



SAE LOW CARBON WASHERS										ANSI B18.22.1
Bolt Size	Outside Diameter			Inside Diameter			Thickness			Approximate Number per 50 Pounds
	Nominal	Max	Min	Nominal	Max	Min	American Standard (Gauge)	Max	Min	
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
5/16	11/16	0.703	0.681	11/32	0.359	0.339	16 (1/16)	.080	.051	9750
3/8	13/16	0.827	0.805	13/32	0.419	0.401	16 (1/16)	.080	.051	7000
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
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
3/4	1-1/2	1.499	1.462	13/16	0.842	0.805	10 (9/64)	.160	.108	1050
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 slightly smaller inside and outside diameters. Also, most but not all SAE washers are made from thinner materials than USS washers.
Applications/ Advantages	SAE washers were designed to serve similar purposes as the USS washers, but specifically to meet the requirements in the field of automotive engineering.
Material	Plain washers shall be punched from hot-rolled, hot-rolled and pickled, or cold-rolled steel, or shall be machined from bar stock or tubing, or may be forged at the manufacturer's option.
Plating	See Appendix-A for information about the plating of steel flat washers.