



**ROCKMOUNT**  
Research and Alloys, Inc.

# Threaded Inserts

The Most Effective and  
Convenient Solution for  
Repairing Stripped  
Threads

## What are Inserts?

*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.

## Insert Features

- Self Tapping / Self-Locking
- Permanent, Wear-Resistant Threads
- Can Be Used In All Metals and Plastics
- Highly Resistant To Pull-Out
- Effective In High Vibration Applications
- Salvage or Repair Expensive Castings and Moldings
- Easy To Install in a Drilled or Molded Hole
- Available In Two Wall Thickness: Standard and Thin
- Greater clamping pressure in softer materials, provides higher strength, and better seals.

# Threaded Inserts vs. Heli-Coil™

## A faster and more effective solution

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
<ul style="list-style-type: none"><li>• Need To Tap</li><li>• Need Special Tools</li><li>• Multiple Steps/ Time Consuming</li><li>• Strip or Pull Out</li><li>• Can Back Out</li><li>• Temporary Repairs</li><li>• Spiral Coil</li><li>• Thin Wall Repair Difficult</li><li>• Poor Thread Quality</li></ul>	<ul style="list-style-type: none"><li>• Self-Tapping</li><li>• No Special Tools Needed</li><li>• Fast, Simple Install</li><li>• Will Not Pull Out</li><li>• Self-Locking</li><li>• Permanent</li><li>• 55 - 60 RC Solid</li><li>• Thin Wall Repair Made Easy</li><li>• Meet Rigid Standards</li></ul>

## 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



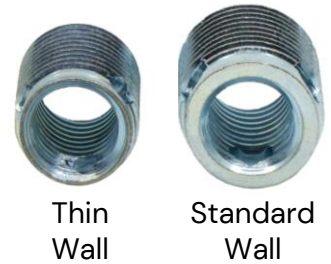
Thin Wall Threaded Insert Kit w/ LaserBest Drill Bits

# Installing Threaded Inserts

## Select the Appropriate Insert

Use standard wall insert where space is not an issue. Installation of standard inserts allow more flexibility with critical tolerances.

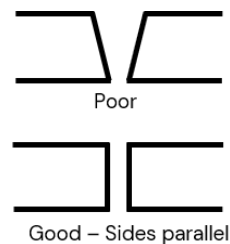
Use the thin-walled inserts where space is limited, and the insert may be near the edge of the housing. Small motors, transmission cases and landscaping equipment are examples.



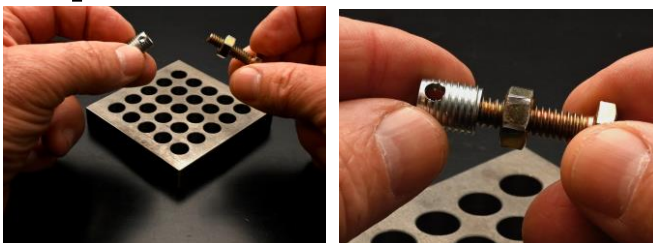
## Install Step 1

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.*

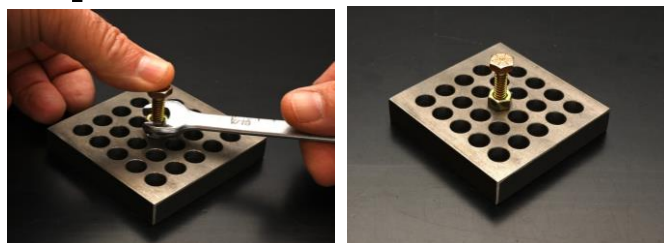


## Step 2



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.

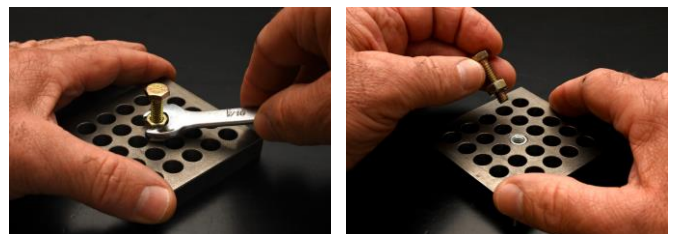
## Step 3



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.

## Step 4

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



Visit [YouTube](https://www.youtube.com) or [Rockmountwelding.com](https://www.rockmountwelding.com) for Product Demonstration Videos

# Drill Bit Size Selection Chart

## Standard Wall Threaded Inserts

For Most Applications

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 90447	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	2.00	.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 1/64<sup>th</sup> from the above numbers.

## Thin-Walled Threaded Inserts

For Applications where space is limited, and the insert may be near the edge of the housing.

Insert Size	Part #	Pitch (mm)	Recommended Hole Size* *Hole Depth Tolerance: +.300 - .000	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"
3/8 - 16 10mm	90374 90382	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	90376		.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.