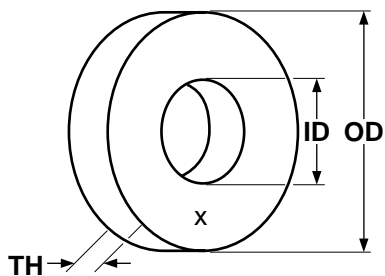


**Extra  
Thick**

# SAE Through-Hardened

# Washers



SAE THROUGH-HARDENED FLAT WASHERS - EXTRA THICK									ASME B18.22.1, Wrought Washer
Bolt Size	Outside Diameter			Inside Diameter			Thickness		Approximate Number per 50 Pounds
	Nominal	Max	Min	Nominal	Max	Min	Max	Min	
1/4	5/8	0.640	0.620	9/32	0.296	0.276	.080	.064	9400
5/16	11/16	0.703	0.681	11/32	0.359	0.339	.093	.079	8000
3/8	13/16	0.827	0.805	13/32	0.419	0.401	.093	.079	5300
7/16	59/64	0.937	0.915	15/32	0.484	0.464	.106	.090	3600
1/2	1-1/16	1.092	1.055	17/32	0.546	0.526	.146	.122	2000
9/16	1-3/16	1.186	1.149	19/32	0.609	0.589	.146	.122	1600
5/8	1-5/16	1.342	1.305	21/32	0.686	0.649	.160	.136	1150
3/4	1-15/32	1.499	1.462	13/16	0.842	0.805	.160	.136	950
7/8	1-3/4	1.780	1.743	15/16	0.968	0.931	.160	.136	650
1	2	2.030	1.993	1-1/16	1.092	1.055	.160	.136	500

<b>Description</b>	Has identical inside and outside diameters as SAE thru-hardened washer, but can be as much as 50% thicker. They are manufactured from a medium grade of steel and heat-treated.
<b>Applications/ Advantages</b>	Designed for heavy duty use in machinery construction, assembly, in-plant maintenance and building construction
<b>Material</b>	SAE 1035 - 1050 steel
<b>Hardness</b>	Rockwell C38 - 45
<b>Plating</b>	Parts are mechanically zinc yellow plated.