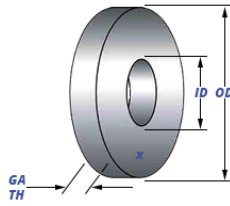


SAE Flat Washer Dimensions & Specifications



SAE Low Carbon & Stainless Washers											
Bolt Size	Outside Diameter (OD)			Inside Diameter (ID)			Thickness (TH)			Approx. number of STEEL washers per carton	
	Nominal	Max	Min	Nominal	Max	Min	American Standard (Gauge)	Max	Min	50 Lbs. (Zinc, Black Oxide or Plain finish)	20 Lbs. (Galvanized)
4	5/16	0.320	0.307	1/8	0.133	0.120	(1/32)	.040	.025	83300	-
6	3/8	0.390	0.370	5/32	0.164	0.151	18 (3/64)	.065	.036	39500	-
8	7/16	0.453	0.433	3/16	0.196	0.183	18 (3/64)	.065	.036	29500	-
10	1/2	0.515	0.495	7/32	0.227	0.214	18 (3/64)	.065	.036	22750	-
3/16	9/16	0.577	0.557	1/4	0.265	0.245	18 (3/64)	.065	.036	-	-
12	9/16	0.577	0.557	1/4	0.265	0.245	16 (1/16)	.080	.051	14700	-
1/4	5/8	0.640	0.620	9/32	0.296	0.276	16 (1/16)	.080	.051	11100	4440
5/16	11/16	0.703	0.681	11/32	0.359	0.339	16 (1/16)	.080	.051	9750	3900
3/8	13/16	0.827	0.805	13/32	0.419	0.401	16 (1/16)	.080	.051	7000	2800
7/16	59/64	0.937	0.915	15/32	0.484	0.464	16 (1/16)	.080	.051	5500	-
1/2	1-1/16	1.092	1.055	17/32	0.546	0.526	13 (3/32)	.121	.074	2800	1120
9/16	1-3/16	1.186	1.149	19/32	0.609	0.589	13 (3/32)	.121	.074	2250	-
5/8	1-5/16	1.342	1.305	21/32	0.686	0.649	13 (3/32)	.121	.074	1850	722
3/4	1-1/2	1.499	1.462	13/16	0.842	0.805	10 (9/64)	.160	.108	1050	337
7/8	1-3/4	1.780	1.743	15/16	0.968	0.931	10 (9/64)	.160	.108	775	-
1	2	2.030	1.993	1-1/16	1.092	1.055	10 (9/64)	.160	.108	585	-
1-1/8	2-1/4	2.280	2.243	1-3/16	1.280	1.243	10 (9/64)	.160	.108	460	-
1-1/4	2-1/2	2.530	2.493	1-5/16	1.405	1.368	9 (5/32)	.192	.136	335	-
1-3/8	2-3/4	2.780	2.743	1-7/16	1.530	1.493	9 (5/32)	.213	.136	275	-
1-1/2	3	3.030	2.993	1-9/16	1.655	1.618	9 (5/32)	.213	.153	230	-

Description	Similar to a USS washer, but with inner and outer diameters slightly smaller. Most but not all SAE washers are produced from thinner materials compared to USS washers.	
Applications/ Advantages	SAE washers have been designed to serve similar purposes as USS washers, but specifically to meet the automotive engineering requirements.	
Material	Steel	Stainless Steel
	Plain washers are to be punched from hot-rolled, hot-rolled and pickled, cold-rolled steel or machined from bar stock or tubing or forged at the option of the manufacturer.	316 or 18-8 Stainless Steel.
Plating	Steel SAE washers come in zinc and black oxide finishes. There are other platings available.	Usually stainless SAE washers are not supplied with extra finish.