

Flat Washers Cont.

FNL Grade 9 USS Flat Washers

USS and SAE washers are designed for cap screws and other threaded products. SAE washers offer a tighter screw fit, have a smaller outside diameter, and are thinner than similar size USS washers.



- Grade 9 Composition

Nominal Size	Outer Diameter	Inner Diameter	EcoGuard™		Yellow Zinc	
			Part No.	Part No.	Part No.	Part No.
1/4"	0.750"	0.266"	11540704	0160883	-	-
5/16"	0.875"	0.329"	11540705	-	-	-
3/8"	1.000"	0.391"	11540706	0160885	-	-
7/16"	1.250"	0.454"	11540707	-	-	-
1/2"	1.375"	0.521"	11540708	0160887	-	-
9/16"	1.500"	0.583"	11540709	-	-	-
5/8"	1.750"	0.641"	11540710	-	-	-
3/4"	2.000"	0.770"	11540711	-	-	-
7/8"	2.250"	0.891"	11540712	-	-	-
1"	2.500"	1.081"	11540713	-	-	-
1-1/8"	2.750"	1.250"	11540714	-	-	-
1-1/4"	3.000"	1.375"	11540715	-	-	-
1-1/2"	3.500"	1.625"	11540716	-	-	-

FNL Grade 9 SAE Flat Washers

USS and SAE washers are designed for cap screws and other threaded products. SAE washers offer a tighter screw fit, have a smaller outside diameter, and are thinner than similar size USS washers.



- Grade 9 composition.

Nominal Size	Inner Diameter	Outer Diameter	EcoGuard™		Yellow Zinc	
			Part No.	Part No.	Part No.	Part No.
1/4"	0.266"	0.615"	11541082	-	-	-
5/16"	0.329"	0.678"	11541083	-	-	-
3/8"	0.391"	0.803"	11541084	33242	-	-
7/16"	0.454"	0.913"	11541085	-	-	-
1/2"	0.521"	1.053"	11541086	33244	-	-
9/16"	0.583"	1.170"	11541087	33245	-	-
5/8"	0.641"	1.303"	11541088	33246	-	-
3/4"	0.770"	1.458"	-	-	-	-
7/8"	0.891"	1.740"	11541090	33248	-	-
1"	1.081"	1.985"	11540717	-	-	-
1-1/8"	1.250"	2.250"	11540718	-	-	-
1-1/4"	1.375"	2.500"	11540719	33251	-	-
1-1/2"	1.625"	3.000"	11540720	-	-	-

USS Thru-Hard High Strength Flat Washers

High-strength washers are designed for use with Grade 5 and Grade 8 cap screws, these washer are made from top quality, medium carbon steel. They are through hardened to a Rockwell C scale of 38-45.



Nominal Size	Outer Diameter	Inner Diameter	Plain		Yellow Zinc	
			Part No.	Part No.	Part No.	Part No.
1/4"	0.734"	0.312"	33843	33857	-	-
5/16"	0.875"	0.375"	33844	33858	-	-
3/8"	1.000"	0.438"	33845	33859	-	-
7/16"	1.250"	0.500"	33846	33860	-	-
1/2"	1.375"	0.562"	33847	33861	-	-
9/16"	1.469"	0.625"	33848	33862	-	-
5/8"	1.750"	0.688"	33849	33863	-	-
3/4"	2.000"	0.812"	33850	33864	-	-
7/8"	2.250"	0.938"	33851	33865	-	-
1"	2.500"	1.062"	33852	33866	-	-
1-1/8"	2.750"	1.250"	33853	33867	-	-
1-1/4"	3.000"	1.375"	33854	33868	-	-
1-3/8"	3.250"	1.500"	33855	33869	-	-
1-1/2"	3.500"	1.625"	33856	33870	-	-

SAE Thru-Hard High Strength Flat Washers

High-strength washers are designed for use with Grade 5 and Grade 8 cap screws, these washer are made from top quality, medium carbon steel. They are through hardened to a Rockwell C scale of 38-45.



Nominal Size	Inner Diameter	Outer Diameter	EcoGuard™		Plain		Yellow Zinc		Galvanized	
			Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
#10	0.219"	0.500"	-	-	-	-	0149239	-	-	-
#12	0.250"	0.563"	-	-	-	-	0149240	-	-	-
1/4"	0.281"	0.625"	11137082	33113	33813	33168	-	-	-	-
5/16"	0.344"	0.688"	11137083	33114	33814	33169	-	-	-	-
3/8"	0.406"	0.812"	11137084	33115	33815	33170	-	-	-	-
7/16"	0.469"	0.922"	11137085	33116	33816	33171	-	-	-	-
1/2"	0.531"	1.062"	11137086	33800	33817	0136086	-	-	-	-
9/16"	0.594"	1.156"	-	-	33801	33818	33831	-	-	-
5/8"	0.656"	1.312"	-	-	33802	33819	0136087	-	-	-
3/4"	0.812"	1.469"	11137087	-	-	-	-	-	-	-
3/4"	0.812"	1.500"	-	-	33803	33820	0136088	-	-	-
7/8"	0.938"	1.750"	-	-	33804	33821	-	-	-	-
1"	1.062"	2.000"	-	-	33805	33822	-	-	-	-
1-1/8"	1.250"	2.250"	-	-	33806	33823	33836	-	-	-
1-1/4"	1.375"	2.500"	-	-	33807	33824	-	-	-	-
1-3/8"	1.500"	2.750"	-	-	33808	33825	33838	-	-	-
1-1/2"	1.625"	3.000"	-	-	33809	33826	-	-	-	-
1-3/4"	1.875"	3.375"	-	-	33811	33828	33841	-	-	-
2"	2.125"	3.750"	-	-	33812	33829	33842	-	-	-

SAE Thru-Hard High-Strength Extra Thick Flat Washers

High-Strength Washers are designed for use with Grade 5 and Grade 8 Cap Screws.



- Grade 8 composition.

Nominal Size	Nominal Thickness	Outer Diameter	Inner Diameter	Yellow Zinc	
				Part No.	Part No.
1/4"	0.100"	0.625"	0.285"	11101302	-
5/16"	0.100"	0.687"	0.344"	11101303	-
3/8"	0.115"	0.812"	0.406"	11101304	-
1/2"	0.172"	1.062"	0.562"	11101305	-
5/8"	0.1825"	1.312"	0.687"	11101376	-
3/4"	0.1825"	1.500"	0.815"	11101377	-
7/8"	0.235" - 0.265"	1.750"	0.938"	11101378	-
1"	0.235" - 0.265"	2.000"	1.063"	11101379	-

Fender Washers

Low Carbon Fender Washers

Also known as Plaster washers these special sized washers have an extra-wide bearing size for screw heads to eliminate the need for patching holes. This also permits the using of smaller size screws than might otherwise be needed.



Nominal Size	Nominal Thickness	Inner Diameter	Outer Diameter	Zinc		Galvanized	
				Part No.	Part No.	Part No.	Part No.
#10	0.062"	0.219"	0.750"	33201	-	-	-
#10	0.062"	0.219"	1.000"	33202	-	-	-
#10	0.062"	0.219"	1.250"	33203	-	-	-
#10	0.062"	0.219"	1.500"	33204	-	-	-
1/4"	0.062"	0.281"	1.000"	33207	0189944	-	-
1/4"	0.062"	0.281"	1.250"	33208	0189945	-	-
1/4"	0.062"	0.281"	1.500"	33209	0189946	-	-
1/4"	0.062"	0.281"	1.750"	33210	-	-	-
1/4"	0.062"	0.281"	2.000"	33211	-	-	-
5/16"	0.062"	0.343"	1.000"	33213	-	-	-
5/16"	0.062"	0.343"	1.250"	33214	0189947	-	-
5/16"	0.062"	0.343"	1.500"	33215	0189948	-	-
5/16"	0.062"	0.343"	1.750"	33216	-	-	-

Nominal Size	Nominal Thickness	Inner Diameter	Outer Diameter	Zinc		Galvanized	
				Part No.	Part No.	Part No.	Part No.
5/16"	0.062"	0.343"	2.000"	33217	-	-	-
3/8"	0.062"	0.406"	1.250"	33219	-	-	-
3/8"	0.062"	0.406"	1.500"	33220	0189949	-	-
3/8"	0.062"	0.406"	1.625"	33223	-	-	-
3/8"	0.062"	0.406"	1.750"	33221	-	-	-
3/8"	0.062"	0.406"	2.000"	33222	0189950	-	-
1/2"	0.062"	0.531"	1.250"	33224	-	-	-
1/2"	0.062"	0.531"	1.500"	33225	-	-	-
1/2"	0.062"	0.531"	1.750"	33226	-	-	-
1/2"	0.062"	0.531"	2.000"	33227	0189951	-	-
1/2"	0.062"	0.531"	2.500"	33228	-	-	-

Extra Thick Zinc Fender Washers

Also known as Plaster washers these special sized washers have an extra-wide bearing size for screw heads to eliminate the need for patching holes. This also permits the using of smaller size screws than might otherwise be needed. These washers are twice as thick as the traditional fender washers.



Nominal Size	Nominal Thickness	Inner Diameter	Outer Diameter	Zinc	
				Part No.	Part No.
#10	0.125"	0.219"	0.750"	11101263	-
#10	0.125"	0.219"	1.000"	11101264	-
1/4"	0.125"	0.281"	1.000"	11101265	-
1/4"	0.125"	0.281"	1.250"	11101266	-
1/4"	0.125"	0.281"	1.500"	11101267	-
1/4"	0.125"	0.281"	2.000"	11101268	-
1/4"	0.250"	0.281"	1.500"	11101266	-
5/16"	0.125"	0.343"	1.000"	11101269	-
5/16"	0.125"	0.343"	1.250"	11101270	-
5/16"	0.125"	0.343"	1.500"	11101271	-
5/16"	0.125"	0.343"	2.000"	11101272	-
5/16"	0.250"	0.343"	2.000"	11101287	-
3/8"	0.125"	0.406"	1.250"	11101273	-
3/8"	0.125"	0.406"	1.500"	11101274	-
3/8"	0.125"	0.406"	1.750"	11101275	-
3/8"	0.125"	0.406"	2.000"	11101276	-
3/8"	0.250"	0.406"	2.000"	11101288	-
1/2"	0.125"	0.531"	1.250"	11101277	-
1/2"	0.125"	0.531"	1.500"	11101278	-
1/2"	0.125"	0.531"	1.750"	11101279	-
1/2"	0.125"	0.531"	2.000"	11101280	-
1/2"	0.125"	0.531"	2.500"	11101281	-
1/2"	0.250"	0.531"	2.000"	11101289	-
5/8"	0.125"	0.687"	2.000"	11101282	-
5/8"	0.250"	0.687"	2.500"	11101290	-
3/4"	0.125"	0.812"	2.500"	11101283	-
3/4"	0.250"	0.812"	3.000"	11101291	-
7/8"	0.125"	0.938"	2.500"	11101284	-
7/8"	0.250"	0.938"	3.000"	11101292	-
1"	0.125"	1.062"	2.500"	11101285	-
1"	0.250"	1.062"	3.250"	11101293	-

Bonded Sealing Washers

Galvanized Bonded Sealing Washers

Sealing washers help seal joints, prevent leakage and cushion under the head of the bolt or nut. Rubber is bonded to a washer to form a washer that is strong, yet soft and resilient enough to use with fragile materials.



Nominal Size	Steel	
	Part No.	Part No.
#6	33151	-
#8	33152	-
#10	33153	-
#12	33154	-
1/4"	33155	-
5/16"	33156	-
3/8"	33157	-
1/2"	33158	-