

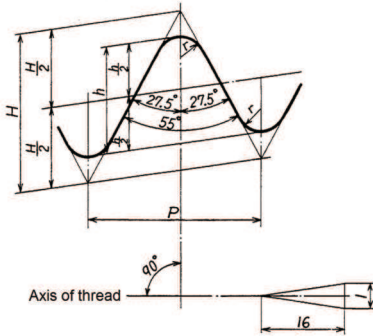
## Taper Pipe Thread JIS B 0203:1999\* (BSPT)

Extracted and partly modified from JIS B 0203:1999. For further information, please refer to JSA, Japanese Standards Association, <https://www.jsa.or.jp/en/>

**Inspection** The threads manufactured in accordance with this Annex shall, as a rule, be inspected with limit gauge for taper screw thread specified in annex (normative) to JIS B 0253.

### Attached Table 1 Basic Thread Profile, Basic Dimensions and Tolerances

Basic profile applied for taper external and taper internal threads



Thick solid line shows the basic thread profile

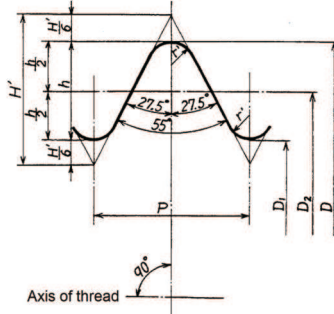
$$P = \frac{25.4}{n}$$

$$H = 0.960\,237\,P$$

$$h = 0.640\,327\,P$$

$$r = 0.137\,278\,P$$

Basic profile applied for parallel internal threads



Thick solid line shows the basic thread profile

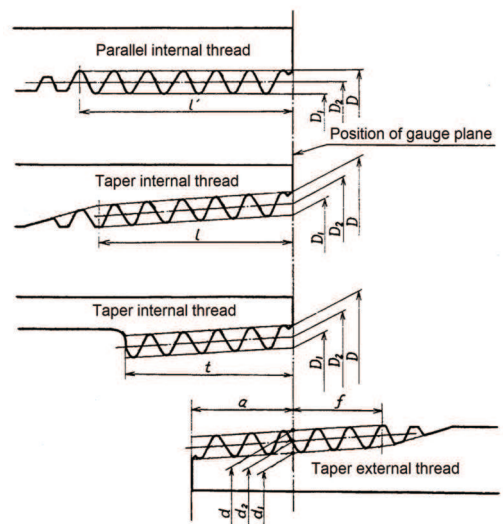
$$P = \frac{25.4}{n}$$

$$H' = 0.960\,491\,P$$

$$h = 0.640\,327\,P$$

$$r' = 0.137\,329\,P$$

Fitting between taper external thread and taper internal or parallel internal thread



### Attached Table 1 Basic Thread Profile, Basic Dimensions and Tolerances (concluded)

(Unit: mm)

Designation of thread size <sup>(3)</sup>	Thread				Gauge diameter			Position of gauge plane			Tolerance on $D$ , $D_2$ and $D_1$ of parallel internal thread	Length of useful thread (min.)				Size of carbon steel pipe for ordinary piping (Reference)			
	Number of threads (in 25.4mm)	Pitch (informative)	Height of thread	Radius	External thread			External thread		Internal thread		From position of gauge plane to larger diameter end	Internal thread		Outside diameter	Thickness			
					Major dia.	Pitch dia.	Minor dia.	From pipe end		At pipe end			When there is incomplete thread part	When there is no incomplete thread part					
								Gauge length	Axial tolerance	Axial tolerance									
					Internal thread												From position of gauge plane to smaller diameter end	From end of pipe or coupler	(4)
					Major dia.	Pitch dia.	Minor dia.												
	$n$	$P$	$h$	$r$ or $r'$	$D$	$D_2$	$D_1$	$a$	$b$	$c$		$f$	$\ell$	$\ell'$	$\ell$				
R $\frac{1}{8}$	28	0.907 1	0.581	0.12	7.723	7.142	6.561	3.97	±0.91	±1.13	±0.071	2.5	6.2	7.4	4.4	—	—		
R $\frac{1}{4}$	19	1.336 8	0.856	0.18	9.728	9.147	8.566	3.97	±0.91	±1.13	±0.071	2.5	6.2	7.4	4.4	10.5	2.0		
R $\frac{3}{8}$	14	1.814 3	1.162	0.25	13.157	12.301	11.445	6.01	±1.34	±1.67	±0.104	3.7	9.4	11.0	6.7	13.8	2.3		
R $\frac{1}{2}$	11	2.309 1	1.479	0.32	16.662	15.806	14.950	6.35	±1.34	±1.67	±0.104	3.7	9.7	11.4	7.0	17.3	2.3		
R $\frac{3}{4}$	8	2.309 1	1.479	0.32	20.955	19.793	18.631	8.16	±1.81	±2.27	±0.142	5.0	12.7	15.0	9.1	21.7	2.8		
R1	7	2.309 1	1.479	0.32	26.441	25.279	24.117	9.53	±1.81	±2.27	±0.142	5.0	14.1	16.3	10.2	27.2	2.8		
R1 $\frac{1}{4}$	11	2.309 1	1.479	0.32	33.249	31.770	30.291	10.39	±2.31	±2.89	±0.181	6.4	16.2	19.1	11.6	34	3.2		
R1 $\frac{1}{2}$	8	2.309 1	1.479	0.32	41.910	40.431	38.952	12.70	±2.31	±2.89	±0.181	6.4	18.5	21.4	13.4	42.7	3.5		
R2	11	2.309 1	1.479	0.32	47.803	46.324	44.845	12.70	±2.31	±2.89	±0.181	6.4	18.5	21.4	13.4	48.6	3.5		
R2 $\frac{1}{2}$	11	2.309 1	1.479	0.32	59.614	58.135	56.656	15.88	±2.31	±2.89	±0.181	7.5	22.8	25.7	16.9	60.5	3.8		
R3	11	2.309 1	1.479	0.32	75.184	73.705	72.226	17.46	±3.46	±3.46	±0.216	9.2	26.7	30.1	18.6	76.3	4.2		
R4	11	2.309 1	1.479	0.32	87.884	86.405	84.926	20.64	±3.46	±3.46	±0.216	9.2	29.8	33.3	21.1	89.1	4.2		
R5	11	2.309 1	1.479	0.32	113.030	111.551	110.072	25.40	±3.46	±3.46	±0.216	10.4	35.8	39.3	25.9	114.3	4.5		
R6	11	2.309 1	1.479	0.32	138.430	136.951	135.472	28.58	±3.46	±3.46	±0.216	11.5	40.1	43.5	29.3	139.8	4.5		
R6	11	2.309 1	1.479	0.32	163.830	162.351	160.872	28.58	±3.46	±3.46	±0.216	11.5	40.1	43.5	29.3	165.2	5.0		

Notes <sup>(3)</sup>: This designation is for taper external threads, and for taper internal threads and parallel internal threads, the notation R shall be substituted by Rc or Rp.

<sup>(4)</sup>: In case of the taper thread, length from position of gauge plane to smaller diameter end, and in case of parallel internal thread, length from the end of pipe or coupler.

Remarks 1: The thread shall be perpendicular to the axis, and the pitch shall be measured in parallel with the axis.

2: The length of useful thread is the length of completely screwed part, except the last several threads which may be truncated at the crest by its intersection with the cylindrical surface of the pipe or coupler. The chamfered end of the pipe or coupler, is included in the length of useful thread part.