

USS FLAT WASHERS

ZINC, GALVANIZED & STAINLESS STEEL

CERTIFICATION

TECHNICAL DATA



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A **USS (United States Standard) washer** is a thin disc with a hole (typically in the center) that is designed to distribute the load of a threaded fastener, such as a screw or nut. These are the most commonly used washers in everyday applications.



ZINC PLATED



HOT DIP GALVANIZED



STAINLESS STEEL

DIMENSIONAL DATA

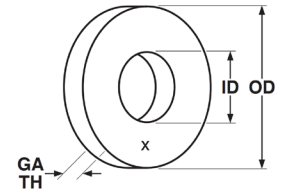
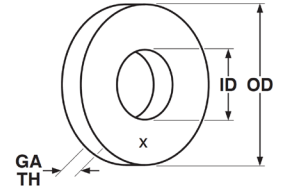


TABLE 1: DIMENSIONAL DATA OF USS FLAT WASHERS LOW CARBON STEEL

USS WASHERS - LOW CARBON STEEL										ASME B18.2.1-2009
BOLT SIZE	OUTSIDE DIAMETER			INSIDE DIAMETER			THICKNESS			APPROX. NUMBER OF USS WASHERS PER 50 POUNDS
	NOMINAL	MAX	MIN	NOMINAL	MAX	MIN	AMERICAN STANDARD (GAUGE)	MAX	MIN	
3/16	9/16	0.577	0.557	1/4	0.265	0.245	18 (3/64)	0.065	0.036	18050
1/4	3/4	0.749	0.727	5/16	0.327	0.307	16 (1/16)	0.080	0.051	7450
5/16	7/8	0.905	0.868	3/8	0.390	0.370	14 (5/64)	0.104	0.064	4350
3/8	1	1.030	0.993	7/16	0.453	0.433	14 (5/64)	0.104	0.064	3350
7/16	1-1/4	1.280	1.243	1/2	0.515	0.495	14 (5/64)	0.104	0.064	2050
1/2	1-3/8	1.405	1.368	9/16	0.577	0.557	12 (7/64)	0.132	0.086	1300
9/16	1-1/2	1.499	1.462	5/8	0.640	0.620	21 (7/64)	0.132	0.086	1100
5/8	1-3/4	1.780	1.743	11/16	0.718	0.681	10 (9/64)	0.160	0.108	650
3/4	2	2.030	1.993	13/16	0.842	0.805	9 (5/32)	0.177	0.122	455
7/8	2-1/4	2.280	2.243	15/16	0.968	0.931	8 (11/64)	0.192	0.136	325
1	2-1/2	2.530	2.493	1-1/16	1.092	1.055	8 (11/64)	0.192	0.136	265
1-1/8	2-3/4	2.780	2.743	1-1/4	1.280	1.243	8 (11/64)	0.192	0.136	225
1-1/4	3	3.030	2.993	1-3/8	1.405	1.368	8 (11/64)	0.192	0.136	190
1-3/8	3-1/4	3.295	3.240	1-1/2	1.545	1.490	7 (3/16)	0.213	0.153	150
1-1/2	3-1/2	3.545	3.490	1-5/8	1.670	1.615	7 (3/16)	0.213	0.153	130
1-5/8	3-3/4	3.795	3.740	1-3/4	1.795	1.740	7 (3/16)	0.213	0.153	115
1-3/4	4	4.045	3.990	1-7/8	1.920	1.865	7 (3/16)	0.213	0.153	100
1-7/8	4-1/4	4.295	4.240	2	2.045	1.990	7 (3/16)	0.213	0.153	90
2	4-1/2	4.545	4.490	2-1/8	2.170	2.115	7 (3/16)	0.213	0.153	79
2-1/4	4-3/4	4.795	4.740	2-3/8	2.420	2.365	5 (7/32)	0.248	0.193	60
2-1/2	5	5.045	4.990	2-5/8	2.670	2.615	4 (15/64)	0.280	0.210	52
2-3/4	5-1/4	5.315	5.240	2-7/8	2.940	2.865	3 (1/4)	0.310	0.228	45
3	5-1/2	5.565	5.490	3-1/8	3.190	3.115	2 (5/32)	0.327	0.249	43

**USS FLAT WASHERS**

ZINC, GALVANIZED & STAINLESS STEEL

DIMENSIONAL DATA**TABLE 2: DIMENSIONAL DATA OF USS FLAT WASHERS STAINLESS STEEL**

USS WASHERS - LOW CARBON STEEL						
BOLT SIZE	OUTSIDE DIAMETER		INSIDE DIAMETER		THICKNESS	
	MAX	MIN	MAX	MIN	MAX	MIN
4	0.317	0.307	0.130	0.120	0.034	0.028
6	0.375	0.370	0.161	0.151	0.034	0.028
8	0.375	0.370	0.177	0.167	0.034	0.028
10	0.438	0.432	0.208	0.198	0.034	0.028
1/4	0.625	0.620	0.286	0.276	0.054	0.046
1/4	0.750	0.745	0.327	0.281	0.080	0.051
5/16	0.630	0.620	0.348	0.338	0.080	0.051
5/16	0.755	0.745	0.348	0.338	0.054	0.046
5/16	0.880	0.870	0.348	0.338	0.080	0.051
5/16	1.005	0.995	0.348	0.338	0.080	0.051
3/8	0.755	0.745	0.416	0.396	0.080	0.051
3/8	0.880	0.870	0.396	0.386	0.054	0.046
3/8	1.005	0.995	0.396	0.386	0.066	0.058
7/16	1.130	1.120	0.505	0.495	0.066	0.058
1/2	1.255	1.245	0.567	0.557	0.066	0.058
5/8	1.505	1.495	0.693	0.683	0.084	0.074
3/4	1.755	1.745	0.817	0.807	0.097	0.082
7/8	2.005	1.995	0.943	0.933	0.117	0.102
1	2.005	1.995	1.067	1.057	0.133	0.117

ORDERING INFORMATION**TABLE 3: USS FLAT WASHER HOT DIP GALVANIZED ORDERING INFORMATION**

PART NUMBER	SIZE	I.D.*	O.D.**	APPROX. THICKNESS	QTY/BOX
2USSG014	1/4	5/16	3/4	1/16	100
2USSG516	5/16	3/8	7/8	5/64	100
2USSG038	3/8	7/16	1	5/64	100
2USSG012	1/2	9/16	1-3/8	7/65	100
2USSG034	3/4	13/16	2	5/32	50
2USSG078	7/8	15/16	2-1/4	11/64	50
2USSG100	1	1-1/16	2-1/2	11/64	50

* Inside Diameter; **Outside Diameter

NOTE: I.D., O.D. and thickness are approximate due to the thick galvanized coating

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ORDERING INFORMATION

TABLE 4: USS FLAT WASHER ZINC PLATED ORDERING INFORMATION

PART NUMBER	SIZE	I.D.*	O.D.**	APPROX. THICKNESS	QTY/BOX
2USS316	3/16	1/4	9/16	3/64	100
2USS014	1/4	5/16	3/4	1/16	100
2USS516	5/16	3/8	7/8	5/64	100
2USS038	3/8	7/16	1	5/64	100
2USS716	7/16	1/2	1-1/4	5/64	100
2USS012	1/2	9/16	1-3/8	7/65	100
2USS058	5/8	11/16	1-3/4	9/64	100
2USS034	3/4	13/16	2	5/32	50
2USS078	7/8	15/16	2-1/4	11/64	50
2USS100	1	1-1/16	2-1/2	11/64	50
BULK					
2USS038-B	3/8	7/16	1	5/64	50 lb. Box

* Inside Diameter; **Outside Diameter

TABLE 5: USS FLAT WASHER 18-8 STAINLESS STEEL ORDERING INFORMATION

PART NUMBER	SIZE	I.D.*	O.D.**	APPROX. THICKNESS	QTY/BOX
2USSS2014	1/4	5/16	3/4	1/16	100
2USSS2516	5/16	3/8	7/8	5/64	100
2USSS2038	3/8	7/16	1	5/64	100
2USSS2012	1/2	9/16	1-3/8	7/65	100
2USSS2058	5/8	11/16	1-3/4	9/64	100
2USSS2034	3/4	13/16	2	5/32	50

* Inside Diameter; **Outside Diameter

TABLE 6: USS FLAT WASHER 316 STAINLESS STEEL ORDERING INFORMATION

PART NUMBER	SIZE	I.D.*	O.D.**	APPROX. THICKNESS	QTY/BOX
2USSS4014	1/4	5/16	3/4	1/16	100
2USSS4516	5/16	3/8	7/8	5/64	100
2USSS4038	3/8	7/16	1	5/64	100
2USSS4012	1/2	9/16	1-3/8	7/65	100
2USSS4058	5/8	11/16	1-3/4	9/64	100
2USSS4034	3/4	13/16	2	5/32	50

* Inside Diameter; **Outside Diameter