

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

**loksert**<sup>®</sup>  
keylocking insert system

**Resize**  
Self Tapping Solid Inserts



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**Worn And Strip Thread Repairing Solution**



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# Welcome

*We understand your needs...*



**Customers focus :** We drive maximum autonomy closest with the new technology, focus is to reduce the overall product assembly costs of our customers by anticipating needs and meeting those needs market-driven solutions. We understand their problem and solve them.

**Value :** We provide every customer with the capability to satisfy every aspect of fastening and assembly technology. From concept through installation, around the corner and around the globe, **Pee Vee Enterprises** delivers solutions for challenging assembly applications. Our uniqueness stems from transforming commodities into customized services by thinking and acting along the entire value added chain. For the comprehensive service we request an adequate premium. Therefore **Pee Vee Enterprises** will never be cheap but must always provide the best value.

**Quality :** All our stakeholders can depend on us , that we do what we agree to. Our total commitment to quality and continuous improvement provides for the economy, comfort and security of our customers.

**Inserts Fixing :** With our customer's interest and requirements of helicoil fixing, we carry engineering and application support, on-site consultation service anywhere anytime. **Pee Vee Enterprises** will continue to be one of the leading service provider at customer's site . If you'd like let us know how we're doing any time. We welcome your feedback, it's what has helped us grow and improve for over 30 year's.

**Quality Control:** Being an ISO certified company all quality checks are followed with the of calibrated instruments. We offer complete Chemical, Physical and Letters of Compliance certification upon request. Our in-house Quality Control department, part is an integral of the way we provide the service you expect.

**Customer Satisfaction:** Your satisfaction is our first priority. We want **Pee Vee Enterprise** to be your first source for all your fasteners needs, and we will do our best to earn your satisfaction with every transaction. The best products and prices, with timely shipping and outstanding Customer Service is our goal to keeping you as a satisfied and loyal customer.

We back up every product we sell with exceptional customer service and after-the-sale support. Call us today for all of your permanently restore stripped, worn or damage threads to their original size and condition.



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**Self – tapping threaded insert with external and internal thread, cutting slots or cutting bores. A continuous process of further development has brought about a number of major improvements to product characteristics.**

### Self tapping solid threaded insert – C



(with cutting slot) is recommended for most application cases. In certain materials, this Self tapping insert demonstrates a minimal inward springing action, so creating a certain screw locking effect. If this is not required, we recommend using Self tapping solid threaded insert-B

### Self tapping solid threaded insert – B

(With cutting bores) was developed for materials with difficult cutting Properties. This solid insert has a thick wall and the cutting force is Distributed over three cutting edges.



The short version 20307 is particularly suitable where minimal material thicknesses are involved.

### Self tapping solid threaded insert – BCR

With three chip reservoirs. Used primarily wherever no chips may be permitted to occur during the tapping process.

### Fields of application

The self tapping solid threaded insert is used throughout the whole of the metal and plastics processing industry.



### Automotive industry, passenger and commercial vehicles

Engines, transmissions, wide range of supply parts such as wing mirrors, radiators, bumpers etc.

### Plant and equipment construction

Flange joints, construction equipment, oil burners etc.

### Household appliance and office machinery production

Vacuum cleaners, cameras, sun lamps drills etc.



### Electrical and laboratory supplies

Capacitors, heavy current, radio and telecommunication systems, dental technology equipment.

### Military applications

Tanks, aircrafts etc.

### Product features

- The self tapping threaded insert has a large effective shearing surface, so ensuring a higher degree of pull-out strength, i.e M4 is often sufficient instead of a cut M5 thread.



- Automotive industry, passenger and commercial vehicles Engines, transmissions, wide range of supply parts such as wing mirrors, radiators, bumpers etc.

- Insert is driven subsequently into the finished work piece. This means a higher casting machine output, no rejects due to incorrectly cast-in insert components, no moulding sand trapped in the thread.

- A pre-cast or pre-drilled retaining hole with normal tolerance requirement is sufficient for driving in the insert. The thread is always precisely positioned.

- The work steps required with wire inserts-thread tapping, breaking off trunnions etc. as well as costly wearing tools (special thread drills, limit plug gauges etc.) are not needed with the self tapping solid threaded inserts systems.

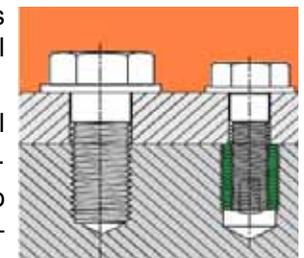
- The self tapping solid threaded inserts is insensitive to small areas of shrinkage. This system prevents damage caused by torn threads.

### Pull-out resistance due to flange cover

Connection using threaded inserts permit substantially smaller overall dimensions

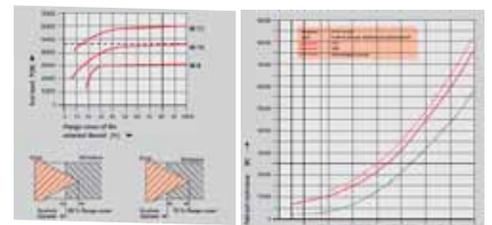
and thus pave the way for material saving and weight saving designs.

The illustration below shows two screw Connections with equal pull-out strength.



### Flange Cover

In a work piece made of a light alloy, the insert 20302 achieves almost maximum pull-out strength with only 30% flange cover.



### Pull-out strength

The insert is capable of withstanding high loads. When used in light alloys.



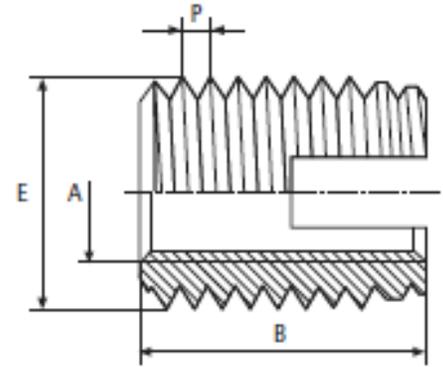
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### Application

The threaded insert with cutting slot is a self-tapping fastener for the creation of wear-free, vibration resistant screw joints with high loading capacity in materials with low shearing strength.

It is suitable for installation in the following materials:

- Light alloys
- Cast iron, brass, bronze
- Nf metals
- Plastics, laminates
- Hardwoods



Dimensions in mm

Order Part No.	Internal Thread A	External Thread		Length B	Minimum borehole depth for blind holes T
		E	P		
203020904002006	M 2	4.5	0.5	6	8
203020904520506	M 2.5	4.5	0.5	6	8
203020905003006	M 3	5	0.5	6	8
203020906030508	M 3.5	6	0.75	8	10
203020907004008	M 4	6.5	0.75	8	10
203020908005010	M 5	8	1	10	13
203020910006012	M 6(a)	9	1	12	15
203020910006014	M 6	10	1.5	14	17
203020912508015	M 8	12	1.5	15	18
203020915010018	M 10	14	1.5	18	22
203020917512022	M 12	16	1.5	22	26
203020920014024	M 14	18	1.5	24	28
203020920016022	M 16	20	1.5	22	27
203020925018024	M 18	22	1.5	24	29
203020925020027	M 20	26	1.5	27	32
203020925022030	M 22	26	1.5	30	36
203020930024030	M 24	30	1.5	30	36
203020930027030	M 27	34	1.5	30	36
203020935030040	M 30	36	1.5	40	46

### Materials

Unhardened steel  
 Case-hardened steel, zinc-plated, yellow chromate, SS304  
 Brass  
 Rust-proof steel 1.4105  
 Rust-proof steel 1.4305  
 Other materials, designs and finishes on request.

### Tolerances

ISO 2768-m

### Thread

Internal thread A: as per ISO 6H  
 External thread E: metric, Tolerances in accordance with Works Standard Internal thread UNC, UNF, Whitworth or fine threads

### Please Note

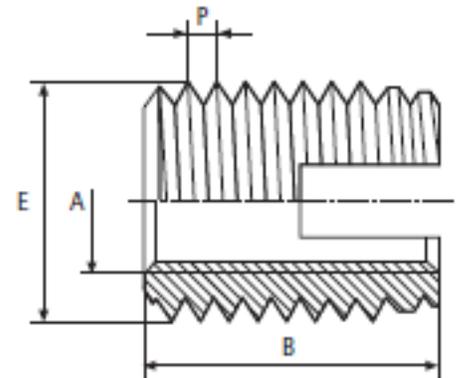
M2 / M2.5 are only suitable for low-strength materials, as the shear resistance of studs in the driving tools may be insufficient.



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### Application

The threaded insert with cutting Slot and internal thread  
Whitworth, UNC or UNF



Dimensions in mm

	Order Part No.	Internal Thread A	External Thread		Length B	Minimum borehole depth for blind holes T
			E	P		
<b>Whitworth</b> B.S.84 Internal thread Tolerance: medium	203020820W14014	1/4	10	1.5	14	17
	203020818W51615	5/16	12	1.5	15	18
	203020816W38018	3/8	14	1.5	18	22
	203020814W71622	7/16	16	1.5	22	26
	203020812W12022	1/2	18	1.5	22	26
	203020811W58022	5/8	20	1.5	22	27
<b>UNC</b> Unified Coarse Thread ANSI B1.1/BS 1580 Internal thread Tolerance 2B	203020840C04006	4 - 40	5	0.5	6	8
	203020832C06008	6 - 32	6	0.75	8	10
	203020832C08008	8 - 32	6.5	0.75	8	10
	203020824C10010	10 - 24	8	1	10	13
	203020820C14014	1/4 - 20	10	1.5	14	17
	203020818C51615	5/16 - 18	12	1.5	15	18
	203020816C38018	3/8 - 16	14	1.5	18	22
	203020814C71622	7/16 - 14	16	1.5	22	26
	203020813C12022	1/2 - 13	18	1.5	22	28
203020811C58022	5/8 - 11	20	1.5	22	27	
<b>UNF</b> Unified Fine Thread ANSI B1.1/B 1580 Internal thread Tolerance 2B	203020848F04006	4 - 48	5	0.5	6	8
	203020840F06008	6 - 40	6	0.75	8	10
	203020836F08008	8 - 36	6.5	0.75	8	10
	203020832F10010	10 - 32	8	1	10	13
	203020828F14014	1/4 - 28	10	1.5	14	17
	203020824F51615	5/16 - 24	12	1.5	15	18
	203020824F38018	3/8 - 24	14	1.5	18	22
	203020820F71622	7/16 - 20	16	1.5	22	26
	203020820F12022	1/2 - 20	18	1.5	22	28
	203020818F58022	5/8 - 18	20	1.5	22	27

### Materials

Unhardened steel  
Case-hardened steel, zinc-plated, yellow chromate, SS304  
Brass  
Rust-proof steel 1.4105  
Rust-proof steel 1.4305  
Other materials, designs and finishes on request.

### Tolerances

ISO 2768-m

### Thread

External thread E: metric, Tolerances in accordance with Works Standard  
Internal thread UNC, UNF, Whitworth or fine threads



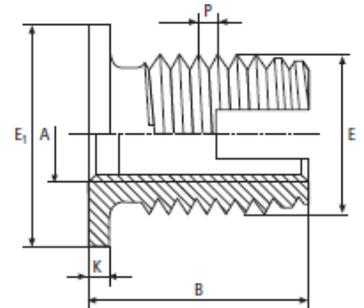
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### Application

The threaded insert with cutting slot and head is a self-tapping fastener for the creation of wear-free, vibration-resistant screw joints with high loading capacity in material with low shearing strength

It is suitable for installation in the following materials:  
 - Light alloys  
 - Cast iron, brass, bronze, NF metals  
 - Plastic, Laminates  
 - Hardwoods.

The head serves as a support for electrical contacts, for simulating-out fixture of several parts ; when stress is applied against the head, the pull-through force is significantly increased.



Order Part No.	Internal Thread	External Thread		Head diameter	Head height	Length	Minimum borehole depth for blind holes
	A	E	P	E1	K		
203020807004009	M 4	6.5	0.75	9	1	9	10
203020808005011	M 5	8	1	11	1	11	12
203020810006155	M 6	10	1.5	13	1.5	15.5	16
203020812508165	M 8	12	1.5	15	1.5	16.5	17
203020815010195	M 10	14	1.5	17	1.5	19.5	20

**Materials** Unhardened steel  
 Case-hardened steel, zinc-plated, yellow chromate, SS304  
 Brass  
 Other materials, designs and finishes on request.

**Tolerances** ISO 2768-m

**Thread** Internal thread A: as per ISO 6H  
 External thread E: metric, Tolerances in accordance with Works Standard Internal thread UNC, UNF, Whitworth or fine threads on request



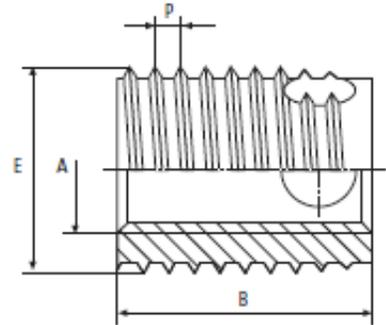
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### Application

The threaded insert with cutting bores is a self tapping fastener for the creation of wear-free, tension resistant screw joints with high loading capacity in materials also with low shearing strength.

It is suitable for installation in the following materials:

- Aluminium and aluminium alloys
- Magnesium alloys
- Duroplastics, thermoplastics (with the exception of rubber-soft thermoplastics < 100 Shore A)



Order Part No.	Internal Thread A	External Thread		Length B	Minimum borehole depth for blind holes T
		E	P		
203070805003004 203080805003006	M 3	5	0.6	4 6	6 8
203070806030505 203080806030508	M 3.5	6	0.8	5 8	7 10
203070807004006 203080807004008	M 4	6.5	0.8	6 8	8 10
203070808005007 203080808005010	M 5	8	1	7 10	9 13
203070810006008 203080810006012	M 6	10	1.25	8 12	10 15
203070812508009 203080812508014	M 8	12	1.5	9 14	11 17
203070815010010 203080815010018	M 10	14	1.5	10 18	13 22
203070817512012 203080817512022	M 12	16	1.75	12 22	15 26
203070820014014 203080820014024	M 14	18	2	14 24	17 28
203070820016014 203080820016024	M 16	20	2	14 24	17 28

### Materials

Unhardened steel  
Case-hardened steel, zinc-plated, yellow chromate,  
SS304 Brass  
Rust-proof steel 1.4105  
Rust-proof steel 1.4305  
Other materials, designs and finishes on request.

### Tolerances

ISO 2768-m

### Thread

Internal thread A: as per ISO 6H

### External thread E :

metric, Tolerances in accordance with Works Standard  
Internal thread UNC, UNF, Whitworth or fine threads on request

### Special applications

For chip-sensitive applications ( e.g. electronic appliances ) :  
Also available with 3 closed bores serving as chip reservoirs.



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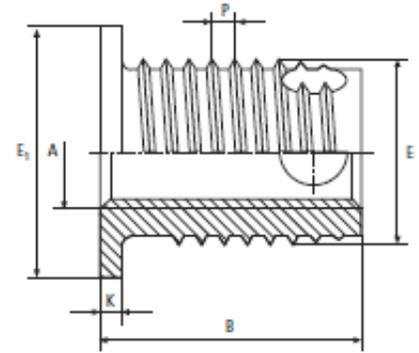
### Application

The threaded insert with cutting bores is a self tapping fastener for the creation of wear-free, tion resistant screw joints with high loading capacity in materials with low shearing strength.

It is suitable for installation in the following materials:

- Aluminium and aluminium alloys
- Magnesium alloys
- Duroplastics, thermoplastics (with the exception of rubber-soft thermoplastics <100 Shore A)

The head serves as a support for electrical contacts, for simultaneous fixture of several parts ; When stress is applied against the head, the pull-through force is significantly increased.



Order Part No.	Internal Thread A	External Thread		Head diameter E1	Head height K	Length B	Minimum borehole depth for blind holes T
		E	P				
203070808005008 203080808005011	M 5	8	1	11	1	8 11	9 13
203070810006095 203080810006135	M 6	10	1.25	13	1.5	9.5 13.5	10 15
203070812508105 203080812508155	M 8	12	1.5	15	1.5	10.5 15.5	11 17
203070815010115 203080815010195	M 10	14	1.5	17	1.5	11.5 19.5	13 22

### Materials

Unhardened steel  
Case-hardened steel, zinc-plated, yellow chromate, SS304  
Brass  
Rust-proof steel 1.4105  
Rust-proof steel 1.4305  
Other materials, designs and finishes on request.

### Tolerances

ISO 2768-m

### Thread

Internal thread A: as per ISO 6H  
External thread E: metric, Tolerances in accordance with Works Standard Internal thread UNC, UNF, Whitworth or fine threads on request

### Special applications

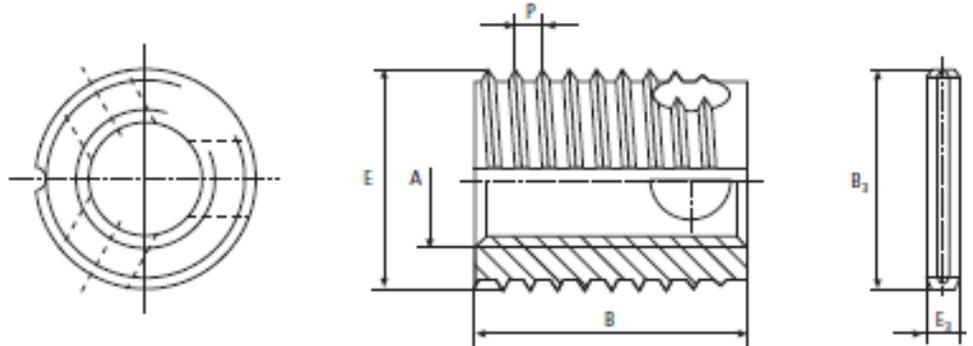
For chip-sensitive applications ( e.g. electronic appliances) :  
Also available **with 3 closed bores serving as chip reservoirs.**



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### Application

This special threaded insert is used to absorb extreme tensional and vibration stress. The anti-rotation function is achieved by means of a parallel notched stud to DIN 1473 (pre-drill with diameter E3, depth = B3+1mm)



Order Part No.	Internal Thread A	External thread Special thread		Length B	Minimum borehole depth for blind holes T	Notched stud	
		E	P			B 3	E 3
203170807004006 203180807004008	M 4	6.5	0.8	6 8	8 10	4 6	2 2
203170808005007 203180808005010	M 5	8	1	7 10	9 13	4 6	2 2
203170810006008 203180810006012	M 6	10	1.25	8 12	10 15	6 10	2 2
203170812508009 203180812508014	M 8	12	1.5	9 14	11 17	6 10	2 2
203170815010010 203180815010018	M 10	14	1.5	10 18	13 22	6 16	2 2
203170817512012 203180817512022	M 12	16	1.75	12 22	15 26	10 16	2 2
203170820014014 203180820014024	M 14	18	2	14 24	17 28	10 16	2 2
203170820016014 203180820016024	M 16	20	2	14 24	17 28	10 16	2 2

### Materials

Case-hardened steel, zinc-plated,  
yellow chromate, SS304 On request: Unhardened steel  
Brass  
Rust-proof steel 1.4105  
Rust-proof steel 1.4305  
Other materials, designs and finishes on request.

Material of the notched stud: Steel 6.8 to DIN 267,  
zinc-plated

### Tolerances

ISO 2768-m

### Thread

Internal thread A: as per ISO 6H  
External thread E: metric, Tolerances in accordance with  
Works Standard Internal thread UNC, UNF, Whitworth or  
fine threads on request



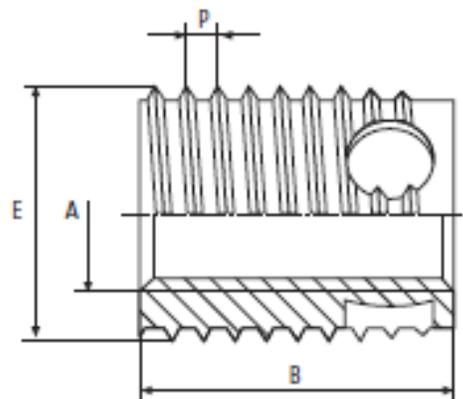
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### Application

This special inserts was developed primarily for applications in which Chips – created by the self tapping process – exert a detrimental effect and could cause serious damage or failure during subs-sequent peration of the inst- allied assembly – for example in electronic equipment.

The three cutting bores distributed around the periphery are formed as chip reservoirs.

The chips created during the installation process are stored In these reservoirs and cannot drop into sensitive equipment components.



Order Part No.	Internal Thread	External thread Special thread		Length	Minimum borehole depth for blind holes T
	A	E	P	B	
203370805003004 203380805003006	M 3	5	0.6	4 6	6 8
203370806030505 203380806030508	M 3.5	6	0.8	5 8	7 10
203370807004006 203380807004008	M 4	6.5	0.8	6 8	8 10
203370808005007 203380808005010	M 5	8	1	7 10	9 13
203370810006008 203380810006012	M 6	10	1.25	8 12	10 15
203370812508009 203380812508014	M 8	12	1.5	9 14	11 17
203370815010010 203380815010018	M 10	14	1.5	10 18	13 22
203370817512012 203380817512024	M 12	16	1.75	12 22	15 26
203370820014014 203380820014024	M 14	18	2	14 24	17 28
203370820016014 203380820016024	M 16	20	2	14 24	17 28

### Materials

Unhardened steel  
Case-hardened steel, zinc-plated, yellow chromate, SS304 Brass  
Rust-proof steel 1.4105  
Rust-proof steel 1.4305  
Other materials, designs and finishes on request.

### Tolerances

ISO 2768-m

### Thread

Internal thread A: as per ISO 6H  
External thread E: metric, Tolerances in accordance with Works Standard Internal thread UNC, UNF, Whitworth or fine threads

### Bore diameter

Due to limited capacity volume of the chip reservoirs, select the largest bore diameter. For Details of bore diameter guideline values call to us.

### Special versions

For closed and sealed applications, available with chip reservoirs and closed floor (tank version from M4).

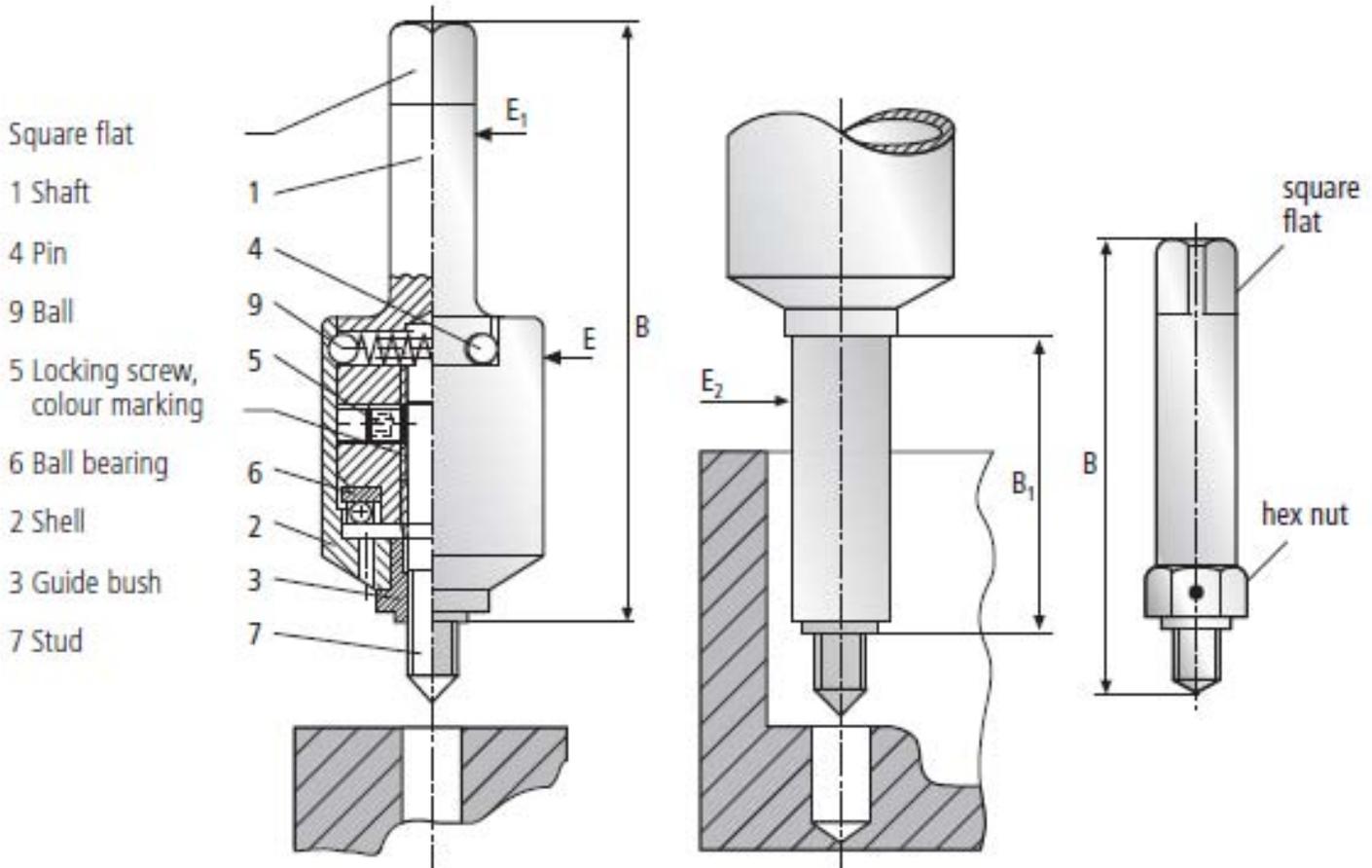


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Tool 200000000000620  
for flush installation

Tool 200000000000621  
for deep Retaining holes

Tool 200000000000610  
for manual installation



- \* Pull off the shell (2) downwards off the shaft (1).
  - \* Release the locking screw (5)
  - \* screw the stud (7) in or out. The yellow colour marking indicates the flattened surfaces for the Locking screws.
  - \* When assembling, tighten both screws (5) evenly.
  - \* Insert the ball bearing (6)
  - \* Push on shell (2) until the ball stop locks into place.
- To ensure that the tool functions perfectly, it must be possible to

easily rotate the shell. For short Inset, grind down tool 20610 accordingly.

- \* If you wish the Inset to be driven deeper than 0.2mm below workpiece surface, screw off the guide bush (3) at the front. Diameter 0.1 to 0.2 mm smaller than the Inset retaining hole.

For mounting the thin-walls Inset modified guide bushes (available on request) should be used.



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**CREATING THE FUTURE WORLDWIDE**

With using Wire Thread Screw Inserts provide a positive means for protecting and strengthening tapped threads in any material:

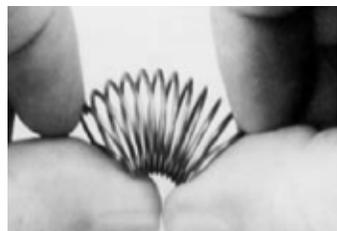


When Threads become stripped, worn or damaged for any reason, the strength and reliability are greatly reduce. Potentially dangerous situations are eliminated when the damaged thread is repaired with wire thread screw insert. The wire thread screw insert provides stronger, more reliable threads than the original tapped hole and at the same time eliminates the possibility of thread wear, seizing and corrosion.



Wire thread screw inserts are larger in diameter before installation than the Tapped hole. During installation the inserting tool tightens the insert which reduces the diameter of the leading coil so it can enter the tapped hole. After installation, each high tensile stainless steel coil expands outward against the tapped hole to permanently anchor the insert.

The Wire Thread Screw Insert has the most effective and universally accepted method of thread repair. Wire Thread Screw Inserts quickly and permanently restore stripped, worn or damaged threads to their original size and condition.



Wire Thread Screw Inserts work in any part or material – aluminum, magnesium cast iron, bronze, etc. Increasing use of light weight (and soft) materials means more damage to threads. Wire Thread Screw Inserts repair for virtually every application.

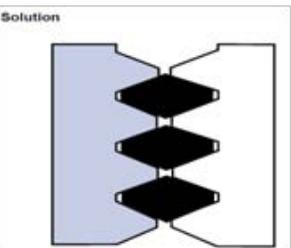
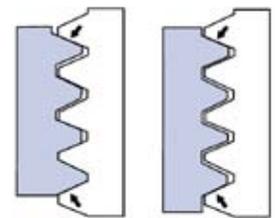
Wire Thread Screw Inserts are made of cold-rolled Type 304 stainless steel wire (AS7245), work hardened to tensile strength above 200,000 psi and hardness of

Rc 43-50 18-8 diamond shaped wire.. The finished surface (8-16 microinches) is exceedingly smooth, virtually eliminating friction-induced thread erosion.

Wire Thread Screw Inserts are precision-formed continuous helical coils. With minimal wall thickness, they are the most compact and lightweight inserts available.

Cross section view shows just little extra hole diameter is needed to provide the out-standing thread strength that Wire Thread Screw Inserts offer.

Pitch and Angle Error Compensation Problems

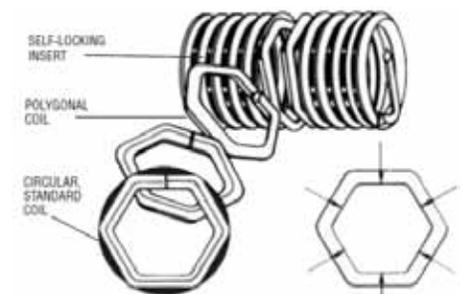


Wire Thread Screw Inserts provide : **Wire Thread Screw Inserts eliminate:**

- Stronger Assemblies
- High Quality & Reliability
- Fastening Integrity Superior to the Original
- Thread Wear
- Corrosion
- Galling
- Rust

**Wire Thread Screw Locking Inserts :**

Wire Thread Screw Locking Inserts exert a prevailing torque on male threaded fasteners to prevent loosening due to vibration or impact. They eliminate the need for other, less desirable and costly locking mechanisms. They are excellent in adjusting screw applications by preventing the male fastener from creeping.



Locking coil segments exert prevailing torque between the thread flanks of the screw or bolt to resist loosening.

**How Wire Thread Screw Locking Inserts Works :**

One or more of the coils in the insert have a series of straight segments. Upon entry of the bolt these straight segments are flexed outwardly, creating pressure on the bolt. This pressure is applied between the flanks of the bolt thread so that contact area is maximized and the unit pressure is minimized. It is often possible to realize cycle life far in excess of specification requirements.



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**Bolt Protection With Wire Thread Screw Inserts**

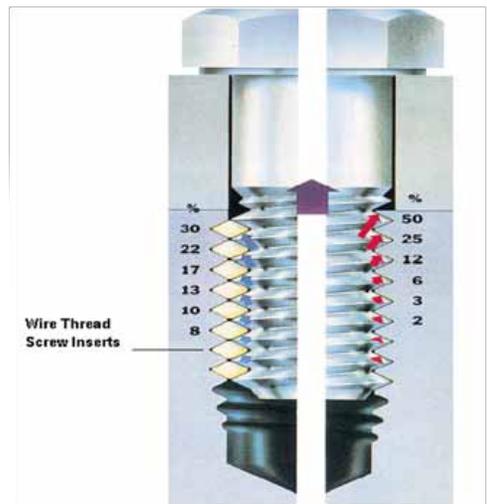
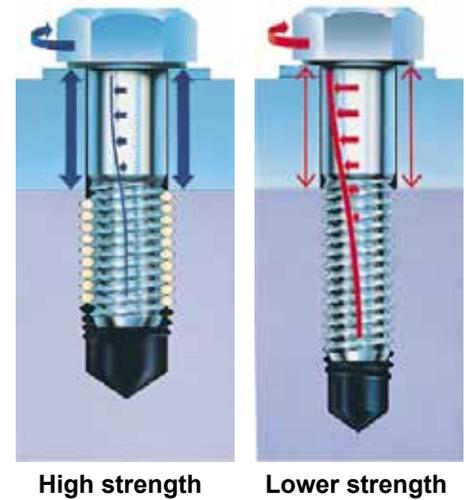
*The Advantages*

• **Wear and Tear Stability**

Wire Thread Screw Inserts are manufactured from austenitic chrome-nickel-steel (tensile strength of minimum 1400 N/mm<sup>2</sup>). The formed thread provides a high surface quality. This guarantees a heavy-duty, wear and tear resistant thread with an extremely low constant thread friction force. This allows for a constant pre-stressing being achieved with the identical tightening torque upon repeated re-screwing. This leads simultaneously to a better utilization of the yield point for high strength screws. The torsion stress is noticeably reduced hereby: In comparison with cut threads, the surface roughness depth is up to 90% lower with Wire Thread Screw inserts.

• **Stronger Assemblies**

The flexible characteristics of the Wire Thread Screw Inserts provide an uniform loading and tension distribution and with that, a perfect thread pitch angle. As per diagram shown conventional threaded joints over 75% of the load is placed on the first three threads of the assembly. The left shows how the spring like design of the insert allows the shear loading to be transformed into a preferable "Hoop Stress" or radial loading over the entire length of Insert. This provides a much stronger thread than can be obtained by conventional drilling or tapping. This improved strength allows designers to select a fastener based on the minimum strength of the bolt, also allowing them to select smaller diameters and shorter thread lengths confidently even in low strength materials such as Magnesium or Aluminum alloys. The material properties of the Wire Thread Screw Inserts ensure that locking and tight gripping of screws under normal environmental conditions does not occur. Wire Thread Screw Inserts made from nickel based materials (INCONEL and NIMONIC 90) are Available for thermal high stressed thread connections, with or without any coating. Elasticity and Springiness is preserved even under high temperatures. Wire Thread Screw Inserts from high-strength hard coated aluminum has been specially developed for utilization with materials liable to high corrosion such as magnesium. Contact corrosion is hereby ruled out.



**How assemble Wire Thread Screw Insert :**



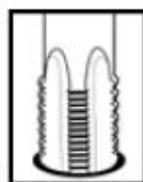
Stripped\*

When Threads become stripped, worn or damaged for any reason



Drill

Drill out the damaged threads using the drill supplied in the kit. Drill to sufficient depth to accommodate the insert length and the bolt or screw being used.



Tap

Tap the hole using STI tap supplied in the kit. Check the size on the shank of the tap to be sure it is the right size. Tap the hole to sufficient depth to accommodate the insert length and the bolt screw being used. or screw being used.



Install

Install the appropriate length insert from the kit. Use the installation tool supplied in the kit or set. Wind the insert into the hole until the top coil is 1/4 to 1/2 turn below the top surface. Remove the tang by using The tang break-off rod.



Fixed

Now the thread is ready to use for bolt or screw.



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**PROFESSIONAL SERIES THREAD REPAIR KITS**

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**METRIC SERIES**

Order Part No.	Thread Size	Drill Size	Contents				
			Tap Fin.	Drill	Inserts 1.5D	Installation Tool	Tang Removal
550190004000002	M2X0.4	2.1	1	1	20	1	1
550190004500202	M2.2X0.45	2.3	1	1	20	1	1
550190004500205	M2.5X0.45	2.6	1	1	20	1	1
550190005000003	M3X0.5	3.2	1	1	20	1	1
550190006000035	M3.5X0.6	3.7	1	1	20	1	1
550190007000004	M4X0.7	4.2	1	1	20	1	1
550190008000005	M5X0.8	5.2	1	1	20	1	1
550190010000006	M6X1	6.3	1	1	20	1	1
550190010000007	M7X1	7.3	1	1	20	1	1
550190012500008	M8X1.25	8.3	1	1	20	1	1
550190012500009	M9X1.25	9.4	1	1	15	1	1
550190015000010	M10X1.5	10.4	1	1	15	1	1
550190015000011	M11X1.5	11.4	1	1	10	1	1
550190017500012	M12X1.75	12.4	1	1	10	1	1

**METRIC FINE**

550190010000008	M8X1	8.3	1	1	20	1	1
550190010000010	M10X1	10.3	1	1	15	1	1
550190012500010	M10X1.25	10.3	1	1	15	1	1
550190012500012	M12X1.25	12.3	1	1	10	1	1
550190015000012	M12X1.5	12.4	1	1	10	1	1

**PROFESSIONAL SERIES THREAD REPAIR KITS**

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**METRIC COARSE**

Order Part No.	Thread Size	Drill Size	Contents				
			Tap FIN.	Drill	Inserts 1.5D	Installation Tool	Tang Removal
551000020000014	M14x2.0	14.50	1	X	10	1	X
551000020000016	M16X2.0	16.50	1	X	10	1	X
551000025000018	M18X2.5	18.80	1	X	5	1	X
551000025000020	M20X2.5	20.80	1	X	5	1	X
551000025000022	M22X2.5	22.80	1	X	5	1	X
551000030000024	M24X3.0	25.00	1	X	5	1	X
551000030000027	M27X3.0	28.00	1	X	10	1	X
551000035000030	M30X3.5	31.00	1	X	10	1	X

**METRIC FINE**

551000015000014	M14X1.5	14.40	1	X	10	1	X
551000015000016	M16X1.5	16.50	1	X	10	1	X
551000015000018	M18X1.5	18.50	1	X	5	1	X
551000015000020	M20X1.5	20.50	1	X	5	1	X
551000015000022	M22X1.5	22.50	1	X	5	1	X
551000020000022	M22X2.0	22.50	1	X	5	1	X
551000015000024	M24X1.5	24.50	1	X	5	1	X
551000020000024	M24X2.0	24.50	1	X	5	1	X
551000015000027	M27X1.5	27.50	1	X	10	1	X
551000020000027	M27X2.0	27.50	1	X	10	1	X
551000015000030	M30X1.5	30.50	1	X	10	1	X
551000020000030	M30X2.0	30.50	1	X	10	1	X
551000020000033	M33X2.0	33.50	1	X	10	1	X
551000015000036	M36X1.5	37.00	1	X	10	1	X
551000030000036	M36X3.0	37.00	1	X	10	1	X



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These kits include everything you need to do the job right of SS inserts for multiple applications, Drill, Hss tap, installation tool and tang removal tool – all in a rugged new box.



Order Part No.	Thread Size	Drill Size	Contents				
			Tap Fin.	Drill	Inserts 1.5D	Installation Tool	Tang Removal
550190040W00018	1/8"-40	3.4	1	1	20	1	1
550190024W00316	3/16 - 24	5.0	1	1	20	1	1
550190020W00014	1/4 - 20	6.7	1	1	20	1	1
550190018W00516	5/16 - 18	8.3	1	1	20	1	1
550190016W00038	3/8 - 16	9.9	1	1	15	1	1
550190014W00716	7/16 - 14	11.5	1	1	10	1	1
550190012W00012	1/2 - 12	13	1	1	10	1	1

**INCH WHITWORTH (BSF)**

550190032F00316	3/16 – 32	5.0	1	1	20	1	1
550190026F00014	1/4 – 26	6.6	1	1	20	1	1
550190022F00516	5/16 – 22	8.3	1	1	20	1	1
550190020F00038	3/8 – 20	9.9	1	1	15	1	1
550190018F00716	7/16 – 18	11.5	1	1	10	1	1
550190016F00012	1/2 - 16	13.0	1	1	10	1	1



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Order Part No.	Thread Size	Drill Size	Contents				
			Tap FIN.	Drill	Inserts 1.5D	Installation tool	Tang Removal
551000012W00916	9/16 –12	14.80	1	X	10	1	X
551000011W00058	5/8 – 11	16.70	1	X	10	1	X
551000010W00034	3/4 - 10	20.00	1	X	5	1	X
551000090W00078	7/8 – 9	23.20	1	X	5	1	X
551000080W00001	1 – 8	26.50	1	X	5	1	X
551000070W00118	1.1/8 – 7	30.00	-	-	-	-	-
551000070W00114	1.1/4 – 7	33.00	-	-	-	-	-
551000060W00112	1.1/2 - 6	39.50	-	-	-	-	-

**INCH WHITWORTH (BSF)**

551000016F00916	9/16 –16	14.80	1	X	10	1	X
551000014F00058	5/8 – 14	16.30	1	X	10	1	X
551000012F00034	3/4 - 12	19.50	1	X	5	1	X
551000011F00078	7/8 -11	22.80	1	X	5	1	X
551000010F00001	1 – 10	26.20	1	X	5	1	X
551000090F00118	1.1/8 – 9	29.50	-	-	-	-	-
551000090F00114	1.1/4 – 9	32.50	-	-	-	-	-
551000080F00138	1.3/8 – 8	36.00	-	-	-	-	-
551000080F00112	1.1/2 – 8	39.00	-	-	-	-	-



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**INCH COARSE (UNC)**

Order Part No.	Thread Size	Drill Size	Contents				
			TAP FIN.	Drill	INSERTS 1.5D	Installation Tool	Tang Removal
550190040C00004	4-40	3.1	1	1	20	1	1
550190040C00005	5-40	3.4	1	1	20	1	1
550190032C00006	6-32	3.8	1	1	20	1	1
550190032C00008	8-32	4.4	1	1	20	1	1
550190024C00010	10-24	5.2	1	1	20	1	1
550190024C00012	12-24	5.8	1	1	20	1	1
550190020C00014	1/4-20	6.7	1	1	20	1	1
550190018C00016	5/16-18	8.3	1	1	20	1	1
550190016C00038	3/8-16	9.9	1	1	15	1	1
550190014C000716	7/16-14	11.6	1	1	10	1	1
550190013C00012	1/2-13	13.0	1	1	10	1	1

**INCH FINE (UNF)**

550190040F00006	6-40	3.8	1	1	20	1	1
550190036F00008	8-36	4.4	1	1	20	1	1
550190032F00010	10-32	5.1	1	1	20	1	1
550190028F00014	1/4-28	6.7	1	1	20	1	1
550190024F00016	5/16-24	8.3	1	1	20	1	1
550190024F00038	3/8-24	9.8	1	1	15	1	1
550190020F000716	7/16-20	11.5	1	1	10	1	1
550190020F00012	1/2-20	13.0	1	1	10	1	1



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**INCH COARSE (UNC)**

Order Part No.	Thread Size	Drill Size	Contents				
			Tap FIN.	Drill	Inserts 1.5D	Installation tool	Tang Removal
551000012C000916	9/16-12	15.00	1	X	10	1	X
551000011C000058	5/8-11	16.50	1	X	10	1	X
551000010C000034	3/4-10	19.80	1	X	5	1	X
551000009C000078	7/8-9	23.00	1	X	5	1	X
551000008C000001	1-8	26.20	1	X	5	1	X
551000008C000118	1.1/8-7	29.50	1	X	10	1	X
551000007C000114	1.1/4-7	32.50	1	X	10	1	X
551000006C000138	1.3/8-6	36.00	1	X	10	1	X
551000006C000112	1.1/2-6	39.50	1	X	10	1	X

**INCH FINE (UNF)**

551000018F000916	9/16-18	14.70	1	X	10	1	X
551000018F000058	5/8-18	16.30	1	X	10	1	X
551000016F000034	3/4-16	19.50	1	X	5	1	X
551000014F000078	7/8-14	22.50	1	X	5	1	X
551000014F000001	1-14	26.00	1	X	5	1	X
551000012F000001	1-12	26.00	1	X	5	1	X
551000012F000118	1.1/8-12	29.50	1	X	10	1	X
551000012F000114	1.1/4-12	32.50	1	X	10	1	X
551000012F000138	1.3/8-12	35.50	1	X	10	1	X
551000012F000112	1.1/2-12	38.50	1	X	10	1	X



### PROFESSIONAL SERIES THREAD REPAIR KITS

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#### INCH WHITWORTH (BSW)

Order Part No.	Thread Size	Drill Size	Contents				
			Tap Fin.	Drill	Inserts 1.5D	Installation Tool	Tang Removal
550190040W00018	1/8" - 40	3.4	1	1	20	1	1
550190024W00316	3/16 - 24	5.0	1	1	20	1	1
550190020W00014	1/4 - 20	6.7	1	1	20	1	1
550190018W00516	5/16 - 18	8.3	1	1	20	1	1
550190016W00038	3/8 - 16	9.9	1	1	15	1	1
550190014W00716	7/16 - 14	11.5	1	1	10	1	1
550190012W00012	1/2 - 12	13	1	1	10	1	1

#### INCH WHITWORTH (BSF)

550190032F00316	3/16 - 32	5.0	1	1	20	1	1
550190026F00014	1/4 - 26	6.6	1	1	20	1	1
550190022F00516	5/16 - 22	8.3	1	1	20	1	1
550190020F00038	3/8 - 20	9.9	1	1	15	1	1
550190018F00716	7/16 - 18	11.5	1	1	10	1	1
550190016F00012	1/2 - 16	13.0	1	1	10	1	1



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#### INCH WHITWORTH (BSW)

Order Part No.	Thread Size	Drill Size	Contents				
			Tap FIN.	Drill	Inserts 1.5D	Installation tool	Tang Removal
551000012W00916	9/16 - 12	14.80	1	X	10	1	X
551000011W00058	5/8 - 11	16.70	1	X	10	1	X
551000010W00034	3/4 - 10	20.00	1	X	5	1	X
551000090W00078	7/8 - 9	23.20	1	X	5	1	X
551000080W00001	1 - 8	26.50	1	X	5	1	X
551000070W00118	1.1/8 - 7	30.00	-	-	-	-	-
551000070W00114	1.1/4 - 7	33.00	-	-	-	-	-
551000060W00112	1.1/2 - 6	39.50	-	-	-	-	-

#### INCH WHITWORTH (BSF)

551000016F00916	9/16 - 16	14.80	1	X	10	1	X
551000014F00058	5/8 - 14	16.30	1	X	10	1	X
551000012F00034	3/4 - 12	19.50	1	X	5	1	X
551000011F00078	7/8 - 11	22.80	1	X	5	1	X
551000010F00001	1 - 10	26.20	1	X	5	1	X
551000090F00118	1.1/8 - 9	29.50	-	-	-	-	-
551000090F00114	1.1/4 - 9	32.50	-	-	-	-	-
551000080F00138	1.3/8 - 8	36.00	-	-	-	-	-
551000080F00112	1.1/2 - 8	39.00	-	-	-	-	-



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**INCH WHITWORTH (BPS)**

Order Part No.	Thread Size	Drill Size	Contents				
			Tap FIN.	Drill	Inserts 1.5D	Installation Tool	Tang Removal
551000028P00018	1/8 – 28	10.00	1	X	10	1	X
551000019P00014	1/4 – 19	13.60	1	X	10	1	X
551000019P00038	3/8 – 19	17.10	1	X	10	1	X
551000014P00012	1/2 – 14	21.50	1	X	10	1	X
551000014P00058	5/8 – 14	23.40	1	X	10	1	X
551000014P00034	3/4 – 14	27	1	X	10	1	X
551000014P00078	7/8 – 14	30.50	1	X	10	1	X
551000011P00001	1 – 11	33.70	1	X	10	1	X
551000011P00114	1.1/4 – 11	42.5	-	-	-	-	-
551000011P00112	1.1/2 – 11	48.5	-	-	-	-	-

**INCH WHITWORTH (BSC)**

551000026C00014	1/4 – 26	6.6	1	1	20	1	1
551000026C00516	5/16 – 26	8.0	1	1	20	1	1
551000026C00038	3/8 – 26	9.8	1	1	15	1	1
551000026C00716	7/16 – 26	11.1	1	1	10	1	1
551000026C00012	1/2 – 26	12.7	1	1	10	1	1



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**American Standard INCH**

**8-UN THREAD SERIES**

Order Part No.	Thread Size	Drill Size	Contents				
			Tap FIN.	Drill	Inserts 1.5D	Installation Tool	Tang Removal
55100008UN00118	1.1/8 – 8	28.50	1	X	5	1	X
55100008UN00114	1.1/4 – 8	32.00	1	X	5	1	X
55100008UN00138	1.3/8 – 8	35.00	1	X	5	1	X
55100008UN00112	1.1/2 – 8	38.00	1	X	5	1	X
55100008UN00158	1.5/8 – 8	41.00	1	X	5	1	X
55100008UN00134	1.3/4 – 8	44.50	1	X	5	1	X
55100008UN00178	1.7/8 – 8	47.50	1	X	5	1	X
55100008UN00002	2 – 8	50.80	1	X	5	1	X

**BA THREAD SERIES**

55019000BA00000	0	6.20	1	1	20	1	1
55019000BA00002	2	4.90	1	1	20	1	1
55019000BA00004	4	3.80	1	1	20	1	1
55019000BA00006	6	2.90	1	1	20	1	1

**NPT THREAD SERIES**

551000027T00018	1/8 – 27	9.9	1	X	10	1	X
551000018T00014	1/4 – 18	13.50	1	X	10	1	X
551000018T00038	3/8 – 18	17.00	1	X	10	1	X
551000014T00012	1/2 – 14	21.50	1	X	10	1	X



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Order Part No.	Thread Size	Contents				
		Tap FIN.	Inserts		Installation Tool	Tang Removal
			Length In Inch	No. Of Inserts		
551000010000010	10X1.0	1	1/2"	5	1	1
	10X1.0	1	0.339	5	-	-
551000012500012	12X1.25	1	1/2"	5	1	1
	12X1.25	1	3/4"	5	-	-
551000012500014	14X1.25	1	3/8"	5	1	1
	14X1.25	1	1/2"	5	-	-
	14X1.25	1	3/4"	5	-	-
551000015000018	18X1.5	1	1/2"	5	1	-
551000M12500014	14X1.25	1	8.4mm	5	1	-
	14X1.25	1	12.4mm	5	-	-
	14X1.25	1	16.4mm	5	-	-



**Wire Thread Repair Sets**

Metric & Inch Series

There are Six thread repair sets for metric and inch sizes



**METRIC COARSE CONTENTS**

Order Part No.	Thread Size	Tap FIN.	Drill	Inserts 1.5D	Installation Tool	Tang Removal
550190500812175	M5X0.8	1	1	25	1	1
	M6X1.0	1	1	25	1	1
	M8X1.25	1	1	25	1	1
	M10X1.5	1	1	25	1	1
	M12X1.75	1	1	10	1	1

**SPARK PLUG M6-M12+14X1.25 CONTENTS**

55019060114125	M6X1.0	1	1	12	1	1
	M8X1.25	1	1	12	1	1
	M10X1.25	1	1	12	1	1
	M12X1.75	1	1	10	1	1
	M14X1.25	1	X	5	1	X
	M14X1.25	X	X	5	X	X
M14X1.25	X	X	5	X	X	

**INCH COARSE (UNC) CONTENTS**

550191402012013	1/4 - 20	1	1	25	1	1
	5/16 - 18	1	1	25	1	1
	3/8 - 16	1	1	25	1	1
	7/16 - 14	1	1	10	1	1
	1/2 - 13	1	1	10	1	1

**INCH FINE (UNF) CONTENTS**

550191402812020	1/4 - 28	1	1	25	1	1
	5/16 - 24	1	1	25	1	1
	3/8 - 24	1	1	25	1	1
	7/16 - 20	1	1	10	1	1
	1/2 - 20	1	1	10	1	1

**INCH COARSE (BSW) 1/4" -1/2"CONTENTS**

55019142012012	1/4 - 20	1	1	25	1	1
	5/16 - 18	1	1	25	1	1
	3/8 - 16	1	1	25	1	1
	7/16 - 14	1	1	10	1	1
	1/2 - 12	1	1	10	1	1

**INCH COARSE (BSF) 1/4" -1/2"CONTENTS**

55019142612016	1/4 - 26	1	1	25	1	1
	5/16 - 22	1	1	25	1	1
	3/8 - 20	1	1	25	1	1
	7/16 - 18	1	1	10	1	1
	1/2 - 16	1	1	10	1	1



**Fasteners Solutions**  
PASSION WITH VISION

Stainless steel inserts are available in bulk for higher quantity applications such as rebuilding or remanufacture.

Each size comes in five different lengths.

- 1.0D. One times the diameter of the bolt or screw.
- 1.5D. 1-1/2 times the diameter of the bolt or screw.
- 2.0D. Two times the diameter of the bolt or screw.
- 2.5D. 2-1/2 times the diameter of the bolt or screw.
- 3.0D. Three times the diameter of the bolt or screw.



Thread Size	Order Part No.	Length 1D =	Order Part No.	Length 1.5 =	Order Part No.	Length 2D =	Order Part No.	Length 2.5 D =	Order Part No.	Length 2.5 D =
M 2 X 0.4	550212504020002	2.0mm	550212504002003	3.0mm	550212504002004	4.0mm	550212504002005	5.0mm	550212504002006	6.0mm
M 2.2 X 0.45	550212504522202	2.2mm	550212504522303	3.3mm	550212504522404	4.4mm	550212504522505	5.5mm	550212504522606	6.6mm
M 2.5 X 0.45	550212504525205	2.5mm	550212504525308	3.8mm	550212504525005	5.0mm	550212504525625	6.25mm	550212504525705	7.5mm
M 3 X 0.5	550212505030003	3.0mm	550212505030405	4.5mm	550212505003006	6.0mm	550212505003750	7.50mm	550212505003009	9.0mm
M 4 X 0.7	550212507040004	4.0mm	550212507004006	6.0mm	550212507004008	8.0mm	550212507004010	10.0mm	550212507004012	12.0mm
M 5 X 0.8	550212508050005	5.0mm	550212508005705	7.5mm	550212508005010	10.0mm	550212508005125	12.5mm	550212508005015	15.0mm
M 6 X 1.0	550212510006006	6.0mm	550212510006009	9.0mm	550212510006012	12.0mm	550212510006015	15.0mm	550212510006018	18.0mm
M 7 X 1.0	550212510007007	7.0mm	550212510007105	10.5mm	550212510007014	14.0mm	550212510007175	17.5mm	550212510007021	21.0mm
M 8 X 1.0	550212510008008	8.0mm	550212510008012	12.0mm	550212510008016	16.0mm	550212510008020	20.0mm	550212510008024	24.0mm
M 8 X 1.25	550212512508008	8.0mm	550212512508012	12.0mm	550212512508016	16.0mm	550212512508020	20.0mm	550212512508024	24.0mm
M 10 X 1.0	550212510010010	10.0mm	550212510010015	15.0mm	550212510010020	20.0mm	550212510010025	25.0mm	550212510010030	30.0mm
M 10 X 1.25	550212512510010	10.0mm	550212512510015	15.0mm	550212512510020	20.0mm	550212512510025	25.0mm	550212512510030	30.0mm
M 10 X 1.5	550212515010010	10.0mm	550212515010015	15.0mm	550212515010020	20.0mm	550212515010025	25.0mm	550212515010030	30.0mm
M 12 X 1.25	550212512512012	12.0mm	550212512512018	18.0mm	550212512512024	24.0mm	550212512512030	30.0mm	550212512512036	36.0mm
M 12 X 1.5	550212515012012	12.0mm	550212515012018	18.0mm	550212515012024	24.0mm	550212515012030	30.0mm	550212515012036	36.0mm
M 12 X 1.75	550212517512012	12.0mm	550212517512018	18.0mm	550212517512024	24.0mm	550212517512030	30.0mm	550212517512036	36.0mm
M 14 X 1.5	550212515014014	14.0mm	550212515014021	21.0mm	550212515014028	28.0mm	550212515014035	35.0mm	550212515014042	42.0mm
M 14 X 2.0	550212520014014	14.0mm	550212520014021	21.0mm	550212520014028	28.0mm	550212520014035	35.0mm	550212520014042	42.0mm
M 16 X 1.5	550212515016016	16.0mm	550212515016024	24.0mm	550212515016032	32.0mm	550212515016040	40.0mm	550212515016048	48.0mm
M 16 X 2.0	550212520016016	16.0mm	550212520016024	24.0mm	550212520016032	32.0mm	550212520016040	40.0mm	550212520016048	48.0mm
M 18 X 1.5	550212515018018	18.0mm	550212515018027	27.0mm	550212515018036	36.0mm	550212515018045	45.0mm	550212515018054	54.0mm
M 18 X 2.0	550212520018018	18.0mm	550212520018027	27.0mm	550212520018036	36.0mm	550212520018045	45.0mm	550212520018054	54.0mm
M 18 X 2.5	550212525018018	18.0mm	550212525018027	27.0mm	550212525018036	36.0mm	550212525018045	45.0mm	550212525018054	54.0mm
M 20 X 1.5	550212515020020	20.0mm	550212515020030	30.0mm	550212515020040	40.0mm	550212515020050	50.0mm	550212515020060	60.0mm
M 20 X 2.0	550212520020020	20.0mm	550212520020030	30.0mm	550212520020040	40.0mm	550212520020050	50.0mm	550212520020060	60.0mm
M 20 X 2.5	550212525020020	20.0mm	550212525020030	30.0mm	550212525020040	40.0mm	550212525020050	50.0mm	550212525020060	60.0mm
M 22 X 2.5	550212525022022	22.0mm	550212525022033	33.0mm	550212525022044	44.0mm	550212525022055	55.0mm	550212525022066	66.0mm
M 24 X 1.5	550212515024024	24.0mm	550212515024036	36.0mm	550212515024048	48.0mm	550212515024060	60.0mm	550212515024072	72.0mm
M 24 X 2.0	550212520024024	24.0mm	550212520024036	36.0mm	550212520024048	48.0mm	550212520024060	60.0mm	550212520024072	72.0mm
M 24 X 3.0	550212530024024	24.0mm	550212530024036	36.0mm	550212530024048	48.0mm	550212530024060	60.0mm	550212530024072	72.0mm
M 27 X 1.5	550212515027027	27.0mm	550212515027405	40.5mm	550212515027054	54.0mm	550212515027675	67.5mm	550212515027081	81.0mm
M 27 X 2.0	550212520027027	27.0mm	550212520027405	40.5mm	550212520027054	54.0mm	550212520027675	67.5mm	550212520027081	81.0mm
M 27 X 3.0	550212530027027	27.0mm	550212530027405	40.5mm	550212530027054	54.0mm	550212530027675	67.5mm	550212530027081	81.0mm
M 30 X 1.5	550212515030030	30.0mm	550212515030045	45.0mm	550212515030060	60.0mm	550212515030075	75.0mm	550212515030090	90.0mm
M 30 X 2.0	550212520030030	30.0mm	550212520030045	45.0mm	550212520030060	60.0mm	550212520030075	75.0mm	550212520030090	90.0mm
M 30 X 3.0	550212530030030	30.0mm	550212530030045	45.0mm	550212530030060	60.0mm	550212530030075	75.0mm	550212530030090	90.0mm
M 30 X 3.5	550212535030030	30.0mm	550212535030045	45.0mm	550212535030060	60.0mm	550212535030075	75.0mm	550212535030090	90.0mm

Insert are greater in diameter than the tapped hole in the parent material into which they are to be installed. During the assembly operation the diameter of the leading coil is reduced there by permitting entry of the insert into the tapped hole. When the insert is installed at the correct depth, the coil expand and permanently retains the insert in place.

Inserts are manufactured to give specific thread lengths when installed in their tapped holes. The lengths of inserts in their free state bear no relation to their lengths when installed. This is due to fact that they are appreciably larger in diameter when free than when installed. For this reason they cannot be inspected for length in their free state.

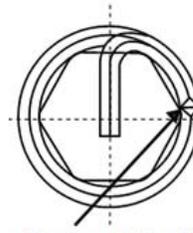
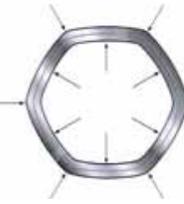


**Fasteners Solutions**  
PASSION WITH VISION

**Screw locking inserts grips the bolt and prevents it from loosening under vibration or impact.**

Stainless steel inserts are available in bulk for higher quantity applications such as rebuilding or remanufacture. Each size comes in five different lengths.

- 1.0D. One times the diameter of the bolt or screw.
- 1.5D. 1-1/2 times the diameter of the bolt or screw.
- 2.0D. Two times the diameter of the bolt or screw.
- 2.5D. 2-1/2 times the diameter of the bolt or screw.
- 3.0D. Three times the diameter of the bolt or screw.



notch on top or side face of first coil



**Screw Locking inserts**

Thread Size	1 D		1.5 D		2 D		2.5 D		3 D	
	Order Part No.	Length 1D =	Order Part No.	Length 1.5 =	Order Part No.	Length 2D =	Order Part No.	Length 2.5 D =	Order Part No.	Length 3 D =
M 2 X 0.4	550222504002002	2.0mm	550222504002003	3.0mm	550222504002004	4.0mm	550222504002005	5.0mm	550222504002006	6.0mm
M 2.2 X 0.45	550222504522202	2.2mm	550222504522303	3.3mm	550222504522404	4.4mm	550222504522505	5.5mm	550222504522606	6.6mm
M 2.5 X 0.45	550222504525205	2.5mm	550222504525308	3.8mm	550222504525505	5.0mm	550222504525625	6.25mm	550222504525705	7.5mm
M 3 X 0.5	550222505003003	3.0mm	550222505003405	4.5mm	550222505003006	6.0mm	550222505003750	7.50mm	550222505003009	9.0mm
M 4 X 0.7	550222507004004	4.0mm	550222507004006	6.0mm	550222507004008	8.0mm	550222507004010	10.0mm	550222507004012	12.0mm
M 5 X 0.8	550222508005005	5.0mm	550222508005705	7.5mm	550222508005010	10.0mm	550222508005125	12.5mm	550222508005015	15.0mm
M 6 X 1.0	550222510006006	6.0mm	550222510006009	9.0mm	550222510006012	12.0mm	550222510006015	15.0mm	550222510006018	18.0mm
M 7 X 1.0	550222510007007	7.0mm	550222510007105	10.5mm	550222510007014	14.0mm	550222510007175	17.5mm	550222510007021	21.0mm
M 8 X 1.0	550222510008008	8.0mm	550222510008012	12.0mm	550222510008016	16.0mm	550222510008020	20.0mm	550222510008024	24.0mm
M 8 X 1.25	550222512508008	8.0mm	550222512508012	12.0mm	550222512508016	16.0mm	550222512508020	20.0mm	550222512508024	24.0mm
M 10 X 1.0	550222510010010	10.0mm	550222510010015	15.0mm	550222510010020	20.0mm	550222510010025	25.0mm	550222510010030	30.0mm
M 10 X 1.25	550222512510010	10.0mm	550222512510015	15.0mm	550222512510020	20.0mm	550222512510025	25.0mm	550222512510030	30.0mm
M 10 X 1.5	550222515010010	10.0mm	550222515010015	15.0mm	550222515010020	20.0mm	550222515010025	25.0mm	550222515010030	30.0mm
M 12 X 1.25	550222512512012	12.0mm	550222512512018	18.0mm	550222512512024	24.0mm	550222512512030	30.0mm	550222512512036	36.0mm
M 12 X 1.5	550222515012012	12.0mm	550222515012018	18.0mm	550222515012024	24.0mm	550222515012030	30.0mm	550222515012036	36.0mm
M 12 X 1.75	550222517512012	12.0mm	550222517512018	18.0mm	550222517512024	24.0mm	550222517512030	30.0mm	550222517512036	36.0mm
M 14 X 1.5	550222515014014	14.0mm	550222515014021	21.0mm	550222515014028	28.0mm	550222515014035	35.0mm	550222515014042	42.0mm
M 14 X 2.0	550222520014014	14.0mm	550222520014021	21.0mm	550222520014028	28.0mm	550222520014035	35.0mm	550222520014042	42.0mm
M 16 X 1.5	550222515016016	16.0mm	550222515016024	24.0mm	550222515016032	32.0mm	550222515016040	40.0mm	550222515016048	48.0mm
M 16 X 2.0	550222520016016	16.0mm	550222520016024	24.0mm	550222520016032	32.0mm	550222520016040	40.0mm	550222520016048	48.0mm
M 18 X 1.5	550222515018018	18.0mm	550222515018027	27.0mm	550222515018036	36.0mm	550222515018045	45.0mm	550222515018054	54.0mm
M 18 X 2.0	550222520018018	18.0mm	550222520018027	27.0mm	550222520018036	36.0mm	550222520018045	45.0mm	550222520018054	54.0mm
M 18 X 2.5	550222525018018	18.0mm	550222525018027	27.0mm	550222525018036	36.0mm	550222525018045	45.0mm	550222525018054	54.0mm
M 20 X 1.5	550222515020020	20.0mm	550222515020030	30.0mm	550222515020040	40.0mm	550222515020050	50.0mm	550222515020060	60.0mm
M 20 X 2.0	550222520020020	20.0mm	550222520020030	30.0mm	550222520020040	40.0mm	550222520020050	50.0mm	550222520020060	60.0mm
M 20 X 2.5	550222525020020	20.0mm	550222525020030	30.0mm	550222525020040	40.0mm	550222525020050	50.0mm	550222525020060	60.0mm
M 22 X 2.5	550222525022022	22.0mm	550222525022033	33.0mm	550222525022044	44.0mm	550222525022055	55.0mm	550222525022066	66.0mm
M 24 X 1.5	550222515024024	24.0mm	550222515024036	36.0mm	550222515024048	48.0mm	550222515024060	60.0mm	550222515024072	72.0mm
M 24 X 2.0	550222520024024	24.0mm	550222520024036	36.0mm	550222520024048	48.0mm	550222520024060	60.0mm	550222520024072	72.0mm
M 24 X 3.0	550222530024024	24.0mm	550222530024036	36.0mm	550222530024048	48.0mm	550222530024060	60.0mm	550222530024072	72.0mm
M 27 X 1.5	550222515027027	27.0mm	550222515027405	40.5mm	550222515027054	54.0mm	550222515027675	67.5mm	550222515027081	81.0mm
M 27 X 2.0	550222520027027	27.0mm	550222520027405	40.5mm	550222520027054	54.0mm	550222520027675	67.5mm	550222520027081	81.0mm
M 27 X 3.0	550222530027027	27.0mm	550222530027405	40.5mm	550222530027054	54.0mm	550222530027675	67.5mm	550222530027081	81.0mm
M 30 X 1.5	550222515030030	30.0mm	550222515030045	45.0mm	550222515030060	60.0mm	550222515030075	75.0mm	550222515030090	90.0mm
M 30 X 2.0	550222520030030	30.0mm	550222520030045	45.0mm	550222520030060	60.0mm	550222520030075	75.0mm	550222520030090	90.0mm
M 30 X 3.0	550222530030030	30.0mm	550222530030045	45.0mm	550222530030060	60.0mm	550222530030075	75.0mm	550222530030090	90.0mm
M 30 X 3.5	550222535030030	30.0mm	550222535030045	45.0mm	550222535030060	60.0mm	550222535030075	75.0mm	550222535030090	90.0mm

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- 2.5D. 2-1/2 times the diameter of the bolt or screw.
- 3.0D. Three times the diameter of the bolt or screw.



Free Running Inserts

INCH COARSE (UNC)

1 D

1.5 D

2 D

2.5 D

3 D

Thread Size	Order Part No.	Length 1D =	Order Part No.	Length 1.5 D =	Order Part No.	Length 2 D =	Order Part No.	Length 2.5 D =	Order Part No.	Length 3 D =
2-56	550212556C02086	.086	550212556C02129	.129	550212556C02172	.172	550212556C02215	.215	550212556C02258	.258
3-48	550212548C03099	.099	550212548C03148	.148	550212548C03198	.198	550212548C03248	.248	550212548C03297	.297
4-40	550212540C04112	.112	550212540C04168	.168	550212540C04224	.224	550212540C04280	.280	550212540C04336	.336
5-40	550212540C05125	.125	550212540C05188	.188	550212540C05250	.250	550212540C05312	.312	550212540C05375	.375
6-32	550212532C06138	.138	550212532C06207	.207	550212532C06276	.276	550212532C06345	.345	550212532C06414	.414
8-32	550212532C08164	.164	550212532C08246	.246	550212532C08328	.328	550212532C08410	.410	550212532C08492	.492
10-24	550212524C10190	.190	550212524C10285	.285	550212524C10380	.380	550212524C10475	.475	550212524C10570	.570
12-24	550212524C12216	.216	550212524C12324	.324	550212524C12432	.432	550212524C12540	.540	550212524C12648	.648
1/4-20	550212520C14006	1/4	550212520C14010	3/8	550212520C14012	1/2	550212520C14015	5/8	550212520C14019	3/4
5/16-18	550212518C25008	5/16	550212518C25012	15/32	550212518C25016	5/8	550212518C25020	25/32	550212518C25024	15/16
3/8-16	550212516C38010	3/8	550212516C38014	9/16	550212516C38020	3/4	550212516C38025	15/16	550212516C38032	1-1/8
7/16-14	550212514C35011	7/16	550212514C35165	21/32	550212514C35022	7/8	550212514C35028	1-3/32	550212514C35033	1-5/16
1/2-13	550212513C12013	1/2	550212513C12019	3/4	550212513C12026	1	550212513C12032	1-1/4	550212513C12038	1-1/2
9/16-12	550212512C45014	9/16	550212512C45021	27/32	550212512C45028	1-1/8	550212512C45035	1-13/32	550212512C45042	1-11/16
5/8-11	550212511C58016	5/8	550212511C58024	15/16	550212511C58032	1-1/4	550212511C58039	1-9/16	550212511C58047	1-7/8
3/4-10	550212510C34019	3/4	550212510C34027	1-1/8	550212510C34038	1-1/2	550212510C34047	1-7/8	550212510C34057	2-1/4
7/8-9	550212509C78022	7/8	550212509C78033	1-5/16	550212509C78044	1-3/4	550212509C78055	2-3/16	550212509C78066	2-5/8
1.0-8	550212508C01025	1	550212508C01037	1-1/2	550212508C01050	2	550212508C01062	2-1/2		
1.1/8-7	550212507C27027	1-1/8	550212507C27040	1-11/16	550212507C27054	2-1/4	550212507C27068	2-13/16		
1.1/4-7	550212507C32032	1-1/4	550212507C32047	1-7/8	550212507C32064	2-1/2	550212507C32080	3-1/8		
1.3/8-6	550212506C36036	1-3/8	550212506C36052	2-1/16	550212506C36072	2-3/4				
1.1/2-6	550212506C38038	1-1/2	550212506C38057	2-1/4	550212506C38076	3				

INCH FINE (UNF)

2-64	550212564F02086	.086	550212564F02129	.129	550212564F02172	.172	550212564F02215	.215	550212564F02258	.258
3-56	550212556F03099	.099	550212556F03148	.148	550212556F03198	.198	550212556F03248	.248	550212556F03297	.297
4-48	550212548F04112	.112	550212548F04168	.168	550212548F04224	.224	550212548F04280	.280	550212548F04336	.336
5-44	550212544F05125	.125	550212544F05188	.188	550212544F05250	.250	550212544F05312	.312	550212544F05375	.375
6-40	550212540F06238	.138	550212540F06276	.207	550212540F06345	.276	550212540F06414	.345	550212540F06483	.414
8-36	550212536F08164	.164	550212536F08246	.246	550212536F08328	.328	550212536F08410	.410	550212536F08492	.492
10-32	550212532F10190	.190	550212532F10285	.285	550212532F10380	.380	550212532F10475	.475	550212532F10570	.570
1/4-28	550212524F14006	1/4	550212524F14010	3/8	550212524F14012	1/2	550212524F14015	5/8	550212524F14019	3/4
5/16-24	550212524F25008	5/16	550212524F25012	15/32	550212524F25016	5/8	550212524F25020	25/32	550212524F25024	15/16
3/8-24	550212524F38010	3/8	550212524F38014	9/16	550212524F38020	3/4	550212524F38025	15/16	550212524F38032	1-1/8
7/16-20	550212520F35011	7/16	550212520F35165	21/32	550212520F35022	7/8	550212520F35028	1-3/32	550212520F35033	1-5/16
1/2-20	550212520F12013	1/2	550212520F12019	3/4	550212520F12026	1	550212520F12032	1-1/4	550212520F12038	1-1/2
9/16-18	550212518F45014	9/16	550212518F45021	27/32	550212518F45028	1-1/8	550212518F45035	1-13/32	550212518F45042	1-11/16
5/8-18	550212518F58016	5/8	550212518F58024	15/16	550212518F58032	1-1/4	550212518F58039	1-9/16	550212518F58047	1-7/8
3/4-16	550212516F34019	3/4	550212516F34027	1-1/8	550212516F34038	1-1/2	550212516F34047	1-7/8	550212516F34057	2-1/4
7/8-14	550212514F78022	7/8	550212514F78033	1-5/16	550212514F78044	1-3/4	550212514F78055	2-3/16	550212514F78066	2-5/8
1-14	550212514F01025	1	550212514F01037	1-1/2	550212514F01050	2	550212514F01062	2-1/2		
1-12	550212512F01025	1	550212512F01037	1-1/2	550212512F01050	2	550212512F01062	2-1/2		
1.1/8-12	550212512F27027	1-1/8	550212512F27040	1-11/16	550212512F27054	2-1/4	550212512F27068	2-13/16		
1.1/4-12	550212512F32032	1-1/4	550212512F32047	1-7/8	550212512F32064	2-1/2	550212512F32080	3-1/8		
1.3/8-12	550212512F36036	1-3/8	550212512F36052	2-1/16	550212512F36072	2-3/4				
1.1/2-12	550212512F38038	1-1/2	550212512F38057	2-1/4	550212512F38076	3				

8 - UN THREAD SERIES

1.1/8-8	55021258UN27027	1-1/8	55021258UN27040	1-11/16	55021258UN27054	2-1/4				
1.1/4-8	55021258UN32032	1-1/4	55021258UN32047	1-7/8	55021258UN32064	2-1/2				
1.3/8-8	55021258UN36036	1-3/8	55021258UN36052	2-1/16	55021258UN36072	2-3/4				
1.1/2-8	55021258UN38038	1-1/2	55021258UN38057	2-1/4	55021258UN38076	3				
1.5/8-8	55021258UN41041	1.5/8	55021258UN41062	2-7/16	55021258UN41082	3-1/4				
1.3/4-8	55021258UN44044	1.3/4	55021258UN44066	2-5/8	55021258UN44088	3-1/2				
1.7/8-8	55021258UN47047	1.7/8	55021258UN47071	2-13/16	55021258UN47094	3-3/4				
2-8	55021258UN50050	2	55021258UN50075	3	55021258UN50100	4				

BA THREAD SERIES

0	550212510A00006	0.24	550212510A00009	0.35	550212510A00012	0.47	550212510A00015	0.59	550212510A00018	0.71
2	550212508A00005	0.19	550212508A00007	0.28	550212508A00010	0.37	550212508A00012	0.46	550212508A00014	0.56
4	550212506A00004	0.14	550212506A00005	0.21	550212506A00007	0.28	550212506A00009	0.35	550212506A00011	0.43
6	550212505A00003	0.11	550212505A00004	0.17	550212505A00006	0.22	550212505A00007	0.28	550212505A00009	0.33

Insert are greater in diameter than the tapped hole in the parent material into which they are to be installed. During the assembly operation the diameter of the leading coil is reduced there by permitting entry of the insert into the tapped hole. When the insert is installed at the correct depth, the coil expand and permanently retains the insert in place. Inserts are manufactured to give specific thread lengths when installed in their tapped holes. The lengths of inserts in their free state bear no relation to their lengths when installed. This is due to fact that they are appreciably larger in diameter when free than when installed. For this reason they cannot be inspected for length in their free state.



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- 1.5D. 1-1/2 times the diameter of the bolt or screw.
- 2.0D. Two times the diameter of the bolt or screw.
- 2.5D. 2-1/2 times the diameter of the bolt or screw.
- 3.0D. Three times the diameter of the bolt or screw.



**Free Running Inserts INCH WHITWORTH (BSW)**

1 D			1.5 D			2 D			2.5 D			3 D		
Thread Size	Order Part No.	Length 1D =	Order Part No.	Length 1.5 D =	Order Part No.	Length 2 D =	Order Part No.	Length 2.5 D =	Order Part No.	Length 3 D =	Order Part No.	Length 3 D =		
1/8 - 40	550212540W18003	1/8	550212540W18005	3/16	550212540W18006	1/4	550212540W18008	5/16	550212540W18010	3/8				
3/16 - 24	550212524W05005	3/16	550212524W05007	9/32	550212524W05010	3/8	550212524W05012	15/32	550212524W05014	9/16				
1/4 - 20	550212520W14006	1/4	550212520W14010	3/8	550212520W14012	1/2	550212520W14015	5/8	550212520W14019	3/4				
5/16 - 18	550212518W25008	5/16	550212518W25012	15/32	550212518W25016	5/8	550212518W25020	25/32	550212518W25024	15/16				
3/8 - 16	550212516W38010	3/8	550212516W38014	9/16	550212516W38020	3/4	550212516W38025	15/16	550212516W38032	1-1/8				
7/16 - 14	550212514W35011	7/16	550212514W35165	21/32	550212514W35022	7/8	550212514W35028	1-3/32	550212514W35033	1-5/16				
1/2 - 12	550212512W12013	1/2	550212512W12019	3/4	550212512W12026	1	550212512W12032	1-1/4	550212512W12038	1-1/2				
9/16 - 12	550212512W45014	9/16	550212512W45021	27/32	550212512W45028	1-1/8	550212512W45035	1-13/32	550212512W45042	1-11/16				
5/8 - 11	550212511W58016	5/8	550212511W58024	15/16	550212511W58032	1-1/4	550212511W58039	1-9/16	550212511W58047	1-7/8				
3/4 - 10	550212510W34019	3/4	550212510W34027	1-1/8	550212510W34038	1-1/2	550212510W34047	1-7/8	550212510W34057	2-1/4				
7/8 - 9	550212509W78022	7/8	550212509W78033	1-5/16	550212509W78044	1-3/4	550212509W78055	2-3/16	550212509W78066	2-5/8				
1 - 8	550212508W01025	1	550212508W01037	1-1/2	550212508W01050	2	550212508W01062	2-1/2						
1-1/8 - 7	550212507W27027	1-1/8	550212507W27040	1-11/16	550212507W27054	2-1/4	550212507W27068	2-13/16						
1-1/4 - 7	550212507W32032	1-1/4	550212507W32047	1-7/8	550212507W32064	2-1/2	550212507W32080	3-1/8						
1-1/2 - 6	550212506W38038	1-1/2	550212506W38057	2-1/4	550212506W38076	3								

**INCH WHITWORTH (BSF)**

3/16 - 32	550212532F05005	3/16	550212532F05007	9/32	550212532F05010	3/8	550212532F05012	15/32	550212532F05014	9/16		
1/4 - 26	550212526F14006	1/4	550212526F14010	3/8	550212526F14012	1/2	550212526F14015	5/8	550212526F14019	3/4		
5/16 - 22	550212522F25008	5/16	550212522F25012	15/32	550212522F25016	5/8	550212522F25020	25/32	550212522F25024	15/16		
3/8 - 20	550212520F38010	3/8	550212520F38014	9/16	550212520F38020	3/4	550212520F38025	15/16	550212520F38032	1-1/8		
7/16 - 18	550212518F35011	7/16	550212518F35165	21/32	550212518F35022	7/8	550212518F35028	1-3/32	550212518F35033	1-5/16		
1/2 - 16	550212516F12013	1/2	550212516F12019	3/4	550212516F12026	1	550212516F12032	1-1/4	550212516F12038	1-1/2		
9/16 - 16	550212516F45014	9/16	550212516F45021	27/32	550212516F45028	1-1/8	550212516F45035	1-13/32	550212516F45042	1-11/16		
5/8 - 14	550212514F58016	5/8	550212514F58024	15/16	550212514F58032	1-1/4	550212514F58039	1-9/16	550212514F58047	1-7/8		
3/4 - 12	550212512F34019	3/4	550212512F34027	1-1/8	550212512F34038	1-1/2	550212512F34047	1-7/8	550212512F34057	2-1/4		
7/8 - 11	550212511F78022	7/8	550212511F78033	1-5/16	550212511F78044	1-3/4	550212511F78055	2-3/16	550212511F78066	2-5/8		
1 - 10	550212510F01025	1	550212510F01037	1-1/2	550212510F01050	2	550212510F01062	2-1/2				
1-1/8 - 9	550212509F27027	1-1/8	550212509F27040	1-11/16	550212509F27054	2-1/4	550212509F27068	2-13/16				
1-1/4 - 9	550212509F32032	1-1/4	550212509F32047	1-7/8	550212509F32064	2-1/2	550212509F32080	3-1/8				
1-3/8 - 8	550212508F36036	1-3/8	550212508F36052	2-1/16	550212508F36072	2-3/4						
1-1/2 - 8	550212508F38038	1-1/2	550212508F38057	2-1/4	550212508F38076	3						

**INCH WHITWORTH (BSP OR BSP.F)**

1/8 - 28	550212528S18003	1/8	550212528S18005	3/16	550212528S18006	1/4	550212528S18008	5/16	550212528S18010	3/8		
1/4 - 19	550212519S14006	1/4	550212519S14010	3/8	550212519S14012	1/2	550212519S14015	5/8	550212519S14019	3/4		
3/8 - 19	550212519S38010	3/8	550212519S38014	9/16	550212519S38020	3/4	550212519S38025	15/16	550212519S38032	1-1/8		
1/2 - 14	550212514S12013	1/2	550212514S12019	3/4	550212514S12025	1	550212514S12032	1-1/4	550212514S12038	1-1/2		
5/8 - 14	550212514S58016	5/8	550212514S58024	15/16	550212514S58032	1-1/4	550212514S58039	1-9/16				
3/4 - 14	550212514S34019	3/4	550212514S34027	1-1/8	550212514S34038	1-1/2	550212514S34047	1-7/8				
7/8 - 14	550212514S78022	7/8	550212514S78033	1-5/16	550212514S78044	1-3/4						
1 - 11	550212511S01025	1	550212511S01037	1-1/2	550212511S01050	2						
1-1/4 - 11	550212511S32032	1-1/4	550212511S32047	1-7/8	550212511S32064	2-1/2						
1-1/2 - 11	550212511S38038	1-1/2	550212511S38057	2-1/4								

**INCH WHITWORTH (BSC)**

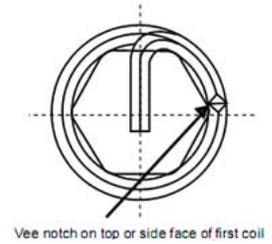
1/4" - 26	550212526C14006	0.250	550212526C14009	0.375	550212526C14012	0.500						
5/16" - 26	550212526C51608	0.313	550212526C51612	0.469	550212526C51616	0.625						
3/8" - 26	550212526C38010	0.375	550212526C38015	0.563	550212526C38020	0.750						
7/16" - 26	550212526C71611	0.438	550212526C71617	0.656	550212526C71622	0.875						
1/2" - 26	550212526C12012	0.500	550212526C12018	0.750	550212526C12024	1.000						

Insert are greater in diameter than the tapped hole in the parent material into which they are to be installed. During the assembly operation the diameter of the leading coil is reduced there by permitting entry of the insert into the tapped hole. When the insert is installed at the correct depth, the coil expand and permanently retains the insert in place. Inserts are manufactured to give specific thread lengths when installed in their tapped holes. The lengths of inserts in their free state bear no relation to their lengths when installed. This is due to fact that they are appreciably larger in diameter when free than when installed. For this reason they cannot be inspected for length in their free state.



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- 2.5D. 2-1/2 times the diameter of the bolt or screw.
- 3.0D. Three times the diameter of the bolt or screw



Screw Locking Inserts

INCH COARSE (UNC)

Thread Size	1 D		1.5 D		2 D		2.5 D		3 D	
	Order Part No.	Length 1D =	Order Part No.	Length 1.5 D =	Order Part No.	Length 2 D =	Order Part No.	Length 2.5 D =	Order Part No.	Length 3 D =
4-40	550222540C04112	.112	550222540C04168	.168	550222540C04224	.224	550222540C04280	.280	550222540C04336	.336
5-40	550222540C05125	.125	550222540C05188	.188	550222540C05250	.250	550222540C05312	.312	550222540C05375	.375
6-32	550222532C06138	.138	550222532C06207	.207	550222532C06276	.276	550222532C06345	.345	550222532C06414	.414
8-32	550222532C08164	.164	550222532C08246	.246	550222532C08328	.328	550222532C08410	.410	550222532C08492	.492
10-24	550222524C10190	.190	550222524C10285	.285	550222524C10380	.380	550222524C10475	.475	550222524C10570	.570
12-24	550222524C12216	.216	550222524C12324	.324	550222524C12432	.432	550222524C12540	.540	550222524C12648	.648
1/4-20	550222520C14006	1/4	550222520C14010	3/8	550222520C14012	1/2	550222520C14015	5/8	550222520C14019	3/4
5/16-18	550222518C25008	5/16	550222518C25012	15/32	550222518C25016	5/8	550222518C25020	25/32	550222518C25024	15/16
3/8-16	550222516C38010	3/8	550222516C38014	9/16	550222516C38020	3/4	550222516C38025	15/16	550222516C38032	1-1/8
7/16-14	550222514C35011	7/16	550222514C35165	21/32	550222514C35022	7/8	550222514C35028	1-3/32	550222514C35033	1-5/16
1/2-13	550222513C12013	1/2	550222513C12019	3/4	550222513C12026	1	550222513C12032	1-1/4	550222513C12038	1-1/2
9/16 - 12	550222512C45014	9/16	550222512C45021	27/32	550222512C45028	1-1/8	550222512C45035	1-13/32	550222512C45042	1-11/16
5/8 - 11	550222511C58016	5/8	550222511C58024	15/16	550222511C58032	1-1/4	550222511C58039	1-9/16	550222511C58047	1-7/8
3/4 - 10	550222510C34019	3/4	550222510C34027	1-1/8	550222510C34038	1-1/2	550222510C34047	1-7/8	550222510C34057	2-1/4

INCH FINE (UNF)

6-40	550222540F06138	.138	550222540F06207	.207	550222540F06276	.276	550222540F06345	.345	550222540F06414	.414
8-36	550222536F08164	.164	550222536F08246	.246	550222536F08328	.328	550222536F08410	.410	550222536F08492	.492
10-32	550222532F10190	.190	550222532F10285	.285	550222532F10380	.380	550222532F10475	.475	550222532F10570	.570
1/4-28	550222524F14006	1/4	550222528F14010	3/8	550222528F14012	1/2	550222528F14015	5/8	550222528F14019	3/4
5/16-24	550222524F25008	5/16	550222524F25012	15/32	550222524F25016	5/8	550222524F25020	25/32	550222524F25024	15/16
3/8-24	550222524F38010	3/8	550222524F38014	9/16	550222524F38020	3/4	550222524F38025	15/16	550222524F38032	1-1/8
7/16-20	550222520F35011	7/16	550222520F35165	21/32	550222520F35022	7/8	550222520F35028	1-3/32	550222520F35033	1-5/16
1/2-20	550222520F12013	1/2	550222520F12019	3/4	550222520F12026	1	550222520F12032	1-1/4	550222520F12038	1-1/2
9/16-18	550222518F45014	9/16	550222518F45021	27/32	550222518F45028	1-1/8	550222518F45035	1-13/32	550222518F45042	1-11/16
5/8-18	550222518F58016	5/8	550222518F58024	15/16	550222518F58032	1-1/4	550222518F58039	1-9/16	550222518F58047	1-7/8
3/4-16	550222516F34019	3/4	550222516F34027	1-1/8	550222516F34038	1-1/2	550222516F34047	1-7/8	550222516F34057	2-1/4

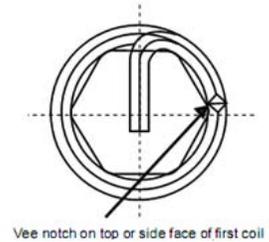
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**Fasteners Solutions**  
PASSION WITH VISION

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- 2.0D.** Two times the diameter of the bolt or screw.
- 2.5D.** 2-1/2 times the diameter of the bolt or screw.
- 3.0D.** Three times the diameter of the bolt or screw.



Vee notch on top or side face of first coil

**Screw Locking Inserts INCH WHITWORTH (BSW)**

**1 D**

**1.5 D**

**2 D**

**2.5 D**

**3 D**

Thread Size	Order Part No.	Length 1D =	Order Part No.	Length 1.5 D =	Order Part No.	Length 2 D =	Order Part No.	Length 2.5 D =	Order Part No.	Length 3 D =
1/8 - 40	-----		550222540W18005	3/16	550222540W18006	1/4	550222540W18008	5/16	550222540W18010	3/8
3/16 - 24	-----		550222524W05007	9/32	550222524W05010	3/8	550222524W05012	15/32	550222524W05014	9/16
1/4 - 20	-----		550222520W14010	3/8	550222520W14012	1/2	550222520W14015	5/8	550222520W14019	3/4
5/16 - 18	550222518W25008	5/16	550222518W25012	15/32	550222518W25016	5/8	550222518W25020	25/32	550222518W25024	15/16
3/8 - 16	550222516W38010	3/8	550222516W38014	9/16	550222516W38020	3/4	550222516W38025	15/16	550222516W38032	1-1/8
7/16 - 14	550222514W35011	7/16	550222514W35165	21/32	550222514W35022	7/8	550222514W35028	1-3/32	550222514W35033	1-5/16
1/2 - 12	550222512W12013	1/2	550222512W12019	3/4	550222512W12026	1	550222512W12032	1-1/4	550222512W12038	1-1/2
9/16 - 12	550222512W45014	9/16	550222512W45021	27/32	550222512W45028	1-1/8	550222512W45035	1-13/32	550222512W45042	1-11/16
5/8 - 11	550222511W58016	5/8	550222511W58024	15/16	550222511W58032	1-1/4	550222511W58039	1-9/16	550222511W58047	1-7/8
3/4 - 10	550222510W34019	3/4	550222510W34027	1-1/8	550222510W34038	1-1/2	550222510W34047	1-7/8	550222510W34057	2-1/4

**INCH WHITWORTH (BSF)**

3/16 - 32	550222532F05005	3/16	550222532F05007	9/32	550222532F05010	3/8	550222532F05012	15/32	550222532F05014	9/16
1/4 - 26	550222526F14006	1/4	550222526F14010	3/8	550222526F14012	1/2	550222526F14015	5/8	550222526F14019	3/4
5/16 - 22	550222522F25008	5/16	550222522F25012	15/32	550222522F25016	5/8	550222522F25020	25/32	550222522F25024	15/16
3/8 - 20	550222520F38010	3/8	550222520F38014	9/16	550222520F38020	3/4	550222520F38025	15/16	550222520F38032	1-1/8
7/16 - 18	550222518F35011	7/16	550222518F35165	21/32	550222518F35022	7/8	550222518F35028	1-3/32	550222518F35033	1-5/16
1/2 - 16	550222516F12013	1/2	550222516F12019	3/4	550222516F12026	1	550222516F12032	1-1/4	550222516F12038	1-1/2
9/16 - 16	550222516F45014	9/16	550222516F45021	27/32	550222516F45028	1-1/8	550222516F45035	1-13/32	550222516F45042	1-11/16
5/8 - 14	550222514F58016	5/8	550222514F58024	15/16	550222514F58032	1-1/4	550222514F58039	1-9/16	550222514F58047	1-7/8
3/4 - 12	550222512F34019	3/4	550222512F34027	1-1/8	550222512F34038	1-1/2	550222512F34047	1-7/8	550222512F34057	2-1/4



**Fasteners Solutions**  
PASSION WITH VISION

Insert are greater in diameter than the tapped hole in the parent material into which they are to be installed. During the assembly operation the diameter of the leading coil is reduced there by permitting entry of the insert into the tapped hole. When the insert is installed at the correct depth, the coil expand and permanently retains the insert in place.

Inserts are manufactured to give specific thread lengths when installed in their tapped holes. The lengths of inserts in their free state bear no relation to their lengths when installed. This is due to fact that they are appreciably larger in diameter when free than when installed. For this reason they cannot be inspected for length in their free state.





**Roughing Tap**

Straight Fluted taps made undersize to reduce the load on the finishing tap and particularly for difficult tapping operations. Recommended for use when tapping steels or when close tolerance fits are required, reducing wear on the finishing tap.



**Finishing Tap**

Hand or machine tapping for through holes and blind holes where ample chip clearance is available. The lead chamfer permits easier starting and requires less tapping torque than bottoming taps.



**Bottoming Tap**

Used for tapping blind holes when maximum full form threads are depth holes.

Thread Size	Order Part No. Rough	Order Part No. Finish	Order part No. Bottom	Order Part No. SP Flute	Order Part No. SP Point	Order Part No. Gauges	
						Class 5H	Class 6H
M2 X 0.4	550272804000002	550282804000002	550292804000002	550302804000002	550312804000002	551043604000002	551043604000002
M2.2 X 0.45	550272804500020	550282804500020	550292804500020	550302804500020	550312804500020	551043504500020	551043604500020
M2.5 X 0.45	5502728045000205	5502828045000205	5502928045000205	5503028045000205	5503128045000205	5510435045000205	5510436045000205
M3 X 0.5	550272805000003	550282805000003	550292805000003	550302805000003	550312805000003	551043505000003	551043605000003
M3.5 X 0.6	5502728060000305	5502828060000305	5502928060000305	5503028060000305	5503128060000305	5510435060000305	5510436060000305
M4 X 0.7	5502728070000004	5502828070000004	5502928070000004	5503028070000004	5503128070000004	5510435070000004	5510436070000004
M5 X 0.8	5502728080000005	5502828080000005	5502928080000005	5503028080000005	5503128080000005	5510435080000005	5510436080000005
M6 X 1.0	5502728100000006	5502828100000006	5502928100000006	5503028100000006	5503128100000006	5510435100000006	5510436100000006
M7 X 1.0	5502728100000007	5502828100000007	5502928100000007	5503028100000007	5503128100000007	5510435100000007	5510436100000007
M8 X 1.0	5502728100000008	5502828100000008	5502928100000008	5503028100000008	5503128100000008	5510435100000008	5510436100000008
M8 X 1.25	5502728125000008	5502828125000008	5502928125000008	5503028125000008	5503128125000008	5510435125000008	5510436125000008
M9 X 1.25	5502728125000009	5502828125000009	5502928125000009	5503028125000009	5503128125000009	5510435125000009	5510436125000009
M10 X 1.0	5502728100000010	5502828100000010	5502928100000010	5503028100000010	5503128100000010	5510435100000010	5510436100000010
M10 X 1.25	5502728125000010	5502828125000010	5502928125000010	5503028125000010	5503128125000010	5510435125000010	5510436125000010
M10 X 1.5	5502728150000010	5502828150000010	5502928150000010	5503028150000010	5503128150000010	5510435150000010	5510436150000010
M11 X 1.5	5502728150000011	5502828150000011	5502928150000011	5503028150000011	5503128150000011	5510435150000011	5510436150000011
M12 X 1.25	5502728125000012	5502828125000012	5502928125000012	5503028125000012	5503128125000012	5510435125000012	5510436125000012
M12 X 1.5	5502728150000012	5502828150000012	5502928150000012	5503028150000012	5503128150000012	5510435150000012	5510436150000012
M12 X 1.75	5502728175000012	5502828175000012	5502928175000012	5503028175000012	5503128175000012	5510435175000012	5510436175000012
M14 X 1.25	5502728125000014	5502828125000014	5502928125000014	5503028125000014	5503128125000014	5510435125000014	5510436125000014
M14 X 1.5	5502728150000014	5502828150000014	5502928150000014	5503028150000014	5503128150000014	5510435150000014	5510436150000014
M14 X 2.0	5502728200000014	5502828200000014	5502928200000014	5503028200000014	5503128200000014	5510435200000014	5510436200000014
M16 X 1.5	5502728150000016	5502828150000016	5502928150000016	5503028150000016	5503128150000016	5510435150000016	5510436150000016
M16 X 2.0	5502728200000016	5502828200000016	5502928200000016	5503028200000016	5503128200000016	5510435200000016	5510436200000016
M18 X 1.5	5502728150000018	5502828150000018	5502928150000018	5503028150000018	5503128150000018	5510435150000018	5510436150000018
M18 X 2.0	5502728200000018	5502828200000018	5502928200000018	5503028200000018	5503128200000018	5510435200000018	5510436200000018
M18 X 2.5	5502728250000018	5502828250000018	5502928250000018	5503028250000018	5503128250000018	5510435250000018	5510436250000018
M20 X 1.5	5502728150000020	5502828150000020	5502928150000020	5503028150000020	5503128150000020	5510435150000020	5510436150000020
M20 X 2.0	5502728200000020	5502828200000020	5502928200000020	5503028200000020	5503128200000020	5510435200000020	5510436200000020
M20 X 2.5	5502728250000020	5502828250000020	5502928250000020	5503028250000020	5503128250000020	5510435250000020	5510436250000020
M22 X 1.5	5502728150000022	5502828150000022	5502928150000022	5503028150000022	5503128150000022	5510435150000022	5510436150000022
M22 X 2.0	5502728200000022	5502828200000022	5502928200000022	5503028200000022	5503128200000022	5510435200000022	5510436200000022
M22 X 2.5	5502728250000022	5502828250000022	5502928250000022	5503028250000022	5503128250000022	5510435250000022	5510436250000022
M24 X 2.0	5502728200000024	5502828200000024	5502928200000024	5503028200000024	5503128200000024	5510435200000024	5510436200000024
M24 X 3.0	5502728300000024	5502828300000024	5502928300000024	5503028300000024	5503128300000024	5510435300000024	5510436300000024
M27 X 2.0	5502728200000027	5502828200000027	5502928200000027	5503028200000027	5503128200000027	5510435200000027	5510436200000027
M27 X 3.0	5502728300000027	5502828300000027	5502928300000027	5503028300000027	5503128300000027	5510435300000027	5510436300000027
M30 X 2.0	5502728200000030	5502828200000030	5502928200000030	5503028200000030	5503128200000030	5510435200000030	5510436200000030
M30 X 3.5	5502728350000030	5502828350000030	5502928350000030	5503028350000030	5503128350000030	5510435350000030	5510436350000030
M33 X 2.0	5502728200000033	5502828200000033	5502928200000033	5503028200000033	5503128200000033	5510435200000033	5510436200000033
M33 X 3.5	5502728350000033	5502828350000033	5502928350000033	5503028350000033	5503128350000033	5510435350000033	5510436350000033
M36 X 2.0	5502728200000036	5502828200000036	5502928200000036	5503028200000036	5503128200000036	5510435200000036	5510436200000036
M36 X 4.0	5502728400000036	5502828400000036	5502928400000036	5503028400000036	5503128400000036	5510435400000036	5510436400000036
M39 X 2.0	5502728200000039	5502828200000039	5502928200000039	5503028200000039	5503128200000039	5510435200000039	5510436200000039
M39 X 4.0	5502728400000039	5502828400000039	5502928400000039	5503028400000039	5503128400000039	5510435400000039	5510436400000039



**Spiral Flute Taps (Machine Tap)**

Tap designed with spiral flutes in the same "hand" as the thread. This directs the swarf backwards out of the hole. Recommended for blind or deep hole applications in soft (e.g. aluminium) materials. Due to the suitability to blind hole tapping the lead chamfer is normally that of a bottoming tap.



**Spiral Point Taps (Machine Tap)**

Designed primarily as a machine tap for tapping through holes The spiral point is formed in the lead teeth at an Angle to the tap axis. The swarf, due to the cutting action is pushed forwards ahead of the tap. The flutes of the spiral point tap serve only to deliver lubricant to the cutting edges, therefore much shall-ower flutes are used. Subsequently the tap has greater strength and makes precise tapping possible. Not recommended on abrasive materials.

**Thread Gauges**

Gauges are available in both 5H or 6H class of fits for metric threads, 2B or 3B for Unified threads and close or medium for whitworth threads. Class of Fit of the finished assembly is dependant on the accuracy of the tapped hole necessary to gauge the installed insert. After the Insert is installed, the Go Gauge occasionally does not enter freely. However the insert will always seat itself when the bolt or screw is installed and tightened.



**Roughing Tap**

Straight Fluted taps made undersize to reduce the load on the finishing tap and particularly for difficult tapping operations. Recommended for use when tapping steels or when close tolerance fits are required, reducing wear on the finishing tap.



**Finishing Tap**

Hand or machine tapping for through holes and blind holes where ample chip clearance is available. The lead chamfer permits easier starting and requires less tapping torque than bottoming taps.



**Bottoming Tap**

Used for tapping blind holes when maximum full form threads are depth holes.

**INCH COARSE (UNC)**

Thread Size	Order Part No. Rough	Order Part No. Finish	Order part No. Bottom	Order Part No. SP Flute	Order Part No. SP Point	Order Part No. Gauges	
						Class 2B	Class 3B
2-56	550272856C00002	550282856C00002	550292856C00002	550302856C00002	550312856C00002	551043756C00002	551043856C00002
3-48	550272848C00003	550282848C00003	550292848C00003	550302848C00003	550312848C00003	551043748C00003	551043848C00003
4-40	550272840C00004	550282840C00004	550292840C00004	550302840C00004	550312840C00004	551043740C00004	551043840C00004
5-40	550272840C00005	550282840C00005	550292840C00005	550302840C00005	550312840C00005	551043740C00005	551043840C00005
6-32	550272832C00006	550282832C00006	550292832C00006	550302832C00006	550312832C00006	551043732C00006	551043832C00006
8-32	550272832C00008	550282832C00008	550292832C00008	550302832C00008	550312832C00008	551043732C00008	551043832C00008
10-24	550272824C00010	550282824C00010	550292824C00010	550302824C00010	550312824C00010	551043724C00010	551043824C00010
12-24	550272824C00012	550282824C00012	550292824C00012	550302824C00012	550312824C00012	551043724C00012	551043824C00012
1/4-20	550272820C00014	550282820C00014	550292820C00014	550302820C00014	550312820C00014	551043720C00014	551043820C00014
5/16-18	550272818C00016	550282818C00016	550292818C00016	550302818C00016	550312818C00016	551043718C00016	551043818C00016
3/8-16	550272816C00018	550282816C00018	550292816C00018	550302816C00018	550312816C00018	551043716C00018	551043816C00018
7/16-14	550272814C00016	550282814C00016	550292814C00016	550302814C00016	550312814C00016	551043714C00016	551043814C00016
1/2-13	550272813C00012	550282813C00012	550292813C00012	550302813C00012	550312813C00012	551043713C00012	551043813C00012
9/16-12	550272812C000916	550282812C000916	550292812C000916	550302812C000916	550312812C000916	551043712C000916	551043812C000916
5/8-11	550272811C00058	550282811C00058	550292811C00058	550302811C00058	550312811C00058	551043711C00058	551043811C00058
3/4-10	550272810C00034	550282810C00034	550292810C00034	550302810C00034	550312810C00034	551043710C00034	551043810C00034
7/8-9	550272809C00078	550282809C00078	550292809C00078	550302809C00078	550312809C00078	551043709C00078	551043809C00078
1.0-8	550272808C00001	550282808C00001	550292808C00001	550302808C00001	550312808C00001	551043708C00001	551043808C00001
1.1/8-7	550272807C00118	550282807C00118	550292807C00118	550302807C00118	550312807C00118	551043707C00118	551043807C00118
1.1/4-7	550272807C00114	550282807C00114	550292807C00114	550302807C00114	550312807C00114	551043707C00114	551043807C00114
1.3/8-6	550272806C00138	550282806C00138	550292806C00138	550302806C00138	550312806C00138	551043706C00138	551043806C00138
1.1/2-6	550272806C00112	550282806C00112	550292806C00112	550302806C00112	550312806C00112	551043706C00112	551043806C00112

**INCH FINE (UNF)**

2-64	550272864F00002	550282864F00002	550292864F00002	550302864F00002	550312864F00002	551043765F00002	551043865F00002
3-56	550272856F00003	550282856F00003	550292856F00003	550302856F00003	550312856F00003	551043756F00003	551043856F00003
4-48	550272848F00004	550282848F00004	550292848F00004	550302848F00004	550312848F00004	551043748F00004	551043848F00004
5-44	550272844F00005	550282844F00005	550292844F00005	550302844F00005	550312844F00005	551043744F00005	551043844F00005
6-40	550272840F00006	550282840F00006	550292840F00006	550302840F00006	550312840F00006	551043740F00006	551043840F00006
8-36	550272836F00008	550282836F00008	550292836F00008	550302836F00008	550312836F00008	551043736F00008	551043836F00008
10-32	550272832F00010	550282832F00010	550292832F00010	550302832F00010	550312832F00010	551043732F00010	551043832F00010
1/4-28	550272828F00014	550282828F00014	550292828F00014	550302828F00014	550312828F00014	551043728F00014	551043828F00014
5/16-24	550272824F00016	550282824F00016	550292824F00016	550302824F00016	550312824F00016	551043724F00016	551043824F00016
3/8-24	550272824F00038	550282824F00038	550292824F00038	550302824F00038	550312824F00038	551043724F00038	551043824F00038
7/16-20	550272820F000716	550282820F000716	550292820F000716	550302820F000716	550312820F000716	551043720F000716	551043820F000716
1/2-20	550272820F00012	550282820F00012	550292820F00012	550302820F00012	550312820F00012	551043720F00012	551043820F00012
9/16-18	550272818F000916	550282818F000916	550292818F000916	550302818F000916	550312818F000916	551043718F000916	551043818F000916
5/8-18	550272818F00058	550282818F00058	550292818F00058	550302818F00058	550312818F00058	551043718F00058	551043818F00058
3/4-16	550272816F00034	550282816F00034	550292816F00034	550302816F00034	550312816F00034	551043716F00034	551043816F00034
7/8-14	550272814F00078	550282814F00078	550292814F00078	550302814F00078	550312814F00078	551043714F00078	551043814F00078
1-14	550272814F00001	550282814F00001	550292814F00001	550302814F00001	550312814F00001	551043714F00001	551043814F00001
1-12	550272812F00001	550282812F00001	550292812F00001	550302812F00001	550312812F00001	551043712F00001	551043812F00001
1.1/8-12	550272812F00118	550282812F00118	550292812F00118	550302812F00118	550312812F00118	551043712F00118	551043812F00118
1.1/4-12	550272812F00114	550282812F00114	550292812F00114	550302812F00114	550312812F00114	551043712F00114	551043812F00114
1.3/8-12	550272812F00138	550282812F00138	550292812F00138	550302812F00138	550312812F00138	551043712F00138	551043812F00138
1.1/2-12	550272812F00112	550282812F00112	550292812F00112	550302812F00112	550312812F00112	551043712F00112	551043812F00112



**Spiral Flute Taps (Machine Tap)**

Tap designed with spiral flutes in the same "hand" as the thread. This directs the swarf backwards out of the hole. Recommended for blind or deep hole applications in soft (e.g. aluminium) materials. Due to the suitability to blind hole tapping the lead chamfer is normally that of a bottoming tap.



**Spiral Point Taps (Machine Tap)**

Designed primarily as a machine tap for tapping through holes. The spiral point is formed in the lead teeth at an angle to the tap axis. The swarf, due to the cutting action is pushed forwards ahead of the tap. The flutes of the spiral point tap serve only to deliver lubricant to the cutting edges, therefore much shall-ower flutes are used. Subsequently the tap has greater strength and makes precise tapping possible. Not recommended on abrasive materials.



**Thread Gauges**

Gauges are available in both 5H or 6H class of fits for metric threads, 2B or 3B for Unified threads and close or medium for whitworth threads. Class of Fit of the finished assembly is dependant on the accuracy of the tapped hole necessary to gauge the installed insert. After the Insert is installed, the Go Gauge occasionally does not enter freely. However the insert will always seat itself when the bolt or screw is installed and tightened.

NOTE : ALL TYPE OF ABOVE TAPS ARE ALSO AVAILABLE IN NPT, 8- UN & BA THREADS



**Roughing Tap**

Straight Fluted taps made undersize to reduce the load on the finishing tap and particularly for difficult tapping operations. Recommended for use when tapping steels or when close tolerance fits are required, reducing wear on the finishing tap.



**Finishing Tap**

Hand or machine tapping for through holes and blind holes where ample chip clearance is available. The lead chamfer permits easier starting and requires less tapping torque than bottoming taps.



**Bottoming Tap**

Used for tapping blind holes when maximum full form threads are depth holes.



**Fasteners Solutions**  
PASSION WITH VISION

**INCH WHITWORTH (BSW)**

Thread Size	Order Part No. Rough	Order Part No. Finish	Order Part No.	Order Part No. SP Flute	Order Part No. SP Point	Order Part No. Gauges	
						Medium Class	Close Class
1/8 - 40	550272840W00018	550282840W00018	550292840W00018	550302840W00018	550312840W00018	551043940W00018	551044040W00018
3/16 - 24	550272824W000316	550282824W000316	550292824W000316	550302824W000316	550312824W000316	551043924W000316	551044024W000316
1/4 - 20	550272820W00014	550282820W00014	550292820W00014	550302820W00014	550312820W00014	551043920W00014	551044020W00014
5/16 - 18	550272818W000516	550282818W000516	550292818W000516	550302818W000516	550312818W000516	551043918W000516	551044018W000516
3/8 - 16	550272816W000038	550282816W000038	550292816W000038	550302816W000038	550312816W000038	551043916W000038	551044016W000038
7/16 - 14	550272814W000716	550282814W000716	550292814W000716	550302814W000716	550312814W000716	551043914W000716	551044014W000716
1/2 - 12	550272812W000012	550282812W000012	550292812W000012	550302812W000012	550312812W000012	551043912W000012	551044012W000012
9/16 - 12	550272812W000916	550282812W000916	550292812W000916	550302812W000916	550312812W000916	551043912W000916	551044012W000916
5/8 - 11	550272811W000058	550282811W000058	550292811W000058	550302811W000058	550312811W000058	551043911W000058	551044011W000058
3/4 - 10	550272810W000034	550282810W000034	550292810W000034	550302810W000034	550312810W000034	551043910W000034	551044010W000034
7/8 - 9	550272809W000078	550282809W000078	550292809W000078	550302809W000078	550312809W000078	551043909W000078	551044009W000078
1 - 8	550272808W000001	550282808W000001	550292808W000001	550302808W000001	550312808W000001	551043908W000001	551044008W000001
1-1/8 - 7	550272807W000118	550282807W000118	550292807W000118	550302807W000118	550312807W000118	551043907W000118	551044007W000118
1-1/4 - 7	550272807W000114	550282807W000114	550292807W000114	550302807W000114	550312807W000114	551043907W000114	551044007W000114
1-1/2 - 6	550272806W000112	550282806W000112	550292806W000112	550302806W000112	550312806W000112	551043906W000112	551044006W000112

**INCH WHITWORTH (BSF)**

3/16 - 32	550272832F000316	550282832F000316	550292832F000316	550302832F000316	550312832F000316	551043932F000316	551044032F000316
1/4 - 26	550272826F00014	550282826F00014	550292826F00014	550302826F00014	550312826F00014	551043926F00014	551044026F00014
5/16 - 22	550272822F000516	550282822F000516	550292822F000516	550302822F000516	550312822F000516	551043922F000516	551044022F000516
3/8 - 20	550272820F000038	550282820F000038	550292820F000038	550302820F000038	550312820F000038	551043920F000038	551044020F000038
7/16 - 18	550272818F000716	550282818F000716	550292818F000716	550302818F000716	550312818F000716	551043918F000716	551044018F000716
1/2 - 16	550272816F000012	550282816F000012	550292816F000012	550302816F000012	550312816F000012	551043916F000012	551044016F000012
9/16 - 16	550272816F000916	550282816F000916	550292816F000916	550302816F000916	550312816F000916	551043916F000916	551044016F000916
5/8 - 14	550272814F000058	550282814F000058	550292814F000058	550302814F000058	550312814F000058	551043914F000058	551044014F000058
3/4 - 12	550272812F000034	550282812F000034	550292812F000034	550302812F000034	550312812F000034	551043912F000034	551044012F000034
7/8 - 11	550272811F000078	550282811F000078	550292811F000078	550302811F000078	550312811F000078	551043911F000078	551044011F000078
1 - 10	550272810F000001	550282810F000001	550292810F000001	550302810F000001	550312810F000001	551043910F000001	551044010F000001
1-1/8 - 9	550272809F000118	550282809F000118	550292809F000118	550302809F000118	550312809F000118	551043909F000118	551044009F000118
1-1/4 - 9	550272809F000114	550282809F000114	550292809F000114	550302809F000114	550312809F000114	551043909F000114	551044009F000114
1-3/8 - 8	550272808F000138	550282808F000138	550292808F000138	550302808F000138	550312808F000138	551043908F000138	551044008F000138
1-1/2 - 8	550272808F000112	550282808F000112	550292808F000112	550302808F000112	550312808F000112	551043908F000112	551044008F000112

**INCH WHITWORTH (BSP OR BSP.F)**

1/8 - 28	550272828SP0018	550282828SP0018	550292828SP0018	550302828SP0018	550312828SP0018	551043928SP0018	551044028SP0018
1/4 - 19	550272819SP0014	550282819SP0014	550292819SP0014	550302819SP0014	550312819SP0014	551043919SP0014	551044019SP0014
3/8 - 19	550272819SP0038	550282819SP0038	550292819SP0038	550302819SP0038	550312819SP0038	551043919SP0038	551044019SP0038
1/2 - 14	550272814SP0012	550282814SP0012	550292814SP0012	550302814SP0012	550312814SP0012	551043914SP0012	551044014SP0012
5/8 - 14	550272814SP0058	550282814SP0058	550292814SP0058	550302814SP0058	550312814SP0058	551043914SP0058	551044014SP0058
3/4 - 14	550272814SP0034	550282814SP0034	550292814SP0034	550302814SP0034	550312814SP0034	551043914SP0034	551044014SP0034
7/8 - 14	550272814SP0078	550282814SP0078	550292814SP0078	550302814SP0078	550312814SP0078	551043914SP0078	551044014SP0078
1 - 11	550272811SP0001	550282811SP0001	550292811SP0001	550302811SP0001	550312811SP0001	551043911SP0001	551044011SP0001
1-1/4 - 11	550272811SP0114	550282811SP0114	550292811SP0114	550302811SP0114	550312811SP0114	551043911SP0114	551044011SP0114
1-1/2 - 11	550272811SP0112	550282811SP0112	550292811SP0112	550302811SP0112	550312811SP0112	551043911SP0112	551044011SP0112



**Spiral Flute Taps (Machine Tap)**

Tap designed with spiral flutes in the same "hand" as the thread. This directs the swarf backwards out of the hole. Recommended for blind or deep hole applications in soft (e.g. aluminium) materials. Due to the suitability to blind hole tapping the lead chamfer is normally that of a bottoming tap.



**Spiral Point Taps (Machine Tap)**

Designed primarily as a machine tap for tapping through holes. The spiral point is formed in the lead teeth at an Angle to the tap axis. The swarf, due to the cutting action is pushed forwards ahead of the tap. The flutes of the spiral point tap serve only to deliver lubricant to the cutting edges, therefore much shall-ower flutes are used. Subsequently the tap has greater strength and makes precise tapping possible. Not recommended on abrasive materials.



**Thread Gauges**

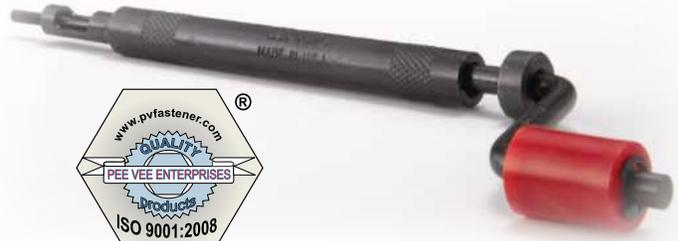
Gauges are available in both 5H or 6H class of fits for metric threads, 2B or 3B for Unified threads and close or medium for whitworth threads. Class of Fit of the finished assembly is dependant on the accuracy of the tapped hole necessary to gauge the installed insert. After the Insert is installed, the Go Gauge occasionally does not enter freely. However the insert will always seat itself when the bolt or screw is installed and tightened.

**NOTE : ALL TYPE OF ABOVE TAPS ARE ALSO AVAILABLE IN BSC THREADS**

A dedicated single size installation tool which supports the inserts in a chamber ready for pre-winding through the nozzle.

Pre-winding reduces the insert diameter to that of the tapped hole ready for installation.

With the insert wound flush with the end of the nozzle the insert is ready for installation. Place the tool squarely over the tapped hole and continue to wind the insert into the component. Do not apply any forward pressure whilst installing as this may cause the insert to 'cross pitch'.



**Fasteners Solutions**  
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**METRIC SERIES**

**INCH COARSE (UNC)**

**INCH WHITWORTH (BSW)**

Thread Size	Order Part No.		Thread Size	Order Part No.		Thread Size	Order Part No.	
	Free Runing	Screw Locking		Free Runing	Screw locking		Free Runing	Screw Locking
M2 X 0.4	550250004000002	550250004000002	2-56	550260056C00002	-----	1/8 - 40	550260040W00018	550250040W00018
M2.2 X 0.45	550250004500202	550250004500202	3-48	550260048C00003	-----	3/16 - 24	550260024W000316	550250024W000316
M2.5 X 0.45	550250004500205	550250004500205	4-40	550260040C00004	550250040C00004	1/4 - 20	550260020W00014	550250020W00014
M3 X 0.5	550250005000003	550250005000003	5-40	550260040C00005	550250040C00005	5/16 - 18	550260018W000516	550250018W000516
M3.5 X 0.6	550250006000305	550250006000305	6-32	550260032C00006	550250032C00006	3/8 - 16	550260016W000038	550250016W000038
M4 X 0.7	550250007000004	550250007000004	8-32	550260032C00008	550250032C00008	7/16 - 14	550260014W000716	550250014W000716
M5 X 0.8	550250008000005	550250008000005	10-24	550260024C00010	550250024C00010	1/2 - 12	550260012W000012	550250012W000012
M6 X 1.0	550250010000006	550250010000006	12-24	550260024C00012	550250024C00012	9/16 - 12	550260012W000916	550250012W000916
M7 X 1.0	550250010000007	550250010000007	1/4-20	550260020C00014	550250020C00014	5/8 - 11	550260011W000058	550250011W000058
M8 X 1.0	550250010000008	550250010000008	5/16-18	550260018C00016	550250018C00016	3/4 - 10	550260010W000034	550250010W000034
M8 X 1.25	550250012500008	550250012500008	3/8-16	550260016C00038	550250016C00038	7/8 - 9	550260009W000078	-----
M9 X 1.25	550250012500009	550250012500009	7/16-14	550260014C000716	550250014C000716	1 - 8	550260008W000001	-----
M10 X 1.0	550260010000010	-----	1/2-13	550260013C00012	550250013C00012	1-1/8 - 7	550260007W000118	-----
M10 X 1.25	550250012500010	550250012500010	9/16 - 12	550250012C000916	550250012C000916	1-1/4 - 7	550260007W000114	-----
M 10 X 1.5	550250015000010	550250015000010	5/8 - 11	550250011C00058	550250011C00058	1-1/2 - 6	550260006W000112	-----
M11 X 1.5	550250015000011	550250015000011	3/4 - 10	550250010C00034	550250010C00034	<b>Inch Whitworth (BSF)</b>		
M12 X 1.25	550250012500012	550250012500012	7/8 - 9	550260009C00078	-----			
M12 X 1.5	550250015000012	550250015000012	1.0 - 8	550260008C00001	-----	3/16 - 32	550250032F000316	550250032F000316
M12 X 1.75	550260017500012	550250017500012	1.1/8 - 7	550260007C00118	-----	1/4 - 26	550250026F00014	550250026F00014
M14 X 1.25	550260012500014	-----	1.1/4 - 7	550260007C00114	-----	5/16 - 22	550250022F000516	550250022F000516
M14 X 1.5	550260015000014	550250015000014	1.3/8 - 6	550260006C00138	-----	3/8 - 20	550250020F00038	550250020F00038
M14 X 2.0	550260020000014	550250020000014	1.1/2 - 6	550260006C00112	-----	7/16 - 18	550250018F000716	550250018F000716
M16 X 1.5	550260015000016	550250015000016	<b>Inch Fine (UNF)</b>			1/2 - 16	550250016F00012	550250016F00012
M16 X 2.0	550260020000016	550250020000016	2-64	550250064F00002	550250064F00002	9/16 - 16	550250016F000816	550250016F000816
M18 X 1.5	550260015000018	-----	3-56	550250056F00003	550250056F00003	5/8 - 14	550250014F000058	550250014F000058
M18 X 2.0	550260020000018	550250020000018	4-48	550250048F00004	550250048F00004	3/4 - 12	550250012F000034	550250012F000034
M18 X 2.5	550260025000018	550250025000018	5-44	550250044F00005	550250044F00005	7/8 - 11	550250011F000078	550250011F000078
M20 X 1.5	550260015000020	550250015000020	6-40	550250040F00006	550250040F00006	1 - 10	550250010F000001	550250010F000001
M20 X 2.0	550260020000020	550250020000020	8-36	550250036F00008	550250036F00008	1-1/8 - 9	550250009F00118	550250009F00118
M20 X 2.5	550260025000020	550250025000020	10-32	550250032F00010	550250032F00010	1-1/4 - 9	550250009F00114	550250009F00114
M22 X 1.5	550260015000022	550250015000022	1/4-28	550250028F00014	550250028F00014	1-3/8 - 8	550250008F00138	550250008F00138
M22 X 2.0	550260020000022	550250020000022	5/16-24	550250024F00016	550250024F00016	1-1/2 - 8	550250008F00112	550250008F00112
M22 X 2.5	550260025000022	550250025000022	3/8-24	550250024F00038	550250024F00038	<b>Inch Whitworth (BSP or BSP.F)</b>		
M24 X 2.0	550260020000024	550250020000024	7/16-20	550250020F000716	550250020F000716			
M24 X 3.0	550260030000024	550250030000024	1/2-20	550250020F00012	550250020F00012	1/8 - 28	550260028S00018	-----
M27 X 2.0	550260020000027	-----	9/16-18	550250018F000916	550250018F000916	1/4 - 19	550260019S00014	-----
M27 X 3.0	550260030000027	550250030000027	5/8-18	550250018F00058	550250018F00058	3/8 - 19	550260019S00038	-----
M30 X 2.0	550260020000030	550250020000030	3/4-16	550250016F00034	550250016F00034	1/2 - 14	550260014S00012	-----
M30 X 3.5	550260035000030	550250035000030	7/8-14	550250014F00078	550250014F00078	5/8 - 14	550260014S00058	-----
M33 X 2.0	550260020000033	-----	1-14	550250014F00001	550250014F00001	3/4 - 14	550260014S00034	-----
M33 X 3.5	550260035000033	550250035000033	1-12	550250012F00001	550250012F00001	7/8 - 14	550260014S00078	-----
M36 X 2.0	550260020000036	-----	1.1/8-12	550250012F00118	550250012F00118	1 - 11	550260011S00001	-----
M36 X 4.0	550260040000036	550250040000036	1.1/4-12	550250012F00114	550250012F00114	1-1/4 - 11	550260011S00114	-----
M39 X 2.0	550260020000039	-----	1.3/8-12	550250012F00138	550250012F00138	1-1/2 - 11	550260011S00112	-----
M39 X 4.0	550260040000039	550250040000039	1.1/2-12	550250012F00112	550250012F00112	-----	-----	-----

**NOTE : ALL TYPE OF ABOVE TOOLS ARE ALSO AVAILBLE IN NPT, 8-UN, BSC & BA THREADS**

**NOTE : Tang end of insert must lie towards nozzle.**

**Auto Tang Break**

A faster and more efficient method of removing the tang. The Automatic Tang Break-Off Tool incorporates a spring loaded punch and thus reduces the task to a simple, one handed operation.

The is supplied complete with interchangeable punches to accommodate varying lengths of insert in any of the appropriate thread sizes. Full instructions for use and punch changing are included with every tool.



Thread Size	Order Part No.	Thread Size	Order Part No.	Thread Size	Order Part No.
M2 X 0.4	550320000000002	2-56	550320000056C02	1/8 - 40	550320000040W18
M2.2 X 0.45	550320000000202	3-48	550320000048C03	3/16 - 24	550320000024W316
M2.5 X 0.45	550320000000205	4-40	550320000040C04	1/4 - 20	550320000020W14
M3 X 0.5	550320000000003	5-40	550320000040C05	5/16 - 18	550320000018W516
M3.5 X 0.6	550320000000305	6-32	550320000032C06	3/8 - 16	550320000016W38
M4 X 0.7	550320000000004	8-32	550320000032C08	7/16 - 14	550320000014W716
M5 X 0.8	550320000000005	10-24	550320000024C10	1/2 - 12	550320000012W12
M6 X 1.0	550320000000006	12-24	550320000024C12	9/16 - 12	550320000012W916
M7 X 1.0	550320000000007	1/4-20	550320000020C14	5/8 - 11	550320000011W58
M8 X 1.0	550320000000008	5/16-18	550320000018C16	3/4 - 10	550320000010W34
M8 X 1.25	550320000000008	3/8-16	550320000016C38	7/8 - 9	550320000009W78
M9 X 1.25	550320000000009	7/16-14	550320000014C716	1 - 8	550320000008W01
M10 X 1.0	550320000000010	1/2-13	550320000013C12	1-1/8 - 7	USE PLIERS
M10 X 1.25	550320000000010	9/16 - 12	550320000012C916	1-1/4 - 7	USE PLIERS
M 10 X 1.5	550320000000010	5/8 - 11	550320000011C58	1-1/2 - 6	USE PLIERS
M11 X 1.5	550320000000011	3/4 - 10	550320000010C34	<b>Inch Whitworth (BSF)</b>	
M12 X 1.25	550320000000012	7/8 - 9	550320000009C78		
M12 X 1.5	550320000000012	1.0 - 8	USE PLIERS	<b>Inch Whitworth (BSF)</b>	
M12 X 1.75	550320000000012	1.1/8 - 7	USE PLIERS		
M14 X 1.25	550320000000012	1.1/4 - 7	USE PLIERS	3/16 - 32	550320000032F316
M14 X 1.5	550320000000014	1.3/8 - 6	USE PLIERS	1/4 - 22	550320000022F14
M14 X 2.0	550320000000014	1.1/2 - 6	USE PLIERS	5/16 - 22	550320000022F516
M16 X 1.5	550320000000016	<b>Inch Fine (UNF)</b>		3/8 - 20	550320000020F38
M16 X 2.0	550320000000016			7/16 - 18	550320000018F716
M18 X 1.5	550320000000018	2-64	550320000064F02	1/2 - 16	550320000016F12
M18 X 2.0	550320000000018	3-56	550320000056F03	9/16 - 16	550320000016F916
M18 X 2.5	550320000000018	4-48	550320000048F04	5/8 - 14	550320000014F58
M20 X 1.5	550320000000020	5-44	550320000044F05	3/4 - 12	550320000012F34
M20 X 2.0	550320000000020	6-40	550320000040F06	7/8 - 11	550320000011F78
M20 X 2.5	550320000000020	8-36	550320000036F08	1 - 10	550320000010W34
M22 X 1.5	550320000000022	10-32	550320000032F10	1-1/8 - 9	550320000009W78
M22 X 2.0	550320000000022	1/4-28	550320000028F14	1-1/4 - 9	550320000008W01
M22 X 2.5	550320000000022	5/16-24	550320000024F516	1-3/8 - 8	USE PLIERS
M24 X 2.0	550320000000024	3/8-24	550320000024F38	1-1/2 - 8	USE PLIERS
M24 X 3.0	550320000000024	7/16-20	550320000020F716	<b>Inch Whitworth (BSP or BSP.F)</b>	
M27 X 2.0	550320000000027	1/2-20	550320000020F12		
M27 X 3.0	503200000000027	9/16-18	550320000018F916	<b>Inch Whitworth (BSP or BSP.F)</b>	
M30 X 2.0	USE PLIERS	5/8-18	550320000018F58		
M30 X 3.5	USE PLIERS	3/4-16	550320000016F34	1/8 - 28	USE PLIERS
M33 X 2.0	USE PLIERS	7/8-14	550320000014F78	1/4 - 19	USE PLIERS
M33 X 3.5	USE PLIERS	1-14	USE PLIERS	3/8 - 19	USE PLIERS
M36 X 2.0	USE PLIERS	1-12	USE PLIERS	1/2 - 14	USE PLIERS
M36 X 4.0	USE PLIERS	1.1/8-12	USE PLIERS	5/8 - 14	USE PLIERS
M39 X 2.0	USE PLIERS	1.1/4-12	USE PLIERS	3/4 - 14	USE PLIERS
M39 X 4.0	USE PLIERS	1.3/8-12	USE PLIERS	7/8 - 14	USE PLIERS
		1.1/2-12	USE PLIERS	1 - 11	USE PLIERS
				1-1/4 - 11	USE PLIERS
				1-1/2 - 11	USE PLIERS

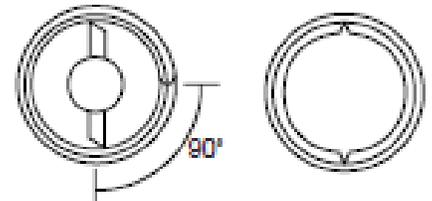
**Extracting Tool**

Occasionally Inserts must be removed. Inserts may be removed manually with little effort. This done by inserting the blade of the extracting tool into the insert so that the V section of the blade is toward the top end of the insert.

Strike the head of the tool with a light blow. Maintaining a steady pressure of blade against Insert, turn the extracting tool Anti-Clockwise Until the insert is removed.



Nominal Thread Size		Order Part No.
Metric	Inch	
M 2	# 1	550240000002001
M 2.2	# 2	5502400000020202
M 2.5 thru M 4	# 3 thru # 8	5502400000020508
M 5 thru M 10	# 10 thru 3/8"	5502400000050038
M 11 thru M 24	7/16" thru 1"	550240000011001
M 27 thru M 39	1-1/8" thru 1-1/2"	5502400000027112



**NOTE : ALL TYPE OF ABOVE TOOLS ARE ALSO AVAILABLE IN NPT, 8-UN, BSC & BA THREADS**



**Fasteners Solutions**  
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# Tang Less Wire Inserts

## A Revolutionary Breakthrough in Wire Thread Screw Coiled Inserts

Beyond mere evolution, the new Coil Thread Tangless inserts are going to revolutionise the way you think of Wire Thread Screw Inserts. They speed and simplify installation to reduce production costs. Yet, as radically improved as they are Coil-Thread Tangless inserts require absolutely **NO ENGINEERING or ASSEMBLY DESIGN MODIFICATIONS.**

- ⇒ No tangs to break off, retrieve ..... or lose
- ⇒ No orientation required with bi-directional insert design.
- ⇒ Quick, non- destructive insert removal
- ⇒ Substantial savings on installed cost over conventional Wire Thread Screw coiled inserts.
- ⇒ Tangless inserts conform to performance, fit, function and material for all major international specs.

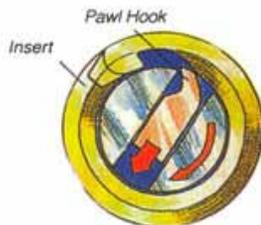


**END VIEW DURING INSERT INSTALLATION**



The spring-loaded pawl within the installation tool engages the driving notch to install the Tangless CoilThread insert. The chamfered ends of the insert allow the insert to smoothly enter the tapped hole.

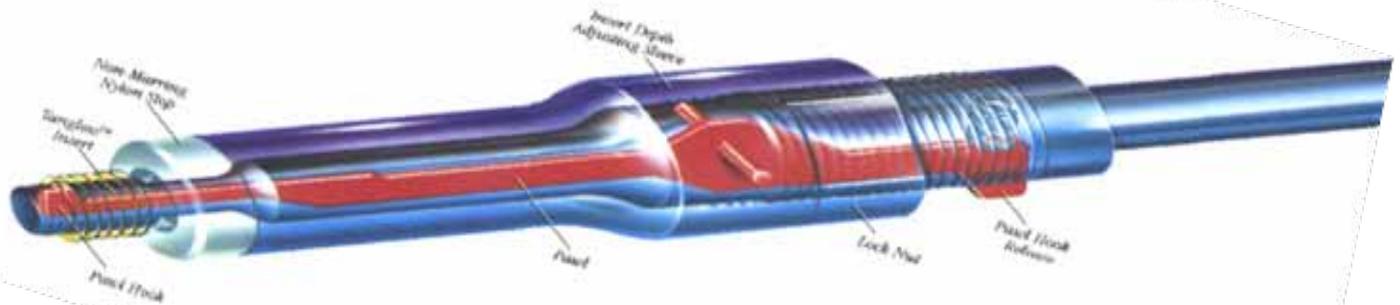
**END VIEW OF TOOL LEAVING INSTALLED INSERT**



Once the insert is driven to the proper depth, the installation tool automatically reverses rotation. The pawl slides back into the tool's recess as the mandrel unscrews from the installed insert.

### THE INSTALLATION PROCESS IS SIMPLE

1. Partially thread an insert into the tools mandrel.  
No need to orient the insert...they're bi-directional!
2. Align the insert with the tapped hole and press the trigger of the installation tool.



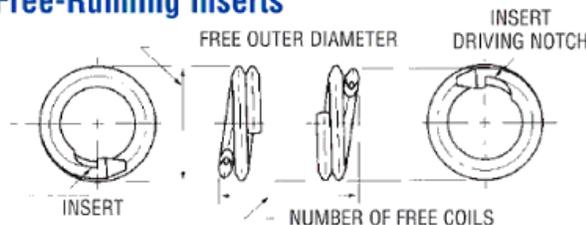
Here's where Tangless Wire Thread Screw Inserts stand out from all other Wire Thread Screw Inserts. Instead of a tang, these new inserts feature a unique, ramped driving notch on the inside diameter of the first coil on each end of the insert.

To drive the insert we developed an innovative installation tool with a patented, internal, spring loaded pawl located at the tip of the tool's mandrel. During installation, this hooked pawl locks into the insert Driving Notch and rotates the insert into the tapped hole. The pawl then retracts into the mandrel to allow the installed insert.

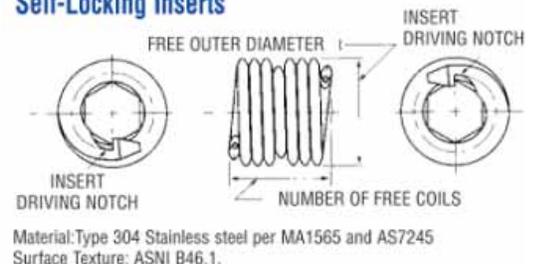


**Fasteners Solutions**  
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### Free-Running Inserts



### Self-Locking Inserts



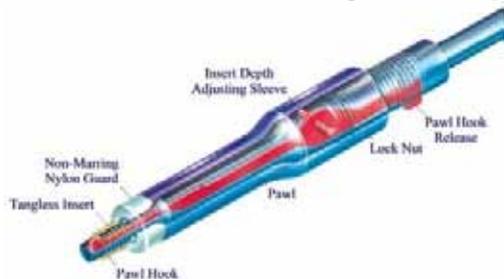
**Tang less wire inserts are made from 304 Stainless Steel per AS7245 and are available in three lengths : 1, 1-1/2 and diameters.**

- FOD-Free Design: No tangs to break off, retrieve ... or lose.
- Approved for use on military programs by NASM8846 and NAS1130.
- Cost Reduction: Significantly decreased installation and inspection time.
- Bi-directional design eliminates insert orientation requirements.
- Virtually no stress is induced into the parent material as no staking, swaging or keying In place is required.
- Screw-locking inserts provide a positive, self-locking torque complying with the of NASM8846.

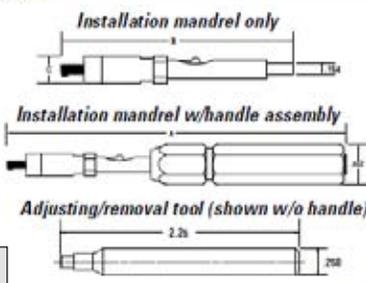


Nominal Thread size	Free Running Insert Order Part No.			Screw Locking Insert Order Part No.			Hand Installation Tool	Removal Tool (with handle)
	1 D	1.5 D	2 D	1 D	1.5 D	2 D		
<b>UNC SERIES</b>								
2 – 56	510232556C02086	510232556C02129	510232556C02172	511062556C02086	511062556C02129	511062556C02172	511070056C00002	511080056C00002
4 – 40	510232540C04112	510232540C04168	510232540C04224	511062540C04112	511062540C04168	511062540C04224	511070040C00004	511080040C00004
6 – 32	510232532C06138	510232532C06207	510232532C06276	511062532C06138	511062532C06207	511062532C06276	511070032C00006	511080032C00006
8 – 32	510232532C08164	510232532C08246	510232532C08328	511062532C08164	511062532C08246	511062532C08328	511070032C00008	511080032C00008
10 – 24	510232524C10190	510232524C10285	510232524C10380	511062524C10190	511062524C10285	511062524C10380	511070024C00010	511080024C00010
1/4 – 20	510232520C14250	510232520C14375	510232520C14500	511062520C14250	511062520C14375	511062520C14500	511070020C00014	511080020C00014
5/16 – 18	510232518C25312	510232518C25469	510232518C25625	511062518C25312	511062518C25469	511062518C25625	511070018C00516	511080018C00516
3/8 – 16	510232516C38375	510232516C38562	510232516C38750	511062516C38375	511062516C38562	511062516C38750	511070016C00038	511080016C00038
<b>UNF SERIES</b>								
10 – 32	510232532F10190	510232532F10285	510232532F10380	511062532F10190	511062532F10285	511062532F10380	511070032F00010	511080032F00010
1/4 – 28	510232528F14250	510232528F14375	510232528F14500	511062528F14250	511062528F14375	511062528F14500	511070028F00014	511080028F00014
5/16 – 24	510232524F25312	510232524F25469	510232524F25625	511062524F25312	511062524F25469	511062524F25625	511070024F00516	511080024F00516
3/8 – 24	510232524F38375	510232524F38562	510232524F38750	511062524F38375	511062524F38562	511062524F38750	511070024F00038	511080024F00038
<b>METRIC SERIES</b>								
M 2.5 – 0.45	510232504525025	510232504525375	510232504525005	511062504525025	511062504525375	511062504525005	511070004500025	511080004500025
M 3 – 0.5	510232005003005	510232005003450	510232005003006	511062005003005	511062005003450	511062005003006	511070005000003	511080005000003
M 4 – 0.7	510232507004004	510232507004006	510232507004008	511062507004004	511062507004006	511062507004008	511070007000004	511080007000004
M 5 – 0.8	510232508005005	510232508005750	5102325080050010	511062508005005	511062508005750	5110625080050010	511070008000005	511080008000005
M 6 – 1.0	510232510006006	510232510006009	510232510006012	511062510006006	511062510006009	511062510006012	511070010000006	511080010000006
M 8 – 1.25	510232512508008	510232512508012	510232512508016	511062512508008	511062512508012	511062512508016	511070012500008	511080012500008
M 10 – 1.5	510232515010010	510232515010015	510232515010020	511062515010010	511062515010015	511062515010020	511070015000010	511080015000010

**Tangless® inser be installed by hand or power tooling with the same mandrel assembly.**



- Tooling utilizes a “blade” that applies torque to a notch in the end of the coil for installation.
- Installation depth can be adjusted easily for virtually any application.
- Driving blades are replaceable and increase the overall life of the tool.



Nominal Thread size	Replacement Installation Blade Kit **	Nominal Thread size	Replacement Installation Blade Kit **	Nominal Thread size	Replacement Installation Blade Kit **
2 – 56	511090056C00002	10 – 32	511090032F00010	M 2.5 – 0.45	511090004500025
4 – 40	511090040C00004	1/4 – 28	511090028F00014	M 3 – 0.5	511090005000003
6 – 32	511090032C00006	5/16 – 24	511090024F00516	M 4 – 0.7	511090007000004
8 – 32	511090032C00008	3/8 – 24	511090024F00038	M 5 – 0.8	511090008000005
10 – 24	511090024C00010			M 6 – 1.0	511090010000006
1/4 – 20	511090020C00014			M 8 – 1.25	511090012500008
5/16 – 18	511090018C00516			M 10 – 1.5	511090015000010
3/8 – 16	511090016C00038				

\*\* Includes blade, spring and pin.



**Note: Installation mandrel and adjusting/ removal tool Designed for use with both handle and electronic tool.**

### Relevant Insert Standards

#### Military Specifications

NASM122076 thru NASM122275  
 NASM124651 thru NASM12444850  
 NASM21209  
 MS33537  
 NASM8846  
 NASM-STD-1312  
 AS 5272  
 MIL-L-46010  
 MIL-T-21309

#### Federal Specifications

FED-STD-H28  
 QQ-A-250  
 QQ-P-35  
 QQ-P-416  
 QQ-Z-325  
 TT-M-261  
 PP-H-1581

#### SAE Specification

MA1565  
 MA1567  
 MA3279 / MA3280 / MA3281  
 MA3329 / MA3330 / MA3331  
 AS 1370  
 AMS 2400  
 AMS 2402  
 AMS 2410  
 AMS 2411  
 AMS 2427  
 AMS 2460  
 AMS 2645

#### AECMA Specifications (European Aerospace Standards)

EN 2942  
 EN 2943  
 EN 2944  
 EN 2945  
 EN 3044  
 EN 3542

#### SBAC Specifications

AGS 3600  
 AGS 3700  
 AS 6733  
 AS 8455

#### LN Specifications

LN 9039  
 LN 9499

#### General Electric Specifications

GE C9F1  
 GE N926

#### DIN Specifications

DIN 8140

#### British Standard Specifications

BS 4377  
 BS 7751.1  
 BS 7751.2  
 BS 7752  
 BS 7753

#### Title

Insert, Corrosion Resistant, Helical Coil, Coarse Thread  
 Insert, Corrosion Resistant, Helical Coil, Fine Thread  
 Insert Screw Thread - Screw Locking  
 Insert - Standard Dimensions, Assembly  
 Inserts, Screw Thread, Helical Coil  
 Fastener, Test Methods  
 Lubricant, Solid Film, Heat Cured, Corrosion Inhibiting NATO Code No. S-1738  
 Lubricant, Solid Film, Heat Cures, Corrosion Inhibiting  
 Tools For Inserting and Extracting Helical Coil Inserts

#### Title

Screw Thread Standards for Federal Service  
 General Specifications for Aluminium and Aluminium Alloy, Plate and Sheet  
 Passivation Treatments for Corrosion Resisting Steel  
 Plating, Cadmium (Electrodeposited)  
 Plating, Zinc (Electrodeposited) - (Superseded by ASTM B633-85)  
 Methyl-Ethyl-Ketone (for use in organic coatings)  
 Shipment and storage of Packing for Hardware (fastener and related items) Packaging.

#### Title

Inserts, Metric Screw Thread, Procurement Specification  
 Inserts, metric, Standard Dimensions, Assembly  
 Inserts, Screw thread, Metric, Free-Running  
 Inserts, Screw Thread, Metric, Screw Locking  
 Aeospace Standard - Metric Screw Threads MJ Profile  
 Aerospace Material Standard for Cadmium Plating  
 Aerospace Material Standard for Zinc Plating  
 Electroplating Standard, Silver, Nickel Strike  
 Electroplating Standard - Silver, High Temperature Applications  
 Aluminium Plating, Ion Vapour Deposition  
 Magnetic Particle Inspection  
 Fluorescent Dye Penetrant Inspection

#### Title

Insert, Screw Thread, Self Locking, (Inco x 750) SilverPlated  
 Wire Thread Inserts, (self-locking), Technical Specification  
 Insert, Screw Thread, Self-Locking, Cres ( Z10-CN18-09), Unplated  
 Assembly with Self-Locking inserts  
 Installation of Self-Locking Thread inserts - Design Dimensions  
 Insert, Screw Thread, Self-Locking, (Inco x 750) Dry Film Lubricated.

#### Title

Insert, Screw thread, metric, screw locking, helical coil corrosion resistant steel  
 DTD 734 cadmium plated  
 Insert-screw thread, unified screw locking, helical coil, h.r. alloy BS HR 503 Source control drawing  
 UNF Unplated  
 UNF Cadmium plated

#### Title

Aerospace, wire thread inserts, assembly and special tools  
 Aerospace, wire thread inserts, screw locking, assembly and special tools

#### Title

Wire Insert  
 Stainless steel Wire Locking Inserts for temperatures up to 700 deg F

#### Title

Wire thread inserts for ISO metric screw threads - tapped holes for thread inserts thread tolerances.

#### Title

Tapping of holes to receive wire thread inserts (ISO metric threads)  
 Prevailing torque type wire thread inserts - Specifications for ISO metric course pitch threads  
 Prevailing torque type wire thread inserts - Specifications for ISO metric fine pitch threads  
 Free running type wire thread inserts - Specifications for ISO metric course pitch threads  
 Performance of prevailing torque wire thread inserts



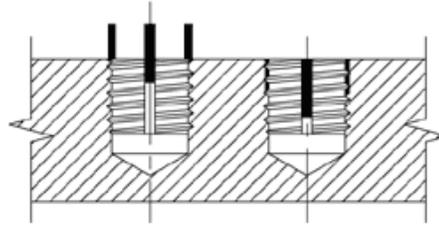
**Fasteners Solutions**  
 PASSION WITH VISION



Installation Tools

These solid-locking threaded inserts are ideal for thread reinforcement, especially when the mating stud or bolt will be removed frequently. They provide strong, permanent steel threads in any parent material – ferrous, non-ferrous, or non-metallic.

Solid inserts are also well suited for quick repair of stripped, damaged, or worm threads. A solid version is also available to use as a handy plug to relocate holes drilled or tapped on the wrong location. Solid inserts are available in carbon or stainless steel, bolt in inch and metric series. Thinwall, Heavy Duty, Extra heavy duty, and solid version styles are available separately. Installation tools are also available separately.



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**Features** : Install with standard drills and taps.  
**Important** : Use tap and drill specified in table.  
Tap-drill hole tolerance should be  $-.001/+0.004$   
( $-.001/+0.005$  above .500 dia).

Pull-out strength can be calculated approximately by following formula:

$$\text{Approximate pull-out strength} = \text{Shear engagement area of insert (see table)} \times \text{Minimum ultimate shear strength of parent material (psi)}$$

Locking keys are driven down into the parent material during installation. Providing a positive mechanical lock against rotation. Inserts with an ID thread 5/16 / 7mm and above have four locking keys. Smaller sizes have two.

### Installation Information



1. Drill out old threads using tap drill tap drill specified in table & Counter sink to diameter shown in table (Correct tap drill is slightly larger than standard for the thread size)



2. Tap new threads using standard tap.

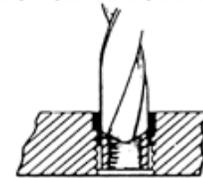


3. Screw in insert until body is slightly. (.010 to .030 inches) below the surface. Keys act as a depth stop.

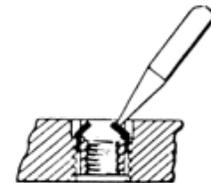


4. Driver keys down with several light hammer taps on installation tool (or directly on keys)

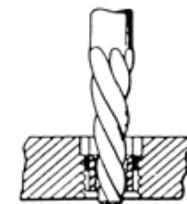
### Removal Information



1. Drill out locking keys with specified drill diameter and depth (see table).



2. Deflect keys inward and break off.



3. Remove insert with an E-Z out type tool.



4. Screw replacement into original holes. Parent material is totally undamaged.

**General-** purpose threaded inserts suitable for most applications. Available in USA ID-thread sizes from #10-24 to 1-1/2"-12 plus metric sizes from M5 to M24.

**Important:** Use tap drill specified in tables (slightly larger than standard for that thread size).



### HEAVY DUTY (AMERICAN NATIONAL FORM THREADS) UNF & UNC

Order Part No.	SOLID INSERTS DIMENSIONS			INSTALLATION DATA						REMOVAL DATA	
	Internal Thread Size	External Thread Size	Insert Length	Shear Engage. (SQ Inch)	Req'd tap drill	C'Sink Dia	Min. Thread Depth	Standard Tap UN-2B	Installation Tool Order Part No.	Drill Size	Drill Depth
680343024C10038	#10-24	3/8 - 16	0.31	.190	Q	3/8	3/8	3/8-16	310393000010038	9/32	1/8
680343032F10716	#10-32										
680343020C14716	1/4-20	7/16-14	0.37	.284	X	7/16	7/16	7/16-14	310393000014716	11/32	3/16
680343028F14716	1/4-28										
680343018C51612	5/16-18	1/2 - 13	0.43	.369	29/64	1/2	1/2	1/2-13	310393000516012	13/32	3/16
680343024F51612	5/16-24										
680343016C38916	3/8-16	9/16-12	0.50	.498	33/64	9/16	9/16	9/16-12	310393000038916	15/32	3/16
680343024F38916	3/8-24										
680343014C71658	7/16-14	5/8 - 11	0.62	.717	37/64	5/8	11/16	5/8-11	310393000716058	17/32	3/16
680343020F71658	7/16-20										
680343012C12034	1/2-13	3/4 - 16	0.62	1.067	45/64	3/4	11/16	3/4-16	310393000012034	21/32	3/16
680343020F12034	1/2-20										
680343012C91678	9/16-12	3/4 - 16	0.81	1.067	45/64	3/4	7/8	3/4-16	310393000916034	21/32	3/16
680343018F91634	9/16-18										
680343011C58078	5/8-11	7/8 - 14	0.87	1.487	53/64	7/8	1	7/8-14	310393000058078	25/32	3/16
680343018F58078	5/8-18										
680343010C34118	3/4-10	1.1/8-12	1.12	2.490	1.1/16	1.1/8	1.5/16	1.1/8-12	310393000034118	31/32	5/16
680343016F34118	3/4-16										
680343009C78114	7/8-9	1.1/4-12	1.25	3.137	1.3/16	1.1/4	1.7/16	1.1/4-12	310393000078114	1-3/32	5/16
680343014F78114	7/8-14										
680343008C01138	1-8	1.3/8-12	1.37	3.838	1.5/16	1.3/8	1.9/16	1.3/8-12	310393000001138	1-7/32	5/16
680343012F01138	1-12										
680343014F01138	1-14	1.1/2-12	1.62	4.752	1.7/16	1.1/2	1.11/16	1.1/2-12	310393000118112	1-11/32	5/16
680343007C27112	1.1/8-7										
680343012F27112	1.1/8-12	1.5/8-12	1.81	5.446	1.35/64	1.5/8	2	1.5/8-12	310393000114158	1-15/32	5/16
680343007C32158	1.1/4-7										
680343012F32158	1.1/4-12	1.7/8-12	2.00	7.103	1.51/64	1.7/8	2.3/16	1.7/8-12	310393000112178	1-23/32	5/16
680343006C38178	1.1/2-6										
680343012F38178	1.1/2-12										

### HEAVY DUTY METRIC SERIES

### Class 6H

680343008005008	M5-0.8	M8	10.0	.1626	"H"	.32	12.5	M8	310393000005008	5.5mm	4.00
680343010006010	M6-1.0	M10X1.25	12.0	.2754	"S"	.40	14.5	M10X1.25	310393000006010	7.5mm	4.75
680343012508012	M8-1.25	M12X1.25	14.0	.4134	27/64	.48	16.5	M12X1.25	310393000008012	9.5mm	4.75
680343010008012	M8-1.0										
680343015010014	M10-1.5	M14X1.5	16.0	.5295	1/2	.56	18.5	M14X1.5	310393000010014	11.5mm	4.75
680343012510014	M10-1.25										
680343017512016	M12-1.75	M16X1.5	18.0	.7288	37/64	.63	20.5	M16X1.5	310393000012016	13.5mm	4.75
680343012512016	M12-1.25										
680343020014020	M14-2.0	M20X1.5	20.0	1.0594	47/64	.80	22.5	M20X1.5	310393000014020	15.5mm	4.75
680343015014020	M14-1.5										
680343020016022	M16-2.0	M22X1.5	22.0	1.3900	13/16	.88	24.5	M22X1.5	310393000016022	17.5mm	6.35
680343015016022	M16-1.5										
680343025020030	M20-2.5	M30X2.0	30.0	2.750	1.7/64	1.19	34.5	M30X2.0	310393000020030	26mm	6.35
680343015020030	M20-1.5										
680343030024033	M24-3.0	M33X2.0	33.0	3.328	1.7/32	1.31	37.5	M33X2.0	310393000024033	29mm	6.35
680343020024033	M24-2.0										



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#### Technical Details:

- Material : Inserts – C1215 or equivalent  
Keys – 302 Stainless Steel
- Finish : Carbon Steel Inserts – Zinc Phosphate and Ferrocote  
364-3 Oil Stainless Steel Inserts – Passivated
- Tolerances :  $\pm 0.10$  inch or  $\pm 0.25$  mm unless specified otherwise.
- Dimensions : Inch sizes are in inch and Metric sizes are in millimeters.
- Keys : Inserts with internal thread size 5/16 or m7 and larger are furnished with 4 locking keys.

**Stainless steel version** of the solid inserts ,these inserts meet the indicated MS and NAS specifications.  
Stainless solid inserts are also available with internal-thread locking.This option uses a modified internal thread to keep the installed bolt or stud from rotating.



**Internal Thread Locking**

**Standard Heavy Duty**

## HEAVY DUTY (AMERICAN NATIONAL FORM THREADS) UNF & UNC

Order Part No.	SOLID INSERTS DIMENSIONS			INSTALLATION DATA						REMOVAL DATA	
	Internal Thread Size	External Thread Size	Insert Length	Shear Engage. (SQ Inch)	Req'd Tap Drill	C'Sink Dia	Min. Thread Depth	Standard Tap UN-2B	Installation Tool Order Part No.	Drill Size	Drill Depth
680342524C10038	#10-24	3/8 – 16	0.31	.190	Q	3/8	3/8	3/8-16	310393000010038	9/32	1/8
680342532F10716	#10-32										
680342520C14716	1/4-20	7/16-14	0.37	.284	X	7/16	7/16	7/16-14	310393000014716	11/32	3/16
680342528F14716	1/4-28										
680342518C51612	5/16-18	1/2 - 13	0.43	.369	29/64	1/2	1/2	1/2-13	310393000516012	13/32	3/16
680342524F51612	5/16-24										
680342516C38916	3/8-16	9/16-12	0.50	.498	33/64	9/16	9/16	9/16-12	310393000038916	15/32	3/16
680342524F38916	3/8-24										
680342514C71658	7/16-14	5/8 – 11	0.62	.717	37/64	5/8	11/16	5/8-11	310393000716058	17/32	3/16
680342520F71658	7/16-20										
680342512C12034	1/2-13	3/4 - 16	0.62	1.067	45/64	3/4	11/16	3/4-16	310393000012034	21/32	3/16
680342520F12034	1/2-20										
680342512C91678	9/16-12	3/4 - 16	0.81	1.067	45/64	3/4	7/8	3/4-16	310393000916034	21/32	3/16
680342518F91634	9/16-18										
680342511C58078	5/8-11	7/8 – 14	0.87	1.487	53/64	7/8	1	7/8-14	310393000058078	25/32	3/16
680342518F58078	5/8-18										
680342510C34118	3/4-10	1.1/8-12	1.12	2.490	1.1/16	1.1/8	1.5/16	1.1/8-12	310393000034118	31/32	5/16
680342516F34118	3/4-16										
680342509C78114	7/8-9	1.1/4-12	1.25	3.137	1.3/16	1.1/4	1.7/16	1.1/4-12	310393000078114	1-3/32	5/16
680342514F78114	7/8-14										
680342508C01138	1-8	1.3/8-12	1.37	3.838	1.5/16	1.3/8	1.9/16	1.3/8-12	310393000001138	1-7/32	5/16
680342512F01138	1-12										
<b>HEAVY DUTY METRIC SERIES Class 6H</b>											
680342508005008	M5-0.8	M8	10.0	.1626	"H"	.32	12.5	M8	310393000005008	5.5mm	4.00
680342510006010	M6-1.0	M10X1.25	12.0	.2754	"S"	.40	14.5	M10X1.25	310393000006010	7.5mm	4.75
680342512508012	M8-1.25	M12X1.25	14.0	.4134	27/64	.48	16.5	M12X1.25	310393000008012	9.5mm	4.75
680342510008012	M8-1.0										
680342515010014	M10-1.5	M14X1.5	16.0	.5295	1/2	.56	18.5	M14X1.5	310393000010014	11.5mm	4.75
680342512510014	M10-1.25										
680342517512016	M12-1.75	M16X1.5	18.0	.7288	37/64	.63	20.5	M16X1.5	310393000012016	13.5mm	4.75
680342512512016	M12-1.25										
680342520014020	M14-2.0	M20X1.5	20.0	1.0594	47/64	.80	22.5	M20X1.5	310393000014020	15.5mm	4.75
680342515014020	M14-1.5										
680342520016022	M16-2.0	M22X1.5	22.0	1.3900	13/16	.88	24.5	M22X1.5	310393000016022	17.5mm	6.35
680342515016022	M16-1.5										
680342525020030	M20-2.5	M30X2.0	30.0	2.750	1.7/64	1.19	34.5	M30X2.0	310393000020030	26mm	6.35
680342515020030	M20-1.5										
680342530024033	M24-3.0	M33X2.0	33.0	3.328	1.7/32	1.31	37.5	M33X2.0	310393000024033	29mm	6.35
680342520024033	M24-2.0										

### HEAVY DUTY – INTERNAL THREAD LOCKING (AMERICAN NATIONAL)

680352520C14716	1/4 - 20	7/16 – 14	.37	.1970	.397	.447	.43	7/16-14	310393000014716	11/32	3/16
680352518C51612	5/16 – 18	1/2 - 13	.43	.2608	.453	.510	.50	1/2-13	310393000516012	13/32	3/16
680352516C38916	3/8 – 16	9/16 – 12	.50	.3843	.516	.572	.56	9/16-12	310393000038916	15/32	3/16
680352513C12175	1/2 - 13	11/16 – 11	.68	.7368	.641	.700	.75	11/16-11NS	310393000012034	19/32	3/16
680352511C58078	5/8 – 11	7/8 – 14	.87	1.2415	.828	.885	1.00	7/8-14	310393000058078	25/32	3/16
680352510C34118	3/4 - 10	1-1/8 - 12	1.25	2.4478	1.062	1.145	1.31	1-1/8-12	310393000034118	31/32	5/16



**Fasteners Solutions**  
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### Technical Details:

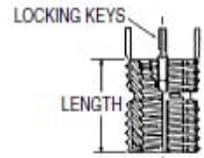
Material : Inserts – 303 Stainless Steel  
Keys – 302 Stainless Steel  
Finish : Stainless Steel Inserts – Passivated  
Tolerances : ± 0.10 inch or ± 0.25 mm unless specified otherwise.  
Dimensions : Inch sizes are in inch and Metric sizes are in millimeters.  
Keys : Inserts with internal thread size 5/16 or m7 and larger are furnished with 4 locking keys.

Thinwall solid inserts have smaller OD thread size than standard heavy – duty inserts ideal for tight spaces where less pull – out strength is acceptable. Solid inserts are ideal for thread reinforcement especially when the mating stud or bolt will be removed frequently. These stainless inserts provide strong, permanent stainless steel threads in any parent material, ferrous, non – ferrous, or non – metallic. Solid inserts are also well suited for quick repair of stripped, damaged or worm threads.

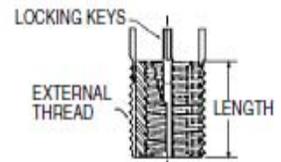
Locking keys positively prevent the insert from rotating.

Stainless solid inserts are optionally available with “Internal Thread Locking” which Uses a modified internal thread to prevent the installed bolt or stud from rotating. This feature is usefuk for one – time permanent installations.

Solid inserts are installed with standard drills and taps. Important : Use exactly the tap – drill size specified in the tables (slightly larger than the standard tap drill for that thread size). Locking keys are driven down into the parent materal during installation, providing a positive mechanical lock against rotation. See table for optional installtion tools.



**Internal Thread Locking**



**Standard Heavy Duty**

### THINWALL (AMERICAN NATIONAL FORM THREADS) UNF & UNC

Order Part No.	SOLID INSERTS DIMENSIONS			INSTALLATION DATA						REMOVAL DATA	
	Internal Thread Size	External Thread Size	Insert Length	Shear Engage. (SQ Inch)	Req'd Tap Drill	C'Sink Dia	Min. Thread Depth	Standard Tap UN-2B	Installation Tool Order Part No.	Drill Size	Drill Depth
680352524C10516	#10-24	5/16 – 18	0.31	.152	.272	.323	.37	5/16 - 18	310393000010038	7/32	5/32
680352532F10516	#10-32										
680352520C14038	1/4-20	3/8 - 16	0.37	.237	.332	.385	.43	3/8 - 16	310393000014716	9/32	3/16
680352528F14038	1/4-28										
680352518C51611	5/16-18	7/16 – 14	0.43	.305	.397	.447	.50	7/16 – 14	310393000516012	11/32	3/16
680352516C38012	3/8-16	1/2 - 13	0.50	.430	.453	.510	.56	1/2 – 13	310393000038916	13/32	3/16
680352513C12058	1/2 - 13	5/8 - 11	0.62	.718	.578	.635	.68	5/8 - 11	310393000012034	17/32	3/16

### THINWALL – INTERNAL THREAD LOCKING (AMERICAN NATIONAL THREADS)

680372524C10516	#10 – 24	5/16 – 18	0.31	.094	.272	.323	.37	5/16 – 18	310393000010516	7/32	5/32
680372520C14038	1/4 - 20	3/8 - 16	0.37	.173	.332	.385	.43	3/8 - 16	310393000014716	9/32	3/16
680372518C51611	5/16 – 18	7/16 – 14	0.43	.232	.397	.447	.50	7/16 – 14	310393000516012	11/32	3/16
680372516C38012	3/8 – 18	1/2 - 13	0.50	.337	.453	.510	.56	1/2 – 13	310393000038916	13/32	3/16
680372513C12058	1/2 - 13	5/8 - 11	0.62	.591	.578	.635	.68	5/8 - 11	310393000012034	17/32	3/16



#### Technical Details:

- Material : Inserts – 303 Stainless Steel  
Keys – 302 Stainless Steel
- Finish : Stainless Steel Inserts – Passivity
- Tolerances : ± 0.10 inch or ± 0.25 mm unless specified otherwise.
- Dimensions : Inch sizes are in inch and Metric sizes are in millimeters.
- Keys : Inserts with internal thread size 5/16 or m7 and larger are furnished with 4 locking keys.

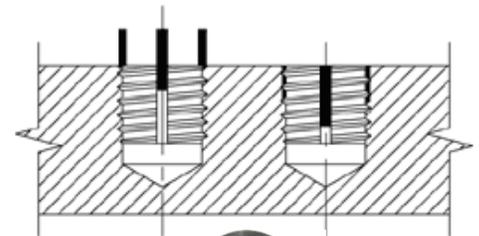


**SOLID**

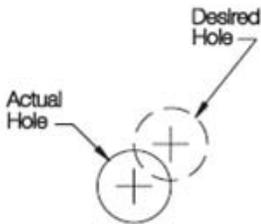
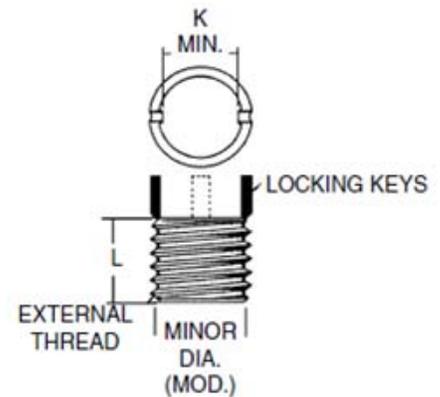
Solid Inserts are ideal for relocating a drilled or tapped hole. This threaded plug installs quickly, and the locking keys positively prevent the insert from rotating.

See technical information at the beginning of this section for complete installation steps. Solid Inserts are installed with standard drills and taps.

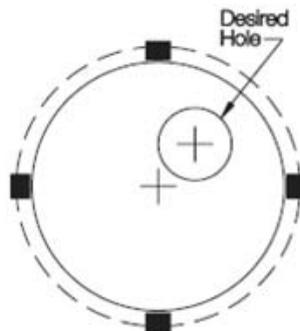
Important : Use exactly the tap-drill size specified in the tables (slightly larger than the standard tap drill for that parent material)ng installation, providing a positive mechanical lock against rotation. See tables for optional installation tools.



Installation Tools



Before Repair



After Repair

Order Part No.	SOLID INSERTS DIMENSIONS			INSTALLATION DATA						REMOVAL DATA	
	External Thread Size	Min. Dia K	Insert Length L	Shear Engage. (SQ Inch)	Req'd tap drill	C'Sink Dia	Min. Thread Depth	Standard Tap UN-2B	Installation Tool Order Part No.	Drill Size	Drill Depth
680383018C00516	5/16-18	.216	0.31	.152	I	.323	.37	5/16 - 18	310393000000516	7/32	1/8
680383016C00038	3/8-16	.285	0.31	.190	Q	.385	.37	3/8 - 16	310393000000038	9/32	1/8
680383014C00716	7/16 - 14	.341	0.37	.284	X	.447	.43	7/16 - 14	310393000000716	11/32	3/16
680383013C00012	1/2 - 13	.403	0.43	.359	29/64	.510	.50	1/2 - 13	310393000000012	13/32	3/16
680383012C00916	9/16 - 12	.465	0.50	.498	33/64	.572	.56	9/16 - 12	310393000000916	15/32	3/16
680383011C00058	5/8 - 11	.528	0.62	.717	37/64	.635	.68	5/8 - 11	310393000000058	17/32	3/16
680383011S01116	11/16-11- NS	.590	0.68	.888	41/64	.700	.75	11/16-11-NS	310393000001116	19/32	3/16
680383016C01316	13/16 - 16	.716	0.81	1.249	49/64	.822	.94	13/16 - 16	310393000001316	23/32	3/16
680383014C00078	7/8 - 14	.778	0.87	1.487	53/64	.885	1.00	7/8 - 14	310393000000078	25/32	3/16
680383012C00118	1-1/8 - 12	.970	1.12	2.490	1-1/16	1.145	1.31	1-1/8 - 12	310393000000118	31/32	5/16
680383012C00114	1-1/4 - 12	1.095	1.25	3.137	1-3/16	1.270	1.41	1-1/4 - 12	310393000000114	1-3/32	5/16
680383012C00138	1-3/8 - 12	1.220	1.37	3.838	1-5/16	1.395	1.56	1-3/8 - 12	310393000000138	1-7/32	5/16



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**Technical Details:**

- Material : Inserts – C1215 or equivalent  
Keys – 302 Stainless Steel
- Finish : Carbon Steel Inserts – Zinc Phosphate and Ferrocote 364-3 Oil  
Stainless Steel Inserts – Passivated
- Tolerances : ± 0.10 inch or ± 0.25 mm unless specified otherwise.
- Dimensions : Inch sizes are in inch and Metric sizes are in millimeters.
- Keys : Inserts with internal thread size 5/16 or m7 and larger are furnished with 4 locking keys.

# Screw Extractor set

( MADE IN U.S.A. By IRWIN )

This is a quality and professional screw removing tool set, with 5pcs. high-speed Left-Hand cobalt drill bits are designed for heavy duty drilling applications on hardened bolts & studs. Bits are manufactured with a high degree of hardness & heat resistance.



Part No. 20 42526 00011119

## Drill Extractor Basics – Remove screws & bolts in soft materials

1. Select correct drill size (see chart or check size stamped on drill extractor).
2. Set drill on reverse (always run left – handed drills in a counterclockwise rotation).
3. Drill a hole in the center of broken bolt & screw.
4. Using a tap wrench, turn the drill extractor COUNTERCLICKWISE

## Contents :

1. 5pcs. high-speed LEFT-HAND cobalt drill bits:  
5/64", 7/64", 5/32", 1/4", 19/64" included
2. 5pcs. extractors are covering most popular used screw size:  
No.1 M3-M4 (3/32"-5/32"),  
No.2 M4-M5 (5/32"-7/32"),  
No.3 M5-M7 (7/32"-9/32"),  
No.4 M7-M9 (9/32"-3/8"),  
No.5 M9-M15 (3/8"-5/8"),

## Features and benefits:

1. Designed to remove broken studs, bolts socket screws and fittings
2. Aggressive left hand spiral design for extra gripping power.
3. Spiral flutes are designed to embed themselves deeper into the metal as you turn the tool, so as the fastener resistance increases, the extractor's grip increases.
4. Extractor size and recommended drill bits size are etched on each tool.
5. You can use on stainless steel screws or other material.

Comes in metal index/ case

**CONTACT US: Shop # 27, Manohar Market, Peepal Mahadev Street, Hauz Qazi, Delhi-110 006 INDIA...**

**Ph.:- +91-11-23274568, +91-11-23242039, Fax :- +91-11-23274568**

**Cell No.:- + 91 9811150326 , + 91 9873250326**

**Email : [sales@pvfastener.com](mailto:sales@pvfastener.com), [pvent11@gmail.com](mailto:pvent11@gmail.com) URL : [www.pvfastener.com](http://www.pvfastener.com)**



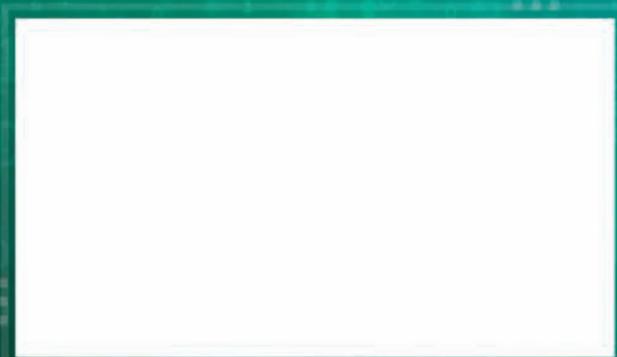
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