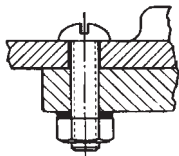


EXTERNAL TYPE LOCKWASHERS



- Provide maximum torsional resistance.
- Work best with larger head screws (round, pan, binding, etc.)

MATERIALS: Part numbers shown are for washers made of spring steel. These washers are also available in bronze and bronze alloy and in 400 series stainless steel. Many of these are in stock at WCL. Washers can also be produced from 300 series stainless steel and other materials on request. *Specify material when inquiring or ordering.*

SPECIFICATIONS: All commercial and military tooth lockwashers supplied by WCL Company and listed on these pages conform to ASME B18.21.1 and to all applicable specifications as reported by IFI.

Nominal Washer Size	Hole Diameter		Outside Diameter		Thickness	WCL Part Number	Cross Reference	MS35335 -		
	Min.	Max.	Min.	Max.				Steel Plated	Stainless Steel	Bronze Alloy
2	0.089	0.095	0.275	0.285	0.017	EXT-0086-01-00	1102-01			
3	0.102	0.109	0.220	0.235	0.013	EXT-0099-00-00	1103-00			
4	0.115	0.123	0.245	0.260	0.015	EXT-0112-00-00	1104-00	-29	-57	-85
4	0.116	0.123	0.275	0.285	0.015	EXT-0112-01-00	1104-01			
4	0.116	0.123	0.215	0.225	0.015	EXT-0112-02-00	1104-02			
5	0.129	0.136	0.270	0.285	0.015	EXT-0125-00-00	1105-00			
6	0.141	0.150	0.305	0.320	0.020	EXT-0138-00-00	1106-00	-30	-58	-86
6	0.142	0.150	0.370	0.381	0.022	EXT-0138-01-00	1106-01			
6	0.150	0.142	0.306	0.317	0.017	EXT-0138-05-00	1106-05			
8	0.168	0.176	0.365	0.381	0.020	EXT-0164-00-00	1108-00	-31	-59	-87
8	0.168	0.176	0.370	0.381	0.025	EXT-0164-01-00	1108-01			
8	0.168	0.176	0.680	0.695	0.039	EXT-0164-02-00	1108-02			
8	0.168	0.176	0.494	0.506	0.020	EXT-0164-05-00	1108-05			
8	0.168	0.176	0.494	0.506	0.022	EXT-0164-08-00	1108-08			
8	0.165	0.170	0.306	0.317	0.020	EXT-0164-11-00	1108-11			
10	0.195	0.204	0.395	0.410	0.022	EXT-0190-00-00	1110-00	-32	-60	-88
10	0.195	0.199	0.335	0.345	0.017	EXT-0190-03-00	1110-03			
10	0.195	0.204	0.395	0.406	0.029	EXT-0190-04-00	1110-04			
10	0.195	0.204	0.494	0.506	0.025	EXT-0190-07-00	1110-07			
12	0.221	0.231	0.460	0.475	0.025	EXT-0216-00-00	1112-00			
12	0.218	0.224	0.395	0.406	0.022	EXT-0216-05-00	1112-05			
1/4	0.256	0.267	0.494	0.510	0.025	EXT-0250-00-00	1114-00	-33	-61	-89
1/4	0.257	0.263	0.428	0.440	0.017	EXT-0250-02-00	1114-02			
1/4	0.256	0.267	0.882	0.898	0.045	EXT-0250-04-00	1114-04			
1/4	0.256	0.267	0.365	0.375	0.020	EXT-0250-05-00	1114-05			
1/4	0.256	0.267	0.680	0.695	0.039	EXT-0250-09-00	1114-09			
1/4	0.246	0.25	0.365	0.375	0.017	EXT-0250-11-00	1114-11			
1/4	0.256	0.267	0.882	0.898	0.039	EXT-0250-16-00	1114-16			
1/4	0.256	0.267	0.365	0.375	0.029	EXT-0250-18-00	1114-18			
5/16	0.320	0.332	0.588	0.610	0.029	EXT-0312-00-00	1118-00	-34	-62	-90
5/16	0.320	0.332	0.680	0.695	0.035	EXT-0312-02-00	1118-02			
5/16	0.353	0.357	0.640	0.654	0.035	EXT-0312-11-00	1118-11			
3/8	0.384	0.398	0.670	0.694	0.035	EXT-0375-00-00	1120-00	-35	-63	-91
1/8 Pipe	0.406	0.420	0.680	0.695	0.035	EXT-0375-01-00	1120-01			
3/8	0.384	0.398	0.883	0.898	0.039	EXT-0375-06-00	1120-06			

EXTERNAL TYPE LOCKWASHERS

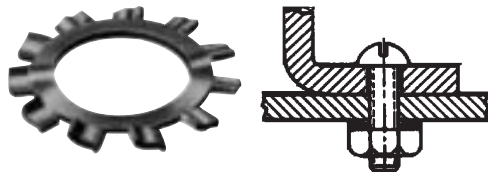
Nominal Washer Size	Hole Diameter		Outside Diameter		Thickness	WCL Part Number	Cross Reference	MS35335 -		
	Min.	Max.	Min.	Max.				Steel Plated	Stainless Steel	Bronze Alloy
3/8	0.384	0.398	0.615	0.635	0.035	EXT-0375-08-00	1120-08			
3/8	0.384	0.398	1.240	1.260	0.035	EXT-0375-09-00	1120-09			
3/8	0.380	0.387	0.550	0.562	0.015	EXT-0375-12-00	1120-12			
7/16	0.448	0.464	0.740	0.760	0.035	EXT-0437-00-00	1122-00	-36	-64	-92
7/16	0.468	0.488	0.740	0.760	0.035	EXT-0437-09-00	1122-09			
1/2	0.513	0.530	0.882	0.900	0.039	EXT-0500-00-00	1124-00	-37	-65	-93
1/2	0.512	0.529	1.380	1.410	0.055	EXT-0500-01-00	1124-01			
1/2	0.512	0.529	0.882	0.898	0.050	EXT-0500-06-00	1124-06			
9/16	0.576	0.596	0.960	0.985	0.039	EXT-0562-00-00	1126-00	-38	-66	-94
5/8	0.641	0.663	1.045	1.070	0.045	EXT-0625-00-00	1128-00	-39	-67	-95
5/8	0.625	0.635	0.839	0.849	0.035	EXT-0625-06-00	1128-06			
11/16	0.690	0.696	0.914	0.922	0.035	EXT-0687-05-00	1130-05			
3/4	0.768	0.79	1.220	1.260	0.050	EXT-0750-00-00	1132-00	-40	-68	-96
7/8	0.897	0.927	1.380	1.410	0.055	EXT-0875-00-00	1134-00**	-41	-69	-97
1	1.025	1.060	1.590	1.620	0.062	EXT-1000-00-00	1136-00	-42	-70	-98
1-1/8	1.128	1.142	1.797	1.827	0.062	EXT-1125-03-00	1138-03			
1-1/4	1.269	1.293	2.172	2.202	0.062	EXT-1250-01-00	1140-01			
1.5625	1.560	1.580	2.359	2.392	0.094	EXT-1562-01-00	1145-01			
2-3/4	2.800	2.825	3.490	3.510	0.078	EXT-2750-01-00	1164-01			
2-3/4	2.800	2.825	3.490	3.510	0.078	EXT-2750-02-00	1164-02*			

* Left Hand Twist

**Type B option also stocked

SPECIFICATIONS: All commercial and military tooth lockwashers supplied by WCL Company and listed on these pages conform to ASME B18.21.1 and to all applicable specifications as reported by IFI.

TYPE "B" TOOTH FORM



The Type "B" is listed as an alternative tooth form in ASME B18.21.1 Military Standards, S.A.E., etc. It is available for many of the styles and sizes of tooth washers shown in this catalog, including external, internal, external-internal and many others. To order, specify the WCL part number and designate "Type B" for example: 1114-00 Type B.