

Thread Identification Guide

BSPP PORT & NPTF



Technical Information

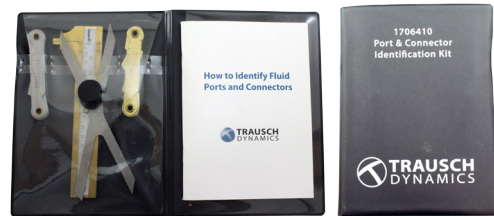
Adapter Sizing Chart

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 and 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

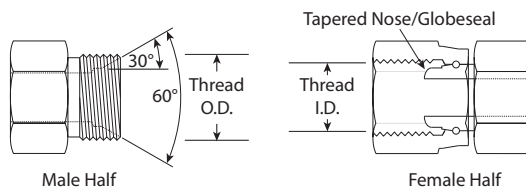
Allows the user to properly identify threads of all hydraulic types. This handy kit includes a fractional thread pitch gauge, a metric thread pitch gauge, inside & outside caliper (inches and millimeters), a seat angle gauge (24 degree/30 degree/37 degree/45 degree), 27-page fluid ports & connections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

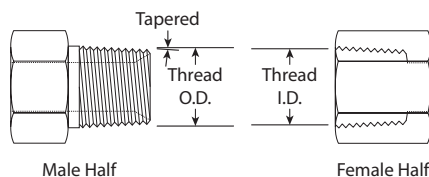
The BSPP (parallel) male connection is similar to the North American NPSM male except the thread pitches are different in most sizes. The female swivel BSPP has a tapered nose/Globeseal which seals on the cone seat of the male.



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)

NPTF (National Pipe Thread Fuel)

Commonly referred to as "pipe" threads, this connection is still widely used in fluid power systems, even though it is not recommended by the National Fluid Power Association (NFPA) for use in hydraulic applications. The thread is tapered and the seal takes place by deformation of the threads. NPTF threads differ from NPT threads in that NPT threads are designed for mechanical or low-pressure air or fluid applications. Visually, the two look identical. However, the thread forms are different. Mating a NPT threads with NPTF threads will most likely produce a connection what will leak. All of our hydraulic fittings and adapters are NPTF threads. A thread sealant is recommended for all NPTF fittings and adapters.



NPTF Thread Measuring Tip: Measure the thread diameter and subtract one quarter inch to find the nominal thread size.

Inch Size	Dash Size	Nominal Thread Size	Male Thread O.D.	Female Thread I.D.
1/8	02	1/8 - 27	12/32 (0.41)	3/8 (0.38)
1/4	04	1/4 - 18	17/32 (0.54)	1/2 (0.49)
3/8	06	3/8 - 18	11/16 (0.68)	5/8 (0.63)
1/2	08	1/2 - 14	27/32 (0.84)	25/32 (0.77)
3/4	12	3/4 - 14	1 1/16 (1.05)	1 (0.98)
1	16	1 - 11 1/2	1 5/16 (1.32)	1 1/4 (1.24)
1 1/4	20	1 1/4 - 11 1/2	1 21/32 (1.66)	1 19/32 (1.58)
1 1/2	24	1 1/2 - 11 1/2	1 29/32 (1.90)	1 13/16 (1.82)
2	32	2 - 11 1/2	2 3/8 (2.38)	2 5/16 (2.30)

