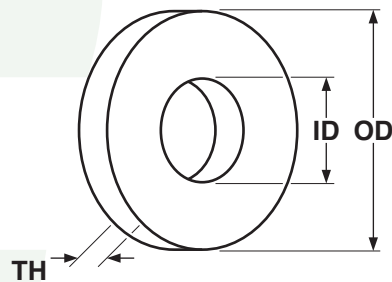


WASHERS

TYPE-B FLAT

Narrow Series,
Steel & Stainless

TYPE-B PLAIN WASHERS—NARROW SERIES

ASME B18.21.1-
-2009

Washer Size	Inside Diameter		Outside Diameter		Thickness	
	Max	Min	Max	Min	Max	Min
0	0.068	0.063	0.125	0.120	0.028	0.022
1	0.084	0.079	0.156	0.151	0.028	0.022
2	0.094	0.089	0.188	0.183	0.028	0.022
3	0.109	0.104	0.219	0.214	0.028	0.022
4	0.125	0.120	0.250	0.245	0.036	0.028
5	0.141	0.136	0.281	0.276	0.036	0.028
6	0.156	0.151	0.312	0.307	0.036	0.028
8	0.196	0.183	0.383	0.370	0.045	0.036
10	0.211	0.198	0.414	0.401	0.045	0.036
12	0.242	0.229	0.446	0.433	0.045	0.036
1/4	0.296	0.276	0.515	0.495	0.071	0.056
5/16	0.359	0.339	0.640	0.620	0.071	0.056
3/8	0.421	0.401	0.749	0.727	0.071	0.056
7/16	0.484	0.464	0.890	0.868	0.071	0.056
1/2	0.546	0.526	1.015	0.993	0.071	0.056
9/16	0.609	0.589	1.140	1.118	0.071	0.056
5/8	0.686	0.649	1.280	1.243	0.112	0.090
3/4	0.842	0.805	1.405	1.368	0.112	0.090
7/8	0.968	0.931	1.499	1.439	0.112	0.090
1	1.092	1.055	1.780	1.743	0.112	0.090
1 1/8	1.218	1.181	2.030	1.993	0.112	0.090

Description	A thin, flat, circular metal part with a centrally located hole. The tolerances of the thickness and outside diameter of Type-B washers are tighter than for USS and SAE flat washers.	
Applications/ Advantages	For use with low-carbon steel materials. Type-B washers distribute load over larger areas than the comparable USS or SAE washers of the same nominal size.	For use with stainless materials. Type-B washers distribute load over larger areas than the comparable USS or SAE washers of the same nominal size.
Material	Steel Low Carbon steel	Stainless Class 300 stainless