



METSERTS

KEY LOCKING THREAD INSERTS • SELF TAPPING SCREW INSERTS • WIRE THREAD SCREW INSERTS



a company of
LESJÖFORS
SPRINGS & PRESSINGS



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At Metrol, our innovative fastening systems have been successfully integrated into numerous applications across a wide array of industries across the globe. Not only are the fastening systems compliant with strict environmental standards, but they equally exemplify the high quality and excellent reliability of Metrol's products.

More specifically, our brand inserts are used for a diverse range of purposes within the aerospace and automotive industries.

In addition, Metrol prides itself on our powerful manufacturing capability which has meant that we are able to support every different component regardless of the prototyping or series production. Our automatic lathes, CNC lathes, CBC machining centres, stamping machines, and cold heading machines are part of what makes Metrol the epitome of manufacturing excellence.





Metrol's key locking threaded inserts are an incredibly innovative product, which can be utilised for quickly repairing damaged threads with newer and stronger ones. Moreover, these inserts are easy to install and remove, with no specialised drills or pre-winder tools being required. The keys are driven down into the threads of the surrounding base material, locking the insert securely in place.

Metrol's key locking inserts are the perfect solution to prevent threads from becoming damaged or stripped. This brilliant product has been used by mechanical and precision engineers, as well as in the aviation and aerospace sectors. Our key locking inserts are made from stainless steel 1.4305 / AISI 303, meaning that they are extremely durable and can withstand numerous loosening and tightening cycles without thread stripping. Furthermore, our key locking inserts can equally be used in light metal, steel, or cast iron applications, just another indication of their versatility. In addition, they can also be used as an easy and efficient replacement for damaged threads in expensive components. Fundamentally, our key locking inserts are easy to install, highly durable, and can eliminate rotation and vibration even in heavy duty applications.

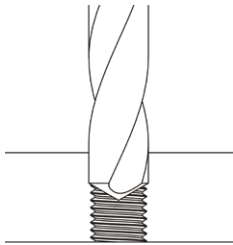
Metrol's heavy duty key inserts are suitable for nearly all applications and have the benefit of being fitted with a thick thread wall to withstand significant pressure. Metrol is proud to present this product as they are ideal for thread reinforcement, providing a strong and permanent solution to ferrous, non-ferrous, or non-metallic materials. Crucially, the locking keys prevent the insert from rotating and our inserts can provide an efficient repair solution for any stripped or damaged threads.

Features:

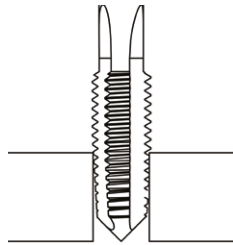
- Installed with standard drills and taps
- Easy installation and easy to remove
- May be used in a variety of materials: aluminium, magnesium, cold rolled steel
- Passivated to enhance corrosion-resistance and lifetime of the finish
- Counterbore internal thread on Inch Series; counter sunk internal thread on Metric Series

Key locking thread inserts are very easy to install and remove, the procedure is as follows:

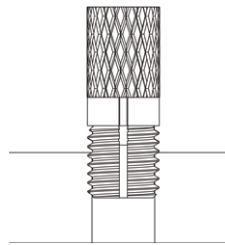
Installation



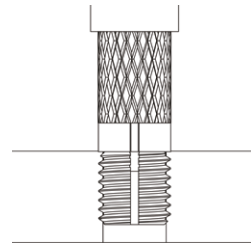
Drill out old threads with a standard drill. Note: Drill is oversized — see charts for proper dimensions.



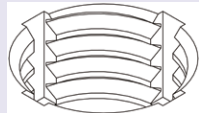
Tap new threads with a standard tap. See charts for proper size and depth.



Screw in the insert until slightly below surface.

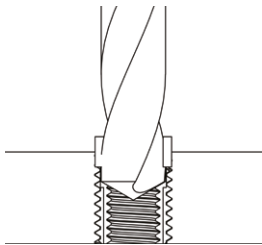


Drive keys down with several hammer taps on the proper installation tool.

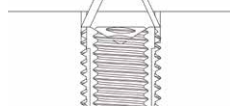


Tip: Chamfer the hole with a standard countersink (82°-100°).

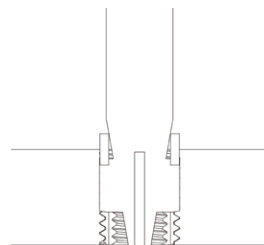
Removal



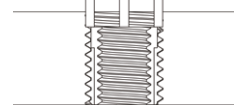
Drill out material between keys and internal thread.



Deflect keys inward and break off.



Remove insert using an E-Z OUT or similar type tool.



Same size replacement insert may be installed.

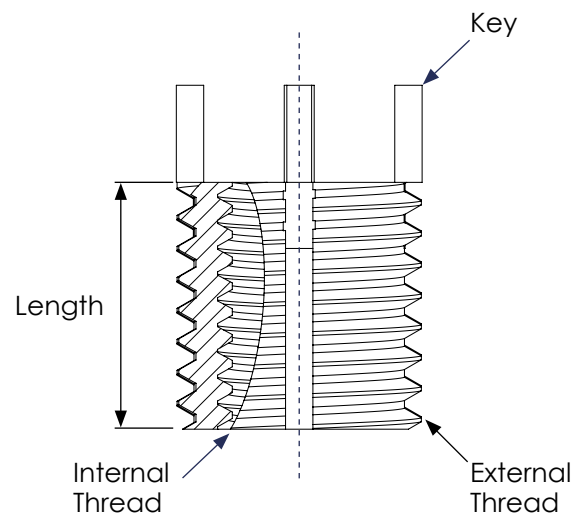
MATERIAL SPECIFICATIONS

Material:

- In Stainless Steel - 303 or equivalent
- Keys - 302 CRES or equivalent

Finish:

- Stainless Steel - Passivated



Models available:
Thin Wall - all units in mm unless otherwise specified

Insert				Installation					Removal	
METSERT Part No.	Internal Thread Class 6H	External Thread Class 6g	Length	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.25/- .00	Thread Tap		Drill	
							Size Class 6H	Min Depth	Size	Depth
METSERT2x0.4	M2x0.4	M4x0.7	3.0	METSERT-M2TOOL	3.4	4.1	M4x0.7	4.0	2.8	2.0
METSERT3x0.5	M3x0.5	M5x0.8	4.25	METSERT-M3TOOL	4.4	5.1	M5x0.8	5.5	3.5	2.25
METSERT4x0.7	M4x0.7	M6x0.75	5.25	METSERT-M4TOOL	5.5	6.1	M6x0.75	6.5	4.6	2.5
METSERT5x0.8	M5x0.8	M8x1.25	8.0	METSERT-M5TOOL	6.9	8.25	M8x1.25	9.5	5.5	4.0
METSERT6x1.0	M6x1.0	M10x1.25	10.0	METSERT-M6TOOL	8.8	10.25	M10x1.25	11.5	7.5	4.75
METSERT8x1.25	M8x1.25	M12x1.25	12.0	METSERT-M8TOOL	10.8	12.25	M12x1.25	13.5	9.5	4.75
METSERT10x1.5	M10x1.5	M14x1.5	14.0	METSERT-M10TOOL	12.8	14.25	M14x1.5	15.5	11.5	4.75
METSERT 12x1.75	M12x1.75	M16x1.5	16.0	METSERT-M12TOOL	14.75	16.25	M16x1.5	17.5	13.5	4.75

Heavy Duty - all units in mm unless otherwise specified

Insert				Installation					Removal	
METSERT Part No.	Internal Thread Class 6H	External Thread Class 6g	Length	Installation Tool Part No.	Tap Drill Size	C'Sink Diameter +.25/- .00	Thread Tap		Drill	
							Size Class 6H	Min Depth	Size	Depth
HD-METSERT4x0.7	M4x0.7	M8x1.25	8.0	HD-METSERT-M4TOOL	6.9	8.25	M8x1.25	9.5	5.5	4.0
HD-METSERT5x0.8	M5x0.8	M10x1.25	10.0	HD-METSERT-M5TOOL	8.8	10.25	M10x1.25	12.5	7.5	4.75
HD-METSERT6x1.0	M6x1.0	M12x1.25	12.0	HD-METSERT-M6TOOL	10.8	12.25	M12x1.25	14.5	9.5	4.75
HD-METSERT8x1.25	M8x1.25	M14x1.5	14.0	HD-METSERT-M8TOOL	12.8	14.25	M14x1.5	16.5	11.5	4.75
HD-METSERT10x1.5	M10x1.5	M16x1.5	16.0	HD-METSERT-M10TOOL	14.75	16.25	M16x1.5	18.5	13.5	4.75
HD-METSERT12x1.75	M12x1.75	M18x1.5	18.0	HD-METSERT-M12TOOL	16.75	18.25	M18x1.5	20.5	15.5	4.75
HD-METSERT14x2.0	M14x2.0	M20x1.5	20.0	HD-METSERT-M14TOOL	18.75	20.25	M20x1.5	22.5	17.5	4.75
HD-METSERT16x2.0	M16x2.0	M22x1.5	22.0	HD-METSERT-M16TOOL	20.50	22.25	M22x1.5	24.5	17.75	6.35
HD-METSERT18x1.5	M18x1.5	M24x1.5	24.0	HD-METSERT-M18TOOL	22.50	24.25	M24x1.5	26.5	19.75	6.35
HD-METSERT20x2.5	M20x2.5	M30x2.0	30.0	HD-METSERT-M20TOOL	28.00	30.25	M30x2.0	34.5	25.75	6.35
HD-METSERT22x1.5	M22x1.5	M32x2.0	32.0	HD-METSERT-M22TOOL	30.00	32.25	M32x2.0	36.5	27.75	6.35
HD-METSERT24x3.0	M24x3.0	M33x2.0	33.0	HD-METSERT-M24TOOL	31.00	33.25	M33x2.0	37.5	28.75	6.35

A wide range of Self Tapping Thread Inserts and Wire Thread Inserts also available upon request.



METROL

Metrol Springs Ltd specialises in the design and manufacture of **Gas Springs** and **Gas Struts**, offering technical support and stock market leading products including **Accuride Drawer Slides**, **Quality Hardware Components**, **Agathon Guiding Elements**, **TiMotion Linear Actuators** and **Porter Precision Punches**.

 **NITRO SPRINGS**
The engineers choice

GAS SPRINGS



NitroStruts

GAS STRUTS



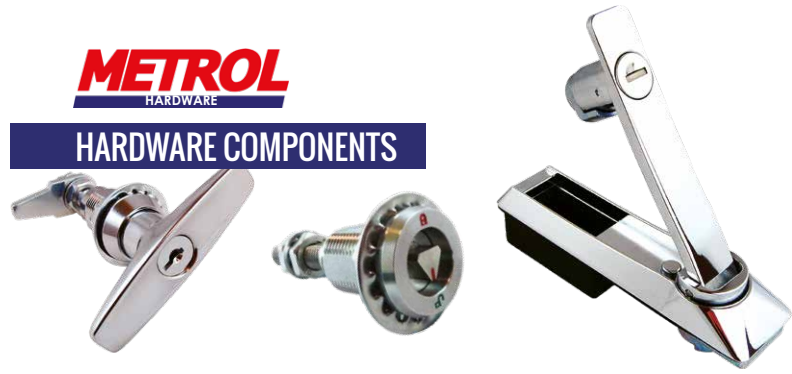
Accuride

DRAWER SLIDES



METROL
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HARDWARE COMPONENTS



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SAS
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3P

PRECISION PUNCHES



FOR MORE INFORMATION ON OUR PRODUCT RANGES CONTACT US ON: 01604 499 332