

Thread Identification Guide

BSPP Port



Technical Information

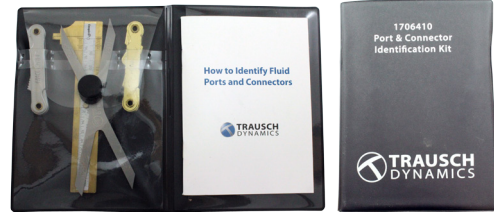
Adapter Sizing Chart

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

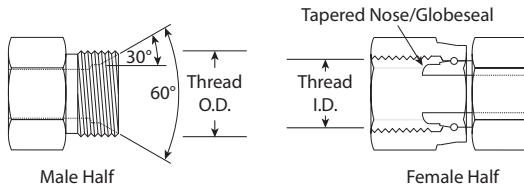
Allows the user to properly identify threads of all hydraulic types. This handy kit includes a fractional thread pitch gauge, a metric thread pitch gauge, inside & outside caliper (inches and millimeters), a seat angle gauge (24 degree/30 degree/37 degree/45 degree), 27-page fluid ports & connections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



Stock Number	Ship Wt.
1706410	1

British Standard Pipe Parallel (BSPP) & JIS 30° Male Inverted Seat

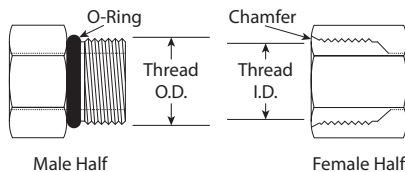
The BSPP (parallel) male connection is similar to the North American NPSM male except the thread pitches are different in most sizes. The female swivel BSPP has a tapered nose/Globeseal which seals on the cone seat of the male.



Inch Size	Dash Size	Nominal Thread Size	Male Thread O.D.	Female Thread I.D.
1/8	02	1/8 - 28	3/8 (.38)	11/32 (.35)
1/4	04	1/4 - 19	33/64 (.52)	15/32 (.47)
3/8	06	3/8 - 19	21/32 (.65)	19/32 (.60)
1/2	08	1/2 - 14	13/16 (.82)	3/4 (.75)
5/8	10	5/8 - 14	7/8 (.88)	13/16 (.80)
3/4	12	3/4 - 14	1 1/32 (1.04)	31/32 (.97)
1	16	1 - 11	1 5/16 (1.30)	1 7/32 (1.22)
1 1/4	20	1 1/4 - 11	1 21/32 (1.65)	1 9/16 (1.56)
1 1/2	24	1 1/2 - 11	1 7/8 (1.88)	1 25/32 (1.79)
2	32	2 - 11	2 11/32 (2.35)	2 1/4 (2.26)

SAE Straight Thread O-Ring (ORB)

This port connection is recommended by the NFPA for optimum leakage control in medium to high pressure hydraulic systems. Sometimes referred to as "O-Ring Boss," the male connector has a straight thread and an o-ring. The female port has a straight thread, a machined surface (minimal spotface) and a chamfer to accept the o-ring. The seal takes place by compressing the o-ring into the chamfer. The threads hold the connection mechanically.



Inch Size	Dash Size	Nominal Thread Size	Male Thread O.D.	Female Thread I.D.	O-Ring
1/8	02	5/16 - 24	5/16 (.31)	9/32 (.27)	902N90
3/16	03	3/8 - 24	3/8 (.38)	11/32 (.34)	903N90
1/4	04	7/16 - 20	7/16 (.44)	13/32 (.39)	904N90
5/16	05	1/2 - 20	1/2 (.50)	15/32 (.45)	905N90
3/8	06	9/16 - 18	9/16 (.56)	17/32 (.51)	906N90
1/2	08	3/4 - 16	3/4 (.75)	11/16 (.69)	908N90
5/8	10	7/8 - 14	7/8 (.88)	13/16 (.81)	910N90
3/4	12	1 1/16 - 12	1 1/16 (1.06)	1 (.98)	912N90
7/8	14	1 3/16 - 12	1 3/16 (1.19)	1 1/8 (1.10)	914N90
1	16	1 5/16 - 12	1 5/16 (1.31)	1 1/4 (1.23)	916N90
1 1/4	20	1 5/8 - 12	1 5/8 (1.63)	1 9/16 (1.54)	920N90
1 1/2	24	1 7/8 - 12	1 7/8 (1.88)	1 13/16 (1.79)	924N90
2	32	2-1/2 - 12	2-1/2 (2.50)	2 7/16 (2.42)	932N90

