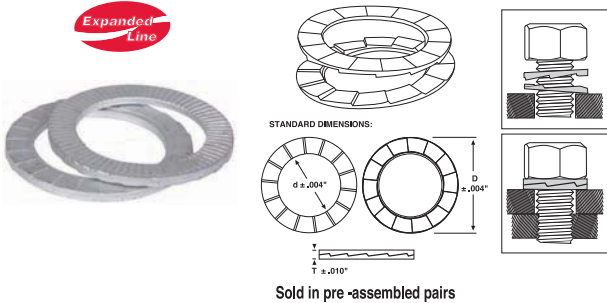


VIBRATION PROOF FASTENERS

These heavy duty locking devices solve fastener failure by maintaining adequate tension on the bolt and nut to prevent any loosening due to vibration and/or thermal loads. Consists of a pair of lock washers, each with a succession of cams or wedges on one side and radial teeth on the other. Installed so cam faces are together, the lead angle of cams is greater than the pitch of the threads on bolts and prevents the nut from turning. Should screw loosen, a wedge action is produced and the preload is maintained. Can be used on standard as well as high grade bolts. Carbon steel, zinc coated, through hardness min. 50 HRC. Stainless steel is type 316. Right hand thread only. Sold in preassembled pairs only. Other sizes available as special order. Please call for price and delivery.

316 Stainless Steel Vibration Proof Fasteners



Discount **36** applies.

Vibration Proof Fastener Assortment - 155 Pairs



The steel assortment contains **pairs** of the following: 50 NL-2, 40 NL-3, 25 NL-4, 20 NL-6, 20 NL-8. Comes in a plastic box with separate bins so parts won't mix.

Discount **36** applies.

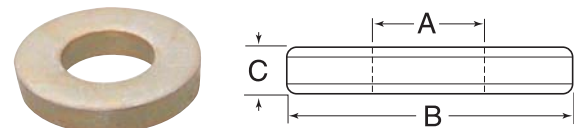
Cat. No.	Description	Price Each 1-99
NL-155	Steel Vibration Proof Fastener Assortment	98.94

316 Stainless Steel Box		316 Stainless Steel Package		Bolt Size		ID		OD		Thickness		316 Stainless Steel	
Cat. No.	Pkg. Qty. (Pairs)	Cat. No.	Pkg. Qty. (Pairs)	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Box Price	Pkg. Price
NL-400	200	NL-446	10	#5	M3	0.13	3.4	0.28	7.0	0.09	2.2	279.04	16.07
NL-401	200	NL-447	10	#6	M3.5	0.15	3.9	0.29	7.6	0.09	2.2	279.04	16.07
NL-402	200	NL-448	10	#6	M3.5	0.15	3.9	0.35	9.0	0.09	2.2	279.04	16.07
NL-403	200	NL-449	10	#8	M4	0.17	4.4	0.29	7.6	0.09	2.2	279.04	16.07
NL-404	200	NL-450	10	#8	M4	0.17	4.4	0.35	9.0	0.09	2.2	279.04	16.07
NL-405	200	NL-451	10	#10	M5	0.21	5.4	0.35	9.0	0.09	2.2	279.04	16.07
NL-406	200	NL-452	10	#10	M5	0.21	5.4	0.43	10.8	0.09	2.2	279.04	16.07
NL-407	200	NL-453	10	-	M6	0.26	6.5	0.43	10.8	0.09	2.2	279.04	16.07
NL-408	200	NL-454	10	-	M6	0.26	6.5	0.53	13.5	0.09	2.2	298.25	17.08
NL-409	200	NL-455	10	1/4	-	0.28	7.2	0.45	11.5	0.09	2.2	279.04	16.07
NL-410	200	NL-456	10	1/4	-	0.28	7.2	0.53	13.5	0.09	2.2	298.25	17.08
NL-411	200	NL-457	10	5/16	-	0.34	8.7	0.53	13.5	0.09	2.2	298.25	17.08
NL-412	200	NL-458	10	5/16	-	0.34	8.7	0.65	16.6	0.09	2.2	347.98	19.72
NL-413	200	NL-459	10	3/8	-	0.41	10.3	0.65	16.6	0.09	2.2	347.98	19.72
NL-414	200	NL-460	10	3/8	-	0.41	10.3	0.83	21.0	0.09	2.2	605.58	33.35
NL-415	200	NL-461	10	-	M10	0.42	10.7	0.65	16.6	0.09	2.2	347.98	19.72
NL-416	200	NL-462	10	-	M10	0.42	10.7	0.83	21.0	0.09	2.2	605.58	33.35
NL-417	200	NL-463	5	7/16	M11	0.45	11.4	0.73	18.5	0.09	2.2	605.58	17.32
NL-418	200	NL-464	5	-	M12	0.51	13.0	0.77	19.5	0.09	2.2	605.58	17.32
NL-419	200	NL-465	5	-	M12	0.51	13.0	1.00	25.4	0.13	3.2	508.54	28.27
NL-420	200	NL-466	5	1/2	-	0.53	13.5	0.77	19.5	0.09	2.2	605.58	17.32
NL-421	100	NL-467	5	1/2	-	0.53	13.5	1.00	25.4	0.13	3.2	509.54	28.27
NL-422	100	NL-468	5	9/16	M14	0.60	15.2	0.91	23.0	0.13	3.2	432.78	24.21
NL-423	100	NL-469	5	9/16	M14	0.60	15.2	1.21	30.7	0.13	3.2	650.85	35.75
NL-424	100	NL-470	5	5/8	M16	0.67	17.0	1.00	25.4	0.13	3.2	432.78	24.21
NL-425	100	NL-471	5	5/8	M16	0.67	17.0	1.21	30.7	0.13	3.2	650.85	35.75
NL-426	100	NL-472	5	-	M18	0.77	19.5	1.14	29.0	0.13	3.2	650.85	35.75
NL-427	100	NL-473	5	-	M18	0.77	19.5	1.36	34.5	0.13	3.2	960.42	52.14
NL-428	100	NL-474	5	3/4	-	0.79	20.0	1.21	30.7	0.13	3.2	650.85	35.75
NL-429	100	NL-475	5	3/4	-	0.79	20.0	1.54	39.0	0.13	3.2	960.42	52.14
NL-430	100	NL-476	5	-	M20	0.84	21.4	1.21	30.7	0.13	3.2	650.85	35.75
NL-431	100	NL-477	5	-	M20	0.84	21.4	1.54	39.0	0.13	3.2	960.42	52.14
NL-432	100	NL-478	5	7/8	M22	0.92	23.4	1.36	34.5	0.13	3.2	960.42	52.14
NL-433	50	NL-479	2	7/8	M22	0.92	23.4	1.65	42.0	0.13	3.2	855.37	37.52
NL-434	100	NL-480	2	-	M24	1.00	25.3	1.54	39.0	0.13	3.2	960.42	21.63
NL-435	50	NL-481	2	-	M24	1.00	25.3	1.91	48.5	0.13	3.2	1106.75	48.17
NL-436	100	NL-482	2	1	-	1.10	27.9	1.54	39.0	0.13	3.2	960.42	21.63
NL-437	50	NL-483	2	-	M27	1.12	28.4	1.91	48.5	0.13	3.2	1106.75	48.17
NL-438	50	NL-484	2	-	M27	1.12	28.4	1.65	42.0	0.27	6.8	1002.85	43.77
NL-439	25	NL-485	2	-	M27	1.12	28.4	1.91	48.5	0.27	6.8	668.21	57.90
NL-440	25	NL-486	2	1 1/8	M30	1.24	31.4	1.85	47.0	0.27	6.8	1002.85	43.77
NL-441	25	NL-487	2	1 1/8	M30	1.24	31.4	2.30	58.5	0.27	6.8	876.66	75.55
NL-442	25	NL-488	2	1 1/4	M33	1.35	34.4	1.91	48.5	0.27	6.8	648.79	56.25
NL-443	25	NL-489	2	1 3/8	M36	1.47	37.4	2.17	55.0	0.27	6.8	738.18	63.82
NL-444	25	NL-490	2	1 1/2	M39	1.59	40.4	2.30	58.5	0.27	6.8	876.66	75.56
NL-445	25	NL-491	2	-	M42	1.70	43.2	2.48	63.0	0.27	6.8	937.04	80.66

WASHERS

Used anywhere high strength and thick flat washers are needed. Perfect for use with grade 8 cap screws and socket cap screws. Each washer is marked with bolt size for easy identification. Made from medium carbon steel, through hardened to RC C43-49, zinc dichromate finish. All dimensions are minimum. Larger sized high strength washers for large bolts, shafts or studs are also available as special order. Call for price and delivery.

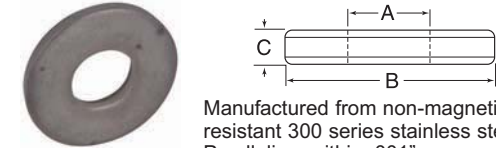
Steel Spacing Flat Washers High Strength Alloy



Discount **36** applies.

Cat. No.	Bolt Size	A	B	C	Price Each 1-99	Cat. No.	Bolt Size	A	B	C	Price Each 1-99
AMP-9270	1/4	276	620	.090	.27	AMP-9276	5/8	649	1,305	.206	.92
AMP-9271	5/16	339	681	.090	.36	AMP-9277	3/4	808	1,454	.206	1.25
AMP-9272	3/8	401	805	.110	.40	AMP-9278	7/8	931	1,743	.235	1.61
AMP-9273	7/16	464	915	.110	.48	AMP-9279	1	1,055	1,993	.235	1.71
AMP-9274	1/2	526	1,055	.190	.50	AMP-9281	1 1/4	1,360	2,468	.235	2.49
AMP-9275	9/16	589	1,161	.168	.65	AMP-9252	1 1/2	1,625	3,00	.250	15.20

Stainless Steel Finished Flat Washers



Discount **36** applies.

Cat. No.	Bolt Size	A	B	C	Price Each 1-99	Cat. No.	Bolt Size	A	B	C	Price Each 1-99
AMP-20	#2	3/32	3/16	.028	.55	AMP-85	3/8	13/32	3/4	3/32	1.46
AMP-25	#4	1/8	3/16	5/64	1.12	AMP-90	3/8	13/32	13/16	1/8	1.50
AMP-40	#6	5/32	3/8	5/64	1.17	AMP-95	3/8	13/32	7/8	1/8	1.63
AMP-45	#8	3/16	7/16	5/64	1.22	AMP-100	3/8	13/32	1	1/8	2.51
AMP-50	#8	11/64	3/8	1/16	1.03	AMP-110	7/16	15/32	1	1/8	1.71
AMP-55	#10	13/64	1/2	3/32	1.41	AMP-115	1/2	17/32	1 1/8	1/8	1.90
AMP-60	#10	3/16	7/16	5/64	1.24	AMP-120	5/8	21/32	1 3/8	1/8	2.09
AMP-65	1/4	9/32	5/8	1/8	1.73	AMP-125	3/4	25/32	1 5/8	1/8	2.14
AMP-70	1/4	9/32	1/2	5/64	1.52	AMP-130	3/4	25/32	1 5/8	5/32	2.27
AMP-75	5/16	11/32	3/4	1/8	1.73	AMP-140	1	1 1/32	2	3/16	2.85
AMP-80	5/16	11/32	5/8	3/32	1.63	AMP-150	1 1/4	19/32	2 1/2	9/32	5.06