

## British Thread Types

It is a common misconception that all foreign thread types are metric. This is not always the case. There are two common thread forms: metric and Whitworth (BSP). The country of origin and the proper nomenclature for each is listed below.

**British Standard Pipe Parallel**  
**British Standard Pipe Tapered**

### British Standard Pipe Parallel

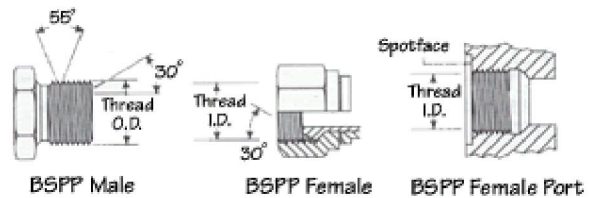
Popular couplings have British Standard Pipe (BSP) threads, also known as Whitworth threads. These can be parallel (BSPP) or Tapered, with a 30° inverted flare. Flanges are equivalent to SAE Code 61 or Code 62 (except -10\*). Port connections are usually made with BSPP threads and a soft metal cutting ring for sealing.

The BSPP (parallel) male will mate with a BSPP (parallel) female or a female port.

The BSPP male has straight threads and a 30° seat. The BSPP female has straight threads and a 30° seat. The female port has straight threads and a spotface. The seal on the port is made with an O-Ring or soft metal washer on the male.

The BSPP (parallel) connector is similar to, but not interchangeable with, the NPSM connector. The tread pitch is different in most sizes, and the tread angle is 55° instead of the 60° angle found on NPSM threads.

\*(-10 is a non-SAE size flange)



**British Standard Pipe Parallel (BSPP)**

Dash Size	Nominal Size (in.)	Thread Size	Male Parallel Thread O.D. (in.)	Female Parallel Thread I.D. (in.)
-2	1/8	1/8-28	3/8	11/32
-4	1/4	1/4-19	17/32	15/32
-6	3/8	3/8-19	21/32	19/32
-8	1/2	1/2-14	13/16	3/4

-10	5/8	5/8-14	29/32	13/16
-12	3/4	3/4-14	1 1/32	31/32
-16	1	1-11	1 11/32	1 7/32
-20	1 1/4	1 1/4-11	1 21/32	1 17/32
-24	1 1/2	1 1/2-11	1 7/8	1 25/32
-32	2	2-11	1 11/32	2 7/32

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### British Standard Pipe Tapered

The BSPT (tapered) male will mate with a BSPT (tapered) female, or a BSPP (parallel female).

The BSPT male has tapered threads. When mating with either the PSPT (tapered) female or the BSPP (parallel) female port, the seal is made on the threads.

The BSPT connector is similar to, but not interchangeable with, the NPTF connector.

The thread pitch is different in most cases, and the thread angle is 55 instead of the 60 angle found on NPTF threads.

Dash Size	Nominal Size (in.)	Thread Size	Male Parallel Thread O.D. (in.)	Female Parallel Thread I.D. (in.)
-2	1/8	1/8-28	3/8	11/32
-4	1/4	1/4-19	17/32	15/32
-6	3/8	3/8-19	21/32	19/32
-8	1/2	1/2-14	13/16	3/4
-10	5/8	5/8-14	29/32	13/16
-12	3/4	3/4-14	1 1/32	31/32
-16	1	1-11	1 11/32	1 7/32
-20	1 1/4	1 1/4-11	1 21/32	1 17/32

-24	$1 \frac{1}{2}$	$1 \frac{1}{2} - \frac{1}{11}$	$1 \frac{7}{8}$	$1 \frac{25}{32}$
-32	2	2-11	$2 \frac{11}{32}$	$2 \frac{7}{32}$