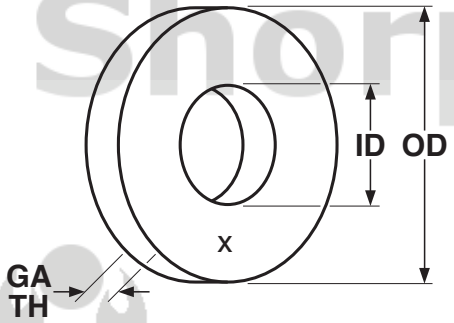
USS THROUGH-HARDENED

Flat



USS Through-Hardened Flat Washers

Bolt Size	Outside Diameter			Inside Diameter			Thickness	
	Nominal	Max	Min	Nominal	Max	Min	Max	Min
1/4	3/4	0.749	0.727	5/16	0.327	0.307	.080	.051
5/16	7/8	0.905	0.868	3/8	0.390	0.370	.104	.064
3/8	1	1.030	0.993	7/16	0.453	0.433	.104	.064
7/16	1-1/4	1.280	1.243	1/2	0.515	0.495	.104	.064
1/2	1-3/8	1.405	1.368	9/16	0.577	0.557	.132	.086
9/16	1-1/2	1.499	1.462	5/8	0.640	0.620	.132	.086
5/8	1-3/4	1.780	1.743	21/32	0.687	0.649	.160	.108
3/4	2	2.030	1.993	13/16	0.842	0.805	.177	.122
7/8	2-1/4	2.280	2.243	15/16	0.968	0.931	.192	.136
1	2-1/2	2.530	2.493	1-1/16	1.092	1.055	.192	.136
1-1/8	2-3/4	2.780	2.743	1-1/4	1.280	1.243	.192	.136
1-1/4	3	3.030	2.993	1-3/8	1.405	1.368	.192	.136
1-1/2	3-1/2	3.545	3.490	1-5/8	1.670	1.615	.213	.136

Description	Dimensionally similar to the USS plain washer counterparts, but with tighter tolerances on thickness, manufactured from a higher grade of steel and heat-treated.
Applications/ Advantages	Designed to perform the same functions as USS plain washers, but for use specifically with high-strength hardened steel bolts.
Material	SAE 1035 - 1050 steel
Hardness	Rockwell C38 - 45
Plating	See Appendix-A for information about the plating of through-hardened flat washers.

*Product standards require all through-hardened washers 1/4" diameter and larger to bear the insignia indentifying its manufacturer. "X" represents one location such an insignia may appear.