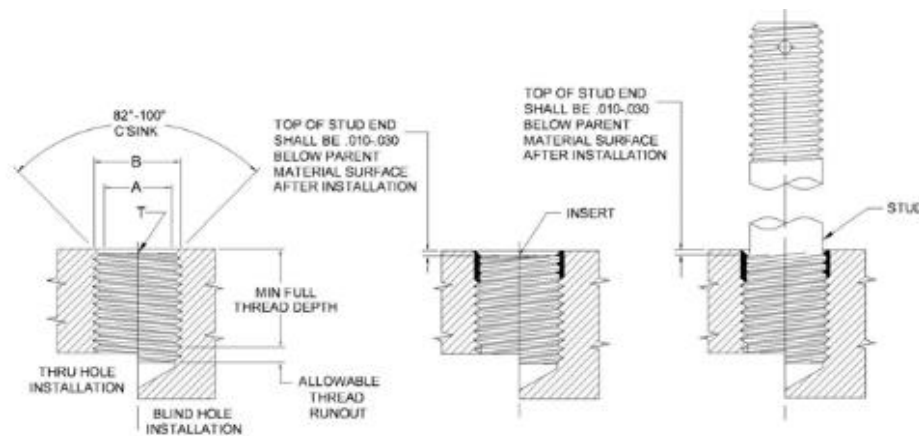


Self-Broaching KEENSERTS® Inserts & Studs

Hole Preparation, Installation and Removal Data

Hole Preparation & Installation

1. Locate and drill with standard drill to "Tap Drill Diameter", (A).
2. Countersink with standard countersink (82° to 100°) to "Countersink Diameter", (B).
3. Tap with a standard unified "Tap Thread Size", (T).



4. Start the tool by depressing the Air Supply Lever. This will rotate the threaded mandrel in a clockwise direction. Place the top end of the KEENSERTS® against the rotating mandrel and thread it on.
5. With the loaded tool rotating clockwise (Air Supply Lever depressed), place the KEENSERTS® against the threaded hole in the part and allow it to screw in. Take Care to align the tool with the axis of the hole. When the insert is at the correct depth the shoulder on the nosepiece will contact the part and stall the tool. Remove hand from Air Supply Lever.
6. Drive keys by pushing Drive Button KEES.
7. Back the tool out by first depressing the Reverse Button and then the Air supply lever. Release the button after the tool is out. The tool is now ready to be loaded for the next installation.

Self-Broaching KEENSERTS® Inserts & Studs

Hole Preparation, Installation and Removal Data

Hole Preparation & Installation (cont'd)

8. The 70950-6 power tool has automatically installed self-broaching KEENSERTS® Inserts and Studs into materials such as A-286, Inco 718, 17-4 PH or Titanium. Since the 420 Cres KEES act as a cutting tool, each application using self-broaching KEENSERTS® should allow for some test samples of the material used in production to determine actual minimum pressure required.

Warning: do not set pressure above 150 PSI.

TYPICAL PRESSURE SETTINGS REQUIRED	
Rc Hardness	Pressure to 70950-6 Tool
To 26.6	90-100 PSI
26.6 to 34.3	100-125 PSI
34.3 to 43.1	125-150 PSI

9. Axis of hole to be normal to entry surface or provide spot face when required.

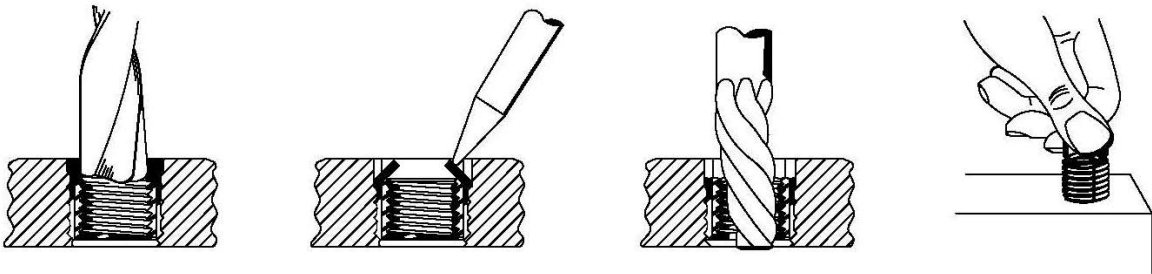
Self-Broaching KEENSERTS® Inserts & Studs

Hole Preparation, Installation and Removal Data

Removal

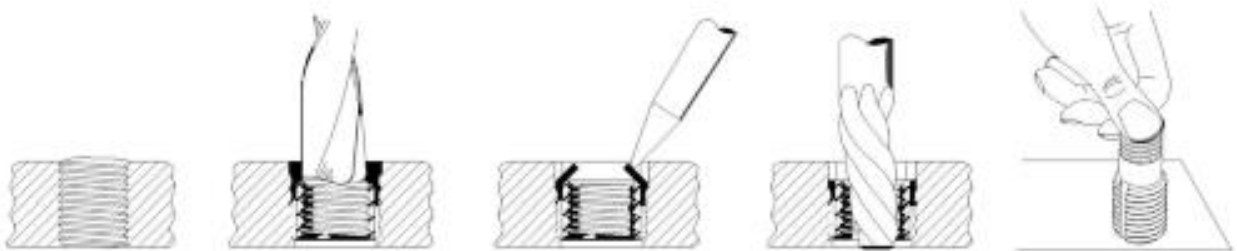
Inserts:

1. Use standard drill as listed per part number to remove insert material between KEES.
2. Deflect KEES inward and break off.
3. Remove insert with E-Z out type tool.
4. An identical insert can be installed in the original hole. No re-work of the hole is necessary. Strength of the replacement is equal to that of the original.



Studs:

1. To remove stud, simply cut off nut end at a point just above the surface.
2. Removal is the same as for inserts, except a drill bushing is required to align removal drill. The same size replacement stud may be installed in the original hole. Strength of the replacement is equal to that of the original.



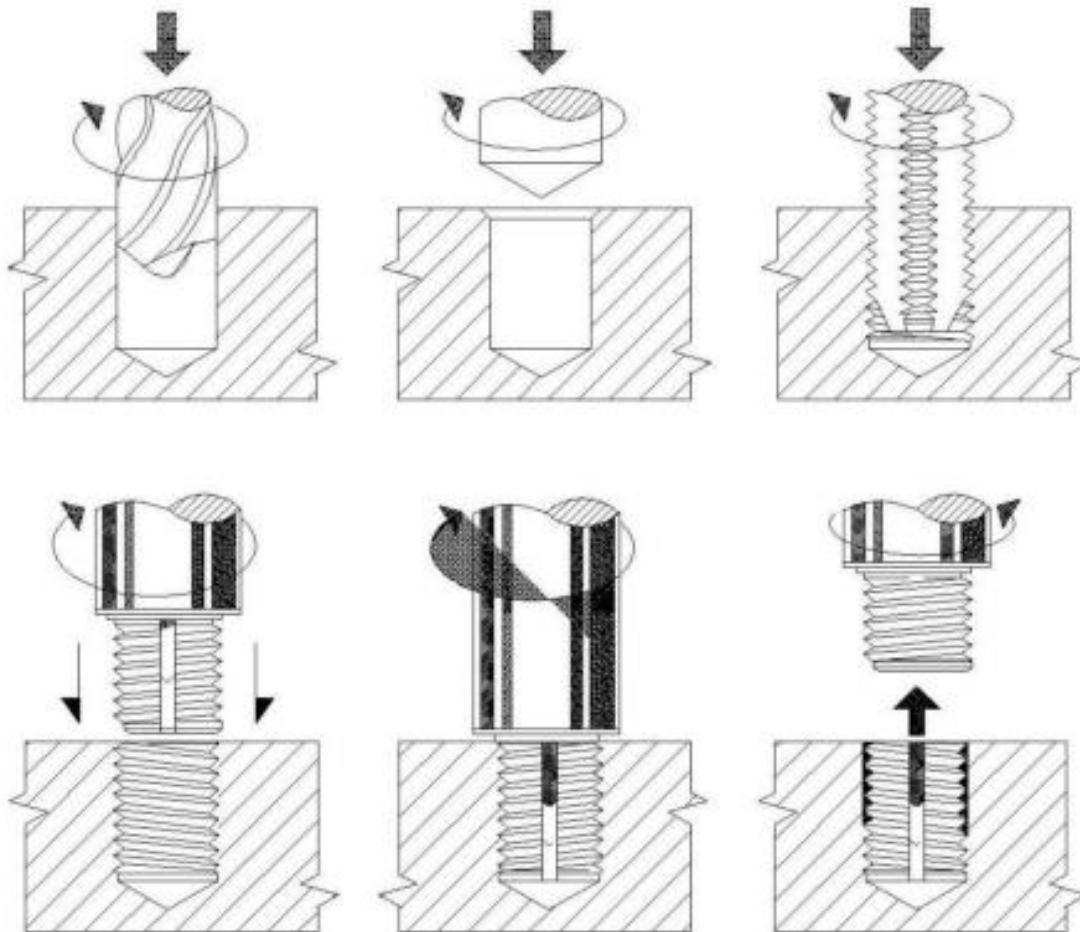
Self-Broaching KEENSERTS® Inserts & Studs

Installation Comparison in Hard Materials

Time saved using self-broaching KEENSERTS® Inserts and Studs has been estimated at upwards of 7 minutes per individual installation.

Self-Broaching KEENSERTS® Inserts and Studs - Six simple steps:

1. Drill with a standard drill.
2. Countersink with a standard countersink (82° to 100°).
3. Tap with a standard unified thread series tap.
4. Screw in insert or stud using 70950-6 power tool.
5. Drive KEES.
6. Remove installation tool.



Self-Broaching KEENSERTS® Inserts & Studs

Installation Comparison in Hard Materials (Cont'd)

Standard Version (Fourteen steps)

1. Drill with a standard drill.
2. Countersink with a standard countersink (82° to 100°).
3. Tap with a standard unified thread series tap.
4. Install insert or stud.
5. Mark KEE location.
6. Remove insert or stud.
7. Cut KEEways using broaching tool.
8. Remove chips with tap.
9. Blow out chips.
10. Screw in insert or stud.
11. Align KEES to KEEways.
12. Drive KEES.
13. Remove installation tool.
14. Replace blades in broaching tool as required (one to three cuts per blade in INCO-718 material is common).