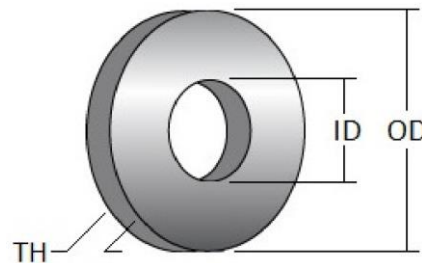


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An **AMERICAN** Source For Premier
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USS FLAT WASHER – STEEL ZINC, 18-8 STAINLESS STEEL, and BLACK OXIDE

The following Specification Sheet applies to all **USS Flat Washers – Steel Zinc, 18-8 Stainless Steel, and Black Oxide** in our **WW and JWW** series.



USS Low CARBON & STAINLESS WASHERS									-ASME B18.21.1- 2009
Bolt Size	Outside Diameter			Inside Diameter			Thickness		
	Nominal	Max	Min	Nominal	Max	Min	American Standard (Gauge)	Max	Min
1/4	3/4	0.749	0.727	5/16	0.327	0.307	16 (1/16)	.080	.051
5/16	7/8	0.905	0.868	3/8	0.390	0.370	14 (5/64)	.104	.064
3/8	1	1.030	0.993	7/16	0.453	0.433	14 (5/64)	.104	.064
7/16	1-1/4	1.280	1.243	1/2	0.515	0.495	14 (5/64)	.104	.064
1/2	1-3/8	1.405	1.368	9/16	0.577	0.557	12 (7/64)	.132	.086
5/8	1-3/4	1.780	1.743	11/16	0.718	0.681	10 (9/64)	.160	.108
3/4	2	2.030	1.993	13/16	0.842	0.805	9 (5/32)	.177	.122
7/8	2-1/4	2.280	2.243	15/16	0.968	0.931	8 (11/64)	.192	.136
1	2-1/2	2.530	2.493	1-1/16	1.092	1.055	8 (11/64)	.192	.136
1-1/4	3	3.030	2.993	1-3/8	1.405	1.368	8 (11/64)	.192	.136

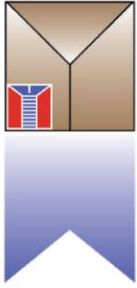
Metallics

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Description	A thin, flat, circular metal part with a centrally located hole.	
Applications/ Advantages	Washers are designed for assembly around a bolt or screw, between the bearing surface of the fastener and the part to which it is attached. Flat washers are used to improve stress distribution, and to span large clearance holes. USS washers are designed to meet the majority of industrial applications in manufacturing, maintenance and repair.	
Material	<i>Steel</i>	<i>Stainless</i>
	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.	18-8 Stainless

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