



## THREAD REPAIR KITS

Powercoil supply a full range of thread repair kits available in single and multiple size format. Range kits include a full set of problem solving thread repair kits covering the majority of sizes commonly in use today. These handy kits contain all the tools needed for thread repair and maintenance and offers a cost effective way of repairing and strengthening threads.

With the exception of spark plug kits, Powercoil Thread Repair kits contain hand insertion / tang break tool, high speed intermediate tap, quantity of inserts and clear instructions which should be read through before starting repair.

In order to fulfill the design load, threads should be engaged for the entire length of the insert. Where cylinder head stretch bolts have been used, deformation should be checked before selecting the appropriate kit size.

## STI (SCREW THREAD INSERT) TAPS

Powercoil supply a range of STI (Screw Thread Insert) taps. The STI taps have a larger diameter with the same pitch as a standard tap in order to accommodate the wire thread insert. This will enable the same size bolt to be used in the re threaded hole.

Spark Plug kits contain a pilot nose tap to guide the tap along the original thread and ensure accurate alignment. This style of tap is widely used in repairing damaged spark plug threads, other through holes and generally does not require prior drilling.

## POWERCOIL ADVANTAGES

Powercoil wire thread inserts are the quick and easy method for repairing damaged threads, or creating stronger original threads in alloys and composite materials.

### Benefits

- creates stronger than original threads in most materials
- even distribution of load leads to low friction between bolt and female thread
- reduces thread wear
- cost effective repair systems
- provides high strength attachment in low strength parent materials
- highly compatible with other brands of inserts and tooling

## HOW POWERCOIL WORKS

Powercoil inserts are made from high quality stainless steel wire with a diamond cross section wound to the shape of a spring thread. The insert which is larger in diameter than the tapped hole, is compressed during installation then allowed to spring back, permanently anchoring the insert in the tapped hole.

Because of its larger diameter, the Powercoil insert has a greater contact area and is normally stronger than the original thread.

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ON THE  
ROAD  
WITH

**powercoil**<sup>®</sup>  
wire thread insert system

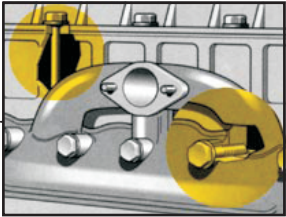
QUALITY  
THREAD  
REPAIR  
SYSTEMS



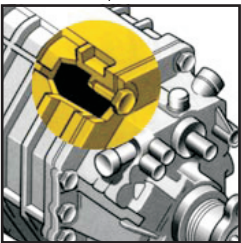


REPAIR STRIPPED OR  
DAMAGED THREADS  
WITH POWERCOIL

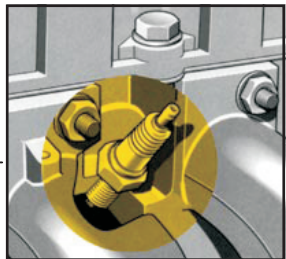
THERE ARE HUNDREDS OF THREADS IN THE  
AVERAGE MOTOR CAR. WHEN DAMAGE OCCURS  
YOU WILL NEED THE POWERCOIL THREAD REPAIR  
SYSTEM.



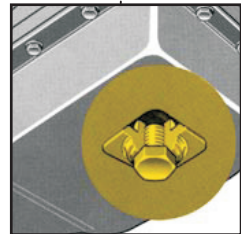
MANIFOLD



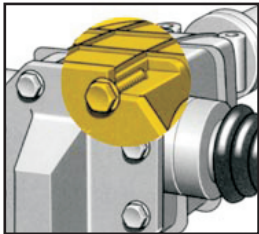
GEAR BOX CASING



SPARK PLUG

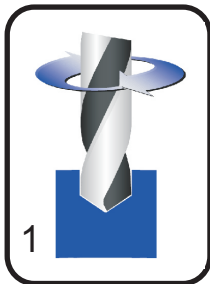


OIL SUMP PLUGS

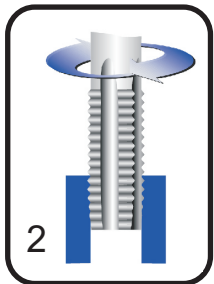


DIFFERENTIAL HOUSING

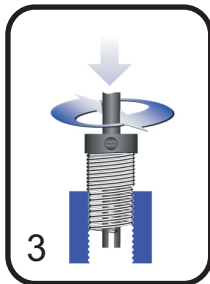
HOW TO USE POWERCOIL



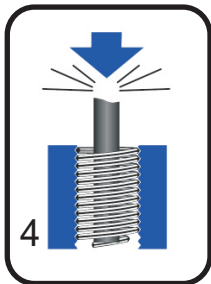
1. DRILL  
Drill to clear out the  
damaged thread  
(if necessary).



2. TAP  
STI tap supplied.  
Tap thread should match  
up with bolt.



3. INSTALL  
Wind insert in with light downward  
pressure until 1/4 to 1/2 turn below the  
surface, driving tang towards  
the bottom of the hole.



4. TANG REMOVAL  
Remove tool and sit back on top of  
tang. Tap down sharply. Do not try  
to twist tang off. For sparkplug and  
large fine thread inserts, use long  
nose pliers and pull tang out.

TYPICAL APPLICATIONS			
			Kit Ref
CYLINDER HEAD BOLTS			
7/16 — 14	UNC		3532-7/16K
1/2 — 13	UNC		3532-1/2K
9/16 — 12	UNC		3532-9/16K
M10 x 1.5			3520-10.00K
M11 x 1.5			3520-11.00K
M11 x 1.25			3521-11.00K
M12 x 1.5			3521-12.00K
M12 x 1.75			3520-12.00K
M13 x 1.5			3521-13.00K
M13 x 1.75			3520-13.00K
EXHAUST MANIFOLD STUDS			
1/4 — 20	UNC		3532-1/4K
1/4 — 28	UNF		3534-1/4K
5/16 — 18	UNC		3532-5/16K
5/16 — 24	UNF		3534-5/16K
3/8 — 16	UNC		3532-3/8K
3/8 — 24	UNF		3534-3/8K
7/16 — 14	UNC		3532-7/16K
7/16 — 20	UNF		3534-7/16K
1/2 — 20	UNF		3534-1/2K
9/16 — 18	UNF		3534-9/16K
5/8 — 18	UNF		3534-5/8K
3/4 — 10	UNC		3532-3/4K
M5 x 0.8			3520-5.00K
M6 x 1			3520-6.00K
M8 x 1.25			3520-8.00K
M10 x 1.5			3520-10.00K
M10 x 1.25			3521-10.00K
SHOCK ABSORBERS			
M10 x 1.5			3520-10.00K
3/8 — 16	UNC		3532-3/8K
FUEL INJECTION			
M24 x 2			3521-24.00K
STARTER MOTOR BOLTS			
3/8 — 16	UNC		3532-3/8K
M10 x 1.5			3520-10.00K
ALTERNATOR BOLTS			
5/16 — 18	UNC		3532-5/16K
3/8 — 16	UNC		3532-3/8K
M10 x 1.5			3520-10.00K
OIL SUMP/DRAIN PLUGS			
1/4 — 19	BSP		3546-1/4K
1/2 — 20	UNF		3534-1/2K
5/8 — 18	UNF		3534-5/8K
3/4 — 16	UNF		3534-3/4K
7/8 — 14	UNF		3534-7/8K
M12 x 1.75			3520-12.00K
M14 x 1.5			3521-14.00K
M16 x 1.5			3521-16.00K
BRAKE CALLIPER BOLTS			
M9 x 1.25			3520-9.00K
M11 x 1.25			3521-11.00K
SPARKPLUG			
M10 — 1.0			3522-10.00K
M12 — 1.25			3522-12.00K
M14 — 1.25	INCH LENGHT		3522-14.00K
M14 — 1.25	METRIC LENGHT		3522-14.00K1
M18 — 1.5			3522-18.00K
ENGINE EXHAUST ANALYSER			
M18 x 1.5			3523-18.00K
Note: Manufacturers' manuals should be used to verify thread form, size and pitch.			



TO MAINTAIN PEAK  
PERFORMANCE OF  
YOUR MOTORBIKE,  
USE POWERCOIL THREAD  
REPAIR SYSTEMS.



TYPICAL APPLICATIONS			
			Kit Ref
CAM COVERS			
M6 x 1.0			3520-6.00K
FRONT/REAR BRAKES			
M10 x 1.5			3520-10.00K
CYLINDER HEAD BOLTS			
M12 x 1.5			3521-12.00K
OIL SUMP DRAIN PLUGS			
1/2 — 20	UNF		3534-1/2K
1/2 — 13	UNC		3532-1/2K
M12 x 1.5			3521-12.00K
Note: Manufacturers' manuals should be used to verify thread form, size and pitch.			
TIMING PLUG			
5/8 — 18	UNF		3534-5/8K
ENGINE CASE BOLTS			
5/16 — 18	UNC		3532-5/16K
M8 x 1.25			3520-8.00K
TRANSMISSION CASE			
5/16 — 18	BSW		3528-5/16K
M8 x 1.25			3520-8.00K
SPARKPLUG			
M10 — 1.0			3522-10.00K
M12 — 1.25			3522-12.00K
M14 — 1.25 (INCH LENGTH)			3522-14.00K
M14 — 1.25 (METRIC LENGTH)			3522-14.00K1



BRAKE DISK



SPARK PLUG



CARBURETTOR  
& GEAR BOX