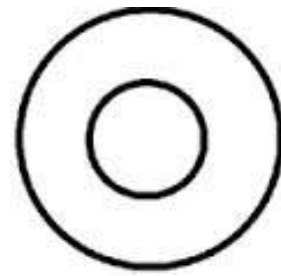


STANDARD FLAT WASHERS GRADE A METRIC



Nominal Size	ID		OD		T	
	Internal Diameter		Outside Diameter		Thickness	
	Max	Min	Max	Min	Max	Min
1.6	1.84	1.7	4	3.7	0.35	0.25
2	2.34	2.2	5	4.7	0.35	0.25
2.5	2.84	2.7	6	5.7	0.55	0.45
3	3.38	3.2	7	6.64	0.55	0.45
3.5	3.88	3.7	8	7.64	0.55	0.45
4	4.48	4.3	9	8.64	0.9	0.7
5	5.48	5.3	10	9.64	1.1	0.9
6	6.62	6.4	12	11.57	1.8	1.4
8	8.62	8.4	16	15.57	1.8	1.4
10	10.77	10.5	20	19.48	2.2	1.8
12	13.27	13	24	23.48	2.7	2.3
14	15.27	15	28	27.48	2.7	2.3
16	17.27	17	30	29.48	3.3	2.7
20	21.33	21	37	36.38	3.3	2.7
24	25.33	25	44	43.38	4.3	3.7
30	31.39	31	56	55.26	4.3	3.7
36	37.62	37	66	64.8	5.6	4.4

Description	A thin, flat circular part with a centrally located hole.	Class 300 HV washers are also hardened and
Applications/ Advantages	Washers are for assembly around a bolt or screw, between the bearing surface of the fastener and the part to which it is attached. Flat washers are used to improve stress distribution, and to span large clearance holes. Class 140 HV & Class 200 HV metric washers meet the majority	Washers are for assembly around a bolt or screw, between the bearing surface of the fastener and the part to which it is attached. Flat washers are used to improve stress distribution, and to span large clearance holes. Stainless washers are for use with austenitic stainless steel screws
	Of industrial applications in manufacturing, maintenance and repair. Class 300 HV metric washers are best suited for use with.	And nuts in general industrial applications where parts are subject to corrosion.
	Through-hardened cap-screws, bolts and nuts.	
Material	Low or medium carbon steel	Austenitic stainless steel
Hardness	Class 140 HV: HV 140 minimum (Rockwell B 75)	Class A 140: HV 140 minimum (Rockwell B 75 minimum)
	Class 200 HV: HV 200-300 (Rockwell B 91.5 - C 29.8)	Class A 200: HV 200-300 (Rockwell B 91.5 - C 29.8)
	Class 300 HV: HV 300-400 (Rockwell C 29.8 - 40.8)	Class A 350: HV 350-400 (Rockwell C 35.5 - 40.8)
Plating	See Appendix-A for information about the plating of flat washers.	