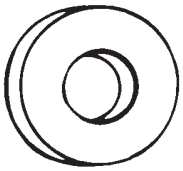
STEEL PLATE WASHERS



143 1 lb. Bare | **144** 5 lb. Bare | **145** 100's Bare* | **146** 1 lb. Plated | **147** 5 lb. Plated | **148** 100's Plated*

LIST PRICE PER 100 POUNDS

***LIST PRICE PER 100 PIECES**

Size No.	Screw or Bolt Size	Hole Dia.	BARE METAL						BRIGHT ZINC PLATED					
					Deci Package						Deci Package			
			1 lb. Package 143	5 lb. Package 144	100's lb. Package 145*	Pkg Qty	Case Qty	40 lb. Bulk B143	1 lb. Package 146	5 lb. Package 147	100's lb. Pkg 148*	Pkg Qty	Case Qty	40 lb. Bulk B146
- 006	1/8	3/16	**$337.53**	**$333.40**	-	100	7500	**$270.02**	**$365.85**	**$356.25**	-	100	7500	**$292.86**
- 010	3/16	1/4	**337.53**	**333.40**	**$1.95**	100	7500	**270.02**	**365.85**	**356.25**	**$2.07**	100	7500	**292.86**
- 014	1/4	5/16	**337.55**	**333.40**	**2.78**	100	4500	**270.04**	**365.85**	**356.25**	**3.17**	100	4500	**292.84**
- 016	5/16	3/8	**323.85**	**333.40**	**5.33**	100	3000	**270.04**	**365.60**	**356.23**	**5.86**	100	3000	**292.84**
- 018	3/8	7/16	**339.27**	**333.43**	**7.14**	100	2000	**270.04**	**365.60**	**356.23**	**7.41**	100	2000	**292.84**
- 020	7/16	1/2	**339.27**	**333.43**	**13.99**	50	1500	**270.04**	**365.60**	**356.23**	**14.54**	50	1500	**292.84**
- 022	1/2	9/16	**339.27**	**333.43**	**20.64**	50	1000	**270.04**	**365.60**	**356.23**	**21.21**	50	1000	**292.84**
- 023	9/16	5/8	**339.27**	**333.43**	**24.54**	25	750	**270.04**	**363.45**	**356.24**	**25.30**	25	750	**292.85**
- 024	5/8	11/16	**339.27**	**333.43**	**43.77**	25	500	**270.04**	**363.45**	**356.24**	**45.10**	25	500	**292.85**
- 026	3/4	13/16	**338.71**	**333.43**	**56.52**	20	320	**270.03**	**363.45**	**356.24**	**58.19**	20	320	**292.85**
- 028	7/8	15/16	**354.11**	**344.83**	**82.16**	20	320	**281.44**	**363.45**	**356.24**	**80.96**	20	320	**292.85**
- 030	1"	1-1/16	**354.11**	**344.83**	**101.86**	20	160	**281.44**	**363.45**	**356.24**	**100.33**	20	160	**292.85**
- 033	1-1/8 L	1-1/4	-	**344.83**	-	-	-	**281.44**	-	-	-	-	-	**292.85**
- 035	1-1/4 L	1-3/8	-	**344.83**	-	-	-	**281.44**	-	-	-	-	-	**292.85**
- 036	1-3/8 S	1-1/2	-	**344.83**	-	-	-	-	-	-	-	-	-	-
- 038	1-1/2 L	1-5/8	-	-	-	-	-	**281.44**	-	-	-	-	-	-
- 039	1-5/8 S	1-3/4	-	-	-	-	-	**281.44**	-	-	-	-	-	-
- 041	1-3/4 L	1-7/8	-	-	-	-	-	**281.44**	-	-	-	-	-	-
- 043	2 L	2-1/8	-	-	-	-	-	**281.44**	-	-	-	-	-	-

Note: Please use Series and Size No. when ordering: Stock Sizes are shown in **HEAVY** type.

Example: 1/2 Bolt Size Plate Washer - Bare Metal - in 1 lb. packages.

	Series	Size No.
Case -	**143**	**- 022**
Bulk -	**B143**	**- 022**

CASE QUANTITIES

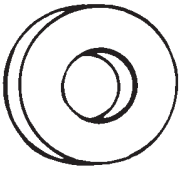
1 lbs. - 32 packages of one size. 5 lbs. - 8 packages of one size. Bulk - one 40 lb. container.

Note: For less than a sleeve quantity ADD 25%.

STEEL S.A.E. WASHERS

149 1 lb. Bare | **152** 5 lb. Bare | **150** 1 lb. Plated | **153** 5 lb. Plated

151 100's Bare* | **154** 100's Plated*



LIST PRICE PER 100 POUNDS
*LIST PRICE PER 100 PIECES

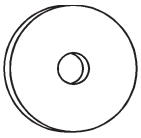
Size No.	Screw or Bolt Size	Hole Dia.	BARE METAL						BRIGHT ZINC PLATED					
					Deci Package						Deci Package			
			1 lb. Package 149	5 lb. Package 152	100's lb. Pkg 151*	Pkg Qty	Case Qty	40 lb. Bulk B149	1 lb. Package 150	5 lb. Package 153	100's lb. Package 154*	Pkg Qty	Case Qty	40 lb. Bulk B150
- 006	No.6 (1/8)	5/32	**997.27**	-	-	100	7500	**277.64**	-	-	**1.89**	100	7500	-
- 008	No.8 (5/32)	3/16	**886.46**	-	-	100	7500	**277.64**	-	-	**2.37**	100	7500	-
- 010	3/16	7/32	**346.31**	**$341.03**	**$1.74**	100	7500	**277.64**	**$369.29**	**$363.85**	**1.89**	100	7500	**$300.46**
- 014	1/4	9/32	**344.41**	**341.02**	**2.39**	100	7500	**277.63**	**334.58**	**363.86**	**2.42**	100	7500	**300.46**
- 016	5/16	11/32	**344.41**	**341.02**	**2.80**	100	4500	**277.63**	**371.49**	**363.86**	**3.16**	100	4500	**300.46**
- 018	3/8	13/32	**344.41**	**341.02**	**3.92**	100	4500	**277.63**	**370.83**	**363.85**	**3.79**	100	4500	**300.46**
- 020	7/16	15/32	**344.41**	**341.02**	**5.33**	50	2250	**277.63**	**367.36**	**363.85**	**5.36**	50	2250	**300.46**
- 022	1/2	17/32	**344.41**	**341.02**	**9.57**	50	1500	**277.63**	**367.36**	**363.85**	**9.55**	50	1500	**300.46**
- 023	9/16	19/32	**344.41**	**341.02**	**11.22**	25	750	**277.63**	**367.36**	**363.85**	**11.30**	25	750	**300.46**
- 024	5/8	21/32	**344.41**	**341.02**	14.91	25	750	**277.63**	**367.36**	**363.85**	**14.73**	25	750	**300.46**
- 026	3/4	13/16	**344.41**	**341.02**	23.94	20	400	**277.63**	**367.36**	**363.85**	**23.88**	20	400	**300.46**
- 028	7/8	15/16	**344.41**	**341.02**	30.67	20	400	**277.63**	**367.36**	**363.85**	**30.56**	20	400	**300.46**
- 030	1"	1-1/16	**344.41**	**341.02**	44.08	20	400	**277.63**	**367.36**	**363.85**	**43.70**	20	400	**300.46**

CASE QUANTITIES 1 lbs. - 32 packages of one size. 5 lbs. - 8 packages of one size. Bulk - one 40 lb. container.
Note: For less than a sleeve quantity ADD 25%.

FENDER WASHERS

162 Plated

Bright Zinc Plated



PACKAGED LIST PRICE PER 100 PIECES
BULK LIST PRICE PER 100 POUNDS

Size No.	Screw or Bolt Size	Hole Diameter	Outside Diameter	Thick	CASE-Plated 162	Pkg Qty	Case Qty	Size No.	BULK-Plated B162	Approx. Bulk Qty 40 lbs	Approx. Weight 100 Pcs.
- 393	3/16	13/64	1"	3/64	**$2.80**	100	2400	**- 493**	**$248.34**	4000	1.44
- 394	3/16	13/64	3/4	3/64	**2.19**	100	4800	**- 494**	**248.34**	5120	.76
- 395	1/4	9/32	1-1/4	1/16	**5.60**	100	1600	**- 495**	**248.34**	2000	2.14
- 396	5/16	11/32	1"	1/16	**3.37**	100	2400	**- 496**	**248.34**	3320	1.38
- 397	5/16	11/32	1-1/4	1/16	**5.28**	100	1600	**- 497**	**248.34**	2120	2.07
- 398	3/8	13/32	1-1/2	1/16	**7.78**	100	1600	**- 498**	**248.34**	1440	3.11
- 399	5/16	11/32	1-1/2	1/16	**8.00**	100	1600	**- 499**	**248.34**	1400	2.99
- 400	1/2	17/32	2"	1/16	**14.00**	100	800	**- 500**	**248.34**	800	5.06

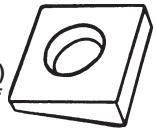
*Note Bulk supplied is one 40 lb. container with number of pieces being approximate.

BEVEL WASHERS

MALLEABLE

Bare Metal

162 Bare



SLOPE: 2" in 12 " (16 2/3%)
Same Taper as Flanges of I-Beams and Channels

LIST PRICE PER 100 PIECES

Size No.	Screw or Bolt Size	Hole Diameter	CASE-Bare 162	Pkg Qty	Case Qty	BULK-Bare B162	Bulk Qty	Approx. Weight 100 Pcs.	Dimensions		
									Across Flats	Heavy End	Light End
- 890	3/8	7/16	**$86.37**	50	400	**$74.05**	600		1-1/4	11/32	5/32
- 892	1/2	9/16	**86.37**	50	400	**74.05**	600	9.5	1-1/4	11/32	5/32
- 894	5/8	11/16	**129.56**	50	300	**111.09**	300	15.4	1-1/2	13/32	5/32
- 896	3/4	13/16	**139.31**	50	300	**119.44**	300	16.5	1-1/2	15/32	7/32
- 898	7/8	15/16	**289.77**	50	100	**248.43**	100	34.2	2"	9/16	7/32
- 900	1"	1-3/32	**289.77**	50	100	**248.43**	100	32.5	2"	9/16	7/32

Revised February 6th, 2013

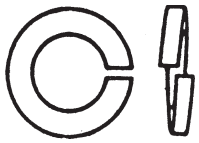
SPRING LOCK WASHERS

155 100's Bare | **157** 100's Plated

156 Cartons Bare | **158** Cartons Plated

High Carbon Spring Steel
Non-Linking

REGULAR (formerly Medium)



LIST PRICE PER 1000 PIECES

Size No.	Screw or Bolt Size	100's Bare 155	100's Plated 157	100's Pkg Qty	100's Case Qty	CARTONS Bare 158	CARTONS Plated 158	CARTONS Pkg Qty	CARTONS Case Qty	BULK Bare B155	BULK Plated B157	BULK Bulk Qty	Approx. Weight 1000 Pcs.
- 002	No. 2	-	-	-	-	**$6.36**	-	1000	48000	**$4.88**	-	50000	.11
- 003	No. 3	-	-	-	-	**6.36**	-	1000	48000	**4.88**	-	50000	.17
- 004	No. 4	**$6.99**	**$6.98**	100	7500	**6.36**	-	1000	48000	**4.88**	-	50000	.17
- 005	No. 5	-	-	-	-	**6.36**	-	1000	48000	**4.88**	-	50000	.28
- 006	No. 6	6.99	6.98	100	7500	**6.36**	-	1000	48000	**4.88**	-	50000	.27
- 008	No. 8	7.32	7.44	100	7500	**6.70**	-	1000	48000	**5.17**	-	50000	.50
- 010	No.10	**7.66**	**7.87**	100	7500	**6.99**	**$7.16**	1000	48000	**5.38**	**$5.63**	50000	.70
- 012	No.12	7.92	8.32	100	7500	**7.53**	-	1000	32000	**5.59**	-	40000	1.0
- 014	1/4	**8.57**	**9.18**	100	7500	**8.03**	**8.68**	1000	16000	**7.18**	**7.78**	15000	2.2
- 016	5/16	**13.53**	**14.29**	100	7500	**12.55**	**12.96**	1000	8000	**11.36**	**12.12**	9000	3.8
- 018	3/8	**22.06**	**24.04**	100	4500	**20.67**	**23.05**	1000	6000	**18.41**	**20.39**	5500	6.0
- 020	7/16	**32.79**	**35.37**	100	3000	**30.49**	**33.09**	1000	4000	**27.36**	**29.95**	3700	9.0
- 022	1/2	**47.78**	**50.62**	100	2000	**43.54**	**49.15**	500	3000	**39.87**	**42.71**	2500	12.9
- 023	9/16	**61.60**	**65.32**	100	1600	**57.01**	**61.44**	500	2000	**51.30**	**55.01**	2000	17.7
- 024	5/8	**83.83**	**88.89**	100	1600	**79.53**	**86.46**	250	1500	**69.81**	**74.87**	1400	24.0
- 026	3/4	**141.76**	**151.81**	100	800	**131.97**	**139.55**	250	1000	**117.82**	**127.87**	900	39.5
- 028	7/8	**223.26**	**238.79**	100	1600	**212.98**	**225.18**	100	600	**186.30**	**201.82**	525	59.5
- 030	1"	**323.00**	**339.04**	100	400	**304.01**	**315.84**	100	400	**269.52**	**285.56**	375	88.0
- 032	1-1/8	**616.06**	-	50	300	**560.61**	-	50	300	**385.55**	**408.49**	275	120
- 034	1-1/4	**783.61**	-	50	200	**713.08**	-	50	100	**494.23**	**543.02**	200	166
- 036	1-3/8	**900.69**	-	25	100	-	-	25	150	**855.42**	-	140	219
- 038	1-1/2	**1306.98**	-	25	100	**1189.35**	-	25	100	**817.82**	**847.01**	120	282

DIMENSIONS - REGULAR LOCK WASHERS

Screw or Bolt Size	Washer Section Width	Washer Section Thick	Screw or Bolt Size	Washer Section Width	Washer Section Thick	Screw or Bolt Size	Washer Section Width	Washer Section Thick	Screw or Bolt Size	Washer Section Width	Washer Section Thick	Screw or Bolt Size	Washer Section Width	Washer Section Thick
No. 2	.035	.020	**No. 8**	.055	.040	**3/8**	.141	.094	**3/4**	.234	.188	**1-3/8**	.391	.344
No. 3	.040	.025	**No. 10**	.062	.047	**7/16**	.156	.109	**7/8**	.266	.219	**1-1/2**	.422	.375
No. 4	.040	.031	**No. 12**	.070	.056	**1/2**	.171	.125	**1"**	.297	.297			
No. 5	.047	.031	**1/4**	.109	.062	**9/16**	.188	.141	**1-1/8**	.328	.281			
No. 6	.047	.031	**5/16**	.125	.078	**5/8**	.203	.156	**1-1/4**	.359	.312			

160 Bare

EXTRA DUTY (formerly Extra Heavy)

LIST PRICE PER 1000 PIECES

Size No.	Screw or Bolt Size	CASE-Plated 160	Pkg Qty	Case Qty	BULK-Plated B160	Bulk Qty	Approx. Weight 1000 Pcs.	Dimensions Washer Section Width	Dimensions Washer Section Thick
- 014	1/4	**$74.30**	1000	8000	**$56.23**	13000	3.9	.132	.084
- 016	5/16	**77.56**	1000	6000	**59.67**	7500	7.0	.143	.108
- 018	3/8	**120.82**	1000	4000	**92.96**	4500	10.4	.170	.123
- 020	7/16	**167.64**	1000	2000	**128.96**	3300	15.0	.186	.143
- 022	1/2	**230.85**	500	2000	**177.62**	2500	20.3	.204	.162
- 023	9/16	**305.44**	500	2000	**234.99**	1800	29.8	.223	.182
- 024	5/8	**385.40**	250	1000	**296.48**	1300	38.3	.242	.202
- 026	3/4	**626.81**	250	500	**481.12**	800	63.3	.279	.241
- 028	7/8	**984.45**	100	400	**757.28**	500	97.9	.322	.285
- 030	1	**1789.92**	100	200	**1376.86**	300	155.0	.366	.330

Stock Sizes are shown in **HEAVY** type.

TOOTH LOCK WASHERS

Bright Zinc Plated

161 Plated



EXTERNAL



COUNTERSUNK



INTERNAL

EXTERNAL TYPE

LIST PRICE PER 100 PIECES

Size No.	Screw or Bolt Size	CASE-Plated 161	Pkg Qty	Case Qty	BULK-Plated B161	Bulk Qty	Approx. Weight 1000 Pcs.	Dimensions: Outside Diameter	Dimensions: Thickness
- 104	No. 4	**$1.73**	100	7500	**$1.42**	15000	.09	1/4	.015
- 105	No. 5	-	-	-	**1.43**	15000	.14	9/32	.015
- 106	No. 6(l/8)	**1.89**	100	7500	**1.38**	15000	.23	5/16	.020
- 108	No. 8(5/32)	**2.14**	100	7500	**1.52**	15000	.37	3/8	.020
- 110	No. 10(3/16)	**2.39**	100	7500	**1.53**	15000	.38	13/32	.022
- 112	No. 12(7/32)	-	-	-	2.35	15000	.60	1/2	.025
- 114	1/4	**3.52**	100	7500	**2.65**	10000	.60	1/2	.025
- 118	5/16	**5.66**	100	7500	**3.95**	10000	1.08	19/32	.030
- 120	3/8	**6.18**	100	7500	**5.71**	10000	1.60	11/16	.035
- 122	7/16	**8.76**	100	4500	**8.48**	10000	1.64	25/32	.035
- 124	1/2	**10.14**	100	4500	**10.13**	5000	2.68	7/8	.040
- 126	9/16	**14.66**	100	3000	**14.72**	5000	3.04	31/32	.040
- 128	5/8	**20.04**	100	2000	**19.40**	5000	4.32	1-1/16	.045
- 132	3/4	**30.34**	100	2000	**29.52**	3000	7.25	1-1/4	.050
- 134	7/8	**39.60**	100	1600	**37.36**	3000	8.72	1-7/16	.055
- 136	1"	**57.16**	100	1200	**56.73**	3000	13.00	1-5/8	.062

INTERNAL TYPE

- 204	No. 4	**$1.73**	100	7500	**$1.42**	15000	.12	1/4	.015
- 205	No. 5	-	-	-	1.43	15000	.12	1/4	.018
- 206	No. 6 (l/8)	**1.89**	100	7500	**1.38**	15000	.16	9/32	.018
- 208	No. 8 (5/32)	**2.14**	100	7500	**1.52**	15000	.26	21/64	.020
- 210	No. 10(3/16)	**2.39**	100	7500	**1.53**	15000	.35	3/8	.022
- 212	No. 12(7/32)	-	-	-	2.35	15000	.41	13/32	.022
- 214	1/4	**3.52**	100	7500	**2.65**	10000	.63	15/32	.025
- 218	5/16	**5.66**	100	7500	**3.95**	10000	1.12	19/32	.030
- 220	3/8	**6.18**	100	7500	**5.71**	10000	1.67	11/16	.035
- 222	7/16	**8.76**	100	7500	**8.48**	10000	2.34	25/32	.035
- 224	1/2	**10.14**	100	4500	**10.13**	5000	3.08	7/8	.040
- 226	9/16	**14.66**	100	3000	**14.72**	5000	4.50	31/32	.040
- 228	5/8	**20.04**	100	2000	**19.40**	5000	5.02	1-1/16	.045
- 232	3/4	**30.34**	100	2000	**29.52**	3000	7.88	1-1/4	.050
- 234	7/8	**39.60**	100	1600	**37.36**	3000	8.80	1-3/8	.055
- 236	1"	**57.16**	100	1200	**56.73**	3000	16.30	1-5/8	.062

EXTERNAL COUNTERSUNK

- 304	No. 4	-	-	-	-	-	-	-	-
- 306	No. 6(l/8)	**$12.48**	100	7500	**$10.23**	15000	.16	9/32	.018
- 308	No. 8(5/32)	**13.13**	100	7500	**11.10**	15000	.26	21/64	.018
- 310	No. 10(3/16)	**15.22**	100	7500	**13.44**	15000	.33	11/32	.022
- 312	No. 12(7/32)	-	-	-	15.55	10000	.52	27/64	.022
- 314	1/4	**16.20**	100	7500	**15.74**	10000	.57	29/64	.022
- 318	5/16	**28.02**	100	7500	**24.84**	10000	1.22	19/32	.025
- 320	3/8	**50.90**	100	7500	**42.75**	10000	2.45	49/64	.030

Note: Please use Series and Size No. when ordering:

Stock Sizes are shown in **HEAVY** type.

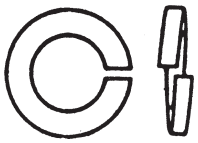
Example: 3/8 Internal Tooth Lock Washers Zinc Plated.

	Series	Size No.
Case -	**161**	**- 220**
Bulk -	**B161**	**- 220**

Revised December 12, 2013

papcolloy®

SPRING LOCK WASHERS



101 Plated

High Carbon heat treated

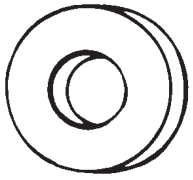
Gold Zinc Dichromate Plated

LIST PRICE PER 100 PIECES

Size No.	Screw or Bolt Size	CASE-Plated 101	Pkg Qty	Case Qty	BULK-Plated B101	Bulk Qty	Approx. Weight 1000 Pcs.
- 014	1/4	**$7.64**	100	7500	**$6.64**	15000	2.2
- 016	5/16	**11.28**	100	4500	**9.82**	9000	3.8
- 018	3/8	**18.51**	100	3000	**16.09**	5500	6.0
- 020	7/16	**23.11**	100	2000	**20.10**	3700	9.0
- 022	1/2	**35.52**	50	1000	**30.88**	2500	12.9
- 023	9/16	**48.83**	50	1000	**42.46**	2000	17.7
- 024	5/8	**63.13**	50	1000	**54.90**	1400	24.0
- 026	3/4	**103.64**	40	800	**90.12**	900	39.5
- 028	7/8	**152.23**	40	320	**132.38**	525	59.5
- 030	1	**226.98**	40	320	**197.38**	375	117.17
- 032	1-1/8	**278.76**	20	160	**242.40**	275	149.32
- 034	1-1/4	**441.04**	20	160	**383.51**	200	217.51
- 038	1-1/2	**801.18**	20	80	**696.67**	100	420.08

papcolloy®

TENSION WASHERS



101 Plated

High Carbon heat treated / Extra thickness for strength

Gold Zinc Dichromate Plated

LIST PRICE PER 100 PIECES

Size No.	Screw or Bolt Size	CASE-Plated 101	Pkg Qty	Case Qty	BULK-Plated B101	Bulk Qty	Dimension			Approx. Weight 1000 Pcs.
							Inside Diameter	Outside Diameter	Thickness	
- 114	1/4	**$6.86**	100	7500	**$5.97**	9000	9/32	5/8	.063	4.6
- 116	5/16	**8.68**	100	7500	**7.55**	6000	11/32	11/16	.063	5.1
- 118	3/8	**11.51**	100	4500	**10.00**	5000	13/32	13/16	.063	7.2
- 120	7/16	**13.42**	100	3000	**11.66**	3000	15/32	59/64	.063	9.1
- 122	1/2	**16.43**	50	1500	**14.29**	1900	17/32	1-1/16	.094	18.2
- 123	9/16	**25.12**	50	1000	**21.84**	1500	19/32	1-3/16	.094	21.0
- 124	5/8	**25.97**	50	1000	**23.05**	1000	21/32	1-5/16	.094	38.4
- 126	3/4	**30.99**	40	640	**26.95**	700	13/16	1-25/32	.125	44.5
- 128	7/8	**50.12**	40	480	**43.58**	500	15/16	1-3/4	.125	66.8
- 130	1	**63.09**	40	480	**54.86**	400	1-1/16	2	.125	89.4
- 132	1-1/8	**91.13**	20	240	**79.25**	330	1-1/4	2-1/4	.156	111.0
- 134	1-1/4	**111.25**	20	240	**96.75**	275	1-3/8	2-1/2	.156	138.0
- 138	1-1/2	**195.08**	20	120	**169.77**	140	1-5/8	3	.156	200.0

Note: Please use Series and Size No. when ordering:
Example: 3/8 Papcolloy Tension Washers Zinc Plated.

	Series	Size No.
Case -	**101**	**- 118**
Bulk -	**B101**	**- 118**

Stock Sizes are shown in **HEAVY** type.