

### **Curved Split Lock Washers**

Have a wavy shape for use with right- and left-hand bolted joints and are more vibration-resistant than split lock washers in treated lumber applications. These washers compress as the fastener is tight-ened to prevent movement-induced loosening in treated lumber applications.

For Screw Size Grade 2 Sp	Inside Diameter ring Steel, 2	Outside Diameter Zinc Plated	Maximum Thickness	Item No.	Pkg. Qty.
M5	5.1 mm	9.2 mm	1 mm	54FN20	100
M6	6.1 mm	11.8 mm	1.3 mm	54FN21	100
M8	8.1 mm	14.8 mm	1.6 mm	54FN22	100
M10	10.2 mm	18.1 mm	1.8 mm	54FN23	100
M12	12.2 mm	21.1 mm	2.1 mm	54FN24	100
M16	16.2 mm	27.4 mm	2.8 mm	54FN25	50
M20	20.2 mm	33.6 mm	3.2 mm	54FN26	50



#### **Countersunk Lock Washers**

These concave washers have flexed external teeth to absorb vibration and shock and prevent slipping. They are used in countersunk holes to accommodate flat or oval countersunk-style screws with head angles of 82 or 100 degrees.

angles of 62 of 100 degrees.						
For Screw Size	Diameter	Outside Diameter	Maximum Thickness	Item No.	Pkg. Qty.	
	ıless Steel,	Plain				
#2	_	_	_	23NK02	50	
#4	0.113 in	0.213 in	0.015 in	23NK03	50	
#6	0.14 in	0.289 in	0.017 in	23NK04	50	
#8	0.167 in	0.322 in	0.017 in	23NK05	50	
#10	0.195 in	0.354 in	0.02 in	23NK06	50	
1/4 in	0.255 in	0.454 in	0.02 in	23NK07	50	
5/16 in	0.318 in	0.599 in	0.023 in	19NP63	50	
3/8 in	0.383 in	0.765 in	0.028 in	19NP64	50	
	tainless Ste					
#4	0.116 in	0.238 in	0.015 in	1EAK3	100	
#6	0.142 in	0.298 in	0.017 in	1EAK4	100	
#10	0.195 in	0.372 in	0.022 in	1EAK6	100	
1/4 in	0.256 in	0.478 in	0.022 in	1EAK7	100	
Grade 2 St	teel, Zinc P	lated				
#6	0.14 in	0.289 in	0.017 in	19NT95	100	
	0.15 in	0.298 in	0.021 in	6YY85	100	
#8	0.167 in	0.322 in	0.017 in	19NT96	100	
	0.176 in	0.34 in	0.021 in	6YY86	100	
#10	0.195 in	0.354 in	0.02 in	19NT97	100	
	0.204 in	0.372 in	0.025 in	6YY87	100	
#12	0.22 in	0.421 in	0.02 in	19NT98	100	
	0.231 in	0.447 in	0.025 in	6YY88	100	
1/4 in -	0.255 in	0.454 in	0.02 in	19NT99	100	
	0.267 in	0.478 in	0.025 in	6YY89	100	
5/16 in	0.318 in	0.599 in	0.023 in	19NU01	100	
3⁄8 in	0.383 in	0.765 in	0.028 in	19NU02	50	



**External Tooth Lock Washers** 

These washers have teeth around their outer diameter to tightly grip into the work surface for greater hold than internal tooth washers. External tooth washers work well with larger bolt or screw heads.

For Screw Size	Inside Diameter	Outside Diameter	Maximum Thickness	Item No.	Pkg. Qty.
18-8 Staini	ess Steel, I	riain	0.010;	0011174	
#8	0.168 in	0.365 in 0.395 in	0.018 in	23NJ71	50
#10	0.195 in	0.395 in	0.018 in	23NJ72	50 50
1/4 in	0.256 in	0.494 in	0.023 in	19NP58	
5/16 in	0.32 in	0.588 in	0.028 in	19NP59	50
3% in	0.384 in	0.67 in	0.032 in	23NJ75	50
½ in	0.513 in	0.88 in	0.037 in	23NJ76	10
M4	4.3 mm	8 mm	0.5 mm	22UK23	50
M5 -	5.3 mm	10 mm	0.6 mm	22UK26	50
	5.3 mm	10 mm	0.6 mm	23NJ95	50
M6 -	6.4 mm	11 mm	0.7 mm	22UK27	50
IVIO	6.4 mm	11 mm	0.7 mm	23NJ96	50
M8	8.4 mm	15 mm	0.8 mm	23NJ39	50
	8.4 mm	15 mm	0.8 mm	23NJ97	50
M10	10.5 mm	18 mm	0.9 mm	23NJ40	50
M12	13 mm	20.5 mm	1 mm	23NJ41	25
316 Stainle	ess Steel, P	lain			
#8	0.168 in	0.365 in	0.018 in	19NP68	50
410 Stainle	ess Steel, P				
#10	0.195 in	0.395 in	0.216 in	22UJ26	50
1/4 in	0.256 in	0.494 in	0.023 in	22UJ27	50
5/16 in	0.32 in	0.588 in	0.028 in	22UJ97	50
3% in	0.398 in	0.694 in	0.04 in	1NY52	50 50
7/16 in	0.448 in	0.74 in	0.032 in	22UJ99	25
½ in	0.513 in	0.88 in	0.037 in	22UK01	10
5% in	0.641 in	1.045 in	0.042 in	22UK02	10
3/4 in	0.768 in	1.22 in	0.047 in	22UK03	5
Grade 2 Ph	osnhor Bro	nze Plain	0.0 17 111	LLUMOU	
Grade 2 Ph	0 176 in	0.381 in	0.023 in	1NY40	100
#10	0.176 in 0.204 in	0.41 in	0.024 in	1NY41	100
Grade 2 Sp	ring Steel		0.02 1111	1111-71	100
M3	3.2 mm	6 mm	0.4 mm	54FN35	100
M6	6.4 mm	11 mm	0.7 mm	54FN38	100
M14	15 mm	24 mm	1 mm	54FN50	50
M18	19 mm	30 mm	1.4 mm	54FN51	25
M2	2.2 mm	4.5 mm	0.3 mm	54FN44	100
M30	2.2 mm 31 mm	48 mm	1.6 mm	54FN53	5
Grade 2 Sta	ainless Ster		1.0 111111	041 1400	
#4	0.102 in	0.255 in	0.015 in	1EAH1	100
#8	0.168 in	0.381 in	0.02 in	1EAH3	100
	0.384 in	0.695 in	0.035 in	1EAH7	25
½ in	0.512 in	0.898 in	0.039 in	1EAH8	25
Grade 2 Sto			0.000 111	TEMIO	
#4	0.123 in	0.26 in	0.018 in	6DYU0	100
	0.15 in	0.32 in	0.022 in	2DB48	100
#6	0.15 in	0.32 in	0.022 in	6DZC4	100
	0.176 in	0.32 iii	0.022 in	2DB50	100
#8 -	0.176 in	0.381 in	0.023 in	6DZC5	100
#10	0.204 in	0.41 in	0.024 in	2DB52 6DYU1	100
#12	0.204 in	0.41 in	0.024 in		100
#12	0.231 in	0.475 in	0.027 in	2DB54	100
1/4 in -	0.267 in	0.51 in	0.028 in	2DB56	100
74111	0.267 in	0.51 in	0.028 in	6DYU2	100
5/16 in	0.332 in	0.61 in	0.034 in	2DB58	100
710 111	0.332 in	0.61 in	0.034 in	6DYU3	100
3% in	0.384 in	0.67 in	0.032 in	22UJ28	50
	0.398 in	0.694 in	0.04 in	6DYU4	100
7/16 in	0.448 in	0.74 in	0.032 in	22UJ29	25
½ in	0.513 in	0.88 in	0.037 in	22UJ30	25
9⁄16 in	0.576 in	0.96 in	0.037 in	22UJ31	25
5/8 in	0.641 in	1.045 in	0.042 in	22UJ32	10
3/4 in	0.768 in	1.22 in	0.047 in	22UJ33	10
7⁄8 in	0.897 in	1.38 in	0.052 in	25DM98	5
1 in	1.025 in	1.59 in	0.059 in	25DM99	5
M4	4.3 mm	8 mm	0.5 mm	25DN35	100
				1	

23NJ58



# **Internal Tooth Lock Washers**

Absorb shock and minimize vibration to stop nuts or bolt heads from loosening. These washers are used in electrical applications where they scrape the surface of the surrounding area to improve the electrical connection.

electrical connection.					
For Screw Size	Inside Diameter	Outside Diameter	Maximum Thickness	Item No.	Pkg. Qty.
18-8 Stain	less Steel, P	lain			
#4	0.115 in	0.245 in	0.012 in	23NJ58	50
#6	0.141 in	0.275 in	0.016 in	23NJ59	50
#8	0.168 in	0.325 in 0.365 in	0.018 in	23NJ60	50
#10	0.195 in	0.365 in	0.018 in	23NJ61	50
1/4 in	U.256 III	0.46 in	0.023 in	19NP60	50
5/16 in	0.32 in	0.594 in	0.028 in	19NP61	50
3/8 in	0.384 in	0.67 in	0.032 in	23NJ64	50
½ in	0.512 in	0.867 in	0.037 in	23NJ65	10
3/4 in	0.769 in	1.22 in	0.047 in	23NJ68	5
M3	3.2 mm	6 mm	0.4 mm	23NJ62	50
M4	4.3 mm	8 mm	0.5 mm	23NJ63	50
M6	6.4 mm	11 mm	0.7 mm	23NJ73	50
M10	10.5 mm	18 mm	0.9 mm	23NJ88	50
M12	13 mm	20.5 mm	1 mm	22UK24	25
M20	21 mm	33 mm	1.4 mm	23NJ90	5
	ess Steel, Pl	ain			
#8	0.168 in	0.336 in 0.365 in	0.02 in	1EAL9	50
#10	0.195 in	0.365 in	0.018 in	19NP70	50
1/4 in	0.256 in	0.46 in	0.023 in	23NJ92	50
410 Stainl	ess Steel, Pl	ain			
#4	0.115 in	0.245 in	0.012 in	22UJ85	50
#8	0.168 in	0.325 in	0.018 in	22UJ87	50
1/4 in	0.256 in	0.46 in	0.023 in	22UJ90	50
5/16 in	0.32 in	0.594 in	0.028 in	22UJ91	50
3/8 in	0.384 in 0.512 in	0.67 in 0.867 in	0.032 in 0.037 in	22UJ92	50
½ in	0.512 in	0.867 in	0.037 in	22UJ94	10
5/8 in	0.64 in	1.045 in	0.042 in	22UJ95	10
	tainless Stee				
#6	0.142 in	0.288 in	0.017 in	1EAJ1	100
#8	0.168 in	0.336 in	0.02 in	1EAJ2	100
#10	0.195 in	0.381 in	0.022 in	1EAJ3	100
1/4 in	0.256 in	0.478 in	0.025 in	1EAN2	25
3% in -	0.384 in	0.692 in	0.035 in	1EAJ6	25
78 III -	0.384 in	0.692 in	0.035 in	1EAN4	25
1/2 in	0.512 in	0.883 in	0.039 in	1EAJ7	25
Grade 2 St	teel, Black O	xide			
1/4 in	0.256 in	0.5 in	0.035 in	19NP71	100
5/16 in	0.32 in	0.59 in	0.04 in	19NP72	100
3/8 in	0.384 in	0.747 in	0.045 in	1EAN7	100
5/8 in	0.64 in	1.1 in	0.059 in	19NP74	10
3/4 in	0.768 in	1.24 in	0.07 in	19NP75	10
M4	4.3 mm	8 mm	1 mm	6FY28	100
M6	6.4 mm	11 mm	1.4 mm	6FY33	100
M12	13 mm	20.5 mm	1 mm	22UK18	50
M18	19 mm	30 mm	2.8 mm	6FY45	50
Grade 2 St	eel, Zinc Pla	ted			
#8	0.176 in	0.34 in	0.023 in	6DZC8	100
#10 -	0.204 in	0.381 in	0.024 in	2DB99	100
	10.5 mm	17.57 mm 0.41 in	0.89 mm	6DZC9	100
#12	0.231 in		0.027 in	2DE12	100
1/4 in -	0.267 in	0.478 in	0.028 in	2DE14	100
	0.267 in	0.478 in	0.028 in	6DZD0	100
5/16 in	0.332 in	0.61 in	0.034 in	2DE16	100
3% in −	0.384 in	0.67 in	0.032 in	22UJ13	50
	0.398 in	0.747 in	0.047 in	6YY94	100
7∕16 in	0.448 in	0.74 in	0.032 in	22UJ14	25
1/2 in	0.512 in	0.867 in	0.037 in	19NU03	25
%₁6 in	0.576 in	0.957 in	0.037 in	25DM95	25
5% in -	0.64 in	1.045 in	0.042 in	19NU04	10
	0.64 in	1.1 in 1.22 in	0.059 in	22UJ19	10
3/4 in	0.769 in	1.22 in	0.047 in	19NU05	10
7∕8 in	0.894 in	1.364 in	0.052 in	25DM96	5
1 in	1.019 in	1.59 in	0.059 in	25DM97	5

# Internal and External Tooth Lock Washers

Feature internal and external teeth to simultaneously grasp the nut or bolt head and contact surface for more robust holding power. They cover oversized holes and bearing surfaces and are used in electrical bonding applications.



For Screw Size	Inside Diameter	Outside Diameter	Maximum Thickness	Item No.	Pkg. Qty.
Grade 2 Ste	el, Zinc Pla				
#4	0.123 in	0.475 in	0.021 in	2DB72	100
#6	0.15 in	0.51 in	0.028 in	2DB74	100
#8	0.176 in	0.61 in	0.034 in	2DB76	100
#10	0.204 in	0.61 in	0.034 in	2DB78	100
1/4 in	0.267 in	0.76 in	0.04 in	2DB80	100
5∕16 in	0.332 in	0.9 in	0.04 in	2DB82	100
3/8 in	0.384 in	1.13 in	0.042 in	22UJ43	50
½ in	0.512 in	1.38 in	0.052 in	22UJ44	25

2DR72

## **Serrated Lock Washers**

Have indentations on their surface that bite both into the fastener head and the contact surface to create maximum holding power. The increase in friction force prevents the fastener from coming loose. Serrated lock washers work well on soft materials.



5MXD5

Screw Size	Diameter	Diameter	Thickness	No.	Pkg. Qty.
<b>Grade 2 Sprin</b>	g Steel, Zinc l	Plated			
M4	4.3 in	7 mm	1 mm	5MXD5	100
M5	5.3 in	9 in	1.1 in	5MXD6	100
M6	6.4 in	10 in	1.2 in	5MXD7	100
M8	8.4 in	13 in	1.4 in	5MXD8	100
M10	10.5 mm	16 mm	1.6 mm	5MXD9	100
M16	17 in	24 in	2.1 in	5MXE0	25