x1.5	17.5	24
		M-14S	14	22x1.5	20.5	27
	400	M-16S	16	24x1.5	20.5	30
		M-20S	20	30x2	24	36
		M-25S	25	36x2	27	46
		M-30S	30	42x2	29	50
	315	M-38S	38	52x2	32.5	60

GE Male Stud Coupling
NPT Thread

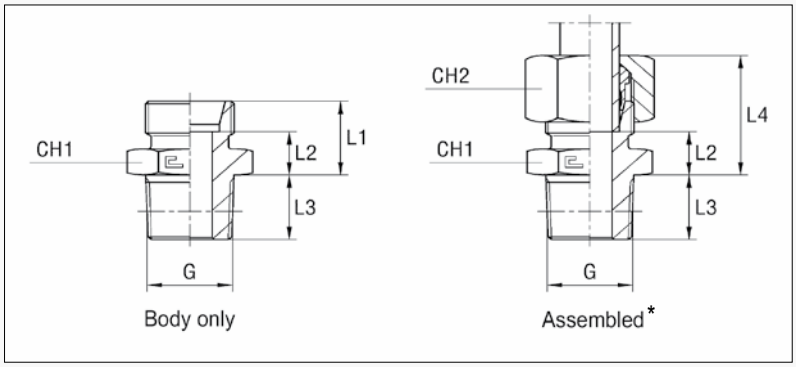


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GE-12L3/8NPTC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	P (NPT)	L1	L2	L3	L4	CH1	CH2
LL	100	GE-04LL1/8NPT †	4	1/8	-	-	-	-	-	-
		GE-08LL1/8NPT †	8	1/8	-	-	-	-	-	-
L	315	GE-06L1/8NPT	6	1/8	14	7	10	22	12	14
		GE-06L1/4NPT	6	1/4	15	8	15	22.5	14	14
		GE-08L1/4NPT	8	1/4	15	8	15	23	17	17
		GE-10L1/4NPT †	10	1/4	16	9	15	24	17	19
		GE-10L3/8NPT	10	3/8	17	10	15	25	19	19
		GE-12L1/4NPT †	12	1/4	17	10	15	24.5	19	22
		GE-12L3/8NPT	12	3/8	17	10	15	24.5	19	22
		GE-12L1/2NPT †	12	1/2	17.5	10.5	19.5	25	22	22
		GE-15L1/2NPT	15	1/2	18.5	11.5	19.5	26.5	24	27
		GE-18L1/2NPT	18	1/2	19.5	12	19.5	28.5	27	32
	160	GE-22L3/4NPT †	22	3/4	21	13.5	20	30	32	36
		GE-28L1NPT	28	1	22	14.5	25	31	41	41
		GE-35L11/4NPT †	35	1.1/4	25.5	15	25.5	36.5	46	50
		GE-42L11/2NPT	42	1.1/2	27	16	26	39	55	60
S	630	GE-06S1/4NPT	6	1/4	-	-	-	-	-	-
		GE-08S1/4NPT	8	1/4	20	13	15	28	17	19
		GE-10S1/4NPT †	10	1/4	-	-	-	-	-	-
		GE-10S3/8NPT	10	3/8	20	12.5	15	28.5	19	22
		GE-10S3/8NPT	10	3/8	20	12.5	15	28.5	19	22
		GE-12S1/2NPT †	12	1/2	22.5	15	19.5	31	22	24
		GE-12S3/8NPT	12	3/8	22	14.5	15	30.5	22	24
		GE-14S1/2NPT †	14	1/2	24.5	16.5	19.5	34.5	24	27
	400	GE-16S1/2NPT	16	1/2	24.5	16	19.5	34.5	27	30
		GE-20S3/4NPT	20	3/4	28	17.5	20	39	32	36
		GE-25S1NPT	25	1	32	20	25	44	41	46
		GE-30S11/4NPT	30	1.1/4	34.5	21	25.5	47.5	46	50
	315	GE-38S11/2NPT	38	1.1/2	39	23	26	54	55	60

† Limited stock available

GE Male Stud Coupling
BSPT Thread

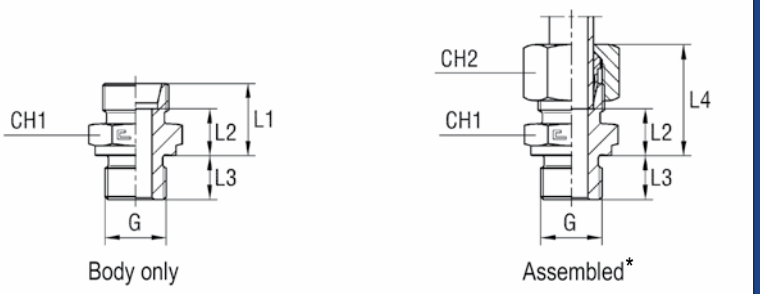


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GE-12LRK3/8C

Series	Max. W.P bar	Product Code (Body only)	Dimensions mm							
			ø Tube	G (BSPT)	L1	L2	L3	L4	CH1	CH2
LL	100	GE-06LLRK1/8	6	1/8	12	6.5	8	18.5	12	12
L	315	GE-06LRK1/8	6	1/8	14	7	8	22	12	14
		GE-06LRK1/4	6	1/4	15	8	12	22.5	14	14
		GE-08LRK1/4	8	1/4	15	8	12	23	17	17
		GE-10LRK1/4	10	1/4	16	9	12	24	17	19
		GE-10LRK3/8 †	10	3/8	17	10	12	25	19	19
		GE-12LRK1/4 †	12	1/4	17	10	15	24.5	19	22
		GE-12LRK3/8	12	3/8	17	10	12	24.5	19	22
		GE-12LRK1/2 †	12	1/2	17	10	14	24.5	22	22
		GE-15LRK1/2	15	1/2	18	11	14	26	24	27
		GE-18LRK1/2	18	1/2	19	11.5	14	28	27	32
	160	GE-22LRK3/4 †	22	3/4	21	13.5	16	30	32	36
		GE-28LRK1 †	28	1	22	14.5	18	31	41	41
		GE-35LRK11/4 †	35	1 1/4	25	14.5	20	36	46	50
		GE-42LRK11/2 †	42	1 1/2	27	16	22	39	55	60

† Limited stock available

GE Male Stud Coupling
BSPP Thread - Form B
Discontinued Line
(Run-out Stock only)

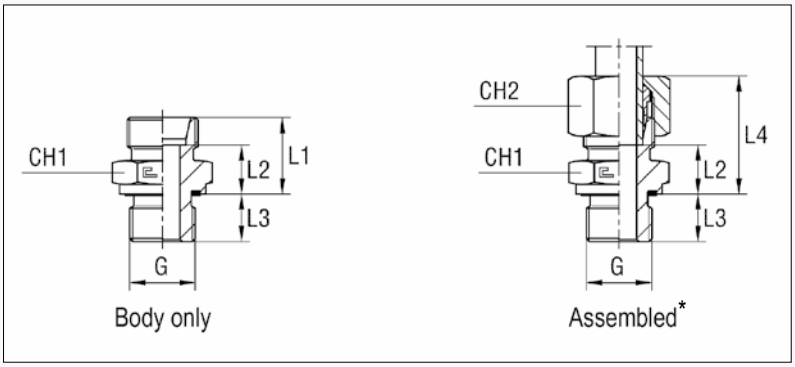


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GE-12LR1/2C

Series	Max. W.P bar	Product Code (Body only)	Dimensions mm							
			ø Tube	G (BSPP)	L1	L2	L3	L4	CH1	CH2
L	315	GE-06LR1/8 †	6	1/8	15.5	8.5	8	23	14	14
		GE-06LR1/4 †	6	1/4	17	10	12	24.5	19	14
		GE-06LR3/8 †	6	3/8	18.5	11.5	12	26	22	14
		GE-08LR1/4 †	8	1/4	17	10	12	25	19	17
		GE-08LR3/8 †	8	3/8	22.5	15.5	12	30.5	22	19
		GE-10LR1/4 †	10	1/4	18	11	12	26	19	19
		GE-10LR3/8 †	10	3/8	22.5	15	12	31	22	22
		GE-10LR1/2 †	10	1/2	20	13	14	28	27	19
		GE-12LR1/4 †	12	1/4	19	12	12	26.5	19	22
		GE-12LR3/8	12	3/8	19.5	12.5	12	27	22	22
		GE-12LR1/2 †	12	1/2	20	13	14	27.5	27	22
		GE-15LR3/8 †	15	3/8	20.5	13.5	12	28.5	24	27
		GE-15LR1/2 †	15	1/2	21	14	14	29	27	27
		GE-18LR1/2 †	18	1/2	22	14.5	14	31	27	32
		GE-18LR3/4 †	18	3/4	22	14.5	16	31	32	32
	160	GE-22LR3/4 †	22	3/4	24	16.5	16	33	32	36
		GE-28LR1 †	28	1	25	17.5	18	34	41	41
		GE-35LR11/4 †	35	1.1/4	28	17.5	20	39	50	50
		GE-42LR11/2 †	42	1.1/2	30	19	22	42	55	60
S	630	GE-06SR1/4 †	6	1/4	20	13	12	28	19	17
		GE-08SR1/4 †	8	1/4	22	15	12	30	19	19
		GE-10SR1/4 †	10	1/4	22	14.5	12	30.5	19	22
		GE-10SR3/8 †	10	3/8	22.5	15	12	31	22	22
		GE-12SR1/4 †	12	1/4	24	16.5	12	32.5	22	24
		GE-12SR3/8 †	12	3/8	24.5	17	12	33	22	24
		GE-12SR1/2 †	12	1/2	25	17.5	14	33.5	27	24
		GE-14SR1/2 †	14	1/2	27	19	14	37	27	27
	400	GE-16SR3/8 †	16	3/8	26.5	18	12	36.5	27	30
		GE-16SR1/2 †	16	1/2	27	18.5	14	37	27	30
		GE-16SR3/4 †	16	3/4	29	20.5	16	39	32	30
		GE-20SR3/4 †	20	3/4	31	20.5	16	42	32	36
		GE-25SR1 †	25	1	35	23	18	47	41	46
		GE-30SR11/4 †	30	1.1/4	37	23.5	20	50	50	50
	315	GE-38SR11/2 †	38	1.1/2	42	26	22	57	55	60

† Limited stock available

GE Male Stud Coupling
BSPP Thread
Elastomer Seal (ED)

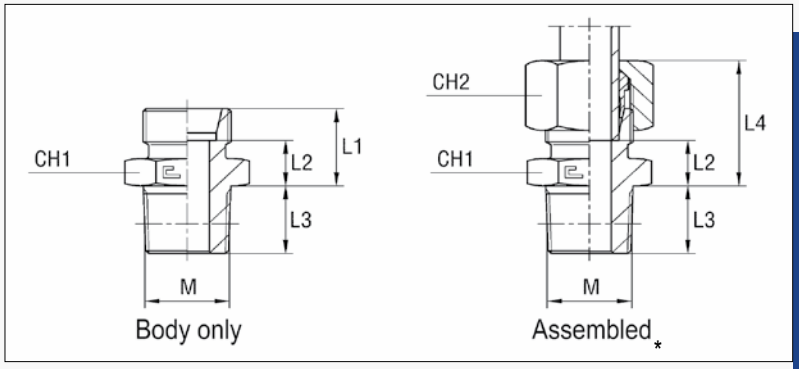


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GE-12LR1/2EDC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	G -(BSPP)	L1	L2	L3	L4	CH1	CH2
LL	100	GE-04LLR1/8ED	4	1/8	13.5	9.5	8	20	14	10
		GE-06LLR1/8ED	6	1/8	13.5	8	8	20	14	12
		GE-08LLR1/8ED	8	1/8	14.5	9	8	21	14	14
L	315	GE-06LR1/8ED	6	1/8	15.5	8.5	8	23	14	14
		GE-06LR1/4ED	6	1/4	17	10	12	24.5	19	14
		GE-06LR3/8ED	6	3/8	18.5	11.5	12	26	22	14
		GE-08LR1/8ED †	8	1/8	16.5	9.5	8	24.5	14	17
		GE-08LR1/4ED	8	1/4	17	10	12	25	19	17
		GE-08LR3/8ED	8	3/8	18.5	11.5	12	26.5	22	17
		GE-10LR1/4ED	10	1/4	18	11	12	26	19	19
		GE-10LR3/8ED	10	3/8	19.5	12.5	12	27.5	22	19
		GE-10LR1/2ED †	10	1/2	20	13	14	28	27	19
		GE-12LR1/4ED	12	1/4	19	12	12	26.5	19	22
		GE-12LR3/8ED	12	3/8	19.5	12.5	12	27	22	22
		GE-12LR1/2ED	12	1/2	20	13	14	27.5	27	22
		GE-15LR3/8ED †	15	3/8	20.5	13.5	12	28.5	24	27
		GE-15LR1/2ED	15	1/2	21	14	14	29	27	27
		GE-15LR3/4ED	15	3/4	22	15	16	30	32	27
		GE-18LR1/2ED	18	1/2	22	14.5	14	31	27	32
		GE-18LR3/4ED †	18	3/4	22	14.5	16	31	32	32
	160	GE-22LR1/2ED †	22	1/2	24	16.5	14	33	32	36
		GE-22LR3/4ED	22	3/4	24	16.5	16	33	32	36
		GE-28LR3/4ED †	28	3/4	25	17.5	16	34	41	41
		GE-28LR1ED	28	1	25	17.5	18	34	41	41
		GE-35LR11/4ED	35	1.1/4	28	17.5	2	39	50	50
		GE-42LR11/2ED	42	1.1/2	30	19	22	42	55	60
S	630	GE-06SR1/4ED	6	1/4	20	13	12	28	19	17
		GE-08SR1/4ED	8	1/4	22	15	12	30	19	19
		GE-10SR1/4ED †	10	1/4	22	14.5	12	30.5	19	22
		GE-10SR3/8ED	10	3/8	22.5	15	12	31	22	22
		GE-12SR1/4ED †	12	1/4	24	16.5	12	32.5	22	24
		GE-12SR3/8ED	12	3/8	24.5	17	12	33	22	24
		GE-12SR1/2ED	12	1/2	25	17.5	14	33.5	27	24
		GE-14SR1/2ED	14	1/2	26.5	18	12	36.5	27	30
	400	GE-16SR3/8ED †	16	3/8	26.5	18	12	36.5	27	30
		GE-16SR1/2ED	16	1/2	27	18.5	14	37	27	30
		GE-16SR3/4ED	16	3/4	29	20.5	16	39	32	30
		GE-20SR1/2ED	20	1/2	31	20.5	14	42	32	36
		GE-20SR3/4ED	20	3/4	31	20.5	16	42	32	36
		GE-25SR3/4ED	25	3/4	35	23	16	47	41	46
		GE-25SR1ED	25	1	35	23	18	47	41	46
		GE-30SR1ED	30	1	37	23.5	18	50	46	50
		GE-30SR11/4ED	30	1.1/4	37	23.5	20	50	50	50
	315	GE-38SR11/4ED	38	1.1/4	42	26	20	57	55	60
		GE-38SR11/2ED	38	1.1/2	42	26	22	57	55	60

† Limited stock available

GE Male Stud Coupling
Metric Taper Thread

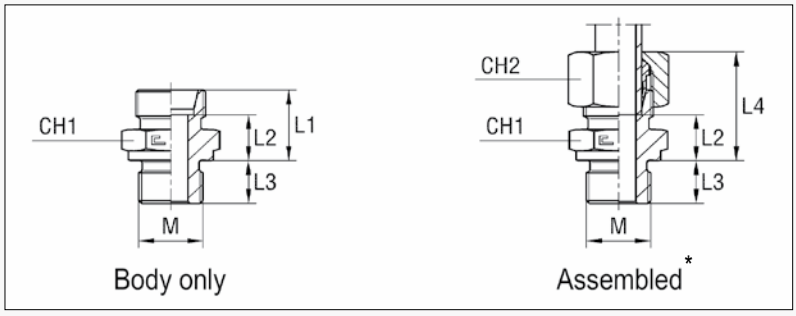


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GE-04LLMK8x1C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	M	L1	L2	L3	L4	CH1	CH2
LL	100	GE-04LLMK8x1 †	4	8 x 1	12	8	-	18.5	12	10
		GE-06LLMK6x1	6	6 x 1	12	6.5	8	18.5	12	12
		GE-06LLMK8x1	6	8 x 1	12	6.5	8	18.5	12	12
		GE-08LLMK10x1 †	8	10 x 1	14	8.5	-	20.5	12	14

† Limited stock available

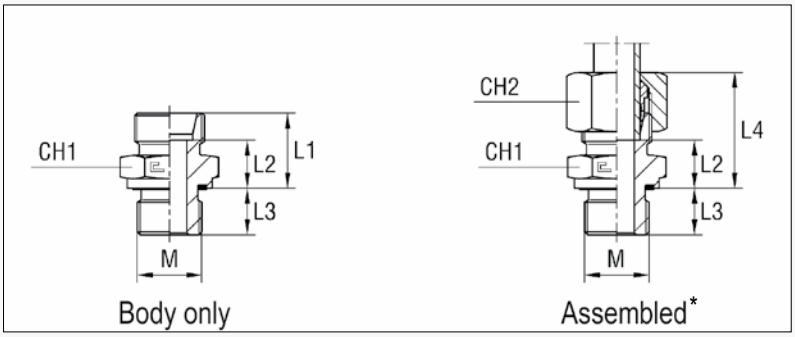
GE Male Stud Coupling
Metric Parallel Thread Form B
Discontinued Line
(Run-out Stock only)



* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GE-12LM22x1.5C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	M	L1	L2	L3	L4	CH1	CH2
LL	100	GE-06LLM10x1	6	10 x 1	-	-	-	-	-	-
L	315	GE-06LM10x1	6	10 x 1	15.5	8.5	8	23	14	14
		GE-08LM12x1.5	8	12 x 1.5	17	10	12	25	17	17
		GE-10LM14x1.5	10	14 x 1.5	18	11	12	26	19	19
		GE-10LM16x1.5	10	16 x 1.5	19.5	12.5	12	27.5	22	19
		GE-12LM16x1.5	12	16 x 1.5	19.5	12.5	12	27	22	22
		GE-12LM18x1.5	12	18 x 1.5	19.5	12.5	12	27	24	22
		GE-12LM22x1.5	12	22 x 1.5	21	14	14	28.5	27	22
		GE-15LM18x1.5	15	18 x 1.5	20.5	13.5	12	29	24	27
		GE-18LM22x1.5	18	22 x 1.5	22	14.5	14	31	27	32
	160	GE-22LM26x1.5	22	26 x 1.5	24	16.5	16	33	32	36
		GE-28LM33x2	28	33 x 2	25	17.5	18	34	41	41
		GE-35LM42x2	35	42 x 2	28	17.5	20	39	50	50
		GE-42LM48x2	42	48 x 2	30	19	22	42	55	60
S	630	GE-06SM12x1.5	6	12 x 1.5	20	13	12	28	17	17
		GE-08SM14x1.5	8	14 x 1.5	22	15	12	30	19	19
		GE-10SM16x1.5	10	16 x 1.5	22.5	15	12	31	22	22
		GE-12SM18x1.5	12	18 x 1.5	24.5	17	12	33	24	24
		GE-14SM20x1.5	14	20 x 1.5	27	19	14	37	27	27
	400	GE-16SM22x1.5	16	22 x 1.5	27	18.5	14	37	27	30
		GE-20SM27x2	20	27 x 2	31	20.5	16	42	32	36
		GE-25SM30x2	25	30 x 2	-	-	-	-	-	-
		GE-25SM33x2	25	33 x 2	35	23	18	47	41	46
		GE-30SM30x2	30	30 x 2	-	-	-	-	-	-
		GE-30SM42x2	30	42 x 2	37	23.5	20	50	50	50
	315	GE-38SM48x2	38	48 x 2	42	26	22	57	55	60

GE Male Stud Coupling
Metric Parallel Thread
Elastomer Seal (ED)

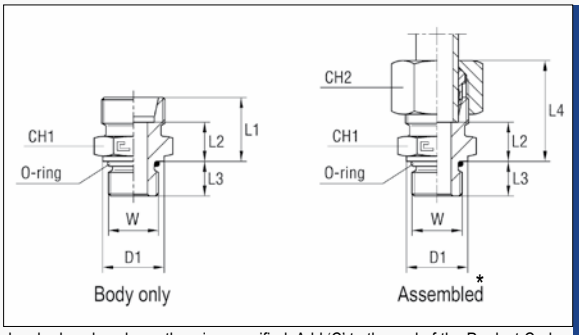


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GE-15LM18x1.5EDC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			Ø Tube	M	L1	L2	L3	L4	CH1	CH2
LL	100	GE-04LLM8X1ED	4	8 x 1	13.5	9.5	8	20	12	10
		GE-08LLM10X1ED	8	10 x 1	14.5	9	8	21	14	14
L	315	GE-06LM10x1ED	6	10 x 1	15.5	8.5	8	23	14	14
		GE-08LM12x1.5ED	8	12 x 1.5	17	10	12	25	17	17
		GE-10LM14x1.5ED	10	14 x 1.5	18	11	12	26	19	19
		GE-12LM16x1.5ED	12	16 x 1.5	19.5	12.5	12	27	22	22
		GE-12LM18x1.5ED	12	18 x 1.5	20.5	12.5	12	27	22	27
		GE-15LM16x1.5ED	15	16 x 1.5	20.5	13.5	12	29	24	27
		GE-15LM18x1.5ED	15	18 x 1.5	20.5	13.5	12	29	24	27
		GE-15LM22x1.5ED	15	22 x 1.5	20.5	13.5	14	29	24	32
		GE-18LM22x1.5ED	18	22 x 1.5	22	14.5	14	31	27	32
	160	GE-22LM22x1.5ED	22	22 x 1.5	24	16.5	16	33	32	36
		GE-22LM26x1.5ED	22	26 x 1.5	24	16.5	16	33	32	36
		GE-28LM33x2ED	28	33 x 2	25	17.5	18	34	41	41
		GE-35LM42x2ED	35	42 x 2	28	17.5	20	39	50	50
		GE-42LM48x2ED	42	48 x 2	30	19	22	42	55	60
S	630	GE-06SM12x1.5ED	6	12 x 1.5	20	13	12	28	17	17
		GE-08SM14x1.5ED	8	14 x 1.5	22	15	12	30	19	19
		GE-10SM16x1.5ED	10	16 x 1.5	22.5	15	12	31	22	22
		GE-12SM18x1.5ED	12	18 x 1.5	24.5	17	12	33	24	24
		GE-14SM20x1.5ED	14	20 x 1.5	27	19	14	37	27	27
	400	GE-16SM22x1.5ED	16	22 x 1.5	27	18.5	14	37	27	30
		GE-20SM27x2ED	20	27 x 2	31	20.5	16	42	32	36
		GE-25SM33x2ED	25	33 x2	35	23	18	47	41	46
		GE-30SM42x2ED	30	42 x 2	37	23.5	20	50	50	50
	315	GE-38SM48x2ED †	38	48 x 2	42	36	22	57	55	60

† Limited stock available

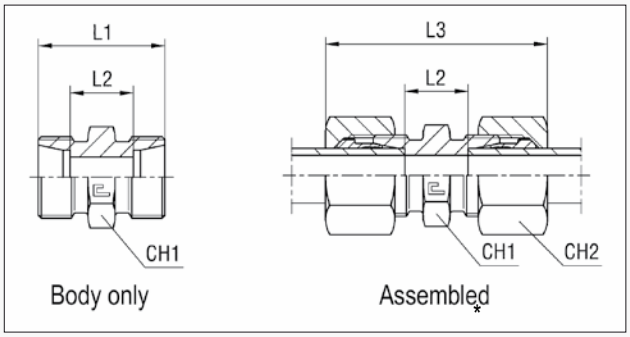
GE Male Stud Coupling
UN-O Thread



* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GE-18L3/4UNFC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm								
			ø Tube	W	D1	L1	L2	L3	L4	CH1	CH2
L	315	GE-12L9/16UNF	12	9/16 - 18	18.8	18	11	10	25.5	19	22
		GE-12L3/4UNF	12	3/6 - 16	21.8	19.9	12.9	11.1	27.5	22	22
		GE-12L7/8UNF	12	7/8 - 14	26.8	21.3	14.3	12.7	29	27	22
		GE-18L3/4UNF	18	3/4 - 16	21.8	21.9	14.4	11.1	31	27	32
S	400	GE-16S3/4UNF	16	3/4 - 16	21.8	23.9	15.4	11.1	34	27	30
		GE-16S7/8UNF	16	7/8 - 14	26.8	27.3	18.8	12.7	37.5	27	30
		GE-20S3/4UNF	20	3/4 - 16	21.8	30.9	20.4	11.1	42	32	36
		GE-20S7/8UNF	20	7/8 - 14	26.8	31.3	20.8	12.7	42.5	32	36
		GE-20S11/16UNF	20	1.1/16 - 12	31.8	30.9	20.4	15.1	42	32	36

G Straight Tube Coupling

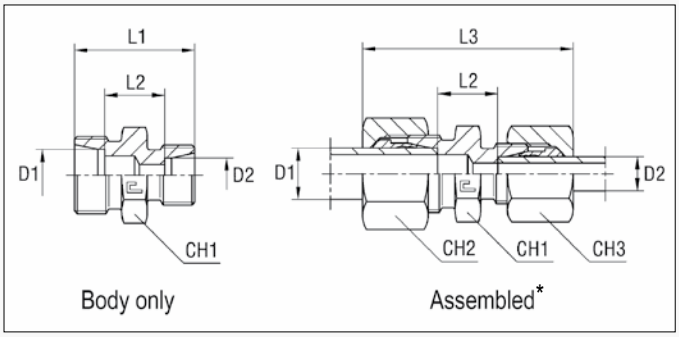


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg G-12LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm					
			ø Tube	W	D1	L1	L2	L3
LL	100	G-04LL †	4	20	12	31	12	10
		G-06LL	6	20	9	32	12	12
		G-08LL	8	23	12	35	12	14
L	315	G-06L	6	24	10	39	12	14
		G-08L	8	25	11	40	14	17
		G-10L	10	27	13	42	17	19
		G-12L	12	28	14	43	19	22
		G-15L	15	30	16	46	24	27
		G-18L	18	31	16	48	27	32
	160	G-22L	22	35	20	52	32	36
		G-28L	28	36	21	54	41	41
		G-35L	35	41	20	63	46	50
		G-42L	42	43	21	66	55	60
S	630	G-06S	6	30	16	45	14	17
		G-08S	8	32	18	47	17	19
		G-10S	10	32	17	49	19	22
		G-12S	12	34	19	51	22	24
		G-14S	14	38	22	57	24	27
	400	G-16S	16	38	21	57	27	30
		G-20S	20	44	23	66	32	36
		G-25S	25	50	26	74	41	46
		G-30S	30	54	27	80	46	50
	315	G-38S	38	61	29	90	55	60

† Limited stock available

GV Straight Reducing Coupling



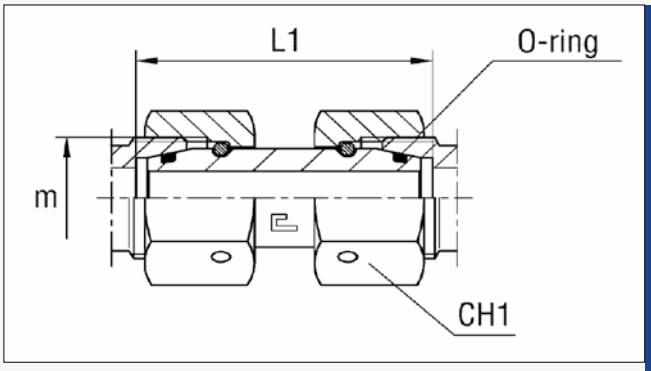
* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg GV-12L/10LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube		L1	L2	L3	CH1	CH2	CH3
			D1	D2						
LL	100	GV-06LL/04LL †	6	4	-	-	-	-	-	-
		GV-08LL/04LL †	8	4	-	-	-	-	-	-
		GV-08LL/06LL †	8	6	-	-	-	-	-	-
L	315	GV-08L/06L †	8	6	25	11	40.5	14	17	14
		GV-10L/06L †	10	6	26	12	41.5	17	19	14
		GV-10L/08L †	10	8	26	12	42	17	19	17
		GV-12L/06L †	12	6	27	13	42	19	22	14
		GV-12L/08L †	12	8	27	13	42.5	19	22	17
		GV-12L/10L †	12	10	28	14	43.5	19	22	19
		GV-15L/10L †	15	10	29	15	45	24	27	19
		GV-15L/12L †	15	12	29	15	44.5	24	27	22
		GV-18L/10L †	18	10	30	15.5	47	27	32	19
		GV-18L/12L †	18	12	30	15.5	46.5	27	32	22
		GV-18L/15L †	18	15	31	16.5	48	27	32	27
	160	GV-22L/12L †	22	12	32	17.5	48.5	32	36	22
		GV-22L/15L †	22	15	33	18.5	50	32	36	27
		GV-22L/18L †	22	18	33	18	51	32	36	32
		GV-28L/18L †	28	18	34	19	52	41	41	32
		GV-28L/22L †	28	22	36	21	54	41	41	36
		GV-35L/22L †	35	22	39	21	59	46	50	36
		GV-35L/28L †	35	28	39	21	59	46	50	41
S	630	GV-08S/06S †	8	6	32	18	48	17	19	17
		GV-10S/06S †	10	6	32	17.5	48.5	19	22	17
		GV-10S/08S †	10	8	32	17.5	48.5	19	22	19
		GV-12S/06S †	12	6	34	19.5	50.5	22	24	17
		GV-12S/08S †	12	8	34	19.5	50.5	22	24	19
		GV-12S/10S †	12	10	34	19	51	22	24	22
		GV-14S/10S †	14	10	36	20.5	54.5	24	27	22
		GV-14S/12S †	14	12	36	20.5	54.5	24	27	24
	400	GV-16S/12S †	16	12	36	20	54.5	27	30	24
		GV-16S/14S †	16	14	38	21.5	58	27	30	27
		GV-20S/10S †	20	10	40	22	59.5	32	36	22
		GV-20S/12S †	20	12	40	22	59.5	32	36	24
		GV-20S/16S †	20	16	42	23	63	32	36	30
		GV-25S/16S †	25	16	46	25.5	68	41	46	30
		GV-25S/20S †	25	20	48	25.5	71	41	46	36
		GV-30S/20S †	30	20	50	26	74	46	50	36
		GV-30S/25S †	30	25	52	26.5	77	46	50	46
	315	GV-38S/30S †	38	30	59	29.5	87	55	60	50

† Possible future stock - not currently available

EDKO Straight Female Coupling

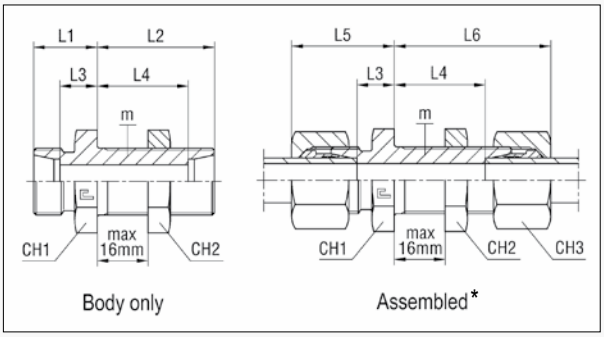
Equal Ends



Series	Max. W.P. bar	Product Code (Assembled)	Dimensions mm			
			ø Tube	m	L1	CH1
L	315	EDKO-06L	6	12 x 1.5	40	14
		EDKO-08L	8	14 x 1.5	40	17
		EDKO-10L	10	16 x 1.5	39	19
		EDKO-12L	12	18 x 1.5	39	22
		EDKO-15L	15	212 x 1.5	45	27
		EDKO-18L	18	26 x 1.5	43	32
	160	EDKO-22L	22	30 x 2	48	36
		EDKO-28L	28	36 x 2	49	41
		EDKO-35L †	35	45 x 2	60	50
		EDKO-42L	42	52 x 2	60	60
S	630	EDKO-06S	6	14 x 1.5	37	17
		EDKO-08S	8	16 x 1.5	38	19
		EDKO-10S	10	18 x 1.5	44	22
		EDKO-12S	12	20 x 1.5	41	24
		EDKO-14S	14	22 x 1.5	44	27
	400	EDKO-16S	16	24 x 1.5	51	30
		EDKO-20S	20	30 x 2	56	36
		EDKO-25S	25	36 x 2	60	46
		EDKO-30S	30	42 x 2	62	50
	315	EDKO-38S †	38	52 x 2	70	60

† Limited stock available

SV Straight Bulkhead Coupling

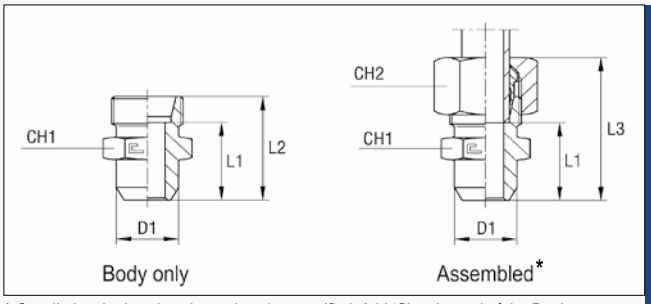


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg SV-15LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm										
			Ø Tube	m	L1	L2	L3	L4	L5	L6	CH1	CH2	CH3
L	315	SV-06L	6	12 x 1.5	14	34	7	27	22	42	17	17	14
		SV-08L	8	14 x 1.5	15	34	8	27	23	42	19	19	17
		SV-10L	10	16 x 1.5	17	35	10	28	25	43	22	22	19
		SV-12L	12	18 x 1.5	17	36	10	29	25	44	24	24	22
		SV-15L	15	22 x 1.5	19	38	12	31	27	46	27	30	27
		SV-18L	18	26 x 1.5	21	40	13.5	32.5	30	49	32	36	32
	160	SV-22L	22	30 x 2	24	42	16.5	34.5	33	51	36	41	36
		SV-28L	28	36 x 2	26	43	18.5	35.5	35	52	41	46	41
		SV-35L †	35	45 x 2	29	47	18.5	36.6	40	58	50	55	50
		SV-42L	42	52 x 2	30	47	19	36	42	59	60	65	60
S	630	SV-06S	6	14 x 1.5	19	36	12	29	27	44	19	19	17
		SV-08S	8	16 x 1.5	20	36	13	29	28	44	22	22	19
		SV-10S	10	18 x 1.5	22	37	14.5	29.5	31	46	24	24	22
		SV-12S	12	20 x 1.5	22	38	14.5	30.5	31	47	27	27	24
		SV-14S	14	22 x 1.5	25	40	17	32	35	50	30	30	27
	400	SV-16S	16	24 x 1.5	25	40	16.5	31.5	35	50	32	32	30
		SV-20S	20	30 x 2	28	44	17.5	33.5	39	55	41	41	36
		SV-25S	25	36 x 2	32	47	20	35	44	59	46	46	46
		SV-30S	30	42 x 2	35	51	21.5	37.5	48	64	50	50	50
	315	SV-38S	38	52 x 2	38	53	22	37	53	68	65	65	60

† Limited stock available

AS Welding Boss

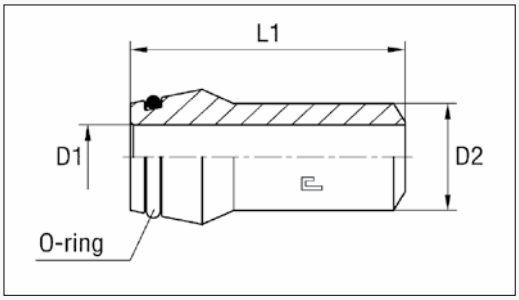


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg AS-18LC

Series	Max. W.P. Bar	Product Code (Body only)	Dimensions mm						
			ø Tube	D1	L1	L2	L3	CH1	CH2
L	315	AS-06L †	6	10	14	21	29	12	14
		AS-08L	8	12	16	23	31	14	17
		AS-10L †	10	14	18	25	33	17	19
		AS-12L †	12	16	18	25	33	19	22
		AS-15L †	15	19	22	29	37	22	27
		AS-18L	18	22	23.5	31	40	27	32
	160	AS-22L †	22	27	28.5	36	45	32	36
		AS-28L †	28	32	30.5	38	47	41	41
		AS-35L †	35	40	32.5	43	54	46	50
		AS-42L †	42	46	35	46	58	55	60
S	630	AS-06S	6	11	19	26	34	14	17
		AS-08S	8	13	21	28	36	17	19
		AS-10S	10	15	22.5	30	39	19	22
		AS-12S	12	17	24.5	32	41	22	24
		AS-14S †	14	19	27	35	45	24	27
	400	AS-16S	16	21	26.5	35	45	27	30
		AS-20S	20	26	29.5	40	51	32	36
		AS-25S	25	31	32	44	56	41	46
		AS-30S	30	36	35.5	49	62	46	50
	315	AS-38S	38	44	38	54	69	55	60

† Limited stock available

SKA Welding Nipple



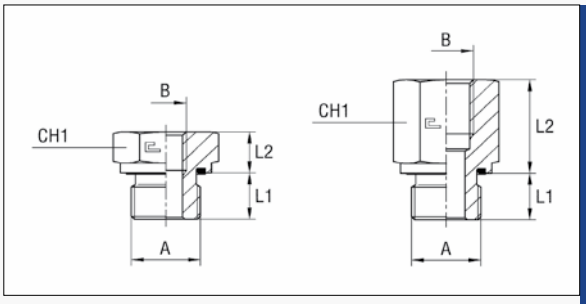
* Supplied disassembled

Series	Max. W.P. bar	Product Code (Nipple only)	Dimensions mm				
			Ø x Wall Thickness	ø Tube	D1	D2	L1
L / S	-	SKA6x1 †	6x1	6	-	-	-
	630	SKA6x1.75 †	6x1.75	6	2.5	6	31
		SKA8x1.5 †	8x1.5	8	-	-	-
	630	SKA8x2 †	8x2	8	4	8	31
	315	SKA10X1.5 †	10X1.5	10	7	10	32.5
	315	SKA12X1.5 †	12X1.5	12	9	12	32.5
	-	SKA18x2 †	18x2	18	-	-	-
	-	SKA22x2 †	22x2	22	-	-	-
L	-	SKA15x1.5 †	15x1.5	15	-	-	-
	315	SKA15x2.5 †	15x2.5	15	10	15	34
	315	SKA18x2.5 †	18x2.5	18	13	18	35.5
	160	SKA22x2.5 †	22x2.5	22	17	22	38.5
	160	SKA28X2.5 †	28X2.5	28	23	28	41.5
	160	SKA35X3 †	35X3	35	29	35	47.5
S	-	SKA14X2 †	14X2	14	-	-	-
	400	SKA14X3 †	14X3	14	8	14	38.5
	250	SKA16X2	16X2	16	12	16	39
	250	SKA20X2.5	20X2.5	20	15	20	45
	315	SKA20X3 †	20X3	20	14	20	45
	-	SKA25X2.5 †	25X2.5	25	-	-	-
	250	SKA25X3 †	25X3	25	19	25	49.5
	160	SKA30X3	30X3	30	24	30	52
	250	SKA38X5 †	38X5	38	-	-	-
	315	SKA38X6 †	38X6	38	26	38	56.5

† Limited stock available

RI Reducing Coupling BSPP

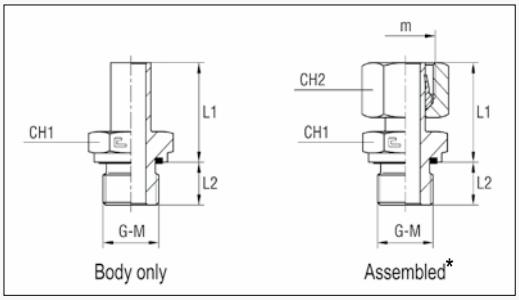
Elastomeric Seal



Series	Max. W.P. bar	Product Code	Schematic Left	Schematic Right	A	B	L1	L2	CH1
L / S	630	RI-02-04		*	1/8	1/4	8	23	19
		RI-02-06		*	1/8	3/8	8	24	24
		RI-04-02		*	1/4	1/8	12	16	19
		RI-04-06		*	1/4	3/8	12	24	24
		RI-04-08		*	1/4	1/2	12	28	30
		RI-04-12		*	1/4	3/4	12	31	36
		RI-06-02			3/8	1/8	12	10.5	22
		RI-06-04		*	3/8	1/4	12	24	22
		RI-06-08		*	3/8	1/2	12	29	30
	400	RI-06-12		*	3/8	3/4	12	32	36
	630	RI-08-02 †	*		1/2	1/8	14	10	27
		RI-08-04	*		1/2	1/4	14	10	27
		RI-08-06		*	1/2	3/8	14	22	27
	400	RI-08-12		*	1/2	3/4	14	32	36
		RI-08-16		*	1/2	1	14	35	41
		RI-08-20		*	1/2	1.1/4	14	39	55
		RI-12-04	*		3/4	1/4	16	10	32
		RI-12-06	*		3/4	3/8	16	10	32
		RI-12-08		*	3/4	1/2	16	26	32
		RI-12-16		*	3/4	1	16	35	41
		RI-12-20		*	3/4	1.1/4	16	39	55
	315	RI-12-24		*	3/4	1/1/2	16	41	60
	400	RI-16-04	*		1	1/4	18	11	41
		RI-16-06	*		1	3/8	18	11	41
		RI-16-08	*		1	1/2	18	11	41
		RI-16-12		*	1	3/4	18	29	41
		RI-16-20		*	1	1.1/4	18	39	55
	315	RI-16-24		*	1	1.1/2	18	41	60
	400	RI-20-08	*		1.1/4	1/2	20	12	50
		RI-20-12	*		1.1/4	3/4	20	12	50
		RI-20-16		*	1.1/4	1	20	31	50
	315	RI-20-24		*	1.1/4	1.1/2	20	40	60
		RI-24-08	*		1.1/2	1/2	22	14	55
		RI-24-12	*		1.1/2	3/4	22	14	55
		RI-24-16-	*		1.1/2	1	22	14	55
		RI-24-20		*	1.1/2	1.1/4	22	46	50

† Limited stock available

EVGER Male Stud Standpipe - Metric
Elastomer Seal (ED)
Discontinued Line
(Run-out Stock only)

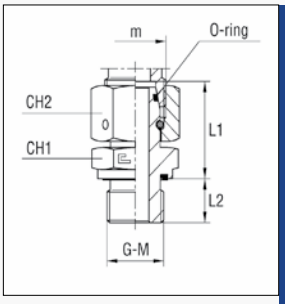


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg EVGER-18LM22x1.5EDC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm						
			Ø Tube	m	M	L1	L2	CH1	CH2
L	315	EVGER-06LM10x1ED	6	12 x 1.5	10 x 1	24.5	8	14	14
		EVGER-08LM12x1.5ED	8	14 x 1.5	12 x 1.5	26.5	12	17	17
		EVGER-10LM14x1.5ED	10	16 x 1.5	14 x 1.5	27.5	12	19	19
		EVGER-12LM16x1.5ED	12	18 x 1.5	16 x 1.5	30.5	12	22	22
		EVGER-15L182x1.5ED	15	22 x 1.5	18 x 1.5	31.5	12	24	27
		EVGER-18LM22x1.5ED	18	26 x 1.5	22 x 1.5	31.5	14	27	32
	160	EVGER-22LM26x1.5ED	22	30 x 2	26 x 1.5	32.5	16	32	36
		EVGER-28LM33x2ED †	28	36 x 2	33 x 2	35	18	41	41
		EVGER-35LM42x2ED †	35	45 x 2	42 x 2	42.5	20	50	50
		EVGER-42LM48x2ED	42	52 x 2	48 x 2	46.5	22	55	60
S	630	EVGER-06SM12x1.5ED	6	14 x 1.5	12 x 1.5	27	12	17	17
		EVGER-08SM14x1.5ED	8	16 x 1.5	14 x 1.5	29.5	12	19	19
		EVGER-10SM16x1.5ED	10	18 x 1.5	16 x 1.5	32	12	22	22
		EVGER-12SM18x1.5ED	12	20 x 1.5	18 x 1.5	34	12	24	24
		EVGER-14SM20x1.5ED	14	22 x 1.5	20 x 1.5	36.5	14	27	27
	400	EVGER-16SM22x1.5ED	16	24 x 1.5	22 x 1.5	37	14	27	30
		EVGER-20SM27x2ED	20	30 x 2	27 x 2	43	16	32	36
		EVGER-25SM33x2ED	25	36 x 2	33 x 2	48	18	41	46
		EVGER-30SM42x2ED †	30	42 x 2	42 x 2	51	20	50	50
	315	EVGER-38SM48x2ED	38	52 x 2	48 x 2	60	22	55	60

† Limited stock available

EVGE Male Stud Coupling with Swivel Nut - Metric / BSPP
Elastomer Seal (ED)

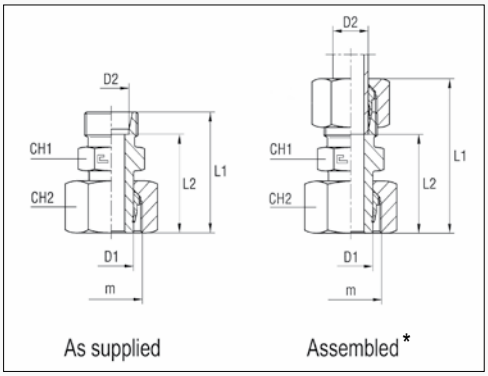


Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm						
			ø Tube	m	M	L1	L2	CH1	CH2
L	315	EVGE-06LM12x1.5ED †	6	12 x 1.5	10 x 1	24.5	8	14	14
		EVGE-08LM14x1.5ED †	8	14 x 1.5	12 x 1.5	26.5	12	17	17
		EVGE-10LM14x1.5ED	10	16 x 1.5	14 x 1.5	27.5	12	19	19
		EVGE-10LM16x1.5ED †	10	16 x 1.5	16 x 1.5	27.5	12	19	19
		EVGE-12LM18x1.5ED †	12	18 x 1.5	16 x 1.5	30.5	12	22	22
		EVGE-15LM22x1.5ED †	15	22 x 1.5	18 x 1.5	31.5	12	24	27
		EVGE-18LM26x1.5ED †	18	26 x 1.5	22 x 1.5	31.5	14	27	32
	160	EVGE-22LM30x2ED †	22	30 x 2	26 x 1.5	32.5	16	32	36
		EVGE-28LM36x2ED †	28	36 x 2	33 x 2	35	18	41	41
		EVGE-35LM45x2ED †	35	45 x 2	42 x 2	42.5	20	50	50
		EVGE-42LM52x2ED †	42	52 x 2	48 x 2	46.5	22	55	60
S	630	EVGE-06SM14x1.5ED †	6	14 x 1.5	12 x 1.5	27	12	17	17
		EVGE-08SM16x1.5ED †	8	16 x 1.5	14 x 1.5	29.5	12	19	19
		EVGE-10SM18x1.5ED †	10	18 x 1.5	16 x 1.5	32	12	22	22
		EVGE-12SM20x1.5ED †	12	20 x 1.5	18 x 1.5	34	12	24	24
		EVGE-14SM22x1.5ED †	14	22 x 1.5	20 x 1.5	36.5	14	27	27
	400	EVGE-16SM24x1.5ED †	16	24 x 1.5	22 x 1.5	37	14	27	30
		EVGE-20SM30x2ED †	20	30 x 2	27 x 2	43	16	32	36
		EVGE-25SM36x2ED †	25	36 x 2	33 x 2	48	18	41	46
		EVGE-30SM42x2ED †	30	42 x 2	42 x 2	51	20	50	50
	315	EVGE-38SM52x2ED	38	52 x 2	48 x 2	60	22	55	60

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm (except G)						
			ø Tube	m	G (ins)	L1	L2	CH1	CH2
L	315	EVGE-06LR1/8ED	6	12 x 1.5	1/8	24.5	8	14	14
		EVGE-08LR1/4ED	8	14 x 1.5	1/4	29.5	12	19	17
		EVGE-10LR1/4ED	10	16 x 1.5	1/4	27.5	12	19	19
		EVGE-12LR3/8ED	12	18 x 1.5	3/8	34	12	22	22
		EVGE-15LR1/2ED	15	22 x 1.5	1/2	32	14	27	27
		EVGE-18LR1/2ED	18	26 x 1.5	1/2	31.5	14	27	32
	160	EVGE-22LR3/4ED	22	30 x 2	3/4	32.5	16	32	36
		EVGE-28LR1ED	28	36 x 2	1	35	18	41	41
		EVGE-35LR11/4ED †	35	45 x 2	1.1/4	42.5	20	50	50
		EVGE-42LR11/2ED	42	52 x 2	1.1/2	46.5	22	55	60
S	630	EVGE-06SR1/4ED	6	14 x 1.5	1/4	27	12	19	17
		EVGE-08SR1/4ED	8	16 x 1.5	1/4	29.5	12	19	19
		EVGE-10SR3/8ED	10	18 x 1.5	3/8	32	12	22	22
		EVGE-12SR3/8ED	12	20 x 1.5	3/8	34	12	22	24
		EVGE-14SR1/2ED	14	22 x 1.5	1/2	36.5	14	27	27
	400	EVGE-16SR1/2ED	16	24 x 1.5	1/2	37	14	27	30
		EVGE-20SR3/4ED	20	30 x 2	3/4	43	16	32	36
		EVGE-25SR1ED	25	36 x 2	1	48	18	41	46
		EVGE-30SR11/4ED	30	42 x 2	1.1/4	51	20	50	50
	315	EVGE-38SR11/2ED	38	52 x 2	1.1/2	60	22	55	60

† Limited stock available

KOR Standpipe Tube Reducer
L Series

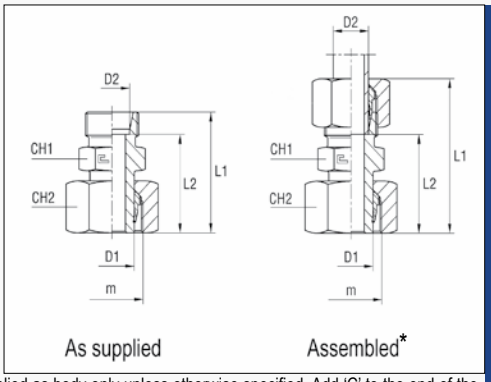


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg KOR-15L/06LC

Series	Max. W.P. bar	Product Code (Body only)	ø Tube		Dimensions mm				
			D1	D2	m	L1	L2	CH1	CH2
L	315	KOR-08L/06L	8	6	14 x 1.5	32.5	25.5	12	17
		KOR-10L/06L	10	6	16 x 1.5	33	26	12	19
		KOR-12L/06L	12	6	18 x 1.5	34	27	14	22
		KOR-15L/06L	15	6	22 x 1.5	34	27	17	27
		KOR-18L/06L †	18	6	26 x 1.5	36.5	29.5	19	32
	160	KOR-22L/06L †	22	6	30 x 2	37.5	30.5	24	36
		KOR-28L/06L †	28	6	36 x 2	39	32	30	41
		KOR-35L/06L †	35	6	45 x 2	45.5	38.5	36	50
		KOR-42L/06L †	42	6	52 x 2	46.5	39.5	46	60
	315	KOR-10L/08L	10	8	16 x 1.5	34	27	14	19
		KOR-12L/08L	12	8	18 x 1.5	34	27	14	22
		KOR-15L/08L	15	8	22 x 1.5	34	27	17	27
		KOR-18L/08L	18	8	26 x 1.5	36.5	29.5	19	32
	160	KOR-22L/08L †	22	8	30 x 2	37.5	30.5	34	36
		KOR-28L/08L †	28	8	36 x 2	39	32	30	41
		KOR-35L/08L †	35	8	45 x 2	45.5	38.5	36	50
		KOR-42L/08L †	42	8	52 x 2	46.5	39.5	46	60
	315	KOR-12L/10L	12	10	18 x 1.5	35	28	17	22
		KOR-15L/10L	15	10	22 x 1.5	35	28	17	27
		KOR-18L/10L	18	10	26 x 1.5	37.5	30.5	19	32
	160	KOR-22L/10L	22	10	30 x 2	38.5	31.5	24	36
		KOR-28L/10L †	28	10	36 x 2	40	33	30	41
		KOR-35L/10L †	35	10	45 x 2	46.5	39.5	36	50
		KOR-42L/10L †	42	10	52 x 2	47.5	40.5	46	60
	315	KOR-15L/12L	15	12	22 x 1.5	36	29	19	27
		KOR-18L/12L	18	12	26 x 1.5	37.5	30.5	19	32
	160	KOR-22L/12L	22	12	30 x 2	38.5	31.5	24	36
		KOR-28L/12L	28	12	36 x 2	40	33	30	41
		KOR-35L/12L †	35	12	45 x 2	46.5	39.5	36	50
		KOR-42L/12L †	42	12	52 x 2	47.5	40.5	46	60
	315	KOR-18L/15L	18	15	26 x 1.5	38.5	31.5	24	32
	160	KOR-22L/15L	22	15	30 x 2	39.5	32.5	24	36
		KOR-28L/15L	28	15	36 x 2	41	34	30	41
		KOR-35L/15L	35	15	45 x 2	47.5	40.5	36	50
		KOR-42L/15L †	42	15	52 x 2	48.5	41.5	46	60
		KOR-22L/18L	22	18	30 x 2	40	32.5	27	36
		KOR-28L/18L	28	18	36 x 2	41	33.5	30	41
		KOR-35L/18L	35	18	45 x 2	47.5	40	36	50
		KOR-42L/18L	42	18	52 x 2	48.5	41	46	60
		KOR-28L/22L	28	22	36 x 2	43	35.5	32	41
		KOR-35L/22L	35	22	45 x 2	49.5	42	36	50
		KOR-42L/22L	42	22	52 x 2	50.5	43	46	60
		KOR-35L/28L	35	28	45 x 2	49.5	42	41	50
		KOR-42L/28L	42	28	52 x 2	50.5	43	46	60
		KOR-42L/35L	42	35	52 x 2	52.5	42	46	60

† Limited stock available

KOR Standpipe Tube Reducer
S Series

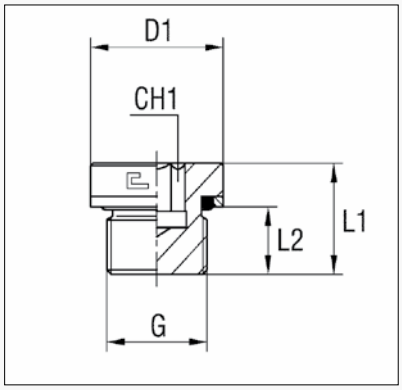


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg KOR-16S/06SC

Series	Max. W.P. bar	Product Code (Body only)	ø Tube		Dimensions mm				
			D1	D2	m	L1	L2	CH1	CH2
S	630	KOR-08S/06S	8	6	14 x 1.5				
		KOR-10S/06S	10	6	18 x 1.5				
		KOR-12S/06S †	12	6	20 x 1.5	38	31	14	24
		KOR-14S/06S	14	6	22 x 1.5	42	35	17	27
	400	KOR-16S/06S †	16	6	24 x 1.5	43	36	17	30
		KOR-20S/06S †	20	6	30 x 2	48.5	41.5	22	36
		KOR-25S/06S †	25	6	36 x 2	51	44	27	46
		KOR-30S/06S †	30	6	42 x 2	55.5	48.5	32	50
	315	KOR-38S/06S †	38	6	52 x 2	61.5	54	41	60
	630	KOR-10S/08S	10	8	18 x 1.5	40.5	33.5	17	22
		KOR-12S/08S	12	8	20 x 1.5	40	33	17	24
		KOR-14S/08S	14	8	22 x 1.5	42	35	17	27
	400	KOR-16S/08S	16	8	24 x 1.5	43	36	17	30
		KOR-20S/08S	20	8	30 x 2	48.5	41	22	36
		KOR-25S/08S †	25	8	36 x 2	51	44	27	46
		KOR-30S/08S †	30	8	42 x 2	55.5	48.5	32	50
	315	KOR-38S/08S †	38	8	52 x 2	61.5	54.5	41	60
	630	KOR-12S/10S	12	10	20 x 1.5	40	32.5	19	24
		KOR-14S/10S	14	10	22 x 1.5	42	34.5	19	27
	400	KOR-16S/10S	16	10	24 x 1.5	43	35.5	19	30
		KOR-20S/10S	20	10	30 x 2	48.5	41	22	36
		KOR-25S/10S †	25	10	36 x 2	51	43.5	27	46
	250	KOR-30S/10S †	30	10	42 x 2	55.5	48	32	50
		KOR-38S/10S †	38	10	52 x 2	61.5	54	41	60
	630	KOR-14S/12S	14	12	22 x 1.5	44	36.5	22	27
	400	KOR-16S/12S	16	12	24 x 1.5	45	37.5	22	30
		KOR-20S/12S	20	12	30 x 2	48.5	41	22	36
		KOR-25S/12S †	25	12	36 x 2	51	43.5	27	46
		KOR-30S/12S	30	12	42 x 2	55.5	48	32	50
	315	KOR-38S/12S †	38	12	52 x 2	61.5	54	41	60
	400	KOR-16S/14S	16	14	24 x 1.5	47	39	24	30
		KOR-20S/14S	20	14	30 x 2	50.5	42.5	24	36
		KOR-25S/14S	25	14	36 x 2	53	45	27	46
	250	KOR-30S/14S	30	14	42 x 2	57.5	49.5	32	50
		KOR-38S/14S †	38	14	52 x 2	63.5	55.5	41	60
	400	KOR-20S/16S	20	16	30 x 2	50.5	42	27	36
		KOR-25S/16S	25	16	36 x 2	53	44.5	27	46
		KOR-30S/16S	30	16	42 x 2	57.5	49	32	50
	315	KOR-38S/16S †	38	16	52 x 2	63.5	55	41	60
	400	KOR-25S/20S	25	20	36 x 2	57	46.5	32	46
		KOR-30S/20S	30	20	42 x 2	59.5	49	32	50
		KOR-38S/20S	38	20	52 x 2	65.5	55	41	60
		KOR-30S/25S	30	25	42 x 2	63.5	51.5	41	50
	315	KOR-38S/25S	38	25	52 x 2	67.5	55.5	41	60
		KOR-38S/30S	38	30	52 x 2	69.5	56	46	60

† Limited stock available

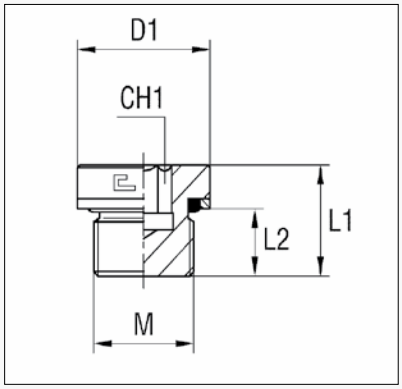
VSTIR Socket Head Port Plug - BSPP
Elastomer Seal (ED)



Series	Max. W.P. bar	Product Code	Dimensions mm				
			G	D1	L1	L2	CH1
S	400	VSTIR-1/8	1/8	14	12	8	5
		VSTIR-1/4	1/4	19	17	12	6
		VSTIR-3/8	3/8	22	17	12	8
		VSTIR-1/2	1/2	27	19	14	10
		VSTIR-3/4	3/4	32	21	16	12
		VSTIR-1	1	40	22.5	16	17
	250	VSTIR-11/4	1.1/4	50	22.5	16	22
		VSTIR-11/2	1.1/2	55	22.5	16	24

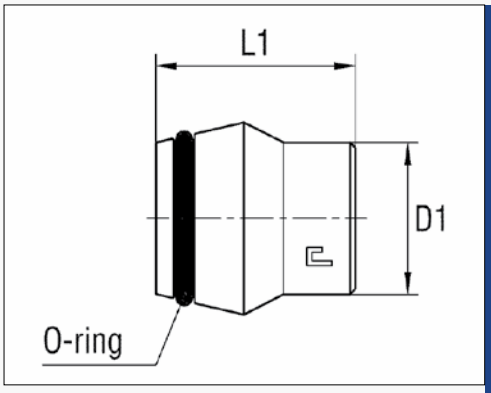
VSTI Socket Head Port Plug - Metric
Elastomer Seal (ED)

*For metric Port Plug with magnet add MG to part number, eg. VSTIMG-18x1.5
Replaces Oil Sump Drain Plugs to attract unwanted tiny metal particles that the Oil Filter does not pick up



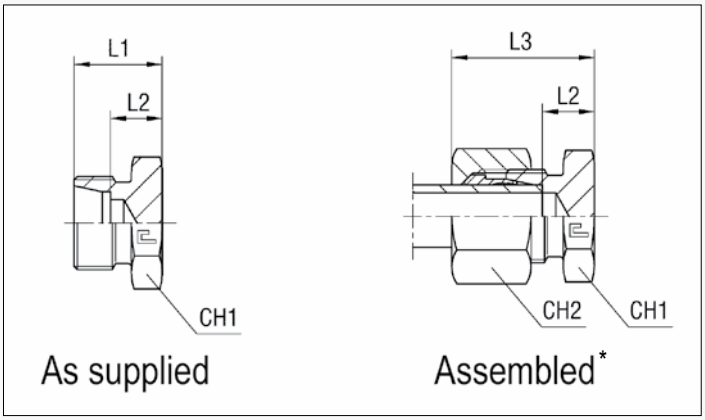
Series	Max. W.P. bar	Product Code	Dimensions mm				
			M	D1	L1	L2	CH1
S	400	VSTI-10x1	10 x 1	14	12	8	5
		VSTI-12x1.5	12 x 1.5	17	17	12	6
		VSTI-14x1.5	14 x 1.5	19	17	12	6
		VSTI-16x1.5	16 x 1.5	22	17	12	8
		VSTI-18x1.5	18 x 1.5	24	17	12	8
		VSTI-20x1.5	20 x 1.5	26	19	14	10
		VSTI-22x1.5	22 x 1.5	27	19	14	10
		VSTI-26x1.5	26 x 1.5	32	21	16	12
		VSTI-27x2.0	27 x 2	32	21	16	12
		VSTI-33x2.0	33 x 2	40	22.5	16	17
	250	VSTI-42x2.0	42 x 2	50	22.5	16	22
		VSTI-48x2.0	48 x 2	55	22.5	16	24

BUZ Blanking Cap
(Tightening nut not included)



Series	bar	Product Code	Dimensions mm			
			ø Tube	D1	L1	
L	315	BUZ-06L/S	6	6	17	
		BUZ-08L/S	8	8	17	
		BUZ-10L/S	10	10	20	
		BUZ-12L/S	12	12	21	
		BUZ-15L	15	15	21	
		BUZ-18L	18	18	23	
	160	BUZ-22L	22	22	23	
		BUZ-28L	28	28	25	
		BUZ-35L	35	35	29	
		BUZ-42L	42	42	30	
S	630	BUZ-06L/S	6	6	17	
		BUZ-08L/S	8	8	17	
		BUZ-10L/S	10	10	20	
		BUZ-12L/S	12	12	21	
		BUZ-14S	14	14	23	
	400	BUZ-16S	16	16	24	
		BUZ-20S	20	20	28	
		BUZ-25S	25	25	31	
		BUZ-30S	30	30	34	
	315	BUZ-38S	38	38	38	

ROV Blanking Plug for Tube Ends (Standpipe End Plug)

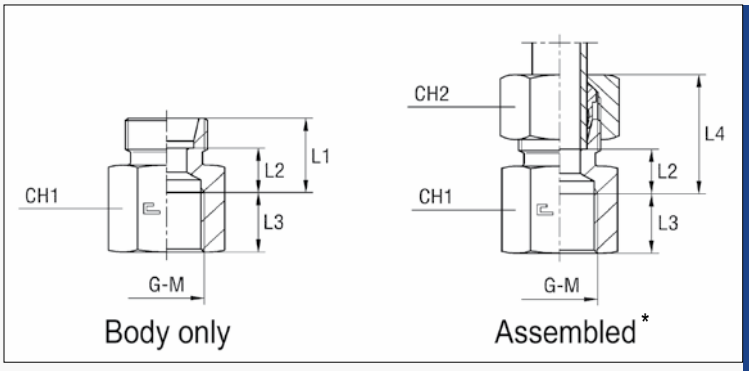


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg ROV-12LC

Series	Max. W.P. bar	Product Code (Plug only)	Dimensions mm					
			ø Tube	L1	L2	L3	CH1	CH2
L	315	ROV-06L	6	14	7	21.5	12	14
		ROV-08L	8	15	8	23	14	17
		ROV-10L	10	16	9	24	17	19
		ROV-12L	12	17	10	24.5	19	22
		ROV-15L	15	18	11	26	24	27
		ROV-18L	18	19	11.5	28	27	32
	160	ROV-22L	22	21	13.5	30	32	36
		ROV-28L	28	22	14.5	31	41	41
		ROV-35L	35	25	14.5	36	46	50
		ROV-42L	42	27	16	39	55	60
S	630	ROV-06S	6	18	11	26	14	17
		ROV-08S	8	20	13	28	17	19
		ROV-10S	10	20	12.5	28.5	19	22
		ROV-12S	12	22	14.5	30.5	22	24
		ROV-14S	14	24	16	34	24	27
	400	ROV-16S	16	24	15.5	34	27	30
		ROV-20S	20	28	17.5	39	32	36
		ROV-25S	25	32	20	44	41	46
		ROV-30S	30	34	20.5	47	46	50
	315	ROV-38S	38	39	23	54	55	60

† Limited stock available

GAI Female Stud Coupling
BSPP Thread

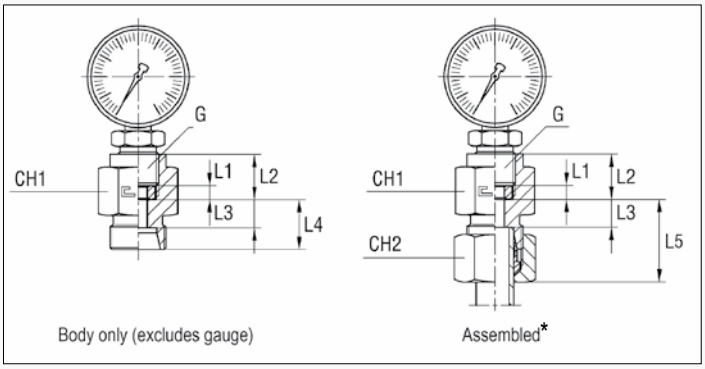


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg GAI-15LR1/2C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	G	L1	L2	L3	L4	CH1	CH2
L	315	GAI-06LR1/8	6	1/8	16	9	10	23.5	14	14
		GAI-08LR1/4	8	1/4	17	10	14	25	19	17
		GAI-10LR1/4	10	1/4	18	11	14	26	19	19
		GAI-12LR3/8	12	3/8	19	12	14	26.5	24	22
		GAI-15LR1/2	15	1/4	21	14	17	29	27	27
		GAI-18LR1/2	18	1/2	21	13.5	17	30	27	32
	160	GAI-22LR3/4	22	3/4	24	16.5	19	33	36	36
		GAI-28LR1	28	1	23.5	16	21.5	32.5	41	41
		GAI-35LR11/4	35	1.1/4	28.5	18	23.5	39.5	55	50
		GAI-42LR11/2	42	1.1/2	28.5	17.5	25.5	40.5	60	60
S	630	GAI-06SR1/4	6	1/4	19	12	14	27	19	17
		GAI-08SR1/4	8	1/4	19	12	14	27	19	19
		GAI-10SR3/8	10	3/8	20	12.5	14	28.5	24	22
		GAI-12SR3/8	12	3/8	20	12.5	14	28.5	24	24
		GAI-14SR1/2	14	1/2	23	15	17	33	30	27
	400	GAI-16SR1/2	16	1/2	23	14.5	17	33	30	30
		GAI-20SR3/4	20	3/4	26	15.5	19	37	36	36
		GAI-25SR1	25	1	27.5	15.5	21.5	39.5	41	46
		GAI-30SR11/4	30	1.1/4	32.5	19	23.5	45.5	55	50
	315	GAI-38SR11/2	38	1.1/2	34.5	18.5	25.53	49.5	60	60

† Limited stock available

MAV Gauge Coupling Male Metric

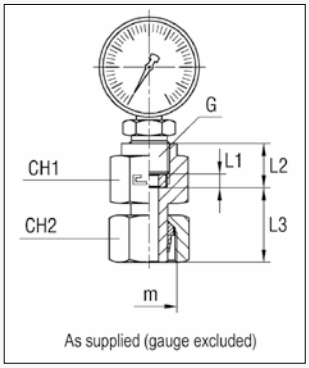


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg MAV-12LR1/4C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm								
			ø Tube	G	L1	L2	L3	L4	L5	CH1	CH2
L	315	MAV-06LR1/4	6	1/4	4.5	14.5	7.5	14.5	22.5	19	14
		MAV-08LR1/4†	8	1/4	4.5	14.5	7.5	14.5	22.5	19	17
		MAV-10LR1/4	10	1/4	4.5	14.5	8.5	15.5	23.5	19	19
		MAV-12LR1/4	12	1/4	4.5	14.5	8.5	15.5	23.5	19	0.22
S	630	MAV-06SR1/2	6	1/2	5	20	11	18	26	30	17
		MAV-08SR1/2	8	1/2	5	20	11	18	26	30	19
		MAV-10SR1/2 †	10	1/2	5	20	10.5	18	26.5	30	22
		MAV-12SR1/2	12	1/2	5	20	10.5	18	26.5	30	24

† Limited stock available

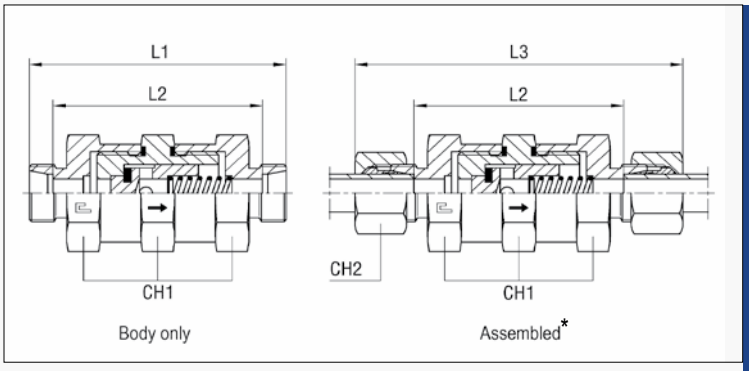
MAVE Gauge Coupling Female Metric



Series	Max. W.P. bar	Product Code	Dimensions mm							
			ø Tube	G	m	L1	L2	L3	CH1	CH2
L	315	MAVE-06LR1/4 †	6	1/4	12 x 1.5	4.5	14.5	23.5	19	14
		MAVE-08LR1/4 †	8	1/4	14 x 1.5	4.5	14.5	25	19	17
		MAVE-10LR1/4 †	10	1/4	16 x 1.5	4.5	14.5	25	19	19
		MAVE-12LR1/4 †	12	1/4	18 x 1.5	4.5	14.5	26.5	19	22
S	630	MAVE-06SR1/2 †	6	1/2	14 x 1.5	5	20	25	30	17
		MAVE-08SR1/2 †	8	1/2	16 x 1.5	5	20	25.5	30	19
		MAVE-10SR1/2 †	10	1/2	18 x 1.5	5	20	27.5	30	22
		MAVE-12SR1/2 †	12	1/2	20 x 1.5	5	20	27.5	30	24

† Limited stock available

NRV Non Return Valve
Male Metric Coupling

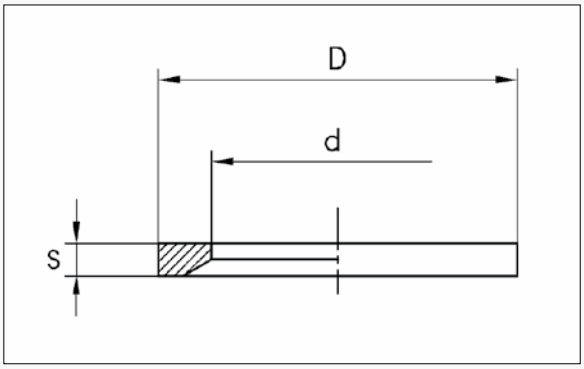


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg NRV-18LC

Series	bar	Product Code (Body only)	Dimensions mm						
			ø Tube	L1	L2	L3	CH1	CH2	ø passage
L	250	NRV-06L	6	68	54	83	19	14	4
		NRV-08L †	8	68	54	83	19	17	4
		NRV-10L †	10	70	56	85	19	19	4
		NRV-12L †	12	76	62	91	32	22	8
		NRV-15L	15	81	67	97	41	27	11
	160	NRV-18L	18	81	66	98	41	32	11
		NRV-22L †	22	94	79	111	50	36	18
	100	NRV-28L †	28	94	79	112	50	41	18
		NRV-35L †	35	116	95	138	70	50	29
		NRV-42L †	42	116	94	139	70	60	29
S	400	NRV-06S †	6	72	58	87	19	17	4
		NRV-08S †	8	72	58	87	19	19	4
		NRV-10S †	10	78	63	95	32	22	7
		NRV-12S	12	78	63	95	32	24	8
		NRV-14S †	14	85	69	104	41	27	10
		NRV-16S	16	85	68	104	41	30	11
		NRV-20S	20	98	77	120	50	36	16
	250	NRV-25S †	25	102	78	126	50	46	18
		NRV-30S †	30	124	97	150	70	50	25
		NRV-38S †	38	128	96	157	70	60	29

† Limited stock available

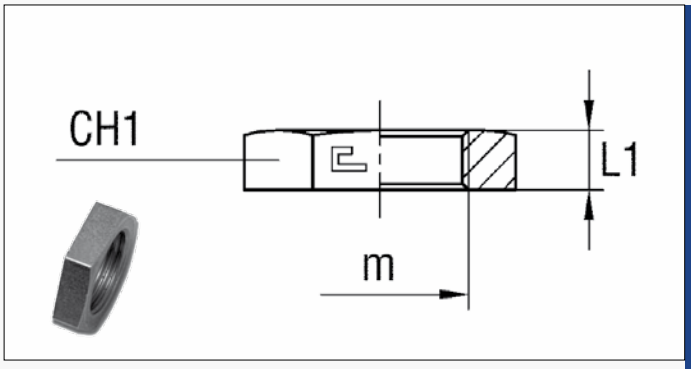
EZ Elastomer Seal
Viton



Product Code	Interchange †	Dimensions mm				
		M Metric	G BSPP	D	d	s
Metric Studs						
EZ-M14x1.5	1	14 x 1.5	1/4	16.5	11.6	1.5
EZ-M26x1.5/M27x2	2	26 x 1.5 27 x 2	3/4	29.2	23.9	1.5
EZ-M33x2	3	33 x 2	1	35.7	29.7	2
EZ-M42x2	4	42 x 2	1.1/4	45.8	38.8	2
EZ-R1.1/2	5	48 x 2	1.1/2	50.7	44.7	2
BSPP Studs						
EZ-M14x1.5	1	14 x 1.5	1/4	16.5	11.6	1.5
EZ-R3/8			3/8	18.9	14.7	1.5
EZ-R1.1/2			1/2	23.9	18.5	1.5
EZ-M26x1.5/M27x2	2	26 x 1.5 27 x 2	3/4	29.2	23.9	1.5
EZ-M33x2	3	33 x 2	1	35.7	29.7	2
EZ-M42x2	4	42 x 2	1.1/4	45.8	38.8	2
EZ-R1.1/2	5	48 x 2	1.1/2	50.7	44.7	2

† Numbered Product Codes are interchangeable between BSPP and the corresponding Metric size

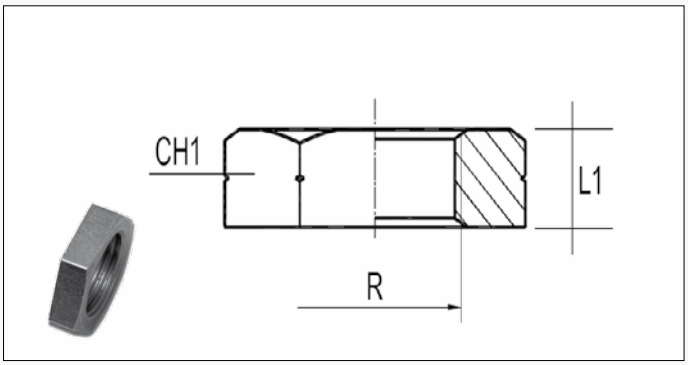
GM Hexagonal Lock Nut
Metric



Series	Product Code	Dimensions mm				
		m	L1	CH1	Tube	Tube
L / S	GM-6L †	12 x 1.5	6	17	6L	
	GM-6S/8L †	14 x 1.5	6	19	8L	6S
	GM-8S/10L †	16 x 1.5	6	22	10L	8S
	GM-10S/12L †	18 x 1.5	6	24	12L	10S
	GM-12S †	20 x 1.5	6	27		12S
	GM-14S/15L †	22 x 1.5	7	30	15L	14S
	GM-16S †	24 x 1.5	7	32		16S
	GM-18L †	26 x 1.5	8	36	18L	
	GM-20S/22L †	30 x 2	8	41	22L	20S
	GM-25S/28L †	36 x 2	9	46	28L	25S
	GM-30S †	42 x 2	9	50		30S
	GM-35L †	45 x 2	9	55	35L	
	GM-38S/42L †	52 x 2	10	65	42L	38S

† Limited stock available

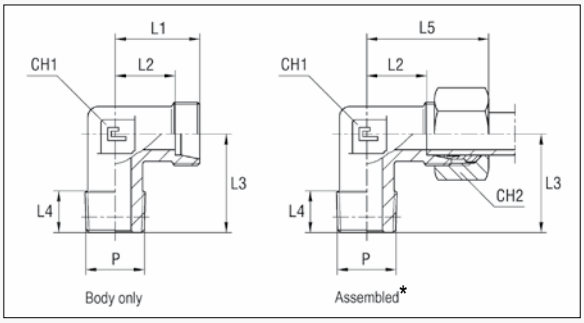
GM Hexagonal Lock Nut
BSPP



Series	Product Code	Dimensions mm (except R)				
		R (ins)	L1	CH1		
BSPP	GM-R1/4 †	1/4 - 19	6.5	19		
	GM-R3/8 †	3/8 - 19	7	22		
	GM-R1/2 †	1/2 - 14	9	27		
	GM-R3/4 †	3/4 - 14	10.5	32		
	GM-R1 †	1 - 11	10.5	41		
	GM-R11/4 †	1.1/4 - 11	10.5	50		
	GM-R11/2 †	1.1/2 - 11	10.5	55		

† Limited stock available

WE Male Stud Elbow Coupling - NPT

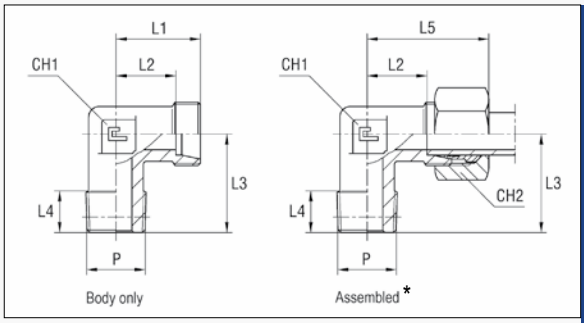


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg WE-12L3/8NPTC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm								
			Ø Tube	P	L1	L2	L3	L4	L5	CH1	CH2
LL	100	WE-04LL1/8NPT †	4	1/8	15	11	17	8	21	9	10
		WE-06LL1/8NPT †	6	1/8	15	9.5	17	8	21	9	12
		WE-08LL1/8NPT †	8	1/8	17	11.5	20	8	23	12	14
L	315	WE-06L1/8NPT	6	1/8	19	12	20	10	27	12	14
		WE-06L1/4NPT	6	1/4	21	14	26	15	29	12	14
		WE-08L1/4NPT	8	1/4	21	14	26	15	29	12	17
		WE-10L1/4NPT	10	1/4	22	15	27	15	30	14	19
		WE-12L3/8NPT	12	3/8	24	17	28	15	32	17	22
		WE-15L1/2NPT †	15	1/2	28	21	34	19.5	36	19	27
		WE-18L1/2NPT †	18	1/2	31	23.5	36	19.5	40	24	32
	160	WE-22L3/4NPT	22	3/4	35	27.5	42	20	44	27	36
		WE-28L1NPT †	28	1	38	30.5	48	25	47	36	41
		WE-35L11/4NPT †	35	1.1/4	45	34.5	57	25.5	56	41	50
		WE-42L11/2NPT †	42	1.1/2	51	40	61	26	63	50	60
S	630	WE-06S1/4NPT †	6	1/4	23	16	26	15	31	12	17
		WE-08S1/4NPT †	8	1/4	24	17	27	15	32	14	19
		WE-10S3/8NPT †	10	3/8	25	17.5	28	15	34	17	22
		WE-12S3/8NPT †	12	3/8	29	21.5	28	15	38	17	24
		WE-14S1/2NPT †	14	1/2	30	22	34	19.5	40	19	27
	400	WE-16S1/2NPT †	16	1/2	33	24.5	36	19.5	43	24	30
		WE-20S3/4NPT †	20	3/4	37	26.5	42	20	48	27	36
		WE-25S1NPT †	25	1	42	30	48	25	54	36	46
		WE-30S11/4NPT †	30	1.1/4	49	35.5	57	25.5	62	41	50
	315	WE-38S11/2NPT †	38	1.1/2	57	41	61	26	72	50	60

† Limited stock available

WE Male Stud Elbow Coupling - BSPT



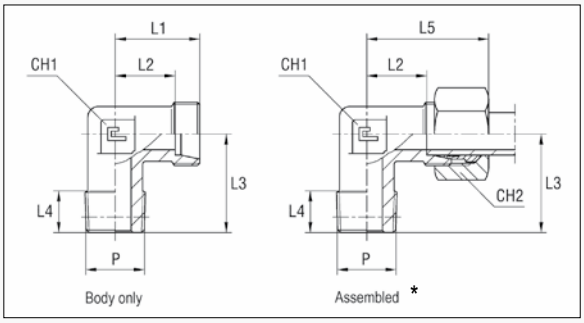
* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg WE-10LRK1/4C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm								
			ø Tube	P	L1	L2	L3	L4	L5	CH1	CH2
LL	100	WE-04LLRK1/8 †	4	1/8	15	11	17	8	21	9	10
		WE-06LLRK1/8	6	1/8	15	9.5	17	8	21	9	12
		WESW-06LLRK1/8 *	6	1/8	19	13	23	10	24	18	12
		WE-08LLRK1/8 †	8	1/8	17	11.5	20	8	23	12	14
L	315	WE-06LRK1/8	6	1/8	19	12	20	8	27	12	14
		WE-06LRK1/4	6	1/4	21	14	26	12	29	12	14
		WE-08LRK1/4	8	1/4	21	14	26	12	29	12	17
		WE-10LMK14x1.5	10	14x1.5	22	14	27	12			
		WE-10LRK1/4	10	1/4	22	15	27	12	30	14	19
		WE-10LRK3/8	10	3/8	24	17	28	12	32	17	19
		WE-12LRK3/8	12	3/8	24	17	28	12	32	17	22
		WE-12LRK1/2	12	1/2	27	20	34	14	34	19	22
		WE-15LRK1/2	15	1/2	28	21	34	14	36	19	27
		WE-18LRK1/2	18	1/2	31	23.5	36	14	40	24	32
	160	WE-28LRK1	28	1	38	30.5	48	18	47	36	41
S	630	WE-06SRK1/4	6	1/4	23	16	26	12	31	12	17
		WE-08SRK1/4	8	1/4	24	17	27	12	32	14	19
		WE-10SRK3/8	10	3/8	25	17.5	28	12	34	17	22
		WE-12SRK3/8	12	3/8	29	21.5	28	12	38	17	24
		WE-14SRK1/2	14	1/2	30	22	32	14	40	19	27
	400	WE-16SRK1/2	16	1/2	33	24.5	32	14	43	24	30
		WE-20SRK3/4	20	3/4	37	26.5	42	16	48	27	36

† Limited stock available

* BSPT Swivel

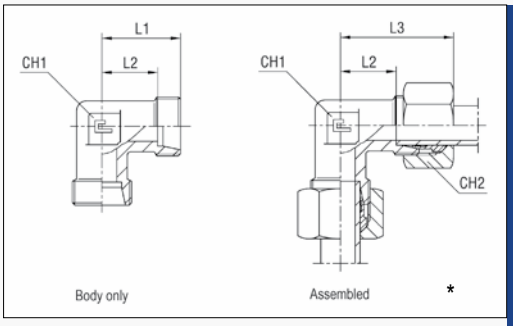
WE Male Stud Elbow Coupling
Metric Taper Thread



* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg WE-10LRK1/4C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm								
			Ø Tube	P	L1	L2	L3	L4	L5	CH1	CH2
LL	100	WE-06LLMK6x1	6	6 x 1	15	9.5	17	8	21	9	12
		WE-06LLMK8x1	6	8 x 1	15	9.5	17	8	21	9	12

W Equal Elbow Tube Coupling

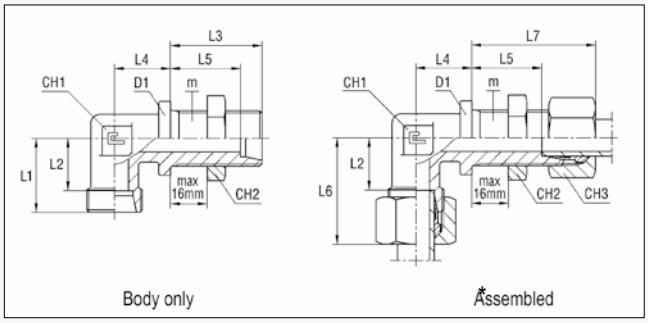


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg W-12LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm					
			ø Tube	L1	L2	L3	CH1	CH2
LL	100	W-04LL †	4	15	11	21	9	10
		W-06LL †	6	15	9.5	21	9	12
		W-08LL †	8	17	11.5	23	12	14
L	315	W-06L	6	19	12	27	12	14
		W-08L	8	21	14	29	12	17
		W-10L	10	22	15	30	14	19
		W-12L	12	24	17	32	17	22
		W-15L	15	28	21	36	19	27
		W-18L	18	31	23.5	40	24	32
		W-22L	22	35	27.5	44	27	36
		W-28L	28	38	30.5	47	36	41
	160	W-35L	35	45	34.5	56	41	50
		W-42L	42	51	40	63	50	60
S	630	W-06S	6	23	16	31	12	17
		W-08S	8	24	17	32	14	19
		W-10S	10	25	17.5	34	17	22
		W-12S	12	29	21.5	38	17	24
	400	W-14S	14	30	22	40	19	27
		W-16S	16	33	24.5	43	24	30
		W-20S	20	37	26.5	48	27	36
		W-25S	25	42	30	54	36	46
		W-30S	30	49	35.5	62	41	50
		W-38S	38	57	41	72	50	60

† Limited stock available

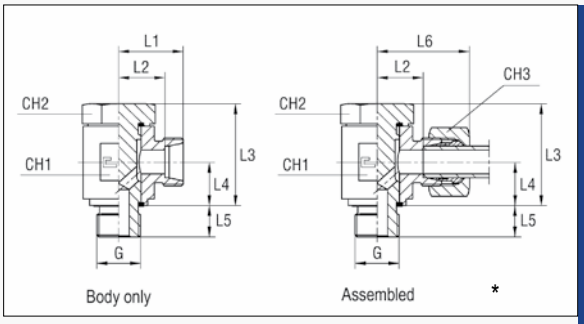
WSV Bulkhead Elbow Coupling



* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg WSV-12LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm												
			ø Tube	m	L1	L2	L3	L4	L5	L6	L7	D1	CH1	CH2	CH3
L	315	WSV-06L	6	12 x 1.5	19	12	34	14	27	19	42	17	12	17	14
		WSV-08L	8	14 x 1.5	21	14	34	17	27	21	42	19	12	19	17
		WSV-10L	10	16 x 1.5	22	15	35	18	28	22	43	22	14	22	19
		WSV-12L	12	18 x 1.5	24	17	36	20	29	24	44	24	17	24	22
		WSV-15L	15	22 x 1.5	28	21	38	23	31	28	46	27	19	30	27
		WSV-18L †	18	26 x 1.5	31	23.5	40	24	32.5	31	49	32	24	36	32
	160	WSV-22L	22	30 x 2	35	27.5	42	30	34.5	35	51	36	27	41	36
		WSV-28L †	28	36 x 2	38	30.5	43	34	35.5	38	52	42	36	46	41
		WSV-35L †	35	45 x 2	45	34.5	47	39	36.5	45	58	50	41	55	50
		WSV-42L †	42	52 x 2	51	40	47	43	36	51	59	60	50	65	60
S	630	WSV-06S	6	14 x 1.5	23	16	36	17	29	23	44	19	12	19	17
		WSV-08S	8	16 x 1.5	24	17	36	18	29	24	44	22	14	22	19
		WSV-10S	10	18 x 1.5	25	17.5	37	20	29.5	25	46	24	17	24	22
		WSV-12S	12	20 x 1.5	29	21.5	38	21	30.5	29	47	27	17	27	24
		WSV-14S †	14	22 x 1.5	30	22	40	23	32	30	50	27	19	30	27
	400	WSV-16S	16	24 x 1.5	33	24.5	40	24	31.5	33	50	30	24	32	30
		WSV-20S	20	30 x 2	37	26.5	44	30	33.5	37	55	36	27	41	36
		WSV-25S	25	36 x 2	42	30	47	34	35	42	59	42	36	46	46
		WSV-30S †	30	42 x 2	49	35.5	51	39	37.5	49	64	50	41	50	50
	315	WSV-38S	38	52 x 2	57	41	53	43	37	57	68	60	50	65	60

DSVW Banjo Coupling BSPP

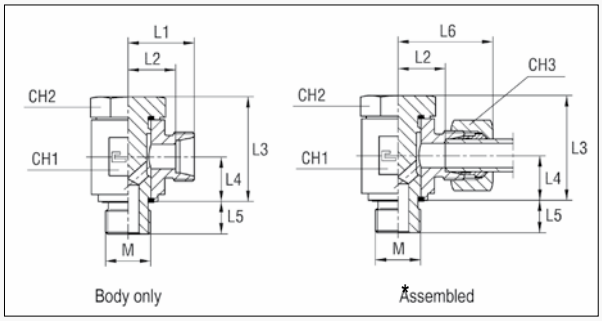


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg DSVW-12LR3/8C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm										
			ø Tube	G	L1	L2	L3	L4	L5	L6	CH1	CH2	CH3
L	315	DSVW-06LR1/8	6	1/8	19	12	18.5	10.5	8	27	17	17	14
		DSVW-08LR1/4	8	1/4	21.5	14.5	25	14	12	29.5	22	19	17
		DSVW-10LR1/4	10	1/4	22.5	15.5	25	14	12	30.5	22	19	19
		DSVW-12LR3/8	12	3/8	25	18	30	16.5	12	33	27	24	22
		DSVW-15LR1/2	15	1/2	29	22	37.5	21.5	14	37	32	30	27
		DSVW-18LR1/2	18	1/2	29	21.5	37.5	21.5	14	38	32	30	32
	160	DSVW-22LR3/4	22	3/4	34	26.5	44	24	16	43	41	36	36
		DSVW-28LR1	28	1	38.5	31	55.5	30.5	18	47.5	50	46	41
		DSVW-35LR11/4 †	35	1.1/4	45.5	35	65.5	35.5	20	56.5	60	55	50
		DSVW-42LR11/2	42	1.1/2	50.5	39.5	75.5	40.5	22	62.5	70	60	60
S	630	DSVW-06SR1/4	6	1/4	23.5	16.5	25	14	12	31.5	22	19	17
		DSVW-08SR1/4	8	1/4	23.5	16.5	25	14	12	31.5	22	19	19
		DSVW-10SR3/8	10	3/8	26	18.5	30	16.5	12	35	27	24	22
		DSVW-12SR3/8	12	3/8	26	18.5	30	16.5	12	35	27	24	24
		DSVW-14SR1/2	14	1/2	31	23	37.5	21.5	14	41	32	30	27
	400	DSVW-16SR1/2	16	1/2	31	22.5	37.5	21.5	14	41	32	30	30
		DSVW-20SR3/4	20	3/4	36	25.5	44	24	16	47	41	36	36
		DSVW-25SR1	25	1	42.5	31.5	55.5	30.5	18	54.5	50	46	46
		DSVW-30SR11/4	30	1.1/4	49.5	36	65.5	35.5	20	62.5	60	55	50
	315	DSVW-38SR11/2 †	38	1.1/2	56.5	40.5	75.5	40.5	22	71.5	70	60	60

† Limited stock available

DSVW Banjo Coupling Metric

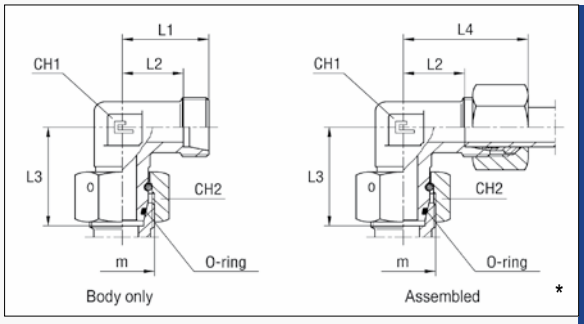


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg DSVW-12LM16x1.5C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm										
			ø Tube	m	L1	L2	L3	L4	L5	L6	CH1	CH2	CH3
LL	100	DSVW-08LLM10x1 †	6	10x1	18	12.5	18.5	10.5	8	24	17	17	12
L	315	DSVW-06LM10x1	6	10x1	19	12	18.5	10.5	8	27	17	17	14
		DSVW-08LM12x1.5	8	12x1.5	21.5	14.5	25	14	12	29.5	22	19	17
		DSVW-10LM14x1.5	10	14x1.5	24	17	36	20	29	24	17	24	22
		DSVW-12LM16x1.5	12	16x1.5	25	18	30	16.5	12	33	27	24	22
		DSVW-15LM18x1.5	15	18x1.5	29	22	33.5	18.5	12	37	32	27	27
		DSVW-18LM22x1.5 †	18	22x1.5	29	21.5	37.5	21.5	14	38	32	30	32
	160	DSVW-22LM26x1.5	22	26x1.5	34	24	54.5	23.5	16		41	36	
		DSVW-22LM26x2 †	22	26x2	34	26.5	44	24	16	43	41	36	36
S	630	DSVW-06SM12x1.5 †	6	12x1.5	23.5	16.5	25	14	12	31.5	22	19	17
		DSVW-08SM14x1.5	8	14x1.5	23.5	16.5	25	14	12	31.5	22	19	19
		DSVW-10SM16x1.5	10	16x1.5	26	18.5	30	16.5	12	35	27	24	22
		DSVW-12SM18x1.5	12	18x1.5	29	21.5	33.5	18.5	12	38	32	24	24
		DSVW-14SM20x1.5 †	14	20x1.5	31	23	36	20	14	41	32	30	27
	400	DSVW-16SM22x1.5	16	22x1.5	31	22.5	37.5	21.5	14	41	32	30	30
		DSVW-20SM27x2	20	27x2	36	25.5	44	24	16	47	41	36	36

† Limited stock available

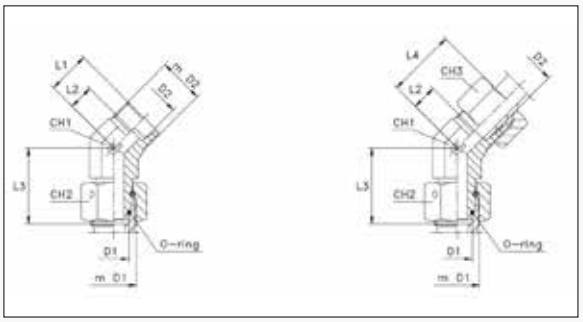
EVW Adjustable Elbow Coupling
90 Degree



* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg EVW-15LC

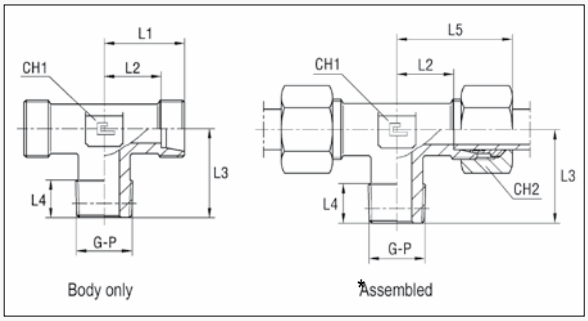
Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	m	L1	L2	L3	L4	CH1	CH2
L	315	EVW-06L	6	12 x 1.5	19	12	26	27	12	14
		EVW-08L	8	14 x 1.5	21	14	27.5	29	12	17
		EVW-10L	10	16 x 1.5	22	15	29	30	14	19
		EVW-12L	12	18 x 1.5	24	17	29.5	32	17	22
		EVW-15L	15	22 x 1.5	28	21	32.5	36	19	27
		EVW-18L	18	26 x 1.5	31	23.5	35.5	40	24	32
	160	EVW-22L	22	30 x 2	35	27.5	38.5	44	27	36
		EVW-28L	28	36 x 2	38	30.5	41.5	47	36	41
		EVW-35L	35	45 x 2	45	34.5	51.5	56	41	50
		EVW-42L	42	52 x 2	51	40	56	63	50	60
S	630	EVW-06S	6	14 x 1.5	23	16	27	31	12	17
		EVW-08S	8	16 x 1.5	24	17	27.5	32	14	19
		EVW-10S	10	18 x 1.5	25	17.5	30	34	17	22
		EVW-12S	12	20 x 1.5	29	21.5	31	38	17	24
		EVW-14S	14	22 x 1.5	30	22	35	40	19	27
	400	EVW-16S	16	24 x 1.5	33	24.5	36.5	43	24	30
		EVW-20S	20	30 x 2	37	26.5	44.5	48	27	36
		EVW-25S	25	36 x 2	42	30	50	54	36	46
		EVW-30S	30	42 x 2	49	35.5	55.5	62	41	50
	315	EVW-38S	38	52 x 2	57	41	63	72	50	60

EVF Adjustable Elbow Coupling
45 Degree



Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	M	L1	L2	L3	L4	CH1	CH2
L	315	EVF-12L	12	18 x 1.5	-	-	-	-	17	22
S	630	EVF-12S	12	20 x 1.5	-	-	-	-	17	24

TE Male Stud Branch Tee - BSPT

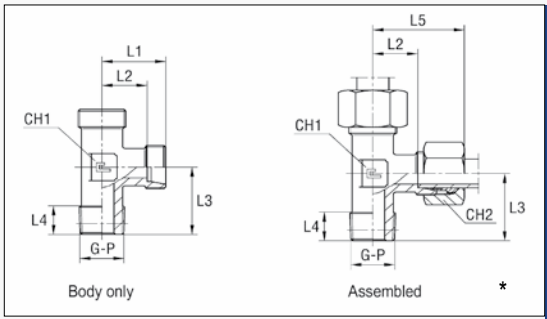


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg TE-15LRK1/2C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm								
			ø Tube	G	L1	L2	L3	L4	L5	CH1	CH2
LL	100	TE-04LLRK1/8 †	4	1/8	15	11	17	8	21	9	10
		TE-06LLRK1/8 †	6	1/8	15	9.5	17	8	21	9	12
		TE-08LLRK1/8 †	8	1/8	17	11.5	20	8	23	12	14
L	315	TE-06LRK1/8 †	6	1/8	19	12	20	8	27	12	14
		TE-08LRK1/4 †	8	1/4	21	14	26	12	29	12	17
		TE-10LRK1/4 †	10	1/4	22	15	27	12	30	14	19
		TE-12LRK3/8 †	12	3/8	24	17	28	12	32	17	22
		TE-15LRK1/2 †	15	1/2	28	21	34	14	36	19	27
		TE-18LRK1/2 †	18	1/2	31	23.5	36	14	40	24	32
S	630	TE-06SRK1/4 †	6	1/4	23	16	26	12	31	12	17
		TE-08SRK1/4 †	8	1/4	24	17	27	12	32	14	19
		TE-10SRK3/8 †	10	3/8	25	17.5	28	12	34	17	22
		TE-12SRK3/8 †	12	3/8	29	21.5	28	12	38	17	24
		TE-14SRK1/2 †	14	1/2	30	22	32	14	40	19	27
	400	TE-16SRK1/2 †	16	1/2	33	24.5	32	14	43	24	30

† Limited stock available

LE Male Stud Barrel Tee - BSPT

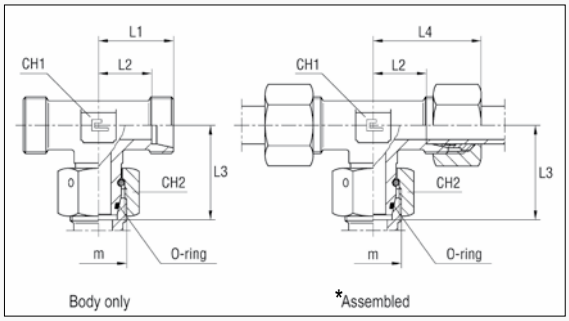


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg LE-12LRK3/8C

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm								
			ø Tube	G	L1	L2	L3	L4	L5	CH1	CH2
L	100	LE-04LLRK1/8 †	4	1/8	15	11	17	8	21	9	10
		LE-06LLRK1/8 †	6	1/8	15	9.5	17	8	21	9	12
		LE-08LLRK1/8 †	8	1/8	17	11.5	20	8	23	12	14
	315	LE-06LRK1/8 †	6	1/8	19	12	20	8	27	12	14
		LE-08LRK1/4 †	8	1/4	21	14	26	12	29	12	17
		LE-10LRK1/4 †	10	1/4	22	15	27	12	30	14	19
		LE-12LRK3/8 †	12	3/8	24	17	28	12	32	17	22
		LE-15LRK1/2 †	15	1/2	28	21	34	14	36	19	27
		LE-18LRK1/2 †	18	1/2	31	23.5	36	14	40	24	32
S	630	LE-06SRK1/4 †	6	1/4	23	16	26	12	31	12	17
		LE-08SRK1/4 †	8	1/4	24	17	27	12	32	14	19
		LE-10SRK3/8 †	10	3/8	25	17.5	28	12	34	17	22
		LE-12SRK3/8 †	12	3/8	29	21.5	28	12	38	17	2
		LE-14SRK1/2 †	14	1/2	30	22	32	14	40	19	27
		LE-16SRK1/2 †	16	1/2	33	24.5	32	14	43	24	30

† Limited stock available

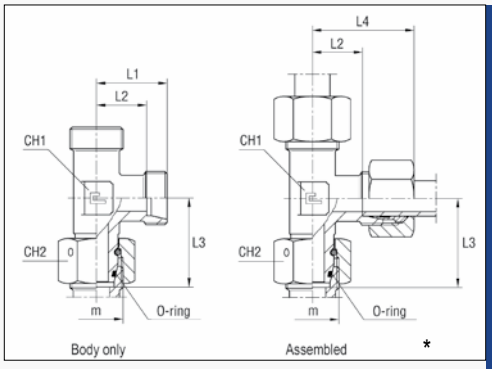
EVT Adjustable Branch Tee Coupling



* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg EVT-12LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	m	L1	L2	L3	L4	CH1	CH2
L	315	EVT-06L	6	12 x 1.5	19	12	26	27	12	14
		EVT-08L	8	14 x 1.5	21	14	27.5	29	12	17
		EVT-10L	10	16 x 1.5	22	15	29	30	14	19
		EVT-12L	12	18 x 1.5	24	17	29.5	32	17	22
		EVT-15L	15	22 x 1.5	28	21	32.5	36	19	27
		EVT-18L	18	26 x 1.5	31	23.5	35.5	40	24	32
	160	EVT-22L	22	30 x 2	35	27.5	38.5	44	27	36
		EVT-28L	28	36 x 2	38	30.5	41.5	47	36	41
		EVT-35L	35	45 x 2	45	34.5	51.5	56	41	50
		EVT-42L	42	52 x 2	51	40	56	63	50	60
S	630	EVT-06S	6	14 x 1.5	23	16	27	31	12	17
		EVT-08S	8	16 x 1.5	24	17	27.5	32	14	19
		EVT-10S	10	18 x 1.5	25	17.5	30	34	17	22
		EVT-12S	12	20 x 1.5	29	21.5	31	38	17	24
		EVT-14S	14	22 x 1.5	30	22	35	40	19	27
	400	EVT-16S	16	24 x 1.5	33	24.5	36.5	43	24	30
		EVT-20S	20	30 x 2	37	26.5	44.5	48	27	36
		EVT-25S	25	36 x 2	42	30	50	54	36	46
		EVT-30S	30	42 x 2	49	35.5	55.5	62	41	50
	315	EVT-38S	38	52 x 2	57	41	63	72	50	60

EVL Adjustable Barrel Tee Coupling

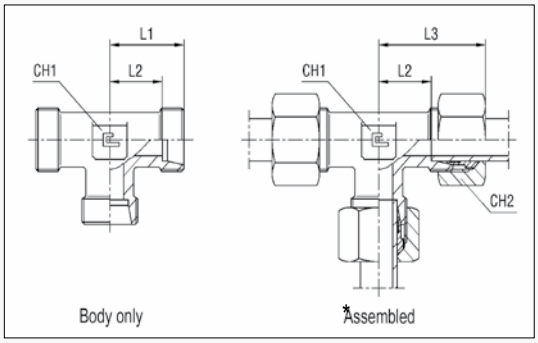


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg EVL-22LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm							
			ø Tube	m	L1	L2	L3	L4	CH1	CH2
L	315	EVL-06L	6	12 x 1.5	19	12	26	27	12	14
		EVL-08L	8	14 x 1.5	21	14	27.5	29	12	17
		EVL-10L	10	16 x 1.5	22	15	29	30	14	19
		EVL-12L	12	18 x 1.5	24	17	29.5	32	17	22
		EVL-15L	15	22 x 1.5	28	21	32.5	36	19	27
		EVL-18L	18	26 x 1.5	31	23.5	35.5	40	24	32
	160	EVL-22L	22	30 x 2	35	27.5	38.5	44	27	36
		EVL-28L	28	36 x 2	38	30.5	41.5	47	36	41
		EVL-35L	35	45 x 2	45	34.5	51.5	56	41	50
		EVL-42L	42	52 x 2	51	40	56	63	50	60
S	630	EVL-06S	6	14 x 1.5	23	16	27	31	12	17
		EVL-08S	8	16 x 1.5	24	17	27.5	32	14	19
		EVL-10S	10	18 x 1.5	25	17.5	30	34	17	22
		EVL-12S	12	20 x 1.5	29	21.5	31	38	17	24
		EVL-14S	14	22 x 1.5	30	22	35	40	19	27
	400	EVL-16S	16	24 x 1.5	33	24.5	36.5	43	24	30
		EVL-20S	20	30 x 2	37	26.5	44.5	48	27	36
		EVL-25S	25	36 x 2	42	30	50	54	36	46
		EVL-30S	30	42 x 2	49	35.5	55.5	62	41	50
	315	EVL-38S	38	52 x 2	57	41	63	72	50	60

† Limited stock available

T Equal Tee Coupling

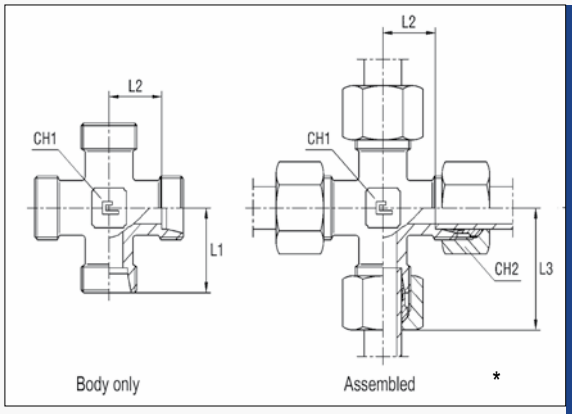


* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if Nuts and Cutting Rings are required. eg T-22LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm					
			ø Tube	L1	L2	L3	CH1	CH2
LL	100	T-04LL †	4	15	11	21	9	10
		T-06LL †	6	15	9.5	21	9	12
		T-08LL †	8	17	11.5	23	12	14
L	315	T-06L	6	19	12	27	12	14
		T-08L	8	21	14	29	12	17
		T-10L	10	22	15	30	14	19
		T-12L	12	24	17	32	17	22
		T-15L	15	28	21	36	19	27
		T-18L	18	31	23.5	40	24	32
	160	T-22L	22	35	27.5	44	27	36
		T-28L	28	38	30.5	47	36	41
		T-35L	35	45	34.5	56	41	50
		T-42L	42	51	40	63	50	60
S	630	T-06S	6	23	16	31	12	17
		T-08S	8	24	17	32	14	19
		T-10S	10	25	17.5	34	17	22
		T-12S	12	29	21.5	38	17	24
		T-14S	14	30	22	40	19	27
	400	T-16S	16	33	24.5	43	24	30
		T-20S	20	37	26.5	48	27	36
		T-25S	25	42	30	54	36	46
		T-30S	30	49	35.5	62	41	50
	315	T-38S	38	57	41	72	50	60

† Limited stock available

K Equal Cross Coupling



* Supplied as body only unless otherwise specified. Add 'C' to the end of the Product Code if a Nut and Cutting Ring are required. eg K-12LC

Series	Max. W.P. bar	Product Code (Body only)	Dimensions mm					
			ø Tube	L1	L2	L3	CH1	CH2
L	315	K-06L	6	19	12	27	12	14
		K-08L †	8	21	14	29	12	17
		K-10L	10	22	15	30	14	19
		K-12L	12	24	17	32	17	22
		K-15L †	15	28	21	36	19	27
		K-18L †	18	31	23.5	40	24	32
	160	K-22L †	22	35	27.5	44	27	36
		K-28L †	28	38	30.5	47	36	41
		K-35L †	35	45	34.5	56	41	50
		K-42L†	42	51	40	63	50	60
S	630	K-06S †	6	23	16	31	12	17
		K-08S †	8	24	17	32	14	19
		K-10S †	10	25	17.5	34	17	22
		K-12S †	12	29	21.5	38	17	24
		K-14S †	14	30	22	40	19	27
	400	K-16S †	16	33	24.5	43	24	30
		K-20S †	20	37	26.5	48	27	36
		K-25S †	25	42	30	54	36	46
		K-30S †	30	49	35.5	62	41	50
	315	K-38S †	38	57	41	72	50	60

† Limited stock available

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