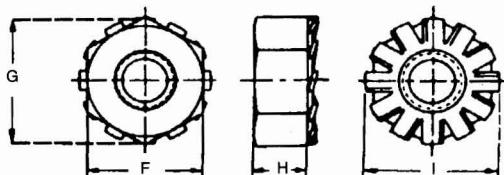
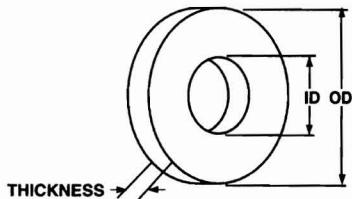


"K" LOCK NUTS

Nominal Size or Basic Thread Diameter	F			G		H		I
	Width Across Flats			Width Across Corners		Thickness		Washer Diameter
	Basic	Max	Min	Max	Min			
4	0.1120	1/4	0.250	0.241	0.289	0.275	0.098	0.087
6	0.1380	5/16	0.312	0.302	0.361	0.344	0.114	0.102
8	0.1640	11/32	0.344	0.332	0.397	0.378	0.130	0.117
10	0.1900	3/8	0.375	0.362	0.433	0.413	0.130	0.117
1/4	0.2500	7/16	0.438	0.423	0.505	0.482	0.193	0.178
5/16	0.3125	1/2	0.500	0.489	0.577	0.557	0.273	0.258
3/8	0.3750	9/16	0.562	0.551	0.650	0.628	0.385	0.365
								0.656

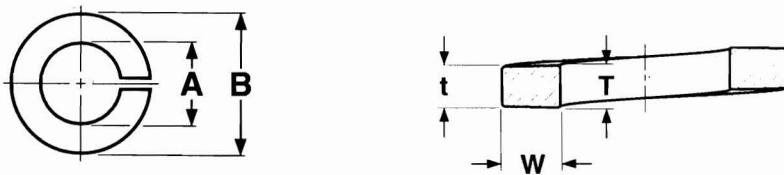
FLAT WASHERS**SAE WASHERS**

Bolt Size	Inches		Gauge	Est. Pcs. per 1 lb.	Wt. per M pcs.
	I.D.	O.D.			
#4	1/8	5/16	#21 (1/32)	1650	0.6
#6	5/32	3/8	#18 (3/64)	790	1.26
#8	3/16	7/16	#18 (3/64)	585	1.7
#10	7/32	1/2	#18 (3/64)	435	2.3
#12	1/4	9/16	#16 (1/16)	280	3.7
1/4	9/32	5/8	#16 (1/16)	222	4.5
5/16	11/32	11/16	#16 (1/16)	192	5.2
3/8	13/32	13/16	#16 (1/16)	140	7.2
7/16	15/32	59/64	#16 (1/16)	105	9.5
1/2	17/32	1 1/16	#13 (3/32)	55	18.3
9/16	19/32	1 3/16	#13 (3/32)	43	23.4
5/8	21/32	1 5/16	#13 (3/32)	36	27.7
3/4	13/16	1 1/2	#10 (9/64)	21	47.4
7/8	15/16	1 3/4	#10 (9/64)	16	63
1	1 1/16	2	#10 (9/64)	12	83
1 1/8	1 3/16	2 1/4	#10 (9/64)	9.2	109
1 1/4	1 5/16	2 1/2	#9 (5/32)	6.3	160
1 3/8	1 7/16	2 3/4	#9 (5/32)	5.25	190
1 1/2	1 9/16	3	#9 (5/32)	4.25	240

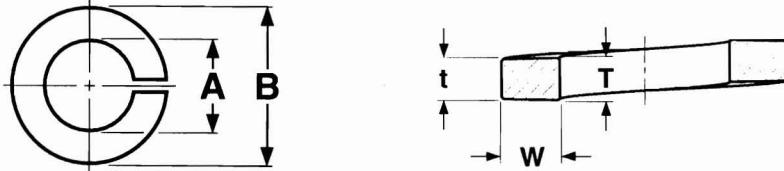
USS STANDARD WASHERS

Bolt Size	Inches		Gauge	Est. Pcs. per 1 lb.	Wt. per M pcs.
	I.D.	O.D.			
3/16	1/4	9/16	#18 (3/64)	361	2.8
1/4	5/16	3/4	#16 (1/16)	149	6.7
5/16	3/8	7/8	#14 (5/64)	87	11.5
3/8	7/16	1	#14 (5/64)	67	14.9
7/16	1/2	1 1/4	#14 (5/64)	41	24.4
1/2	9/16	1 3/8	#12 (7/64)	26	38.5
9/16	5/8	1 1/2	#12 (7/64)	22	45.5
5/8	11/16	1 3/4	#10 (9/64)	13	77
3/4	13/16	2	#9 (5/32)	9.1	110
7/8	15/16	2 1/4	#8 (11/64)	6.5	153
1	1 1/16	2 1/2	#8 (11/64)	5.3	188
1 1/8	1 1/4	2 3/4	#8 (11/64)	4.5	220
1 1/4	1 3/8	3	#8 (11/64)	3.8	260
1 3/8	1 1/2	3 1/4	#7 (3/16)	3.0	333
1 1/2	1 5/8	3 1/2	#7 (3/16)	2.6	385
1 5/8	1 3/4	3 3/4	#7 (3/16)	2.3	448
1 3/4	1 7/8	4	#7 (3/16)	2.0	500
1 7/8	2	4 1/4	#7 (3/16)	1.8	569
2	2 1/8	4 1/2	#7 (3/16)	1.6	630
2 1/4	2 3/8	4 3/4	#5 (7/32)	1.2	826

SPLIT LOCK WASHERS

MEDIUM SPLIT
HELICAL SPRING
LOCK WASHERS

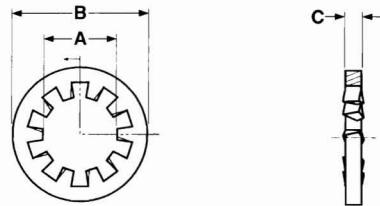
Nominal Washer Size	A		B	W	$\frac{T^2t}{2}$	
	Inside Diameter		Outside Diameter	Washer Section		
	Min	Max		Width Min	Thickness Min	
2	0.086	0.088	0.094	0.172	0.035	0.020
4	0.112	0.115	0.121	0.209	0.040	0.025
5	0.125	0.128	0.134	0.236	0.047	0.031
6	0.138	0.141	0.148	0.250	0.047	0.031
8	0.164	0.168	0.175	0.293	0.055	0.040
10	0.190	0.194	0.202	0.334	0.062	0.047
12	0.216	0.221	0.229	0.377	0.070	0.056
1/4	0.250	0.255	0.263	0.489	0.109	0.062
5/16	0.312	0.318	0.328	0.586	0.125	0.078
3/8	0.375	0.382	0.393	0.683	0.141	0.094
7/16	0.438	0.446	0.459	0.779	0.156	0.109
1/2	0.500	0.509	0.523	0.873	0.171	0.125
9/16	0.562	0.572	0.587	0.971	0.188	0.141
5/8	0.625	0.636	0.653	1.079	0.203	0.156
3/4	0.750	0.763	0.783	1.271	0.234	0.188
7/8	0.875	0.890	0.912	1.464	0.266	0.219
1	1.000	1.017	1.042	1.661	0.297	0.250
1 1/6	1.062	1.080	1.107	1.756	0.312	0.266
1 1/8	1.125	1.144	1.172	1.853	0.328	0.281
1 3/16	1.188	1.208	1.237	1.950	0.344	0.297
1 1/4	1.250	1.271	1.302	2.045	0.359	0.312
1 1/2	1.500	1.525	1.561	2.430	0.422	0.375

HI-COLLAR
HELICAL SPRING
LOCK WASHERS

Nominal Washer Size	A		B	W	$\frac{T^2t}{2}$	
	Inside Diameter		Outside Diameter	Washer Section		
	Min	Max		Width Min	Thickness Min	
4	0.112	0.115	0.121	0.173	0.022	0.022
6	0.138	0.141	0.148	0.216	0.030	0.030
8	0.164	0.168	0.175	0.267	0.042	0.047
10	0.190	0.194	0.202	0.294	0.042	0.047
1/4	0.250	0.255	0.263	0.365	0.047	0.078
5/16	0.312	0.318	0.328	0.460	0.062	0.093
3/8	0.375	0.382	0.393	0.553	0.076	0.125

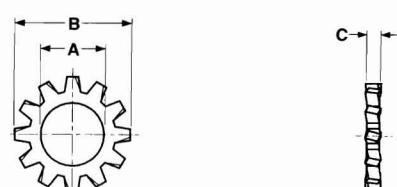
INTERNAL TOOTH LOCK WASHERS

Nominal Washer Size	A		B		C	
	Inside Diameter		Outside Diameter		Thickness	
	Min	Max	Max	Min	Max	Min
No. 2 0.086	0.089	0.095	0.200	0.175	0.015	0.010
No. 4 0.112	0.115	0.123	0.270	0.255	0.019	0.015
No. 6 0.138	0.141	0.150	0.295	0.275	0.021	0.017
No. 8 0.164	0.168	0.176	0.340	0.325	0.023	0.018
No. 10 0.190	0.195	0.204	0.381	0.365	0.025	0.020
No. 12 0.216	0.221	0.231	0.410	0.394	0.025	0.020
1/4 0.250	0.256	0.267	0.478	0.460	0.028	0.023
5/16 0.312	0.320	0.332	0.610	0.594	0.034	0.028
3/8 0.375	0.384	0.398	0.692	0.670	0.040	0.032
7/16 0.438	0.448	0.464	0.789	0.740	0.040	0.032
1/2 0.500	0.512	0.530	0.900	0.867	0.045	0.037
5/8 0.625	0.640	0.663	1.071	1.045	0.050	0.042



EXTERNAL TOOTH LOCK WASHERS

Nominal Washer Size	A		B		C	
	Inside Diameter		Outside Diameter		Thickness	
	Min	Max	Max	Min	Max	Min
No. 4 0.112	0.115	0.123	0.260	0.245	0.019	0.015
No. 6 0.138	0.141	0.150	0.320	0.305	0.022	0.016
No. 8 0.164	0.168	0.176	0.381	0.365	0.023	0.018
No. 10 0.190	0.195	0.204	0.410	0.395	0.025	0.020
No. 12 0.216	0.221	0.231	0.475	0.460	0.028	0.023
1/4 0.250	0.256	0.267	0.510	0.494	0.028	0.023
5/16 0.312	0.320	0.332	0.610	0.588	0.034	0.028
3/8 0.375	0.384	0.398	0.694	0.670	0.040	0.032
7/16 0.438	0.448	0.464	0.760	0.740	0.040	0.032
1/2 0.500	0.513	0.530	0.900	0.880	0.045	0.037
5/8 0.625	0.641	0.663	1.070	1.045	0.050	0.042



COMBINATION INTERNAL-EXTERNAL TOOTH LOCK WASHERS

Nominal Washer Size	A		B		C	
	Inside Diameter		Outside Diameter		Thickness	
	Max	Min	Max	Min	Max	Min
6 0.138	0.150	0.141	0.510	0.495	0.028	0.023
8 0.164	0.176	0.168	0.506	0.494	0.028	0.023
8 0.164	0.176	0.168	0.610	0.580	0.034	0.028
10 0.190	0.204	0.195	0.610	0.580	0.034	0.028
1/4 0.250	0.267	0.256	0.760	0.725	0.040	0.032
5/16 0.312	0.332	0.320	0.900	0.865	0.040	0.032
3/8 0.375	0.398	0.384	0.985	0.965	0.045	0.037
7/16 0.438	0.464	0.448	1.070	1.045	0.050	0.042
1/2 0.500	0.530	0.512	1.260	1.220	0.055	0.047
5/8 0.625	0.663	0.640	1.410	1.380	0.060	0.052

