

An ISO 9001-2015 Certified Co



An ISO 9001-2015 Certified Co



End to End
Solutions for your
Hydraulic Systems



hydromax

Tube Fittings | Valves | Flanges | Accessories



CERTIFICATE

The Certification Body
of TÜV SÜD South Asia Private Limited

certifies that



Hydromax
B-18 & 12, Sy. No. 590, Machhe Ind. Estate,
Machhe, Belgaum - 590 014, Karnataka, INDIA

has implemented a Quality Management System
in accordance with **ISO 9001:2015**
For Scope of

**Design, Manufacture And Supply Of Hydraulic Tube Fittings,
Valves, Pumps, Accessories and Machined Components**

The certificate is valid From **2019-09-10** until **2022-09-09**

Subject to successful completion of annual periodic audits

The present status of this Certificate can be obtained on www.tuv-sud.in

Further clarifications regarding the scope of this certificate may be obtained by consulting the certification body

Certificate Registration No. **99 100 20240**

Date of Initial certification : **2019-09-10**

Certification Body
of TÜV SÜD South Asia Private Limited, **Mumbai**
Member of TÜV SÜD Group



HOW TO ORDER

An ISO 9001-2015 Certified Co

MSC 10 S G04 C O N P M

Coupling Type	
Tube couplings	
Straight	SC
Equal Elbow	EE
Equal Tee	ET
Equal Cross	EC
Stud couplings	
Straight Male Stud	MSC
Straight Female Stud	FSC
Male Stud Elbow	MSE
Male Stud Branch Tee	MSBT
Male Stud Run Tee	MSRT
Bulkheads and weld couplings	
Straight Bulkhead	SBC
Elbow Bulkhead	EBC
Weld Bulkhead	WBC
Weld Coupling	WC
Elbow Weld Coupling	EWC
Reducers / Expanders	
Reducing Standpipe	RS
Reducing Standpipe soft seal	RSS
Straight Reducer	SR
Swivel Couplings	
Banjo	BBD
Banjo, soft seal	BBDS
Banjo, Throttle free	TFBBD
Banjo, Rotary	RBBBD
Tee Benjo	TBBBD
Straight Stud Standpipe	SPA
Straight Stud Standpipe, soft seal	SPAS
Swivel Elbow	SE
Swivel Elbow, soft seal	SES
Swivel Branch Tee	SBT
Swivel Branch Tee soft seal	SBTS
Swivel Run Tee	SRT
Swivel Run Tee soft sea	SRTS
Blanking Plugs / Ends	
Blanking Plug	BP
Blanking End	BE
Hex Head Plug	HHP
Socket Head Plug	SHP
Misc	
Pressure Gauge Connector	GA
Pressure Gauge Standpipe	SPGA

Body material	
Omit	Steel
304	SS304
316	SS316

Surface Treatment	
Omit	Zinc Plated and Yellow Chromated
P	Phosphated

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

Sub Type Modifier	
Omit	Without Seal
C(WA)	Copper Washer
B(MM)	Metal to Metal Seal
D(BS)	Bonded Seal
E(ES)	Elastomeric Seal
O(OR)	O'ring Sealing


Conection Type	
F	Furrule
W**	Weld Nipple
	** is tube thickness
	Eg: w20 - 2mm wallthickness
X	Without Nut and Ferrule
Y	Without Nut and Ferrule on standpipe
TR	Flare fitting as per ISO 8434-2
TRX	Flare fitting as per ISO 8434-2
OR	ORFS face seal
ORX	ORFS face seal - Body Only

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

Pressure Series	
Very Light	LL
Light	L
Heavy	S

Stud End											Standard Tube size			
BSP Thread		BSPT Thread		SAE Straight Threads(UNF)		NPTF Taper Threads		Metric Thread		Metric Taper Thread (keg)		Standard Combination		
												LL	L	S
G01	G1/8	R01	R1/8			N01	N1/8	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	N1/8	M10	M10x1.0	M10	M10x1.0		06	
G02	G1/4	R02	R1/4			N02	N1/4	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	N3/8	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	N1/2						15	14
								M22	M22x1.5	M22	M22x1.5		18	16
G06	G3/4	R06	R3/4	S10	7/8-14	N06	N3/4	M27	M27x2.0	M27	M27x2.0		22	20
G08	G1	R08	R1	S12	1.1/16-12	N08	N1	M33	M33x2.0	M33	M33x2.0		28	25
G10	G1.1/4	R10	R1.1/4	S16	1.5/16-12	N10	N1.1/4	M42	M42x2.0	M42	M42x2.0		35	30
G12	G1.1/2	R12	R1.1/2	S20	1.5/8-12	N12	N1.1/2	M48	M48x2.0	M48	M48x2.0		42	38
G16	G2			S24	1.7/8-12			M60	M60x2.0	M60	M60x2.0			
Other Thread size						S02	5/16-24	N00	N1/16	M20	M20x1.5	M20		
						S03	3/8-24							
						S05	1/2-20							
						S14	1.3/16-12							

For Standard Combinations thread size can be omitted. Eg: Male Stud Coupling 10od with G1/2 stud - MSC10SG03

2014	NAME	DATE	PART NUMBER CHART	
DGN	TLH	1.1.14		
APD	PPP	1.1.14	CAT/JAN2014-1	
APD	MPD	1.1.14		



Reference Tube Fittings Standards for Metric tube only:

- ISO 8434 - 1 : 24° Cone Bite type.
- IS:8805 : 24° Cone Bite type.
- DIN 2353 : 24° Cone Bite type.
- ISO 8434 - 4 : 24° Cone with Weld on Nipples.
- BS 5200 : 60° Hose end.

Reference Port Connector Standards:

- ISO 1179 : BSPP (G) threads, Flat face.
- BS 5380 : BSPP (G) threads, 'O' Ring seal.
- ISO 6149 : Metric threads, 'O' Ring seal.
- SAEJ 1926/1 : SAE (UNF/UN) threads, 'O' Ring seal.

Reference Flanges Standards:

- ISO 6162 : Four screw split flange (SAE J514)
- ISO 6164 : Four screw one piece square flange.

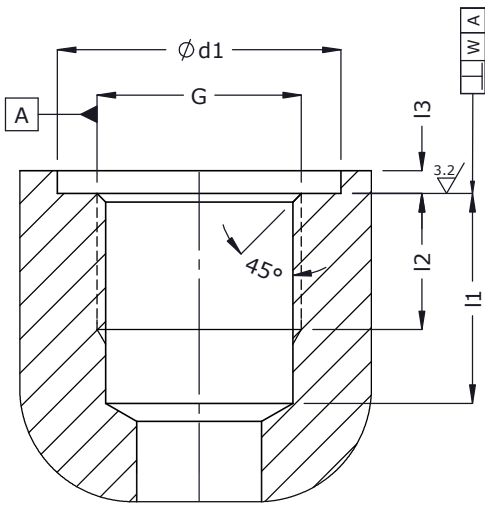
Surface Protection:

- Fittings and Ferrules are Zinc Trivalent plating finish as standard.
- Weld couplings & Weldable nipple are Zinc Phosphate and oiled.

An ISO 9001-2015 Certified Co

Flat face port with British Standard Pipe Parallel (BSP) Threads (DIN 3852 Part 2)

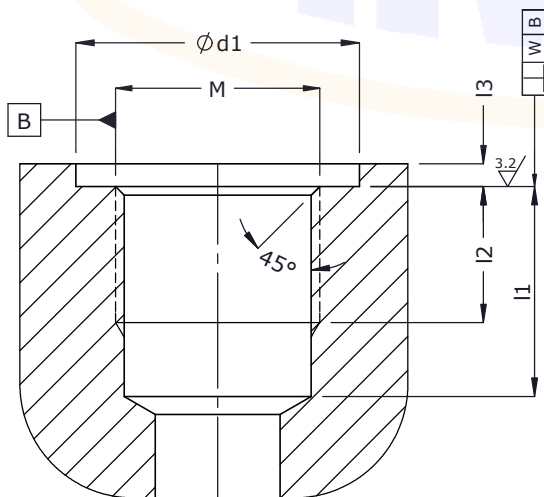
ISO 228-1 "G" threads



G Thread Size (ISO 228-1)	$\phi d1$ small	$\phi d1$ wide	I1	I2	I3	w
G 1/8	15	19	13.0	8.0	1.0	0.1
G 1/4	20	25	18.5	12.0	1.5	0.1
G 3/8	23	28	18.5	12.0	2.0	0.1
G 1/2	28	34	22.0	14.0	2.5	0.2
G 3/4	33	42	24.0	16.0	2.5	0.2
G 1	41	47	27.0	18.0	2.5	0.2
G1 1/4	51	58	29.0	20.0	2.5	0.2
G1 1/2	56	65	31.0	22.0	2.5	0.2

Flat face port with Metric Threads (DIN 3852 Part 1)

ISO 261 "M" threads



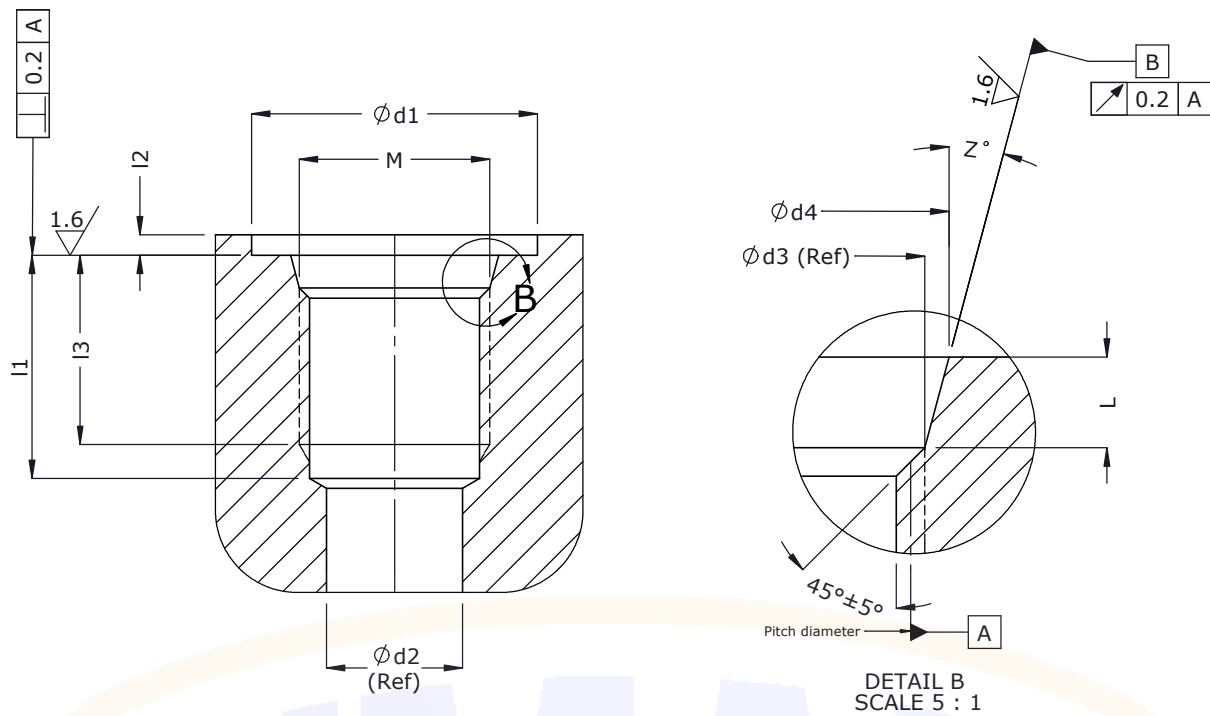
M Thread Size (ISO 261)	$\phi d1$ small	$\phi d1$ wide	I1	I2	I3	W
M8x1.0	13	17	13.5	8.0	1.0	0.1
M10x1.0	15	20	13.5	8.0	1.0	0.1
M12x1.5	18	25	18.5	12.0	1.5	0.1
M14x1.5	20	25	18.5	12.0	1.5	0.1
M16x1.5	23	28	18.5	12.0	1.5	0.1
M18x1.5	25	30	18.5	12.0	2.0	0.1
M20x1.5	27	34	20.5	14.0	2.0	0.1
M22x1.5	28	34	20.5	14.0	2.5	0.1
M26x1.5	33	42	22.5	16.0	2.5	0.2
M27x2.0	33	42	24.0	16.0	2.5	0.2
M33x2.0	41	47	26.0	18.0	2.5	0.2
M42x2.0	51	58	28.0	20.0	2.5	0.2
M48x2.0	56	65	30.0	22.0	2.5	0.2



Port Details

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

ISO fittings



DETAIL B
SCALE 5 : 1

Metric	$\phi d1$	$\phi d2$	$\phi d3$	$\phi d4$	l1	l2	l3	L	Z°
M8x1.0	14	3.0	8.42	9.1	11.5	1.0	10.0	1.6	12°
M10x1.0	16	4.5	10.42	11.1	11.5	1.0	10.0	1.6	12°
M12x1.5	19	6.0	12.51	13.8	14.0	1.5	11.5	2.4	15°
M14x1.5	21	7.5	14.51	15.8	14.0	1.5	11.5	2.4	15°
M16x1.5	24	9.0	16.51	17.8	15.5	1.5	13.0	2.4	15°
M18x1.5	26	11.0	18.51	19.8	17.0	2.0	14.5	2.4	15°
* M20x1.5	29	--	20.51	21.8	--	2.0	14.5	2.4	15°
M22x1.5	29	14.0	22.51	23.8	18.0	2.0	15.5	2.4	15°
M27x2.0	34	18.0	27.74	29.4	22.0	2.0	19.0	3.1	15°
M30x2.0	38	21.0	30.74	32.4	22.0	2.0	19.0	3.1	15°
M33x2.0	43	23.0	33.74	35.4	22.0	2.5	19.0	3.1	15°
M42x2.0	52	30.0	42.74	44.4	22.5	2.5	19.5	3.1	15°
M48x2.0	57	36.0	48.74	50.4	25.0	2.5	22.0	3.1	15°
M60x2.0	67	44.0	60.74	62.4	27.5	2.5	24.5	3.1	15°

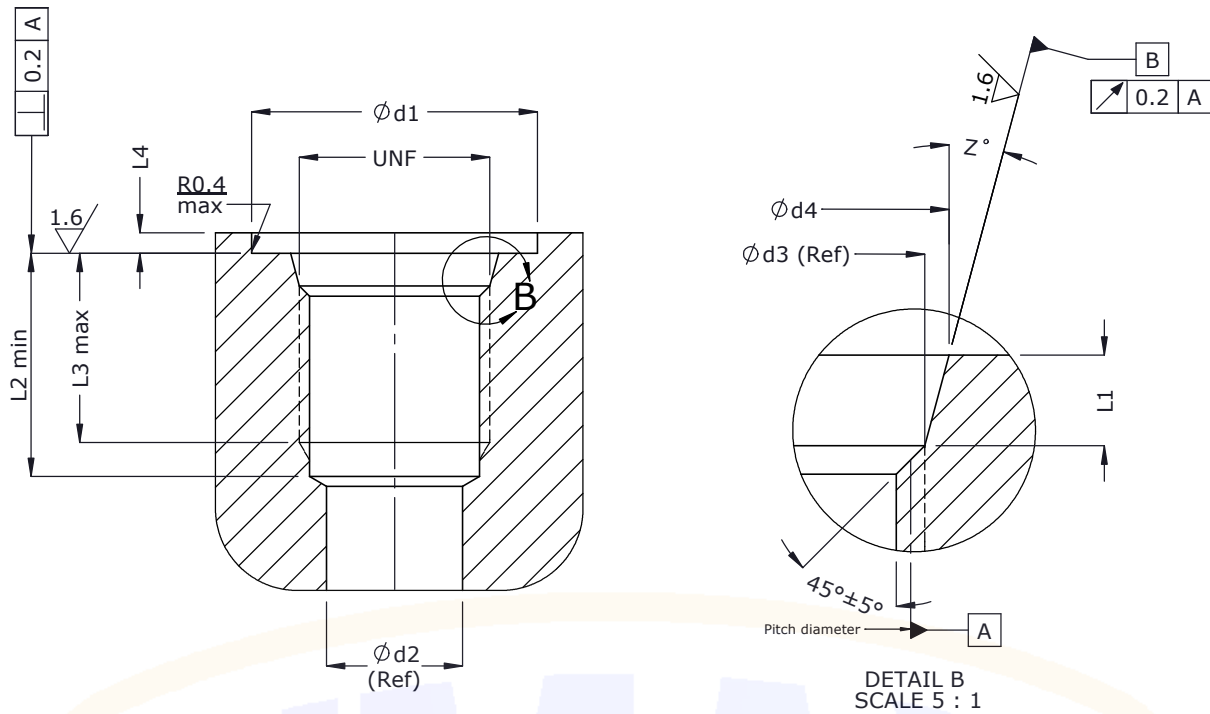
* For Cartridge Valve cavity applications only (See ISO 7789)



Port Details

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

ISO fittings



Tube Dash Size	Tube Size	UN/UNF Size Class 2B	* ØH	Tap Drill Size Ød	Ød1	Ød2	Ød3	Ød4	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	10.0	1.6	12°
- 3	3/16	3/8-24 UNF	7.92	8.38/8.63	19	3.5	9.85	10.75	2.1	12	10.0	1.6	12°
- 4	1/4	7/16-20 UNF	9.12	9.73/10.03	21	4.5	11.34	12.45	2.6	14	11.5	1.6	12°
- 5	5/16	1/2-20 UNF	10.72	11.33/11.60	23	6	12.94	14.05	2.6	14	11.5	1.6	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	12.7	1.6	12°
- 8	1/2	3/4-16 UNF	16.66	17.33/17.67	30	10	19.20	20.65	2.7	17.5	14.3	2.4	15°
- 10	5/8	7/8-14 UNF	19.83	20.27/20.67	34	12.5	22.55	24.00	2.7	20	16.7	2.4	15°
- 12	3/4	1-1/16-12 UN	23.82	24.68/25.15	41	16	27.32	29.20	3.5	23	19.0	2.4	15°
- 14	7/8	1-3/16-12 UN	--	27.86/28.32	45	18	30.52	32.40	3.5	23	19.0	2.4	15°
- 16	1	1-5/16-12 UN	30.17	31.03/31.50	49	21	33.67	35.55	3.5	23	19.0	3.2	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	19.0	3.2	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	19.0	3.2	15°
- 32	2	2-1/2-12 UN	--	61.21/61.67	88	45	63.87	65.75	3.5	23	19.0	3.2	15°

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

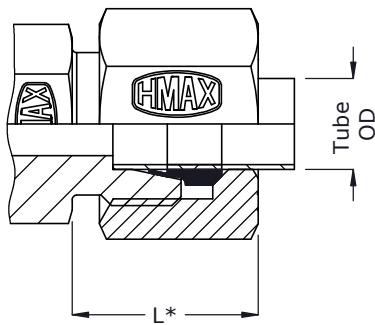
An ISO 9001-2015 Certified Co



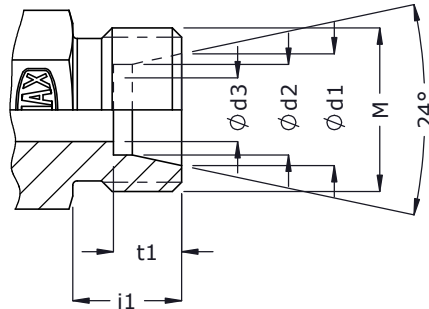
Tube Connection Parts

ISO fittings

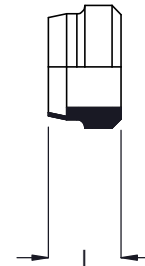
Metric Tube end as per ISO 8434



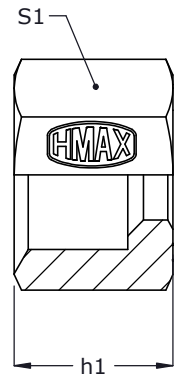
Assembled Component



Dimensions



Ferrule(F)



Nut (N)

Series	Tube OD	DN Size	M	Ød1	Ød2	Ød3	t1	i1	S1	h1	l	* L	Part Code Ferrule	Part Code Nut
LL Very Light NP 100	4	3	M8x1.0	5.0	4	3	4.0	8	10	11.5	7.0	14	F4LL	N4LL
	5	--	M10x1.0	6.5	5	3.5	5.5	8	12	11.5	7.0	14	F5LL	N5LL
	6	4	M10x1.0	7.5	6	4.5	5.5	8	12	12.0	7.0	14	F6LL	N6LL
	8	6	M12x1.0	9.5	8	6	5.5	9	14	12.5	7.0	15	F8LL	N8LL
L Light NP 250	6	4	M12x1.5	8.1	6	4	7.0	10	14	14.5	10.0	18	F6L	N6L
	8	6	M14x1.5	10.1	8	6	7.0	10	17	14.5	9.5	18	F8L	N8L
	10	8	M16x1.5	12.3	10	8	7.0	11	19	15.5	10.0	20	F10L	N10L
	12	10	M18x1.5	14.3	12	10	7.0	11	22	15.5	9.5	19	F12L	N12L
	15	12	M22x1.5	17.3	15	12	7.0	12	27	17.0	10.0	21	F15L	N15L
NP 160	18	16	M26x1.5	20.3	18	15	7.5	12	32	18.0	10.0	22	F18L	N18L
	22	20	M30x2.0	24.3	22	19	7.5	14	36	20.0	10.5	24	F22L	N22L
NP 100	28	25	M36x2.0	30.3	28	24	7.5	14	41	21.0	11.0	25	F28L	N28L
	35	32	M45x2.0	38.0	35	30	10.5	16	50	24.0	13.0	28	F35L	N35L
	42	40	M52x2.0	45.0	42	36	11.0	16	60	24.0	13.0	28	F42L	N42L
S Heavy NP 630	6	3	M14x1.5	8.1	6	4	7.0	12	17	16.5	10.0	20	F6S	N6S
	8	4	M16x1.5	10.1	8	5	7.0	12	19	16.5	9.5	20	F8S	N8S
	10	6	M18x1.5	12.3	10	7	7.5	12	22	17.5	10.0	22	F10S	N10S
	12	8	M20x1.5	14.3	12	8	7.5	12	24	17.5	9.5	21	F12S	N12S
NP 400	16	12	M24x1.5	18.3	16	12	8.5	14	30	20.5	10.0	25	F16S	N16S
	20	16	M30x2.0	22.9	20	16	10.5	16	36	24.0	12.0	28	F20S	N20S
	25	20	M36x2.0	27.9	25	20	12.0	18	46	27.0	12.0	31	F25S	N25S
NP 250	30	25	M42x2.0	33.0	30	25	13.5	20	50	29.0	13.0	35	F30S	N30S
	38	32	M52x2.0	41.0	38	32	16.0	22	60	32.5	13.0	38	F38S	N38S

* Dimensions given are approx figures with tightened nut.

NP - Nominal Pressure



INDEX

ISO fittings

SI. No_	Description	Part Code
Tube To Tube Couplings		
1	Straight Couplings	SC
2	Straight Reducers	SR
3	Equal Elbow Couplings	EE
4	Equal Tee Couplings	ET
5	Equal Cross Couplings	EC
Reducing Standpipes		
6	Reducing Standpipes(kor)	RS(KOR)
Male Stud Couplings		
Straight Male Stud Couplings - MSC		
7	Straight Male Stud Couplings	MSC-G
8	Straight Male Stud Couplings	MSC-G-ES
9	Straight Male Stud Couplings	MSC-M
10	Straight Male Stud Couplings	MSC-M-ES
11	Straight Male Stud Couplings	MSC-R
12	Straight Male Stud Couplings	MSC-N
Male Stud Elbow Couplings - MSE		
13	Male Stud Elbow Couplings	MSE-G
14	Male Stud Elbow Couplings	MSE-M
15	Male Stud Elbow Couplings	MSE-R
16	Male Stud Elbow Couplings	MSE-N
Male Stud Branch Tee Couplings - MSBT		
17	Male Stud Branch Tee Couplings	MSBT-G
18	Male Stud Branch Tee Couplings	MSBT-M
19	Male Stud Branch Tee Couplings	MSBT-R
Male Stud Run Tee Couplings - MSRT		
20	Male Stud Run Tee Couplings	MSRT-G
21	Male Stud Run Tee Couplings	MSRT-M
22	Male Stud Run Tee Couplings	MSRT-R
Female Stud Couplings		
23	Straight Female couplings	FSC-G
24	Straight Female couplings	FSC-M

An ISO 9001-2015 Certified Co



INDEX

ISO fittings

SI. No_	Description	Part Code
Bulk Head Couplings		
25	Straight Bulk Head Couplings	SBC
26	Elbow Bulk Head Couplings	EBC
Weld Couplings		
27	Weld couplings	WC
28	Weld couplings(Equal)	WCE
29	Elbow Weld couplings	EWC
Weldable Nipples		
30	Weldable Nipples	WNP
31	Reducing Weldable Nipples	RWNP
Pressure Gauge Connections		
32	Pressure Gauge Connectors	GA
33	Adjustable Pressure Gauge Standpipes	AGA
Banjo Couplings		
34	Banjo Couplings	BC-G
35	Tee Banjo Body Couplings	BTC
36	Throttle-Free Benjo Couplings	TFBC
Hose Adaptor		
37	Hose Adaptors	HA-G
38	Hose Adaptors	HA-G-ES
Male Female Reducing Thread Adaptor		
39	Male Female Adaptors	MFA-G
40	Male Female Adaptors	MFA-G-ES
41	Female Socket	FS
Adjustable Stand Pipe Adaptor		
Straight Stud Standpipes- SPA		
42	Straight Stud Standpipes	SPA-G
43	Straight Stud Standpipes	SPA-G-ES
44	Straight Stud Standpipes	SPA-M
45	Straight Stud Standpipes	SPA-M-ES
Swivel Couplings		
46	Swivel Elbow Couplings	SE
47	Swivel Branch Tee Couplings	SBT
48	Swivel Run Tee Couplings	SRT

An ISO 9001-2015 Certified Co



INDEX

ISO fittings

SI. No_	Description	Part Code
Swivel Stud Couplings		
49	Swivel Stud Elbow Couplings	SEC
50	Swivel Stud Branch Tee Couplings	SBTC
51	Swivel Stud Run Tee Couplings	SRTC
Plugs		
52	Hex Head Plug	HHP-G
53	Hex Head Plug	HHP-G-ES
54	Socket Head Plug	SHP-G
55	Socket Head Plug	SHP-G-ES
56	Hex Head Plug	HHP-M
57	Hex Head Plug	HHP-M-ES
58	Socket Head Plug	SHP-M
59	Socket Head Plug	SHP-M-ES
60	Hex Head Plug	HHP-R
61	Hex Head Plug	HHP-N
62	Grub Screw	GS-R
63	Grub Screw	GS-N
64	Blanking Plugs for 24 Tubes Ends	BP
65	Blanking Ends for Tubes	BE
Accessories		
66	Elastomeric Seal	ES
67	Bonded Seals	BS
68	Copper Washer	CW
69	Sealing Rings (Metallic)	SRM
70	Lock-Nut	LN
Flanges		
71	Buttweld Solid Flanges (ISO 6162)	BSF
72	Socket Weld Flanges (ISO 6162)	SWF
73	BF - Blind Flanges (ISO 6162)	BF
74	Buttweld Solid Flanges (ISO 6164)	BSF-S
75	Blind Flanges Squar(ISO 6162)	BF-S

An ISO 9001-2015 Certified Co



INDEX

ISO fittings

SI. No_	Description	Part Code
VALVES		
76	Shut - off Valve, seat Type BSP Port Mounting	SV
77	Shut - off Valve, seat Type Tube OD Mounting	SVRA
78	Needle Valve, seat Type BSP Port Mounting	NV
79	Needle Valve, seat Type Tube OD Mounting	NVRA
80	Needle Valve, Sub Plat Mounting, Model - NVS06-S	NVS06-S
81	Check Valves (Inline mounting)	CV

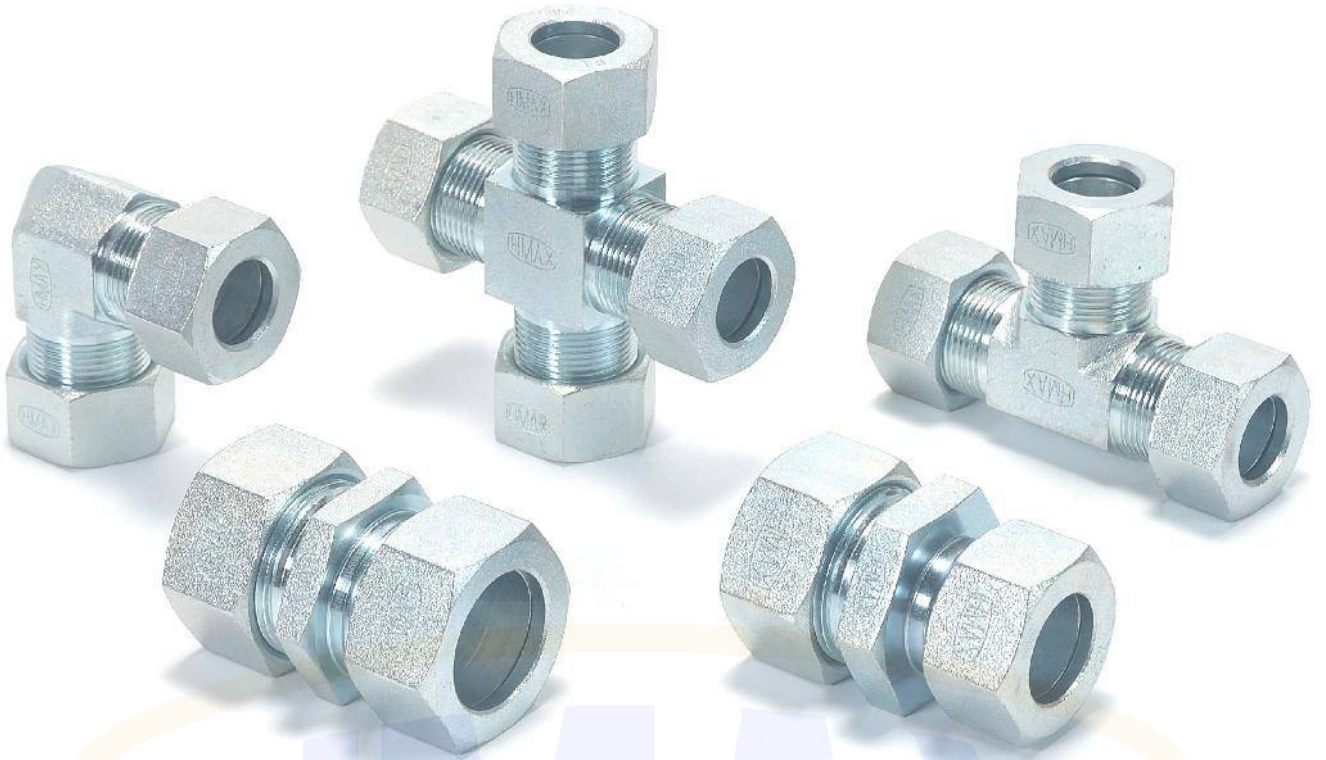


An ISO 9001-2015 Certified Co



Tube To Tube Couplings

ISO fittings



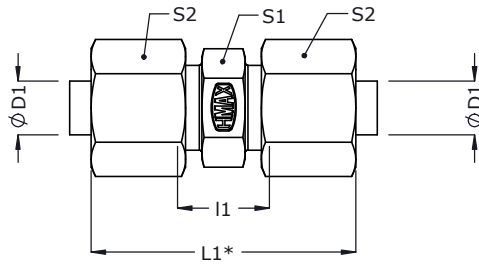
SI. No_	Description	Part Code
1	Straight Couplings	SC
2	Straight Reducers	SR
3	Equal Elbow Couplings	EE
4	Equal Tee Couplings	ET
5	Equal Cross Couplings	EC



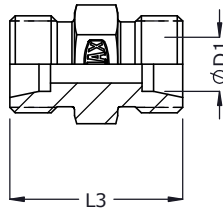
Straight Couplings - SC

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly



2D Body



Series	Tube od Ø D1	I1	L1*	L3	S1	S2	Assembly		Body
							Part code	Item no_	Item no_
Light Low(LL) 100 bar	4	12	31	20	9	10	SC4LL	01	960
	5	10	33	21	11	12	SC5LL	02	961
	6	12	35	23	11	12	SC6LL	03	962
	8	12	35	23	12	14	SC8LL	04	963
Light (L) 250 bar	6	10	41	24	12	14	SC6L	05	012
	8	11	41	25	14	17	SC8L	06	013
	10	13	44	27	17	19	SC10L	07	014
	12	14	44	28	19	22	SC12L	08	015
	15	16	48	30	24	27	SC15L	09	016
160 bar	18	16	50	31	27	32	SC18L	10	017
	22	20	54	35	32	36	SC22L	11	018
100 bar	28	21	57	36	41	41	SC28L	12	019
	35	20	66	41	50	50	SC35L	13	020
	42	21	68	43	50	60	SC42L	14	021
Heavy (S) 630 bar	6	16	47	30	14	17	SC06S	15	001
	8	18	48	32	17	19	SC08S	16	002
	10	17	51	32	19	22	SC10S	17	003
	12	19	52	34	22	24	SC12S	18	004
400 bar	16	21	59	38	27	30	SC16S	19	006
	20	23	68	44	32	36	SC20S	20	007
	25	26	76	50	41	46	SC25S	21	008
250 bar	30	27	83	54	46	50	SC30S	22	009
	38	29	92	61	55	60	SC38S	23	010

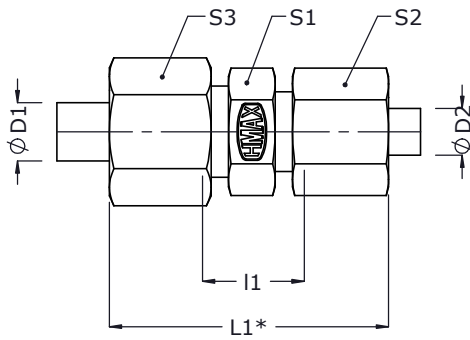
* Dimensions given are approx figures with tightened nut.



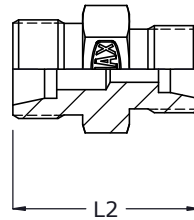
Straight Reducers - SR

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly



2D Body



Low Pressure Series

Series	Tube od D1	Tube od D2	l1	L1*	L2	S1	S2	S3	Assembly		Body
									Part code	Item no_	Item no_
100 bar	6	4	10.5	32.0	20	12	10	12	SR6LL4LL	567	1459
	8	4	12.5	34.0	22	12	10	14	SR8LL4LL	568	1479
315 bar	8	6	11.0	34.0	22	12	12	14	SR8LL6LL	569	1480
	8	6	11.0	41.5	25	14	14	17	SR8L6L	570	1481
315 bar	10	6	12.0	43.0	26	17	14	19	SR10L6L	571	956
	10	8	12.0	42.5	26	17	17	19	SR10L8L	572	1482
315 bar	12	6	13.0	43.5	27	19	14	22	SR12L6L	573	1483
	12	8	13.0	43.0	27	19	17	22	SR12L8L	574	1484
	12	10	14.0	44.5	28	19	19	22	SR12L10L	575	1485
315 bar	15	10	15.0	46.5	29	24	19	27	SR15L10L	576	1486
	15	12	15.0	46.0	29	24	22	27	SR15L12L	577	1487
315 bar	18	10	15.5	48.0	30	27	19	32	SR18L10L	578	1014
	18	12	15.5	47.5	30	27	22	32	SR18L12L	579	1488
	18	15	16.5	49.5	31	27	27	32	SR18L15L	580	1018
160 bar	22	12	17.5	49.5	32	32	22	36	SR22L12L	581	1489
	22	15	18.5	51.5	33	32	27	36	SR22L15L	582	1490
	22	18	18.0	52.0	33	32	32	36	SR22L18L	583	1491
160 bar	28	18	19.0	54.0	34	41	32	41	SR28L18L	584	1492
	28	22	21.0	56.0	36	41	36	41	SR28L22L	585	1020
160 bar	35	22	21.0	61.0	39	46	36	50	SR35L22L	586	1493
	35	28	21.0	62.0	39	46	41	50	SR35L28L	587	1494

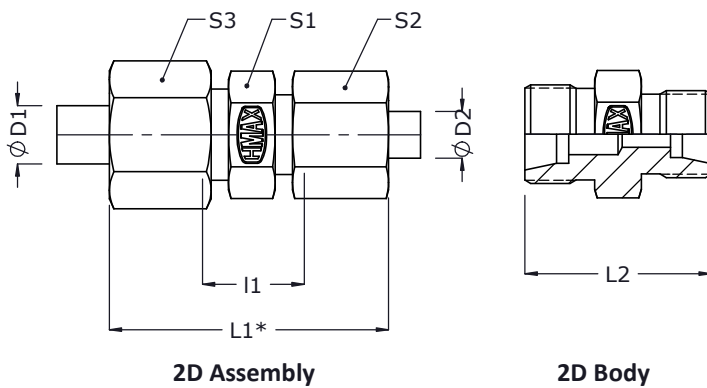
* Dimensions given are approx figures with tightened nut.



Straight Reducers - SR

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

High Pressure Series

Series	Tube od ϕ D1	Tube od ϕ D2	l1	L1*	L2	S1	S2	S3	Assembly		Body
									Part code	Item no_	Item no_
630 bar	8	6	18.0	48.5	32.0	17	17	19	SR8S6S	588	1495
630 bar	10	6	17.5	50.0	31.5	19	17	22	SR10S6S	589	1496
	10	8	17.5	49.5	32.0	19	19	22	SR10S8S	590	1497
630 bar	12	6	19.5	51.5	34.0	22	17	24	SR12S6S	591	1498
	12	8	19.5	51.0	34.0	22	19	24	SR12S8S	592	1499
	12	10	19.0	52.5	34.0	22	22	24	SR12S10S	593	1500
400 bar	16	12	20.0	55.5	36.0	27	24	30	SR16S12S	594	1088
400 bar	20	10	22.0	61.5	40.0	32	22	36	SR20S10S	595	1501
	20	12	22.0	61.0	40.0	32	24	36	SR20S12S	596	1090
	20	16	23.0	64.5	42.0	32	30	36	SR20S16S	597	1089
400 bar	25	16	25.5	69.5	46.0	41	30	46	SR25S16S	598	529
	25	20	25.5	73.0	48.0	41	36	46	SR25S20S	599	540
400 bar	30	20	26.0	76.5	50.0	46	36	50	SR30S20S	600	1502
	30	25	26.5	79.5	52.0	46	46	50	SR30S25S	601	1503
315 bar	38	30	29.5	89.0	59.0	55	50	60	SR38S30S	602	1020

* Dimensions given are approx figures with tightened nut.

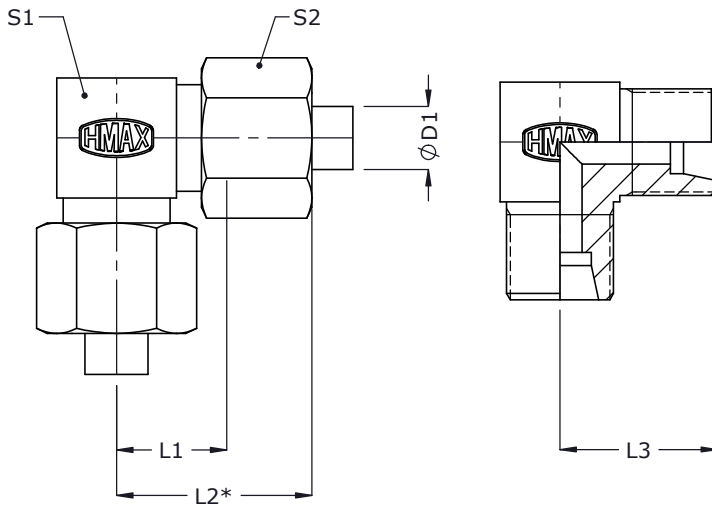


Equal Elbow Couplings - EE

(BAR-STOCK)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od Ø D1	L1	L2*	L3	S1	S2	Assembly		Body
							Part code	Item no_	Item no_
Light (L) 250 bar	6	12.0	27.5	19.0	12	14	EE6L-F	24	1217
	8	14.0	29.0	21.0	14	17	EE8L-F	25	1218
	10	15.0	30.5	22.0	17	19	EE10L-F	26	1219
	12	17.0	32.0	24.0	19	22	EE12L-F	27	1220
	15	21.0	37.0	28.0	22	27	EE15L-F	28	1221
160 bar	18	23.5	40.5	31.0	27	32	EE18L-F	29	1222
	22	27.5	44.5	35.0	30	36	EE22L-F	30	1223
100 bar	28	30.5	48.5	38.0	36	41	EE28L-F	31	1224
	35	34.5	57.5	45.0	46	50	EE35L-F	32	1225
	42	40.0	63.5	51.0	55	60	EE42L-F	33	1226
Heavy (S) 630 bar	6	16.0	31.5	23.0	14	17	EE6S-F	34	1227
	8	17.0	32.0	24.0	17	19	EE8S-F	35	1228
	10	17.5	34.5	25.0	19	22	EE10S-F	36	1229
	12	21.5	38.0	29.0	22	24	EE12S-F	37	1230
400 bar	16	24.5	43.5	33.0	24	30	EE16S-F	38	1231
	20	26.5	49.0	37.0	30	36	EE20S-F	39	1232
	25	30.0	55.0	42.0	36	46	EE25S-F	40	1233
250 bar	30	35.5	63.5	49.0	46	50	EE30S-F	41	1234
	38	41.0	72.5	57.0	55	60	EE38S-F	42	1235

* Dimensions given are approx figures with tightened nut.

An ISO 9001-2015 Certified Co

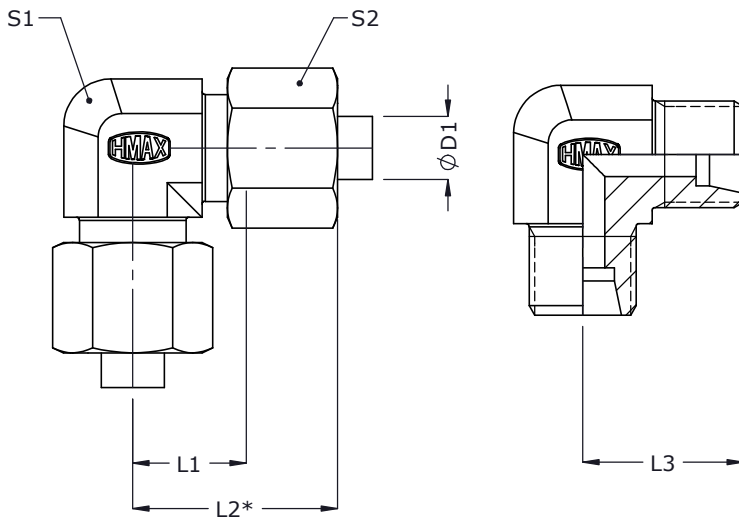


Equal Elbow Couplings - EE

(FORGED)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od $\phi D1$	L1	L2*	L3	S1	S2	Assembly		Body
							Part code	Item no_	Item no_
Light (L) 250 bar	6	12.0	27.5	19.0	12	14	EE6L	43	32
	8	14.0	29.0	21.0	14	17	EE8L	44	33
	10	15.0	30.5	22.0	17	19	EE10L	45	34
	12	17.0	32.0	24.0	19	22	EE12L	46	35
	15	21.0	37.0	28.0	22	27	EE15L	47	36
160 bar	18	23.5	40.5	31.0	27	32	EE18L	48	37
	22	27.5	44.5	35.0	30	36	EE22L	49	38
100 bar	28	30.5	48.5	38.0	36	41	EE28L	50	39
	35	34.5	57.5	45.0	46	50	EE35L	51	40
	42	40.0	63.5	51.0	55	60	EE42L	52	41
Heavy (S) 630 bar	6	16.0	31.5	23.0	14	17	EE6S	53	22
	8	17.0	32.0	24.0	17	19	EE8S	54	23
	10	17.5	34.5	25.0	19	22	EE10S	55	24
	12	21.5	38.0	29.0	22	24	EE12S	56	25
400 bar	16	24.5	43.5	33.0	24	30	EE16S	57	27
	20	26.5	49.0	37.0	30	36	EE20S	58	28
	25	30.0	55.0	42.0	36	46	EE25S	59	29
250 bar	30	35.5	63.5	49.0	46	50	EE30S	60	30
	38	41.0	72.5	57.0	55	60	EE38S	61	31

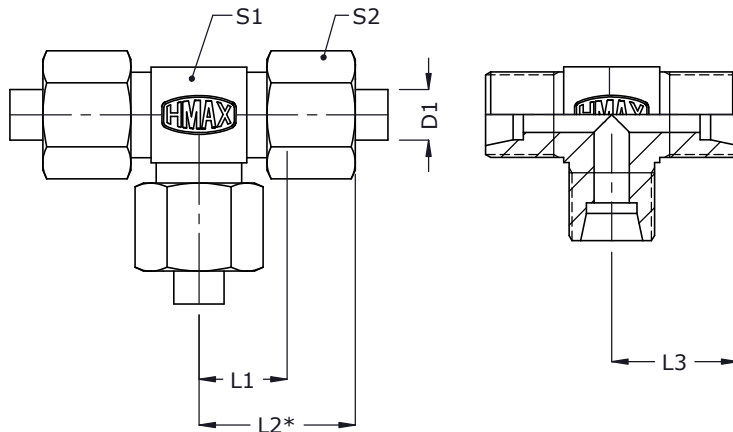
* Dimensions given are approx figures with tightened nut.



Equal Tee Couplings - ET (BAR-STOCK)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od D1	L1	L2*	L3	S1	S2	Assembly		Body
							Part code	Item no_	Item no_
Light (L) 250 bar	6	12.0	27.5	19.0	12	14	ET6L-F	63	1236
	8	14.0	29.0	21.0	14	17	ET8L-F	64	1237
	10	15.0	30.5	22.0	17	19	ET10L-F	65	1238
	12	17.0	32.0	24.0	19	22	ET12L-F	66	1239
	15	21.0	37.0	28.0	22	27	ET15L-F	67	1240
160 bar	18	23.5	40.5	31.0	27	32	ET18L-F	68	1241
	22	27.5	44.5	35.0	30	36	ET22L-F	69	1242
100 bar	28	30.5	48.5	38.0	36	41	ET28L-F	70	1243
	35	34.5	57.5	45.0	46	50	ET35L-F	71	1244
	42	40.0	63.5	51.0	55	60	ET42L-F	72	1245
Heavy (S) 630 bar	6	16.0	31.5	23.0	14	17	ET6S-F	73	1246
	8	17.0	32.0	24.0	17	19	ET8S-F	74	1247
	10	17.5	34.5	25.0	19	22	ET10S-F	75	1248
	12	21.5	38.0	29.0	22	24	ET12S-F	76	1249
400 bar	16	24.5	43.5	33.0	24	30	ET16S-F	78	1250
	20	26.5	49.0	37.0	30	36	ET20S-F	79	1251
	25	30.0	55.0	42.0	36	46	ET25S-F	80	1252
250 bar	30	35.5	63.5	49.0	46	50	ET30S-F	81	1253
	38	41.0	72.5	57.0	55	60	ET38S-F	82	1254

* Dimensions given are approx figures with tightened nut.

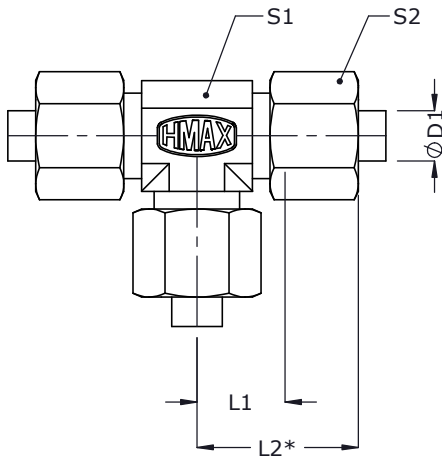


Equal Tee Couplings - ET

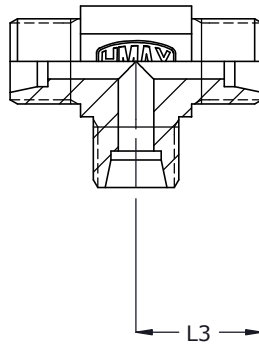
(FORGED)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly



2D Body



Series	Tube od ØD1	L1	L2*	L3	S1	S2	Assembly		Body
							Part code	Item no_	Item no_
Light (L) 250 bar	6	12.0	27.5	19.0	12	14	EE6L	83	1001
	8	14.0	29.0	21.0	14	17	EE8L	84	82
	10	15.0	30.5	22.0	17	19	EE10L	85	1002
	12	17.0	32.0	24.0	19	22	EE12L	86	1003
	15	21.0	37.0	28.0	22	27	EE15L	87	1004
160 bar	18	23.5	40.5	31.0	27	32	EE18L	88	1000
	22	27.5	44.5	35.0	30	36	EE22L	89	1005
100 bar	28	30.5	48.5	38.0	36	41	EE28L	90	1006
	35	34.5	57.5	45.0	46	50	EE35L	100	1007
	42	40.0	63.5	51.0	55	60	EE42L	101	1008
Heavy (S) 630 bar	6	16.0	31.5	23.0	14	17	EE6S	102	81
	8	17.0	32.0	24.0	17	19	EE8S	103	1011
	10	17.5	34.5	25.0	19	22	EE10S	104	1009
	12	21.5	38.0	29.0	22	24	EE12S	105	1185
400 bar	16	24.5	43.5	33.0	24	30	EE16S	106	1147
	20	26.5	49.0	37.0	30	36	EE20S	107	1148
	25	30.0	55.0	42.0	36	46	EE25S	108	1092
250 bar	30	35.5	63.5	49.0	46	50	EE30S	109	30
	38	41.0	72.5	57.0	55	60	EE38S	110	443

* Dimensions given are approx figures with tightened nut.

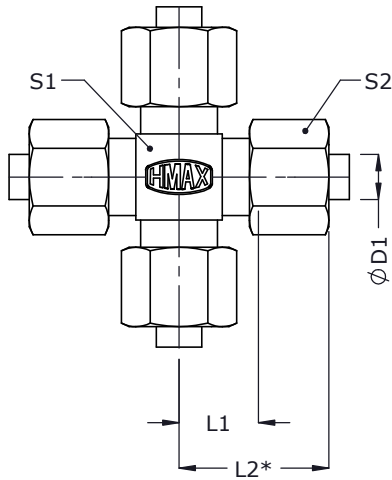


Equal Cross Couplings - EC

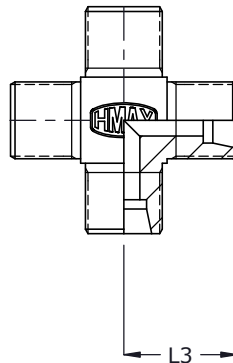
(BAR-STOCK)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly



2D Body



Series	Tube od ØD1	L1	L2*	L3	S1	S2	Assembly		Body
							Part code	Item no_	Item no_
Light (L) 250 bar	6	12.0	27.5	19.0	12	14	EC6L-F	111	1255
	8	14.0	29.0	21.0	14	17	EC8L-F	112	1256
	10	15.0	30.5	22.0	17	19	EC10L-F	113	1257
	12	17.0	32.0	24.0	19	22	EC12L-F	114	1258
	15	21.0	37.0	28.0	22	27	EC15L-F	115	1259
160 bar	18	23.5	40.5	31.0	27	32	EC18L-F	116	993
	22	27.5	44.5	35.0	30	36	EC22L-F	117	1260
100 bar	28	30.5	48.5	38.0	36	41	EC28L-F	118	1261
	35	34.5	57.5	45.0	46	50	EC35L-F	119	1262
	42	40.0	63.5	51.0	55	60	EC42L-F	120	1263
Heavy (S) 630 bar	6	16.0	31.5	23.0	14	17	EC6S-F	121	1264
	8	17.0	32.0	24.0	17	19	EC8S-F	122	1265
	10	17.5	34.5	25.0	19	22	EC10S-F	123	1266
	12	21.5	38.0	29.0	22	24	EC12S-F	124	1267
400 bar	16	24.5	43.5	33.0	24	30	EC16S-F	125	1268
	20	26.5	49.0	37.0	30	36	EC20S-F	126	1269
	25	30.0	55.0	42.0	36	46	EC25S-F	127	1270
250 bar	30	35.5	63.5	49.0	46	50	EC30S-F	128	1271
	38	41.0	72.5	57.0	55	60	EC38S-F	129	1272

* Dimensions given are approx figures with tightened nut.



Reducing Standpipes

ISO fittings



SI. No_	Description	Part Code
1	Reducing Standpipes(kor)	RS(KOR)

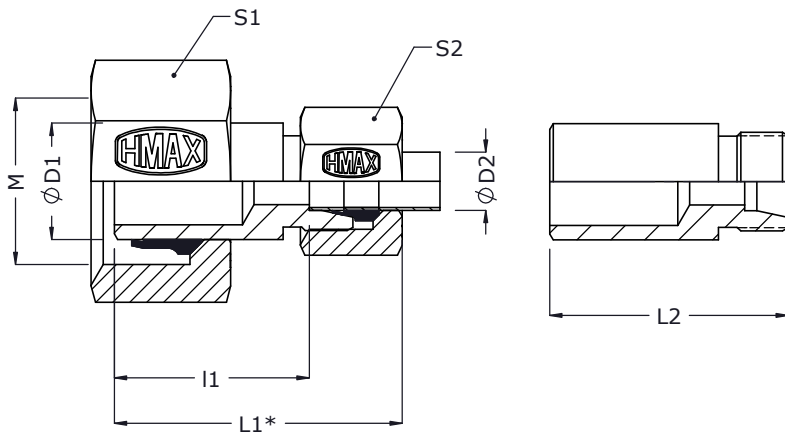
An ISO 9001-2015 Certified Co



Reducing Standpipes -RS (KOR-L)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body



Low Pressure Series

Series	Tube od ØD1	Tube od ØD2	M	l1	L1*	L2	S1	S2	Assembly		Body Item no
									Part code	Item no	
250 bar	8	6	M14x1.5	23.5	39.0	30.5	17	14	RS8L6L	603	1504
	10	6	M16x1.5	23.5	39.0	30.5	19	14	RS10L6L	604	1505
250 bar	10	8	M16x1.5	23.5	38.5	30.5	19	17	RS10L8L	605	1506
	12	6	M18x1.5	23.5	39.0	30.5	22	14	RS12L6L	606	1507
250 bar	12	8	M18x1.5	23.5	38.5	30.5	22	17	RS12L8L	607	1508
	12	10	M18x1.5	24.5	40.0	31.5	22	19	RS12L10L	608	1031
250 bar	15	6	M22x1.5	23.5	39.0	30.5	27	14	RS15L6L	609	958
	15	8	M22x1.5	23.5	35.5	30.5	27	17	RS15L8L	610	1509
	15	10	M22x1.5	24.5	40.0	31.5	27	19	RS15L10L	611	1033
	15	12	M22x1.5	24.5	39.5	31.5	27	22	RS15L12L	612	1510
160 bar	18	6	M26x1.5	24.5	40.0	31.5	32	14	RS18L6L	613	1511
	18	8	M26x1.5	24.5	39.5	31.5	32	17	RS18L8L	614	1512
	18	10	M26x1.5	25.5	41.0	32.5	32	19	RS18L10L	615	1513
	18	12	M26x1.5	25.5	40.5	32.5	32	22	RS18L12L	616	1514
	18	15	M26x1.5	26.5	42.5	33.5	32	27	RS18L15L	617	1515
160 bar	22	6	M30x2.0	25.5	41.0	32.5	36	14	RS22L6L	618	1516
	22	8	M30x2.0	25.5	40.5	32.5	36	17	RS22L8L	619	1517
	22	10	M30x2.0	26.5	42.0	33.5	36	19	RS22L10L	620	1518
	22	12	M30x2.0	26.5	41.5	33.5	36	22	RS22L12L	621	1519
	22	15	M30x2.0	27.5	43.5	34.5	36	27	RS22L15L	622	1520
	22	18	M30x2.0	27.0	44.0	34.5	36	32	RS22L18L	623	1521
100 bar	28	6	M36x2.0	26.5	42.0	33.5	41	14	RS28L6L	624	1522
	28	8	M36x2.0	26.5	41.5	33.5	41	17	RS28L8L	625	1523
	28	10	M36x2.0	27.5	43.0	34.5	41	19	RS28L10L	626	1524
	28	12	M36x2.0	27.5	42.5	34.5	41	22	RS28L12L	627	1525
	28	15	M36x2.0	28.5	44.5	35.5	41	27	RS28L15L	628	1526
	28	18	M36x2.0	28.0	45.0	35.5	41	32	RS28L18L	629	1527
	28	22	M36x2.0	30.0	47.0	37.5	41	36	RS28L22L	630	1528

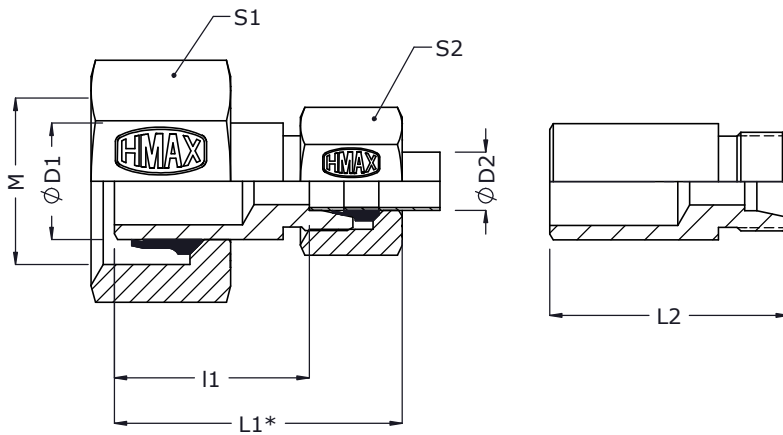
* Dimensions given are approx figures with tightened nut.



Reducing Standpipes - RS (KOR-L)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body



Low Pressure Series

Series	Tube od ØD1	Tube od ØD2	M	l1	L1*	L2	S1	S2	Assembly		Body Item no
									Part code	Item no	
100 bar	35	6	M45x2.0	31.5	47.0	38.5	50	14	RS35L6L	631	1529
	35	8	M45x2.0	31.5	46.5	38.5	50	17	RS35L8L	632	1530
	35	10	M45x2.0	32.5	48.0	39.5	50	19	RS35L10L	633	1531
	35	12	M45x2.0	32.5	47.5	39.5	50	22	RS35L12L	634	1532
	35	15	M45x2.0	33.5	49.5	40.5	50	27	RS35L15L	635	1533
	35	18	M45x2.0	33.0	50.0	40.5	50	32	RS35L18L	636	1534
	35	22	M45x2.0	35.0	52.0	42.5	50	36	RS35L22L	637	1535
	35	28	M45x2.0	35.0	53.0	42.5	50	41	RS35L28L	638	1536
160 bar	42	10	M55x2.0	33.5	49.0	40.5	60	19	RS42L10L	639	1537
	42	12	M55x2.0	33.5	48.5	40.5	60	22	RS42L12L	640	1538
	42	15	M55x2.0	34.5	50.5	41.5	60	27	RS42L15L	641	1539
	42	18	M55x2.0	34.0	51.0	41.5	60	32	RS42L18L	642	1540
	42	22	M55x2.0	36.0	53.0	43.5	60	36	RS42L22L	643	1541
	42	28	M55x2.0	36.0	54.0	43.5	60	41	RS42L28L	644	1542
	42	35	M55x2.0	35.0	58.0	45.5	60	50	RS42L35L	645	1543

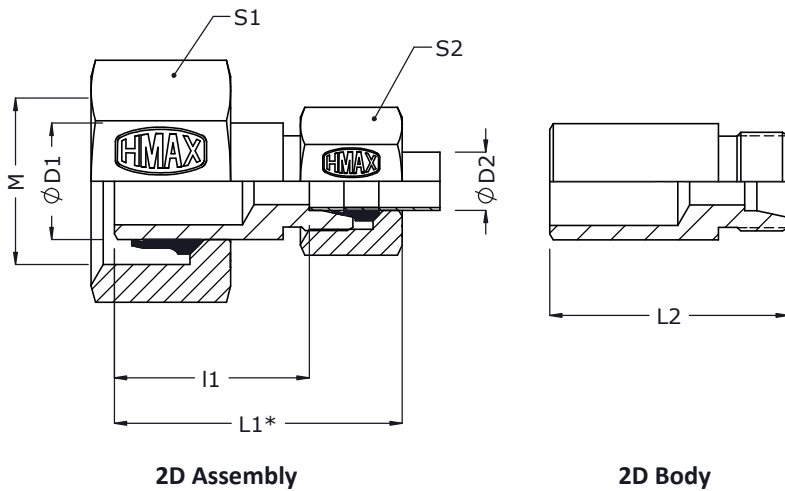
* Dimensions given are approx figures with tightened nut.



Reducing Standpipes - RS (KOR-S)

ISO fittings

Metric Tube end as per ISO 8434



High Pressure Series

Series	Tube od ØD1	Tube od ØD2	M	l1	L1*	L2	S1	S2	Assembly		Body Item no
									Part code	Item no	
250 bar	8	6	M16x1.5	25.0	40.5	32	19	17	RS8S6S	646	1544
	10	6	M18x1.5	26.0	41.5	33	22	17	RS10S6S	647	1545
250 bar	10	8	M18x1.5	26.0	41.0	33	22	19	RS10S8S	648	1546
	12	6	M20x1.5	27.0	42.5	34	24	17	RS12S6S	649	531
250 bar	12	8	M20x1.5	27.0	42.0	34	24	19	RS12S8S	650	1547
	12	10	M20x1.5	26.5	43.5	34	24	22	RS12S10S	651	1032
160 bar	16	6	M24x1.5	29.0	44.5	36	30	17	RS16S06S	652	1548
	16	8	M24x1.5	29.0	44.0	36	30	19	RS16S8S	653	1549
	16	10	M24x1.5	28.5	45.5	36	30	22	RS16S10S	654	1550
	16	12	M24x1.5	28.5	43.5	36	30	24	RS16S12S	655	532
160 bar	20	6	M30x2.0	34.0	49.5	41	36	17	RS20S6S	656	1551
	20	8	M30x2.0	34.0	49.0	41	36	19	RS20S8S	657	1552
	20	10	M30x2.0	33.5	50.5	41	36	22	RS20S10S	658	1553
	20	12	M30x2.0	33.5	50.0	41	36	24	RS20S12S	659	535
	20	16	M30x2.0	34.5	53.5	43	36	30	RS20S16S	660	1554
100 bar	25	6	M36x2.0	37.0	52.5	44	46	17	RS25S6S	661	1555
	25	8	M36x2.0	37.0	52.0	44	46	19	RS25S8S	662	1556
	25	10	M36x2.0	36.5	53.5	44	46	22	RS25S10S	663	1557
	25	12	M36x2.0	36.5	53.0	44	46	24	RS25S12S	664	1558
	25	16	M36x2.0	36.5	55.5	45	46	30	RS25S16S	665	1559
	25	20	M36x2.0	37.5	60.0	48	46	36	RS25S20S	666	1036

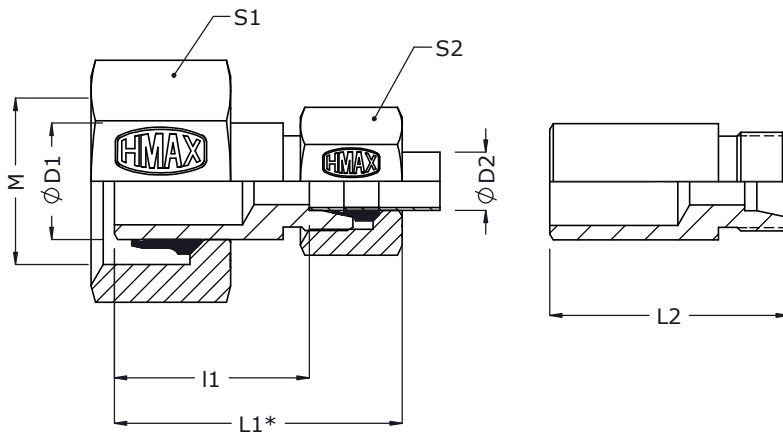
* Dimensions given are approx figures with tightened nut.



Reducing Standpipes - RS (KOR-S)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

High Pressure Series

Series	Tube od ØD1	Tube od ØD2	M	l1	L1*	L2	S1	S2	Assembly		Body
									Part code	Item no	Item no
100 bar	30	6	M42x2.0	39.0	54.5	46	50	17	RS30S6S	667	1560
	30	8	M42x2.0	39.0	54.0	46	50	19	RS30S8S	668	1561
	30	10	M42x2.0	38.5	55.5	46	50	22	RS30S10S	669	1562
	30	12	M42x2.0	38.5	55.0	46	50	24	RS30S12S	670	534
	30	16	M42x2.0	39.5	58.5	48	50	30	RS30S16S	671	1563
	30	20	M42x2.0	39.5	62.0	50	50	36	RS30S20S	672	1564
	30	25	M42x2.0	40.0	65.0	52	50	46	RS30S25S	673	779
100 bar	38	6	M52x2.0	43.0	58.5	50	60	17	RS38S6S	674	1565
	38	8	M52x2.0	43.0	58.0	50	60	19	RS38S8S	675	1566
	38	10	M52x2.0	42.5	59.5	50	60	22	RS38S10S	676	1567
	38	12	M52x2.0	42.5	59.0	50	60	24	RS38S12S	677	533
	38	16	M52x2.0	43.5	62.5	52	60	30	RS38S16S	678	1568
	38	20	M52x2.0	43.5	66.0	54	60	36	RS38S20S	679	1569
	38	25	M52x2.0	44.0	69.0	56	60	46	RS38S25S	680	1570
	38	30	M52x2.0	44.5	72.5	58	60	50	RS38S30S	681	1040

* Dimensions given are approx figures with tightened nut.



Male Stud Couplings

ISO fittings



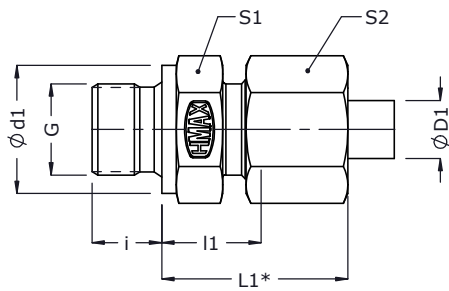
SI. No_	Description	Part Code
Straight Male Stud Couplings - MSC		
1	Straight Male Stud Couplings	MSC-G
2	Straight Male Stud Couplings	MSC-G-ES
3	Straight Male Stud Couplings	MSC-M
4	Straight Male Stud Couplings	MSC-M-ES
5	Straight Male Stud Couplings	MSC-R
6	Straight Male Stud Couplings	MSC-N
Male Stud Elbow Couplings - MSE		
1	Male Stud Elbow Couplings	MSE-G
2	Male Stud Elbow Couplings	MSE-M
3	Male Stud Elbow Couplings	MSE-R
4	Male Stud Elbow Couplings	MSE-N
Male Stud Branch Tee Couplings - MSBT		
1	Male Stud Branch Tee Couplings	MSBT-G
2	Male Stud Branch Tee Couplings	MSBT-M
3	Male Stud Branch Tee Couplings	MSBT-R
Male Stud Run Tee Couplings - MSRT		
1	Male Stud Run Tee Couplings	MSRT-G
2	Male Stud Run Tee Couplings	MSRT-M
3	Male Stud Run Tee Couplings	MSRT-R



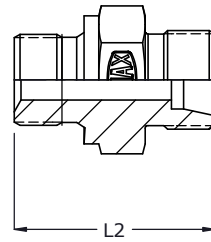
Straight Male Stud Couplings - MSC-G

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

ISO fittings



2D Assembly



2D Body



An ISO 9001-2015 Certified Co

Series	Tube od ØD1	G Male BSP thread	Ød1	i	l1	L1*	L2	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	G 1/8 A	14	8	8.5	24.0	23.5	14	14	MSC06LG01	224	434
	8	G 1/4 A	18	12	10.0	25.0	29.0	19	17	MSC08LG02	225	1571
	8	G 3/8 A	22	12	11.5	26.5	30.5	22	17	MSC08LG03	226	104
	10	G 1/4 A	18	12	11.0	26.5	30.0	19	19	MSC10LG02	227	108
	10	G 3/8 A	22	12	12.5	28.0	31.5	22	19	MSC10LG03	228	354
	12	G 1/4 A	18	12	12.0	27.0	31.0	19	22	MSC12LG02	229	112
	12	G 3/8 A	22	12	12.5	27.5	31.5	22	22	MSC12LG03	230	110
	12	G 1/2 A	26	14	13.0	28.0	34.0	27	22	MSC12LG04	231	109
	15	G 1/2 A	26	14	14.0	30.0	35.0	27	27	MSC15LG04	232	113
160 bar	18	G 1/2 A	26	14	14.5	31.5	36.0	27	32	MSC18LG04	233	115
	22	G 3/4 A	32	16	16.5	33.5	40.0	32	36	MSC22LG06	234	128
100 bar	28	G 1 A	39	18	17.5	35.5	43.0	41	41	MSC28LG08	235	363
	35	G1 1/4 A	49	20	17.5	40.5	48.0	50	50	MSC35LG10	236	957
	42	G1 1/2 A	55	22	19.0	42.5	52.0	55	60	MSC42LG12	237	556
Heavy (S) 630 bar	6	G 1/4 A	18	12	13.0	28.5	32.0	19	17	MSC06SG02	238	154
	8	G 1/4 A	18	12	15.0	30.0	34.0	19	19	MSC08SG02	239	955
	10	G 3/8 A	22	12	15.0	32.0	34.5	22	22	MSC10SG03	240	554
	12	G 3/8 A	22	12	17.0	33.5	36.5	22	24	MSC12SG03	241	159
	12	G 1/2 A	26	14	17.5	34.0	39.0	27	24	MSC12SG04	242	620
400 bar	16	G 1/2 A	26	14	18.5	37.5	41.0	27	30	MSC16SG04	243	163
	20	G 3/4 A	32	16	20.5	43.0	47.0	32	36	MSC20SG06	244	152
	25	G 1 A	39	18	23.0	48.0	53.0	41	46	MSC25SG08	245	621
250 bar	30	G1 1/4 A	49	20	23.5	51.5	57.0	50	50	MSC30SG10	246	622
	38	G1 1/2 A	55	22	26.0	57.5	64.0	55	60	MSC38SG12	247	177

* Dimensions given are approx figures with tightened nut.

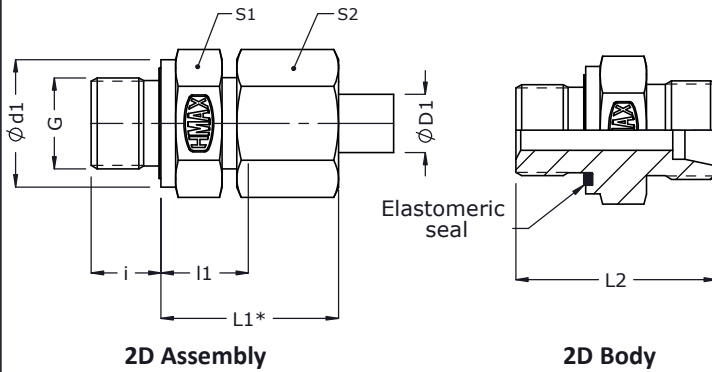


Straight Male Stud Couplings - MSC-G-ES

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

ISO fittings

For, Elastomeric Seal details Refer page No_ 82.



An ISO 9001-2015 Certified Co

Series	Tube od $\phi D1$	G Male BSP thread	$\phi d1$	i	l1	L1*	L2	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	G 1/8 A	14	8	8.5	24.0	23.5	14	14	MSC06LG01ES	248	1572
	8	G 1/4 A	19	12	10.0	25.0	29.0	19	17	MSC08LG02ES	249	1573
	10	G 1/4 A	19	12	11.0	26.5	30.0	19	19	MSC10LG02ES	250	1574
	12	G 3/8 A	22	12	12.5	27.5	31.5	22	22	MSC12LG03ES	251	1575
	15	G 1/2 A	27	14	14.0	30.0	35.0	27	27	MSC15LG04ES	252	430
160 bar	18	G 1/2 A	27	14	14.5	31.5	36.0	27	32	MSC18LG04ES	253	1576
	22	G 3/4 A	32	16	16.5	33.5	40.0	32	36	MSC22LG06ES	254	1577
100 bar	28	G 1 A	40	18	17.5	33.5	43.0	41	41	MSC28LG08ES	255	1578
	35	G1 1/4 A	50	20	17.5	40.5	48.0	50	50	MSC35LG10ES	256	1579
	42	G1 1/2 A	55	22	19.0	42.5	52.0	55	60	MSC42LG12ES	257	1580
Heavy (S) 630 bar	6	G 1/4 A	19	12	13.0	28.5	32.0	19	17	MSC06SG02ES	258	428
	8	G 1/4 A	19	12	15.0	30.0	34.0	19	19	MSC08SG02ES	259	1581
	10	G 3/8 A	22	12	15.0	32.0	34.5	22	22	MSC10SG03ES	260	1582
	12	G 3/8 A	22	12	17.0	33.5	36.5	22	24	MSC12SG03ES	261	1583
400 bar	16	G 1/2 A	27	14	18.5	37.5	41.0	27	30	MSC16SG04ES	262	1028
	20	G 3/4 A	32	16	20.5	43.0	47.0	32	36	MSC20SG06ES	263	1584
	25	G 1 A	40	18	23.0	48.0	53.0	41	46	MSC25SG08ES	264	432
250 bar	30	G1 1/4 A	50	20	23.5	51.5	57.0	50	50	MSC30SG10ES	265	1585
	38	G1 1/2 A	55	22	26.0	57.5	64.0	55	60	MSC38SG12ES	266	1586

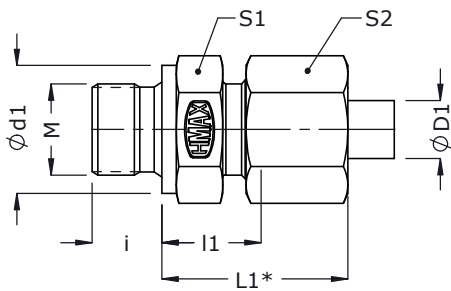
* Dimensions given are approx figures with tightened nut.



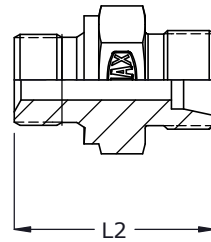
Straight Male Stud Couplings - MSC-M

ISO fittings

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



2D Assembly



2D Body



Series	Tube od ØD1	M Male METRIC thread	Ød1	i	l1	L1*	L2	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 315 bar	6	M10 x 1.0	14	8	8.5	24.0	23.5	14	14	MSC06LM10	267	1587
	8	M12 x 1.5	17	12	10.0	25.0	29.0	17	17	MSC08LM12	268	1588
	8	M18 x 1.5	23	12	11.5	26.5	30.5	24	17	MSC08LM18	269	1589
	10	M14 x 1.5	19	12	11.0	26.5	30.0	19	19	MSC10LM14	270	1590
	10	M16 x 1.5	21	12	12.0	27.5	31.0	22	19	MSC10LM16	271	1591
	10	M18 x 1.5	23	12	12.5	28.0	31.5	24	19	MSC10LM18	272	1592
	10	M22 x 1.5	27	14	14.0	29.5	35.0	27	19	MSC10LM22	273	1593
	12	M14 x 1.5	19	12	11.0	26.0	30.0	19	22	MSC12LM14	274	1594
	12	M16 x 1.5	21	12	12.5	27.5	31.5	22	22	MSC12LM16	275	1595
	12	M18 x 1.5	23	12	12.5	27.5	31.5	24	22	MSC12LM18	276	1596
	12	M22 x 1.5	27	14	14.0	29.0	35.0	27	22	MSC12LM22	277	1597
	15	M16 x 1.5	21	12	13.0	29.0	32.0	24	27	MSC15LM16	278	1598
	15	M18 x 1.5	23	12	13.5	29.5	32.5	24	27	MSC15LM18	279	1599
	15	M22 x 1.5	27	14	15.0	31.0	36.0	27	27	MSC15LM22	280	1600
	160 bar	18	M18 x 1.5	23	12	14.0	31.0	33.5	27	32	MSC18LM18	281
18		M22 x 1.5	27	14	14.5	31.5	36.0	27	32	MSC18LM22	282	1602
22		M22 x 1.5	27	14	16.5	33.5	38.0	32	36	MSC22LM22	283	1603
22		M26 x 1.5	31	16	16.5	33.5	40.0	32	36	MSC22LM26	284	1604
28		M33 x 2.0	39	18	17.5	35.5	43.0	41	41	MSC28LM33	285	1605
Heavy (S) 630 bar	35	M42 x 2.0	49	20	17.5	40.5	48.0	50	50	MSC35LM42	286	1606
	42	M48 x 2.0	55	22	19.0	42.5	52.0	55	60	MSC42LM48	287	1607
	6	M12 x 1.5	17	12	13.0	28.5	32.0	17	17	MSC06SM12	288	1608
	8	M14 x 1.5	19	12	15.0	30.0	34.0	19	19	MSC08SM14	289	1609
	10	M16 x 1.5	21	12	15.0	32.0	34.5	22	22	MSC10SM16	290	1610
400 bar	12	M18 x 1.5	23	12	17.0	33.5	36.5	24	24	MSC12SM18	291	1611
	12	M22 x 1.5	27	14	17.5	34.0	39.0	27	24	MSC12SM22	292	1612
	16	M18 x 1.5	23	12	18.0	37.0	38.5	27	30	MSC16SM18	293	1613
	16	M22 x 1.5	27	14	18.5	37.5	41.0	27	30	MSC16SM22	294	1614
250 bar	20	M27 x 2.0	32	16	20.5	43.0	47.0	32	36	MSC20SM27	295	1615
	25	M33 x 2.0	39	18	23.0	48.0	53.0	41	46	MSC25SM33	296	519
	30	M42 x 2.0	49	20	23.5	51.5	57.0	50	50	MSC30SM42	297	1616
	38	M48 x 2.0	55	22	26.0	57.5	64.0	55	60	MSC38SM48	298	1617

* Dimensions given are approx figures with tightened nut.

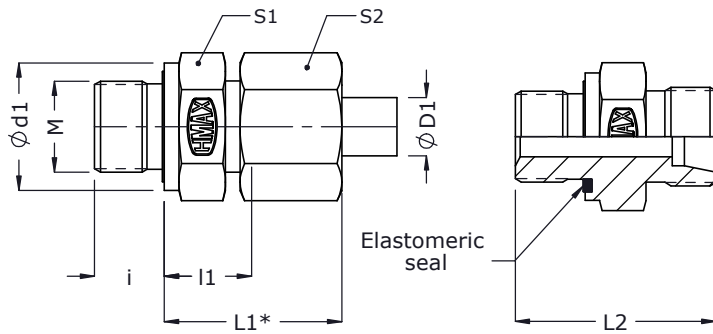


Straight Male Stud Couplings - MSC-M-ES

Metric Tube end as per ISO 8434
Male Metric (M) thread as per
DIN 3852 Part 11. ISO 9974 Form E
with Elastomeric seal

ISO fittings

For, Elastomeric Seal details Refer page No_ 82.



2D Assembly

2D Body



Series	Tube od $\phi D1$	M Male Metric thread	$\phi d2$	i	l1	L1*	L2	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	M10 x 1.0	14	8	8.5	24.0	23.5	14	14	MSC06LM10ES	299	1618
	8	M12 x 1.5	17	12	10.0	25.0	29.0	17	17	MSC08LM12ES	300	1619
	10	M14 x 1.5	19	12	11.0	26.5	30.0	19	19	MSC10LM14ES	301	1620
	12	M16 x 1.5	22	12	12.5	27.5	31.5	22	22	MSC12LM16ES	302	1621
	15	M18 x 1.5	24	12	13.5	29.5	32.5	24	27	MSC15LM18ES	303	1622
160 bar	18	M22 x 1.5	27	14	14.5	31.5	36.0	27	32	MSC18LM22ES	304	1623
	22	M26 x 1.5	32	16	16.5	33.5	40.0	32	36	MSC22LM26ES	305	1624
100 bar	28	M33 x 2.0	40	18	17.5	35.5	43.0	41	41	MSC28LM33ES	306	1625
	35	M42 x 2.0	50	20	17.5	40.5	48.0	50	50	MSC35LM42ES	307	1626
	42	M48 x 2.0	55	22	19.0	42.5	52.0	55	60	MSC42LM48ES	308	1627
Heavy (S) 630 bar	6	M12 x 1.5	17	12	13.0	28.5	32.0	17	17	MSC06SM12ES	309	1628
	8	M14 x 1.5	19	12	15.0	30.0	34.0	19	19	MSC08SM14ES	310	1629
	10	M16 x 1.5	22	12	15.0	32.0	34.5	22	22	MSC10SM16ES	311	1630
	12	M18 x 1.5	24	12	17.0	33.5	36.5	24	24	MSC12SM18ES	312	1631
400 bar	16	M22 x 1.5	27	14	18.5	37.5	41.0	27	30	MSC16SM22ES	313	1632
	20	M27 x 2.0	32	16	20.5	43.0	47.0	32	36	MSC20SM27ES	314	1633
	25	M33 x 2.0	40	18	23.0	48.0	53.0	41	46	MSC25SM33ES	315	1634
250 bar	30	M42 x 2.0	50	20	23.5	51.5	57.0	50	50	MSC30SM42ES	316	1635
	38	M48 x 2.0	55	22	26.0	57.5	64.0	55	60	MSC38SM48ES	317	1636

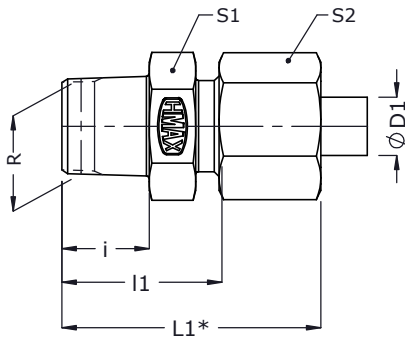
* Dimensions given are approx figures with tightened nut.



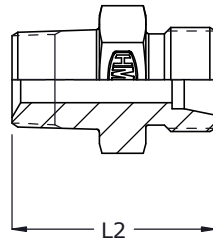
Straight Male Stud Couplings - MSC-R

ISO fittings

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



2D Assembly



2D Body



Series	Tube od $\phi D1$	R Male BSPT thread	i	l1	L1*	L2	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	R 1/8	7.5	14.5	30.0	21.5	14	14	MSC6LR01	318	1637
	6	R 1/4	11.0	18.0	33.5	25.0	14	14	MSC6LR02	319	1638
	8	R 1/4	11.0	19.0	34.0	26.0	17	17	MSC8LR02	320	594
	10	R 1/4	11.0	20.0	35.5	27.0	17	19	MSC10LR02	321	1639
	12	R 1/4	11.0	20.0	35.0	27.0	19	22	MSC12LR02	322	1153
	12	R 3/8	11.5	20.5	35.5	27.5	19	22	MSC12LR03	323	1640
	12	R 1/2	15.0	25.0	40.0	32.0	22	22	MSC12LR04	324	1641
160 bar	15	R 1/2	15.0	26.0	42.0	33.0	24	27	MSC15LR04	325	1642
	18	R 1/2	15.0	26.5	43.5	34.0	27	32	MSC18LR04	326	1643
100 bar	22	R 3/4	16.5	30.0	47.0	37.5	32	36	MSC22LR06	327	1644
	28	R 1	19.0	33.5	51.5	41.0	41	41	MSC28LR08	328	1645
	35	R1 1/4	21.5	35.0	58.0	45.5	46	50	MSC35LR10	329	1646
Heavy (S) 630 bar	42	R1 1/2	21.5	37.5	61.0	48.5	55	60	MSC42LR12	330	1647
	6	R 1/4	11.0	22.0	37.5	29.0	17	17	MSC06SR02	331	1648
	8	R 1/4	11.0	22.0	37.0	29.0	17	19	MSC08SR02	332	1649
	10	R 1/4	11.0	23.5	40.5	31.0	19	22	MSC10SR02	333	1650
	10	R 3/8	11.5	24.0	41.0	31.5	19	22	MSC10SR03	334	1651
	12	R 1/4	11.0	25.5	42.0	33.0	22	24	MSC12SR02	335	1652
	12	R 3/8	11.5	26.0	42.5	33.5	22	24	MSC12SR03	336	1653
400 bar	12	R 1/2	15.0	29.5	46.0	37.0	22	24	MSC12SR04	337	62
	16	R 1/2	15.0	30.5	49.5	39.0	27	30	MSC16SR04	338	1654
	20	R 3/4	16.5	34.0	56.5	44.5	32	36	MSC20SR06	339	1655
250 bar	25	R 1	19.0	39.0	64.0	51.0	41	46	MSC25SR08	340	1656
	30	R1 1/4	21.5	42.0	70.0	55.5	46	50	MSC30SR10	341	1657
	38	R1 1/2	21.5	44.5	76.0	60.5	55	60	MSC38SR12	342	1658

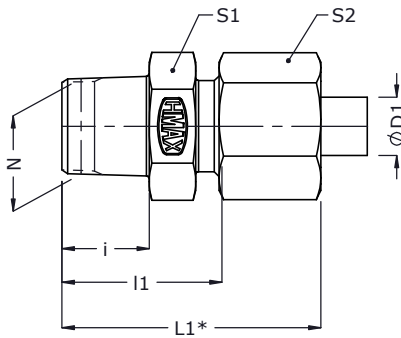
* Dimensions given are approx figures with tightened nut.



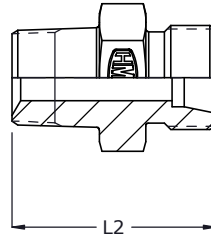
Straight Male Stud Couplings - MSC-N

ISO fittings

Metric Tube end as per ISO 8434
Male NPTF (N) stud end



2D Assembly



2D Body



An ISO 9001-2015 Certified Co

Series	Tube od ØD1	N Male NPT thread	i	l1	L1*	L2	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	N 1/8	9.9	17.0	32.5	24	12	14	MSC6LN01	343	1659
	6	N 1/4	15.1	23.0	38.5	30	17	14	MSC6LN02	344	1660
	8	N 1/4	15.1	23.0	38.0	30	17	17	MSC8LN02	345	1681
	10	N 1/4	15.1	24.0	39.5	31	17	19	MSC10LN02	346	1661
	12	N 1/4	15.1	25.0	40.0	32	19	22	MSC12LN02	347	1662
	12	N 3/8	15.2	25.0	40.0	32	19	22	MSC12LN03	348	1663
	12	N 1/2	19.8	30.0	45.0	37	22	22	MSC12LN04	349	1664
160 bar	15	N 1/2	19.8	31.0	47.0	38	24	27	MSC15LN04	350	1665
	18	N 1/2	19.8	31.5	48.5	39	27	32	MSC18LN04	351	1666
100 bar	22	N 3/4	20.1	33.5	50.5	41	32	36	MSC22LN06	352	1667
	28	N 1	25.0	39.5	57.5	47	41	41	MSC28LN08	353	1668
	35	N1 1/4	25.6	40.5	63.5	51	46	50	MSC35LN10	354	1669
Heavy (S) 630 bar	42	N1 1/2	26.0	42.0	65.5	53	55	60	MSC42LN12	355	1670
	6	N 1/4	15.1	28.0	43.5	35	17	17	MSC06SN02	356	1671
	8	N 1/4	15.1	28.0	43.0	35	17	19	MSC08SN02	357	1672
	10	N 1/4	15.1	27.5	44.5	35	19	22	MSC10SN02	358	1673
	10	N 3/8	15.2	27.5	44.5	35	19	22	MSC10SN03	359	343
	12	N 1/4	15.1	29.5	46.0	37	22	24	MSC12SN02	360	1674
	12	N 3/8	15.2	29.5	46.0	37	22	24	MSC12SN03	361	1675
400 bar	12	N 1/2	19.8	34.5	51.0	42	22	24	MSC12SN04	362	1676
	16	N 1/2	19.8	35.5	54.5	44	27	30	MSC16SN04	363	192
	20	N 3/4	20.1	37.5	60.0	48	32	36	MSC20SN06	364	1677
250 bar	25	N 1	25.0	45.0	70.0	57	41	46	MSC25SN08	365	1678
	30	N1 1/4	25.6	46.5	74.5	60	46	50	MSC30SN10	366	1679
	38	N1 1/2	26.0	49.0	80.5	65	55	60	MSC38SN12	367	1680

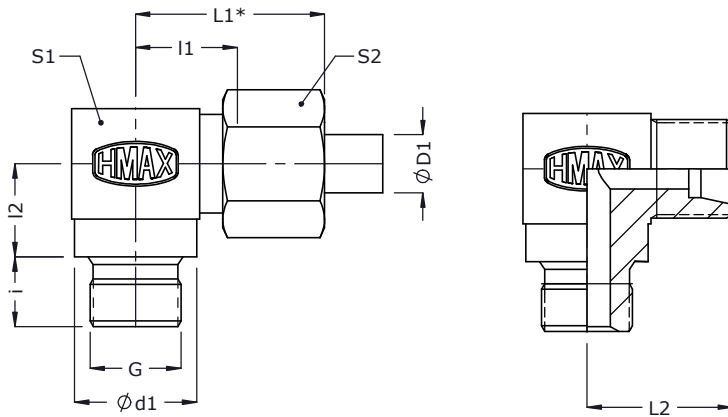
* Dimensions given are approx figures with tightened nut.



Male Stud Elbow Couplings - MSE-G (BAR-STOCK)

ISO fittings

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



2D Assembly

2D Body

Series	Tube od $\phi D1$	G Male BSP thread	$\phi d1$	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
											Part code	Item no_	Item no_
Light (L) 160 bar	22	G 3/4 A	32	16	27.5	26	44.5	35	32	36	MSE22LG06-F	368	1794
	28	G 1 A	39	18	30.5	30	48.5	38	41	41	MSE28LG08-F	369	1795
	35	G1 1/4 A	49	20	34.5	34	57.5	45	50	50	MSE35LG10-F	370	1796
100 bar	42	G1 1/2 A	55	22	40.0	39	63.5	51	55	60	MSE42LG12-F	371	1797
Heavy (S) 400 bar	20	G 3/4 A	32	16	26.5	26	49.0	37	32	36	MSE20SG06-F	372	1798
	25	G 1 A	39	18	30.0	30	55.0	42	41	46	MSE25SG08-F	373	1799
	30	G1 1/4 A	49	20	35.5	34	63.5	49	50	50	MSE30SG10-F	374	1800
250 bar	38	G1 1/2 A	55	22	41.0	39	72.5	57	55	60	MSE38SG12-F	375	1801

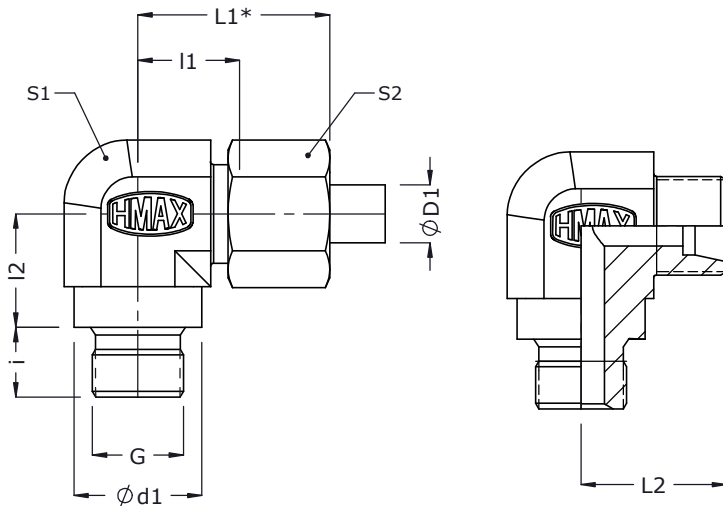
* Dimensions given are approx figures with tightened nut.



Male Stud Elbow Couplings - MSE-G (FORGED)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od ØD1	G Male BSP thread	Ød1	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
											Part code	Item no_	Item no_
Light (L) 160 bar	22	G 3/4 A	32	16	27.5	26	44.5	35	32	36	MSE22LG06	414	1840
	28	G 1 A	39	18	30.5	30	48.5	38	41	41	MSE28LG08	415	1841
	35	G1 1/4 A	49	20	34.5	34	57.5	45	50	50	MSE35LG10	416	1842
100 bar	42	G1 1/2 A	55	22	40.0	39	63.5	51	55	60	MSE42LG12	417	1843
Heavy (S) 400 bar	20	G 3/4 A	32	16	26.5	26	49.0	37	32	36	MSE20SG06	418	1844
	25	G 1 A	39	18	30.0	30	55.0	42	41	46	MSE25SG08	419	1845
	30	G1 1/4 A	49	20	35.5	34	63.5	49	50	50	MSE30SG10	420	1846
250 bar	38	G1 1/2 A	55	22	41.0	39	72.5	57	55	60	MSE38SG12	421	1847

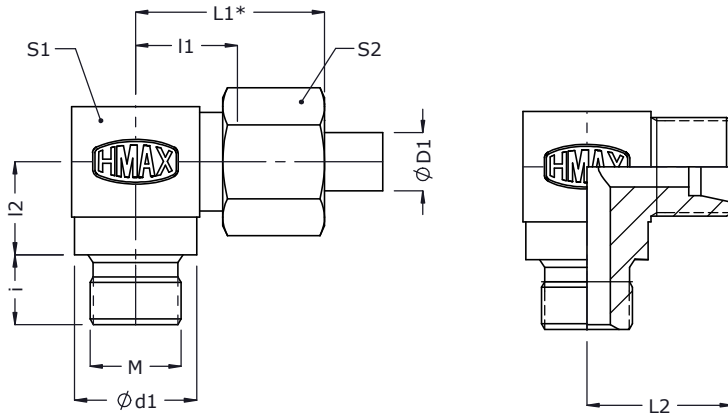
* Dimensions given are approx figures with tightened nut.



Male Stud Elbow Couplings - MSE-M (BAR-STOCK)

ISO fittings

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



2D Assembly

2D Body

Series	Tube od ØD1	M Male Metric thread	Ød1	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
											Part code	Item no_	Item no_
160 bar	22	M26 x 1.5	32	16	27.5	26	44.5	35	32	36	MSE22LM26-F	376	1802
	28	M33 x 2.0	39	18	30.5	30	48.5	38	41	41	MSE28LM33-F	377	1803
Light (L) 100 bar	35	M42 x 2.0	49	20	34.5	34	57.5	45	50	50	MSE35LM42-F	378	1804
	42	M48 x 2.0	55	22	40.0	39	63.5	51	55	60	MSE42LM48-F	379	1805
Heavy (S) 400	20	M27 x 2.0	32	16	26.5	26	49.0	37	32	36	MSE20SM27-F	380	1806
	25	M33 x 2.0	39	18	30.0	30	55.0	42	41	46	MSE25SM33-F	381	1807
250 bar	30	M42 x 2.0	49	20	35.5	34	63.5	49	50	50	MSE30SM42-F	382	1808
	38	M48 x 2.0	55	22	41.0	39	72.5	57	55	60	MSE38SM48-F	383	1809

* Dimensions given are approx figures with tightened nut.

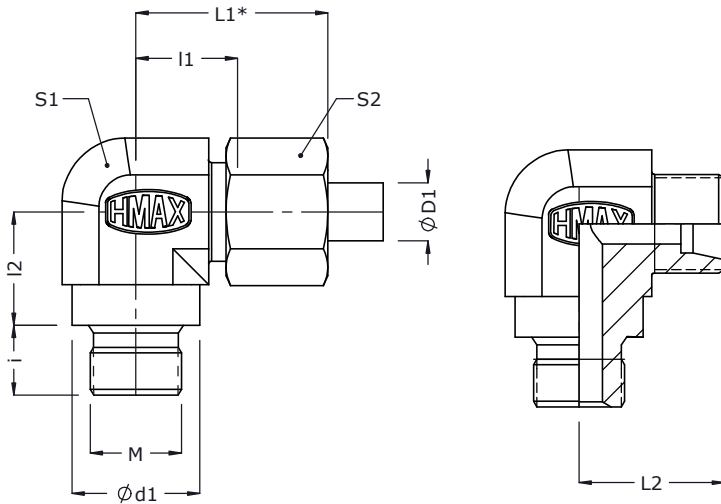
An ISO 9001-2015 Certified Co



Male Stud Elbow Couplings - MSE-M (FORGED)

ISO fittings

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



2D Assembly

2D Body

Series	Tube od $\phi D1$	M Male Metric thread	$\phi d1$	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
											Part code	Item no_	Item no_
160 bar	22	M26 x 1.5	32	16	27.5	26	44.5	35	32	36	MSE22LM26	422	1848
	28	M33 x 2.0	39	18	30.5	30	48.5	38	41	41	MSE28LM33	423	1849
Light (L) 100 bar	35	M42 x 2.0	49	20	34.5	34	57.5	45	50	50	MSE35LM42	424	1850
	42	M48 x 2.0	55	22	40.0	39	63.5	51	55	60	MSE42LM48	425	1851
Heavy (S) 400	20	M27 x 2.0	32	16	26.5	26	49.0	37	32	36	MSE20SM27	426	1852
	25	M33 x 2.0	39	18	30.0	30	55.0	42	41	46	MSE25SM33	427	1853
250 bar	30	M42 x 2.0	49	20	35.5	34	63.5	49	50	50	MSE30SM42	428	1854
	38	M48 x 2.0	55	22	41.0	39	72.5	57	55	60	MSE38SM48	429	1855

* Dimensions given are approx figures with tightened nut.

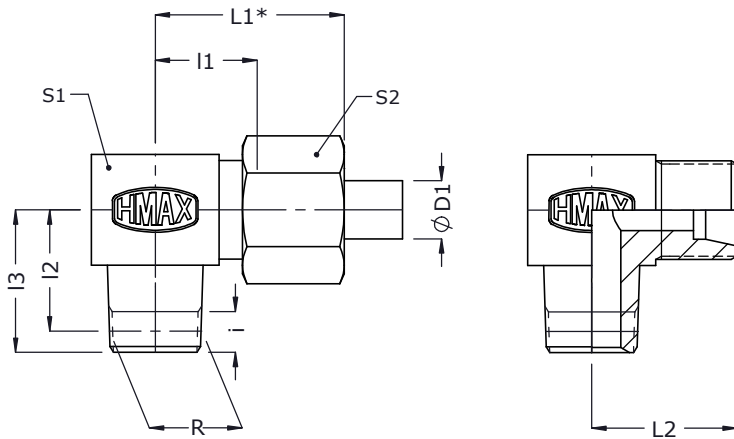
An ISO 9001-2015 Certified Co



Male Stud Elbow Couplings - MSE-R (BAR-STOCK)

ISO fittings

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



2D Assembly

2D Body

Series	Tube od $\phi D1$	R Male BSPT thread	i	l1	l2 min	l2 max	l3	L1*	L2	S1	S2	Assembly		Body
												Part code	Item no_	Item no_
Light (L) 250 bar	6	R 1/8	7.5	13.0	16.1	17.9	21.0	28.5	20.0	12	14	MSE06LR01-F	384	1810
	8	R 1/4	11.0	15.5	20.2	22.8	27.5	30.5	22.5	14	17	MSE08LR02-F	385	1811
	10	R 1/4	11.0	15.0	19.7	22.3	27.0	30.5	22.0	17	19	MSE10LR02-F	386	1812
	12	R 3/8	11.5	17.0	20.3	22.9	28.0	32.0	24.0	19	22	MSE12LR03-F	387	1813
	15	R 1/2	15.0	22.0	25.0	28.6	35.0	38.0	29.0	22	27	MSE15LR04-F	388	1814
160 bar	18	R 1/2	15.0	23.5	26.0	29.6	36.0	40.5	31.0	27	32	MSE18LR04-F	389	1815
Heavy (S) 630 bar	6	R 1/4	11.0	17.5	18.7	21.3	26.0	33.0	24.5	14	17	MSE06SR02-F	390	1816
	8	R 1/4	11.0	17.0	19.7	22.3	27.0	32.0	24.0	17	19	MSE08SR02-F	391	1817
	10	R 3/8	11.5	17.5	20.3	22.9	28.0	34.5	25.0	19	22	MSE10SR03-F	392	1818
	12	R 3/8	11.5	21.5	20.3	22.9	28.0	38.0	29.0	22	24	MSE12SR03-F	393	1819
400 bar	16	R 1/2	15.0	26.0	23.5	27.1	33.5	45.0	34.5	24	30	MSE16SR04-F	394	1820

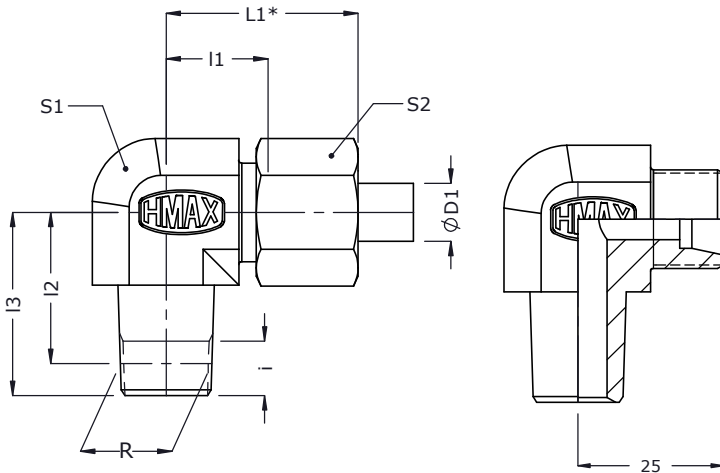
* Dimensions given are approx figures with tightened nut.



Male Stud Elbow Couplings - MSE-R (FORGED)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od D1	R Male BSPT thread	i	l1	l2 min	l2 max	l3	L1*	L2	S1	S2	Assembly		Body
												Part code	Item no_	Item no_
Light (L) 250 bar	6	R 1/8	7.5	13.0	16.1	17.9	21.0	28.5	20.0	12	14	MSE06LR01	430	1856
	8	R 1/4	11.0	15.5	20.2	22.8	27.5	30.5	22.5	14	17	MSE08LR02	431	348
	10	R 1/4	11.0	15.0	19.7	22.3	27.0	30.5	22.0	17	19	MSE10LR02	432	1857
	12	R 3/8	11.5	17.0	20.3	22.9	28.0	32.0	24.0	19	22	MSE12LR03	433	1858
	15	R 1/2	15.0	22.0	25.0	28.6	35.0	38.0	29.0	22	27	MSE15LR04	434	936
160 bar	18	R 1/2	15.0	23.5	26.0	29.6	36.0	40.5	31.0	27	32	MSE18LR04	435	1859
Heavy (S) 630 bar	6	R 1/4	11.0	17.5	18.7	21.3	26.0	33.0	24.5	14	17	MSE06SR02	436	309
	8	R 1/4	11.0	17.0	19.7	22.3	27.0	32.0	24.0	17	19	MSE08SR02	437	1860
	10	R 3/8	11.5	17.5	20.3	22.9	28.0	34.5	25.0	19	22	MSE10SR03	438	1861
	12	R 3/8	11.5	21.5	20.3	22.9	28.0	38.0	29.0	22	24	MSE12SR03	439	1862
400 bar	16	R 1/2	15.0	26.0	23.5	27.1	33.5	45.0	34.5	24	30	MSE16SR04	440	1863

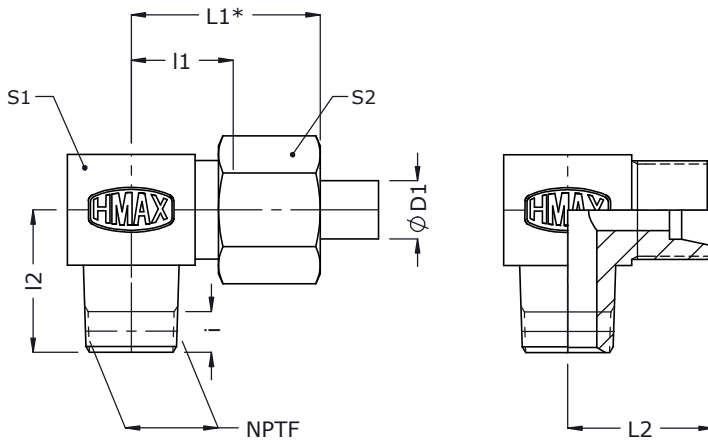
* Dimensions given are approx figures with tightened nut.



Male Stud Elbow Couplings - MSE-N (BAR-STOCK)

ISO fittings

Metric Tube end as per ISO 8434
and NPTF (N) stud end



2D Assembly

2D Body

Series	Tube od D1	N Male NPTF thread	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	N 1/8	9.9	12.0	20	27.5	19	12	14	MSE06LN01-F	395	1821
	8	N 1/4	15.1	14.0	26	29.0	21	14	17	MSE08LN02-F	396	1822
	10	N 1/4	15.1	15.0	28	30.5	22	17	19	MSE10LN02-F	397	1823
	12	N 3/8	15.2	17.0	30	32.0	24	19	22	MSE12LN03-F	398	1824
	15	N 1/2	19.8	21.0	37	37.0	28	22	27	MSE15LN04-F	399	1825
160 bar	18	N 1/2	19.8	23.5	40	40.5	31	27	32	MSE18LN04-F	400	1826
	22	N 3/4	20.1	27.5	42	44.5	35	30	36	MSE22LN06-F	401	1827
100 bar	28	N 1	25.0	30.5	50	48.5	38	36	41	MSE28LN08-F	402	1828
	35	N1 1/4	25.6	34.5	56	57.5	45	46	50	MSE35LN10-F	403	1829
	42	N1 1/2	26.0	40.0	62	63.5	51	55	60	MSE42LN12-F	404	1830
Heavy (S) 630 bar	6	N 1/4	15.1	16.0	26	31.5	23	14	17	MSE06SN02-F	405	1831
	8	N 1/4	15.1	17.0	28	32.0	24	17	19	MSE08SN02-F	406	1832
	10	N 3/8	15.2	17.5	30	34.5	25	19	22	MSE10SN03-F	407	1833
	12	N 3/8	15.2	21.5	31	38.0	29	22	24	MSE12SN03-F	408	1834
400 bar	16	N 1/2	19.8	24.5	39	43.5	33	27	30	MSE16SN04-F	409	1835
	20	N 3/4	20.1	26.5	43	49.0	37	30	36	MSE20SN06-F	410	1836
	25	N 1	25.0	30.0	54	55.0	42	36	46	MSE25SN08-F	411	1837
250 bar	30	N1 1/4	25.6	35.5	56	63.5	49	46	50	MSE30SN10-F	412	1838
	38	N1 1/2	26.0	41.0	62	72.5	57	55	60	MSE38SN12-F	413	1839

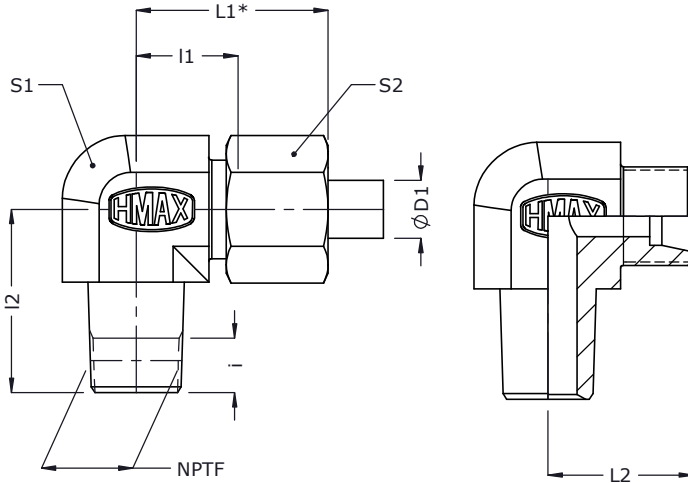
* Dimensions given are approx figures with tightened nut.



Male Stud Elbow Couplings - MSE-N (FORGED)

Metric Tube end as per ISO 8434
and NPTF (N) stud end

ISO fittings



2D Assembly

2D Body

Series	Tube od D1	N Male NPTF thread	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	N 1/8	9.9	12.0	20	27.5	19	12	14	MSE06LN01	441	1864
	8	N 1/4	15.1	14.0	26	29.0	21	14	17	MSE08LN02	442	1865
	10	N 1/4	15.1	15.0	28	30.5	22	17	19	MSE10LN02	443	1866
	12	N 3/8	15.2	17.0	30	32.0	24	19	22	MSE12LN03	444	1867
	15	N 1/2	19.8	21.0	37	37.0	28	22	27	MSE15LN04	445	1868
160 bar	18	N 1/2	19.8	23.5	40	40.5	31	27	32	MSE18LN04	446	1869
	22	N 3/4	20.1	27.5	42	44.5	35	30	36	MSE22LN06	447	1870
100 bar	28	N 1	25.0	30.5	50	48.5	38	36	41	MSE28LN08	448	1871
	35	N1 1/4	25.6	34.5	56	57.5	45	46	50	MSE35LN10	449	1872
	42	N1 1/2	26.0	40.0	62	63.5	51	55	60	MSE42LN12	450	1873
Heavy (S) 630 bar	6	N 1/4	15.1	16.0	26	31.5	23	14	17	MSE06SN02	451	1874
	8	N 1/4	15.1	17.0	28	32.0	24	17	19	MSE08SN02	452	1875
	10	N 3/8	15.2	17.5	30	34.5	25	19	22	MSE10SN03	453	1876
	12	N 3/8	15.2	21.5	31	38.0	29	22	24	MSE12SN03	454	1877
400 bar	16	N 1/2	19.8	24.5	39	43.5	33	27	30	MSE16SN04	455	1878
	20	N 3/4	20.1	26.5	43	49.0	37	30	36	MSE20SN06	456	1879
	25	N 1	25.0	30.0	54	55.0	42	36	46	MSE25SN08	457	1880
250 bar	30	N1 1/4	25.6	35.5	56	63.5	49	46	50	MSE30SN10	458	1881
	38	N1 1/2	26.0	41.0	62	72.5	57	55	60	MSE38SN12	459	1882

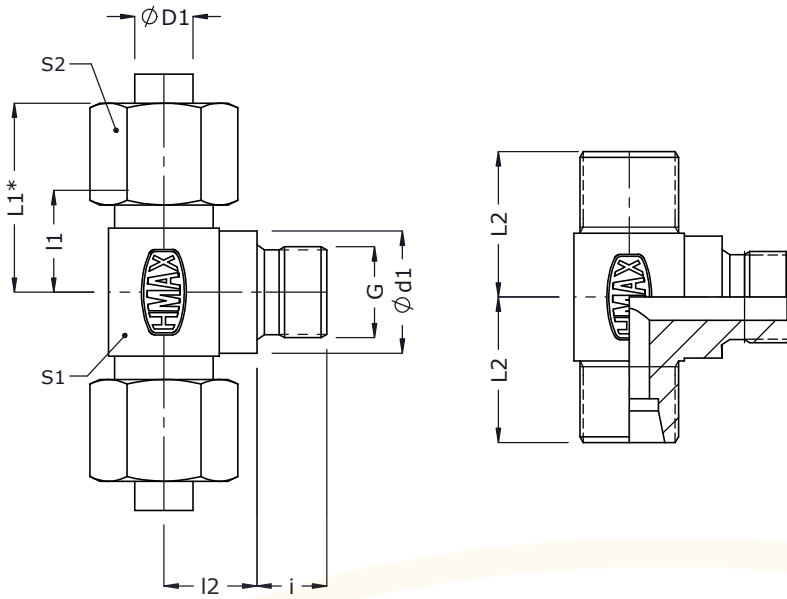
* Dimensions given are approx figures with tightened nut.



Male Stud Branch Tee Couplings - MSBT-G (BAR-STOCK)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od $\phi D1$	G Male BSP thread	$\phi d1$	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
											Part code	Item no_	Item no_
Light (L) 160 bar	22	G 3/4 A	32	16	27.5	26	44.5	35	32	36	MSBT22LG06-F	460	273
	28	G 1 A	39	18	30.5	30	48.5	38	41	41	MSBT28LG08-F	461	1336
	35	G1 1/4 A	49	20	34.5	34	57.5	45	50	50	MSBT35LG10-F	462	1337
100 bar	42	G1 1/2 A	55	22	40.0	39	63.5	51	55	60	MSBT42LG12-F	463	1338
Heavy (S) 400 bar	20	G 3/4 A	32	16	26.5	26	49.0	37	32	36	MSBT20SG06-F	464	1339
	25	G 1 A	39	18	30.0	30	55.0	42	41	46	MSBT25SG08-F	465	1340
	30	G1 1/4 A	49	20	35.5	34	63.5	49	50	50	MSBT30SG10-F	466	1341
250 bar	38	G1 1/2 A	55	22	41.0	39	72.5	57	55	60	MSBT38SG12-F	467	1342

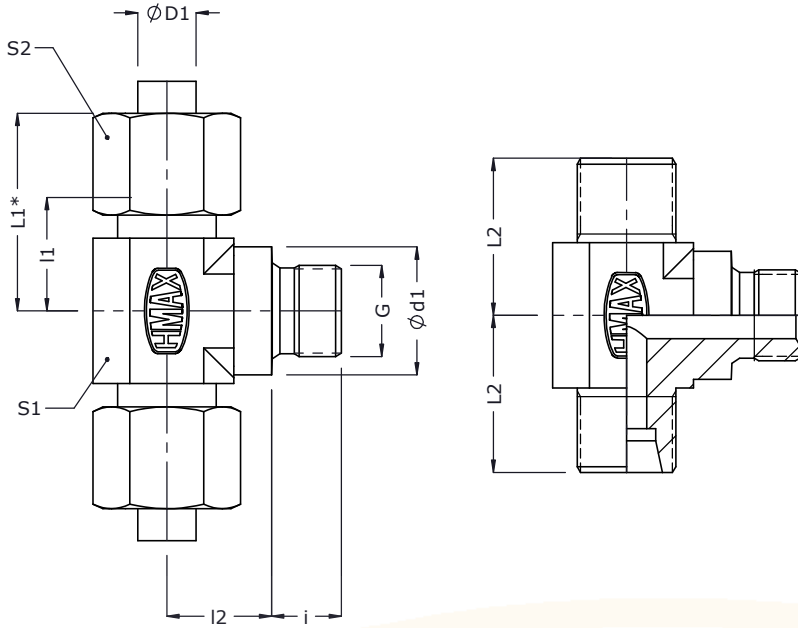
* Dimensions given are approx figures with tightened nut.



Male Stud Branch Tee Couplings - MSBT-G (FORGED)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od ØD1	G Male BSP thread	Ød1	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
											Part code	Item no_	Item no_
Light (L) 160 bar	22	G 3/4 A	32	16	27.5	26	44.5	35	32	36	MSBT22LG06	488	1362
	28	G 1 A	39	18	30.5	30	48.5	38	41	41	MSBT28LG08	489	1363
	35	G1 1/4 A	49	20	34.5	34	57.5	45	50	50	MSBT35LG10	490	1364
100 bar	42	G1 1/2 A	55	22	40.0	39	63.5	51	55	60	MSBT42LG12	490	1365
Heavy (S) 400 bar	20	G 3/4 A	32	16	26.5	26	49.0	37	32	36	MSBT20SG06	492	1366
	25	G 1 A	39	18	30.0	30	55.0	42	41	46	MSBT25SG08	493	1367
250 bar	30	G1 1/4 A	49	20	35.5	34	63.5	49	50	50	MSBT30SG10	494	1368
	38	G1 1/2 A	55	22	41.0	39	72.5	57	55	60	MSBT38SG12	495	1369

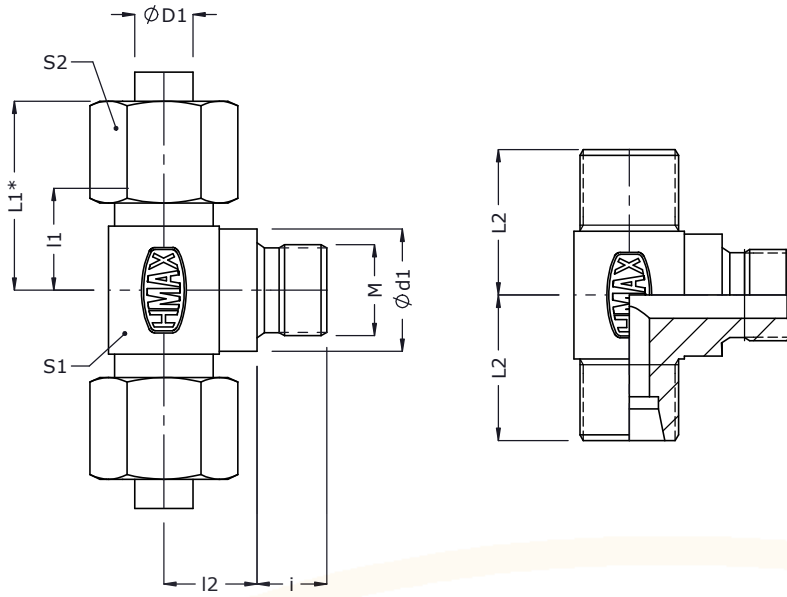
* Dimensions given are approx figures with tightened nut.



Male Stud Branch Tee Couplings - MSBT-M (BAR-STOCK)

ISO fittings

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



2D Assembly

2D Body

Series	Tube od ØD1	M Male Metric thread	Ød1	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
											Part code	Item no_	Item no_
160 bar	22	M26 x 1.5	32	16	27.5	26	44.5	35	32	36	MSBT22LM26-F	468	1343
Light (L) 100 bar	28	M33 x 2.0	39	18	30.5	30	48.5	38	41	41	MSBT28LM33-F	469	1344
	35	M42 x 2.0	49	20	34.5	34	57.5	45	50	50	MSBT35LM42-F	470	1345
Heavy (S) 400 bar	42	M48 x 2.0	55	22	40.0	39	63.5	51	55	60	MSBT42LM48-F	471	1346
	20	M27 x 2.0	32	16	26.5	26	49.0	37	32	36	MSBT20SM27-F	472	1347
250 bar	25	M33 x 2.0	39	18	30.0	30	55.0	42	41	46	MSBT25SM33-F	473	1348
	30	M42 x 2.0	49	20	35.5	34	63.5	49	50	50	MSBT30SM42-F	474	1349
	38	M48 x 2.0	55	22	41.0	39	72.5	57	55	60	MSBT38SM48-F	475	1350

* Dimensions given are approx figures with tightened nut.

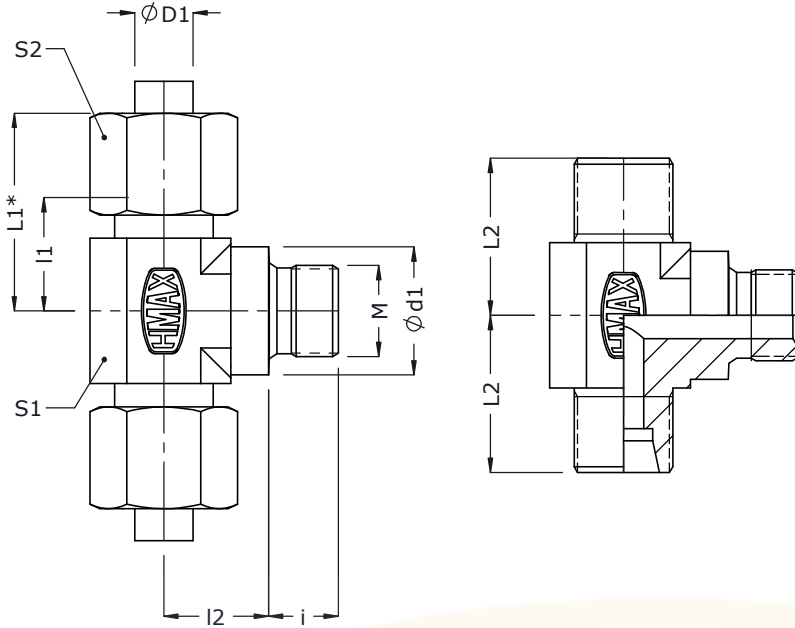
An ISO 9001-2015 Certified Co



Male Stud Branch Tee Couplings - MSBT-M (FORGED)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od ØD1	M Male Metric thread	Ød1	i	l1	l2	L1*	L2	S1	S2	Assembly		Body
											Part code	Item no_	Item no_
160 bar	22	M26 x 1.5	32	16	27.5	26	44.5	35	32	36	MSBT22LM26	496	1370
Light (L) 100 bar	28	M33 x 2.0	39	18	30.5	30	48.5	38	41	41	MSBT28LM33	497	1371
	35	M42 x 2.0	49	20	34.5	34	57.5	45	50	50	MSBT35LM42	498	1372
Heavy (S) 400 bar	42	M48 x 2.0	55	22	40.0	39	63.5	51	55	60	MSBT42LM48	499	1373
	20	M27 x 2.0	32	16	26.5	26	49.0	37	32	36	MSBT20SM27	500	1374
250 bar	25	M33 x 2.0	39	18	30.0	30	55.0	42	41	46	MSBT25SM33	501	1375
	30	M42 x 2.0	49	20	35.5	34	63.5	49	50	50	MSBT30SM42	502	1376
	38	M48 x 2.0	55	22	41.0	39	72.5	57	55	60	MSBT38SM48	503	1377

* Dimensions given are approx figures with tightened nut.

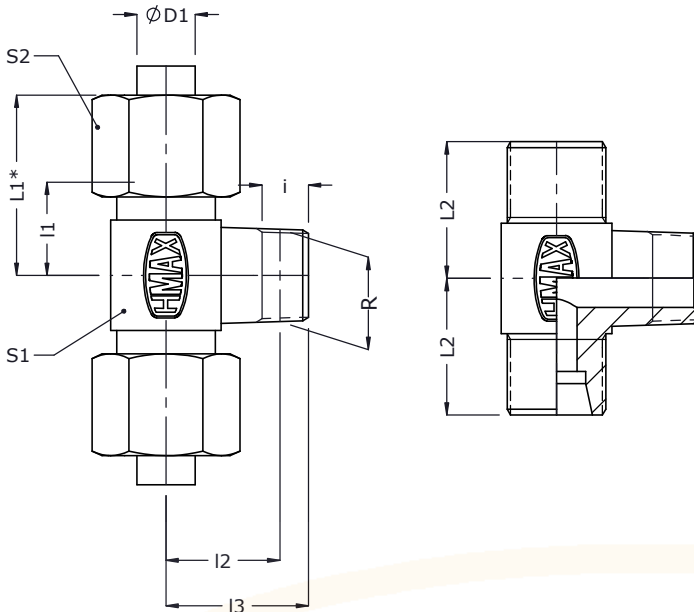
An ISO 9001-2015 Certified Co



Male Stud Branch Tee Couplings - MSBT-R (BAR-STOCK)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od D1	R Male BSPT thread	i	l1	l2 min	l2 max	l3	L1*	L2	S1	S2	Assembly		Body
												Part code	Item no	Item no
Light (L) 250 bar	6	R 1/8	7.5	13	16.1	17.9	21.0	28.5	20.0	12	14	MSBT06LR01-F	476	1351
	8	R 1/4	11	15.5	20.2	22.8	27.5	30.5	22.5	14	17	MSBT08LR02-F	477	1352
	10	R 1/4	11	15.0	19.7	22.3	27.0	30.5	22.0	17	19	MSBT10LR02-F	478	1353
	12	R 3/8	11.5	17.0	20.3	22.9	28.0	32.0	24.0	19	22	MSBT12LR03-F	479	1354
	15	R 1/2	15	22.0	25.0	28.6	35.0	38.0	29.0	22	27	MSBT15LR04-F	480	1355
160 bar	18	R 1/2	15	23.5	26.0	29.6	36.0	40.5	31.0	27	32	MSBT18LR04-F	481	1356
Heavy (S) 630 bar	6	R 1/4	11	17.5	18.7	21.3	26.0	33.0	24.5	14	17	MSBT06SR02-F	482	1357
	8	R 1/4	11	17.0	19.7	22.3	27.0	32.0	24.0	17	19	MSBT08SR02-F	483	1358
	10	R 3/8	11.5	17.5	20.3	22.9	28.0	34.5	25.0	19	22	MSBT10SR03-F	484	1359
	12	R 3/8	11.5	21.5	20.3	22.9	28.0	38.0	29.0	22	24	MSBT12SR03-F	485	1360
400 bar	16	R 1/2	15	26.0	23.5	27.1	33.5	45.0	34.5	24	30	MSBT16SR04-F	486	1361

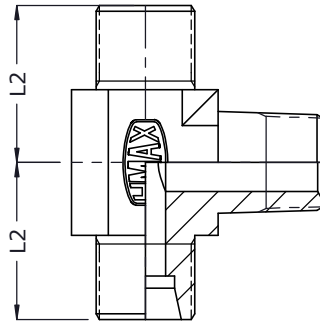
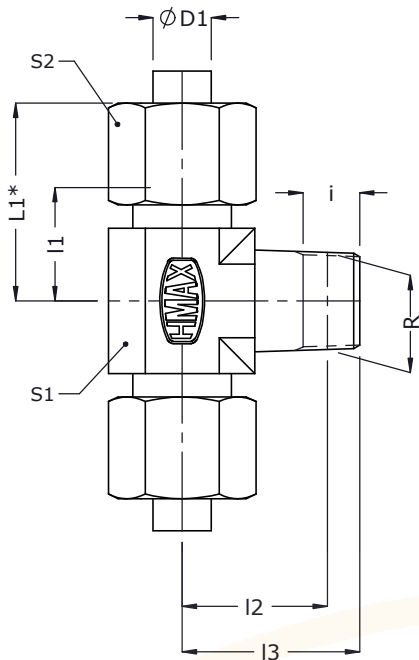
* Dimensions given are approx figures with tightened nut.



Male Stud Branch Tee Couplings - MSBT-R (FORGED)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od ϕ D1	R Male BSPT thread	i	I1	I2 min	I2 max	I3	L1*	L2	S1	S2	Assembly		Body
												Part code	Item no	Item no
Light (L) 250 bar	6	R 1/8	7.5	13	16.1	17.9	21.0	28.5	20.0	12	14	MSBT06LR01	504	1378
	8	R 1/4	11.0	15.5	20.2	22.8	27.5	30.5	22.5	14	17	MSBT08LR02	505	1119
	10	R 1/4	11.0	15.0	19.7	22.3	27.0	30.5	22.0	17	19	MSBT10LR02	506	1379
	12	R 3/8	11.5	17.0	20.3	22.9	28.0	32.0	24.0	19	22	MSBT12LR03	507	1380
	15	R 1/2	15.0	22.0	25.0	28.6	35.0	38.0	29.0	22	27	MSBT15LR04	508	1381
160 bar	18	R 1/2	15.0	23.5	26.0	29.6	36.0	40.5	31.0	27	32	MSBT18LR04	509	1382
Heavy (S) 630 bar	6	R 1/4	11.0	17.5	18.7	21.3	26.0	33.0	24.5	14	17	MSBT06SR02	510	1383
	8	R 1/4	11.0	17.0	19.7	22.3	27.0	32.0	24.0	17	19	MSBT08SR02	511	1384
	10	R 3/8	11.5	17.5	20.3	22.9	28.0	34.5	25.0	19	22	MSBT10SR03	512	1385
	12	R 3/8	11.5	21.5	20.3	22.9	28.0	38.0	29.0	22	24	MSBT12SR03	513	1386
400 bar	16	R 1/2	15.0	26.0	23.5	27.1	33.5	45.0	34.5	24	30	MSBT16SR04	514	1387

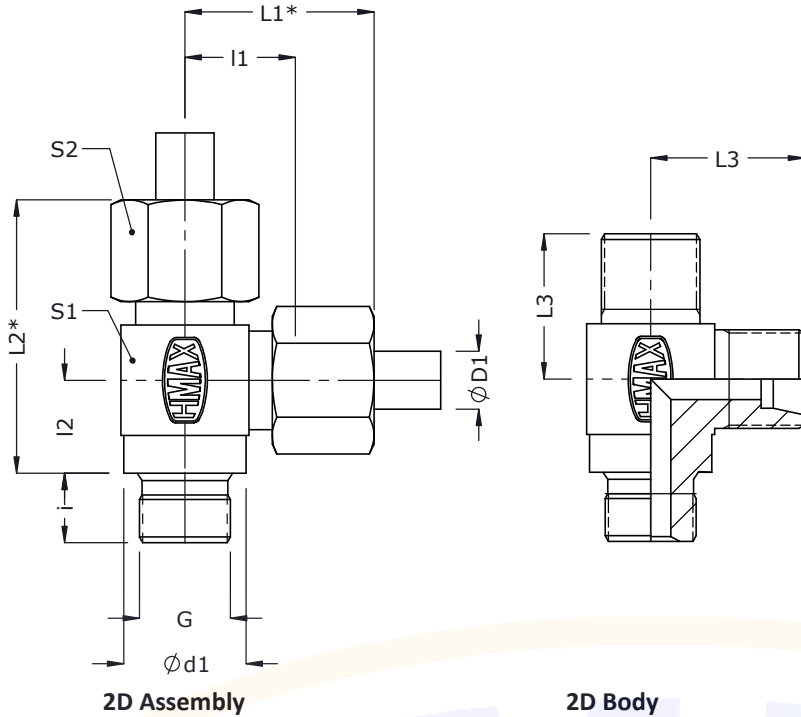
* Dimensions given are approx figures with tightened nut.



Male Stud Run Tee Couplings - MSRT-G (BAR-STOCK)

ISO fittings

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



An ISO 9001-2015 Certified Co

Series	Tube od ØD1	G Male BSP thread	Ød1	i	l1	l2	L1*	L2*	L3	S1	S2	Assembly		Body
												Part code	Item no_	Item no_
160 bar	22	G 3/4 A	32	16	27.5	26	44.5	70.5	35	32	36	MSRT22LG06-F	515	1388
Light (L) 100 bar	28	G 1 A	39	18	30.5	30	48.5	78.5	38	41	41	MSRT28LG08-F	516	1389
	35	G1 1/4 A	49	20	34.5	34	57.5	91.5	45	50	50	MSRT35LG10-F	517	1390
100 bar	42	G1 1/2 A	55	22	40.0	39	63.5	102.2	51	55	60	MSRT42LG12-F	518	1391
Heavy (S) 400 bar	20	G 3/4 A	32	16	26.5	26	49.0	75.0	37	32	36	MSRT20SG06-F	519	1392
	25	G 1 A	39	18	30.0	30	55.0	85.0	42	41	46	MSRT25SG08-F	520	1393
250 bar	30	G1 1/4 A	49	20	35.5	34	63.5	97.5	49	50	50	MSRT30SG10-F	521	1394
	38	G1 1/2 A	55	22	41.0	39	72.5	111.5	57	55	60	MSRT38SG12-F	522	1395

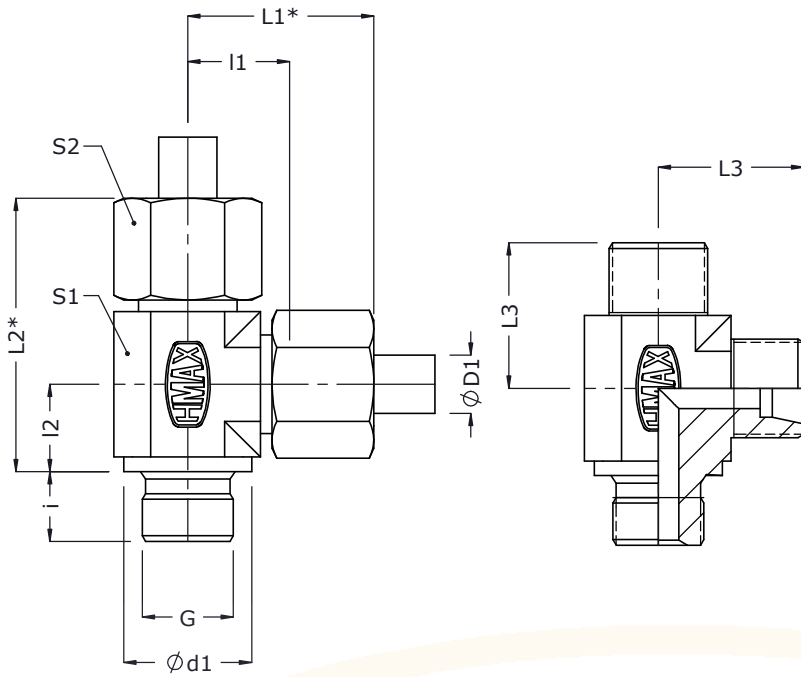
* Dimensions given are approx figures with tightened nut.



Male Stud Run Tee Couplings - MSRT-G (FORGED)

ISO fittings

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



2D Assembly

2D Body

Series	Tube od $\phi D1$	G Male BSP thread	$\phi d1$	i	l1	l2	L1*	L2*	L3	S1	S2	Assembly		Body
												Part code	Item no_	Item no_
160 bar	22	G 3/4 A	32	16	27.5	26	44.5	70.5	35	32	36	MSRT22LG06	542	1415
Light (L) 100 bar	28	G 1 A	39	18	30.5	30	48.5	78.5	38	41	41	MSRT28LG08	543	1416
	35	G1 1/4 A	49	20	34.5	34	57.5	91.5	45	50	50	MSRT35LG10	544	1417
	42	G1 1/2 A	55	22	40.0	39	63.5	102.2	51	55	60	MSRT42LG12	545	1418
Heavy (S) 400 bar	20	G 3/4 A	32	16	26.5	26	49.0	75.0	37	32	36	MSRT20SG06	546	1419
	25	G 1 A	39	18	30.0	30	55.0	85.0	42	41	46	MSRT25SG08	547	1420
250 bar	30	G1 1/4 A	49	20	35.5	34	63.5	97.5	49	50	50	MSRT30SG10	548	1421
	38	G1 1/2 A	55	22	41.0	39	72.5	111.5	57	55	60	MSRT38SG12	549	1422

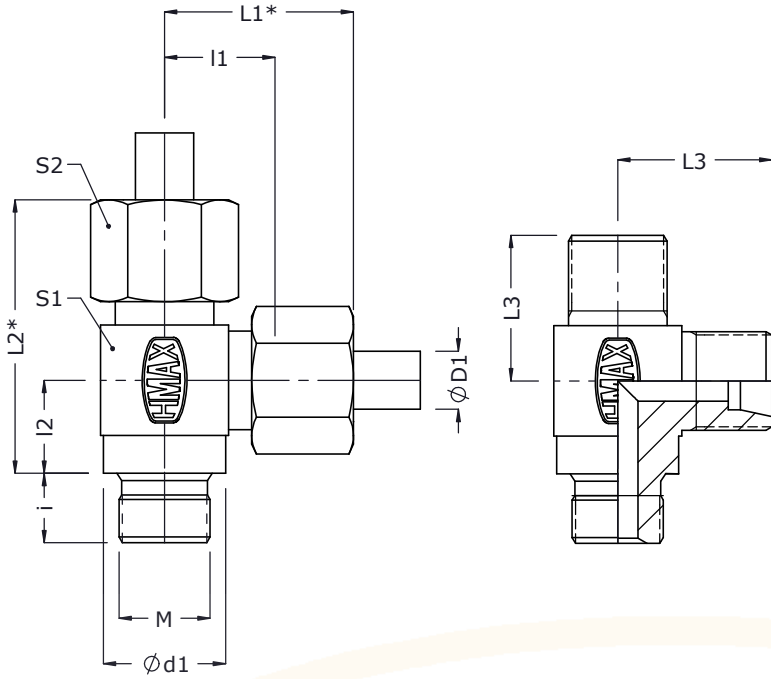
* Dimensions given are approx figures with tightened nut.



Male Stud Run Tee Couplings - MSRT-M (BAR-STOCK)

ISO fittings

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



2D Assembly

2D Body

Series	Tube od $\phi D1$	M Male Metric thread	$\phi d1$	i	l1	l2	L1*	L2*	L3	S1	S2	Assembly		Body	
												Part code	Item no_	Item no_	
160 bar	22	M26 x 1.5	32	16	27.5	26	44.5	70.5	35	32	36	MSRT22LM26-F	523	1396	
	28	M33 x 2.0	39	18	30.5	30	48.5	78.5	38	41	41	MSRT28LM33-F	524	1397	
Light (L) 100 bar	35	M42 x 2.0	49	20	34.5	34	57.5	91.5	45	50	50	MSRT35LM42-F	525	1398	
	42	M48 x 2.0	55	22	40.0	39	63.5	102.5	51	55	60	MSRT42LM48-F	526	1399	
Heavy (S) 400 bar	20	M27 x 2.0	32	16	26.5	26	49.0	75.0	37	32	36	MSRT20SM27-F	527	1400	
	25	M33 x 2.0	39	18	30.0	30	55.0	85.0	42	41	46	MSRT25SM33-F	528	1401	
250 bar	30	M42 x 2.0	49	20	35.5	34	63.5	97.5	49	50	50	MSRT30SM42-F	529	1402	
	38	M48 x 2.0	55	22	41.0	39	72.5	111.5	57	55	60	MSRT38SM48-F	530	1403	

* Dimensions given are approx figures with tightened nut.

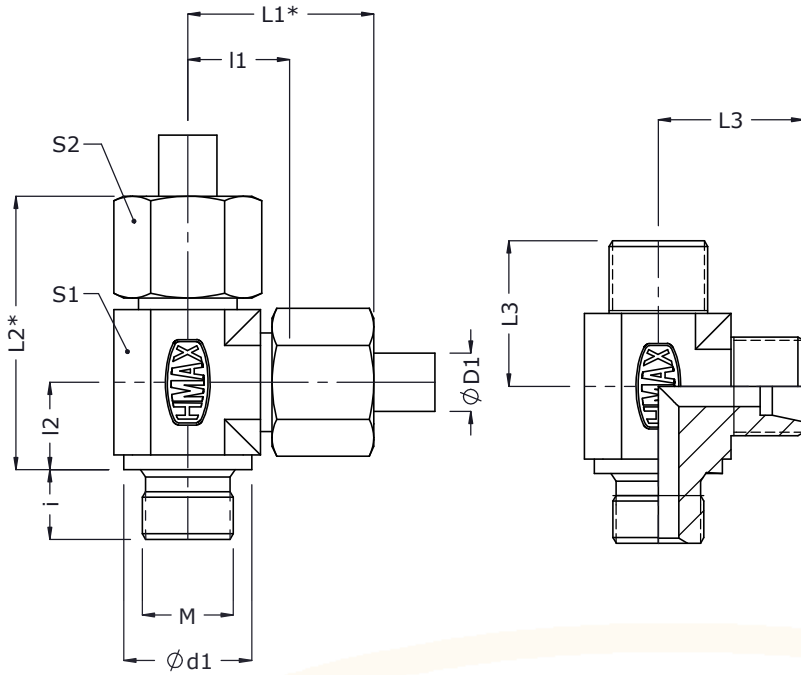
An ISO 9001-2015 Certified Co



Male Stud Run Tee Couplings - MSRT-M (FORGED)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od Ø D1	M Male Metric thread	Ø d1	i	l1	l2	L1*	L2*	L3	S1	S2	Assembly		Body
												Part code	Item no_	Item no_
160 bar	22	M26 x 1.5	32	16	27.5	26	44.5	70.5	35	32	36	MSRT22LM26	550	1423
	Light (L) 100 bar	28	M33 x 2.0	39	18	30.5	30	48.5	78.5	38	41	41	MSRT28LM33	551
35		M42 x 2.0	49	20	34.5	34	57.5	91.5	45	50	50	MSRT35LM42	552	1425
42		M48 x 2.0	55	22	40.0	39	63.5	102.5	51	55	60	MSRT42LM48	553	1426
Heavy (S) 400 bar	20	M27 x 2.0	32	16	26.5	26	49.0	75.0	37	32	36	MSRT20SM27	554	1427
	25	M33 x 2.0	39	18	30.0	30	55.0	85.0	42	41	46	MSRT25SM33	555	1428
250 bar	30	M42 x 2.0	49	20	35.5	34	63.5	97.5	49	50	50	MSRT30SM42	556	1429
	38	M48 x 2.0	55	22	41.0	39	72.5	111.5	57	55	60	MSRT38SM48	557	1430

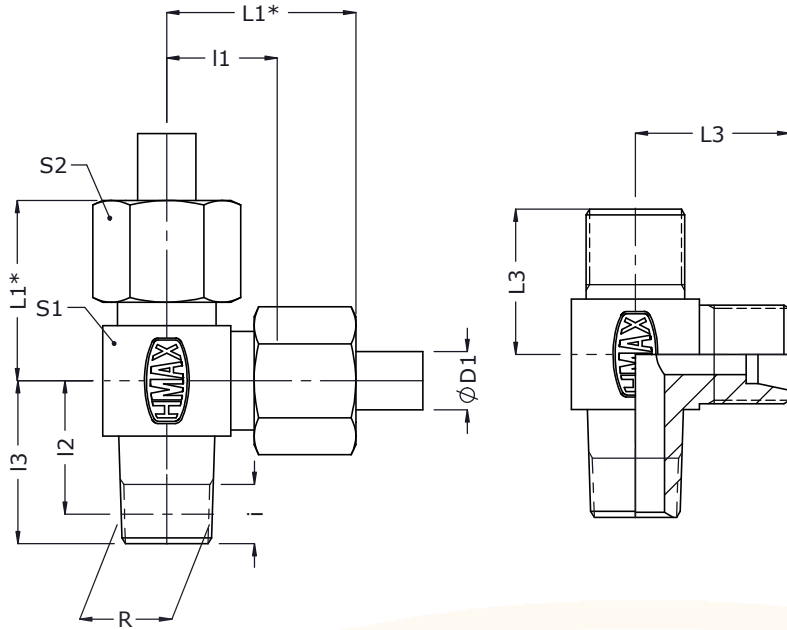
* Dimensions given are approx figures with tightened nut.



Male Stud Run Tee Couplings - MSRT-R (BAR-STOCK)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od ØD1	R Male BSPT thread	i	l1	l2 min	l2 max	l3	L1*	L3	S1	S2	Assembly		Body
												Part code	Item no	Item no
Light (L) 250 bar	6	R 1/8	7.5	13.0	16.1	17.9	21.0	28.5	20.0	12	14	MSRT06LR01-F	531	1404
	8	R 1/4	11.0	15.5	20.2	22.8	27.5	30.5	22.5	14	17	MSRT08LR02-F	532	1405
	10	R 1/4	11.0	15.0	19.7	23.3	27.0	30.5	22.0	17	19	MSRT10LR02-F	533	1406
	12	R 3/8	11.5	17.0	20.3	22.9	28.0	32.0	24.0	19	22	MSRT12LR03-F	534	1407
	15	R 1/2	15.0	22.0	25.0	28.6	35.0	38.0	29.0	22	27	MSRT15LR04-F	535	1408
160 bar	18	R 1/2	15.0	23.5	26.0	29.6	36.0	40.5	31.0	27	32	MSRT18LR04-F	536	1409
Heavy (S) 630 bar	6	R 1/4	11.0	17.5	18.7	21.3	26.0	33.0	24.5	14	17	MSRT06SR02-F	537	1410
	8	R 1/4	11.0	17.0	19.7	22.3	27.0	32.0	24.0	17	19	MSRT08SR02-F	538	1411
	10	R 3/8	11.5	17.5	20.3	22.9	28.0	34.5	25.0	19	22	MSRT10SR03-F	539	1412
	12	R 3/8	11.5	21.5	20.3	22.9	28.0	38.0	29.0	22	24	MSRT12SR03-F	540	1413
400 bar	16	R 1/2	15.0	26.0	23.5	27.1	33.5	45.0	34.5	24	30	MSRT16SR04-F	541	1414

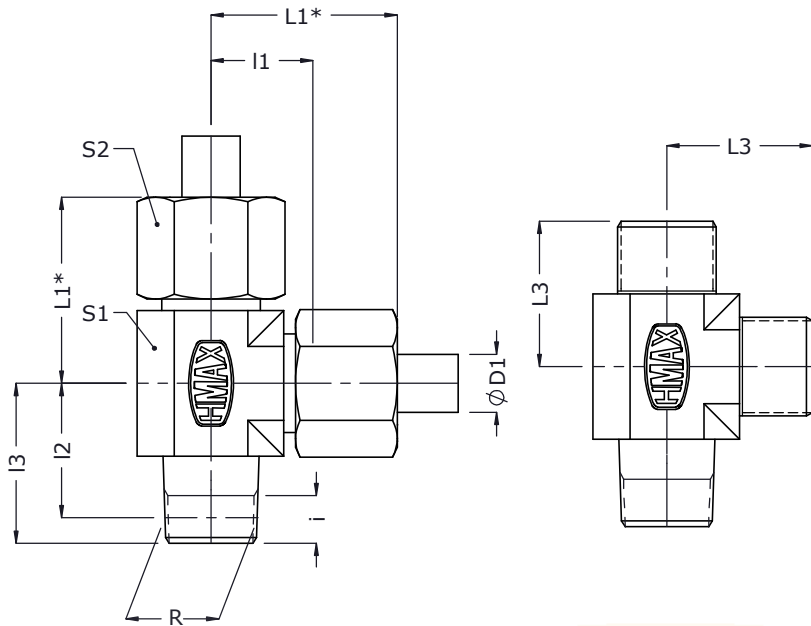
* Dimensions given are approx figures with tightened nut.



Male Stud Run Tee Couplings - MSRT-R (FORGED)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od D1	R Male BSPT thread	i	l1	l2 min	l2 max	l3	L1*	L3	S1	S2	Assembly		Body Item no
												Part code	Item no	
Light (L) 250 bar	6	R 1/8	7.5	13.0	16.1	17.9	21.0	28.5	20.0	12	14	MSRT06LR01	558	1431
	8	R 1/4	11.0	15.5	20.2	22.8	27.5	30.5	22.5	14	17	MSRT08LR02	559	1432
	10	R 1/4	11.0	15.0	19.7	23.3	27.0	30.5	22.0	17	19	MSRT10LR02	560	1433
	12	R 3/8	11.5	17.0	20.3	22.9	28.0	32.0	24.0	19	22	MSRT12LR03	561	1434
	15	R 1/2	15.0	22.0	25.0	28.6	35.0	38.0	29.0	22	27	MSRT15LR04	562	1435
160 bar	18	R 1/2	15.0	23.5	26.0	29.6	36.0	40.5	31.0	27	32	MSRT18LR04	563	1436
Heavy (S) 630 bar	6	R 1/4	11.0	17.5	18.7	21.3	26.0	33.0	24.5	14	17	MSRT06SR02	564	1437
	8	R 1/4	11.0	17.0	19.7	22.3	27.0	32.0	24.0	17	19	MSRT08SR02	565	1438
	10	R 3/8	11.5	17.5	20.3	22.9	28.0	34.5	25.0	19	22	MSRT10SR03	566	1439
	12	R 3/8	11.5	21.5	20.3	22.9	28.0	38.0	29.0	22	24	MSRT12SR03	567	1440
400 bar	16	R 1/2	15.0	26.0	23.5	27.1	33.5	45.0	34.5	24	30	MSRT16SR04	568	1441

* Dimensions given are approx figures with tightened nut.



Female Stud Couplings

ISO fittings



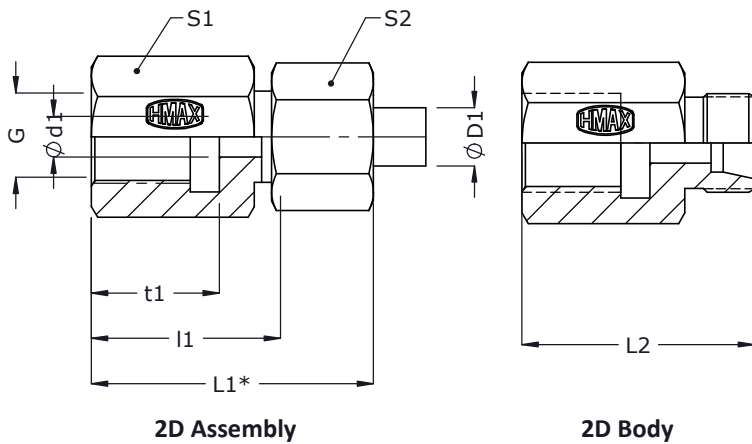
SI. No_	Description	Part Code
1	Straight Female couplings	FSC-G
2	Straight Female couplings	FSC-M



Straight Female Couplings - FSC-G

ISO fittings

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



An ISO 9001-2015 Certified Co

Series	Tube od $\phi D1$	G Male BSP thread	$\phi d1$	t1	l1	L1*	L2	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	G 1/8 A	4	12.0	19.0	34.5	26.0	14	14	FSC06LG01	569	1442
	8	G 1/4 A	6	17.0	24.0	39.0	31.0	19	17	FSC08LG02	570	1443
	10	G 1/4 A	8	17.0	25.0	40.5	32.0	19	19	FSC10LG02	571	1444
	12	G 3/8 A	10	17.0	26.0	41.0	33.0	24	22	FSC12LG03	572	1445
	15	G 1/2 A	12	20.0	31.0	47.0	38.0	27	27	FSC15LG04	573	1456
160 bar	18	G 1/2 A	15	20.0	30.5	47.5	38.0	27	32	FSC18LG04	574	1447
	22	G 3/4 A	19	22.0	35.5	52.5	43.0	36	36	FSC22LG06	575	1448
100 bar	28	G 1 A	24	24.5	38.0	56.0	45.5	41	41	FSC28LG08	576	1449
	35	G1 1/4 A	30	26.5	41.0	64.0	51.5	55	50	FSC35LG10	577	1450
	42	G1 1/2 A	36	28.5	42.5	66.0	53.5	60	60	FSC42LG12	578	1451
Heavy (S) 630 bar	6	G 1/4 A	4	17.0	26.0	41.5	33.0	19	17	FSC06SG02	579	1452
	8	G 1/4 A	5	17.0	26.0	41.0	33.0	19	19	FSC08SG02	580	1453
	10	G 3/8 A	7	17.0	26.5	43.5	34.0	24	22	FSC10SG03	581	1454
	12	G 3/8 A	8	17.0	26.5	43.0	34.0	24	24	FSC12SG03	582	1455
400 bar	16	G 1/2 A	12	20.0	31.5	50.5	40.0	30	30	FSC16SG04	583	1124
	20	G 3/4 A	16	22.0	34.5	57.0	45.0	36	36	FSC20SG06	584	1456
	25	G 1 A	20	24.5	37.5	62.5	49.5	41	46	FSC25SG08	585	1457
250 bar	30	G1 1/4 A	25	26.5	42.0	70.0	55.5	55	50	FSC30SG10	586	1458
	38	G1 1/2 A	32	28.5	43.5	75.0	59.5	60	60	FSC38SG12	587	521

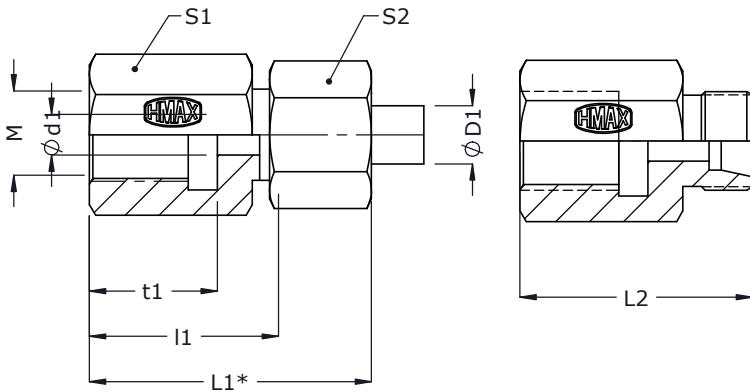
* Dimensions given are approx figures with tightened nut.



Straight Female Couplings - FSC-M

ISO fittings

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



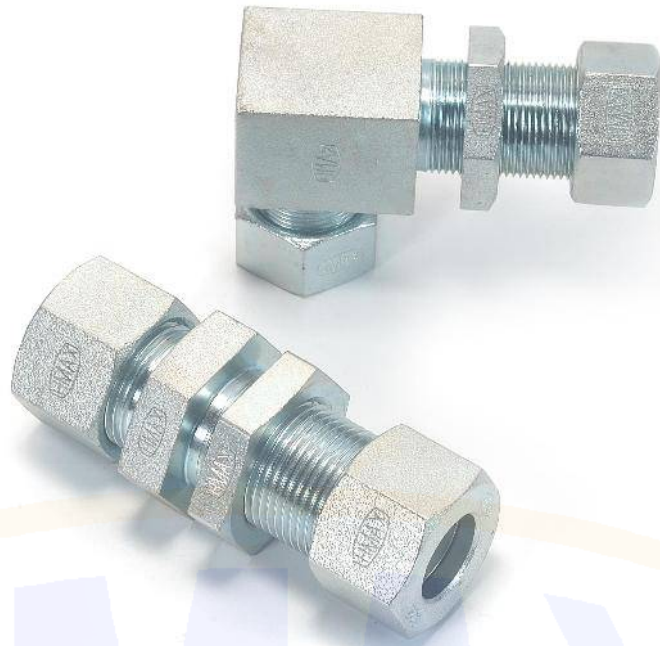
2D Assembly

2D Body



Series	Tube od D1	M Female Metric thread	Ød1	t1	l1	L1*	L2	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	M10 x 1.0	4	12.5	19.5	35.0	26.5	14	14	FSC06LM10	588	1460
	8	M12 x 1.5	6	17.0	24.0	39.0	31.0	17	17	FSC08LM12	589	1461
	10	M14 x 1.5	8	17.0	25.0	40.5	32.0	19	19	FSC10LM14	590	1462
	12	M16 x 1.5	10	17.0	26.0	41.0	33.0	22	22	FSC12LM16	591	1463
	15	M18 x 1.5	12	17.0	28.0	44.0	35.0	24	27	FSC15LM18	592	1464
160 bar	18	M22 x 1.5	15	19.0	29.5	46.5	37.0	30	32	FSC18LM22	593	1465
	22	M26 x 1.5	19	21.0	34.5	51.5	42.0	32	36	FSC22LM26	594	1466
100 bar	28	M33 x 2.0	24	24.0	37.5	55.5	45.0	41	41	FSC28LM33	595	1467
	35	M42 x 2.0	30	26.0	40.5	63.5	51.0	55	50	FSC35LM42	596	1468
	42	M48 x 2.0	36	28.0	42.0	65.5	53.0	60	60	FSC42LM48	597	1469
Heavy (S) 630 bar	6	M12 x 1.5	4	17.0	26.0	41.5	33.0	17	17	FSC06SM12	598	1470
	8	M14 x 1.5	5	17.0	26.0	41.0	33.0	19	19	FSC08SM14	599	1471
	10	M16 x 1.5	7	17.0	26.5	43.5	34.0	22	22	FSC10SM16	560	1472
	12	M18 x 1.5	8	17.0	27.5	44.0	35.0	24	24	FSC12SM18	561	1473
400 bar	16	M22 x 1.5	12	19.0	30.5	49.5	39.0	30	30	FSC16SM22	562	1474
	20	M27 x 2.0	16	22.0	34.5	57.0	45.0	36	36	FSC20SM27	563	1475
	25	M33 x 2.0	20	24.0	37.0	62.0	49.0	41	46	FSC25SM33	564	1476
250 bar	30	M42 x 2.0	25	26.0	41.5	69.5	55.0	55	50	FSC30SM42	565	1477
	38	M48 x 2.0	32	28.0	43.0	74.5	59.0	60	60	FSC38SM48	566	1478

* Dimensions given are approx figures with tightened nut.



SI. No_	Description	Part Code
1	Straight Bulk Head Couplings	SBC
2	Elbow Bulk Head Couplings	EBC

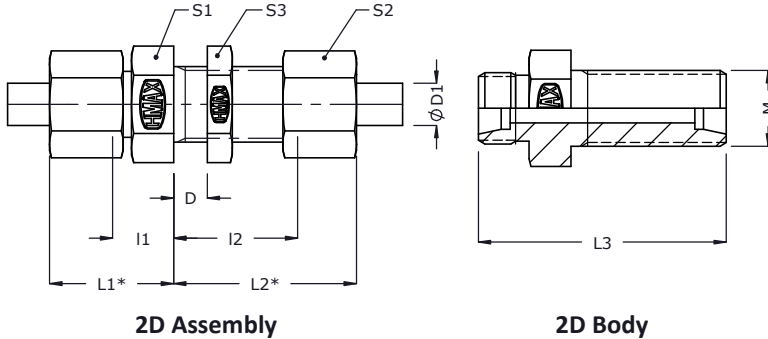


Straight Bulkhead Couplings - SBC

ISO fittings

Metric Tube end as per ISO 8434

Metric Tube end / Metric Tube end
 D = 16 mm (max)
 Lock Nut according ISO 8434-1
 Refer page of lock nut (84) for details



An ISO 9001-2015 Certified Co

Series	Tube od Ø D1	Metric M	I1	I2	L1*	L2*	L3	S1	S2	S3	Assembly		Body
											Part code	Item no_	Item no_
Light (L) 250 bar	6	M12 x 1.5	7	27.0	22.5	42.5	48	17	14	17	SBC6L	130	332
	8	M14 x 1.5	8	27.0	23.0	42.0	49	19	17	19	SBC8L	131	988
	10	M16 x 1.5	10	28.0	25.5	43.5	52	22	19	22	SBC10L	132	989
	12	M18 x 1.5	10	29.0	25.0	44.0	53	24	22	24	SBC12L	133	819
	15	M22 x 1.5	12	31.0	28.0	47.0	57	27	27	30	SBC15L	134	823
160 bar	18	M26 x 1.5	13.5	32.5	30.5	49.5	61	32	32	36	SBC18L	135	331
	22	M30 x 2.0	16.5	34.5	33.5	51.5	66	36	36	41	SBC22L	136	824
100 bar	28	M36 x 2.0	18.5	35.5	36.5	53.5	69	41	41	46	SBC28L	137	330
	35	M45 x 2.0	18.5	36.5	41.5	59.5	76	50	50	55	SBC35L	138	916
	42	M52 x 2.0	19	36.0	42.5	59.5	77	60	60	65	SBC42L	139	950
Heavy (S) 630 bar	6	M14 x 1.5	12	29.0	27.5	44.5	55	19	17	19	SBC6S	140	990
	8	M16 x 1.5	13	29.0	28.0	44.0	56	22	19	22	SBC8S	141	345
	10	M18 x 1.5	14.5	29.5	31.5	46.5	59	24	22	24	SBC10S	142	425
	12	M20 x 1.5	14.5	30.5	31.0	47.0	60	27	24	27	SBC12S	143	310
400 bar	16	M24 x 1.5	16.5	31.5	35.5	50.5	65	32	30	32	SBC16S	144	940
	20	M30 x 2.0	17.5	33.5	40.0	56.0	72	41	36	41	SBC20S	145	433
	25	M36 x 2.0	20	35.0	45.0	60.0	79	46	46	46	SBC25S	146	818
250 bar	30	M42 x 2.0	21.5	37.5	49.5	65.5	86	50	50	50	SBC30S	147	991
	38	M52 x 2.0	22	37.0	53.5	68.5	91	65	60	65	SBC38S	148	992

* Dimensions given are approx figures with tightened nut.

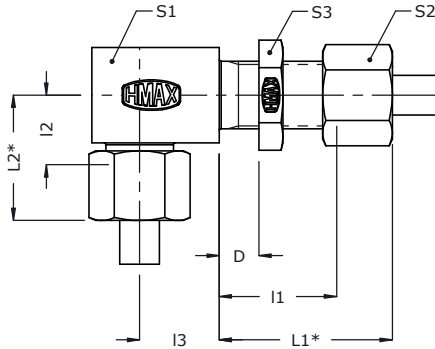


Elbow Bulkhead Couplings - EBC (BAR-STOCK)

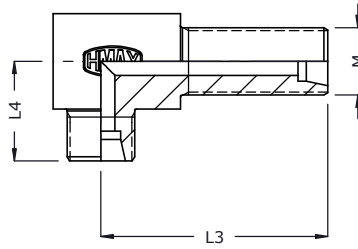
ISO fittings

Metric Tube end as per ISO 8434

Metric Tube end / Metric Tube end
D = 16 mm (max)
Lock Nut according ISO 8434-1
Refer page of lock nut (84) for details



2D Assembly



2D Body



Series	Tube od D1	Metric (M)	I1	I2	I3	L1*	L2*	L3	L4	S1	S2	S3	Assembly		Body
													Part code	Item no_	Item no_
Light (L) 250 bar	6	M12 x 1.5	27.0	12.0	14	42.5	27.5	48	19	17	14	17	EBC06L	149	221
	8	M14 x 1.5	27.0	14.0	17	42.0	29.0	51	21	19	17	19	EBC08L	150	222
	10	M16 x 1.5	28.0	15.0	18	43.5	30.5	53	22	22	19	22	EBC10L	151	223
	12	M18 x 1.5	29.0	17.0	20	44.0	32.0	56	24	24	22	24	EBC12L	152	224
	15	M22 x 1.5	31.0	21.0	23	47.0	37.0	61	28	27	27	30	EBC15L	153	225
160 bar	18	M26 x 1.5	32.5	23.5	24	49.5	40.5	64	31	32	32	36	EBC18L	154	226
	22	M30 x 2.0	34.5	27.5	30	51.5	44.5	72	35	36	36	41	EBC22L	155	227
100 bar	28	M36 x 2.0	35.5	30.5	34	53.5	48.5	77	38	42	41	46	EBC28L	156	228
	35	M45 x 2.0	36.5	34.5	39	59.5	57.5	86	45	50	50	55	EBC35L	157	229
	42	M52 x 2.0	36.0	40.0	43	59.5	63.5	90	51	60	60	65	EBC42L	158	230
Heavy (S) 630 bar	6	M14 x 1.5	29.0	16.0	17	44.5	31.5	53	23	19	17	19	EBC06S	159	1273
	8	M16 x 1.5	29.0	17.0	18	44.0	32.0	54	24	22	19	22	EBC08S	160	237
	10	M18 x 1.5	29.5	17.5	20	46.5	34.5	57	25	24	22	24	EBC10S	161	238
	12	M20 x 1.5	30.5	21.5	21	47.0	38.0	59	29	27	24	27	EBC12S	162	239
400 bar	16	M24 x 1.5	31.5	24.5	24	50.5	43.5	64	33	30	30	32	EBC16S	163	241
	20	M30 x 2.0	33.5	26.5	30	56.0	49.0	74	37	36	36	41	EBC20S	164	242
	25	M36 x 2.0	35.0	30.0	34	60.0	55.0	81	42	42	46	46	EBC25S	165	243
250 bar	30	M42 x 2.0	37.5	35.5	39	65.5	63.5	90	49	50	50	50	EBC30S	166	1274
	38	M52 x 2.0	37.0	41.0	43	68.5	72.5	96	57	60	60	65	EBC38S	167	1275

* Dimensions given are approx figures with tightened nut.



Weld Couplings

ISO fittings



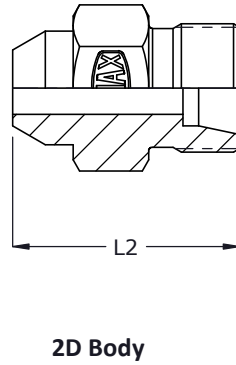
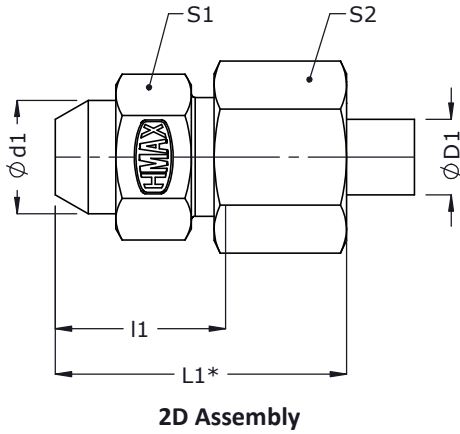
SI. No_	Description	Part Code
1	Weld couplings	WC
2	Weld couplings(Equal)	WCE
3	Elbow Weld couplings	EWC



Weld Couplings - WC

ISO fittings

Metric Tube end as per ISO 8434



An ISO 9001-2015 Certified Co

Series	Tube od $\phi D1$	$\phi d1$	l1	L1*	L2	S1	S2	Assembly		Body
								Part code	Item no_	Item no_
Light (L) 250 bar	6	10	14.0	29.5	21	12	14	WC06L	168	265
	8	12	16.0	31.0	23	14	17	WC08L	169	637
	10	14	18.0	33.5	25	17	19	WC10L	170	1276
	12	16	18.0	33.0	25	19	22	WC12L	171	1277
	15	19	22.0	38.0	29	22	27	WC15L	172	1278
160 bar	18	22	23.5	40.5	31	27	32	WC18L	173	1279
	22	27	28.5	45.5	36	32	36	WC22L	174	1280
100 bar	28	32	30.5	48.5	38	41	41	WC28L	175	636
	35	40	32.5	55.5	43	46	50	WC35L	176	1281
	42	46	35.0	58.5	46	55	60	WC42L	177	1282
Heavy (S) 630 bar	6	11	19.0	34.5	26	14	17	WC06S	178	1283
	8	13	21.0	36.0	28	17	19	WC08S	179	1284
	10	15	22.5	39.5	30	19	22	WC10S	180	1285
	12	17	24.5	41.0	32	22	24	WC12S	181	515
400 bar	16	21	26.5	45.5	35	27	30	WC16S	182	509
	20	26	29.5	52.0	40	32	36	WC20S	183	913
	25	31	32.0	57.0	44	41	46	WC25S	184	511
250 bar	30	36	35.5	63.5	49	46	50	WC30S	185	512
	38	44	38.0	69.5	54	55	60	WC38S	186	513

* Dimensions given are approx figures with tightened nut.

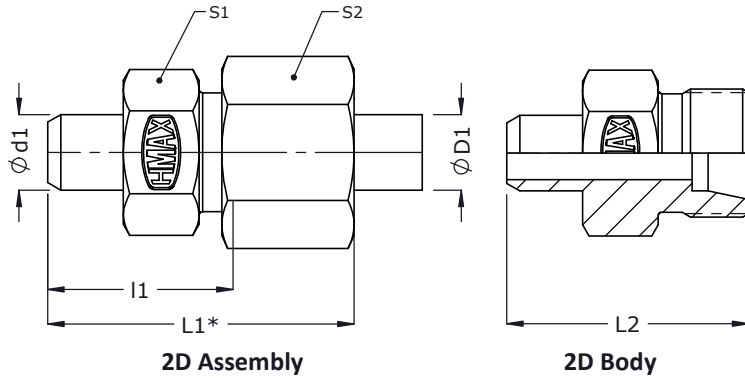


Weld Couplings - WC

(Equal size Tubes - WCE)

ISO fittings

Metric Tube end as per ISO 8434



Series	Tube od $\phi D1$	$\phi d1$	l1	L1*	L2	S1	S2	Assembly		Body
								Part code	Item no_	Item no_
Light (L) 250 bar	6	6	14.0	29.5	21	12	14	WCE06L	187	1286
	8	8	16.0	31.0	23	14	17	WCE08L	188	1287
	10	10	18.0	33.5	25	17	19	WCE10L	189	1288
	12	12	18.0	33.0	25	19	22	WCE12L	190	1289
	15	15	22.0	38.0	29	22	27	WCE15L	191	1290
160 bar	18	18	23.5	40.5	31	27	32	WCE18L	192	1291
	22	22	28.5	45.5	36	32	36	WCE22L	193	1292
100 bar	28	28	30.5	48.5	38	41	41	WCE28L	194	522
	35	35	32.5	55.5	43	46	50	WCE35L	195	1293
	42	42	35.0	58.5	46	55	60	WCE42L	196	523
Heavy (S) 630 bar	6	6	19.0	34.5	26	14	17	WCE06S	197	1294
	8	8	21.0	36.0	28	17	19	WCE08S	198	1295
	10	10	22.5	39.5	30	19	22	WCE10S	199	1296
	12	12	24.5	41.0	32	22	24	WCE12S	200	1297
400 bar	16	16	26.5	45.5	35	27	30	WCE16S	201	926
	20	20	29.5	52.0	40	32	36	WCE20S	202	927
	25	25	32.0	57.0	44	41	46	WCE25S	203	928
250 bar	30	30	35.5	63.5	49	46	50	WCE30S	204	929
	38	38	38.0	69.5	54	55	60	WCE38S	205	930

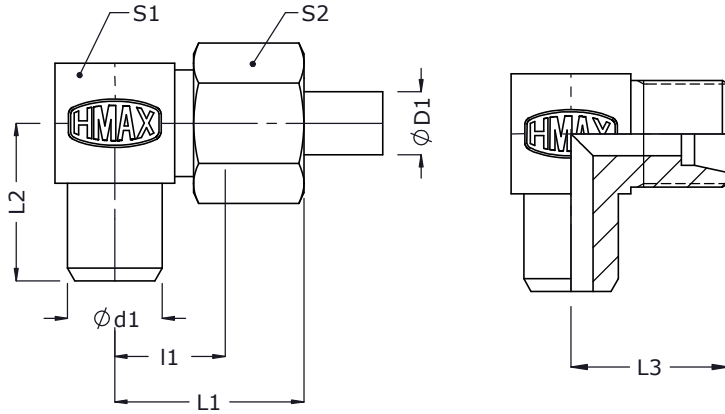
* Dimensions given are approx figures with tightened nut.



Elbow Weld Couplings - EWC (BAR-STOCK)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od $\phi D1$	$\phi d1$	l1	L1*	L2	L3	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	10	12.0	27.5	19	19	12	14	EWC06L-F	206	1298
	8	12	14.0	29.0	23	21	14	17	EWC08L-F	207	1299
	10	14	15.0	30.5	24	22	17	19	EWC10L-F	208	1300
	12	16	17.0	32.0	25	24	19	22	EWC12L-F	209	1301
	15	19	21.0	37.0	30	28	22	27	EWC15L-F	210	1302
160 bar	18	22	23.5	40.5	31	31	27	32	EWC18L-F	211	1303
	22	27	27.5	44.5	37	35	30	36	EWC22L-F	212	1304
100 bar	28	32	30.5	48.5	42	38	36	41	EWC28L-F	213	1305
	35	40	34.5	57.5	49	45	46	50	EWC35L-F	214	1306
	42	46	40.0	63.5	57	51	55	60	EWC42L-F	215	1307
Heavy (S) 630 bar	6	11	16.0	31.5	23	23	14	17	EWC06S-F	216	1308
	8	13	17.0	32.0	24	24	17	19	EWC08S-F	217	1309
	10	15	17.5	34.5	25	25	19	22	EWC10S-F	218	1310
	12	17	21.5	38.0	29	29	22	24	EWC12S-F	219	1311
400 bar	16	21	24.5	43.5	33	33	24	30	EWC16S-F	220	1312
	20	26	26.5	49.0	37	37	30	36	EWC20S-F	221	1313
	25	31	30.0	55.0	42	42	36	46	EWC25S-F	222	1314
250 bar	30	36	35.5	63.5	49	49	46	50	EWC30S-F	223	1315
	38	44	41.0	72.5	57	57	55	60	EWC38S-F	224	1316

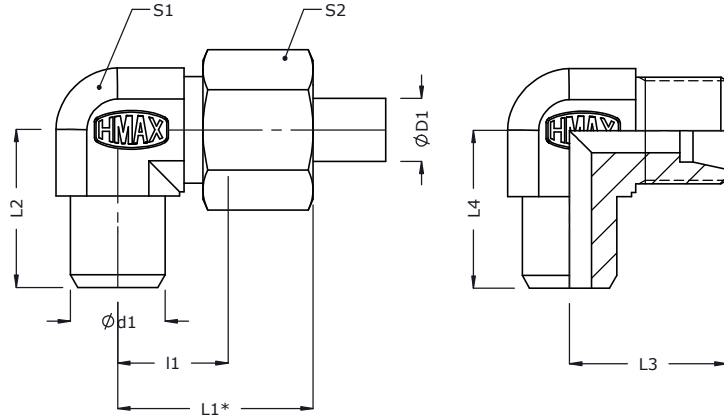
* Dimensions given are approx figures with tightened nut.



Elbow Weld Couplings - EWC (FORGED)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od D1	Ød1	l1	L1*	L2	L3	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	10	12.0	27.5	19	19	12	14	EWC6L	225	1317
	8	12	14.0	29.0	23	21	14	17	EWC8L	226	1318
	10	14	15.0	30.5	24	22	17	19	EWC10L	227	1319
	12	16	17.0	32.0	25	24	19	22	EWC12L	228	1320
	15	19	21.0	37.0	30	28	22	27	EWC15L	229	1321
160 bar	18	22	23.5	40.5	31	31	27	32	EWC18L	230	1322
	22	27	27.5	44.5	37	35	30	36	EWC22L	231	1323
100 bar	28	32	30.5	48.5	42	38	36	41	EWC28L	232	1324
	35	40	34.5	57.5	49	45	46	50	EWC35L	233	1325
	42	46	40.0	63.5	57	51	55	60	EWC42L	234	1326
Heavy (S) 630 bar	6	11	16.0	31.5	23	23	14	17	EWC6S	235	1327
	8	13	17.0	32.0	24	24	17	19	EWC8S	236	1328
	10	15	17.5	34.5	25	25	19	22	EWC10S	237	1329
	12	17	21.5	38.0	29	29	22	24	EWC12S	238	1330
400 bar	16	21	24.5	43.5	33	33	24	30	EWC16S	239	1331
	20	26	26.5	49.0	37	37	30	36	EWC20S	240	1332
	25	31	30.0	55.0	42	42	36	46	EWC25S	241	1333
250 bar	30	36	35.5	63.5	49	49	46	50	EWC30S	242	1334
	38	44	41.0	72.5	57	57	55	60	EWC38S	243	1335

* Dimensions given are approx figures with tightened nut.



Weldable Nipples

ISO fittings



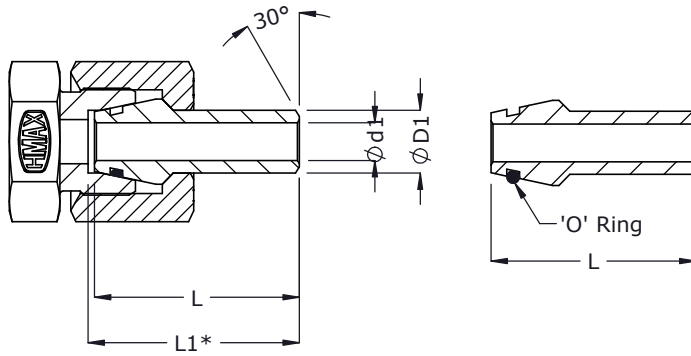
SI. No_	Description	Part Code
1	Weldable Nipples	WNP
2	Reducing Weldable Nipples	RWNP

An ISO 9001-2015 Certified Co



Weldable Nipples - WNP

ISO fittings



2D Assembly

2D Body



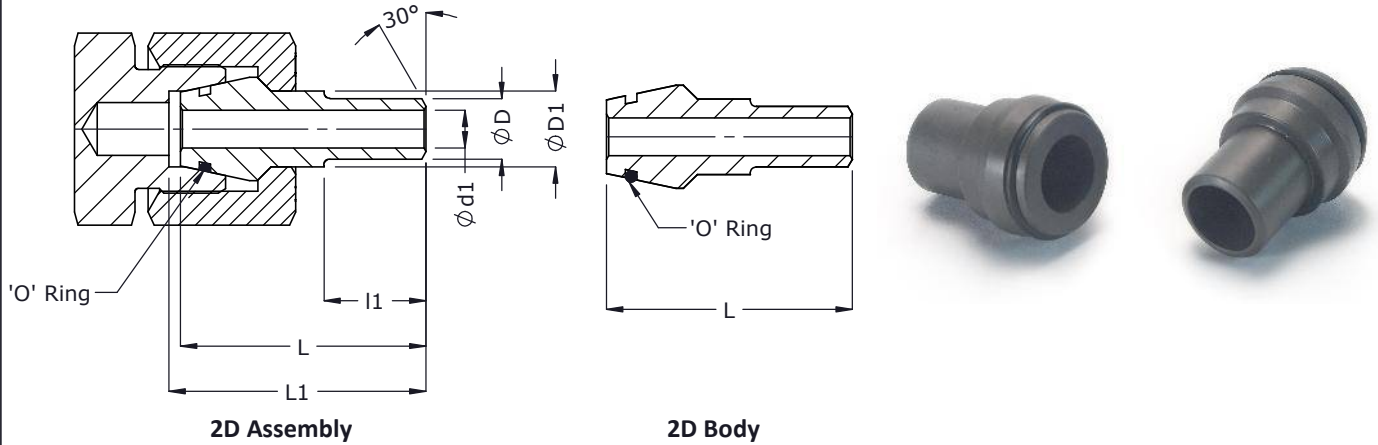
Series	Max Pr (bar)	Tube size od x Wall	O-Ring Id x CSD	$\phi D1$	$\phi d1$	L	*L1	Assembly		Body
								Part code	Item no	Item no
Light (L)	160	15 x 2.5	12 x 2.0	15	10	34.5	35.0	WNP1525	1010	541
	160	18 x 2.5	15 x 2.0	18	13	36.5	37.0	WNP1825	1012	542
	160	22 x 2.5	20 x 2.0	22	17	39.0	39.5	WNP2225	1015	452
	100	28 x 2.5	26 x 2.0	28	23	41.5	42.5	WNP2825	1016	1722
	100	35 x 3.0	32 x 2.5	35	29	48.5	49.5	WNP3530	1019	1725
	100	42 x 3.0	38 x 2.5	42	36	49.0	50.0	WNP4230	1023	1728
Heavy(S)	630	6.0 x 1.75	4.0 x 2.5	6	2.5	31.5	32.0	WNP6175	1026	1730
	630	8.0 x 2.0	6.0 x 1.5	8	4.0	31.0	32.0	WNP820	1029	457
	400	10 x 2.0	7.5 x 1.5	10	6	32.5	33.5	WNP1020	1032	463
	630	10 x 2.5			5			WNP1025	1031	459
	315	12 x 2.0	9.0 x 1.5	12	8	32.5	33.5	WNP1220	1034	307
	400	12 x 2.5			7			WNP1225	1035	1731
	315	16 x 2.5	12.0 x 2.0	16	11	39.5	40.5	WNP1625	1038	450
	400	16 x 3.0			10			WNP1630	1039	451
	315	20 x 3.0	16.3 x 2.4	20	14	46.5	47.0	WNP2030	1042	1736
	400	20 x 4.0			12			WNP2040	1043	911
	250	25 x 3.0	20.3 x 2.4	25	19	52.5	53.5	WNP2530	1044	454
	315	25 x 4.0			17			WNP2540	1045	460
	400	25 x 4.5			16			WNP2545	1046	1737
	160	30 x 3.0	25.3 x 2.4	30	24	56.5	57.5	WNP3030	1047	464
	250	30 x 4.0			22			WNP3040	1048	465
	160	38 x 3.0	33.3 x 2.4	38	32	63.5	64.5	WNP3830	1053	1741
	250	38 x 5.0			28			WNP3850	1052	920

* Dimensions given are approx figures with tightened nut.



Reducer Weldable Nipples - RWNP

ISO fittings



Series	Max Pr (bar)	$\phi D1$	ϕD	Tube size od x Wall	O-Ring Id x CSD	$\phi d1$	l1	L	*L1	Assembly		Body
										Part code	Item no_	Item no_
Light (L)	160	18	15	15 x 1.5	15 x 2.0	12	16	36.5	37.0	RWNP181515	1055	1743
	160	22	18	18 x 1.5	20 x 2.0	15	18	39.0	39.5	RWNP221815	1056	1744
		22	15	15 x 1.5		12				RWNP221515	1057	1745
	100	28	22	22 x 2.0	26 x 2.0	18	21	41.5	42.5	RWNP282220	1058	1746
		28	18	18 x 1.5		15				RWNP281815	1059	1747
		28	15	15 x 1.5		12				RWNP281515	1060	1748
	100	35	28	28 x 2.0	32 x 2.5	24	25	48.5	49.5	RWNP352820	1061	1749
		35	22	22 x 2.0		18				RWNP352220	1062	1750
		35	18	18 x 1.5		15				RWNP351815	1063	1751
		35	15	15 x 1.5		12				RWNP351515	1064	1752
	100	42	35	35 x 2.0	38 x 2.5	31	22	49	50.0	RWNP423520	1065	1753
		42	28	28 x 2.0		24				RWNP422820	1066	1754
		42	22	22 x 2.0		18				RWNP422220	1067	1755
		42	18	18 x 1.5		15				RWNP421815	1068	1756
		42	15	15 x 1.5		12				RWNP421515	1069	1757

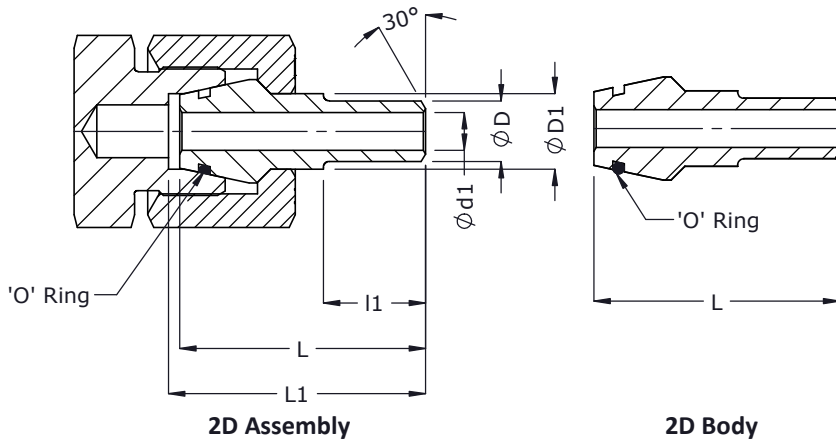
* Dimensions given are approx figures with tightened nut.

An ISO 9001-2015 Certified Co



Reducer Weldable Nipples - RWNP

ISO fittings



An ISO 9001-2015 Certified Co

Series	Max Pr (bar)	ØD1	ØD	Tube size od x Wall	O-Ring Id x CSD	Ød1	l1	L	*L1	Assembly		Body
										Part code	Item no_	Item no_
Heavy(S)	630	8	6	6 x 2.0	6.0 x 1.5	2	11	31.0	32.0	RWNP8620	1070	1758
	630	10	8	8 x 2.5	7.5 x 1.5	3	12	32.5	33.5	RWNP10825	1071	1759
		10	6	6 x 2.0		2				RWNP10620	1072	1760
	630	12	10	10 x 3.0	9.0 x 1.5	4	13	32.5	33.5	RWNP121030	1073	1761
		12	8	8 x 2.5		3				RWNP12825	1074	1762
		12	6	6 x 2.0		2				RWNP12620	1075	1763
		400	16	12		12 x 2.0				12 x 2.0	8	15
	16		10	10 x 2.0	6	RWNP161020	1077	1765				
	16		8	8 x 1.5	5	RWNP16815	1078	1766				
	16		6	6 x 1.5	3	RWNP16615	1079	1767				
	400	20	16	16 x 3.0	16.3 x 2.4	10	17	46.5	47.0	RWNP201630	1080	1105
		20	12	12 x 2.0		8				RWNP201220	1081	1768
		20	10	10 x 2.0		6				RWNP201020	1082	1769
		20	8	8 x 1.5		5				RWNP20815	1083	1770
		20	6	6 x 1.5		3				RWNP20615	1084	1771
	400	25	20	20 x 3.5	20.3 x 2.4	13	20	52.5	53.5	RWNP252035	1085	1772
		25	16	16 x 3.0		10				RWNP251630	1086	1114
		25	12	12 x 2.0		8				RWNP251220	1087	1774
		25	10	10 x 2.0		6				RWNP251020	1088	1775
		25	8	8 x 1.5		5				RWNP25815	1089	1776
		25	6	6 x 1.5		3				RWNP25615	1090	1777
		250	30	25		25 x 2.5				25.3 x 2.4	20	22
	30		20	20 x 2.0	16	RWNP302020	1092	1779				
	30		16	16 x 2.0	12	RWNP301620	1093	1780				
30	12		12 x 1.5	9	RWNP301215	1094	1781					
30	10		10 x 1.5	7	RWNP301015	1095	1782					
30	8		8 x 1.5	5	RWNP30815	1096	1783					
30	6		6 x 1.0	4	RWNP30610	1097	1784					
250	38		30	30 x 3.0	33.3 x 2.4	24	26	63.5	64.5		RWNP383030	
	38	25	25 x 2.5	20		RWNP382525				1099	1786	
	38	20	20 x 2.0	16		RWNP382020				1100	1787	
	38	16	16 x 2.0	12		RWNP381620				1101	1788	
	38	12	12 x 1.5	9		RWNP381215				1102	1789	
	38	10	10 x 1.5	7		RWNP381015				1103	1790	
	38	8	8 x 1.5	5		RWNP38815				1104	1791	
	38	6	6 x 1.0	4		RWNP38610				1105	1773	

* Dimensions given are approx figures with tightened nut.

All dimensions are in mm.

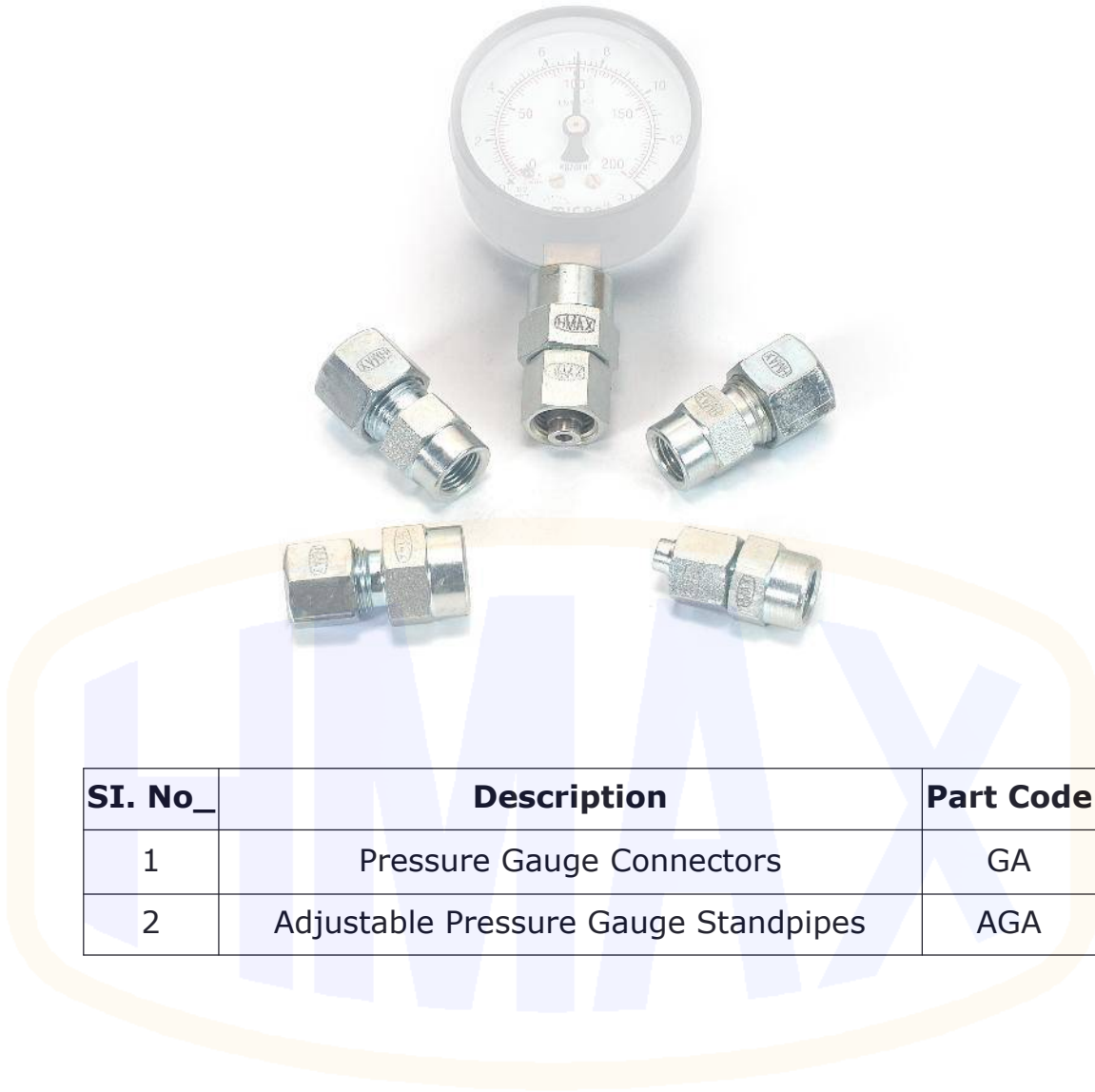
Subject to revision.



Pressure Gauge Connections

ISO fittings

An ISO 9001-2015 Certified Co



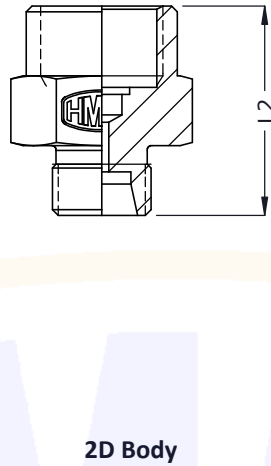
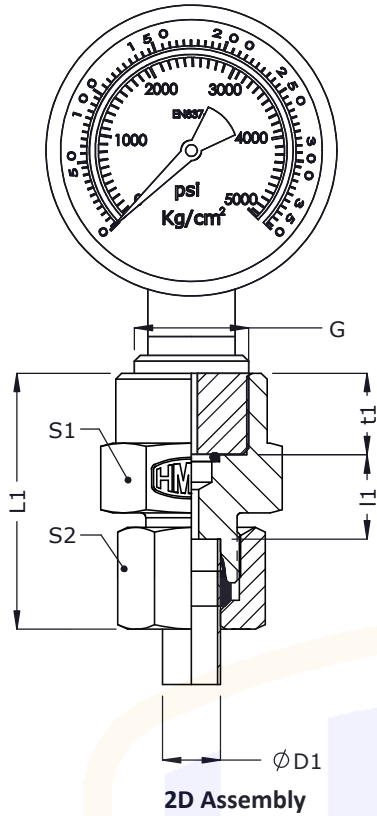
SI. No_	Description	Part Code
1	Pressure Gauge Connectors	GA
2	Adjustable Pressure Gauge Standpipes	AGA



Pressure Gauge Connectors - GA

ISO fittings

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



An ISO 9001-2015 Certified Co

Series	Tube od ØD1	Connection thread	I1	L1*	t1	L2	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	G 1/4 A	7.5	37.5	14.5	29	19	14	GA6LG02	1145	1990
	8	G 1/4 A	7.5	37.0	14.5	29	19	17	GA8LG02	1146	1991
	10	G 1/4 A	8.5	38.5	14.5	30	19	19	GA10LG02	1147	371
	12	G 1/4 A	8.5	38.0	14.5	30	19	22	GA12LG02	1148	1992
250 bar	6	G 3/8 A	9.5	41.5	16.5	33	22	14	GA6LG03	1149	1993
	8	G 3/8 A	9.5	41.0	16.5	33	22	17	GA8LG03	1150	599
	10	G 3/8 A	10.5	42.5	16.5	34	22	19	GA10LG03	1151	1994
	12	G 3/8 A	10.5	42.0	16.5	34	22	22	GA12LG03	1152	2003
Heavy (S) 630 bar	6	G 3/8 A	9.5	41.5	16.5	33	22	17	GA6SG03	1153	1995
	8	G 3/8 A	9.5	41.0	16.5	33	22	19	GA8SG03	1154	1996
	10	G 3/8 A	9	42.5	16.5	33	22	22	GA10SG03	1155	1997
	12	G 3/8 A	9	42.0	16.5	33	22	24	GA12SG03	1156	1998
630 bar	6	G 1/2 A	11	46.5	20	36	27	17	GA6SG04	1157	1999
	8	G 1/2 A	11	46.0	20	36	27	19	GA8SG04	1158	2000
	10	G 1/2 A	10.5	47.5	20	36	27	22	GA10SG04	1159	2001
	12	G 1/2 A	10.5	47.0	20	36	27	24	GA12SG04	1160	874

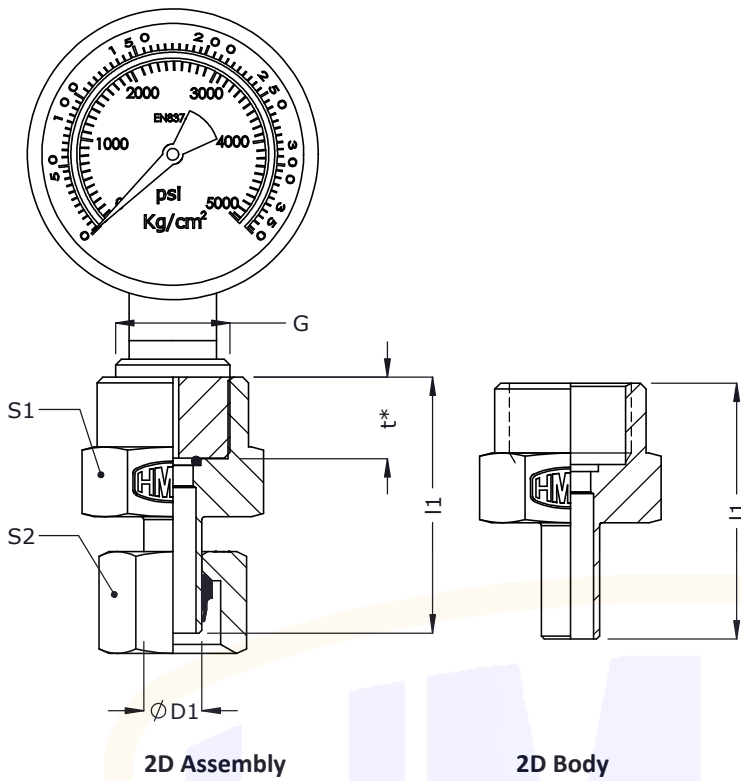
* Dimensions given are approx figures with tightened nut.



Adjustable Pressure Gauge Standpipes - AGA

ISO fittings

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



An ISO 9001-2015 Certified Co

Series	Tube od ØD1	Connection thread	l1	t1*	S1	S2	Assembly		Body
							Part code	Item no_	Item no_
Light (L) 250 bar	6	G 1/4 A	38.0	14.5	19	14	AGA6LG02	1161	2004
	8	G 1/4 A	38.0	14.5	19	17	AGA8LG02	1162	510
	10	G 1/4 A	39.5	14.5	19	19	AGA10LG02	1163	2005
	12	G 1/4 A	40.5	14.5	19	22	AGA12LG02	1164	2006
250 bar	6	G 3/8 A	38.0	16.5	22	14	AGA6LG03	1165	2007
	8	G 3/8 A	38.0	16.5	22	17	AGA8LG03	1166	2008
	10	G 3/8 A	39.5	16.5	22	19	AGA10LG03	1167	2009
	12	G 3/8 A	40.5	16.5	22	22	AGA12LG03	1168	2010
Heavy (S) 630 bar	6	G 3/8 A	41.0	16.5	22	17	AGA6SG03	1169	2011
	8	G 3/8 A	41.0	16.5	22	19	AGA8SG03	1170	2012
	10	G 3/8 A	43.0	16.5	22	22	AGA10SG03	1171	2013
	12	G 3/8 A	43.5	16.5	22	24	AGA12SG03	1172	2014
630 bar	6	G 1/2 A	45.0	20	27	17	AGA6SG04	1173	2015
	8	G 1/2 A	45.0	20	27	19	AGA8SG04	1174	2016
	10	G 1/2 A	47.0	20	27	22	AGA10SG04	1175	2017
	12	G 1/2 A	47.0	20	27	24	AGA12SG04	1176	2018

* Dimensions given are approx figures with tightened nut.



Banjo Couplings

ISO fittings

SI. No_	Description	Part Code
1	Banjo Couplings	BC-G
2	Tee Banjo Body Couplings	BTC
3	Throttle-Free Benjo Couplings	TFBC

An ISO 9001-2015 Certified Co

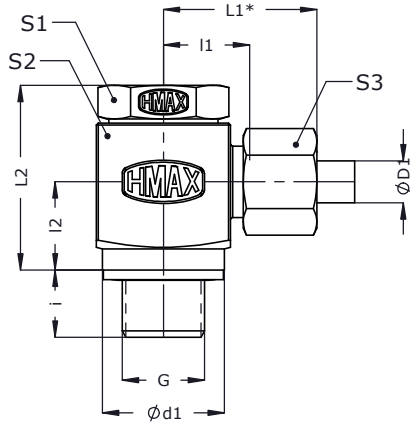


Banjo Couplings - BC-G

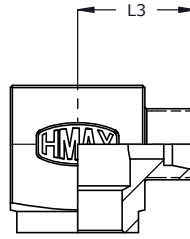
(Banjo Body - BBD)
(Bar stock)

ISO fittings

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



2D Assembly



2D Body



Series	Tube od ØD1	BSP thread G	Ød1	i	l1	l2	L1*	L2	L3	S1	S2	S3	Assembly		Body
													Part code	Item no.	Item no.
Light (L) 250 bar	6	G 1/8 A	15	8	12.5	12.0	27.5	28.0	19.5	19	19	14	BC6LG01	682	0474
	8	G 1/4 A	20	12	14.0	15.0	29.0	33.0	21.0	19	22	17	BC8LG02	683	1051
	10	G 1/4 A	20	12	15.0	15.0	31.0	33.0	22.0	19	22	19	BC10LG02	684	1052
	12	G 3/8 A	24	12	17.5	18.0	32.5	40.0	24.5	22	27	22	BC12LG03	685	1053
	15	G 1/2 A	29	14	20.0	21.0	36.0	45.0	27.0	27	30	27	BC15LG04	686	1054
160 bar	18	G 1/2 A	29	14	19.5	21.0	37.0	45.0	27.0	27	30	32	BC18LG04	687	0308
	22	G 3/4 A	35	16	27.0	24.0	44.5	53.0	34.5	32	41	36	BC22LG06	688	1055
100 bar	28	G 1 A	43	18	29.5	29.5	48.0	63.5	37.0	41	46	41	BC28LG08	689	1056
	35	G1 1/4 A	53	20	35.0	33.0	57.5	74.0	45.5	50	55	50	BC35LG10	690	1057
	42	G1 1/2 A	59	22	40.0	38.5	63.0	83.0	51.0	60	70	60	BC42LG12	691	1058
Heavy (S) 400 bar	6	G 1/4 A	20	12	16.0	15.0	31.0	33.0	23.0	19	22	17	BC6SG02	692	1059
	8	G 1/4 A	20	12	16.0	15.0	31.0	33.0	23.0	19	22	19	BC8SG02	693	1060
	10	G 3/8 A	24	12	18.0	18.0	35.5	40.0	25.5	22	27	22	BC10SG03	694	1061
	12	G 3/8 A	24	12	18.0	18.0	34.5	40.0	25.5	22	27	24	BC12SG03	695	1062
400 bar	16	G 1/2 A	29	14	21.5	21.0	41.0	45.0	30.0	27	32	30	BC16SG04	696	1063
	20	G 3/4 A	35	16	28.0	24.0	50.5	53.0	38.5	32	41	36	BC20SG06	697	1064
	25	G 1 A	43	18	31.0	29.5	56.0	63.5	43.0	41	50	46	BC25SG08	698	0131
250 bar	30	G1 1/4 A	53	20	36.5	33.0	65.0	74.0	50.0	50	60	50	BC30SG10	699	1065
	38	G1 1/2 A	59	22	41.0	38.5	73.0	83.0	57.0	60	70	60	BC38SG12	700	1066

* Dimensions given are approx figures with tightened nut.

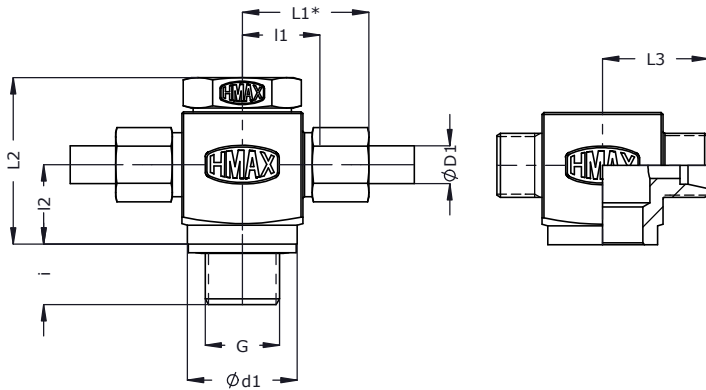


Banjo Couplings - BC

(Tee Banjo Body - BTC)
(Bar Stock)

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

ISO fittings



2D Assembly

2D Body

Series	Tube od ØD1	BSP thread G	Ød1	i	I1	I2	L1*	L2	L3	S1	S2	S3	Assembly		Body
													Part code	Item no	Item no
Light (L) 250 bar	6	G 1/8 A	15	8	12.5	12.0	27.5	28.0	19.5	19	19	14	BTC6LG01	701	1682
	8	G 1/4 A	20	12	14.0	15.0	29.0	33.0	21.0	19	22	17	BTC8LG02	702	1683
	10	G 1/4 A	20	12	15.0	15.0	31.0	33.0	22.0	19	22	19	BTC10LG02	703	1684
	12	G 3/8 A	24	12	17.5	18.0	32.5	40.0	24.5	22	27	22	BTC12LG03	704	1685
	15	G 1/2 A	29	14	20.0	21.0	36.0	45.0	27.0	27	30	27	BTC15LG04	705	1686
100 bar	18	G 1/2 A	29	14	19.5	21.0	37.0	45.0	27.0	27	30	32	BTC18LG04	706	1687
	22	G 3/4 A	35	16	27.0	24.0	44.5	53.0	34.5	32	41	36	BTC22LG06	708	1688
100 bar	28	G 1 A	43	18	29.5	29.5	48.0	63.5	37.0	41	46	41	BTC28LG08	708	1689
	35	G1 1/4 A	53	20	35.0	33.0	57.5	74.0	45.5	50	55	50	BTC35LG10	709	1690
	42	G1 1/2 A	59	22	40.0	38.5	63.0	83.0	51.0	60	70	60	BTC42LG12	710	1691
Heavy (S) 400 bar	6	G 1/4 A	20	12	16.0	15.0	31.0	33.0	23.0	19	22	17	BTC6SG02	711	1692
	8	G 1/4 A	20	12	16.0	15.0	31.0	33.0	23.0	19	22	19	BTC8SG02	712	1693
	10	G 3/8 A	24	12	18.0	18.0	35.5	40.0	25.5	22	27	22	BTC10SG03	713	1694
	12	G 3/8 A	24	12	18.0	18.0	34.5	40.0	25.5	22	27	24	BTC12SG03	714	1695
400 bar	16	G 1/2 A	29	14	21.5	21.0	41.0	45.0	30.0	27	32	30	BTC16SG04	715	1696
	20	G 3/4 A	35	16	28.0	24.0	50.5	53.0	38.5	32	41	36	BTC20SG06	716	1697
	25	G 1 A	43	18	31.0	29.5	56.0	63.5	43.0	41	50	46	BTC25SG08	718	1698
250 bar	30	G1 1/4 A	53	20	36.5	33.0	65.0	74.0	50.0	50	60	50	BTC30SG10	719	1699
	38	G1 1/2 A	59	22	41.0	38.5	73.0	83.0	57.0	60	70	60	BTC38SG12	720	1700

* Dimensions given are approx figures with tightened nut.



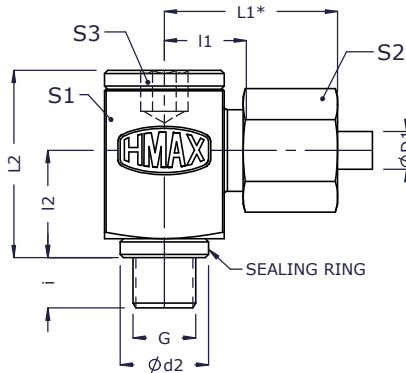
Banjo Couplings - BC-G

(Throttle-free Banjo Body - TFBC)
(Bar Stock)

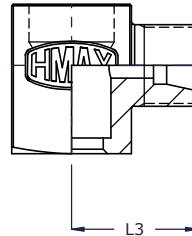
ISO fittings

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

For Sealing Ring refer page No_
S3 - Hex Broach size



2D Assembly



2D Body

Series	Tube od $\phi D1$	G BSP thread	$\phi d2$	i	l1	l2	L1*	L2	L3	S1	S2	S3	Assembly		Body
													Part code	Item no_	Item no_
Light (L) 250 bar	6	G 1/8 A	14	8	12.5	12	28.0	24	19.5	19	14	6	TFBC6LG01	721	545
	8	G 1/4 A	18	12	14.5	16	29.5	30	21.5	22	17	8	TFBC8LG02	722	1701
	10	G 1/4 A	18	12	15.5	16	31.0	30	22.5	22	19	8	TFBC10LG02	723	467
	12	G 3/8 A	22	12	18.5	18	33.5	37	25.5	27	22	10	TFBC12LG03	724	1702
	15	G 1/2 A	26	14	22.0	21	38.0	42	29.0	32	27	12	TFBC15LG04	725	1703
160 bar	18	G 1/2 A	26	14	21.5	23	38.5	46	29.0	36	32	12	TFBC18LG04	726	1704
	22	G 3/4 A	32	16	28.5	28	45.5	58	36.0	46	36	17	TFBC22LG06	727	1705
100 bar	28	G 1 A	39	18	31.5	32	49.5	64	39.0	50	41	22	TFBC28LG08	728	1706
	35	G1 1/4 A	49	20	35.5	37	58.5	76	46.0	60	50	27	TFBC35LG10	729	1707
	42	G1 1/2 A	55	22	40.0	42	63.5	85	51.0	70	60	32	TFBC42LG12	730	1708
Heavy (S) 400 bar	6	G 1/4 A	18	12	16.5	16	32.0	30	23.5	22	17	8	TFBC6SG02	731	1709
	8	G 1/4 A	18	12	16.5	16	31.5	30	23.5	22	19	8	TFBC8SG02	732	1710
	10	G 3/8 A	22	12	18.5	18	35.5	37	26.0	27	22	10	TFBC10SG03	733	1711
	12	G 3/8 A	22	12	18.5	18	35.0	37	26.0	27	24	10	TFBC12SG03	734	1712
400 bar	16	G 1/2 A	26	14	22.5	23	41.5	46	31.0	32	30	12	TFBC16SG04	735	1713
	20	G 3/4 A	32	16	27.5	28	50.0	58	38.0	46	36	17	TFBC20SG06	736	1714
	25	G 1 A	39	18	31.0	32	56.0	64	43.0	50	46	22	TFBC25SG08	737	1715
250 bar	30	G1 1/4 A	49	20	36.5	37	64.5	76	50.0	60	50	27	TFBC30SG10	738	1716
	38	G1 1/2 A	55	22	41.0	42	72.5	85	57.0	70	60	32	TFBC38SG12	739	1717

* Dimensions given are approx figures with tightened nut.

An ISO 9001-2015 Certified Co



Hose Adaptor

ISO fittings



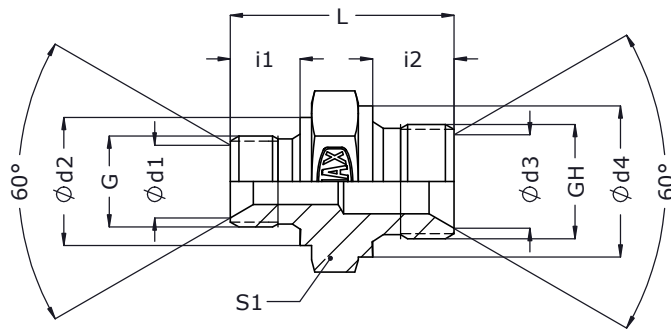
SI. No_	Description	Part Code
1	Hose Adaptors - HA-G	HA-G
2	Hose Adaptors - HA-G-ES	HA-G-ES



Hose Adaptors - HA-G

ISO fittings

Hose Adaptors as per BS 5200
Male thread : BSPP (G) as per - ISO 228



An ISO 9001-2015 Certified Co

'G' Male thread BSPP	'GH' Male thread BSPP	ϕd1	ϕd2	ϕd3	ϕd4	i1	i2	L	S1	Part code	Item no_
G 1/8	G 1/8	7.5	14	7.5	14	8	8	23.0	14	HAG01G01	1954
G 1/8	G 1/4	7.5	14	10.4	18	8	11	27.5	19	HAG01G02	284
G 1/4	G 1/4	10.4	18	10.4	18	11	11	32.0	19	HAG02G02	1213
G 1/4	G 3/8	10.4	18	14.0	22	11	12	35.5	22	HAG02G03	639
G 1/4	G 1/2	10.4	18	17.5	26	11	14	38.0	27	HAG02G04	649
G 3/8	G 3/8	14.0	22	14.0	22	12	12	36.0	22	HAG03G03	838
G 3/8	G 1/2	14.0	22	17.5	26	12	14	38.5	27	HAG03G04	641
G 3/8	G 3/4	14.0	22	22.9	32	12	16	40.5	32	HAG03G06	647
G 1/2	G 1/2	17.5	26	17.5	26	14	14	41.0	27	HAG04G04	638
G 1/2	G 3/4	17.5	26	22.9	32	14	16	43.0	32	HAG04G06	654
G 1/2	G 1	17.5	26	28.7	39	14	19	48.0	41	HAG04G08	285
G 3/4	G 3/4	22.9	32	22.9	32	16	16	45.0	32	HAG06G06	642
G 3/4	G 1	22.9	32	28.7	39	16	19	50.0	41	HAG06G08	313
G 3/4	G1.1/4	22.9	32	36.8	49	16	20	57.0	50	HAG06G10	650
G 1	G 1	28.7	39	28.7	39	19	19	52.0	41	HAG08G08	264
G 1	G1.1/4	28.7	39	36.8	49	19	20	59.0	50	HAG08G10	286
G 1	G1.1/2	28.7	39	42.7	55	19	22	63.5	55	HAG08G12	287
G1.1/4	G1.1/4	36.8	49	36.8	49	20	20	61.0	50	HAG10G10	640
G1.1/4	G1.1/2	36.8	49	42.7	55	20	22	65.0	55	HAG10G12	645
G1.1/2	G1.1/2	42.7	49	42.7	55	22	22	66.0	55	HAG12G12	288

All dimensions are in mm.

Subject to revision.

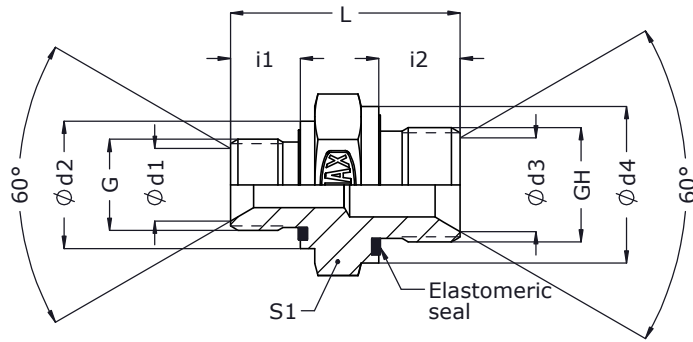


Hose Adaptors - HA-G-ES

ISO fittings

Male thread : BSPP (G) as per - ISO 228
DIN 3852, Part 11 with Elastomeric seal Type - E

For, Elastomeric Seal details Refer page No_ 82.



2D Body

'G' Male thread BSPP	'GH' Male thread BSPP	Ød1	Ød2	Ød3	Ød4	i1	i2	L	S1	Part code	Item no_
G 1/8	G 1/8	7.5	14	7.5	14	8	8	23.0	14	HAG01G01ES	2556
G 1/8	G 1/4	7.5	14	10.4	18	8	11	27.5	19	HAG01G02ES	2557
G 1/4	G 1/4	10.4	18	10.4	18	11	11	32.0	19	HAG02G02ES	1027
G 1/4	G 3/8	10.4	18	14.0	22	11	12	35.5	22	HAG02G03ES	2558
G 1/4	G 1/2	10.4	18	17.5	26	11	14	38.0	27	HAG02G04ES	2559
G 3/8	G 3/8	14.0	22	14.0	22	12	12	36.0	22	HAG03G03ES	1024
G 3/8	G 1/2	14.0	22	17.5	26	12	14	38.5	27	HAG03G04ES	2560
G 3/8	G 3/4	14.0	22	22.9	32	12	16	40.5	32	HAG03G06ES	2561
G 1/2	G 1/2	17.5	26	17.5	26	14	14	41.0	27	HAG04G04ES	1026
G 1/2	G 3/4	17.5	26	22.9	32	14	16	43.0	32	HAG04G06ES	2451
G 1/2	G 1	17.5	26	28.7	39	14	19	48.0	41	HAG04G08ES	2562
G 3/4	G 3/4	22.9	32	22.9	32	16	16	45.0	32	HAG06G06ES	1025
G 3/4	G 1	22.9	32	28.7	39	16	19	50.0	41	HAG06G08ES	2563
G 3/4	G1.1/4	22.9	32	36.8	49	16	20	57.0	50	HAG06G10ES	2564
G 1	G 1	28.7	39	28.7	39	19	19	52.0	41	HAG08G08ES	1110
G 1	G1.1/4	28.7	39	36.8	49	19	20	59.0	50	HAG08G10ES	2565
G 1	G1.1/2	28.7	39	42.7	55	19	22	63.5	55	HAG08G12ES	2566
G1.1/4	G1.1/4	36.8	49	36.8	49	20	20	61.0	50	HAG10G10ES	2567
G1.1/4	G1.1/2	36.8	49	42.7	55	20	22	65.0	55	HAG10G12ES	2568
G1.1/2	G1.1/2	42.7	49	42.7	55	22	22	66.0	55	HAG12G12ES	2569

An ISO 9001-2015 Certified Co



Male Female Reducing Thread Adaptor

ISO fittings



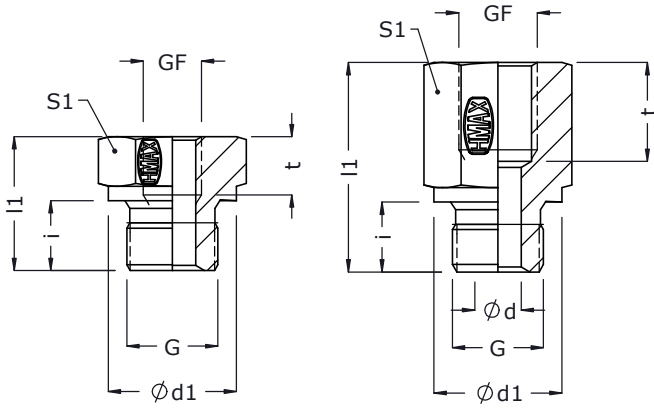
SI. No_	Description	Part Code
1	Male Female Adaptors	MFA-G
2	Male Female Adaptors	MFA-G-ES
3	Female Socket	FS



Male Female Adaptors - MFA-G

ISO fittings

Male thread :BSPP(G) ISO 8434
 Female thread :BSPP(G)



2D Body

Working Pressure (bar)	G Male BSP thread	GF Female BSP thread	φ d1	φ d	i	l1	t	S1	Part code	Item no_
630 bar	G 1/8 A	G 1/4	14	4	8	31.0	17.0	19	MFAG01G02	597
	G 1/8 A	G 3/8	14	4	8	32.0	17.0	24	MFAG01G03	1955
630 bar	G 1/4 A	G 1/8	18	5	12	28.0	12.0	19	MFAG02G01	1956
	G 1/4 A	G 3/8	18	5	12	36.0	17.0	24	MFAG02G03	564
	G 1/4 A	G 1/2	18	5	12	40.0	20.0	30	MFAG02G04	1957
	G 1/4 A	G 3/4	18	5	12	43.0	22.0	36	MFAG02G06	1958
360 bar	G 3/8 A	G 1/8	22	--	12	22.5	8.0	22	MFAG03G01	569
	G 3/8 A	G 1/4	22	8	12	36.0	17.0	22	MFAG03G02	563
	G 3/8 A	G 1/2	22	8	12	41.0	20.0	30	MFAG03G04	1959
400 bar	G 3/8 A	G 3/4	22	8	12	44.0	22.0	36	MFAG03G06	1960
630 bar	G 1/2 A	G 1/4	26	--	14	24.0	12.0	27	MFAG04G02	566
	G 1/2 A	G 3/8	26	12	14	36.0	17.0	27	MFAG04G03	1961
400 bar	G 1/2 A	G 3/4	26	12	14	46.0	22.0	36	MFAG04G06	1962
	G 1/2 A	G 1	26	12	14	49.0	24.5	41	MFAG04G08	1963
250 bar	G 1/2 A	G1.1/4	26	10	14	53.0	26.5	55	MFAG04G10	1964
400 bar	G 3/4 A	G 1/4	32	--	16	26.0	12.0	32	MFAG06G02	1965
	G 3/4 A	G 3/8	32	--	16	26.0	12.0	32	MFAG06G03	311
	G 3/4 A	G 1/2	32	16	16	41.0	20.0	32	MFAG06G04	565
	G 3/4 A	G1	32	16	16	51.0	24.5	41	MFAG06G08	1176
250 bar	G 3/4 A	G1.1/4	32	16	16	55.0	26.5	55	MFAG06G10	1966
	G 3/4 A	G1.1/2	32	16	16	57.0	28.5	60	MFAG06G12	1967
400 bar	G 1 A	G 1/4	39	--	18	29.0	12.0	41	MFAG08G02	1968
	G 1 A	G 3/8	39	--	18	29.0	12.0	41	MFAG08G03	1969
	G 1 A	G 1/2	39	--	18	29.0	14.0	41	MFAG08G04	1970
	G 1 A	G 3/4	39	20	18	47.0	22.0	41	MFAG08G06	1971
250 bar	G 1 A	G1.1/4	39	20	18	57.0	26.5	55	MFAG08G10	1972
	G 1 A	G1.1/2	39	20	18	59.0	28.5	60	MFAG08G12	1973
250 bar	G1.1/4 A	G 1/2	49	--	20	32.0	14.0	50	MFAG10G04	1974
	G1.1/4 A	G 3/4	49	--	20	32.0	16.0	50	MFAG10G06	1975
	G1.1/4 A	G 1	49	25	20	52.0	24.5	50	MFAG10G08	1976
	G1.1/4 A	G1.1/2	49	25	20	60.0	28.5	60	MFAG10G12	1977
250 bar	G1.1/2 A	G 1/2	55	--	22	36.0	14.0	55	MFAG12G04	1978
	G1.1/2 A	G 3/4	55	--	22	36.0	16.0	55	MFAG12G06	1979
	G1.1/2 A	G 1	55	--	22	36.0	18.0	55	MFAG12G08	1980
	G1.1/2 A	G1.1/4	55	32	22	58.0	26.5	55	MFAG12G10	1981

All dimensions are in mm.

Subject to revision.

An ISO 9001-2015 Certified Co

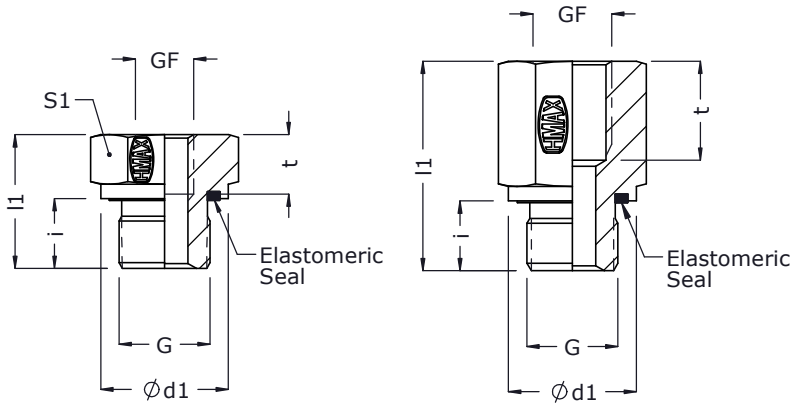


Male Female Adaptors - MFA-G-ES

Male thread : BSPP(G) DIN 3852, Part 11
with Elastomeric Seal (Type E)
Female thread : BSPP(G)

ISO fittings

For, Elastomeric Seal details Refer page No_ 82.



2D Body

Working Pressure (bar)	G Male BSP thread	GF Female BSP thread	Ød1	Ød	i	l1	t	S1	Part code	Item no_
630 bar	G 1/8 A	G 1/4	14	4	8	31.0	17.0	19	MFAG01G02ES	2525
	G 1/8 A	G 3/8	14	4	8	32.0	17.0	24	MFAG01G03ES	2526
630 bar	G 1/4 A	G 1/8	18	5	12	28.0	12.0	19	MFAG02G01ES	2527
	G 1/4 A	G 3/8	18	5	12	36.0	17.0	24	MFAG02G03ES	2528
	G 1/4 A	G 1/2	18	5	12	40.0	20.0	30	MFAG02G04ES	2529
	G 1/4 A	G 3/4	18	5	12	43.0	22.0	36	MFAG02G06ES	2530
360 bar	G 3/8 A	G 1/8	22	--	12	22.5	8.0	22	MFAG03G01ES	2531
	G 3/8 A	G 1/4	22	8	12	36.0	17.0	22	MFAG03G02ES	2532
	G 3/8 A	G 1/2	22	8	12	41.0	20.0	30	MFAG03G04ES	2533
400 bar	G 3/8 A	G 3/4	22	8	12	44.0	22.0	36	MFAG03G06ES	2534
630 bar	G 1/2 A	G 1/4	26	--	14	24.0	12.0	27	MFAG04G02ES	2535
	G 1/2 A	G 3/8	26	12	14	36.0	17.0	27	MFAG04G03ES	2536
400 bar	G 1/2 A	G 3/4	26	12	14	46.0	22.0	36	MFAG04G06ES	2537
	G 1/2 A	G 1	26	12	14	49.0	24.5	41	MFAG04G08ES	2538
250 bar	G 1/2 A	G1.1/4	26	10	14	53.0	26.5	55	MFAG04G10ES	2539
400 bar	G 3/4 A	G 1/4	32	--	16	26.0	12.0	32	MFAG06G02ES	2540
	G 3/4 A	G 3/8	32	--	16	26.0	12.0	32	MFAG06G03ES	2541
	G 3/4 A	G 1/2	32	16	16	41.0	20.0	32	MFAG06G04ES	2542
	G 3/4 A	G1	32	16	16	51.0	24.5	41	MFAG06G08ES	1111
250 bar	G 3/4 A	G1.1/4	32	16	16	55.0	26.5	55	MFAG06G10ES	2543
	G 3/4 A	G1.1/2	32	16	16	57.0	28.5	60	MFAG06G12ES	2544
400 bar	G 1 A	G 1/4	39	--	18	29.0	12.0	41	MFAG08G02ES	2545
	G 1 A	G 3/8	39	--	18	29.0	12.0	41	MFAG08G03ES	2546
	G 1 A	G 1/2	39	--	18	29.0	14.0	41	MFAG08G04ES	2547
	G 1 A	G 3/4	39	20	18	47.0	22.0	41	MFAG08G06ES	1112
250 bar	G 1 A	G1.1/4	39	20	18	57.0	26.5	55	MFAG08G10ES	2548
	G 1 A	G1.1/2	39	20	18	59.0	28.5	60	MFAG08G12ES	2549
250 bar	G1.1/4 A	G 1/2	49	--	20	32.0	14.0	50	MFAG10G04ES	2550
	G1.1/4 A	G 3/4	49	--	20	32.0	16.0	50	MFAG10G06ES	1118
	G1.1/4 A	G 1	49	25	20	52.0	24.5	50	MFAG10G08ES	1127
	G1.1/4 A	G1.1/2	49	25	20	60.0	28.5	60	MFAG10G12ES	2551
250 bar	G1.1/2 A	G 1/2	55	--	22	36.0	14.0	55	MFAG12G04ES	2552
	G1.1/2 A	G 3/4	55	--	22	36.0	16.0	55	MFAG12G06ES	2553
	G1.1/2 A	G 1	55	--	22	36.0	18.0	55	MFAG12G08ES	2554
	G1.1/2 A	G1.1/4	55	32	22	58.0	26.5	55	MFAG12G10ES	2555

All dimensions are in mm.

Subject to revision.

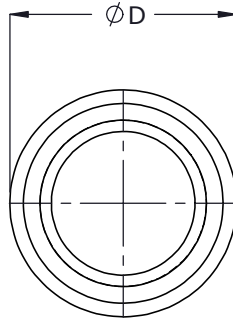
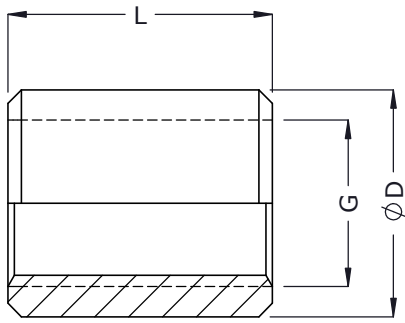
An ISO 9001-2015 Certified Co



Female Socket - FS-G

ISO fittings

Female thread : BSPP (G)



2D Body

Working Pressure (bar)	'G' Male thread BSPP	Ø D	L	Part code	Item no_
350	G1/8	14	21	FSG01	1982
	G1/4	19	30	FSG02	1983
250	G3/8	22	30	FSG03	1984
225	G1/2	30	35	FSG04	1985
200	G3/4	36	40	FSG06	1986
160	G1	44	46	FSG08	1987
	G1.1/4	50	48	FSG10	1988
	G1.1/2	55	50	FSG12	1989

An ISO 9001-2015 Certified Co



Adjustable Stand Pipe Adaptor

ISO fittings



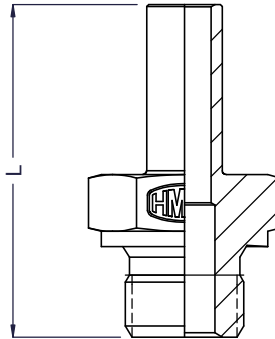
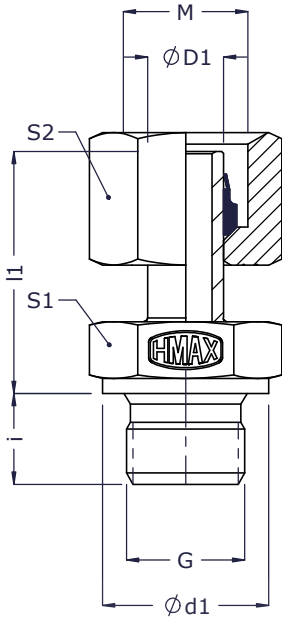
SI. No_	Description	Part Code
Straight Stud Standpipes- SPA		
1	Straight Stud Standpipes	SPA-G
2	Straight Stud Standpipes	SPA-G-ES
3	Straight Stud Standpipes	SPA-M
4	Straight Stud Standpipes	SPA-M-ES
Swivel Couplings		
1	Swivel Elbow Couplings	SE
2	Swivel Branch Tee Couplings	SBT
3	Swivel Run Tee Couplings	SRT
Swivel Stud Couplings		
1	Swivel Stud Elbow Couplings	SEC
2	Swivel Stud Branch Tee Couplings	SBTC
3	Swivel Stud Run Tee Couplings	SRTC



Straight Stud Standpipes - SPA-G

ISO fittings

Metric Standpipes
Male stud - BSPP(G) threads



2D Assembly

2D Body

Series	Tube od ØD1	G Male BSP thread	M Metric thread	Ød1	i	l1	L	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	G 1/8 A	M12x1.5	14	8	24.5	32.5	14	14	SPA6LG01	740	2038
	8	G 1/4 A	M14x1.5	18	12	29.5	41.5	19	17	SPA8LG02	741	2039
	10	G 1/4 A	M16x1.5	18	12	27.5	39.5	19	19	SPA10LG02	742	2040
	12	G 3/8 A	M18x1.5	22	12	34.0	46.0	22	22	SPA12LG03	743	2041
	15	G 1/2 A	M22x1.5	26	14	32.0	46.0	27	27	SPA15LG04	744	2042
160 bar	18	G 1/2 A	M26x1.5	26	14	31.5	45.5	27	32	SPA18LG04	745	2043
	22	G 3/4 A	M30x2.0	32	16	32.5	48.5	32	36	SPA22LG06	746	2044
100 bar	28	G 1 A	M36x2.0	39	18	35.0	53.0	41	41	SPA28LG08	747	2045
	35	G1 1/4 A	M45x2.0	49	20	42.5	62.5	50	50	SPA35LG10	748	2046
	42	G1 1/2 A	M52x2.0	55	22	46.5	68.5	55	60	SPA42LG12	749	2047
Heavy (S) 400 bar	6	G 1/4 A	M14x1.5	18	12	27.0	39.0	19	17	SPA6SG02	750	2048
	8	G 1/4 A	M16x1.5	18	12	29.5	51.5	19	19	SPA8SG02	751	2049
	10	G 3/8 A	M18x1.5	22	12	32.0	44.0	22	22	SPA10SG03	752	2050
	12	G 3/8 A	M20x1.5	22	12	34.0	46.0	22	24	SPA12SG03	753	2051
400 bar	16	G 1/2 A	M24x1.5	26	14	37.0	51.0	27	30	SPA16SG04	754	2052
	20	G 3/4 A	M30x2.0	32	16	43.0	59.0	32	36	SPA20SG06	755	2053
	25	G 1 A	M36x2.0	39	18	48.0	66.0	41	46	SPA25SG08	756	2054
250 bar	30	G1 1/4 A	M42x2.0	49	20	51.0	71.0	50	50	SPA30SG10	757	2055
	38	G1 1/2 A	M52x2.0	55	22	60.0	82.0	55	60	SPA38SG12	758	2056

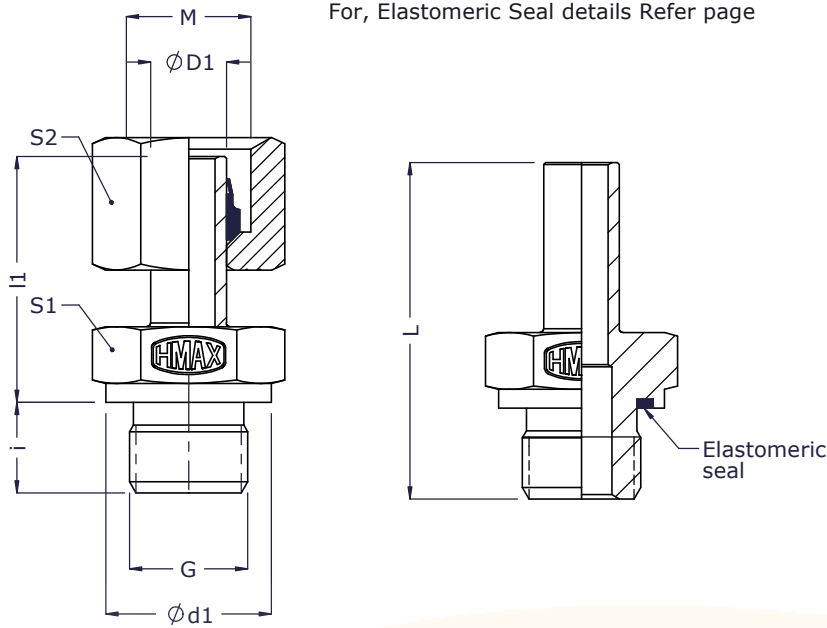
* Dimensions given are approx figures with tightened nut.



Straight Stud Standpipes - SPA-G-ES

Metric Standpipes
Male stud - BSPP(G) threads
DIN 3852, Part 11 with Elastomeric seal Type - E

ISO fittings



2D Assembly

2D Body

Series	Tube od $\phi D1$	G Male BSP thread	M Metric thread	$\phi d1$	i	l1	L	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	G 1/8 A	M12x1.5	14	8	24.5	32.5	14	14	SPA6LG01ES	1268	2800
	8	G 1/4 A	M14x1.5	18	12	29.5	41.5	19	17	SPA8LG02ES	1269	2801
	10	G 1/4 A	M16x1.5	18	12	27.5	39.5	19	19	SPA10LG02ES	1270	2802
	12	G 3/8 A	M18x1.5	22	12	34.0	46.0	22	22	SPA12LG03ES	1271	2803
	15	G 1/2 A	M22x1.5	26	14	32.0	46.0	27	27	SPA15LG04ES	1272	2804
160 bar	18	G 1/2 A	M26x1.5	26	14	31.5	45.5	27	32	SPA18LG04ES	1273	2805
	22	G 3/4 A	M30x2.0	32	16	32.5	48.5	32	36	SPA22LG06ES	1274	2806
100 bar	28	G 1 A	M36x2.0	39	18	35.0	53.0	41	41	SPA28LG08ES	1275	2807
	35	G1 1/4 A	M45x2.0	49	20	42.5	62.5	50	50	SPA35LG10ES	1276	2808
	42	G1 1/2 A	M52x2.0	55	22	46.5	68.5	55	60	SPA42LG12ES	1277	2809
Heavy (S) 400 bar	6	G 1/4 A	M14x1.5	18	12	27.0	39.0	19	17	SPA6SG02ES	1278	2810
	8	G 1/4 A	M16x1.5	18	12	29.5	51.5	19	19	SPA8SG02ES	1279	2801
	10	G 3/8 A	M18x1.5	22	12	32.0	44.0	22	22	SPA10SG03ES	1280	2811
	12	G 3/8 A	M20x1.5	22	12	34.0	46.0	22	24	SPA12SG03ES	1281	2803
400 bar	16	G 1/2 A	M24x1.5	26	14	37.0	51.0	27	30	SPA16SG04ES	1282	2812
	20	G 3/4 A	M30x2.0	32	16	43.0	59.0	32	36	SPA20SG06ES	1283	2813
	25	G 1 A	M36x2.0	39	18	48.0	66.0	41	46	SPA25SG08ES	1284	2814
250 bar	30	G1 1/4 A	M42x2.0	49	20	51.0	71.0	50	50	SPA30SG10ES	1285	941
	38	G1 1/2 A	M52x2.0	55	22	60.0	82.0	55	60	SPA38SG12ES	1286	943

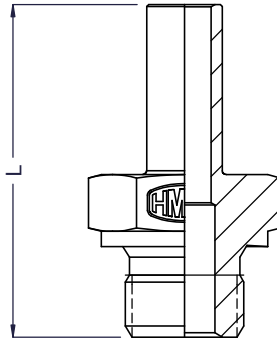
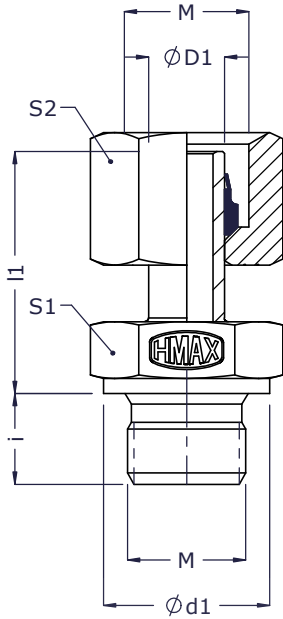
* Dimensions given are approx figures with tightened nut.



Straight Stud Standpipes - SPA-M

Metric Standpipes
Male stud - Metric (M) threads

ISO fittings



2D Assembly

2D Body

Series	Tube od ØD1	M Male Metric thread	M Metric thread	Ød1	i	l1	L	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	M10x1.0	M12x1.5	14	8	24.5	32.5	14	14	SPA6LM10	759	2057
	8	M12x1.5	M14x1.5	18	12	29.5	41.5	19	17	SPA8LM12	760	2058
	10	M14x1.5	M16x1.5	18	12	27.5	39.5	19	19	SPA10LM14	761	2059
	12	M16x1.5	M18x1.5	22	12	34.0	46.0	22	22	SPA12LM16	762	2060
	15	M18x1.5	M22x1.5	26	14	32.0	46.0	27	27	SPA15LM18	763	2061
160 bar	18	M22x1.5	M26x1.5	26	14	31.5	45.5	27	32	SPA18LM22	764	2062
	22	M26x1.5	M30x2.0	32	16	32.5	48.5	32	36	SPA22L26	765	2063
100 bar	28	M33x2.0	M36x2.0	39	18	35.0	53.0	41	41	SPA28LM33	766	2064
	35	M42x2.0	M45x2.0	49	20	42.5	62.5	50	50	SPA35LM42	768	2065
	42	M48x2.0	M52x2.0	55	22	46.5	68.5	55	60	SPA42LM48	769	2066
Heavy (S) 400 bar	6	M12x1.5	M14x1.5	18	12	27.0	39.0	19	17	SPA6SM12	770	2067
	8	M14x1.5	M16x1.5	18	12	29.5	51.5	19	19	SPA8SM14	771	2068
	10	M16x1.5	M18x1.5	22	12	32.0	44.0	22	22	SPA10SM16	772	2069
	12	M18x1.5	M20x1.5	22	12	34.0	46.0	22	24	SPA12SM18	773	2070
400 bar	16	M22x1.5	M24x1.5	26	14	37.0	51.0	27	30	SPA16SM22	774	2071
	20	M27x2.0	M30x2.0	32	16	43.0	59.0	32	36	SPA20SM27	775	2072
	25	M33x2.0	M36x2.0	39	18	48.0	66.0	41	46	SPA25SM33	776	2073
250 bar	30	M42x2.0	M42x2.0	49	20	51.0	71.0	50	50	SPA30SM42	777	2074
	38	M48x2.0	M52x2.0	55	22	60.0	82.0	55	60	SPA38SM48	778	2075

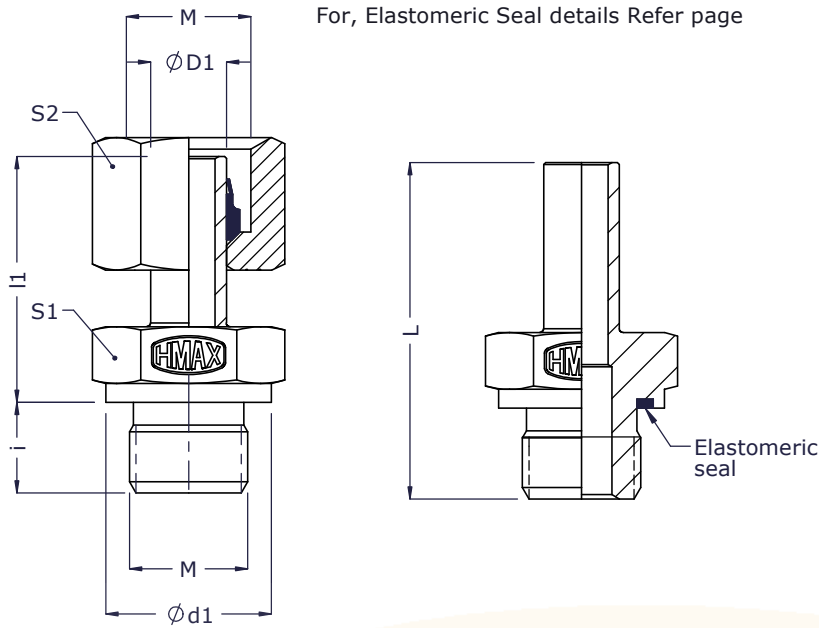
* Dimensions given are approx figures with tightened nut.



Straight Stud Standpipes - SPA-M-ES

Metric Standpipes
Male stud - Metric (M) threads
DIN 3852, Part 11 with Elastomeric seal Type - E

ISO fittings



2D Assembly

2D Body

Series	Tube od ØD1	M Male Metric thread	M Metric thread	Ød1	i	l1	L	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	M10x1.0	M12x1.5	14	8	24.5	32.5	14	14	SPA6LM10ES	1287	2815
	8	M12x1.5	M14x1.5	18	12	29.5	41.5	19	17	SPA8LM12ES	1288	2816
	10	M14x1.5	M16x1.5	18	12	27.5	39.5	19	19	SPA10LM14ES	1289	2817
	12	M16x1.5	M18x1.5	22	12	34.0	46.0	22	22	SPA12LM16ES	1290	2818
	15	M18x1.5	M22x1.5	26	14	32.0	46.0	27	27	SPA15LM18ES	1291	2819
160 bar	18	M22x1.5	M26x1.5	26	14	31.5	45.5	27	32	SPA18LM22ES	1292	2820
	22	M26x1.5	M30x2.0	32	16	32.5	48.5	32	36	SPA22LM26ES	1293	2821
100 bar	28	M33x2.0	M36x2.0	39	18	35.0	53.0	41	41	SPA28LM33ES	1294	2822
	35	M42x2.0	M45x2.0	49	20	42.5	62.5	50	50	SPA35LM42ES	1295	2823
	42	M48x2.0	M52x2.0	55	22	46.5	68.5	55	60	SPA42LM48ES	1296	2824
Heavy (S) 400 bar	6	M12x1.5	M14x1.5	18	12	27.0	39.0	19	17	SPA6SM12ES	1297	2825
	8	M14x1.5	M16x1.5	18	12	29.5	51.5	19	19	SPA8SM14ES	1298	2826
	10	M16x1.5	M18x1.5	22	12	32.0	44.0	22	22	SPA10SM16ES	1299	2827
	12	M18x1.5	M20x1.5	22	12	34.0	46.0	22	24	SPA12SM18ES	1300	2828
400 bar	16	M22x1.5	M24x1.5	26	14	37.0	51.0	27	30	SPA16SM22ES	1301	2829
	20	M27x2.0	M30x2.0	32	16	43.0	59.0	32	36	SPA20SM27ES	1302	2830
	25	M33x2.0	M36x2.0	39	18	48.0	66.0	41	46	SPA25SM33ES	1303	2831
250 bar	30	M42x2.0	M42x2.0	49	20	51.0	71.0	50	50	SPA30SM42ES	1304	2832
	38	M48x2.0	M52x2.0	55	22	60.0	82.0	55	60	SPA38SM48ES	1305	2833

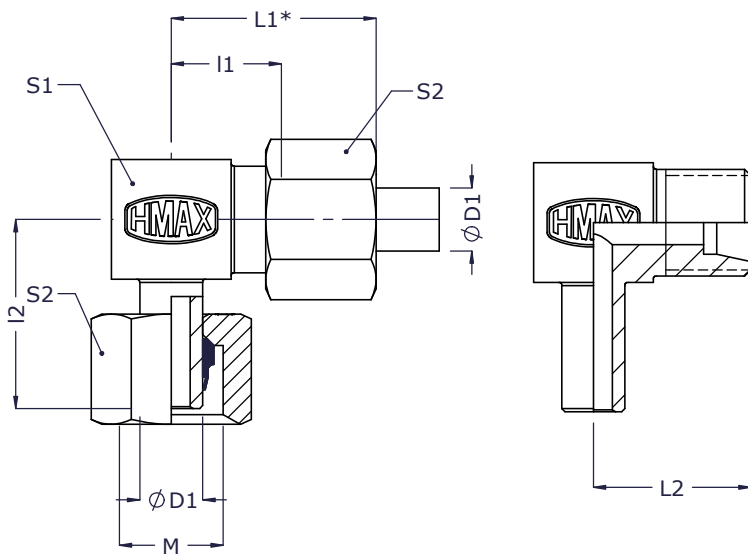
* Dimensions given are approx figures with tightened nut.



Swivel Elbow Couplings - SE (BAR - STOCK)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od ØD1	M Metric thread	l1	l2	L1*	L2	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	M12x1.5	12.0	26.0	27.5	19	12	14	SE6L-F	779	414
	8	M14x1.5	14.0	27.5	29.0	21	14	17	SE8L-F	780	2077
	10	M16x1.5	15.0	29.0	30.5	22	17	19	SE10L-F	781	2078
	12	M18x1.5	17.0	29.5	32.0	24	19	22	SE12L-F	782	2079
	15	M22x1.5	21.0	32.5	37.0	28	22	27	SE15L-F	783	2080
160 bar	18	M26x1.5	23.5	35.5	40.5	31	27	32	SE18L-F	784	2081
	22	M30x2.0	27.5	38.5	44.5	35	30	36	SE22L-F	785	2082
100 bar	28	M36x2.0	30.5	43.0	48.5	38	36	41	SE28L-F	786	2083
	35	M45x2.0	34.5	51.0	57.5	45	46	50	SE35L-F	787	2084
	42	M52x2.0	40.0	56.0	63.5	51	55	60	SE42L-F	788	2085
Heavy (S) 630 bar	6	M14x1.5	16.0	27.0	31.5	23	14	17	SE6S-F	789	2086
	8	M16x1.5	17.0	27.5	32.0	24	17	19	SE8S-F	790	2087
	10	M18x1.5	17.5	30.0	34.5	25	19	22	SE10S-F	791	2088
	12	M20x1.5	21.5	31.0	38.0	29	22	24	SE12S-F	792	2089
400 bar	16	M24x1.5	24.5	36.5	43.5	33	24	30	SE16S-F	793	2090
	20	M30x2.0	26.5	44.5	49.0	37	30	36	SE20S-F	794	2091
	25	M36x2.0	30.0	50.0	55.0	42	36	46	SE25S-F	795	2092
250 bar	30	M42x2.0	35.5	55.0	63.5	49	46	50	SE30S-F	796	2093
	38	M52x2.0	41.0	63.0	72.5	57	55	60	SE38S-F	797	2094

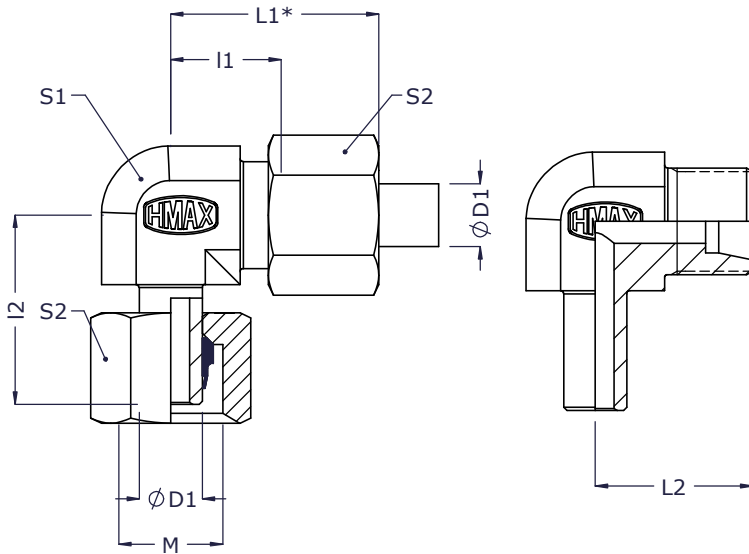
* Dimensions given are approx figures with tightened nut.



Swivel Elbow Couplings - SE (FORGED)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od ØD1	M Metric thread	I1	I2	L1*	L2	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	M12x1.5	12.0	26.0	27.5	19	12	14	SE6L	798	147
	8	M14x1.5	14.0	27.5	29.0	21	14	17	SE8L	799	393
	10	M16x1.5	15.0	29.0	30.5	22	17	19	SE10L	800	1157
	12	M18x1.5	17.0	29.5	32.0	24	19	22	SE12L	801	1158
	15	M22x1.5	21.0	32.5	37.0	28	22	27	SE15L	802	1159
160 bar	18	M26x1.5	23.5	35.5	40.5	31	27	32	SE18L	803	1160
	22	M30x2.0	27.5	38.5	44.5	35	30	36	SE22L	804	1162
100 bar	28	M36x2.0	30.5	43.0	48.5	38	36	41	SE28L	805	701
	35	M45x2.0	34.5	51.0	57.5	45	46	50	SE35L	806	1155
	42	M52x2.0	40.0	56.0	63.5	51	55	60	SE42L	807	1163
Heavy (S) 360 bar	6	M14x1.5	16.0	27.0	31.5	23	14	17	SE6S	808	2095
	8	M16x1.5	17.0	27.5	32.0	24	17	19	SE8S	809	601
	10	M18x1.5	17.5	30.0	34.5	25	19	22	SE10S	810	1164
	12	M20x1.5	21.5	31.0	38.0	29	22	24	SE12S	811	1166
400 bar	16	M24x1.5	24.5	36.5	43.5	33	24	30	SE16S	812	1167
	20	M30x2.0	26.5	44.5	49.0	37	30	36	SE20S	813	1168
	25	M36x2.0	30.0	50.0	55.0	42	36	46	SE25S	814	1169
250 bar	30	M42x2.0	35.5	55.0	63.5	49	46	50	SE30S	815	694
	38	M52x2.0	41.0	63.0	72.5	57	55	60	SE38S	816	1022

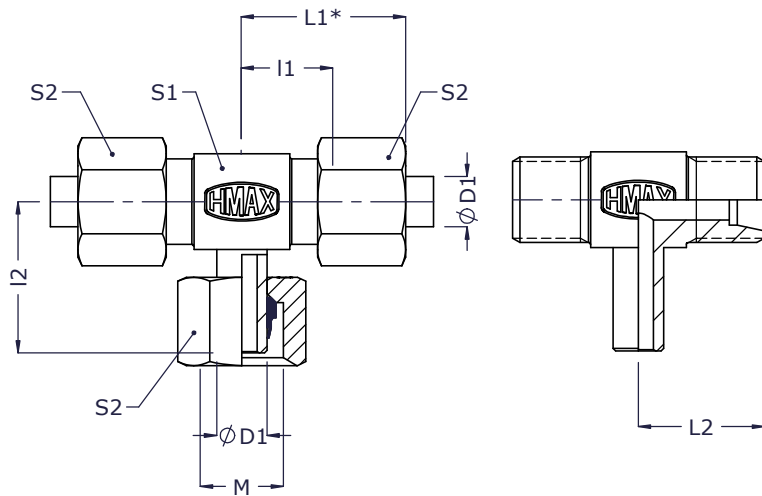
* Dimensions given are approx figures with tightened nut.



Swivel Branch Tee Couplings - SBT (BAR - STOCK)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od ØD1	M Metric thread	I1	I2	L1*	L2	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	M12x1.5	12.0	26.0	27.5	19	12	14	SBT6L-F	817	436
	8	M14x1.5	14.0	27.5	29.0	21	14	17	SBT8L-F	818	323
	10	M16x1.5	15.0	29.0	30.5	22	17	19	SBT10L-F	819	2076
	12	M18x1.5	17.0	29.5	32.0	24	19	22	SBT12L-F	820	2096
	15	M22x1.5	21.0	32.5	37.0	28	22	27	SBT15L-F	821	2097
160 bar	18	M26x1.5	23.5	35.5	40.5	31	27	32	SBT18L-F	822	2098
	22	M30x2.0	27.5	38.5	44.5	35	30	36	SBT22L-F	823	2099
100 bar	28	M36x2.0	30.5	43.0	48.5	38	36	41	SBT28L-F	824	2100
	35	M45x2.0	34.5	51.0	57.5	45	46	50	SBT35L-F	825	2101
	42	M52x2.0	40.0	56.0	63.5	51	55	60	SBT42L-F	826	2102
Heavy (S) 630 bar	6	M14x1.5	16.0	27.0	31.5	23	14	17	SBT6S-F	827	2103
	8	M16x1.5	17.0	27.5	32.0	24	17	19	SBT8S-F	828	2104
	10	M18x1.5	17.5	30.0	34.5	25	19	22	SBT10S-F	829	2105
	12	M20x1.5	21.5	31.0	38.0	29	22	24	SBT12S-F	830	2106
400 bar	16	M24x1.5	24.5	36.5	43.5	33	24	30	SBT16S-F	831	2107
	20	M30x2.0	26.5	44.5	49.0	37	30	36	SBT20S-F	832	2108
	25	M36x2.0	30.0	50.0	55.0	42	36	46	SBT25S-F	833	2109
250 bar	30	M42x2.0	35.5	55.0	63.5	49	46	50	SBT30S-F	834	2110
	38	M52x2.0	41.0	63.0	72.5	57	55	60	SBT38S-F	835	2111

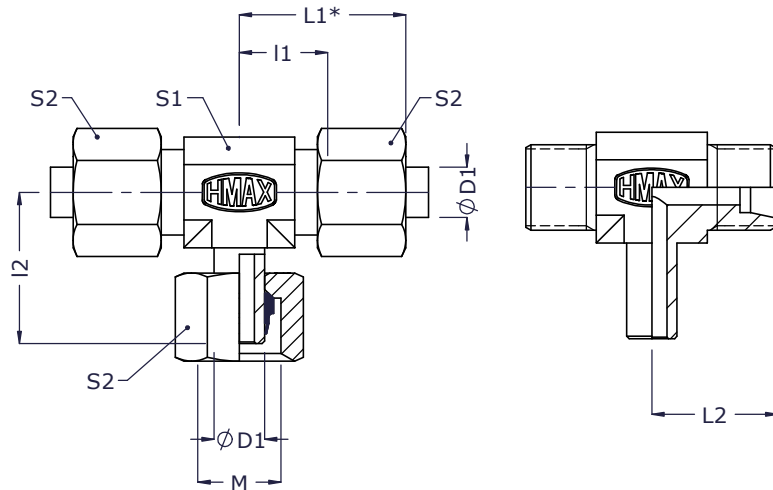
* Dimensions given are approx figures with tightened nut.



Swivel Branch Tee Couplings - SBT (FORGED)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od ØD1	M Metric thread	I1	I2	L1*	L2	S1	S2	Assembly		Body
									Part code	Item no_	Item no_
Light (L) 250 bar	6	M12x1.5	12.0	26.0	27.5	19	12	14	SBT6L	836	2112
	8	M14x1.5	14.0	27.5	29.0	21	14	17	SBT8L	837	2113
	10	M16x1.5	15.0	29.0	30.5	22	17	19	SBT10L	838	994
	12	M18x1.5	17.0	29.5	32.0	24	19	22	SBT12L	839	2114
	15	M22x1.5	21.0	32.5	37.0	28	22	27	SBT15L	840	2115
160 bar	18	M26x1.5	23.5	35.5	40.5	31	27	32	SBT18L	841	999
	22	M30x2.0	27.5	38.5	44.5	35	30	36	SBT22L	842	964
100 bar	28	M36x2.0	30.5	43.0	48.5	38	36	41	SBT28L	843	889
	35	M45x2.0	34.5	51.0	57.5	45	46	50	SBT35L	844	2116
	42	M52x2.0	40.0	56.0	63.5	51	55	60	SBT42L	845	2117
Heavy (S) 630 bar	6	M14x1.5	16.0	27.0	31.5	23	14	17	SBT6S	846	2118
	8	M16x1.5	17.0	27.5	32.0	24	17	19	SBT8S	847	893
	10	M18x1.5	17.5	30.0	34.5	25	19	22	SBT10S	848	2119
	12	M20x1.5	21.5	31.0	38.0	29	22	24	SBT12S	849	894
400 bar	16	M24x1.5	24.5	36.5	43.5	33	24	30	SBT16S	850	2120
	20	M30x2.0	26.5	44.5	49.0	37	30	36	SBT20S	851	2121
	25	M36x2.0	30.0	50.0	55.0	42	36	46	SBT25S	852	2122
250 bar	30	M42x2.0	35.5	55.0	63.5	49	46	50	SBT30S	853	2123
	38	M52x2.0	41.0	63.0	72.5	57	55	60	SBT38S	854	2124

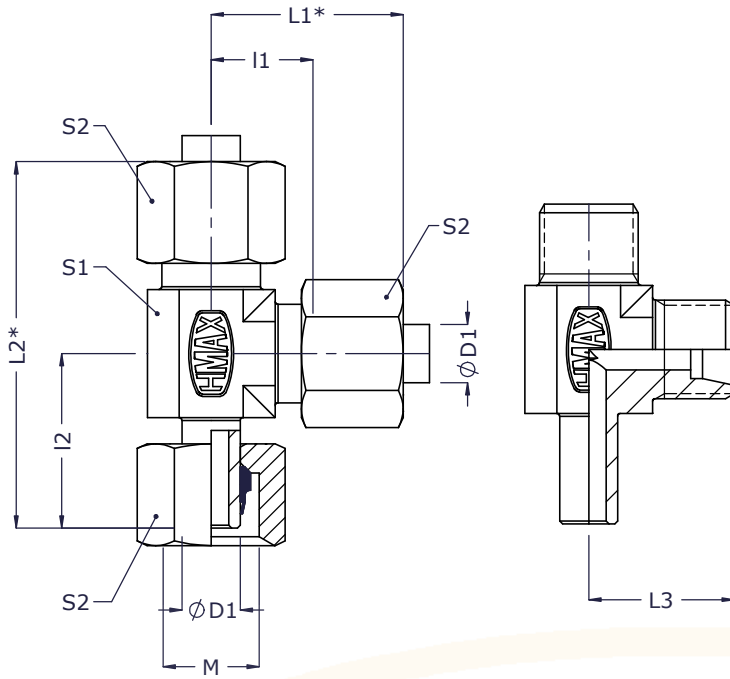
* Dimensions given are approx figures with tightened nut.



Swivel Run Tee Couplings - SRT (FORGED)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od ϕ D1	M Metric thread	I1	I2	L1*	L2*	L3	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	M12x1.5	12.0	26.0	27.5	53.5	19	12	14	SRT6L	874	2140
	8	M14x1.5	14.0	27.5	29.0	56.5	21	14	17	SRT8L	875	2141
	10	M16x1.5	15.0	29.0	30.5	59.5	22	17	19	SRT10L	876	2142
	12	M18x1.5	17.0	29.5	32.0	61.5	24	19	22	SRT12L	877	2143
	15	M22x1.5	21.0	32.5	37.0	69.5	28	22	27	SRT15L	878	2144
160 bar	18	M26x1.5	23.5	35.5	40.5	76.0	31	27	32	SRT18L	879	2145
	22	M30x2.0	27.5	38.5	44.5	83.0	35	30	36	SRT22L	880	2146
100 bar	28	M36x2.0	30.5	43.0	48.5	90.0	38	36	41	SRT28L	881	2147
	35	M45x2.0	34.5	51.0	57.5	108.5	45	46	50	SRT35L	882	2148
	42	M52x2.0	40.0	56.0	63.5	119.5	51	55	60	SRT42L	883	2149
Heavy (S) 630 bar	6	M14x1.5	16.0	27.0	31.5	58.5	23	14	17	SRT6S	884	829
	8	M16x1.5	17.0	27.5	32.0	59.5	24	17	19	SRT8S	885	871
	10	M18x1.5	17.5	30.0	34.5	64.5	25	19	22	SRT10S	886	55
	12	M20x1.5	21.5	31.0	38.0	69.0	29	22	24	SRT12S	887	56
400 bar	16	M24x1.5	24.5	36.5	43.5	80.0	33	24	30	SRT16S	888	828
	20	M30x2.0	26.5	44.5	49.0	93.5	37	30	36	SRT20S	889	2150
	25	M36x2.0	30.0	50.0	55.0	105.0	42	36	46	SRT25S	890	2151
250 bar	30	M42x2.0	35.5	55.0	63.5	118.0	49	46	50	SRT30S	891	901
	38	M52x2.0	41.0	63.0	72.5	135.5	57	55	60	SRT38S	892	2152

* Dimensions given are approx figures with tightened nut.

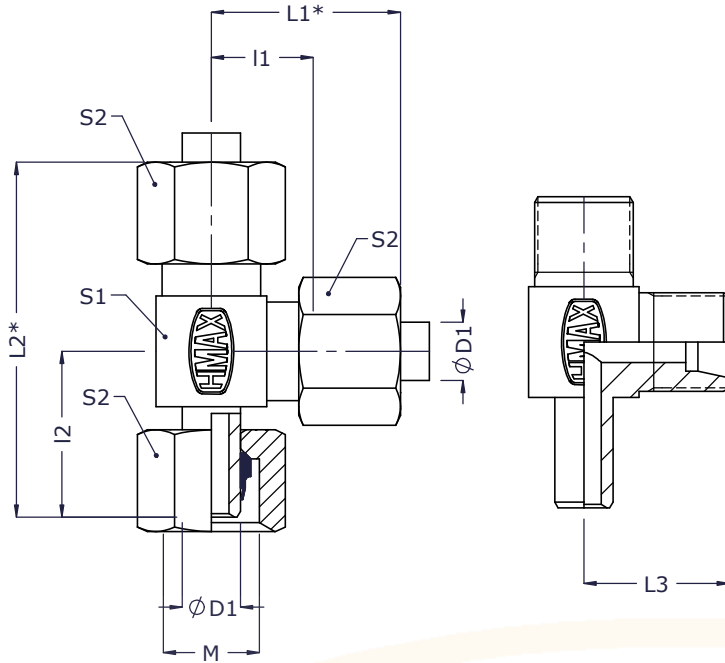
An ISO 9001-2015 Certified Co



Swivel Run Tee Couplings - SRT (BAR - STOCK)

ISO fittings

Metric Tube end as per ISO 8434



2D Assembly

2D Body

Series	Tube od ØD1	M Metric thread	I1	I2	L1*	L2*	L3	S1	S2	Assembly		Body
										Part code	Item no_	Item no_
Light (L) 250 bar	6	M12x1.5	12.0	26.0	27.5	53.5	19	12	14	SRT6L-F	855	2125
	8	M14x1.5	14.0	27.5	29.0	56.5	21	14	17	SRT8L-F	856	2126
	10	M16x1.5	15.0	29.0	30.5	59.5	22	17	19	SRT10L-F	857	2127
	12	M18x1.5	17.0	29.5	32.0	61.5	24	19	22	SRT12L-F	858	2128
	15	M22x1.5	21.0	32.5	37.0	69.5	28	22	27	SRT15L-F	859	2129
160 bar	18	M26x1.5	23.5	35.5	40.5	76.0	31	27	32	SRT18L-F	860	2130
	22	M30x2.0	27.5	38.5	44.5	83.0	35	30	36	SRT22L-F	861	2131
100 bar	28	M36x2.0	30.5	43.0	48.5	90.0	38	36	41	SRT28L-F	862	2132
	35	M45x2.0	34.5	51.0	57.5	108.5	45	46	50	SRT35L-F	863	2133
	42	M52x2.0	40.0	56.0	63.5	119.5	51	55	60	SRT42L-F	864	347
Heavy (S) 630 bar	6	M14x1.5	16.0	27.0	31.5	58.5	23	14	17	SRT6S-F	865	2134
	8	M16x1.5	17.0	27.5	32.0	59.5	24	17	19	SRT8S-F	866	592
	10	M18x1.5	17.5	30.0	34.5	64.5	25	19	22	SRT10S-F	867	589
	12	M20x1.5	21.5	31.0	38.0	69.0	29	22	24	SRT12S-F	868	591
400 bar	16	M24x1.5	24.5	36.5	43.5	80.0	33	24	30	SRT16S-F	869	2135
	20	M30x2.0	26.5	44.5	49.0	93.5	37	30	36	SRT20S-F	870	2136
	25	M36x2.0	30.0	50.0	55.0	105.0	42	36	46	SRT25S-F	871	2137
250 bar	30	M42x2.0	35.5	55.0	63.5	118.0	49	46	50	SRT30S-F	872	2138
	38	M52x2.0	41.0	63.0	72.5	135.5	57	55	60	SRT38S-F	873	2139

* Dimensions given are approx figures with tightened nut.

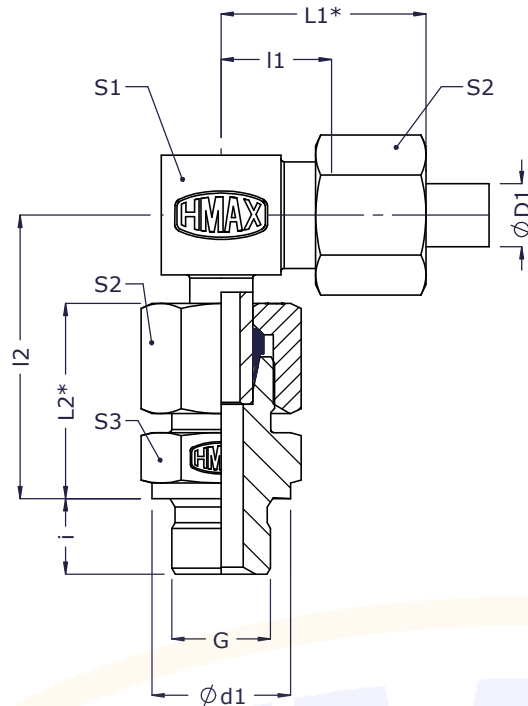
An ISO 9001-2015 Certified Co



Swivel Stud Elbow Couplings - SEC (BAR - STOCK)

ISO fittings

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



2D Assembly

Series	Tube od $\phi D1$	G Male BSP thread	i	l1	l2	L1*	L2*	S1	S2	S3	Assembly	
											Part code	Item no_
Light (L) 250 bar	6	G 1/8	8	12.0	34.5	27.5	24.0	12	14	14	SEC6L-F	893
	8	G 1/4	12	14.0	37.5	29.0	25.0	14	17	19	SEC8L-F	894
	10	G 1/4	12	15.0	40.0	30.5	26.5	17	19	19	SEC10L-F	895
	12	G 3/8	12	17.0	42.0	32.0	27.5	19	22	22	SEC12L-F	896
	15	G 1/2	14	21.0	46.5	37.0	30.0	22	27	27	SEC15L-F	897
160 bar	18	G 1/2	14	23.5	50.0	40.5	31.5	27	32	27	SEC18L-F	898
	22	G 3/4	16	27.5	55.0	44.5	33.5	30	36	32	SEC22L-F	899
100 bar	28	G 1	18	30.5	59.0	48.5	33.5	36	41	41	SEC28L-F	900
	35	G1 1/4	20	34.5	68.5	57.5	40.5	46	50	50	SEC35L-F	901
	42	G1 1/2	22	40.0	75.0	63.5	42.5	55	60	55	SEC42L-F	902
Heavy (S) 630 bar	6	G 1/4	12	16.0	40.0	31.5	28.5	14	17	19	SEC6S-F	903
	8	G 1/4	12	17.0	42.5	32.0	30.0	17	19	19	SEC8S-F	904
	10	G 3/8	12	17.5	45.0	34.5	32.0	19	22	22	SEC10S-F	905
	12	G 3/8	12	21.5	48.0	38.0	33.5	22	24	22	SEC12S-F	906
400 bar	16	G 1/2	14	24.5	55.0	43.5	37.5	24	30	27	SEC16S-F	907
	20	G 3/4	16	26.5	65.0	49.0	43.0	30	36	32	SEC20S-F	908
	25	G 1	18	30.0	73.0	55.0	48.0	36	46	41	SEC25S-F	909
250 bar	30	G1 1/4	20	35.5	78.5	63.5	51.5	46	50	50	SEC30S-F	910
	38	G1 1/2	22	41.0	89.0	72.5	57.5	55	60	55	SEC38S-F	911

* Dimensions given are approx figures with tightened nut.

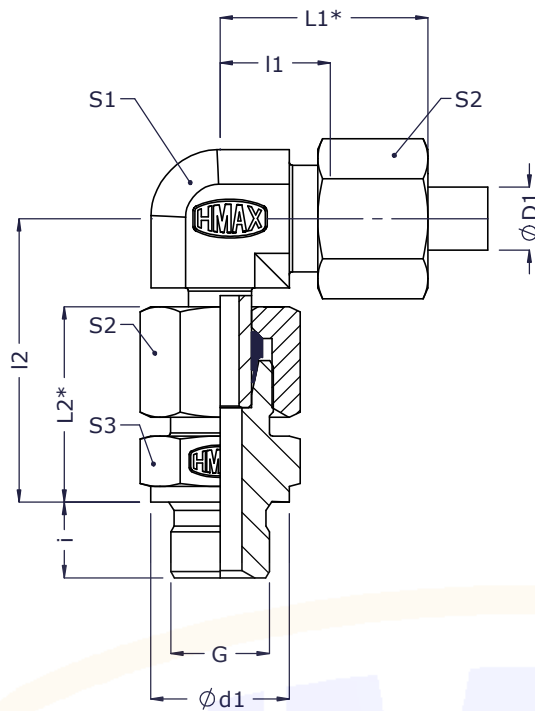
An ISO 9001-2015 Certified Co



Swivel Stud Elbow Couplings - SEC (FORGED)

ISO fittings

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



2D Assembly



Series	Tube od $\phi D1$	G Male BSP thread	i	L1	L2	L1*	L2*	S1	S2	S3	Assembly	
											Part code	Item no_
Light (L) 250 bar	6	G 1/8	8	12.0	34.5	27.5	24.0	12	14	14	SEC6L	912
	8	G 1/4	12	14.0	37.5	29.0	25.0	14	17	19	SEC8L	913
	10	G 1/4	12	15.0	40.0	30.5	26.5	17	19	19	SEC10L	914
	12	G 3/8	12	17.0	42.0	32.0	27.5	19	22	22	SEC12L	915
	15	G 1/2	14	21.0	46.5	37.0	30.0	22	27	27	SEC15L	916
160 bar	18	G 1/2	14	23.5	50.0	40.5	31.5	27	32	27	SEC18L	917
	22	G 3/4	16	27.5	55.0	44.5	33.5	30	36	32	SEC22L	918
100 bar	28	G 1	18	30.5	59.0	48.5	33.5	36	41	41	SEC28L	919
	35	G1 1/4	20	34.5	68.5	57.5	40.5	46	50	50	SEC35L	920
	42	G1 1/2	22	40.0	75.0	63.5	42.5	55	60	55	SEC42L	921
Heavy (S) 630 bar	6	G 1/4	12	16.0	40.0	31.5	28.5	14	17	19	SEC6S	922
	8	G 1/4	12	17.0	42.5	32.0	30.0	17	19	19	SEC8S	923
	10	G 3/8	12	17.5	45.0	34.5	32.0	19	22	22	SEC10S	924
	12	G 3/8	12	21.5	48.0	38.0	33.5	22	24	22	SEC12S	925
400 bar	16	G 1/2	14	24.5	55.0	43.5	37.5	24	30	27	SEC16S	926
	20	G 3/4	16	26.5	65.0	49.0	43.0	30	36	32	SEC20S	927
	25	G 1	18	30.0	73.0	55.0	48.0	36	46	41	SEC25S	928
250 bar	30	G1 1/4	20	35.5	78.5	63.5	51.5	46	50	50	SEC30S	929
	38	G1 1/2	22	41.0	89.0	72.5	57.5	55	60	55	SEC38S	930

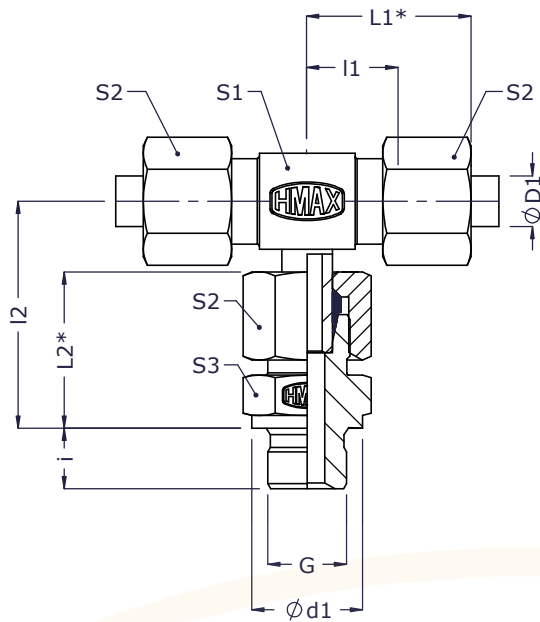
* Dimensions given are approx figures with tightened nut.



Swivel Stud Branch Tee Couplings - SBTC (BAR - STOCK)

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

ISO fittings



2D Assembly

Series	Tube od ØD1	G Male BSP thread	i	l1	l2	L1*	L2*	S1	S2	S3	Assembly	
											Part code	Item no_
Light (L) 250 bar	6	G 1/8	8	12.0	34.5	27.5	24.0	12	14	14	SBTC6L-F	931
	8	G 1/4	12	14.0	37.5	29.0	25.0	14	17	19	SBTC8L-F	932
	10	G 1/4	12	15.0	40.0	30.5	26.5	17	19	19	SBTC10L-F	933
	12	G 3/8	12	17.0	42.0	32.0	27.5	19	22	22	SBTC12L-F	934
	15	G 1/2	14	21.0	46.5	37.0	30.0	22	27	27	SBTC15L-F	935
160 bar	18	G 1/2	14	23.5	50.0	40.5	31.5	27	32	27	SBTC18L-F	936
	22	G 3/4	16	27.5	55.0	44.5	33.5	30	36	32	SBTC22L-F	937
100 bar	28	G 1	18	30.5	59.0	48.5	33.5	36	41	41	SBTC28L-F	938
	35	G1 1/4	20	34.5	68.5	57.5	40.5	46	50	50	SBTC35L-F	939
	42	G1 1/2	22	40.0	75.0	63.5	42.5	55	60	55	SBTC42L-F	940
Heavy (S) 630 bar	6	G 1/4	12	16.0	40.0	31.5	28.5	14	17	19	SBTC6S-F	941
	8	G 1/4	12	17.0	42.5	32.0	30.0	17	19	19	SBTC8S-F	942
	10	G 3/8	12	17.5	45.0	34.5	32.0	19	22	22	SBTC10S-F	943
	12	G 3/8	12	21.5	48.0	38.0	33.5	22	24	22	SBTC12S-F	944
400 bar	16	G 1/2	14	24.5	55.0	43.5	37.5	24	30	27	SBTC16S-F	945
	20	G 3/4	16	26.5	65.0	49.0	43.0	30	36	32	SBTC20S-F	946
	25	G 1	18	30.0	73.0	55.0	48.0	36	46	41	SBTC25S-F	947
250 bar	30	G1 1/4	20	35.5	78.5	63.5	51.5	46	50	50	SBTC30S-F	948
	38	G1 1/2	22	41.0	89.0	72.5	57.5	55	60	55	SBTC38S-F	949

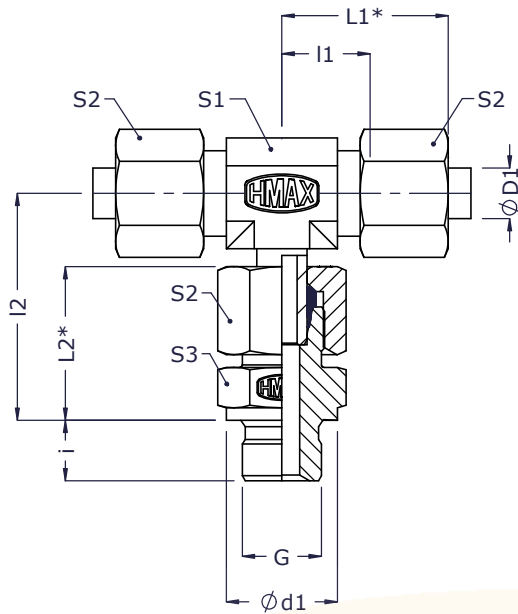
* Dimensions given are approx figures with tightened nut.



Swivel Stud Branch Tee Couplings - SBTC (FORGED)

ISO fittings

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



2D Assembly

Series	Tube od ϕ D1	G Male BSP thread	i	I1	I2	L1*	L2*	S1	S2	S3	Assembly	
											Part code	Item no.
Light (L) 250 bar	6	G 1/8	8	12.0	34.5	27.5	24.0	12	14	14	SBTC6L	950
	8	G 1/4	12	14.0	37.5	29.0	25.0	14	17	19	SBTC8L	951
	10	G 1/4	12	15.0	40.0	30.5	26.5	17	19	19	SBTC10L	952
	12	G 3/8	12	17.0	42.0	32.0	27.5	19	22	22	SBTC12L	953
	15	G 1/2	14	21.0	46.5	37.0	30.0	22	27	27	SBTC15L	954
160 bar	18	G 1/2	14	23.5	50.0	40.5	31.5	27	32	27	SBTC18L	955
	22	G 3/4	16	27.5	55.0	44.5	33.5	30	36	32	SBTC22L	956
100 bar	28	G 1	18	30.5	59.0	48.5	33.5	36	41	41	SBTC28L	957
	35	G1 1/4	20	34.5	68.5	57.5	40.5	46	50	50	SBTC35L	958
	42	G1 1/2	22	40.0	75.0	63.5	42.5	55	60	55	SBTC42L	959
Heavy (S) 630 bar	6	G 1/4	12	16.0	40.0	31.5	28.5	14	17	19	SBTC6S	960
	8	G 1/4	12	17.0	42.5	32.0	30.0	17	19	19	SBTC8S	961
	10	G 3/8	12	17.5	45.0	34.5	32.0	19	22	22	SBTC10S	962
	12	G 3/8	12	21.5	48.0	38.0	33.5	22	24	22	SBTC12S	963
400 bar	16	G 1/2	14	24.5	55.0	43.5	37.5	24	30	27	SBTC16S	964
	20	G 3/4	16	26.5	65.0	49.0	43.0	30	36	32	SBTC20S	965
	25	G 1	18	30.0	73.0	55.0	48.0	36	46	41	SBTC25S	966
250 bar	30	G1 1/4	20	35.5	78.5	63.5	51.5	46	50	50	SBTC30S	967
	38	G1 1/2	22	41.0	89.0	72.5	57.5	55	60	55	SBTC38S	968

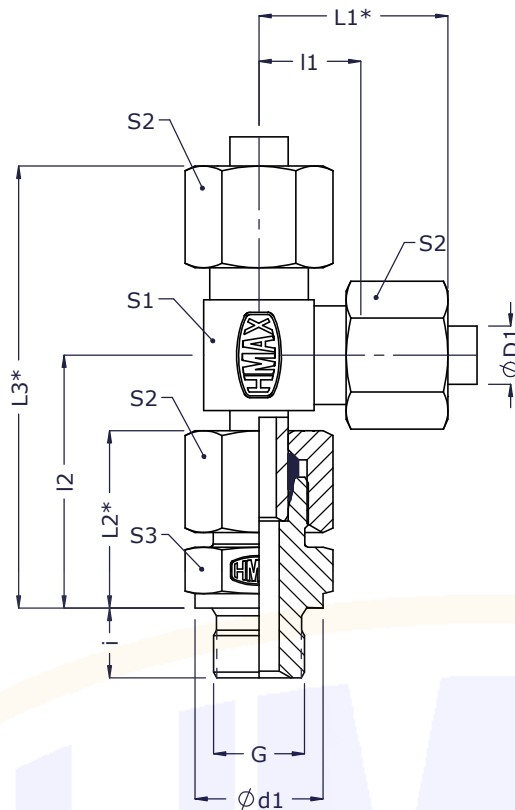
* Dimensions given are approx figures with tightened nut.



Swivel Stud Run Tee Couplings - SRTC (BAR - STOCK)

ISO fittings

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



2D Assembly

Series	Tube od $\phi D1$	G Male BSP thread	i	l1	l2	L1*	L2*	L3*	S1	S2	S3	Assembly	
												Part code	Item no_
Light (L) 250 bar	6	G 1/8	8	12.0	34.5	27.5	24.0	62.0	12	14	14	SRTC6L-F	969
	8	G 1/4	12	14.0	37.5	29.0	25.0	66.5	14	17	19	SRTC8L-F	970
	10	G 1/4	12	15.0	40.0	30.5	26.5	70.5	17	19	19	SRTC10L-F	971
	12	G 3/8	12	17.0	42.0	32.0	27.5	74.0	19	22	22	SRTC12L-F	972
	15	G 1/2	14	21.0	46.5	37.0	30.0	83.5	22	27	27	SRTC15L-F	973
160 bar	18	G 1/2	14	23.5	50.0	40.5	31.5	90.5	27	32	27	SRTC18L-F	974
	22	G 3/4	16	27.5	55.0	44.5	33.5	99.5	30	36	32	SRTC22L-F	975
100 bar	28	G 1	18	30.5	59.0	48.5	33.5	107.5	36	41	41	SRTC28L-F	976
	35	G1 1/4	20	34.5	68.5	57.5	40.5	126.0	46	50	50	SRTC35L-F	977
	42	G1 1/2	22	40.0	75.0	63.5	42.5	138.5	55	60	55	SRTC42L-F	978
Heavy (S) 630 bar	6	G 1/4	12	16.0	40.0	31.5	28.5	71.5	14	17	19	SRTC6S-F	979
	8	G 1/4	12	17.0	42.5	32.0	30.0	74.5	17	19	19	SRTC8S-F	980
	10	G 3/8	12	17.5	45.0	34.5	32.0	79.5	19	22	22	SRTC10S-F	981
	12	G 3/8	12	21.5	48.0	38.0	33.5	86.0	22	24	22	SRTC12S-F	982
400 bar	16	G 1/2	14	24.5	55.0	43.5	37.5	98.5	24	30	27	SRTC16S-F	983
	20	G 3/4	16	26.5	65.0	49.0	43.0	114.0	30	36	32	SRTC20S-F	984
	25	G 1	18	30.0	73.0	55.0	48.0	128.0	36	46	41	SRTC25S-F	985
250 bar	30	G1 1/4	20	35.5	78.5	63.5	51.5	142.0	46	50	50	SRTC30S-F	986
	38	G1 1/2	22	41.0	89.0	72.5	57.5	161.5	55	60	55	SRTC38S-F	987

* Dimensions given are approx figures with tightened nut.

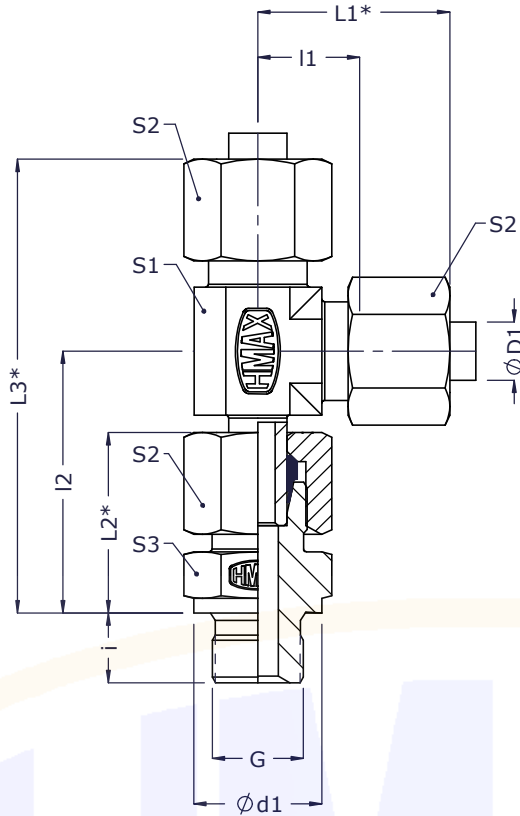
An ISO 9001-2015 Certified Co



Swivel Stud Run Tee Couplings -SRTC (FORGED)

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

ISO fittings



2D Assembly

Series	Tube od ØD1	G Male BSP thread	i	l1	l2	L1*	L2*	L3*	S1	S2	S3	Assembly	
												Part code	Item no_
Light (L) 250 bar	6	G 1/8	8	12.0	34.5	27.5	24.0	62.0	12	14	14	SRTC6L	988
	8	G 1/4	12	14.0	37.5	29.0	25.0	66.5	14	17	19	SRTC8L	989
	10	G 1/4	12	15.0	40.0	30.5	26.5	70.5	17	19	19	SRTC10L	990
	12	G 3/8	12	17.0	42.0	32.0	27.5	74.0	19	22	22	SRTC12L	991
	15	G 1/2	14	21.0	46.5	37.0	30.0	83.5	22	27	27	SRTC15L	992
160 bar	18	G 1/2	14	23.5	50.0	40.5	31.5	90.5	27	32	27	SRTC18L	993
	22	G 3/4	16	27.5	55.0	44.5	33.5	99.5	30	36	32	SRTC22L	994
100 bar	28	G 1	18	30.5	59.0	48.5	33.5	107.5	36	41	41	SRTC28L	995
	35	G1 1/4	20	34.5	68.5	57.5	40.5	126.0	46	50	50	SRTC35L	996
	42	G1 1/2	22	40.0	75.0	63.5	42.5	138.5	55	60	55	SRTC42L	997
Heavy (S) 630 bar	6	G 1/4	12	16.0	40.0	31.5	28.5	71.5	14	17	19	SRTC6S	998
	8	G 1/4	12	17.0	42.5	32.0	30.0	74.5	17	19	19	SRTC8S	999
	10	G 3/8	12	17.5	45.0	34.5	32.0	79.5	19	22	22	SRTC10S	1000
	12	G 3/8	12	21.5	48.0	38.0	33.5	86.0	22	24	22	SRTC12S	1002
400 bar	16	G 1/2	14	24.5	55.0	43.5	37.5	98.5	24	30	27	SRTC16S	1003
	20	G 3/4	16	26.5	65.0	49.0	43.0	114.0	30	36	32	SRTC20S	1004
	25	G 1	18	30.0	73.0	55.0	48.0	128.0	36	46	41	SRTC25S	1005
250 bar	30	G1 1/4	20	35.5	78.5	63.5	51.5	142.0	46	50	50	SRTC30S	1006
	38	G1 1/2	22	41.0	89.0	72.5	57.5	161.5	55	60	55	SRTC38S	1007

* Dimensions given are approx figures with tightened nut.

An ISO 9001-2015 Certified Co



SI. No_	Description	Part Code
1	Hex Head Plug	HHP-G
2	Hex Head Plug	HHP-G-ES
3	Socket Head Plug	SHP-G
4	Socket Head Plug	SHP-G-ES
5	Hex Head Plug	HHP-M
6	Hex Head Plug	HHP-M-ES
7	Socket Head Plug	SHP-M
8	Socket Head Plug	SHP-M-ES
9	Hex Head Plug	HHP-R
10	Hex Head Plug	HHP-N
11	Grub Screw	GS-R
12	Grub Screw	GS-N
13	Blanking Plugs for 24 Tubes Ends	BP
14	Blanking Ends for Tubes	BE



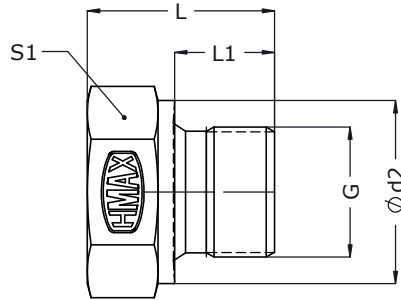
PLUGS - P

ISO fittings

HHP - G

Hex Head Plug

Male thread : BSPP (G) - ISO 228



2D Body

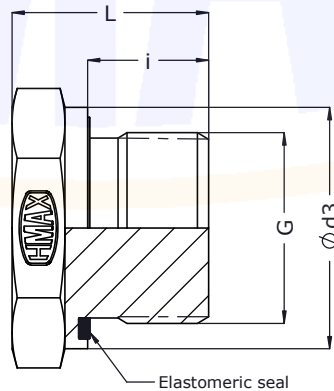
'G' Male thread BSPP	Ø d2	L	L1	S1	Part code	Item no_
G1/8	14	14.5	8	14	HHPG01	211
G1/4	18	20.0	12	19	HHPG02	212
G3/8	22	22.5	12	22	HHPG03	213
G1/2	26	24.0	14	27	HHPG04	214
G3/4	32	26.0	16	32	HHPG06	215
G1	39	27.0	16	41	HHPG08	216
G1.1/4	49	28.0	16	50	HHPG10	598
G1.1/2	55	30.0	16	55	HHPG12	217

HHP - G - ES

Hex Head Plug with Elastomeric seal

Male thread : BSPP (G) - ISO 228

For, Elastomeric Seal details Refer page No_ 91.



2D Body

'G' Male thread BSPP	Ø d3	i	L	S1	Part code	Item no_
G1/8	14	8	14.5	14	HHPG01ES	1883
G1/4	19	12	20.0	19	HHPG02ES	232
G3/8	22	12	22.5	22	HHPG03ES	1884
G1/2	27	14	24.0	27	HHPG04ES	1885
G3/4	32	16	26.0	32	HHPG06ES	233
G1	40	16	27.0	41	HHPG08ES	234
G1.1/4	50	16	28.0	50	HHPG10ES	235
G1.1/2	55	16	30.0	55	HHPG12ES	236

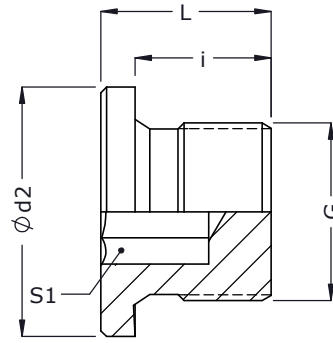


PLUGS - P

ISO fittings

SHP - G

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



2D Body

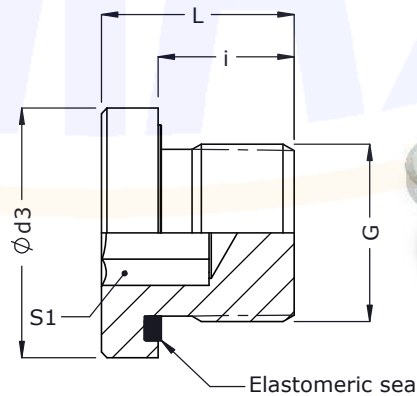
'G' Male thread BSPP	$\phi d2$	L	i	S1	Part code	Item no_
G 1/8	14	11	8	5	SHPG01	277
G 1/4	18	15	12	6	SHPG02	219
G 3/8	22	15	14	8	SHPG03	245
G 1/2	26	18	16	10	SHPG04	246
G 3/4	32	20	16	12	SHPG06	247
G 1	39	21	16	17	SHPG08	248
G 1.1/4	49	21	16	22	SHPG10	278
G 1.1/2	55	21	16	24	SHPG12	1173

S1 - Hex Broach Size

SHP - G - ES

Socket Head Plug with Elastomeric seal
Male thread : BSPP (G) - ISO 228

For, Elastomeric Seal details Refer page No_ 82.



2D Body

'G' Male thread BSPP	$\phi d3$	L	i	S1	Part code	Item no_
G 1/8	14	13	8	5	SHPG01ES	1886
G 1/4	19	17	12	6	SHPG02ES	279
G 3/8	22	17	12	8	SHPG03ES	280
G 1/2	27	20	14	10	SHPG04ES	281
G 3/4	32	22	16	12	SHPG06ES	946
G 1	40	24	16	17	SHPG08ES	1887
G 1.1/4	50	24	16	22	SHPG10ES	282
G 1.1/2	55	24	16	24	SHPG12ES	294

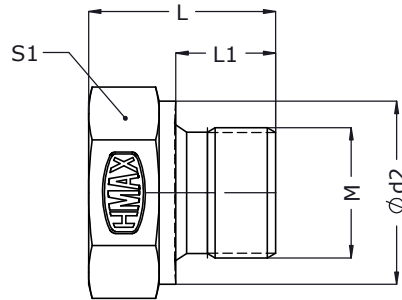
S1 - Hex Broach Size



PLUGS - P

ISO fittings

HHP - M
Hex Head Plug
Male thread : Metric (M) - ISO 261

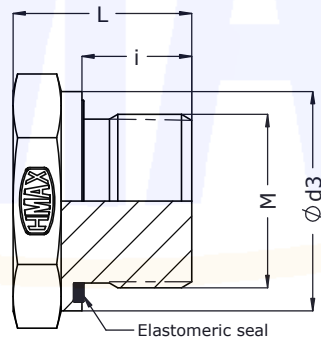


2D Body

Working Pressure (bar)	'M' Male thread Metric	$\phi d2$	i	L	S1	Part code	Item no_
630	M10 X 1.0	14	8	16	14	HHPM10	1888
630	M12 X 1.5	17	12	20	17	HHPM12	1889
630	M14 X 1.5	19	12	20	19	HHPM14	1890
630	M16 X 1.5	21	12	22	22	HHPM16	249
630	M18 X 1.5	23	12	23	24	HHPM18	1891
630	M20 X 1.5	25	14	25	27	HHPM20	1892
400	M22 X 1.5	27	14	26	27	HHPM22	1893
160	M26 X 1.5	31	16	29	32	HHPM26	1894
400	M27 X 2.0	32	16	29	32	HHPM27	1895
400	M33 X 2.0	39	16	34	41	HHPM33	1896
250	M42 X 2.0	49	16	36	50	HHPM42	1897
250	M48 X 2.0	55	16	37	55	HHPM48	1898

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

For, Elastomeric Seal details Refer page No_ 82.



2D Body

Working Pressure (bar)	'M' Male thread Metric	$\phi d3$	i	L	S1	Tightening Torque N-m	Part code	Item no_
400	M10 X 1.0	14	8	12.3	5	20	SHPM10ES	1923
400	M12 X 1.5	17	12	17.3	6	30	SHPM12ES	1924
400	M14 X 1.5	19	12	17.3	6	45	SHPM14ES	297
400	M16 X 1.5	22	12	17.3	8	60	SHPM16ES	252
400	M18 X 1.5	24	12	17.3	8	80	SHPM18ES	1925
400	M20 X 1.5	26	14	19.3	10	100	SHPM20ES	253
400	M22 X 1.5	27	14	19.3	10	80	SHPM22ES	298
160	M26 X 1.5	32	16	21.3	12	120	SHPM26ES	1926
400	M27 X 2.0	32	16	21.3	12	135	SHPM27ES	1927
400	M33 X 2.0	40	16	22.8	17	225	SHPM33ES	1928
250	M42 X 2.0	50	16	22.8	22	360	SHPM42ES	1929
250	M48 X 2.0	55	16	22.8	24	400	SHPM48ES	1930

All dimensions are in mm.

Subject to revision.

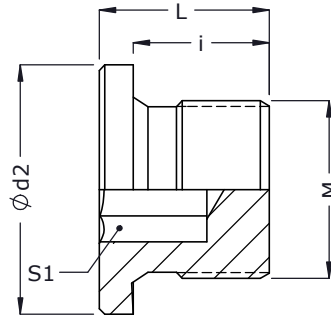


PLUGS - P

ISO fittings

SHP - M

Socket Head Plug
Male thread : Metric (M) - ISO 261



2D Body

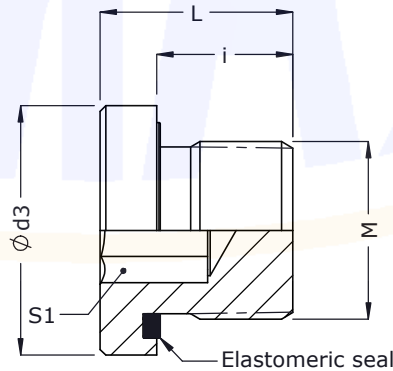
Working Pressure (bar)	'M' Male thread Metric	Ø d2	i	L	S1	Tightening Torque N-m	Body	
							Part code	Item no
400	M10 X 1.0	14	8	12.3	5	12	SHPM10	1911
400	M12 X 1.5	17	12	17.3	6	25	SHPM20	1912
400	M14 X 1.5	19	12	17.3	6	35	SHPM14	1913
400	M16 X 1.5	22	12	17.3	8	50	SHPM16	1914
400	M18 X 1.5	24	12	17.3	8	60	SHPM18	1915
400	M20 X 1.5	26	14	19.3	10	70	SHPM20	1916
400	M22 X 1.5	27	14	19.3	10	80	SHPM22	1917
160	M26 X 1.5	32	16	21.3	12	120	SHPM26	1918
400	M27 X 2.0	32	16	21.3	12	135	SHPM27	1919
400	M33 X 2.0	40	16	22.8	17	225	SHPM33	1920
250	M42 X 2.0	50	16	22.8	22	360	SHPM42	1921
250	M48 X 2.0	55	16	22.8	24	400	SHPM48	1922

S1 - Hex Broach Size

SHP - M - ES

Socket Head Plug with Elastomeric seal
Male thread : Metric (M) - ISO 261

For, Elastomeric Seal details Refer page No_ 82.



2D Body

Working Pressure (bar)	'M' Male thread Metric	Ø d3	i	L	S1	Tightening Torque N-m	Body	
							Part code	Item no
400	M10 X 1.0	14	8	12.3	5	20	SHPM10ES	1923
400	M12 X 1.5	17	12	17.3	6	30	SHPM12ES	1924
400	M14 X 1.5	19	12	17.3	6	45	SHPM14ES	297
400	M16 X 1.5	22	12	17.3	8	60	SHPM16ES	252
400	M18 X 1.5	24	12	17.3	8	80	SHPM18ES	1925
400	M20 X 1.5	26	14	19.3	10	100	SHPM20ES	253
400	M22 X 1.5	27	14	19.3	10	80	SHPM22ES	298
160	M26 X 1.5	32	16	21.3	12	120	SHPM26ES	1926
400	M27 X 2.0	32	16	21.3	12	135	SHPM27ES	1927
400	M33 X 2.0	40	16	22.8	17	225	SHPM33ES	1928
250	M42 X 2.0	50	16	22.8	22	360	SHPM42ES	1929
250	M48 X 2.0	55	16	22.8	24	400	SHPM48ES	1930

S1 - Hex Broach Size

All dimensions are in mm.

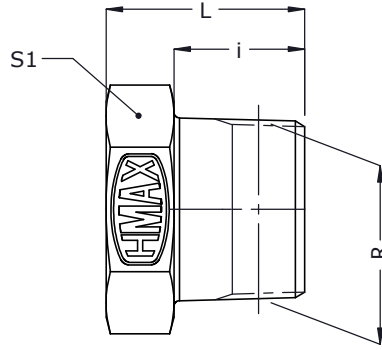
Subject to revision.



PLUGS - P

ISO fittings

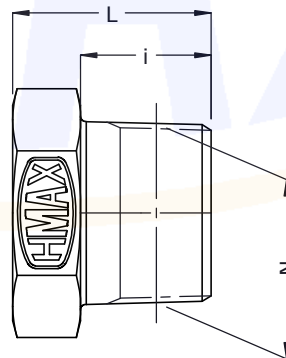
HHP - R
Hex Head Plug
Male thread : BSPT Taper (R)



2D Body

'R' Male thread BSPT	L	i	S1	Part code	Item no_
R 1/8"-28	11.5	7.5	12	HHPR01	179
R 1/4"-19	17.0	11.0	14	HHPR02	181
R 3/8"-19	17.5	11.5	19	HHPR03	182
R 1/2"-14	25.0	15.0	22	HHPR04	183
R 3/4"-14	26.5	16.5	30	HHPR06	184
R 1"-11	31.0	19.0	36	HHPR08	185
R 1.1/4"-11	35.0	21.5	46	HHPR10	186
R 1.1/2"-11	35.0	21.5	50	HHPR12	187

HHP - N
Hex Head Plug
Male thread : NPTF (SAE J476)



2D Body

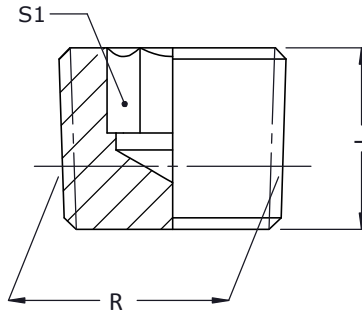
'N' Male thread NPTF	L	i	S1	Part code	Item no_
N 1/8" - 27	14.5	9.7	12	HHPN01	1939
N 1/4" - 18	19.0	14.2	17	HHPN02	1940
N 3/8" - 18	19.5	14.2	19	HHPN03	1941
N 1/2" - 14	24.0	19.05	24	HHPN04	1942
N 3/4" - 14	27.0	19.05	30	HHPN06	1943
N 1" - 11 1/2	32.0	23.9	36	HHPN08	1944
N 1.1/4" - 11 1/2	32.5	24.6	46	HHPN10	1945
N 1.1/2" - 11 1/2	35.0	25.4	50	HHPN12	1946
N 2" - 11 1/2	38.0	26.2	65	HHPN16	1947

All dimensions are in mm.

Subject to revision.

An ISO 9001-2015 Certified Co

GS - R
 Grub Screw
 Male thread : BSP Tape (R)

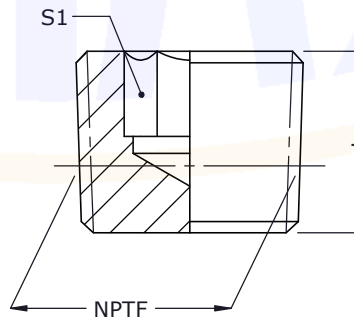


2D Body

'R' Male thread BSPT	L	S1	Part code	Item no_
R 1/8"-28	8.0	5	SHPR01	1931
R 1/4"-19	10.0	7	SHPR02	1932
R 3/8"-19	10.0	8	SHPR03	1933
R 1/2"-14	10.0	10	SHPR04	1934
R 3/4"-14	12.0	12	SHPR06	1935
R 1"-11	12.0	17	SHPR08	1936
R 1.1/4"-11	18.0	22	SHPR10	1937
R 1.1/2"-11	20.0	24	SHPR12	1938

S1 - Hex Broach Size

GS - N
 Grub Screw
 Male thread : NPTF(SAE J476)



2D Body

'N' Male thread NPT	L	S1	Part code	Item no_
N 1/8" - 27	7.8	5	SHPN01	1210
N 1/4" - 18	12.0	6	SHPN02	908
N 3/8" - 18	12.0	8	SHPN03	1948
N 1/2" - 14	16.0	10	SHPN04	909
N 3/4" - 14	16.2	14	SHPN06	1943
N 1" - 11 1/2	20.0	14	SHPN08	1950
N 1.1/4" - 11 1/2	20.0	22	SHPN10	1251
N 1.1/2" - 11 1/2	20.0	30	SHPN12	1952
N 2" - 11 1/2	21.0	30	SHPN16	1953

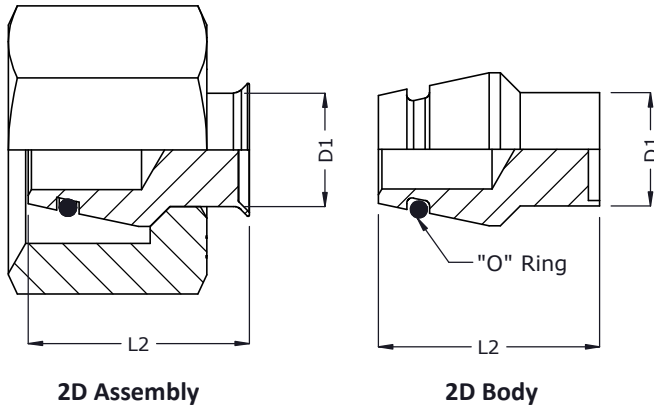
S1 - Hex Broach Size



Blanking Plugs for 24 ° Tubes Ends - BP

ISO fittings

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



An ISO 9001-2015 Certified Co

Series	Tube od D1	L2	"O" Ring ID x CSD	Assembly		Body
				Part code	Item no_	Item no_
Light (L) 250 bar	6	18.5	4.0 x 1.5	BP06L	1106	469
	8	18.0	6.0 x 1.5	BP08L	1107	470
	10	19.5	7.5 x 1.5	BP10L	1108	1077
	12	19.5	9.0 x 1.5	BP12L	1109	319
	15	19.0	12 x 2.0	BP15L	1110	473
160 bar	18	20.5	15 x 2.0	BP18L	1112	320
	22	21.5	20 x 2.0	BP22L	1113	1078
100 bar	28	24.0	26 x 2.0	BP28L	1114	1079
	35	27.5	32 x 2.5	BP35L	1115	1080
	42	28.0	38 x 2.5	BP42L	1116	1081
Heavy (S) 630 bar	6	18.5	4.0 x 1.5	BP06S	1117	469
	8	18.0	6.0 x 1.5	BP08S	1118	470
	10	19.5	7.5 x 1.5	BP10S	1119	1077
	12	19.5	9.0 x 1.5	BP12S	1120	319
400 bar	16	21.5	12.0 x 2.0	BP16S	1121	318
	20	26.0	16.3 x 2.4	BP20S	1122	471
	25	28.0	20.3 x 2.4	BP25S	1123	472
250 bar	30	34.5	25.3 x 2.4	BP30S	1124	1082
	38	38.5	33.3 x 2.4	BP38S	1125	1083

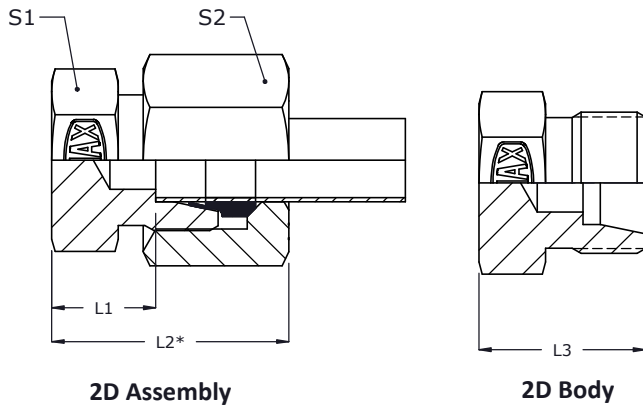
* Dimensions given are approx figures with tightened nut.



For Metric Tubes

Blanking Ends for Tubes - BE

ISO fittings



An ISO 9001-2015 Certified Co

Series	Tube od D1	L1	L2*	L3	S1	S2	Assembly		Body
							Part code	Item no_	Item no_
Light (L) 250 bar	6	8.0	23.5	15	12	14	BE06L	1126	1067
	8	8.0	23.0	15	14	17	BE08L	1127	099
	10	9.0	24.5	16	17	19	BE10L	1128	100
	12	10.0	25.0	17	19	22	BE12L	1129	058
	15	11.0	27.0	18	22	27	BE15L	1130	609
160 bar	18	11.5	28.5	19	27	32	BE18L	1131	1068
	22	13.5	30.5	21	30	36	BE22L	1132	057
100 bar	28	14.5	32.5	22	36	41	BE28L	1133	1069
	35	16.5	39.5	27	46	50	BE35L	1134	1070
	42	19.0	42.5	30	55	60	BE42L	1135	1071
Heavy (S) 630 bar	6	13.0	28.5	20	14	17	BE06S	1136	1072
	8	13.0	28.0	20	17	19	BE08S	1137	611
	10	12.5	29.5	20	19	22	BE10S	1138	610
	12	14.5	31.0	22	22	24	BE12S	1139	612
400 bar	16	15.5	34.5	24	24	30	BE16S	1140	614
	20	17.5	40.0	28	30	36	BE20S	1141	1073
	25	18.0	43.0	30	36	46	BE25S	1142	615
250 bar	30	22.5	50.5	36	46	50	BE30S	1143	616
	38	23.0	54.5	39	55	60	BE38S	1144	1074

* Dimensions given are approx figures with tightened nut.



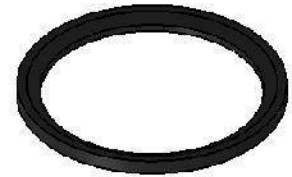
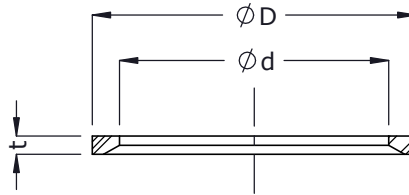
SI. No_	Description	Part Code
1	Elastomeric Seal	ES
2	Bonded Seals	BS
3	Copper Washer	CW
4	Sealing Rings (Metallic)	SRM
5	Lock-Nut	LN



Seals - S

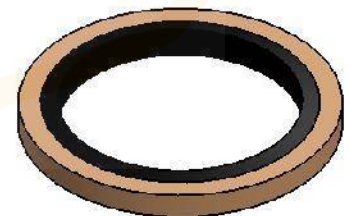
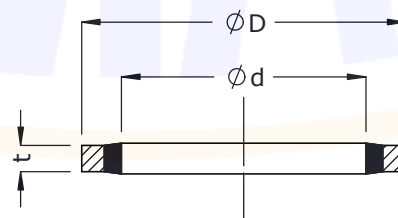
DIN fittings

Elastomeric Seal (DIN 3869)
Soft sealing for Male stud ends



ød	øD	t	For Male Metric (M) threads	Metric (M)		For Male BSPP (G) threads	BSP (G)	
				Part code	Item no_		Part code	Item no_
8.4	11.9	1.0	M10 x 1.0	ESM10	2155	G 1/8"	ESG01	2570
9.8	14.4	1.5	M12 x 1.5	ESM12	2156	--		
11.6	16.5	1.5	M14 x 1.5	ESM14	2157	G 1/4	ESG02	2571
13.8	18.9	1.5	M16 x 1.5	ESM16	2158	--		
14.7	18.9	1.5	--	ESM17	2159	G 3/8	ESG03	2572
15.7	20.9	1.5	M18 x 1.5	ESM18	2160	--		
17.8	22.9	1.5	M20 x 1.5	ESM20	2161	--		
18.5	23.9	1.5	--	ESM21	2162	G 1/2	ESG04	2573
19.6	24.3	1.5	M22 x 1.5	ESM22	2163	--		
23.9	29.2	1.5	M26 x 1.5	ESM26	2164	G 3/4	ESG06	2574
			M27 x 2.0	ESM27	2165			
29.7	35.7	2.0	M33 x 2.0	ESM33	2166	G 1	ESG08	2575
38.8	45.8	2.0	M42 x 2.0	ESM42	2167	G 1.1/4	ESG10	2576
44.7	50.7	2.0	M48 x 2.0	ESM48	2168	G 1.1/2	ESG12	2577

Bonded Seals
For BSPP (G) Male stud ends



For Male BSPP (G) threads	ød	øD	t	Part code	Item no_
G 1/8	10.37	15.88	1.80	BSG01	2169
G 1/4	13.74	20.57	1.80	BSG02	2170
G 3/8	17.28	23.80	1.80	BSG03	2171
G 1/2	21.54	28.58	2.30	BSG04	2172
G 3/4	27.05	34.93	2.30	BSG06	2173
G 1	33.89	42.80	2.30	BSG08	2174
G 1.1/4	42.93	52.38	2.85	BSG10	2175
G 1.1/2	48.44	58.60	2.85	BSG12	2176
G 2	60.58	73.03	2.85	BSG16	2177

All dimensions are in mm.

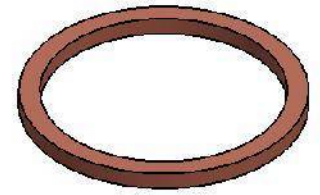
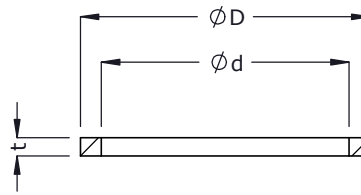
Subject to revision.



Seals - S

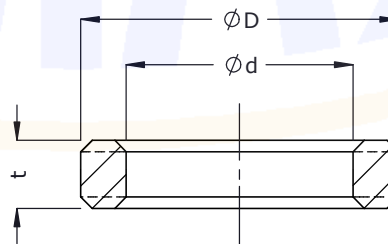
DIN fittings

Copper Washer
For BSPP (G) Male stud ends



For Male BSPP (G) treads	ϕd	ϕD	t	Part code	Item no_
G 1/8	10.2	13.9	1.0	CWG01	2178
G 1/4	14.2	17.9	1.5	CWG02	2179
G 3/8	17.2	20.9	1.5	CWG03	2180
G 1/2	21.2	25.9	1.5	CWG04	2181
G 3/4	27.3	31.9	2.0	CWG06	2182
G 1	33.3	38.9	2.0	CWG08	2183
G 1.1/4	42.3	48.9	2.0	CWG10	2184
G 1.1/2	48.3	54.9	2.0	CWG12	2185
G 2	60.5	67.8	2.5	CWG16	2186

Sealing Rings (Metallic)
For Throttle free Banjo Couplings



For Male BSPP (G) treads	ϕd	ϕD	t	Part code	Item no_
G 1/8	10.0	14	4	SRMG01	2187
G 1/4	13.4	18	4	SRMG02	2188
G 3/8	16.9	22	5	SRMG03	2189
G 1/2	21.3	26	5	SRMG04	2190
G 3/4	26.8	32	5	SRMG06	2191
G 1	33.6	39	6	SRMG08	2192
G 1.1/4	42.3	49	7	SRMG10	2193
G 1.1/2	48.2	55	7	SRMG12	2194

All dimensions are in mm.

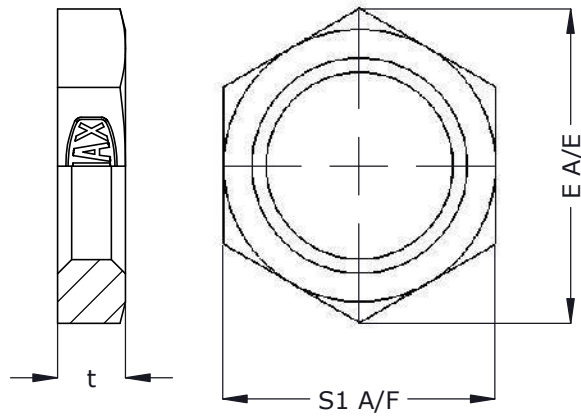
Subject to revision.



Lock-Nut (LN)

Locknuts for Bulkhead Couplings

ISO fittings



2D Body

Metric	t	S1	E	Part code	Item no_
M12 x 1.5	6	17	19.6	LN12	975
M14 x 1.5	6	19	21.9	LN14	976
M16 x 1.5	6	22	25.4	LN16	977
M18 x 1.5	6	24	27.7	LN18	978
M20 x 1.5	6	27	31.2	LN20	979
M22 x 1.5	7	30	34.6	LN22	980
M24 x 1.5	7	32	36.9	LN24	981
M26 x 1.5	8	36	41.6	LN26	982
M30 x 2.0	9	41	47.3	LN30	983
M36 x 2.0	9	46	53.1	LN36	984
M42 x 2.0	9	50	57.5	LN42	985
M45 x 2.0	9	55	63.5	LN45	986
M52 x 2.0	10	65	75.0	LN52	987



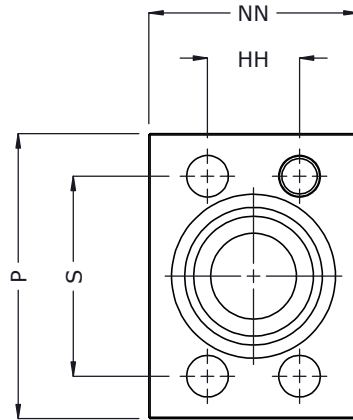
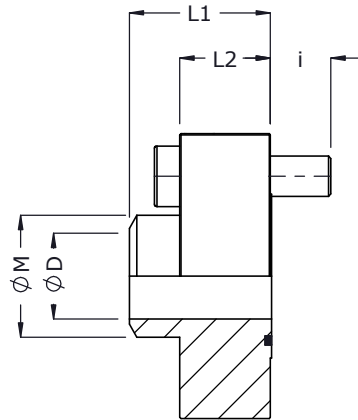
SI. No_	Description	Part Code
1	Buttweld Solid Flanges (ISO 6162)	BSF
2	Socket Weld Flanges (ISO 6162)	SWF
3	BF - Blind Flanges (ISO 6162)	BF
4	Buttweld Solid Flanges (ISO 6164)	BSF-S
5	Blind Flanges Squar(ISO 6164)	BF-S



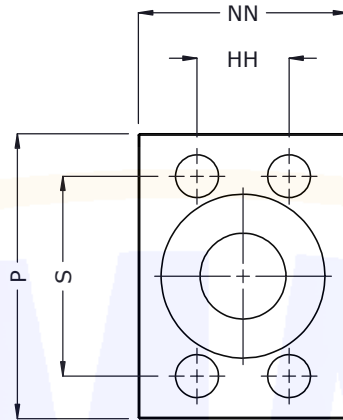
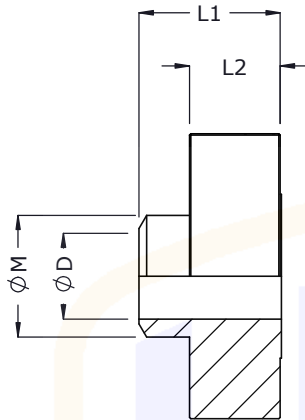
Buttweld Solid Flanges - BSF

ISO fittings

Mounting Interface conforms to ISO 6162



Flanges
Model : BSF1NB61CO



Counter Flanges
Model : BSF1NB61COC

Standard Pressure Series (Code 61)

Nom Flange Size	Pipe Sch	Pr (bar)	ø M	ø D	P	S	NN	HH	L1	L2	i	'o' Ring (Viton) 90 ±5 Shore	Hex. bolt (10.9)	Parts		Assembly	
														Part code	Item no_	Part code	Item no_
1/2"	80	288	21.3	14	54	38.1	38	17.5	32	13	12	19.0x3.55	M8x25	BSF05NB61CO	2195	BSF05NB61	1177
	160	345		12										BSF05NB61COC	2196		
3/4"	80	246	26.6	19	65	47.6	45	22.3	32	15	15	25.0x3.55	M10x30	BSF75NB61CO	2197	BSF75NB61	1178
	160	345		15										BSF75NB61COC	2198		
1"	80	246	33.4	24	70	52.4	51	26.2	32	15	15	32.5x3.55	M10x30	BSF1NB61CO	2199	BSF1NB61	1179
	160	345		21										BSF1NB61COC	2200		
1.1/4"	80	211	42.2	32	79	58.7	64	30.2	32	15	15	37.5x3.55	M10x30	BSF125NB61CO	2201	BSF125NB61	1180
	160	276		30										BSF125NB61COC	2202		
1.1/2"	80	197	48.3	38	94	69.9	70	35.7	38	17	18	47.5x3.55	M12x35	BSF150NB61CO	2203	BSF150NB61	1181
														BSF150NB61COC	2204		
2"	80	176	60.3	49	102	77.8	83	42.9	38	17	18	56.0x3.55	M12x35	BSF2NB61CO	2205	BSF2NB61	1182
	160	207		43										BSF2NB61COC	2206		
2.1/2"	40	134	73.0	63	114	88.9	102	50.8	45	22	18	69.0x3.55	M12x40	BSF250NB61CO	2207	BSF250NB61	1183
	80	172		59										BSF250NB61COC	2208		
3"	40	113	88.9	78	135	106.4	114	61.9	51	26	24	85.0x3.55	M16x50	BSF3NB61CO	2209	BSF3NB61	1184
	80	138		74										BSF3NB61COC	2210		
3.1/2"	40	34	101.6	90	152	120.7	127	69.9	38	26	24	97.0x3.55	M16x50	BSF350NB61CO	2211	BSF350NB61	1185
														BSF350NB61COC	2212		
4"	40	34	114.3	102	162	130.2	140	77.8	38	26	24	112x3.55	M16x50	BSF4NB61CO	2213	BSF4NB61	1186
														BSF4NB61COC	2214		
5"	40	34	141.3	128	184	152.4	178	92.1	51	26	24	136x3.55	M16x50	BSF5NB61CO	2215	BSF5NB61	1187
														BSF5NB61COC	2216		

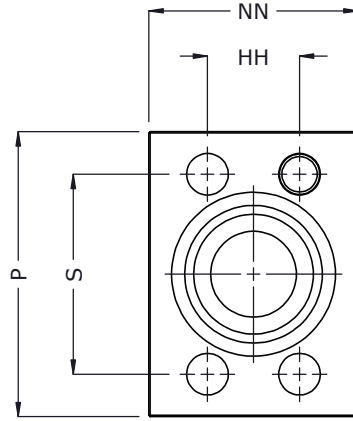
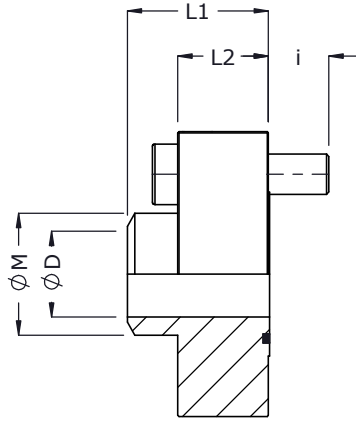
Note: 10.9 Bolts are available in full threads for few size.



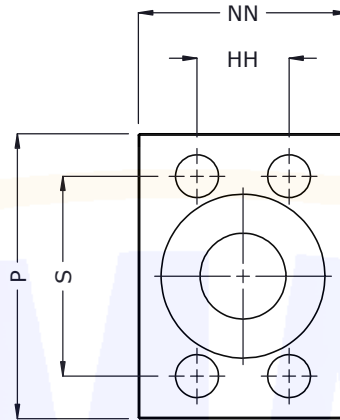
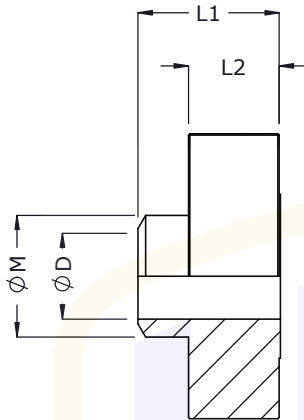
Buttweld Solid Flanges - BSF

ISO fittings

Mounting Interface conforms to ISO 6162



Flanges
Model : BSF1NB62CO



Counter Flanges
Model : BSF1NB62COC

High Pressure Series (Code 62)

Nom Flange Size	Pipe Sch	Pr (bar)	ø M	ø D	P	S	NN	HH	L1	L2	i	'o' Ring (Viton) 90±5 Shore	Hex. bolt (10.9)	Parts		Assembly	
														Part code	Item no_	Part code	Item no_
1/2"	160	414	21.3	12	56	40.5	45	18.2	32	18	12	19.0x3.55	M8x30	BSF05NB62CO	2217	BSF05NB62	1189
														BSF05NB62COC	2218		
3/4"	160	414	26.6	16	71	50.8	51	23.8	32	20	15	25.0x3.55	M10x35	BSF75NB62CO	2219	BSF75NB62	1190
														BSF75NB62COC	2220		
1"	160	401	33.4	21	81	57.2	57	27.8	32	22	18	32.5x3.55	M12x40	BSF1NB62CO	2221	BSF1NB62	1191
														BSF1NB62COC	2222		
1.1/4"	160	310	42.2	30	95	66.6	70	31.8	32	22	18	37.5x3.55	M12x40	BSF125NB62CO	2223	BSF125NB62	1192
	XXS	414		23										BSF125NB62COC	2224		
1.1/2"	160	317	48.3	34	113	79.3	83	36.5	38	21	24	47.5x3.55	M16x45	BSF150NB62CO	2225	BSF150NB62	1193
	XXS	414		28										BSF150NB62COC	2226		
2"	160	324	60.3	43	133	96.8	102	44.5	45	30	30	56.0x3.55	M20x60	BSF2NB62CO	2227	BSF2NB62	1194
	XXS	414		38										BSF2NB62COC	2228		
2.1/2"	160	296	73.0	54	175	123.8	127	58.7	51	32	33	69.0x3.55	M22x65	BSF250NB62CO	2229	BSF250NB62	1195
	XXS	414		45										BSF250NB62COC	2230		
3"	160	288	88.9	66	216	152.4	153	71.4	63	35	45	85.0x3.55	M30x80	BSF3NB62CO	2231	BSF3NB62	1196
	XXS	414		58										BSF3NB62COC	2232		

Note: 10.9 Bolts are available in full threads for few size.

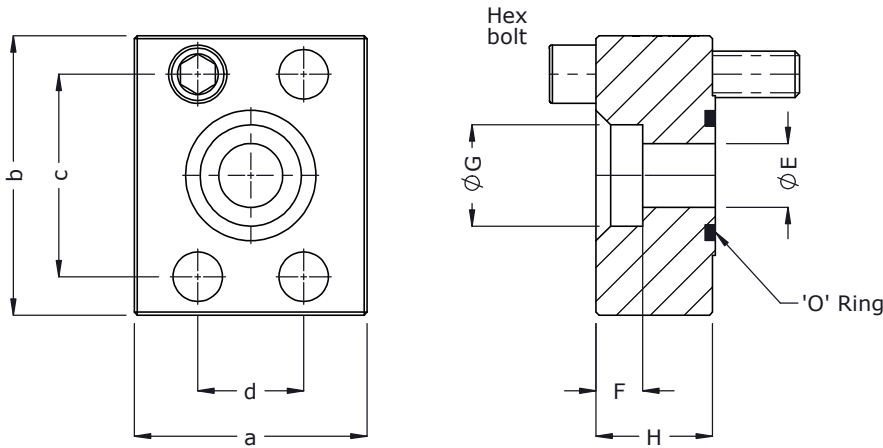
An ISO 9001-2015 Certified Co



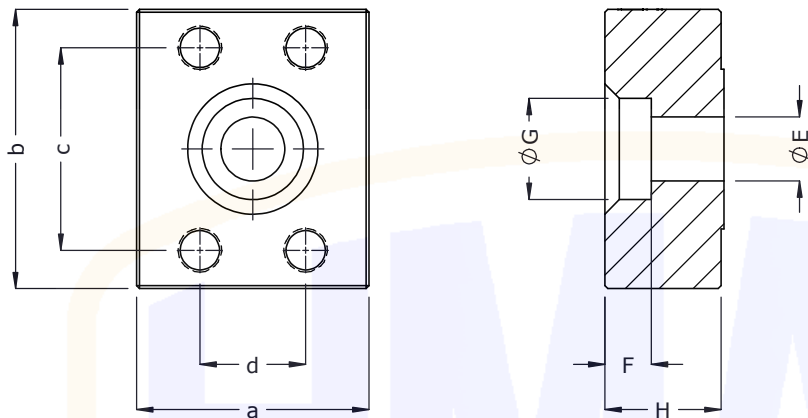
Socket Weld Flanges - SWF

ISO fittings

Mounting Interface conforms to ISO 6162



Flanges
Model : SWF1NB61CO



Counter Flanges
Model : SWF1NB61COC

Standard Pressure Series (Code 61)

Pr (bar)	Nom Flange Size	a	b	c	d	ØE	F	ØG	H	'o' Ring (Viton) 90 ±5 Shore	Hex. bolt (10.9)	Parts		Assembly	
												Part code	Item no_	Part code	Item no_
350	1/2"	46	54	38.1	17.5	13	10	21.8	18	19.0x3.55	M08x30	SWF05NB61CO	2233	SWF05NB61	1197
												SWF05NB61COC	2234		
	3/4"	52	65	47.6	22.3	19	13	27.0	25	25.0x3.55	M10x40	SWF75NB61CO	2235	SWF75NB61	1198
												SWF75NB61COC	2236		
	1"	59	70	52.4	26.2	25	13	33.7	25	32.5x3.55	M10x40	SWF1NB61CO	2237	SWF1NB61	1199
												SWF1NB61COC	2238		
250	1.1/4"	73	79	58.7	30.2	32	13	42.6	25	37.5x3.55	M10x40	SWF125NB61CO	2239	SWF125NB61	1200
												SWF125NB61COC	2240		
200	1.1/2"	83	94	69.9	35.7	38	13	48.7	32	47.5x3.55	M12x50	SWF150NB61CO	2241	SWF150NB61	1201
												SWF150NB61COC	2242		
	2"	97	102	77.8	42.9	49	16	61.2	37	56.0x3.55	M12x55	SWF2NB61CO	2243	SWF2NB61	1202
												SWF2NB61COC	2244		
160	2.1/2"	109	114	88.9	50.8	61	19	73.9	42	69.0x3.55	M12x60	SWF250NB61CO	2245	SWF250NB61	1203
												SWF250NB61COC	2246		
100	3"	131	135	106.4	64.9	75	19	89.9	51	85.0x3.55	M16x75	SWF3NB61CO	2247	SWF3NB61	1204
												SWF3NB61COC	2248		
25	3.1/2"	140	152	120.7	69.9	86	19	102.7	36	97.5x3.55	M16x60	SWF350NB61CO	2249	SWF350NB61	1205
												SWF350NB61COC	2250		
	4"	152	162	130.2	77.8	99	19	115.5	36	112.0x3.55	M16x60	SWF4NB61CO	2251	SWF4NB61	1206
												SWF4NB61COC	2252		
	5"	181	184	152.4	92.1	127	19	142.8	51	136.0x3.55	M16x75	SWF5NB61CO	2253	SWF5NB61	1207
												SWF5NB61COC	2254		

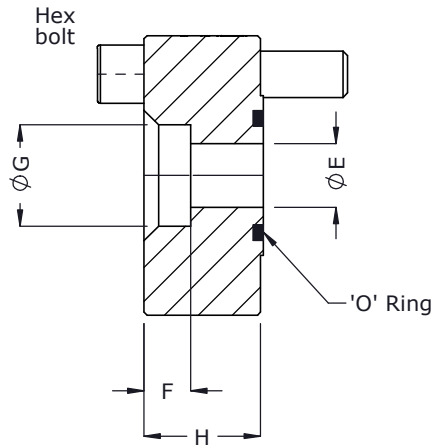
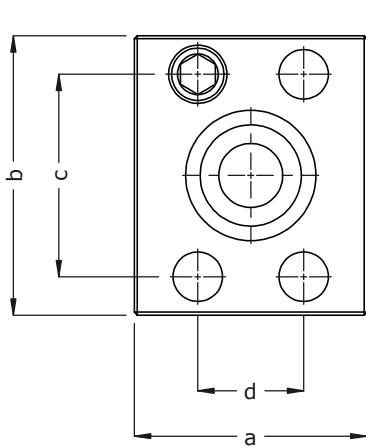
Note: 10.9 Bolts are available in full threads for few size.



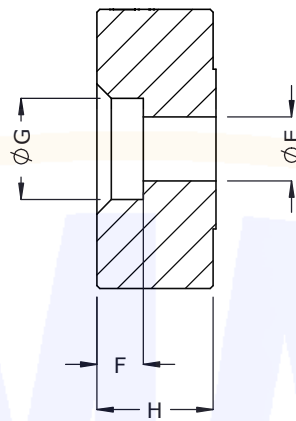
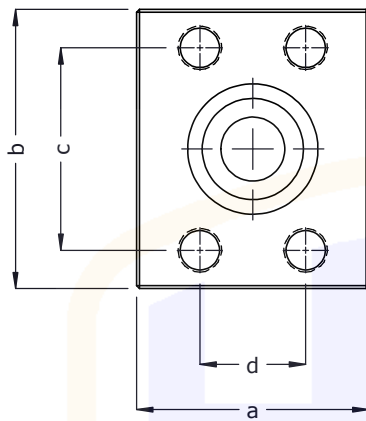
Socket Weld Flanges - SWF

ISO fittings

Mounting Interface conforms to ISO 6162



Flanges
Model : SWF1NB62CO



Counter Flanges
Model : SWF1NB62COC

High Pressure Series (Code 62)

Pr (bar)	Nom Flange Size	a	b	c	d	ØE	F	ØG	H	'o' Ring (Viton) 90 ±5 Shore	Hex. bolt (10.9)	Parts		Assembly	
												Part code	Item no_	Part code	Item no_
400	1/2"	48	56	40.5	18.2	13	13	21.8	23	19.0x3.55	M08x35	SWF05NB62CO	2255	SWF05NB62	1208
												SWF05NB62COC	2256		
	3/4"	60	71	50.8	23.8	19	13	27.0	25	25.0x3.55	M10x40	SWF75NB62CO	2257	SWF75NB62	1209
												SWF75NB62COC	2258		
	1"	70	81	57.2	27.8	25	13	33.7	27	32.5x3.55	M12x45	SWF1NB62CO	205	SWF1NB62	1210
												SWF1NB62COC	206		
	1.1/4"	78	95	66.6	31.8	32	13	42.6	32	37.5x3.55	M12x50	SWF125NB62CO	1183	SWF125NB62	1211
												SWF125NB62COC	1184		
	1.1/2"	95	113	79.3	36.5	38	13	48.7	36	47.5x3.55	M16x60	SWF150NB62CO	2259	SWF150NB62	1212
												SWF150NB62COC	2260		
	2"	114	133	96.8	44.5	50	16	61.2	45	56.0x3.55	M20x75	SWF2NB62CO	1123	SWF2NB62	1213
												SWF2NB62COC	1122		
	2.1/2"	149	175	123.8	58.7	60	16	73.9	52	69.0x3.55	M22x85	SWF250NB62CO	634	SWF250NB62	1214
												SWF250NB62COC	633		
3"	178	216	152.4	71.4	75	16	89.9	65	85.0x3.55	M30x110	SWF3NB62CO	2261	SWF3NB62	1215	
											SWF3NB62COC	2262			

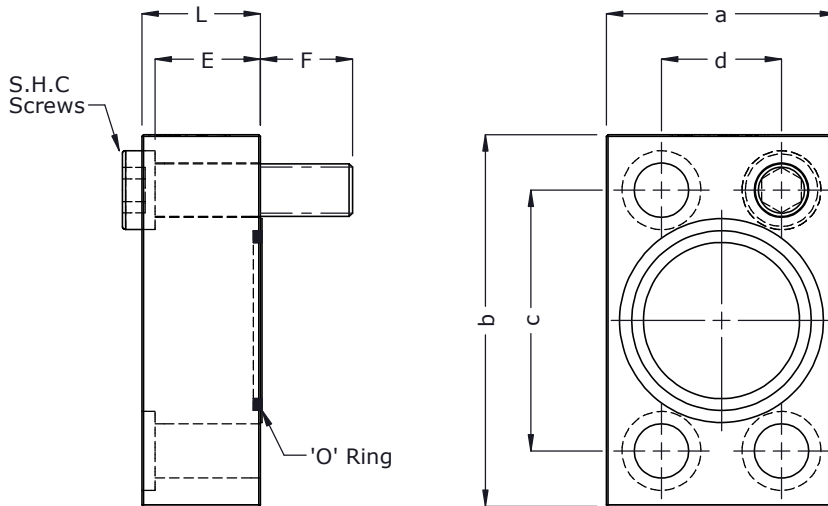
Note: 10.9 Bolts are available in full threads for few size.



Blind Flanges - BF

ISO fittings

Mounting Interface conforms to ISO 6162



Nom Flange Size	Pr. (BAR)	a	b	c	d	E	F	L	'o' Ring (Viton) 90 ±5 Shore	S.H.C Screws (10.9)	Parts		Assembly	
											Part code	Item no_	Part code	Item no_
Standard pressure series (Code 61)														
1/2"	350	33	54	38.1	17.5	13	12	13	19.0x3.55	M8x25	BF05NB61RCO	2598	BF05NB61R	1249
3/4"	350	41	65	47.6	22.3	15	15	15	25.0x3.55	M10x30	BF75NB61RCO	2599	BF75NB61R	1250
1"	350	48	70	52.4	26.2	15	15	17	32.5x3.55	M10x30	BF1NB61RCO	2600	BF1NB61R	1251
1.1/4"	250	54	79	58.7	30.2	15	15	17	37.5x3.55	M10x30	BF125NB61RCO	2601	BF125NB61R	1252
1.1/2"	200	64	94	69.9	35.7	17	18	22	47.5x3.55	M12x35	BF150NB61RCO	2602	BF150NB61R	1253
2"	200	76	102	77.8	42.9	17	18	25	56.0x3.55	M12x35	BF2NB61RCO	2603	BF2NB61R	1254
2.1/2"	160	89	114	88.9	50.8	22	18	27	69.0x3.55	M12x40	BF250NB61RCO	2604	BF250NB61R	1255
3"	100	106	135	106.4	61.9	26	24	30	85.0x3.55	M16x50	BF3NB61RCO	2605	BF3NB61R	1256
3.1/2"	25	119	152	120.7	69.9	26	24	26	97.5x3.55	M16x50	BF350NB61RCO	2606	BF350NB61R	1257
4"	25	132	162	130.2	77.8	26	24	26	112.0x3.55	M16x50	BF4NB61RCO	2607	BF4NB61R	1258
5"	25	151	184	152.4	92.1	26	24	32	136.0x3.55	M16x50	BF5NB61RCO	2608	BF5NB61R	1259
High pressure series (Code 62)														
1/2"	400	38	56	40.5	18.2	18	12	18	19.0x3.55	M8x30	BF05NB62RCO	2609	BF05NB62R	1260
3/4"	400	48	71	50.8	23.8	20	15	20	25.0x3.55	M10x35	BF75NB62RCO	2610	BF75NB62R	1261
1"	400	54	81	57.2	27.8	22	18	22	32.5x3.55	M12x40	BF1NB62RCO	2611	BF1NB62R	1262
1.1/4"	400	60	95	66.6	31.8	22	18	22	37.5x3.55	M12x40	BF125NB62RCO	2612	BF125NB62R	1263
1.1/2"	400	70	113	79.3	36.5	21	24	30	47.5x3.55	M16x45	BF150NB62RCO	2613	BF150NB62R	1264
2"	400	86	133	96.8	44.5	30	30	36	56.0x5.30	M20x60	BF2NB62RCO	2614	BF2NB62R	1265
2.1/2"	400	116	175	123.8	58.7	32	33	50	69.0x5.30	M22x65	BF250NB62RCO	2615	BF250NB62R	1266
3"	400	132	216	152.4	71.4	35	45	63	85.0x3.55	M30x80	BF3NB62RCO	2616	BF3NB62R	1267

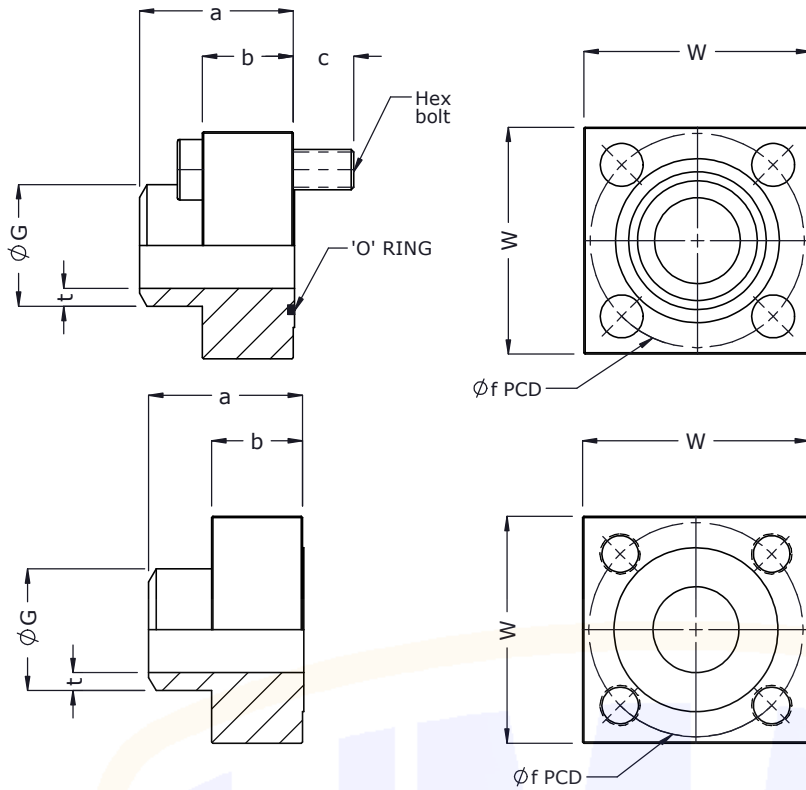
Note: 10.9 Bolts are available in full threads for few size.



Buttweld Solid Flanges - BSF-S

ISO fittings

Mounting Interface conforms to ISO 6164



Flanges
Model : BSF1NB61SCO

Counter Flanges
Model : BSF1NB61SCOC

Standard Pressure Series (Code 61)

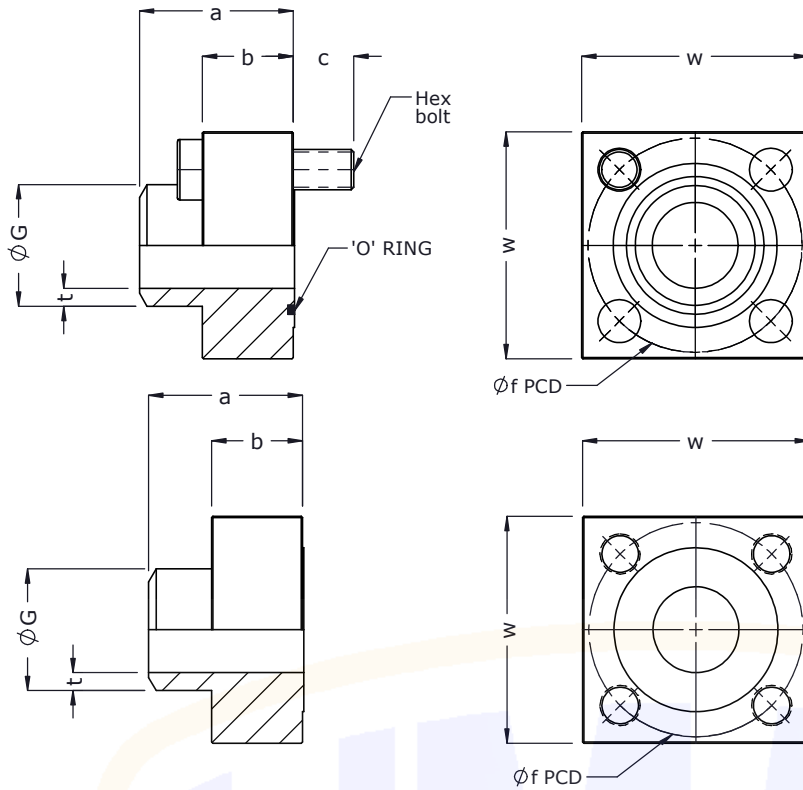
Nom Flange Size	DN Size	G	Pipe Sch	t	f	a	b	c	w	'o' Ring (Viton) 90±5 Shore	Hex bolt (10.9)	Parts		Assembly	
												Part code	Item no.	Part code	Item no.
PN 250 bar															
1/2"	13	21.3	80	3.70	42	30	23	12	45	19.0x3.55	M8x35	BSF05NB61SCO	2263	BSF05NB61S	1216
												BSF05NB61SCOC	2264		
3/4"	19	26.6	80	3.92	50	35	23	12	50	25.0x3.55	M8x35	BSF75NB61SCO	2265	BSF75NB61S	1217
												BSF75NB61SCOC	2266		
1"	25	33.4	80	4.54	62	40	25	15	65	32.5x3.55	M10x40	BSF1NB61SCO	2267	BSF1NB61S	1218
												BSF1NB61SCOC	2268		
1.1/4"	32	42.2	160	6.35	73	45	32	18	75	37.5x3.55	M12x50	BSF125NB61SCO	2269	BSF125NB61S	1219
												BSF125NB61SCOC	2270		
1.1/2"	38	48.3	160	7.13	85	50	36	24	90	47.5x3.55	M16x60	BSF150NB61SCO	2271	BSF150NB61S	1220
												BSF150NB61SCOC	2272		
2"	51	60.3	160	8.71	98	60	41	24	100	56.0x3.55	M16x65	BSF2NB61SCO	2273	BSF2NB61S	1221
												BSF2NB61SCOC	2274		
2.1/2"	56	73.0	160	9.52	118	70	50	30	120	69.0x3.55	M20x80	BSF250NB61SCO	2275	BSF250NB61S	1223
												BSF250NB61SCOC	2276		
3"	63	88.9	160	11.00	145	80	60	30	140	85.0x3.55	M20x90	BSF3NB61SCO	2277	BSF3NB61S	1224
												BSF3NB61SCOC	2278		
4"	80	114.3	160	13.50	175	135	75	45	180	112x3.55	M30x120	BSF4NB61SCO	2279	BSF4NB61S	1225
												BSF4NB61SCOC	2280		

Note: 10.9 Bolts are available in full threads for few size.



Buttweld Solid Flanges - BSF-S

ISO fittings



Flanges
Model : BSF1NB61SCO

Counter Flanges
Model : BSF1NB61SCOC

* Not included in ISO 6164 std

Nom Flange Size	DN Size	ØG	Pipe Sch	t	Øf	a	b	c	w	'o' Ring (Viton) 90 ±5 Shore	Hex bolt (10.9)	Parts		Assembly	
												Part code	Item no_	Part code	Item no_
PN 400 bar															
1/2"	13	21.3	160	4.75	42	40	23	12	45	19.0x3.55	M8x35	BSF05NB64SCO	2281	BSF05NB64S	1226
												BSF05NB64SCOC	2282		
3/4"	19	26.6	160	5.56	50	45	23	12	50	25.0x3.55	M8x35	BSF75NB64SCO	2283	BSF75NB64S	1227
												BSF75NB64SCOC	2284		
1"	25	33.4	160	6.35	62	50	25	15	65	32.5x3.55	M10x40	BSF1NB64SCO	2285	BSF1NB64S	1225
												BSF1NB64SCOC	2286		
1.1/4"	32	42.2	XXS	9.70	73	55	32	18	75	37.5x3.55	M12x50	BSF125NB64SCO	2287	BSF125NB64S	1226
												BSF125NB64SCOC	2288		
1.1/2"	38	48.3	XXS	10.16	85	60	36	24	90	47.5x3.55	M16x60	BSF150NB64SCO	2289	BSF150NB64S	1227
												BSF150NB64SCOC	2290		
2"	51	60.3	XXS	11.07	98	70	41	24	100	56.0x5.30	M16x65	BSF2NB64SCO	2291	BSF2NB64S	1228
												BSF2NB64SCOC	2292		
2.1/2"	56	73.0	XXS	14.02	118	80	50	30	120	69.0x5.30	M20x80	BSF250NB64SCO	2293	BSF250NB64S	1229
												BSF250NB64SCOC	2294		
3"	63	88.9	XXS	15.24	145	105	54	36	150	75.0x5.30	M24x90	BSF3NB64SCO	2295	BSF3NB64S	1230
												BSF3NB64SCOC	2296		
3 1/2"	70	101.6	XXS	16.15	160	105	64	36	160	85.0x5.30	M24x100	BSF350NB64SCO	2297	BSF350NB64S	1231
												BSF350NB64SCOC	2298		
4"	80	114.3	XXS	17.12	175	135	75	45	180	87.5x5.30	M30x120	BSF4NB64SCO	2299	BSF4NB64S	1232
												BSF4NB64SCOC	2300		

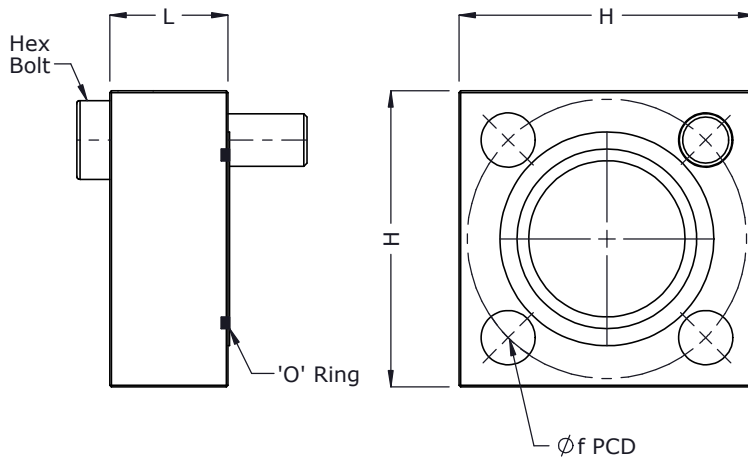
Note: 10.9 Bolts are available in full threads for few size.



Blind Flanges - BF-S

ISO fittings

Mounting Interface conforms to ISO 6164



Nom Flange Size	DN Size	Øf	H	L	'o' Ring (Viton) 90 ±5 Shore	Hex bolt (10.9)	Parts		Assembly	
							Part code	Item no_	Part code	Item no_
PN 250 bar										
1/2"	13	42	45	23	19.0x3.55	M8x35	BF05NB61SCO	2301	BF05NB61	1233
3/4"	19	50	50	23	25.0x3.55	M8x35	BF75NB61SCO	2302	BF75NB61	1234
1"	25	62	65	25	32.5x3.55	M10x40	BF1NB61SCO	2303	BF1NB61	1235
1.1/4"	32	73	75	32	37.5x3.55	M12x50	BF125NB61SCO	2304	BF125NB61	1236
1.1/2"	38	85	90	36	47.5x3.55	M16x60	BF150NB61SCO	2305	BF150NB61	1237
2"	51	98	100	41	56.0x3.55	M16x65	BF2NB61SCO	2306	BF2NB61	1238
2.1/2"	56	118	120	50	69.0x3.55	M20x80	BF250NB61SCO	2307	BF250NB61	1239
3"	63	145	140	60	85.0x3.55	M20x90	BF3NB61SCO	2308	BF3NB61	1240
PN 400 bar										
1/2"	13	42	45	23	19.0x3.55	M8x35	BF05NB64SCO	2309	BF05NB64	1241
3/4"	19	50	50	23	25.0x3.55	M8x35	BF75NB64SCO	2310	BF75NB64	1242
1"	25	62	65	25	32.5x3.55	M10x40	BF1NB64SCO	2311	BF1NB64	1243
1.1/4"	32	73	75	32	37.5x3.55	M12x50	BF125NB64SCO	2312	BF125NB64	1244
1.1/2"	38	85	90	36	47.5x3.55	M16x60	BF150NB64SCO	2313	BF150NB64	1245
2"	51	98	100	41	56.0x5.30	M16x65	BF2NB64SCO	2314	BF2NB64	1246
2.1/2"	56	118	120	50	69.0x5.30	M20x80	BF250NB64SCO	2315	BF250NB64	1247
3"	63	145	150	54	75.0x5.30	M24x90	BF3NB64SCO	2316	BF3NB64	1248
3.1/2"	70	160	160	64	85.0x5.30	M24x100	BF350NB64SCO	2317	BF350NB64	1249
4"	80	175	180	75	87.5x5.30	M30x120	BF4NB64SCO	2318	BF4NB64	1250

Note: 10.9 Bolts are available in full threads for few size.

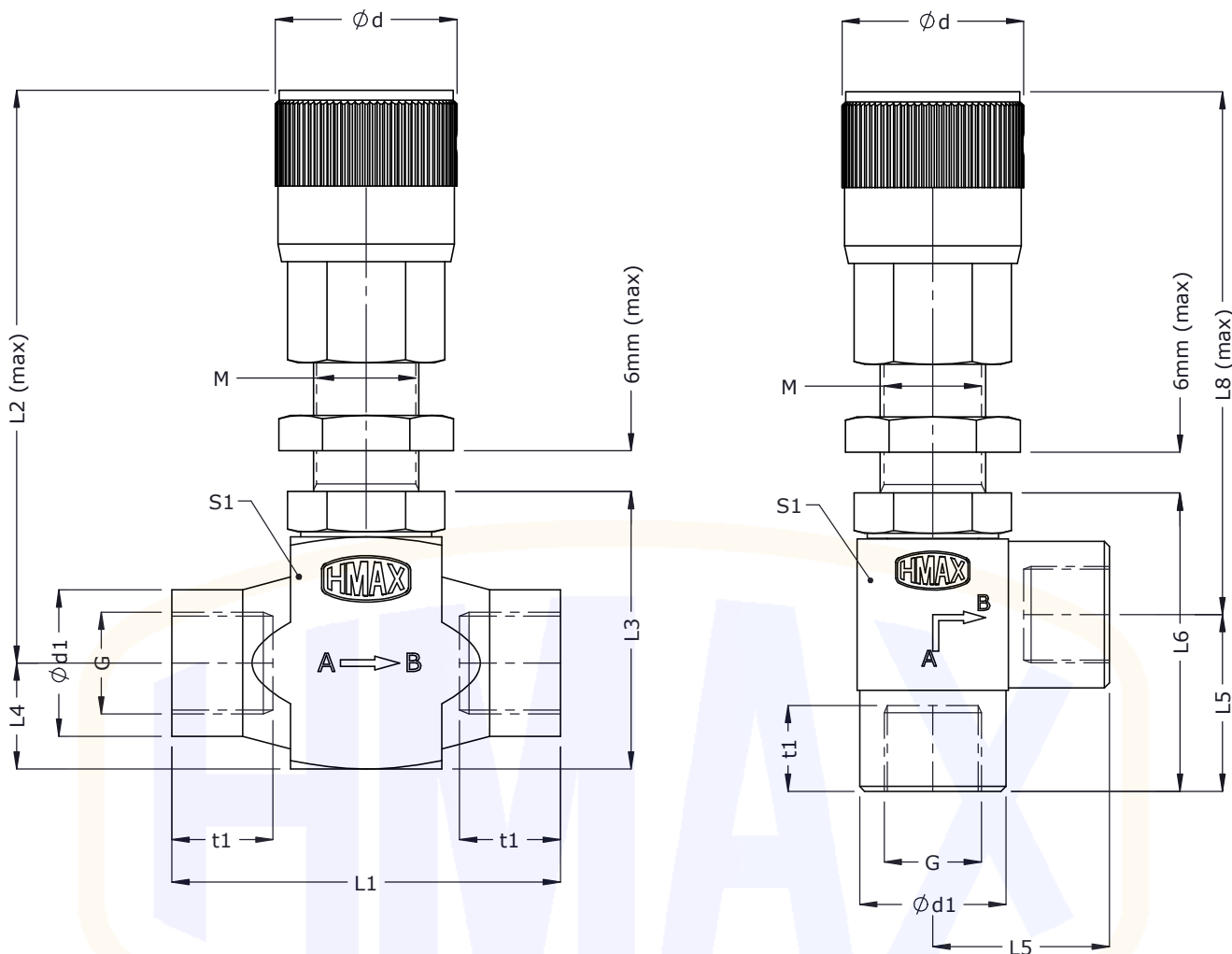


SI. No_	Description	Part Code
1	Shut - off Valve, seat Type BSP Port Mounting	SV
2	Shut - off Valve, seat Type Tube OD Mounting	SVRA
3	Needle Valve, seat Type BSP Port Mounting	NV
4	Needle Valve, seat Type Tube OD Mounting	NVRA
5	Needle Valve, Sub Plat Mounting, Model - NVS06-S	NVS06-S
6	Check Valves (Inline mounting)	CV



Needle Valve, seat Type BSP Port Mounting

ISO fittings



G	M	ϕd	$\phi d1$	t1	L1	L2 (max)	L3	L4	L5	L6	L8 (max)	S1	Part No_Inline	Part No_Right Angle
1/4"	M22x1.5	38	25	17	70.5	102.5	55.5	21.0	30	56.5	103.5	30	NVG02	NVG02RA
3/8"	M22x1.5	38	25	17	70.5	102.5	55.5	21.0	30	56.5	103.5	30	NVG03	NVG03RA
1/2"	M22x1.5	38	29	20	77.0	102.5	55.5	21.0	36	62.5	103.5	30	NVG04	NVG04RA
3/4"	M26x1.5	48	35	22	93.0	116.0	72.0	27.0	45	77.0	110.0	36	NVG06	NVG06RA
1"	M26x1.5	48	45	24	93.0	116.0	72.0	27.0	45	77.0	110.0	46	NVG08	NVG08RA
1.1/4"	M42x2.0	60	58	26	162.0	162.0	105.0	51.5	65	113.0	143.0	60	NVG10	NVG10RA
1.1/2"	M42x2.0	60	58	28	162.0	162.0	105.0	51.5	65	113.0	143.0	60	NVG12	NVG12RA

All dimensions are in mm.

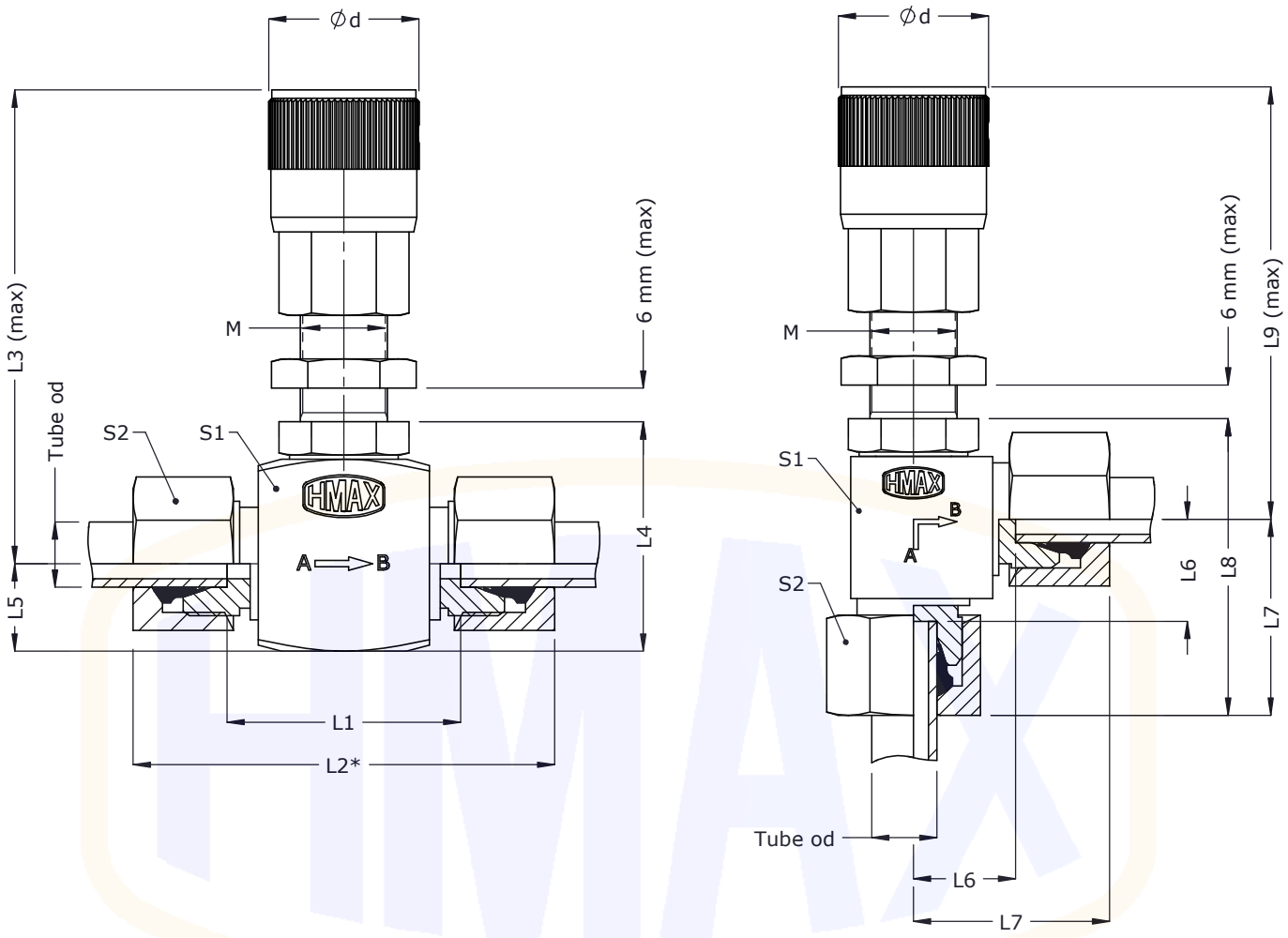
Subject to revision.



Needle Valve, seat Type Tube od Mounting

ISO fittings

An ISO 9001-2015 Certified Co



Tube od	M	∅d	L1	L2*	L3 max	L4	L5	L6	L7	L8	L9 max	S1	S2	Part No_Inline	Part No_Right Angle
10	M22x1.5	38	55	88	110.5	54.5	21	22	39.0	65.5	103.5	30	22	NV10	NV10RA
12	M22x1.5	38	55	88	110.5	54.5	21	22	39.0	65.5	103.5	30	24	NV12	NV12RA
16	M22x1.5	38	60	97	110.5	54.5	21	22	41.0	67.5	103.5	30	30	NV16	NV16RA
20	M26x1.5	48	72	115	122.0	71.5	28	28	68.0	77.0	110.0	36	36	NV20	NV20RA
25	M26x1.5	48	69	117	122.0	71.5	28	28	73.5	82.5	110.0	41	46	NV25	NV25RA
30	M42x2.0	60	135	188	162.0	118.0	52	40	63.0	111.0	143.0	60	50	NV30	NV30RA
38	M42x2.0	60	130	192	162.0	118.0	52	40	67.0	115.0	143.0	60	60	NV38	NV38RA

* Dimensions given are approx figures with tightened nut.



Needle Valve

ISO fittings

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..... 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.

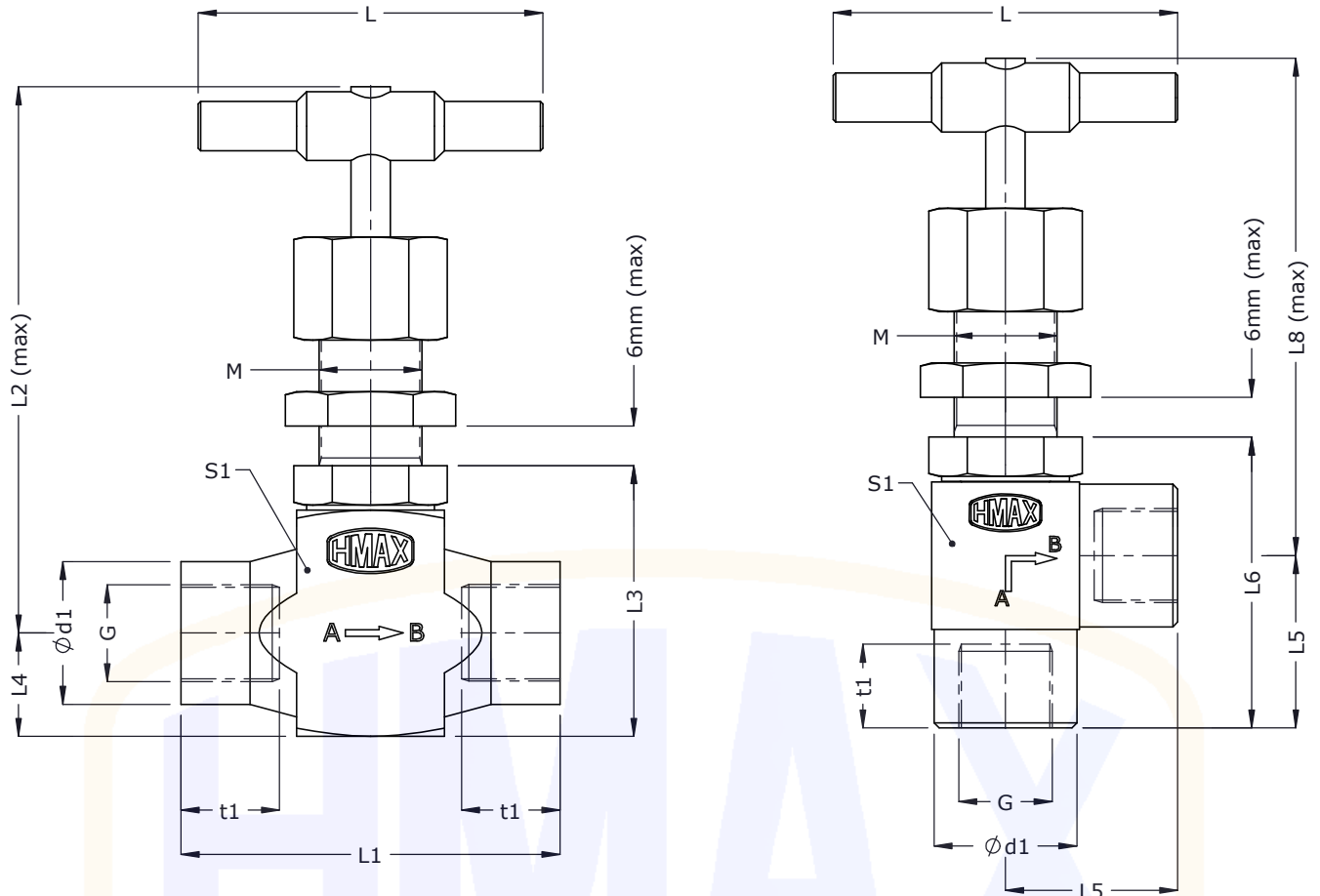


An ISO 9001-2015 Certified Co



Shut-Off Valve, seat Type BSP Port Mounting

ISO fittings



G	M	L	$\phi d1$	t1	L1	L2 (max)	L3	L4	L5	L6	L8 (max)	S1	Part No_Inline	Part No_Right Angle
1/4"	M22x1.5	55	25	17	70.5	102.5	55.5	21.0	30	56.5	103.5	30	SVG02	SVG02RA
3/8"	M22x1.5	55	25	17	70.5	102.5	55.5	21.0	30	56.5	103.5	30	SVG03	SVG03RA
1/2"	M22x1.5	55	29	20	77.0	102.5	55.5	21.0	36	62.5	103.5	30	SVG04	SVG04RA
3/4"	M26x1.5	70	35	22	93.0	116.0	72.0	27.0	45	77.0	110.0	36	SVG06	SVG06RA
1"	M26x1.5	70	45	24	93.0	116.0	72.0	27.0	45	77.0	110.0	46	SVG08	SVG08RA
1.1/4"	M42x2.0	120	58	26	162.0	162.0	105.0	51.5	65	113.0	143.0	60	SVG10	SVG10RA
1.1/2"	M42x2.0	120	58	28	162.0	162.0	105.0	51.5	65	113.0	143.0	60	SVG12	SVG12RA

All dimensions are in mm.

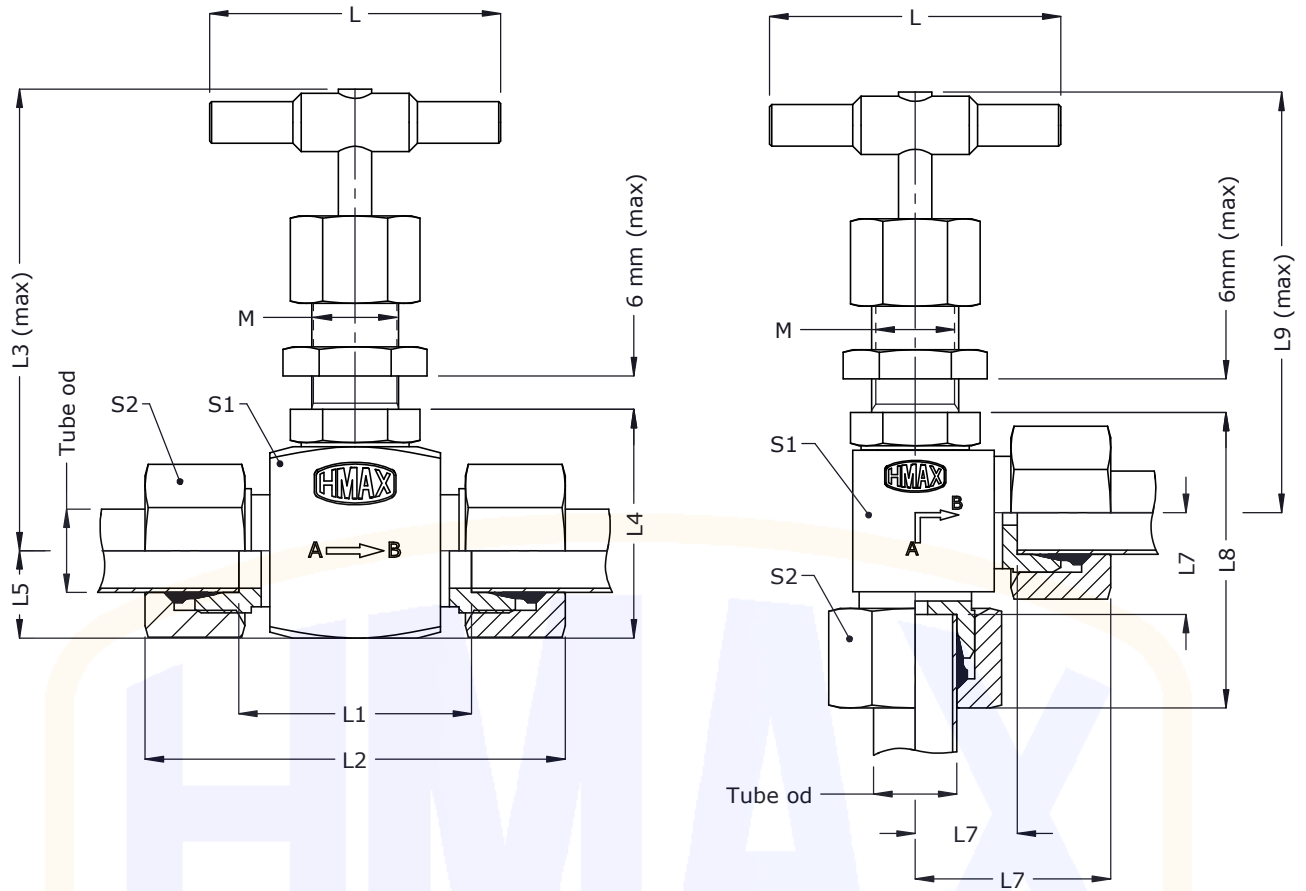
Subject to revision.

An ISO 9001-2015 Certified Co



Shut-Off Valve, seat Type Tube od Mounting

ISO fittings



Tube od	M	L	L1	L2*	L3 max	L4	L5	L6	L7	L8	L9 max	S1	S2	Part No_Inline	Part No_Right Angle
10	M22x1.5	55	55	88	110.5	54.5	21	22	39.0	65.5	103.5	30	22	SV10	SV10RA
12	M22x1.5	55	55	88	110.5	54.5	21	22	39.0	65.5	103.5	30	24	SV12	SV12RA
16	M22x1.5	55	60	97	110.5	54.5	21	22	41.0	67.5	103.5	30	30	SV16	SV16RA
20	M26x1.5	70	72	115	122.0	71.5	28	28	68.0	77.0	110.0	36	36	SV20	SV20RA
25	M26x1.5	70	69	117	122.0	71.5	28	28	73.5	82.5	110.0	41	46	SV25	SV25RA
30	M42x2.0	120	135	188	162.0	118.0	52	40	63.0	111.0	143.0	60	50	SV30	SV30RA
38	M42x2.0	120	130	192	162.0	118.0	52	40	67.0	115.0	143.0	60	60	SV38	SV38RA

* Dimensions given are approx figures with tightened nut.

An ISO 9001-2015 Certified Co



Shut-Off Valve

ISO fittings

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..... 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.



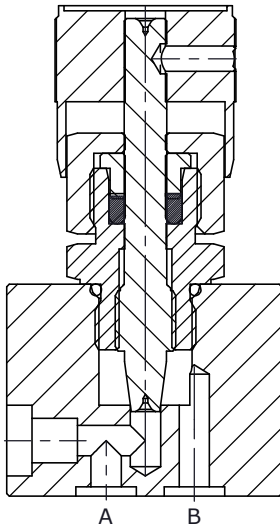
An ISO 9001-2015 Certified Co



Needle Valve, Sub Plat Mounting, Model - NV06-S

ISO Valves

Section



Description

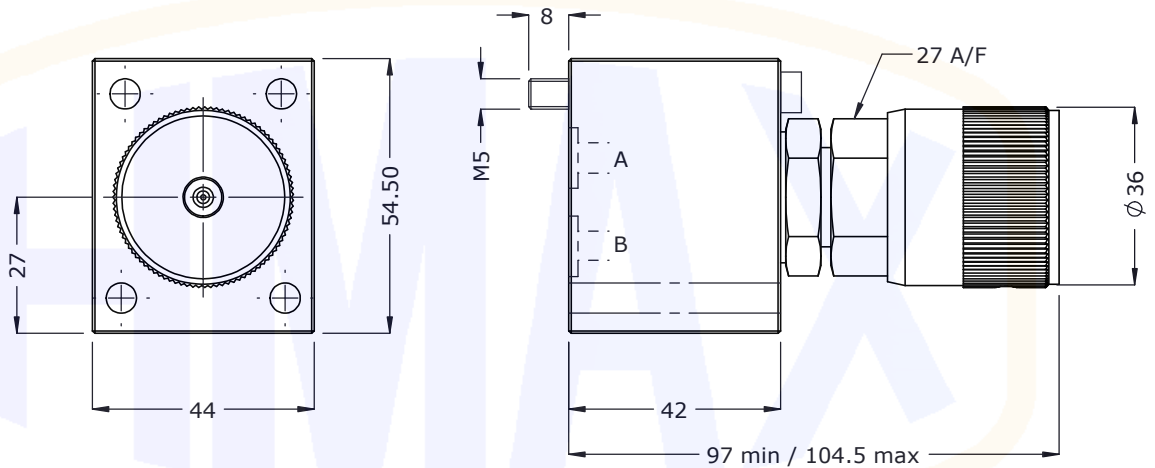
Shut off valves model NVSPM06 are rising spindle, seat type valves with metal to metal seat for leak-free closure between its port 'A' and port 'B'.

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



Hydraulic Symbol

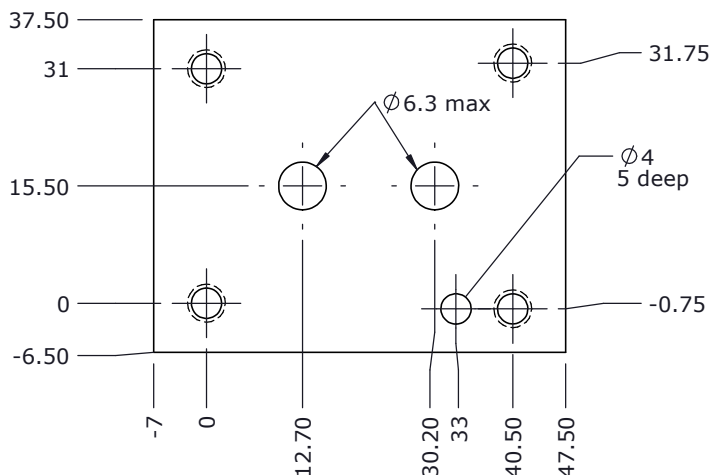
Unit Dimensions



Note : Valve fixing scriws : 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 mm

Mounting Surface flatness : 0.01 mm / 100 mm

All dimensions are in mm.

Subject to revision.

An ISO 9001-2015 Certified Co



Needle Valve, Sub Plat Mounting, Model - NV06-S

ISO Valves

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.

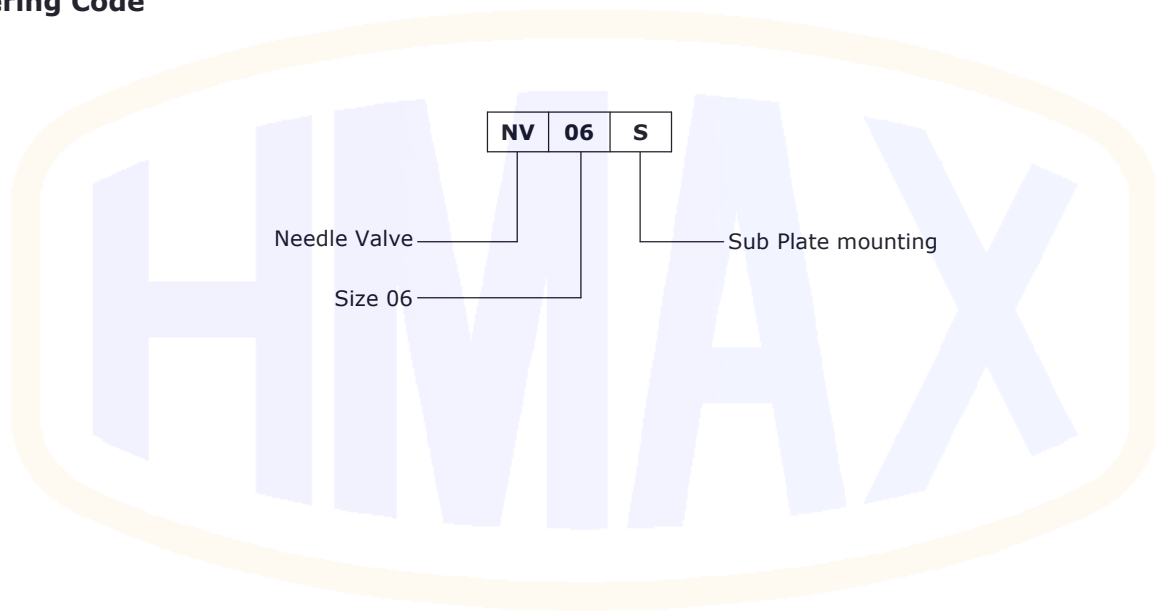
Viscosity range..... 10 cSt to 380 cSt.

Fluid temperature range..... -20 oC to +80 oC.

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

Mass..... 0.9 kg.

Ordering Code



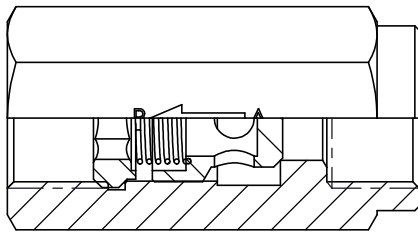
An ISO 9001-2015 Certified Co



Hydraulic Check Valve (Poppet type)

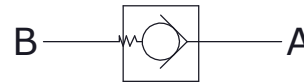
ISO Valves

Section



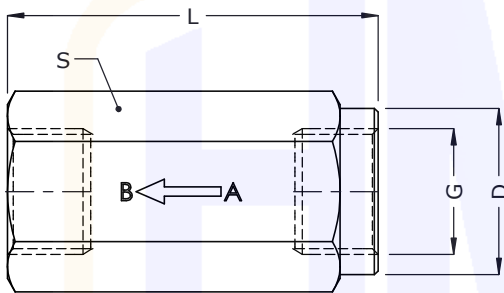
Description

Seat type valves.
Allow free flow Port A to Port B and after leakage free closure in opposite direction.



Hydraulic Symbol

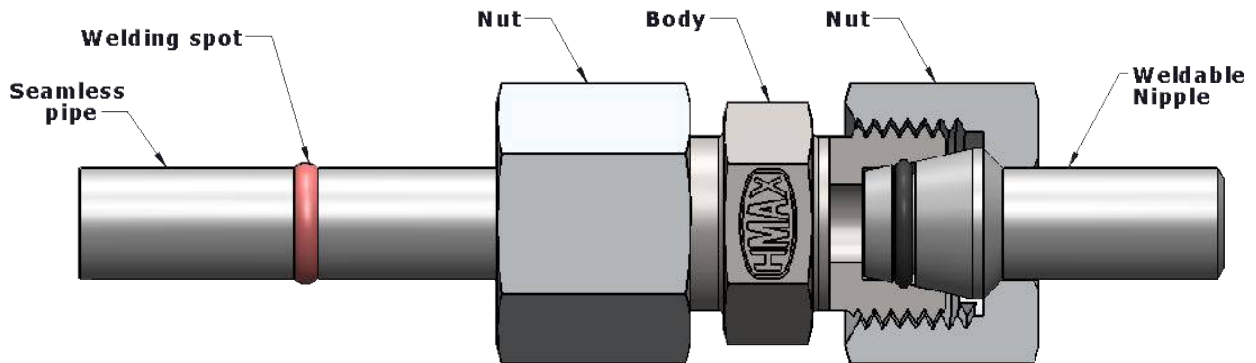
Unit Dimensions



DN	Part No_	L/min	PN(bar)	L	D	S	G BSP Thread
08	CV-02	30	500	62	19	19	1/4"
10	CV-03	45	500	68	24	24	3/8"
12	CV-04	70	500	77	30	30	1/2"
16	CV-06	110	400	88	36	36	3/4"
20	CV-08	160	350	105	41	41	1"
25	CV-10	210	350	130	55	55	1.1/4"
30	CV-12	320	350	138	65	65	1.1/2"
40	CV-16	460	250	160	80	80	2"

Technical Specifications

Construction..... Seat type
 Mounting..... Inline (Thread To Thread Connection)
 Interface..... Factory standard
 Flow direction..... Free flow from A to B Operating
 Hydraulic medium..... Mineral oil
 viscosity range..... 10 °C st to 380 cst.
 Fluid temperature range..... -20°C to +70°C
 Fluid cleanliness requirement As per ISO code 16/13 or better
 Cracking(bursting) pressure available..... 0.5,1.5,3 or 5bar



Weld nipples are assured by an O-ring sealing for a leakfree performance

Weld nipples match to all fittings of the wide range.

Introduction

Weld nipple have been introduction to the market in the late 60's these were are traditionally used for heavy duty application such as hydraulic presses, mining, steel mills and shipbuilding.

Function of the Weld Nipple HYDROMAX Fittings range allows welded tube Connections.

Therefore, the weld-nipple has to be welded onto the tube end. Using the standard nut, this weld nipple can then be connected to the tube joint of any tube fittings. Weld-nipple is available for L and S - series tubes of 6-38/42 mm diameter. A broad range of weld nipple fittings including reducers or elbows covers most applications. The use of weld nipples allows remarkable pipe systems based on rigid weld connections.

Features, Advantages & Benefits of the weld nipple.

Weld nipple feature most advantages of the attractive fitting program. The specific of the weld nipple program are:

1. Low quality tube

Unlike bite-type or flared fittings, dimensional tolerances and rough tube are not very critical. Therefore weld nipples are suitable for countries where only poor quality tube is available.

2. No Phantom leaks

Lubrication is not mandatory for the assembly of weld nipples. The machine operator will not be irritated about lubricant coming out of the fittings once the hydraulic system gets hot.

3. Sealing capability

An elastomeric seal forms the primary sealing element, thus assuring leak free sealing. Even low-viscosity media such as water or gas are hermetically sealed. Hydraulic systems therefore do not "sweat" at fittings.

4. Durability

The O-ring seal is assembled with a high initial compression. It does not require any retightening even after years of operation under severe working conditions.

5. Failure mode

Unlike bite type fittings there is little danger of tube blow off if the fitting is not properly tightened. A loose joint shows excessive leakage before total failure.

6. Reusability/Remake ability

Weld nipples can be disassembled and reassemble many times. There is no wear or widening up of vulnerable inner fitting cone. Damaged O-ring can easily be replaced.

7. Smooth Edge

Under severe working conditions, weld nipple are most likely to crack at the dimensional step just under the nut. In an additional rolling process this critical edge is smoothed for increased vibration strength.

8. Stress-free

by welding, little deviations on to be cutting or bending can be compensated. Tension-free pipe work is not likely to break even under severe working conditions.

9. Welding process

Weld nipples are designed to be used for most popular welding processes.



Design Criteria

Technical Data

Basic system design requires determining the following information:

1. Type of fluid used in the sytem.
2. Corrosive nature of service environment.
3. Operating temperature range.
4. Type of line: pressure, return or suction.
5. Maximum operating pressure, for pressure and return lines.
6. Maximum flow rate.
7. Severity of service: normal, severe, or hazardous.
8. Routing or space restrictions.

System parameter known.....is used to determinewhich can be found in Section.....
Type of fluid used in the system	Fluid compatibility Tube material Fitting and seal material.	Fluid compatibility Tube specifications material.
Corrosive nature of service environment	Plating type Fitting and seal material Tube material	Surface treatment Materials Tube specifications
Operating temperature	Tube and fitting material selection Seal material	Temperature Temperature
Type of line : pressure, for pressure and return lines	Fitting type Fitting series Tube size Tube wall thickness	Tube end selection LL/L/S Series Selection Flow diameter Recommended Design Pr. for Tubes
Maximum operating pressure, return or suction	Fitting type Fitting series male stud design Orientable fittig type Pressure Rating Tube wall thickness	Tube end selection LL/L/S Series Selection Port end selection Orientable fitting selection Pressure Rating Recommended Design Pr. for Tubes
Maximum flow rate	Tube size Pressure drop through fittings Orientation fitting type	Flow diameter Flow Characteristics Orientable Fitting selection
Severity of service: normal, servere, or hazardous	Fitting type Fitting series Male stud design	Type end selection LL/L/S Series Selection Port end selection
Routing for space restrictions	Fitting and tube envelope Fitting series Orientable Fitting type	Fitting Envelope Dimentionions LL/L/S Series Selection Orientable Fitting selection



Tube end selection

Technical Data

Type	Ferrule Type	Weld Nipple Type
Sealing method	Metal seal	Elastomeric seal(O-ring)
International Standard	ISO 8434-1	ISO 8434-1
National Standard	DIN 2353 DIN 3861	DIN 2353 DIN 3861
Tube compatibility	Metal and plastic tube (steel, stainless steel, copper aluminum, polyamide.....)	Weldable steel and stainless steel
Available sizes	4LL - 12LL 6L - 42L 6S - 38S	6L - 42L 6S - 38S
Performance seal reliability	Very good	Excellent
Assembly tube preparation	good	Excellent
Installation	good	Excellent
Field repair	Very good	Difficult
Typical applications	General use in hydraulic, pneumatic, lubrication and coupling systems	Limited use for special application
	Agricultural equipment Process engineering	Heavy machinery Ship building Power plants
Current use	Most popular fitting for metric tube Traditional bite type fitting	Limited use in Northern Europe and Asia

LL/L/S Series selection

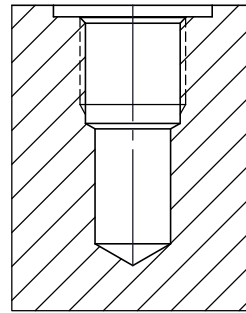
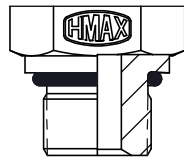
	LL	L	S
Design	very Light	Light	Heavy
Performance Pn (bar) Pmax (bar) Suitability for heavy duty application	100 250 Good	160-315 250-500	315-630 420-900
Tube dimension	4,6,8,10,12	6,8,10,12,15,18,22,28,35,42	6,8,10,12,14,16,20,25,30,38
Assembly Tightening effort Space requirement	Very low Very low	Normal Low	High High
Typical applications	Central lubrication Airbreath systems Fuel lines Oil/gas stoves Micro hydraulics	Machine tools Agricultural Vehicles	hydraulic presses plastic injection molding steel mills shipbuildings mobile construction equipment
Conclusion	Very light design for space limited assemblies in low to medium pressure applications	Medium to high pressure fitting for general use in hydraulic and pneumatic systems	Rigid design for use in heavy-duty applications



Port end selection

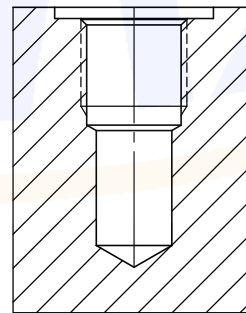
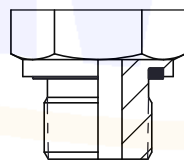
Technical Data

Port end selection: Male studs with Male studs with 'O'ring seal



Port Description	Male studs with 'O'ring sealing	
Thread	Metric	UN/UNF Threads
Thread standard (example)	M16x1.5 ISO261;ISO724;DIN13-T5-T7	3/4-16 UNF ISO725 / ANSI B1.1-1974
Male stud standard	DIN3852 T3,type F ISO 6149-2/3	ISO 11926-2/3
Port tapping standard	DIN3852 T3,type W ISO 6149-1	ISO 11926-1
Performance characteristics - pressure capacity - sealing characteristics - additional sealant required	Very high Very good no	Very high Very good no
Current use	New safe sealing system for all areas of application, especially suitable for high pressure hydraulics. Standard sealling for the future	Predecessor of metric sealing system. Often used in USA.

Port end selection: Male studs with Elastomeric seal



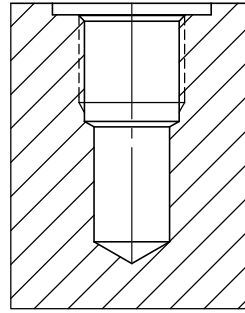
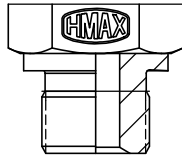
Port Description	Male studs with Elastomeric sealing	
Thread	BSP	Metric
Thread standard (example)	G1/4A DIN/ISO 228-T1	M16x1.5 ISO261;ISO724;DIN13-T5-T7
Male stud standard	DIN3852 T11,type E ISO 1179-2	DIN3852 T11,type E ISO 9974-2
Port tapping standard	DIN3852 T2,type X,Y ISO 1179-1	DIN3852 T1,type X,Y ISO 9974-1
Performance characteristics - pressure capacity - sealing characteristics - additional sealant required	Very high Very good no	Very high Very good no
Current use	Solid, soft sealing male studs. Know worldwide. Well suitable for soften counter material (e.g housing of Al-alloy). Well suitable for usings with gas	Solid, soft sealing male studs. Know worldwide. Well suitable for soften counter material (e.g housing of Al-alloy). Well suitable for usings with gas



Port end selection

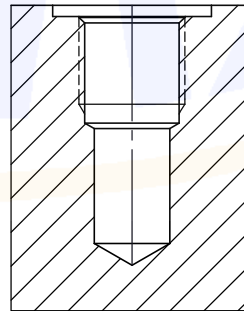
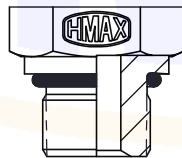
Technical Data

Port end selection: Male studs with sealing by cutting face



Port Description	Male studs with 'O'ring sealing	
Thread	Metric	UN/UNF Threads
Thread standard (example)	M16x1.5 ISO261;ISO724;DIN13-T5-T7	3/4-16 UNF ISO725 / ANSI B1.1-1974
Male stud standard	DIN3852 T3,type F ISO 6149-2/3	ISO 11926-2/3
Port tapping standard	DIN3852 T3,type W ISO 6149-1	ISO 11926-1
Performance characteristics - pressure capacity - sealing characteristics - additional sealant required	Very high Very good no	Very high Very good no
Current use	New safe sealing system for all areas of application, especially suitable for high pressure hydraulics. Standard sealling for the future	Predecessor of metric sealing system. Often used in USA.

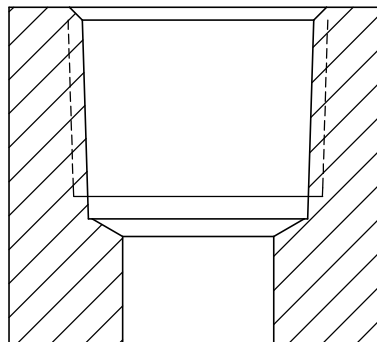
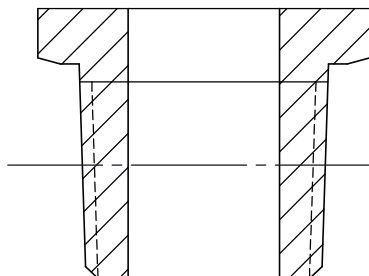
Port end selection: Male studs with Elastomeric seal



Port Description	Male studs with Elastomeric sealing	
Thread	BSP	Metric
Thread standard (example)	G1/4A DIN/ISO 228-T1	M16x1.5 ISO261;ISO724;DIN13-T5-T7
Male stud standard	DIN3852 T11,type E ISO 1179-2	DIN3852 T11,type E ISO 9974-2
Port tapping standard	DIN3852 T2,type X,Y ISO 1179-1	DIN3852 T1,type X,Y ISO 9974-1
Performance characteristics - pressure capacity - sealing characteristics - additional sealant required	Very high Very good no	Very high Very good no
Current use	Solid, soft sealing male studs. Know worldwide. Well suitable for soften counter material (e.g housing of Al-alloy). Well suitable for usings with gas	Solid, soft sealing male studs. Know worldwide. Well suitable for soften counter material (e.g housing of Al-alloy). Well suitable for usings with gas



Male studs with sealing by taper thread



Port Description	Male studs with 'O' ring sealing		
	BSP	Metric	NPT
Thread	R1/4 DIN 3858	M 10 x 1 DIN 158	1/4-18 NPT ANSI/ASME B1.20.1-1983
Thread standard	R1/4 DIN 3858	M 10 x 1 DIN 158	1/4-18 NPT ANSI/ASME B1.20.1-1983
Further standard	GB: 1/4 BSPT Japan: 1/4 BSPT	--	--
Male Studs	DIN 3852 T2, type C	DIN 3852 T2, type C	--
Port Tapping	DIN 3852 T2, type Z	DIN 3852 T2, type Z	--
Performance characteristics -Pressure capacity -Sealing characteristics -Jointing solution required	low medium yes	low medium yes	low medium yes
Current use	Only for low requirements, because port tapping is a parallel thread. Sealing only achieved with fluid or plastic sealing material	Only for low requirements, because port tapping is a parallel thread. Sealing only achieved with fluid or plastic sealing material	US taper pipe thread. Male studs and port tapping are tapered. Sealing only achieved with fluid or plastic sealing material.

An ISO 9001-2015 Certified Co



Material selection: Sealing material

Technical Data

Tube Material: Fitting material:	Steel Steel	Stainless Steel Stainless Steel	Stainless Steel Steel
Performance Characteristics:			
Pressure Capability	Excellent	Excellent	Good
External temperature Capacity	Very Good	Excellent	Very Good
Corrosion resistance	Good	Very Good	Good
Internal media compatibility	Good	Excellent	Good
Assembly Characteristics:			
Ferrule	Excellent	Preassembly	Preassembly with Stainless steel ferrule
Weldable Nipple	Excellent	Excellent	Special functional Nut, required not possible
Typical Application	Machine tools, mobile construction equipment	Shipbuilding, Offshore exploration, Process engineering Paper machines	Some airbrake systems in railway industry wet machinig area on machine tools
Current use	Standard material combination for genaral use in hydraulic or application system	Standard material combination for use with aggressive media environment in corrosive	Special material combination for slightly corrosive

Sealing technology	Metal - to - metal	Nitrile rubber (NBR)
Performance Characteristics:		
High Pressure Capability	Good	Excellent
Low temperature Capacity	Excellent	Very Good
High temperature Capacity	Excellent	Good
Media compatibility	Excellent	Good
Long term reliability	Good	Excellent
Assembly Characteristics:		
Ease of initial assembly	Good	Excellent
Repeated assembly	Good	Excellent
Replacement of seal	Not possible	Easy
Typical applications	Process engineering Agricultural Equipment Mobile construction	Machine tools Hydraulic presses equipment
Current use	Suitable for aggressive media respectively for very low or very high temperatures	General use in - Hydraulic - Pneumatic - Lubrication - Air breake systems



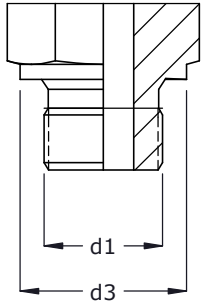
Port end selection for tube fittings

Technical Data

Metric thread according to DIN 3852 part 1 and part 11; ISO 9974-1, 2 and 3
 BSPP/BSPT thread according to DIN 3852 part 2 and part 11; ISO 1179-1, 2, 3 and 4

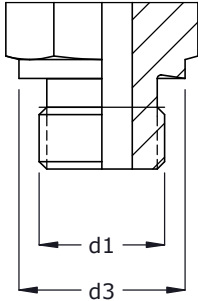
Male stud Type A

Sealing: Sealing washer
 DIN 7603



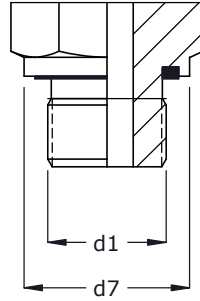
Male stud Type B

Sealing: Cutting face



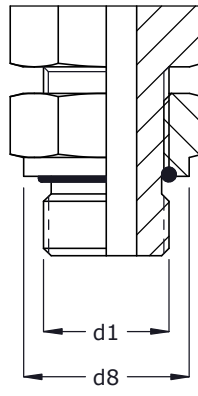
Male stud Type E

Sealing: Elastomeric seal ED



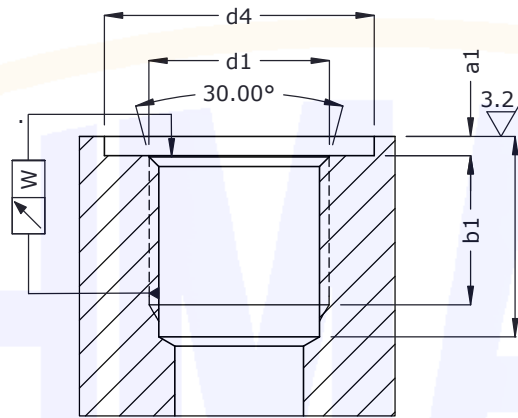
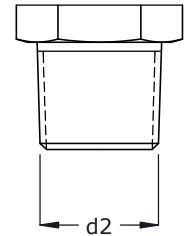
Male stud adjustable Type E

Sealing: 'O' ring

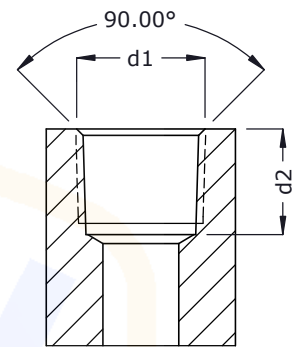


Male stud Type C

Sealing: Taper thread



Port Type 'x'
 (For parallel studs)



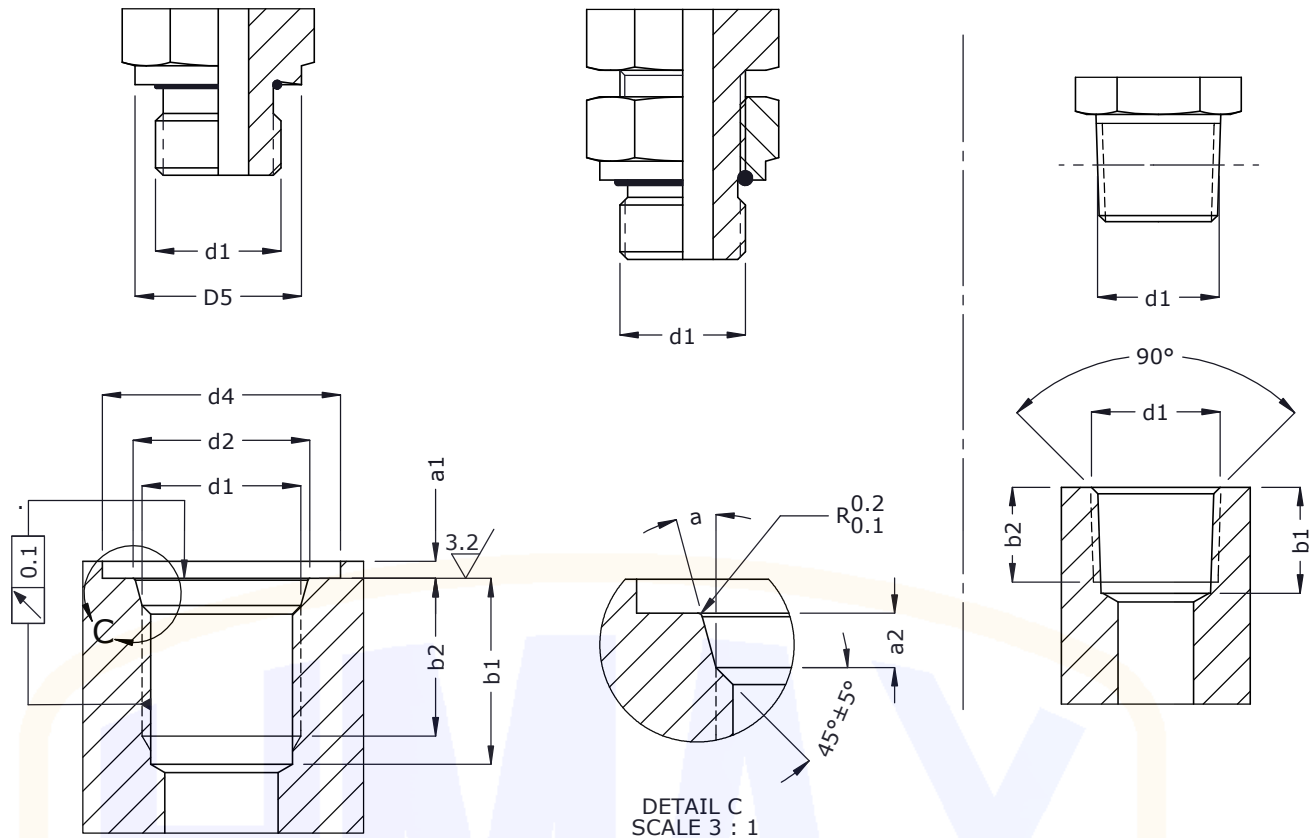
Port Type 'z'
 (For tapered studs) 1)

Thread d ₁	d ₃	d ₇	d ₈	d ₄ min small	d ₄ 0.4 wide	a ₁ max	b ₁ min	Thread d ₂	b ₂ min	W	Identification	
											Thread outer diameter	Thread inner diameter
M 8x1								M 8x1 tap	5.5	0.1	8.00	6.92
M 10x1	14	13.9	14.8	15	20	1.0	8	M 10x1 tap	5.5	0.1	10.00	8.92
M 12x1.5	17	16.9	17.8	18	25	1.5	12	M 12x1.5 tap	8.5	0.1	12.00	10.38
M 14x1.5	19	18.9	19.8	20	25	1.5	12	M 14x1.5 tap	8.5	0.1	14.00	12.38
M 16x1.5	21	21.9	22.8	23	28	1.5	12	M 16x1.5 tap	8.5	0.1	16.00	14.38
M 18x1.5	23	23.9	24.8	25	20	2.0	12	M 18x1.5 tap	8.5	0.1	18.00	16.38
M 20x1.5	25	25.9	26.8	27	34	2.0	14	M 20x1.5 tap	10.5	0.1	20.00	18.38
M 22x1.5	27	26.9	27.8	28	34	2.5	14	M 22x1.5 tap	10.5	0.1	22.00	20.38
M 26x1.5	31	31.9	32.8	33	42	2.5	16	-	-	0.2	26.00	24.38
M 27x2.0	32	31.9	32.8	33	42	2.5	16	-	-	0.2	27.00	24.84
M 33x2.0	39	39.9	40.8	41	47	2.5	18	-	-	0.2	33.00	30.84
M 42x2.0	49	49.9	50.8	51	58	2.5	20	-	-	0.2	42.00	39.84
M 48x2.0	55	54.9	55.8	56	65	2.5	22	-	-	0.2	48.00	45.84
G 1/8 A	14	13.9	14.8	15	19	1.0	8	R 1/8 tap	5.5	0.1	9.73	8.57
G 1/4 A	18	18.9	19.8	20	25	1.5	12	R 1/4 tap	8.5	0.1	13.16	11.45
G 3/8 A	22	21.9	22.8	23	28	2.0	12	R 3/8 tap	8.5	0.1	16.66	14.95
G 1/2 A	26	26.9	27.8	28	34	2.5	14	R 1/2 tap	10.5	0.1	20.96	18.63
G 3/4 A	32	31.9	32.8	33	42	2.5	16	-	-	0.2	26.44	24.12
G 1 A	39	39.9	40.8	41	47	2.5	18	-	-	0.2	33.25	30.29
G 1 1/4 A	49	49.9	50.8	51	58	2.5	20	-	-	0.2	41.91	38.95
G 1 1/2 A	55	54.9	55.8	56	65	2.5	22	-	-	0.2	47.80	44.85

1) Tightness can only be achieved by liquid or plastic sealing aids

An ISO 9001-2015 Certified Co

Metric, UNF/UN, NPT thread, corresponding ANSI/ASME B1.20.1-1983



Thread	d ₁	D ₅	d ₄ min	d ₂ +0.1	a ₁ max	a ₂ ±0.4	b ₁ min	b ₂ min	a +1°	Identification	
										Thread outer diameter	Thread inner diameter
M 8x1		11.8	14	9.10	1.0	1.6	11.5	10.0	12°	8.00	6.92
M 10x1		13.8	16	11.10	1.0	1.6	11.5	10.0	12°	10.00	8.92
M 12x1.5		16.8	19	13.80	1.5	2.4	14.0	11.5	15°	12.00	10.38
M 14x1.5		18.8	21	15.80	1.5	2.4	14.0	11.5	15°	14.00	12.38
M 16x1.5		21.8	24	17.80	1.5	2.4	15.5	13.0	15°	16.00	14.38
M 18x1.5		23.8	26	19.80	2.0	2.4	17.0	14.5	15°	18.00	16.38
M 22x1.5		26.8	29	23.80	2.0	2.4	18.0	15.5	15°	22.00	20.38
M 27x2.0		31.8	34	29.40	2.0	3.1	22.0	19.0	15°	27.00	24.84
M 33x2.0		40.8	43	35.40	2.5	3.1	22.0	19.0	15°	33.00	30.84
M 42x2.0		49.8	52	44.40	2.5	3.1	22.5	19.5	15°	42.00	39.84
M 48x2.0		54.8	57	50.40	2.5	3.1	25.0	22.0	15°	48.00	45.84
7/16-20 UNF-2B		13.8	21	12.40	1.6	2.4	14.0	11.5	12°	11.11	9.74
9/16-18 UNF-2B		16.8	25	15.65	1.6	2.5	15.5	12.7	12°	14.29	12.76
3/4-16 UNF-2B		21.8	30	20.60	2.4	2.5	17.5	14.3	15°	19.05	17.33
7/8-14 UNF-2B		26.8	34	23.95	2.4	2.5	20.0	16.7	15°	22.23	20.26
11/16-12 UN-2B		31.8	41	29.15	2.4	3.3	23.0	19.0	15°	26.99	24.69
15/16-12 UN-2B		40.8	49	35.50	3.2	3.3	23.0	19.0	15°	33.34	31.04
15/8-12 UN-2B		49.8	58	43.50	3.2	3.3	23.0	19.0	15°	41.28	38.99
17/8-12 UN-2B		54.8	65	49.85	3.2	3.3	23.0	19.0	15°	47.63	45.33
1/8-27 NPT							11.6	6.9			
1/4-18 NPT							16.4	10.0			
3/8-18 NPT							17.4	10.3			
1/2-14 NPT							22.6	13.6			
3/4-14 NPT							23.1	14.1			
1-1 1/2 NPT							27.8	16.8			
1 1/4-1 1/2 NPT							28.3	17.3			
1 1/2-1 1/2 NPT							28.3	17.3			

1) Tightness can only be achieved by liquid or plastic sealing aids

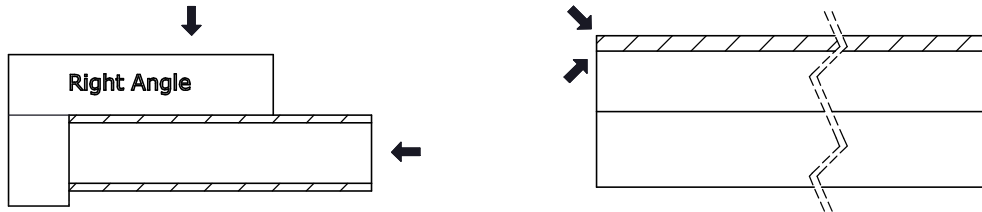
Assembly Instruction:

For proper assembly following assembly instruction shall be followed. Improper assembly may lead to malfunctions or impair safety.

Assembly in fittings body

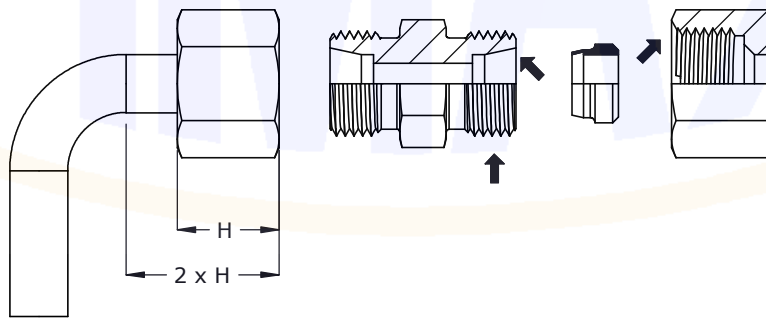
Preparation of Tube & Fitting Parts

- 1] Saw off tube square.
1/2° angle tolerance to the tube axis is permissible. Tube cutter is not recommendable



- 2] Lightly remove chips and particles from the inside and outside cut edges of tube. Bevel up to 0.2mm x 45° is permissible.

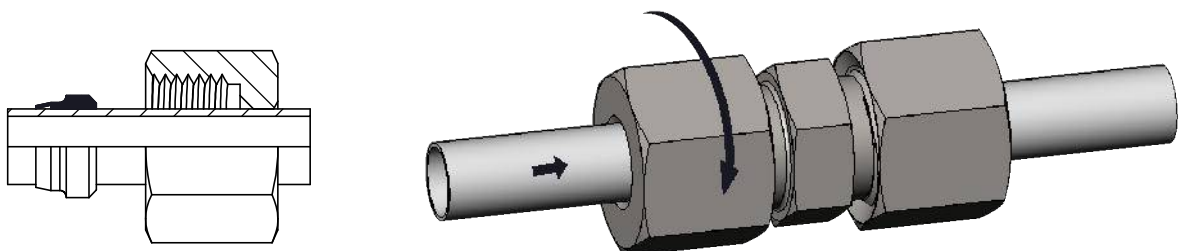
- 3] For tube bend, the minimum height from the straight pipe end to the bending radius must be at least twice the height of the nut.



- 4] Lubricate thread and cone of the fitting body, ring and thread of nut.

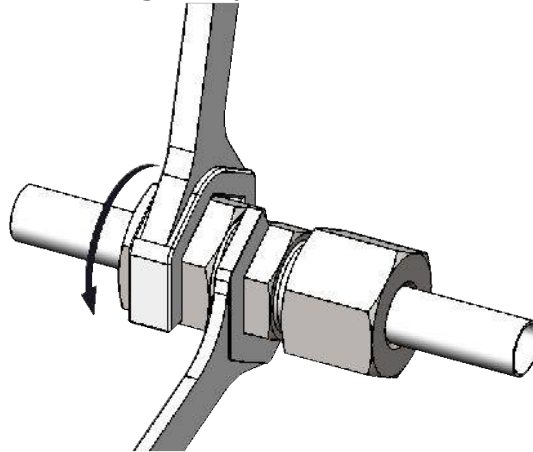
Assembly

- 5] Slip nut and then ring onto the tube end. Ensure that the ring is placed correctly.



- 6] Screw nut manually on to fitting body unit finger tight. Hold the tube against the shoulder in the cone of the fitting body.

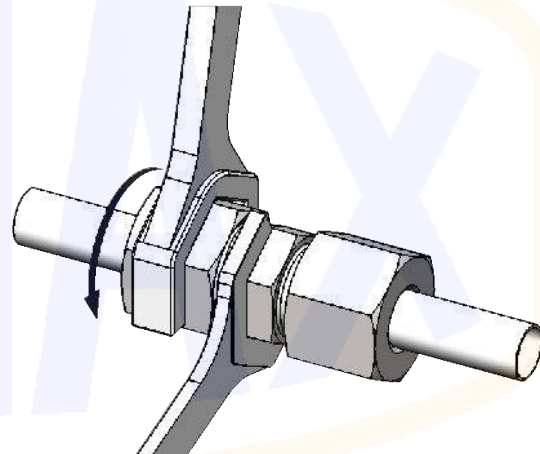
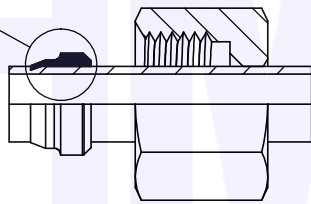
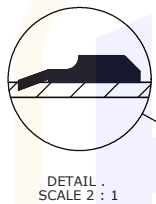
7] Mark nut and tube for measuring the prescribed turns of the nut.



8] Tighten the nut 1 1/2 turns. Tube must not turn with tube. Stop edge of the ring limits overtightening by increasing tightening torque.

Check & Final Assembly

9] Loosen nut and remove ring-mounted tube from fitting. And check if a visible collar has formed on the pipe in front of the first cutting edge. If not, tighten slightly more.



9] Insert the pre-assembled tube into the fitting. While holding fitting body with a wrench, tighten nut approx. 1/2 revolution beyond the point of a clearly perceptible resistance



Tightening Torques for Stud (TTS)

Technical Data

Tightening Torques for Stud (TTS)

- Recommend tightening torques MA
the table below shows the Nm value for studs with metal seal, from B. DIN 3852 or with captive sealing (ED-Ring) to avoid leakings.
- Sealing of taper thread
Taper threads are not self-sealling. To achieve a leakproof seals, an additionnal sealant is necessary. A well-established sealing-medium is a PTFE-tape (e.g.Teflon)
- Note :
The quoted figures relate to fittings out of steel(galvanized) and to counter parts made of steel.
()* These figured relate to studs with captive sealing ED-Ring. For the Male/Female adapters . there apply the tightening torques for series "S"

Series	Tube O,D	Pipe Thread	MA (Nm)	Metric Thread ISO	MA (Nm)
L	6	G 1/8A	25	M10x1	25
	8	G 1/4A	50	M12x1.5	30
	10	G 1/4A	50	M14x1.5	50
	12	G 3/8A	80	M16x1.5	80
	15	G 1/2A	160	M18x1.5	90
	18	G 1/2A	105	M22x1.5	160
	22	G 3/4A	220	M26x1.5	285
	28	G 1 A	370	M33x2.0	425
	35	G 1 1/4A	600	M42x2.0	600
	42	G 1 1/2A	800	M48x2.0	800
S	6	G 1/4A	60	M12x1.5	35
	8	G 1/4A	60	M14x1.5	60
	10	G 3/8A	110	M16x1.5	95
	12	G 3/8A	110	M18x1.5	120
	14	G 1/2A	170	M20x1.5	170
	16	G 1/2A	140	M22x1.5	190
	20	G 3/4A	320	M27x2.0	320
			(250)*		(250)*
	25	G 1 A	380	M33x2.0	500
	30	G 1 1/4A	600	M42x2.0	600
38	G 1 1/2A	800	M48x2.0	800	



PRODUCTS APPLICATION



EARTH MOVING



RAILWAYS



DEFENCE



PETRO-CHEMICAL

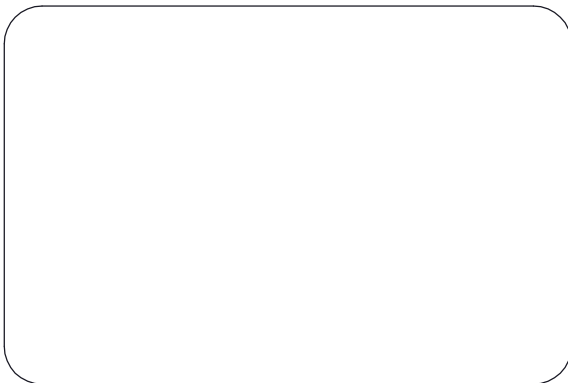


MARINE



CONSTRUCTION

Authorised Dealer



Address:

Regd. Office & Works:

B-18, Sy. no. 590, Machhe Indl. Estate, Machhe, Belgaum-590 014. Karnataka. India.

Tel: +91 831-2412771, Fax: +91 831-2412770

Email: sales@hydromax.in

Web: hydromax.in

An ISO 9001-2015 Certified Co