# Thread Identification Guide



# **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.

<b>C</b> '	NPTF (Pipe)	116 (270)	SAE	SAE Face Seal		BSPT
Size		JIC (37°)	(O-Ring)	(Flat Face)	(Parallel)	(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	11/16 - 16 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	1-1/16 - 12 1 3/16 - 12		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

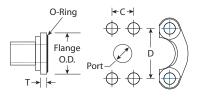
Allows the user to properly identify threads of all hydraulic types. This handy kit includes a fractional thread pitch gauge, a metric thread pitch gauge, inside & outside caliper (inches and millimeters), a seat angle gauge (24 degree/30 degree/37 degree/45 degree), 27-page fluid ports & connections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



### Code 61 4-Bolt Flange (SAE J518\*)

This connection is commonly used in fluid power systems. The Code 61 is referred to as the "standard" series of flanges. The female (port) is an unthreaded hole with four bolt holes in a rectangular pattern around the port. The male consists of a flanged head, grooved for an o-ring, and either a captive flange or split flange halves with bolt holes to match the port. The seal takes place on the o-ring. The o-ring is compressed between the flange head and the flat surface surrounding the port. The threaded bolts hold the connection together.

\*SAE J518 is interchangeable with ISO 6162, JIS B 8363, and DIN 20066 except for the bolt sizes.



F	ort/							
1	nch	Dash			Flange		Bolt	
S	Size	Size	с	D	0.D.	т	Thread	O-Ring
1	/2	08	0.688	1.500	1.188	0.265	5/16 - 18	210N90
3	/4	12	0.875	1.875	1.500	0.265	3/8 - 16	214N90
1		16	1.031	2.062	1.750	0.315	3/8 - 16	219N90
1	1/4	20	1.188	2.312	2.000	0.315	7/16 - 14	222N90
1	1/2	24	1.406	2.750	2.375	0.315	1/2 - 13	225N90
2		32	1.688	3.062	2.812	0.375	1/2 - 13	228N90
2	1/2	40	2.000	3.500	3.310	0.375	1/2 - 13	232N90
3		48	2.438	4.188	4.000	0.375	5/8 - 11	237N90

