

Thread Identification Guide

JIC & SAE O-Ring (ORB)



Technical Information

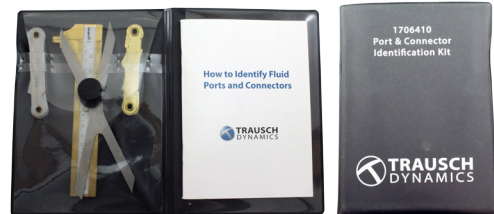
Adapter Sizing Chart

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

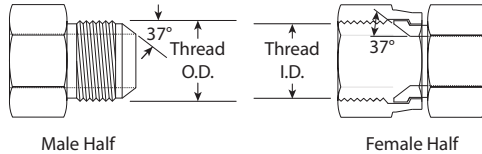
Allows the user to properly identify threads of all hydraulic types. This handy kit includes a fractional thread pitch gauge, a metric thread pitch gauge, inside & outside caliper (inches and millimeters), a seat angle gauge (24 degree/30 degree/37 degree/45 degree), 27-page fluid ports & connections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



Stock Number	Ship Wt.
1706410	1

JIC 37° Flare (SAE J514)

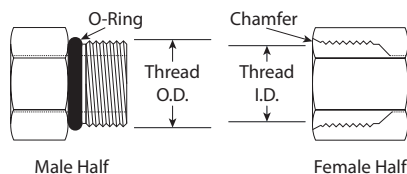
The 37° JIC (Joint Industrial Council) is a reliable, straight thread, single-flare design that is used across the world. It is very popular in many applications and environments because it's compact and easy to assemble. It also features high holding power with low torque requirements. The 37° JIC connection consists of three pieces: the nut, the sleeve, and the fitting in a range of sizes from 1/8" up to 2". The sleeve not only absorbs vibration, but acts as a support to the flare during assembly and helps reduce the risk of twisting the tube. Since the 37° JIC is a metal-to-metal seal, it can be connected and reconnected multiple times.



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

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

