

Thread Identification Guide

Metric Port



Technical Information

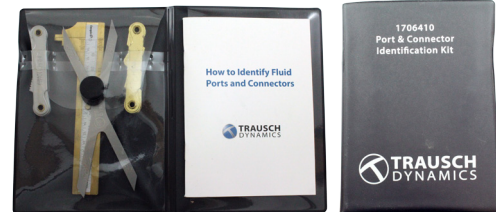
Adapter Sizing Chart

NPTF, BSPT and BSPP measure 1/4" larger than their actual size. For example, a 1/4" NPTF, BSPT or BSPP will actually measure 1/2" on the O. D. of the threads. JIC, SAE O-ring & Flat Face threads measure as listed below. The first number listed is the size of thread, the second number is the threads per inch.

Size	NPTF (Pipe)	JIC (37°)	SAE (O-Ring)	Face Seal (Flat Face)	BSPP (Parallel)	BSPT (Tapered)
-2	1/8 - 27	5/16 - 24	5/16 - 24	-	1/8 - 28	1/8 - 28
-3	-	3/8 - 24	3/8 - 24	-	-	-
-4	1/4 - 18	7/16 - 20	7/16 - 20	9/16 - 18	1/4 - 19	1/4 - 19
-5	-	1/2 - 20	1/2 - 20	-	-	-
-6	3/8 - 18	9/16 - 18	9/16 - 18	11/16 - 16	3/8 - 19	3/8 - 19
-8	1/2 - 14	3/4 - 16	3/4 - 16	13/16 - 16	1/2 - 14	1/2 - 14
-10	-	7/8 - 14	7/8 - 14	1 - 14	-	-
-12	3/4 - 14	1-1/16 - 12	1-1/16 - 12	1 3/16 - 12	3/4 - 14	3/4 - 14
-14	-	1-3/16 - 12	1-3/16 - 12	1 5/16 - 12	-	-
-16	1 - 11-1/2	1-5/16 - 12	1-5/16 - 12	1 7/16 - 12	1 - 11	1 - 11
-20	1-1/4 - 11-1/2	1-5/8 - 12	1-5/8 - 12	1 11/16 - 12	1-1/4 - 11	1-1/4 - 11
-24	1-1/2 - 11-1/2	1-7/8 - 12	1-7/8 - 12	2 - 12	1-1/2 - 11	1-1/2 - 11
-32	2 - 11-1/2	2-1/2 - 12	2-1/2 - 12	2 1/2 - 12	2 - 11	2 - 11

Thread Sizing Kit

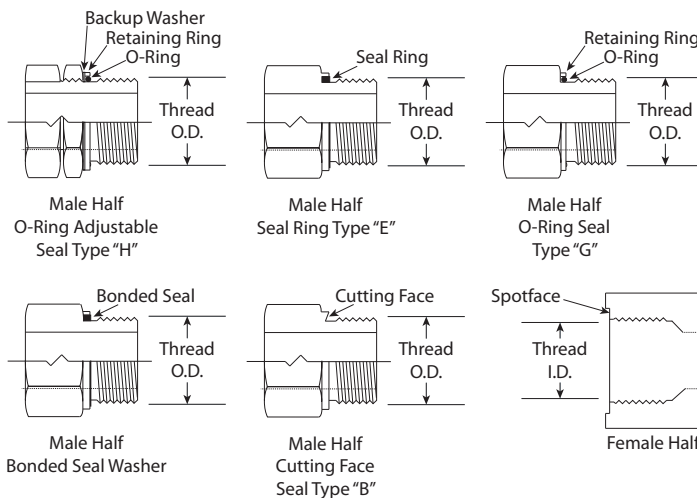
Allows the user to properly identify threads of all hydraulic types. This handy kit includes a fractional thread pitch gauge, a metric thread pitch gauge, inside & outside caliper (inches and millimeters), a seat angle gauge (24 degree/30 degree/37 degree/45 degree), 27-page fluid ports & connections identification guid. A carrying case is standard for easy and convenient storage.



Stock Number	Ship Wt.
1706410	1

Flat Face Port with Metric Threads (ISO 9974-1, DIN 3852 Part 1)

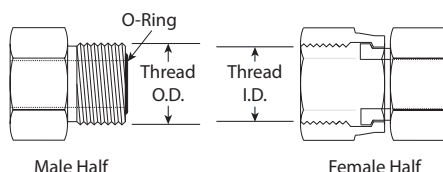
This connection is similar to ISO 1179-1 except the threads are metric. Parallel threads seal utilizing various sealing methods such as rings, washers, o-rings, bonded seals or metal to metal seals. The female port has a machined spotface or flat surface which the male seals against.



Metric Thread Size	Male Thread O.D.	Female Thread I.D.
M8 X 1.0	8 mm	7 mm
M10 X 1.0	10 mm	9 mm
M12 X 1.5	12 mm	10.5 mm
M14 X 1.5	14 mm	12.5 mm
M16 X 1.5	16 mm	14.5 mm
M18 X 1.5	18 mm	16.5 mm
M20 X 1.5	20 mm	18.5 mm
M22 X 1.5	22 mm	20.5 mm
M24 X 1.5	24 mm	22.5 mm
M26 X 1.5	26 mm	24.5 mm
M27 X 2.0	27 mm	25 mm
M33 X 2.0	33 mm	31 mm
M36 X 2.0	36 mm	34 mm
M42 X 2.0	42 mm	40 mm
M45 X 2.0	45 mm	43 mm
M48 X 2.0	48 mm	46 mm

O-Ring Face Seal (ORFS)

This connection offers the very best leakage control available today. The male connector has a straight thread and o-ring in the face. The female has a straight thread and a machined flat face. The seal takes place by compressing the o-ring onto the flat face of the female, similar to a flange type fitting. The threads hold the connection mechanically.



Inch Size	Dash Size	Nominal Thread Size	Male Thread O.D.	Female Thread I.D.	O-Ring
1/4"	04	9/16 - 18	9/16 (.56)	17/32 (.51)	011N90
3/8"	06	11/16 - 16	11/16 (.69)	5/8 (.63)	012N90
1/2"	08	13/16 - 16	13/16 (.82)	3/4 (.75)	014N90
5/8"	10	1 - 14	1 (1.00)	15/16 (.93)	016N90
3/4"	12	1 3/16 - 12	1 3/16 (1.19)	1 1/8 (1.11)	018N90
1"	16	1 7/16 - 12	1 7/16 (1.44)	1 3/4 (1.36)	021N90
1 1/4"	20	1 11/16 - 12	1 11/16 (1.69)	1 5/8 (1.61)	025N90
1 1/2"	24	2 - 12	2 (2.00)	1 15/16 (1.92)	029N90

