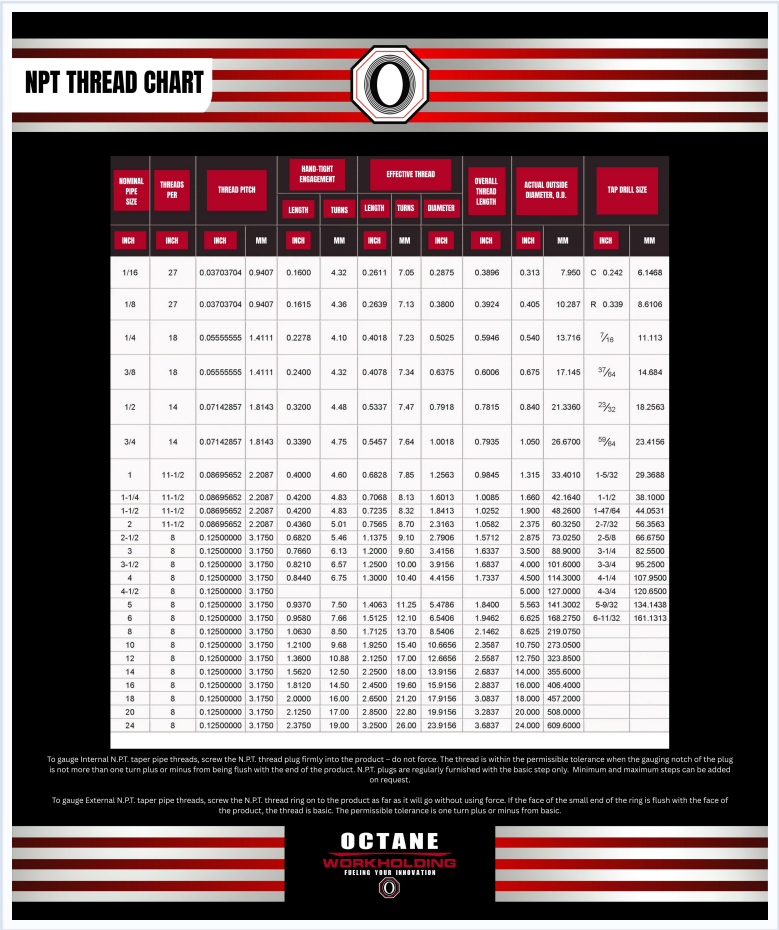
Understand NPT Thread Chart: A Quick Guide

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NOMINAL PIPE SIZE	THREADS PER	THREAD PITCH		HAND-TIGHT ENGAGEMENT		EFFECTIVE THREAD			OVERALL THREAD LENGTH	ACTUAL OUTSIDE DIAMETER, O.D.		TAP DRILL SIZE	
				LENGTH	TURNS	LENGTH	TURNS	DIAMETER					
INCH	INCH	INCH	MM	INCH	MM	INCH	MM	INCH	INCH	INCH	MM	INCH	MM
1/16	27	0.03703704	0.9407	0.1600	4.32	0.2611	7.05	0.2875	0.3896	0.313	7.950	C 0.242	6.1468
1/8	27	0.03703704	0.9407	0.1615	4.36	0.2639	7.13	0.3800	0.3924	0.405	10.287	R 0.339	8.6106
1/4	18	0.05555555	1.4111	0.2278	4.10	0.4018	7.23	0.5025	0.5946	0.540	13.716	7/16	11.113
3/8	18	0.05555555	1.4111	0.2400	4.32	0.4078	7.34	0.6375	0.6006	0.675	17.145	37/64	14.684
1/2	14	0.07142857	1.8143	0.3200	4.48	0.5337	7.47	0.7918	0.7815	0.840	21.3360	23/32	18.2563
3/4	14	0.07142857	1.8143	0.3390	4.75	0.5457	7.64	1.0018	0.7935	1.050	26.6700	59/64	23.4156
1	11-1/2	0.08695652	2.2087	0.4000	4.60	0.6828	7.85	1.2563	0.9845	1.315	33.4010	1-5/32	29.3688
1-1/4	11-1/2	0.08695652	2.2087	0.4200	4.83	0.7068	8.13	1.6013	1.0085	1.660	42.1640	1-1/2	38.1000
1-1/2	11-1/2	0.08695652	2.2087	0.4200	4.83	0.7235	8.32	1.8413	1.0252	1.900	48.2600	1-47/64	44.0531
2	11-1/2	0.08695652	2.2087	0.4360	5.01	0.7565	8.70	2.3163	1.0582	2.375	60.3250	2-7/32	56.3563
2-1/2	8	0.12500000	3.1750	0.6820	5.46	1.1375	9.10	2.7906	1.5712	2.875	73.0250	2-5/8	66.6750
3	8	0.12500000	3.1750	0.7660	6.13	1.2000	9.60	3.4156	1.6337	3.500	88.9000	3-1/4	82.5500
3-1/2	8	0.12500000	3.1750	0.8210	6.57	1.2500	10.00	3.9156	1.6837	4.000	101.6000	3-3/4	95.2500
4	8	0.12500000	3.1750	0.8440	6.75	1.3000	10.40	4.4156	1.7337	4.500	114.3000	4-1/4	107.9500
4-1/2	8	0.12500000	3.1750							5.000	127.0000	4-3/4	120.6500
5	8	0.12500000	3.1750	0.9370	7.50	1.4063	11.25	5.4786	1.8400	5.563	141.3002	5-9/32	134.1438
6	8	0.12500000	3.1750	0.9580	7.66	1.5125	12.10	6.5406	1.9462	6.625	168.2750	6-11/32	161.1313
8	8	0.12500000	3.1750	1.0630	8.50	1.7125	13.70	8.5406	2.1462	8.625	219.0750		
10	8	0.12500000	3.1750	1.2100	9.68	1.9250	15.40	10.6656	2.3587	10.750	273.0500		
12	8	0.12500000	3.1750	1.3600	10.88	2.1250	17.00	12.6656	2.5587	12.750	323.8500		
14	8	0.12500000	3.1750	1.5620	12.50	2.2500	18.00	13.9156	2.6837	14.000	355.6000		
16	8	0.12500000	3.1750	1.8120	14.50	2.4500	19.60	15.9156	2.8837	16.000	406.4000		
18	8	0.12500000	3.1750	2.0000	16.00	2.6500	21.20	17.9156	3.0837	18.000	457.2000		
20	8	0.12500000	3.1750	2.1250	17.00	2.8500	22.80	19.9156	3.2837	20.000	508.0000		
24	8	0.12500000	3.1750	2.3750	19.00	3.2500	26.00	23.9156	3.6837	24.000	609.6000		

To gauge Internal N.P.T. taper pipe threads, screw the N.P.T. thread plug firmly into the product – do not force. The thread is within the permissible tolerance when the gauging notch of the plug is not more than one turn plus or minus from being flush with the end of the product. N.P.T. plugs are regularly furnished with the basic step only. Minimum and maximum steps can be added on request.

To gauge External N.P.T. taper pipe threads, screw the N.P.T. thread ring on to the product as far as it will go without using force. If the face of the small end of the ring is flush with the face of the product, the thread is basic. The permissible tolerance is one turn plus or minus from basic.

Printing & Usage Overview

A common misconception about the NPT thread chart is that it's solely for professionals; however, this handy reference tool is accessible to anyone seeking precise thread information. The chart, often presented as a concise table or diagram, serves as a quick guide to understanding and identifying different NPT thread dimensions and standards. It's an essential resource for those working with pipes and fittings, offering a clear overview of the various thread types and their specifications. Understanding the NPT Thread Chart The NPT thread chart is a valuable reference tool for anyone working with pipe fittings and connections. It provides a comprehensive overview of the National Pipe Thread standards, offering a quick and accurate way to identify and select the right thread size and type for your needs. This chart is an essential guide for engineers, plumbers, and anyone dealing with

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