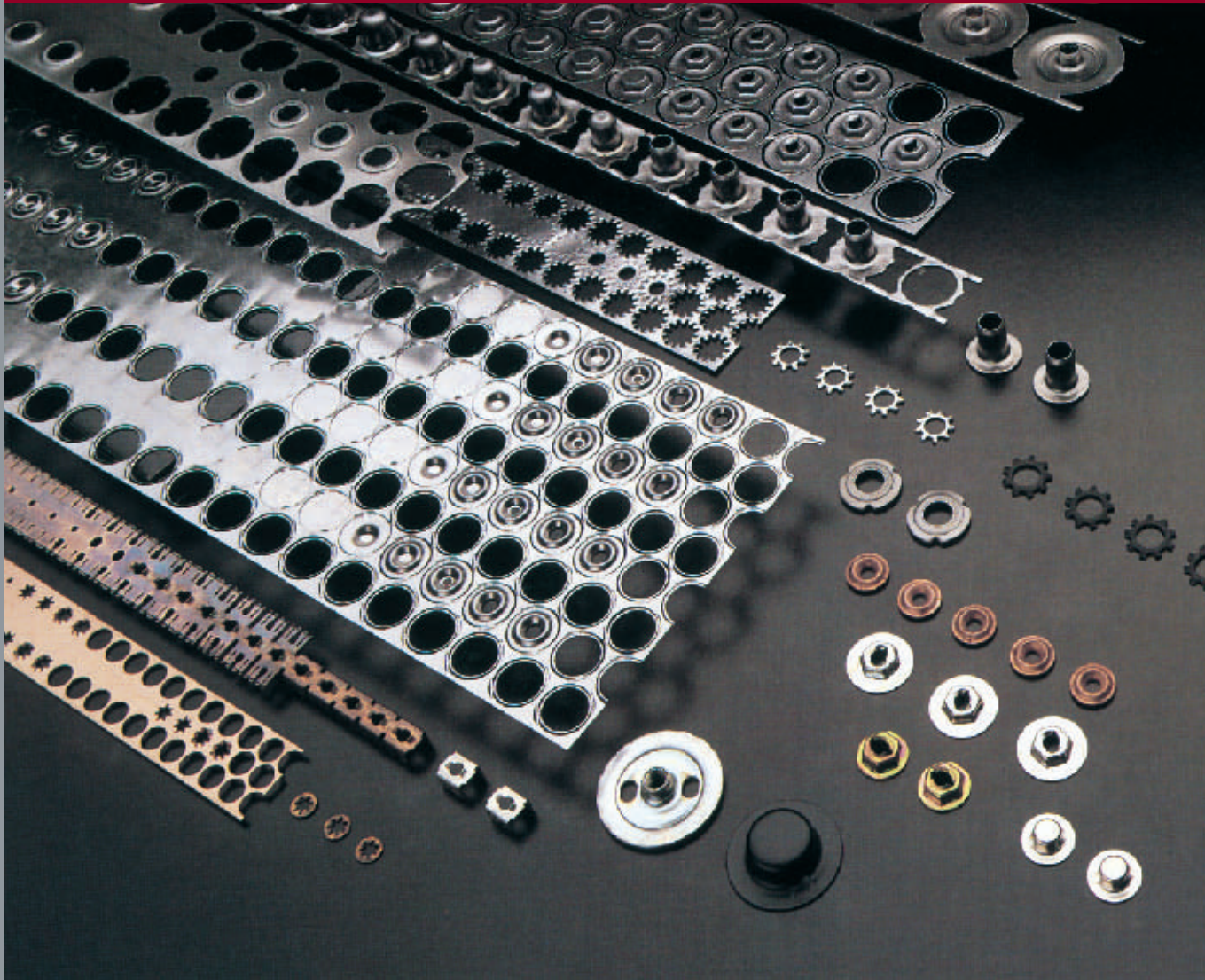


CrestProducts



Manufacturer of Stamped Fasteners

COMMITMENT TO CUSTOMER SATISFACTION



Since 1950, Crest Products has been dedicated to meeting our customer requirements and exceeding their expectations. This commitment requires the best technology, the best equipment and the best quality. The commitment is supported by the extensive investment in the areas of **Design, Tooling, Production** and **Quality**.

DESIGN

- CAD design of progressive stamping dies
- Product development using AUTOCAD drawing and modeling software
- Two-shift engineering department



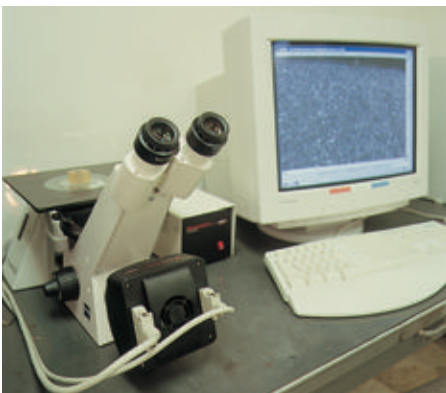
TOOLING

- In-house build and maintenance of all tools
- State-of-the-art CNC milling, NC wire, sinking and grinding machines and EDM
- New product development support including prototypes
- Three-shift tooling department



PRODUCTION

- High-speed presses from 20 to 200 tons
- In-house heat-treating
- In-house mechanical and electro zinc plating
- Secondary machines for tapping and assembly



QUALITY

- ISO 9002/QS9000 Registration
- In-house state-of-the-art inspection and testing equipment
- Capabilities include hardness testing, plating thickness and salt-spray resistance, on-line computerized statistical analysis, a full scale metrology system and metallurgical analysis



CREST PRODUCTS STANDARD PRODUCT LINE



EXTERNAL TOOTH LOCK WASHER (LWE)

2



INTERNAL TOOTH LOCK WASHER (LW)

2



WING NUT (WN)

4



ACORN (A)

4



PUSH-ON BOLT RETAINER (PB)

4



REGULAR LOCKNUT (C)

6



REGULAR WASHER LOCKNUT (W)

8



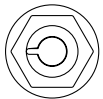
WAVY WASHER LOCKNUT (WW)

8



GROUNDING WASHER LOCKNUT (WG)

10



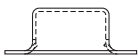
DEPRESSED WASHER LOCKNUT (WD)

10



INVERTED WASHER LOCKNUT (DE)

10



PUSH-ON HAT FASTENER (HP)

12



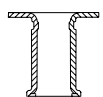
PUSH-ON RETAINER FASTENER (P)

12



SELF-THREADING LOCKNUTS AND WASHERS (SC, SW, SWW, SWI)

14



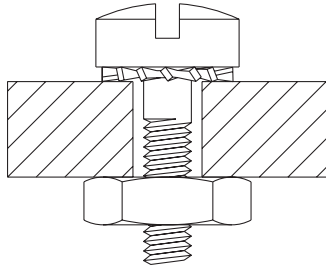
ADDITIONAL PRODUCTS

16

LOCK WASHERS

EXTERNAL TOOTH LOCK WASHER (LWE)

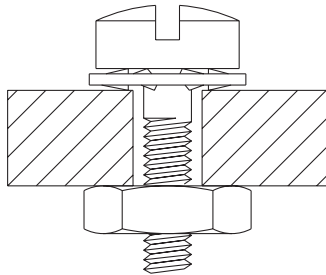
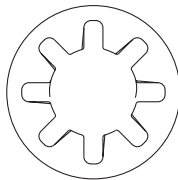
External tooth lock washers provide greater torsional resistance because the teeth are on the largest radius. They should be used with fasteners having heads large enough to cover the exposed teeth.



External Tooth
Lock Washer

INTERNAL TOOTH LOCK WASHER (LW)

Internal tooth lock washers are recommended for use with small-head screws or nuts. They present a neater appearance when teeth are covered by the fastener. With the teeth on the inner radius, the danger of snagging or catching is eliminated.



Internal Tooth
Lock Washer

Load Distribution - Crest Products tooth lock washers have a precise configuration which provides contact with all teeth, distributing load and pressure evenly. The teeth work well on metal, but will mar painted or shiny surfaces. Twisted tooth lock washers should not be used on plastic surfaces.

Eliminates Back-Off - Crest Products tooth lock washers bite tight and flex under the load to cushion assemblies against vibration, jolt, and stress. As vibration increases, the teeth bite deeper—causing them to lock even tighter.

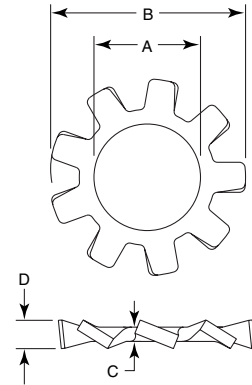
Low Profile - Crest Products tooth lock washers are thin, and can be used when a low screw head profile is needed.

MATERIAL

Crest Products tooth lock washers are fabricated from SAE 1050 spring steel and are available in our standard finishes. Crest Products tooth lock washers are also available in phosphorous bronze, 302 and 410 stainless steel.

EXTERNAL TOOTH LOCK WASHER

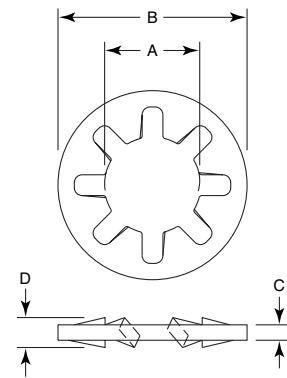
Part No.	Stud Size	ID A	OD B	TK C	HT D	Box Quantity	Approx. Wgt./M
LWE631	6	.145	.313	.020	.040	125M	.2
LWE837-2	8	.172	.375	.020	.040	85M	.3
LWE1040-2	10	.200	.400	.022	.044	75M	.4
LWE1450-2	1/4	.260	.500	.025	.050	45M	.7
LWE51659-2	5/16	.323	.594	.030	.060	25M	.9
LWE3868	3/8	.390	.688	.035	.070	15M	1.5
LWE41768	13/32	.410	.688	.035	.070	15M	1.4
LWE71675	7/16	.455	.750	.035	.070	13M	1.6
LWE1288-12	1/2	.520	.890	.040	.080	8M	2.6
LWE58105	5/8	.650	1.058	.045	.080	5M	4.5
LWEM1447-2	M6	6.35	11.89	0.63	1.27	45M	.5



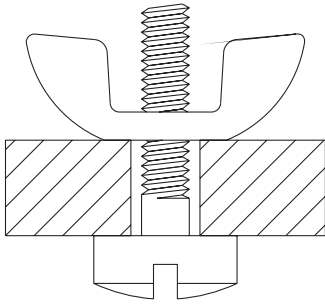
External Tooth Lock Washer

INTERNAL TOOTH LOCK WASHER

Part No.	Stud Size	ID A	OD B	TK C	HT D	Box Quantity	Approx. Wgt./M
LW218	2	.092	.180	.013	.025	650M	.05
LW426	4	.121	.260	.015	.032	250M	.1
LW628	6	.148	.283	.018	.038	200M	.2
LW828	8	.167	.283	.018	.036	200M	.2
LW833	8	.171	.330	.020	.041	125M	.3
LW1037	10	.199	.375	.022	.044	75M	.4
LW1037-20	10	.199	.375	.020	.045	75M	.4
LW1440	1/4	.260	.402	.022	.044	80M	.3
LW1447	1/4	.260	.470	.025	.050	50M	.7
LW3850	3/8	.389	.500	.022	.044	50M	.7
LW3868	3/8	.389	.687	.035	.070	15M	1.7
LW3874	3/8	.390	.740	.045	.080	13M	3.0
LW51660	5/16	.329	.601	.030	.060	25M	1.3
LW71679	7/16	.450	.780	.035	.070	13M	2.1
LW1286	1/2	.520	.875	.040	.080	8M	3.3
LW58105	5/8	.650	1.055	.045	.090	5M	5.1
LW14SP76	1/4SP	.555	.765	.025	.050	18M	1.1
LW14SP76-30	1/4SP	.555	.765	.030	.050	15M	1.3
LW18SP38	1/8SP	.380	.605	.020	.050	25M	.7
LW18SP60	1/8SP	.418	.605	.020	.040	35M	.6
LW18SP67	1/8SP	.415	.670	.020	.040	27M	1.0
LWM6313	M6	6.60	13.00	1.02	1.79	100M	1.4



Internal Tooth Lock Washer



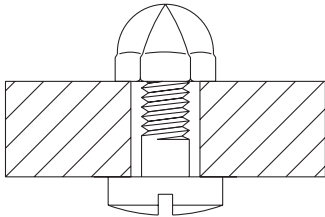
WING NUT (WN)

Convenience of Finger Tightening

Locking Action - Provides vibration resistance, locking action.

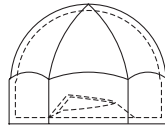
Mar-Proof - The bearing surface of the wing nut is quite large, and in most instances will not mar the surface.

The Crest Products wing nut is used in many types of products, such as toys, lawnmowers, and automobiles. Crest Products wing nuts are ideal for products which are shipped knock-down since the fasteners are easily applied by the end user.



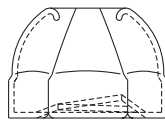
ACORN (A)

Stay Tight - Crest Products acorn locknuts stay tight without the use of lock washers.



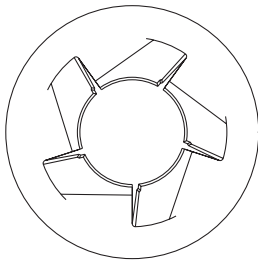
"A" Closed Top

The closed top design provides a neat appearance. This design also prevents snagging on bolt ends.



"AO" Open Top

The open top design permits wider tolerances of screw length through the open end of the acorn. The petals of the open end acorn grip the screw thread, offering some prevailing torque. This is useful when the nut is exposed to "no load" applications, for example in assemblies for children's toys.



PUSH-ON BOLT RETAINER (PB)

USE

In assembly applications when screws or bolts need to be retained in position *before* a nut is positioned and tightened.

ADVANTAGES

Retainer slip onto screws or bolts with minimal effort.

The screw or bolt is retained tightly and will not push out of the hole when the nut is started.

EXAMPLE

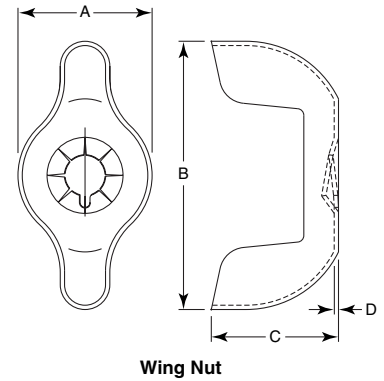
Screws are placed in position through plastic fender skirts and held in position by the push-on bolt retainer during shipment. On the assembly line the skirt is already loaded with screws permitting fast screw and hole assignment.

MATERIAL

Crest acorn, wing locknuts and bolt retainers are stamped from SAE 1050 spring steel-hardened, tempered and plated with any of our standard finishes. Other materials are available.

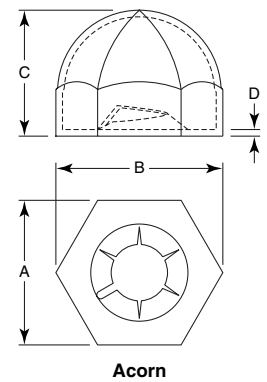
WING NUT

Part No.	Stud Size	Width A	Across Corners B	HT C	TK D	Box Quantity	Approx. Wgt./M
WN83240	8-32	13/32	.812	.335	.013	9M	1.6
WN102443	10-24	7/16	.875	.375	.017	8M	2.3
WN103243	10-32	7/16	.875	.375	.017	8.5M	2.4
WN142053	1/4-20	17/32	1.062	.404	.018	5M	3.5



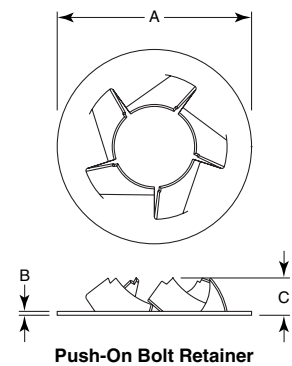
ACORN

Part No.	Stud Size	Hex Width A	Across Corners B	HT C	TK D	Box Quantity	Approx. Wgt./M
A83234	8-32	11/32	.397	.304	.013	15M	1.3
A102437	10-24	3/8	.421	.324	.017	12.5M	2.1
A103237	10-32	3/8	.421	.324	.015	14M	1.8
AO83234	8-32	11/32	.397	.257	.013	15M	1.3
AO102437	10-24	3/8	.421	.268	.017	12M	2.1
AO103237	10-32	3/8	.421	.268	.015	5M	1.8

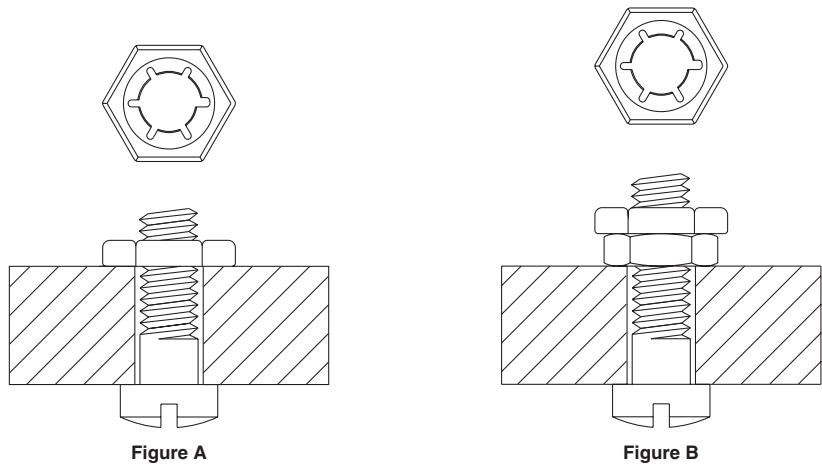


PUSH-ON BOLT RETAINER

Part No.	Stud Size	OD A	TK B	HT C	Box Quantity	Approx. Wgt./M
PB837-10	8	.375	.015	.049	99M	.3
PB25050-10	1/4	.500	.010	.086	30M	.5
PB31262-13	5/16	.625	.013	.082	20M	.8
PB31262-18	5/16	.625	.018	.084	25M	1.2
PB37578-15	3/8	.780	.015	.093	20M	1.7
PB43785-15	7/16	.843	.015	.104	10M	1.7
PB50094-15	1/2	.938	.015	.122	5M	2.2
PB56298-15	9/16	.979	.015	.128	5M	2.3
PB56299-15	9/16	.984	.015	.150	5M	2.3
PBM6129-10	M6	12.70	0.25	2.18	30M	.5
PBM6160-10	M6	15.70	0.25	2.01	20M	1.0
PBM63127-10	M6.3	12.70	0.25	1.98	40M	.5
PBM8159-13	M8	15.87	0.33	2.11	20M	.9
PBM1020-15	M10	19.81	0.38	2.41	5M	1.6
PBM1221-15	M12	21.41	0.38	2.62	10M	1.8
PBM1221-15-1	M12	21.46	0.38	2.95	8M	1.8
PBM1435-15-1	M14	35.00	0.38	3.30	1M	5.2



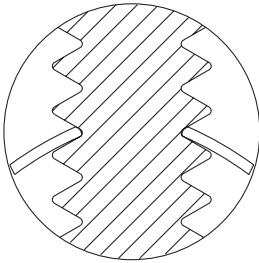
REGULAR LOCKNUT (C)



Minimal Space - Crest Products regular locknuts require minimal space for installation.

Internal Wrenching - Crest Products regular locknuts allow internal wrenching when space is too restrictive for external driving.

Eliminates Back-Off - Crest Products locking action eliminates back-off due to vibratory and/or thermal stress.



- Spring Forces are exerted upward against bolt threads and downward against the assembly.
- Spring forces are exerted inward, gripping the root of the bolt thread.
- Crest Products locknuts may be removed and reused as long as the thread engaging portion has not been flattened by excessive tightening.

Crest Products regular locknuts are found in a variety of applications. They are used by themselves in light duty components such as holding switches to panels or keeping nameplates in position (Figure A). Crest Products regular locknuts can be used in conjunction with a solid nut as a locking “jam” nut (Figure B).

MATERIAL

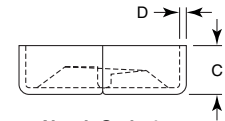
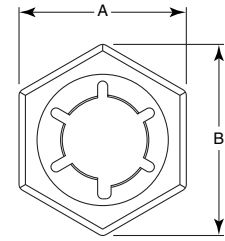
SAE 1050 spring steel-hardened, tempered and plated with any standard finish. Some locknuts may be supplied in other materials upon special request.

SINGLE-THREAD LOCKNUT

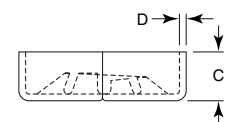
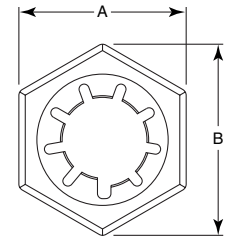
Due to their unique design, both the regular and the washer style single-thread locknuts provide vibration-proof, double-locking action.

REGULAR LOCKNUT

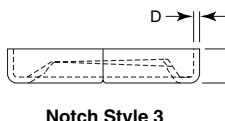
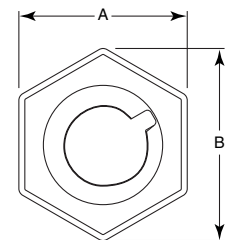
Part No.	Stud Size	Width A	Across Corners B	HT C	TK D	Box Quantity	Approx. Wgt./M	Notch Style
C44025	4-40	1/4	.289	.064	.010	100M	.2	3
C54025	5-40	1/4	.289	.064	.012	50M	.2	3
C64025	6-40	1/4	.289	.064	.012	140M	.2	3
C63225-2	6-32	1/4	.289	.085	.015	80M	.4	2
C63231	6-32	5/16	.361	.093	.013	50M	.5	4
C83234	8-32	11/32	.397	.099	.013	40M	.6	4
C102437	10-24	3/8	.433	.105	.018	30M	1.0	4
C103237	10-32	3/8	.433	.105	.013	32M	.7	4
C182756	1/8-27	9/16	.650	.114	.018	13M	1.5	1
C142043	1/4-20	7/16	.505	.123	.023	18M	1.5	1
C142843	1/4-28	7/16	.505	.118	.018	20M	1.3	1
C5161856	5/16-18	9/16	.650	.140	.018	10M	2.1	1
C5162450	5/16-24	1/2	.577	.145	.020	13M	1.7	2
C381656	3/8-16	14/25	.640	.140	.018	10M	1.8	1
C381662	3/8-16	.625	.722	.156	.021	7.5M	2.8	1
C382456	3/8-24	9/16	.650	.140	.018	10M	1.9	2
C383256	3/8-32	.562	.650	.094	.013	14M	1.1	2
C15323262	15/32-32	.625	.715	.090	.015	12M	1.2	2
C7162062	7/16-20	5/8	.722	.150	.021	8M	2.5	2
C121381	1/2-13	.806	.922	.190	.030	3M	6.3	1
C122075	1/2-20	3/4	.850	.172	.023	4.5M	4.0	2
C9162475	9/16-24	3/4	.850	.172	.023	5.4M	3.7	3
C581193	5/8-11	.937	1.100	.225	.035	6M	9.8	1
C3410112	3/4-10	1 1/8	1.320	.200	.035	4.5M	12.2	1
C3410112-1	3/4-10	1 1/8	1.320	.200	.040	3M	14.7	3
C3416106	3/4-16	1 1/10	1.210	.215	.027	2M	9.0	1
CM601019	M6X1.0	18.87	21.54	3.0	0.43	6M	3.2	3



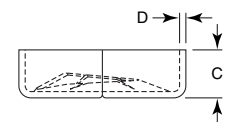
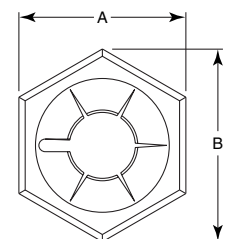
Notch Style 1



Notch Style 2



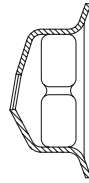
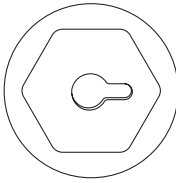
Notch Style 3



Notch Style 4

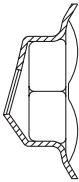
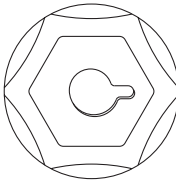
WASHER LOCKNUTS

REGULAR WASHER LOCKNUT (W)

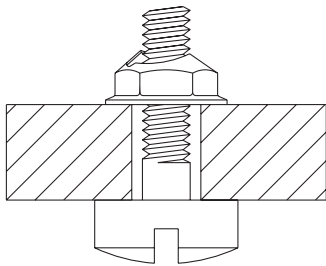


Most popular style, rounded crown, various thread sizes available with varying base diameters.

WAVY WASHER LOCKNUT (WW)



Same functions as the regular washer locknut except it has a faceted edge which gives increased resilient "Belleville" locking action when compressed.



Cost and Inventory Reduction - A one-piece Crest Products washer locknut combines the functions of an ordinary hex nut, lock washer, and flat washer. If separate sealers are used, these can also be eliminated by using a Crest Products washer locknut with a sealer. There is only one fastener to handle on the assembly line thus, saving time and reducing labor cost with only one fastener to inventory.

Eliminates Back-off - Crest Products unique locking design eliminates back-off due to vibratory and/or thermal stress.

- Spring forces are exerted upward against bolt threads and downward against the assembly.
- Spring forces are exerted inward, gripping the root of the bolt thread.
- Crest Products locknuts may be removed and reused as long as the thread engaging portion has not been flattened by excessive tightening.

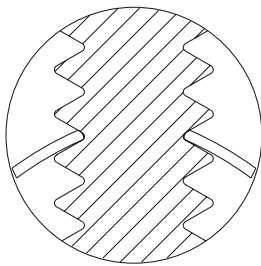
Spans Large Clearance Holes - Large clearance holes may be covered by selecting the appropriate washer base.

Sealers - If it is necessary to keep dirt or moisture out, most Crest Products washer locknuts are available with sealers.

Used extensively in lighting, electrical, and automotive industries.

MATERIAL

Crest Products washer locknuts are available in SAE 1050 spring steel-hardened, tempered and plated with any standard finish.

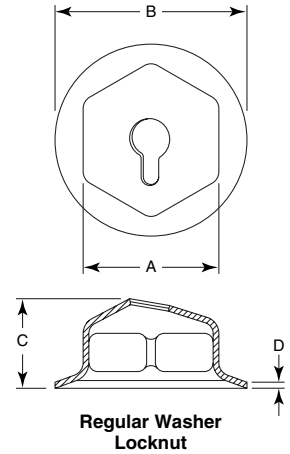


SINGLE-THREAD LOCKNUT

Due to their unique design, both the regular and the washer style single-thread locknuts provide vibration-proof, double-locking action.

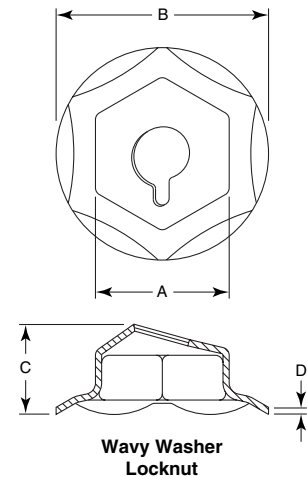
REGULAR WASHER LOCKNUT

Part No.	Stud Size	Width A	Dia. B	HT C	TK D	Box Quantity	Approx. Wgt./M
W63243	6-32	.312	.437	.204	.013	25M	.9
W83246	8-32	11/32	.468	.212	.015	17M	1.0
W83262	8-32	11/32	.625	.234	.015	20M	1.9
W102450	10-24	3/8	.500	.231	.018	17.5M	1.5
W103250	10-32	3/8	.500	.218	.018	15M	1.4
W102462	10-24	3/8	.625	.249	.021	10M	2.5
W102475	10-24	3/8	.750	.270	.018	6M	3.0
W142059	1/4-20	7/16	.590	.261	.021	9M	2.4
W142068	1/4-20	7/16	.687	.276	.021	6M	3.0
W142081	1/4-20	7/16	.812	.275	.021	5M	3.7
W5161881	5/16-18	1/2	.812	.299	.023	4M	4.5
WM601015	M6	10.92	14.86	6.10	0.46	10M	1.9
WM601018	M6	10.92	17.86	5.94	0.46	7.5M	2.5



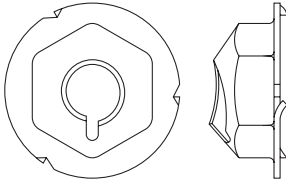
WAVY WASHER LOCKNUT

Part No.	Stud Size	Width A	Dia. B	HT C	TK D	Box Quantity	Approx. Wgt./M
WW83246	8-32	11/32	.469	.215	.015	20M	1.0
WW83256	8-32	.372	.562	.249	.013	10M	1.9
WW83262	8-32	.340	.625	.250	.015	10M	1.4
WW102450	10-24	3/8	.500	.236	.018	15M	1.5
WW102456	10-24	3/8	.562	.254	.018	10M	1.8
WW102462	10-24	3/8	.625	.264	.021	9M	2.4
WW102475	10-24	3/8	.750	.285	.018	6M	3.0
WW142059	1/4-20	7/16	.594	.266	.021	9M	2.4
WW142068	1/4-20	7/16	.687	.292	.021	6M	3.2
WWM40712	M4X0.7	8.91	11.10	5.77	0.38	20M	1.1
WWM50814	M5X0.8	9.91	13.89	5.94	0.43	13M	1.4
WWM601015	M6X1.0	10.92	14.86	6.17	0.46	10M	1.9
WWM601018	M6X1.0	10.92	17.83	7.31	0.46	7.5M	2.5



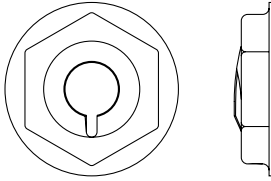
WASHER LOCKNUTS

GROUNDING WASHER LOCKNUT (WG)



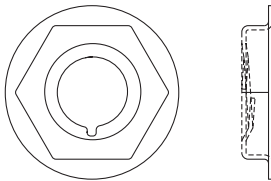
Provides the advantages of conventional washer type locknuts with electrical grounding action. Three tooth-like elements extend from the washer base to penetrate through non-conductive coatings or corroded surfaces to provide a "ground" for electrical assemblies.

DEPRESSED WASHER LOCKNUT (WD)

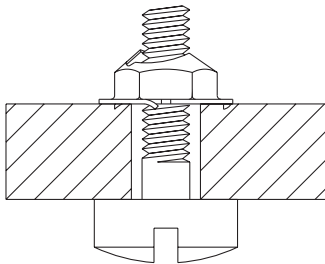


Features a low crown for use on assemblies where minimal bolt length is essential. Widely used in the electrical industry.

INVERTED WASHER LOCKNUT (DE)



Same as depressed washer style except it is flat on the top. Extensive use for lamps and switches.



Cost and Inventory Reduction - A one-piece Crest Products washer locknut combines the functions of an ordinary hex nut, lock washer, and flat washer. If separate sealers are used, these can also be eliminated by using a Crest Products washer locknut with a sealer. There is only one fastener to handle on the assembly line thus, saving time and reducing labor cost with only one fastener to inventory.

Eliminates Back-off - Crest Products unique locking design eliminates back-off due to vibratory and/or thermal stress.

- Spring forces are exerted upward against bolt threads and downward against the assembly.
- Spring forces are exerted inward, gripping the root of the bolt thread.
- Crest Products locknuts may be removed and reused as long as the thread engaging portion has not been flattened by excessive tightening.

Spans Large Clearance Holes - Large clearance holes may be covered by selecting the appropriate washer base.

Sealers - If it is necessary to keep dirt or moisture out, most Crest Products washer locknuts are available with sealers.

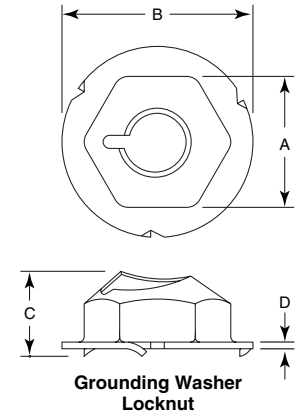
Used extensively in lighting, electrical, and automotive industries.

MATERIAL

Crest Products washer locknuts are available in SAE 1050 spring steel-hardened, tempered and plated with any standard finish.

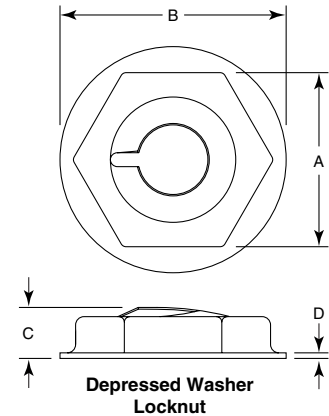
GROUNDING WASHER LOCKNUT

Part No.	Stud Size	Width A	Dia. B	HT C	TK D	Box Quantity	Approx. Wgt./M
WG83246	8-32	11/32	.468	.207	.015	20M	1.0
WG102450	10-24	3/8	.500	.233	.018	15M	1.4
WG142081	1/4-20	7/16	.810	.292	.021	4.5M	3.9
WGM601018	M6X1.0	10.92	20.57	7.42	0.53	5M	3.9



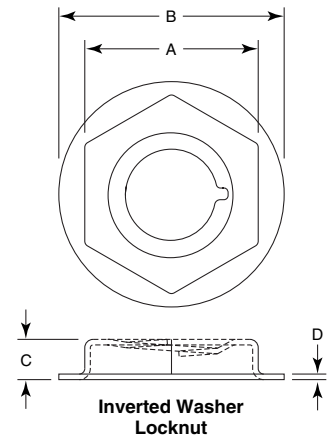
DEPRESSED WASHER LOCKNUT

Part No.	Stud Size	Width A	Dia. B	HT C	TK D	Box Quantity	Approx. Wgt./M
WD83246	8-32	11/32	.468	.159	.017	20M	1.1
WD103250	10-32	3/8	.500	.166	.018	18M	1.3
WD182787	1/8-27	9/16	.875	.188	.021	6M	3.8
WD383262	3/8-32	1/2	.625	.155	.015	10M	1.5
WWD103250	10-32	3/8	.500	.182	.018	18M	1.3



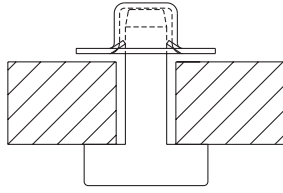
INVERTED WASHER LOCKNUT

Part No.	Stud Size	Width A	Dia. B	HT C	TK D	Box Quantity	Approx. Wgt./M
DE382481	3/8-24	5/8	.812	.140	.020	5M	3.4
DE7162081	7/16-20	5/8	.812	.190	.020	5M	3.2



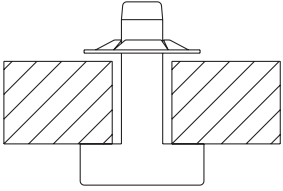
PUSH-ON FASTENERS

PUSH-ON HAT FASTENER (HP)



Decorative and covers unsightly stud ends.
Protects from scratches or snags.

PUSH-ON RETAINER FASTENER (P)



Available in a wide variety of sizes.
Capacity for positioning anywhere along a stud, wire or rod.

Reduce Cost - Crest Products push-on fasteners eliminate costly secondary operations such as notching, threading or drilling. They are designed to hold components on plain round shafts, rods or axles.

Fast Assembly - No need to find a thread or turn a nut down with a torque wrench. These “push-ons” can be quickly pushed on a shaft or stud.

Knock-down Products - Crest Products push-on fasteners are ideal for products which are shipped knock-down because assembly is very simple.

Used in almost every industry, Crest Products push-on fasteners are found in such diverse applications ranging from toy wheels, to paint rollers, to boat trailer rollers.

STUDS AND RODS

The design and workmanship of the stud or rod is critical for the successful application of push-on fasteners. The following are design requirements.

- The stud/rods must be to size and round within a tolerance of $\pm .0025$ inch (.06mm). Care must be taken if the shaft is prepared using a shearing process, as out-of-round conditions can occur.
- The material must not have a hardness of greater than 78 on 30T scale. If the stud/rod is too hard the teeth will not bite into the material.
- The stud/rod should NOT be chrome plated. Chrome plating is very hard and can prevent the push-on teeth from biting into the shaft. Nickel plating with a thickness greater than .0003 inch should also be avoided.
- The stud/rod should have a lead in angle or chamfer. Sharp edges with burrs can prevent proper functioning of the fastener.
- The minimum pull-off loads listed are static load tests performed under laboratory conditions on metal shafts that meet the above conditions. You may see variations in performance in your application.

APPLICATION TIPS

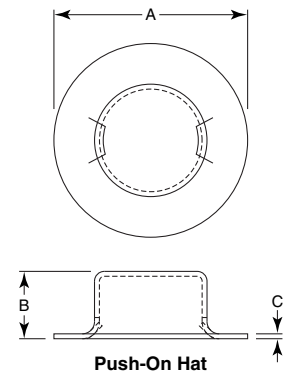
Fixtures should be used to apply the fasteners. The fasteners should be presented squarely to the stud or rod, crooked application can affect the performance of the fastener.

Hat push-on fasteners should be applied with a load on the top of the hat, avoid applying a load to the brim of the hat.

When installing “P” type fasteners, use a fixture that pushes squarely on the OD but avoids interfering with the petals of the fastener.

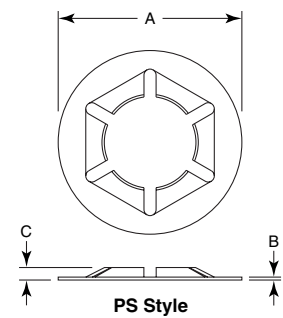
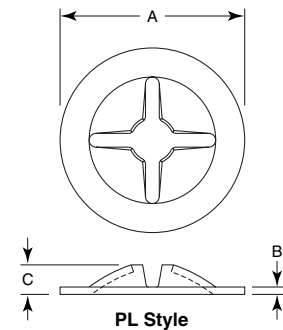
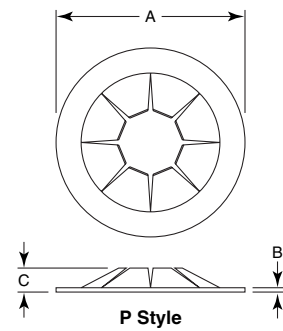
PUSH-ON HAT FASTENER

Part No.	Stud Size	Washer Dia. A	HT B	TK C	Box Quantity	Min. Pull-Off (Lbs.)
HP18843	3/16	.437	.202	.015	23M	220
HP18850	3/16	.500	.202	.015	18M	220
HP25056	1/4	.560	.205	.018	12M	360
HP31262	5/16	.625	.236	.020	9M	460
HP37568	3/8	.688	.234	.020	7M	380
HP37575	3/8	.750	.270	.025	5M	700
HP71687	7/16	.875	.328	.030	3M	825
HP50094	1/2	.940	.330	.030	2.5M	800
HP58118	5/8	1.190	.413	.030	1.3M	1500
HP7513	3/4	1.310	.413	.035	1.1M	1500

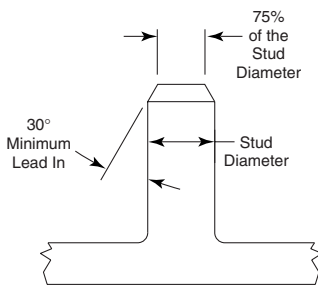
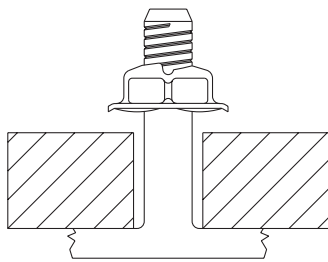
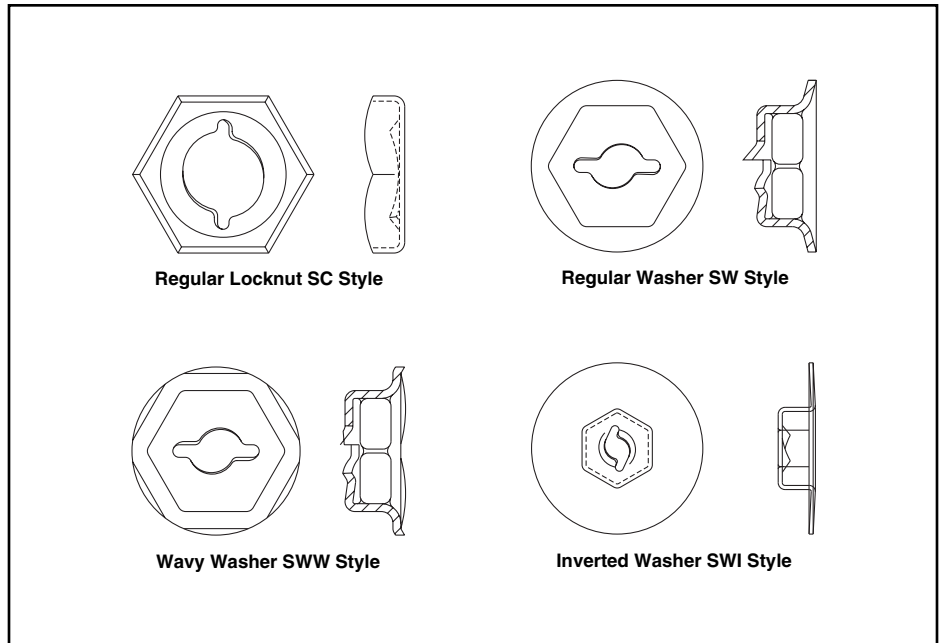


PUSH-ON RETAINER FASTENER

Part No.	Stud Size	OD A	HT C	TK B	Box Quantity	Min. Pull-Off (Lbs.)
P06219-10	1/16	.195	.038	.010	80M	75
P11737-13	.117	.375	.052	.013	80M	300
P125312-15	1/8	.312	.052	.015	140M	300
P12537-13	1/8	.375	.052	.013	100M	300
P15643-10	5/32	.437	.047	.010	60M	60
P15643-13	5/32	.437	.055	.013	60M	180
P18843-10	3/16	.437	.056	.010	60M	200
P18843-13	3/16	.437	.060	.013	60M	300
P18843-15	3/16	.437	.064	.015	60M	400
P18853-10	3/16	.531	.060	.010	45M	60
P18853-17	3/16	.531	.075	.017	35M	400
P21853-10	7/32	.531	.055	.010	30M	200
P21853-17	7/32	.531	.068	.017	45M	580
P21953-13	.219	.531	.067	.013	30M	200
P24053-10	.240	.531	.054	.010	45M	200
P24053-17	.240	.531	.048	.017	30M	400
P24053-17-1	.240	.531	.069	.017	25M	600
P25053-13	1/4	.531	.055	.013	40M	400
P25053-17	1/4	.531	.066	.017	30M	600
P25075-21	1/4	.750	.060	.021	17.5M	700
P31262-15	5/16	.625	.050	.015	25M	300
P31262-21	5/16	.626	.072	.021	20M	900
P31262-25	5/16	.625	.070	.025	20M	500
P37575-17	3/8	.750	.061	.017	18M	700
P37575-25	3/8	.750	.081	.025	13M	900
PL12537-15	1/8	.375	.063	.015	75M	60
PS25093-15	1/4	.938	.083	.015	15M	100
PS31294-15	5/16	.940	.097	.015	15M	200
PS37594-15	3/8	.940	.093	.015	15M	250
PS50094-15	1/2	.940	.064	.015	10M	500
PM3295-13	M3.2	9.50	1.40	0.33	99M	100
PM4011-10	M4	11.18	1.40	0.25	75M	100
PM5011-10	M5	11.10	1.32	0.25	60M	100
PM5015-15	M5	15.87	1.45	0.38	25M	300
PM6013-10	M6	13.46	1.40	0.25	40M	200
PM6135-17	M6.1	13.49	1.68	0.43	30M	300
PM10019	M10	19.05	1.90	0.63	15M	TBD



SELF-THREADING LOCKNUTS AND WASHERS



Assembly Savings - Self-threading action provides savings by eliminating costly operations such as threading, grooving, cross drilling and other secondary operations.

Eliminates Back-off - Crest Products sure-locking power provides resistance to vibration and eliminates the problem of nut back-off.

Faster Assembly - No thread to find, fewer parts to assemble.

Spans Large Clearance Holes - Integral base on washer style (SW, SWW, SWI) eliminates need for flat washer by spanning the clearance hole.

Available with Sealers - Contact Crest Products for details.

STUDS

The design and workmanship of the stud is important for the successful application of self-threading fasteners. The following are design requirements.

- The stud should have a chamfer to help start the fastener, as per the sketch on this page.
- Metal studs must be to size and round within a tolerance of $\pm .0025$ (.06mm).
- Metal studs must not have a hardness of greater than 80 on the B scale.

INSTALLATION TIPS

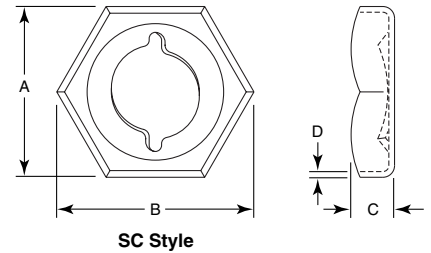
- Excessive tightening torque can strip plastic studs, use appropriate torque driving systems.
- It is important to start the nut square. If the nut is started crooked it may strip the stud or break it off when it seats.

MATERIAL

SAE 1050 spring steel-hardened, tempered and plated with any standard finish.

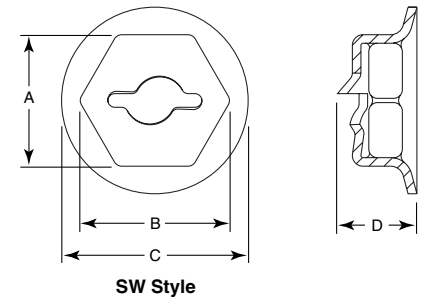
SELF-THREADING LOCKNUT

Part No.	Stud Size	Hex Width A	Across Corners B	HT C	TK D	Box Quantity	Approx. Wgt./M
SC12525	1/8	1/4	.280	.090	.015	80M	.4
SC12531	1/8	3/10	.354	.100	.017	45M	.7
SC18837	3/16	3/8	.433	.116	.018	30M	.9
SC18850	3/16	1/2	.567	.129	.020	14M	1.9
SC21843	.218	.437	.503	.118	.018	14M	1.7
SC25050	1/4	1/2	.577	.140	.020	15M	1.8
SC37568	3/8	.688	.784	.165	.023	6M	3.6
SC43868	.438	.688	.791	.165	.023	5M	3.5
SCM5010-1	M5	9.91	11.35	2.82	0.46	18M	1.5



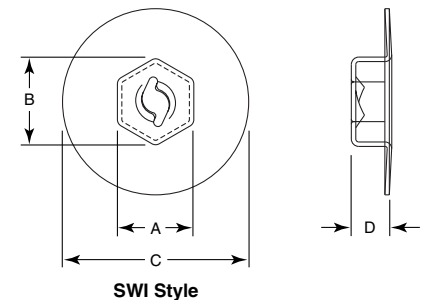
SELF-THREADING WASHER

Part No.	Stud Size	Hex Width A	Across Corners B	Dia. C	HT D	TK	Box Quantity	Approx. Wgt./M
SW12544	1/8	5/16	.354	.437	.186	.020	20M	1.1
SW12553	1/8	5/16	.354	.532	.190	.020	16M	1.6
SW15656	5/32	3/8	.425	.562	.211	.020	12M	1.9
SW18850	3/16	3/8	.425	.500	.215	.020	15M	1.5
SW18862	3/16	3/8	.425	.625	.235	.021	10M	2.4
SW18856	3/16	3/8	.426	.562	.225	.020	12M	2.0
SW25059	1/4	7/16	.495	.594	.232	.021	10M	2.2
SW25068	1/4	7/16	.495	.687	.247	.021	7M	2.7
SWM5015	M5	9.91	11.30	14.88	5.46	0.53	10M	2.0



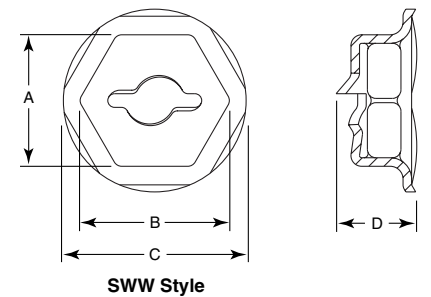
SELF-THREADING INVERTED WASHER

Part No.	Stud Size	Hex Width A	Across Corners B	Dia. C	HT D	TK	Box Quantity	Approx. Wgt./M
SWI12563	1/8	.310	.352	.625	.163	.018	12M	1.9
SWI12575	1/8	5/16	.356	.750	.163	.018	10M	2.5
SWI12575-1	1/8	3/8	.360	.750	.113	.018	10M	2.4
SWI12575-3	1/8	5/16	.356	.750	.113	.018	12M	2.8
SWI18875	3/16	3/8	.430	.750	.113	.018	10M	2.4
SWI18875-1	3/16	3/8	.430	.750	.118	.018	10M	2.4
SWI18875-2	3/16	3/8	.430	.750	.163	.018	8M	2.6
SWI18875-18	3/16	3/8	.428	.750	.153	.018	8M	2.7



SELF-THREADING WAVY WASHER

Part No.	Stud Size	Hex Width A	Across Corners B	Dia. C	HT D	TK	Box Quantity	Approx. Wgt./M
SWW12544	1/8	5/16	.354	.437	.186	.020	20M	1.1
SWW12553	1/8	5/16	.354	.532	.207	.020	16M	1.6
SWW18850	3/16	3/8	.425	.500	.211	.020	15M	1.5
SWW18856	3/16	3/8	.425	.562	.229	.020	12M	1.8
SWW18862	3/16	3/8	.425	.625	.239	.024	10M	2.3
SWW22059	.220	.433	.495	.594	.237	.020	10M	2.0
SWW25059	1/4	7/16	.496	.594	.237	.021	10M	2.0
SWW25068	1/4	7/16	.496	.687	.263	.021	7M	2.7
SWWM3211	3.2	7.80	9.02	11.18	4.72	0.51	20M	1.1
SWWM5018	5.0	9.91	11.35	17.88	6.35	0.53	4M	2.7
SWWM5021	5.0	9.91	11.35	20.85	6.86	0.53	2.5M	3.6
SWWM6315	6.3	10.92	12.52	14.99	6.32	0.53	4.5M	2.2
SWWM6318	6.3	10.92	12.52	17.88	7.11	0.53	6.5M	3.0
SWWM8020	8.0	12.88	14.76	19.86	7.85	0.58	2M	4.3

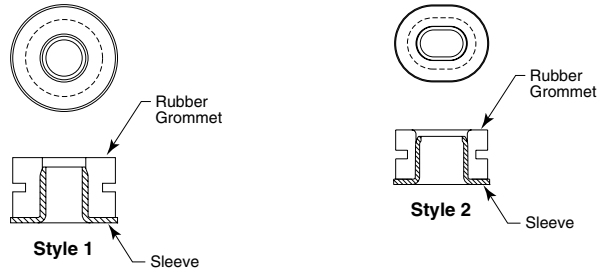


SELF-THREADING WASHER SPECIALS

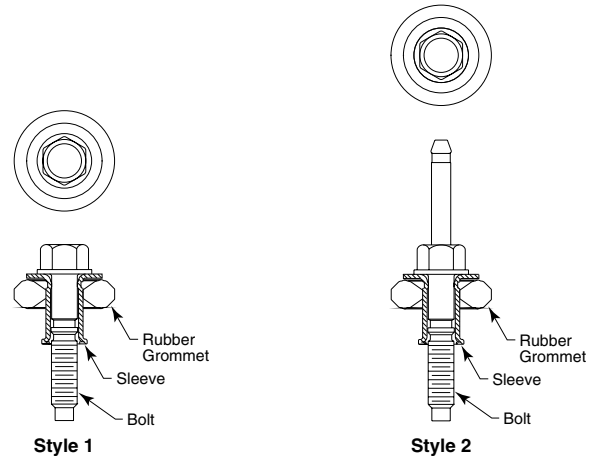
Part No.	Stud Size	Hex Width A	Across Corners B	Dia. C	HT D	TK	Box Quantity	Approx. Wgt./M
SWG33075	.330	.496	-	.755	.290	.023	8M	2.7
SZM8199	M8	12.90	14.50	19.86	3.99	0.53	4M	3.0

ADDITIONAL PRODUCTS

**ISOLATOR ASSEMBLIES
SLEEVE AND GROMMET ASSEMBLIES**



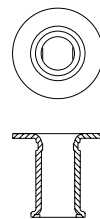
**ISO-Locks™ ASSEMBLIES
(Patented)**



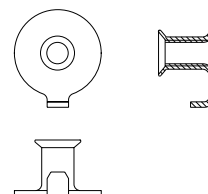
**METAL SPACERS
DEEP DRAWN**



DEEP DRAWN WITH FOOT



TAPPED NUTS AND DEEP DRAWN



Crest Products, Inc. manufactures a variety of other specialty stampings to solve tough fastener problems. Contact Crest Products, Inc. for further information.

MATERIAL AND STANDARD FINISHES

The material for the majority of our fasteners in this catalog is 1050 steel. Some products are also offered in a variety of materials such as stainless and phos bronze. Call your Crest Products, Inc. customer service representative for further information.

Finish	Description
Plain	Hardened and tempered, no secondary finish
Mechanical Zinc	Available with clear, yellow and black dichromate finishes
Electro Zinc	Available with clear, yellow and black dichromate finishes
Phosphate and Oil	Dull black finish

Crest Products, Inc. can supply finishes to meet various automotive and OEM standards in addition to the above standard finishes. Contact your Crest Products, Inc. customer service representative for further information.

GENERAL INFORMATION

Crest Products, Inc.

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P.O. Box 14051
Lexington, KY 40512-4051

Phone: 859-255-6400
Fax: 859-255-7588
e-mail: sales@crestproducts.com
Website: www.crestproducts.com

Minimum Order:

\$1,000 per order and
\$5,000 yearly

Terms:

Net 30 days
FOB Lexington, KY

Certifications:

ISO-9002
QS-9000

Data in this catalog is presented as a general guide. Specifications are subject to modification without notice.

CrestProducts, Inc.

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