

## NPT & NPS Threads

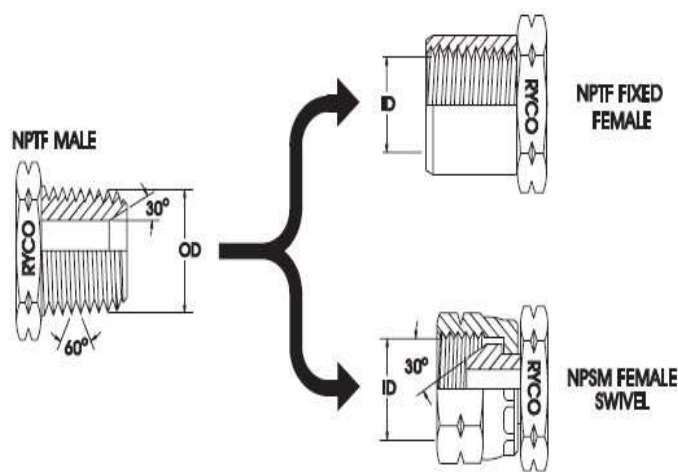
- NPT is NATIONAL PIPE TAPER (AMERICAN) – Thread form per ANSI/ASME B1.20.1
- NPS is NATIONAL PIPE STRAIGHT (PARALLEL) – Thread form per ANSI/ASME B1.20.1
- NPTF is NATIONAL PIPE TAPER FOR FUEL – Thread form per SAE J476
- NPSM is NATIONAL PIPE STRAIGHT MECHANICAL – Thread form per ANSI/ASME B1.20.1

National Pipe threads are similar in function to BSP threads, but are not generally interchangeable.

NPTF threads (also known as Dryseal) are an improvement to NPT.

Controlled truncation of threads mean the metal-to-metal thread seal is at root and crest of threads, in addition to flanks of threads.

Use of thread sealant is recommended for NPT male and NPT female connection.



Measure NPT male thread OD and NPT female thread ID at first full thread near end of fitting.

### NPT Threads Dimensions

NPT THREAD SIZE & PITCH	DASH SIZE	MALE THREAD MINOR OD		FEMALE THREAD ID	
inch – TPI		mm	inch	mm	inch
1/8 – 27	-2	9,9	0.39	8,4	0.33
1/4 – 18	-4	13,2	0.52	11,2	0.44
3/8 – 18	-06	16,6	0.65	14,7	0.58
1/2 – 14	-8	20,6	0.81	17,8	0.7
3/4 – 14	-12	26,0	1.02	23,4	0.92
1 – 11.1/2	-16	32,5	1.28	29,5	1.16
1.1/4 – 11.1/2	-20	41,2	1.62	38,1	1.5
1.1/2 – 11.1/2	-24	47,3	1.86	43,9	1.73
2 – 11.1/2	-32	59,3	2.33	56,4	2.22
2.1/2 – 8	-40	71,5	2.82	69,1	2.72
3 – 8	-48	87,3	3.44	84,8	3.34

### NPSM Threads Dimensions

NPSM THREAD SIZE	DASH SIZE	FEMALE THREAD ID	
inch – TPI		mm	inch
1/8 – 27	-2	8,6	0.34
1/4 – 18	-4	11,9	0.47
3/8 – 18	-6	15,0	0.59
1/2 – 14	-8	19,1	0.75
3/4 – 14	-12	24,6	0.97
1 – 11.1/2	-16	30,5	1.2
1.1/4 – 11.1/2	-20	39,4	1.55
1.1/2 – 11.1/2	-24	45,5	1.79
2 – 11.1/2	-32	57,4	2.26
2.1/2 – 8	-40	68,8	2.71
3 – 8	-48	84,6	3.33