

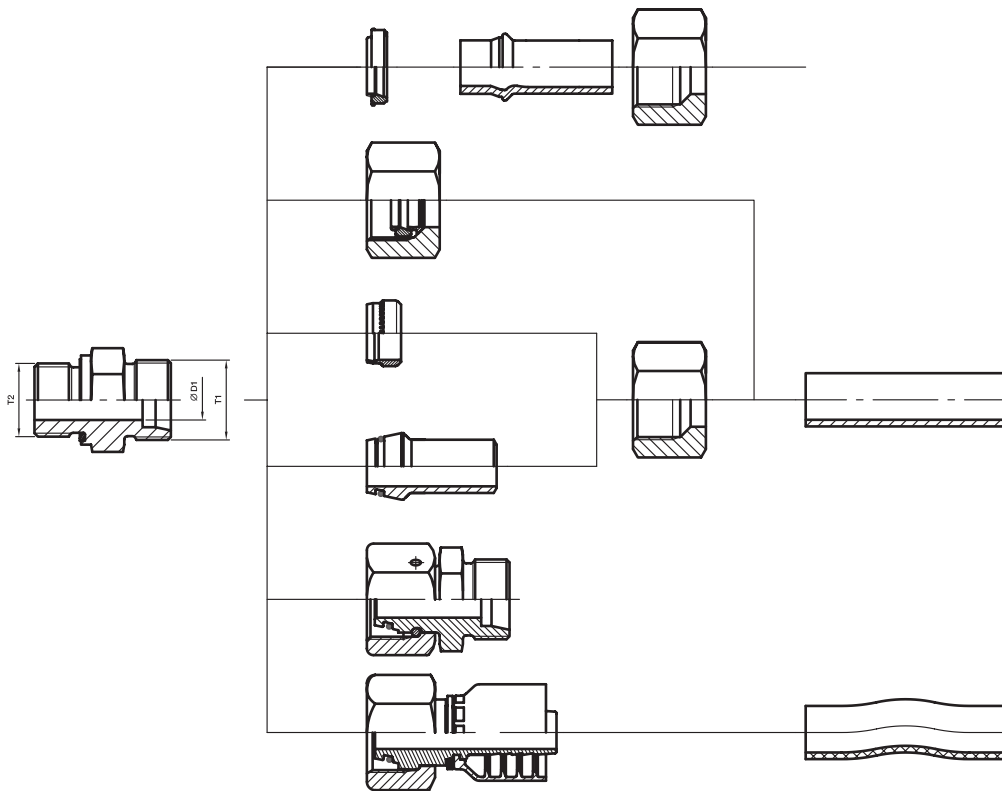


Dimensioning

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Overview EO 24° cone connections



Size	D1 Tube O.D. mm	T1 Thread metric	Thread O.D. mm	T2 Port thread					
				BSPP	metric	BSPT (short)	metric tapered		
LL	04	M 08×1	8.0	G 1/8 A	M 08×1	R 1/8 tap.	M 08×1 tap.		
	05	M 10×1	10.0	G 1/8 A	M 08×1				
	06	M 10×1	10.0	G 1/8 A	M 10×1	R 1/8 tap.	M 10×1 tap.		
	08	M 12×1	12.0	G 1/8 A	M 10×1	R 1/8 tap.	M 10×1 tap.		
	10	M 14×1	14.0	G 1/4 A		R 1/4 tap.			
	12	M 16×1	16.0	G 1/4 A		R 1/4 tap.			
L	06	M 12×1.5	12.0	G 1/8 A	M 10×1		M 10×1 tap.	1CAxx-6-yy	
	08	M 14×1.5	14.0	G 1/4 A	M 12×1.5		M 12×1.5 tap.	1CAxx-8-yy	
	10	M 16×1.5	16.0	G 1/4 A	M 14×1.5		M 14×1.5 tap.	1CAxx-10-yy	
	12	M 18×1.5	18.0	G 3/8 A	M 16×1.5		M 16×1.5 tap.	1CAxx-12-yy	
	15	M 22×1.5	22.0	G 1/2 A	M 18×1.5		M 18×1.5 tap.	1CAxx-15-yy	
	18	M 26×1.5	26.0	G 1/2 A	M 22×1.5		M 22×1.5 tap.	1CAxx-18-yy	
	22	M 30×2	30.0	G 3/4 A	M 26×1.5		M 26×1.5 tap.	1CAxx-22-yy	
	28	M 36×2	36.0	G 1 A	M 33×2			1CAxx-28-yy	
	35	M 45×2	45.0	G 1 1/4 A	M 42×2			1CAxx-35-yy	
	42	M 52×2	52.0	G 1 1/2 A	M 48×2			1CAxx-42-yy	
S	06	M 14×1.5	14.0	G 1/4 A	M 12×1.5		M 12×1.5 tap.	1C9xx-6-yy	
	08	M 16×1.5	16.0	G 1/4 A	M 14×1.5		M 14×1.5 tap.	1C9xx-8-yy	
	10	M 18×1.5	18.0	G 3/8 A	M 16×1.5		M 16×1.5 tap.	1C9xx-10-yy	
	12	M 20×1.5	20.0	G 3/8 A	M 18×1.5		M 18×1.5 tap.	1C9xx-12-yy	
	14	M 22×1.5	22.0	G 1/2 A	M 20×1.5		M 20×1.5 tap.	1C9xx-14-yy	
	16	M 24×1.5	24.0	G 1/2 A	M 22×1.5		M 22×1.5 tap.	1C9xx-16-yy	
	20	M 30×2	30.0	G 3/4 A	M 27×2			1C9xx-20-yy	
	25	M 36×2	36.0	G 1 A	M 33×2			1C9xx-25-yy	
	30	M 42×2	45.0	G 1 1/4 A	M 42×2			1C9xx-30-yy	
		38	M 52×2	52.0	G 1 1/2 A	M 48×2			1C9xx-38-yy

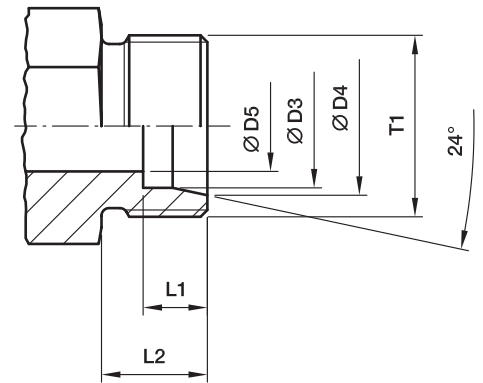
xx - Fitting Series • yy - Hose Size
From Parker hose fitting (HPDE and PFDE)

Dimensioning

Not recommended

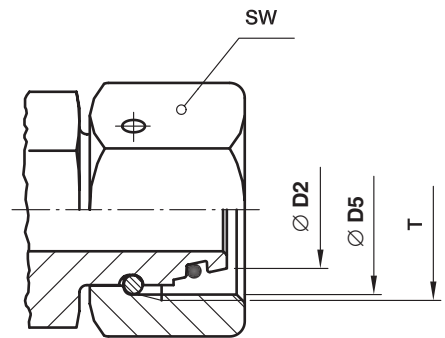
	Reason
	<p>High risk of hose blow off. For ferule assembly special hardened tools are required.</p> <p>With the use of the Universal-connection high risk of cracks in 24° cone area of stud ends sizes 6-L up to 18-L.</p>

EO 24° cone end (DIN 3861/ISO 8434-1)/dimension



Tube O.D. Size	T1	Ø D3 mm	Ø D4 mm	Ø D5 mm	L1 mm	L2 mm
04-LL	M 8×1	04	5.0	3.0	4.1	8
06-LL	M 10×1	06	7.5	4.5	5.6	8
08-LL	M 12×1	08	9.5	6.0	5.6	9
10-LL	M 14×1	10	11.5	8.0	5.6	9
12-LL	M 16×1	12	13.5	10.0	6.1	9
06-L	M 12×1.5	06	8.1	4.0	7.1	10
08-L	M 14×1.5	08	10.1	6.0	7.1	10
10-L	M 16×1.5	10	12.3	8.0	7.1	11
12-L	M 18×1.5	12	14.3	10.0	7.1	11
15-L	M 22×1.5	15	17.3	12.0	7.1	12
18-L	M 26×1.5	18	20.3	15.0	7.6	12
22-L	M 30×2	22	24.3	19.0	7.6	14
28-L	M 36×2	28	30.3	24.0	7.6	14
35-L	M 45×2	35	38.0	30.0	10.6	16
42-L	M 52×2	42	45.0	36.0	11.1	16
06-S	M 14×1.5	06	8.1	4.0	7.1	12
08-S	M 16×1.5	08	10.1	5.0	7.1	12
10-S	M 18×1.5	10	12.3	7.0	7.6	12
12-S	M 20×1.5	12	14.3	8.0	7.6	12
14-S	M 22×1.5	14	16.3	10.0	8.1	14
16-S	M 24×1.5	16	18.3	12.0	8.6	14
20-S	M 30×2	20	22.9	16.0	10.6	16
25-S	M 36×2	25	27.9	20.0	12.1	18
30-S	M 42×2	30	33.0	25.0	13.6	20
38-S	M 52×2	38	41.0	32.0	16.1	22

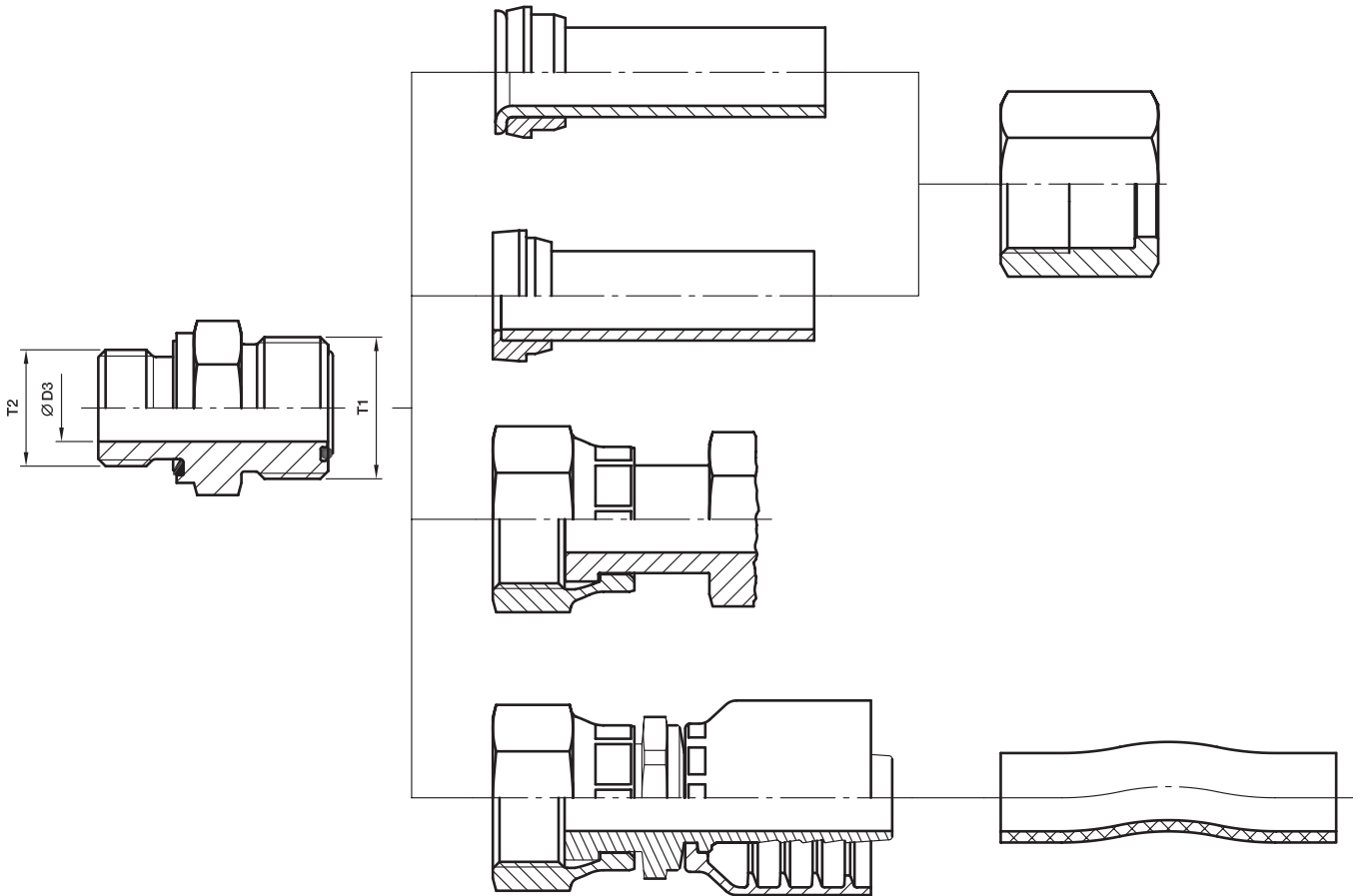
EO 24°-DKO swivel connector (DIN 3865/DIN EN ISO 8434-4)/dimensions



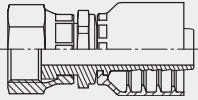
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Tube O.D. Size	T	Ø D2 mm	Ø D5 mm Thread core diameter	SW mm
06-L	M 12×1.5	5.5	10.38	14
08-L	M 14×1.5	7.5	12.38	17
10-L	M 16×1.5	9.7	14.38	19
12-L	M 18×1.5	11.7	16.38	22
15-L	M 22×1.5	14.7	20.38	27
18-L	M 26×1.5	17.7	24.38	32
22-L	M 30×2	21.7	27.84	36
28-L	M 36×2	27.7	33.84	41
35-L	M 45×2	34.5	42.84	50
42-L	M 52×2	41.5	49.84	60
06-S	M 14×1.5	5.5	12.38	17
08-S	M 16×1.5	7.5	14.38	19
10-S	M 18×1.5	9.7	16.38	22
12-S	M 20×1.5	11.7	18.38	24
14-S	M 22×1.5	13.5	20.38	27
16-S	M 24×1.5	15.5	22.38	30
20-S	M 30×2	19.5	29.84	36
25-S	M 36×2	24.5	33.84	46
30-S	M 42×2	29.5	39.84	50
38-S	M 52×2	37.5	49.84	60

Overview O-Lok® connections

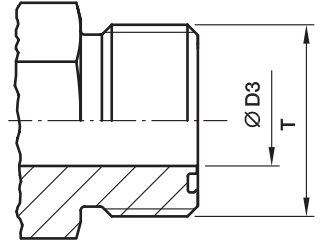


Overview O-Lok® connections

Size	Tube				T1 Thread UN/UNF	Ø D3 Bore diameter mm	T2 Port thread				
	Metric tube O.D. mm	max. Wall thickness mm	Inch tube O.D. inch	max. Wall thickness inch			BSP	UN/UNF	NPTF	metric	
4	6	1.5	1/4	0.065	9/16-18	4.0	G 1/8 A	7/16-20	1/8	M 12x1.5	1JCxx-4-yy
4-4	6	1.5	1/4	0.065		4.5	G 1/4 A		1/4		
4-6	6	1.5	1/4	0.065		4.5	G 3/8 A	9/16-18	3/8		
4-8	6	1.5	1/4	0.065		4.5	G 1/2 A	3/4-16			
6	8	2.0	5/16	0.095	1 1/16-16	6.5	G 1/4 A	9/16-18	1/4	M 16x1.5	1JCxx-6-yy
6	10	2.0	5/16	0.095	1 1/16-16	6.5	G 1/4 A	9/16-18	1/4	M 16x1.5	
6-2	10	2.0	5/16	0.095		4.5	G 1/8 A				
6-4	10	2.0	5/16	0.095		4.5		7/16-20			
6-6	10	2.0	5/16	0.095		6.5	G 3/8 A		3/8		
6-8	10	2.0	5/16	0.095		6.5	G 1/2 A	3/4-16	1/2		
6-10	10	2.0	5/16	0.095		6.5		7/8-14			
6-12	10	2.0	5/16	0.095	6.5	G 3/4 A					
8	12	3.0	1/2	0.095	1 3/16-16	9.5	G 3/8 A	3/4-16	3/8	M 18x1.5	1JCxx-8-yy
8-4	12	3.0	1/2	0.095		7.5	G 1/4 A				
8-6	12	3.0	1/2	0.095		9.5		9/16-18			
8-8	12	3.0	1/2	0.095		9.5	G 1/2 A	1/2			
8-10	12	3.0	1/2	0.095		9.5		7/8-14			
8-12	12	3.0	1/2	0.095		9.5	G 3/4 A	1 1/16-12	3/4		
8-16	12	3.0	1/2	0.095		9.5		1 5/16-12			
10	14	2.5				1-14	12.5	G 1/2 A	7/8-14		
10	15	2.5			1-14	12.5	G 1/2 A	7/8-14	1/2	M 22x1.5	1JCxx-10-yy
10	16	3.0	5/8	0.120	1-14	12.5	G 1/2 A	7/8-14	1/2	M 22x1.5	
10-6	16	3.0	5/8	0.120		10.0	G 3/8 A				
10-8	16	3.0	5/8	0.120		9.5		3/4-16			
10-12	16	3.0	5/8	0.120		12.5	G 3/4 A	1 1/16-12	3/4		
10-16	16	3.0	5/8	0.120		12.5	G 1 A				
12	18	3.0			1 3/16-12	15.5	G 3/4 A	1 1/16-12	3/4	M 27x2	1JCxx-20-yy
12	20	3.5	3/4	0.156	1 3/16-12	15.5	G 3/4 A	1 1/16-12	3/4	M 27x2	
12-8	20	3.5	3/4	0.156		9.5	G 1/2 A	3/4-16	1/2		
12-10	20	3.5	3/4	0.156		12.5		7/8-14			
12-16	20	3.5	3/4	0.156		12.5	G 1 A	1 5/16-12	1		
12-20	20	3.5	3/4	0.156		12.5	G 1 1/4 A				
16	22	4.0			1 7/16-12	20.5	G 1 A	1 5/16-12	1	M 33x2	1JCxx-16-yy
16	25	4.0	1	0.188	1 7/16-12	20.5	G 1 A	1 5/16-12	1	M 33x2	
16-12	25	4.0	1	0.188		15.5	G 3/4 A	1 1/16-12	3/4		
16-20	25	4.0	1	0.188		20.5	G 1 1/4 A	1 5/8-12			
16-24	25	4.0	1	0.188		20.5	G 1 1/2 A				
20	28	4.0			1 11/16-12	26.0	G 1 1/4 A	1 5/8-12	1 1/4	M 42x2	1JCxx-20-yy
20	30	4.0			1 11/16-12	26.0	G 1 1/4 A	1 5/8-12	1 1/4	M 42x2	
20	32	4.0	1 1/4	0.188	1 11/16-12	26.0	G 1 1/4 A	1 5/8-12	1 1/4	M 42x2	
20-16	32	4.0	1 1/4	0.188		21.5	G 1 A	1 5/16-12			
20-24	32	4.0	1 1/4	0.188		26.0	G 1 1/2 A	1 7/8-12			
24	35	4.0			2-12	32.0	G 1 1/2 A	1 7/8-12	1 1/2	M 48x2	1JCxx-24-yy
24	38	5.0	1 1/2	0.220	2-12	32.0	G 1 1/2 A	1 7/8-12	1 1/2	M 48x2	
24-20	38	5.0	1 1/2	0.220		27.5	G 1 1/4 A	1 5/8-12			
32	50	3.0	2	0.120	2 1/2-12	45.0	G 2 A	2 1/2-12		M 60x2	—

xx – Fitting Series • yy – Hose Size
From Parker hose fitting (HPDE and PFDE)

O-Lok® end (ISO 8434-3/SAE J1453)/dimensions

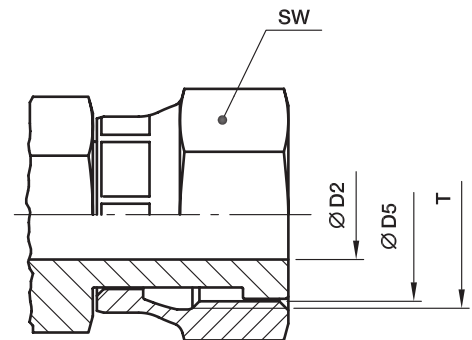


Size	Tube O.D.		T	T	$\varnothing D3$ mm
	inch	mm	UN/UNF	Major thread \varnothing mm	
4	1/4	6	9/16-18	14.0	5.0
6	5/16. 3/8	8, 10	1 1/16-16	17.0	6.5
8	1/2	12	1 3/16-16	20.5	9.5
10	5/8	14, 15, 16	1-14	25.0	12.5
12	3/4	18, 20	1 3/16-12	30.0	15.5
16	7/8. 1	22, 25	1 7/16-12	36.0	20.5
20	1 1/4	28, 30, 32	1 11/16-12	42.5	26.0
24	1 1/2	35, 38	2-12	50.5	32.0
32	2	50	2 1/2-12	63.0	45.0

All dimensions shown are nominal for identification only.

Small deviations may be found between SAE J1453 or ISO 8484-3 on bore sizes.

O-Lok® swivel connector (ISO 8434-3/SAE J1453)/dimensions

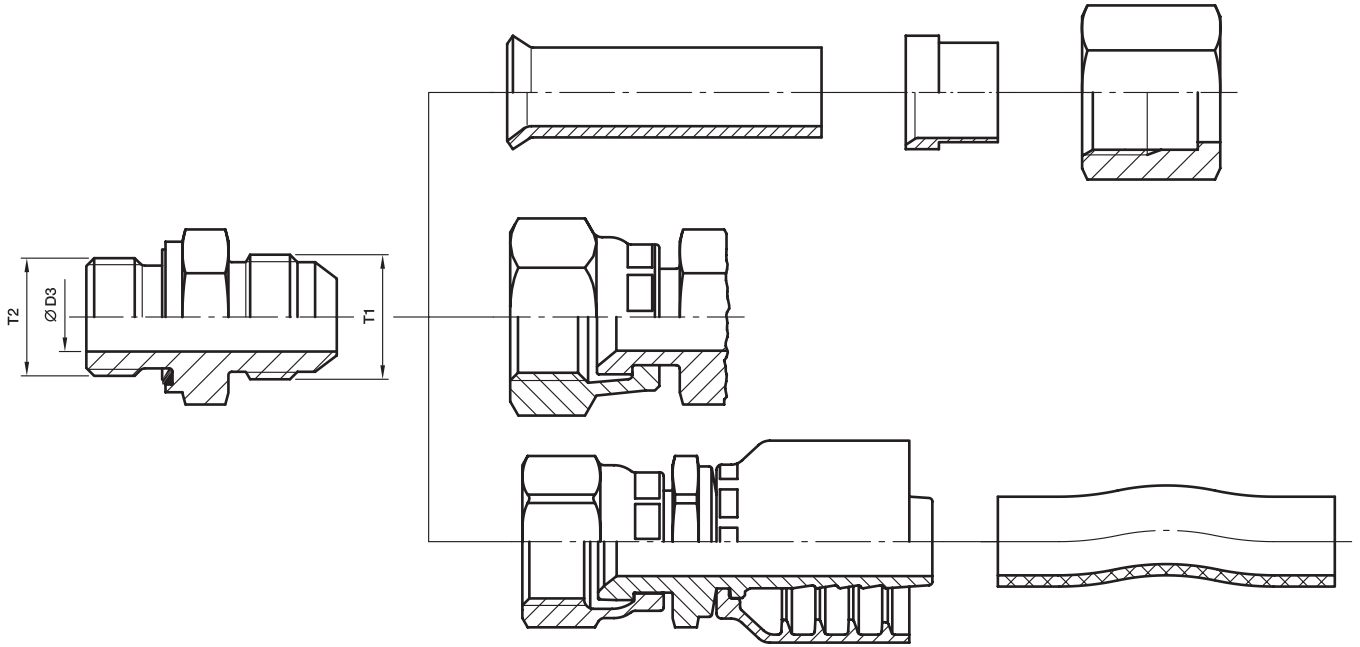


Size	Tube O.D.		T UN/UNF	Ø D5 Thread core diameter mm	SW mm	Ø D2 mm
	inch	mm				
4	1/4	6	9/16-18	12.5	17	4.0
6	5/16, 3/8	8, 10	1 1/16-16	16.0	22	6.5
8	1/2	12	1 3/16-16	19.0	24	9.0
10	5/8	14, 15, 16	1-14	23.0	30	11.5
12	3/4	18, 20	1 3/16-12	28.0	36	14.0
16	7/8, 1	22, 25	1 7/16-12	34.0	41	20.0
20	1 1/4	28, 30, 32	1 11/16-12	40.5	50	26.0
24	1 1/2	35, 38	2-12	48.0	60	32.0

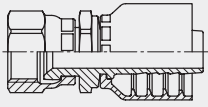
All dimensions shown are nominal for identification only.

Small deviations may be found between SAE J1453 or ISO 8484-3 on bore sizes.

Overview Triple-Lok® connections



Overview Triple-Lok® connections

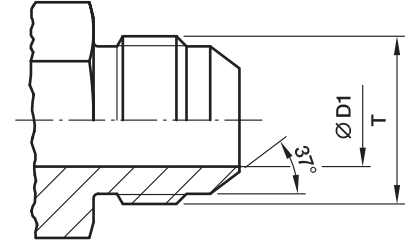
Size	Tube				T1 Thread diameter	Ø D3 Bore BSPP mm	T2 Port thread		M	
	Metric tube O.D. thickness mm	max. Wall mm	Inch tube O.D. thickness inch	max. Wall UN/UNF inch			UN/UNF (BSPT, NPTF)	metric		
4	6	1.5	1/4	0.065	7/16-20	4.5	G 1/8 A	7/16-20	M 10x1.0	168xx-4-yy
4-4	6	1.5	1/4	0.065		4.5	G 1/4 A			
4-5	6	1.5	1/4	0.065		4.5		1/2-20		
4-6	6	1.5	1/4	0.065		4.5	G 3/8 A	9/16-18		
4-8	6	1.5	1/4	0.065		4.5	G 1/2 A			
5	8	1.5	5/16	0.065	1/2-20	6.0	G 1/8 A	1/2-20	M 12x1.5	168xx-5-yy
5-4	8	1.5	5/16	0.065		6.0	G 1/4 A			
5-6	8	1.5	5/16	0.065		6.0	G 3/8 A			
5-8	8	1.5	5/16	0.065		6.0	G 1/2 A			
6-2	10	1.5	3/8	0.065		9/16-18	7.5	G 1/8 A		
6	10	1.5	3/8	0.065	7.5		G 1/4 A	9/16-18		
6-6	10	1.5	3/8	0.065	7.5		G 3/8 A			
6-8	10	1.5	3/8	0.065	7.5		G 1/2 A	3/4-16		
8-4	12	2.0	1/2	0.083	3/4-16		10.0	G 1/4 A		M 16x1.5 M 18x1.5
8	12	2.0	1/2	0.083		10.0	G 3/8 A	3/4-16		
8-8	12	2.0	1/2	0.083		10.0	G 1/2 A			
8-10	12	2.0	1/2	0.083		10.0		7/8-14		
8-12	12	2.0	1/2	0.083		10.0	G 3/4 A	1 1/16-12		
10-6	14, 15, 16	2.5	5/8	0.095	7/8-14	12.5	G 3/8 A		M 18x1.5 M 22x1.5	168xx-10-yy
10-8	14, 15, 16	2.5	5/8	0.095		12.5		3/4-16		
10	14, 15, 16	2.5	5/8	0.095		12.5	G 1/2 A	7/8-14		
10-12	14, 15, 16	2.5	5/8	0.095		12.5	G 3/4 A	1 1/16-12		
12-8	18, 20	3.0	3/4	0.109		1 1/16-12	15.5	G 1/2 A		
12-10	18, 20	3.0	3/4	0.109	15.5			7/8-14		
12	18, 20	3.0	3/4	0.109	15.5		G 3/4 A	1 1/16-12		
12-16	18, 20	3.0	3/4	0.109	15.5		G 1 A	1 5/16-12		
14	22	3.0	7/8	0.109	1 3/16-12		18.0	G 3/4 A	1 3/16-12	
14-16	22	3.0	7/8	0.109	1 3/16-12	18.0	G 1 A	1 5/16-12	M 27x2.0	—
16-12	25	3.0	1	0.120	1 5/16-12	21.5	G 3/4 A	1 1/16-12	M 33x2.0	106xx-16-yy
16	25	3.0	1	0.120		21.5	G 1 A	1 5/16-12		
16-20	25	3.0	1	0.120		21.5	G 1 1/4 A	1 5/8-12		
20-12	28, 30, 32	3.0	1 1/4	0.120		1 5/8-12	27.5	G 3/4 A		
20-16	28, 30, 32	3.0	1 1/4	0.120	27.5		G 1 A			
20	28, 30, 32	3.0	1 1/4	0.120	27.5		G 1 1/4 A	1 5/8-12		
24-20	35, 38	4.0	1 1/2	0.120	1 7/8-12	33.0	G 1 1/4 A		M 48x2.0	106xx-24-yy
24	35, 38	4.0	1 1/2	0.120		33.0	G 1 1/2 A	1 7/8-12		
28-24	42	3.0			2 1/4-12	39.0	G 1 1/2 A			—
32	50	3.5	2	0.134	2 1/2-12	45.0	G 2 A	2 1/2-12		106xx-32-yy

xx – Fitting Series • yy – Hose Size
From Parker hose fitting
(HPDE and PFDE)

D

Dimensioning

Triple-Lok® end (ISO 8434-2/SAE J514)/dimensions



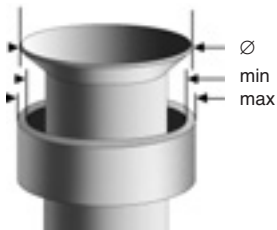
Size	Tube O.D.		T UN/UNF	T Major thread Ø mm	Ø D1 mm
	inch	mm			
4	1/4	6	7/16-20	11.0	4.5
5	5/16	8	1/2-20	12.5	6.0
6	3/8	10	9/16-18	14.0	7.5
8	1/2	12	3/4-16	19.0	10.0
10	5/8	14, 15, 16	7/8-14	22.0	12.5
12	3/4	18, 20	1 1/16-12	27.0	15.5
14	7/8	22	1 3/16-12	30.0	18.0
16	1	25	1 5/16-12	33.0	21.5
20	1 1/4	28, 30, 32	1 5/8-12	41.0	27.5
24	1 1/2	35, 38	1 7/8-12	47.5	33.0
28*	1 3/4	42	2 1/4-12	57.0	39.0
32	2	—	2 1/2-12	63.5	45.0

*Size 28 is not part of SAE J514 or ISO 8434-2.

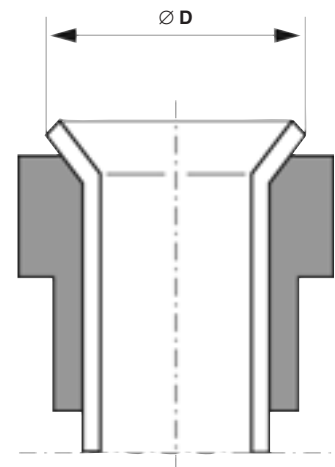
All dimensions shown are nominal for identification only.

Small deviations may be found between SAE J514 or ISO 8484-2 on bore sizes.

Suitable Flare

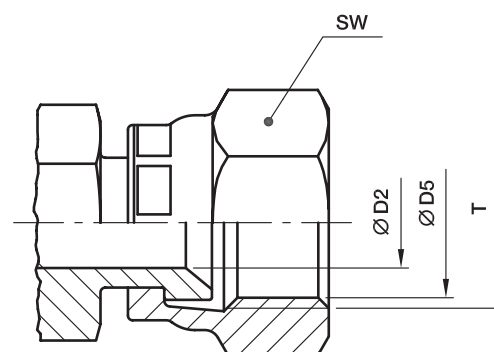


Tube O.D.		Ø D	
mm	inch	Min.	Max.
6	1/4"	8.6	9.7
8	5/16"	10.2	11.3
10	3/8"	11.7	12.7
12	1/2"	16.0	17.3
14		19.3	20.2
15		19.3	20.2
16	5/8"	19.3	20.2
18		23.4	24.7
20	3/4"	23.4	24.7
22	7/8"	26.5	27.8
25	1"	29.7	31.0
28		37.6	38.9
30		37.6	38.9
32	1.1/4"	37.6	38.9
35		43.2	45.3
38	1.1/2"	43.2	45.3
42		52.0	54.8
	2"	59.2	61.2



37°-Flare acc. ISO 8434-2 not compatible with Flare according DIN 3949.

Triple-Lok® swivel connector (ISO 8434-2/SAE J514)/dimensions



D

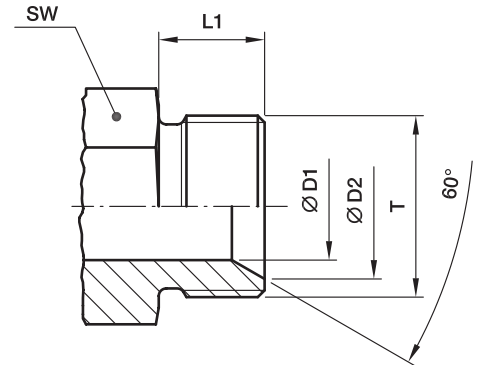
Size	Tube O.D.		T UN/UNF	SW mm	Ø D5 Thread core diameter mm	Ø D2 mm
	Inch	mm				
4	1/4	6	7/16-20	17	10.0	4.4
5	5/16	8	1/2-20	17	11.5	6.0
6	3/8	10	9/16-18	19	13.0	7.5
8	1/2	12	3/4-16	22	17.5	9.9
10	5/8	14, 15, 16	7/8-14	27	20.5	12.3
12	3/4	18, 20	1 1/16-12	32	25.0	15.5
14	7/8	22	1 3/16-12	35	28.0	18.0
16	1	25	1 5/16-12	38	31.0	21.5
20	1 1/4	28, 30, 32	1 5/8-12	50	39.0	27.5
24	1 1/2	35, 38	1 7/8-12	60	45.5	33.0
32	2	—	2 1/2-12	75	61.5	45.0

All dimensions shown are nominal for identification only.

Small deviations may be found between SAE J514 or ISO 8484-2 on bore sizes.

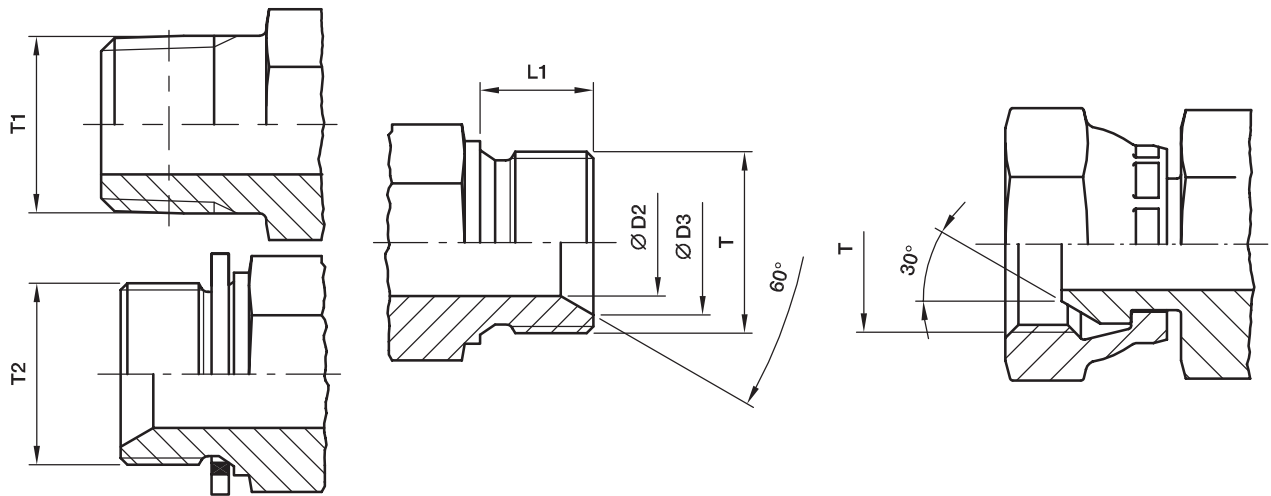
Dimensioning

DIN 60° cone end (DIN 7631)/dimensions



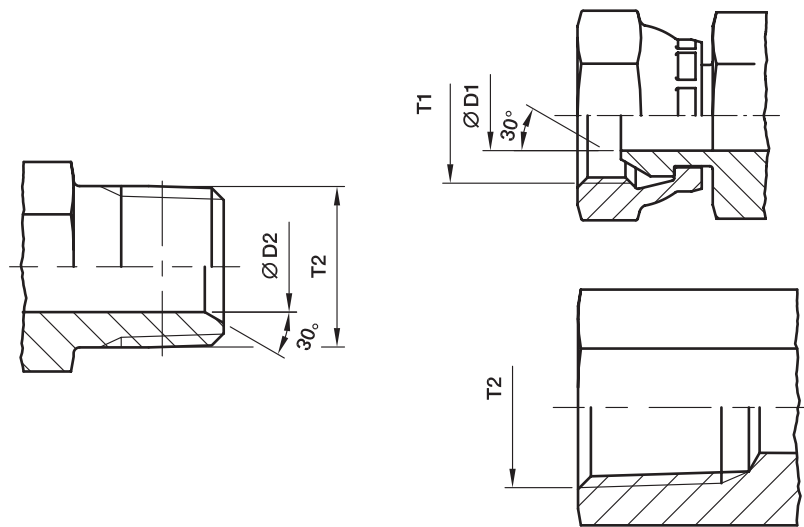
Tube O.D. mm	T	Ø D1 mm	Ø D2 mm	L1 mm	SW mm
4-5	M 10×1.5	3	8.0	8	11
06	M 12×1.5	4	9.0	10	12
08	M 14×1.5	6	11.0	10	14
10	M 16×1.5	8	13.0	11	17
12	M 18×1.5	10	15.0	11	19
15	M 22×1.5	12	19.0	12	24
18	M 26×1.5	15	22.0	12	27
22	M 30×1.5	19	26.0	14	32
28	M 38×1.5	25	33.0	14	41
35	M 45×1.5	32	40.0	16	46
42	M 52×1.5	39	47.0	16	55

Adapter 60° cone end (ISO/DIS 8434-6)/dimensions



Size	T BSPP	D2 mm	D3 mm	L1 mm	T1		T2 BSPP
					BSPT	NPT(F)	
02	G 1/8 A	3.5	7.5	8	1/8	1/8	1/8
					1/4	1/4	
04	G 1/4 A	4.7	10.4	11	1/4	1/4	1/4
					1/8	1/8	
					3/8	3/8	
06	G 3/8 A	7.9	14.0	12	3/8	3/8	3/8
					1/4	1/4	
					1/2	1/2	
08	G 1/2 A	11.1	17.5	14	1/2	1/2	1/2
					3/8	3/8	
						3/4	
10	G 5/8 A	14.3	19.3	16	1/2		1/2
					3/4		
12	G 3/4 A	16.7	22.9	16	3/4	3/4	3/4
					1/2	1/2	
					1	1	
16	G 1 A	22.2	28.7	19	1	1	1
					3/4	3/4	
20	G 1 1/4 A	28.6	36.8	22	1 1/4		3/4
24	G 1 1/2 A	33.3	42.7	22	1 1/2		1
32	G 2 A	46.0	54.6	25			1 1/2

NPSM Swivel adapters (SAE J516)/dimensions

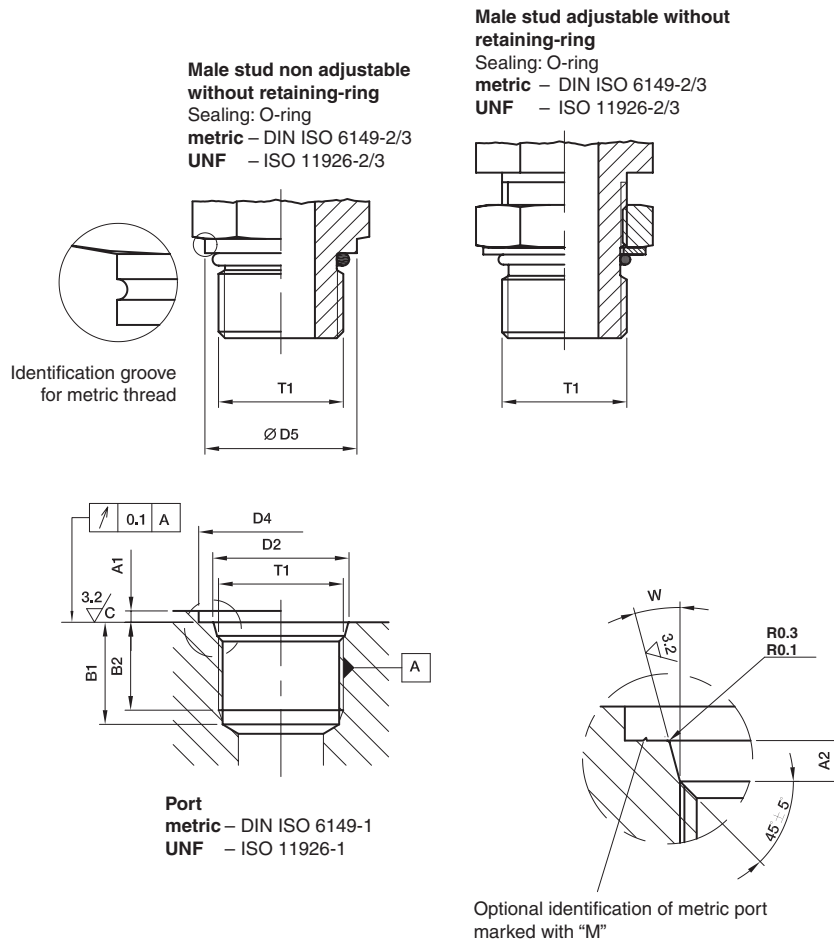


Size	T1 Thread NPSM	ØD1 mm	ØD2 mm	T2 Thread NPTF
2-2	1/8-27	4.0	5.0	1/8-27
2-4	1/4-18	5.6	7.0	1/8-27
4-4	1/4-18	5.6	7.0	1/4-18
4-6	3/8-18	8.8	10.0	1/4-18
4-8	1/2-14	12.0	13.5	1/4-18
6-4	1/4-18	5.6	7.0	3/8-18
6-6	3/8-18	8.8	10.0	3/8-18
6-8	1/2-14	12.0	13.5	3/8-18
8-4	1/4-18	5.6	7.0	3/4-16
8-6	3/8-18	8.8	10.0	1/2-14
8-8	1/2-14	12.0	13.5	1/2-14
8-12	3/4-14	16.3	18.0	1/2-14
10-6	3/8-18	8.8	10.0	7/8-14
10-8	1/2-14	12.0	13.5	7/8-14
10-12	3/4-14	16.3	18.0	7/8-14
12-6	3/8-18	8.8	10.0	3/4-14
12-8	1/2-14	12.0	13.5	3/4-14
12-12	3/4-14	16.3	18.0	3/4-14
12-16	1-11 1/2	21.4	28.9	
16-12	3/4-14	16.3	13.5	1-11 1/2
16-16	1-11 1/2	21.4	28.9	1-11 1/2
16-20	1 1/4-11 1/2	29.0	32.0	1-11 1/2
20-16	1-11 1/2	21.4	28.9	1 1/4-11 1/2
20-20	1 1/4-11 1/2	29.0	32.0	1 1/4-11 1/2
24-24	1 1/2-11 1/2	34.5	38.0	1 1/2-11 1/2
32-32	2-11 1/2	46.0	49.0	2-11 1/2

Male stud ends/Port end dimensions for tube fittings

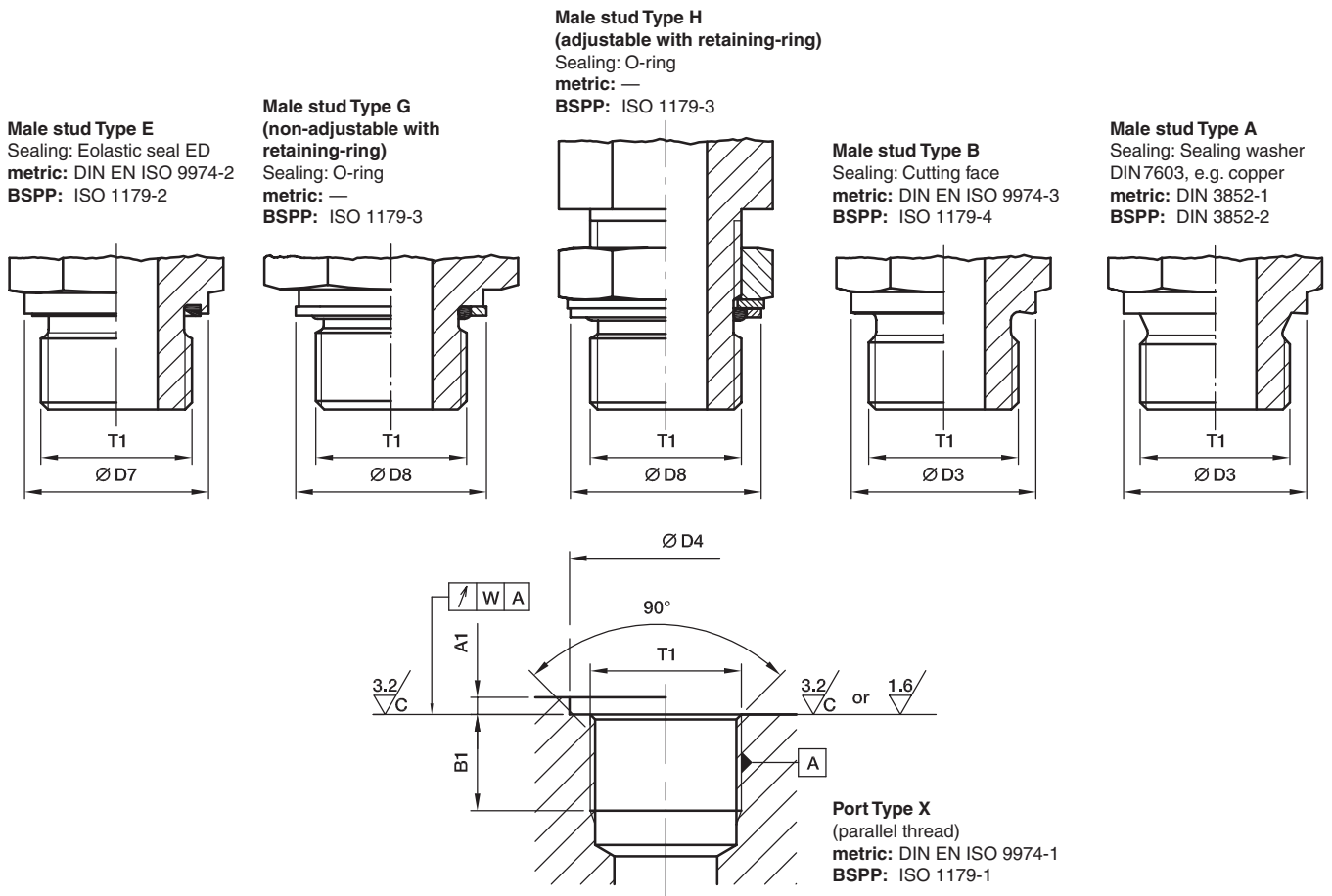
Preferred male stud ends for hydraulic applications

For new designs the metric version is recommended according to DIN ISO 6149



Thread T1	D5	D4		D2 0.1	A1 max.	A2 0.4	B1 min.	B2 min.	W ± 1°	Identification internal	
		small min.	wide min.							Thread major diameter	Thread minor diameter
M 8x1	11.8	14	17	9.10	1.0	1.6	11.5	10.0	12°	8.00	6.92
M 10x1	13.8	16	20	11.10	1.0	1.6	11.5	10.0	12°	10.00	8.92
M 12x1.5	16.8	19	23	13.80	1.5	2.4	14.0	11.5	15°	12.00	10.38
M 14x1.5	18.8	21	25	15.80	1.5	2.4	14.0	11.5	15°	14.00	12.38
M 16x1.5	21.8	24	28	17.80	1.5	2.4	15.5	13.0	15°	16.00	14.38
M 18x1.5	23.8	26	30	19.80	2.0	2.4	17.0	14.5	15°	18.00	16.38
M 22x1.5	26.8	29	34	23.80	2.0	2.4	18.0	15.5	15°	22.00	20.38
M 27x2	31.8	34	40	29.40	2.0	3.1	22.0	19.0	15°	27.00	24.84
M 33x2	40.8	43	49	35.40	2.5	3.1	22.0	19.0	15°	33.00	30.84
M 42x2	49.8	52	60	44.40	2.5	3.1	22.5	19.5	15°	42.00	39.84
M 48x2	54.8	57	66	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
1/2-20 UNF-2B	16.8	23	—	14.50	1.6	2.5	14.0	11.5	12°	12.70	11.30
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
1 1/16-12 UN-2B	31.8	41	—	29.15	2.4	3.3	23.0	19.0	15°	26.99	24.69
1 5/16-12 UN-2B	40.8	49	—	35.50	3.2	3.3	23.0	19.0	15°	33.34	31.04
1 5/8-12 UN-2B	49.8	58	—	43.50	3.2	3.3	23.0	19.0	15°	41.28	38.99
1 7/8-12 UN-2B	54.8	65	—	49.85	3.2	3.3	23.0	19.0	15°	47.63	45.33

Port end dimensions for tube fittings



Thread T1	Ø D3 mm	Ø D7 mm	D8		D4 min. small	D4 ^{+0.4} wide*	A1 max.	B1 min.	W	Identification internal	
			small	wide						Thread major diameter	Thread minor diameter
M 8×1			12.8	13.15					0.1	8.00	6.92
M 10×1	13.9	13.9	14.8	14.75	15	20	1.0	8	0.1	10.00	8.92
M 12×1.5	16.9	16.9	17.8	17.75	18	25	1.5	12	0.1	12.00	10.38
M 14×1.5	18.9	18.9	19.8	19.75	20	25	1.5	12	0.1	14.00	12.38
M 16×1.5	20.9	21.9	22.8	21.75	23	28	1.5	12	0.1	16.00	14.38
M 18×1.5	22.9	23.9	24.8	23.75	25	30	2.0	12	0.1	18.00	16.38
M 20×1.5	24.9	25.9	26.8	25.75	27	34	2.0	14	0.1	20.00	18.38
M 22×1.5	26.9	26.9	27.8	27.75	28	34	2.5	14	0.1	22.00	20.38
M 26×1.5	30.9	31.9	32.8	31.75	33	42	2.5	16	0.2	26.00	24.38
M 27×2	31.9	31.9	32.8	32.75	33	42	2.5	16	0.2	27.00	24.84
M 33×2	38.9	39.9	40.8	39.75	41	47	2.5	18	0.2	33.00	30.84
M 42×2	48.9	49.9	50.8	49.75	51	58	2.5	20	0.2	42.00	39.84
M 48×2	54.9	54.9	55.8	54.95	56	65	2.5	22	0.2	48.00	45.84
G 1/8 A	13.8	13.9	14.8	15.00	15	19	1.0	8	0.1	9.73	8.57
G 1/4 A	17.8	18.9	19.8	19.5	20	25	1.5	12	0.1	13.16	11.45
G 3/8 A	21.8	21.9	22.8	23.5	23	28	2.0	12	0.1	16.66	14.95
G 1/2 A	25.8	26.9	27.8	28.5	28	34	2.5	14	0.1	20.96	18.63
G 3/4 A	31.8	31.9	32.8	34.5	33	42	2.5	16	0.2	26.44	24.12
G 1 A	38.8	39.9	40.8	43.5	41	47	2.5	18	0.2	33.25	30.29
G 1 1/4 A	48.8	49.9	50.8	52.5	51	58	2.5	20	0.2	41.91	38.95
G 1 1/2 A	54.8	54.9	55.8	60.00	56	65	2.5	22	0.2	47.80	44.85

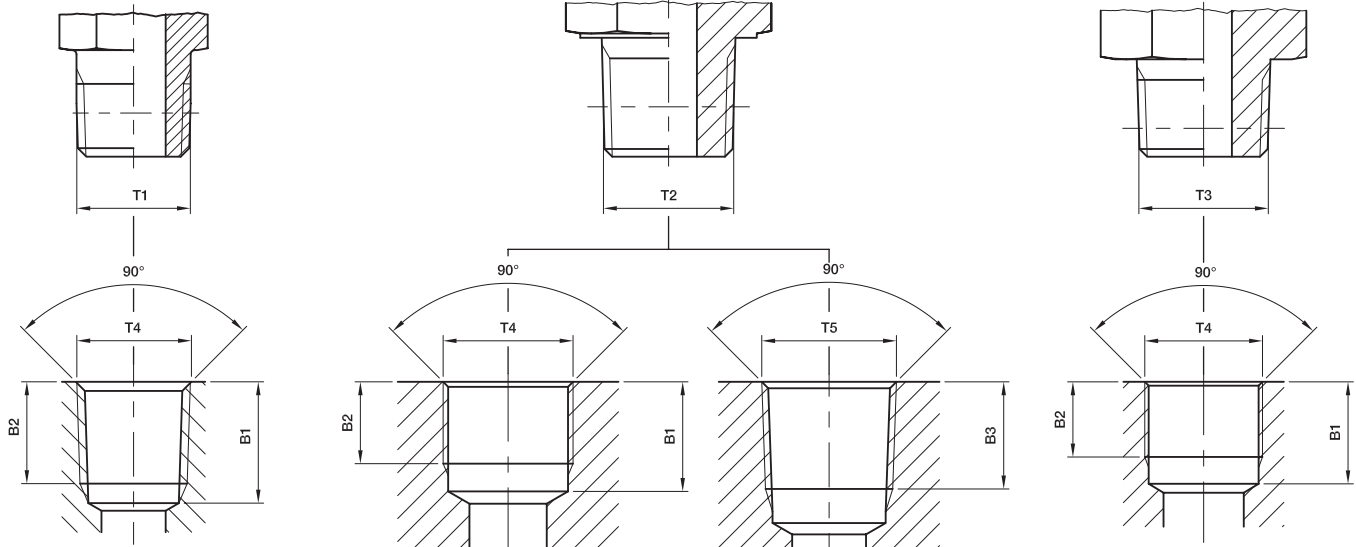
*For inch threads: Enlarged diameter vs. ISO 1179-1 to adopt multiple seal ring designs.

Port end dimensions for tube fittings

Male stud NPT/F
 Sealing: Tapered thread¹⁾
NPT ANSI/ASME B 1.20.1-1983
NPTF ANSI/ASME B 1.20.3-1976

Male stud BSPT
 Sealing: Tapered thread¹⁾
 ISO 7/BS 21/DIN 2999-1

Male stud Type C
 Sealing: Tapered thread short¹⁾
metric DIN 3852-1
Inch DIN 3852-2



Port NPT/F (taper)
NPT ANSI/ASME B 1.20.1-1983
NPTF ANSI/ASME B 1.20.3-1976

Port BSPP (parallel)
 ISO 7/1-Rp
 BS 21-Rp (ISO 1179-1)

Port BSPT (taper)
 ISO 7/1-Rc/BS 21-Rc
 DIN 2999-Rc (Japan: PT)

Port (parallel)
metric DIN 3852-1
Inch DIN 3852-2

Thread T1	Thread T2	Thread T3	Thread T4	Thread T5	B1 min.	B2 min.	B3 min.
1/8-27 NPT/F*			1/8-27 NPT/F*		11.6	6.9	
1/4-18 NPT/F*			1/4-18 NPT/F*		16.4	10.0	
3/8-18 NPT/F*			3/8-18 NPT/F*		17.4	10.3	
1/2-14 NPT/F*			1/2-14 NPT/F*		22.6	13.6	
3/4-14 NPT/F*			3/4-14 NPT/F*		23.1	14.1	
1-11.5 NPT/F*			1-11.5 NPT/F*		27.8	16.8	
1 1/4-11.5 NPT/F*			1 1/4-11.5 NPT/F*		28.3	17.3	
1 1/2-11.5 NPT/F*			1 1/2-11.5 NPT/F*		28.3	17.3	
	R 1/8		Rp 1/8	Rc 1/8	9.7	7.9	7.4
	R 1/4		Rp 1/4	Rc 1/4	12.0	11.2	11.0
	R 3/8		Rp 3/8	Rc 3/8	13.5	12.0	11.4
	R 1/2		Rp 1/2	Rc 1/2	17.6	15.0	15.0
	R 3/4		Rp 3/4	Rc 3/4	19.1	16.0	16.3
	R 1		Rp 1	Rc 1	21.4	19.1	19.0
	R 1 1/4		Rp 1 1/4	Rc 1 1/4	21.4	19.9	21.4
	R 1 1/2		Rp 1 1/2	Rc 1 1/2	22.4	20.6	21.4
		M 8x1 tap.	M 8x1		10.0	5.5	
		M 10x1 tap.	M 10x1		10.0	5.5	
		M 12x1.5 tap.	M 12x1.5		13.5	8.5	
		M 14x1.5 tap.	M 14x1.5		13.5	8.5	
		M 16x1.5 tap.	M 16x1.5		13.5	8.5	
		M 18x1.5 tap.	M 18x1.5		13.5	8.5	
		M 20x1.5 tap.	M 20x1.5		15.5	10.5	
		M 22x1.5 tap.	M 22x1.5		15.5	10.5	
		R 1/8 tap.	Rp 1/8		8.5	5.5	
		R 1/4 tap.	Rp 1/4		12.5	8.5	
		R 3/8 tap.	Rp 3/8		12.5	8.5	
		R 1/2 tap.	Rp 1/2		16.5	10.5	

*In the EO fitting range only NPT thread is manufactured.

In the Triple-Lok®, O-Lok® and adapters fitting range for steel NPTF thread is manufactured and for stainless steel NPT thread is manufactured.

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



