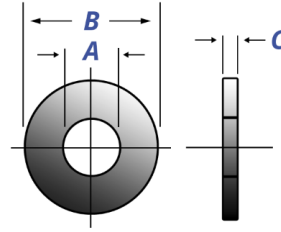


Metric Flat Washers: Dimensions & Specifications



Metric Flat Washers Per. ANSI B18.22M								
Nominal Washer Size	Washer Series	Inside Diameter (A)		Outside Diameter (B)		Thickness (C)		
		Max	Min	Max	Min	Max	Min	
1.6 mm	Narrow	2.09	1.95	4.00	3.70	0.70	0.50	
	Regular	2.09	1.95	5.00	4.70	0.70	0.50	
	Wide	2.09	1.95	6.00	5.70	0.90	0.60	
2 mm	Narrow	2.64	2.50	5.00	4.70	0.90	0.60	
	Regular	2.64	2.50	6.00	5.70	0.90	0.60	
	Wide	2.64	2.50	8.00	7.64	0.90	0.60	
2.5 mm	Narrow	3.14	3.00	6.00	5.70	0.90	0.60	
	Regular	3.14	3.00	8.00	7.64	0.90	0.60	
	Wide	3.14	3.00	10.00	9.64	1.20	0.80	
3 mm	Narrow	3.68	3.50	7.00	6.64	0.90	0.60	
	Regular	3.68	3.50	10.00	9.64	1.20	0.80	
	Wide	3.68	3.50	12.00	11.57	1.40	1.00	
3.5 mm	Narrow	4.18	4.00	9.00	8.64	1.20	0.80	
	Regular	4.18	4.00	10.00	9.64	1.40	1.00	
	Wide	4.18	4.00	15.00	14.57	1.75	1.20	
4 mm	Narrow	4.88	4.70	10.00	9.64	1.20	0.80	
	Regular	4.88	4.70	12.00	11.57	1.40	1.00	
	Wide	4.88	4.70	16.00	15.57	2.30	1.60	
5 mm	Narrow	5.78	5.50	11.00	10.57	1.40	1.00	
	Regular	5.78	5.50	15.00	14.57	1.75	1.20	
	Wide	5.78	5.50	20.00	19.48	2.30	1.60	
6 mm	Narrow	6.87	6.65	13.00	12.57	1.75	1.20	
	Regular	6.87	6.65	18.80	18.37	1.75	1.20	
	Wide	6.87	6.65	25.40	24.88	2.30	1.20	
8 mm	Narrow	9.12	8.90	18.80**	18.37**	2.30	1.60	
	Regular	9.12	8.90	25.40**	24.48**	2.30	1.60	
	Wide	9.12	8.90	32.00	31.38	2.80	2.00	
10 mm	Narrow	11.12	10.85	20.00	19.48	2.30	1.60	
	Regular	11.12	10.85	28.00	27.48	2.80	2.00	
	Wide	11.12	10.85	39.00	38.38	3.50	2.50	
12 mm	Narrow	13.57	13.30	25.40	24.88	2.80	2.00	
	Regular	13.57	13.30	34.00	33.38	3.50	2.50	
	Wide	13.57	13.30	44.00	43.38	3.50	2.50	
14 mm	Narrow	15.52	15.25	28.00	27.48	2.80	2.00	
	Regular	15.52	15.25	39.00	38.38	3.50	2.50	
	Wide	15.52	15.25	50.00	49.38	4.00	3.00	
16 mm	Narrow	17.52	17.25	32.00	31.38	3.50	2.50	
	Regular	17.52	17.25	44.00	43.38	4.00	3.00	
	Wide	17.52	17.25	56.00	54.80	4.60	3.50	
20 mm	Narrow	22.32	21.80	39.00	38.38	4.00	3.00	
	Regular	22.32	21.80	50.00	49.38	4.60	3.50	
	Wide	22.32	21.80	66.00	64.80	5.10	4.00	
24 mm	Narrow	26.12	25.60	44.00	43.38	4.60	3.50	
	Regular	26.12	25.60	56.00	54.80	5.10	4.00	
	Wide	26.12	25.60	72.00	70.80	5.60	4.50	
30 mm	Narrow	33.02	32.40	56.00	54.80	5.10	4.00	
	Regular	33.02	32.40	72.00	70.80	5.60	4.50	
	Wide	33.02	32.40	90.00	88.60	6.40	5.00	
36 mm	Narrow	38.92	38.30	66.00	64.80	5.60	4.50	
	Regular	38.92	38.30	90.00	88.60	6.40	5.00	
	Wide	38.92	38.30	110.00	108.60	8.50	7.00	

* Nominal screw washer sizes for similar screw and bolt sizes.

* * External diameters of 18.80/18.37 and 25.40/24.48 mm prevent washers that can be used in coin-operated machines.

All dimensions are in millimeters.