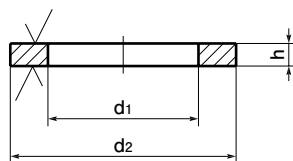


Small size - Shape and dimensions of part grade A

Small size - Shape of part grade A



$$\sqrt{\text{Ra}} = \begin{cases} h \leq 3 & : \sqrt{\text{Ra } 1.6} \\ h > 3 & : \sqrt{\text{Ra } 3.2} \end{cases}$$

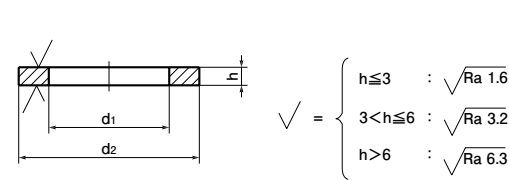
Unit: mm

Nominal diameter of plain washer* (Nominal diameter of thread d)	Inside diameter d ₁		Outside diameter d ₂		Thickness h		
	Basic dimension (Min.)	Max.	Basic dimension (Max.)	Min.	Basic Dimension	Max.	Min.
1.6	1.70	1.84	3.5	3.2	0.3	0.35	0.25
2	2.20	2.34	4.5	4.2	0.3	0.35	0.25
2.5	2.70	2.84	5.0	4.7	0.5	0.55	0.45
3	3.20	3.38	6.0	5.7	0.5	0.55	0.45
(3.5)	3.70	3.88	7.00	6.64	0.5	0.55	0.45
4	4.30	4.48	8.00	7.64	0.5	0.55	0.45
5	5.30	5.48	9.00	8.64	1	1.1	0.9
6	6.40	6.62	11.00	10.57	1.6	1.8	1.4
8	8.40	8.62	15.00	14.57	1.6	1.8	1.4
10	10.50	10.77	18.00	17.57	1.6	1.8	1.4
12	13.00	13.27	20.00	19.48	2	2.2	1.8
(14)	15.00	15.27	24.00	23.48	2.5	2.7	2.3
16	17.00	17.27	28.00	27.48	2.5	2.7	2.3
(18)	19.00	19.33	30.00	29.48	3	3.3	2.7
20	21.00	21.33	34.00	33.38	3	3.3	2.7
(22)	23.00	23.33	37.00	36.38	3	3.3	2.7
24	25.00	25.33	39.00	38.38	4	4.3	3.7
(27)	28.00	28.33	44.00	43.38	4	4.3	3.7
30	31.00	31.39	50.00	49.38	4	4.3	3.7
(33)	34.00	34.62	56.00	54.8	5	5.6	4.4
36	37.00	37.62	60.00	58.8	5	5.6	4.4

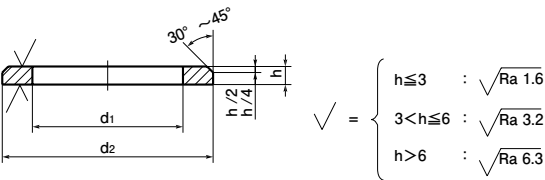
* Parenthesized nominal diameter of thread represents Choice 2.

Standard size - Part grade A and standard-sized chamfering*2 - Shape and dimensions of part grade A

Standard size - Shape of part grade A



Standard-sized chamfering - Shape of part grade A



Unit: mm

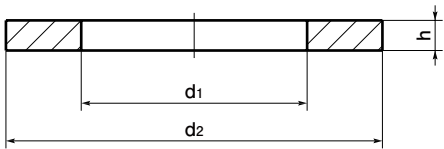
Nominal diameter of plain washer*1 (Nominal diameter of thread d)	Inside diameter d1		Outside diameter d2		Thickness h		
	Basic dimension (Min.)	Max.	Basic dimension (Max.)	Min.	Basic Dimension	Max.	Min.
1.6	1.70	1.84	4.0	3.7	0.3	0.35	0.25
2	2.20	2.34	5.0	4.7	0.3	0.35	0.25
2.5	2.70	2.84	6.0	5.7	0.5	0.55	0.45
3	3.20	3.38	7.00	6.64	0.5	0.55	0.45
(3.5)	3.70	3.88	8.00	7.64	0.5	0.55	0.45
4	4.30	4.48	9.00	8.64	0.8	0.9	0.7
5	5.30	5.48	10.00	9.64	1	1.1	0.9
6	6.40	6.62	12.00	11.57	1.6	1.8	1.4
8	8.40	8.62	16.00	15.57	1.6	1.8	1.4
10	10.50	10.77	20.00	19.48	2	2.2	1.8
12	13.00	13.27	24.00	23.48	2.5	2.7	2.3
(14)	15.00	15.27	28.00	27.48	2.5	2.7	2.3
16	17.00	17.27	30.00	29.48	3	3.3	2.7
(18)	19.00	19.33	34.00	33.38	3	3.3	2.7
20	21.00	21.33	37.00	36.38	3	3.3	2.7
(22)	23.00	23.33	39.00	38.38	3	3.3	2.7
24	25.00	25.33	44.00	43.38	4	4.3	3.7
(27)	28.00	28.33	50.00	49.38	4	4.3	3.7
30	31.00	31.39	56.00	55.26	4	4.3	3.7
(33)	34.00	34.62	60.0	58.8	5	5.6	4.4
36	37.00	37.62	66.0	64.8	5	5.6	4.4

*1 Parenthesized nominal diameter of thread represents Choice 2.

*2 Standard-sized chamfering - Shall be specified for nominal diameter of thread 5 or above among applicable part grade A threads.

Standard size - Shape and dimensions of part grade C

Standard size - Shape of part grade C



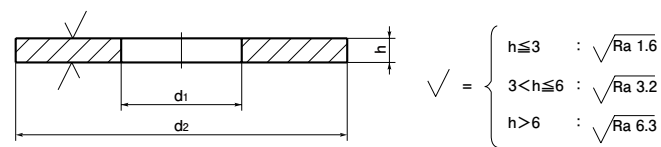
Unit: mm

Nominal diameter of plain washer* (Nominal diameter of thread d)	Inside diameter d1		Outside diameter d2		Thickness h		
	Basic dimension (Min.)	Max.	Basic dimension (Max.)	Min.	Basic Dimension	Max.	Min.
1.6	1.80	2.05	4.00	3.25	0.3	0.4	0.2
2	2.40	2.65	5.00	4.25	0.3	0.4	0.2
2.5	2.90	3.15	6.00	5.25	0.5	0.6	0.4
3	3.4	3.7	7.0	6.1	0.5	0.6	0.4
(3.5)	3.9	4.2	8.0	7.1	0.5	0.6	0.4
4	4.5	4.8	9.0	8.1	0.8	1	0.6
5	5.5	5.8	10.0	9.1	1	1.2	0.8
6	6.60	6.96	12.0	10.9	1.6	1.9	1.3
8	9.00	9.36	16.0	14.9	1.6	1.9	1.3
10	11.00	11.43	20.0	18.7	2	2.3	1.7
12	13.50	13.93	24.0	22.7	2.5	2.8	2.2
(14)	15.50	15.93	28.0	26.7	2.5	2.8	2.2
16	17.50	17.93	30.0	28.7	3	3.6	2.4
(18)	20.00	20.52	34.0	32.4	3	3.6	2.4
20	22.00	22.52	37.0	35.4	3	3.6	2.4
(22)	24.00	24.52	39.0	37.4	3	3.6	2.4
24	26.00	26.52	44.0	42.4	4	4.6	3.4
(27)	30.00	30.52	50.0	48.4	4	4.6	3.4
30	33.00	33.62	56.0	54.1	4	4.6	3.4
(33)	36	37	60.0	58.1	5	6	4
36	39	40	66.0	64.1	5	6	4

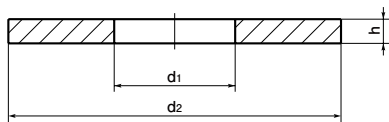
* Parenthesized nominal diameter of thread represents Choice 2.

Large size - Shape and dimensions of part grade A or C

Large size - Shape of part grade A



Large size - Shape of part grade C



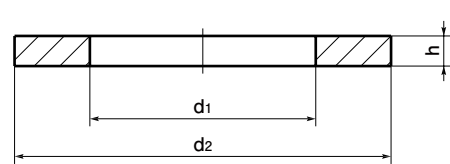
Unit: mm

Nominal diameter of plain washer* (Nominal diameter of thread d)	Inside diameter d ₁				Outside diameter d ₂				Thickness h			
	Basic dimension (Min.)		Max.		Basic dimension (Max.)		Min.		Basic Dimension		Min.	
	Part grade		Part grade		Part grade		Part grade		Part grade		Part grade	
	A	C	A	C	A and C	A	C	A and C	A	C	A	C
3	3.20	3.4	3.38	3.7	9.00	8.64	8.1	0.8	0.9	1.0	0.7	0.6
(3.5)	3.70	3.9	3.88	4.2	11.00	10.57	9.9	0.8	0.9	1.0	0.7	0.6
4	4.30	4.5	4.48	4.8	12.00	11.57	10.9	1	1.1	1.2	0.9	0.8
5	5.30	5.5	5.48	5.8	15.00	14.57	13.9	1	1.1	1.2	0.9	0.8
6	6.40	6.60	6.62	6.96	18.00	17.57	16.9	1.6	1.8	1.9	1.4	1.3
8	8.40	9.00	8.62	9.36	24.00	23.48	22.7	2	2.2	2.3	1.8	1.7
10	10.50	11.00	10.77	11.43	30.00	29.48	28.7	2.5	2.7	2.8	2.3	2.2
12	13.00	13.50	13.27	13.93	37.00	36.38	35.4	3	3.3	3.6	2.7	2.4
(14)	15.00	15.50	15.27	15.93	44.00	43.38	42.4	3	3.3	3.6	2.7	2.4
16	17.00	17.50	17.27	17.93	50.00	49.38	48.4	3	3.3	3.6	2.7	2.4
(18)	19.00	20.00	19.33	20.52	56.00	55.26	54.1	4	4.3	4.6	3.7	3.4
20	21.00	22.00	21.33	22.52	60.00	59.26	58.1	4	4.3	4.6	3.7	3.4
(22)	23.00	24.00	23.52	24.84	66.0	64.8	64.1	5	5.6	6	4.4	4
24	25.00	26.00	25.52	26.84	72.0	70.8	70.1	5	5.6	6	4.4	4
(27)	30.00	30.00	30.52	30.84	85.0	83.6	82.8	6	6.6	7	5.4	5
30	33.00	33.00	33.62	34	92.0	90.6	89.8	6	6.6	7	5.4	5
(33)	36.00	36.00	36.62	37	105.0	103.6	102.8	6	6.6	7	5.4	5
36	39.00	39.00	39.62	40	110.0	108.6	107.8	8	9	9.2	7	6.8

* Parenthesized nominal diameter of thread represents Choice 2.

Super-large size - Shape and dimensions of part grade C

Super-large size - Shape of part grade C



Unit: mm

Nominal diameter of plain washer* (Nominal diameter of thread d)	Inside diameter d ₁		Outside diameter d ₂		Thickness h		
	Basic dimension (Min.)		Basic dimension (Max.)		Basic Dimension		
	Max.		Min.		Max.		
	Part grade		Part grade		Part grade		
5	5.5	5.8	18.0	16.9	2	2.3	1.7
6	6.60	6.96	22.0	20.7	2	2.3	1.7
8	9.00	9.36	28.0	26.7	3	3.6	2.4
10	11.00	11.43	34.0	32.4	3	3.6	2.4
12	13.50	13.93	44.0	42.4	4	4.6	3.4
(14)	15.50	15.93	50.0	48.4	4	4.6	3.4
16	17.5	18.2	56.0	54.1	5	6	4
(18)	20.00	20.84	60.0	58.1	5	6	4
20	22.00	22.84	72.0	70.1	6	7	5
(22)	24.00	24.84	80.0	78.1	6	7	5
24	26.00	26.84	85.0	82.8	6	7	5
(27)	30.00	30.84	98.0	95.8	6	7	5
30	33	34	105.0	102.8	6	7	5
(33)	36	37	115.0	112.8	8	9.2	6.8
36	39	40	125.0	122.5	8	9.2	6.8

* Parenthesized nominal diameter of thread represents Choice 2.