



hyloc hydrotechnic pvt. ltd.

An ISO 9001, ISO 14001 and OHSAS 18001 Company

Type Approved Supplier for Marine Application

Plot No. 88, Machhe Industrial Estate, Machhe, 590 014, Belgaum, INDIA

Phone : +91 831 241 2777,

Fax : +91 831 241 2784,

email : sales@hyloc.co.in,

web : www.hyloc.co.in

Company Profile



Corporate Office
88, Machhe Industrial Estate,
Machhe, 590 014
Belgaum



Regd. Office,
Industrial Estate,
Udyambag, 590 008
Belgaum

Established in 1974 as a partnership firm called hydrotechnic, the company is now popularly known as hyloc. Hyloc is the oldest one amongst three independently run engineering companies recognized as the Polyhydron group. The group is known for their quality products and services, fair approach to business and business ethics through out the country and abroad.

Hyloc is a trusted brand in high quality tube couplings, adaptors and flanges. Apart from the standard range hyloc supplies large number of custom tube couplings. All tube couplings are rigorously tested for burst pressure, fatigue, impulse and pull tests. (Ref. ISO8434-5 and BS4368-4)

Hyloc's product range also includes high-pressure shut-off valves, needle valves and flow control valves.

Company Profile



◀ Design and Development

CNC Turning Centres ▶



◀ Automats

Thread Rolling ▶



◀ Quality Assurance

Impulse and Vibration Test stand ▶



TYPE APPROVAL CERTIFICATE

This is to certify:

That the Pipe Couplings, Bite and Compression Type

with type designation(s)
L-Series, S-Series

Issued to

Hyloc Hydrotechnic Pvt. Ltd.
88/89, Machhe Industrial Estate, Machhe, Belgaum - 590 014, Karnataka, India

is found to comply with

DNV GL class programme DNVGL-CP-0185 – Type approval – Mechanical joints
DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition January 2018
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems

Application :

Products approved by this certificate are accepted for installation on vessels classed by DNV GL.

Type:	Temperature range:	Max. working press.:	Sizes:
L-Series	See certificate	See certificate	DN 6/8/10/12/15/18/22/28/35/42
S-Series	See certificate	See certificate	DN 6/8/10/12/16/20/25/30/38

Issued at **Høvik** on **2018-10-04**

for **DNV GL**

This Certificate is valid until **2023-06-30**.

DNV GL local station: **Mumbai CMC**

Approval Engineer: **Morten Engnestangen**

.....
Marianne Spæren Marveng
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Pipe couplings of compression and bite type.
The couplings are manufactured according to DIN 2353 and ISO 8434-1.

Materials:

Stainless steel couplings ordered with body material "316":
Coupling body, nut and ferrule: Stainless Steel Type 316 ASTM

Carbon steel couplings ordered with body material "Omit":

Description	Material grade	Material standard
Coupling Nuts (Cold formed)	1015	SAE J 1397
	1018	SAE J 1397
Ferrules (Cutting Rings)	1.0715	EN 10277-3
Coupling Bodies		
Elbows and Tees (hot forged)	15C8	IS 1875
	1018	SAE J 1397
Bar stock (hex and flat)	1.0715	EN 10277-3

Application/Limitation

The Type approval is valid for coupling configurations: elbows, straight unions, crosses and tees of the tube couplings with same bore and pressure rating.

Design Pressure of L series:

DN6 – DN8 – DN10 – DN12 – DN15: 250 bar
DN18 – DN22: 160 bar
DN28 – DN35 – DN42: 100 bar

Design Pressure of S series:

DN6 – DN8 – DN10 – DN12: 630 bar
DN16 – DN20 – DN25: 400 bar
DN30 – DN38: 250 bar

Design temperatures for couplings:

Carbon steel: -20°C to +120°C
Stainless steel: -60°C to +200°C

Working temperatures for couplings with elastomeric seals are not to exceed:

NBR: -20°C to +100°C
FKM (Viton): -20°C to +200°C

Couplings 10L and 15L made of stainless steel SS-316 are approved for use in systems having oxygen content by volume above 25%. For oxygen application the maximum working pressure is not to exceed 150 bar.

Carbon steel couplings, made from base material with wall thickness of 6mm or above, which are to be used at design temperatures below 0°C shall have impact properties documented in accordance with requirements in DNVGL Pt.2 Ch.2.

The components are to be assembled according to manufacturer's instructions.

The approval is only valid when the couplings are assembled with tubing of correct material, temper and tolerances as specified by the manufacturer.

Couplings with NBR sealing have been subjected to fire endurance testing and are considered to be of approved fire resistant type. Couplings with Viton sealing are to be considered as non-fire resistant type, refer limitations 1 to 4 in table below.

Joints are approved for use in following systems:

Systems		Limitations/Notes
Flammable fluids (Flash point ≤ 60 °C)		
1	Cargo oil lines	4
2	Crude oil washing lines	4
3	Vent lines	3
Inert gas		
4	Water seal effluent lines	
5	Scrubber effluent lines	
6	Main lines	2,4
7	Distribution lines	4
Flammable fluids (Flash point > 60°C)		
8	Cargo oil lines	4
9	Fuel oil lines	2,3
10	Lubrication oil lines	2,3
11	Hydraulic oil	2,3
12	Thermal oil	2,3
Fresh water		
21	Cooling water system	1
22	Condensate return	1
23	Non-essential system	
Sanitary/Drains/Scuppers		
24	Deck drains (internal)	6
25	Sanitary drains	
26	Scuppers and discharge (overboard)	
Sounding/ vent		
27	Water tanks/Dry spaces	
28	Oil tanks (flash point > 60°C)	2,3
29	Starting/control air	1
Miscellaneous		
30	Service air (non-essential)	
31	Brine	
32	CO2 system	1
33	Steam	

Limitations/notes, relevant for non-fire resistant types:

- 1) Inside machinery space of category A – only approved fire resistant types
- 2) Not inside machinery spaces of category A or accommodation spaces. May be accepted in other machinery spaces provided the joints are located in easily visible and accessible positions.
- 3) Approved fire resistant types except in cases where such mechanical joints are installed on exposed open decks, as defined in SOLAS II/2/Reg.9.2.3.3.2.2(10) and not used for fuel oil lines.
- 4) Only in pump rooms and open decks – only approved fire resistant types

Limitations/notes, general:

- 6) Only above bulkhead deck of passenger ships and freeboard deck of cargo ships.

Couplings covered by this certificate are not approved for sea water application.

Type Approval documentation

Job Id: **262.1-017801-2**
 Certificate No: **TAP00001DX**

Drawing No.	Dwg. Name.	Rev.
4H 03275	Coupling Nut, 6 OD (LP Series)	2
4H 05608-001	Coupling Nut, 38 OD (HP Series)	1
4H 08295	Double bite thick ferrule (Gen III Series), 38 OD (HP Series)	1
4H 08280	Double bite thick ferrule (Gen III Series), 6 OD (LP and HP Series)	1
4H 06947	Equal Elbow body made from forging, 6 OD (LP Series)	0
4H 04510	Machining Drawing for Equal Elbow body 38 OD H.P.	1
4H 02825	Straight coupling body, 6 OD (LP Series)	1
4H 02828	Straight coupling body, 12 OD (LP Series)	1
4H 02842	Straight coupling body, 30 OD (HP Series)	1
4H 02843	Straight coupling body, 38 OD (HP Series)	1
4H 04480	Forging drawing for equal elbow body, 38 OD (HP Series)	3
4H 06060	Forging drawing for equal elbow body, 6 OD (LP Series)	0

Doc. No.	Doc. Name.	Rev.
8H 12202	Hyloc, Guidelines for Leakage, Proof Pressure, Burst Pressure and Pull out Testing	02
3H07700	Hyloc, Part Number Chart, date 18.06.2016	
8H 12347	Hyloc, Ferrules Heat Treatment and Acceptance Criteria	2
8H 13279	Guidelines for Vacuum Testing	02

Hyloc Hydrotech pvt. Ltd. Catalogue 2018.

Leakage test report dated 18-05-2009
 Repeated assembly test report dated 18-05-2009
 Burst test report dated 18-05-2009
 Pullout test report dated 04-07-2009
 Fire test report dated 04-02-2010 witnessed by DNV local station MUMBAI
 Burst test report dated 2014-06-17 witnessed by DNV local station MUMBAI
 Pressure pulsation/Vibration dated 04-07-2009
 Oxygen Shock test report dated 04-06-2010 witnessed by DNV local station USA
 Leakage test report dated 17-06-2014 witnessed by DNV local station MUMBAI
 Burst test report dated 17-06-2014 witnessed by DNV local station MUMBAI
 Repeated assembly test report witnessed by DNV local station MUMBAI – dated 2014-09-23
 Vibration/Pulsation test report dated 2014-10-14, 2014-12-14 & 2014-12-18
 Hyloc, Leakage test report for stainless steel L and S series, test dates Dec.2017 to Mar.2018
 Hyloc, Proof Pressure test for stainless steel L and S series, test dates Dec.2017 to Mar.2018
 Hyloc, Burst Pressure test for stainless steel L and S series, test dates Dec.2017 to Mar.2018
 Hyloc, Fire Test for stainless steel L and S series with Nitrile Rubber sealing, tests conducted 2017
 Hyloc, Pull-Out Test for stainless steel L and S series, tests conducted 2017 and 2018
 Hyloc, Repeated Assembly Test for stainless steel L and S series, tests conducted 2017 and 2018
 Hyloc, Fire Test for stainless steel couplings, tests conducted 20/08/2018, 18/08/2018, 17/08/2018
 Hyloc, Vibration and Pressure Pulsation Test Report, for 38 HP of SS316, tests conducted 4/11/2017, 7/11/2017, 11/11/2017, 11/13/2017, 11/17/2017, 11/25/2017, 11/27/2017, 1/12/2017, 4/12/2017, 6/12/2017, and 12/13/2017
 Vacuum test reports, carbon steel and SS316 / S and L series, tests conducted 2017 and 2018
 Hyloc, Vibration and Pressure Pulsation Test Report, for L-series DN12 SS316, date 16/04/2018

Job Id: **262.1-017801-2**
Certificate No: **TAP00001DX**

Hyloc, Vibration and Pressure Pulsation Test Report, for S-series DN16 SS316, date 3/11/2016
Hyloc, Vibration and Pressure Pulsation Test Report, for L-series DN28 SS316, date 8/9/2017
Hyloc, Vibration and Pressure Pulsation Test Report, for L-series DN42 SS316, date 3/1/2017
Hyloc, Vibration and Pressure Pulsation Test Report, for L-series DN6 SS316, date 1/6/2016
Hyloc, Vibration and Pressure Pulsation Test Report, for S-series DN6 SS316, date 5/3/2016

Tests carried out

Leakage
Proof
Burst
Repeated assembly
Pull-out
Fire
Pressure pulsation/Vibration
Oxygen Shock test
Vacuum

Marking of product

For traceability to this type approval, each product is at least to be marked clearly with:

- Manufacturer's name or trademark
- Type designation
- Size

The identification marking shall be located in low stressed areas.

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.

Product Group

Hyloc is a trusted brand in high quality tube couplings, adaptors and flanges. We manufacture tube couplings as per DIN 2353 in steel and stainless steel. Sizes available are 6mm to 42mm in Light and 6mm to 38mm in Heavy series.

Apart from the standard range, Hyloc supplies large number of custom tube couplings including 37° flare and o-ring face sealing. Tube couplings are validated for burst pressure, fatigue, impulse and pull tests per ISO8434-5, BS4368-4.

Tube Couplings



Hyloc's flange program includes flanges as per ISO6162 (SAE J518) and ISO6164. Flanges are available in a large number of standard and custom configuration in steel as well as stainless steel.

Flanges



Hyloc's valve program includes needle / shut-off valves, check valves, flow control valves and gauge isolators.

Needle / Shut-off valves

Hyloc is the place for shut-off valves. Our shut-off valves range from size DN6, to DN100 with pressure upto 315 bar. Our high pressure series are designed to withstand 1000 bar pressure. For more details please contact our sales team.

Valves



Hyloc is a popular brand of diagnostic couplings (test points). The coupling is tested for a 1,000,000 cycles of connect and disconnect, and pressure test to 4 times the working pressure.

Diagnostics



Hyloc manufactures clamps as per DIN3015, which are interchangeable with other manufacturers. Our standard series includes sizes upto 42mm and the heavy series includes sizes upto 400mm. These are available in variety of configurations and materials. Poly-propylene is the standard material of construction, but clamps are also available in polyamide and aluminum.

Clamps



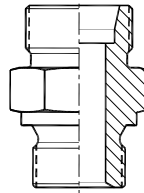
Tube Coupling - General Assembly



Coupling Nut
(Cold forged)

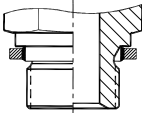


Double Bite Ferrule

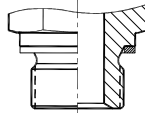


Coupling Body

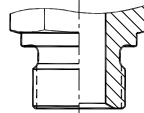
Types of Stud Ends



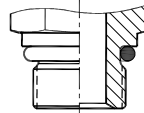
Type 'D'
Sealing by
Bonded Seal



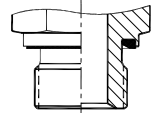
Type 'A'
Sealing by
Copper Washer



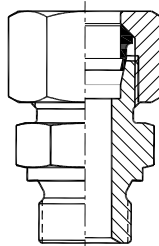
Type 'B'
with Cutting
edge,
No Sealing
required



Type 'O'
Sealing by
O-Ring



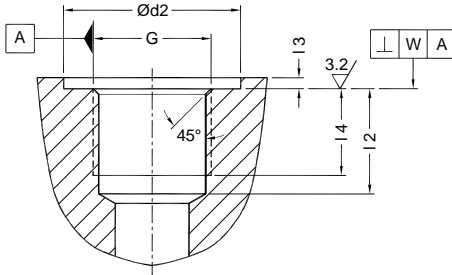
Type 'E'
Sealing by
Elastomeric
Seal



General Assembly of a
Tube Coupling

Port Details

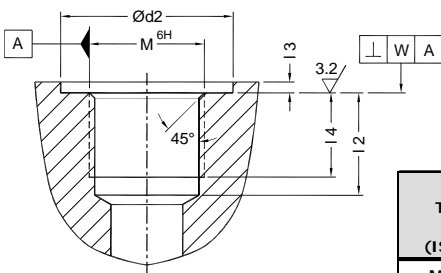
Flat face port with British Standard Pipe Parallel (BSP) Threads (DIN 3852 Part 2) ISO 228-1 "G" threads



All dimensions in millimeters.

G Thread Size (ISO 228-1)	Ød2 Small	Ød2 Wide	l 3	l 4 (min)	l 2	w
G 1/8	15	19	1.0	8	13.0	0.1
G 1/4	20	25	1.5	12	18.5	0.1
G 3/8	23	28	2.0	12	18.5	0.1
G 1/2	28	34	2.5	14	22.0	0.2
G 3/4	33	42	2.5	16	24.0	0.2
G 1	41	47	2.5	18	27.0	0.2
G1.1/4	51	58	2.5	20	29.0	0.2
G1.1/2	56	65	2.5	22	31.0	0.2

Flat face port with Metric Threads (DIN 3852 Part 1) ISO 261 "M" threads

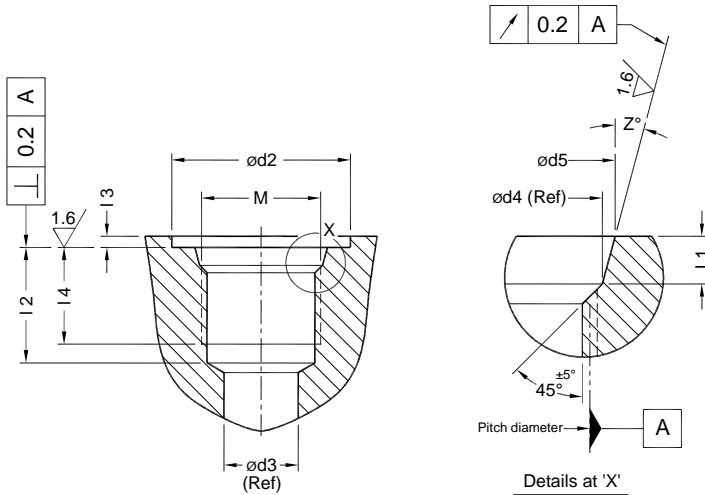


All dimensions in millimeters.

M Thread Size (ISO 261)	Ød2 Small	Ød2 Wide	l 3	l 4 (min)	l 2	w
M8 x 1.0	13	17	1.0	8	13.5	0.1
M10 x 1.0	15	20	1.0	8	13.5	0.1
M12 x 1.5	18	25	1.5	12	18.5	0.1
M14 x 1.5	20	25	1.5	12	18.5	0.1
M16 x 1.5	23	28	1.5	12	18.5	0.1
M18 x 1.5	25	30	2.0	12	18.5	0.1
M20 x 1.5	27	34	2.0	14	20.5	0.1
M22 x 1.5	28	34	2.5	14	20.5	0.1
M26 x 1.5	33	42	2.5	16	22.5	0.2
M27 x 2.0	33	42	2.5	16	24.0	0.2
M33 x 2.0	41	47	2.5	18	26.0	0.2
M42 x 2.0	51	58	2.5	20	28.0	0.2
M48 x 2.0	56	65	2.5	22	30.0	0.2

Port Details

ISO 6149 - 1 Metric Ports with truncated housing for O-Ring seal Metric ISO 261, "M" threads



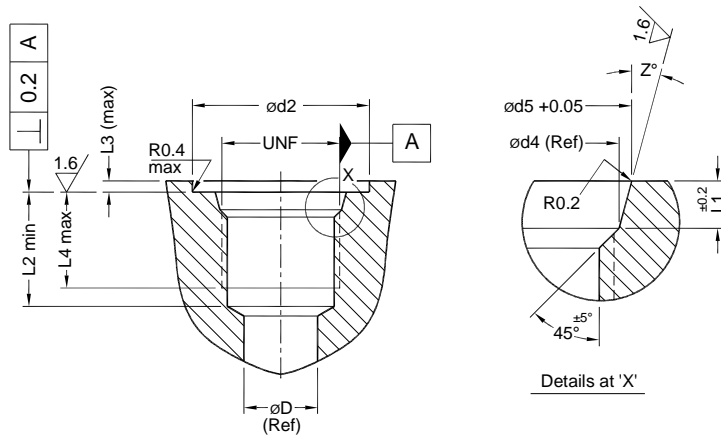
All dimensions in millimeters.

M Thread Size (ISO 261)	Ød2	Ød3	Ød4	Ød5	l3	l4 min	l2	L1	Z°
M8 x 1.0	14	3	8.42	9.1	1.0	10.0	11.5	1.6	12°
M10x1.0	16	4.5	10.42	11.1	1.0	10.0	11.5	1.6	12°
M12x1.5	19	6	12.51	13.8	1.5	11.5	14.0	2.4	15°
M14x1.5	21	7.5	14.51	15.8	1.5	11.5	14.0	2.4	15°
M16x1.5	24	9	16.51	17.8	1.5	13.0	15.5	2.4	15°
M18x1.5	26	11	18.51	19.8	2.0	14.5	17.0	2.4	15°
* M20x1.5	29	--	20.51	21.8	2.0	14.5	--	2.4	15°
M22x1.5	29	14	22.51	23.8	2.0	15.5	18.0	2.4	15°
M27x2.0	34	18	27.74	29.4	2.0	19.0	22.0	3.1	15°
M30x2.0	38	21	30.74	32.4	2.0	19.0	22.0	3.1	15°
M33x2.0	43	23	33.74	35.4	2.5	19.0	22.0	3.1	15°
M42x2.0	52	30	42.74	44.4	2.5	19.5	22.5	3.1	15°
M48x2.0	57	36	48.74	50.4	2.5	22.0	25.0	3.1	15°
M60x2.0	67	44	60.74	62.4	2.5	24.5	27.5	3.1	15°

* For Cartridge Valve cavity applications only (See ISO 7789)

Port Details

SAE J1926 - 1 SAE Straight Threaded Port with O-Ring seal in truncated housing (UN / UNF threads)



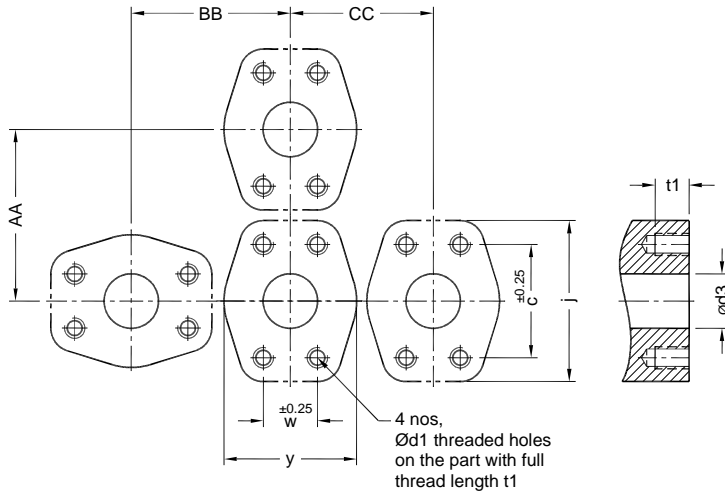
All dimensions in millimeters.

Tube Dash Size	Tube Size	UN/UNF Size Class 2B	* øM	Tap Drill Size ød1	ød2	øD	ød4	ød5	L1	L2	L3	L4	Z°
- 2	1/8	5/16-24 UNF	6.35	6.78/7.03	17	1.6	8.25	9.15	2.1	12	1.6	10.0	12°
- 3	3/16	3/8-24 UNF	7.92	8.38/8.63	19	3.5	9.85	10.75	2.1	12	1.6	10.0	12°
- 4	1/4	7/16-20 UNF	9.12	9.73/10.03	21	4.5	11.34	12.45	2.6	14	1.6	11.5	12°
- 5	5/16	1/2-20 UNF	10.72	11.33/11.60	23	6	12.94	14.05	2.6	14	1.6	11.5	12°
- 6	3/8	9/16-18 UNF	11.91	12.75/13.08	25	7.5	14.55	15.70	2.7	15.5	1.6	12.7	12°
- 8	1/2	3/4-16 UNF	16.66	17.33/17.67	30	10	19.20	20.65	2.7	17.5	2.4	14.3	15°
- 10	5/8	7/8-14 UNF	19.83	20.27/20.67	34	12.5	22.55	24.00	2.7	20	2.4	16.7	15°
- 12	3/4	1-1/16-12 UN	23.82	24.68/25.15	41	16	27.32	29.20	3.5	23	2.4	19.0	15°
- 14	7/8	1-3/16-12 UN	--	27.86/28.32	45	18	30.52	32.40	3.5	23	2.4	19.0	15°
- 16	1	1-5/16-12 UN	30.17	31.03/31.50	49	21	33.67	35.55	3.5	23	3.2	19.0	15°
- 20	1 1/4	1-5/8-12 UN	38.10	38.98/39.45	58	27	41.67	43.55	3.5	23	3.2	19.0	15°
- 24	1 1/2	1-7/8-12 UN	44.45	45.34/45.79	65	33	48.02	49.90	3.5	23	3.2	19.0	15°
- 32	2	2-1/2-12 UN	--	61.21/61.67	88	45	63.87	65.75	3.5	23	3.2	19.0	15°

* Pre drill size (Optional) in case of form tool only.

Port Details

ISO 6162-1 and ISO 6162-2 Four bolt Flange Connection, Port dimensions for flange connections (Includes SAE J518)



Standard Pressure Series (Code 61)

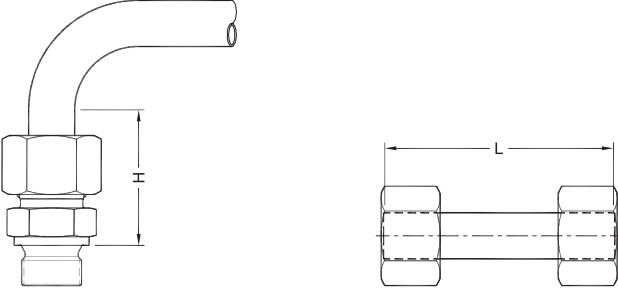
Nom Flange Size	$\varnothing d3$ DN Size	Thread Metric $d1$	$t1$ min depth	Thread UNC $d1$	$t1$ min depth	c	j max	w	y	AA	BB	CC
1/2	13	M8x1.25	14	5/16-18	24	38.1	54.9	17.5	46	56	52	49
3/4	19	M10x1.5	18	3/8-16	22	47.6	65.8	22.3	52	68	61	55
1	25	M10x1.5	16	3/8-16	22	52.4	70.6	26.2	59	72	67	61
1 1/4	32	M10x1.5	22	7/16-14	28	58.7	80.3	30.2	73	82	78	75
1 1/2	38	M12x1.75	21	1/2-13	27	69.9	94.5	35.7	83	96	90	85
2	51	M12x1.75	21	1/2-13	27	77.8	103.1	42.9	97	104	102	99
2 1/2	64	M12x1.75	23	1/2-13	30	88.9	115.8	50.8	109	117	114	111
3	76	M16x2.0	30	5/8-11	30	106.4	136.7	61.9	131	137	136	133
3 1/2	89	M16x2.0	30	5/8-11	33	120.7	153.9	69.9	140	155	148	142
4	102	M16x2.0	27	5/8-11	30	130.2	163.6	77.8	152	164	160	155
5	127	M16x2.0	29	5/8-11	33	152.4	185.7	92.1	181	186	185	183

High Pressure series (Code 62)

1/2	13	M8x1.25	16	5/16-18	21	40.5	57.2	18.2	48	59	56	53
3/4	19	M10x1.5	18	3/8-16	24	50.8	72.1	23.8	60	75	70	66
1	25	M12x1.75	23	7/16-14	27	57.2	81.8	27.8	70	84	80	75
1 1/4	32	M12x1.75	20	1/2-13	25	66.6	96.0	31.8	78	99	90	83
1 1/2	38	M16x2.0	27	5/8-11	35	79.3	114.3	36.5	95	116	108	101
2	51	M20x2.5	35	3/4-10	38	96.8	134.9	44.5	114	137	128	120

Assembly Process

Preparation of Tube



Maximum height H for Straight tube end

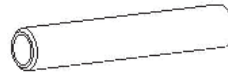
Minimum length L for short piece of tube

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

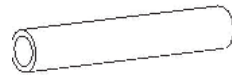
Saw off Tube at 90°



Do not use Tube cutters



Tube cut with tube cutter
generates heavy burr/bevel cut



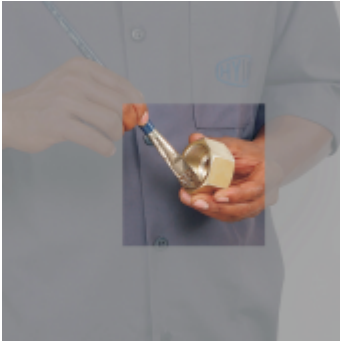
Saw off Tube

Deburr inside and Outside edges
of tube upto 0.2x45°



Assembly Process

Lubricate threads (External and Internal), cone of the Coupling body and the Ferrule



Slip the Coupling Nut and Ferrule over tube end



Assembly Process

Ensure Coupling Nut and Ferrule are facing the right way



✓ **Correct**



✗ **Incorrect**

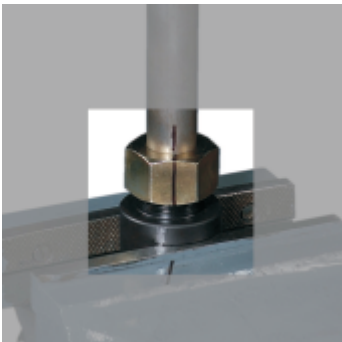
Screw the Coupling Nut manually on to Coupling body until finger tight.



Tighten the coupling Nut by spanner until the tube stops rotating by hand



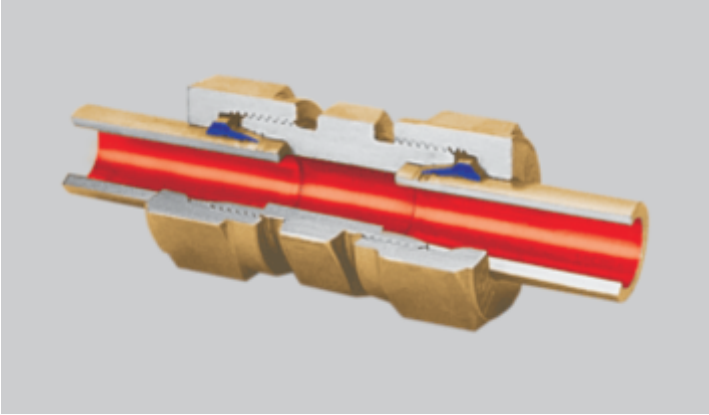
Mark the Coupling Nut and holding device to measure the prescribed turns



Tighten the Coupling Nut around 1 1/4 to 1 1/2 round **Tube must not rotate**



Sectional View of Straight Coupling assembly with Tube





The right connection
The right environment

Tube selection and Trouble shooting guide

Ref. No. **H09821**
Release. Apr.2018

General Recommendations for Tubes

Steel Type **St 37.4**

Tensile Strength 340 N/mm²
Yield point 235 N/mm²
Condition Seamless, Cold drawn, normal annealed as per DIN 2391C, Part 2

Stainless Steel **1.4571**

Tensile Strength 500 N/mm²
Yield point 245 N/mm²
Condition Seamless, Cold drawn, free of scale as per DIN 17458 tab.6

Seamless Steel Tubes Material : St. 37.4

Tolerances DIN 2391, part 1

Tube O.D (mm)	Tolerance	Wall Thickness (mm)	Tube I.D (mm)	Design Pressure (bar)		Burst Pressure (bar)	Weight kg/m
				DIN2413 I Static	DIN 2413 III Dynamic		
4	±0.08	0.50	3.0	313	273	1160	0.047
4		0.75	2.5	409	391	1820	0.063
4		1.00	2.0	522	500	2700	0.074
5	±0.08	1.00	3.0	432	416	2120	0.099
6	±0.08	0.75	4.5	333	288	1150	0.103
6		1.00	4.0	389	372	1650	0.123
6		1.50	3.0	549	526	2550	0.166
6		2.00	2.0	692	662	>3500	0.197
6		2.50	1.0	757	725	>3500	0.208
8	±0.08	1.00	6.0	333	288	1175	0.222
8		1.50	5.0	431	412	1925	0.240
8		2.00	4.0	549	526	2500	0.296
8		2.50	3.0	658	630	2650	0.339
10	±0.08	1.00	8.0	282	248	900	0.222
10		1.50	7.0	373	357	1450	0.314
10		2.00	6.0	478	458	2025	0.395
10		2.50	5.0	576	551	2675	0.462
10		3.00	4.0	666	638	>3500	0.518
12	±0.08	1.00	10.0	253	209	750	0.271
12		1.50	9.0	353	303	1150	0.388
12		2.00	8.0	409	391	1600	0.493
12		2.50	7.0	495	474	2025	0.586
12		3.00	6.0	576	551	2600	0.666
12		3.50	5.0	651	624	---	0.734
14	±0.08	1.50	11.0	302	264	975	0.462
14		2.00	10.0	357	342	1325	0.592
14		2.50	9.0	434	415	1650	0.709
14		3.00	8.0	507	485	2200	0.814
14		3.50	7.0	576	551	2625	0.906
15	±0.08	1.00	13.0	188	170	575	0.345
15		1.50	12.0	282	248	950	0.499
15		2.00	11.0	336	321	1275	0.641
15		3.00	9.0	478	458	2000	0.888
16	±0.08	1.50	13.0	264	233	850	0.536
16		2.00	12.0	353	303	1175	0.691
16		2.50	11.0	386	370	1500	0.832
16		3.00	10.0	452	433	1850	0.962
18	±0.08	1.00	16.0	157	143	450	0.419
18		1.50	15.0	235	209	700	0.610
18		2.00	14.0	313	273	975	0.789
18		2.50	13.0	348	333	1300	0.956
18		3.00	12.0	409	391	1575	1.111



The right connection
The right environment

Tube selection and Trouble shooting guide

Ref. No. **H09821**
Release. Apr.2018

Seamless Steel Tubes (continued) Material : St. 37.4

Tolerances DIN 2391, part 1

Tube O.D (mm)	Tolerance	Wall thickness (mm)	Tube I.D (mm)	Design Pressure (bar)		Burst Pressure (bar)	Weight kg/m
				DIN2413 1 Static	DIN 2413 III Dynamic		
20		1.50	17	212	190	675	0.648
20		2.00	16	282	248	900	0.888
20		2.50	15	353	303	1100	1.079
20		3.00	14	373	357	1400	1.258
20		3.50	13	426	408	1650	1.424
20	±0.08	4.00	12	478	458	2000	1.578
22		1.50	19	192	173	550	0.758
22		2.00	18	256	227	775	0.986
22		2.50	17	320	278	1025	1.202
22	±0.08	3.00	16	343	328	1175	1.406
25		2.00	21	226	201	725	1.134
25		2.50	20	282	248	850	1.387
25		3.00	19	338	292	1025	1.628
25		4.00	17	394	378	1500	2.072
25	±0.08	4.50	16	437	418	1625	2.275
28		1.50	25	151	138	425	0.98
28		2.00	24	201	181	600	1.282
28		2.50	23	252	223	750	1.572
28	±0.08	3.00	22	302	264	900	1.85
30	±0.08	2.00	26	188	170	575	1.381
30		2.50	25	235	209	725	1.695
30		3.00	24	282	248	850	1.998
30		4.00	22	336	321	1175	2.565
30		5.00	20	409	391	1600	3.083
35		2.00	31	161	147	450	1.628
35		2.50	30	201	181	600	2.004
35		3.00	29	242	215	700	2.367
35	±0.15	4.00	27	322	280	960	3.058
38		2.50	33	186	168	550	2.189
38		3.00	32	223	199	675	2.589
38		4.00	30	297	260	900	3.354
38		5.00	28	332	318	1150	4.069
38		6.00	26	390	373	---	4.735
38	±0.15	7.00	24	446	427	1700	5.325
42		2.00	38	134	123	375	1.973
42		3.00	36	201	181	575	2.885
42	±0.2	4.00	34	269	237	850	3.749
50	±0.2	6.00	38	338	292	---	6.511
65	±0.3	8.00	49	347	299	---	11.246



The right connection
The right environment

Tube selection and Trouble shooting guide

Ref. No. **H09821**
Release. Apr.2018

Seamless Stainless steel Tubes Material No. 1.4571/1.4541

Tolerances DIN 2391, part 1

Tube OD (mm)	Tolerance	Wall thickness (mm)	Tube ID (mm)	1.4571 Design Pressure (bar) DIN 2413-1 Static	1.4571 Design Pressure (bar) DIN 2413-1 Static	1.4571 Burst Pressure (bar)	Weight kg/m
4	±0.08	1.0	2.0	600	539		0.075
6	±0.08	1.0	4.0	426	383	1850	0.125
6		1.5	3.0	600	539	2900	0.169
8	±0.08	1.0	6.0	368	297	1300	0.175
8		1.5	5.0	472	424	2050	0.244
10	±0.08	1.0	8.0	294	242	950	0.225
10		1.5	7.0	389	349	1750	0.319
10		2.0	6.0	498	447	2400	0.401
12	±0.08	1.0	10.0	245	205	850	0.275
12		1.5	9.0	368	297	1400	0.394
12		2.0	8.0	426	383	1900	0.501
14	±0.08	1.5	11.0	315	258	1200	0.469
14		2.0	10.0	420	334	1550	0.601
14		2.5	9.0	452	406	2100	0.720
15	±0.08	1.0	13.0	196	166	675	0.351
15		1.5	12.0	294	242	1100	0.507
15		2.0	11.0	392	314	1400	0.651
16	±0.08	1.5	13.0	276	228	950	0.545
16		2.0	12.0	368	297	1300	0.701
16		2.5	11.0	403	362	1850	0.845
16		3.0	10.0	472	424	2400	0.977
18	±0.08	1.5	15.0	245	205	800	0.620
18		2.0	14.0	327	267	1150	0.801
20	±0.08	2.0	16.0	294	242	1050	0.901
20		2.5	15.0	368	297	1400	1.095
20		3.0	14.0	389	349	1800	1.277
22	±0.08	1.5	19.0	200	170	650	0.770
22		2.0	18.0	267	222	900	1.002
25	±0.08	2.5	20.0	294	242	1050	1.408
25		3.0	19.0	353	286	1275	1.653
28	±0.08	1.5	25.0	158	135	550	0.995
28		2.0	24.0	210	177	700	1.302
30	±0.08	2.5	25.0	245	205	850	1.722
30		3.0	24.0	294	242	1150	2.028
30		4.0	22.0	392	314	1500	2.605
35	±0.15	2.0	31.0	168	143	550	1.653
38	±0.15	4.0	30.0	309	254	1150	3.405
42	±0.20	2.0	38.0	140	121	475	2.003
42		3.0	36.0	210	177	750	2.930



The right connection
The right environment

Tube selection and Trouble shooting guide

Ref. No. **H09821**
Release. Apr.2018

Trouble Shooting

Problem	Probable Cause	Suggested solution
Leak	Tightening of the joint is not adequate.	Tighten the nut according to the correct assembly procedure. Use suitable spanners and spanner extensions especially for larger sizes. Check visible collar after tightening.
	Tube not bottomed into fitting shoulder.	Cut tube to correct length. Observe min. straight length before tube bending. Deburr tube ends – No heavy chamfers are to be provided.
	Damaged fitting	Check for damage. Handle all parts carefully.
	Hidden cracks	Check for cracks, replace if necessary.
	Contaminations between sealing surfaces	Keep all components clean.
	Shallow bite	Inspect for the turned up ridge of the material. Failure to achieve this ridge can be traced either to the nut not being tightened enough or tube not being bottomed against the stop.
	Over set ferrule	Too much pressure or more than recommended turns from finger tight. This type of assembly should be scrapped.
	No bite	If all of the prior checks have been made and the ferrule still shows no sign of biting the tube, it may be that the Tube is too hard. This assembly should be scrapped.
Tube fractured behind the nut	Fatigue failure of tube under vibration	Verify assembly. Undertightening reduces vibration resistance. Use proper clamps at appropriate places.
Crack	Tightening of the joint is not adequate	Tighten the nut according to the correct assembly procedure. Use suitable spanners and spanner extensions especially for larger sizes Check visible collar after tightening.

304 GE 16 P S G03 E - V P

Body Material	
Omit	Steel
304	SS-304
316	SS-316

Coupling Type	
<i>Tube Couplings</i>	
Straight	G
Equal Elbow	W
Equal Tee	T
Equal Cross	K

<i>Stud Coupling</i>	
Straight Male Stud	GE
Straight Female Stud	GAI
Male Stud Elbow	WE
Male Stud Branch Tee	TE
Male Stud Barrel Tee	LE

<i>Bulkheads and weld Coupling</i>	
Straight Bulkhead	SV
Elbow Bulkhead	WSV
Weld Bulkhead	ESV
Weld Coupling	AS

Elbow Weld Coupling	ASE
---------------------	-----

<i>Reducers / Expanders</i>	
Reducing Standpipe	KOR
Reducing Standpipe, soft seal	RED
Straight Reducer	GR

<i>Swivel Couplings</i>	
Banjo	HSWV
Banjo, soft seal	WHO
Banjo, Throttle Free	DSVW
Banjo, Rotary	RW
Double Banjo	HSTV
Straight Stud Standpipe	EVGE
Straight Stud Standpipe, soft seal	EGE-GE
Female standpipes, soft seal	EGE-GF
Swivel Elbow	EVW
Swivel Elbow, soft seal	EW
Swivel Branch Tee	EVT
Swivel Branch Tee, soft seal	ET
Swivel Barrel Tee	EVL
Swivel Barrel Tee, soft seal	EL

<i>Blanking Plugs / Ends</i>	
Blanking Plug	BUZ
Blanking End	BUZT
Hex head Plug	VST
Socket Head Plug	VSTI

<i>Misc</i>	
Pressure Gauge Connector	MAV
Pressure Gauge Standpipe	MAVEV

Tube Size
Refer Stud End Table for standard tube sizes, & stud end combinations.

Surface Treatment	
Omit	Zinc Plating and Blue Passivation
P	Phosphated
ZnNi	Zinc Nickel

Note :Parts ESV, AS, ASE, WNA are to be phosphated as standard practice (Since these are weldable parts)

Seal Material	
Omit	Nitrile 90°
V	Viton 90°
X	Without Oring

Sub Type Modifier	
Omit	Without Seal
A	Copper Washer
B	Metal to Metal Seal
D	Bonded Seal
E	Elastomeric Seal
O	Oring Sealing

Stud End										Standard Tube Size				
BSP Thread		BSPT Thread		SAE Straight Threads(UNF)		NPTF Taper Threads		Metric Thread		Metric Taper Threads		Standard combinations		
												LL	L	H
G01	G1/8	R01	R1/8			N01	1/8	M08	M8x1.0	T08	M8x1.0	04		
								M10	M10x1.0	T10	M10x1.0	06		
												08		
		R02	R1/4									10		
												12		
G01	G1/8	R01	R1/8	S04	7/16-20	N01	1/8	M10	M10x1.0	M10	M10x1.0		06	
G02	G1/4	R02	R1/4			N02	1/4	M12	M12x1.5	M12	M12x1.5		08	06
								M14	M14x1.5	M14	M14x1.5		10	08
G03	G3/8	R03	R3/8	S06	9/16-18	N03	3/8	M16	M16x1.5	M16	M16x1.5		12	10
								M18	M18x1.5	M18	M18x1.5			12
G04	G1/2	R04	R1/2	S08	3/4-16	N04	1/2						15	14
								M22	M22x1.5	M22	M22x1.5		18	16
G06	G3/4	R06	R3/4	S10	7/8-14	N06	3/4	M27	M27x2.0	M27	M27x2.0		22	20
G08	G1	R08	R1	S12	1.1/16-12	N08	1	M33	M33x2.0	M33	M33x2.0		28	25
G10	G1.1/4	R10	R1.1/4	S16	1.5/16-12	N10	1.1/4	M42	M42x2.0	M42	M42x2.0		35	30
G12	G1.1/2	R12	R1.1/2	S20	1.5/8-12	N12	1.1/2	M48	M48x2.0	M48	M48x2.0		42	38
G16	G2			S24	1.7/8-12			M60	M60X2.0	M60	M60X2.0			
Other Thread Sizes						S02	5/16-24	N00	1/16	M20	M20x1.5			
G05	G5/8			S03	3/8-24									
				S05	1/2-20									
				S14	1.3/16-12									

For standard combinations thread size can be omitted. Eg: 16od Male Stud Coupling with G1/2 stud - GE16PSG

Pressure Series	
LL	Very Light
L	Light
S	Heavy

Connection Type	
P	Ferrule
W**	Weld Nipple ** is tube thickness Eg: W20 - 2mm wall thickness
X	Without Nut and Ferrule
Y	Without Nut and Ferrule on standpipe
TR	Flare fitting as per ISO8434-2
TRX	Flare fitting as
OR	ORFS face seal
ORX	ORFS face seal - Body Only

Tube Coupling P arts



Tube to Tube Coupling



Tube to Male Stud BSPT



Tube to Male Stud BSP



Tube to Male Stud Metric



Tube to Male Stud Elastomeric BSP



Tube to Male Stud Elastomeric Metric



Tube to Male Stud Metric with O-Ring sealing



Tube to Male Stud NPTF



Tube to Male Stud O-Ring, S AE/UNF



GE-S

Bulkhead



SV



WSV



ESV

Weld Coupling



AS



ASE



WAS

Female Connector, BSP



GAI-G

Female Connector, Metric



GAI-M

Reducer/Expander



GR



KOR



RED

Banjo Coupling



HSWV



HSTV



WH



WHO



DSWV

Swivel Couplings



EVGE-G



EVGE-M



EVW



EVT



EVL

Swivel Connector



EVW-G



EVT-G



EVL-G

Swivel Connector, Soft seal



EGE-GE



EGE-ME



EW



ET



EL

Swivel Connector, Soft Seal



EW-GE



ET-GE



EL-GE

Live Swivel



RW

Adjustable Fittings, Metric



WEE-MO



TEE-MO



LEE-MO

Adjustable Fittings, SAE/UNF



WEE-S



TEE-S



LEE-S

Weld Nipple



WNA



WNR

Blanking End



VKA



BUZT

Gauge Adaptors



MAV-G



MAVEV-G

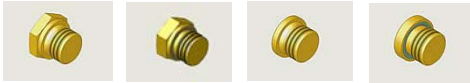


MAVE-G



1GA-GE

Plugs, BSP



VST-G VST-GE VSTI-G VSTI-GE

Plugs, Metric



VST-M VST-ME VSTI-M VSTI-ME VST-MO VSTI-MO

Plugs, SAE/UNF



VST-S VSTI-S

Plugs, BSP Taper (R)



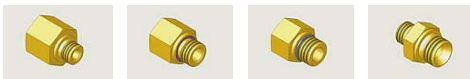
VST-R VSTI-R

Plugs, NPTF



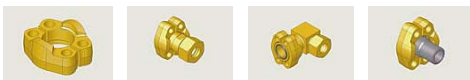
VST-NPTF VSTI-NPTF

Adaptors



MFA-G-G MFA-G-S MFA-S-G HA-G

SAE Flanged connections



SFS GFS WFS AS

Tools



PST

Seals

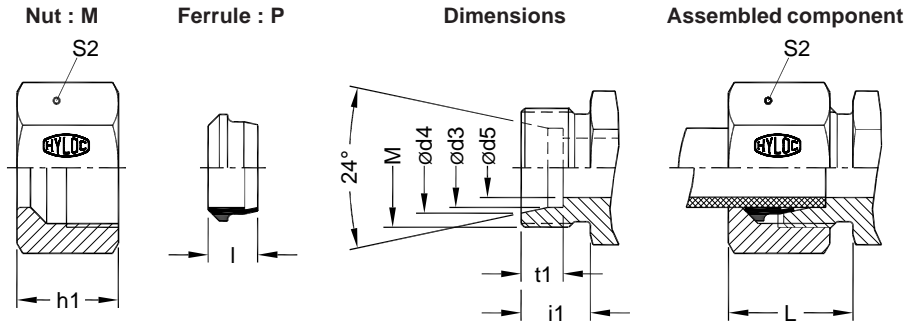


ED BS CW DKA

Tube Connection Parts

Metric Tube end as per ISO 8434

All dimensions in millimeters.

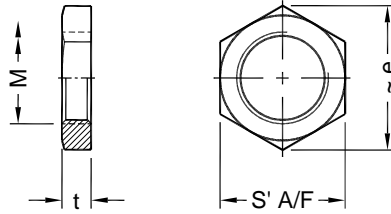


*

Part No Nut	Part No Ferrule	Series	Tube od	DN Size	M	Ød3	Ød4	Ød5	t 1	i 1	S2	h1	l	L
M04LL	P04LL	LL	4	3	M 8 x 1.0	4	5.0	3	4.0	8	10	11.5	7.0	14
M05LL	P05LL	Very Light	5	--	M 10 x 1.0	5	6.5	3.5	5.5	8	12	11.5	7.0	14
M06LL	P06LL	NP 100	6	4	M 10 x 1.0	6	7.5	4.5	5.5	8	12	12.0	7.0	14
M08LL	P08LL		8	6	M 12 x 1.0	8	9.5	6	5.5	9	14	12.5	7.0	15
M06L	P06L	L	6	4	M 12 x 1.5	6	8.1	4	7.0	10	14	14.5	10.0	18
M08L	P08L	Light	8	6	M 14 x 1.5	8	10.1	6	7.0	10	17	14.5	9.5	18
M10L	P10L	NP 250	10	8	M 16 x 1.5	10	12.3	8	7.0	11	19	15.5	10.0	20
M12L	P12L		12	10	M 18 x 1.5	12	14.3	10	7.0	11	22	15.5	9.5	19
M15L	P15L		15	12	M 22 x 1.5	15	17.3	12	7.0	12	27	17.0	10.0	21
M18L	P18L	NP 160	18	16	M 26 x 1.5	18	20.3	15	7.5	12	32	18.0	10.0	22
M22L	P22L		22	20	M 30 x 2.0	22	24.3	19	7.5	14	36	20.0	10.5	24
M28L	P28L	NP 100	28	25	M 36 x 2.0	28	30.3	24	7.5	14	41	21.0	11.0	25
M35L	P35L		35	32	M 45 x 2.0	35	38.0	30	10.5	16	50	24.0	13.0	28
M42L	P42L		42	40	M 52 x 2.0	42	45.0	36	11.0	16	60	24.0	13.0	28
M06S	P06S	S	6	3	M 14 x 1.5	6	8.1	4	7.0	12	17	16.5	10.0	20
M08S	P08S	Heavy	8	4	M 16 x 1.5	8	10.1	5	7.0	12	19	16.5	9.5	20
M10S	P10S	NP 630	10	6	M 18 x 1.5	10	12.3	7	7.5	12	22	17.5	10.0	22
M12S	P12S		12	8	M 20 x 1.5	12	14.3	8	7.5	12	24	17.5	9.5	21
M16S	P16S	NP 400	16	12	M 24 x 1.5	16	18.3	12	8.5	14	30	20.5	10.0	25
M20S	P20S		20	16	M 30 x 2.0	20	22.9	16	10.5	16	36	24.0	12.0	28
M25S	P25S		25	20	M 36 x 2.0	25	27.9	20	12.0	18	46	27.0	12.0	31
M30S	P30S	NP 250	30	25	M 42 x 2.0	30	33.0	25	13.5	20	50	29.0	13.0	35
M38S	P38S		38	32	M 52 x 2.0	38	41.0	32	16.0	22	60	32.5	13.0	38

* Dimensions given are approx figures with tightened nut.

Locknuts for Bulkhead Couplings
As per ISO 8434-1



Part No.	M	t	S	~ e
GM12	M12 x 1.5	6	17	19.6
GM14	M14 x 1.5	6	19	21.9
GM16	M16 x 1.5	6	22	25.4
GM18	M18 x 1.5	6	24	27.7
GM20	M20 x 1.5	6	27	31.2
GM22	M22 x 1.5	7	30	34.6
GM24	M24 x 1.5	7	32	36.9
GM26	M26 x 1.5	8	36	41.6
GM30	M30 x 2.0	9	41	47.3
GM36	M36 x 2.0	9	46	53.1
GM42	M42 x 2.0	9	50	57.5
GM45	M45 x 2.0	9	55	63.5
GM52	M52 x 2.0	10	65	75.0

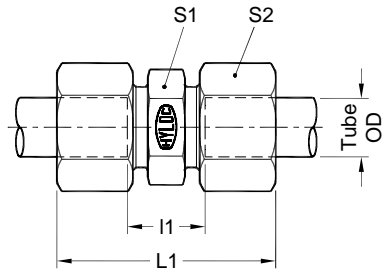
Straight Couplings

G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



*

Part No.	Series	Tube od	l 1	L 1	S 1	S 2
G06PL	Light L 250 bar	6	10	41	12	14
G08PL		8	11	41	14	17
G10PL		10	13	44	17	19
G12PL		12	14	44	19	22
G15PL		15	16	48	24	27
G18PL	160 bar	18	16	50	27	32
G22PL		22	20	54	32	36
G28PL	100 bar	28	21	57	41	41
G35PL		35	20	66	46	50
G42PL		42	21	68	55	60
G06PS	Heavy S 630 bar	6	16	47	14	17
G08PS		8	18	48	17	19
G10PS		10	17	51	19	22
G12PS		12	19	52	22	24
G16PS		400 bar	16	21	59	27
G20PS	20		23	68	32	36
G25PS	25		26	76	41	46
G30PS	250 bar	30	27	83	46	50
G38PS		38	29	92	55	60

* Dimensions given are approx figures with tightened nut.

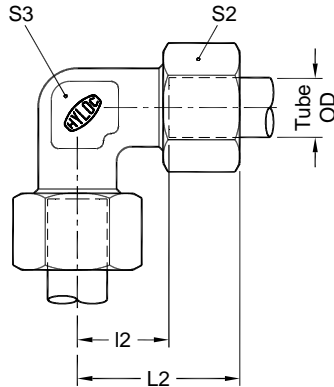
Equal Elbow Couplings

W

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



*

Part No.	Series	Tube od	I 2	L2	S2	S3	
W06PL	Light L	6	12.0	27.5	14	12	
W08PL	250 bar	8	14.0	29.0	17	12	
W10PL		10	15.0	30.5	19	14	
W12PL		12	17.0	32.0	22	17	
W15PL		15	21.0	37.0	27	22	
W18PL		160 bar	18	23.5	40.5	32	24
W22PL	22		27.5	44.5	36	27	
W28PL	100 bar		28	30.5	48.5	41	36
W35PL		35	34.5	57.5	50	41	
W42PL		42	40.0	63.5	60	50	
W06PS		Heavy S	6	16.0	31.5	17	12
W08PS	630 bar		8	17.0	32.0	19	14
W10PS			10	17.5	34.5	22	17
W12PS			12	21.5	38.0	24	19
W16PS	400 bar		16	24.5	43.5	30	24
W20PS		20	26.5	49.0	36	27	
W25PS		25	30.0	55.0	46	36	
W30PS	250 bar	30	35.5	63.5	50	41	
W38PS		38	41.0	72.5	60	50	

* Dimensions given are approx figures with tightened nut.

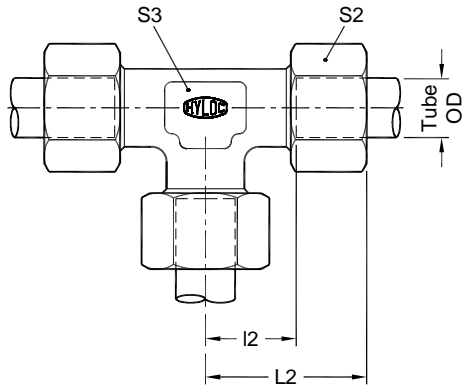
Equal Tee Couplings

T

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



*

Part No.	Series	Tube od	I 2	L 2	S 2	S 3
T06PL	Light L 250 bar	6	12.0	27.5	14	12
T08PL		8	14.0	29.0	17	12
T10PL		10	15.0	30.5	19	14
T12PL		12	17.0	32.0	22	17
T15PL		15	21.0	37.0	27	22
T18PL	160 bar	18	23.5	40.5	32	24
T22PL		22	27.5	44.5	36	27
T28PL	100 bar	28	30.5	48.5	41	36
T35PL		35	34.5	57.5	50	41
T42PL		42	40.0	63.5	60	50
T06PS	Heavy S 630 bar	6	16.0	31.5	17	12
T08PS		8	17.0	32.0	19	14
T10PS		10	17.5	34.5	22	17
T12PS		12	21.5	38.0	24	19
T16PS	400 bar	16	24.5	43.5	30	24
T20PS		20	26.5	49.0	36	27
T25PS		25	30.0	55.0	46	36
T30PS	250 bar	30	35.5	63.5	50	41
T38PS		38	41.0	72.5	60	50

* Dimensions given are approx figures with tightened nut.

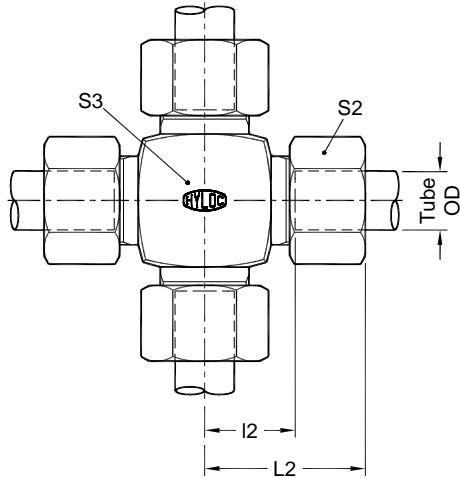
Equal Cross Couplings

K

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



*

Part No.	Series	Tube od	I 2	L2	S2	S3
K06PL	Light L 250 bar	6	12.0	27.5	14	12
K08PL		8	14.0	29.0	17	12
K10PL		10	15.0	30.5	19	14
K12PL		12	17.0	32.0	22	17
K15PL		15	21.0	37.0	27	22
K18PL	160 bar	18	23.5	40.5	32	24
K22PL		22	27.5	44.5	36	27
K28PL	100 bar	28	30.5	48.5	41	36
K35PL		35	34.5	57.5	50	41
K42PL		42	40.0	63.5	60	50
K06PS	Heavy S 630 bar	6	16.0	31.5	17	12
K08PS		8	17.0	32.0	19	14
K10PS		10	17.5	34.5	22	17
K12PS		12	21.5	38.0	24	19
K16PS		400 bar	16	24.5	43.5	30
K20PS	20		26.5	49.0	36	27
K25PS	25		30.0	55.0	46	36
K30PS	250 bar	30	35.5	63.5	50	41
K38PS		38	41.0	72.5	60	50

* Dimensions given are approx figures with tightened nut.

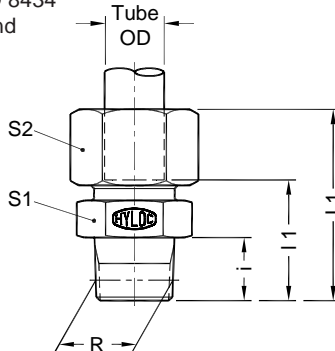
Straight Male Stud Couplings

GE-R

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male BSP Taper (R) stud end



* Dimensions given are approx figures with tightened nut.

Part No.	Series	Tube od	R Male BSPT thread	i	l1	* L1	S1	S2
GE06PLR	Light L 250 bar	6	R 1/8	7.5	14.5	30	14	14
GE06PLR02		6	R 1/4	11	18	33.5	14	14
GE08PLR		8	R 1/4	11	19	34	17	17
GE10PLR		10	R 1/4	11	20	35.5	17	19
GE12PLR02		12	R 1/4	11	20	35	19	22
GE12PLR		12	R 3/8	11.5	20.5	35.5	19	22
GE12PLR04		12	R 1/2	15	25	40	22	22
GE15PLR		15	R 1/2	15	26	42	24	27
GE18PLR	160bar	18	R 1/2	15	26.5	43.5	27	32
GE22PLR		22	R 3/4	16.5	30	47	32	36
GE28PLR	100 bar	28	R 1	19	33.5	51.5	41	41
GE35PLR		35	R1.1/4	21.5	35	58	46	50
GE42PLR		42	R1.1/2	21.5	37.5	61	55	60
GE06PSR	Heavy S 630 bar	6	R 1/4	11	22	37.5	17	17
GE08PSR		8	R 1/4	11	22	37	17	19
GE10PSR02		10	R 1/4	11	23.5	40.5	19	22
GE10PSR		10	R 3/8	11.5	24	41	19	22
GE12PSR02		12	R 1/4	11	25.5	42	22	24
GE12PSR		12	R 3/8	11.5	26	42.5	22	24
GE12PSR04		12	R 1/2	15	29.5	46	22	24
GE16PSR	400 bar	16	R 1/2	15	30.5	49.5	27	30
GE20PSR		20	R 3/4	16.5	34	56.5	32	36
GE25PSR		25	R 1	19	39	64	41	46
GE30PSR	250 bar	30	R1.1/4	21.5	42	70	46	50
GE38PSR		38	R1.1/2	21.5	44.5	76	55	60

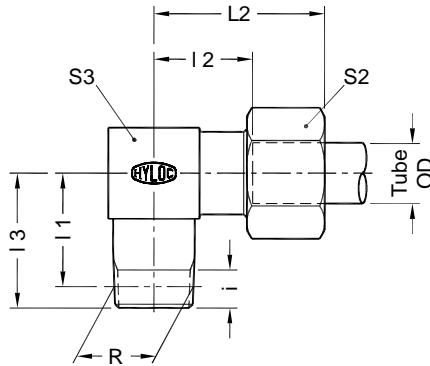
Male Stud Elbow Couplings

WE-R

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and BSP Taper (R) stud end



Part No.	Series	Tube od	R Male BSPT thread	i	I 1 min	I 1 max	I 2	I 3	* L2	S2	S3
WE06PLR	Light L 250 bar	6	R 1/8	7.5	16.1	17.9	13	21.0	28.5	14	12
WE08PLR		8	R 1/4	11	20.2	22.8	15.5	27.5	30.5	17	14
WE10PLR		10	R 1/4	11	19.7	22.3	15	27.0	30.5	19	17
WE12PLR		12	R 3/8	11.5	20.3	22.9	17	28.0	32.0	22	19
WE15PLR		15	R 1/2	15	25.0	28.6	22	35.0	38.0	27	22
WE18PLR	160 bar	18	R 1/2	15	26.0	29.6	23.5	36.0	40.5	32	27
WE06PSR	Heavy S 630 bar	6	R 1/4	11	18.7	21.3	17.5	26.0	33.0	17	14
WE08PSR		8	R 1/4	11	19.7	22.3	17	27.0	32.0	19	17
WE10PSR		10	R 3/8	11.5	20.3	22.9	17.5	28.0	34.5	22	19
WE12PSR		12	R 3/8	11.5	20.3	22.9	21.5	28.0	38.0	24	22
WE16PSR		400 bar	16	R 1/2	15	23.5	27.1	26	33.5	45.0	30

* Dimensions given are approx figures with tightened nut.

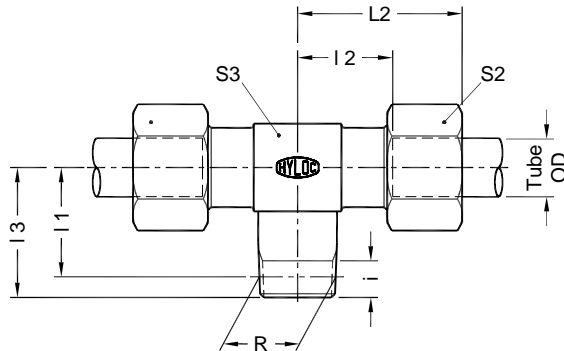
Male Stud Branch Tee Couplings

TE-R

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and BSP Taper (R) stud end



Part No.	Series	Tube od	R Male BSPT thread	i	l1 min	l1 max	l2	l3	* L2	S2	S3
TE06PLR	Light L 250 bar	6	R 1/8	7.5	16.1	17.9	13.0	21.0	28.5	14	12
TE08PLR		8	R 1/4	11	20.2	22.8	15.5	27.5	30.5	17	14
TE10PLR		10	R 1/4	11	19.7	22.3	15.0	27.0	30.5	19	17
TE12PLR		12	R 3/8	11.5	20.3	22.9	17.0	28.0	32.0	22	19
TE15PLR		15	R 1/2	15	25.0	28.6	22.0	35.0	38.0	27	22
TE18PLR	160 bar	18	R 1/2	15	26.0	29.6	23.5	36.0	40.5	32	27
TE06PSR	Heavy S 630 bar	6	R 1/4	11	18.7	21.3	17.5	26.0	33.0	17	14
TE08PSR		8	R 1/4	11	19.7	22.3	17.0	27.0	32.0	19	17
TE10PSR		10	R 3/8	11.5	20.3	22.9	17.5	28.0	34.5	22	19
TE12PSR		12	R 3/8	11.5	20.3	22.9	21.5	28.0	38.0	24	22
TE16PSR		400 bar	16	R 1/2	15	23.5	27.1	26.0	33.5	45.0	30

* Dimensions given are approx figures with tightened nut.

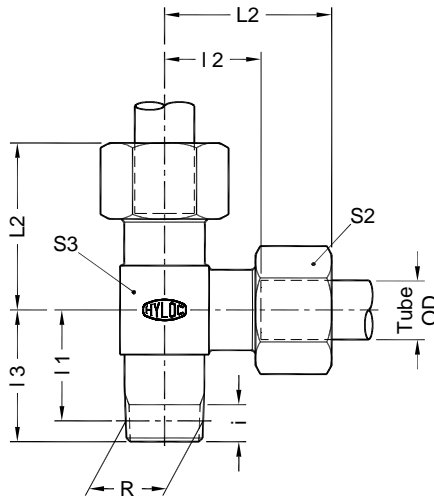
Male Stud Barrel Tee Couplings

LE-R

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and BSP Taper (R) stud end



Part No.	Series	Tube od	R Male BSPT thread	i	I 1 min	I 1 max	I 2	I 3	* L2	S2	S3
LE06PLR	Light L 250 bar	6	R 1/8	7.5	16.1	17.9	13	21.0	28.5	14	12
LE08PLR		8	R 1/4	11	20.2	22.8	15.5	27.5	30.5	17	14
LE10PLR		10	R 1/4	11	19.7	22.3	15	27.0	30.5	19	17
LE12PLR		12	R 3/8	11.5	20.3	22.9	17	28.0	32.0	22	19
LE15PLR		15	R 1/2	15	25.0	28.6	22	35.0	38.0	27	22
LE18PLR	160 bar	18	R 1/2	15	26.0	29.6	23.5	36.0	40.5	32	27
LE06PSR	Heavy S 630 bar	6	R 1/4	11	18.7	21.3	17.5	26.0	33.0	17	14
LE08PSR		8	R 1/4	11	19.7	22.3	17	27.0	32.0	19	17
LE10PSR		10	R 3/8	11.5	20.3	22.9	17.5	28.0	34.5	22	19
LE12PSR		12	R 3/8	11.5	20.3	22.9	21.5	28.0	38.0	24	22
LE16PSR		400 bar	16	R 1/2	15	23.5	27.1	26	33.5	45.0	30

* Dimensions given are approx figures with tightened nut.

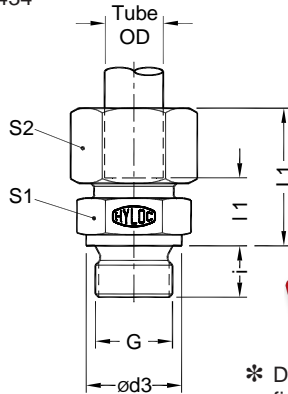
Straight Male Stud Couplings

GE-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male BSPP (G) thread



DISCONTINUED

* Dimensions given are approx figures with tightened nut.

Part No.	Series	Tube od	G Male BSP thread	ød3	i	l 1	* L1	S1	S2
GE06PLG	Light L 250 bar	6	G 1/8 A	14	8	8.5	24	14	14
GE08PLG		8	G 1/4 A	18	12	10	25	19	17
GE08PLG03		8	G 3/8 A	22	12	11.5	26.5	22	17
GE10PLG		10	G 1/4 A	18	12	11	26.5	19	19
GE10PLG03		10	G 3/8 A	22	12	12.5	28	22	19
GE12PLG02		12	G 1/4 A	18	12	12	27	19	22
GE12PLG		12	G 3/8 A	22	12	12.5	27.5	22	22
GE12PLG04		12	G 1/2 A	26	14	13	28	27	22
GE15PLG		15	G 1/2 A	26	14	14	30	27	27
GE18PLG	160 bar	18	G 1/2 A	26	14	14.5	31.5	27	32
GE22PLG		22	G 3/4 A	32	16	16.5	33.5	32	36
GE28PLG	100 bar	28	G 1 A	39	18	17.5	35.5	41	41
GE35PLG		35	G1 1/4 A	49	20	17.5	40.5	50	50
GE42PLG		42	G1 1/2 A	55	22	19	42.5	55	60
GE06PSG	Heavy S 630 bar	6	G 1/4 A	18	12	13	28.5	19	17
GE08PSG		8	G 1/4 A	18	12	15	30	19	19
GE10PSG		10	G 3/8 A	22	12	15	32	22	22
GE12PSG		12	G 3/8 A	22	12	17	33.5	22	24
GE12PSG04		12	G 1/2 A	26	14	17.5	34	27	24
GE16PSG	400 bar	16	G 1/2 A	26	14	18.5	37.5	27	30
GE20PSG		20	G 3/4 A	32	16	20.5	43	32	36
GE25PSG		25	G 1 A	39	18	23	48	41	46
GE30PSG	250 bar	30	G1 1/4 A	49	20	23.5	51.5	50	50
GE38PSG		38	G1 1/2 A	55	22	26	57.5	55	60

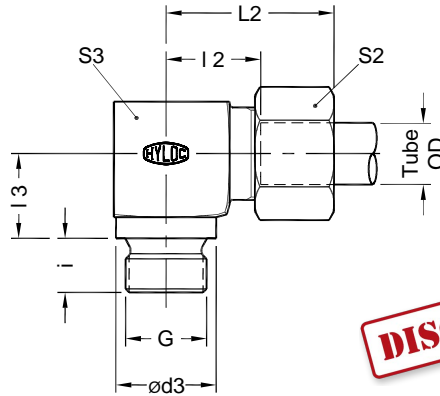
Male Stud Elbow Couplings

WE-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and BSPP (G) stud end



DISCONTINUED

Part No.	Series	Tube od	G Male BSP thread	ø d3	i	I 2	I 3	* L2	S2	S3
WE22PLG	160 bar	22	G 3/4 A	32	16	27.5	26	44.5	36	32
WE28PLG	Light L	28	G 1 A	39	18	30.5	30	48.5	41	41
WE35PLG		35	G1 1/4 A	49	20	34.5	34	57.5	50	50
WE42PLG	100 bar	42	G1 1/2 A	55	22	40.0	39	63.5	60	55
WE20PSG	Heavy S	20	G 3/4 A	32	16	26.5	26	49.0	36	32
WE25PSG		400 bar	25	G 1 A	39	18	30.0	30	55.0	46
WE30PSG	250 bar	30	G1 1/4 A	49	20	35.5	34	63.5	50	50
WE38PSG		38	G1 1/2 A	55	22	41.0	39	72.5	60	55

* Dimensions given are approx figures with tightened nut.

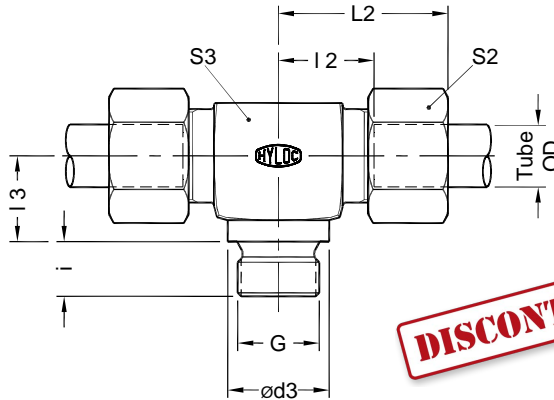
Male Stud Branch Tee Couplings

TE-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and BSPP (G) stud end



DISCONTINUED

Part No.	Series	Tube od	G Male BSP thread	ø d3	i	L 2	L 3	* L 2	S 2	S 3
TE22PLG	160 bar	22	G 3/4 A	32	16	27.5	26	44.5	36	32
TE28PLG	Light L	28	G 1 A	39	18	30.5	30	48.5	41	41
TE35PLG		35	G1 1/4 A	49	20	34.5	34	57.5	50	50
TE42PLG	100 bar	42	G1 1/2 A	55	22	40.0	39	63.5	60	55
TE20PSG	Heavy S	20	G 3/4 A	32	16	26.5	26	49.0	36	32
TE25PSG		400 bar	25	G 1 A	39	18	30.0	30	55.0	46
TE30PSG	250 bar	30	G1 1/4 A	49	20	35.5	34	63.5	50	50
TE38PSG		38	G1 1/2 A	55	22	41.0	39	72.5	60	55

* Dimensions given are approx figures with tightened nut.

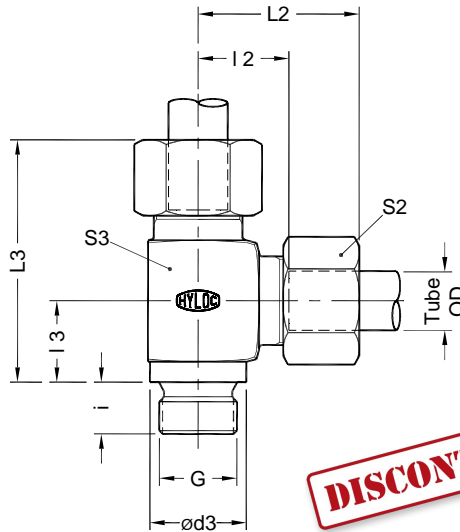
Male Stud Barrel Tee Couplings

LE-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and BSPP (G) stud end



Part No.	Series	Tube od	G Male BSP thread	ø d3	i	l 2	l 3	* L2	* L3	S2	S3
LE22PLG	160 bar	22	G 3/4 A	32	16	27.5	26	44.5	70.5	36	32
LE28PLG	100 bar	28	G 1 A	39	18	30.5	30	48.5	78.5	41	41
LE35PLG	Light L	35	G1 1/4 A	49	20	34.5	34	57.5	91.5	50	50
LE42PLG		42	G1 1/2 A	55	22	40.0	39	63.5	102.5	60	55
LE20PSG	400 bar	20	G 3/4 A	32	16	26.5	26	49.0	75.0	36	32
LE25PSG	Heavy S	25	G 1 A	39	18	30.0	30	55.0	85.0	46	41
LE30PSG	250 bar	30	G1 1/4 A	49	20	35.5	34	63.5	97.5	50	50
LE38PSG		38	G1 1/2 A	55	22	41.0	39	72.5	111.5	60	55

* Dimensions given are approx figures with tightened nut.

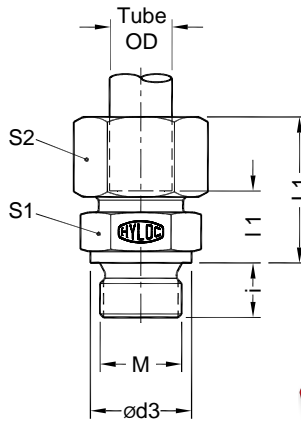
Straight Male Stud Couplings

GE-M

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male Metric (M) thread



DISCONTINUED

Low Pressure Series

Part No.	Series	Tube od	M Male Metric thread	ø d3	i	l 1	* L1	S1	S2	
GE06PLM	Light L 315 bar	6	M10 x 1.0	14	8	8.5	24.0	14	14	
GE08PLM		8	M12 x 1.5	17	12	10.0	25.0	17	17	
GE08PLM18		8	M18 x 1.5	23	12	11.5	26.5	24	17	
GE10PLM		10	M14 x 1.5	19	12	11.0	26.5	19	19	
GE10PLM16		10	M16 x 1.5	21	12	12.0	27.5	22	19	
GE10PLM18		10	M18 x 1.5	23	12	12.5	28.0	24	19	
GE10PLM22		10	M22 x 1.5	27	14	14.0	29.5	27	19	
GE12PLM14		12	M14 x 1.5	19	12	11.0	26.0	19	22	
GE12PLM		12	M16 x 1.5	21	12	12.5	27.5	22	22	
GE12PLM18		12	M18 x 1.5	23	12	12.5	27.5	24	22	
GE12PLM22		12	M22 x 1.5	27	14	14.0	29.0	27	22	
GE15PLM16		15	M16 X 1.5	21	12	13.0	29.0	24	27	
GE15PLM		15	M18 x 1.5	23	12	13.5	29.5	24	27	
GE15PLM22		15	M22 x 1.5	27	14	15.0	31.0	27	27	
GE18PLM18		18	M18 x 1.5	23	12	14.0	31.0	27	32	
GE18PLM		18	M22 X 1.5	27	14	14.5	31.5	27	32	
GE22PLM22		160 bar	22	M22 x 1.5	27	14	16.5	33.5	32	36
GE22PLM		22	M26 x 1.5	31	16	16.5	33.5	32	36	
GE28PLM		28	M33 X 2.0	39	18	17.5	35.5	41	41	
GE35PLM		35	M42 X 2.0	49	20	17.5	40.5	50	50	
GE42PLM		42	M48 X 2.0	55	22	19.0	42.5	55	60	

* Dimensions given are approx figures with tightened nut.

 13

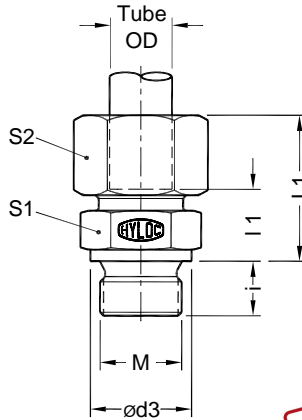
Straight Male Stud Couplings

GE-M

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male Metric (M) thread



DISCONTINUED

High Pressure Series

Part No.	Series	Tube od	M Male Metric thread	ø d3	i	l 1	* L1	S1	S2
GE06PSM	Heavy S 630 bar	6	M12 x 1.5	17	12	13	28.5	17	17
GE08PSM		8	M14 x 1.5	19	12	15	30	19	19
GE10PSM		10	M16 x 1.5	21	12	15	32	22	22
GE12PSM		12	M18 x 1.5	23	12	17	33.5	24	24
GE12PSM22		12	M22 x 1.5	27	14	17.5	34	27	24
GE16PSM18	400 bar	16	M18 x 1.5	23	12	18	37	27	30
GE16PSM		16	M22 x 1.5	27	14	18.5	37.5	27	30
GE20PSM		20	M27 x 2.0	32	16	20.5	43	32	36
GE25PSM		25	M33 x 2.0	39	18	23	48	41	46
GE30PSM	250 bar	30	M42 x 2.0	49	20	23.5	51.5	50	50
GE38PSM		38	M48 x 2.0	55	22	26	57.5	55	60

* Dimensions given are approx figures with tightened nut.

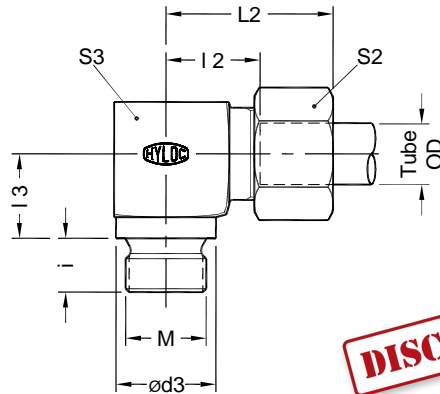
Male Stud Elbow Couplings

WE-M

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and Metric (M) stud end



Part No.	Series	Tube od	M Male Metric thread	ø d3	i	l 2	l 3	* L2	S2	S3
WE22PLM	160 bar	22	M 26 x 1.5	32	16	27.5	26	44.5	36	32
WE28PLM	100 bar	28	M 33 x 2.0	39	18	30.5	30	48.5	41	41
WE35PLM	Light L	35	M 42 x 2.0	49	20	34.5	34	57.5	50	50
WE42PLM		42	M 48 x 2.0	55	22	40.0	39	63.5	60	55
WE20PSM	400 bar	20	M 27 x 2.0	32	16	26.5	26	49.0	36	32
WE25PSM	Heavy S	25	M 33 x 2.0	39	18	30.0	30	55.0	46	41
WE30PSM		250 bar	30	M 42 x 2.0	49	20	35.5	34	63.5	50
WE38PSM		38	M 48 x 2.0	55	22	41.0	39	72.5	60	55

* Dimensions given are approx figures with tightened nut.

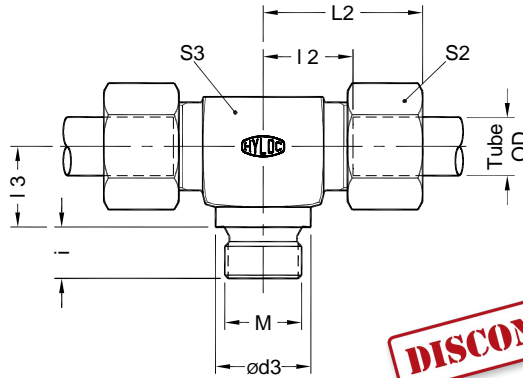
Male Stud Branch Tee Couplings

TE-M

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and Metric (M) stud end



Part No.	Series	Tube od	M Male Metric thread	ød3	i	I 2	I 3	* L2	S2	S3
TE22PLM	160 bar	22	M 26 x 1.5	32	16	27.5	26	44.5	36	32
TE28PLM	100 bar	28	M 33 x 2.0	39	18	30.5	30	48.5	41	41
TE35PLM	Light L	35	M 42 x 2.0	49	20	34.5	34	57.5	50	50
TE42PLM		42	M 48 x 2.0	55	22	40.0	39	63.5	60	55
TE20PSM	400 bar	20	M 27 x 2.0	32	16	26.5	26	49.0	36	32
TE25PSM	Heavy S	25	M 33 x 2.0	39	18	30.0	30	55.0	46	41
TE30PSM		250 bar	30	M 42 x 2.0	49	20	35.5	34	63.5	50
TE38PSM		38	M 48 x 2.0	55	22	41.0	39	72.5	60	55

* Dimensions given are approx figures with tightened nut.

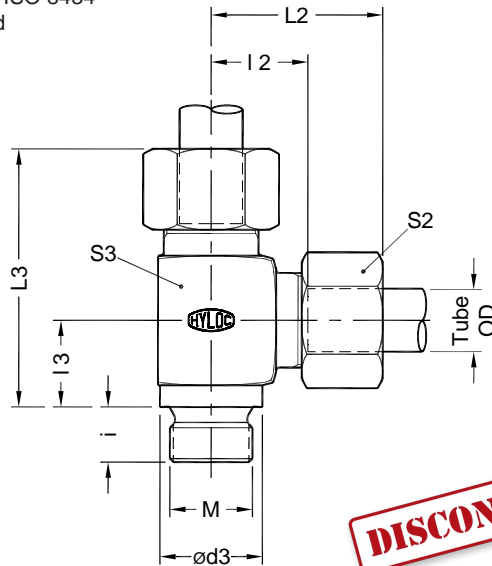
Male Stud Barrel Tee Couplings

LE-M

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and Metric (M) stud end



Part No.	Series	Tube od	M Male Metric thread	ø d3	i	l 2	l 3	* L2	* L3	S2	S3
LE22PLM	160 bar	22	M 26 x 1.5	32	16	27.5	26	44.5	70.5	36	32
LE28PLM	100 bar	28	M 33 x 2.0	39	18	30.5	30	48.5	78.5	41	41
LE35PLM	Light L	35	M 42 x 2.0	49	20	34.5	34	57.5	91.5	50	50
LE42PLM		42	M 48 x 2.0	55	22	40.0	39	63.5	102.5	60	55
LE20PSM	400 bar	20	M 27 x 2.0	32	16	26.5	26	49.0	75.0	36	32
LE25PSM	Heavy S	25	M 33 x 2.0	39	18	30.0	30	55.0	85.0	46	41
LE30PSM	250 bar	30	M 42 x 2.0	49	20	35.5	34	63.5	97.5	50	50
LE38PSM		38	M 48 x 2.0	55	22	41.0	39	72.5	111.5	60	55

* Dimensions given are approx figures with tightened nut.

Straight Male Stud Couplings

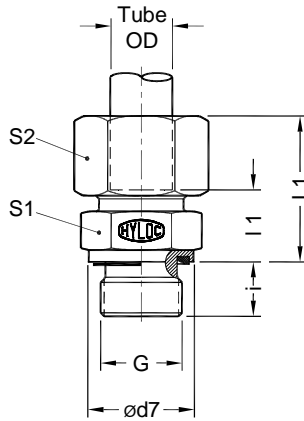
GE-GE

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Male BSPP (G) Thread as per
DIN 3852, Part 11 with
Elastomeric seal



Part No.	Series	Tube od	G Male BSP thread	ø d7	i	l1	* L1	S1	S2
GE06PLGE	Light L 250 bar	6	G 1/8 A	14	8	8.5	24	14	14
GE08PLGE		8	G 1/4 A	19	12	10	25	19	17
GE10PLGE		10	G 1/4 A	19	12	11	26.5	19	19
GE12PLGE		12	G 3/8 A	22	12	12.5	27.5	22	22
GE15PLGE		15	G 1/2 A	27	14	14	30	27	27
GE18PLGE	160 bar	18	G 1/2 A	27	14	14.5	31.5	27	32
GE22PLGE		22	G 3/4 A	32	16	16.5	33.5	32	36
GE28PLGE		100 bar	28	G 1 A	40	18	17.5	35.5	41
GE35PLGE	35		G1 1/4 A	50	20	17.5	40.5	50	50
GE42PLGE	42		G1 1/2 A	55	22	19	42.5	55	60
GE06PSGE	Heavy S 630 bar		6	G 1/4 A	19	12	13	28.5	19
GE08PSGE		8	G 1/4 A	19	12	15	30	19	19
GE10PSGE		10	G 3/8 A	22	12	15	32	22	22
GE12PSGE		12	G 3/8 A	22	12	17	33.5	22	24
GE16PSGE		400 bar	16	G 1/2 A	27	14	18.5	37.5	27
GE20PSGE	20		G 3/4 A	32	16	20.5	43	32	36
GE25PSGE	25		G 1 A	40	18	23	48	41	46
GE30PSGE	250 bar		30	G1 1/4 A	50	20	23.5	51.5	50
GE38PSGE		38	G1 1/2 A	55	22	26	57.5	55	60

* Dimensions given are approx figures with tightened nut.

Straight Male Stud Couplings

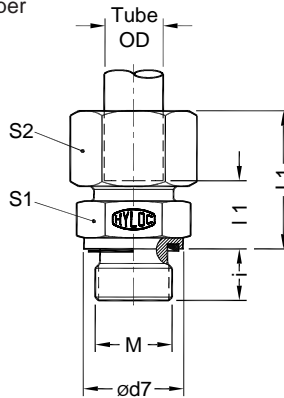
GE-ME

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Male Metric (M) Thread as per
DIN 3852 Part 11,
ISO 9974 Form E
with Elastomeric seal



Part No.	Series	Tube od	M Male Metric thread	ø d7	i	l1	* L1	S1	S2
GE06PLME	Light L 250 bar	6	M10 x 1.0	14	8	8.5	24	14	14
GE08PLME		8	M12 x 1.5	17	12	10	25	17	17
GE10PLME		10	M14 x 1.5	19	12	11	26.5	19	19
GE12PLME		12	M16 x 1.5	22	12	12.5	27.5	22	22
GE15PLME		15	M18 x 1.5	24	12	13.5	29.5	24	27
GE18PLME	160 bar	18	M22 x 1.5	27	14	14.5	31.5	27	32
GE22PLME		22	M26 x 1.5	32	16	16.5	33.5	32	36
GE28PLME	100 bar	28	M33 x 2.0	40	18	17.5	35.5	41	41
GE35PLME		35	M42 x 2.0	50	20	17.5	40.5	50	50
GE42PLME		42	M48 x 2.0	55	22	19	42.5	55	60
GE06PSME	Heavy S 630 bar	6	M12 x 1.5	17	12	13	28.5	17	17
GE08PSME		8	M14 x 1.5	19	12	15	30	19	19
GE10PSME		10	M16 x 1.5	22	12	15	32	22	22
GE12PSME		12	M18 x 1.5	24	12	17	33.5	24	24
GE16PSME	400 bar	16	M22 x 1.5	27	14	18.5	37.5	27	30
GE20PSME		20	M27 x 2.0	32	16	20.5	43	32	36
GE25PSME		25	M33 x 2.0	40	18	23	48	41	46
GE30PSME	250 bar	30	M42 x 2.0	50	20	23.5	51.5	50	50
GE38PSME		38	M48 x 2.0	55	22	26	57.5	55	60

* Dimensions given are approx figures with tightened nut.

Straight Male Stud Couplings

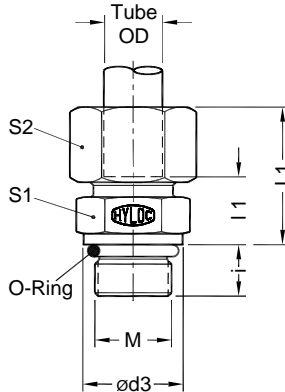
GE-MO

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434 and Metric stud end.

Male Metric (M) Threads with O-Ring sealing for port tappings according to ISO 6149 or DIN 3852 Part 3



Part No.	Series	Tube od	M Male Metric threads	ø d3	i	l 1	* L1	S1	S2	O-Ring ID x CSD ~ 90 Shore
GE06PLMO	Light	6	M10 x 1.0	14	9.5	8.5	24	14	14	8.1 x 1.6
GE08PLMO	L	8	M12 x 1.5	17	11	10	25	17	17	9.3 x 2.2
GE10PLMO	315	10	M14 x 1.5	19	11	11	26.5	19	19	11.3 x 2.2
GE12PLMO	bar	12	M16 x 1.5	22	12.5	12.5	27.5	22	22	13.3 x 2.2
GE15PLMO		15	M18 x 1.5	24	14	13.5	29.5	24	27	15.3 x 2.2
GE18PLMO		18	M22 x 1.5	27	15	14.5	31.5	27	32	19.3 x 2.2
GE22PLM270	160	22	M27 x 2.0	32	18.5	16.5	33.5	32	36	23.6 x 2.9
GE28PLMO	bar	28	M33 x 2.0	41	18.5	17.5	35.5	41	41	29.6 x 2.9
GE35PLMO		35	M42 x 2.0	50	19	17.5	40.5	50	50	38.6 x 2.9
GE42PLMO		42	M48 x 2.0	55	21.5	19.5	43	55	60	44.6 x 2.9
GE06PSMO	Heavy	6	M12 x 1.5	17	11	13	28.5	17	17	9.3 x 2.2
GE08PSMO	S	8	M14 x 1.5	19	11	15	30	19	19	11.3 x 2.2
GE10PSMO	630	10	M16 x 1.5	22	12.5	15	32	22	22	13.3 x 2.2
GE12PSMO	bar	12	M18 x 1.5	24	14	17	33.5	24	24	15.3 x 2.2
GE16PSMO	400	16	M22 x 1.5	27	15	18.5	37.5	27	30	19.3 x 2.2
GE20PSMO	bar	20	M27 x 2.0	32	18.5	20.5	43	32	36	23.6 x 2.9
GE25PSMO		25	M33 x 2.0	41	18.5	23	48	41	46	29.6 x 2.9
GE30PSMO		30	M42 x 2.0	50	19	23.5	51.5	50	50	38.6 x 2.9
GE38PSMO		38	M48 x 2.0	55	21.5	26.5	58	55	60	44.6 x 2.9

* Dimensions given are approx figures with tightened nut.

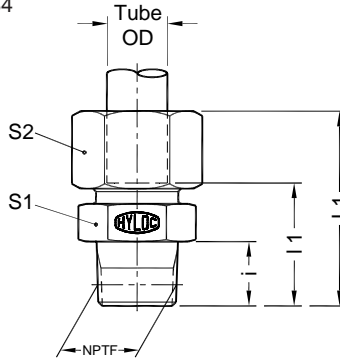
Straight Male Stud Couplings

GE-N

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and NPTF stud end



Part No.	Series	Tube od	Male NPTF thread	i	l1	*L1	S1	S2
GE06PLN	Light L 250 bar	6	1/8"-27	9.9	17	32.5	12	14
GE06PLN02		6	1/4"-18	15.1	23	38.5	17	14
GE08PLN		8	1/4"-18	15.1	23	38	17	17
GE10PLN		10	1/4"-18	15.1	24	39.5	17	19
GE12PLN02		12	1/4"-18	15.1	25	40	19	22
GE12PLN		12	3/8"-18	15.2	25	40	19	22
GE12PLN04		12	1/2"-14	19.8	30	45	22	22
GE15PLN	15	1/2"-14	19.8	31	47	24	27	
GE18PLN	160bar	18	1/2"-14	19.8	31.5	48.5	27	32
GE22PLN		22	3/4"-14	20.1	33.5	50.5	32	36
GE28PLN		28	1"-11 1/2	25	39.5	57.5	41	41
GE35PLN	100 bar	35	1 1/4"-11 1/2	25.6	40.5	63.5	46	50
GE42PLN		42	1 1/2"-11 1/2	26	42	65.5	55	60
GE06PSN	Heavy S 630 bar	6	1/4"-18	15.1	28	43.5	17	17
GE08PSN		8	1/4"-18	15.1	28	43	17	19
GE10PSN02		10	1/4"-18	15.1	27.5	44.5	19	22
GE10PSN		10	3/8"-18	15.2	27.5	44.5	19	22
GE12PSN02		12	1/4"-18	15.1	29.5	46	22	24
GE12PSN		12	3/8"-18	15.2	29.5	46	22	24
GE12PSN04		12	1/2"-14	19.8	34.5	51	22	24
GE16PSN	400 bar	16	1/2"-14	19.8	35.5	54.5	27	30
GE20PSN		20	3/4"-14	20.1	37.5	60	32	36
GE25PSN		25	1"-11 1/2	25	45	70	41	46
GE30PSN	250 bar	30	1 1/4"-11 1/2	25.6	46.5	74.5	46	50
GE38PSN		38	1 1/2"-11 1/2	26	49	80.5	55	60

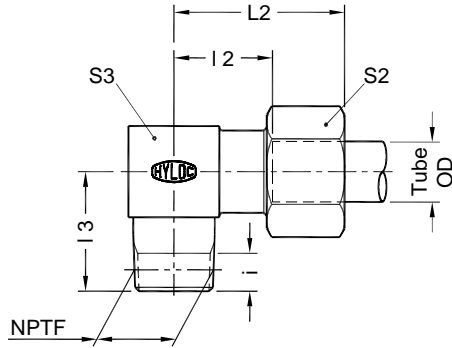
Male Stud Elbow Couplings

WE-N

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
and NPTF stud end



Part No.	Series	Tube od	Male NPTF thread	i	l2	l3	* L2	S2	S3
WE06PLN	Light L 250 bar	6	1/8-27	9.9	12.0	20	27.5	14	12
WE08PLN		8	1/4-18	15.1	14.0	26	29.0	17	14
WE10PLN		10	1/4-18	15.1	15.0	28	30.5	19	17
WE12PLN		12	3/8-18	15.2	17.0	30	32.0	22	19
WE15PLN		15	1/2-14	19.8	21.0	37	37.0	27	22
WE18PLN	160 bar	18	1/2-14	19.8	23.5	40	40.5	32	27
WE22PLN		22	3/4-14	20.1	27.5	42	44.5	36	30
WE28PLN	100 bar	28	1- 11 1/2	25	30.5	50	48.5	41	36
WE35PLN		35	1.1/4-11 1/2	25.6	34.5	56	57.5	50	46
WE42PLN		42	1.1/2-11 1/2	26	40.0	62	63.5	60	55
WE06PSN	Heavy S 630 bar	6	1/4-18	15.1	16.0	26	31.5	17	14
WE08PSN		8	1/4-18	15.1	17.0	28	32.0	19	17
WE10PSN		10	3/8-18	15.2	17.5	30	34.5	22	19
WE12PSN		12	3/8-18	15.2	21.5	31	38.0	24	22
WE16PSN		400 bar	16	1/2-14	19.8	24.5	39	43.5	30
WE20PSN	20		3/4-14	20.1	26.5	43	49.0	36	30
WE25PSN	25		1-11 1/2	25	30.0	54	55.0	46	36
WE30PSN	250 bar	30	1.1/4-11 1/2	25.6	35.5	56	63.5	50	46
WE38PSN		38	1.1/2-11 1/2	26	41.0	62	72.5	60	55

* Dimensions given are approx figures with tightened nut.

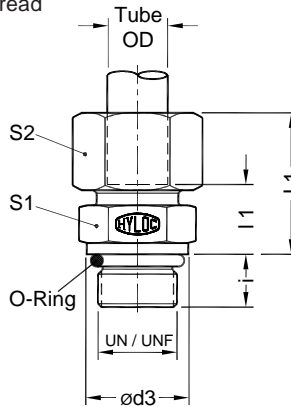
Straight Male Stud Couplings

GE-S

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male stud - SAE Straight thread
with O-Ring sealing



Low Pressure Series

Part No.	Series	Tube od	Male UN/UNF Class 2A	ø d3	i	l1	* L1	S1	S2	O-Ring ID x CSD
GE08PLS	Light 250 bar	8	7/16 - 20 UNF	14.1	11	10	25.5	17	17	8.92 x 1.83
GE10PLS		10	7/16 - 20 UNF	14.1	11	11	26	17	19	8.92 x 1.83
GE12PLS		12	9/16 - 18 UNF	17.3	12	11	26.5	19	22	11.9 x 1.98
GE12PLS08		12	3/4 -16 UNF	22.0	14	13	28	24	22	16.36 x 2.20
GE12PLS10		12	7/8 -14 UNF	25.2	16	14	29	27	22	19.18 x 2.46
GE15PLS		15	3/4 -16 UNF	22.0	14	14	29	24	27	16.36 x 2.20
GE15PLS10		15	7/8 -14 UNF	25.2	16	15	31	27	27	19.18 x 2.46
GE18PLS	160 bar	18	3/4 -16 UNF	22.0	14	14.5	30.5	27	32	16.36 x 2.20
GE18PLS10		18	7/8 -14 UNF	25.2	16	14.5	31.5	27	32	19.18 x 2.46
GE22PLS		22	7/8 -14 UNF	25.2	16	16.5	33.5	32	36	19.18 x 2.46
GE22PLS12		22	1,1/16 -12 UN	31.5	18.5	16.5	33.5	32	36	23.47 x 2.95
GE22PLS16		22	1,5/16 -12 UN	37.9	18.5	17.5	34.5	41	36	29.74 x 2.95
GE28PLS		28	1,1/16 -12 UN	31.5	18.5	17.5	34.5	41	41	23.47 x 2.95
GE28PLS16	100 bar	28	1,5/16 -12 UN	37.9	18.5	17.5	35.5	41	41	29.74 x 2.95
GE35PLS		35	1,5/16 -12 UN	37.9	18.5	17.5	40.5	46	50	29.74 x 2.95
GE35PLS20		35	1,5/8 -12 UN	47.4	18.5	17.5	40.5	50	50	37.46 x 3.00
GE42PLS		42	1,5/8 -12 UN	47.4	18.5	19	42.5	55	60	37.46 x 3.00

* Dimensions given are approx figures with tightened nut.

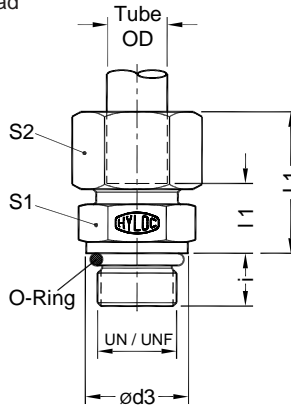
Straight Male Stud Couplings

GE-S

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male stud - SAE Straight thread
with O-Ring sealing



High Pressure Series

Part No.	Series	Tube od	Male UN/UNF Class 2A	ø d3	i	l 1	* L1	S1	S2	O-Ring ID x CSD
GE08PSS	Heavy 630 bar	8	7/16-20 UNF	14.1	11	15	30	17	19	8.92 x 1.83
GE10PSS		10	9/16-18 UNF	17.3	12	14.5	31.5	19	22	11.9 x 1.98
GE12PSS		12	9/16-18 UNF	17.3	12	14.5	31	22	24	11.9 x 1.98
GE12PSS08		12	3/4 -16 UNF	22	14	17.5	34	24	24	16.36 x 2.20
GE16PSS	400 bar	16	3/4 -16 UNF	22	14	15.5	34.5	24	30	16.36 x 2.20
GE16PSS10		16	7/8 -14 UNF	25.2	16	18.5	37.5	27	30	19.18 x 2.46
GE20PSS08	250 bar	20	3/4 -16 UNF	22	14	20.5	43	32	36	16.36 x 2.20
GE20PSS		20	7/8 -14 UNF	25.2	16	20.5	43	32	36	19.18 x 2.46
GE20PSS12		20	1,1/16-12 UN	31.5	18.5	20.5	43	32	36	23.47 x 2.95
GE25PSS		25	1,1/16-12 UN	31.5	18.5	23	48	36	46	23.47 x 2.95
GE25PSS16		25	1,5/16-12 UN	37.9	18.5	23	48	41	46	29.74 x 2.95
GE30PSS		30	1,5/16-12 UN	37.9	18.5	23.5	51.5	46	50	29.74 x 2.95
GE30PSS20	bar	30	1,5/8-12 UN	47.4	18.5	23.5	51.5	50	50	37.46 x 3.00
GE30PSS24		30	1,7/8-12 UN	53.8	18.5	23.5	51.5	55	50	43.69 x 3.00
GE38PSS		38	1,5/8-12 UN	47.4	18.5	26	57.5	55	60	37.46 x 3.00
GE38PSS24		38	1,7/8-12 UN	53.8	18.5	26	57.5	55	60	43.69 x 3.00

* Dimensions given are approx figures with tightened nut.

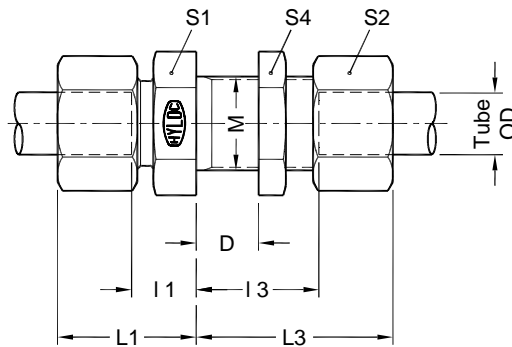
Straight Bulkhead Couplings

SV

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



D = 16mm (max)

Lock nut part number - GM

Part No.	Series	Tube od	M	I1	I3	* *		S1	S2	S4
						L1	L3			
SV06PL	Light L 250 bar	6	M12 x 1.5	7	27.0	22.5	42.5	17	14	17
SV08PL		8	M14 x 1.5	8	27.0	23.0	42.0	19	17	19
SV10PL		10	M16 x 1.5	10	28.0	25.5	43.5	22	19	22
SV12PL		12	M18 x 1.5	10	29.0	25.0	44.0	24	22	24
SV15PL		15	M22 x 1.5	12	31.0	28.0	47.0	27	27	30
SV18PL	160 bar	18	M26 x 1.5	13.5	32.5	30.5	49.5	32	32	36
SV22PL		22	M30 x 2.0	16.5	34.5	33.5	51.5	36	36	41
SV28PL	100 bar	28	M36 x 2.0	18.5	35.5	36.5	53.5	41	41	46
SV35PL		35	M45 x 2.0	18.5	36.5	41.5	59.5	50	50	55
SV42PL		42	M52 x 2.0	19	36.0	42.5	59.5	60	60	65
SV06PS	Heavy S 630 bar	6	M14 x 1.5	12	29.0	27.5	44.5	19	17	19
SV08PS		8	M16 x 1.5	13	29.0	28.0	44.0	22	19	22
SV10PS		10	M18 x 1.5	14.5	29.5	31.5	46.5	24	22	24
SV12PS		12	M20 x 1.5	14.5	30.5	31.0	47.0	27	24	27
SV16PS		400 bar	16	M24 x 1.5	16.5	31.5	35.5	50.5	32	30
SV20PS	20		M30 x 2.0	17.5	33.5	40.0	56.0	41	36	41
SV25PS	25		M36 x 2.0	20	35.0	45.0	60.0	46	46	46
SV30PS	250 bar	30	M42 x 2.0	21.5	37.5	49.5	65.5	50	50	50
SV38PS		38	M52 x 2.0	22	37.0	53.5	68.5	65	60	65

* Dimensions given are approx figures with tightened nut.

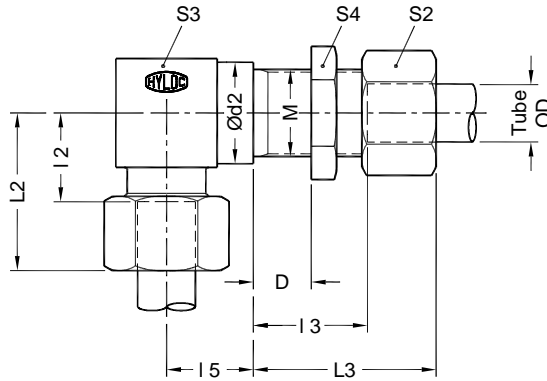
Elbow Bulkhead Couplings

WSV

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



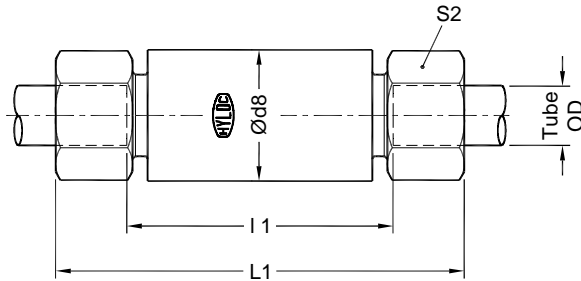
D = 16mm (max)

Lock nut part number - GM

Part No.	Series	Tube od	M	Ød2	I2	I3	I5	*		S2	S3	S4
								L2	L3			
WSV06PL	Light L 250 bar	6	M12 x 1.5	17	12.0	27.0	14	27.5	42.5	14	17	17
WSV08PL		8	M14 x 1.5	19	14.0	27.0	17	29.0	42.0	17	19	19
WSV10PL		10	M16 x 1.5	22	15.0	28.0	18	30.5	43.5	19	22	22
WSV12PL		12	M18 x 1.5	24	17.0	29.0	20	32.0	44.0	22	24	24
WSV15PL		15	M22 x 1.5	27	21.0	31.0	23	37.0	47.0	27	27	30
WSV18PL	160 bar	18	M26 x 1.5	32	23.5	32.5	24	40.5	49.5	32	32	36
WSV22PL		22	M30 x 2.0	36	27.5	34.5	30	44.5	51.5	36	36	41
WSV28PL	100 bar	28	M36 x 2.0	42	30.5	35.5	34	48.5	53.5	41	42	46
WSV35PL		35	M45 x 2.0	50	34.5	36.5	39	57.5	59.5	50	50	55
WSV42PL		42	M52 x 2.0	60	40.0	36.0	43	63.5	59.5	60	60	65
WSV06PS	Heavy S	6	M14 x 1.5	19	16.0	29.0	17	31.5	44.5	17	19	19
WSV08PS		8	M16 x 1.5	22	17.0	29.0	18	32.0	44.0	19	22	22
WSV10PS	630 bar	10	M18 x 1.5	24	17.5	29.5	20	34.5	46.5	22	24	24
WSV12PS		12	M20 x 1.5	27	21.5	30.5	21	38.0	47.0	24	27	27
WSV16PS	400 bar	16	M24 x 1.5	30	24.5	31.5	24	43.5	50.5	30	30	32
WSV20PS		20	M30 x 2.0	36	26.5	33.5	30	49.0	56.0	36	36	41
WSV25PS		25	M36 x 2.0	42	30.0	35.0	34	55.0	60.0	46	42	46
WSV30PS	250 bar	30	M42 x 2.0	50	35.5	37.5	39	63.5	65.5	50	50	50
WSV38PS		38	M52 x 2.0	60	41.0	37.0	43	72.5	68.5	60	60	65

* Dimensions given are approx figures with tightened nut.

Metric Tube end as per ISO 8434

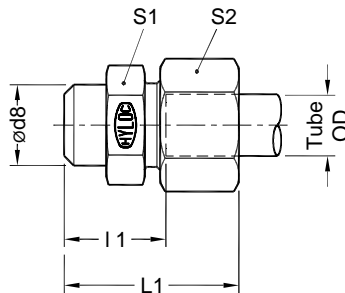


*

Part No.	Series	Tube od	Ød8	l 1	L1	S2
ESV06PL	Light L 250 bar	6	18	56	87	14
ESV08PL		8	20	56	86	17
ESV10PL		10	22	58	89	19
ESV12PL		12	25	58	88	22
ESV15PL		15	28	70	102	27
ESV18PL	160 bar	18	32	69	103	32
ESV22PL		22	36	73	107	36
ESV28PL		100 bar	28	40	73	109
ESV35PL	35		50	71	117	50
ESV42PL	42		60	70	117	60
ESV06PS	Heavy S 630 bar		6	20	60	91
ESV08PS		8	22	60	90	19
ESV10PS		10	25	59	93	22
ESV12PS		12	28	59	92	24
ESV16PS	400 bar	16	35	71	109	30
ESV20PS		20	38	71	116	36
ESV25PS		25	45	72	122	46
ESV30PS	250 bar	30	50	73	129	50
ESV38PS		38	60	72	135	60

* Dimensions given are approx figures with tightened nut.

Metric Tube end as per ISO 8434



*

Part No.	Series	Tube od	ød8	I 1	L1	S1	S2
AS06PL	Light L 250 bar	6	10	14.0	29.5	12	14
AS08PL		8	12	16.0	31.0	14	17
AS10PL		10	14	18.0	33.5	17	19
AS12PL		12	16	18.0	33.0	19	22
AS15PL		15	19	22.0	38.0	22	27
AS18PL	160 bar	18	22	23.5	40.5	27	32
AS22PL		22	27	28.5	45.5	32	36
AS28PL	100 bar	28	32	30.5	48.5	41	41
AS35PL		35	40	32.5	55.5	46	50
AS42PL		42	46	35.0	58.5	55	60
AS06PS	Heavy S 630 bar	6	11	19.0	34.5	14	17
AS08PS		8	13	21.0	36.0	17	19
AS10PS		10	15	22.5	39.5	19	22
AS12PS		12	17	24.5	41.0	22	24
AS16PS	400 bar	16	21	26.5	45.5	27	30
AS20PS		20	26	29.5	52.0	32	36
AS25PS		25	31	32.0	57.0	41	46
AS30PS	250 bar	30	36	35.5	63.5	46	50
AS38PS		38	44	38.0	69.5	55	60

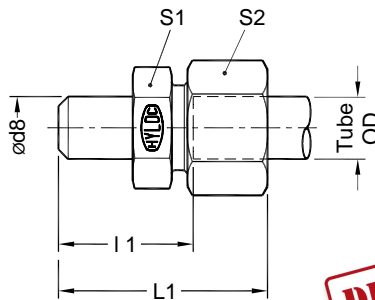
* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

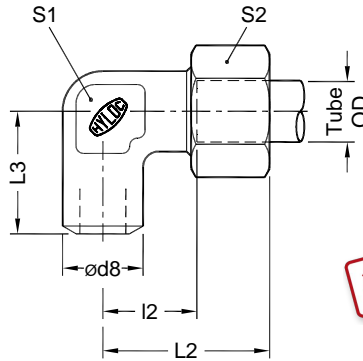
For Equal size Tubes



DISCONTINUED

Part No.	Series	Tube od	$\varnothing d8$	I 1	L1	S1	S2
ASE06PL	Light L 250 bar	6	6	14.0	29.5	12	14
ASE08PL		8	8	16.0	31.0	14	17
ASE10PL		10	10	18.0	33.5	17	19
ASE12PL		12	12	18.0	33.0	19	22
ASE15PL		15	15	22.0	38.0	22	27
ASE18PL	160 bar	18	18	23.5	40.5	27	32
ASE22PL		22	22	28.5	45.5	30	36
ASE28PL	100 bar	28	28	30.5	48.5	36	41
ASE35PL		35	35	32.5	55.5	46	50
ASE42PL		42	42	35.0	58.5	55	60
ASE06PS	Heavy S 630 bar	6	6	19.0	34.5	14	17
ASE08PS		8	8	21.0	36.0	17	19
ASE10PS		10	10	22.5	39.5	19	22
ASE12PS		12	12	24.5	41.0	22	24
ASE16PS	400 bar	16	16	26.5	45.5	24	30
ASE20PS		20	20	29.5	52.0	30	36
ASE25PS		25	25	32.0	57.0	36	46
ASE30PS	250 bar	30	30	35.5	63.5	46	50
ASE38PS		38	38	38.0	69.5	55	60

Metric Tube end as per ISO 8434



DISCONTINUED

*

Part No.	Series	Tube od	ød8	I 2	L2	L3	S1	S2
WAS06PL	Light L 250 bar	6	10	12.0	27.5	19	12	14
WAS08PL		8	12	14.0	29.0	23	12	17
WAS10PL		10	14	15.0	30.5	24	14	19
WAS12PL		12	16	17.0	32.0	25	17	22
WAS15PL		15	19	21.0	37.0	30	22	27
WAS18PL	160 bar	18	22	23.5	40.5	31	24	32
WAS22PL		22	27	27.5	44.5	37	27	36
WAS28PL	100 bar	28	32	30.5	48.5	42	36	41
WAS35PL		35	40	34.5	57.5	49	41	50
WAS42PL		42	46	40.0	63.5	57	50	60
WAS06PS	Heavy S 630 bar	6	11	16.0	31.5	23	12	17
WAS08PS		8	13	17.0	32.0	24	14	19
WAS10PS		10	15	17.5	34.5	25	17	22
WAS12PS		12	17	21.5	38.0	29	19	24
WAS16PS	400 bar	16	21	24.5	43.5	33	24	30
WAS20PS		20	26	26.5	49.0	37	27	36
WAS25PS	250 bar	25	31	30.0	55.0	42	36	46
WAS30PS		30	36	35.5	63.5	49	41	50
WAS38PS		38	44	41.0	72.5	57	50	60

* Dimensions given are approx figures with tightened nut.

Straight Female Couplings

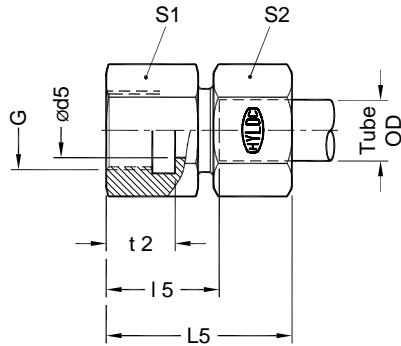
GAI-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Female BSPP (G) threads



Part No.	Series	Tube od	G	ød5	t 2	I 5	L 5	S1	S2
GAI06PLG	Light L 250 bar	6	G 1/8	4	12.0	19.0	34.5	14	14
GAI08PLG		8	G 1/4	6	17.0	24.0	39.0	19	17
GAI10PLG		10	G 1/4	8	17.0	25.0	40.5	19	19
GAI12PLG		12	G 3/8	10	17.0	26.0	41.0	24	22
GAI15PLG		15	G 1/2	12	20.0	31.0	47.0	27	27
GAI18PLG	160 bar	18	G 1/2	15	20.0	30.5	47.5	27	32
GAI22PLG		22	G 3/4	19	22.0	35.5	52.5	36	36
GAI28PLG		28	G 1	24	24.5	38.0	56.0	41	41
GAI35PLG	100 bar	35	G1.1/4	30	26.5	41.0	64.0	55	50
GAI42PLG		42	G1.1/2	36	28.5	42.5	66.0	60	60
GAI06PSG		Heavy S 630 bar	6	G 1/4	4	17.0	26.0	41.5	19
GAI08PSG	8		G 1/4	5	17.0	26.0	41.0	19	19
GAI10PSG	10		G 3/8	7	17.0	26.5	43.5	24	22
GAI12PSG	12		G 3/8	8	17.0	26.5	43.0	24	24
GAI16PSG	400 bar		16	G 1/2	12	20.0	31.5	50.5	30
GAI20PSG		20	G 3/4	16	22.0	34.5	57.0	36	36
GAI25PSG		25	G 1	20	24.5	37.5	62.5	41	46
GAI30PSG	250 bar	30	G 1.1/4	25	26.5	42.0	70.0	55	50
GAI38PSG		38	G 1.1/2	32	28.5	43.5	75.0	60	60

* Dimensions given are approx figures with tightened nut.

Straight Female Couplings

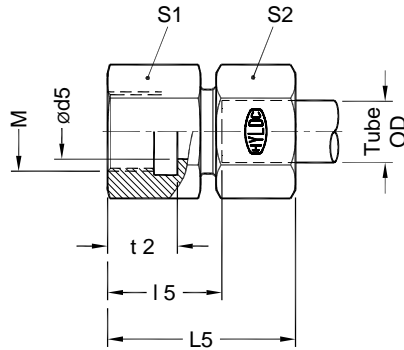
GAI-M

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Female Metric (M) threads

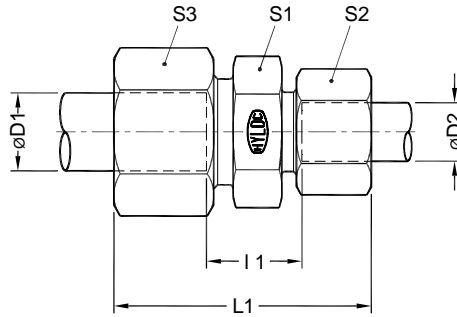


*

Part No.	Series	Tube od	M	$\phi d5$	t 2	I 5	L 5	S 1	S 2
GAI06PLM	Light L 250 bar	6	M10 x 1.0	4	12.5	19.5	35.0	14	14
GAI08PLM		8	M12 x 1.5	6	17	24.0	39.0	17	17
GAI10PLM		10	M14 x 1.5	8	17	25.0	40.5	19	19
GAI12PLM		12	M16 x 1.5	10	17	26.0	41.0	22	22
GAI15PLM		15	M18 x 1.5	12	17	28.0	44.0	24	27
GAI18PLM	160 bar	18	M22 x 1.5	15	19	29.5	46.5	30	32
GAI22PLM		22	M26 x 1.5	19	21	34.5	51.5	32	36
GAI28PLM	100 bar	28	M33 x 2.0	24	24	37.5	55.5	41	41
GAI35PLM		35	M42 x 2.0	30	26	40.5	63.5	55	50
GAI42PLM		42	M48 x 2.0	36	28	42.0	65.5	60	60
GAI06PSM	Heavy S 630 bar	6	M12 x 1.5	4	17	26.0	41.5	17	17
GAI08PSM		8	M14 x 1.5	5	17	26.0	41.0	19	19
GAI10PSM		10	M16 x 1.5	7	17	26.5	43.5	22	22
GAI12PSM		12	M18 x 1.5	8	17	27.5	44.0	24	24
GAI16PSM	400 bar	16	M22 x 1.5	12	19	30.5	49.5	30	30
GAI20PSM		20	M27 x 2.0	16	22	34.5	57.0	36	36
GAI25PSM		25	M33 x 2.0	20	24	37.0	62.0	41	46
GAI30PSM	250 bar	30	M42 x 2.0	25	26	41.5	69.5	55	50
GAI38PSM		38	M48 x 2.0	32	28	43.0	74.5	60	60

* Dimensions given are approx figures with tightened nut.

Metric Tube end as per ISO 8434



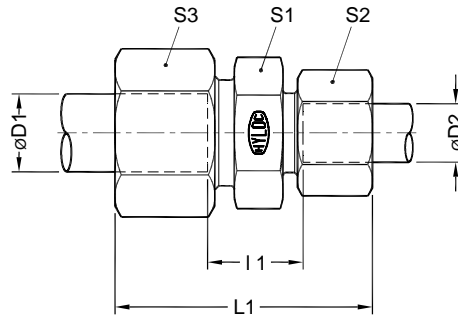
Low Pressure Series

*

Part No.	Pr (bar)	ØD1	ØD2	l1	L1	S1	S2	S3
GR0604PLL	100	6	4	10.5	32	12	10	12
GR0804PLL		8	4	12.5	34	12	10	14
GR0806PLL		8	6	11.0	34	12	12	14
GR0806PL	315	8	6	11.0	41.5	14	14	17
GR1006PL	315	10	6	12.0	43.0	17	14	19
GR1008PL		10	8	12.0	42.5	17	17	19
GR1206PL	315	12	6	13.0	43.5	19	14	22
GR1208PL		12	8	13.0	43.0	19	17	22
GR1210PL		12	10	14.0	44.5	19	19	22
GR1510PL	315	15	10	15.0	46.5	24	19	27
GR1512PL		15	12	15.0	46.0	24	22	27
GR1810PL	315	18	10	15.5	48.0	27	19	32
GR1812PL		18	12	15.5	47.5	27	22	32
GR1815PL		18	15	16.5	49.5	27	27	32
GR2212PL	160	22	12	17.5	49.5	32	22	36
GR2215PL		22	15	18.5	51.5	32	27	36
GR2218PL		22	18	18.0	52.0	32	32	36
GR2818PL	160	28	18	19.0	54.0	41	32	41
GR2822PL		28	22	21.0	56.0	41	36	41
GR3522PL	160	35	22	21.0	61.0	46	36	50
GR3528PL		35	28	21.0	62.0	46	41	50

* Dimensions given are approx figures with tightened nut.

Metric Tube end as per ISO 8434



High Pressure Series

*

Part No.	Pr (bar)	$\varnothing D1$	$\varnothing D2$	I 1	L1	S1	S2	S3
GR0806PS	630	8	6	18.0	48.5	17	17	19
GR1006PS	630	10	6	17.5	50.0	19	17	22
GR1008PS		10	8	17.5	49.5	19	19	22
GR1206PS	630	12	6	19.5	51.5	22	17	24
GR1208PS		12	8	19.5	51.0	22	19	24
GR1210PS		12	10	19.0	52.5	22	22	24
GR1612PS	400	16	12	20.0	55.5	27	24	30
GR2010PS	400	20	10	22.0	61.5	32	22	36
GR2012PS		20	12	22.0	61.0	32	24	36
GR2016PS		20	16	23.0	64.5	32	30	36
GR2516PS		400	25	16	25.5	69.5	41	30
GR2520PS	25		20	25.5	73.0	41	36	46
GR3020PS	400	30	20	26.0	76.5	46	36	50
GR3025PS		30	25	26.5	79.5	46	46	50
GR3830PS	315	38	30	29.5	89.0	55	50	60

* Dimensions given are approx figures with tightened nut.

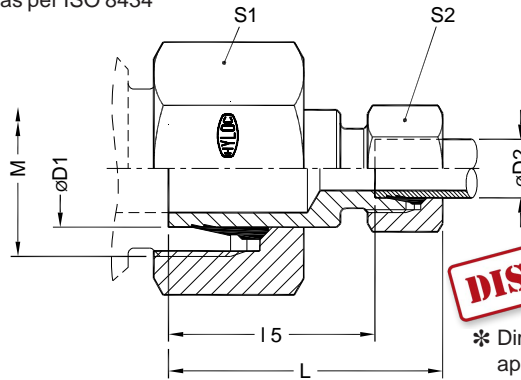
Reducing Standpipes

KOR-L

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

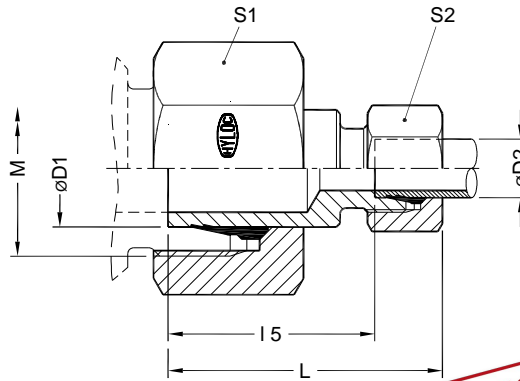


* Dimensions given are approx figures with tightened nut.

Low Pressure Series

Part No.	Series	ØD1	ØD2	M	I5	L*	S1	S2
KOR0806PL	250 bar	8	6	M14 x 1.5	23.5	39.0	17	14
KOR1006PL	250 bar	10	6	M16 x 1.5	23.5	39.0	19	14
KOR1008PL		10	8	M16 x 1.5	23.5	38.5	19	17
KOR1206PL	250 bar	12	6	M18 x 1.5	23.5	39.0	22	14
KOR1208PL		12	8	M18 x 1.5	23.5	38.5	22	17
KOR1210PL		12	10	M18 x 1.5	24.5	40.0	22	19
KOR1506PL	250 bar	15	6	M22 x 1.5	23.5	39.0	27	14
KOR1508PL		15	8	M22 x 1.5	23.5	38.5	27	17
KOR1510PL		15	10	M22 x 1.5	24.5	40.0	27	19
KOR1512PL		15	12	M22 x 1.5	24.5	39.5	27	22
KOR1806PL	160 bar	18	6	M26 x 1.5	24.5	40.0	32	14
KOR1808PL		18	8	M26 x 1.5	24.5	39.5	32	17
KOR1810PL		18	10	M26 x 1.5	25.5	41.0	32	19
KOR1812PL		18	12	M26 x 1.5	25.5	40.5	32	22
KOR1815PL		18	15	M26 x 1.5	26.5	42.5	32	27
KOR2206PL	160 bar	22	6	M30 x 2.0	25.5	41.0	36	14
KOR2208PL		22	8	M30 x 2.0	25.5	40.5	36	17
KOR2210PL		22	10	M30 x 2.0	26.5	42.0	36	19
KOR2212PL		22	12	M30 x 2.0	26.5	41.5	36	22
KOR2215PL		22	15	M30 x 2.0	27.5	43.5	36	27
KOR2218PL		22	18	M30 x 2.0	27.0	44.0	36	32
KOR2806PL	100 bar	28	6	M36 x 2.0	26.5	42.0	41	14
KOR2808PL		28	8	M36 x 2.0	26.5	41.5	41	17
KOR2810PL		28	10	M36 x 2.0	27.5	43.0	41	19
KOR2812PL		28	12	M36 x 2.0	27.5	42.5	41	22
KOR2815PL		28	15	M36 x 2.0	28.5	44.5	41	27
KOR2818PL		28	18	M36 x 2.0	28.0	45.0	41	32
KOR2822PL		28	22	M36 x 2.0	30.0	47.0	41	36

Metric Tube end as per ISO 8434

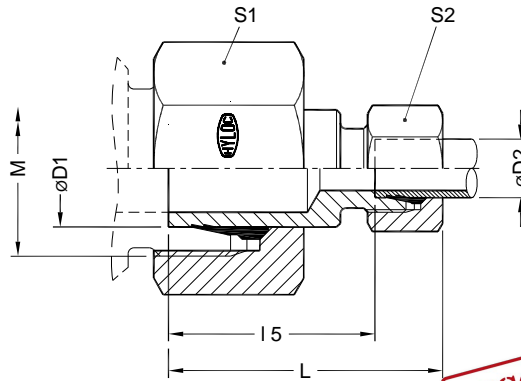


Low Pressure Series

Part No.	Series	øD1	øD2	M	I5	*L	S1	S2
KOR3506PL	100 bar	35	6	M45 x 2.0	31.5	47.0	50	14
KOR3508PL		35	8	M45 x 2.0	31.5	46.5	50	17
KOR3510PL		35	10	M45 x 2.0	32.5	48.0	50	19
KOR3512PL		35	12	M45 x 2.0	32.5	47.5	50	22
KOR3515PL		35	15	M45 x 2.0	33.5	49.5	50	27
KOR3518PL		35	18	M45 x 2.0	33.0	50.0	50	32
KOR3522PL		35	22	M45 x 2.0	35.0	52.0	50	36
KOR3528PL		35	28	M45 x 2.0	35.0	53.0	50	41
KOR4210PL	100 bar	42	10	M52 x 2.0	33.5	49.0	60	19
KOR4212PL		42	12	M52 x 2.0	33.5	48.5	60	22
KOR4215PL		42	15	M52 x 2.0	34.5	50.5	60	27
KOR4218PL		42	18	M52 x 2.0	34.0	51.0	60	32
KOR4222PL		42	22	M52 x 2.0	36.0	53.0	60	36
KOR4228PL		42	28	M52 x 2.0	36.0	54.0	60	41
KOR4235PL		42	35	M52 x 2.0	35.0	58.0	60	50

* Dimensions given are approx figures with tightened nut.

Metric Tube end as per ISO 8434



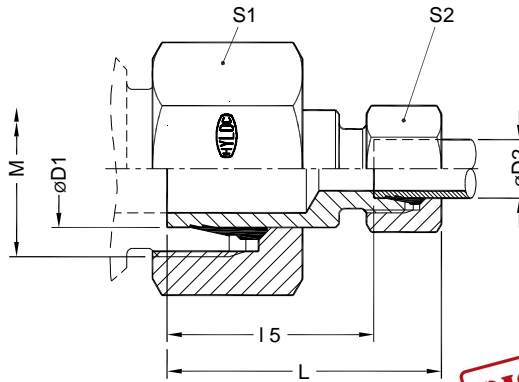
High Pressure Series

*

Part No.	Series	øD1	øD2	M	I5	L	S1	S2
KOR0806PS	250 bar	8	6	M16 x 1.5	25.0	40.5	19	17
KOR1006PS	250 bar	10	6	M18 x 1.5	26.0	41.5	22	17
KOR1008PS		10	8	M18 x 1.5	26.0	41.0	22	19
KOR1206PS	250 bar	12	6	M20 x 1.5	27.0	42.5	24	17
KOR1208PS		12	8	M20 x 1.5	27.0	42.0	24	19
KOR1210PS		12	10	M20 x 1.5	26.5	43.5	24	22
KOR1606PS	160 bar	16	6	M24 x 1.5	29.0	44.5	30	17
KOR1608PS		16	8	M24 x 1.5	29.0	44.0	30	19
KOR1610PS		16	10	M24 x 1.5	28.5	45.5	30	22
KOR1612PS		16	12	M24 x 1.5	28.5	43.5	30	24
KOR2006PS	160 bar	20	6	M30 x 2.0	34.0	49.5	36	17
KOR2008PS		20	8	M30 x 2.0	34.0	49.0	36	19
KOR2010PS		20	10	M30 x 2.0	33.5	50.5	36	22
KOR2012PS		20	12	M30 x 2.0	33.5	50.0	36	24
KOR2016PS		20	16	M30 x 2.0	34.5	53.5	36	30
KOR2506 PS	100 bar	25	6	M36 x 2.0	37.0	52.5	46	17
KOR2508PS		25	8	M36 x 2.0	37.0	52.0	46	19
KOR2510PS		25	10	M36 x 2.0	36.5	53.5	46	22
KOR2512PS		25	12	M36 x 2.0	36.5	53.0	46	24
KOR2516PS		25	16	M36 x 2.0	36.5	55.5	46	30
KOR2520PS		25	20	M36 x 2.0	37.5	60.0	46	36

* Dimensions given are approx figures with tightened nut.

Metric Tube end as per ISO 8434



DISCONTINUED

High Pressure Series

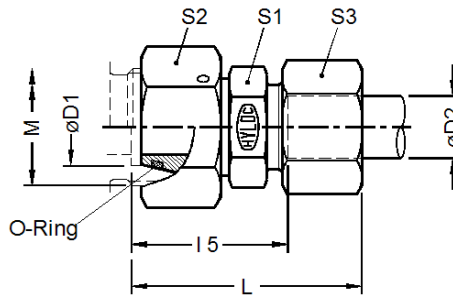
Part No.	Series	øD1	øD2	M	I 5	L	S1	S2
KOR3006PS	100 bar	30	6	M42 x 2.0	39.0	54.5	50	17
KOR3008PS		30	8	M42 x 2.0	39.0	54.0	50	19
KOR3010PS		30	10	M42 x 2.0	38.5	55.5	50	22
KOR3012PS		30	12	M42 x 2.0	38.5	55.0	50	24
KOR3016PS		30	16	M42 x 2.0	39.5	58.5	50	30
KOR3020PS		30	20	M42 x 2.0	39.5	62.0	50	36
KOR3025PS		30	25	M42 x 2.0	40.0	65.0	50	46
KOR3806PS	100 bar	38	6	M52 x 2.0	43.0	58.5	60	17
KOR3808PS		38	8	M52 x 2.0	43.0	58.0	60	19
KOR3810PS		38	10	M52 x 2.0	42.5	59.5	60	22
KOR3812PS		38	12	M52 x 2.0	42.5	59.0	60	24
KOR3816PS		38	16	M52 x 2.0	43.5	62.5	60	30
KOR3820PS		38	20	M52 x 2.0	43.5	66.0	60	36
KOR3825PS		38	25	M52 x 2.0	44.0	69.0	60	46
KOR3830PS	38	30	M52 x 2.0	44.5	72.5	60	50	

* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



Low Pressure Series

*

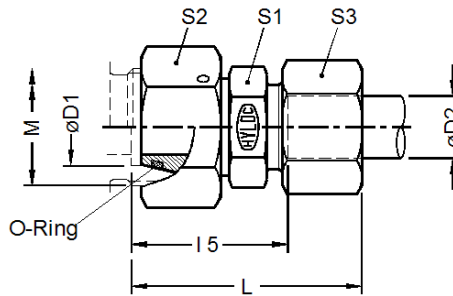
Part No.	Series	ØD1	ØD2	M	I 5	L	S1	S2	S3	O' Ring I.Dx C.S.D.
RED0806PL	315 bar	8	6	M14 x 1.5	23.5	39.0	12	17	14	6.0 x 1.5
RED1006PL	315 bar	10	6	M16 x 1.5	25.0	40.5	14	19	14	7.5 x 1.5
RED1008PL		10	8	M16 x 1.5	25.0	40.0	14	19	17	
RED1206PL	315 bar	12	6	M18 x 1.5	25.0	40.5	17	22	14	9.0 x 1.5
RED1208PL		12	8	M18 x 1.5	25.0	40.0	17	22	17	
RED1210PL		12	10	M18 x 1.5	26.0	41.5	17	22	19	
RED1506PL	315 bar	15	6	M22 x 1.5	28.5	44.0	19	27	14	12 x 2.0
RED1508PL		15	8	M22 x 1.5	28.5	43.5	19	27	17	
RED1510PL		15	10	M22 x 1.5	29.5	45.0	19	27	19	
RED1512PL		15	12	M22 x 1.5	29.5	44.5	19	27	22	
RED1806PL	315 bar	18	6	M26 x 1.5	28.0	43.5	24	32	14	15.0 x 2.0
RED1808PL		18	8	M26 x 1.5	28.0	43.0	24	32	17	
RED1810PL		18	10	M26 x 1.5	29.0	44.5	24	32	19	
RED1812PL		18	12	M26 x 1.5	29.0	44.0	24	32	22	
RED1815PL		18	15	M26 x 1.5	30.0	46.0	24	32	27	
RED2206PL	160 bar	22	6	M30 x 2.0	32.0	47.5	27	36	14	20.0 x 2.0
RED2208PL		22	8	M30 x 2.0	32.0	47.0	27	36	17	
RED2210PL		22	10	M30 x 2.0	33.0	48.5	27	36	19	
RED2212PL		22	12	M30 x 2.0	33.0	48.0	27	36	22	
RED2215PL		22	15	M30 x 2.0	34.0	50.0	27	36	27	
RED2218PL		22	18	M30 x 2.0	33.5	50.5	27	36	32	

* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



Low Pressure Series

*

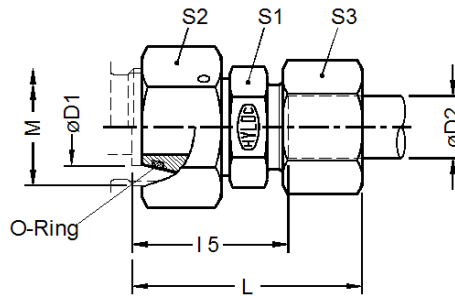
Part No.	Series	øD1	øD2	M	I5	L	S1	S2	S3	O' Ring I.Dx C.S.D.
RED2806PL	160 bar	28	6	M36 x 2.0	34.0	49.5	32	41	14	26.0 x 2.0
RED2808PL		28	8	M36 x 2.0	34.0	49.0	32	41	17	
RED2810PL		28	10	M36 x 2.0	35.0	50.5	32	41	19	
RED2812PL		28	12	M36 x 2.0	35.0	50.0	32	41	22	
RED2815PL		28	15	M36 x 2.0	36.0	52.0	32	41	27	
RED2818PL		28	18	M36 x 2.0	35.5	52.5	32	41	32	
RED2822PL		28	22	M36 x 2.0	37.5	54.5	32	41	36	
RED3506PL	160 bar	35	6	M45 x 2.0	37.0	52.5	41	50	14	32.0 x 2.5
RED3508PL		35	8	M45 x 2.0	37.0	52.0	41	50	17	
RED3510PL		35	10	M45 x 2.0	38.0	53.5	41	50	19	
RED3512PL		35	12	M45 x 2.0	38.0	53.0	41	50	22	
RED3515PL		35	15	M45 x 2.0	39.0	55.0	41	50	27	
RED3518PL		35	18	M45 x 2.0	38.5	55.5	41	50	32	
RED3522PL		35	22	M45 x 2.0	40.5	57.5	41	50	36	
RED3528PL	35	28	M45 x 2.0	40.5	58.5	41	50	41		
RED4210PL	160 bar	42	10	M52 x 2.0	41.5	57.0	50	60	19	38.0 x 2.5
RED4212PL		42	12	M52 x 2.0	41.5	56.5	50	60	22	
RED4215PL		42	15	M52 x 2.0	42.5	58.5	50	60	27	
RED4218PL		42	18	M52 x 2.0	42.0	59.0	50	60	32	
RED4222PL		42	22	M52 x 2.0	44.0	61.0	50	60	36	
RED4228PL		42	28	M52 x 2.0	44.0	62.0	50	60	41	
RED4235PL		42	35	M52 x 2.0	43.0	66.0	50	60	50	

* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



High Pressure Series

*

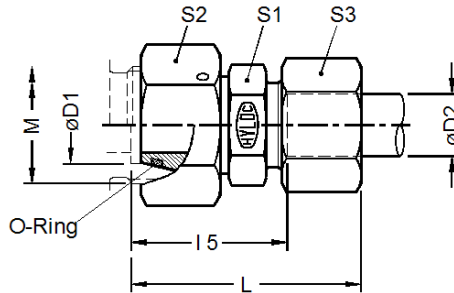
Part No.	Series	ØD1	ØD2	M	I 5	L	S1	S2	S3	O' Ring I.Dx C.S.D.
RED0806PS	630 bar	8	6	M16 x 1.5	27.0	42.5	14	19	17	6.0 x 1.5
RED1006PS	630 bar	10	6	M18 x 1.5	27.5	43.0	17	22	17	7.5 x 1.5
RED1008PS		10	8	M18 x 1.5	27.5	42.5	17	22	19	
RED1206PS	630 bar	12	6	M20 x 1.5	29.0	44.5	17	24	17	9.0 x 1.5
RED1208PS		12	8	M20 x 1.5	29.0	44.0	17	24	19	
RED1210PS		12	10	M20 x 1.5	29.5	46.5	19	24	22	
RED1606PS	400 bar	16	6	M24 x 1.5	32.0	47.5	22	30	17	12.0 x 2.0
RED1608PS		16	8	M24 x 1.5	32.0	47.0	22	30	19	
RED1610PS		16	10	M24 x 1.5	31.5	48.5	22	30	22	
RED1612PS		16	12	M24 x 1.5	31.5	48.0	22	30	24	
RED2006PS	400 bar	20	6	M30 x 2.0	36.0	51.5	27	36	17	16.3 x 2.4
RED2008PS		20	8	M30 x 2.0	36.0	51.0	27	36	19	
RED2010PS		20	10	M30 x 2.0	35.5	52.5	27	36	22	
RED2012PS		20	12	M30 x 2.0	35.5	52.0	27	36	24	
RED2016PS		20	16	M30 x 2.0	36.5	55.5	27	36	30	

* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



High Pressure Series

*

Part No.	Series	øD1	øD2	M	I5	L	S1	S2	S3	O' Ring I.Dx C.S.D.
RED2506PS	400 bar	25	6	M36 x 2.0	38.5	54.0	32	46	17	20.3 x 2.4
RED2508PS		25	8	M36 x 2.0	38.5	53.5	32	46	19	
RED2510PS		25	10	M36 x 2.0	38.0	55.0	32	46	22	
RED2512PS		25	12	M36 x 2.0	38.0	54.5	32	46	24	
RED2516PS		25	16	M36 x 2.0	39.0	58.0	32	46	30	
RED2520PS		25	20	M36 x 2.0	39.0	61.5	32	46	36	
RED3006PS	400 bar	30	6	M42 x 2.0	44.0	59.5	41	50	17	25.3 x 2.4
RED3008PS		30	8	M42 x 2.0	44.0	59.0	41	50	19	
RED3010PS		30	10	M42 x 2.0	43.5	60.5	41	50	22	
RED3012PS		30	12	M42 x 2.0	43.5	60.0	41	50	24	
RED3016PS		30	16	M42 x 2.0	44.5	63.5	41	50	30	
RED3020PS		30	20	M42 x 2.0	44.5	67.0	41	50	36	
RED3025PS		30	25	M42 x 2.0	45.0	70.0	41	50	46	
RED3810PS	315 bar	38	10	M52 x 2.0	47.0	64.0	50	60	22	33.3 x 2.4
RED3812PS		38	12	M52 x 2.0	47.0	63.5	50	60	24	
RED3816PS		38	16	M52 x 2.0	48.0	67.0	50	60	30	
RED3820PS		38	20	M52 x 2.0	48.0	70.5	50	60	36	
RED3825PS		38	25	M52 x 2.0	48.5	73.5	50	60	46	
RED3830PS		38	30	M52 x 2.0	49.0	77.0	50	60	50	

* Dimensions given are approx figures with tightened nut.

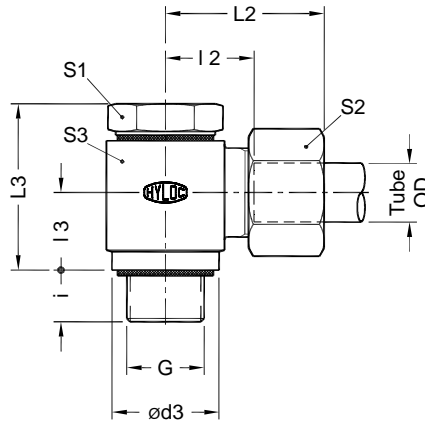
Banjo Couplings

HSWV-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male stud - BSPP (G) threads



Part No.	Series	Tube od	BSP thread G	ød3	i	I 2	I 3	* L2	L3	S1	S2	S3
HSWV06PLG	Light L 100 bar	6	G 1/8 A	15	8	12.5	12.0	27.5	28.0	19	14	19
HSWV08PLG		8	G 1/4 A	20	12	14.0	15.0	29.0	33.0	19	17	22
HSWV10PLG		10	G 1/4 A	20	12	15.0	15.0	31.0	33.0	19	19	22
HSWV12PLG		12	G 3/8 A	24	12	17.5	18.0	32.5	40.0	22	22	27
HSWV15PLG		15	G 1/2 A	29	14	20.0	21.0	36.0	45.0	27	27	30
HSWV18PLG	100 bar	18	G 1/2 A	29	14	19.5	21.0	37.0	45.0	27	32	30
HSWV22PLG		22	G 3/4 A	35	16	27.0	24.0	44.5	53.0	32	36	41
HSWV28PLG	100 bar	28	G 1 A	43	18	29.5	29.5	48.0	63.5	41	41	46
HSWV35PLG		35	G1 1/4 A	53	20	35.0	33.0	57.5	74.0	50	50	55
HSWV42PLG		42	G1 1/2 A	59	22	40.0	38.5	63.0	83.0	60	60	70
HSWV06PSG	Heavy S 200 bar	6	G 1/4 A	20	12	16.0	15.0	31.0	33.0	19	17	22
HSWV08PSG		8	G 1/4 A	20	12	16.0	15.0	31.0	33.0	19	19	22
HSWV10PSG		10	G 3/8 A	24	12	18.0	18.0	35.5	40.0	22	22	27
HSWV12PSG		12	G 3/8 A	24	12	18.0	18.0	34.5	40.0	22	24	27
HSWV16PSG		200 bar	16	G 1/2 A	29	14	21.5	21.0	41.0	45.0	27	30
HSWV20PSG		20	G 3/4 A	35	16	28.0	24.0	50.5	53.0	32	36	41
HSWV25PSG		25	G 1 A	43	18	31.0	29.5	56.0	63.5	41	46	50
HSWV30PSG		100 bar	30	G1 1/4 A	53	20	36.5	33.0	65.0	74.0	50	50
HSWV38PSG		38	G1 1/2 A	59	22	41.0	38.5	73.0	83.0	60	60	70

* Dimensions given are approx figures with tightened nut.

Tee Banjo Couplings

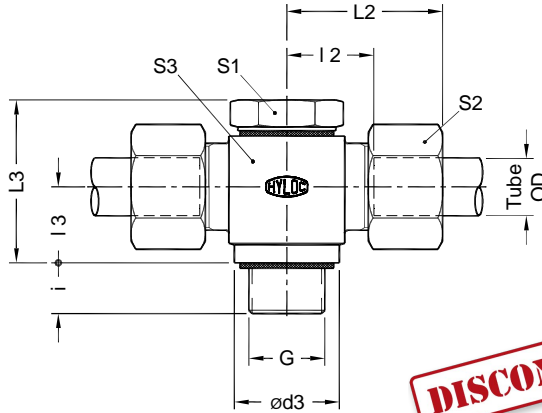
HSTV-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Male stud - BSPP (G) threads



DISCONTINUED

Part No.	Series	Tube od	BSP thread G	ød3	i	I 2	I 3	* L2	L3	S1	S2	S3
HSTV06PLG	Light L 250 bar	6	G 1/8 A	15	8	12.5	12.0	27.5	28.0	19	14	19
HSTV08PLG		8	G 1/4 A	20	12	14.0	15.0	29.0	33.0	19	17	22
HSTV10PLG		10	G 1/4 A	20	12	15.0	15.0	31.0	33.0	19	19	22
HSTV12PLG		12	G 3/8 A	24	12	17.5	18.0	32.5	40.0	22	22	27
HSTV15PLG		15	G 1/2 A	29	14	20.0	21.0	36.0	45.0	27	27	30
HSTV18PLG	100 bar	18	G 1/2 A	29	14	19.5	21.0	37.0	45.0	27	32	30
HSTV22PLG		22	G 3/4 A	35	16	27.0	24.0	44.5	53.0	32	36	41
HSTV28PLG		28	G 1 A	43	18	29.5	29.5	48.0	63.5	41	41	46
HSTV35PLG	100 bar	35	G1 1/4 A	53	20	35.0	33.0	57.5	74.0	50	50	55
HSTV42PLG		42	G1 1/2 A	59	22	40.0	38.5	63.0	83.0	60	60	70
HSTV06PSG	Heavy S 400 bar	6	G 1/4 A	20	12	16.0	15.0	31.0	33.0	19	17	22
HSTV08PSG		8	G 1/4 A	20	12	16.0	15.0	31.0	33.0	19	19	22
HSTV10PSG		10	G 3/8 A	24	12	18.0	18.0	35.5	40.0	22	22	27
HSTV12PSG		12	G 3/8 A	24	12	18.0	18.0	34.5	40.0	22	24	27
HSTV16PSG		16	G 1/2 A	29	14	21.5	21.0	41.0	45.0	27	30	32
HSTV20PSG	400 bar	20	G 3/4 A	35	16	28.0	24.0	50.5	53.0	32	36	41
HSTV25PSG		25	G 1 A	43	18	31.0	29.5	56.0	63.5	41	46	50
HSTV30PSG		30	G1 1/4 A	53	20	36.5	33.0	65.0	74.0	50	50	60
HSTV38PSG	38	G1 1/2 A	59	22	41.0	38.5	73.0	83.0	60	60	70	

* Dimensions given are approx figures with tightened nut.

Banjo Elbow

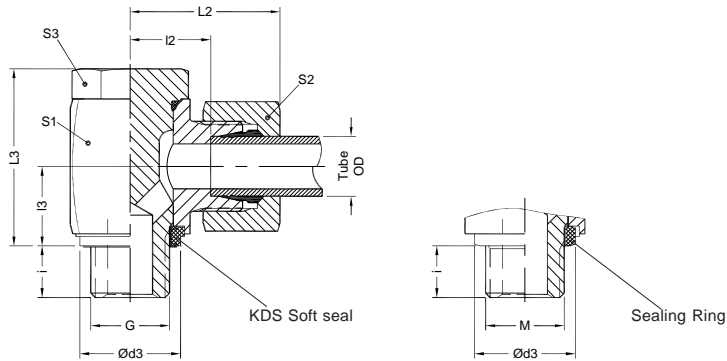
WH-GE

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Male stud - BSPP (G) threads



Part No. (With KDS Soft seal)	Part No. (With sealing ring)	Series	Tube od	BSP thread G	Ød3	i	l2	l3	* L2	L3	S1	S2	S3	
WH06PLGE	WH06PLG	Light L	6	G 1/8A	14.9	8	13.0	10.0	28.5	21.0	17	14	14	
WH06PLG02E	WH06PLG02		6	G 1/4A	18.9	12	15.0	13.5	30.5	27.0	22	14	19	
WH08PLGE	WH08PLG		8	G 1/4A	18.9	12	14.0	13.5	29.0	27.0	22	17	19	
WH10PLGE	WH10PLG		10	G 1/4A	18.9	12	15.0	13.5	30.5	27.0	22	19	19	
WH12PLG02E	WH12PLG02		12	G 1/4A	18.9	10	15.0	15.5	30.0	30.0	22	22	19	
WH12PLGE	WH12PLG		12	G 3/8A	21.9	12	17.5	16.0	32.5	32.5	24	22	22	
WH15PLGE	WH15PLG		15	G 1/2A	26.9	14	21.0	19.5	37.0	43.0	30	27	27	
WH18PLGE	WH18PLG		18	G 1/2A	26.9	14	20.5	21.5	37.5	43.0	30	32	27	
WH22PLGE	WH22PLG		22	G 3/4A	32.9	16	27.0	24.0	44.0	48.0	36	36	32	
WH28PLGE	WH28PLG		28	G1A	39.9	18	31.5	30.5	49.5	59.0	46	41	41	
WH35PLGE	WH35PLG	160 bar	35	G1.1/4A	49.9	20	35.5	35.5	58.5	70.0	55	50	50	
WH42PLGE	WH42PLG		42	G1.1/2A	55.9	22	40.0	40.5	63.5	80.0	65	60	55	
WH06PSGE	WH06PSG	Heavy	6	G 1/4A	18.9	12	16.0	13.5	31.5	27.0	22	17	19	
WH08PSGE	WH08PSG		8	G 1/4A	18.9	12	16.0	13.5	31.0	27.0	22	19	19	
WH10PSGE	WH10PSG		10	G 3/8A	21.9	12	18.0	16.0	35.0	32.5	24	22	22	
WH12PSGE	WH12PSG		12	G 3/8A	21.9	12	18.0	16.0	34.5	32.5	24	24	22	
WH16PSGE	WH16PSG		16	G 1/2A	26.9	14	21.5	21.5	40.5	43.0	30	30	27	
WH20PSGE	WH20PSG		20	G 3/4A	32.9	16	26.0	24.0	48.5	48.0	36	36	32	
WH25PSGE	WH25PSG		25	G1A	39.9	18	31.0	30.5	56.0	59.0	46	46	41	
WH30PSGE	WH30PSG		30	G1.1/4A	49.9	20	36.5	35.5	64.5	70.0	55	50	50	
WH38PSGE	WH38PSG		250 bar	38	G1.1/2A	55.9	22	41.0	40.5	72.5	80.0	65	60	55

* Dimensions given are approx figures with tightened nut.

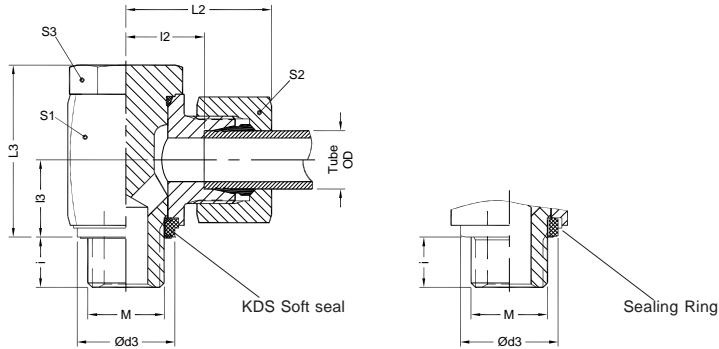
Banjo Elbow

WH-ME

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male stud - Metric (M) threads



Part No. (With KDS Soft seal)	Part No. (With sealing ring)	Series	Tube od	Metric thread M	Ød3	i	l 2	l 3	* L 2	L 3	S 1	S 2	S 3	
WH06PLME	WH06PLM	Light L 350 bar	6	M10x1.0	14.9	8	13.0	10.0	28.5	21.0	17	14	14	
WH08PLME	WH08PLM		8	M12x1.5	17.9	12	14.0	13.5	29.0	27.0	22	17	19	
WH10PLME	WH10PLM		10	M14x1.5	19.9	12	15.0	13.5	30.5	27.0	22	19	19	
WH12PLME	WH12PLM		12	M16x1.5	21.9	12	17.5	16.0	32.5	32.5	24	22	22	
WH12PLM18E	WH12PLM18		12	M18x1.5	23.9	12	20.0	18.5	35.0	37.0	27	22	24	
WH15PLME	WH15PLM		15	M18x1.5	23.9	12	20.0	18.5	36.0	37.0	27	27	24	
WH18PLME	WH18PLM		18	M22x1.5	27.9	14	20.5	21.5	37.5	43.0	30	32	27	
WH22PLME	WH22PLM	160 bar	22	M26x1.5	31.9	16	27.0	24.0	44.0	48.0	36	36	32	
WH28PLME	WH28PLM		28	M33x2.0	39.9	18	31.5	30.5	49.5	59.0	46	41	41	
WH35PLME	WH35PLM		35	M42x2.0	49.9	20	35.5	35.5	58.5	70.0	55	50	50	
WH42PLME	WH42PLM		42	M48x2.0	55.9	22	40.0	40.5	63.5	80.0	65	60	55	
WH06PSME	WH06PSM		Heavy 350 bar	6	M12x1.5	17.9	12	16.0	13.5	31.5	27.0	22	17	19
WH08PSME	WH08PSM			8	M14x1.5	19.9	12	16.0	13.5	31.0	27.0	22	19	19
WH10PSME	WH10PSM			10	M16x1.5	21.9	12	18.0	16.0	35.0	32.5	24	22	22
WH12PSME	WH12PSM	12		M18x1.5	23.9	12	19.5	18.5	36.0	37.0	27	24	24	
WH16PSME	WH16PSM	16		M22x1.5	27.9	14	21.5	21.5	40.5	43.0	30	30	27	
WH20PSME	WH20PSM	20		M27x2.0	31.9	16	26.0	24.0	48.5	48.0	36	36	32	
WH25PSME	WH25PSM	25		M33x2.0	39.9	18	31.0	30.5	56.0	59.0	46	46	41	
WH30PSME	WH30PSM	250 bar	30	M42x2.0	49.9	20	36.5	35.5	64.5	70.0	55	50	50	
WH38PSME	WH38PSM		38	M48x2.0	55.9	22	41.0	40.5	72.5	80.0	65	60	55	

* Dimensions given are approx figures with tightened nut.

Banjo Couplings

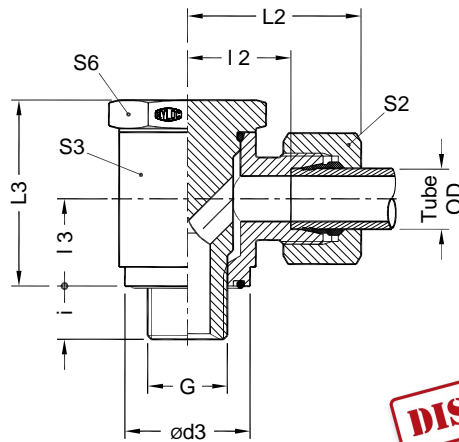
WHO-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Male stud - BSPP (G) threads



DISCONTINUED

Part No.	Series	Tube od	BSP thread G	ød3	i	I 2	I 3	* L2	L3	S2	S3	S6
WHO06PLG	Light L 250 bar	6	G 1/8 A	18.0	8	15.0	11.0	30.5	25.0	14	19	19
WHO08PLG		8	G 1/4 A	22.5	12	17.5	14.5	32.5	33.0	17	24	24
WHO10PLG		10	G 1/4 A	22.5	12	18.5	14.5	34.0	33.0	19	24	24
WHO12PLG		12	G 3/8 A	27.0	12	21.5	18.0	36.5	39.0	22	27	27
WHO15PLG		15	G 1/2 A	32.0	14	25.0	20.0	41.0	44.0	27	32	32
WHO18PLG	100 bar	18	G 1/2 A	33.0	14	25.5	23.0	42.5	49.0	32	36	36
WHO22PLG		22	G 3/4 A	41.0	16	33.0	25.5	50.0	55.5	36	46	41
WHO28PLG		28	G 1 A	46.0	18	35.5	31.0	53.5	66.0	41	50	46
WHO35PLG	100 bar	35	G1 1/4 A	57.0	20	39.5	34.0	62.5	76.0	50	60	60
WHO42PLG		42	G1 1/2 A	64.0	22	44.0	40.0	67.5	86.0	60	70	65
WHO06PSG	Heavy S 400 bar	6	G 1/4 A	22.5	12	19.5	14.5	35.0	33.0	17	24	24
WHO08PSG		8	G 1/4 A	22.5	12	19.5	14.5	34.5	33.0	19	24	24
WHO10PSG		10	G 3/8 A	27.0	12	22.0	18.0	39.0	39.0	22	27	27
WHO12PSG		12	G 3/8 A	27.0	12	22.0	18.0	38.5	39.0	24	27	27
WHO16PSG		16	G 1/2 A	33.0	14	26.5	23.0	45.5	49.0	30	36	36
WHO20PSG	400 bar	20	G 3/4 A	41.0	16	32.0	25.5	54.5	55.5	36	46	41
WHO25PSG		25	G 1 A	46.0	18	35.0	31.0	60.0	66.0	46	50	46
WHO30PSG		30	G1 1/4 A	57.0	20	40.5	34.0	68.5	76.0	50	60	60
WHO38PSG	250 bar	38	G1 1/2 A	64.0	22	45.0	40.0	76.5	86.0	60	70	65

* Dimensions given are approx figures with tightened nut.

Throttle-free Banjo Couplings

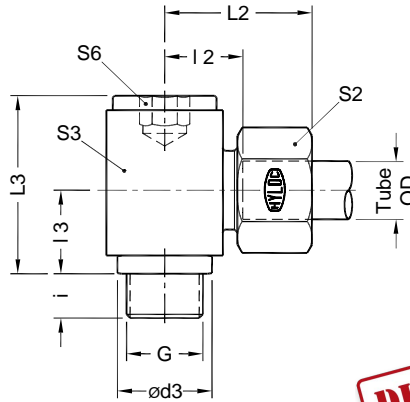
DSVW-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Male stud - BSPP (G) threads



DISCONTINUED

Part No.	Series	Tube od	BSP thread G	ød3	i	I 2	I 3	* L2	L3	S2	S3	S6
DSVW06PLG	Light L 250 bar	6	G 1/8 A	14	8	12.5	12	28.0	24	14	19	6
DSVW08PLG		8	G 1/4 A	18	12	14.5	16	29.5	30	17	22	8
DSVW10PLG		10	G 1/4 A	18	12	15.5	16	31.0	30	19	22	8
DSVW12PLG		12	G 3/8 A	22	12	18.5	18	33.5	37	22	27	10
DSVW15PLG		15	G 1/2 A	26	14	22.0	21	38.0	42	27	32	12
DSVW18PLG	100 bar	18	G 1/2 A	26	14	21.5	23	38.5	46	32	36	12
DSVW22PLG		22	G 3/4 A	32	16	28.5	28	45.5	58	36	46	17
DSVW28PLG	100 bar	28	G 1 A	39	18	31.5	32	49.5	64	41	50	22
DSVW35PLG		35	G1 1/4 A	49	20	35.5	37	58.5	76	50	60	27
DSVW42PLG		42	G1 1/2 A	55	22	40.0	42	63.5	85	60	70	32
DSVW06PSG	Heavy S 400 bar	6	G 1/4 A	18	12	16.5	16	32.0	30	17	22	8
DSVW08PSG		8	G 1/4 A	18	12	16.5	16	31.5	30	19	22	8
DSVW10PSG		10	G 3/8 A	22	12	18.5	18	35.5	37	22	27	10
DSVW12PSG		12	G 3/8 A	22	12	18.5	18	35.0	37	24	27	10
DSVW16PSG		400 bar	16	G 1/2 A	26	14	22.5	23	41.5	46	30	32
DSVW20PSG	20		G 3/4 A	32	16	27.5	28	50.0	58	36	46	17
DSVW25PSG	25		G 1 A	39	18	31.0	32	56.0	64	46	50	22
DSVW30PSG	250 bar		30	G1 1/4 A	49	20	36.5	37	64.5	76	50	60
DSVW38PSG		38	G1 1/2 A	55	22	41.0	42	72.5	85	60	70	32

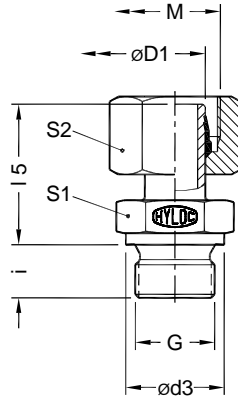
* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Metric Standpipe

Male stud - BSPP (G) threads



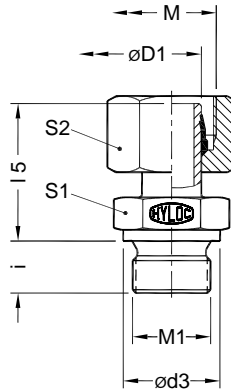
DISCONTINUED

Part No.	Series	Tube od øD1	G Male BSP thread	M	ø d3	i	l5	S1	S2
EVGE06PLG	Light L 250 bar	6	G 1/8 A	M12 x 1.5	14	8	24.5	14	14
EVGE08PLG		8	G 1/4 A	M14 x 1.5	18	12	29.5	19	17
EVGE10PLG		10	G 1/4 A	M16 x 1.5	18	12	27.5	19	19
EVGE12PLG		12	G 3/8 A	M18 x 1.5	22	12	34.0	22	22
EVGE15PLG		15	G 1/2 A	M22 x 1.5	26	14	32.0	27	27
EVGE18PLG	160 bar	18	G 1/2 A	M26 x 1.5	26	14	31.5	27	32
EVGE22PLG		22	G 3/4 A	M30 x 2.0	32	16	32.5	32	36
EVGE28PLG	100 bar	28	G 1 A	M36 x 2.0	39	18	35.0	41	41
EVGE35PLG		35	G1 1/4 A	M45 x 2.0	49	20	42.5	50	50
EVGE42PLG		42	G1 1/2 A	M52 x 2.0	55	22	46.5	55	60
EVGE06PSG	Heavy S 630 bar	6	G 1/4 A	M14 x 1.5	18	12	27.0	19	17
EVGE08PSG		8	G 1/4 A	M16 x 1.5	18	12	29.5	19	19
EVGE10PSG		10	G 3/8 A	M18 x 1.5	22	12	32.0	22	22
EVGE12PSG		12	G 3/8 A	M20 x 1.5	22	12	34.0	22	24
EVGE16PSG		400 bar	16	G 1/2 A	M24 x 1.5	26	14	37.0	27
EVGE20PSG	20		G 3/4 A	M30 x 2.0	32	16	43.0	32	36
EVGE25PSG	25		G 1 A	M36 x 2.0	39	18	48.0	41	46
EVGE30PSG	250 bar	30	G1 1/4 A	M42 x 2.0	49	20	51.0	50	50
EVGE38PSG		38	G1 1/2 A	M52 x 2.0	55	22	60.0	55	60

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male stud - Metric (M) threads



DISCONTINUED

Part No.	Series	Tube od øD1	M1 Male Metric thread	M	ø d3	i	I 5	S1	S2
EVGE06PLM	Light L 250 bar	6	M10 x 1.0	M12 x 1.5	14	8	24.5	14	14
EVGE08PLM		8	M12 x 1.5	M14 x 1.5	17	12	26.5	17	17
EVGE10PLM		10	M14 x 1.5	M16 x 1.5	19	12	27.5	19	19
EVGE12PLM		12	M16 x 1.5	M18 x 1.5	22	12	29.5	22	22
EVGE15PLM		15	M18 x 1.5	M22 x 1.5	24	12	31.5	24	27
EVGE18PLM	160 bar	18	M22 x 1.5	M26 x 1.5	27	14	31.5	27	32
EVGE22PLM		22	M26 x 1.5	M30 x 2.0	32	16	32.5	32	36
EVGE28PLM	100 bar	28	M33 x 2.0	M36 x 2.0	40	18	35.0	41	41
EVGE35PLM		35	M42 x 2.0	M45 x 2.0	50	20	42.5	50	50
EVGE42PLM		42	M48 x 2.0	M52 x 2.0	55	22	46.5	55	60
EVGE06PSM	Heavy S 630 bar	6	M12 x 1.5	M14 x 1.5	17	12	27.0	17	17
EVGE08PSM		8	M14 x 1.5	M16 x 1.5	19	12	29.5	19	19
EVGE10PSM		10	M16 x 1.5	M18 x 1.5	22	12	32.0	22	22
EVGE12PSM		12	M18 x 1.5	M20 x 1.5	24	12	34.0	24	24
EVGE16PSM		400 bar	16	M22 x 1.5	M24 x 1.5	27	14	37.0	27
EVGE20PSM	20		M27 x 2.0	M30 x 2.0	32	16	43.0	32	36
EVGE25PSM	25		M33 x 2.0	M36 x 2.0	40	18	48.0	41	46
EVGE30PSM	250 bar	30	M42 x 2.0	M42 x 2.0	50	20	51.0	50	50
EVGE38PSM		38	M48 x 2.0	M52 x 2.0	55	22	60.0	55	60

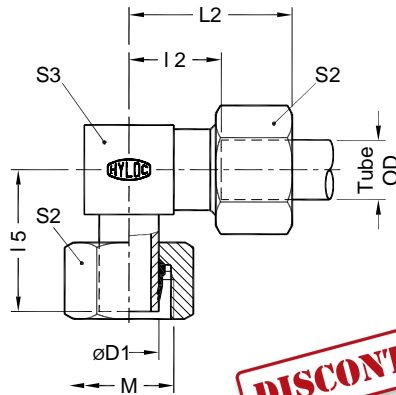
Swivel Elbow Couplings

EVW

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



DISCONTINUED

Part No.	Series	Tube od (øD1)	M	L1	L2	* S2	S3
EVW06PL	250 bar	6	M12 x 1.5	12.0	26.0	27.5	14
EVW08PL		8	M14 x 1.5	14.0	27.5	29.0	17
EVW10PL		10	M16 x 1.5	15.0	29.0	30.5	19
EVW12PL		12	M18 x 1.5	17.0	29.5	32.0	22
EVW15PL		15	M22 x 1.5	21.0	32.5	37.0	27
EVW18PL	160 bar	18	M26 x 1.5	23.5	35.5	40.5	32
EVW22PL		22	M30 x 2.0	27.5	38.5	44.5	36
EVW28PL	100 bar	28	M36 x 2.0	30.5	41.5	48.5	41
EVW35PL		35	M45 x 2.0	34.5	51.0	57.5	50
EVW42PL		42	M52 x 2.0	40.0	56.0	63.5	60
EVW06PS	630 bar	6	M14 x 1.5	16.0	27.0	31.5	17
EVW08PS		8	M16 x 1.5	17.0	27.5	32.0	19
EVW10PS		10	M18 x 1.5	17.5	30.0	34.5	22
EVW12PS		12	M20 x 1.5	21.5	31.0	38.0	24
EVW16PS	400 bar	16	M24 x 1.5	24.5	36.5	43.5	30
EVW20PS		20	M30 x 2.0	26.5	44.5	49.0	36
EVW25PS		25	M36 x 2.0	30.0	50.0	55.0	46
EVW30PS	250 bar	30	M42 x 2.0	35.5	55.0	63.5	50
EVW38PS		38	M52 x 2.0	41.0	63.0	72.5	60

* Dimensions given are approx figures with tightened nut.

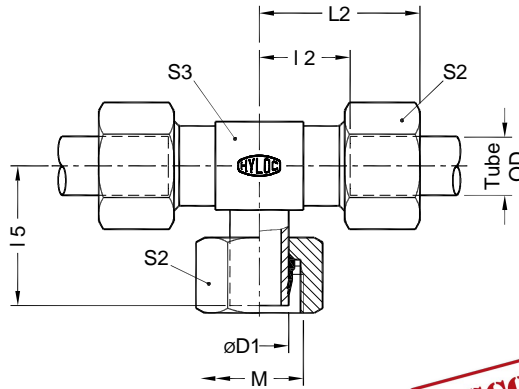
Swivel Branch Tee Couplings

EVT

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



DISCONTINUED

Part No.	Series	Tube od (øD1)	M	I2	I5	* L2	S2	S3
EVT06PL	Light L 250 bar	6	M12 x 1.5	12.0	26.0	27.5	14	12
EVT08PL		8	M14 x 1.5	14.0	27.5	29.0	17	14
EVT10PL		10	M16 x 1.5	15.0	29.0	30.5	19	17
EVT12PL		12	M18 x 1.5	17.0	29.5	32.0	22	19
EVT15PL		15	M22 x 1.5	21.0	32.5	37.0	27	22
EVT18PL	160 bar	18	M26 x 1.5	23.5	35.5	40.5	32	27
EVT22PL		22	M30 x 2.0	27.5	38.5	44.5	36	30
EVT28PL	100 bar	28	M36 x 2.0	30.5	41.5	48.5	41	36
EVT35PL		35	M45 x 2.0	34.5	51.0	57.5	50	46
EVT42PL		42	M52 x 2.0	40.0	56.0	63.5	60	55
EVT06PS	Heavy S 630 bar	6	M14 x 1.5	16.0	27.0	31.5	17	14
EVT08PS		8	M16 x 1.5	17.0	27.5	32.0	19	17
EVT10PS		10	M18 x 1.5	17.5	30.0	34.5	22	19
EVT12PS		12	M20 x 1.5	21.5	31.0	38.0	24	22
EVT16PS	400 bar	16	M24 x 1.5	24.5	36.5	43.5	30	24
EVT20PS		20	M30 x 2.0	26.5	44.5	49.0	36	30
EVT25PS		25	M36 x 2.0	30.0	50.0	55.0	46	36
EVT30PS	250 bar	30	M42 x 2.0	35.5	55.0	63.5	50	46
EVT38PS		38	M52 x 2.0	41.0	63.0	72.5	60	55

* Dimensions given are approx figures with tightened nut.

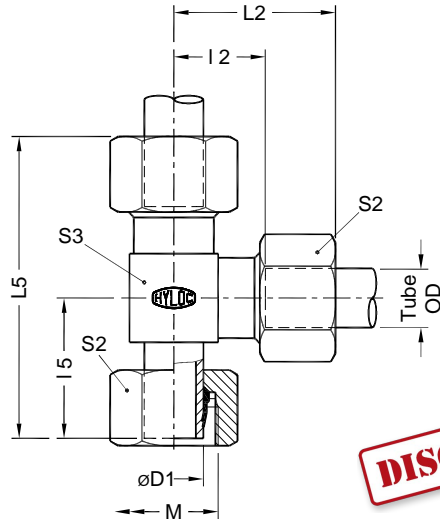
Swivel Barrel Tee Couplings

EVL

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



Part No.	Series	Tube od (øD1)	M	I 2	I 5	* L2	* L5	S2	S3
EVL06PL	Light L 250 bar	6	M12 x 1.5	12.0	26.0	27.5	53.5	14	12
EVL08PL		8	M14 x 1.5	14.0	27.5	29.0	56.5	17	14
EVL10PL		10	M16 x 1.5	15.0	29.0	30.5	59.5	19	17
EVL12PL		12	M18 x 1.5	17.0	29.5	32.0	61.5	22	19
EVL15PL		15	M22 x 1.5	21.0	32.5	37.0	69.5	27	22
EVL18PL	160 bar	18	M26 x 1.5	23.5	35.5	40.5	76.0	32	27
EVL22PL		22	M30 x 2.0	27.5	38.5	44.5	83.0	36	30
EVL28PL	100 bar	28	M36 x 2.0	30.5	41.5	48.5	90.0	41	36
EVL35PL		35	M45 x 2.0	34.5	51.0	57.5	108.5	50	46
EVL42PL		42	M52 x 2.0	40.0	56.0	63.5	119.5	60	55
EVL06PS	Heavy S 630 bar	6	M14 x 1.5	16.0	27.0	31.5	58.5	17	14
EVL08PS		8	M16 x 1.5	17.0	27.5	32.0	59.5	19	17
EVL10PS		10	M18 x 1.5	17.5	30.0	34.5	64.5	22	19
EVL12PS		12	M20 x 1.5	21.5	31.0	38.0	69.0	24	22
EVL16PS	400 bar	16	M24 x 1.5	24.5	36.5	43.5	80.0	30	24
EVL20PS		20	M30 x 2.0	26.5	44.5	49.0	93.5	36	30
EVL25PS		25	M36 x 2.0	30.0	50.0	55.0	105.0	46	36
EVL30PS	250 bar	30	M42 x 2.0	35.5	55.0	63.5	118.5	50	46
EVL38PS		38	M52 x 2.0	41.0	63.0	72.5	135.5	60	55

* Dimensions given are approx figures with tightened nut.

Swivel Stud Elbow Couplings

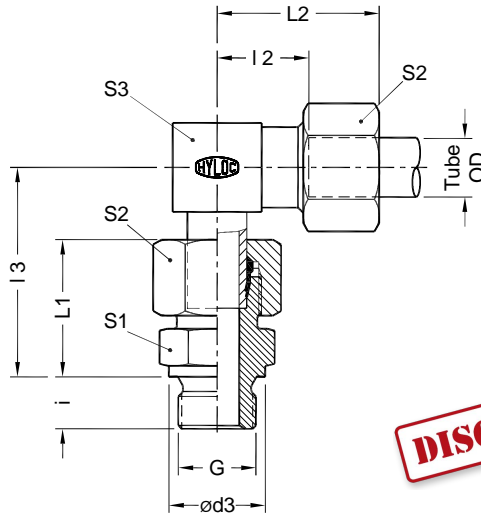
EVW-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434

Male stud - BSPP (G) threads



DISCONTINUED

Part No.	Series	Tube od	G Male BSP thread	ød3	i	I 2	I 3	* L1	* L2	S1	S2	S3
EVW06PLG	Light L 250 bar	6	G 1/8	14	8	12.0	34.5	24.0	27.5	14	14	12
EVW08PLG		8	G 1/4	18	12	14.0	37.5	25.0	29.0	19	17	14
EVW10PLG		10	G 1/4	18	12	15.0	40.0	26.5	30.5	19	19	17
EVW12PLG		12	G 3/8	22	12	17.0	42.0	27.5	32.0	22	22	19
EVW15PLG		15	G 1/2	26	14	21.0	46.5	30.0	37.0	27	27	22
EVW18PLG	160 bar	18	G 1/2	26	14	23.5	50.0	31.5	40.5	27	32	27
EVW22PLG		22	G 3/4	32	16	27.5	55.0	33.5	44.5	32	36	30
EVW28PLG	100 bar	28	G 1	39	18	30.5	59.0	35.5	48.5	41	41	36
EVW35PLG		35	G1.1/4	49	20	34.5	68.5	40.5	57.5	50	50	46
EVW42PLG		42	G1.1/2	55	22	40.0	75.0	42.5	63.5	55	60	55
EVW06PSG	Heavy S 630 bar	6	G 1/4	18	12	16.0	40.0	28.5	31.5	19	17	14
EVW08PSG		8	G 1/4	18	12	17.0	42.5	30.0	32.0	19	19	17
EVW10PSG		10	G 3/8	22	12	17.5	45.0	32.0	34.5	22	22	19
EVW12PSG		12	G 3/8	22	12	21.5	48.0	33.5	38.0	22	24	22
EVW16PSG		400 bar	16	G 1/2	26	14	24.5	55.0	37.5	43.5	27	30
EVW20PSG	20		G 3/4	32	16	26.5	65.0	43.0	49.0	32	36	30
EVW25PSG	25		G 1	39	18	30.0	73.0	48.0	55.0	41	46	36
EVW30PSG	250 bar	30	G1.1/4	49	20	35.5	78.5	51.5	63.5	50	50	46
EVW38PSG		38	G1.1/2	55	22	41.0	89.0	57.5	72.5	55	60	55

* Dimensions given are approx figures with tightened nut.

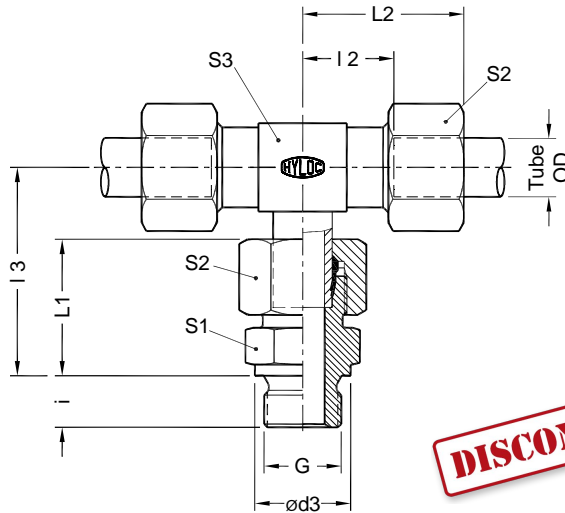
Swivel Stud Branch Tee Couplings

EVT-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



Part No.	Series	Tube od	G Male BSP thread	ød3	i	L2	L3	* L1	* L2	S1	S2	S3
EVT06PLG	Light L 250 bar	6	G 1/8	14	8	12.0	34.5	24.0	27.5	14	14	12
EVT08PLG		8	G 1/4	18	12	14.0	37.5	25.0	29.0	19	17	14
EVT10PLG		10	G 1/4	18	12	15.0	40.0	26.5	30.5	19	19	17
EVT12PLG		12	G 3/8	22	12	17.0	42.0	27.5	32.0	22	22	19
EVT15PLG		15	G 1/2	26	14	21.0	46.5	30.0	37.0	27	27	22
EVT18PLG	160 bar	18	G 1/2	26	14	23.5	50.0	31.5	40.5	27	32	27
EVT22PLG		22	G 3/4	32	16	27.5	55.0	33.5	44.5	32	36	30
EVT28PLG	100 bar	28	G 1	39	18	30.5	59.0	35.5	48.5	41	41	36
EVT35PLG		35	G1.1/4	49	20	34.5	68.5	40.5	57.5	50	50	46
EVT42PLG		42	G1.1/2	55	22	40.0	75.0	42.5	63.5	55	60	55
EVT06PSG	Heavy S 630 bar	6	G 1/4	18	12	16.0	40.0	28.5	31.5	19	17	14
EVT08PSG		8	G 1/4	18	12	17.0	42.5	30.0	32.0	19	19	17
EVT10PSG		10	G 3/8	22	12	17.5	45.0	32.0	34.5	22	22	19
EVT12PSG		12	G 3/8	22	12	21.5	48.0	33.5	38.0	22	24	22
EVT16PSG		400 bar	16	G 1/2	26	14	24.5	55.0	37.5	43.5	27	30
EVT20PSG	20		G 3/4	32	16	26.5	65.0	43.0	49.0	32	36	30
EVT25PSG	25		G 1	39	18	30.0	73.0	48.0	55.0	41	46	36
EVT30PSG	250 bar	30	G1.1/4	49	20	35.5	78.5	51.5	63.5	50	50	46
EVT38PSG		38	G1.1/2	55	22	41.0	89.0	57.5	72.5	55	60	55

* Dimensions given are approx figures with tightened nut.

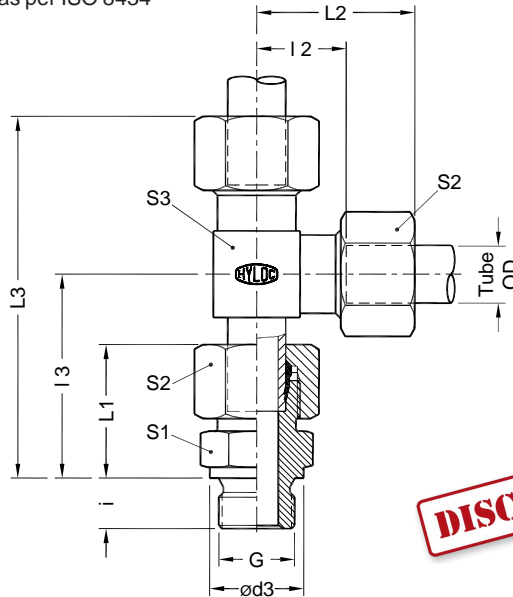
Swivel Stud Barrel Tee Couplings

EVL-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



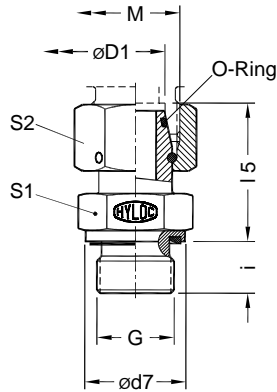
DISCONTINUED

Part No.	Series	Tube od	G Male BSP thread	ød3	i	I 2	I 3	* L1	* L2	* L3	S1	S2	S3
EVL06PLG	Light L	6	G 1/8	14	8	12.0	34.5	24.0	27.5	62.0	14	14	12
EVL08PLG		8	G 1/4	18	12	14.0	37.5	25.0	29.0	66.5	19	17	14
EVL10PLG		10	G 1/4	18	12	15.0	40.0	26.5	30.5	70.5	19	19	17
EVL12PLG		12	G 3/8	22	12	17.0	42.0	27.5	32.0	74.0	22	22	19
EVL15PLG		15	G 1/2	26	14	21.0	46.5	30.0	37.0	83.5	27	27	22
EVL18PLG	160 bar	18	G 1/2	26	14	23.5	50.0	31.5	40.5	90.5	27	32	27
EVL22PLG		22	G 3/4	32	16	27.5	55.0	33.5	44.5	99.5	32	36	30
EVL28PLG	100 bar	28	G 1	39	18	30.5	59.0	35.5	48.5	107.5	41	41	36
EVL35PLG		35	G1.1/4	49	20	34.5	68.5	40.5	57.5	126.0	50	50	46
EVL42PLG		42	G1.1/2	55	22	40.0	75.0	42.5	63.5	138.5	55	60	55
EVL06PSG	Heavy S	6	G 1/4	18	12	16.0	40.0	28.5	31.5	71.5	19	17	14
EVL08PSG		8	G 1/4	18	12	17.0	42.5	30.0	32.0	74.5	19	19	17
EVL10PSG	630 bar	10	G 3/8	22	12	17.5	45.0	32.0	34.5	79.5	22	22	19
EVL12PSG		12	G 3/8	22	12	21.5	48.0	33.5	38.0	86.0	22	24	22
EVL16PSG	400 bar	16	G 1/2	26	14	24.5	55.0	37.5	43.5	98.5	27	30	24
EVL20PSG		20	G 3/4	32	16	26.5	65.0	43.0	49.0	114.0	32	36	30
EVL25PSG		25	G 1	39	18	30.0	73.0	48.0	55.0	128.0	41	46	36
EVL30PSG	250 bar	30	G1.1/4	49	20	35.5	78.5	51.5	63.5	142.0	50	50	46
EVL38PSG		38	G1.1/2	55	22	41.0	89.0	57.5	72.5	161.5	55	60	55

Dimensions in mm

DIN Fittings

Metric Standpipe with Swivel Coupling nut
Male BSPP (G) threads, DIN 3852-11
with Elastomeric seal

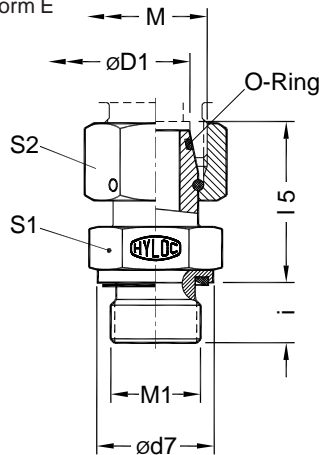


Part No.	Series	Tube od øD1	G Male BSP thread	M	ød7	i	15	S1	S2	O - Ring ID x CSD
EGE06LGE	Light L 315 bar	6	G 1/8 A	M12 x 1.5	14	8	24.5	14	14	4.0 x 1.5
EGE08LGE		8	G 1/4 A	M14 x 1.5	19	12	29.5	19	17	6.0 x 1.5
EGE10LGE		10	G 1/4 A	M16 x 1.5	19	12	27.5	19	19	7.5 x 1.5
EGE12LGE		12	G 3/8 A	M18 x 1.5	22	12	34.0	22	22	9.0 x 1.5
EGE15LGE		15	G 1/2 A	M22 x 1.5	27	14	32.0	27	27	12.0 x 2.0
EGE18LGE		18	G 1/2 A	M26 x 1.5	27	14	31.5	27	32	15.0 x 2.0
EGE22LGE	160 bar	22	G 3/4 A	M30 x 2.0	32	16	32.5	32	36	20.0 x 2.0
EGE28LGE		28	G 1 A	M36 x 2.0	40	18	35.0	41	41	26.0 x 2.0
EGE35LGE		35	G1 1/4 A	M45 x 2.0	50	20	42.5	50	50	32.0 x 2.5
EGE42LGE		42	G1 1/2 A	M52 x 2.0	55	22	46.5	55	60	38.0 x 2.5
EGE06SGE	Heavy S 630 bar	6	G 1/4 A	M14 x 1.5	19	12	27.0	19	17	4.0 x 1.5
EGE08SGE		8	G 1/4 A	M16 x 1.5	19	12	29.5	19	19	6.0 x 1.5
EGE10SGE		10	G 3/8 A	M18 x 1.5	22	12	32.0	22	22	7.5 x 1.5
EGE12SGE		12	G 3/8 A	M20 x 1.5	22	12	34.0	22	24	9.0 x 1.5
EGE16SGE	400 bar	16	G 1/2 A	M24 x 1.5	27	14	37.0	27	30	12.0 x 2.0
EGE20SGE		20	G 3/4 A	M30 x 2.0	32	16	43.0	32	36	16.3 x 2.4
EGE25SGE		25	G 1 A	M36 x 2.0	40	18	48.0	41	46	20.3 x 2.4
EGE30SGE		30	G1 1/4 A	M42 x 2.0	50	20	51.0	50	50	25.3 x 2.4
EGE38SGE		315 bar	38	G1 1/2 A	M52 x 2.0	55	22	60.0	55	60

Dimensions in mm

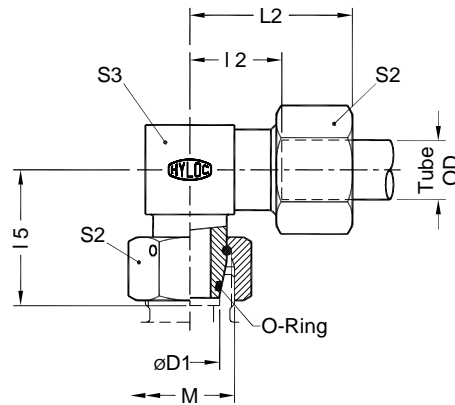
DIN Fittings

Metric Standpipe with Swivel Coupling nut
Male Metric (M) threads,
DIN 3852-11 / ISO 9974 Form E
with Elastomeric seal



Part No.	Series	Tube od øD1	M1 Male Metric thread	M	ød7	i	I 5	S1	S2	O - Ring ID x CSD
EGE06LME	Light L 315 bar	6	M10 x 1.0	M12 x 1.5	14	8	24.5	14	14	4.0 x 1.5
EGE08LME		8	M12 x 1.5	M14 x 1.5	17	12	26.5	17	17	6.0 x 1.5
EGE10LME		10	M14 x 1.5	M16 x 1.5	19	12	27.5	19	19	7.5 x 1.5
EGE12LME		12	M16 x 1.5	M18 x 1.5	22	12	30.5	22	22	9.0 x 1.5
EGE15LME		15	M18 x 1.5	M22 x 1.5	24	12	31.5	24	27	12.0 x 2.0
EGE18LME		18	M22 x 1.5	M26 x 1.5	27	14	31.5	27	32	15.0 x 2.0
EGE22LME	160 bar	22	M26 x 1.5	M30 x 2.0	32	16	32.5	32	36	20.0 x 2.0
EGE28LME		28	M33 x 2.0	M36 x 2.0	40	18	35.0	41	41	26.0 x 2.0
EGE35LME		35	M42 x 2.0	M45 x 2.0	50	20	42.5	50	50	32.0 x 2.5
EGE42LME		42	M48 x 2.0	M52 x 2.0	55	22	46.5	55	60	38.0 x 2.5
EGE06SME	Heavy S 630 bar	6	M12 x 1.5	M14 x 1.5	17	12	27.0	17	17	4.0 x 1.5
EGE08SME		8	M14 x 1.5	M16 x 1.5	19	12	29.5	19	19	6.0 x 1.5
EGE10SME		10	M16 x 1.5	M18 x 1.5	22	12	32.0	22	22	7.5 x 1.5
EGE12SME		12	M18 x 1.5	M20 x 1.5	24	12	34.0	24	24	9.0 x 1.5
EGE16SME	400 bar	16	M22 x 1.5	M24 x 1.5	27	14	37.0	27	30	12.0 x 2.0
EGE20SME		20	M27 x 2.0	M30 x 2.0	32	16	43.0	32	36	16.3 x 2.4
EGE25SME		25	M33 x 2.0	M36 x 2.0	40	18	48.0	41	46	20.3 x 2.4
EGE30SME		30	M42 x 2.0	M42 x 2.0	50	20	51.0	50	50	25.3 x 2.4
EGE38SME	315 bar	38	M48 x 2.0	M52 x 2.0	55	22	60.0	55	60	33.3 x 2.4

Metric Tube end as per ISO 8434



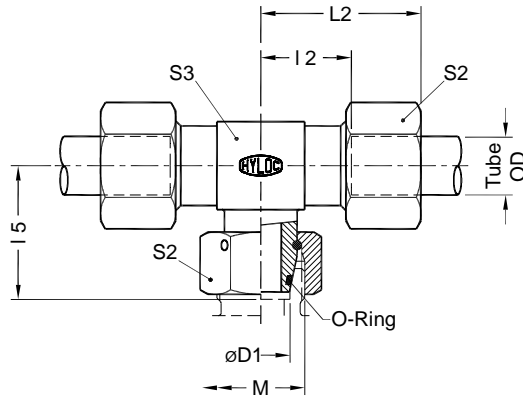
Part No.	Series	Tube od (øD1)	M	I2	I5	* L2	S2	S3	O - Ring ID x CSD
EW06PL	Light L 315 bar	6	M12 x 1.5	12.0	26.0	27.5	14	12	4.0 x 1.5
EW08PL		8	M14 x 1.5	14.0	27.5	29.0	17	14	6.0 x 1.5
EW10PL		10	M16 x 1.5	15.0	29.0	30.5	19	17	7.5 x 1.5
EW12PL		12	M18 x 1.5	17.0	29.5	32.0	22	19	9.0 x 1.5
EW15PL		15	M22 x 1.5	21.0	32.5	37.0	27	22	12.0 x 2.0
EW18PL		18	M26 x 1.5	23.5	35.5	40.5	32	27	15.0 x 2.0
EW22PL	160 bar	22	M30 x 2.0	27.5	38.5	44.5	36	30	20.0 x 2.0
EW28PL		28	M36 x 2.0	30.5	41.5	48.5	41	36	26.0 x 2.0
EW35PL		35	M45 x 2.0	34.5	51.0	57.5	50	46	32.0 x 2.5
EW42PL		42	M52 x 2.0	40.0	56.0	63.5	60	55	38.0 x 2.5
EW06PS	Heavy S 630 bar	6	M14 x 1.5	16.0	27.0	31.5	17	14	4.0 x 1.5
EW08PS		8	M16 x 1.5	17.0	27.5	32.0	19	17	6.0 x 1.5
EW10PS		10	M18 x 1.5	17.5	30.0	34.5	22	19	7.5 x 1.5
EW12PS		12	M20 x 1.5	21.5	31.0	38.0	24	22	9.0 x 1.5
EW16PS	400 bar	16	M24 x 1.5	24.5	36.5	43.5	30	24	12.0 x 2.0
EW20PS		20	M30 x 2.0	26.5	44.5	49.0	36	30	16.3 x 2.4
EW25PS		25	M36 x 2.0	30.0	50	55.0	46	36	20.3 x 2.4
EW30PS		30	M42 x 2.0	35.5	55	63.5	50	46	25.3 x 2.4
EW38PS	315 bar	38	M52 x 2.0	41.0	63	72.5	60	55	33.3 x 2.4

* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



Part No.	Series	Tube od (øD1)	M	I 2	I 5	* L2	S2	S3	O - Ring ID x CSD
ET06PL	Light L 315 bar	6	M12 x 1.5	12.0	26.0	27.5	14	12	4.0 x 1.5
ET08PL		8	M14 x 1.5	14.0	27.5	29.0	17	14	6.0 x 1.5
ET10PL		10	M16 x 1.5	15.0	29.0	30.5	19	17	7.5 x 1.5
ET12PL		12	M18 x 1.5	17.0	29.5	32.0	22	19	9.0 x 1.5
ET15PL		15	M22 x 1.5	21.0	32.5	37.0	27	22	12.0 x 2.0
ET18PL		18	M26 x 1.5	23.5	35.5	40.5	32	27	15.0 x 2.0
ET22PL	160 bar	22	M30 x 2.0	27.5	38.5	44.5	36	30	20.0 x 2.0
ET28PL		28	M36 x 2.0	30.5	41.5	48.5	41	36	26.0 x 2.0
ET35PL		35	M45 x 2.0	34.5	51.0	57.5	50	46	32.0 x 2.5
ET42PL		42	M52 x 2.0	40.0	56.0	63.5	60	55	38.0 x 2.5
ET06PS	Heavy S 630 bar	6	M14 x 1.5	16.0	27.0	31.5	17	14	4.0 x 1.5
ET08PS		8	M16 x 1.5	17.0	27.5	32.0	19	17	6.0 x 1.5
ET10PS		10	M18 x 1.5	17.5	30.0	34.5	22	19	7.5 x 1.5
ET12PS		12	M20 x 1.5	21.5	31.0	38.0	24	22	9.0 x 1.5
ET16PS	400 bar	16	M24 x 1.5	24.5	36.5	43.5	30	24	12.0 x 2.0
ET20PS		20	M30 x 2.0	26.5	44.5	49.0	36	30	16.3 x 2.4
ET25PS		25	M36 x 2.0	30.0	50	55.0	46	36	20.3 x 2.4
ET30PS		30	M42 x 2.0	35.5	55	63.5	50	46	25.3 x 2.4
ET38PS	315 bar	38	M52 x 2.0	41.0	63	72.5	60	55	33.3 x 2.4

* Dimensions given are approx figures with tightened nut.

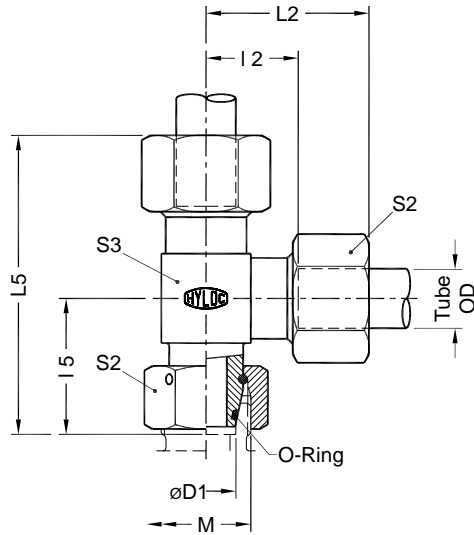
Swivel Barrel Tee Couplings with O-Ring

EL

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



Part No.	Series	Tube od (ØD1)	M	I 2	I 5	* L2	* L5	S2	S3	O - Ring ID x CSD
EL06PL	Light L 315 bar	6	M12 x 1.5	12.0	26.0	27.5	53.5	14	12	4.0 x 1.5
EL08PL		8	M14 x 1.5	14.0	27.5	29.0	56.5	17	14	6.0 x 1.5
EL10PL		10	M16 x 1.5	15.0	29.0	30.5	59.5	19	17	7.5 x 1.5
EL12PL		12	M18 x 1.5	17.0	29.5	32.0	61.5	22	19	9.0 x 1.5
EL15PL		15	M22 x 1.5	21.0	32.5	37.0	69.5	27	22	12.0 x 2.0
EL18PL		18	M26 x 1.5	23.5	35.5	40.5	76.0	32	27	15.0 x 2.0
EL22PL	160 bar	22	M30 x 2.0	27.5	38.5	44.5	83.0	36	30	20.0 x 2.0
EL28PL		28	M36 x 2.0	30.5	41.5	48.5	90.0	41	36	26.0 x 2.0
EL35PL		35	M45 x 2.0	34.5	51.0	57.5	108.5	50	46	32.0 x 2.5
EL42PL		42	M52 x 2.0	40.0	56.0	63.5	119.5	60	55	38.0 x 2.5
EL06PS	Heavy S 630 bar	6	M14 x 1.5	16.0	27.0	31.5	58.5	17	14	4.0 x 1.5
EL08PS		8	M16 x 1.5	17.0	27.5	32.0	59.5	19	17	6.0 x 1.5
EL10PS		10	M18 x 1.5	17.5	30.0	34.5	64.5	22	19	7.5 x 1.5
EL12PS		12	M20 x 1.5	21.5	31.0	38.0	69.0	24	22	9.0 x 1.5
EL16PS	400 bar	16	M24 x 1.5	24.5	36.5	43.5	80.0	30	24	12.0 x 2.0
EL20PS		20	M30 x 2.0	26.5	44.5	49.0	93.5	36	30	16.3 x 2.4
EL25PS		25	M36 x 2.0	30.0	50.0	55.0	105.0	46	36	20.3 x 2.4
EL30PS		30	M42 x 2.0	35.5	55.0	63.5	118.5	50	46	25.3 x 2.4
EL38PS		315 bar	38	M52 x 2.0	41.0	63.0	72.5	135.5	60	55

* Dimensions given are approx figures with tightened nut.

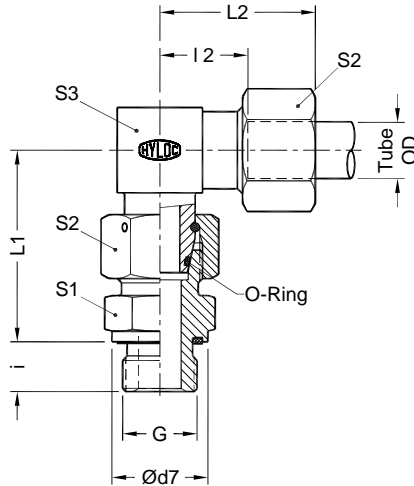
Swivel Stud Elbow Couplings with O-Ring

EW-GE

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
 Male Stud - BSPP (G) threads
 DIN 3852-Part 11,
 with Elastomeric seal



Part No.	Series	Tube od	G Male BSP thread	Ød7	i	I 2	L1	* L2	S1	S2	S3
EW06PLGE	Light L 315 bar	6	G 1/8	14	8	12.0	34.5	27.5	14	14	12
EW08PLGE		8	G 1/4	19	12	14.0	37.5	29.0	19	17	14
EW10PLGE		10	G 1/4	19	12	15.0	40.0	30.5	19	19	17
EW12PLGE		12	G 3/8	22	12	17.0	42.0	32.0	22	22	19
EW15PLGE		15	G 1/2	27	14	21.0	46.5	37.0	27	27	22
EW18PLGE		18	G 1/2	27	14	23.5	50.0	40.5	27	32	27
EW22PLGE	160 bar	22	G 3/4	32	16	27.5	55.0	44.5	32	36	30
EW28PLGE		28	G 1	40	18	30.5	59.0	48.5	41	41	36
EW35PLGE		35	G1.1/4	50	20	34.5	68.5	57.5	50	50	46
EW42PLGE		42	G1.1/2	55	22	40.0	75.0	63.5	55	60	55
EW06PSGE	Heavy S 630 bar	6	G 1/4	19	12	16.0	40.0	31.5	19	17	14
EW08PSGE		8	G 1/4	19	12	17.0	42.5	32.0	19	19	17
EW10PSGE		10	G 3/8	22	12	17.5	45.0	34.5	22	22	19
EW12PSGE		12	G 3/8	22	12	21.5	48.0	38.0	22	24	22
EW16PSGE	400 bar	16	G 1/2	27	14	24.5	55.0	43.5	27	30	24
EW20PSGE		20	G 3/4	32	16	26.5	65.0	49.0	32	36	30
EW25PSGE		25	G 1	40	18	30.0	73.0	55.0	41	46	36
EW30PSGE		30	G1.1/4	50	20	35.5	78.5	63.5	50	50	46
EW38PSGE	315 bar	38	G1.1/2	55	22	41.0	89.0	72.5	55	60	55

* Dimensions given are approx figures with tightened nut.

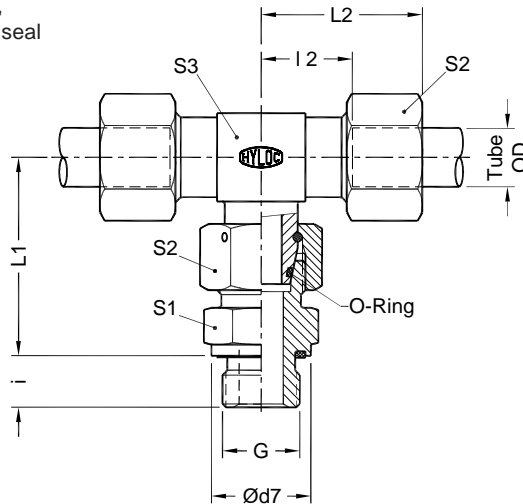
Swivel Stud Branch Tee Couplings with O-Ring

ET-GE

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
 Male Stud - BSPP (G) threads
 DIN 3852-Part 11,
 with Elastomeric seal



Part No.	Series	Tube od	G Male BSP thread	Ød7	i	I 2	L1	* L2	S1	S2	S3
ET06PLGE	Light L 315 bar	6	G 1/8	14	8	12.0	34.5	27.5	14	14	12
ET08PLGE		8	G 1/4	19	12	14.0	37.5	29.0	19	17	14
ET10PLGE		10	G 1/4	19	12	15.0	40.0	30.5	19	19	17
ET12PLGE		12	G 3/8	22	12	17.0	42.0	32.0	22	22	19
ET15PLGE		15	G 1/2	27	14	21.0	46.5	37.0	27	27	22
ET18PLGE		18	G 1/2	27	14	23.5	50.0	40.5	27	32	27
ET22PLGE	160 bar	22	G 3/4	32	16	27.5	55.0	44.5	32	36	30
ET28PLGE		28	G 1	40	18	30.5	59.0	48.5	41	41	36
ET35PLGE		35	G1.1/4	50	20	34.5	68.5	57.5	50	50	46
ET42PLGE		42	G1.1/2	55	22	40.0	75.0	63.5	55	60	55
ET06PSGE	Heavy S 630 bar	6	G 1/4	19	12	16.0	40.0	31.5	19	17	14
ET08PSGE		8	G 1/4	19	12	17.0	42.5	32.0	19	19	17
ET10PSGE		10	G 3/8	22	12	17.5	45.0	34.5	22	22	19
ET12PSGE		12	G 3/8	22	12	21.5	48.0	38.0	22	24	22
ET16PSGE	400 bar	16	G 1/2	27	14	24.5	55.0	43.5	27	30	24
ET20PSGE		20	G 3/4	32	16	26.5	65.0	49.0	32	36	30
ET25PSGE		25	G 1	40	18	30.0	73.0	55.0	41	46	36
ET30PSGE		30	G1.1/4	50	20	35.5	78.5	63.5	50	50	46
ET38PSGE		315 bar	38	G1.1/2	55	22	41.0	89.0	72.5	55	60

* Dimensions given are approx figures with tightened nut.

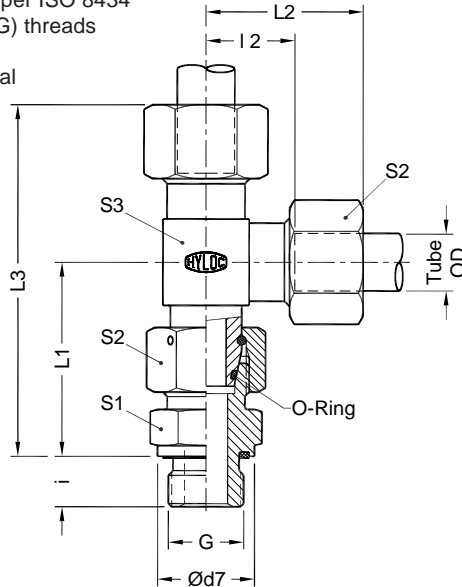
Swivel Stud Barrel Tee Couplings with O-Ring

EL-GE

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male Stud - BSPP (G) threads
DIN 3852-Part 11,
with Elastomeric seal



Part No.	Series	Tube od	G Male BSP thread	Ød7	i	I 2	* L1	* L2	* L3	S1	S2	S3	
EL06PLGE	Light L 315 bar	6	G 1/8	14	8	12.0	34.5	27.5	62.0	14	14	12	
EL08PLGE		8	G 1/4	19	12	14.0	37.5	29.0	66.5	19	17	14	
EL10PLGE		10	G 1/4	19	12	15.0	40.0	30.5	70.5	19	19	17	
EL12PLGE		12	G 3/8	22	12	17.0	42.0	32.0	74.0	22	22	19	
EL15PLGE		15	G 1/2	27	14	21.0	46.5	37.0	83.5	27	27	22	
EL18PLGE		18	G 1/2	27	14	23.5	50.0	40.5	90.5	27	32	27	
EL22PLGE	160 bar	22	G 3/4	32	16	27.5	55.0	44.5	99.5	32	36	30	
EL28PLGE		28	G 1	40	18	30.5	59.0	48.5	107.5	41	41	36	
EL35PLGE		35	G1.1/4	50	20	34.5	68.5	57.5	126.0	50	50	46	
EL42PLGE		42	G1.1/2	55	22	40.0	75.0	63.5	138.5	55	60	55	
EL06PSGE		Heavy S 630 bar	6	G 1/4	19	12	16.0	40.0	31.5	71.5	19	17	14
EL08PSGE	8		G 1/4	19	12	17.0	42.5	32.0	74.5	19	19	17	
EL10PSGE	10		G 3/8	22	12	17.5	45.0	34.5	79.5	22	22	19	
EL12PSGE	12		G 3/8	22	12	21.5	48.0	38.0	86.0	22	24	22	
EL16PSGE	400 bar		16	G 1/2	27	14	24.5	55.0	43.5	98.5	27	30	24
EL20PSGE			20	G 3/4	32	16	26.5	65.0	49.0	114.0	32	36	30
EL25PSGE			25	G 1	40	18	30.0	73.0	55.0	128.0	41	46	36
EL30PSGE			30	G1.1/4	50	20	35.5	78.5	63.5	142.0	50	50	46
EL38PSGE			315 bar	38	G1.1/2	55	22	41.0	89.0	72.5	161.5	55	60

* Dimensions given are approx figures with tightened nut.

65

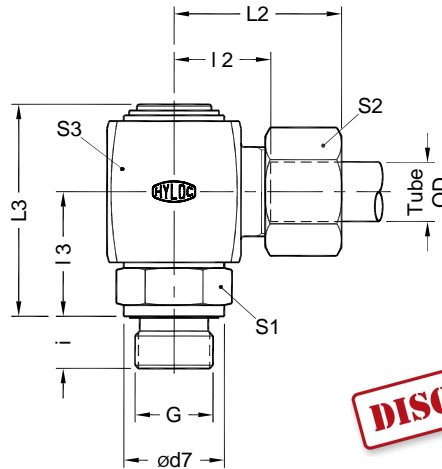
Rotary Banjo Couplings

RW-GE

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Male stud - BSPP (G) threads
with Elastomeric seal

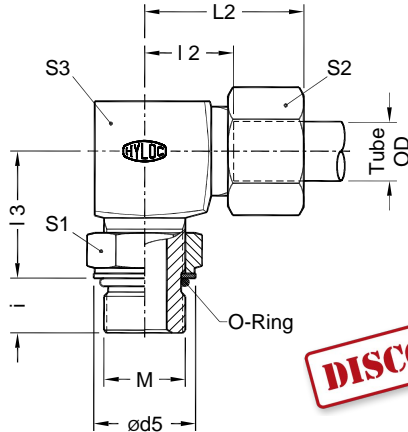


DISCONTINUED

Part No.	Series	Tube od	BSP thread G	ød7	i	L2	L3	* L2	L3	S1	S2	S3
RW06PLGE	Light L 250 bar	6	G 1/8 A	14	8	14.0	19.0	29.0	35.5	14	14	22
RW08PLGE		8	G 1/4 A	19	12	18.0	23.5	33.0	41.5	19	17	27
RW10PLGE		10	G 1/4 A	19	12	19.0	23.5	35.0	41.5	19	19	27
RW12PLGE		12	G 3/8 A	22	12	20.0	27.0	35.0	46.5	22	22	32
RW15PLGE		15	G 1/2 A	27	14	25.5	33.5	41.5	57.0	27	27	36
RW18PLGE	100 bar	18	G 1/2 A	27	14	25.0	33.5	42.5	57.0	27	32	36
RW22PLGE		22	G 3/4 A	32	16	29.5	39.0	47.0	66.0	32	36	46
RW28PLGE	100 bar	28	G 1 A	40	18	34.0	45.0	52.5	78.0	41	41	55
RW35PLGE		35	G1 1/4 A	50	20	38.0	51.5	60.5	93.0	50	50	65
RW42PLGE		42	G1 1/2 A	55	22	42.5	60.5	65.5	108.0	55	60	75
RW06PSGE	Heavy S 400 bar	6	G 1/4 A	19	12	18.5	23.5	33.5	41.5	19	17	27
RW08PSGE		8	G 1/4 A	19	12	18.5	23.5	33.5	41.5	19	19	27
RW10PSGE		10	G 3/8 A	22	12	20.5	27.0	38.0	46.5	22	22	32
RW12PSGE		12	G 3/8 A	22	12	20.5	27.0	37.0	46.5	22	24	32
RW16PSGE		400 bar	16	G 1/2 A	27	14	23.5	33.5	43.0	57.0	27	30
RW20PSGE	250 bar	20	G 3/4 A	32	16	28.5	39.0	51.0	66.0	32	36	46
RW25PSGE		25	G 1 A	40	18	33.5	45.0	58.5	78.0	41	46	55
RW30PSGE		30	G1 1/4 A	50	20	39.0	51.5	67.5	93.0	50	50	65
RW38PSGE		38	G1 1/2 A	55	22	43.5	60.5	75.5	108.0	55	60	75

* Dimensions given are approx figures with tightened nut.

Metric Tube end as per ISO 8434



Part No.	Series	Tube od	Metric thread M	ød5	i	I 2	* L2	I 3	S 1	S 2	S 3
WEE06PLMO	Light L 315 bar	6	M10x1.0	15	7.0	14.0	29.5	20.0	14	14	14
WEE08PLMO		8	M12x1.5	18	10.0	16.0	31.0	22.0	17	17	14
WEE10PLMO		10	M14x1.5	20	10.0	17.0	32.5	25.0	19	19	19
WEE12PLMO		12	M16x1.5	23	10.0	19.0	34.0	26.0	22	22	19
WEE15PLMO		15	M18x1.5	25	11.0	21.0	37.0	30.0	24	27	22
WEE18PLMO		18	M22x1.5	28	12.0	24.0	41.0	33.0	27	32	27
WEE22PLMO	160 bar	22	M27x2.0	33	14.0	28.0	45.0	35.0	32	36	30
WEE28PLMO		28	M33x2.0	41	14.0	31.0	49.0	38.0	41	41	36
WEE35PLMO		35	M42x2.0	51	14.0	38.0	61.0	48.0	50	50	50
WEE42PLMO		42	M48x2.0	56	16.0	38.0	61.5	49.0	55	60	50
WEE06PSMO	Heavy 400 bar	6	M12x1.5	18	10.0	15.0	30.5	22.0	17	17	14
WEE08PSMO		8	M14x1.5	20	10.0	17.0	32.0	26.0	19	19	19
WEE10PSMO		10	M16x1.5	23	11.0	18.0	35.0	27.0	22	22	19
WEE12PSMO		12	M18x1.5	25	12.0	22.0	38.5	31.0	24	24	22
WEE16PSMO		16	M22x1.5	28	14.0	25.0	44.0	35.0	27	30	27
WEE20PSMO		400 bar	20	M27x2.0	33	16.0	28.0	50.5	39.0	32	36
WEE25PSMO	315 bar	25	M33x2.0	41	16.0	30.0	55.0	44.0	41	46	36
WEE30PSMO	250 bar	30	M42x2.0	51	17.0	36.0	64.0	51.0	50	50	50
WEE38PSMO	200 bar	38	M48x2.0	56	19.0	34.0	65.5	54.0	55	60	50

* Dimensions given are approx figures with tightened nut.

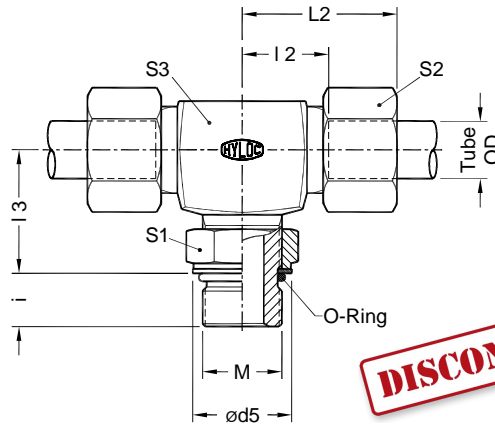
Adjustable Locknut Branch Tee

TEE-MO

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



Part No.	Series	Tube od	Metric thread M	ød5	i	L2	* L2	I3	S1	S2	S3
TEE06PLMO	Light L 315 bar	6	M10x1.0	15	7.0	14.0	29.5	20.0	14	14	14
TEE08PLMO		8	M12x1.5	18	10.0	16.0	31.0	22.0	17	17	14
TEE10PLMO		10	M14x1.5	20	10.0	17.0	32.5	25.0	19	19	19
TEE12PLMO		12	M16x1.5	23	10.0	19.0	34.0	26.0	22	22	19
TEE15PLMO		15	M18x1.5	25	11.0	21.0	37.0	30.0	24	27	22
TEE18PLMO		18	M22x1.5	28	12.0	24.0	41.0	33.0	27	32	27
TEE22PLMO	160 bar	22	M27x2.0	33	14.0	28.0	45.0	35.0	32	36	30
TEE28PLMO		28	M33x2.0	41	14.0	31.0	49.0	38.0	41	41	36
TEE35PLMO		35	M42x2.0	51	14.0	38.0	61.0	48.0	50	50	50
TEE42PLMO		42	M48x2.0	56	16.0	38.0	61.5	49.0	55	60	50
TEE06PSMO	Heavy 400 bar	6	M12x1.5	18	10.0	15.0	30.5	22.0	17	17	14
TEE08PSMO		8	M14x1.5	20	10.0	17.0	32.0	26.0	19	19	19
TEE10PSMO		10	M16x1.5	23	11.0	18.0	35.0	27.0	22	22	19
TEE12PSMO		12	M18x1.5	25	12.0	22.0	38.5	31.0	24	24	22
TEE16PSMO		16	M22x1.5	28	14.0	25.0	44.0	35.0	27	30	27
TEE20PSMO		400 bar	20	M27x2.0	33	16.0	28.0	50.5	39.0	32	36
TEE25PSMO	315 bar	25	M33x2.0	41	16.0	30.0	55.0	44.0	41	46	36
TEE30PSMO	250 bar	30	M42x2.0	51	17.0	36.0	64.0	51.0	50	50	50
TEE38PSMO	200 bar	38	M48x2.0	56	19.0	34.0	65.5	54.0	55	60	50

* Dimensions given are approx figures with tightened nut.

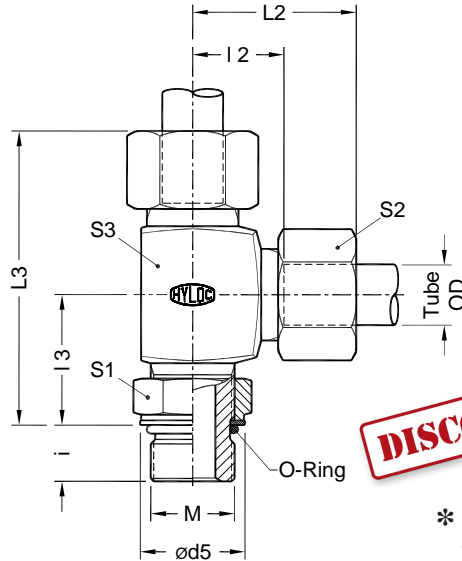
Adjustable Locknut Barrel Tee

LEE-MO

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



* Dimensions given are approx figures with tightened nut.

Part No.	Series	Tube od	Metric thread M	ød5	i	I 2	* L2	I 3	* L3	S1	S2	S3
LEE06PLMO	Light L 315 bar	6	M10x1.0	15	7.0	14.0	29.5	20.0	49.5	14	14	14
LEE08PLMO		8	M12x1.5	18	10.0	16.0	31.0	22.0	53.0	17	17	14
LEE10PLMO		10	M14x1.5	20	10.0	17.0	32.5	25.0	57.5	19	19	19
LEE12PLMO		12	M16x1.5	23	10.0	19.0	34.0	26.0	60.0	22	22	19
LEE15PLMO		15	M18x1.5	25	11.0	21.0	37.0	30.0	67.0	24	27	22
LEE18PLMO		18	M22x1.5	28	12.0	24.0	41.0	33.0	74.0	27	32	27
LEE22PLMO	160 bar	22	M27x2.0	33	14.0	28.0	45.0	35.0	80.0	32	36	30
LEE28PLMO		28	M33x2.0	41	14.0	31.0	49.0	38.0	87.0	41	41	36
LEE35PLMO		35	M42x2.0	51	14.0	38.0	61.0	48.0	109.0	50	50	50
LEE42PLMO		42	M48x2.0	56	16.0	38.0	61.5	49.0	110.5	55	60	50
LEE06PSMO	Heavy 400 bar	6	M12x1.5	18	10.0	15.0	30.5	22.0	52.5	17	17	14
LEE08PSMO		8	M14x1.5	20	10.0	17.0	32.0	26.0	58.0	19	19	19
LEE10PSMO		10	M16x1.5	23	11.0	18.0	35.0	27.0	62.0	22	22	19
LEE12PSMO		12	M18x1.5	25	12.0	22.0	38.5	31.0	69.5	24	24	22
LEE16PSMO		16	M22x1.5	28	14.0	25.0	44.0	35.0	79.0	27	30	27
LEE20PSMO		400 bar	20	M27x2.0	33	16.0	28.0	50.5	39.0	89.5	32	36
LEE25PSMO	315 bar	25	M33x2.0	41	16.0	30.0	55.0	44.0	99.0	41	46	36
LEE30PSMO	250 bar	30	M42x2.0	51	17.0	36.0	64.0	51.0	115.0	50	50	50
LEE38PSMO	200 bar	38	M48x2.0	56	19.0	34.0	65.5	54.0	119.5	55	60	50

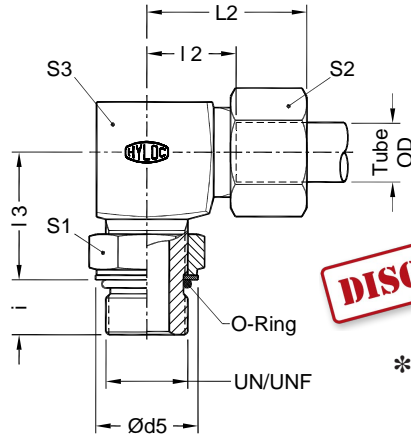
Adjustable Locknut Elbow

WEE-S

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



DISCONTINUED

* Dimensions given are approx figures with tightened nut.

Part No.	Series	Tube od	SAE thread UNF / UN	Ød5	i	I 2	* L2	I 3	S1	S2	S3
WEE06PLS04	Light L 315 bar	6	7/16"-20 UNF	16.5	10	14	29.5	19	14	14	14
WEE08PLS04		8	7/16"-20 UNF	18.3	10	16	31.0	19	14	17	14
WEE10PLS06		10	9/16"-18 UNF	20.2	10	17	32.5	24	17	19	19
WEE12PLS06		12	9/16"-18 UNF	25.7	11	19	34.0	25	17	22	19
WEE12PLS08		12	3/4"-16 UNF	25.7	13	19	34.0	25	22	22	19
WEE15PLS08	315 bar	15	3/4"-16 UNF	25.7	13	21	37.0	28	22	27	22
WEE15PLS10		15	7/8"-14 UNF	29.3	15	21	37.0	28	27	27	22
WEE18PLS10	315 bar	18	7/8"-14 UNF	29.3	15	24	41.0	32	27	32	27
WEE18PLS12	315 bar	18	1.1/16"-12 UN	29.3	17	24	41.0	32	32	32	30
WEE22PLS12	160 bar	22	1.1/16"-12 UN	36.7	17	28	45.0	35	32	36	30
WEE28PLS16	160 bar	28	1.5/16"-12 UN	44.0	17	31	49.0	42	41	41	36
WEE35PLS20	160 bar	35	1.5/8"-12 UN	55.0	17	38	61.0	46	50	50	50
WEE42PLS24	160 bar	42	1.7/8"-12 UN	55.0	17	38	61.5	47	55	60	50
WEE06PSS04	Heavy S 400 bar	6	7/16"-20 UNF	16.5	12	15	30.5	20	14	17	14
WEE08PSS06		8	9/16"-18 UNF	18.3	12	17	32.0	25	17	19	19
WEE10PSS06		10	9/16"-18 UNF	20.2	12	18	35.0	26	17	22	19
WEE12PSS08		12	3/4"-16 UNF	25.7	14	22	38.5	30	22	24	22
WEE16PSS10		16	7/8"-14 UNF	29.3	16	25	44.0	34	27	30	27
WEE20PSS12	400 bar	20	1.1/16"-12 UN	36.7	19	28	50.5	37	32	36	30
WEE25PSS12	400 bar	25	1.1/16"-12 UN	44.0	19	30	55.0	50	32	46	36
WEE30PSS20	250 bar	30	1.5/8"-12 UN	55.0	19	36	64.0	50	50	50	50
WEE38PSS24	250 bar	38	1.7/8"-12 UN	55.0	19	34	65.5	51	55	60	50

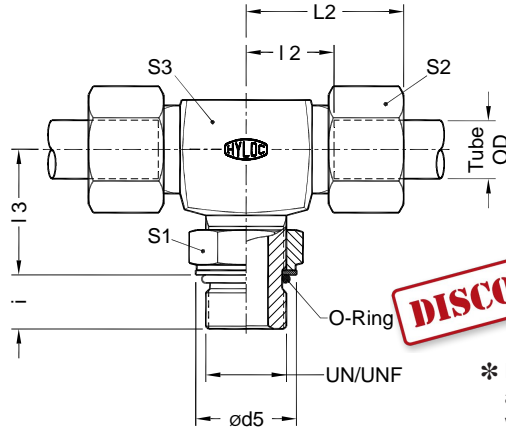
Adjustable Locknut Branch Tee

TEE-S

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434



* Dimensions given are approx figures with tightened nut.

Part No.	Series	Tube od	SAE thread UNF / UN	ød5	i	l2	* L2	l3	S1	S2	S3
TEE06PLS04	Light L 315 bar	6	7/16"-20 UNF	16.5	10	14	29.5	19	14	14	14
TEE08PLS04		8	7/16"-20 UNF	18.3	10	16	31.0	19	14	17	14
TEE10PLS06		10	9/16"-18 UNF	20.2	10	17	32.5	24	17	19	19
TEE12PLS06		12	9/16"-18 UNF	25.7	11	19	34.0	25	17	22	19
TEE12PLS08		12	3/4"-16 UNF	25.7	13	19	34.0	25	22	22	19
TEE15PLS08	315 bar	15	3/4"-16 UNF	25.7	13	21	37.0	28	22	27	22
TEE15PLS10	315 bar	15	7/8"-14 UNF	29.3	15	21	37.0	28	27	27	22
TEE18PLS10	315 bar	18	7/8"-14 UNF	29.3	15	24	41.0	32	27	32	27
TEE18PLS12	315 bar	18	1.1/16"-12 UN	29.3	17	24	41.0	32	32	32	30
TEE22PLS12	160 bar	22	1.1/16"-12 UN	36.7	17	28	45.0	35	32	36	30
TEE28PLS16	160 bar	28	1.5/16"-12 UN	44.0	17	31	49.0	42	41	41	36
TEE35PLS20	160 bar	35	1.5/8"-12 UN	55.0	17	38	61.0	46	50	50	50
TEE42PLS24	160 bar	42	1.7/8"-12 UN	55.0	17	38	61.5	47	55	60	50
TEE06PSS04	Heavy S 400 bar	6	7/16"-20 UNF	16.5	12	15	30.5	20	14	17	14
TEE08PSS06		8	9/16"-18 UNF	18.3	12	17	32.0	25	17	19	19
TEE10PSS06		10	9/16"-18 UNF	20.2	12	18	35.0	26	17	22	19
TEE12PSS08		12	3/4"-16 UNF	25.7	14	22	38.5	30	22	24	22
TEE16PSS10		16	7/8"-14 UNF	29.3	16	25	44.0	34	27	30	27
TEE20PSS12	400 bar	20	1.1/16"-12 UN	36.7	19	28	50.5	37	32	36	30
TEE25PSS12	400 bar	25	1.1/16"-12 UN	44.0	19	30	55.0	50	32	46	36
TEE30PSS20	250 bar	30	1.5/8"-12 UN	55.0	19	36	64.0	50	50	50	50
TEE38PSS24	250 bar	38	1.7/8"-12 UN	55.0	19	34	65.5	51	55	60	50

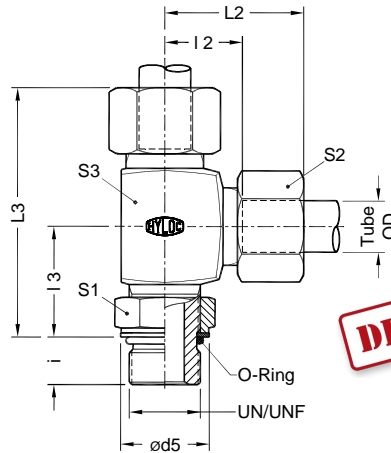
Adjustable Locknut Barrel Tee

LEE-S

Dimensions in mm

DIN Fittings

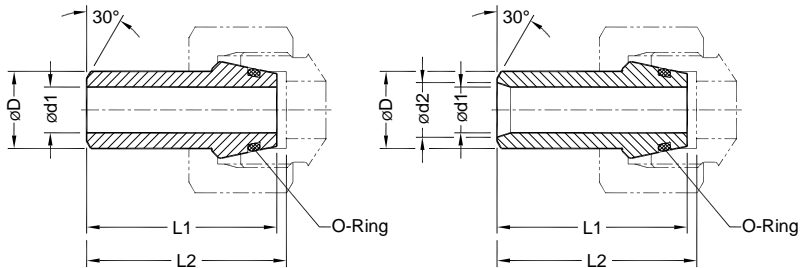
Metric Tube end as per ISO 8434



DISCONTINUED

* Dimensions given are approx figures with tightened nut.

Part No.	Series	Tube od	SAE thread UNF / UN	ød5	i	I 2	* L2	I 3	* L3	S1	S2	S3
LEE06PLS04	Light L 315 bar	6	7/16"-20 UNF	16.5	10	14	29.5	19	48.5	14	14	14
LEE08PLS04		8	7/16"-20 UNF	18.3	10	16	31.0	19	50.0	14	17	14
LEE10PLS06		10	9/16"-18 UNF	20.2	10	17	32.5	24	56.5	17	19	19
LEE12PLS06		12	9/16"-18 UNF	25.7	11	19	34.0	25	59.0	17	22	19
LEE12PLS08		12	3/4"-16 UNF	25.7	13	19	34.0	25	59.0	22	22	19
LEE15PLS08	315 bar	15	3/4"-16 UNF	25.7	13	21	37.0	28	65.0	22	27	22
LEE15PLS10	315 bar	15	7/8"-14 UNF	29.3	15	21	37.0	28	65.0	27	27	22
LEE18PLS10	315 bar	18	7/8"-14 UNF	29.3	15	24	41.0	32	73.0	27	32	27
LEE18PLS12	315 bar	18	1.1/16"-12 UN	29.3	17	24	41.0	32	73.0	32	32	30
LEE22PLS12	160 bar	22	1.1/16"-12 UN	36.7	17	28	45.0	35	80.0	32	36	30
LEE28PLS16	160 bar	28	1.5/16"-12 UN	44.0	17	31	49.0	42	91.0	41	41	36
LEE35PLS20	160 bar	35	1.5/8"-12 UN	55.0	17	38	61.0	46	107.0	50	50	50
LEE42PLS24	160 bar	42	1.7/8"-12 UN	55.0	17	38	61.5	47	108.5	55	60	50
LEE06PSS04	Heavy S 400 bar	6	7/16"-20 UNF	16.5	12	15	30.5	20	50.5	14	17	14
LEE08PSS06		8	9/16"-18 UNF	18.3	12	17	32.0	25	57.0	17	19	19
LEE10PSS06		10	9/16"-18 UNF	20.2	12	18	35.0	26	61.0	17	22	19
LEE12PSS08		12	3/4"-16 UNF	25.7	14	22	38.5	30	68.5	22	24	22
LEE16PSS10		16	7/8"-14 UNF	29.3	16	25	44.0	34	78.0	27	30	27
LEE20PSS12	400 bar	20	1.1/16"-12 UN	36.7	19	28	50.5	37	87.5	32	36	30
LEE25PSS12	400 bar	25	1.1/16"-12 UN	44.0	19	30	55.0	50	105.0	32	46	36
LEE30PSS20	250 bar	30	1.5/8"-12 UN	55.0	19	36	64.0	50	114.0	50	50	50
LEE38PSS24	250 bar	38	1.7/8"-12 UN	55.0	19	34	65.5	51	116.5	55	60	50



	Part No.	Series	Max Pr (bar)	Tube size od x Wall	O-Ring ID x CSD	øD	ød1	ød2	L1	L2
#	WNA1515	Light L	282	15 x 1.5	12 x 2.0	15	10	12	34.5	35.0
	WNA1520		376	15 x 2.0			10	11		
	WNA1525		409	15 x 2.5			10	--		
#	WNA1820		313	18 x 2.0	15 x 2.0	18	13	14	36.5	37.0
	WNA1825		392	18 x 2.5			13	--		
	WNA1830		409	18 x 3.0			12	--		
#	WNA2220		256	22 x 2.0	20 x 2.0	22	17	18	39.0	39.5
	WNA2225		320	22 x 2.5			17	--		
#	WNA2825		252	28 x 2.5	26 x 2.0	28	23	--	41.5	42.5
	WNA2830		302	28 x 3.0			22	--		
	WNA2840		403	28 x 4.0			20	--		
#	WNA3530		242	35 x 3.0	32 x 2.5	35	29	--	48.5	49.5
	WNA3540		322	35 x 4.0			27	--		
	WNA3550		403	35 x 5.0			25	--		
#	WNA4220		134	42 x 2.0	38 x 2.5	42	36	38	49.0	50.0
	WNA4230		201	42 x 3.0			36	--		
	WNA4240		269	42 x 4.0			34	--		
#	WNA0610	Heavy S	237	6.0 x 1.0	4.0 x 1.5	6	2.5	4	31.5	32.0
	WNA0615		237	6.0 x 1.5			2.5	3		
#	WNA0810		237	8.0 x 1.0	6.0 x 1.5	8	4.0	6	31.0	32.0
	WNA0815		237	8.0 x 1.5			4.0	5		
	WNA0820		237	8.0 x 2.0			4.0	--		

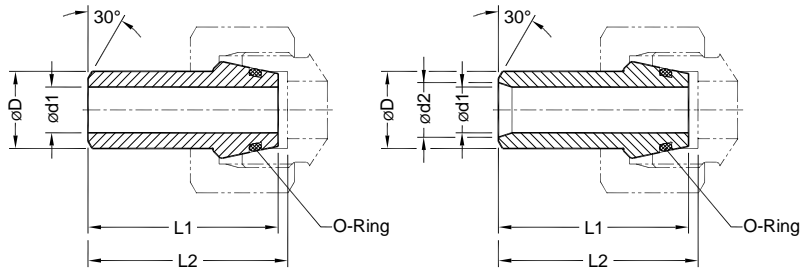
Standard wall thickness unless specified

Weldable Nipples

WNA

Dimensions in mm

DIN Fittings



Part No.	Series	Max Pr (bar)	Tube size od x Wall	O-Ring ID x CSD	øD	ød1	ød2	L1	L2
# WNA1010	Heavy S	237	10 x 1.0	7.5 x 1.5	10	6	8	32.5	33.5
		370	10 x 1.5			6	7		
		508	10 x 2.0			6	--		
# WNA1215		302	12 x 1.5	9.0 x 1.5	12	8	9	32.5	33.5
		415	12 x 2.0			8	--		
		532	12 x 2.5			7	--		
# WNA1615		221	16 x 1.5	12 x 2.0	16	11	13	39.5	40.5
		302	16 x 2.0			11	12		
		387	16 x 2.5			11	--		
		473	16 x 3.0			10	--		
# WNA2020		237	20 x 2.0	16.3 x 2.4	20	14	16	46.5	47.0
		302	20 x 2.5			14	15		
		370	20 x 3.0			14	--		
		508	20 x 4.0			12	--		
# WNA2530		289	25 x 3.0	20.3 x 2.4	25	19	--	52.5	53.5
		397	25 x 4.0			17	--		
		508	25 x 5.0			15	--		
# WNA3030		237	30 x 3.0	25.3 x 2.4	30	24	--	56.5	57.5
		325	30 x 4.0			22	--		
		415	30 x 5.0			20	--		
		508	30 x 6.0			18	--		
# WNA3840		251	38 x 4.0	33.3 x 2.4	38	30	--	63.5	64.5
		320	38 x 5.0			28	--		
		391	38 x 6.0			26	--		
		464	38 x 7.0			24	--		

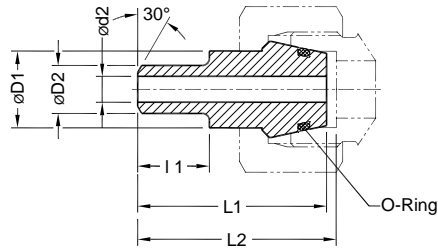
Standard wall thickness unless specified

Reducer Weldable Nipples

WNR

Dimensions in mm

DIN Fittings



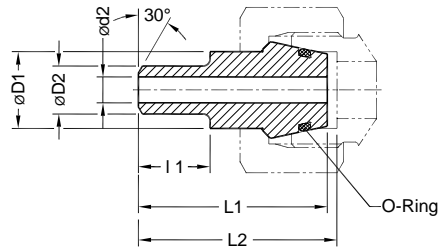
Part No.	Series	Max Pr (bar)	$\varnothing D1$	$\varnothing D2$	Tube size od x Wall	O-Ring ID x CSD	$\varnothing d2$	l 1	L1	L2
WNR181515	Light L	160	18	15	15 x 1.5	15 x 2.0	12	16	36.5	37.0
WNR221815			22	18	18 x 1.5	20 x 2.0	15	18	39.0	39.5
WNR221515			22	15	15 x 1.5		12			
WNR282220		100	28	22	22 x 2.0	26 x 2.0	18	21	41.5	42.5
WNR281815			28	18	18 x 1.5		15			
WNR281515			28	15	15 x 1.5		12			
WNR352820		100	35	28	28 x 2.0	32 x 2.5	24	25	48.5	49.5
WNR352220			35	22	22 x 2.0		18			
WNR351815			35	18	18 x 1.5		15			
WNR351515			35	15	15 x 1.5		12			
WNR423520		100	42	35	35 x 2.0	38 x 2.5	31	22	49	50.0
WNR422820			42	28	28 x 2.0		24			
WNR422220			42	22	22 x 2.0		18			
WNR421815			42	18	18 x 1.5		15			
WNR421515			42	15	15 x 1.5		12			
WNR080620	Heavy S	630	8	6	6 x 2.0	6.0 x 1.5	2	11	31.0	32.0
WNR100825			10	8	8 x 2.5	7.5 x 1.5	3	12	32.5	33.5
WNR100620			10	6	6 x 2.0		2			
WNR121030		630	12	10	10 x 3.0	9.0 x 1.5	4	13	32.5	33.5
WNR120825			12	8	8 x 2.5		3			
WNR120620			12	6	6 x 2.0		2			

Reducer Weldable Nipples

WNR

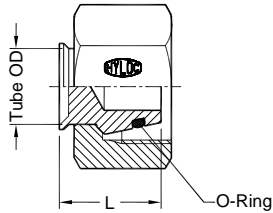
Dimensions in mm

DIN Fittings



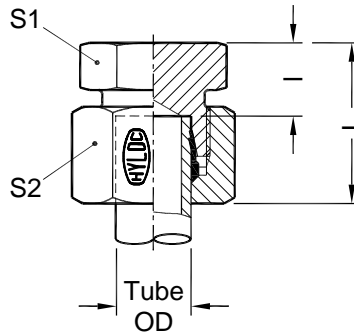
Part No.	Series	Max Pr (bar)	$\varnothing D1$	$\varnothing D2$	Tube size od x Wall	O-Ring ID x CSD	$\varnothing d2$	I 1	L 1	L 2
WNR161220	Heavy S	400	16	12	12 x 2.0	12 x 2.0	8	15	39.5	40.5
WNR161020			16	10	10 x 2.0		6			
WNR160815			16	8	8 x 1.5		5			
WNR160615			16	6	6 x 1.5		3			
WNR201630		400	20	16	16 x 3.0	16.3 x 2.4	10	17	46.5	47.0
WNR201220			20	12	12 x 2.0		8			
WNR201020			20	10	10 x 2.0		6			
WNR200815			20	8	8 x 1.5		5			
WNR200615			20	6	6 x 1.5		3			
WNR252035		400	25	20	20 x 3.5	20.3 x 2.4	13	20	52.5	53.5
WNR251630			25	16	16 x 3.0		10			
WNR251220			25	12	12 x 2.0		8			
WNR251020			25	10	10 x 2.0		6			
WNR250815			25	8	8 x 1.5		5			
WNR250615			25	6	6 x 1.5		3			
WNR302525		250	30	25	25 x 2.5	25.3 x 2.4	20	22	56.5	57.5
WNR302020			30	20	20 x 2.0		16			
WNR301620			30	16	16 x 2.0		12			
WNR301215			30	12	12 x 1.5		9			
WNR301015			30	10	10 x 1.5		7			
WNR300815			30	8	8 x 1.5		5			
WNR300610			30	6	6 x 1.0		4			
WNR383030				250	38	30	30 x 3.0	33.3 x 2.4	24	26
WNR382525	38	25			25 x 2.5		20			
WNR382020	38	20			20 x 2.0		16			
WNR381620	38	16			16 x 2.0		12			
WNR381215	38	12			12 x 1.5		9			
WNR381015	38	10			10 x 1.5		7			
WNR380815	38	8			8 x 1.5		5			
WNR380610	38	6			6 x 1.0		4			

For Metric Tube ends (24°) as per ISO 8434



Part No.	Series	Tube od	L	O-Ring ID x CSD
VKA06L	Light L 250 bar	6	18.5	4.0 x 1.5
VKA08L		8	18.0	6.0 x 1.5
VKA10L		10	19.5	7.5 x 1.5
VKA12L		12	19.5	9.0 x 1.5
VKA15L		15	19.0	12.0 x 2.0
VKA18L	160 bar	18	20.5	15 x 2.0
VKA22L		22	21.5	20 x 2.0
VKA28L	100 bar	28	22.0	26 x 2.0
VKA35L		35	27.5	32 x 2.5
VKA42L		42	28.0	38 x 2.5
VKA06S	Heavy S 630 bar	6	18.5	4.0 x 1.5
VKA08S		8	18.0	6.0 x 1.5
VKA10S		10	19.5	7.5 x 1.5
VKA12S		12	19.5	9.0 x 1.5
VKA16S	400 bar	16	21.5	12 x 2.0
VKA20S		20	26.0	16.3 x 2.4
VKA25S		25	28.0	20.3 x 2.4
VKA30S	250 bar	30	32.5	25.3 x 2.4
VKA38S		38	36.5	33.3 x 2.4

Metric Tube end as per ISO 8434



*

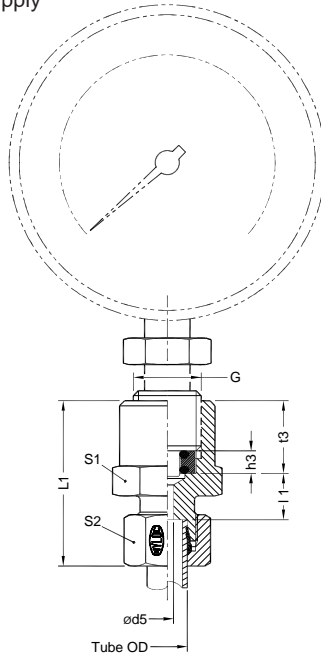
Part No.	Series	Tube od	I	L	S1	S2
BUZT06L	Light L 250 bar	6	8.0	23.5	12	14
BUZT08L		8	8.0	23.0	14	17
BUZT10L		10	9.0	24.5	17	19
BUZT12L		12	10.0	25.0	19	22
BUZT15L		15	11.0	27.0	22	27
BUZT18L	160 bar	18	11.5	28.5	27	32
BUZT22L		22	13.5	30.5	30	36
BUZT28L	100 bar	28	14.5	32.5	36	41
BUZT35L		35	16.5	39.5	46	50
BUZT42L		42	19.0	42.5	55	60
BUZT06S	Heavy S 630 bar	6	13.0	28.5	14	17
BUZT08S		8	13.0	28.0	17	19
BUZT10S		10	12.5	29.5	19	22
BUZT12S		12	14.5	31.0	22	24
BUZT16S	400 bar	16	15.5	34.5	24	30
BUZT20S		20	17.5	40.0	30	36
BUZT25S		25	18.0	43.0	36	46
BUZT30S	250 bar	30	22.5	50.5	46	50
BUZT38S		38	23.0	54.5	55	60

* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Gauge is not in scope of supply



*

Part No.	Series	Tube od	Connection thread	ød5	h3	l1	L 1	S1	S2	t 3
MAV04PLG02	100 bar	4	G 1/4	2.5	4.5	8.5	33.0	19	14	14.5
MAV06PLG02	250 bar	6	G 1/4	2.5	4.5	7.5	37.5	19	14	14.5
MAV08PLG02		8	G 1/4	5.5	4.5	7.5	37.0	19	17	14.5
MAV10PLG02		10	G 1/4	5.5	4.5	8.5	38.5	19	19	14.5
MAV12PLG02		12	G 1/4	5.5	4.5	8.5	38.0	19	22	14.5
MAV06PLG03	250 bar	6	G 3/8	2.5	5.5	9.5	41.5	22	14	16.5
MAV08PLG03		8	G 3/8	5.5	5.5	9.5	41.0	22	17	16.5
MAV10PLG03		10	G 3/8	5.5	5.5	10.5	42.5	22	19	16.5
MAV12PLG03		12	G 3/8	5.5	5.5	10.5	42.0	22	22	16.5
MAV06PSG03	630 bar	6	G 3/8	3.5	5.5	9.5	41.5	22	17	16.5
MAV08PSG03		8	G 3/8	3.5	5.5	9.5	41.0	22	19	16.5
MAV10PSG03		10	G 3/8	7	5.5	9	42.5	22	22	16.5
MAV12PSG03		12	G 3/8	7	5.5	9	42.0	22	24	16.5
MAV06PSG04	630 bar	6	G 1/2	3.5	5.5	11	46.5	27	17	20
MAV08PSG04		8	G 1/2	3.5	5.5	11	46.0	27	19	20
MAV10PSG04		10	G 1/2	7	5.5	10.5	47.5	27	22	20
MAV12PSG04		12	G 1/2	7	5.5	10.5	47.0	27	24	20

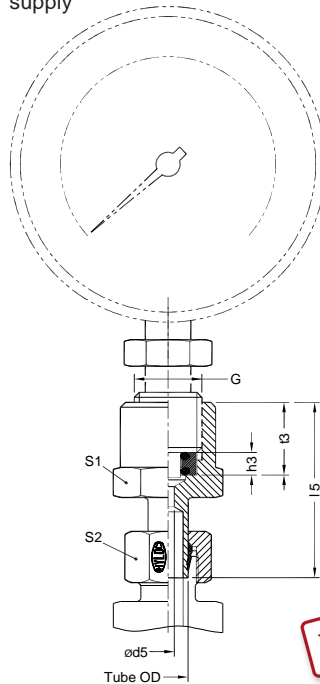
Adjustable Pressure Gauge Standpipes

MAVEV-G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
Gauge is not in scope of supply



DISCONTINUED

Part No.	Series	Tube od	Connection thread G	ød5	h3	l5	S1	S2	t 3
MAVEV06PLG02	250 bar	6	G 1/4	2.5	4.5	38.0	19	14	14.5
MAVEV08PLG02		8	G 1/4	4.5	4.5	38.0	19	17	14.5
MAVEV10PLG02		10	G 1/4	5.5	4.5	39.5	19	19	14.5
MAVEV12PLG02		12	G 1/4	5.5	4.5	40.5	19	22	14.5
MAVEV06PLG03	250 bar	6	G 3/8	2.5	5.5	38.0	22	14	16.5
MAVEV08PLG03		8	G 3/8	5.5	5.5	38.0	22	17	16.5
MAVEV10PLG03		10	G 3/8	5.5	5.5	39.5	22	19	16.5
MAVEV12PLG03		12	G 3/8	5.5	5.5	40.5	22	22	16.5
MAVEV06PSG03	630 bar	6	G 3/8	2.5	5.5	41.0	22	17	16.5
MAVEV08PSG03		8	G 3/8	5.5	5.5	41.0	22	19	16.5
MAVEV10PSG03		10	G 3/8	5.5	5.5	43.0	22	22	16.5
MAVEV12PSG03		12	G 3/8	5.5	5.5	43.5	22	24	16.5
MAVEV06PSG04	630 bar	6	G 1/2	3.5	5.5	45.0	27	17	20.0
MAVEV08PSG04		8	G 1/2	3.5	5.5	45.0	27	19	20.0
MAVEV10PSG04		10	G 1/2	6.5	5.5	47.0	27	22	20.0
MAVEV12PSG04		12	G 1/2	7.0	5.5	47.5	27	24	20.0

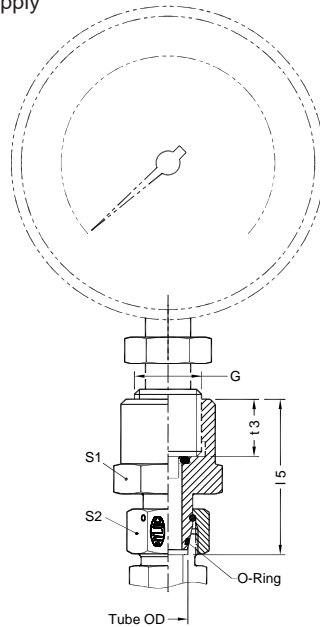
Adjustable Pressure Gauge Standpipes with O-Ring

MAVE-G

Dimensions in mm

DIN Fittings

For Metric Tube ends (24°) as per ISO 8434
Gauge is not in scope of supply



Low Pressure Series

Part No.	Series	Tube od	Connection thread G	t 3	l 5	S1	S2	O-Ring ID x CSD
MAVE06LG02	250 bar	6	G 1/4	10	35.5	19	14	4.0 x 1.5
MAVE08LG02		8	G 1/4	10	35.5	19	17	6.0 x 1.5
MAVE10LG02		10	G 1/4	10	36.0	19	19	7.5 x 1.5
MAVE12LG02		12	G 1/4	10	36.0	19	22	9.0 x 1.5
MAVE06LG03	250 bar	6	G 3/8	13	37.0	24	14	4.0 x 1.5
MAVE08LG03		8	G 3/8	13	37.5	24	17	6.0 x 1.5
MAVE10LG03		10	G 3/8	13	38.5	24	19	7.5 x 1.5
MAVE12LG03		12	G 3/8	13	38.0	24	22	9.0 x 1.5
MAVE06LG04	250 bar	6	G 1/2	16	42.5	27	14	4.0 x 1.5
MAVE08LG04		8	G 1/2	16	43.0	27	17	6.0 x 1.5
MAVE10LG04		10	G 1/2	16	43.5	27	19	7.5 x 1.5
MAVE12LG04		12	G 1/2	16	45.0	27	22	9.0 x 1.5

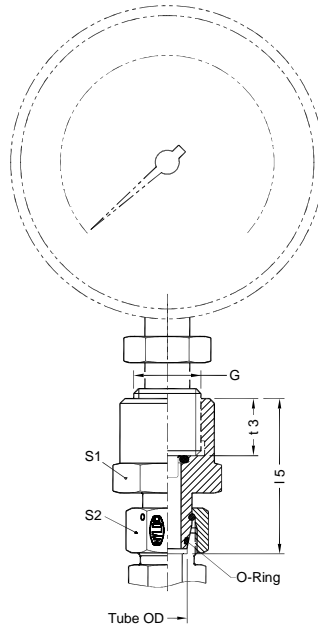
Adjustable Pressure Gauge Standpipes with O-Ring

MAVE-G

Dimensions in mm

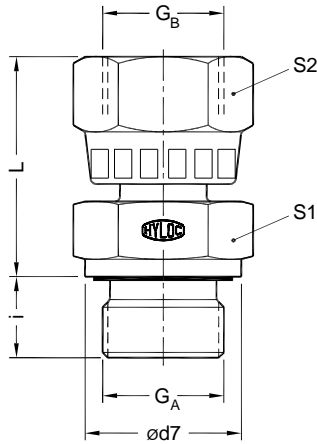
DIN Fittings

For Metric Tube ends (24°) as per ISO 8434
Gauge is not in scope of supply



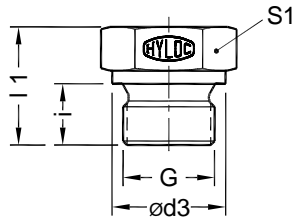
High Pressure Series

Part No.	Series	Tube od	Connection thread G	t 3	l 5	S1	S2	O-Ring ID x CSD
MAVE06SG02	630 bar	6	G 1/4	10	35.5	19	17	4.0 x 1.5
MAVE08SG02		8	G 1/4	10	35.5	19	19	6.0 x 1.5
MAVE10SG02		10	G 1/4	10	39.0	19	22	7.5 x 1.5
MAVE12SG02		12	G 1/4	10	39.0	19	24	9.0 x 1.5
MAVE06SG03	630 bar	6	G 3/8	13	37.0	24	17	4.0 x 1.5
MAVE08SG03		8	G 3/8	13	36.0	24	19	6.0 x 1.5
MAVE10SG03		10	G 3/8	13	37.5	24	22	7.5 x 1.5
MAVE12SG03		12	G 3/8	13	37.0	24	24	9.0 x 1.5
MAVE06SG04	630 bar	6	G 1/2	16	42.5	27	17	4.0 x 1.5
MAVE08SG04		8	G 1/2	16	43.0	27	19	6.0 x 1.5
MAVE10SG04		10	G 1/2	16	43.5	27	22	7.5 x 1.5
MAVE12SG04		12	G 1/2	16	45.0	27	24	9.0 x 1.5



Part No.	Stud end G_A	Gauge end G_B	i	L	$\varnothing d7$	S1	S2
1GAG02EG02		G 1/4					19
1GAG02EG03	G 1/4	G 3/8	12	42.0	19	19	22
1GAG02EG04		G 1/2					27
1GAG03EG02		G 1/4					19
1GAG03EG03	G 3/8	G 3/8	12	44.5	22	22	22
1GAG03EG04		G 1/2					27
1GAG04EG02		G 1/4					19
1GAG04EG03	G 1/2	G 3/8	14	52.0	27	27	22
1GAG04EG04		G 1/2					27

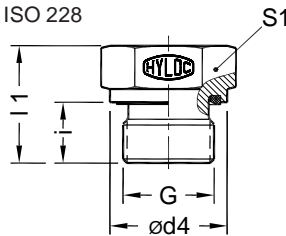
Hex head Plug
Male thread : BSPP (G) - ISO 228



DISCONTINUED

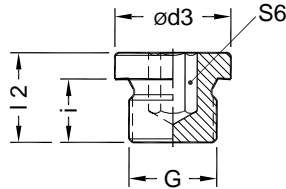
Part No.	G Male thread BSPP	ød3	i	l1	S1
VSTG01	G 1/8	14	8	14.5	14
VSTG02	G 1/4	18	12	20.0	19
VSTG03	G 3/8	22	12	22.5	22
VSTG04	G 1/2	26	14	24.0	27
VSTG06	G 3/4	32	16	26.0	32
VSTG08	G 1	39	16	27.0	41
VSTG10	G1 1/4	49	16	28.0	50
VSTG12	G1 1/2	55	16	30.0	55

Hex head Plug with Elastomeric seal
Male thread : BSPP (G) - ISO 228



Part No.	G Male thread BSPP	ød4	i	l1	S1
VSTG01E	G 1/8	14	8	14.5	14
VSTG02E	G 1/4	19	12	20.0	19
VSTG03E	G 3/8	22	12	22.5	22
VSTG04E	G 1/2	27	14	24.0	27
VSTG06E	G 3/4	32	16	26.0	32
VSTG08E	G 1	40	16	27.0	41
VSTG10E	G1 1/4	50	16	28.0	50
VSTG12E	G1 1/2	55	16	30.0	55

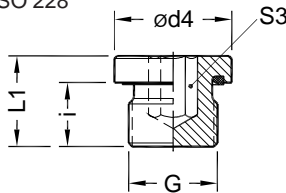
Socket head Plug
Male thread : BSPP (G) - ISO 228



DISCONTINUED

Part No.	G Male thread BSP	ød3	i	L2	S6
VSTIG01	G 1/8	14	8	11	5
VSTIG02	G 1/4	18	12	15	6
VSTIG03	G 3/8	22	12	15	8
VSTIG04	G 1/2	26	14	18	10
VSTIG06	G 3/4	32	16	20	12
VSTIG08	G 1	39	16	21	17
VSTIG10	G1 1/4	49	16	21	22
VSTIG12	G1 1/2	55	16	21	24

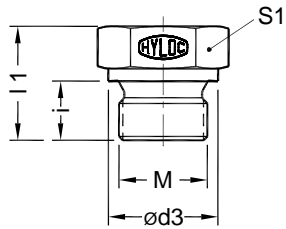
Socket head Plug with Elastomeric Seal
Male thread : BSPP (G) - ISO 228



Part No.	G Male thread BSP	ød4	i	L1	S3
VSTIG01E	G 1/8	14	8	13	5
VSTIG02E	G 1/4	19	12	17	6
VSTIG03E	G 3/8	22	12	17	8
VSTIG04E	G 1/2	27	14	20	10
VSTIG06E	G 3/4	32	16	22	12
VSTIG08E	G 1	40	16	24	17
VSTIG10E	G1 1/4	50	16	24	22
VSTIG12E	G1 1/2	55	16	24	24

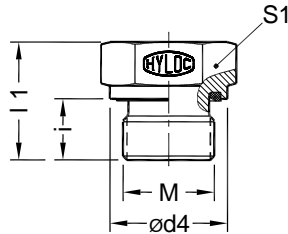
Hex head Plug

Male thread : Metric (M) - ISO 261

**DISCONTINUED**

Part No.	Working Pressure (bar)	M Male thread Metric	ød3	i	l 1	S1
VSTM10	630	M10 x 1.0	14	8	16	14
VSTM12	630	M12 x 1.5	17	12	20	17
VSTM14	630	M14 x 1.5	19	12	20	19
VSTM16	630	M16 x 1.5	21	12	22	22
VSTM18	630	M18 x 1.5	23	12	23	24
VSTM20	630	M20 x 1.5	25	14	25	27
VSTM22	400	M22 x 1.5	27	14	26	27
VSTM26	160	M26 x 1.5	31	16	29	32
VSTM27	400	M27 x 2.0	32	16	29	32
VSTM33	400	M33 x 2.0	39	16	34	41
VSTM42	250	M42 x 2.0	49	16	36	50
VSTM48	250	M48 x 2.0	55	16	37	55

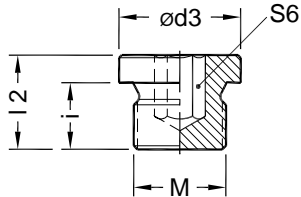
Hex head Plug with Elastomeric seal (ISO 9974-4)
Male thread : Metric (M) - ISO 261



Part No.	Working Pressure (bar)	M Male thread Metric	ød4	i	l1	S1	Tightening Torque N-m
VSTM10E	630	M10 x 1.0	14	8	16	14	20
VSTM12E	630	M12 x 1.5	17	12	20	17	30
VSTM14E	630	M14 x 1.5	19	12	20	19	45
VSTM16E	630	M16 x 1.5	22	12	22	22	60
VSTM18E	630	M18 x 1.5	24	12	23	24	80
VSTM20E	630	M20 x 1.5	26	14	25	27	100
VSTM22E	400	M22 x 1.5	27	14	26	27	80
VSTM26E	160	M26 x 1.5	32	16	29	32	120
VSTM27E	400	M27 x 2.0	32	16	29	32	135
VSTM33E	400	M33 x 2.0	40	16	34	41	225
VSTM42E	250	M42 x 2.0	50	16	36	50	360
VSTM48E	250	M48 x 2.0	55	16	37	55	400

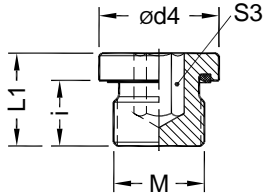
Socket head Plug

Male thread : Metric (M) - ISO 261

**DISCONTINUED**

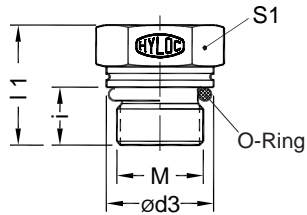
Part No.	Working Pressure (bar)	M Male thread Metric	ød3	i	l2	S6	Tightening Torque N-m
VSTIM10	400	M10 x 1.0	14	8	12.3	5	12
VSTIM12	400	M12 x 1.5	17	12	17.3	6	25
VSTIM14	400	M14 x 1.5	19	12	17.3	6	35
VSTIM16	400	M16 x 1.5	22	12	17.3	8	50
VSTIM18	400	M18 x 1.5	24	12	17.3	8	60
VSTIM20	400	M20 x 1.5	26	14	19.3	10	70
VSTIM22	400	M22 x 1.5	27	14	19.3	10	80
VSTIM26	160	M26 x 1.5	32	16	21.3	12	120
VSTIM27	400	M27 x 2.0	32	16	21.3	12	135
VSTIM33	400	M33 x 2.0	40	16	22.8	17	225
VSTIM42	250	M42 x 2.0	50	16	22.8	22	360
VSTIM48	250	M48 x 2.0	55	16	22.8	24	400

Socket head Plug with Elastomeric seal (ISO 9974-4)
Male thread : Metric (M) - ISO 261



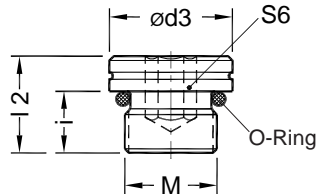
Part No.	Working Pressure (bar)	M Male thread Metric	$\varnothing d4$	i	L1	S3	Tightening Torque N-m
VSTIM10E	400	M10 x 1.0	14	8	12.3	5	12
VSTIM12E	400	M12 x 1.5	17	12	17.3	6	25
VSTIM14E	400	M14 x 1.5	19	12	17.3	6	35
VSTIM16E	400	M16 x 1.5	22	12	17.3	8	50
VSTIM18E	400	M18 x 1.5	24	12	17.3	8	60
VSTIM20E	400	M20 x 1.5	26	14	19.3	10	70
VSTIM22E	400	M22 x 1.5	27	14	19.3	10	80
VSTIM26E	160	M26 x 1.5	32	16	21.3	12	120
VSTIM27E	400	M27 x 2.0	32	16	21.3	12	135
VSTIM33E	400	M33 x 2.0	40	16	22.8	17	225
VSTIM42E	250	M42 x 2.0	50	16	22.8	22	360
VSTIM48E	250	M48 x 2.0	55	16	22.8	24	400

Hex head Plug with O-Ring (ISO 6149-4)
Male thread : Metric (M) - ISO 261



Part No.	Working Pressure (bar)	M Male thread Metric	ød3	i	l1	S1	O-Ring ID x CSD	Tightening Torque N-m
VSTM100	630	M10 x 1.0	13.8	9.5	17.0	14	8.1 x 1.6	20
VSTM120	630	M12 x 1.5	16.8	11.0	18.5	17	9.3 x 2.2	35
VSTM140	630	M14 x 1.5	18.8	11.0	19.5	19	11.3 x 2.2	45
VSTM160	630	M16 x 1.5	21.8	12.5	22.0	22	13.3 x 2.2	55
VSTM180	630	M18 x 1.5	23.8	14.0	24.0	24	15.3 x 2.2	70
VSTM220	630	M22 x 1.5	26.8	15.0	26.0	27	19.3 x 2.2	100
VSTM270	400	M27 x 2.0	31.8	18.5	31.5	32	23.6 x 2.9	170
VSTM300	400	M30 x 2.0	35.8	18.5	33.0	36	26.6 x 2.9	215
VSTM330	400	M33 x 2.0	40.8	18.5	34.0	41	29.6 x 2.9	310
VSTM420	250	M42 x 2.0	49.8	19.0	36.5	50	38.6 x 2.9	330
VSTM480	250	M48 x 2.0	54.8	21.5	40.0	55	44.6 x 2.9	420
VSTM600	250	M60 x 2.0	64.8	24.0	44.5	65	56.6 x 2.9	500

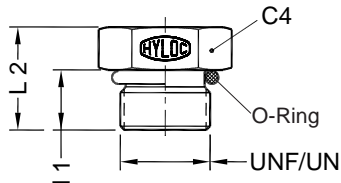
Socket head Plug with O-Ring (ISO 6149-4)
Male thread : Metric (M) - ISO 261



Part No.	Working Pressure (bar)	M Male thread Metric	$\varnothing d3$	i	I 2	S6	O-Ring ID x CSD	Tightening Torque N-m
VSTIM100	420	M10 x 1.0	13.8	9.5	13.5	5	8.1 x 1.6	15
VSTIM120	420	M12 x 1.5	16.8	11.0	15.5	6	9.3 x 2.2	22
VSTIM140	630	M14 x 1.5	18.8	11.0	16.0	6	11.3 x 2.2	45
VSTIM160	630	M16 x 1.5	21.8	12.5	17.5	8	13.3 x 2.2	55
VSTIM180	630	M18 x 1.5	23.8	14.0	19.0	8	15.3 x 2.2	70
VSTIM220	630	M22 x 1.5	26.8	15.0	20.0	10	19.3 x 2.2	100
VSTIM260	* 400	M26 x 1.5	31.0	16.0	21.0	12	23.0 x 2.4	---
VSTIM270	400	M27 x 2.0	31.8	18.5	23.5	12	23.6 x 2.9	170
VSTIM300	400	M30 x 2.0	35.8	18.5	24.5	14	26.6 x 2.9	215
VSTIM330	400	M33 x 2.0	40.8	18.5	24.5	14	29.6 x 2.9	310
VSTIM420	250	M42 x 2.0	49.8	19.0	25.0	17	38.6 x 2.9	330
VSTIM480	250	M48 x 2.0	54.8	21.5	27.5	17	44.6 x 2.9	420
VSTIM600	250	M60 x 2.0	64.8	24.0	30.0	19	56.6 x 2.9	500

* Not included in ISO 6149-4 standard

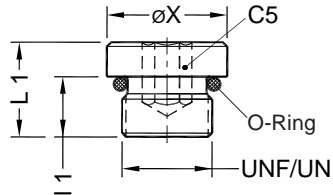
Hex head Plug with O-Ring
Male thread : SAE (UNF/UN) - ISO 263



Part No.	Male thread UNF/UN	I 1	L2	C4	O - Ring ID x CSD
VSTS02	5/16" -24	7.54	15.2	12	6.07 x 1.63
VSTS03	3/8" -24	7.54	15.2	12	7.65 x 1.63
VSTS04	7/16" -20	9.14	17.0	14	8.92 x 1.83
VSTS05	1/2" -20	9.14	17.0	17	10.52 x 1.83
VSTS06	9/16" -18	9.93	18.5	17	11.89 x 1.98
VSTS08	3/4" -16	11.13	20.3	22	16.36 x 2.21
VSTS10	7/8" -14	12.7	23.6	27	19.18 x 2.46
VSTS12	1.1/16" -12	15.09	27.7	32	23.47 x 2.95
VSTS14	1.3/16" -12	15.09	27.7	36	26.62 x 2.95
VSTS16	1.5/16" -12	15.09	28.4	41	29.74 x 2.95
VSTS20	1.5/8" -12	15.09	30.5	46	37.47 x 3.00
VSTS24	1.7/8" -12	15.09	32.3	55	43.69 x 3.00
VSTS32	2.1/2" -12	15.09	36.3	70	59.36 x 3.00

Socket head Plug with O-Ring (SAE 090109B)

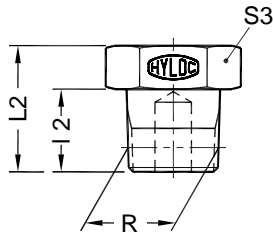
Male thread : SAE (UNF/UN) - (Thread as per ISO 263)



Part No.	Male thread UNF/UN	øX	I 1	L1	C5	O - Ring ID x CSD
VSTIS02	5/16" -24	11.13	7.54	10.2	3.0	6.07 x 1.63
VSTIS03	3/8" -24	12.70	7.54	10.2	3.0	7.65 x 1.63
VSTIS04	7/16" -20	14.30	9.14	11.9	5.0	8.92 x 1.83
VSTIS05	1/2" -20	15.88	9.14	11.9	5.0	10.52 x 1.83
VSTIS06	9/16" -18	17.48	9.93	12.7	6.0	11.89 x 1.98
VSTIS08	3/4" -16	22.00	11.13	14.7	8.0	16.36 x 2.21
VSTIS10	7/8" -14	25.40	12.7	16.5	10.0	19.18 x 2.46
VSTIS12	1.1/16" -12	31.75	15.09	19.5	14.0	23.47 x 2.95
VSTIS14	1.3/16" -12	34.92	15.09	19.5	14.0	26.62 x 2.95
VSTIS16	1.5/16" -12	38.10	15.09	19.5	17.0	29.74 x 2.95
VSTIS20	1.5/8" -12	47.62	15.09	19.5	19.0	37.47 x 3.00
VSTIS24	1.7/8" -12	53.98	15.09	19.5	19.0	43.69 x 3.00
VSTIS32	2.1/2" -12	69.85	15.09	19.5	19.0	59.36 x 3.00

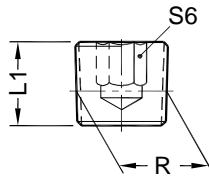
Note : Socket, 'C5' dimensions specified are with Metric sizes

Hex head Plug
Male thread : BSP Taper (R)



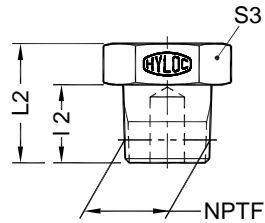
Part No.	R - Male thread BSPT	l 2	L2	S3
VSTR01	R 1/8" -27	7.5	11.5	12
VSTR02	R 1/4" -18	11.0	17.0	14
VSTR03	R 3/8" -18	11.5	17.5	19
VSTR04	R 1/2" -14	15.0	25.0	22
VSTR06	R 3/4" -14	16.5	26.5	30
VSTR08	R 1" -11 1/2	19.0	31.0	36
VSTR10	R 1 1/4" -11 1/2	21.5	35.0	46
VSTR12	R 1 1/2" -11 1/2	21.5	35.0	50

Socket head Plug
Male thread : BSP Taper (R)



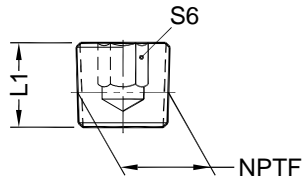
Part No.	R - Male thread BSPT	L1	S6
VSTIR01	R 1/8" -27	8.0	5
VSTIR02	R 1/4" -18	10.0	7
VSTIR03	R 3/8" -18	10.0	8
VSTIR04	R 1/2" -14	10.0	10
VSTIR06	R 3/4" -14	12.0	12
VSTIR08	R 1" -11 1/2	12.0	17
VSTIR10	R 1 1/4" -11 1/2	18.0	22
VSTIR12	R 1 1/2" -11 1/2	20.0	24

Hex head Plug
Male thread : NPTF (SAE J476)



Part No.	Male thread NPTF	I 2	L2	S3
VSTN01	1/8" -27	9.7	14.5	12
VSTN02	1/4" -18	14.2	19.0	17
VSTN03	3/8" -18	14.2	19.5	19
VSTN04	1/2" -14	19.05	24.0	24
VSTN06	3/4" -14	19.05	27.0	30
VSTN08	1.0" -11 1/2	23.9	32.0	36
VSTN10	1 1/4" -11 1/2	24.6	32.5	46
VSTN12	1 1/2" -11 1/2	25.4	35.0	50
VSTN16	2.0" -11 1/2	26.2	38.0	65

Socket head Plug
Male thread : NPTF (SAE J476)



Part No.	Male thread NPTF	L1	S6
VSTIN00	1/16" -27	7.8	4
VSTIN01	1/8" -27	7.8	5
VSTIN02	1/4" -18	12.0	6
VSTIN03	3/8" -18	12.0	8
VSTIN04	1/2" -14	16.0	10
VSTIN06	3/4" -14	16.2	14
VSTIN08	1.0" -11 1/2	20.0	14
VSTIN10	1 1/4" -11 1/2	20.0	25.4
VSTIN12	1 1/2" -11 1/2	20.0	30
VSTIN16	2.0" -11 1/2	21.0	30

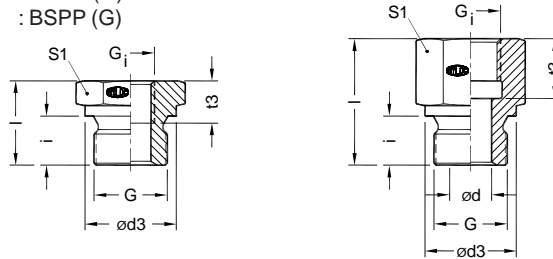
Male female Adaptors

MFA - G - G

Dimensions in mm

DIN Fittings

Male thread : BSPP (G) - ISO 228
 Female thread : BSPP (G)



Part No.	Pressure	Male Thread G	Female Thread G i	l	i	S1	Ød	Ød3	t 3
MFAG01G02	630 bar	G 1 / 8 A	G 1 / 4	31	8	19	4	14	17.0
MFAG01G03	630 bar	G 1 / 8 A	G 3 / 8	32	8	24	4	14	17.0
MFAG02G01	630 bar	G 1 / 4 A	G 1 / 8	28	12	19	5	18	12.0
MFAG02G03	630 bar	G 1 / 4 A	G 3 / 8	36	12	24	5	18	17.0
MFAG02G04	630 bar	G 1 / 4 A	G 1 / 2	40	12	30	5	18	20.0
MFAG02G06	630 bar	G 1 / 4 A	G 3 / 4	43	12	36	5	18	22.0
MFAG03G01	630 bar	G 3 / 8 A	G 1 / 8	22.5	12	22	--	22	8.0
MFAG03G02	630 bar	G 3 / 8 A	G 1 / 4	36	12	22	8	22	17.0
MFAG03G04	630 bar	G 3 / 8 A	G 1 / 2	41	12	30	8	22	20.0
MFAG03G06	400 bar	G 3 / 8 A	G 3 / 4	44	12	36	8	22	22.0
MFAG04G02	630 bar	G 1 / 2 A	G 1 / 4	24	14	27	--	26	12.0
MFAG04G03	630 bar	G 1 / 2 A	G 3 / 8	36	14	27	12	26	17.0
MFAG04G06	400 bar	G 1 / 2 A	G 3 / 4	46	14	36	12	26	22.0
MFAG04G08	400 bar	G 1 / 2 A	G 1	49	14	41	12	26	24.5
MFAG04G10	250 bar	G 1 / 2 A	G1.1 / 4	53	14	55	10	26	26.5
MFAG06G02	400 bar	G 3 / 4 A	G 1 / 4	26.0	16	32	--	32	12.0
MFAG06G03	400 bar	G 3 / 4 A	G 3 / 8	26.0	16	32	--	32	12.0
MFAG06G04	400 bar	G 3 / 4 A	G 1 / 2	41	16	32	16	32	20.0
MFAG06G08	400 bar	G 3 / 4 A	G 1	51	16	41	16	32	24.5
MFAG06G10	250 bar	G 3 / 4 A	G1 1/4	55	16	55	16	32	26.5
MFAG06G12	250 bar	G 3 / 4 A	G1 1/2	57	16	60	16	32	28.5
MFAG08G02	400 bar	G 1 A	G 1 / 4	29.0	18	41	--	39	12.0
MFAG08G03	400 bar	G 1 A	G 3 / 8	29.0	18	41	--	39	12.0
MFAG08G04	400 bar	G 1 A	G 1 / 2	29.0	18	41	--	39	14.0
MFAG08G06	400 bar	G 1 A	G 3 / 4	47	18	41	20	39	22.0
MFAG08G10	250 bar	G 1 A	G1.1/4	57	18	55	20	39	26.5
MFAG08G12	250 bar	G 1 A	G1.1/2	59	18	60	20	39	28.5
MFAG10G04	250 bar	G1.1/4 A	G 1 / 2	32.0	20	50	--	49	14.0
MFAG10G06	250 bar	G1.1/4 A	G 3 / 4	32.0	20	50	--	49	16.0
MFAG10G08	250 bar	G1.1 / 4 A	G 1	52	20	50	25	49	24.5
MFAG10G12	250 bar	G1.1 / 4 A	G1 1/2	60	20	60	25	49	28.5
MFAG12G04	250 bar	G1.1/2 A	G 1 / 2	36.0	22	55	--	55	14.0
MFAG12G06	250 bar	G1.1/2 A	G 3 / 4	36.0	22	55	--	55	16.0
MFAG12G08	250 bar	G1.1/2 A	G 1	36.0	22	55	--	55	18.0
MFAG12G10	250 bar	G 1 / 2	G1 1/4	58	22	55	32	55	26.5

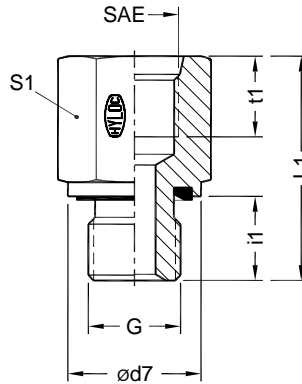
Male female Adaptors

MFA - G - S

Dimensions in mm

DIN Fittings

Male thread : BSPP (G) - ISO 228
 DIN 3852-Part 11, with Elastomeric seal
 Female thread : UN/UNF (SAE)



Part No.	Male thread 'G'	Female SAE Class 2B	ød7	i 1	t 1	L1	S1
MFAG01S02	G 1/8 A	5/16" - 24	14	8	10.0	24	14
MFAG01S03	G 1/8 A	3/8" - 24	14	8	10.0	24	17
MFAG02S04	G 1/4 A	7/16" - 20	19	12	11.5	30	19
MFAG02S05	G 1/4 A	1/2" - 20	19	12	11.5	32	19
MFAG02S06	G 1/4 A	9/16" - 18	19	12	13.0	34	22
MFAG03S08	G 3/8 A	3/4" - 16	22	12	14.0	36	27
MFAG04S10	G 1/2 A	7/8" - 14	27	14	16.5	42	30
MFAG06S12	G 3/4 A	1.1/16" - 12	32	16	19.0	45	36
MFAG08S14	G 1 A	1.3/16" - 12	40	18	19.0	50	41
MFAG08S16	G 1 A	1.5/16" - 12	40	18	19.0	50	41
MFAG10S20	G1.1/4 A	1.5/8" - 12	50	20	19.0	53	55
MFAG12S24	G1.1/2 A	1.7/8" - 12	55	22	19.0	55	60
MFAG16S32	*G 2 A	2.1/2" - 12	75	24	19.0	62	75

* Thread size - G2 is not included in DIN 3852 Part 11

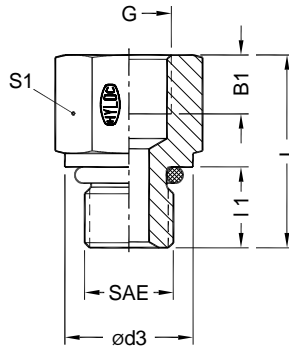
Male female Adaptors

MFA - S - G

Dimensions in mm

DIN Fittings

Male thread : UN/UNF (SAE)
with O-Ring sealing (NBR 90 Shore)
Female thread : BSPP (G)



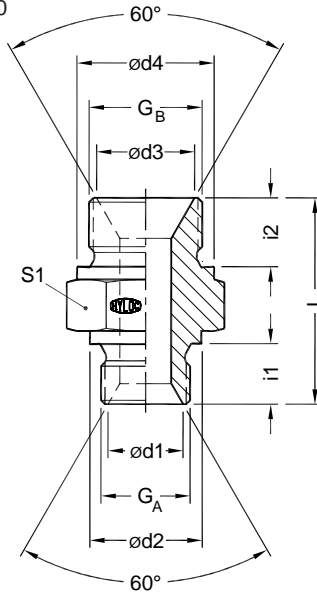
Part No.	Male SAE Class 2A	Female thread 'G'	ød3	I 1	B1	L	S1	O - Ring
MFAS02G01	5/16" - 24	G 1/8	11.0	7.5	9	24	17	6.07 x 1.63
MFAS03G01	3/8" - 24	G 1/8	13.0	7.5	9	24	17	7.65 x 1.63
MFAS04G02	7/16" - 20	G 1/4	14.5	9	13	32	22	8.92 x 1.83
MFAS05G02	1/2" - 20	G 1/4	16.0	9	13	32	22	10.52 x 1.83
MFAS06G02	9/16" - 18	G 1/4	17.5	10	13	34	22	11.89 x 1.98
MFAS08G03	3/4" - 16	G 3/8	22.0	11	13	34	27	16.36 x 2.21
MFAS10G04	7/8" - 14	G 1/2	25.5	13	15	40	30	19.18 x 2.46
MFAS12G06	1.1/16" - 12	G 3/4	32.0	15	17	45	36	23.47 x 2.95
MFAS14G08	1.3/16" - 12	G 1	35.0	15	19	50	46	26.62 x 2.95
MFAS16G08	1.5/16" - 12	G 1	38.0	15	19	50	46	29.74 x 2.95
MFAS20G10	1.5/8" - 12	G1.1/4	48.0	15	21	55	55	37.47 x 3.00
MFAS24G12	1.7/8" - 12	G1.1/2	54.0	15	23	55	60	43.69 x 3.00
MFAS32G16	2.1/2" - 12	G 2	70.0	15	25	60	75	59.36 x 3.00

Dimensions in mm

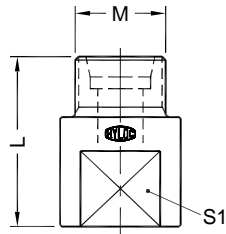
DIN Fittings

Hose adaptors as per BS 5200

Male threads -----
BSPP (G) as per - ISO 228



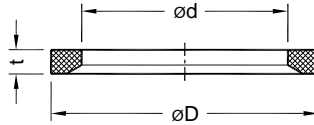
Part No.	G_A	G_B	$\text{ø}d1$	$\text{ø}d2$	$\text{ø}d3$	$\text{ø}d4$	i 1	i 2	L	S1
HAG01G01	G 1/8	G 1/8	7.5	14	7.5	14	8	8	26.0	14
HAG01G02	G 1/8	G 1/4	7.5	14	10.4	18	8	11	29.5	19
HAG02G02	G 1/4	G 1/4	10.4	18	10.4	18	11	11	33.0	19
HAG02G03	G 1/4	G 3/8	10.4	18	14.0	22	11	12	36.5	22
HAG02G04	G 1/4	G 1/2	10.4	18	17.5	26	11	14	39.0	27
HAG03G03	G 3/8	G 3/8	14.0	22	14.0	22	12	12	38.0	22
HAG03G04	G 3/8	G 1/2	14.0	22	17.5	26	12	14	40.5	27
HAG03G06	G 3/8	G 3/4	14.0	22	22.9	32	12	16	44.5	32
HAG04G04	G 1/2	G 1/2	17.5	26	17.5	26	14	14	43.0	27
HAG04G06	G 1/2	G 3/4	17.5	26	22.9	32	14	16	47.0	32
HAG04G08	G 1/2	G 1	17.5	26	28.7	39	14	19	50.0	41
HAG06G06	G 3/4	G 3/4	22.9	32	22.9	32	16	16	49.0	32
HAG06G08	G 3/4	G 1	22.9	32	28.7	39	16	19	52.0	41
HAG06G10	G 3/4	G 1,1/4	22.9	32	36.8	49	16	20	57.0	50
HAG08G08	G 1	G 1	28.7	39	28.7	39	19	19	55.0	41
HAG08G10	G 1	G 1,1/4	28.7	39	36.8	49	19	20	60.0	50
HAG08G12	G 1	G 1,1/2	28.7	39	42.7	55	19	22	63.0	55
HAG10G10	G 1,1/4	G 1,1/4	36.8	49	36.8	49	20	20	61.0	50
HAG10G12	G 1,1/4	G 1,1/2	36.8	49	42.7	55	20	22	64.0	55
HAG12G12	G 1,1/2	G 1,1/2	42.7	55	42.7	55	22	22	66.0	55



Part No.	Tube od	M	L	S1
PST06L	6	M12 x 1.5	45	24
PST08L	8	M14 x 1.5	45	24
PST10L	10	M16 x 1.5	45	24
PST12L	12	M18 x 1.5	45	24
PST15L	15	M22 x 1.5	45	24
PST18L	18	M26 x 1.5	45	24
PST22L	22	M30 x 2.0	60	50
PST28L	28	M36 x 2.0	60	50
PST35L	35	M45 x 2.0	60	50
PST42L	42	M52 x 2.0	60	50
PST06S	6	M14 x 1.5	45	24
PST08S	8	M16 x 1.5	45	24
PST10S	10	M18 x 1.5	45	24
PST12S	12	M20 x 1.5	45	24
PST16S	16	M24 x 1.5	45	24
PST20S	20	M30 x 2.0	60	50
PST25S	25	M36 x 2.0	60	50
PST30S	30	M42 x 2.0	60	50
PST38S	38	M52 x 2.0	60	50

Elastomeric Seals (DIN 3869)

Soft sealing for Male stud ends



Part No.	For Male Metric (M) thread	For Male BSPP (G) threads	$\varnothing d$	$\varnothing D$	t
ED10	M10 x 1.0	G 1/8	8.4	11.9	1.0
ED12	M12 x 1.5	---	9.8	14.4	1.5
ED14	M14 x 1.5	G 1/4	11.6	16.5	1.5
ED16	M16 x 1.5	---	13.8	18.9	1.5
ED17	---	G 3/8	14.7	18.9	1.5
ED18	M18 x 1.5	---	15.7	20.9	1.5
ED20	M20 x 1.5	---	17.8	22.9	1.5
ED21	---	G 1/2	18.5	23.9	1.5
ED22	M22 x 1.5		19.6	24.3	1.5
ED27	M26 x 1.5	G 3/4	23.9	29.2	1.5
	M27 x 2.0				
ED33	M33 x 2.0	G 1	29.7	35.7	2.0
ED42	M42 x 2.0	G1 1/4	38.8	45.8	2.0
ED48	M48 x 2.0	G1 1/2	44.7	50.7	2.0

Material : NBR with 85 ± 5 IRHD
 FPM with 80 ± 5 IRHD

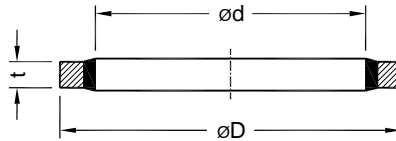
Seals

Dimensions in mm

DIN Fittings

Bonded Seals

For BSPP (G) Male stud ends



DISCONTINUED

Part No.	For male thread BSP	$\varnothing d$	$\varnothing D$	t min
BSG01	G 1/8	10.37	15.88	1.80
BSG02	G 1/4	13.74	20.57	1.80
BSG03	G 3/8	17.28	23.80	1.80
BSG04	G 1/2	21.54	28.58	2.30
BSG06	G 3/4	27.05	34.93	2.30
BSG08	G 1	33.89	42.80	2.85
BSG10	G1 1/4	42.93	52.38	2.85
BSG12	G1 1/2	48.44	58.60	2.85
BSG16	G2	60.58	73.03	2.85

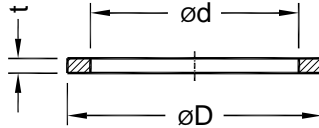
Seals

Dimensions in mm

DIN Fittings

Copper Washer

For BSPP (G) Male stud ends



DISCONTINUED

Part No.	For male thread BSP	Ød	ØD	t
CWG01	G 1/8	10.20	13.90	1.00
CWG02	G 1/4	14.20	17.90	1.50
CWG03	G 3/8	17.20	20.90	1.50
CWG04	G 1/2	21.20	25.90	1.50
CWG06	G 3/4	27.30	31.90	2.00
CWG08	G 1	33.30	38.90	2.00
CWG10	G1 1/4	42.30	48.90	2.00
CWG12	G1 1/2	48.30	54.90	2.00
CWG16	G2	60.50	67.80	2.50

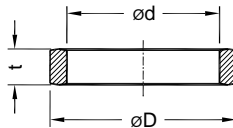
Seals

Dimensions in mm

DIN Fittings

Sealing Rings (Metallic)

For Throttle free Banjo Couplings

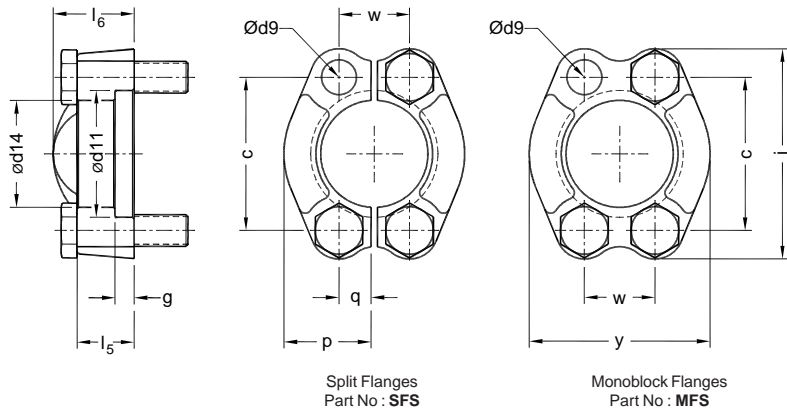


DISCONTINUED

Part No.	For male thread BSP	$\varnothing d$	$\varnothing D$	t
DKAG01	G 1/8	10.0	14	4
DKAG02	G 1/4	13.4	18	4
DKAG03	G 3/8	16.9	22	5
DKAG04	G 1/2	21.3	26	5
DKAG06	G 3/4	26.8	32	5
DKAG08	G 1	33.6	39	6
DKAG10	G1 1/4	42.3	49	7
DKAG12	G1 1/2	48.2	55	7

Dimensions in mm

Mounting Interface conforms to ISO 6162

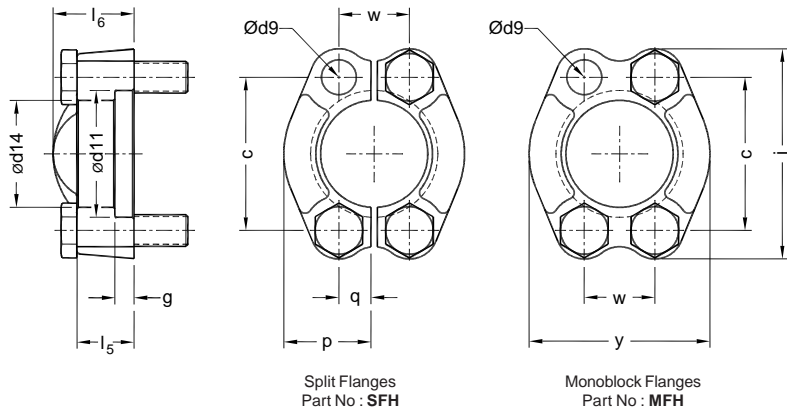


Standard Pressure Series (Code 61)

Split flanges	Monoblock flanges	Size	Ød11	Ød14	g	l ₅	l ₆	c	p	q	j	w	y
SFS 04	MFS 04	1/2	31.0	24.3	6.2	13	19	38.1	21.8	8	54	17.5	46
SFS 06	MFS 06	3/4	38.9	32.2	6.2	14	22	47.6	24.9	10	65	22.3	52
SFS 08	MFS 08	1	45.3	38.5	7.5	16	22	52.4	28.2	12	70	26.2	59
SFS 10	MFS 10	1 1/4	51.6	43.7	7.5	14	24	58.7	35.3	14	79	30.2	73
SFS 12	MFS 12	1 1/2	61.1	50.8	7.5	16	25	69.9	40.1	17	94	35.7	83
SFS 16	MFS 16	2	72.3	62.8	9.0	16	26	77.8	47.2	21	102	42.9	97
SFS 20	MFS 20	2 1/2	84.9	74.9	9.0	19	38	88.9	53.1	24	115	50.8	109
SFS 24	MFS 24	3	102.4	90.9	9.0	22	41	106.4	64.3	30	135	61.9	131
SFS 28	MFS 28	3 1/2	115.1	102.4	10.7	22	28	120.7	68.6	34	152	69.9	140
SFS 32	MFS 32	4	127.8	115.0	10.7	25	35	130.2	74.9	38	162	77.8	152
SFS 40	MFS 40	5	153.2	140.5	10.7	28	41	152.4	89.4	45	184	92.1	181
Split flanges	Monoblock flanges	Size	Pr (bar)	Ød9 for Metric	Ød9 for UNC	Metric bolt	Torque (N-m)	UNC (INCH) bolt	Torque (N-m)				
SFS 04	MFS 04	1/2	350	9.0	8.7	M8 x 25	25	5/16"-18 x 32	25				
SFS 06	MFS 06	3/4	350	11.0	10.3	M10 x 30	53	3/8" - 16 x 32	45				
SFS 08	MFS 08	1	350	11.0	10.3	M10 x 30	53	3/8" - 16 x 32	45				
SFS 10	MFS 10	1 1/4	250	11.0	11.9	M10 x 30	53	7/16" - 14 x 38	73				
SFS 12	MFS 12	1 1/2	200	13.5	13.5	M12 x 35	95	1/2" - 13 x 38	110				
SFS 16	MFS 16	2	200	13.5	13.5	M12 x 35	95	1/2" - 13 x 38	110				
SFS 20	MFS 20	2 1/2	160	13.5	13.5	M12 x 40	95	1/2" - 13 x 44	110				
SFS 24	MFS 24	3	100	17.5	16.6	M16 x 50	220	5/8" - 11 x 44	220				
SFS 28	MFS 28	3 1/2	25	17.5	16.6	M16 x 50	220	5/8" - 11 x 51	220				
SFS 32	MFS 32	4	25	17.5	16.6	M16 x 50	220	5/8" - 11 x 51	220				
SFS 40	MFS 40	5	25	17.5	16.6	M16 x 55	220	5/8" - 11 x 57	220				

Dimensions in mm

Mounting Interface conforms to ISO 6162



Split Flanges
Part No : SFH

Monoblock Flanges
Part No : MFH

High Pressure Series (Code 62)

Split flanges	Monoblock flanges	Size	Ød11	Ød14	g	l ₅	l ₆	c	p	q	j	w	y
SFH 04	MFH 04	1/2	32.5	24.6	7.2	16	22	40.5	22.6	8	56	18.2	48
SFH 06	MFH 06	3/4	42.0	32.5	8.2	19	28	50.8	29	11	71	23.8	60
SFH 08	MFH 08	1	48.4	38.8	9.0	24	33	57.2	33.8	13	81	27.8	70
SFH 10	MFH 10	1 1/4	54.8	44.5	9.8	27	38	66.6	37.6	15	95	31.8	78
SFH 12	MFH 12	1 1/2	64.3	51.6	12.0	30	43	79.3	46.5	17	113	36.5	95
SFH 16	MFH 16	2	80.2	67.6	12.0	37	52	96.8	55.9	21	133	44.5	114

Split flanges	Monoblock flanges	Size	Pr (bar)	Ød9 for Metric	Ød9 for UNC	Metric bolt	Torque (N-m)	UNC (INCH) bolt	Torque (N-m)
SFH 04	MFH 04	1/2	400	9.0	8.7	M8 x 30	25	5/16" - 18 x 32	25
SFH 06	MFH 06	3/4	400	11.0	10.3	M10 x 35	53	3/8" - 16 x 38	45
SFH 08	MFH 08	1	400	13.5	11.9	M12 x 45	95	7/16" - 14 x 44	73
SFH 10	MFH 10	1 1/4	400	13.5	13.5	M12 x 45	95	1/2" - 13 x 44	110
SFH 12	MFH 12	1 1/2	400	17.5	16.6	M16 x 55	220	5/8" - 11 x 57	220
SFH 16	MFH 16	2	400	22.0	19.8	M20 x 70	390	3/4" - 10 x 70	390

Note : While ordering the flanges with mounting hardware, add suffix, **BKM / BKU** to the flange part numbers.

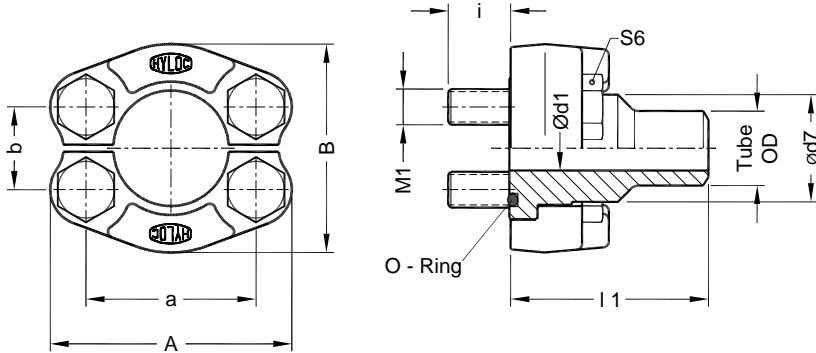
e.g : **SFS 04 - BKM** for Metric bolts
SFS 04 - BKU for UNC (Inch) bolts

Metric bolts of property class 8.8 or 10.9

UNC (Inch) bolts of Minimum tensile strength of 827 N/mm²

Dimensions in mm

For Welded tube construction
 Mounting Interface conforms to ISO 6162
 Seal Material : NBR 90 Shore

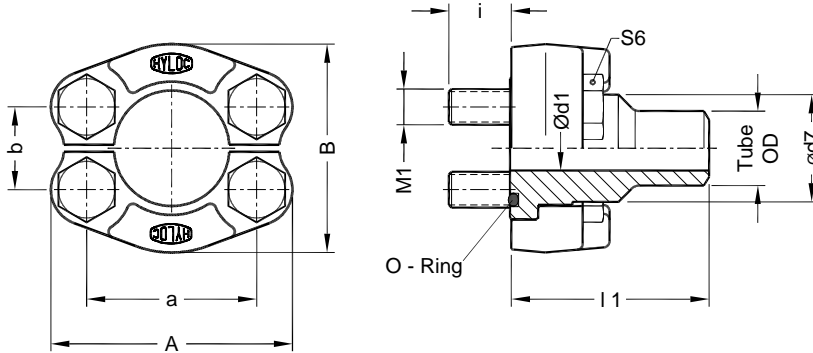


Standard Pressure Series (Code 61)

Part No.	Nom size	PB (bar)	Tube od x wall th.	A	a	B	b	i	Ød1	Ød7	l1	Split Flange	O - Ring ID x CSD	Hex. bolts (10.9)
AS3215PL	1/2	323	15 x 2.0	54	38.1	46	17.5	12	11	23.9	38	SFS04	19.0 x 3.55	M8 x 25
AS3216PS		350	16 x 3.0							10				
AS3318PL	3/4	210	18 x 1.5	65	47.6	52	22.3	16	15	31.8	50	SFS06	25.0 x 3.55	M10 x 30
AS3322PL		228	22 x 2.0							18				
AS3320PS		350	20 x 3.0							14				
AS3325PS		350	25 x 4.0							17				
AS3428PL		1	182	28 x 2.0	70	52.4	59	26.2	14	24	38.0	50	SFS08	32.5 x 3.55
AS3430PS	350		30 x 4.5							21				
AS3535PL	1 1/4	147	35 x 2.0	79	58.7	73	30.2	16	31	43.0	55	SFS10	37.5 x 3.55	M10 x 30
AS3525PS		280	25 x 3.0							19				
AS3530PS		280	30 x 4.0							22				
AS3538PS		280	38 x 5.0							28				
AS3642PL	1 1/2	182	42 x 3.0	94	69.9	83	35.7	19	36	50.0	57	SFS12	47.5 x 3.55	M12 x 35
AS3638PS		210	38 x 4.0							30				
AS3850PS	2	210	50 x 6.0	102	77.8	97	42.9	19	38	62.0	62	SFS16	56.0 x 3.55	M12 x 35
AS3865PS		210	65 x 8.0							49	65.0	62		

Dimensions in mm

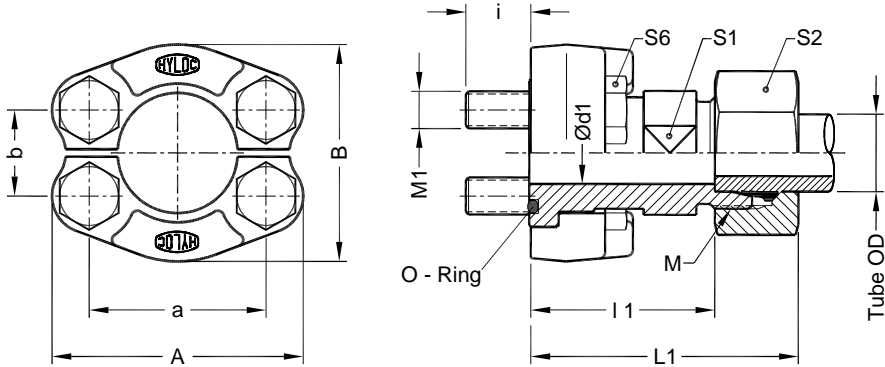
For Welded tube construction
 Mounting Interface conforms to ISO 6162
 Seal Material : NBR 90 Shore



High Pressure Series (Code 62)

Part No.	Nom size	PB (bar)	Tube od x wall th.	A	a	B	b	i	Ød1	Ød7	l1	Split Flange	O - Ring ID x CSD	Hex. bolts (10.9)
AS6216PS	1/2	415	16 x 3.0	56	40.5	48	18.2	14	10	23.9	41	SFH04	19.0 x 3.55	M8 x 30
AS6316PS	3/4	415	16 x 3.0	71	50.8	60	23.8	16	10	31.8	55	SFH06	25.0 x 3.55	M10 x 35
AS6320PS		415	20 x 4.0						12					
AS6325PS		415	25 x 5.0						15					
AS6425PS	1	415	25 x 5.0	81	57.2	70	27.8	21	15	38.0	67	SFH08	32.5 x 3.55	M12 x 45
AS6430PS		323	30 x 4.0						22					
AS6430PS		415	30 x 6.0						18					
AS6530PS	1 1/4	323	30 x 4.0	95	66.6	78	31.8	18	22	43.7	78	SFH10	37.5 x 3.55	M12 x 45
AS6530PS		415	30 x 6.0						18					
AS6538PS		319	38 x 5.0						28					
AS6538PS		415	38 x 8.0						22					
AS6638PS	1 1/2	319	38 x 5.0	113	79.3	95	36.5	25	28	50.8	85	SFH12	47.5 x 3.55	M16 x 55
AS6638PS		415	38 x 8.0						22					
AS6850PS	2	415	50 x 9.0	133	96.8	114	44.5	33	32	66.6	116	SFH16	56.0 x 3.55	M20 x 70
AS6865PS		300	65 x 8.0						49					

Tube connections as per ISO 8434
 Mounting Interface conforms to ISO 6162
 Seal Material : NBR 90 Shore



Standard Pressure Series (Code 61)

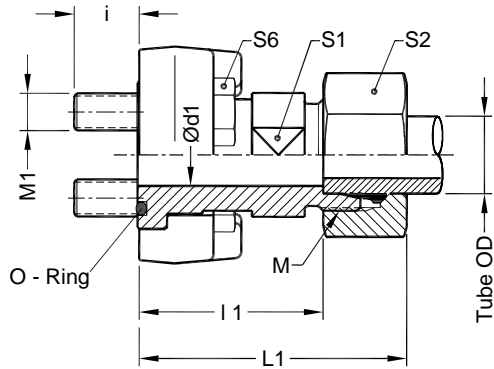
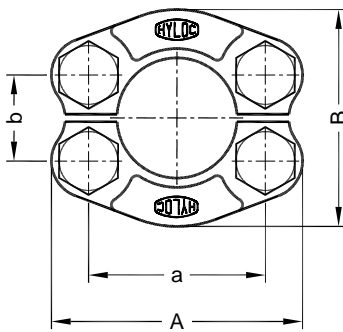
Part No.	Nom size	Tube o.d.	A	a	B	b	M	S6	i	Split Flange	O - Ring ID x CSD	M1 Hex. bolts (10.9)
GFS3215PL	1/2	15	54	38.1	46	17.5	M22x1.5	13	12	SFS04	19.0 x 3.55	M8 x 25
GFS3216PS		16					M24x1.5					
GFS3318PL	3/4	18	65	47.6	52	22.3	M26x1.5	17	16	SFS06	25.0 x 3.55	M10 x 30
GFS3322PL		22					M30x2.0					
GFS3320PS		20					M30x2.0					
GFS3325PS		25					M36x2.0					
GFS3428PL	1	28	70	52.4	59	26.2	M36x2.0	17	14	SFS08	32.5 x 3.55	M10 x 30
GFS3430PS		30					M42x2.0					
GFS3535PL	1 1/4	35	79	58.7	73	30.2	M45x2.0	17	16	SFS10	37.5 x 3.55	M10 x 30
GFS3525PS		25					M36x2.0					
GFS3530PS		30					M42x2.0					
GFS3538PS		38					M52x2.0					
GFS3642PL	1 1/2	42	94	69.9	83	35.7	M52x2.0	19	19	SFS12	47.5 x 3.55	M12 x 35
GFS3638PS		38					M52x2.0					
Part No.	Nom size	Tube o.d.	PB bar	Ø d1	l 1	L 1 *	S1	S2				
GFS3215PL	1/2	15	315	12	41.0	57.0	24	27				
GFS3216PS		16	350	12	41.5	60.5	24	30				
GFS3318PL	3/4	18	315	15	45.5	62.5	30	32				
GFS3322PL		22	160	19	45.5	62.5	30	36				
GFS3320PS		20	350	16	46.5	69.0	30	36				
GFS3325PS		25	350	17	45.0	70.0	30	46				
GFS3428PL	1	28	160	24	46.5	64.5	36	41				
GFS3430PS		30	350	24	49.5	77.5	36	50				
GFS3535PL	1 1/4	35	160	30	47.5	70.5	41	50				
GFS3525PS		25	280	20	48.0	73.0	41	46				
GFS3530PS		30	280	25	48.5	76.5	41	50				
GFS3538PS		38	280	28	50.0	81.5	46	60				
GFS3642PL	1 1/2	42	160	36	53.0	76.5	46	60				
GFS3638PS		38	210	32	54.0	85.5	46	60				

* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Tube connections as per ISO 8434
 Mounting Interface conforms to ISO 6162
 Seal Material : NBR 90 Shore



High Pressure Series (Code 62)

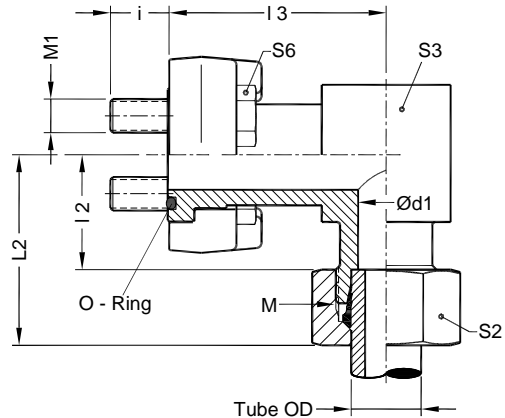
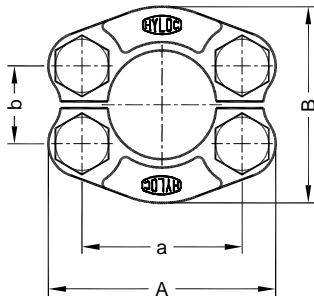
Part No.	Nom size	Tube o.d.	A	a	B	b	M	S6	i	Split Flange	O - Ring ID x CSD	M1 Hex. bolts (10.9)			
GFS6216PS	1/2	16	56	40.5	48	18.2	M24 x 1.5	13	14	SFH04	19.0 x 3.55	M8 x 30			
GFS6316PS	3/4	16	71	50.8	60	23.8	M24 x 1.5	17	16	SFH06	25.0 x 3.55	M10 x 35			
GFS6320PS		M30 x 2.0													
GFS6325PS		M36 x 2.0													
GFS6425PS	1	25	81	57.2	70	27.8	M36 x 2.0	19	21	SFH08	32.5 x 3.55	M12 x 45			
GFS6430PS		M42 x 2.0													
GFS6530PS	1 1/4	30	95	66.6	78	31.8	M42 x 2.0	19	18	SFH10	37.5 x 3.55	M12 x 45			
GFS6538PS		M52 x 2.0													
GFS6638PS	1 1/2	38	113	79.3	95	36.5	M52 x 2.0	24	25	SFH12	47.5 x 3.55	M16 x 55			
Part No.	Nom size	Tube o.d.	PB bar	Ø d1	l 1	L 1*	S1	S2							
GFS6216PS	1/2	16	400	12	44.5	60.5	24	30							
GFS6316PS	3/4	16	400	12	50.5	67.5	30	30							
GFS6320PS		20							16	50.5	67.5	30	36		
GFS6325PS		25							17	51.0	68.0	30	46		
GFS6425PS	1	25	400	20	60.0	78.0	36	46							
GFS6430PS		30							24	60.5	88.5	36	50		
GFS6530PS	1 1/4	30	400	25	65.5	88.5	41	50							
GFS6538PS		38							30	67.0	92.0	41	60		
GFS6638PS	1 1/2	38	315	30	73.0	96.5	46	60							

*Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Tube connections as per ISO 8434
 Mounting Interface conforms to ISO 6162
 Seal Material : NBR 90 Shore



Standard Pressure Series (Code 61)

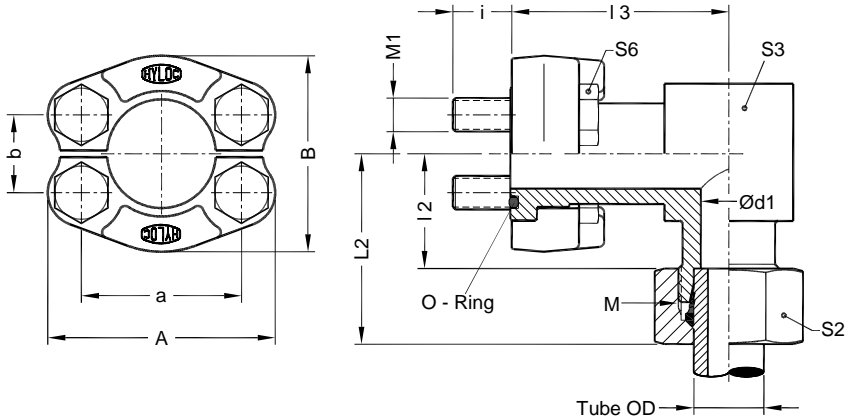
Part No.	Nom size	Tube o.d.	A	a	B	b	M	S6	i	Split Flange	O - Ring ID x CSD	M1 Hex. bolts (10.9)
WFS3215PL	1/2	15	54	38.1	46	17.5	M22x1.5	13	12	SFS04	19.0 x 3.55	M8 x 25
WFS3216PS		16					M24x1.5					
WFS3318PL	3/4	18	65	47.6	52	22.3	M26x1.5	17	16	SFS06	25.0 x 3.55	M10 x 30
WFS3322PL		22					M30x2.0					
WFS3320PS		20					M30x2.0					
WFS3325PS		25					M36x2.0					
WFS3428PL	1	28	70	52.4	59	26.2	M36x2.0	17	14	SFS08	32.5 x 3.55	M10 x 30
WFS3430PS		30					M42x2.0					
WFS3535PL	1 1/4	35	79	58.7	73	30.2	M45x2.0	17	16	SFS10	37.5 x 3.55	M10 x 30
WFS3525PS		25					M36x2.0					
WFS3530PS		30					M42x2.0					
WFS3538PS		38					M52x2.0					
WFS3642PL	1 1/2	42	94	69.9	83	35.7	M52x2.0	19	19	SFS12	47.5 x 3.55	M12 x 35
WFS3638PS		38					M52x2.0					
Part No.	Nom size	Tube o.d.	PB bar	Ø d1	L 2	L 3	L 2 *	S2	S3			
WFS3215PL	1/2	15	315	12	29.0	45.5	45.0	27	27			
WFS3216PS		16	350	12	29.5	45.5	48.5	30	27			
WFS3318PL	3/4	18	315	15	31.5	52.5	48.5	32	27			
WFS3322PL		22	160	19	33.5	54.0	50.5	36	30			
WFS3320PS		20	350	16	32.5	54.0	55.0	36	30			
WFS3325PS		25	350	17	33.0	57.0	58.0	46	36			
WFS3428PL	1	28	160	24	36.5	57.0	54.5	41	36			
WFS3430PS		30	350	24	36.5	62.0	64.5	50	46			
WFS3535PL	1 1/4	35	160	30	46.5	69.0	69.5	50	46			
WFS3525PS		25	280	20	43.0	69.0	68.0	46	46			
WFS3530PS		30	280	25	43.5	69.0	71.5	50	46			
WFS3538PS		38	280	28	43.0	73.5	74.5	60	55			
WFS3642PL	1 1/2	42	160	36	47.0	73.5	70.5	60	55			
WFS3638PS		38	210	32	48.0	73.5	79.5	60	55			

* Dimensions given are approx figures with tightened nut.

Dimensions in mm

DIN Fittings

Tube connections as per ISO 8434
 Mounting Interface conforms to ISO 6162
 Seal Material : NBR 90 Shore



High Pressure Series (Code 62)

Part No.	Nom size	Tube o.d.	A	a	B	b	M	S6	i	Split Flange	O - Ring ID x CSD	M1 Hex. bolts (10.9)
WFS6216PS	1/2	16	56	40.5	48	18.2	M24 x 1.5	13	14	SFH04	19.0 x 3.55	M8 x 30
WFS6316PS	3/4	16	71	50.8	60	23.8	M24 x 1.5	17	16	SFH06	25.0 x 3.55	M10 x 35
WFS6320PS		20					M30 x 2.0					
WFS6325PS		25					M36 x 2.0					
WFS6425PS	1	25	81	57.2	70	27.8	M36 x 2.0	19	21	SFH08	32.5 x 3.55	M12 x 45
WFS6430PS		30					M42 x 2.0					
WFS6530PS	1 1/4	30	95	66.6	78	31.8	M42 x 2.0	19	18	SFH10	37.5 x 3.55	M12 x 45
WFS6538PS		38					M52 x 2.0					
WFS6638PS	1 1/2	38	113	79.3	95	36.5	M52 x 2.0	24	25	SFH12	47.5 x 3.55	M16 x 55
Part No.	Nom size	Tube o.d.	PB bar	Ø d1	L 2	L 3	L 2 *	S 2	S 3			
WFS6216PS	1/2	16	400	12	29.5	50.5	45.5	30	27			
WFS6316PS	3/4	16	400	12	36.5	62.0	53.5	30	36			
WFS6320PS		20	400	16	35.5	62.0	52.5	36	36			
WFS6325PS		25	400	17	36.0	62.0	53.0	46	36			
WFS6425PS	1	25	400	20	41.0	78.0	59.0	46	46			
WFS6430PS		30	400	24	41.5	78.0	69.5	50	46			
WFS6530PS	1 1/4	30	400	25	44.5	85.0	67.5	50	46			
WFS6538PS		38	315	30	45.0	89.5	70.0	60	55			
WFS6638PS	1 1/2	38	315	30	56.0	95.5	79.5	60	55			

* Dimensions given are approx figures with tightened nut.

SAE Flanged connections



SFS

Buttweld Swivel Flanges (ISO 6162)

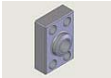


SAO/HAO



SAOC/HAOC

Buttweld Solid Flanges (ISO 6162)



SBO/HBO



SBOC/HBOC

Socket Weld Flanges (ISO 6162)



SCO/HCO

Blind Flanges (ISO 6162)



OSB/OHB

Buttweld Swivel Flanges (ISO 6164)

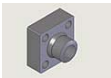


SAI/HAI



SAIC/HAIC

Buttweld Solid Flanges (ISO 6164)



SBI/HBI



SBIC/HBIC

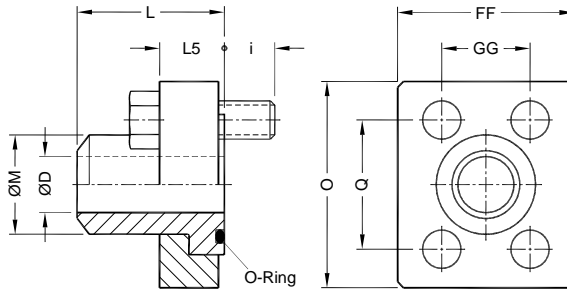
Blind Flanges (ISO 6164)



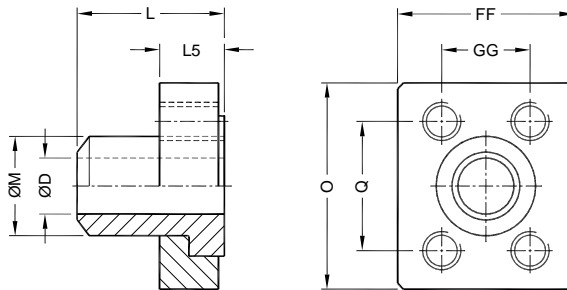
SSB/SHB

Dimensions in mm

Mounting Interface conforms to ISO 6162



Flanges
Model : SAO



Counter Flanges
Model : SAOC

Standard Pressure Series (Code 61)

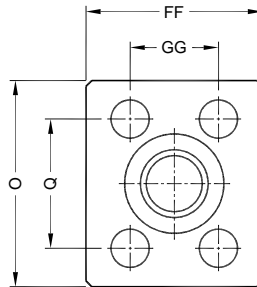
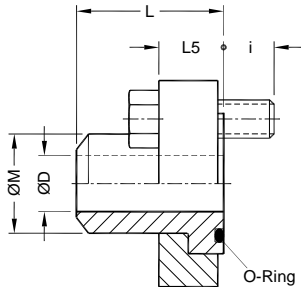
Part No. Flanges	Part No. Counter Flanges	Size	Pipe (Sch)	Pr. (bar)	ØM	ØD	O	Q	FF	GG	L5	i	L	O-Ring (Viton) 90 ±5 Shore	Hex. Bolts (10.9)
SAO-21.3-80	SAOC-21.3-80	1/2"	80	288	21.3	14	54	38.1	46	17.5	13	12	30	19.0 x 3.55	M8 x 25
SAO-21.3-160	SAOC-21.3-160		160	345		12									
SAO-26.6-80	SAOC-26.6-80	3/4"	80	246	26.6	19	65	47.6	52	22.3	15	15	35	25.0 x 3.55	M10 x 30
SAO-26.6-160	SAOC-26.6-160		160	345		15									
SAO-33.4-80	SAOC-33.4-80	1"	80	246	33.4	24	70	52.4	59	26.2	15	15	40	32.5 x 3.55	M10 x 30
SAO-33.4-160	SAOC-33.4-160		160	345		21									
SAO-42.2-80	SAOC-42.2-80	1.1/4"	80	211	42.2	32	79	58.7	73	30.2	15	15	45	37.5 x 3.55	M10 x 30
SAO-42.2-160	SAOC-42.2-160		160	276		30									
SAO-48.3-80	SAOC-48.3-80	1.1/2"	80	197	48.3	38	94	69.9	83	35.7	17	18	50	47.5 x 3.55	M12 x 35
SAO-60.3-80	SAOC-60.3-80	2"	80	176	60.3	49	102	77.8	97	42.9	17	18	60	56.0 x 3.55	M12 x 35
SAO-60.3-160	SAOC-60.3-160		160	207		43									
SAO-73.0-40	SAOC-73.0-40	2.1/2"	40	134	73.0	63	114	88.9	109	50.8	22	18	70	69.0 x 3.55	M12 x 40
SAO-73.0-80	SAOC-73.0-80		80	172		59									
SAO-88.9-40	SAOC-88.9-40	3"	40	113	88.9	78	135	106.4	131	61.9	26	24	80	85.0 x 3.55	M16 x 50
SAO-88.9-80	SAOC-88.9-80		80	138		74									
SAO-101.6-40	SAOC-101.6-40	3.1/2"	40	34	101.6	90	152	120.7	140	69.9	26	24	80	97.5 x 3.55	M16 x 50
SAO-114.3-40	SAOC-114.3-40	4"	40	34	114.3	102	162	130.2	152	77.8	26	24	80	112.0 x 3.55	M16 x 50
SAO-141.3-40	SAOC-141.3-40	5"	40	34	141.3	128	184	152.4	181	92.1	31	24	80	136.0 x 3.55	M16 x 55

Buttweld Swivel Flanges

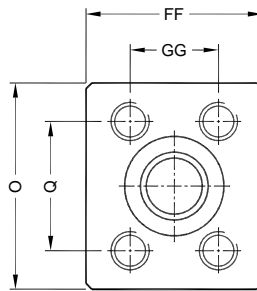
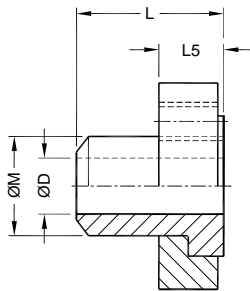
HAO / HAOC

Dimensions in mm

Mounting Interface conforms to ISO 6162



Flanges
Model : HAO



Counter Flanges
Model : HAOC

High Pressure Series (Code 62)

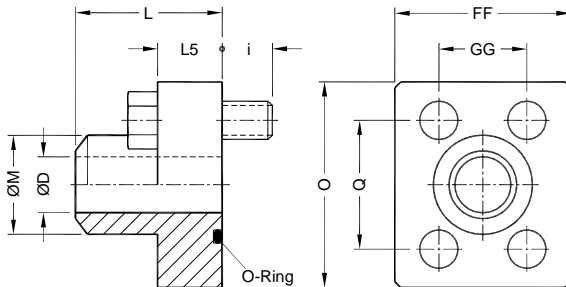
Part No. Flanges	Part No. Counter Flanges	Size	Pipe (Sch)	Pr. (bar)	ØM	ØD	O	Q	FF	GG	L5	i	L	O-Ring (Viton) 90 ±5 Shore	Hex. Bolts (10.9)
HAO-21.3-160	HAOC-21.3-160	1/2"	160	414	21.3	12	56	40.5	48	18.2	18	12	40	19.0 x 3.55	M8 x 30
HAO-26.6-160	HAOC-26.6-160	3/4"	160	414	26.6	16	71	50.8	60	23.8	20	15	45	25.0 x 3.55	M10 x 35
HAO-33.4-160	HAOC-33.4-160	1"	160	401	33.4	21	81	57.2	70	27.8	27	18	50	32.5 x 3.55	M12 x 45
HAO-42.2-160	HAOC-42.2-160	1.1/4"	160	310	42.2	30	95	66.6	78	31.8	27	18	55	37.5 x 3.55	M12 x 45
HAO-42.2-XXS	HAOC-42.2-XXS		XXS	414		23									
HAO-48.3-160	HAOC-48.3-160	1.1/2"	160	317	48.3	34	113	79.3	95	36.5	31	24	60	47.5 x 3.55	M16 x 55
HAO-48.3-XXS	HAOC-48.3-XXS		XXS	414		28									
HAO-60.3-160	HAOC-60.3-160	2"	160	324	60.3	43	133	96.8	114	44.5	40	30	70	56.0 x 3.55	M20 x 70
HAO-60.3-XXS	HAOC-60.3-XXS		XXS	414		38									
HAO-73.0-160	HAOC-73.0-160	2.1/2"	160	296	73.0	54	175	123.8	149	58.7	47	33	90	69.0 x 3.55	M22 x 80
HAO-73.0-XXS	HAOC-73.0-XXS		XXS	414		45									
HAO-88.9-160	HAOC-88.9-160	3"	160	288	88.9	66	216	152.4	178	71.4	65	45	110	85.0 x 3.55	M30 x 110
HAO-88.9-XXS	HAOC-88.9-XXS		XXS	414		58									

Buttweld Solid Flanges

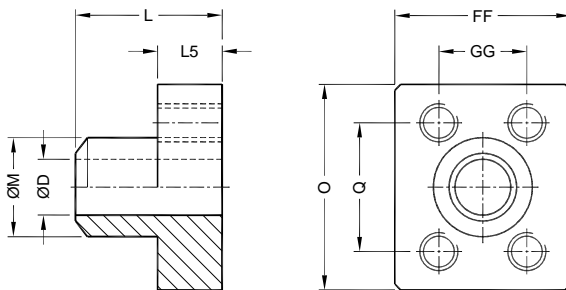
SBO / SBOC

Dimensions in mm

Mounting Interface conforms to ISO 6162



Flanges
Model : SBO



Counter Flanges
Model : SBOC

Standard Pressure Series (Code 61)

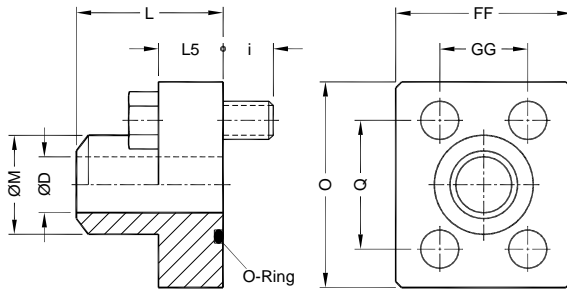
Part No. Flanges	Part No. Counter Flanges	Size	Pipe Sch	Pr (bar)	ØM	ØD	O	Q	FF	GG	L5	i	L	O' Ring (Viton) 90 ± 5 Shore	Hex. bolts (10.9)
SBO-21.3-80	SBOC-21.3-80	1/2"	80	288	21.3	14	54	38.1	38	17.5	13	12	32	19.0 x 3.55	M8 x 25
SBO-21.3-160	SBOC-21.3-160		160	345		12									
SBO-26.6-80	SBOC-26.6-80	3/4"	80	246	26.6	19	65	47.6	45	22.3	15	15	32	25.0 x 3.55	M10x30
SBO-26.6-160	SBOC-26.6-160		160	345		15									
SBO-33.4-80	SBOC-33.4-80	1"	80	246	33.4	24	70	52.4	51	26.2	15	15	32	32.5 x 3.55	M10x30
SBO-33.4-160	SBOC-33.4-160		160	345		21									
SBO-42.2-80	SBOC-42.2-80	1 1/4"	80	211	42.2	32	79	58.7	64	30.2	15	15	32	37.5 x 3.55	M10x30
SBO-42.2-160	SBOC-42.2-160		160	276		30									
SBO-48.3-80	SBOC-48.3-80	1 1/2"	80	197	48.3	38	94	69.9	70	35.7	17	18	38	47.5 x 3.55	M12x35
SBO-60.3-80	SBOC-60.3-80	2"	80	176	60.3	49	102	77.8	83	42.9	17	18	38	56.0 x 3.55	M12x35
SBO-60.3-160	SBOC-60.3-160		160	207		43									
SBO-73.0-40	SBOC-73.0-40	2 1/2"	40	134	73.0	63	114	88.9	102	50.8	22	18	45	69.0 x 3.55	M12x40
SBO-73.0-80	SBOC-73.0-80		80	172		59									
SBO-88.9-40	SBOC-88.9-40	3"	40	113	88.9	78	135	106.4	114	61.9	26	24	51	85.0 x 3.55	M16x50
SBO-88.9-80	SBOC-88.9-80		80	138		74									
SBO-101.6-40	SBOC-101.6-40	3 1/2"	40	34	101.6	90	152	120.7	127	69.9	26	24	38	97.5 x 3.55	M16x50
SBO-114.3-40	SBOC-114.3-40	4"	40	34	114.3	102	162	130.2	140	77.8	26	24	38	112.0 x 3.55	M16x50
SBO-141.3-40	SBOC-141.3-40	5"	40	34	141.3	128	184	152.4	178	92.1	26	24	51	136.0 x 3.55	M16x50

Buttweld Solid Flanges

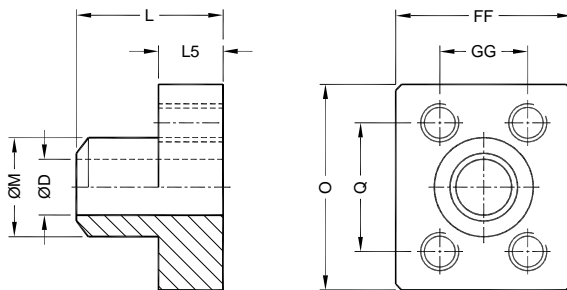
HBO / HBOC

Dimensions in mm

Mounting Interface conforms to ISO 6162



Flanges
Model : HBO



Counter Flanges
Model : HBOC

High Pressure Series (Code 62)

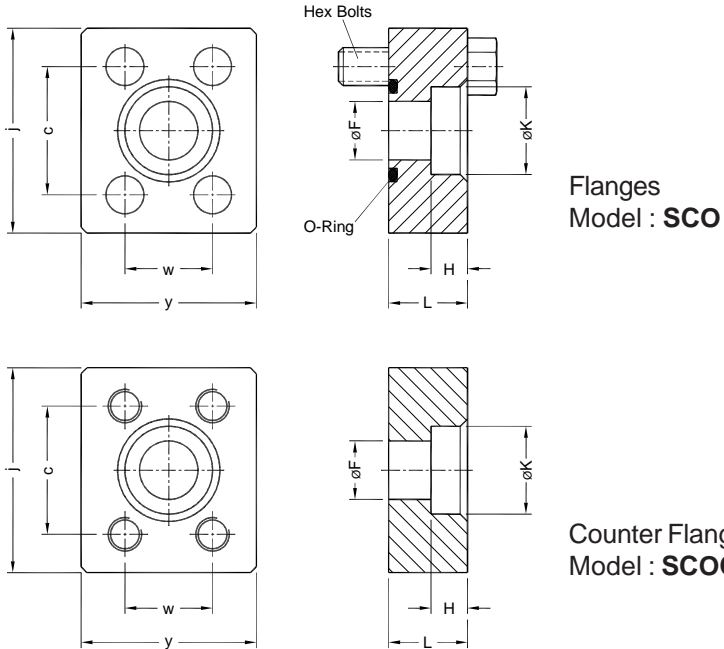
Part No. Flanges	Part No. Counter Flanges	Size	Pipe Sch	Pr (bar)	ØM	ØD	O	Q	FF	GG	L5	i	L	O' Ring (Viton) 90 ± 5 Shore	Hex. bolts (10.9)
HBO-21.3-160	HBOC-21.3-160	1/2"	160	414	21.3	12	56	40.5	45	18.2	18	12	32	19.0 x 3.55	M8 x 30
HBO-26.6-160	HBOC-26.6-160	3/4"	160	414	26.6	16	71	50.8	51	23.8	20	15	32	25.0 x 3.55	M10x35
HBO-33.4-160	HBOC-33.4-160	1"	160	401	33.4	21	81	57.2	57	27.8	22	18	32	32.5 x 3.55	M12x40
HBO-42.2-160	HBOC-42.2-160	1.1/4"	160	310	42.2	30	95	66.6	70	31.8	22	18	32	37.5 x 3.55	M12x40
HBO-42.2-XXS	HBOC-42.2-XXS		XXS	414		23									
HBO-48.3-160	HBOC-48.3-160	1.1/2"	160	317	48.3	34	113	79.3	83	36.5	21	24	38	47.5 x 3.55	M16x45
HBO-48.3-XXS	HBOC-48.3-XXS		XXS	414		28									
HBO-60.3-160	HBOC-60.3-160	2"	160	324	60.3	43	133	96.8	102	44.5	30	30	45	56.0 x 3.55	M20x60
HBO-60.3-XXS	HBOC-60.3-XXS		XXS	414		38									
HBO-73.0-160	HBOC-73.0-160	2 1/2"	160	296	73.0	54	175	123.8	127	58.7	32	33	51	69.0 x 3.55	M22x65
HBO-73.0-XXS	HBOC-73.0-XXS		XXS	414	73.0	45	175	123.8	127	58.7	32	33	51	69.0 x 3.55	M22x65
HBO-88.9-160	HBOC-88.9-160	3"	160	288	88.9	66	216	152.4	153	71.4	35	45	63	85.0 x 3.55	M30x80
HBO-88.9-XXS	HBOC-88.9-XXS		XXS	414		58									

Socket Weld Flanges

SCO / SCOC

Dimensions in mm

Mounting Interface conforms to ISO 6162



Standard Pressure Series (Code 61)

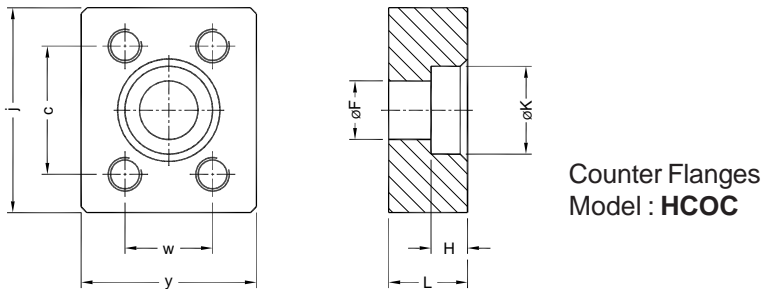
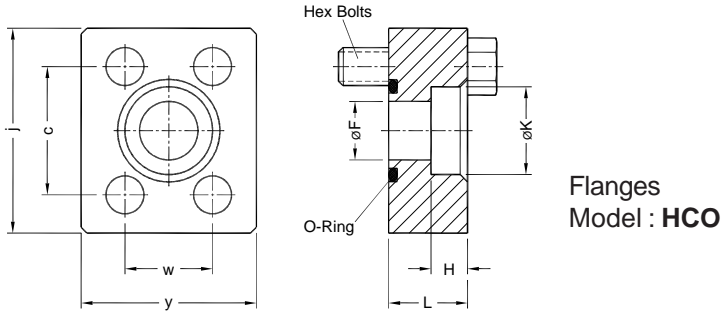
Part No. Flanges	Part No. Counter Flanges	Nom Flange Size	Pr (bar)	y	j	c	w	ØF	H	ØK	L	O' Ring (Viton) 90 ± 5 Shore	Hex. bolts (10.9)
SCO-21.3	SCOC-21.3	1/2"	350	46	54	38.1	17.5	13	10	21.8	18	19.0 x 3.55	M8 x 30
SCO-26.6	SCOC-26.6	3/4"	350	52	65	47.6	22.3	19	13	27.0	25	25.0 x 3.55	M10 x 40
SCO-33.4	SCOC-33.4	1"	350	59	70	52.4	26.2	25	13	33.7	25	32.5 x 3.55	M10 x 40
SCO-42.2	SCOC-42.2	1.1/4"	250	73	79	58.7	30.2	32	13	42.6	25	37.5 x 3.55	M10 x 40
SCO-48.3	SCOC-48.3	1.1/2"	200	83	94	69.9	35.7	38	13	48.7	32	47.5 x 3.55	M12 x 50
SCO-60.3	SCOC-60.3	2"	200	97	102	77.8	42.9	49	16	61.2	37	56.0 x 3.55	M12 x 55
SCO-73.0	SCOC-73.0	2 1/2"	160	109	114	88.9	50.8	61	19	73.9	42	69.0 x 3.55	M12 x 60
SCO-88.9	SCOC-88.9	3"	100	131	135	106.4	61.9	75	19	89.9	51	85.0 x 3.55	M16 x 75
SCO-101.6	SCOC-101.6	3 1/2"	25	140	152	120.7	69.9	86	19	102.7	36	97.5 x 3.55	M16 x 60
SCO-114.3	SCOC-114.3	4"	25	152	162	130.2	77.8	99	19	115.5	36	112.0 x 3.55	M16 x 60
SCO-141.3	SCOC-141.3	5"	25	181	184	152.4	92.1	127	19	142.8	51	136.0 x 3.55	M16 x 75

Socket Weld Flanges

HCO / HCOC

Dimensions in mm

Mounting Interface conforms to ISO 6162



High Pressure Series (Code 62)

Part No. Flanges	Part No. Counter Flanges	Nom Flange Size	Pr (bar)	y	j	c	w	ØF	H	ØK	L	O' Ring (Viton) 90 ± 5 Shore	Hex. bolts (10.9)
HCO-21.3	HCOC-21.3	1/2"	400	48	56	40.5	18.2	13	13	21.8	23	19.00 x 3.55	M8 x 35
HCO-26.6	HCOC-26.6	3/4"	400	60	71	50.8	23.8	19	13	27.0	25	25.00 x 3.55	M10 x 40
HCO-33.4	HCOC-33.4	1"	400	70	81	57.2	27.8	25	13	33.7	27	32.50 x 3.55	M12 x 45
HCO-42.2	HCOC-42.2	1.1/4"	400	78	95	66.6	31.8	32	13	42.6	32	37.50 x 3.55	M12 x 50
HCO-48.3	HCOC-48.3	1.1/2"	400	95	113	79.3	36.5	38	13	48.7	36	47.50 x 3.55	M16 x 60
HCO-60.3	HCOC-60.3	2"	400	114	133	96.8	44.5	50	16	61.2	45	56.00 x 3.55	M20 x 75
HCO-73.0	HCOC-73.0	2 1/2"	400	149	175	123.8	58.7	60	16	73.9	52	69.00 x 3.55	M22 x 85
HCO-88.9	HCOC-88.9	3"	400	178	216	152.4	71.4	75	16	89.9	65	85.00 x 3.55	M30 x 110

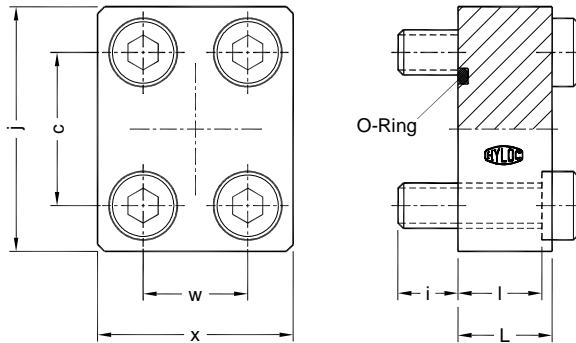
Blind Flanges

OSB / OHB

Dimensions in mm

Mounting Interface conforms to ISO 6162

Seal Material : NBR 90 Shore



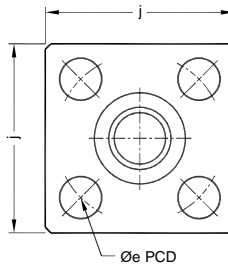
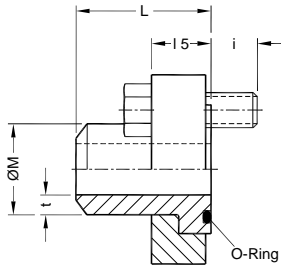
Part No.	Pr. (bar)	Nom size	x	j	c	w	l	i	L	O - Ring ID x CSD	S.H.C Screws (10.9)
Standard pressure series (Code 61)											
OSB-04	350	1/2"	33	54	38.1	17.5	13	12	13	19.0 x 3.55	M8 x 25
OSB-06	350	3/4"	41	65	47.6	22.3	15	15	15	25.0 x 3.55	M10 x 30
OSB-08	350	1"	48	70	52.4	26.2	15	15	17	32.5 x 3.55	M10 x 30
OSB-10	250	1,1/4"	54	79	58.7	30.2	15	15	17	37.5 x 3.55	M10 x 30
OSB-12	200	1,1/2"	64	94	69.9	35.7	17	18	22	47.5 x 3.55	M12 x 35
OSB-16	200	2"	76	102	77.8	42.9	17	18	25	56.0 x 3.55	M12 x 35
OSB-20	160	2,1/2"	89	114	88.9	50.8	22	18	27	69.0 x 3.55	M12 x 40
OSB-24	100	3"	106	135	106.4	61.9	26	24	30	85.0 x 3.55	M16 x 50
OSB-28	25	3,1/2"	119	152	120.7	69.9	26	24	26	97.5 x 3.55	M16 x 50
OSB-32	25	4"	132	162	130.2	77.8	26	24	26	112.0 x 3.55	M16 x 50
OSB-40	25	5"	151	184	152.4	92.1	26	24	32	136.0 x 3.55	M16 x 50
High pressure series (Code 62)											
OHB-04	400	1/2"	38	56	40.5	18.2	18	12	18	19.0 x 3.55	M8 x 30
OHB-06	400	3/4"	48	71	50.8	23.8	20	15	20	25.0 x 3.55	M10 x 35
OHB-08	400	1"	54	81	57.2	27.8	22	18	22	32.5 x 3.55	M12 x 40
OHB-10	400	1,1/4"	60	95	66.6	31.8	22	18	22	37.5 x 3.55	M12 x 40
OHB-12	400	1,1/2"	70	113	79.3	36.5	21	24	30	47.5 x 3.55	M16 x 45
OHB-16	400	2"	86	133	96.8	44.5	30	30	36	56.0 x 3.55	M20 x 60
OHB-20	400	2,1/2"	116	175	123.8	58.7	32	33	50	69.0 x 3.55	M22 x 65
OHB-24	400	3"	132	216	152.4	71.4	35	45	63	85.0 x 3.55	M30 x 80

Buttweld Swivel Flanges

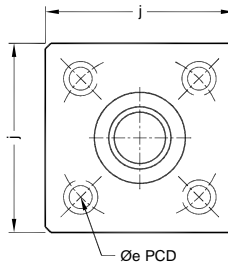
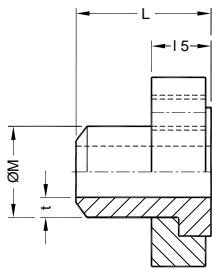
SAI / SAIC

Dimensions in mm

Mounting Interface conforms to ISO 6164



Flanges
Model : **SAI / HAI**



Counter Flanges
Model : **SAIC / HAIC**

*Not included in ISO 6164 std

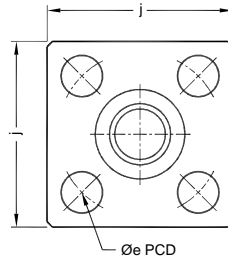
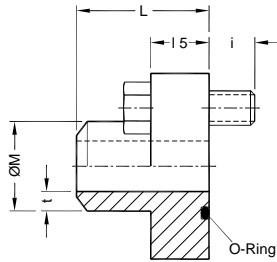
Part No. Flange	Part No. Counter Flange	Nom Flange Size	DN Size	ØM	Pipe Sch	t	Ø e	15	j	i	L	O - Ring ID x CSD (Viton) 90 ± 5 Shore	Hex. bolts (10.9)
PN 250 bar													
SAI-21.3-80	SAIC-21.3-80	1/2"	13	21.3	80	3.70	42	23	45	12	30	19.0 x 3.55	M8x35
SAI-26.6-80	SAIC-26.6-80	3/4"	19	26.6	80	3.92	50	23	50	12	35	25.0 x 3.55	M8x35
SAI-33.4-80	SAIC-33.4-80	1"	25	33.4	80	4.54	62	25	65	15	40	32.5 x 3.55	M10x40
SAI-42.2-160	SAIC-42.2-160	1.1/4"	32	42.2	160	6.35	73	32	75	18	45	37.5 x 3.55	M12x50
SAI-48.3-160	SAIC-48.3-160	1.1/2"	38	48.3	160	7.13	85	36	90	24	50	47.5 x 3.55	M16x60
SAI-60.3-160	SAIC-60.3-160	2"	51	60.3	160	8.71	98	41	100	24	60	56.0 x 3.55	M16x65
SAI-73.0-160	SAIC-73.0-160	2 1/2"	56	73.0	160	9.52	118	50	120	30	70	69.0 x 3.55	M20x80
SAI-88.9-160	SAIC-88.9-160	3"	63	88.9	160	11.00	145	60	140	30	80	85.0 x 3.55	M20x90
*SAI-114.3-160	SAIC-114.3-160	4"	80	114.3	160	13.50	175	75	180	45	135	112 x 3.55	M30x120
PN 400 bar													
HAI-21.3-160	HAIC-21.3-160	1/2"	13	21.3	160	4.75	42	23	45	12	40	19.0 x 3.55	M8x35
HAI-26.6-160	HAIC-26.6-160	3/4"	19	26.6	160	5.56	50	23	50	12	45	25.0 x 3.55	M8x35
HAI-33.4-160	HAIC-33.4-160	1"	25	33.4	160	6.35	62	25	65	15	50	32.5 x 3.55	M10x40
HAI-42.2-XXS	HAIC-42.2-XXS	1.1/4"	32	42.2	XXS	9.70	73	32	75	18	55	37.5 x 3.55	M12x50
HAI-48.3-XXS	HAIC-48.3-XXS	1.1/2"	38	48.3	XXS	10.16	85	36	90	24	60	47.5 x 3.55	M16x60
HAI-60.3-XXS	HAIC-60.3-XXS	2"	51	60.3	XXS	11.07	98	41	100	24	70	56.0 x 5.30	M16x65
HAI-73.0-XXS	HAIC-73.0-XXS	2 1/2"	56	73.0	XXS	14.02	118	50	120	30	80	69.0 x 5.30	M20x80
HAI-88.9-XXS	HAIC-88.9-XXS	3"	63	88.9	XXS	15.24	145	54	150	36	105	75.0 x 5.30	M24x90
HAI-101.6-XXS	HAIC-101.6-XXS	3 1/2"	70	101.6	XXS	16.15	160	64	160	36	105	85.0 x 5.30	M24x100
HAI-114.3-XXS	HAIC-114.3-XXS	4"	80	114.3	XXS	17.12	175	75	180	45	135	87.5 X 5.30	M30x120

Buttweld Solid Flanges

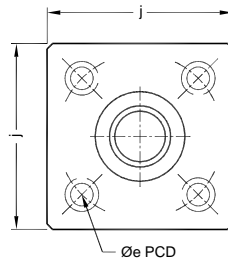
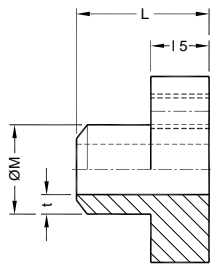
SBI / SBIC

Dimensions in mm

Mounting Interface conforms to ISO 6164



Flanges
Model : **SBI / HBI**



Counter Flanges
Model : **SBIC / HBIC**

* Not included in ISO 6164 std

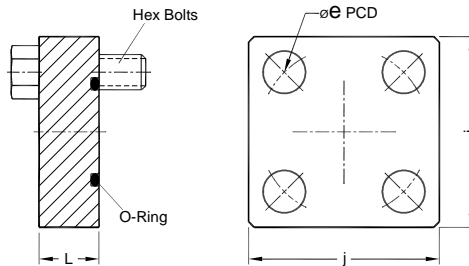
Part No. Flange	Part No. Counter Flange	Nom Flange Size	DN Size	ØM	Pipe Sch	t	Ø e	15	j	i	L	O - Ring ID x CSD (Viton) 90 ± 5 Shore	Hex. bolts (10.9)
PN 250 bar													
SBI-21.3-80	SBIC-21.3-80	1/2"	13	21.3	80	3.70	42	23	45	12	30	19.0 x 3.55	M8x35
SBI-26.6-80	SBIC-26.6-80	3/4"	19	26.6	80	3.92	50	23	50	12	35	25.0 x 3.55	M8x35
SBI-33.4-80	SBIC-33.4-80	1"	25	33.4	80	4.54	62	25	65	15	40	32.5 x 3.55	M10x40
SBI-42.2-160	SBIC-42.2-160	1.1/4"	32	42.2	160	6.35	73	32	75	18	45	37.5 x 3.55	M12x50
SBI-48.3-160	SBIC-48.3-160	1.1/2"	38	48.3	160	7.13	85	36	90	24	50	47.5 x 3.55	M16x60
SBI-60.3-160	SBIC-60.3-160	2"	51	60.3	160	8.71	98	41	100	24	60	56.0 x 3.55	M16x65
SBI-73.0-160	SBIC-73.0-160	2 1/2"	56	73.0	160	9.52	118	50	120	30	70	69.0 x 3.55	M20x80
SBI-88.9-160	SBIC-88.9-160	3"	63	88.9	160	11.00	145	60	140	30	80	85.0 x 3.55	M20x90
*SBI-114.3-160	SBIC-114.3-160	4"	80	114.3	160	13.50	175	75	180	45	135	112 x 3.55	M30x120
PN 400 bar													
HBI-21.3-160	HBIC-21.3-160	1/2"	13	21.3	160	4.75	42	23	45	12	40	19.0 x 3.55	M8x35
HBI-26.6-160	HBIC-26.6-160	3/4"	19	26.6	160	5.56	50	23	50	12	45	25.0 x 3.55	M8x35
HBI-33.4-160	HBIC-33.4-160	1"	25	33.4	160	6.35	62	25	65	15	50	32.5 x 3.55	M10x40
HBI-42.2-XXS	HBIC-42.2-XXS	1.1/4"	32	42.2	XXS	9.70	73	32	75	18	55	37.5 x 3.55	M12x50
HBI-48.3-XXS	HBIC-48.3-XXS	1.1/2"	38	48.3	XXS	10.16	85	36	90	24	60	47.5 x 3.55	M16x60
HBI-60.3-XXS	HBIC-60.3-XXS	2"	51	60.3	XXS	11.07	98	41	100	24	70	56.0 x 5.30	M16x65
HBI-73.0-XXS	HBIC-73.0-XXS	2 1/2"	56	73.0	XXS	14.02	118	50	120	30	80	69.0 x 5.30	M20x80
HBI-88.9-XXS	HBIC-88.9-XXS	3"	63	88.9	XXS	15.24	145	54	150	36	105	75.0 x 5.30	M24x90
HBI-101.6-XXS	HBIC-101.6-XXS	3 1/2"	70	101.6	XXS	16.15	160	64	160	36	105	85.0 x 5.30	M24x100
HBI-114.3-XXS	HBIC-114.3-XXS	4"	80	114.3	XXS	17.12	175	75	180	45	135	87.5 x 5.30	M30x120

Blind Flanges

SSB/SHB

Dimensions in mm

Mounting Interface conforms to ISO 6164



Part No. Flange	Nom Flange Size	DN Size	$\varnothing e$	j	L	O - Ring ID x CSD (Viton) 90 ± 5 Shore	Hex. bolts (10.9)
PN 250 bar							
SSB - 04	1/2"	13	42	45	23	19.0 x 3.55	M8x35
SSB - 06	3/4"	19	50	50	23	25.0 x 3.55	M8x35
SSB - 08	1"	25	62	65	25	32.5 x 3.55	M10x40
SSB - 10	1.1/4"	32	73	75	32	37.5 x 3.55	M12x50
SSB - 12	1.1/2"	38	85	90	36	47.5 x 3.55	M16x60
SSB - 16	2"	51	98	100	41	56.0 x 3.55	M16x65
SSB - 20	2 1/2"	56	118	120	50	69.0 x 3.55	M20x80
SSB - 24	3"	63	145	140	60	85.0 x 3.55	M20x90
PN 400 bar							
SHB - 04	1/2"	13	42	45	23	19.0 x 3.55	M8x35
SHB - 06	3/4"	19	50	50	23	25.0 x 3.55	M8x35
SHB - 08	1"	25	62	65	25	32.5 x 3.55	M10x40
SHB - 10	1.1/4"	32	73	75	32	37.5 x 3.55	M12x50
SHB - 12	1.1/2"	38	85	90	36	47.5 x 3.55	M16x60
SHB - 16	2"	51	98	100	41	56.0 x 5.30	M16x65
SHB - 20	2 1/2"	56	118	120	50	69.0 x 5.30	M20x80
SHB - 24	3"	63	145	150	54	75.0 x 5.30	M24x90
SHB - 28	3 1/2"	70	160	160	64	85.0 x 5.30	M24x100
SHB - 32	4"	80	175	180	75	87.5 x 5.30	M30x120

Visual Index

Valves

Cartridge, Shut off V alve



KHSL

Screw-in Cartridge, Shut off V alve



KHSLB

Shut off V alve, Inline and Right angle



SLG



SLWG



SL*



SLW*

Shut off V alve, Inline flange mounting



S25 * 10



S * L* 10



S * L* 10

Shut off V alve, Sub-plate mounting



MHSL



MSSL06-2.0



SS25S10



S * S 10

Cartridge, Needle V alve



KHNL

Needle Valve, Inline and Right angle



NLG



NLWG



NL*



NLW*

Needle Valve, Sub-plate mounting



MHNL

Check Valve, Screw in Cartridge



KSC



KSD

Check Valves,



RHD



RHZ



RHV



RHF

Adjustable Throttle and Throttle Check Valves



TCTG/TTG



TCG



TCMS



TCMH

Gauge Isolators



1GIM



1GIP



1GI



GMB



GIM



GIB



GIMH

Quick Disconnect Coupling



QDC

Accumulator Safety Block



ASB

Shut off Valve - Cartridge, Model : KHSL



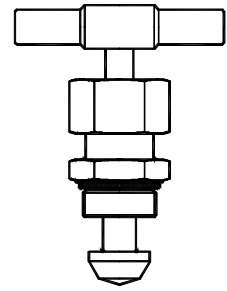
the right connection
the right environment

Ref. No : H04085, Release Mar 2018 (Dimensions in mm)

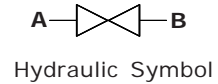
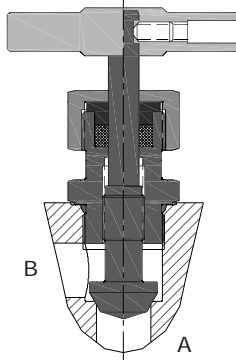
Description

Cartridge type Shut off valves model KHSL are rising spindle, seat type valves with metal seat for leak-free closure between it's port 'A' & 'B'.

The mounting cavity confirms to Factory standard.

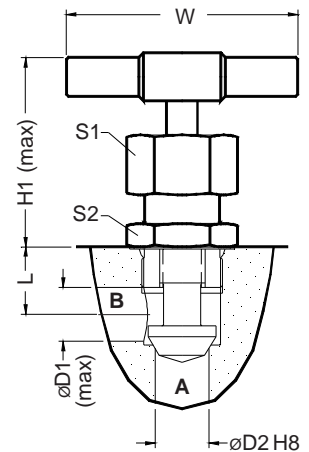


Section

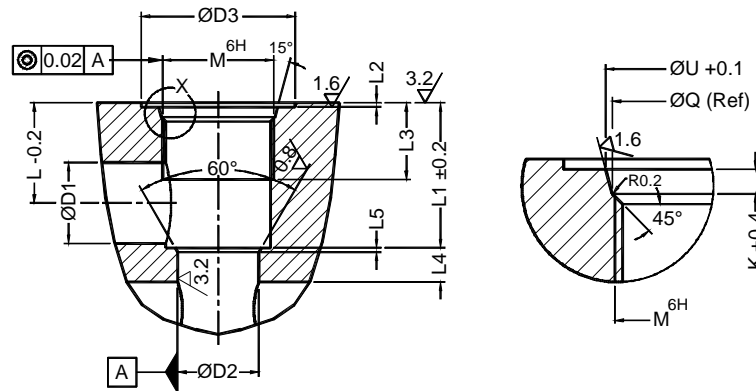


Unit Dimensions

Model Code	Size	L	H1	W	ØD1	ØD2	S1	S2
KHSL08-2.0	8	18	67.5	64	11	8	27	27
KHSL11-2.0	11	18	67.5	64	11	11	27	27
KHSL19-2.0	19	23	88.5	84	19	19	32	32
KHSL28-2.0	28	33	115.0	120	28	28	50	50



Cavity machining details



Model Code	ØD1	ØD2	ØD3	L	L1	ØU	ØQ	L2	L3	L4	L5	K	M
KHSL08-2.0	10	8	31.0	18	24	21.8	20.5	0.2	16	3	0.5	2.4	M20x1.5
KHSL11-2.0	10	11	31.0	18	24	21.8	20.5	0.2	16	3	0.5	2.4	M20x1.5
KHSL19-2.0	19	19	36.0	23	33	27.8	26.5	0.2	18	5	1.0	2.4	M26x1.5
KHSL28-2.0	28	28	54.5	35	51	44.4	42.7	1.0	24	7	1.5	3.1	M42x2.0

Shut off Valve - Cartridge, Model : KHSL



the right connection
the right environment

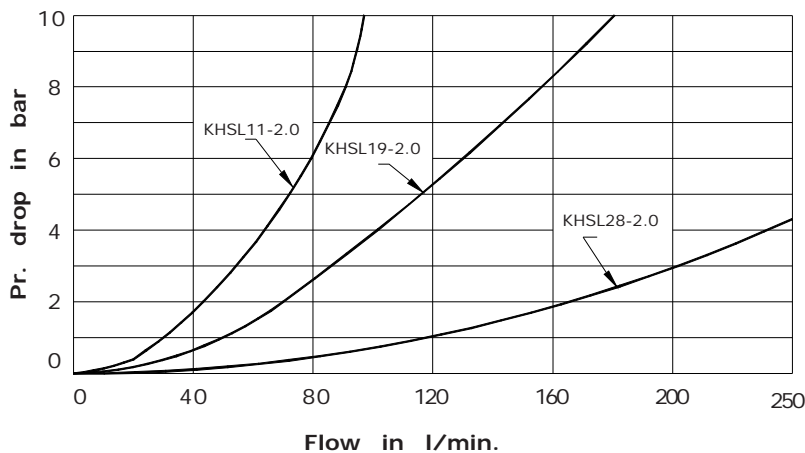
Ref. No : H04085, Release Mar 2018 (Dimensions in mm)

Technical Specifications

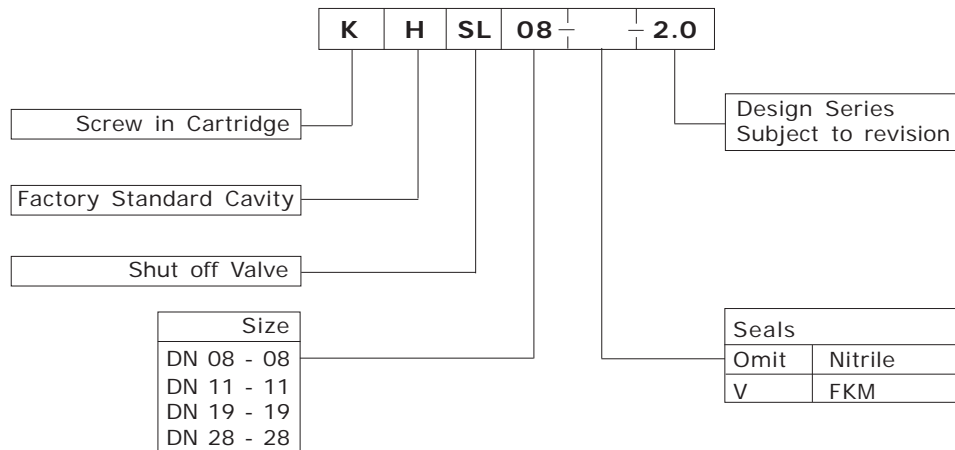
- Construction Seat type valve.
- Mounting Insert in cavity conforming to factory standard.
- Mounting position Optional.
- Flow direction From port `A' to port `B'.
- Operating pressure 350 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Performance Curves

- Oil used : ISO VG 68,
- Viscosity : 68 cSt @ 40 °C
- Test conducted at : 50 °C.



Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 valves. e.g. **316-KHSL08-2.0**

Shut off Valve - Cartridge, Model : KHSLB

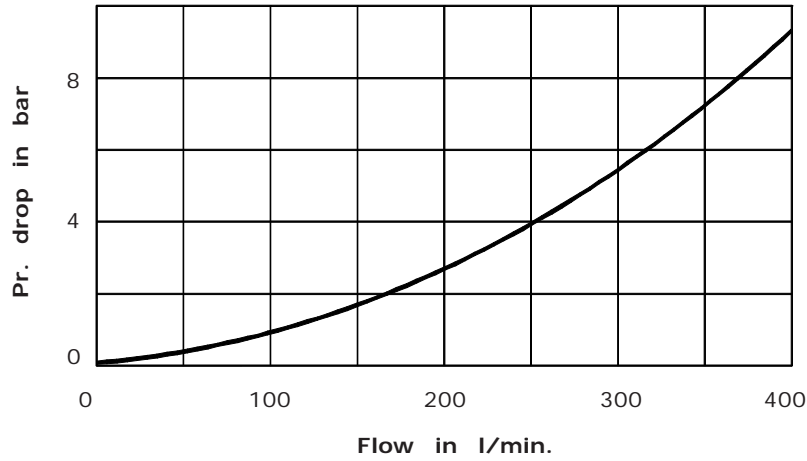


the right connection
the right environment

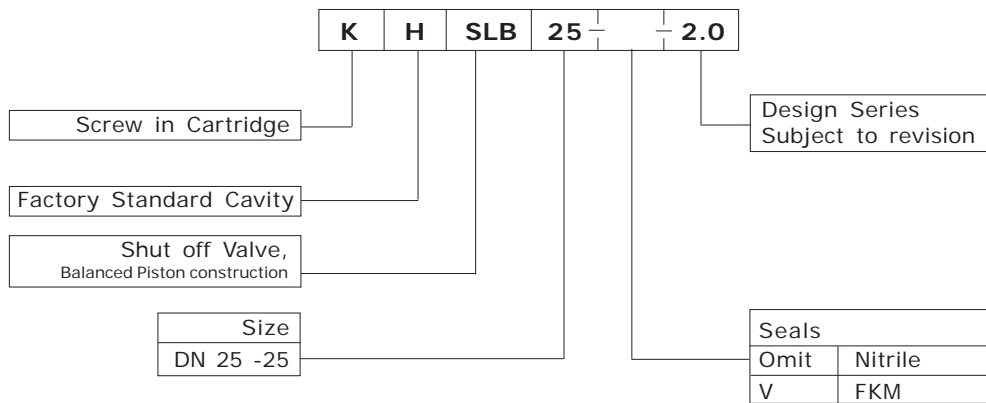
Ref. No : H03320, Release March 2018 (Dimensions in mm)

Performance Curves

Oil used : ISO VG 68,
Viscosity : 68 cSt @ 40 °C
Test conducted at : 50 °C.



Ordering Code



Shut off Valve - Inline and Right angle, Model : SLG, SLWG



the right connection
the right environment

Ref. No : H04343, Release March 2018 (Dimensions in mm)

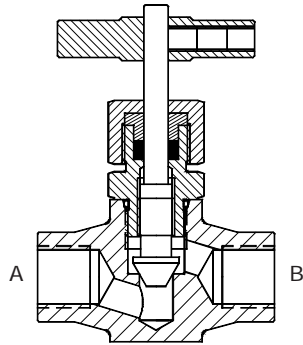
Description

Shut off valve model SLG, SLWG are two way, seat type valves.

These are used for isolating the oil flow in the direction as indicated by an arrow mark shown on the valve body.



Section



Hydraulic Symbol

Unit Dimensions

In - line and Right angle bodies (With BSP ports)

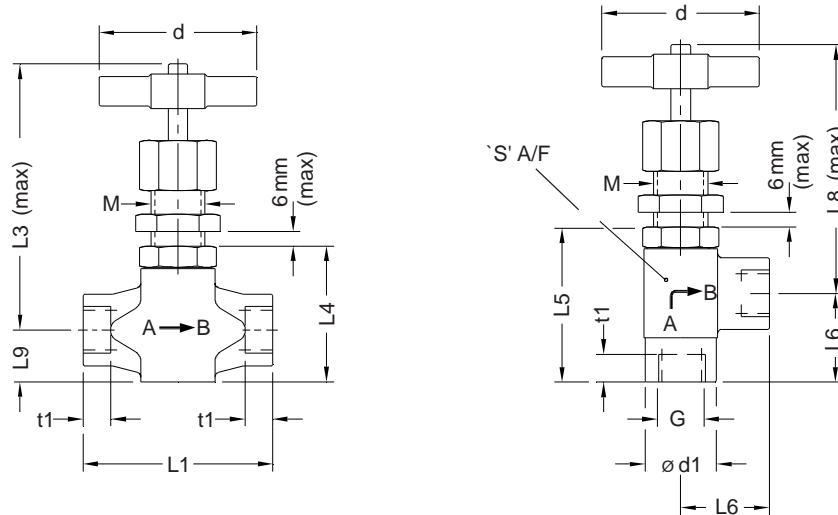


Table 1

Model Code In-line	Model Code Right angle	G	L1	L3	L4	L5	L6	L8	L9	d	t1	S	M
SLG02-2.0	SLWG02-2.0	G 1/4	70	110.5	54.5	56.5	30	103.5	21.0	64	14	30	M22x1.5
SLG03-2.0	SLWG03-2.0	G 3/8	70	110.5	54.5	56.5	30	103.5	21.0	64	14	30	M22x1.5
SLG04-2.0	SLWG04-2.0	G 1/2	77	110.5	54.5	62.5	36	103.5	21.0	64	17	30	M22x1.5
SLG06-2.0	SLWG06-2.0	G 3/4	93	122.0	71.0	77.0	45	110.0	27.0	84	17	36	M26x1.5
SLG08-2.0	SLWG08-2.0	G1	93	122.0	72.0	77.0	45	110.0	27.0	84	18	46	M26x1.5
SLG10-2.0	SLWG10-2.0	G1.1/4	162	162.0	105.0	113.0	65	143.0	51.5	120	22	60	M42x2.0
SLG12-2.0	SLWG12-2.0	G1.1/2	162	162.0	105.0	113.0	65	143.0	51.5	120	24	60	M42x2.0

Shut off Valve - Inline and Right angle, Model : SLG, SLWG



the right connection
the right environment

Ref. No : H04343, Release March 2018 (Dimensions in mm)

Unit Dimensions

In - line and Right angle bodies (With Tube ends)

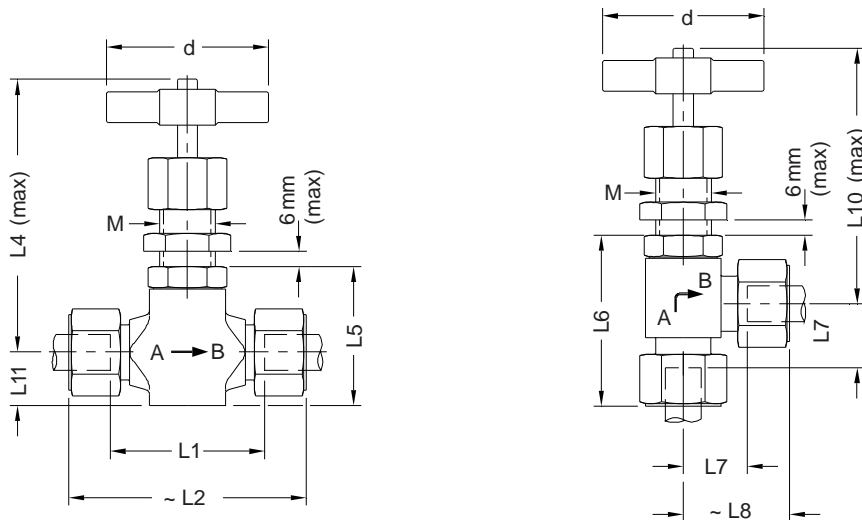


Table 2

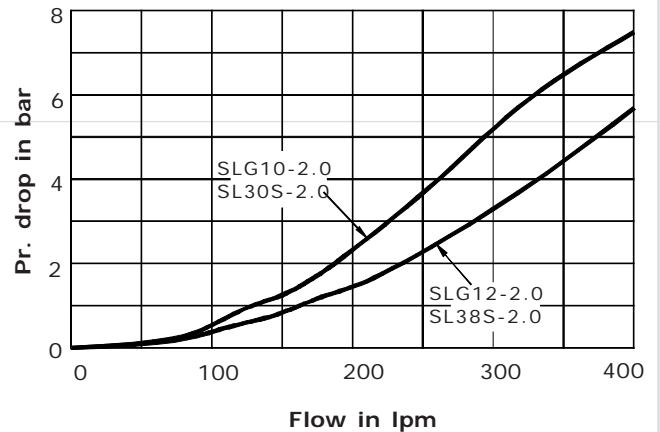
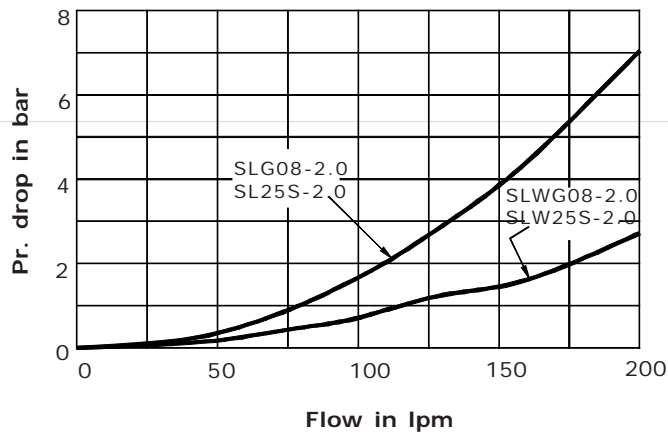
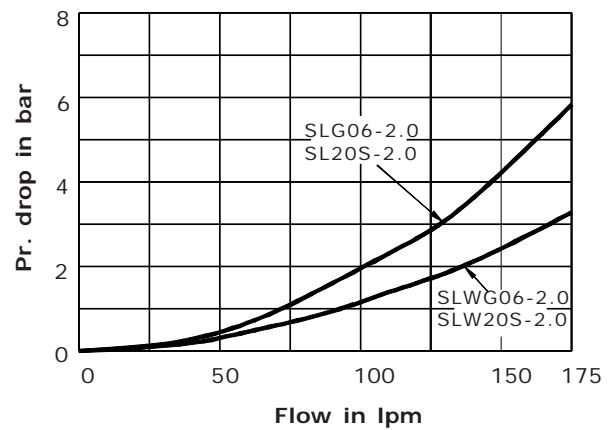
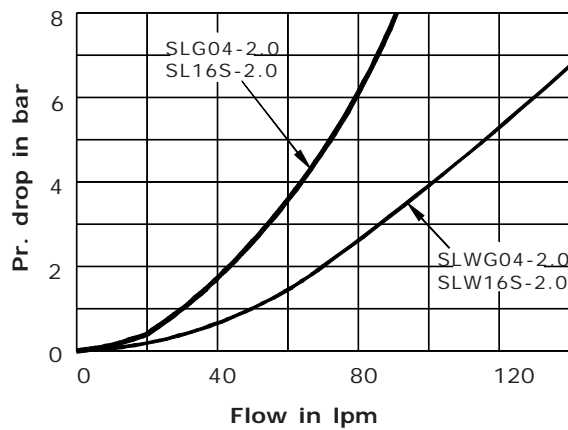
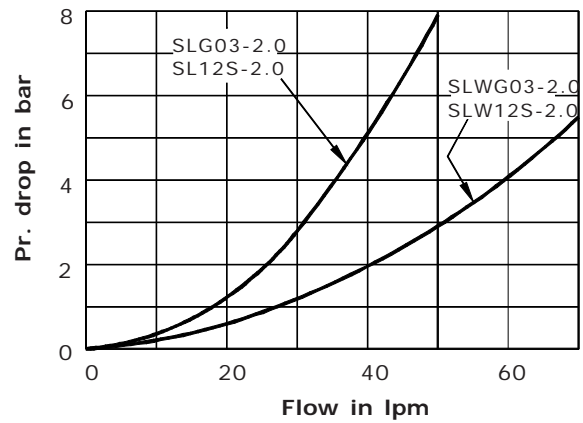
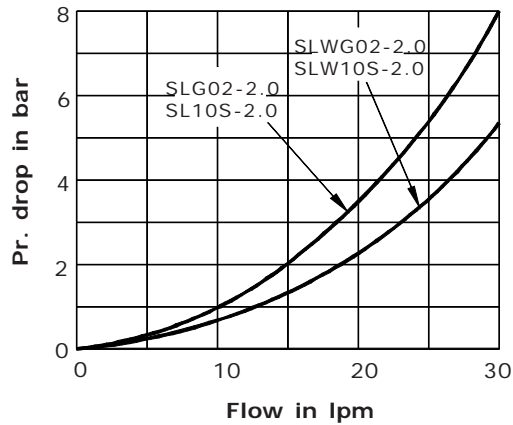
Model Code In-line	Model Code Right angle	Tube OD	L1	L2	L4	L5	L6	L7	L8	L10	L11	d	S1	S2	M
SL10S-2.0	SLW10S-2.0	10	55	88.0	110.5	54.5	65.5	22.0	39.0	103.5	21	64	22	30	M22x1.5
SL12S-2.0	SLW12S-2.0	12	55	88.0	110.5	54.5	65.5	22.0	39.0	103.5	21	64	24	30	M22x1.5
SL16S-2.0	SLW16S-2.0	16	60	97.0	110.5	54.5	67.5	22.0	41.0	103.5	21	64	30	30	M22x1.5
SL20S-2.0	SLW20S-2.0	20	72	115.0	122.0	71.5	77	28.0	68.0	110	28	84	36	41	M26x1.5
SL25S-2.0	SLW25S-2.0	25	69	117.0	122.0	71.5	82.5	28.0	73.5	110	28	84	46	41	M26x1.5
SL30S-2.0	SLW30S-2.0	30	135	188.0	162.0	118.0	111	40.0	63.0	143	52	120	50	60	M42x2.0
SL38S-2.0	SLW38S-2.0	38	130	192.0	162.0	118.0	115	40.0	67.0	143	52	120	60	60	M42x2.0

Technical Specifications

- Construction Seat type valve.
- Mounting style In-line or Right angle body, line mounted.
- Mounting position Optional.
- Flow direction As indicated by an arrow on valve body.
- Operating pressure 350 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +80 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Performance Curves

Oil used : ISO VG 68,
 Viscosity : 68 cSt @ 40 °C
 Test conducted at : 50 °C.



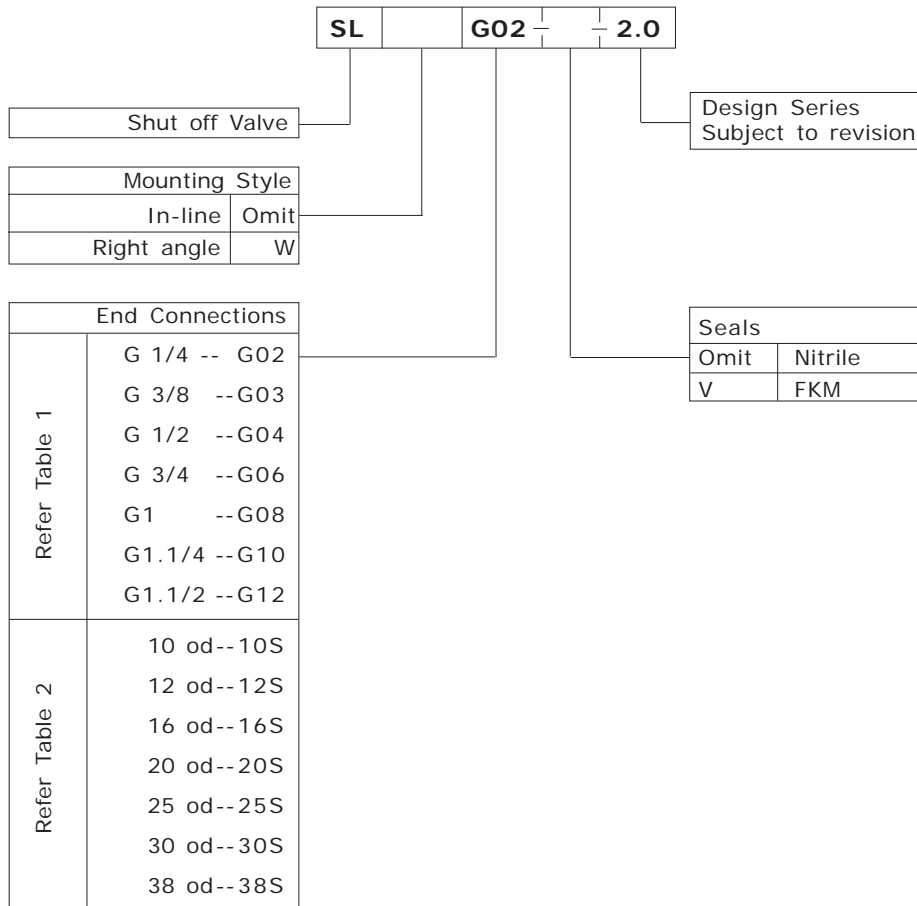
Shut off Valve - Inline and Right angle, Model : SLG, SLWG



the right connection
the right environment

Ref. No : H04343, Release March 2018 (Dimensions in mm)

Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 valves. e.g. **316-SLG04-2.0**

Shut off Valve, In-line flange mounting, Model : SLBF-J-25-2.0



the right connection
the right environment

Ref. No : H03322, Release March 2018 (Dimensions in mm)

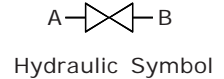
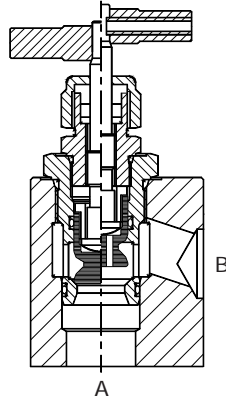
Description

These are seat type, rising spindle valves with balanced sealed poppet construction for easy closure or opening of the valve.

Inlet and outlet ports are provided with provision for mounting of flanges as per ISO 6162 bolt pattern.



Section



Unit Dimensions

In-line flange mounting Valves - **SLBF**

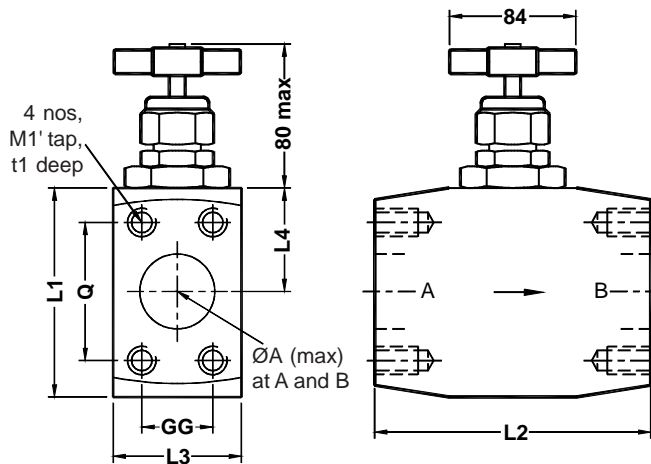
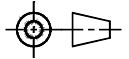


Table 1

Model Code	ØA	L1	L2	L3	L4
SLBF-J08L25-2.0	25	105	150	60	52.0
SLBF-J10L25-2.0	32	100	130	65	52.5
SLBF-J12L25-2.0	38	105	140	65	52.5

Model Code	Q	GG	M1	t1
SLBF-J08L25-2.0	52.4	26.2	M10 x 1.50	17
SLBF-J10L25-2.0	58.7	30.2	M10 x 1.50	17
SLBF-J12L25-2.0	69.9	35.7	M12 x 1.75	20

Right angle flange mounting Valves - **SLBWF**

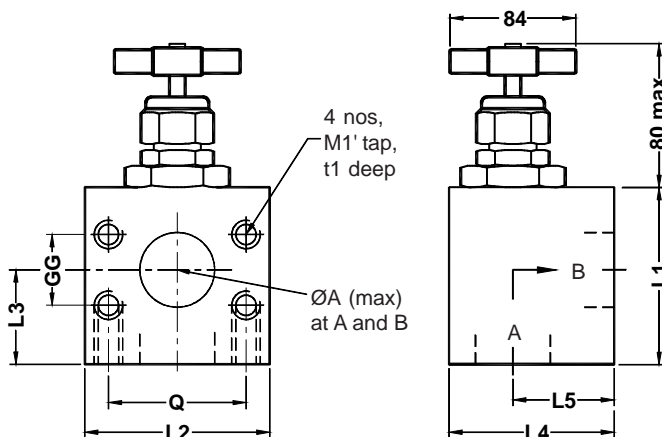


Table 2

Model Code	ØA	L1	L2	L3	L4	L5
SLBWF-J10L25-2.0	32	87.5	80	47.5	80	47.5
SLBWF-J12L25-2.0	38	93.5	94	51.5	84	51.5

Model Code	Q	GG	M1	t1
SLBWF-J10L25-2.0	58.7	30.2	M10 x 1.50	17
SLBWF-J12L25-2.0	69.9	35.7	M12 x 1.75	20

Shut off Valve, In-line flange mounting, Model : SLBF-J-25-2.0



the right connection
the right environment

Ref. No : H03322, Release March 2018 (Dimensions in mm)

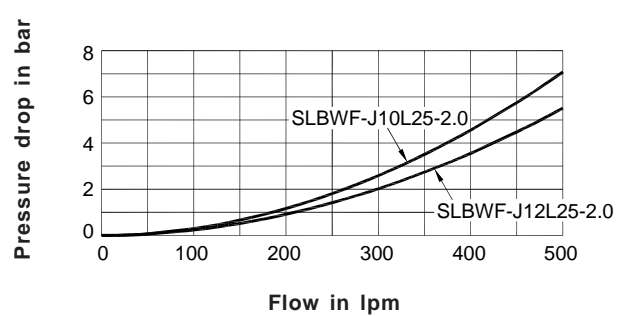
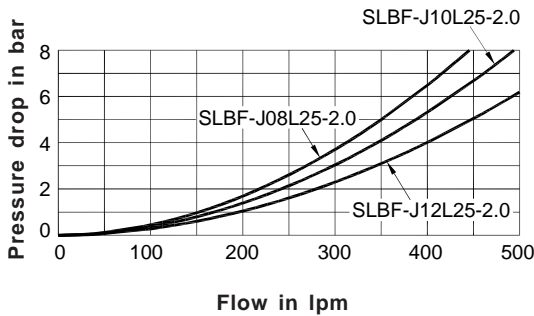
Technical Specifications

- Construction Sealed balanced poppet, seat type.
- Mounting type In line or right angle flange mounting, interface conforms to ISO 6162 bolt pattern.
(ISO 6164 bolt pattern flanges are also available on request)
- Mounting position Optional
- Flow direction From port `A' to port `B'.
- Operating pressure For, Size 1 1/4" - 276 bar
Size 1 1/2" - 200 bar
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Mass Refer table below

Model Code	SLBF-J08L25-2.0	SLBF-J10L25-2.0	SLBF-J12L25-2.0	SLBWF-J10L25-2.0	SLBWF-J12L25-2.0
Mass in Kg	6.0	6.6	7.5	4.4	5.8

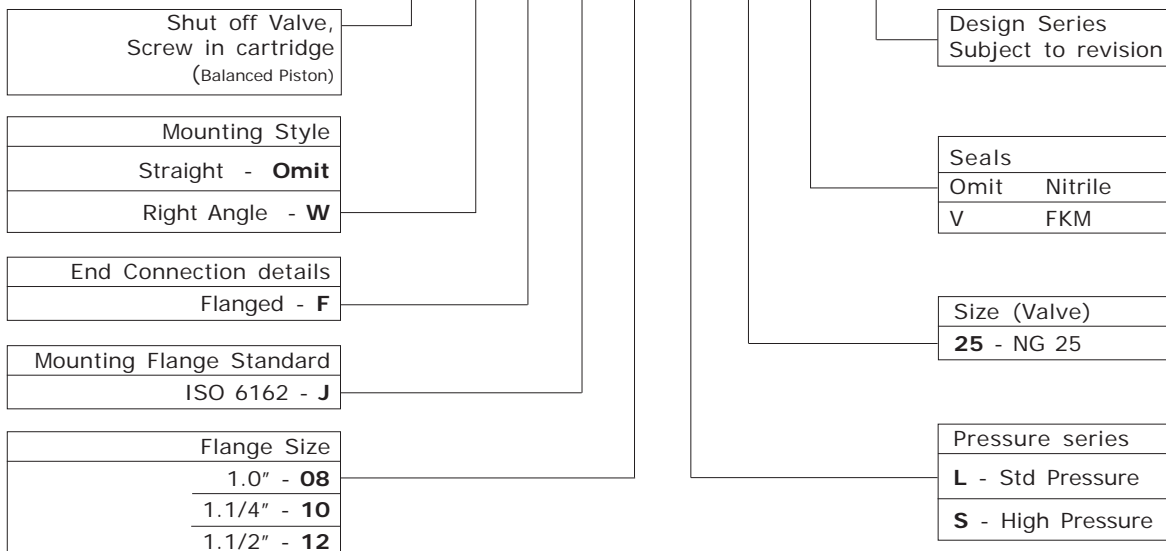
Maximum flow handling capacity Refer graphs below.

Expected Performance Curves



Ordering Code

SLB W F J 08 L 25 - 2.0



Shut off Valve, In-line flange mounting, Model : SLBF-J- *-2.0



the right connection
the right environment

Ref. No : H04238, Release March 2018 (Dimensions in mm)

Description

Seat type valve with replaceable cartridge.
Balanced poppet construction to reduce operating forces.

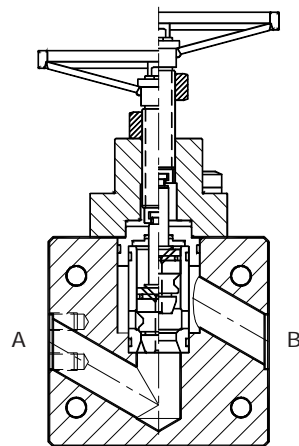
Can also be used for throttling the flow.

Provision for locking the spindle in any set position.
(for throttling purpose).

Inlet and outlet ports are provided with provision for mounting of flanges as per ISO 6162 bolt pattern.



Section



A B
Hydraulic Symbol

Unit Dimensions

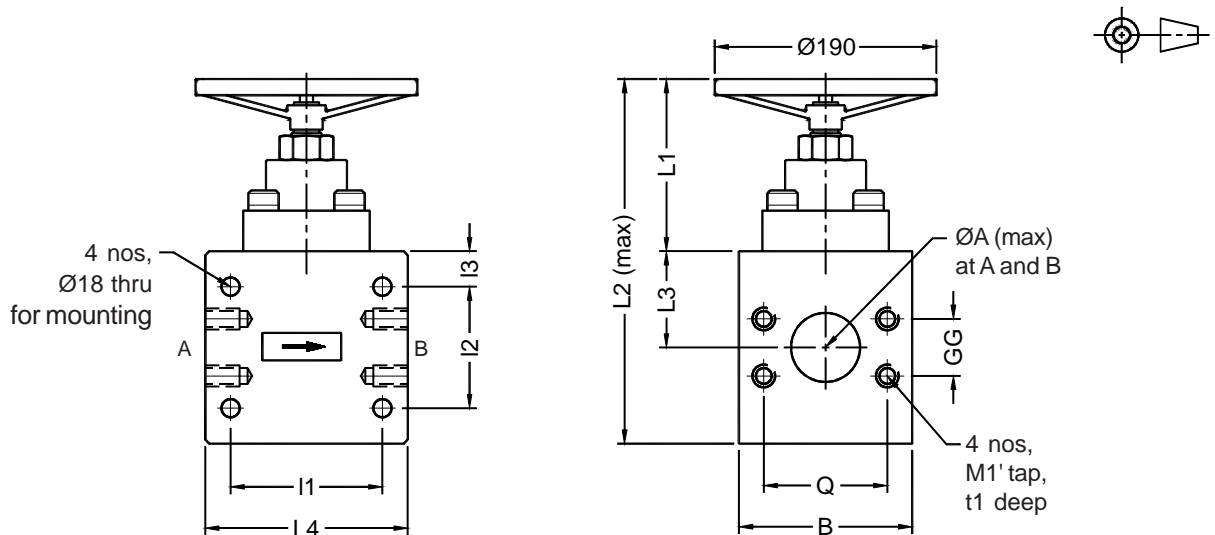


Table 1

Model Code	Flange Size	Pr (bar)	ØA	B	L1	L2	L3	L4	I1	I2	I3	Q	GG	M1	t1
SLBF-J12S40-2.0	1.5" Code 62	410	38	135	183	408	95	200	160	120	35	79.3	36.5	M16x2.0	26
SLBF-J16S40-2.0	2.0" Code 62	410	50									96.8	44.5	M20x2.5	33
SLBF-J16L50-2.0	2.0" Code 61	200	50	145	188	448	115	250	190	160	30	77.8	42.9	M12x1.75	20
SLBF-J20L50-2.0	2.5" Code 61	200	60									88.9	50.8	M12x1.75	20
SLBF-J16S50-2.0	2.0" Code 62	410	50									96.8	44.5	M20x2.5	33

Shut off Valve, In-line flange mounting, Model : SLBF-J- *-2.0



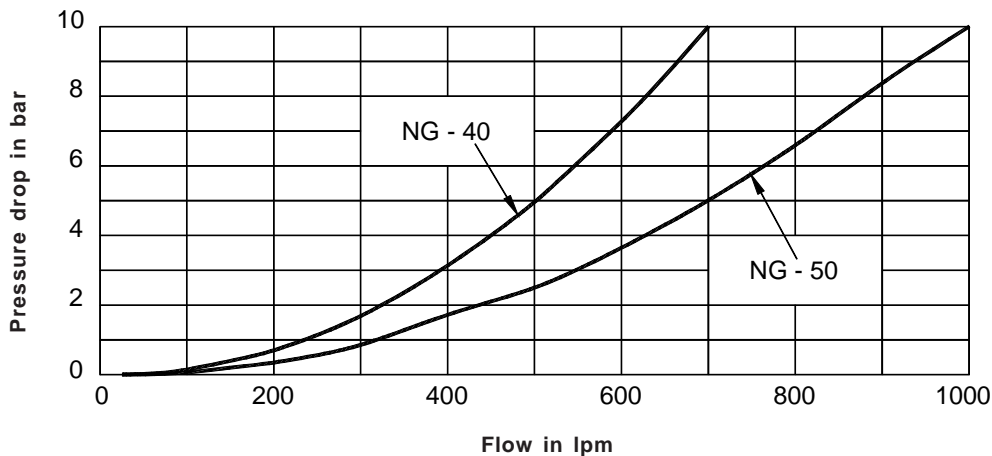
the right connection
the right environment

Ref. No : H04238, Release March 2018 (Dimensions in mm)

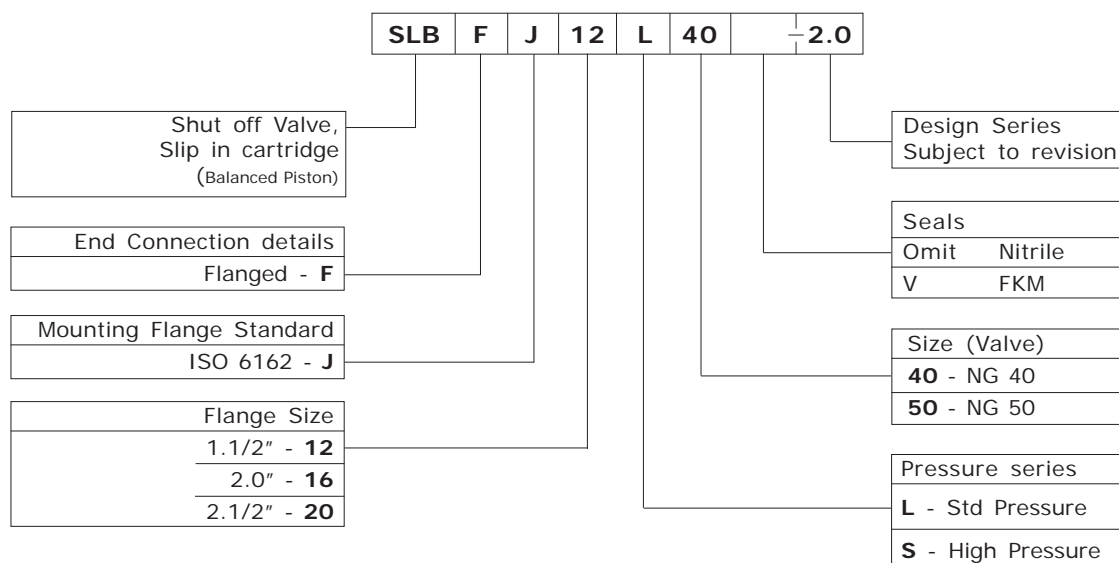
Technical Specifications

- Construction Seat type valve with seals on poppet. Partially balanced.
- Mounting type In line flange mounting, interface conforms to
ISO 6162 bolt pattern.
(ISO 6164 bolt pattern flanges are also available on request)
- Mounting position Optional
- Flow direction From port `A' to port `B'.
- Operating pressure Refer Table 1
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Expected Performance Curves



Ordering Code



Shut off Valve, In-line flange mounting, Model : SLBF-A/D-✱-2.0



the right connection
the right environment

Ref. No : H04181, Release March 2018 (Dimensions in mm)

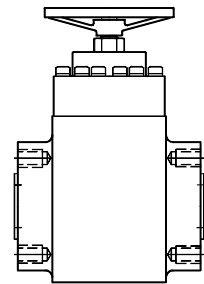
Description

Seat type valve with replaceable cartridge.
Balanced poppet construction to reduce operating forces.

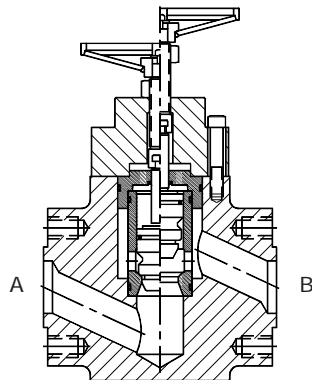
Can also be used for throttling the flow.

Provision for locking the spindle in any set position.
(for throttling purpose).

Inlet and outlet ports are provided with provision for mounting of flanges as per ANSI B16.5 and DIN 2628 (250 bar) flanges.



Section



A B
Hydraulic Symbol

Unit Dimensions

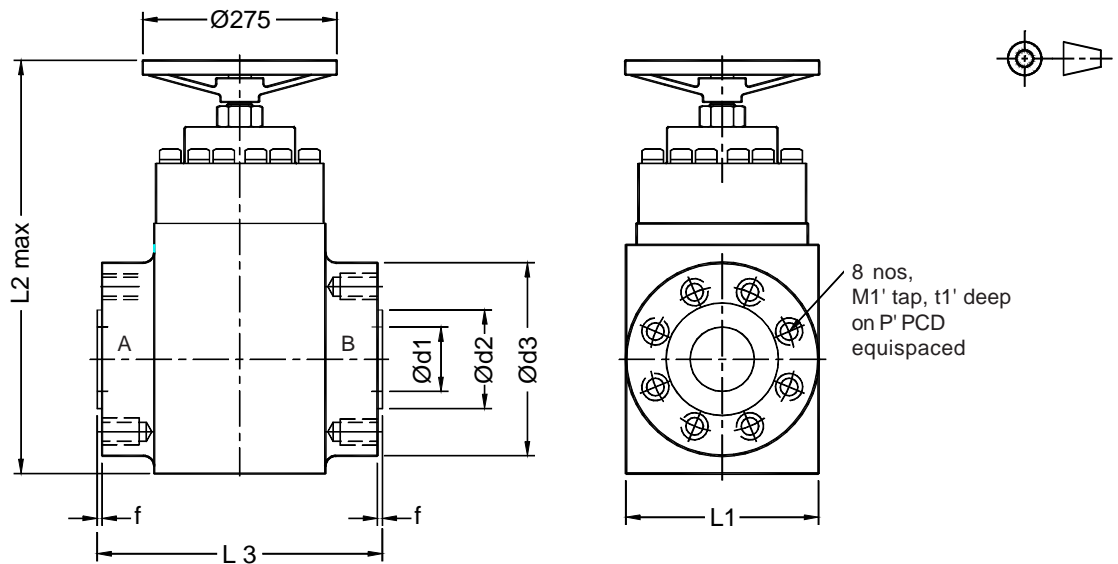


Table 1

Model Code	Flange Standard	Flange Size	Pr (bar)	Ød1	Ød2	Ød3	M1	t1	ØP	f	L1	L2	L3
SLBF-A63-2.0	ANSI B16.5	DN65	250	72	160	245	M27x3.0	41	190.5	7	245	547	350
SLBF-D63-2.0	DIN 2628	NB 65		60	122		M24x3.0	36	180.0	3			
SLBF-A80-2.0	ANSI B16.5	DN 80		270	90	180	M30x3.5	45	203.0	7	270	638	400
SLBF-D80-2.0	DIN 2628	NB 80			78	138	M27x3.0	41	200.0	3			
SLBF-A100-2.0	ANSI B16.5	DN 100		310	110	195	M33x3.5	50	241.5	7	310	785	520
SLBF-D100-2.0	DIN 2628	NB 100			98	162	M30x3.5	45	235.0	3			

Shut off Valve, In-line flange mounting, Model : SLBF-A/D- \ast -2.0



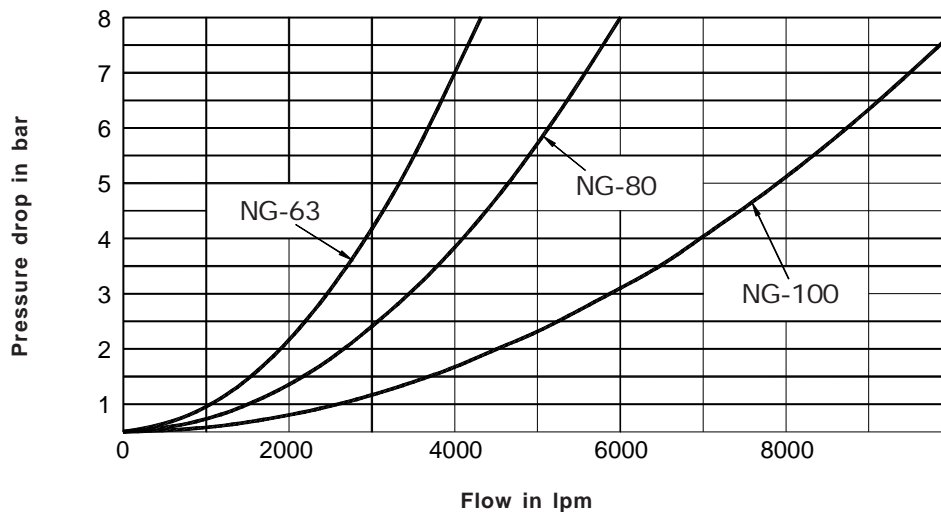
the right connection
the right environment

Ref. No : H04181, Release March 2018 (Dimensions in mm)

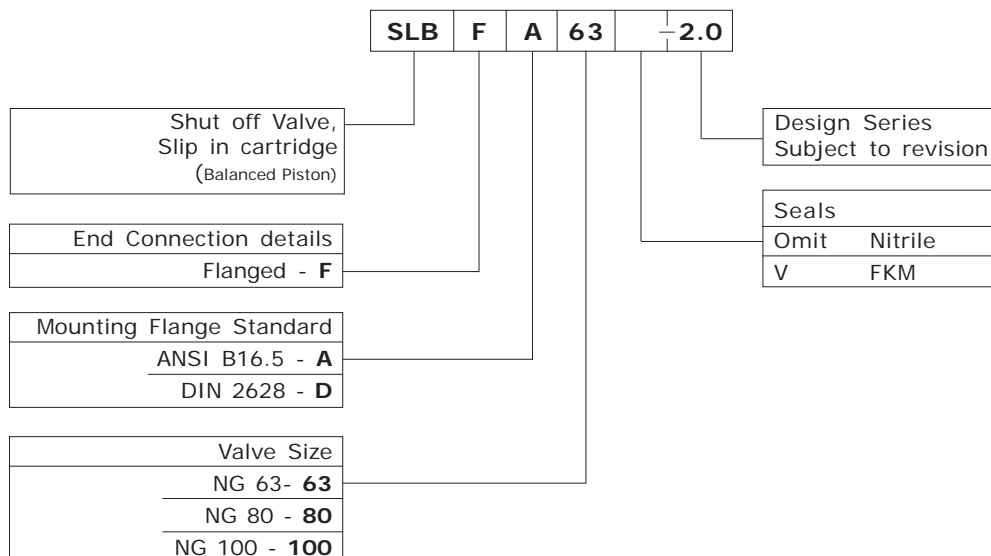
Technical Specifications

- Construction Seat type valve with seals on poppet. Partially balanced.
- Mounting type In line flange mounting as per ANSI B16.5 and DIN 2628
- Mounting position Optional
- Flow direction From port `A' to port `B'.
- Operating pressure 250 bar
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Expected Performance Curves



Ordering Code



Shut off Valve, Sub-plate mounting, Model : MHSL



the right connection
the right environment

Ref. No : H04087, Release March 2018 (Dimensions in mm)

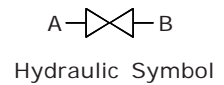
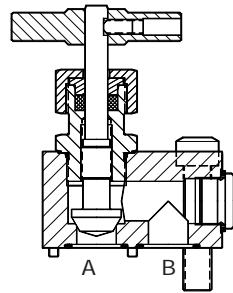
Description

Shut off valves model MHSL are rising spindle, seat type valves with metal seat for leak-free closure between its port 'A' & 'B'.

The mounting interface conforms to Factory standard. Bi-directional flow is possible in this model.

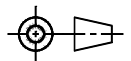
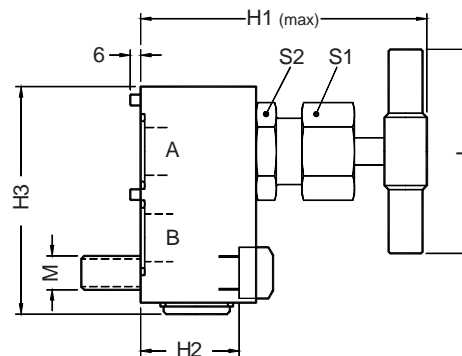
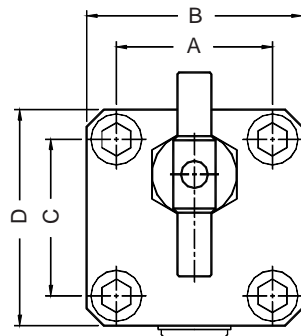


Section



Unit Dimensions

Valve



Model Code	A	B	C	D	H1	H2	H3	L	S1	S2	Valve fixing screws	
											M	Tightening Torque
MHSL11-2.0	47.8	65	60.5	78	106	35	79	64	27	27	M10x50L	16Nm
MHSL19-2.0	65.0	97	81.0	113	135	26	118	84	32	32	M16x50L	117Nm
MHSL28-2.0	92.0	127	92.0	127	186	60	131	120	50	50	M20x90L	238Nm

Technical Specifications

- Construction Seat type.
- Mounting type Sub-plate mounting type.
- Interface Factory standard.
- Flow direction From port 'A' to port 'B'.
- Operating pressure 350 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Mass **MHSL11-2.0** - 1.5 kg.
MHSL19-2.0 - 3.6 kg.
MHSL28-2.0 - 8.5 kg.
- Maximum flow handling capacity Refer graph.

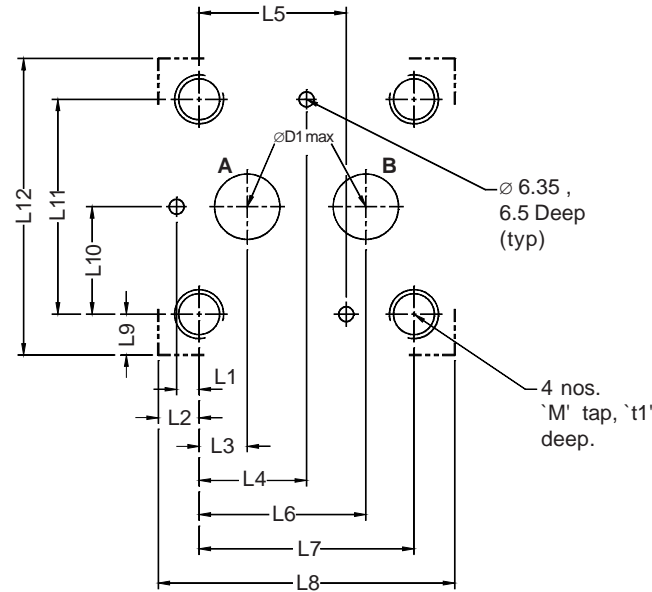
Shut off Valve, Sub-plate mounting, Model : MHSL



the right connection
the right environment

Ref. No : H04087, Release March 2018 (Dimensions in mm)

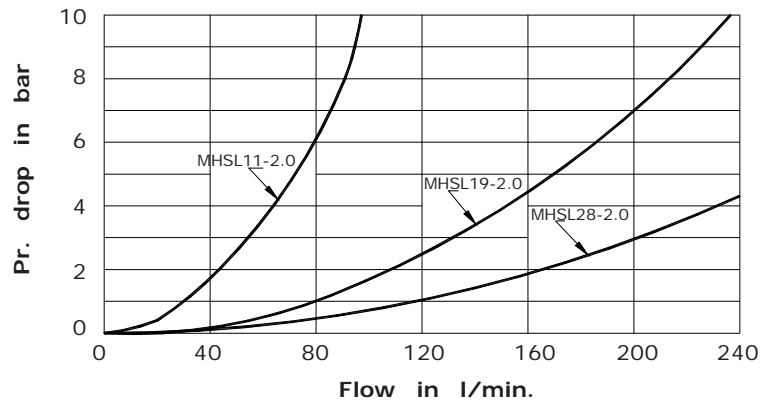
Interface - Factory standard



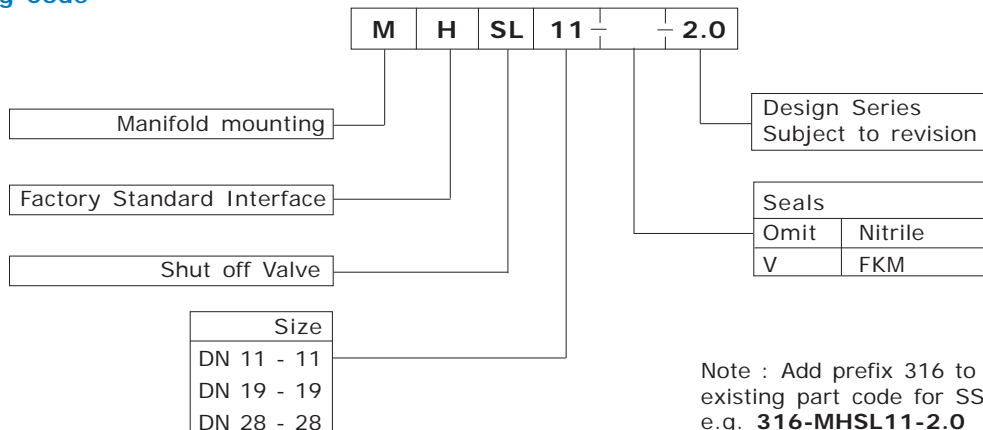
Model Code	ØD1	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	M	t1
MHSL11-2.0	11.0	--	8.6	12.7	30.3	47.8	47.8	60.5	78	8.6	23.9	47.8	65	M10	15
MHSL19-2.0	19.0	8.70	16.0	22.2	40.5	--	68.3	81.0	113	16.0	32.5	65.0	97	M16	24
MHSL28-2.0	28.0	9.65	17.5	20.6	46.0	--	71.4	92.0	127	17.5	46.0	92.0	127	M20	30

Performance Curves

Oil used : ISO VG 68,
Viscosity : 68 cSt @ 40 °C
Test conducted at : 50 °C.



Ordering Code



Shut off Valve - Sub-plate mounting, Model : MSSL06-2.0



the right connection
the right environment

Ref. No : H02651, Release March 2018 (Dimensions in mm)

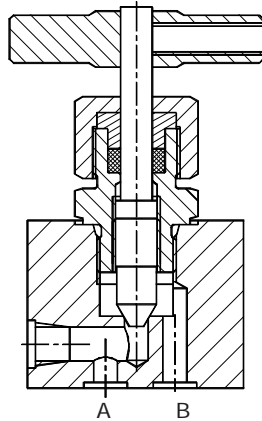
Description

Shut off valves model MSSL06-2.0 are rising spindle, seat type valves with metal to metal seat for leak-free closure between it's port 'A' and port 'B'.

The mounting interface conforms to ISO 5781 - AB - 03 - 4 - B.



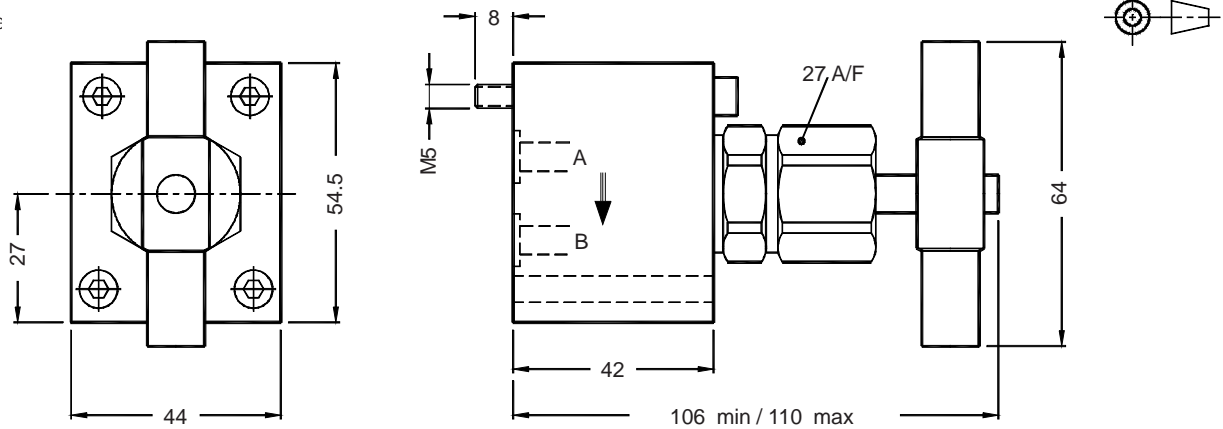
Section



Hydraulic Symbol

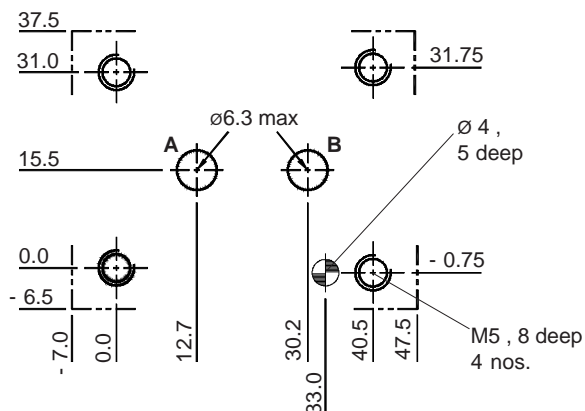
Unit Dimensions

Valve



Note : Valve fixing screws : M5 x 50 L, (10.9) 4 nos.
Tightening torque : 9 Nm

Interface - as per ISO 5781 - AB - 03 - 4 - B standard



Mounting Surface roughness : 0.8 μm

Mounting Surface flatness : 0.01 $\mu\text{m}/100\text{ mm}$

Shut off Valve - Sub-plate mounting, Model : MSSL06-2.0



the right connection
the right environment

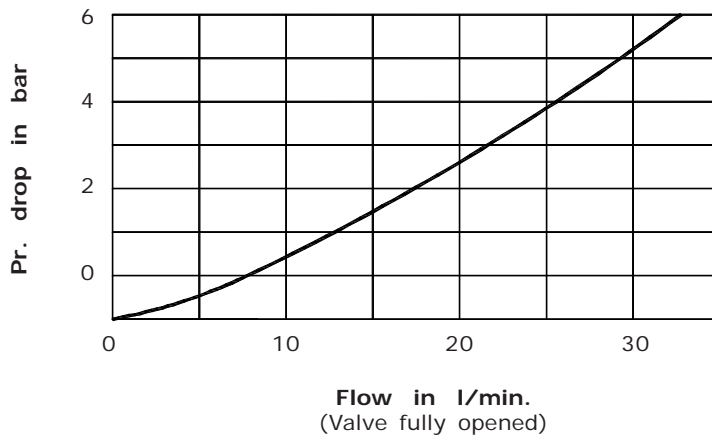
Ref. No : H02651, Release March 2018 (Dimensions in mm)

Technical Specifications

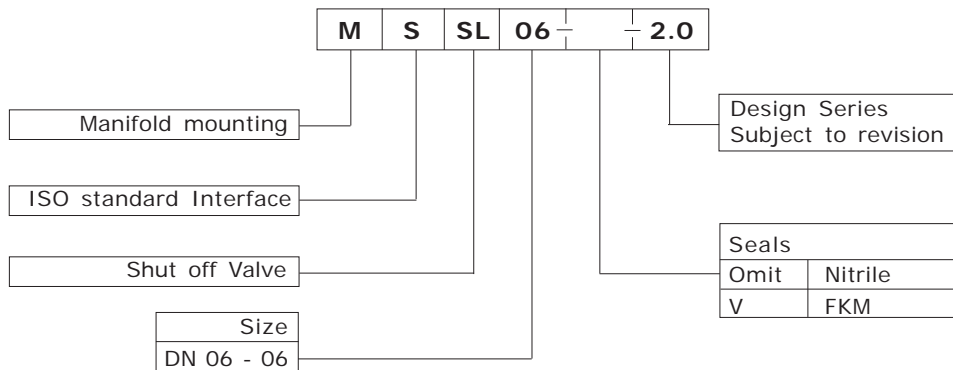
- Construction Seat type.
- Mounting type Sub-plate mounting type.
- Interface ISO 5781 - AB - 03 - 4 - B.
- Mounting position Optional
- Flow direction From port `A' to port `B'.
- Operating pressure 315 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +80 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Mass 0.9 kg.
- Maximum flow handling capacity Refer graph.

Performance Curves

- Oil used : ISO VG 68,
- Viscosity : 68 cSt @ 40 °C
- Test conducted at : 50 °C.



Ordering Code



Shut off Valve (Screw-in Cartridge), Sub-plate mounting, Model : MHSLB25-2.0



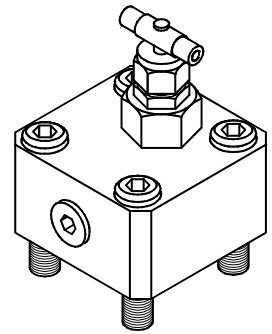
the right connection
the right environment

Ref. No : H03656, Release March 2018 (Dimensions in mm)

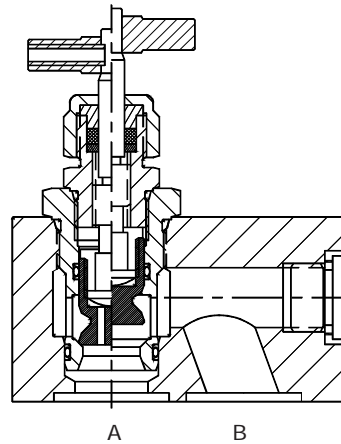
Description

Shut off valves model MHSLB25-2.0 are seat type valves with replaceable cartridge. Balanced sealed poppet construction to reduce operating forces.

Sub - plate mounting construction (Factory standard Interface.)



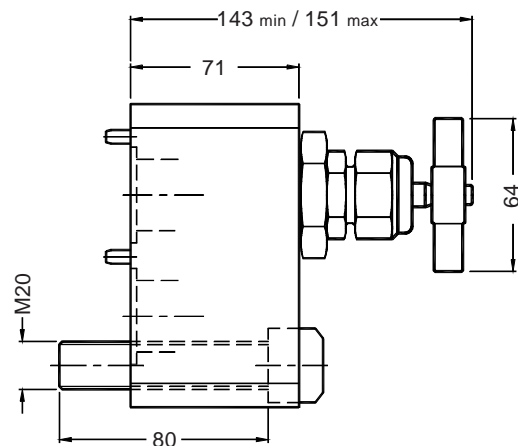
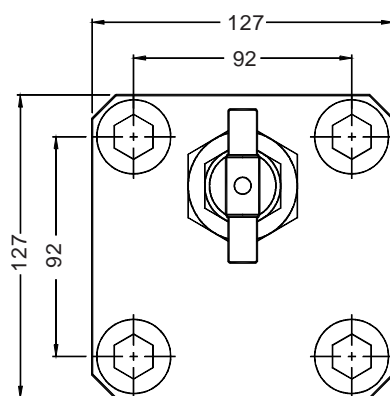
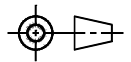
Section



A B

Hydraulic Symbol

Unit Dimensions



Note : Valve fixing screws : M20 x 2.5 x 80 L, (10.9) 4 nos.
Tightening torque : 312 Nm

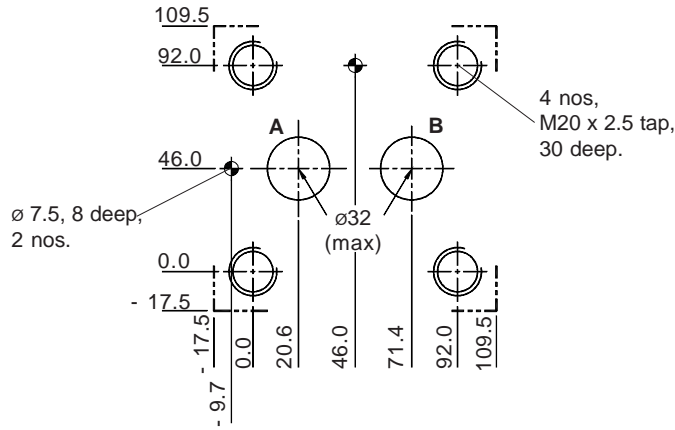
Shut off Valve (Screw-in Cartridge), Sub-plate mounting, Model : MHSLB25-2.0



the right connection
the right environment

Ref. No : H03656, Release March 2018 (Dimensions in mm)

Interface - Factory standard

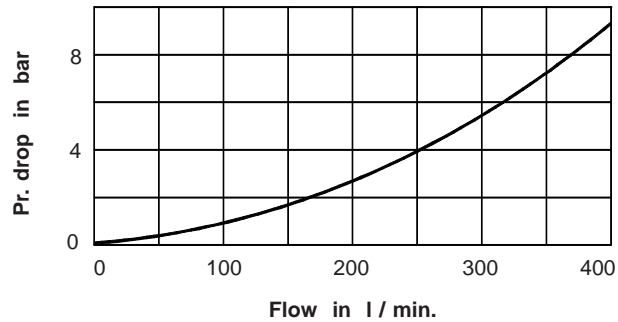


Mounting surface roughness - 0.8 μm
Mounting surface flatness - 0.01 μm / 100mm

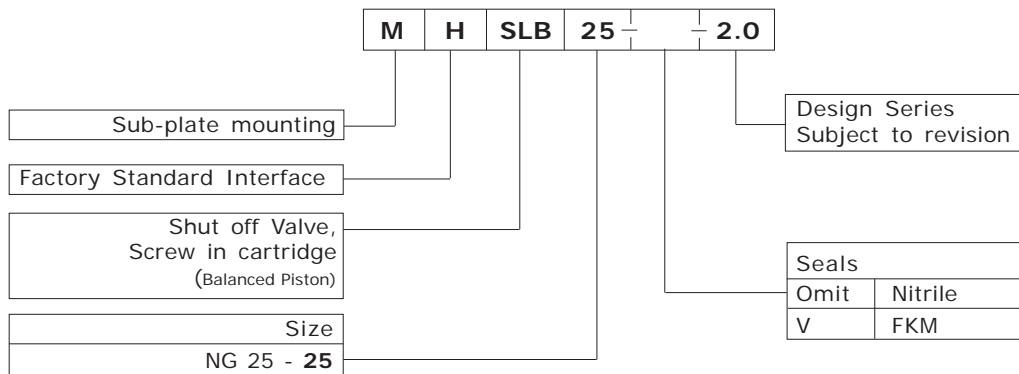
Technical Specifications

- Construction Seat type screw in cartridge
- Mounting type Sub-plate mounting type.
- Interface Factory standard.
- Mounting position Optional
- Flow direction From port `A` to port `B`.
- Operating pressure 350 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +80 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Oil used : ISO VG 68,
Viscosity : 68 cSt @ 40 °C
Test conducted at : 50 °C.



Ordering Code



Shut off Valve, Sub-plate mounting, Model : MHSLB



the right connection
the right environment

Ref. No : H04058, Release March 2018 (Dimensions in mm)

Description

Seat type valve with replaceable cartridge.
Balanced poppet construction to reduce operating forces.

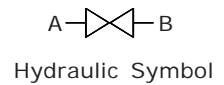
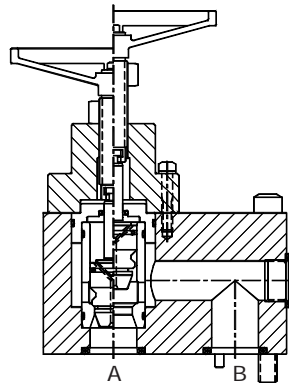
Can also be used for throttling the flow.

Provision for locking the spindle in any set position
(for throttling purpose).

Sub - plate mounting construction (Factory standard).

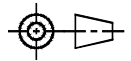


Section

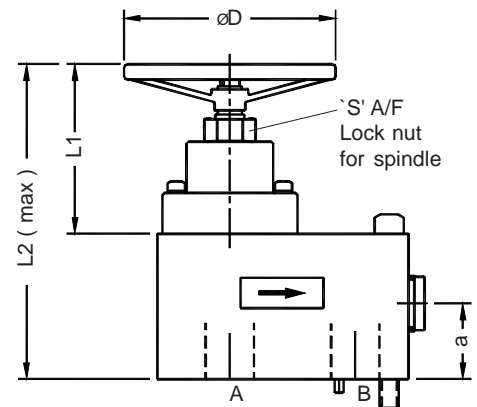


Unit Dimensions

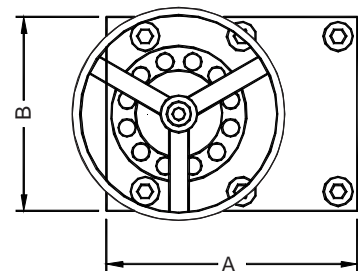
Valve



Model Code	Size	A	B	L1	L2	ØD	a	S
MHSLB40-2.0	40	173	180	183	344	190	62	46
MHSLB50-2.0	50	260	200	188	378	190	78	46
MHSLB63-2.0	63	275	240	219	449	275	160	55
MHSLB80-2.0	80	355	305	228	523	275	164	55



Model Code	Valve Fixing Screws (Grade)	Tightening Torque
MHSLB40-2.0	M16x2.0x150 Long, 6 nos (10.9)	240 Nm
MHSLB50-2.0	M20x2.5x180 Long, 6 nos (12.9)	488 Nm
MHSLB63-2.0	M20x2.5x190 Long, 8 nos (12.9)	650 Nm
MHSLB80-2.0	M24x3.0x200 Long, 8 nos (12.9)	1100 Nm



Shut off Valve, Sub-plate mounting, Model : MHSLB

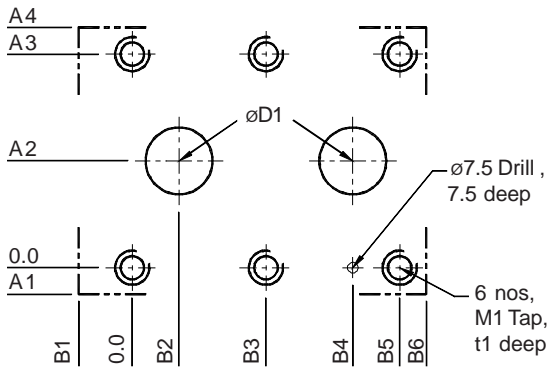


the right connection
the right environment

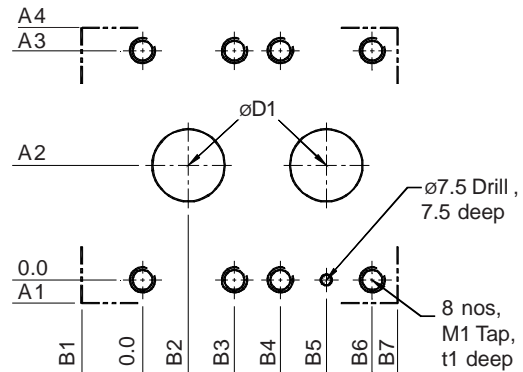
Ref. No : H04058, Release March 2018 (Dimensions in mm)

Interface - Factory standard

NG 40 and NG 50



NG 63 and NG 80

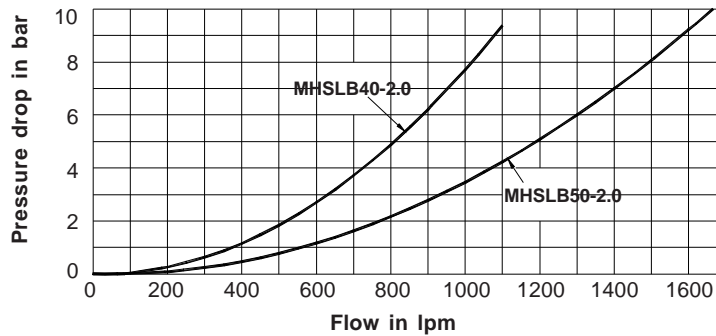


Model Code	$\varnothing D1$	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6	B7	M1	t1
MHSLB40-2.0	40	15.0	75	150	165	43	20	55	90	110	130	--	M16x2.0	24
MHSLB50-2.0	50	20.0	80	160	180	40	35	100	165	200	220	--	M20x2.5	30
MHSLB63-2.0	63	20.0	100	200	220	53	40	80	120	160	200	222	M20x2.5	30
MHSLB80-2.0	76	22.5	130	260	282.5	67	55	110	155	210	265	288	M24x3.0	37

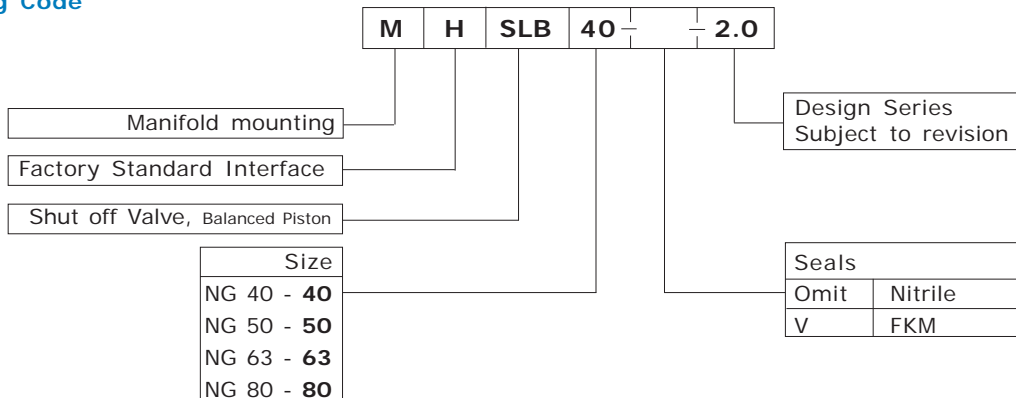
Technical Specifications

- Construction Seat type valve with seals on poppet. Partially balanced.
- Mounting type Sub-plate mounting construction conforming to factory standard.
- Mounting position Optional
- Flow direction From port `A' to port `B'.
- Operating pressure 400 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Expected performance
With oil viscosity of 68 cSt



Ordering Code



Needle Valve - Cartridge, Model : KHNL



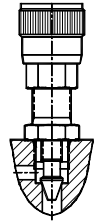
the right connection
the right environment

Ref. No : H03082, Release March 2018 (Dimensions in mm)

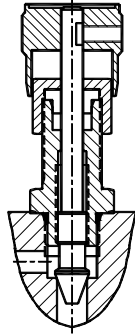
Description

Cartridge type Needle valves model KHNL are rising spindle, seat type valves with metal seat for leak-free closure between it's port `A' & `B'.

The mounting cavity confirms to Factory standard.



Section

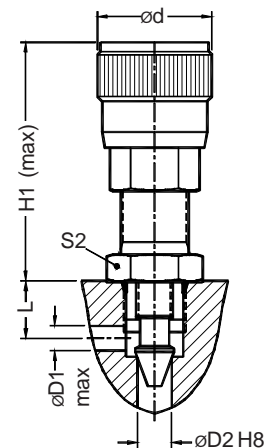


Hydraulic Symbol

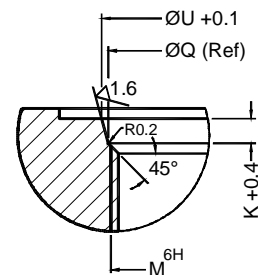
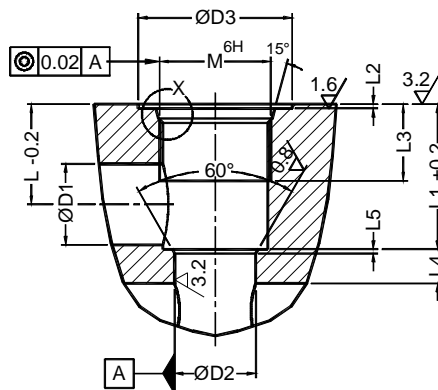
Unit Dimensions

Valve

Model Code	Size	L	H1	ØD1	ØD2	Ød	S2
KHNL08-2.0	8	18	85.5	11	8	37	27
KHNL11-2.0	11	18	85.5	11	11	37	27
KHNL14-2.0	14	23	87.0	19	14	48	32
KHNL19-2.0	19	23	87.0	19	19	48	32
KHNL28-2.0	28	33	108.5	28	28	68	50



Cavity machining details



Model Code	ØD1	ØD2	ØD3	L	L1	ØU	ØQ	L2	L3	L4	L5	K	M
KHNL08-2.0	10	8	31.0	18	24	21.8	20.5	0.2	16	3	0.5	2.4	M20x1.5
KHNL11-2.0	10	11	31.0	18	24	21.8	20.5	0.2	16	3	0.5	2.4	M20x1.5
KHNL14-2.0	19	14	36.0	23	33	27.8	26.5	0.2	18	5	1.0	2.4	M26x1.5
KHNL19-2.0	19	19	36.0	23	33	27.8	26.5	0.2	18	5	1.0	2.4	M26x1.5
KHNL28-2.0	28	28	54.5	33	51	44.4	42.7	1.0	24	7	1.5	3.1	M42x2.0

Needle Valve - Cartridge, Model : KHNL



the right connection
the right environment

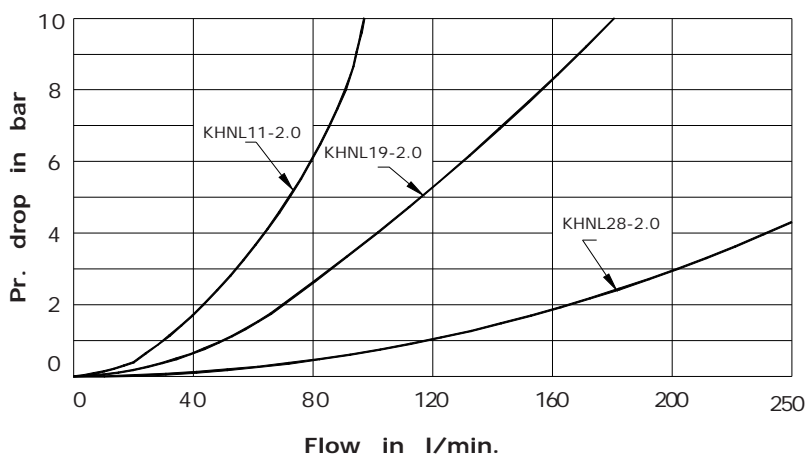
Ref. No : H03082, Release March 2018 (Dimensions in mm)

Technical Specifications

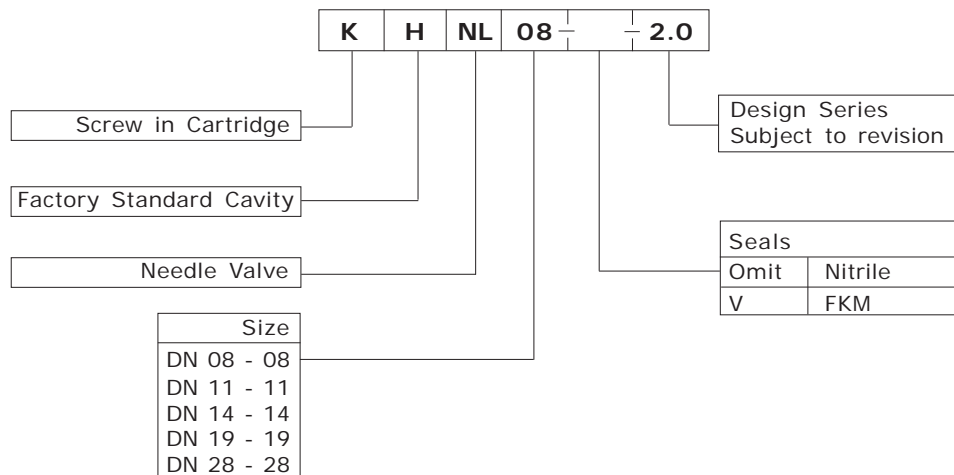
- Construction Seat type valve.
- Mounting Insert in cavity conforming to factory standard.
- Mounting position Optional.
- Flow direction From port `A' to port `B'.
- Operating pressure 350 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Expected performance Curves

- Oil used : ISO VG 68,
- Viscosity : 68 cSt @ 40 °C
- Test conducted at : 50 °C.



Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 valves. e.g. **316-KHNL08-2.0**

Needle Valve - Inline and Right angle



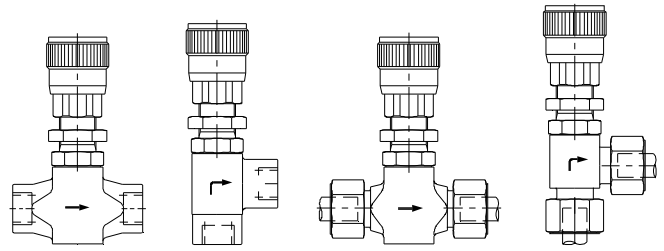
the right connection
the right environment

Ref. No : H02310, Release Mar 2018 (Dimensions in mm)

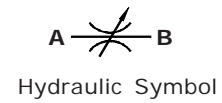
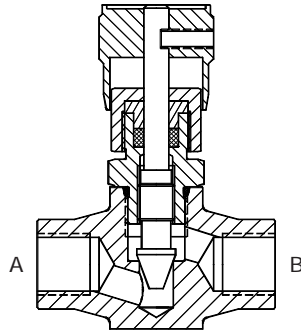
Description

Needle valve model NL, NLW are two way, seat type valves.

These are used for isolating the oil flow in the direction as indicated by an arrow mark shown on the valve body.



Section



Unit Dimensions

In - line and Right angle bodies (With BSP ports)

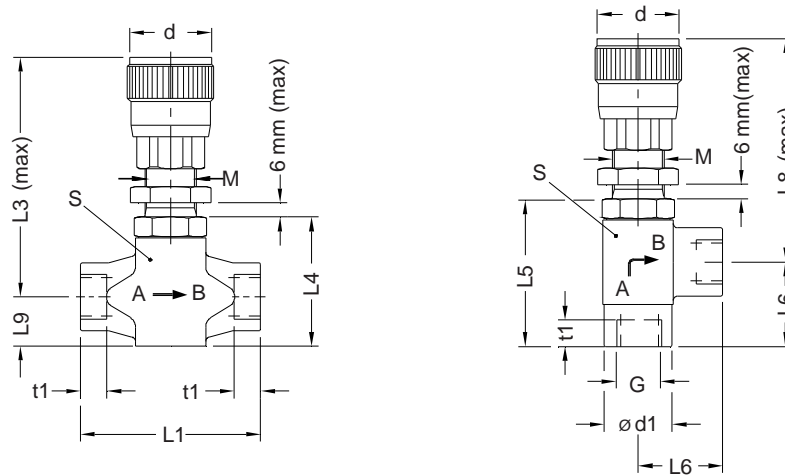


Table 1

Model Code In-line	Model Code Right angle	G	L1	L3	L4	L5	L6	L8	L9	d	t1	S	M
NLG02-2.0	NLWG02-2.0	G 1/4	70	110.5	54.5	56.5	30	103.5	21.0	37	14	30	M22x1.5
NLG03-2.0	NLWG03-2.0	G 3/8	70	110.5	54.5	56.5	30	103.5	21.0	37	14	30	M22x1.5
NLG04-2.0	NLWG04-2.0	G 1/2	77	110.5	54.5	62.5	36	103.5	21.0	37	17	30	M22x1.5
NLG06-2.0	NLWG06-2.0	G 3/4	93	122.0	71.0	77.0	45	110.0	27.0	48	17	36	M26x1.5
NLG08-2.0	NLWG08-2.0	G1	93	122.0	72.0	77.0	45	110.0	27.0	48	18	46	M26x1.5
NLG10-2.0	NLWG10-2.0	G1.1/4	162	162.0	105.0	113.0	65	143.0	51.5	68	22	60	M42x2.0
NLG12-2.0	NLWG12-2.0	G1.1/2	162	162.0	105.0	113.0	65	143.0	51.5	68	24	60	M42x2.0

Needle Valve - Inline and Right angle



the right connection
the right environment

Ref. No : H02310, Release Mar 2018 (Dimensions in mm)

Unit Dimensions

In - line and Right angle bodies (With Tube ends)

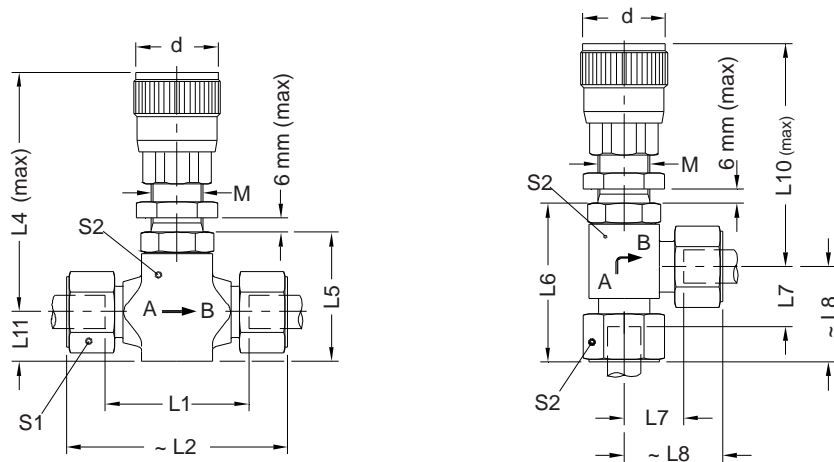


Table 2

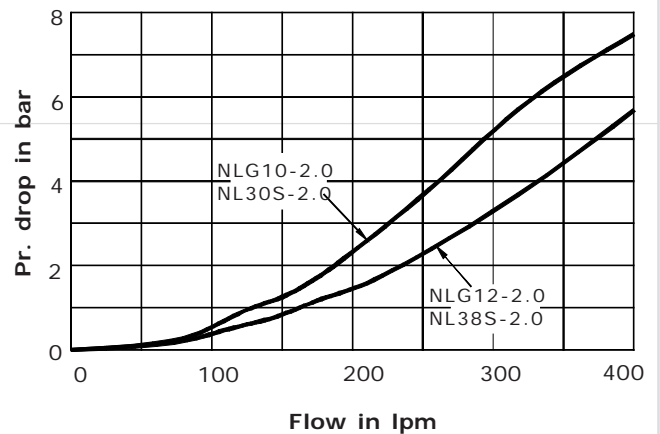
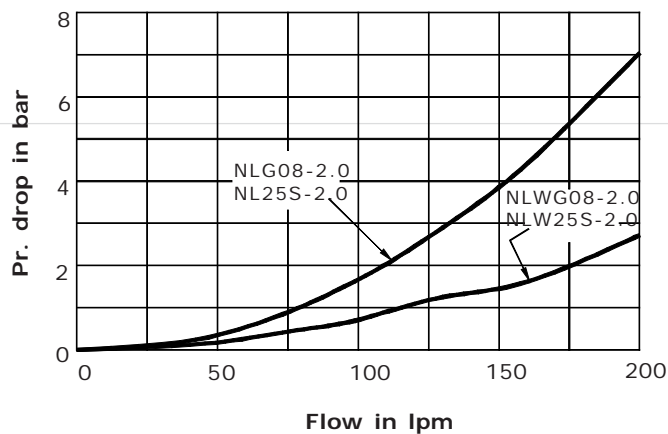
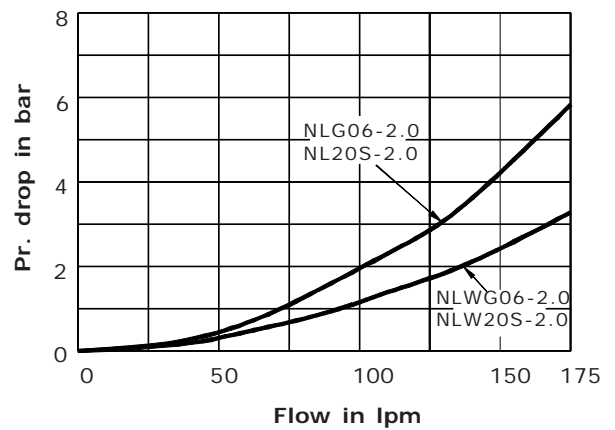
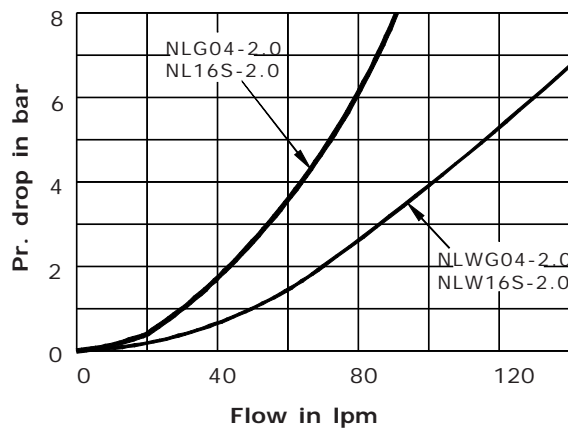
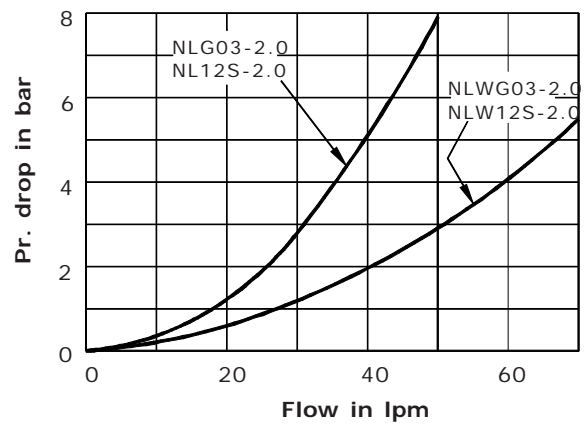
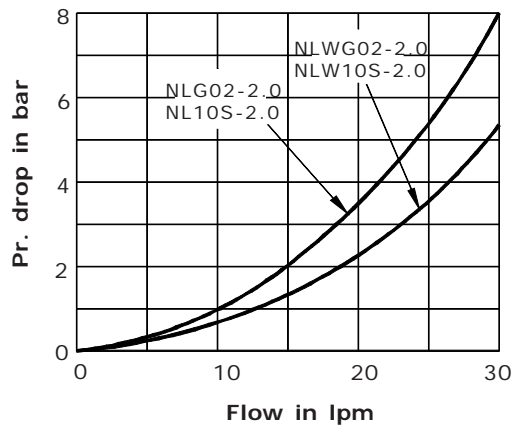
Model Code In-line	Model Code Right angle	Tube OD	L1	L2	L4	L5	L6	L7	L8	L10	L11	d	S1	S2	M
NL10S-2.0	NLW10S-2.0	10	55	88.0	110.5	54.5	65.5	22.0	39.0	103.5	21	37	22	30	M22x1.5
NL12S-2.0	NLW12S-2.0	12	55	88.0	110.5	54.5	65.5	22.0	39.0	103.5	21	37	24	30	M22x1.5
NL16S-2.0	NLW16S-2.0	16	60	97.0	110.5	54.5	67.5	22.0	41.0	103.5	21	37	30	30	M22x1.5
NL20S-2.0	NLW20S-2.0	20	72	115.0	122.0	71.5	77.0	28.0	68.0	110.0	28	48	36	41	M26x1.5
NL25S-2.0	NLW25S-2.0	25	69	117.0	122.0	71.5	82.5	28.0	73.5	110.0	28	48	46	41	M26x1.5
NL30S-2.0	NLW30S-2.0	30	135	188.0	162.0	118.0	111.0	40.0	63.0	143.0	52	68	50	60	M42x2.0
NL38S-2.0	NLW38S-2.0	38	130	192.0	162.0	118.0	115.0	40.0	67.0	143.0	52	68	60	60	M42x2.0

Technical Specifications

- Construction Seat type valve.
- Mounting style In-line or Right angle body, line mounted.
- Mounting position Optional.
- Flow direction As indicated by an arrow on valve body.
- Operating pressure 350 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +80 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Performance Curves

Oil used : ISO VG 68,
 Viscosity : 68 cSt @ 40 °C
 Test conducted at : 50 °C.



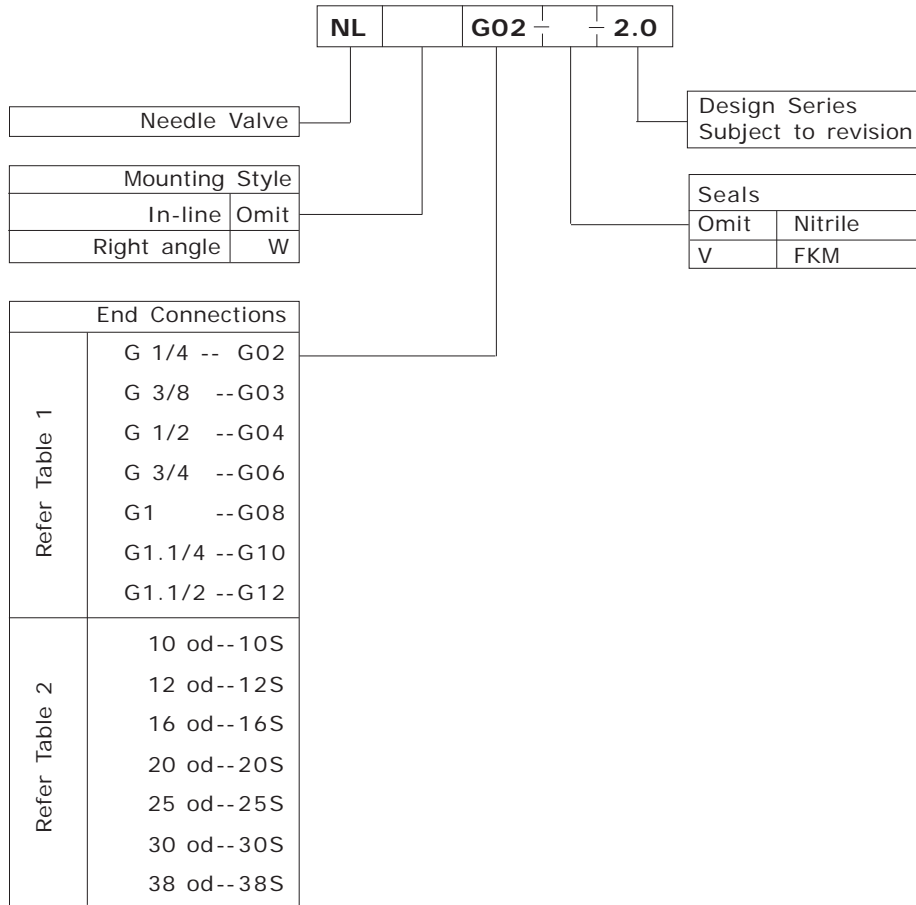
Needle Valve - Inline and Right angle



the right connection
the right environment

Ref. No : H02310, Release Mar 2018 (Dimensions in mm)

Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 valves. e.g. **316-NLG04-2.0**

Needle Valve - Sub-plate mounting, Model : MHNL



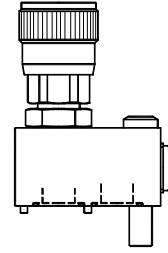
the right connection
the right environment

Ref. No : H02758, Release March 2018 (Dimensions in mm)

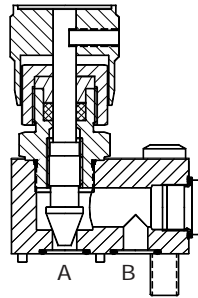
Description

Needle valves model MHNL are rising spindle, seat type valves with taper needle construction.

The mounting interface conforms to Factory standard.



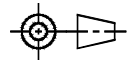
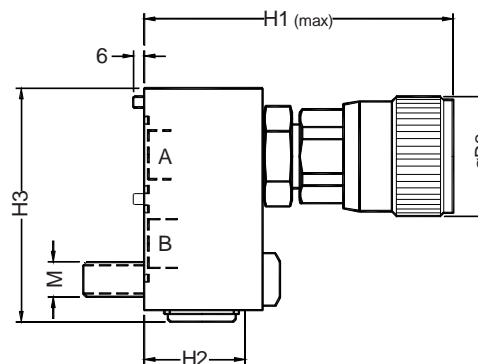
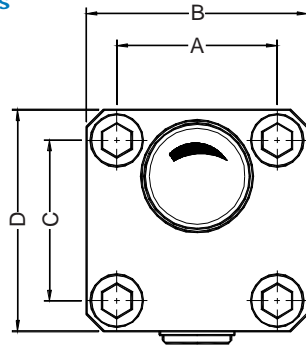
Section



Hydraulic Symbol

Unit Dimensions

Valve



Model Code	A	B	C	D	H1	H2	H3	ØD2	Valve fixing screws (10.9)	
									M	Tightening Torque
MHNL11-2.0	47.8	65	60.5	78	116.0	33.0	79	37	M10x50L	16Nm
MHNL19-2.0	65.0	97	81.0	113	140.0	22.2	118	48	M16x50L	117Nm
MHNL28-2.0	92.0	127	92.0	127	156.5	58.0	131	68	M20x90L	238Nm

Unit Dimensions

- Construction Seat type.
- Mounting type Sub-plate mounting type.
- Interface Factory standard.
- Flow direction From port `A' to port `B'.
- Operating pressure 350 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Mass **MHNL11-2.0** - 1.5 kg.
MHNL19-2.0 - 3.6 kg.
MHNL28-2.0 - 8.5 kg.
- Maximum flow handling capacity Refer graph.

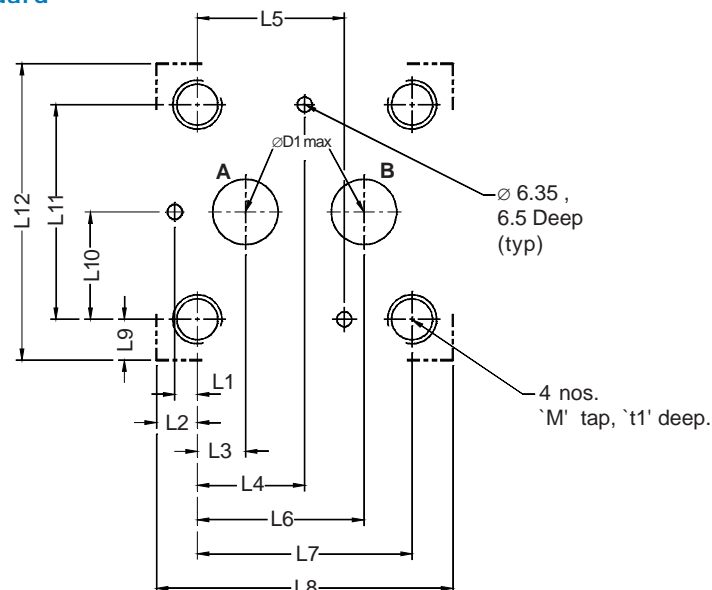
Needle Valve - Sub-plate mounting, Model : MHNL



the right connection
the right environment

Ref. No : H02758, Release March 2018 (Dimensions in mm)

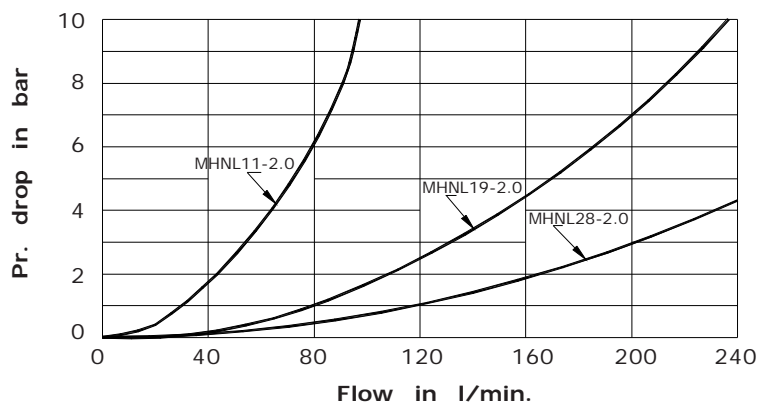
Interface - Factory standard



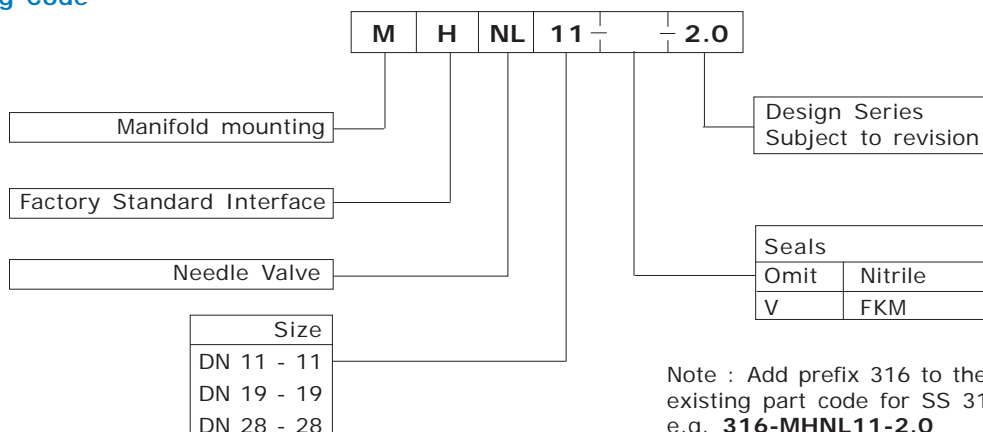
Model Code	$\varnothing D1$	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	M	t1
MHNL11-2.0	11.0	--	8.6	12.7	30.3	47.8	47.8	60.5	78	8.6	23.9	47.8	65	M10	15
MHNL19-2.0	19.0	8.70	16.0	22.2	40.5	--	68.3	81.0	113	16.0	32.5	65.0	97	M16	24
MHNL28-2.0	28.0	9.65	17.5	20.6	46.0	--	71.4	92.0	127	17.5	46.0	92.0	127	M20	30

Performance Curves

Oil used : ISO VG 68,
Viscosity : 68 cSt @ 40 °C
Test conducted at : 50 °C.



Ordering Code



Check Valve - Screw in Cartridge (ISO 7789-1998)



the right connection
the right environment

Ref. No : H06925, Release March 2018 (Dimensions in mm)

Description

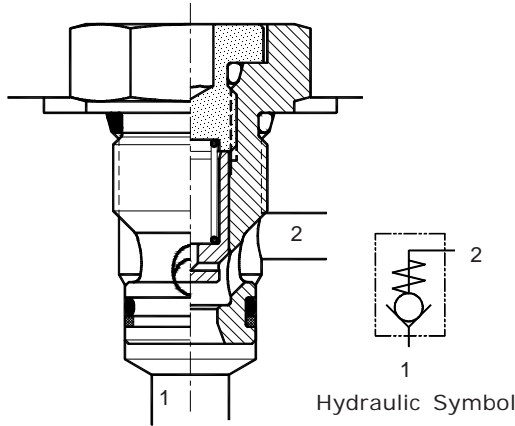
KSC check valves are two port screw-in cartridge valves that are designed to fit in a cavity conforming to ISO 7789 : 1998 (E).

These are seat type valves, available in four different sizes and with five different cracking pressures in each size.

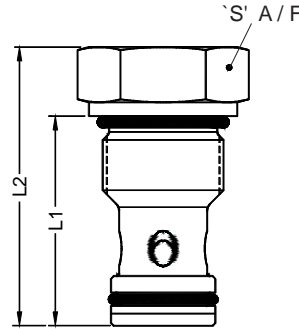
Check valves allow free flow in one direction while providing leak-free closure in reverse direction



Section



Unit Dimensions

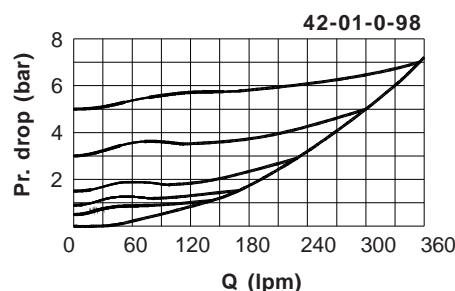
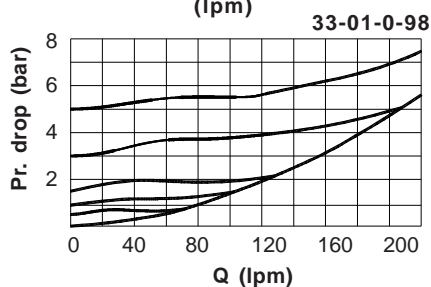
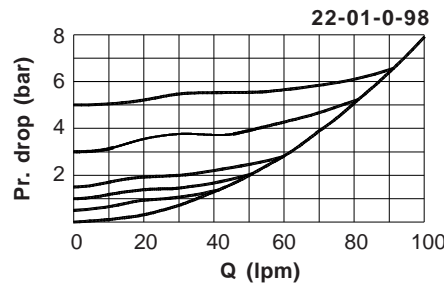
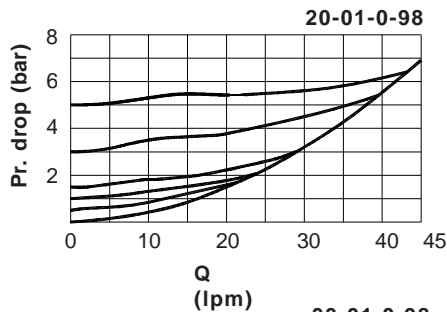


Size	Threads	Torque
20-01-0-98	M20	140 Nm
22-01-0-98	M22	150 Nm
33-01-0-98	M33	350 Nm
42-01-0-98	M42	500 Nm

Size	L1	L2	S
20-01-0-98	30.0	41.5	27
22-01-0-98	38.0	52.5	27
33-01-0-98	49.5	81.5	41
42-01-0-98	55.0	91.0	50

Technical Specifications

- Construction Poppet seat type.
- Mounting style Screw-in cavity as per ISO : 7789 : 1998 (E)
- Mounting position Optional
- Flow direction Free flow from 1 to 2
- Operating pressure 350 bar
- Hydraulic medium Mineral Oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +80 °C
- Fluid Cleanliness requirement As per ISO 19/16 or better. (NAS 10)
- Nom. flow handling capacity Refer graphs



Performance curves
Testing as per
ISO 6403 : 1998 (E)
Oil used : ISO VG 46,
Viscosity - 46 cSt @ 40 °C
Direction of flow : **1 to 2**

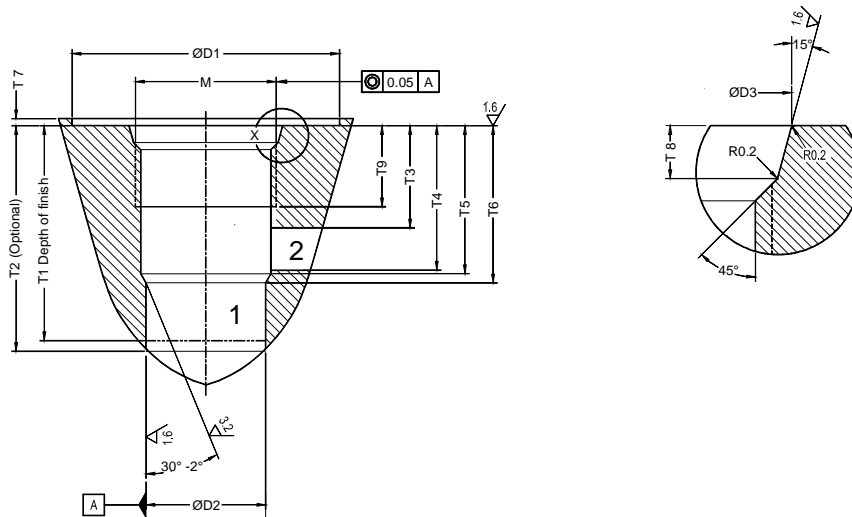
Check Valve - Screw in Cartridge (ISO 7789-1998)



the right connection
the right environment

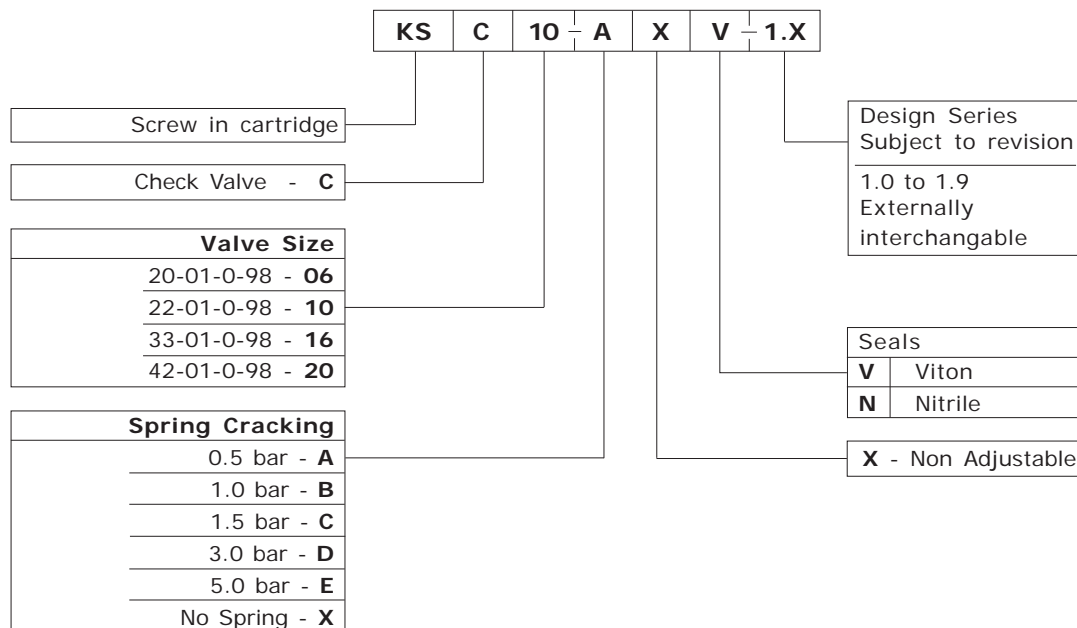
Ref. No : H06925, Release March 2018 (Dimensions in mm)

Cavity Details



Codification	20-01-0-98	22-01-0-98	33-01-0-98	42-01-0-98
M	M20x1.5	M22x1.5	M33x2.0	M42x2.0
D1 min	38.0	42.0	58.0	74.0
D2 H8	17.0	19.0	29.0	38.0
D3 +0.1	21.8	23.8	35.4	44.4
T1 min	30.5	38.5	50.0	56.0
T2 +1	32.0	40.0	52.0	58.0
T3 min	14.5	17.0	22.0	23.0
T4 max	20.5	27.5	38.5	43.5
T5 +0.4 (ref)	21.0	28.0	39.0	44.0
T6 +0.4	22.3	29.3	40.7	45.7
T7 max	2.0	2.0	2.5	2.5
T8 +0.4	2.4	2.4	3.1	3.1
T9 min	14.5	15.5	19.0	19.5

Ordering Code



Reverse Check Valve - Screw in Cartridge (ISO 7789-1998)



the right connection
the right environment

Ref. No : H06965, Release March 2018 (Dimensions in mm)

Description

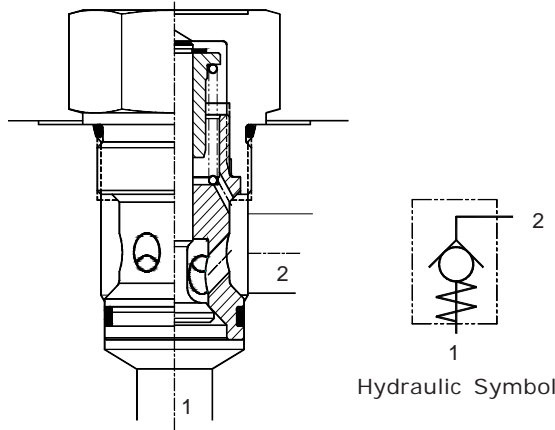
KSD check valves are two port screw-in cartridge valves that are designed to fit in a cavity conforming to ISO 7789 : 1998 (E).

These are seat type valves, available in four different sizes and with five different cracking pressures in each size.

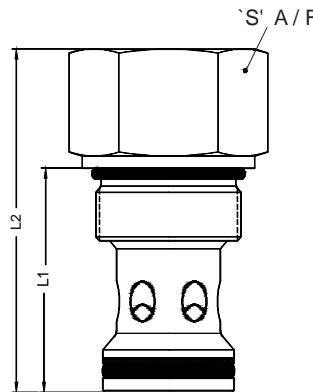
Reverse check valves allow free flow in one direction while providing leak-free closure in reverse direction.



Section



Unit Dimensions

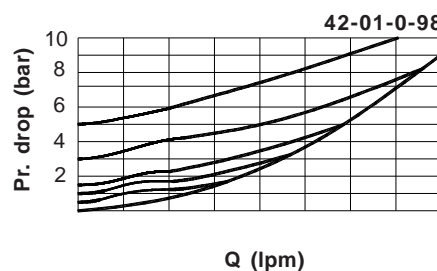
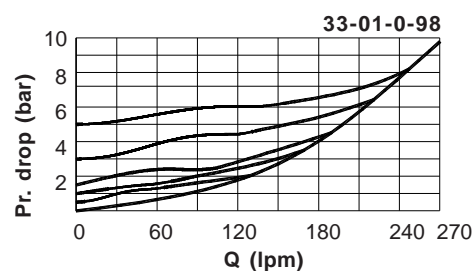
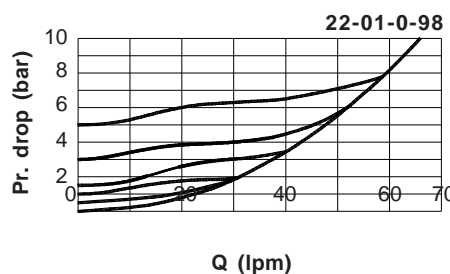
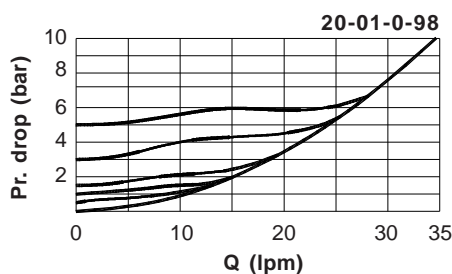


Size	Threads	Torque
20-01-0-98	M20	140 Nm
22-01-0-98	M22	150 Nm
33-01-0-98	M33	350 Nm
42-01-0-98	M42	500 Nm

Size	L1	L2	S
20-01-0-98	30.0	42.0	27
22-01-0-98	38.0	50.5	27
33-01-0-98	49.5	74.5	41
42-01-0-98	55.5	85.0	50

Technical Specifications

- Construction Seat type.
- Mounting style Screw-in cavity as per ISO : 7789 : 1998 (E)
- Mounting position Optional
- Flow direction Free flow from 2 to 1
- Operating pressure 350 bar
- Hydraulic medium Mineral Oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +80 °C
- Fluid Cleanliness requirement As per ISO 19/16 or better. (NAS 10)
- Nom. flow handling capacity Refer graphs



Performance curves
Testing as per
ISO 6403 : 1998 (E)
Oil used : ISO VG 46,
Viscosity - 46 cSt @ 40 °C
Direction of flow : **2 to 1**

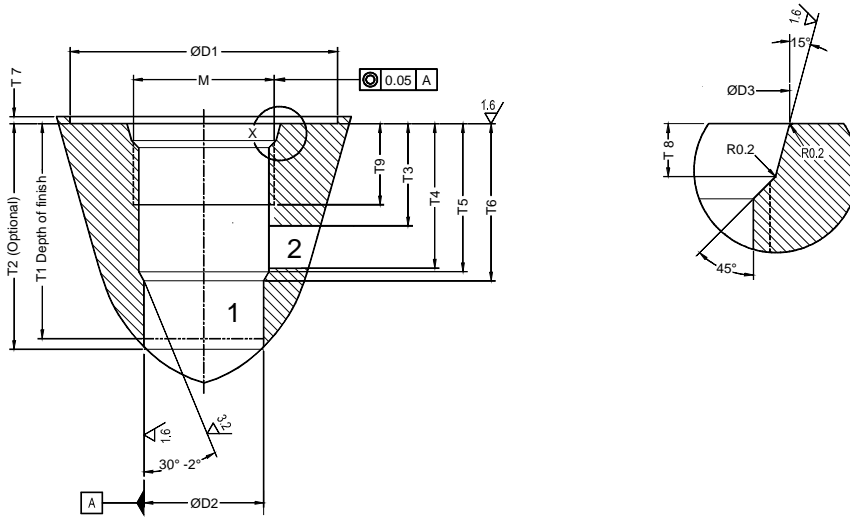
Reverse Check Valve - Screw in Cartridge (ISO 7789-1998)



the right connection
the right environment

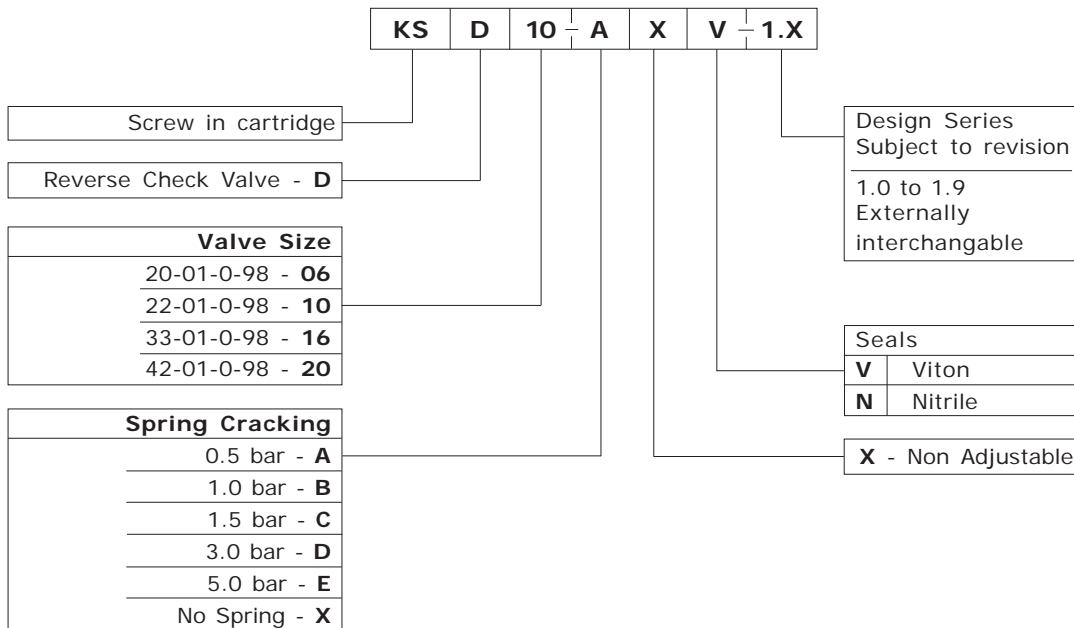
Ref. No : H06965, Release March 2018 (Dimensions in mm)

Cavity Details



Codification	20-01-0-98	22-01-0-98	33-01-0-98	42-01-0-98
M	M20x1.5	M22x1.5	M33x2.0	M42x2.0
D1 min	38.0	42.0	58.0	74.0
D2 H8	17.0	19.0	29.0	38.0
D3 +0.1	21.8	23.8	35.4	44.4
T1 min	30.5	38.5	50.0	56.0
T2 +1	32.0	40.0	52.0	58.0
T3 min	14.5	17.0	22.0	23.0
T4 max	20.5	27.5	38.5	43.5
T5 +0.4 (ref)	21.0	28.0	39.0	44.0
T6 +0.4	22.3	29.3	40.7	45.7
T7 max	2.0	2.0	2.5	2.5
T8 +0.4	2.4	2.4	3.1	3.1
T9 min	14.5	15.5	19.0	19.5

Ordering Code



Check Valve, Model : RHD/RHZ/RHV/RHF



the right connection
the right environment

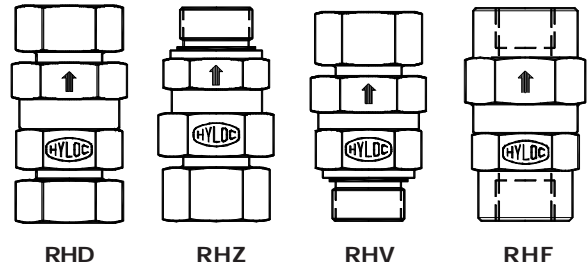
Ref. No : H04068 Release Mar 2018 (Dimensions in mm)

Description

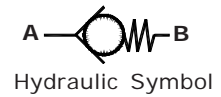
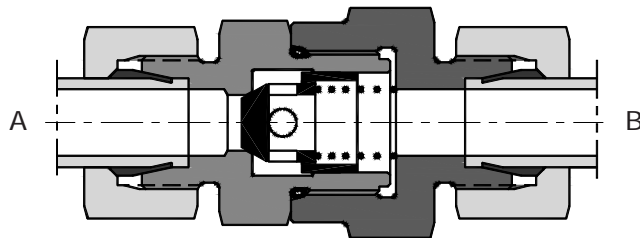
Poppet type valves.
Allows free flow from port A to B and offer leakage free closure in opposite direction.

Four basic models : RHD, RHZ, RHV and RHF
Seven standard sizes : NG 06, NG 08, NG 10, NG 15, NG 20, NG 25, NG 30

Four cracking pressure : 0.5, 1.5, 3 and 5 bar.



Section

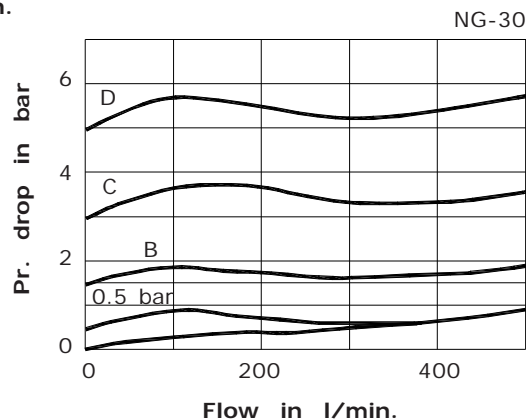
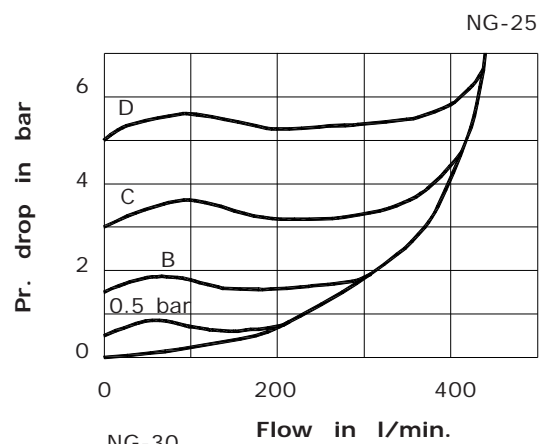
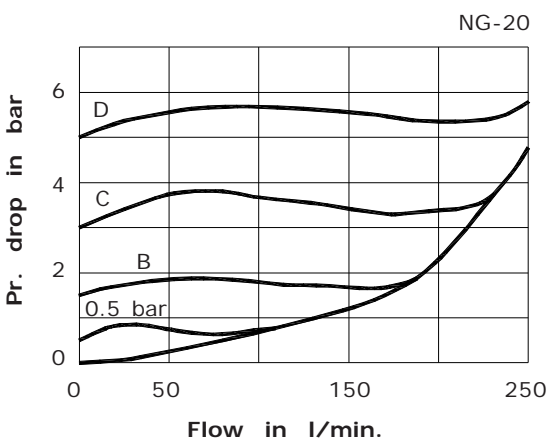
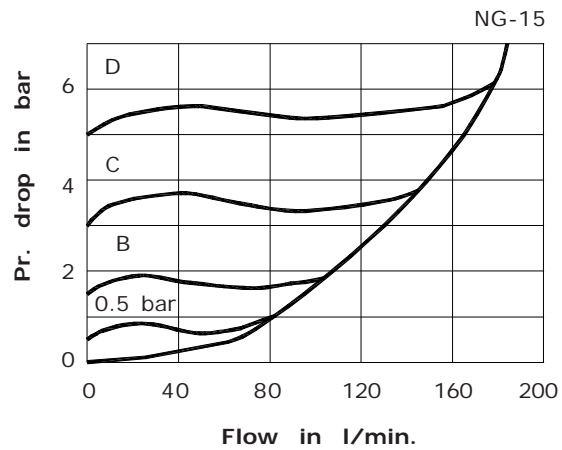
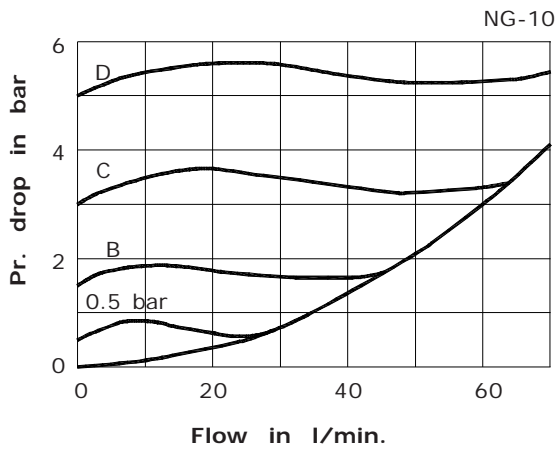
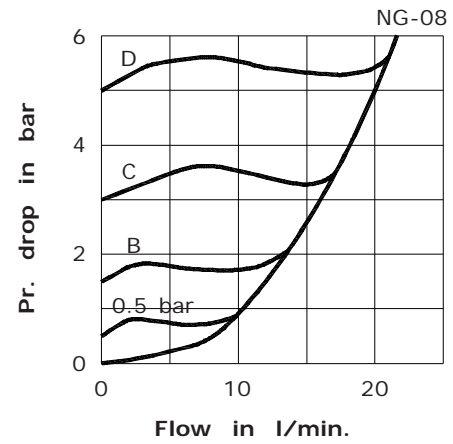
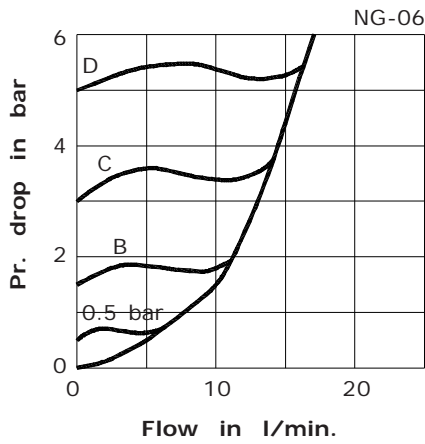


Technical Specifications

- Construction Poppet type
- Mounting style In line
- Mounting position Optional
- Cracking pressure available 0.5, 1.5, 3, and 5 bar
- Code for cracking pressure options Omit, B, C, and D respectively.
- Flow direction From port `A' to port `B'.
- Operating pressure 315 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Maximum flow handling capacity Refer graph.

Expected performance Curves

Oil used : ISO VG 68,
Viscosity : 68 cSt @ 40 °C



Check Valve, Model : RHD/RHZ/RHV/RHF



the right connection
the right environment

Ref. No : H04068 Release Mar 2018 (Dimensions in mm)

RHD

Tube connection as per ISO 8434 at both ends

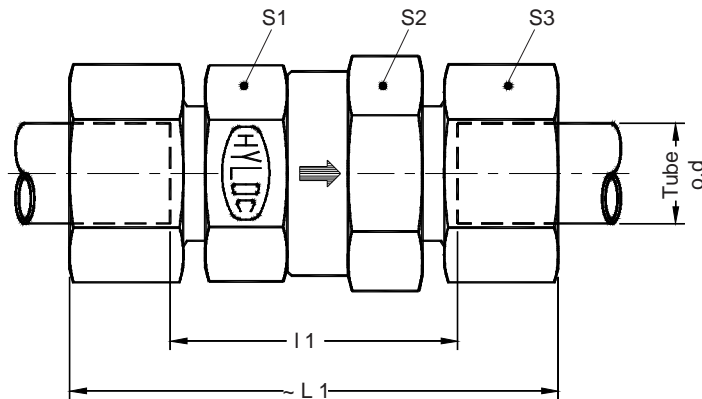


Table 1

Ordering Code	Size	Tube od	S1	S2	S3	L1	I1
RHD06PL-2.0	NG-06	6 - L	22	24	14	65.5	35.5
RHD08PL-2.0		8 - L			17	65.5	35.5
RHD06PS-2.0		6 - S			17	69.5	39.5
RHD08PS-2.0		8 - S			19	69.5	39.5
RHD10PL-2.0	NG-08	10 - L	32	36	19	76.0	46.0
RHD10PS-2.0		10 - S			22	80.0	47.0
RHD12PS-2.0		12 - S			24	80.0	47.0
RHD12PL-2.0	NG-10	12 - L	32	36	22	77.5	47.5
RHD15PL-2.0		15 - L			27	79.5	49.5
RHD16PS-2.0		16 - S			30	87.5	50.5
RHD18PL-2.0	NG-15	18 - L	41	46	32	87.5	54.5
RHD20PS-2.0		20 - S			36	99.5	56.5
RHD22PL-2.0	NG-20	22 - L	50	55	36	103	70.0
RHD25PS-2.0		25 - S			46	117	69.0
RHD28PL-2.0	NG-25	28 - L	55	60	41	112	79.0
RHD30PS-2.0		30 - S			50	132	79.0
RHD35PL-2.0	NG-30	35 - L	65	70	50	130	87.0
RHD42PL-2.0		42 - L			60	132	86.0
RHD38PS-2.0		38 - S			60	150	88.0

Check Valve, Model : RHD/RHZ/RHV/RHF



the right connection
the right environment

Ref. No : H04068 Release Mar 2018 (Dimensions in mm)

RHZ

Tube connections (ISO 8434) at inlet
BSP Male stud end (with ED seal) at outlet

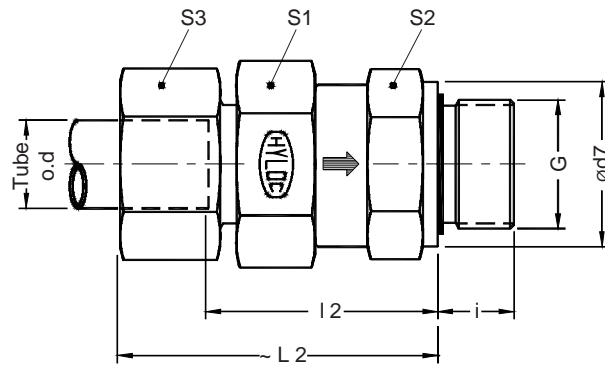


Table 2

Part Number	Size	Tube od	S1	S2	S3	L2	l2	i	G	Ød7
RHZ06PLGE-2.0	NG-06	6 - L	22	24	14	49.0	34.0	8.0	G 1/8	14
RHZ08PLGE-2.0		8 - L			17	49.5	34.5	12.0	G 1/4	19
RHZ06PSGE-2.0		6 - S			17	51.5	36.5	12.0	G 1/4	19
RHZ08PSGE-2.0		8 - S			19	51.5	36.5	12.0	G 1/4	19
RHZ10PLGE-2.0	NG-08	10 - L	32	36	19	59.0	44.0	12.0	G 1/4	19
RHZ10PSGE-2.0		10 - S			22	61.5	45.0	12.0	G 3/8	22
RHZ12PSGE-2.0		12 - S			24	61.5	45.0	12.0	G 3/8	22
RHZ12PLGE-2.0	NG-10	12 - L	32	36	22	61.0	46.0	12.0	G 3/8	22
RHZ15PLGE-2.0		15 - L			27	62.5	47.5	14.0	G 1/2	27
RHZ16PSGE-2.0		16 - S			30	66.5	48.0	14.0	G 1/2	27
RHZ18PLGE-2.0	NG-15	18 - L	41	46	32	69.5	53.0	14.0	G 1/2	27
RHZ20PSGE-2.0		20 - S			36	75.5	54.0	16.0	G 3/4	32
RHZ22PLGE-2.0	NG-20	22 - L	50	55	36	83.0	66.5	16.0	G 3/4	32
RHZ25PSGE-2.0		25 - S			46	90.0	66.0	18.0	G1	40
RHZ28PLGE-2.0	NG-25	28 - L	55	60	41	92.0	75.5	18.0	G1	40
RHZ30PSGE-2.0		30 - S			50	102.0	75.5	20.0	G1.1/4	50
RHZ35PLGE-2.0	NG-30	35 - L	65	70	50	106.0	84.5	20.0	G1.1/4	50
RHZ42PLGE-2.0		42 - L			60	107.0	84.0	22.0	G1.1/2	55
RHZ38PSGE-2.0		38 - S			60	116.0	85.0	22.0	G1.1/2	55

RHV

BSP Male stud end (with ED seal) at inlet
Tube connections (ISO 8434) at outlet

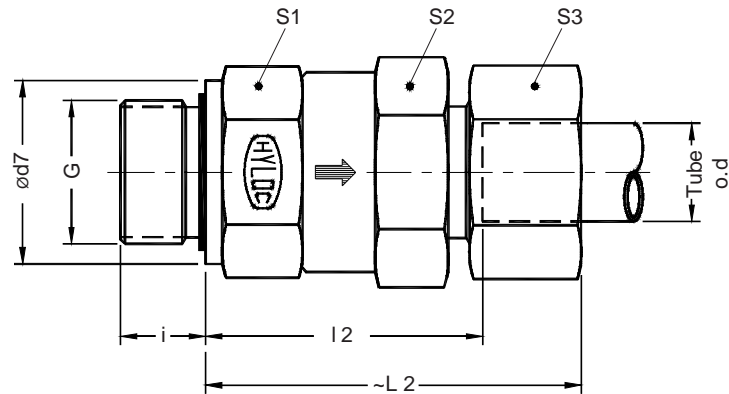


Table 3

Part Number	Size	Tube od	S1	S2	S3	L2	I2	i	G	Ød7
RHV06PLGE-2.0	NG-06	6 - L	22	24	14	49.0	34.0	8	G 1/8	14
RHV08PLGE-2.0		8 - L			17	49.5	34.5	12	G 1/4	19
RHV06PSGE-2.0		6 - S			17	51.5	36.5	12	G 1/4	19
RHV08PSGE-2.0		8 - S			19	51.5	36.5	12	G 1/4	19
RHV10PLGE-2.0	NG-08	10 - L	32	36	19	59.0	44.0	12	G 1/4	19
RHV10PSGE-2.0		10 - S			22	61.5	45.0	12	G 3/8	22
RHV12PSGE-2.0		12 - S			24	61.5	45.0	12	G 3/8	22
RHV12PLGE-2.0	NG-10	12 - L	32	36	22	61.0	46.0	12	G 3/8	22
RHV15PLGE-2.0		15 - L			27	62.5	47.5	14	G 1/2	27
RHV16PSGE-2.0		16 - S			30	66.5	48.0	14	G 1/2	27
RHV18PLGE-2.0	NG-15	18 - L	41	46	32	69.5	53.0	14	G 1/2	27
RHV20PSGE-2.0		20 - S			36	75.5	54.0	16	G 3/4	32
RHV22PLGE-2.0	NG-20	22 - L	50	55	36	83.0	66.5	16	G 3/4	32
RHV25PSGE-2.0		25 - S			46	90.0	66.0	18	G1	40
RHV28PLGE-2.0	NG-25	28 - L	55	60	41	92.0	75.5	18	G1	40
RHV30PSGE-2.0		30 - S			50	102.0	75.5	20	G1.1/4	50
RHV35PLGE-2.0	NG-30	35 - L	65	70	50	106.0	84.5	20	G1.1/4	50
RHV42PLGE-2.0		42 - L			60	107.0	84.0	22	G1.1/2	55
RHV38PSGE-2.0		38 - S			60	116.0	85.0	22	G1.1/2	55

Check Valve, Model : RHD/RHZ/RHV/RHF



the right connection
the right environment

Ref. No : H04068 Release Mar 2018 (Dimensions in mm)

RHF

BSP Ports at inlet and at outlet

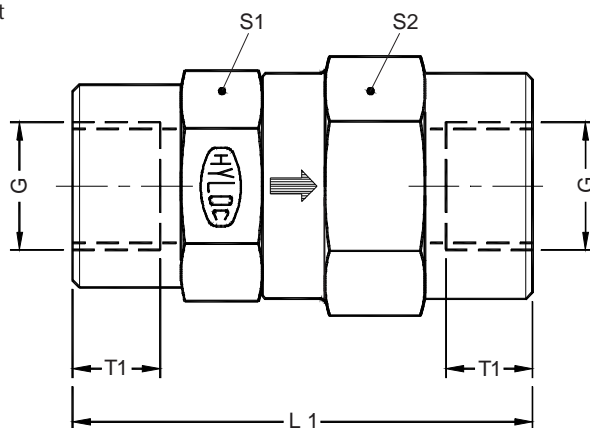
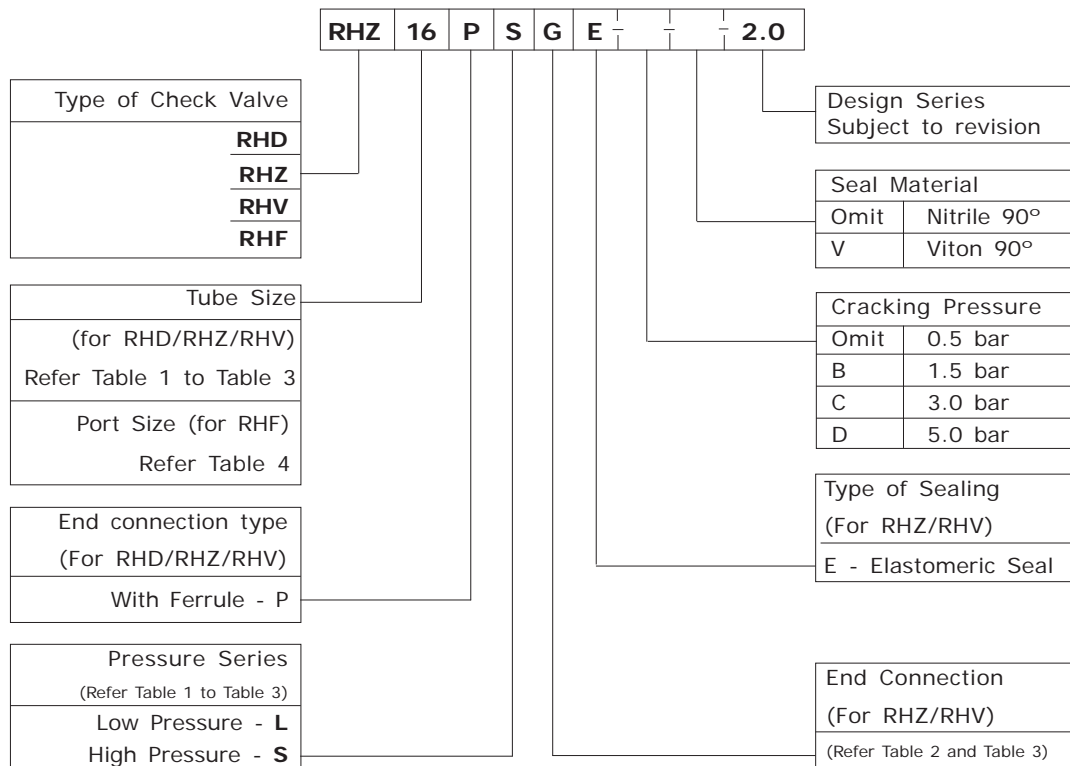


Table 4

Ordering Code	G	S1	S2	T1	L1
RHFG02-2.0	G 1/4	22	24	12	58
RHFG03-2.0	G 3/8	32	36	12	58
RHFG04-2.0	G 1/2	32	36	14	72
RHFG06-2.0	G 3/4	41	46	16	85
RHFG08-2.0	G1	50	55	18	98
RHFG10-2.0	G1.1/4	55	60	20	120
RHFG12-2.0	G1.1/2	65	70	22	132

Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 valves. e.g. **316-RHD16PS-2.0**

Adjustable Throttle and Throttle Check Valves, Model : TT/TCT



the right connection
the right environment

Ref. No : H03364 Release March 2018 (Dimensions in mm)

Description

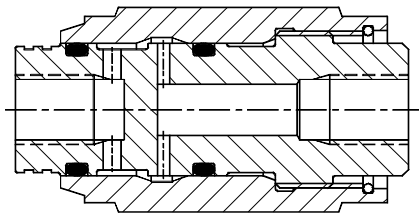
Non pressure and viscosity compensated valves.

Model TT Throttle valves allow adjustable throttled flow in both the directions.

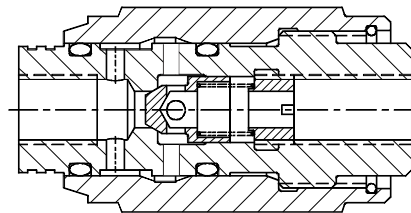
Model TCT Throttle check valve gives adjustable flow in one direction and allows free flow in opposite direction.



Section



TT



TCT

Hydraulic Symbol

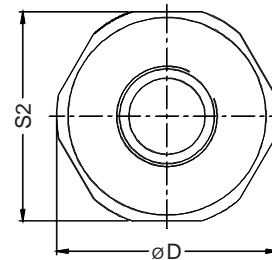
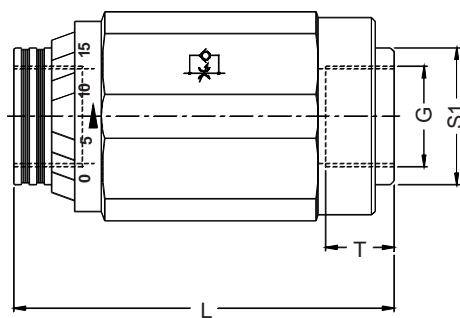
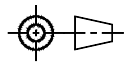


TT



TCT

Unit Dimensions



Ordering Code		G	T	S1	S2	L	ØD
TCTG02-2.0	TTG02-2.0	G 1/4	12	19	32	65	34
TCTG03-2.0	TTG03-2.0	G 3/8	13	26	36	65	38
TCTG04-2.0	TTG04-2.0	G 1/2	14	27	46	80	49
TCTG06-2.0	TTG06-2.0	G 3/4	18	37	55	100	58
TCTG08-2.0	TTG08-2.0	G1	18	41	70	110	74
TCTG10-2.0	TTG10-2.0	G1.1/4	22	58	85	130	87
TCTG12-2.0	TTG12-2.0	G1.1/2	22	60	90	150	94

Adjustable Throttle and Throttle Check Valves, Model : TT/TCT



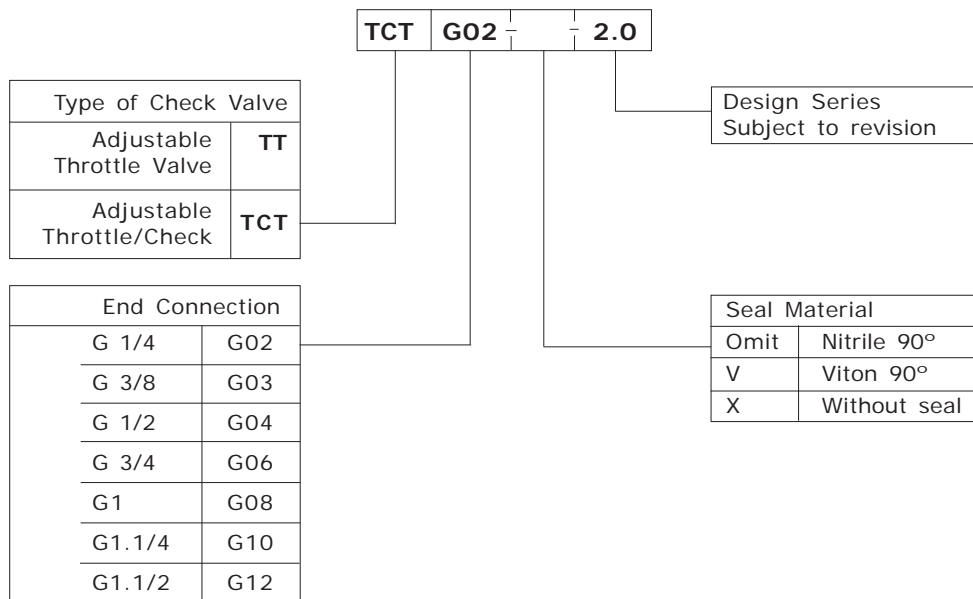
the right connection
the right environment

Ref. No : H03364 Release March 2018 (Dimensions in mm)

Technical Specifications

Construction	Inline threaded body with rotating sleeve for flow adjustment. Non pressure and viscosity compensated.
Mounting style	Inline, threaded body
Mounting position	Optional
Flow direction	For model TCT : Free flow in one direction. Adjustable throttled flow in opposite direction as indicated on the valve body. For model TT : Adjustable throttled flow in both the directions
Operating pressure	315 bar.
Hydraulic medium	Mineral oil.
Viscosity range	10 cSt to 380 cSt.
Fluid temperature range	-20 °C to +70 °C
Maximum flow handling capacity	TCTG02/TTG02 25 l/min TCTG03/TTG03 TCTG04/TTG04 50 l/min TCTG06/TTG06 TCTG08/TTG08 200 l/min TCTG10/TTG10 TCTG12/TTG12 400 l/min

Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 valves. e.g. **316-TCTG02-2.0**

Throttle/Check Valves, Model : TG/TCG



the right connection
the right environment

Ref. No : H04737 Release March 2018 (Dimensions in mm)

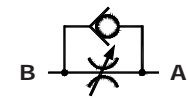
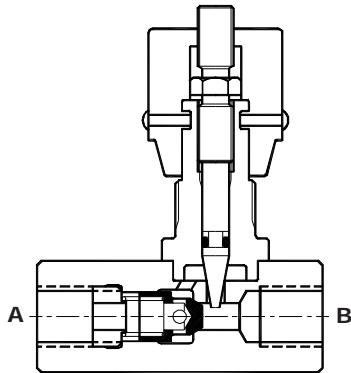
Description

The Valve allows accurate adjustment of flow by throttling action. The throttling can be varied by rotation of the Hand knob.

The valve is also equipped with a built - in check valve for free reverse flow.



Section



Hydraulic Symbol

Unit Dimensions

In-line port (G) mounting

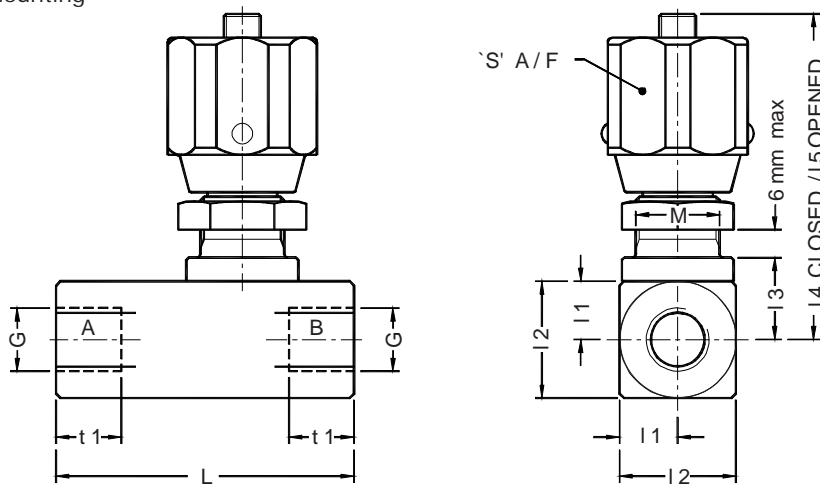
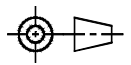


Table 1

Ordering Code	Size	G	I1	I2	I3	I4	I5	M	t1	S	L
TCG02-2.0	NG-06	G 1/4	12.5	25	17.5	69.5	76.5	M18x1.5	12	30	64
TCG03-2.0	NG-08	G 3/8	15.0	30	20.0	72.0	79.0	M18x1.5	13	30	70
TCG04-2.0	NG-10	G 1/2	17.5	35	23.5	89.0	99.0	M22x1.5	14	41	80
TCG06-2.0	NG-15	G 3/4	22.5	45	28.5	94.0	104.0	M22x1.5	17	41	95
TCG08-2.0	NG-20	G1	25.0	50	35.0	128.0	145.0	M36x2.0	18	50	125
TCG10-2.0	NG-25	G1.1/4	30.0	60	40.0	133.0	150.0	M36x2.0	21	50	142
TCG12-2.0	NG-30	G1.1/2	35.0	70	45.0	138.0	155.0	M36x2.0	22	50	150

Throttle/Check Valves, Model : TG/TCG



the right connection
the right environment

Ref. No : H04737 Release March 2018 (Dimensions in mm)

In-line Tube

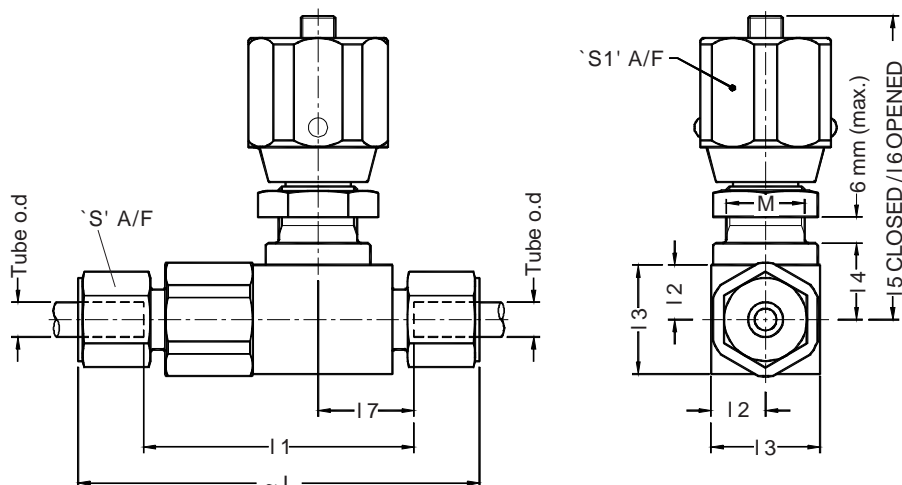


Table 2

Ordering Code	Tube OD	Size	I1	I2	I3	I4	I5	I6	I7	M	S	S1	L
TC06PL-2.0	6-L	NG-06	57.0	12.5	25.0	17.5	69.5	76.5	20.0	M18x1.5	14	30	87.0
TC08PL-2.0	8-L		57.0						20.0		17		87.0
TC06PS-2.0	6-S		61.0						22.0		17		91.0
TC08PS-2.0	8-S		61.0						22.0		19		91.0
TC10PL-2.0	10-L	NG-08	63.0	15.0	30.0	20.0	72.0	79.0	21.0	M18x1.5	19	30	93.0
TC10PS-2.0	10-S		64.0						21.5		22		97.0
TC12PS-2.0	12-S		64.0						21.5		24		97.0
TC12PL-2.0	12-L	NG-10	70.0	17.5	35.0	23.5	89.0	99.0	22.0	M22x1.5	22	41	100.0
TC15PL-2.0	15-L		72.0						23.0		27		102.0
TC14PS-2.0	14-S		74.0						24.0		27		110.0
TC16PS-2.0	16-S		73.0						23.5		30		110.0
TC18PL-2.0	18-L	NG-15	80.5	22.5	45.0	28.5	94.0	104.0	24.5	M22x1.5	32	41	113.5
TC20PS-2.0	20-S		82.5						25.5		36		125.5
TC22PL-2.0	22-L	NG-20	109.0	25.0	50.0	35.0	128.0	145.0	36.5	M36x2.0	36	50	142.0
TC25PS-2.0	25-S		108.0						36.0		46		156.0
TC28PL-2.0	28-L	NG-25	120.0	30.0	60.0	40.0	133.0	150.0	39.5	M36x2.0	41	50	153.0
TC30PS-2.0	30-S		120.0						39.5		50		173.0
TC35PL-2.0	35-L	NG-30	130.0	35.0	70.0	45.0	138.0	155.0	40.5	M36x2.0	50	50	173.0
TC42PL-2.0	42-L		129.0						40.0		60		175.0
TC38PS-2.0	38-S		131.0						41.0		60		193.0

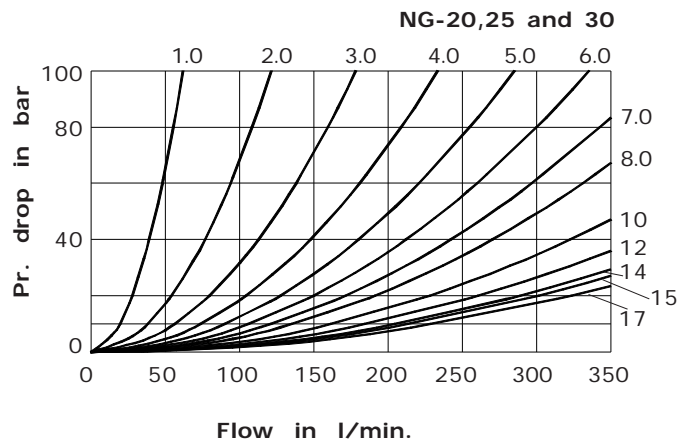
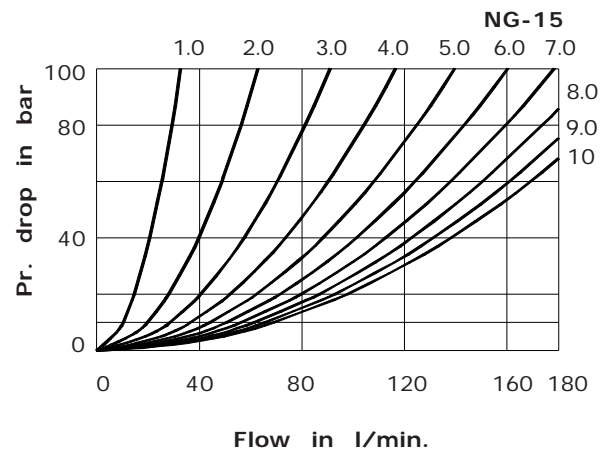
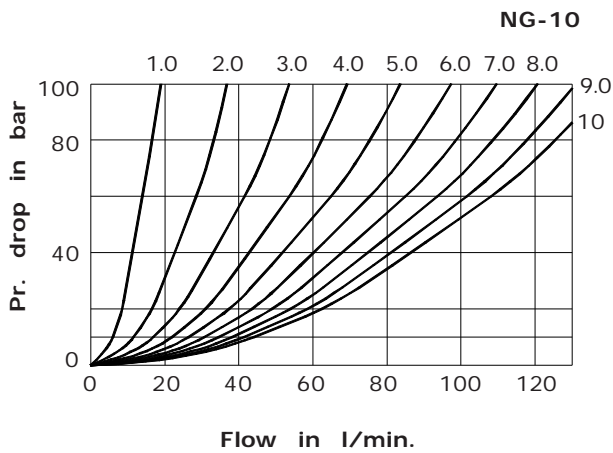
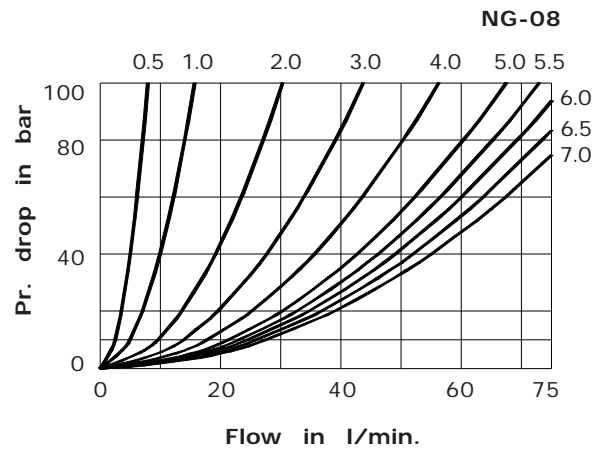
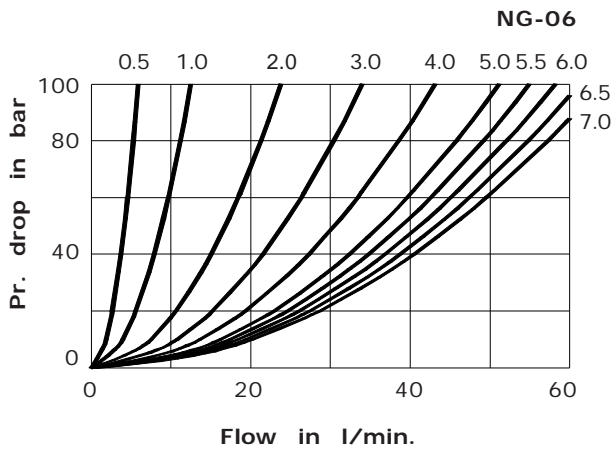
Ordering Code

- Construction Conical throttling spool with rotation of hand knob for flow adjustment. Poppet valve for free reverse flow.
- Mounting style In-line port or tube mounting.
- Mounting position Optional
- Flow direction Adjustable throttled flow from A to B, free flow from B to A as indicated on valve body.
- Operating pressure 315 bar
- Hydraulic medium Mineral Oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +80 °C
- Fluid Cleanliness requirement As per ISO 19/16 or better.
- Nom. flow handling capacity Refer graphs

Expected performance Curves

Oil used : ISO VG 68,
Viscosity : 68 cSt @ 40 °C
Direction of flow : A to B

Graphs below shows
Throttle position (No.of turns) from closed position



Description

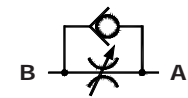
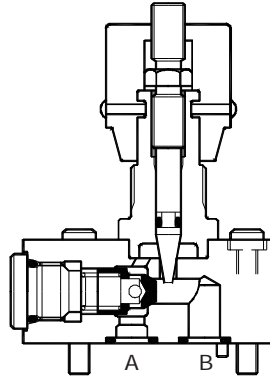
The Valve allows accurate adjustment of flow by throttling action. The throttling can be varied by rotation of the Hand knob.

The valve is also equipped with a built - in check valve for free reverse flow.

The mounting Interface conforms to ISO 5781-1987 standard.

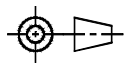


Section

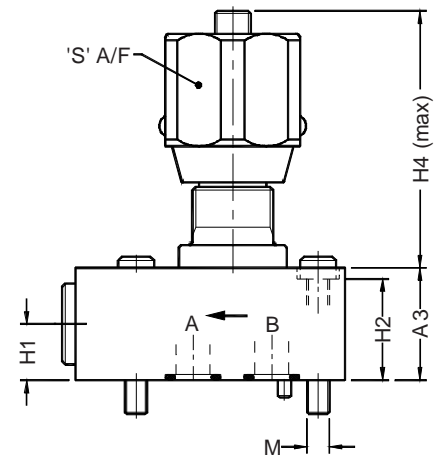


Hydraulic Symbol

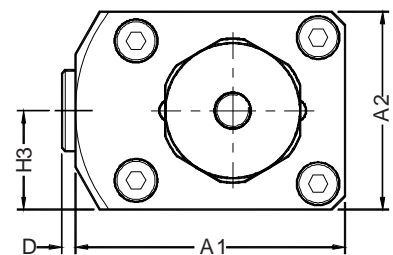
Unit Dimensions



Ordering Code	A1	A2	A3	H1	H2	H3	H4 (max)	D	S
TCMS06-2.0	60	44	25	12.5	22.5	22.0	64.0	3	30
TCMS10-2.0	81	88	40	22.5	40.0	44.0	81.5	3	41
TCMS20-2.0	106	100	50	25.0	45.0	50.0	120.0	4	50
TCMS30-2.0	135	117	70	35.0	65.0	58.5	120.0	4	50



Ordering Code	Valve fixing Screws	Grade
TCMS06-2.0	M5x0.8x30 Long, 4 nos	10.9
TCMS10-2.0	M10x1.5x55 Long, 4 nos	10.9
TCMS20-2.0	M10x1.5x60 Long, 4 nos	10.9
TCMS30-2.0	M10x1.5x80 Long, 6 nos	10.9



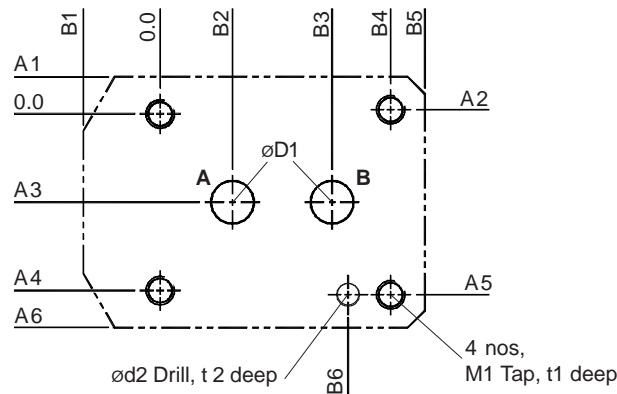
Throttle/Check Valves, Sub-plate mounting, Model : TCMS



the right connection
the right environment

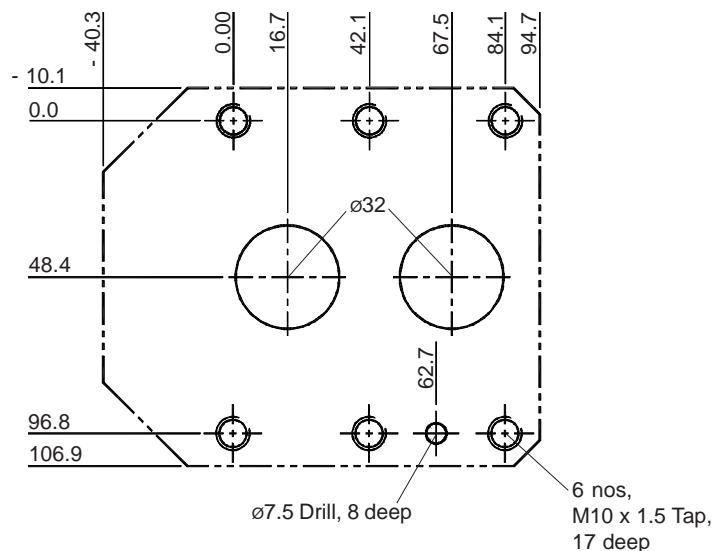
Ref. No : H06105 Release March 2018 (Dimensions in mm)

Interface Details for NG - 06, NG - 10 and NG - 20
as per ISO 5781-1987



Ordering Code	$\varnothing D1$	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6	M1	t1	$\varnothing d2$	t2
TCMS06-2.0	7.5	-6.50	-0.75	15.5	31.0	31.75	37.5	-13.5	12.7	30.2	40.5	46.5	33.0	M5 x 0.8	9	4.0	5
TCMS10-2.0	14.0	-10.65	0.00	33.3	66.7	66.7	77.35	-27.5	7.1	35.7	42.9	53.5	31.8	M10 x 1.5	17	7.5	8
TCMS20-2.0	22.0	-10.30	0.00	39.7	79.4	79.4	89.7	-34.5	11.1	49.2	60.3	71.5	44.5	M10 x 1.5	17	7.5	8

Interface Details for NG - 30



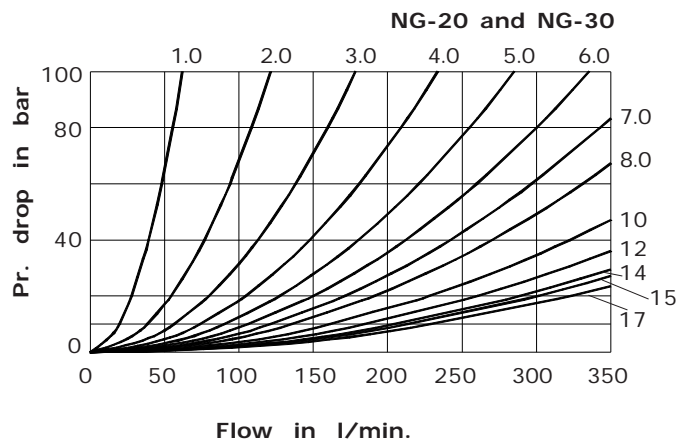
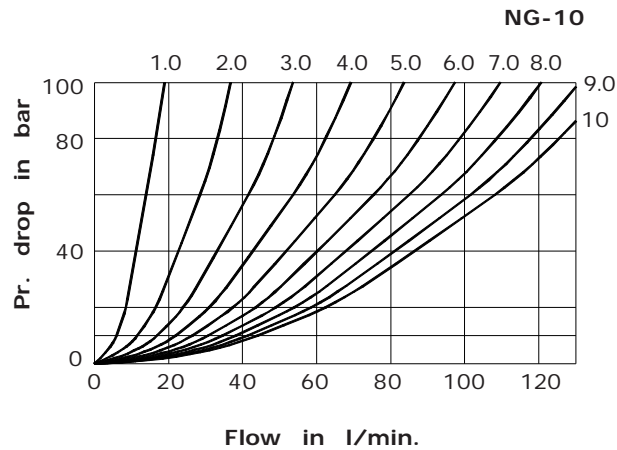
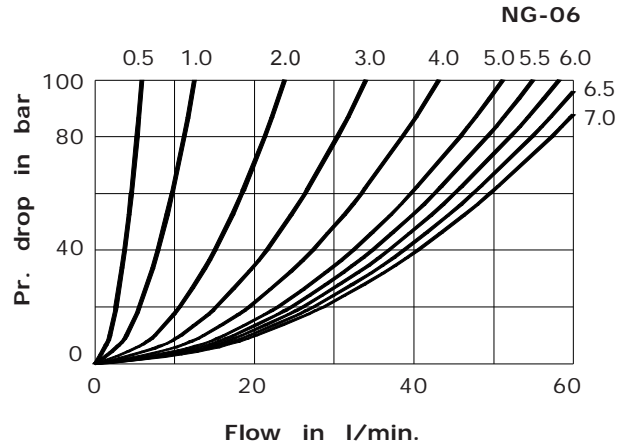
Ordering Code

- Construction Conical throttling spool with rotation of hand knob for flow adjustment. Poppet valve for free reverse flow.
- Mounting style Sub-plate mounting
- Mounting Interface As per ISO 5781-1987
- Mounting position Optional
- Flow direction Adjustable throttled flow from A to B, free flow from B to A as indicated on valve body.
- Operating pressure 315 bar
- Hydraulic medium Mineral Oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +80 °C
- Fluid Cleanliness requirement As per ISO 19/16 or better.
- Nom. flow handling capacity Refer graphs

Expected performance Curves

Oil used : ISO VG 68,
 Viscosity : 68 cSt @ 40 °C
 Direction of flow : A to B

Graphs below shows
 Throttle position (No.of turns) from closed position



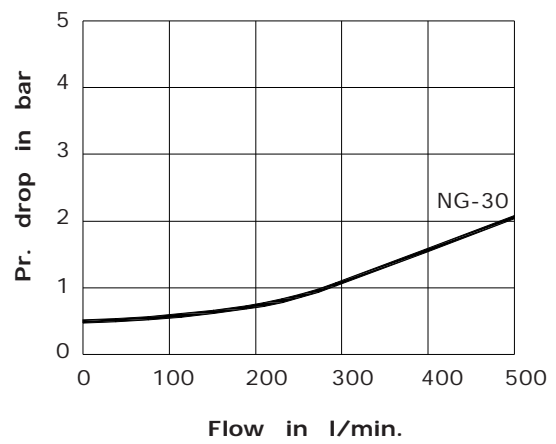
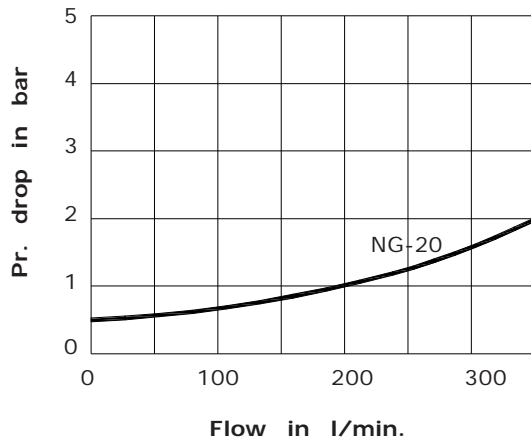
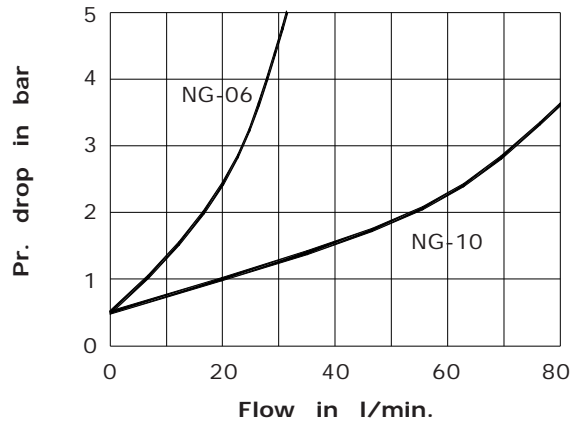
Throttle/Check Valves, Sub-plate mounting, Model : TCMS



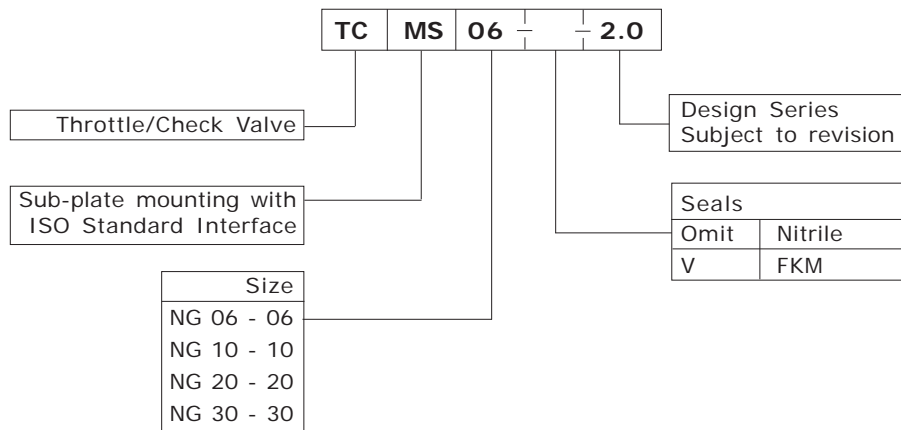
the right connection
the right environment

Ref. No : H06105 Release March 2018 (Dimensions in mm)

Direction of free flow from B' to A'



Ordering Code



Description

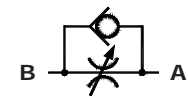
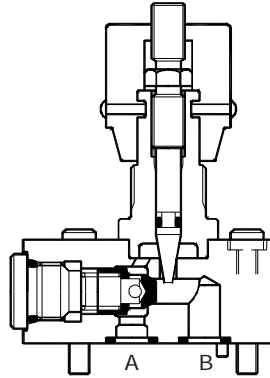
The Valve allows accurate adjustment of flow by throttling action. The throttling can be varied by rotation of the Hand knob.

The valve is also equipped with a built - in check valve for free reverse flow.

The mounting Interface conforms to Flutec standard.

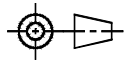


Section

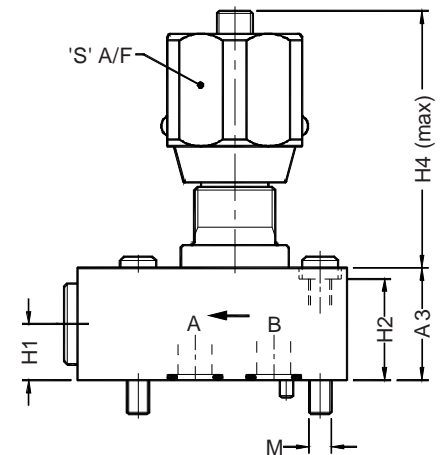


Hydraulic Symbol

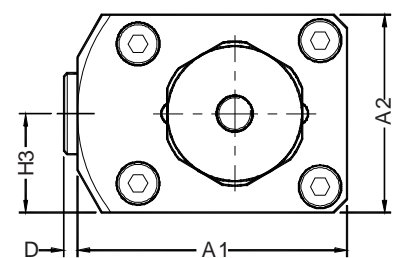
Unit Dimensions



Ordering Code	A1	A2	A3	H1	H2	H3	H4 (max)	D	S
TCMH06-2.0	62	46.0	25	12.5	21	23.0	64.0	3	30
TCMH08-2.0	64	51.0	30	15.0	21	25.5	64.0	3	30
TCMH10-2.0	78	57.5	40	22.5	36	28.7	81.5	3	41
TCMH15-2.0	112	70.0	45	22.5	43	35.0	81.5	3	41
TCMH20-2.0	132	76.5	50	25.0	48	38.2	120.0	4	50
TCMH25-2.0	162	100.0	65	35.0	55	50.0	120.0	4	50
TCMH30-2.0	190	115.0	70	35.0	62	57.5	120.0	4	50



Ordering Code	Valve fixing Screws	Grade
TCMH06-2.0	M6 x 1.0 x 30 Long, 4 nos	10.9
TCMH08-2.0	M6 x 1.0 x 30 Long, 4 nos	10.9
TCMH10-2.0	M6 x 1.0 x 45 Long, 4 nos	10.9
TCMH15-2.0	M8 x 1.25 x 55 Long, 6 nos	10.9
TCMH20-2.0	M8 x 1.25 x 60 Long, 6 nos	10.9
TCMH25-2.0	M10 x 1.5 x 70 Long, 6 nos	10.9
TCMH30-2.0	M12 x 1.75 x 80 Long, 6 nos.	10.9



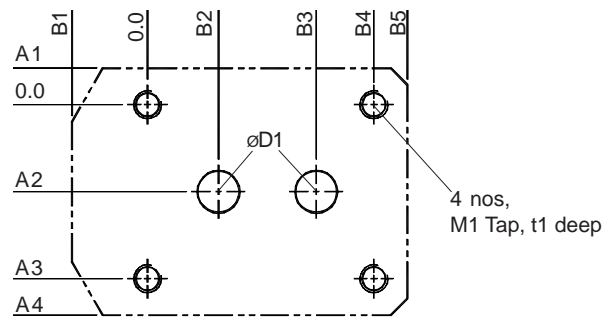
Throttle/Check Valves, Sub-plate mounting, Model : TCMH



the right connection
the right environment

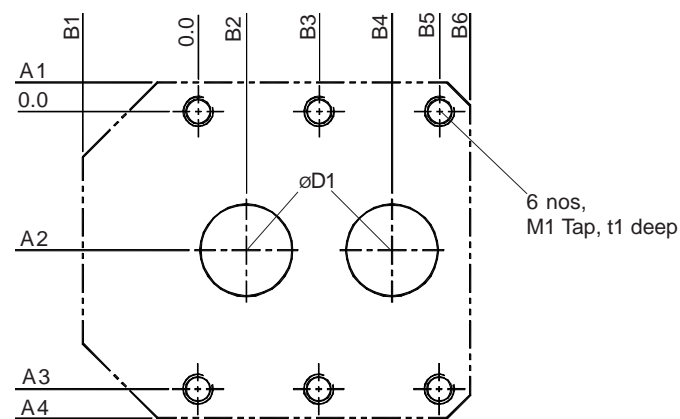
Ref. No : H06106 Release March 2018 (Dimensions in mm)

Interface Details for NG - 06, NG - 08 and NG - 10 as per Flutec standard.



Ordering Code	ØD1	A1	A2	A3	A4	B1	B2	B3	B4	B5	M1	t1
TCMH06-2.0	7	-6.25	16.75	33.5	39.75	-21.0	5	30.5	35.0	41	M6x1.0	10
TCMH08-2.0	10	-6.50	19.00	38.0	44.50	-23.0	4	29.5	33.5	41	M6x1.0	10
TCMH10-2.0	13	-6.50	22.20	44.5	51.00	-31.0	4	34.0	38.0	47	M6x1.0	10

Interface Details for NG - 15, 20, 25 and NG - 30 as per Flutec standard.



Ordering Code	ØD1	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6	M1	t1
TCMH15-2.0	17.0	-8.00	27.0	54.0	62.0	-36.0	10.6	38.0	64.6	76.0	84.5	M8x1.25	14
TCMH20-2.0	22.0	-8.25	30.0	60.0	68.2	-26.5	19.0	47.5	76.0	95.0	105.5	M8x1.25	14
TCMH25-2.0	28.5	-12.0	38.0	76.0	88.0	-33.0	19.9	60.0	99.4	120.0	129.0	M10x1.50	17
TCMH30-2.0	35.0	-11.5	46.0	92.0	103.5	-33.5	24.2	71.5	119.2	143.0	156.5	M12x1.75	20

Ordering Code

Construction Conical throttling spool with rotation of hand knob
for flow adjustment. Poppet valve for free reverse flow.

Mounting style Sub-plate mounting

Mounting Interface As per Flutec standard

Mounting position Optional

Flow direction Adjustable throttled flow from A to B,
free flow from B to A as indicated on valve body.

Operating pressure 315 bar

Hydraulic medium Mineral Oil.

Viscosity range 10 cSt to 380 cSt.

Fluid temperature range -20 °C to +80 °C

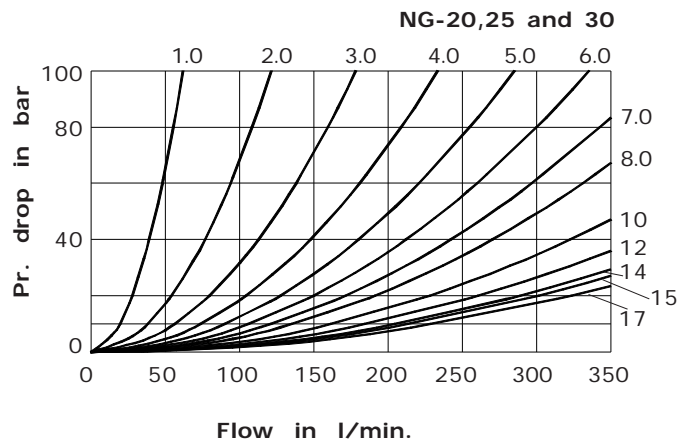
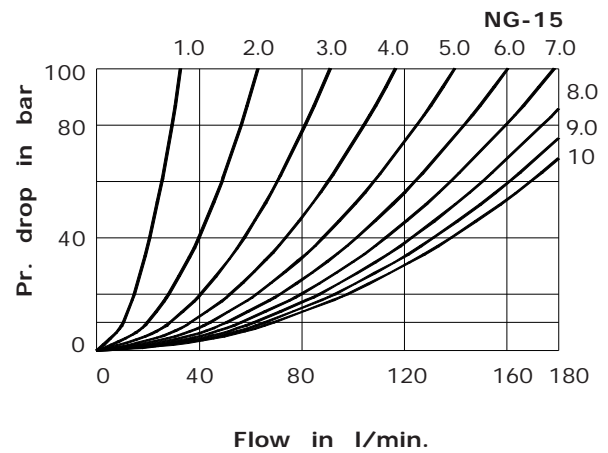
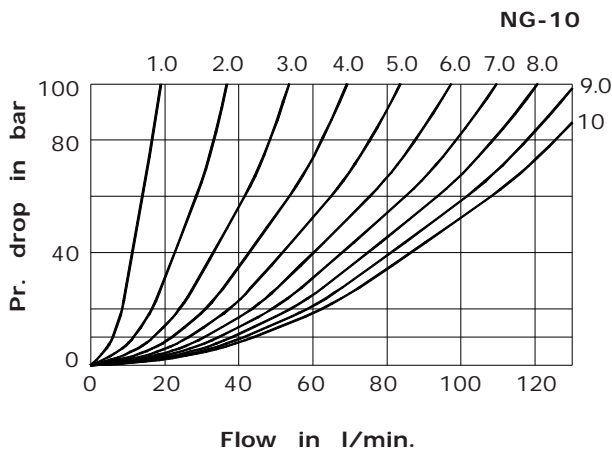
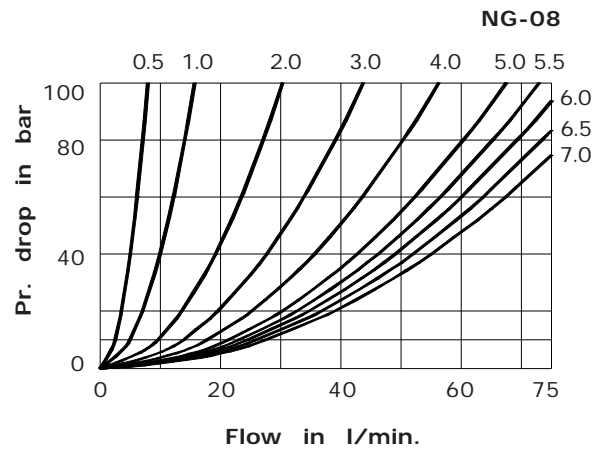
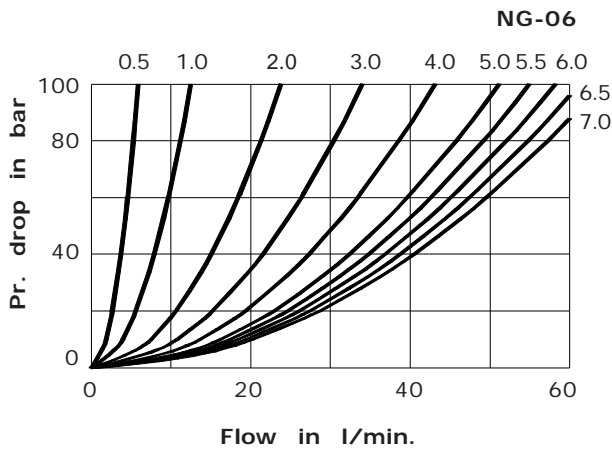
Fluid Cleanliness requirement As per ISO 19/16 or better.

Nom. flow handling capacity Refer graphs

Expected performance Curves

Oil used : ISO VG 68,
 Viscosity : 68 cSt @ 40 °C
 Direction of flow : A to B

Graphs below shows
 Throttle position (No.of turns) from closed position



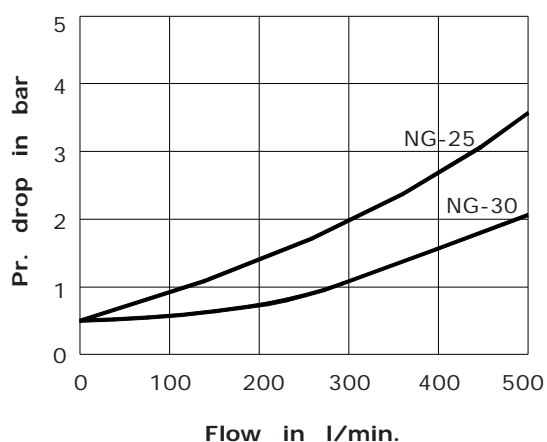
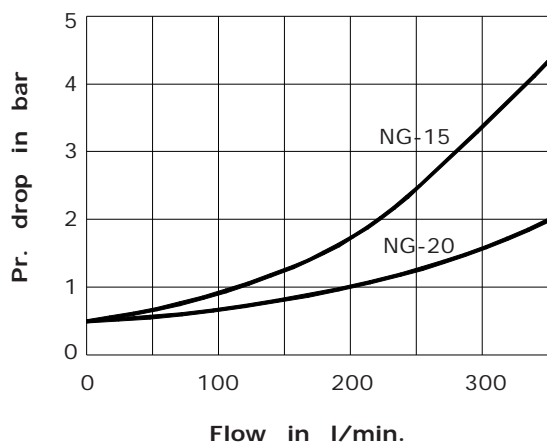
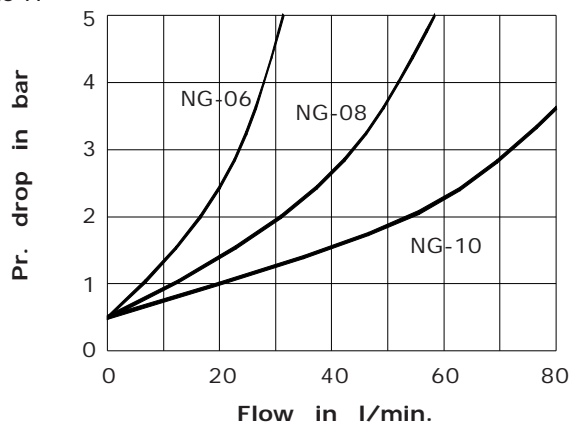
Throttle/Check Valves, Sub-plate mounting, Model : TCMH



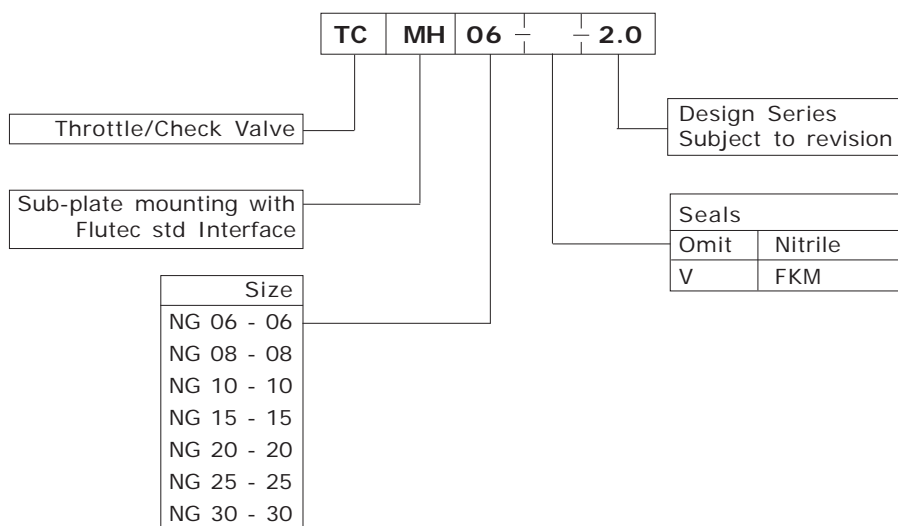
the right connection
the right environment

Ref. No : H06106 Release March 2018 (Dimensions in mm)

Direction of free flow from B' to A'



Ordering Code



Pressure Gauge Isolator Valve, Model : 1GI



the right connection
the right environment

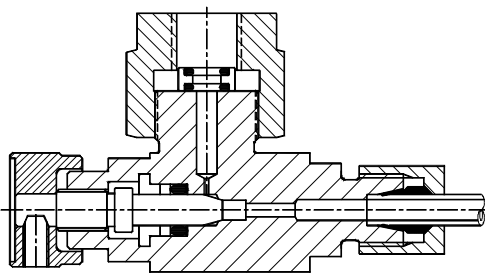
Ref. No : H03154 Release March 2018 (Dimensions in mm)

Description

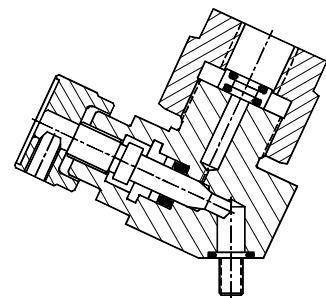
- Seat type valve.
- Swivelling gauge connection for easy gauge positioning.
- Compact assembly.
- Eliminates gauge supporting bracket.
- Angular gauge face plane in Sub-plate mounting construction facilitating easy gauge reading.



Section



Panel Mounting



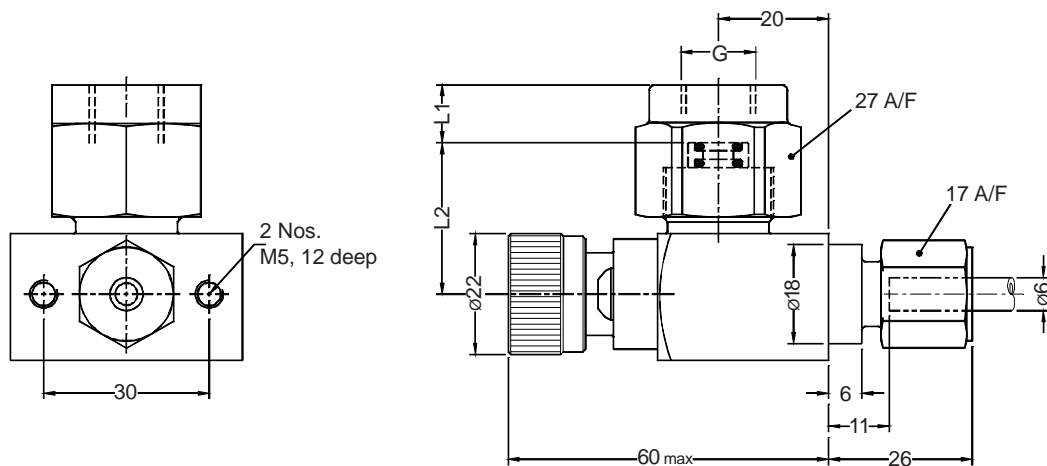
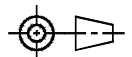
Sub-plate Mounting



Hydraulic Symbol

Unit Dimensions

Panel Mounting Valve



G	G 1/4	G 3/8	G 1/2
L1	10.5	10.5	12.5
L2	27.5	28.0	28.0

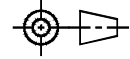
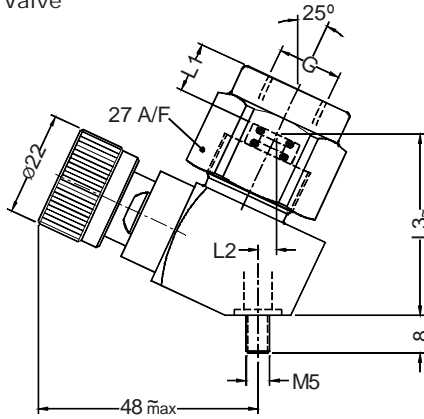
Pressure Gauge Isolator Valve, Model : 1GI



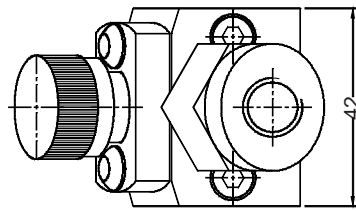
the right connection
the right environment

Ref. No : H03154 Release March 2018 (Dimensions in mm)

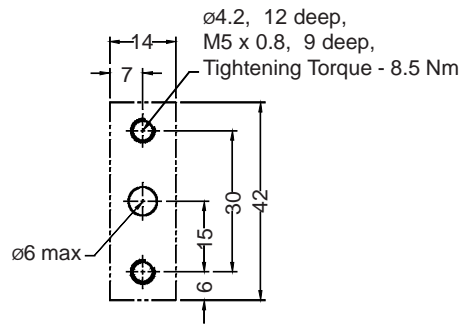
Sub-plate Mounting Valve



G	G 1/4	G 3/8	G 1/2
L1	10.5	10.5	12.5
L2	4.0	4.0	4.0
L3	38.5	39.0	39.0



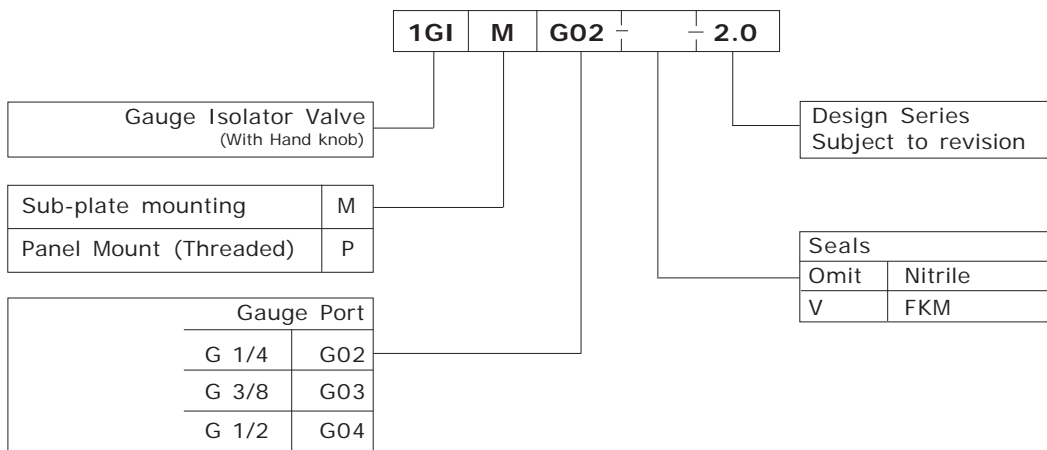
Valve Interface



Technical Specifications

- Construction Seat type.
- Mounting Sub-plate mounting interface/Panel mounting (Threaded body)
- Interface standard Factory standard.
- Mounting position Optional
- Operating pressure 350 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -20 °C to +70 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.
- Mass 0.3 Kg.

Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 valves. e.g. **316-1GIMG02-2.0**

Pressure Gauge Isolator Valve, Panel Mounting, Model : 1GIP



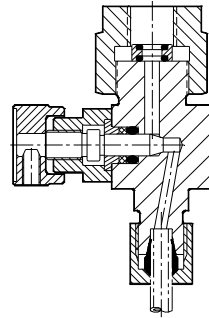
the right connection
the right environment

Ref. No : H05427, Release March 2018 (Dimensions in mm)

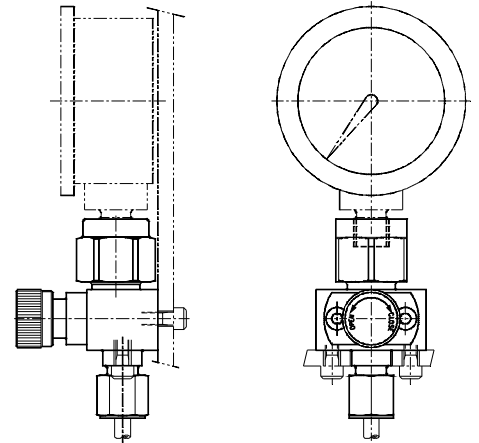
Description

Seat type Valve for isolating pressure gauges in the systems.
Leakage free construction. No return line needed.
Compact Assembly.
Valve can be mounted on vertical as well as on the horizontal panel face.

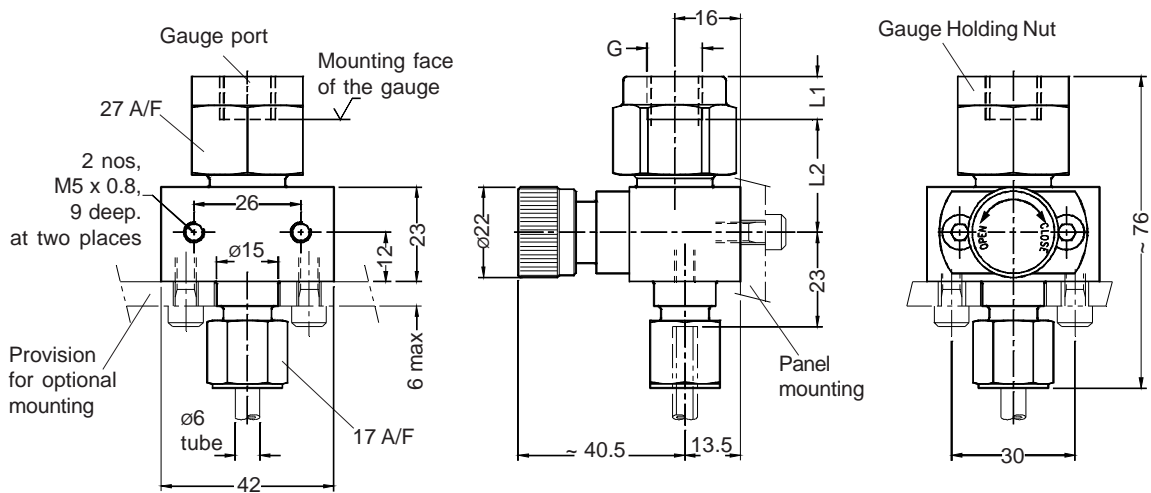
Section



Hydraulic Symbol



Unit Dimensions



G	G 1/4	G 3/8	G 1/2
L1	10.5	10.0	12.0
L2	27.5	28.5	28.5

Technical Specifications

Construction Seat type.
Mounting Panel mounting.
Mounting position Optional.
Operating pressure 350 bar.
Hydraulic medium Mineral Oil.
Viscosity range 10 cSt to 380 cSt.
Fluid temperature range -20 °C to +70 °C.
Fluid cleanliness As per ISO 19/16.
requirement

Instructions for Gauge Assembly

- * Screw in the Gauge Holding Nut onto the valve till its bottom face of it touches the face of the valve body.
- * Insert the sealing ring from the top of the nut.
- * Screw in the gauge into the Gauge Holding Nut till its sealing face touches the sealing ring.
- * Loosen the gauge (if required) by rotating it in anti-clockwise direction till the face of the gauge points towards desired position.
- * Mount the Gauge Isolating Valve on to the panel.
- * Rotate the Gauge Holding Nut by means of a spanner in anti-clockwise direction to tighten the gauge onto the sealing ring. While rotating the nut, hold the gauge to its proper orientation.

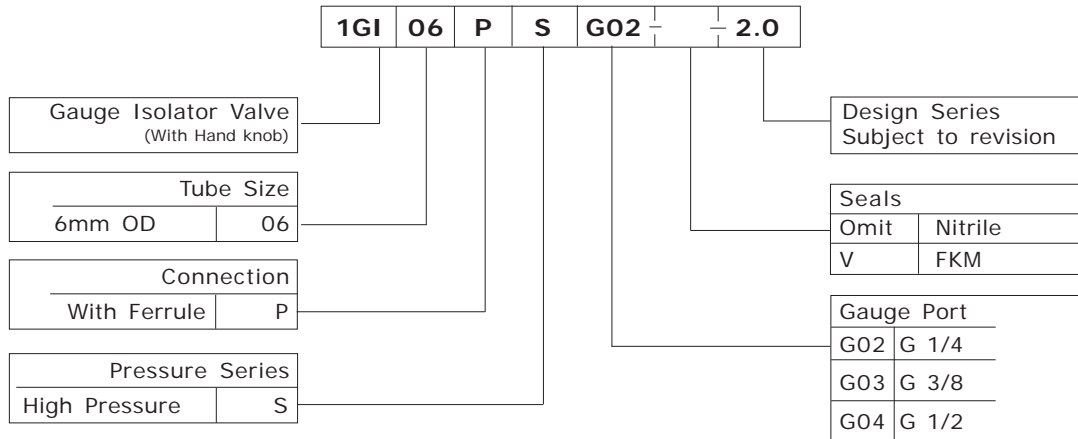
Pressure Gauge Isolator Valve, Panel Mounting, Model : 1GIP



the right connection
the right environment

Ref. No : H05427, Release March 2018 (Dimensions in mm)

Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 valves. e.g. **316-1GI06PSG02-2.0**



The right connection
The right environment

Pressure Gauge Mounting Block GMB

Ref. No. H14287
Release: Jan 2019

ENGINEERING - 1 of 2

Description

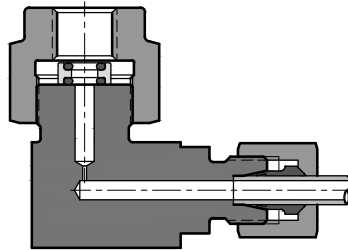
Gauge mounting blocks GMB are meant for applications where a pressure gauge is permanently connected to a pressure line (no isolator valve in between) and needs to be mounted on a hydraulic manifold or a control panel.

The mounting blocks offer following advantages,

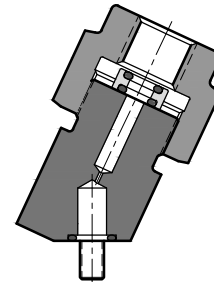
- Simple machining of the interface /panel
- Quick assembly,
- Ease of axial orientation of the Pressure gauge face for proper alignment.
- Compact and elegant assembly,
- Easy readability of the gauge.



Section



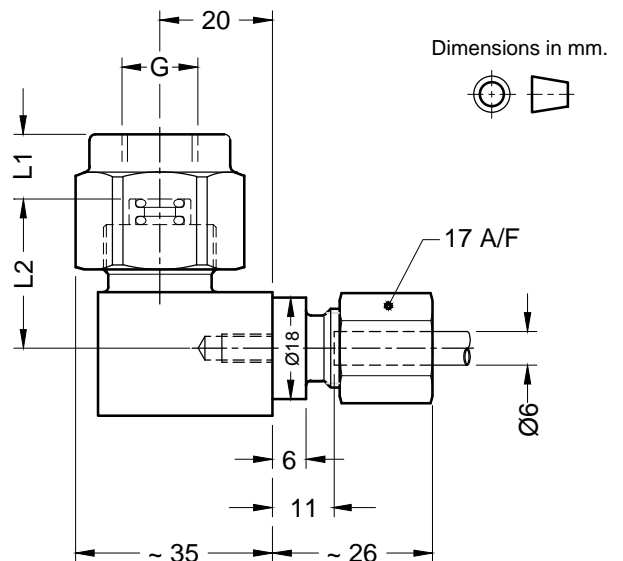
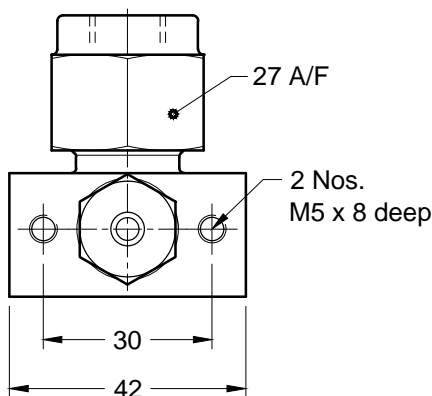
Panel Mounting, Model: GMB-P



Subplate Mounting, Model: GMB-M

Unit Dimensions

Gauge mounting Block, Panel Mounting
Model: GMB-P



Dimensions in mm.



G	G 1/4	G 3/8	G 1/2
L1	11.5	11.5	12.5
L2	27.5	28.5	28.5



The right connection
The right environment

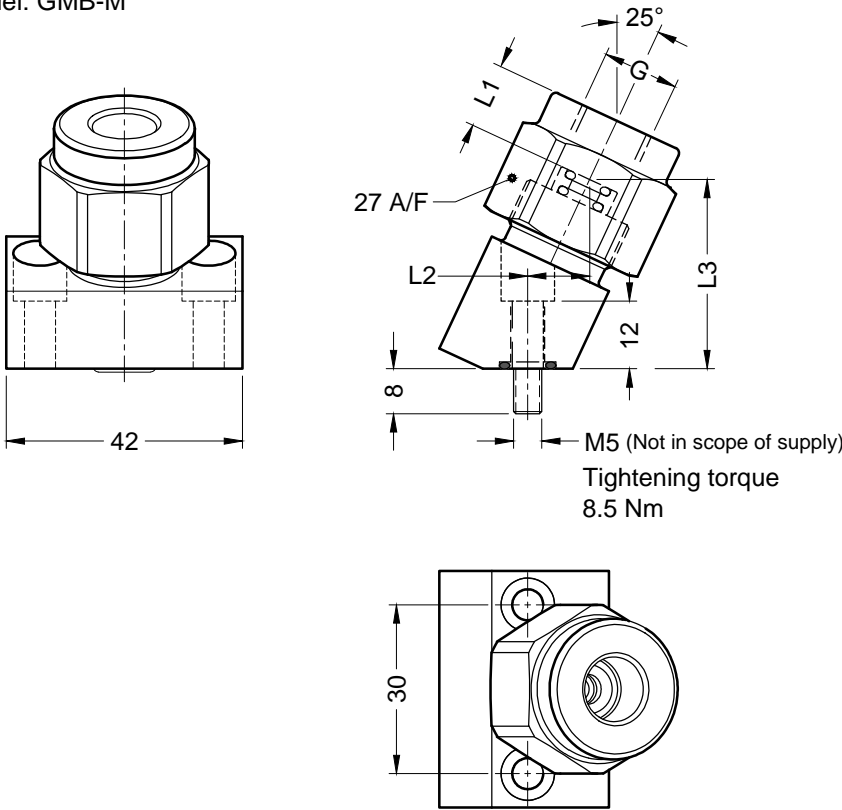
Pressure Gauge Mounting Block GMB

Ref. No. H14287
Release: Jan 2019

ENGINEERING - 2 of 2

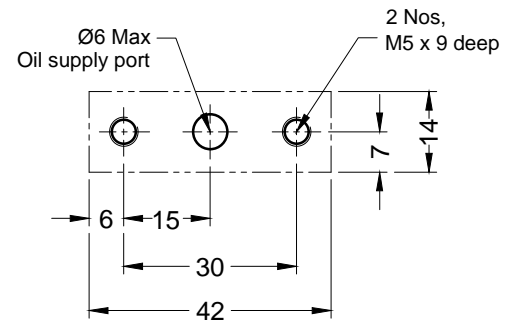
Unit Dimensions

Gauge mounting Block, Subplate Mounting
Model: GMB-M



G	G 1/4	G 3/8	G 1/2
L1	11.5	11.5	12.5
L2	11.0	11.5	11.5
L3	33.5	33.5	34.5

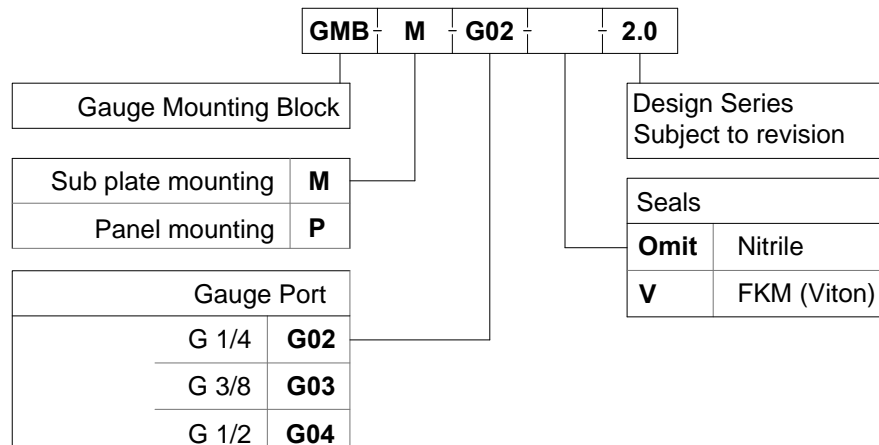
Mounting Interface



Technical Specifications

- Mounting ----- Sub-plate mounted or Panel mounted
- Interface standard ----- Factory standard.
- Mounting position ----- Optional
- Operating pressure ----- 350 bar.
- Hydraulic medium ----- Mineral oil.
- Fluid temperature range ----- -20 °C to +70 °C.

Ordering Code



All rights reserved.
Subject to change without notice.
Due to continuous improvement in the design of the product, the actual product supplied may look different than shown above.

Gauge Isolator Valve (PUSH TO READ), Model : GI



the right connection
the right environment

Ref. No : H03542, Release March 2018 (Dimensions in mm)

Description

The pressure gauge isolator valve model GI is meant for checking the system pressure to which it is connected.

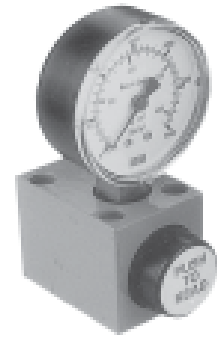
The valve is a spool type, spring off-set, manually operated device.

In normal condition the valve blocks the pressure port and keeps the pressure gauge connected to the drain. Thus isolating the gauge from system pressure surges and eliminating continuous pressure strain on the gauge.

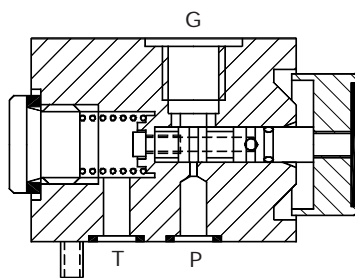
By pushing the actuator knob of the valve, system pressure can be read on the gauge.

The valve is available either for mounting on a sub-plate or with threaded ports.

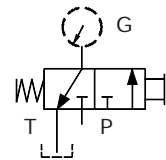
The pressure gauge can either be directly mounted on the valve or can be connected remotely.



Section

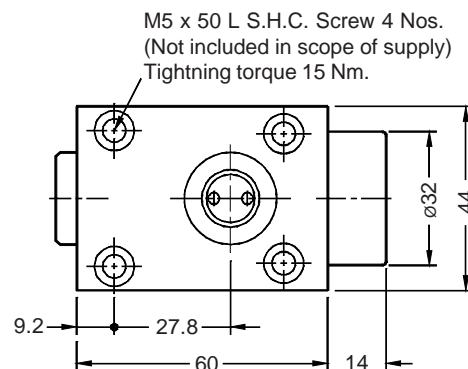
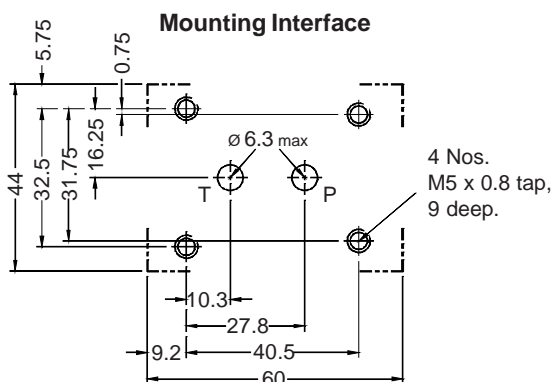
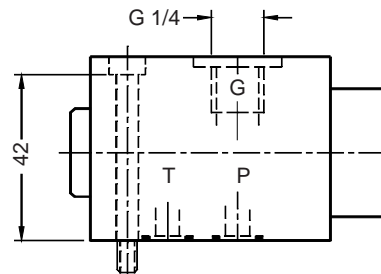
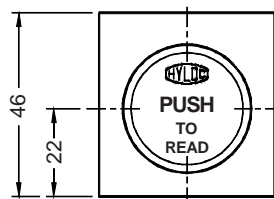
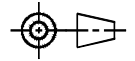


Hydraulic Symbol



Unit Dimensions

Model GIM - Sub-plate mounting Valve



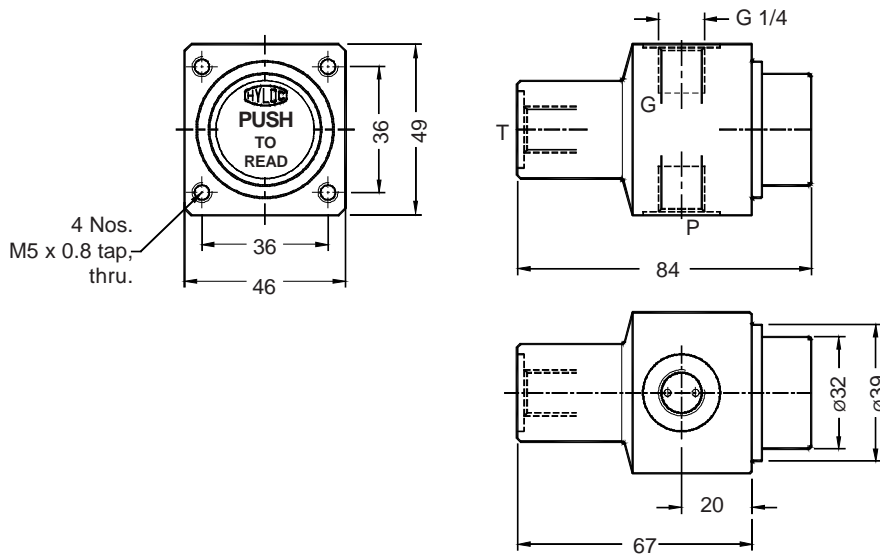
Gauge Isolator Valve (PUSH TO READ), Model : GI



the right connection
the right environment

Ref. No : H03542, Release March 2018 (Dimensions in mm)

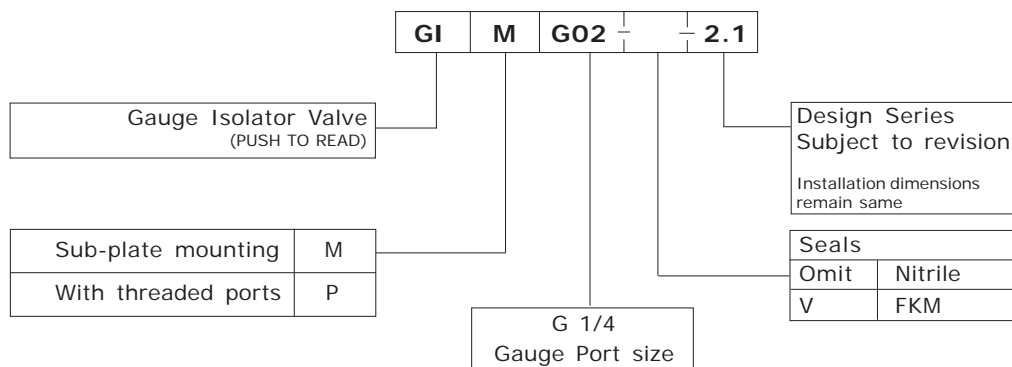
Model GIP - Valve with threaded ports



Technical Specifications

- Construction Spool type, manually operated, spring off-set.
- Mounting Sub-plate mounting, conforming to
IS 10187
ISO 4401 - AB - 03 - 4 - A
DIN 24340 (Only `A' and `B' ports used.)
- Mounting position Optional
- Flow direction As indicated by the hydraulic symbol.
- Operating pressure 210 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -10 °C to +80 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.

Ordering Code



Note : To mount Pressure gauges having G 3/8 or G 1/2 end connection, use of Gauge mounting Adaptor is recommended. Consult marketing@hyloc.co.in

Gauge Isolator Valve (PUSH TO READ), Model : GIB



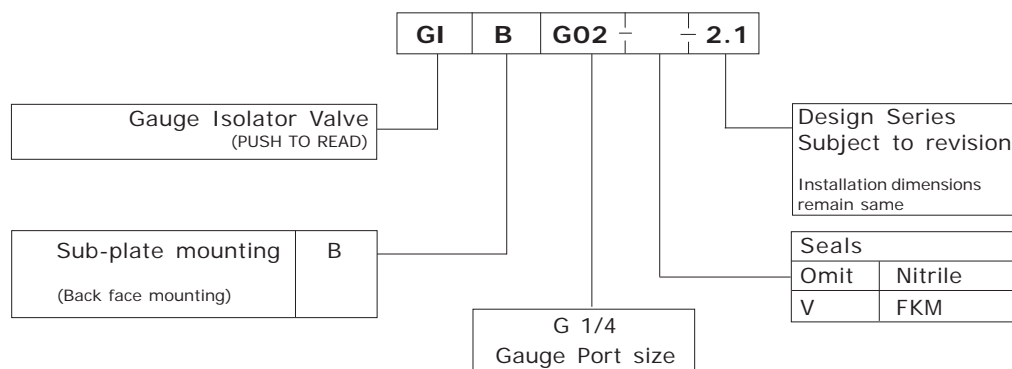
the right connection
the right environment

Ref. No : H04695, Release March 2018 (Dimensions in mm)

Technical Specifications

- Construction Spool type, manually operated, spring off-set.
- Mounting Back face mounting. Factory standard interface.
- Mounting position Optional
- Flow direction As indicated by the hydraulic symbol.
- Operating pressure 210 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -10 °C to +80 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.

Ordering Code



Note : To mount Pressure gauges having G 3/8 or G 1/2 end connection, use of Gauge mounting Adaptor is recommended. Consult marketing@hyloc.co.in

Gauge Isolator Valve (PUSH TO READ), Model : GIMH



the right connection
the right environment

Ref. No : H04706, Release March 2018 (Dimensions in mm)

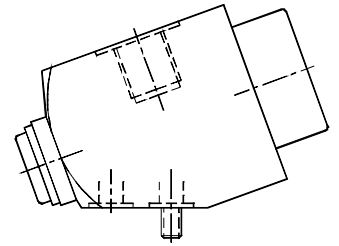
Description

The Pressure gauge Isolator valve, model **GIMH** is meant for checking the system pressure to which it is connected.

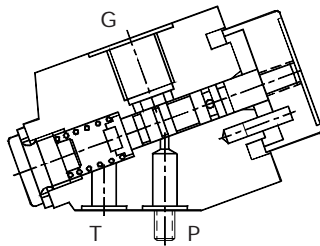
The valve is a spool type, spring off-set, manually operated device. In normal condition the valve blocks the pressure port and keeps the pressure gauge connected to the drain. Thus isolating the gauge from system pressure surges and eliminating continuous pressure strain on the gauge.

By pushing the actuator knob of the valve, system pressure can be read on the gauge.

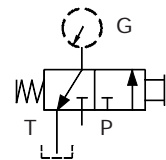
Angular gauge face plane in Sub-plate mounting construction (factory std Interface) facilitating easy gauge reading.



Section

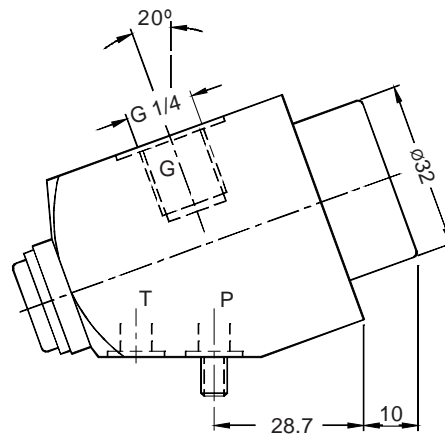
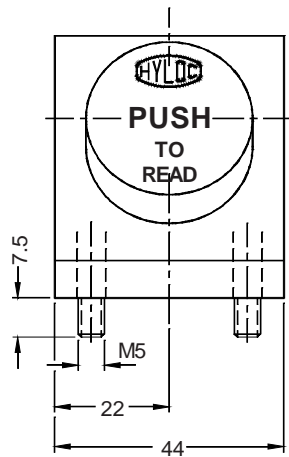
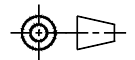


Hydraulic Symbol

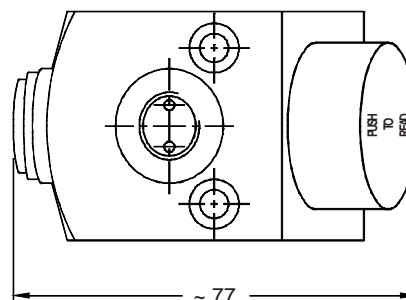
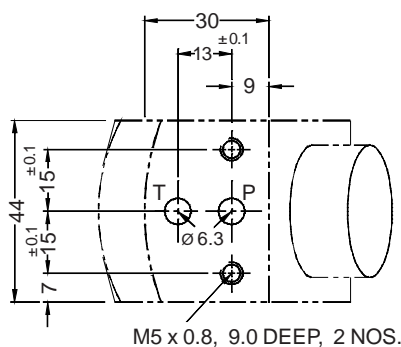


Unit Dimensions

Sub-plate mounting Valve



Interface (Factory standard)



Note : Use S.H.C. Screws - M5 x 40 long - 2 nos.
(Not Included in scope of supply)
Tightening Torque - 8.5 Nm.

Gauge Isolator Valve (PUSH TO READ), Model : GIMH



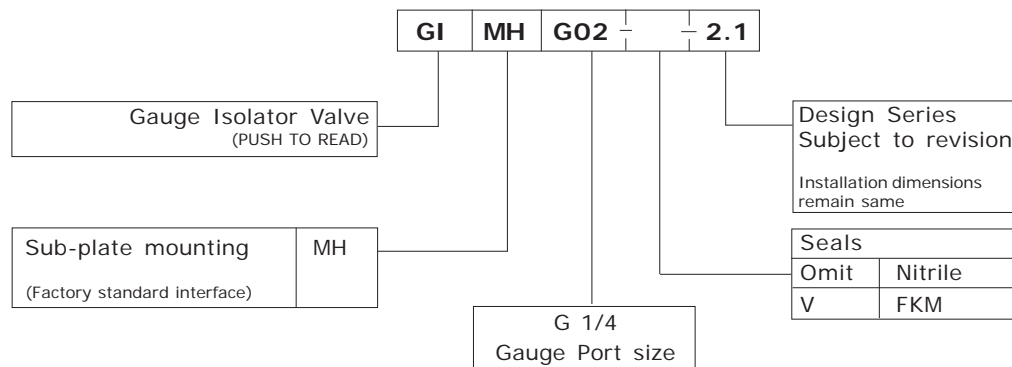
the right connection
the right environment

Ref. No : H04706, Release March 2018 (Dimensions in mm)

Technical Specifications

- Construction Spool type, manually operated, spring off-set.
- Mounting Sub-plate mounting mounting. Factory standard interface.
- Mounting position Optional
- Flow direction As indicated by the hydraulic symbol.
- Operating pressure 210 bar.
- Hydraulic medium Mineral oil.
- Viscosity range 10 cSt to 380 cSt.
- Fluid temperature range -10 °C to +80 °C.
- Fluid cleanliness requirement As per ISO 19/16 or better.

Ordering Code



Note : To mount Pressure gauges having G 3/8 or G 1/2 end connection, use of Gauge mounting Adaptor is recommended. Consult marketing@hyloc.co.in

Quick Disconnect Coupling, Model : QDC



the right connection
the right environment

Ref. No : H03297, Release March 2018 (Dimensions in mm)

Description

Quick disconnect couplings are designed for applications where fast connection and disconnection of hydraulic lines is a need of the system.

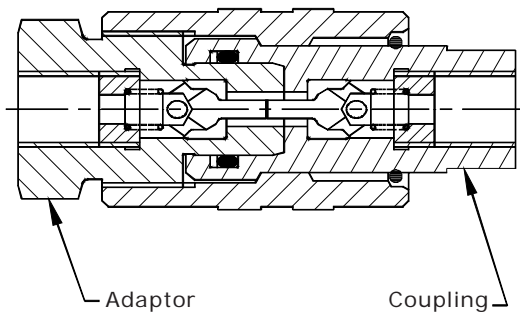
These coupling when connected offer unrestricted flow passage.

They are designed for reliable and safe operations by avoiding premature flow before the coupling is fully closed.



Section

(Self sealing Coupling, Self sealing Adaptor, Illustrated)



Hydraulic Symbol	Coupling Type
	Through type Adaptor AT Through type Coupling CT
	Self sealing Adaptor AS Through type Coupling CT
	Through type Adaptor AT Self sealing Coupling CS
	Self sealing Adaptor AS Self sealing Coupling CS

Unit Dimensions

End connections (Female)

BSP - G
Metric - M

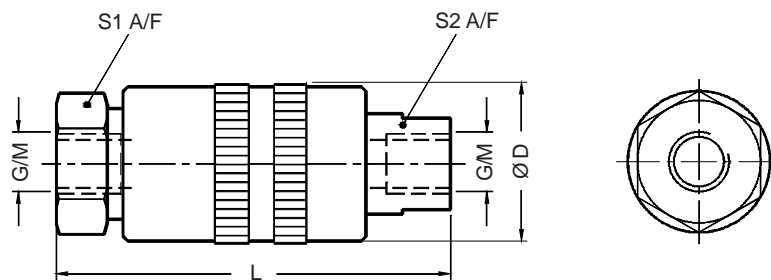
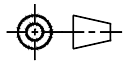


Table 1

Pressure (bar)	G	M	S1	S2	ØD	L
800	G 1/4	M14x1.5	27	19	35	86
800	G 3/8	M18x1.5	32	22	37	88
600	G 1/2	M22x1.5	41	30	46	116
500	G 3/4	M26x1.5	50	36	56	130
400	G1	M33x2.0	55	41	62	150

Quick Disconnect Coupling, Model : QDC



the right connection
the right environment

Ref. No : H03297, Release March 2018 (Dimensions in mm)

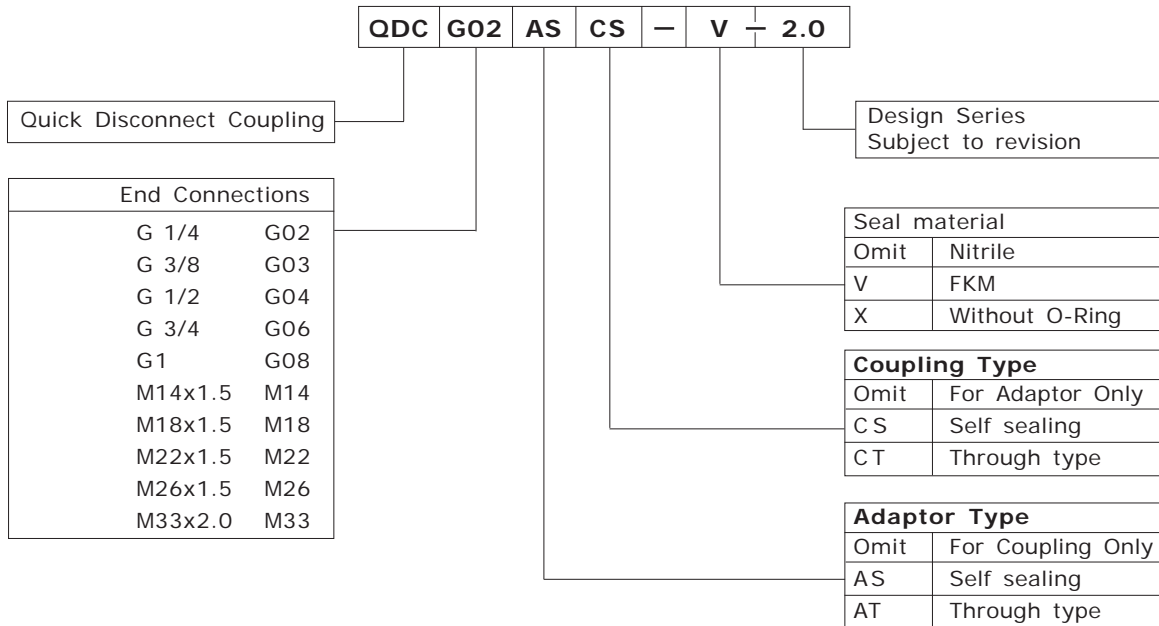
Technical Specifications

Construction Poppet type.
 Operating pressure Refer table no.1
 Hydraulic medium Mineral oil.
 Viscosity range 10 cSt to 380 cSt.
 Fluid temperature range -20 °C to +80 °C.
 Fluid cleanliness As per ISO code 19/16 or better
 Maximum flow handling capacity

M14 x 1.5	G 1/4
M18 x 1.5	G 3/8 - 30 lpm
M22 x 1.5	G 1/2
M26 x 1.5	G 3/4
M33 x 2.0	G 1

Caution : Pressure on the hydraulic lines must be relieved before they are connected/disconnected.

Ordering Code



Note : Add prefix 316 to the existing part code for SS 316 Quick disconnect couplings.

e.g. **316-QDCG02ASCS-2.0**

Accumulator Safety Block, Model : ASB



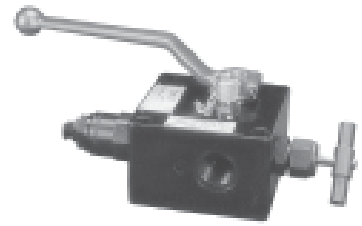
the right connection
the right environment

Ref. No : H05648, Release March 2018 (Dimensions in mm)

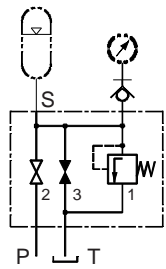
Description

The block is intended for protection, isolation and depressurization of a hydraulic accumulators.

Compact, block - shaped unit with adjustable Relief valve.

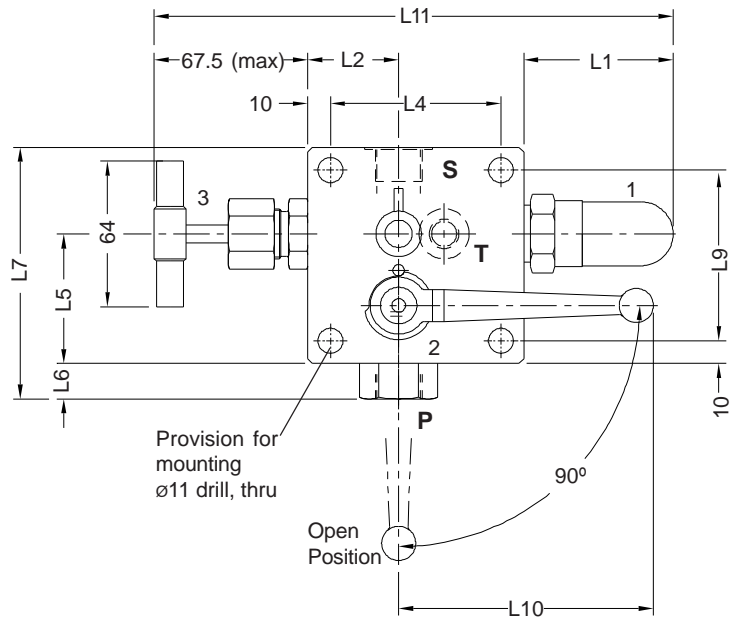
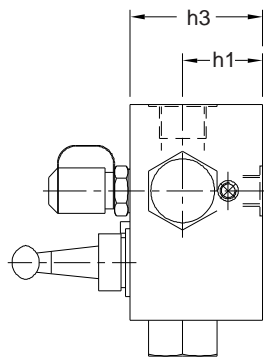
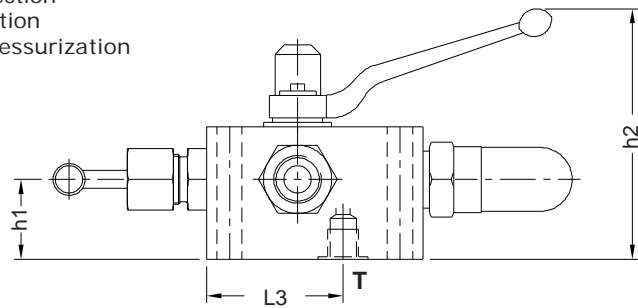


Unit Dimensions



Hydraulic Symbol

- 1. Pr. Relief Valve - For protection
- 2. Ball Valve - For Isolation
- 3. Shut off Valve - For depressurization



Ordering Code	L1	L2	L3	L4	L5	L6	L7	L9	L10	L11	h1	h2	h3	S	P	T
ASB10	65	40	60	75	57	15.5	110.5	75	112	227.5	35	110	58	G 1/2, 15 deep	G 1/2, 15 deep	G 1/4, 13 deep
ASB20	80	41	69	90	67	16.5	121.5	85	187	295.5	39	128	70	G 3/4, 17 deep	G 3/4, 17 deep	G 3/8, 13 deep
ASB32	80	41	69	90	67	38.0	158.0	100	187	295.5	39	128	70	G1.1/4, 21 deep	G1.1/4, 21 deep	G 3/8 13 deep

Accumulator Safety Block, Model : ASB



the right connection
the right environment

Ref. No : H05648, Release March 2018 (Dimensions in mm)

Technical Specifications

Construction 1. Relief Valve - Poppet type. (Metal to metal sealing)
2. Ball Valve - Ball and synthetic seat type.
3. Shut off Valve - Seat type. (Metal to metal sealing)

Mounting style Threaded ports.
Interface Factory standard.

Mounting position Optional
Flow direction Port 'P' to 'S' and Port 'S' to 'P'
Operating pressure Port 'P' and port 'S' - 350 bar.
Port 'T' - - - - - 16 bar

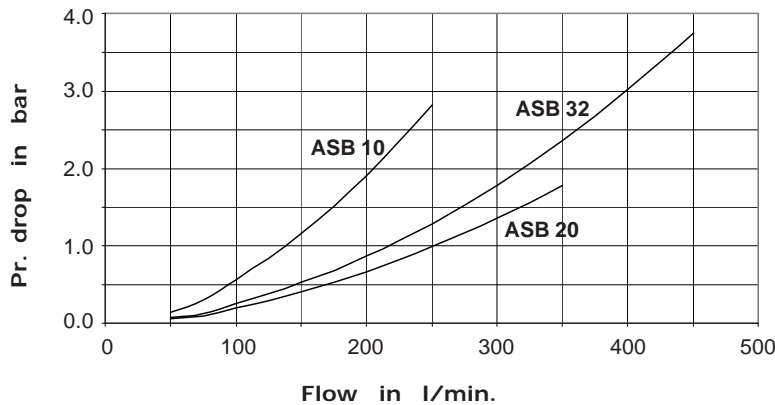
Pressure setting ranges 0 to 25, 50, 100, 200 and 350 bar
Hydraulic medium Mineral oil.
Viscosity range 10 cSt to 380 cSt.
Fluid temperature range -20 °C to +70 °C
Fluid cleanliness requirement As per ISO 19/16 or better.

Mass **ASB 10** 4.5 Kg.
ASB 20 7.0 Kg.
ASB 32 8.0 Kg.

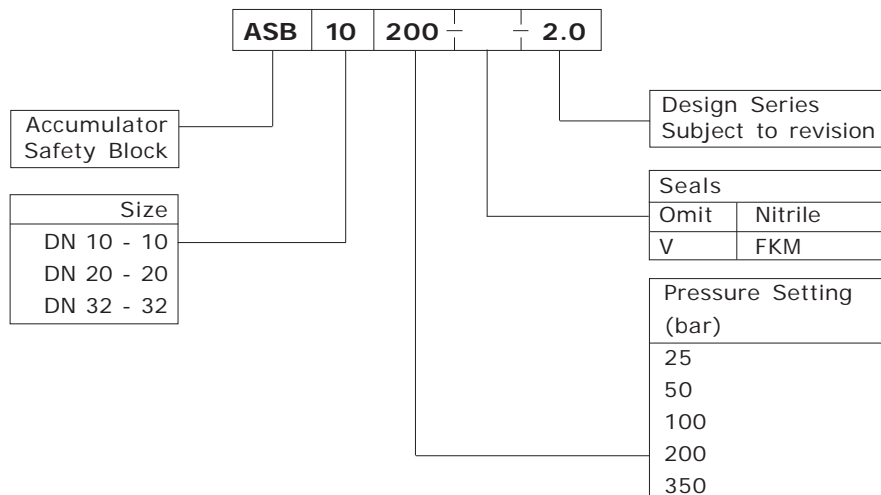
Flow handling capacity Refer graph

Expected performance curves

Oil used : ISO VG 68,
Viscosity : 68 cSt @ 40 °C



Ordering Code



Diagnostic Coupling



MMC

Test point Connector



MMC - VK

Diagnostic Coupling, Model : MMC



the right connection
the right environment

Ref. No : H04312, Release March 2018 (Dimensions in mm)

Description

Diagnostic Couplings are intended to provide facility to access system pressure for the purpose of pressure measurement.

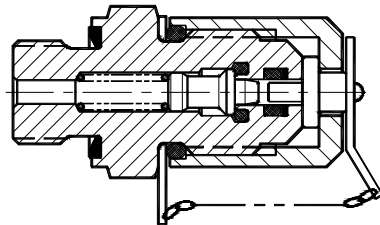
For transmitting pressure through these couplings to the measuring devices, no special tools are needed. These couplings can be connected by hand even at rated pressure.

These couplings are equipped with protective caps to avoid ingress of foreign particles, when the couplings are not in use. This is also a Safety device against vibration.

These couplings also can be used for purging air from the system.
Working Pressure 630 bar (9000 PSI) according to ISO 15171-2



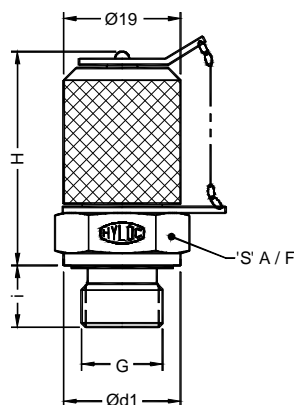
Section



Hydraulic Symbol

Unit Dimensions

For **M16 x 2.0 (1620)**, **M16 x 1.5 (1615)**
and for special thread at Hose end. (**1215**)



Stud end threads	Sealing details	Working Pressure	Ød1	i	For 1615 and 1620		For 1215		
					H	S	H	S	
ISO 228 - G 1/8	Elastomeric seal (DIN 3852)	400 bar	14	8	38	17	38	14	
ISO 228 - G 1/4		630 bar	19	10	35	19	29	19	
ISO 228 - G 3/8		630 bar	22	10	35	22	29	22	
M8 x 1.0	O-Ring (ISO 6149)	250 bar	12	8.5	40	17	38	14	
M10 x 1.0	Elastomeric seal (DIN 3852)	630 bar	14	8.5	40	17	38	14	
M12 x 1.5			* 9.5	35	17	29	17		
			17					10.0	
M14 x 1.5	O-Ring (ISO 6149)	630 bar	* 11.0	35	19	29	19		
			19					10.0	
			* 11.5						
M16 x 1.5	O-Ring (ISO 6149)	630 bar	22	10.0	35	22	29	22	
			* 12.5	35	22	29	22		
			14.1					9.0	
7/16"-20 UNF	O-Ring (SAE J514)	630 bar	17.3	10.0	35	19	29	19	
9/16"-18 UNF			Self sealing threads	400 bar	--	9.7	35	17	30
1/8 NPTF	--	14.2			35	17	29	14	
1/4 NPTF	Sealing by suitable jointing solutions	400 bar			--	7.5	35	17	32
ISO 7/1 - R 1/8			630 bar	--	11.0	35	17	29	14
ISO 7/1 - R 1/4									

* Marked dimensions are for stud ends with O' Ring sealing

Diagnostic Coupling, Model : MMC



the right connection
the right environment

Ref. No : H04312, Release March 2018 (Dimensions in mm)

Technical Specifications

Construction Spring loaded poppet type, opens on assembly by hose.

Materials Body Carbon steel. stainless steel on request.

Cap Carbon steel or Plastic.

Hydraulic medium Mineral oil.

Sealings Nitrile (standard) and Viton on request.

Temperature range

With metal cap (Standard) Sealing by Nitrile : -30 °C to +120 °C
Viton : -20 °C to +200 °C

with Plastic cap (Optional) Sealing by Nitrile : -30 °C to +100 °C
Viton : -20 °C to +100 °C

Ordering Code

MMC 1620 G02 E P V 20



Micro bore flex hose thread size	
M16 x 2.0	1620
M16 x 1.5	1615
Special threads 12 x 1.5	1215

Design Series
Subject to revision

Seal Material	
Omit	Nitrile
V	Viton

Stud ends	Code
ISO 228 - G 1/8	G01
ISO 228 - G 1/4	G02
ISO 228 - G 3/8	G03
M8 x 1.0	M8
M10 x 1.0	M10
M12 x 1.5	M12
M14 x 1.5	M14
M16 x 1.5	M16
7/16"-20 UNF	S04
9/16"-18 UNF	S06
1/8" NPTF	N01
1/4" NPTF	N02
ISO 7/1 - R1/8	R01
ISO 7/1 - R1/4	R02

Protective Cap	
Omit	Metal Cap
P	Plastic Cap

Stud end sealing	
E	Elastomeric seal
O	O' Ring

Note : Add prefix 316 to the existing part code for SS 316 Diagnostic coupling.
e.g. **316-MMC1620G02E-20**

Diagnostic connector, Model : MMC-VK



the right connection
the right environment

Ref. No : H11212, Release March 2018 (Dimensions in mm)

Description

Diagnostic connectors, hoses, are intended to provide facility to access system pressure for the purpose of pressure measurement.

For transmitting pressure through these couplings to the measuring devices, no special tools are needed. These couplings can be connected by hand even at rated pressure.

These couplings are equipped with protective caps to avoid ingress of foreign particles, when the couplings are not in use. This is also a Safety device against vibration.

These connectors are equipped with swivel nut and O-Ring, which can be directly connected to any fitting with tube end (DIN 2353)

These couplings also can be used for purging air from the system.
Working Pressure 630 bar (9000 PSI) according to ISO 15171-2

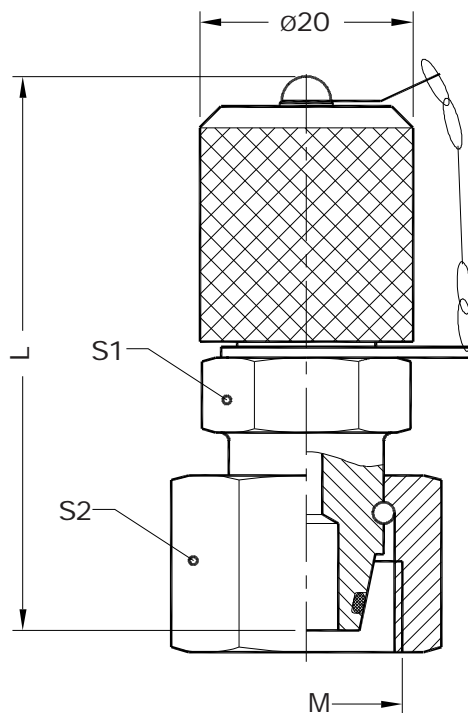


Unit Dimensions

For **M16 x 2.0 (1620)**, **M16 x 1.5 (1615)**



Hydraulic Symbol



Tube od	Pr. (bar)	M	L	S1	S2
6	315 bar	M12 x 1.5	52.0	17	14
8		M14 x 1.5	52.0	17	17
10		M16 x 1.5	52.0	17	19
12		M18 x 1.5	52.0	17	22
15		M22 x 1.5	52.0	19	27
18	160 bar	M26 x 1.5	52.0	22	32
22		M30 x 2.0	60.0	27	36
6	630 bar	M14 x 1.5	52.0	17	17
8		M16 x 1.5	52.0	17	19
10		M18 x 1.5	52.0	17	22
12		M20 x 1.5	52.0	17	24
16		400 bar	M24 x 1.5	52.0	22
20	M30 x 2.0		63.0	27	36

Diagnostic connector, Model : MMC - VK



the right connection
the right environment

Ref. No : H11212, Release March 2018 (Dimensions in mm)

Technical Specifications

Construction Spring loaded poppet type, opens on assembly by hose.

Materials Body Carbon steel. stainless steel on request.

Cap Carbon steel or Plastic.

Hydraulic medium Mineral oil.

Sealings Nitrile (standard) and Viton on request.

Temperature range

With metal cap (Standard) Sealing by Nitrile : -30 °C to +120 °C
Viton : -20 °C to +200 °C

with Plastic cap (Optional) Sealing by Nitrile : -30 °C to +100 °C
Viton : -20 °C to +100 °C

Ordering Code

MMC 1620 VK 06L P V 20

Diagnostic Coupling ——— Design Series Subject to revision

Micro bore flex hose thread size	
M16 x 2.0	1620
M16 x 1.5	1615
Special threads 12 x 1.5	1215

Diagnostic Connector	VK
----------------------	----

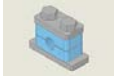
Seal Material	
Omit	Nitrile
V	Viton

Protective Cap	
Omit	Metal Cap
P	Plastic Cap

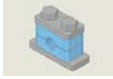
Tube end	Size
6 OD (LP Series)	06L
8 OD (LP Series)	08L
10 OD (LP Series)	10L
12 OD (LP Series)	12L
15 OD (LP Series)	15L
18 OD (LP Series)	18L
22 OD (LP Series)	22L
06 OD (HP Series)	06S
08 OD (HP Series)	08S
10 OD (HP Series)	10S
12 OD (HP Series)	12S
16 OD (HP Series)	16S
20 OD (HP Series)	20S

Note : Add prefix 316 to the existing part code for SS 316 Diagnostic connectors.
e.g. **316-MMC1620VK06L-20**

Tube Clamps



7TR/AM/PCSH



STC

Description

Tube & pipe clamps are used in installations to provide rigid support to the pipes both in lateral & longitudinal directions relieving stresses caused by unequal movements in the pipe line.

The use of clamps will also prevent the transmission of vibrations from the pipe to the frame & vice versa. Loosening of joints, welds & leakage in the system can be avoided by the rigidity provided by the clamps.

These are available in Metric Series from Tube o.d. of 6 mm to 38 mm.



Unit Dimensions

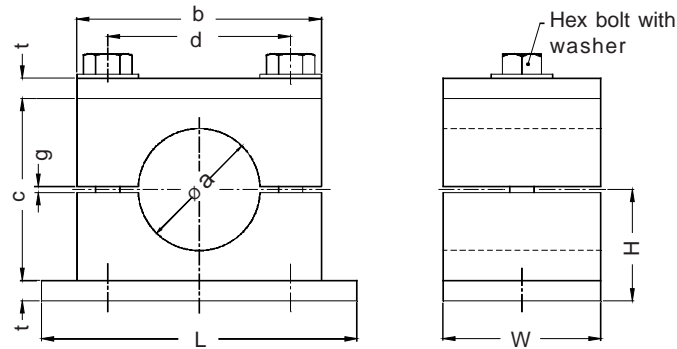
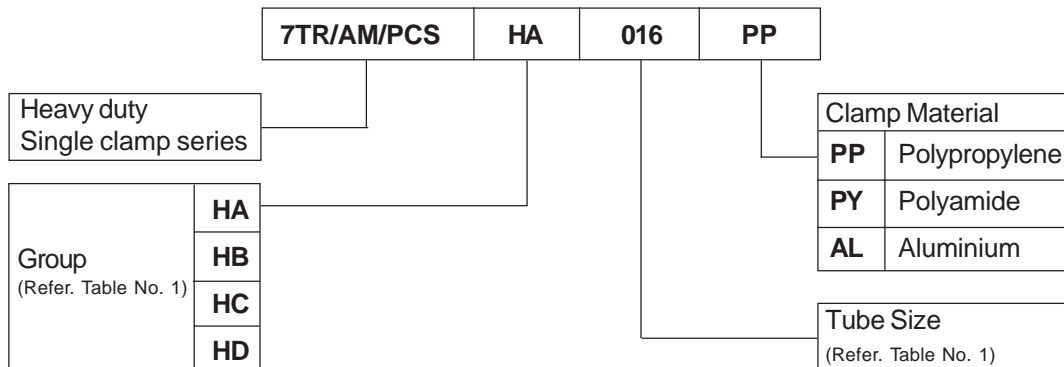


Table 1

Group No	Tube Size		L	c	t	g	b	d	W	H
	Øa	Code								
HA	06	006	73	32	8	1	55	33	30	24
	08	008								
	10	010								
	12	012								
	14	014								
	15	015								
	16	016								
	18	018								
HB	20	020	85	48	8	1	70	45	30	32
	22	022								
	25	025								
	28	028								
	30	030								
HC	30	030	100	60	8	1	85	60	30	38
	35	035								
	38	038								
HD	38	038	140	90	10	2	115	90	45	55
	42	042								

Ordering Code



Description

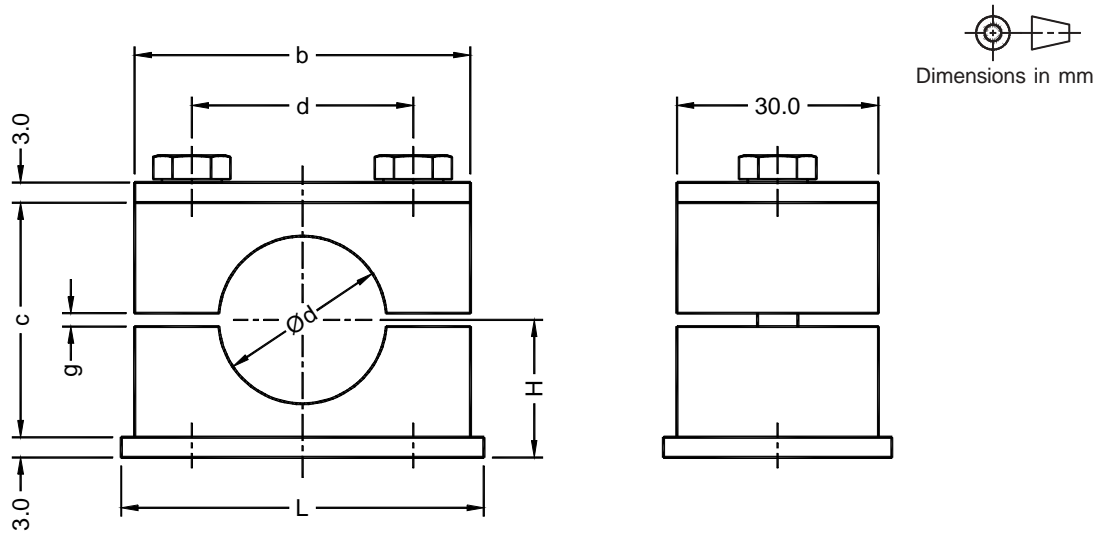
Tube & pipe clamps are used in installations to provide rigid support to the pipes both in lateral & longitudinal directions relieving stresses caused by unequal movements in the pipe line.

The use of clamps will also prevent the transmission of vibrations from the pipe to the frame & vice versa. Loosening of joints , welds & leakage in the system can be avoided by the rigidity provided by the clamps.

These are available in Metric Series from Tube o.d. of 6 mm to 42 mm.



Unit Dimensions



Group No.	Tube Size (Ød)	L	c	g	b	d	H	Bolt Size
1a	6	36	27	0.6	37	20	15	M6 x 30
	8							
	10							
	12							
2	14	42	33	0.6	42	26	18	M6 x 35
	15							
	16							
	18							
3	20	50	35	0.6	50	33	19	M6 x 40
	22							
	25							



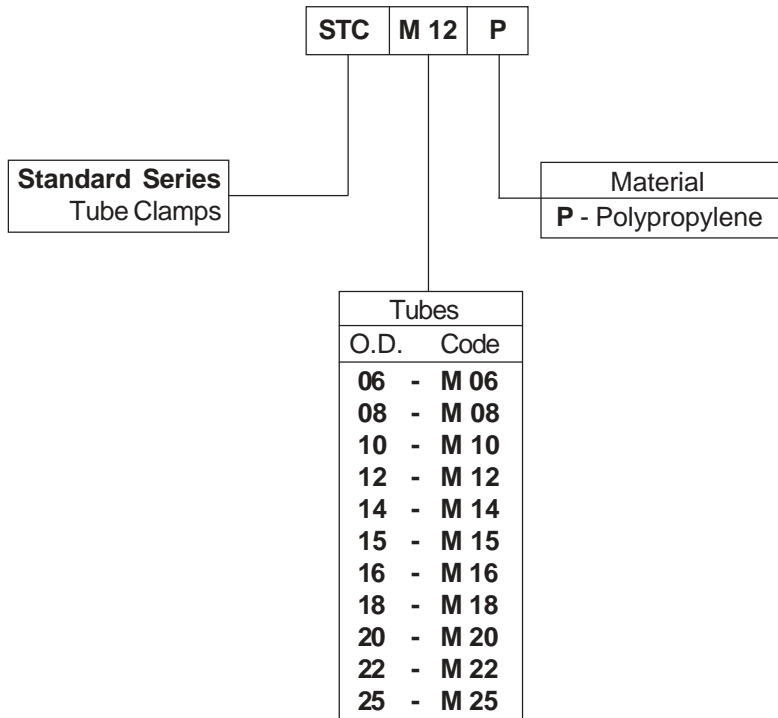
TUBE AND PIPE CLAMPS
(Standard Series) MODEL : STC

Ref. No. **H08023**
Release. June. 2003

ENGINEERING

2

Ordering Code



All rights reserved.
Subject to revision.

hyloc hydrotechnic pvt. ltd

C-26, Industrial Estate, Udyambag,
BELGAUM, 590 008. (INDIA)

Phone : 91- 831- 441448, 441034
Fax : 91- 831- 441379, 441610
http : // www.hylohydrotechnic.com
E-mail : hyloc@sancharnet.in

New Releases

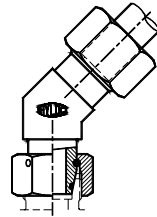
July 2009 ----- Adjustable Locknut Elbow for BSPP stud ends : WEE-G



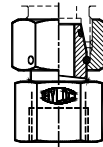
July 2009 ----- 90° Swivel Nut Elbow for 37° flared T ube ends : EW -TRX



Feb. 2010 -----45° Swivel Elbow Couplings with O Ring : EV



May 2016 -----Female Standpipes with O ring : EGE - GF



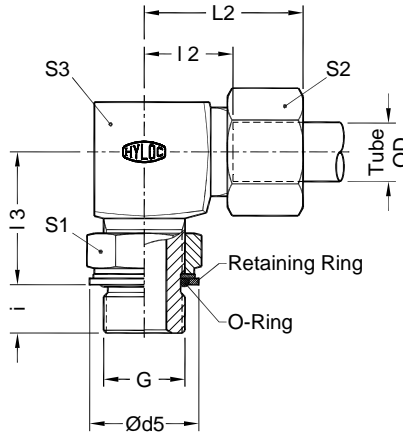
Adjustable Locknut Elbow

WEE - G

Dimensions in mm

DIN Fittings

Metric Tube end as per ISO 8434
 Male Stud - Adjustable BSPP (G) threads
 with O-Ring and Retaining ring
 as per ISO 1179-3



Part No.	Series	Tube od	BSPP thread G	Ød5	i	l2	* L2	l3	S1	S2	S3
WEE06PLG	Light L 200 bar	6	G 1/8 A	15.0	7.0	14.0	29	19	14	14	12
WEE08PLG		8	G 1/4 A	19.5	9.0	16.0	31	23	19	17	14
WEE10PLG		10	G 1/4 A	19.5	9.0	17.0	33	25	19	19	17
WEE12PLG		12	G 3/8 A	23.5	9.0	19.0	34	28	22	22	19
WEE15PLG		15	G 1/2 A	28.5	13.0	21.0	37	30	27	27	22
WEE18PLG		18	G 1/2 A	28.5	13.0	23.5	41	36	27	32	27
WEE22PLG		22	G 3/4 A	34.5	13.0	27.5	45	36	36	36	30
WEE28PLG		28	G1 A	43.5	15.0	30.5	49	44	41	41	36
WEE35PLG	160 bar	35	G1.1/4 A	52.5	15.0	37.5	60	50	50	50	46
WEE42PLG		42	G1.1/2 A	60.0	15.0	38.0	61	52	55	60	55
WEE06PSG	Heavy S 200 bar	6	G 1/4 A	19.5	9.0	15.0	30	23	19	17	14
WEE08PSG		8	G 1/4 A	19.5	9.0	17.0	32	27	19	19	17
WEE10PSG		10	G 3/8 A	23.5	9.0	17.5	35	29	22	22	19
WEE12PSG		12	G 3/8 A	23.5	9.0	21.5	38	29	22	24	22
WEE16PSG		16	G 1/2 A	28.5	13.0	25.5	45	36	27	30	24
WEE20PSG		20	G 3/4 A	34.5	13.0	27.5	50	39	36	36	30
WEE25PSG		25	G1 A	43.5	15.0	30.0	55	44	41	46	36
WEE30PSG		160 bar	30	G1.1/4 A	52.5	15.0	35.5	64	49	50	50
WEE38PSG	38		G1.1/2 A	60.0	15.0	34.0	66	55	55	60	55

* Dimensions given are approx figures with tightened nut.



90° Swivel Nut Elbow

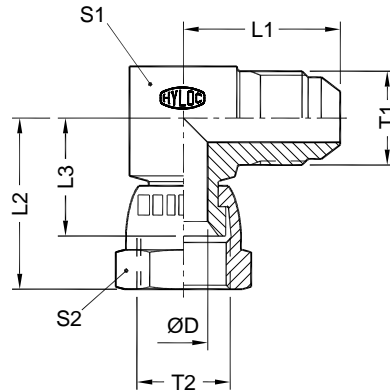
EW-TRX

Dimensions in mm

SAE Fittings

37° Flared Tube end as per ISO 8434-2 / SAE J514

37° Flare Female swivel end as per SAE 070221 (J514)



Part No.	Pressure (bar)	Tube od	T1	T2	ØD	L1	L2	L3	S1	S2
EW06TRX	310	6	7/16"-20 UNF	7/16"-20 UNF	4.4	22.6	25.4	16.7	12	17
EW08TRX	275	8	1/2"-20 UNF	1/2"-20 UNF	6.0	24.1	26.9	17.4	14	17
EW10TRX	275	10	9/16"-18 UNF	9/16"-18 UNF	7.5	26.9	31.8	22.3	19	19
EW12TRX	275	12	3/4"-16 UNF	3/4"-16 UNF	9.9	31.8	35.1	24.4	22	24
EW16TRX	210	16	7/8"-14 UNF	7/8"-14 UNF	12.3	36.8	41.1	28.4	24	27
EW20TRX	210	20	1.1/16"-12 UN	1.1/16"-12 UN	15.5	42.2	44.4	30.1	30	32
EW22TRX	170	22	1.3/16"-12 UN	1.3/16"-12 UN	18.0	45.7	45.2	30.5	32	36
EW25TRX	170	25	1.5/16"-12 UN	1.5/16"-12 UN	21.5	46.0	50.8	35.7	36	41
EW30TRX	140	30	1.5/8"-12 UN	1.5/8"-12 UN	27.5	52.3	58.7	42.8	46	50
EW38TRX	105	38	1.7/8"-12 UN	1.7/8"-12 UN	33.5	59.2	65.8	47.2	50	60

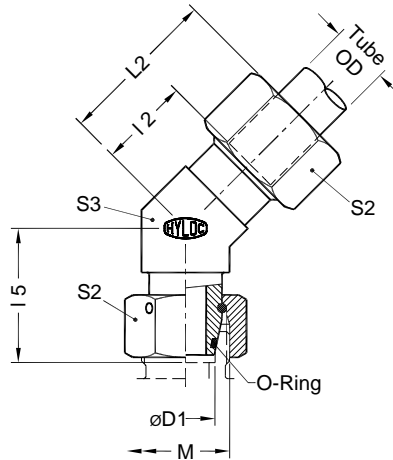
45° Swivel Elbow Couplings with O-Ring

EV

Dimensions in mm

DIN Fittings

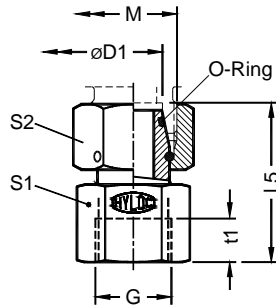
Metric Tube end as per ISO 8434-1



Part No.	Series	Tube od (ØD1)	M	I2	I5	* L2	S2	S3	O-Ring ID x CSD
EV06PL	Light L 315 bar	6	M12 x 1.5	9.0	26.0	24.5	14	12	4.0 x 1.5
EV08PL		8	M14 x 1.5	12.0	27.5	27.0	17	14	6.0 x 1.5
EV10PL		10	M16 x 1.5	12.0	29.0	27.5	19	17	7.5 x 1.5
EV12PL		12	M18 x 1.5	14.0	29.5	29.0	22	19	9.0 x 1.5
EV15PL		15	M22 x 1.5	17.0	32.5	33.0	27	22	12.0 x 2.0
EV18PL		18	M26 x 1.5	16.5	35.5	33.5	32	27	15.0 x 2.0
EV22PL	160 bar	22	M30 x 2.0	18.5	38.5	35.5	36	30	20.0 x 2.0
EV28PL		28	M36 x 2.0	23.0	41.5	41.0	41	36	26.0 x 2.0
EV35PL		35	M45 x 2.0	26.5	51.0	49.5	50	46	32.0 x 2.5
EV42PL		42	M52 x 2.0	26.0	56.0	49.5	60	55	38.0 x 2.5
EV06PS	Heavy S 630 bar	6	M14 x 1.5	9.0	27.0	24.5	17	14	4.0 x 1.5
EV08PS		8	M16 x 1.5	12.0	27.5	27.0	19	17	6.0 x 1.5
EV10PS		10	M18 x 1.5	13.5	30.0	30.5	22	19	7.5 x 1.5
EV12PS		12	M20 x 1.5	16.5	31.0	33.0	24	22	9.0 x 1.5
EV16PS	400 bar	16	M24 x 1.5	15.5	36.5	34.5	30	24	12.0 x 2.0
EV20PS		20	M30 x 2.0	16.0	44.5	38.5	36	30	16.3 x 2.4
EV25PS		25	M36 x 2.0	18.5	50.0	43.5	46	36	20.3 x 2.4
EV30PS		30	M42 x 2.0	23.5	55.0	51.5	50	46	25.3 x 2.4
EV38PS	315 bar	38	M52 x 2.0	21.0	63.0	52.5	60	55	33.3 x 2.4

* Dimensions given are approx figures with tightened nut.

Metric standpipe with Swivel coupling Nut
 Female BSPP (G) threads as per DIN 3852-2



Part No.	Series	Tube od øD1	G Female BSP thread	M	I 5	t1	S1	S2	O - Ring ID x CSD
EGE06LGF	Light L 315 bar	6	G 1/8	M12 x 1.5	32.0	8	14	14	4.0 x 1.5
EGE08LGF		8	G 1/4	M14 x 1.5	37.0	12	19	17	6.0 x 1.5
EGE10LGF		10	G 1/4	M16 x 1.5	36.5	12	19	19	7.5 x 1.5
EGE12LGF		12	G 3/8	M18 x 1.5	38.5	12	24	22	9.0 x 1.5
EGE15LGF		15	G 1/2	M22 x 1.5	41.5	14	27	27	12.0 x 2.0
EGE18LGF		18	G 1/2	M26 x 1.5	42.0	14	27	32	15.0 x 2.0
EGE22LGF	160 bar	22	G 3/4	M30 x 2.0	48.5	16	36	36	20.0 x 2.0
EGE28LGF		28	G 1	M36 x 2.0	53.0	18	41	41	26.0 x 2.0
EGE35LGF		35	G1 1/4	M45 x 2.0	61.0	20	55	50	32.0 x 2.5
EGE42LGF		42	G1 1/2	M52 x 2.0	63.5	22	60	60	38.0 x 2.5
EGE06SGF	Heavy S 630 bar	6	G 1/4	M14 x 1.5	38.0	12	19	17	4.0 x 1.5
EGE08SGF		8	G 1/4	M16 x 1.5	38.0	12	19	19	6.0 x 1.5
EGE10SGF		10	G 3/8	M18 x 1.5	40.0	12	24	22	7.5 x 1.5
EGE12SGF		12	G 3/8	M20 x 1.5	40.0	12	24	24	9.0 x 1.5
EGE16SGF	400 bar	16	G 1/2	M24 x 1.5	45.5	14	30	30	12.0 x 2.0
EGE20SGF		20	G 3/4	M30 x 2.0	52.5	16	36	36	16.3 x 2.4
EGE25SGF		25	G 1	M36 x 2.0	58.5	18	41	46	20.3 x 2.4
EGE30SGF		30	G1 1/4	M42 x 2.0	65.5	20	55	50	25.3 x 2.4
EGE38SGF	315 bar	38	G1 1/2	M52 x 2.0	69.5	22	60	60	33.3 x 2.4

Offices and Stockiests

For updated product information, contact information and local distributors and representatives, please visit www.hyloc.co.in
