Threaded Inserts

ROCKMOUNT Welding Alloys

Stripped Thread Repair

Overview

Rockmount Threaded Inserts are a fast and inexpensive way to solve all your stripped thread needs.

Threaded inserts are cylindrical, metal bushings with features on the outside that anchor them into a plastic or metal base material. They provide high-quality, permanent, wear-resistant internal threads and are designed to be installed in molded or drilled holes in one simple step.

With Rockmount Inserts, stripped-thread problems can be corrected in minutes with no special tools or procedures. Save time, money and aggravation by simply drilling a new hole and screwing in the self-tapping, case hardened insert.



Features

- Greater clamping pressure in softer materials, provides higher strength, and better seals.
- Highly Resistant To Pull-Out
- Effective In High Vibration Applications
- Self Tapping / Self-Locking
- Permanent, Wear-Resistant Threads

- Salvage or Repair Expensive Castings and Moldings
- Easy To Install In A Drilled or Molded Hole
- Available In Two Wall Thickness: Standard and Thin
- Can Be Used In All Metals and Plastics



Threaded Inserts

Threaded Inserts vs. Heli-Coil™

Rockmount Threaded Inserts solve many of the common problems associated with the Heli-Coil™ process of thread repair – saving time, money and aggravation.

Heli-Coil™ Problems	Threaded Insert Solutions		
Need To Tap	Self Tapping		
Need Special Tools	No Special Tools Needed		
Multiple Steps/ Time Consuming	Fast, Simple Install		
Strip or Pull Out	Will Not Pull Out		
Can Back Out	Self Locking		
Temporary Repairs	Permanent		
Spiral Coil	• 55 - 60 RC Solid		
Thin Wall Repair Difficult	Thin Wall Repair Made Easy		
Poor Thread Quality	Meet Rigid Standards		

Threaded Insert Kits

We have a wide variety of insert kits available.

Rockmount Threaded Insert Kits come in both standard (coarse and fine) and metric. We also have thin wall and regular wall thickness depending on your needs. Please contact us for complete details on available options.

Here are a couple examples of our kits:



Large Stud Repair Kit w/ Brutus Arc Rod



Thin Wall Threaded Insert Kit w/ LaserBest Drill Bits

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Threaded Inserts

Stripped Thread Repair

Instructions

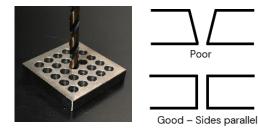
Use the standard insert where space is not an issue. Installation of the standard insert allows more flexibility with critical tolerances.

Use the thin-walled insert where space is limited, and the insert may be near the edge of the housing. Small motors, transmission cases and landscaping equipment are examples.

Step 1

Drill out the damaged threads to the size of the insert you wish to use. The more parallel the sides of the hole the better the repair will be. (See the drill chart).

Experimentation on a scrap part is advised when possible.



Step 2





Attach the Threaded Insert to the tip of a Grade 8 nut and bolt leaving the holes in the insert open. Twist the nut to the top of the insert.

Step 4

Loosen the nut and remove the bolt. Your permanent repair is complete.



Click for Product Demonstrations

Step 3





With a nut or socket, and working on the nut, screw the Threaded Insert into the hole until the insert is flush with the surface of the housing.







Threaded Inserts

Available Size and Thickness Options

Threaded inserts are available in both standard and thin-walled options. Sizing comes in both fractional and metric.

Standard Wall

For most applications

Fractional Sizing

Metric Sizing

Part #	Insert Size	Part #	Insert Size	Pitch (mm)	Part #
90402	7/16 - 14	90412	3mm	0.5	90443
90403	7/16 - 20	90413	3.5mm	0.6	90444
90404	1/2 - 13	90414	4mm	0.7	90445
90405	1/2 - 20	90415	5mm	0.8	90446
90406	9/16 - 12	90416	6mm	1.00	90447
90407	9/16 - 18	90417	8mm	1.25	90448
90408	5/8 - 11	90418	10mm Fine	1.25	90440
90409	5/8 - 18	90419	10mm Coarse	1.5	90449
90410	3/4 - 10	90420	12mm	1.75	90450
90411	3/4 - 16	90421	14mm	2	90451
			16mm	1.5	90452
Thin Wall				2.5	90454
	90402 90403 90404 90405 90406 90407 90408 90409 90410 90411	90402 7/16 - 14 90403 7/16 - 20 90404 1/2 - 13 90405 1/2 - 20 90406 9/16 - 12 90407 9/16 - 18 90408 5/8 - 11 90409 5/8 - 18 90410 3/4 - 10 90411 3/4 - 16	90402 7/16 - 14 90412 90403 7/16 - 20 90413 90404 1/2 - 13 90414 90405 1/2 - 20 90415 90406 9/16 - 12 90416 90407 9/16 - 18 90417 90408 5/8 - 11 90418 90409 5/8 - 18 90419 90410 3/4 - 10 90420 90411 3/4 - 16 90421	90402 7/16 - 14 90412 3mm 90403 7/16 - 20 90413 3.5mm 90404 1/2 - 13 90414 4mm 90405 1/2 - 20 90415 5mm 90406 9/16 - 12 90416 6mm 90407 9/16 - 18 90417 8mm 90408 5/8 - 11 90418 10mm Fine 90409 5/8 - 18 90419 10mm Coarse 90410 3/4 - 10 90420 12mm 90411 3/4 - 16 90421 14mm 16mm 20mm	90402 7/16 - 14 90412 3mm 0.5 90403 7/16 - 20 90413 3.5mm 0.6 90404 1/2 - 13 90414 4mm 0.7 90405 1/2 - 20 90415 5mm 0.8 90406 9/16 - 12 90416 6mm 1.00 90407 9/16 - 18 90417 8mm 1.25 90408 5/8 - 11 90418 10mm Fine 1.25 90409 5/8 - 18 90419 10mm Coarse 1.5 90410 3/4 - 10 90420 12mm 1.75 90411 3/4 - 16 90421 14mm 2 16mm 1.5 20mm 2.5

For Applications where space is limited and the insert may be near the edge of the housing. Such as small motors and transmission cases.

Fractional Sizing

Metric Sizing

Insert Size	Part #	Insert Size	Pitch (mm)	Part #
1/4 - 20	90372	3mm	0.5	90443
5/16 - 18	90373	3.5mm	0.6	90444
3/8 - 16	90374	4mm	0.7	90445
7/16 - 14	90375	5mm	0.8	90446
1/2 - 13	90376			
1/4 - 20	90372			
5/16 - 18	90373			

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Drill Bit Size Selection Chart

Standard Threaded Insert

Insert Size	Part #	Pitch (mm)	Recommended Hole Size Hole Depth Tolerance: +.300 – .000	Drill Bit Size [*]	Hole Depth
3mm	90443	0.5	.181	14 & 13 & 3/16"	.281 – 9/32"
6 – 32 3.5mm	90402 90444	0.6	.216	7/32" & 2	.343 – 11/32"
8 – 32 4mm	90403 90445	0.7	.236	15/64" & B	.359 – 23/64"
10 - 24 10 - 32 5mm	90404 90405 90446	0.8	.291	L & M & 19/64"	.437 – 7/16″
1/4 – 20 1/4 – 28 6mm	90406 90407 60447	1.00	.366	U & 3/8" & V	.50 – 1/2"
5/16 - 18 5/16 - 24 8mm	90408 90409 90448	1.25	.437	7/16"	.551 – 9/16"
3/8 - 16 3/8 - 24 10mm fine 10mm course	90410 90411 90440 90449	1.25 1.50	.516	33/64"	.687 – 11/16"
7/16 – 14 7/16 – 20 12mm	90412 90413 90450	1.75	.590	19/32"	.812 – 13/16"
1/2 – 13 1/2 – 20 14mm	90414 90415 90451	2.00	.669	43/64"	.875 – 7/8"
9/16 - 12 9/16 - 18	90416 90417		.685	11/16"	.875 – 7/8"
5/8 – 11 5/8 – 18 16mm	90418 90419 90452	1.5	.748	3/4"	.875 – 7/8"
3/4 – 10 3/4 – 16 20mm	90420 90421 90454	2.5	1.00	1"	1.109 – 1-7/64"

^{*}For softer metals (copper, brass, bronze, and aluminum) we recommend reducing drill bit size by 1/64th from the above stated numbers.

Thin-Walled Threaded Insert

Insert Size	Part #	Pitch (mm)	Recommended Hole Size* *Hole Depth Tolerance: +.300000	Drill Bit Size* Material Type: Hard & Soft	Hole Depth
1/4 – 20 6mm	90372 90380	1.00	.291	Hard – M Soft – L	.591 – 19/32"
5/16 – 18 8mm	90373 90381	1.25	.366	Hard – V Soft – U	.669 – 43/64"
3/18 – 16 10mm	30374 30382	1.50	.437	Hard – 29/64" Soft – 7/16"	.866 – 7/8"
7/16 – 14 12mm	90375 90383	1.75	.516	Hard – 17/32" Soft – 33/64"	1.024 – 1"
1/2 – 13	30376		.590	Hard – 39/64" Soft – 19/32"	1.102 – 1-7/64"

Disclaimer: Hole size and drill bit size is for reference only and best determined by experimentation on scrap metal.