

TECHNICAL SECTION

“AN” THREAD SIZES

“AN” (Army-Navy) Sizes were established by the Aerospace industry years ago and were the designated O.D. of the rigid metal tube that each size fitting is used with. (The chart to the right will clarify this point.)

The numbers assigned equate to the O.D. (outside diameters) of the tubing in 1/16". Since tubing and hoses are to be found with assorted wall thicknesses we can now understand that the designated size number does not necessarily tell you how large the inside diameter will be. (For example, the inside diameter of an Earl's size 6 hose end is nearly as large as the inside diameter of some other manufacturers' -8 hose ends.)

Each AN size number has its own standard thread size which can be seen in column three of the chart. Again, these are the same thread sizes that have been used in aircraft and industrial applications for many years.

AN SIZE	METAL TUBE O.D.	THREAD SIZE
2	1/8	5/16-24 SAE
3	3/16	3/8-24 SAE
4	1/4	7/16-20 SAE
5	5/16	1/2-20 SAE
6	3/8	9/16-18 SAE
8	1/2	3/4-16 SAE
10	5/8	7/8-14 SAE
12	3/4	1-1/16-12 SAE
16	1"	1-5/16-12 SAE
20	1-1/4	1-5/8-12 SAE
24	1-1/2	1-7/8-12 SAE
28	1-3/4	2-1/4-12 SAE
32	2"	2-1/2-12 SAE



National Pipe Threads (NPT) are the next most popular thread size used in “Competition Plumbing.” We can actually find a resemblance between the size call outs and the I.D. (inside diameter) of the fitting as shown in the chart below.

“NPT” THREAD SIZES

Some of the most popular adapter fittings shown in our catalog are AN to NPT adapters. While many variations are offered, column four in the chart shows which AN size corresponds to each NPT size when inside diameters (flow dimensions) are considered.

All Earl's Swivel-Seal™ hose ends are designed to provide little or no restriction when used with the corresponding AN fitting size.

PIPE THREAD SIZE	THREADS PER INCH	THEORETICAL I.D. OF FTG.	CLOSEST AN FTG. SIZE
1/16"	27	1/16"	
1/8"	27	1/8"	4
1/4"	18	1/4"	6
3/8"	18	3/8"	8
1/2"	14	1/2"	10
3/4"	14	3/4"	12
1"	11-1/2	1"	16
1-1/4"	11-1/2	1-1/4"	20
1-1/2"	11-1/2	1-1/2"	24
2"	11-1/2	2"	32

We also offer a number of Metric threads to AN fitting adapters.

