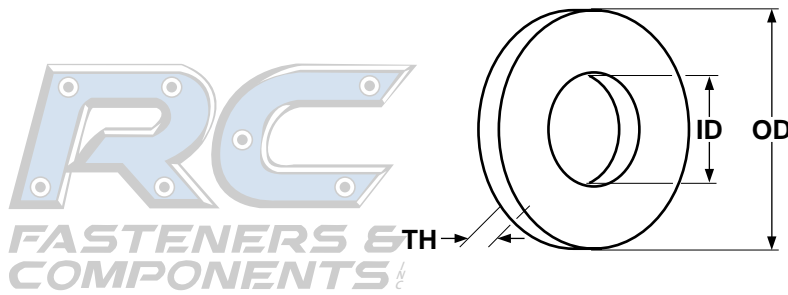


# Flat Washers - Wider I.D.

# METRIC

# Washers



## METRIC - FLAT WASHERS, WIDER I.D. (NORMAL SERIES, GRADE C)

ISO 7091

Nominal Size	ID		OD		T	
	Internal Diameter		Outside Diameter		Thickness	
	Max	Min	Max	Min	Max	Min
5	5.8	5.5	10	9.1	1.2	0.8
6	6.96	6.6	12	10.9	1.9	1.3
8	9.36	9	16	14.9	1.9	1.3
10	11.43	11	20	18.7	2.3	1.7
12	13.93	13.5	24	22.7	2.8	2.2
14	15.93	15.5	28	26.7	2.8	2.2
16	17.93	17.5	30	28.7	3.6	2.4
20	22.52	22	37	35.4	3.6	2.4
24	26.52	26	44	42.4	4.6	3.4
30	33.62	33	56	54.1	4.6	3.4
36	40	39	66	64.1	6	4

Description	A thin, flat circular part with a centrally located hole which is approximately 6% wider than the hole of a like-sized standard metric flat washer.
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. The wider-ID style is ideal for use with bolts which have over-sized shoulder or body diameters.
Material	Low or medium carbon steel
Hardness	HV 100 minimum (Rockwell B 56.2 minimum)
Plating	See Appendix-A for information about the plating of flat washers.