powercoil®

wire thread insert system

All PowerCoil Thread Repair Kits include a Premium Quality HSS Tapping Drill and Bonus Inserts*

M2 – M12 (1/8" – 1/2")
PowerCoil Thread Repair Kits include all the necessary components to sucessfully repair damaged threads. Kits include Drill, STI Tap, Inserts, Installation Tool and Tang Break-Off Tool.

The PowerCoil Wire Thread Insert System includes a complete range of over 140 Thread Repair Kits; Free Running & Screw Locking inserts; Strip Feed Inserts; STI Hand & Machine Taps; Installation, Tang Break & Removal Tools.

wire thread insert system
features & benefits

- Lighter and Cheaper than any other equivalent type of thread insert.
- Can generally be introduced into existing designs where no previous provision has been made.
- Increase quality and performance whilst reducing overall product cost.
- Their introduction may result in the use of thinner sections or lighter parent materials without sacrificing thread strength.
- Create internal threads with greatly improved distribution of residual stress loading
- Compensate for pitch and flank angle errors
- Create internal threads in which wear due to thread friction is virtually eliminated.
- Providing threads that stay tight.

wire thread insert system
installation instructions

1 DRILL

Drill to clear the damaged thread with a standard twist drill. Thread Repair Kits up to M12 (1/2") include the correct size drill. The required tapping drill size is shown on the front of this pack.

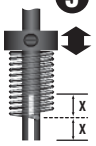
Note: Spark Plug inserts utilise a pilot nose tap which does not require pre-drilling.

2 TAP

Use the specified tap to cut the holding thread into the cleared hole. When tapping a hole, it is recommended to use a suitable lubricant.

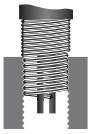
Note: Wire Thread inserts require the use of STI taps which are slightly oversize to provide the correct hole diameter. Always check that the thread and pitch of the tap are the same as the bolt you wish to insert into the finished hole.

3 INSERT



Loosen the grub screw and slide the collar along the insert tool shaft so that the tang on the insert is positioned half way up the insert tool slot.

Note: Do not position tang at the very top or bottom of the insert tool slot.



Use the installation tool to wind the insert into the threaded hole using light downward pressure until half a turn below the surface.

Note: Do not work against the thread direction as the tang may break off.

4 SNAP

Lift installation tool, rotate 90° and tap down sharply to break off wire thread insert tang. Use the tang break off tool to perform this function where supplied.

Note: For spark plug and large inserts use long nose pliers to remove the tang.

5 DONE!

You have succesfully repaired your damaged thread. The new thread is normally stronger than the original.

distributed by

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KEL BULGARIA

*Spark Plug Thread Repair Kits are supplied with an STI Pilot Nose Tap and do not include an HSS Tapping Drill. Thread Repair Kits over M12 (1/2") and BSP kits do not include a HSS Tapping Drill.

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wire thread insert system

Kel BULGARIA

Kits over 24.00mm (1") contain two STI Taps – Taper and Bottoming. A majority of large diameter thread repair applications are in blind holes. The larger diameter holes required for these inserts are more easily threaded using taper taps however it is recommended that blind holes are finished utilising a bottoming tap. Finishing with a bottoming tap to the recommended depth eliminates hole taper, prevents binding problems, ensures maximum thread integrity and easier installation. These kits are also supplied with a hex drive installation mandrel which can be used to install the wire thread insert into the tapped hole in conjunction with a suitable power tool, wrench or ratchet.

PowerCoil wire thread insert taps are precision manufactured from HSS and are available with Taper, Intermediate and Bottoming leads. Screw Thread Insert (STI) taps have the same pitch but a larger diameter than a standard tap to accommodate the PowerCoil wire thread insert.
Spiral Point and and Spiral Flute Taps are available for higher volume production environments.
Pilot Nose Taps are available for Spark Plug applications and are available in common metric thread sizes.

BORDO®
INDUSTRIAL TOOLS

powercoil®
solid keylocking insert system

PowerCoil solid keylocking inserts are used to repair damaged or worn out threads or to create new threads in original equipment.

PowerCoil keylocking one piece inserts are available in carbon steel and stainless steel in both metric and imperial sizes.

The PowerCoil solid keylocking insert utilises locking keys which provide a positive mechanical lock into the threads of the surrounding base material. The resulting thread is resistant to rotation due to vibration and torsion. PowerCoil solid keylocking inserts require no special drills or taps.

The PowerCoil solid system incorporates a complete range of tapping drills, HSS taps and installation tools suitable for installing and removing solid keylocking inserts.

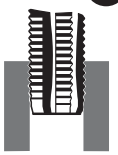
solid keylocking insert system installation instructions

1 DRILL

Drill to clear the damaged thread with a standard twist drill. Chamfer the hole with a standard countersink (82° - 100°)

Note: Drill is oversize to accomodate external thread. Check technical charts for correct drill sizes.

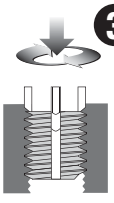
2 TAP



Create new thread using a standard tap. Check technical charts for correct tap size.

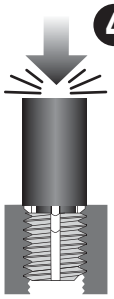
Note: Use of a suitable lubricant is essential during all tapping procedures.

3 INSERT



Screw the insert into the threaded hole until slightly below the surface of the parent material.

4 DRIVE



Select the correct size installation tool and place over the insert. Drive locking keys down using several hammer taps on end of installation tool.