

HYDRAULIC HOSE FITTINGS

DIN Hose Fittings

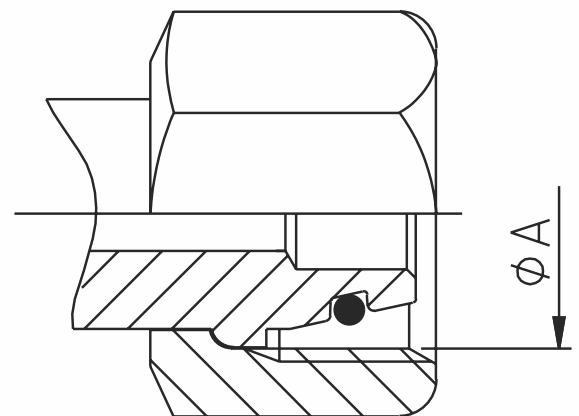
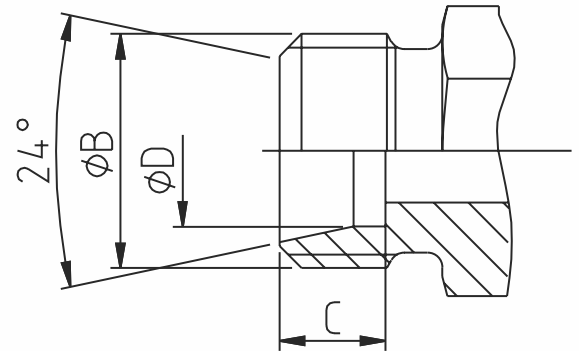
- Often referred to as metric fittings, these fittings seal using the angled sealing surfaces (metal to metal) or the combination of metal to metal with O-rings.
- They are available in very light (LL), light series (L) or heavy series (S)
- The sealing face angles are either 24° with or without O-rings, or 24°/60° universal cones. Identification is made by

measuring the thread size and also the tube OD. Defined by the OD and the pitch (distance between 2 crests of the thread) example: M24x1.5-pitch of 1.5mm

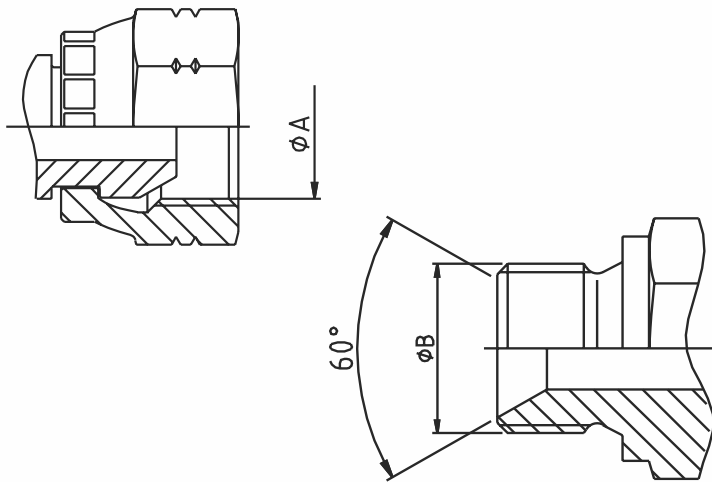
DIN 24° Light (L) and Heavy Series (S) with O-ring

- The male has a 24° sealing angle cone seat with straight metric threads. The female has a 24° convex cone with O-ring and a swivel straight metric threaded nut.

Tube OD	Spec.	Metric Thread	ØA (mm)	ØB (mm)	ØC (mm)	ØD (mm)
6	6L	M12X1.5	10.5	12	7	6.2
6	6S	M14X1.5	12.5	14	7	6.2
8	8L	M14x1.5	12.5	14	7	8.2
8	8S	M16x1.5	14.5	16	7	8.2
10	10L	M16x1.5	14.5	16	7	10.2
10	10S	M18x1.5	16.5	18	7.5	10.2
12	12L	M18x1.5	16.5	18	7	12.2
12	12S	M20x1.5	18.5	20	7.5	12.2
14	14S	M22x1.5	20.5	22	8	14.2
15	15L	M22x1.5	20.5	22	7	15.2
16	16S	M24x1.5	22.5	24	8.5	16.2
18	18L	M26x1.5	24.5	26	7.5	18.2
20	20S	M30x2	27.9	30	10.5	20.2
22	22L	M30x2	27.9	30	7.5	22.2
25	25S	M36x2	33.9	36	12	25.2
28	28L	M36x2	33.9	36	7.5	28.2
30	30S	M42x2	39.9	42	13.5	30.2
35	35L	M45x2	42.9	45	10.5	35.3
38	38S	M52x2	49.9	52	16	38.3
42	42L	M52x2	49.9	52	11	42.3



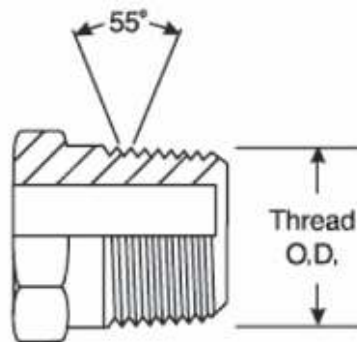
BSPP - British Standard Pipe (BSP)



Size	BSP Thread	ϕA (mm)	ϕB (mm)
-2	1/8-28	8.60	9.70
-4	1/4-19	11.50	13.20
-6	3/8-19	14.90	16.70
-8	1/2-14	18.60	20.90
-10	5/8-14	20.60	22.90
-12	3/4-14	24.10	26.40
-16	1-11	30.30	33.20
-20	1.1/4-11	38.90	41.90
-24	1.1/2-11	44.90	47.80
-32	2-11	56.70	59.60

BSPT

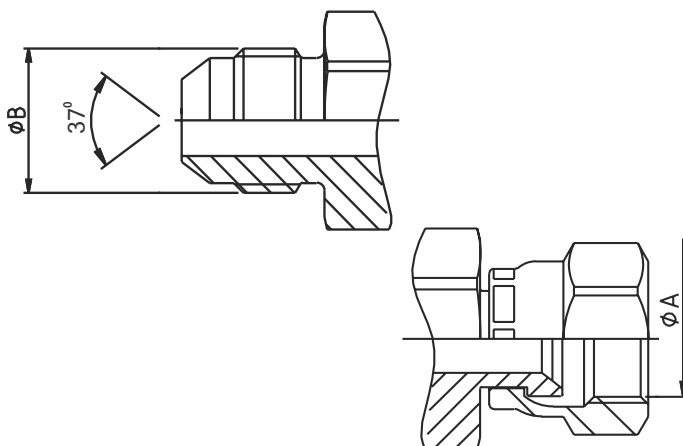
Fittings seal through the thread interface mechanism. Care should be taken not to confuse the BSPT fitting with the NPTF male fitting. BSPT has a 55° thread angle. NPTF has 60° thread angle.



Size	BSP Thread	ϕA (mm)
-2	1/8-28	9.73
-4	1/4-19	13.16
-6	3/8-19	16.66
-8	1/2-14	20.96
-12	3/4-14	26.44
-16	1-11	33.25
-20	1.1/4-11	41.91
-24	1.1/2-11	47.80
-32	2-11	59.61

SAE JIC 37°

Commonly referred to as just JIC fittings these metal to metal sealing type fittings have a 37° flare (sealing surface angle) and straight United National Fine (UNF) straight threads.

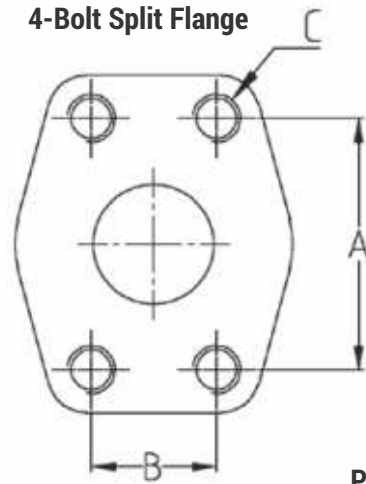
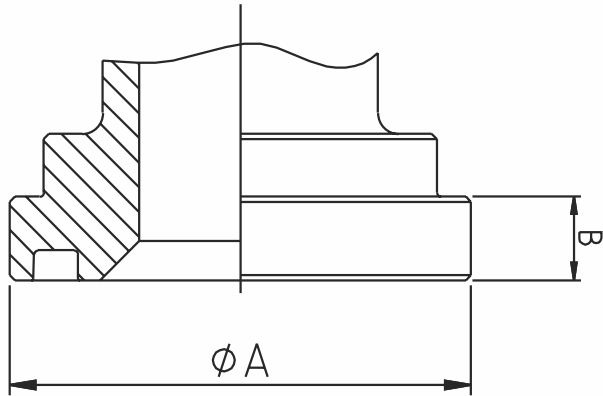


Tube O.D.	Tube O.D. (mm)	UNF Thread	ϕA (mm)	ϕB (mm)
3/16"	-	3/8-24	8.60	9.50
1/4"	6	7/16-20	10.00	11.10
5/16"	8	1/2-20	11.60	12.70
3/8"	10	9/16-18	13.00	14.30
1/2"	12	3/4-16	17.60	19.10
5/8"	14-15-16	7/8-14	20.50	22.20
3/4"	18 & 20	1.1/16-12	24.60	27.00
7/8"	22	1.3/16-12	28.30	30.10
1"	25	1.5/16-12	31.30	33.30
1.1/4"	30 & 32	1.5/8-12	39.20	41.30
1.1/2"	38	1.7/8-12	45.60	47.60
2"	-	2.1/2-12	61.50	63.50

Flange Fittings

The 4-bolt split flange (or full flange) fitting is used worldwide for connecting high pressure hoses typically to pumps, motors and cylinders, where the hose assemblies are subjected to large pressure loadings.

The sealing mechanism is through compression of the O-ring in the face of the flange head against the surface of the port/ connection.



Port Dimension

Flange	Size	ØA (mm)	ØB (mm)	"O" Ring
CODE 61- SAE 3000PSI				
1/2"	-8	30.18	6.73	18.64x3.53
5/8"	-10	34.25	6.73	21.7x3.50
3/4"	-12	38.1	6.73	24.99x3.53
1"	-16	44.45	8	32.92x3.53
1.1/4"	-20	50.8	8	37.69x3.53
1.1/2"	-24	60.33	8	47.22x3.53
2"	-32	71.42	9.53	56.74x3.53
2.1/2"	-40	84.12	9.53	69.44x3.53
3"	-48	101.6	9.53	85.32x3.53
CODE 62- SAE 6000PSI				
1/2"	-8	31.75	7.75	18.64x3.53
3/4"	-12	41.28	8.76	24.99x3.53
1"	-16	47.63	9.53	32.92x3.53
1.1/4"	-20	53.98	10.29	37.69x3.53
1.1/2"	-24	63.50	12.57	47.22x3.53
2"	-32	79.38	12.57	56.74x3.53
CATERPILLAR				
3/4"	-12	41.28	14.22	25.40x5.00
1"	-16	47.63	14.22	31.90x5.00
1.1/4"	-20	53.98	14.22	38.20x5.00
1.1/2"	-24	63.50	14.22	44.70x5.00

Flange	Size	ØA (mm)	ØB (mm)	"C"	
				(inch)	(metr.)
CODE 61- SAE 3000PSI					
1/2"	-8	38.1	17.5	5/16-18	M8 x 1.25
3/4"	-12	47.6	22.3	3/8-16	M10 x 1.5
1"	-16	52.4	26.2	3/8-16	M10 x 1.5
1.1/4"	-20	58.7	30.2	7/16-14	M10 x 1.5
1.1/2"	-24	69.9	35.7	1/2-13	M12 x 1.75
2"	-32	77.8	42.8	1/2-13	M12 x 1.75
CODE 62- SAE 6000PSI					
1/2"	-8	40.5	18.2	5/16-18	M8 X 1.25
3/4"	-12	50.8	23.8	3/8-16	M10 X 1.5
1"	-16	57.2	27.8	7/16-14	M12 X 1.75
1.1/4"	-20	66.7	31.8	1/2-13	M12 X 1.75
1.1/2"	-24	79.4	36.5	5/8-11	M16 X 2
2"	-32	96.8	44.4	3/4-10	M20 X 2.5

Flange Fittings



Hose I.D.		Metric ISO Thread		BSP Thread - (T.P.I.)		NPT Thread - (T.P.I.)	JIC 74° Thread - (T.P.I.)	ORFS Thread	Flange Fitting	
									SAE 3000 PSI	SAE 6000 PSI
mm	inch	Light Series	Heavy Series	Light Series	Heavy Series				O.D. x Thickness (mm)	
6	1/4"	M14x1.5 (8L)	M18x1.5 (10S)	G 1/4 -19	G 3/8 -19	1/4" - 18	7/16" - 20	9/16" - 18	-	-
8	5/16"	M16x1.5 (10L)	M20x1.5 (12S)	G 1/4 -19	G 3/8 -19	-	1/2" - 20	-	-	-
10	3/8"	M18x1.5 (12L)	M22x1.5 (14S)	G 3/8 -19	G 1/2 -14	3/8" - 18	9/16" - 18	11/16" - 16	-	-
12	1/2"	M22x1.5 (15L)	M24x1.5 (16S)	G 1/2 -14	G 1/2 -14	1/2" - 14	3/4" - 16	13/16" - 16	30.18 x 6.73	31.75 x 7.75
16	5/8"	M26x1.5 (18L)	M30x2 (20S)	G 1/2 -14	G 3/4 -14	-	7/8" - 14	1" - 14	-	-
20	3/4"	M30x2 (22L)	M36x2 (25S)	G 3/4 -14	G 1 -11	3/4" - 14	1.1/16" - 12	1.3/16" -12	38.10 x 6.73	41.28 x 8.76
25	1"	M36x2 (28L)	M42x2 (30S)	G 1 -11	G 1.1/4 -11	1" - 11.5	1.5/16" - 12	1.7/16" - 12	44.45 x 8.00	47.63 x 9.53
32	1.1/4"	M42x2 (35L)	M52x2 (38S)	G 1.1/4 -11	G 1.1/2 -11	1.1/4" - 11.5	1.5/8" - 12	1.11/16" - 12	50.80 x 8.00	53.98 x 10.29
40	1.1/2"	M52x2 (42L)	-	G 1.1/2 -11	G 1.1/2 -11	1.1/2" - 11.5	1.7/8" - 12	2" - 12	60.33 x 8.00	63.50 x 12.57
50	2"	-	-	G 2 -11	G 2 -11	2" - 11.5	2.1/2" - 12	-	71.42 x 9.53	79.38 x 12.57