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Time-Sert Repair Process

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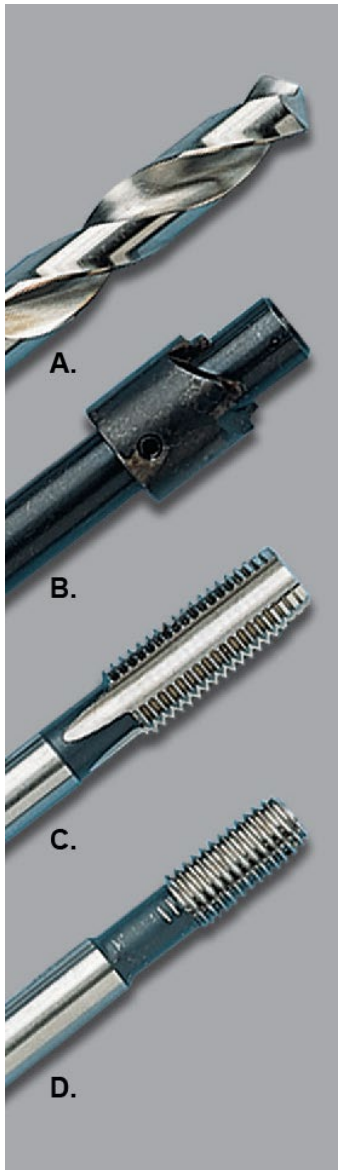
1.0

Time-Sert Introduction

What is Time-Sert?



A. HSS Drill Bit
B. Counterbore
C. Thread Tap
D. Insertion Tool

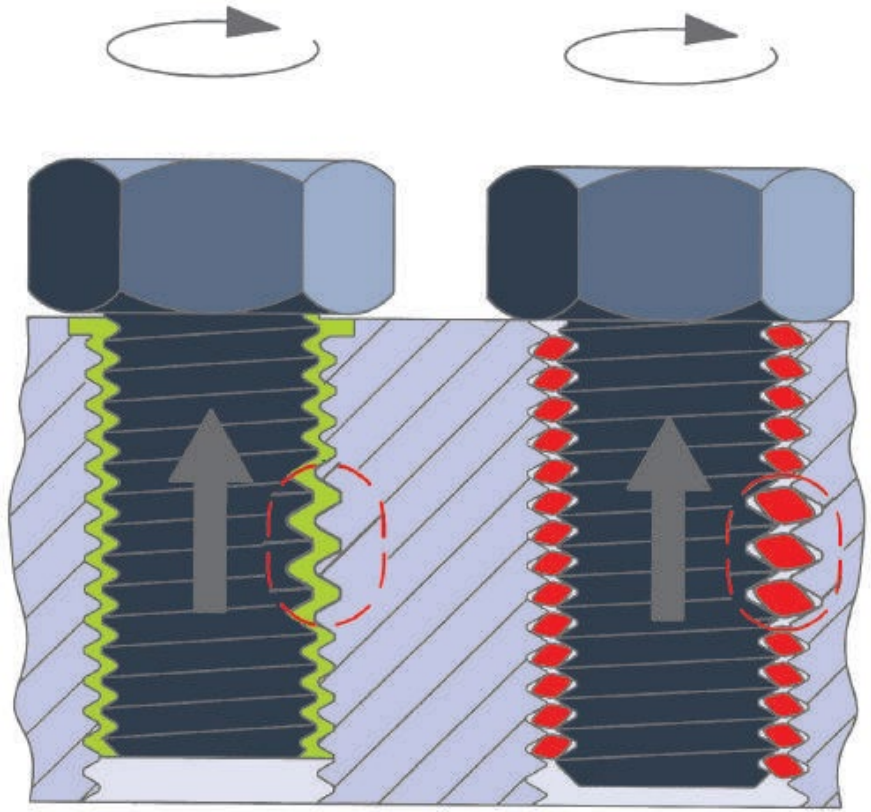
The Time-Sert system is based on a solid steel insert machined from a solid piece of material. The thin walled insert is press fitted to the component, therefore, Time-Sert is able to withstand high continuous strains as well as frequent tightening and undoing of screws.

Benefits Over Wire Inserts

The solid Time-Sert insert is able to transmit the pressure loads of torque evenly through the entire contact area with the component. In the case of wire inserts, however, the rhombic cross section is distorted in the direction of the pressure load.

Under high pressure load conditions, a permanent distortion of the screw, the thread of the component and the wire insert occurs. This damaging of the thread causes a jamming effect throughout the entire repair, therefore it becomes very difficult to tighten or undo the screw.

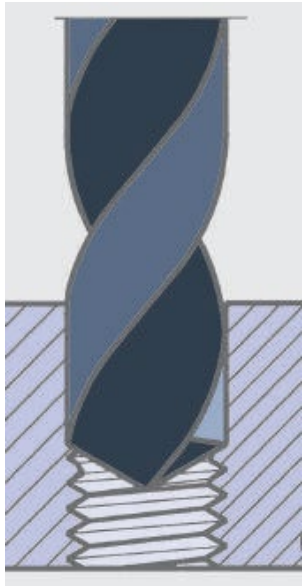
In many cases the wire insert is unscrewed from the component together with the screw.



2.0

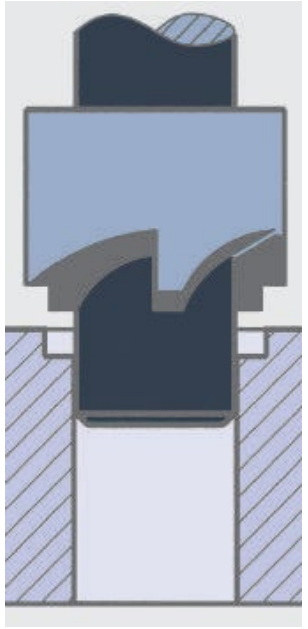
Installation Guide

Preparation



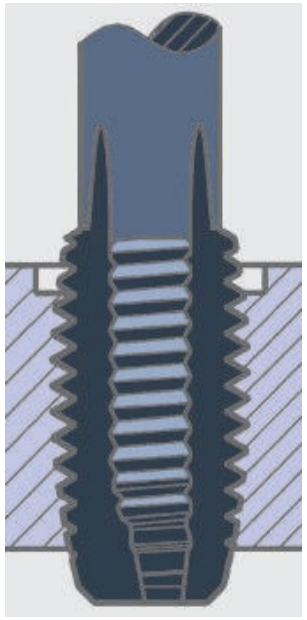
Step 1.
Fully drill out the damaged thread from the component using the provided HSS drill bit.

Note: Take extra care to ensure the drill is kept perfectly straight.



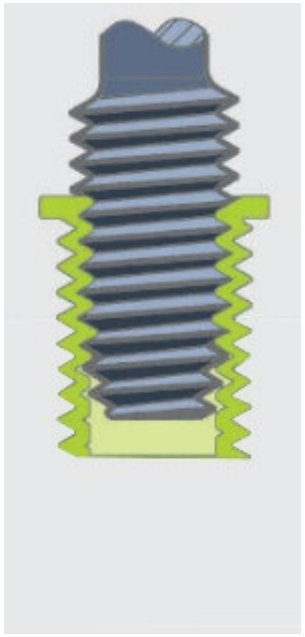
Step 2.
Run the provided counterbore into the drilled hole until the depth-stop contacts the component.

Note: Each kit contains installation instructions



Step 3.
Use the provided thread tap to cut threads for the insert.

Note: Keep the tap straight and use cutting oil as necessary.

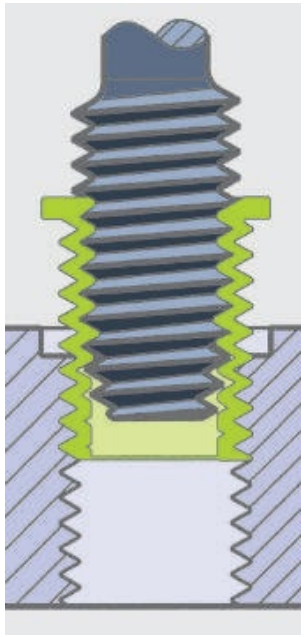


Step 4.
Thoroughly remove all oil and remaining metal shavings from component.

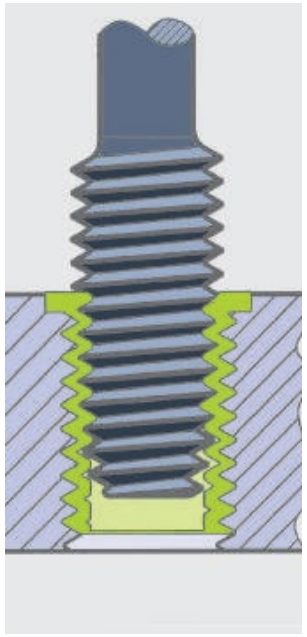
Apply lubricant to the tip of the insertion tool, taking care to not allow any to get on the outer threads of the insert.

Apply thread-lock to the outer threads of the insert.

Installation



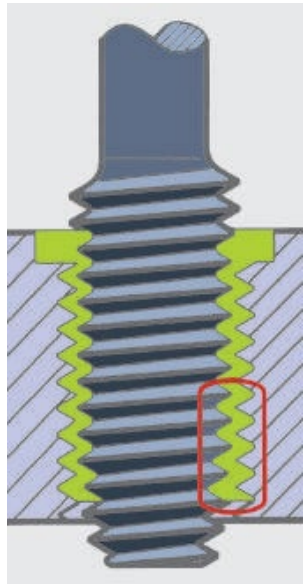
Step 5.
Screw the insert into the newly formed threads in the component.



Step 6.
Once the insert sits flush with the surface, the remaining threads are formed using the insertion tool.

Note: Additional effort will be required during this stage.

Installation



Step 7.
Continue turning the insertion tool to fully seat the threads of the insert into the component. When complete, the insertion tool can be removed with noticeably less resistance.

Step 8.
Follow recommended thread-lock cure time as instructed on product label before installing fastener.

3.0

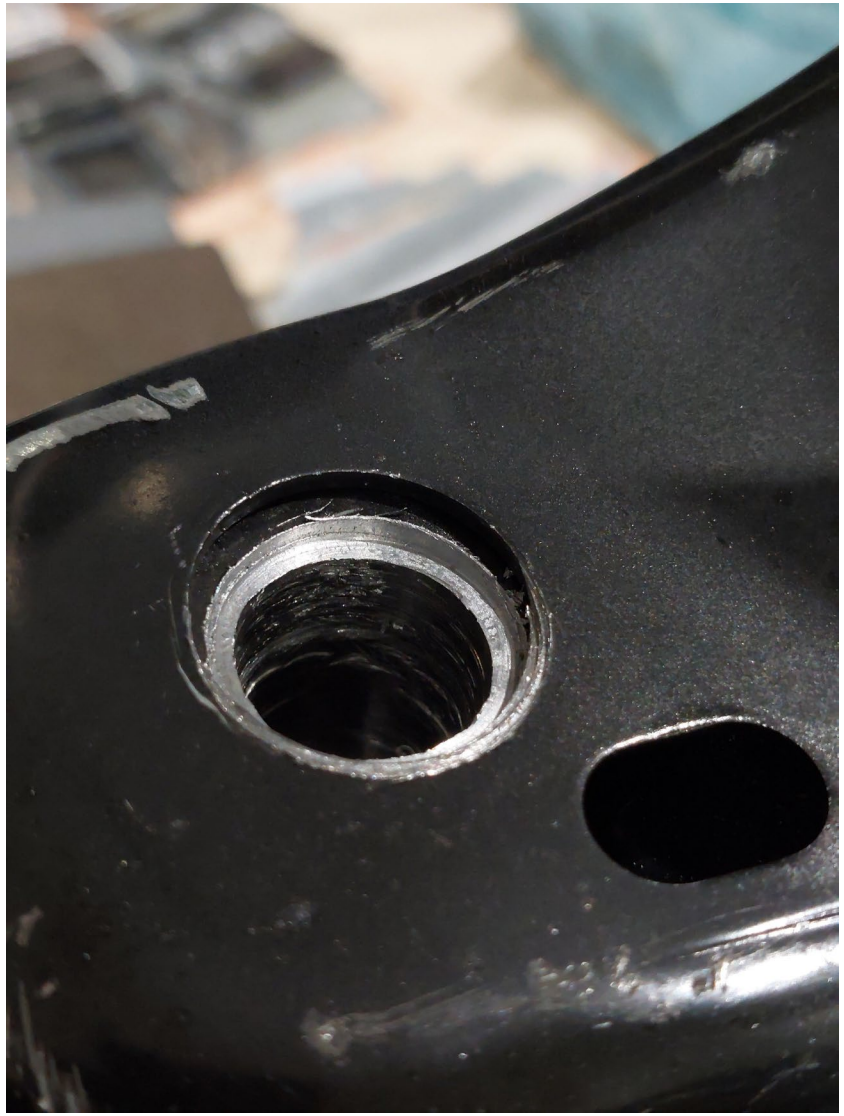
Process Photos

Photos

Drill

Photos

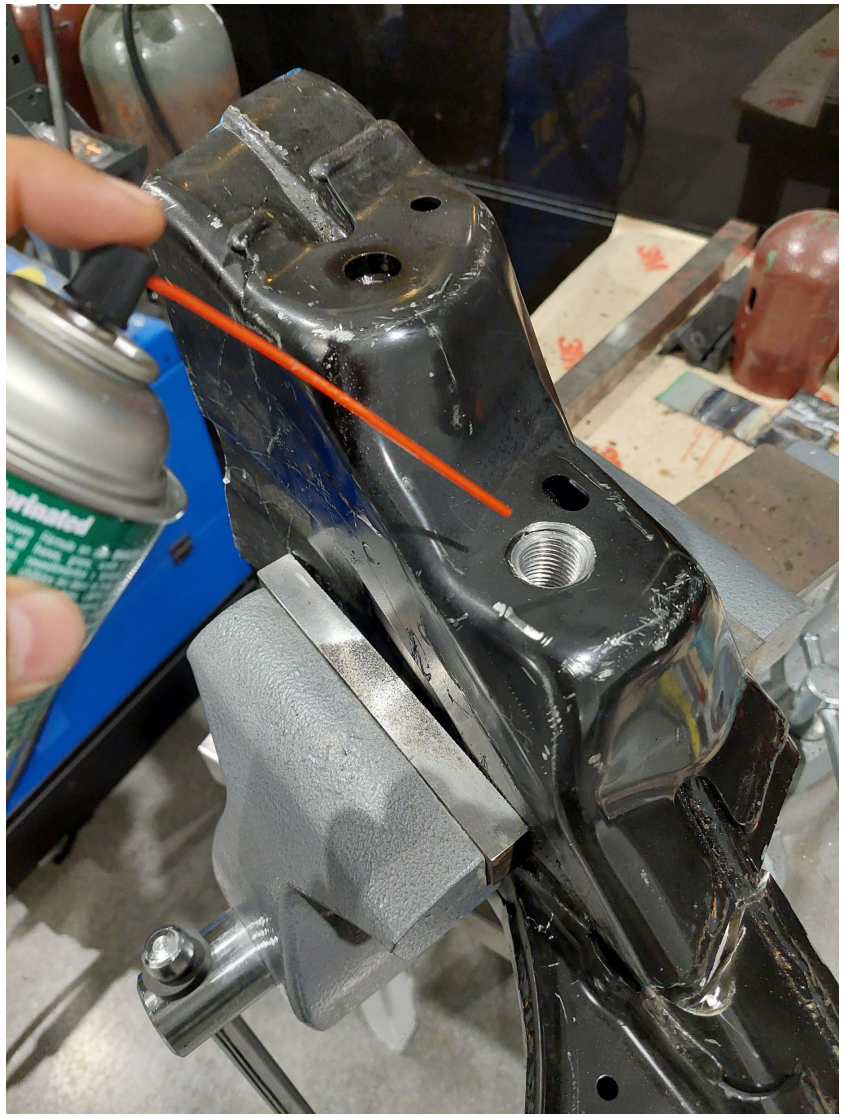
Counterbore



Photos

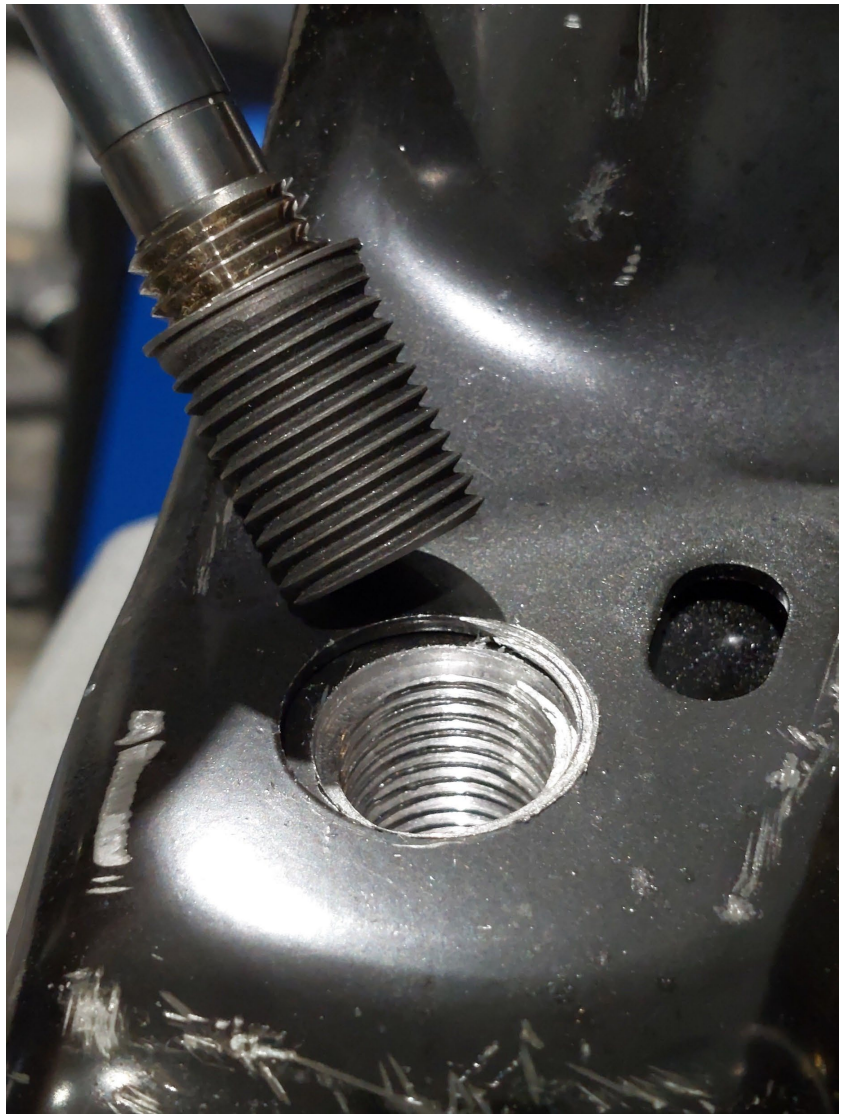
Tap

Photos



Clean

Photos



Insert

Photos

Complete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