

## TOOLS FOR TANGED INSERTS

Both hand and power tools are available to install tanged inserts. The various tools to install Heli-Coil inserts are presented on the following pages.

For production runs, prototype work, salvage, and repair, hand inserting tools are available. For high volume production, power inserting tools are also available. Both types of tools are dimensioned (p.29 & 31) to aid determination of accessibility to the tapped hole.

Both hand and power inserting tools feature a threaded mandrel which engages the insert and provides a positive lead to guide the insert into the tapped hole easily and quickly.

Power inserting tools consist of an air motor, adapter and front end assembly. The front end assembly consists of a prewinder,

mandrel and 3 spacers (1 for each length of insert to be installed). The versatility and adaptability of Heli-Coil power inserting tools is shown on p. 32. The tool can be hand held, vertically or horizontally mounted, and adapted to both semi-automatic and fully automatic installation stations. Heli-Coil power inserting tools can be adapted to assembly stations, rotary tables and transfer lines.

All Heli-Coil tooling is backed by our extensive expertise and experience in virtually any application. All tools are fully warranted. In addition, our Application Engineering Department is always available to assist in installation techniques and special tooling (longer or shorter length tools, etc.). For very high production, Heli-Coil will provide for the successful development of automated installation systems.

## HAND INSTALLATION TOOLS

Heli-Coil manufactures various designs of hand inserting tools.

Generally, finer pitch inserts are proportionately larger in the free state than coarse pitch inserts and thus have to be "pre-wound" to a smaller diameter for installation.

Large coarse pitch inserts need only a threaded mandrel tool for installation.



**TYPE I  
Threaded Mandrel**  
Ideal for small production runs;  
for use with free running and  
screw locking inserts.



**TYPE II  
Prewinder**  
Prewinder reduces the diameter of the  
insert to that of the tapped hole allowing  
for easy installation.



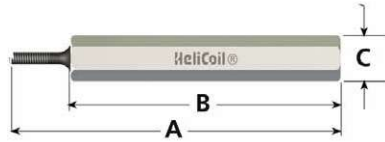
**TYPE III  
Threaded Mandrel**  
Inserts are wound onto the mandrel prior to  
installation; threads prevent any cross threading.



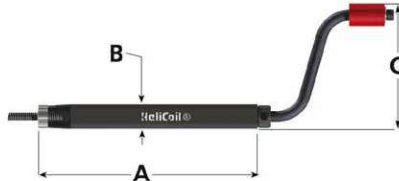
**TYPE IV  
Non-Captive Prewinder**  
Similar to Type III but includes a prewinder to  
facilitate insert installation process.

Nominal Thread Size	Hand Inserting Tools 3 Dia. Lengths thru 7/8 2 Dia. Lengths 1" & Up	Tool Type
<b>UNIFIED COARSE</b>		
1 (.073)-64	7551-01	IV
2 (.086)-56	551-02	I
3 (.099)-48	551-03	I
4 (.112)-40*	7551-04	II
5 (.125)-40	7551-05	II
6 (.138)-32	7551-06	II
8 (.164)-32*	7551-2	II
10 (.190)-24*	7551-3 (M)	II
12 (.216)-24	7551-1 (M)	II
1/4 (.2500)-20	7551-4 (M)	II
5/16 (.3125)-18	7551-5 (M)	II
3/8 (.3750)-16	7551-6 (M)	II
7/16 (.4375)-14	7551-7 (M)	II
1/2 (.5000)-13	7551-8 (M)	II
9/16 (.5625)-12	3724-9	III
5/8 (.6250)-11	3724-10	III
3/4 (.7500)-10	3724-12	III
7/8 (.8750)-9	3724-14	III
1 (1.0000)-8	3724-16	III
1-1/8 (1.1250)-7	3724-18	III
1-1/4 (1.2500)-7	3724-20	III
1-3/8 (1.3750)-6	3724-22	III
1-1/2 (1.5000)-6	3724-24	III

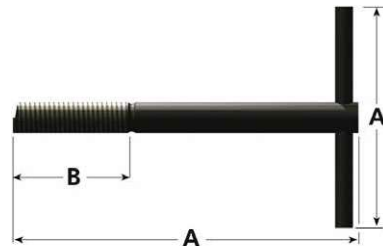
Nominal Thread Size	Hand Inserting Tools 3 Dia. Lengths thru 7/8 2 Dia. Lengths 1" & Up	Tool Type
<b>UNIFIED FINE</b>		
2 (.086)-64	7552-02	IV
3 (.099)-56	7552-03	II
4 (.112)-48	7552-04	II
6 (.138)-40	7552-06	II
8 (.164)-36	7552-2	II
10 (.190)-32	7552-3 (M)	II
1/4 (.2500)-28	7552-4 (M)	II
5/16 (.3125)-24	7552-5 (M)	II
3/8 (.3750)-24	7552-6 (M)	II
7/16 (.4375)-20	7552-7 (M)	II
1/2 (.5000)-20	7552-8 (M)	II
9/16 (.5625)-18	535-9	IV
5/8 (.6250)-18	535-10	IV
3/4 (.7500)-16	535-12	IV
7/8 (.8750)-14	535-14	IV
1 (1.0000)-14	535-16	IV
1 (1.0000)-12	535-161	IV
1-1/8 (1.1250)-12	535-18	IV
1-1/4 (1.2500)-12	535-20	IV
1-3/8 (1.3750)-12	535-22	IV
1-1/2 (1.5000)-12	535-24	IV



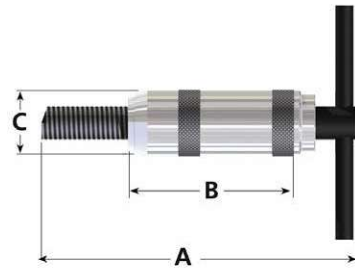
**TYPE I  
Threaded Mandrel**



**TYPE II  
Prewinder\***



**TYPE III  
Threaded Mandrel**



**TYPE IV  
Non-Captive Prewinder**

Nominal Thread Size	Hand Inserting Tools 3 Dia. Lengths thru M22 2 Dia. Lengths M24 & Up	Tool Type
<b>METRIC COARSE</b>		
M2x0.4	7751-2	IV
M2.2x0.45	7751-2.2	I
M2.5x0.45*	7751-2.5	II
M3x0.5*	7751-3	II
M3.5x0.6	7751-3.5	II
M4x0.7	7751-4	II
M5x0.8*	7751-5 (M)	II
M6x1	7751-6 (M)	II
M7x1	7751-7 (M)	II
M8x1.25	7751-8 (M)	II
M10x1.5	7751-10 (M)	II
M12x1.75	7751-12 (M)	II
M14x2	7751-14	IV
M16x2	7751-16	IV
M18x2.5	7751-18	III
M20x2.5	7751-20	IV
M22x2.5	7751-22	III
M24x3	7751-24	III
M27x3	7751-27	III
M30x3.5	7751-30	III
M33x3.5	7751-33	III
M36x4	7751-36	III
M39x4	7751-39	III

Nominal Thread Size	Hand Inserting Tools 3 Dia. Lengths thru M22 2 Dia. Lengths M24 & Up	Tool Type
<b>METRIC FINE</b>		
M8x1	7755-8	II
M10x1	7755-10	II
M10x1.25	7756-10	II
M12x1.25	7756-12	II
M12x1.5	7753-12	II
M14x1.5	7753-14	IV
M16x1.5	7753-16	IV
M18x1.5	7753-18	IV
M20x1.5	7753-20	IV
M22x1.5	7753-22	IV
M18x2	7754-18	IV
M20x2	7754-20	IV
M22x2	7754-22	IV
M24x2	7754-24	IV
M27x2	7754-27	IV
M30x2	7754-30	IV
M33x2	7754-33	IV
M36x2	7754-36	IV
M39x2	7754-39	IV
M36x3	7752-36	IV
M39x3	7752-39	IV

\* Special tools required to install Phosphor Bronze and Inconel X-750 inserts in these sizes. To order add "-9" to the part number shown.  
Note: Inserts marked with an "(M)" are available with a steel prewinder. For this option, specify when ordering (e.g., 7551-3M).

**HAND INSERTING TOOL DIMENSIONS**

INCH	METRIC	A	B	C	INCH	METRIC	A	B	C	INCH	METRIC	A	B	C
<b>TYPE I - Coarse &amp; Fine</b>					<b>TYPE II - Coarse &amp; Fine (continued)</b>					<b>TYPE IV - Coarse &amp; Fine*</b>				
2	M2.2	2-7/16	2	5/16	7/16"	M10 & 11	5-1/4	25/32	3-23/32	9/16"	M14*	5-3/8	2-7/8	1-1/8
3		6	3	5/8	1/2"	M12	5-1/2	7/8	3-23/32	5/8"	M16*	5-3/8	2-7/8	1-1/8
<b>TYPE II - Coarse &amp; Fine</b>					<b>TYPE III - Coarse</b>					3/4"	M18	6	2-7/8	1-1/2
4	M2.5	4-5/8	3/8	2-9/32	9/16"		4-7/8	1-13/16	4	7/8"	M20	6-3/8	2-7/8	1-1/2
5	M3	4-5/8	3/8	2-9/32	5/8"		4-7/8	2	4	1-14"	M22	5-7/8	2-7/8	1-5/8
6	M3.5	4-5/8	3/8	2-9/32	3/4"	M18	4-7/8	2-3/8	4	1-12"	M24	5-7/8	2-7/8	1-5/8
8	M4	4-5/8	3/8	2-9/32	7/8"	M20	4-7/8	2-3/4	4-1/2	1-1/8"	M30	6-5/16	3-1/16	2
10	M5	4-5/8	15/32	2-9/32	1"	M24	4-7/8	2-1/8	4-1/2	1-1/4"	M33	6-13/16	3-5/16	2
12		4-5/8	33/64	2-17/32	1-1/8"	M30	6-3/4	2-1/2	6	1-3/8"	M36	7-5/16	3-9/16	2-1/4
1/4"	M6	4-5/8	33/64	2-17/32	1-1/4"	M33	6-3/4	2-3/4	6	1-1/2"	M39	7-13/16	3-13/16	2-1/4
5/16"		4-5/8	5/8	3-23/32	1-3/8"	M36	6-3/4	3	6	1-64	M2	2-5/8	3/4	7/16
3/8"	M7 & 8	5	45/64	3-23/32	1-1/2"	M39	6-3/4	3-1/4	6	* M14 & M16 Coarse are Type IV Tools. For metric sizes not shown, see next largest size.				

# HeliCoil® Tanged Power Installation Tools – Inch

Heli-Coil power tools are available in Inch and Metric sizes #2 (M2.2) thru 1/2" \* (M12) for rapid installation of Heli-Coil inserts. Power tools consist of a **Front End Assembly**, an **Adapter** and a reversible **Air Motor**. All three components are ordered separately.

A Front End Assembly consists of a prewinder, mandrel and spacers. Select the adapter that corresponds with the insert size being used. Power tools for strip feed inserts are available in sizes #2 (M2.2) through 5/16" (M6).

Nominal Thread Size	FRONT END ASSEMBLY		PREWINDERS		MANDRELS	SPACERS			
	P/N for Bulk Inserts (2 dia. max.)	P/N for Strip Feed Inserts	P/N for Bulk Inserts	P/N for Strip Feed Inserts		1 Dia.	1-1/2 Dia.	2 Dia.	
<b>UNIFIED COARSE THREAD (UNC)</b>									
Small Adapter	2 (.086)-56		8551-02-15		8557-02-15	8553-02	8559-02	8560-02	8561-02
	4 (.112)-40		8551-04-15		8557-04-15	8553-04	8559-04	8560-04	8561
	5 (.125)-40		8551-05-15		8557-05-15	8553-05	8559-05	8560-05	8561
	6 (.138)-32		8551-06-15		8557-06-15	8553-06	8559-06	8560-06	8561
	8 (.164)-32		8551-2-15		8557-2-15	8553-2	8559-2	8560-2	8561
	10 (.190)-24		8551-3-15		8557-3-15	8553-3	8559-3	8560-3	8561
	1/4 (.2500)-20		8551-4-15		8557-4-15	8553-4	8559-4	8560-4	8561
Large Adapter	5/16 (.3125)-18		8251-5-15		8257-5-15	8253-5	8259-5-10	8259-5-15	
	3/8 (.3750)-16	8251-6		8257-6		8253-6	8259-6-10	8259-6-15	NONE
	7/16 (.4375)-14	8251-7		8257-7		8253-7	8259-7-10	8259-7-15	REQ'D
	1/2 (.5000)-13	8251-8		8257-8		8253-8	8259-8-10	8259-8-15	
<b>UNIFIED FINE THREAD (UNF)</b>									
Small Adapter	6 (.138)-40		8552-06-15		8558-06-15	8554-06	8559-06	8560-06	8561
	10 (.190)-32		8552-3-15		8558-3-15	8554-3	8559-3	8560-3	8561
	1/4 (.2500)-28		8552-4-15		8558-4-15	8554-4	8559-4	8560-4	8561
Large Adapter	5/16 (.3125)-24		8252-5-15		8258-5-15	8254-5	8259-5-10	8259-5-15	
	3/8 (.3750)-24	8252-6		8258-6		8254-6	8259-6-10	8259-6-15	NONE
	7/16 (.4375)-20	8252-7		8258-7		8254-7	8259-7-10	8259-7-15	REQ'D
	1/2 (.5000)-20	8252-8		8258-8		8254-8	8259-8-10	8259-8-15	

\*Tools for larger sizes or special applications are available upon request.

## Pneumatic Power Tool



**Complete Power Tool (Assembled)**  
(All parts are ordered separately)



**Air Motor 8510-1**



**Small 8550R**  
(Sizes < 1/4")



**Large 8550-1R**  
(Sizes > 1/4")

### ADAPTERS

### FRONT END ASSEMBLY



**Prewinder**



**Spacers**



**Mandrel**



Power Tool Holder, Part No. 23537, can be used with or without Strip Feed inserts (with the exception of 2-56 which is used only on strip).

Note: Recommended for use with 2-56, M2.2x0.45 & M2.5x0.45 power tool.

# Tanged Power Installation Tools – Metric **HeliCoil**<sup>®</sup>

Heli-Coil metric power inserting tools are available in coarse and fine sizes up to 12mm\* for rapid installation of standard and screw-lock inserts, substantially reducing assembly costs. Strip feed power tools are available in sizes up to 7mm. They speed up assembly, eliminate waste and permit an accurate count.

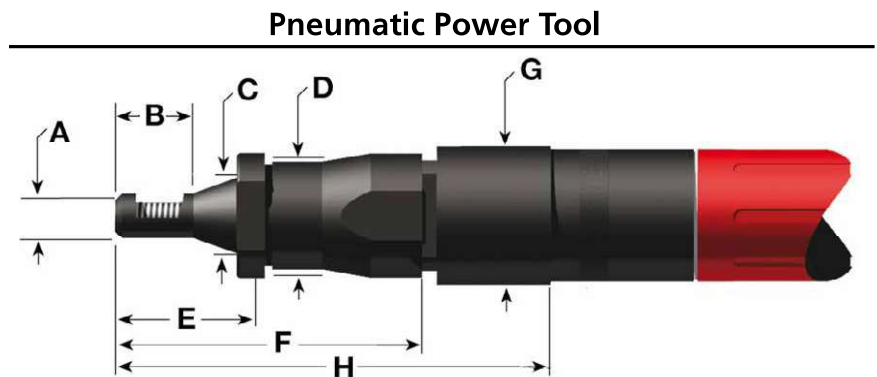
Power tools consist of a **Front End Assembly**, an **Adapter** and a reversible **Air Motor**. All three components are ordered individually. A front end assembly consists of a prewinder, mandrel and spacers. Select an Adapter that is compatible with the insert size to be used, and for the size range up thru 6mm or the size range 7mm thru 12mm.

	Nominal Thread Size	FRONT END ASSEMBLY		PREWINDERS		MANDRELS	SPACERS		
		P/N for Bulk Inserts (2 dia. max.)	P/N for Strip Feed Inserts	P/N for Bulk Inserts	P/N for Strip Feed Inserts		1 Dia.	1-1/2 Dia.	2 Dia.
<b>METRIC COARSE</b>									
Small Adapter	M2.2x0.45		8751-2.2-15		8769-2.2-15	8757-2.2	8775-2.2	8776-2.2	8777-2.2
	M2.5x0.45		8751-2.5-15		8769-2.5-15	8757-2.5	8775-2.5	8776-2.5	8777
	M3x0.5		8751-3-15		8769-3-15	8757-3	8775-3	8776-3	8777
	M3.5x0.6		8751-3.5-15		8769-3.5-15	8757-3.5	8775-3.5	8776-3.5	8777
	M4x0.7		8751-4-15		8769-4-15	8757-4	8775-4	8776-4	8777
	M5x0.8		8751-5-15		8769-5-15	8757-5	8775-5	8776-5	8777
Large Adapter	M6x1		8751-6-15		8769-6-15	8757-6	8775-6	8776-6	8777
	M7x1		8751-7-15		8769-7-15	8757-7	8777-7-10	8777-7-15	
	M8x1.25					8757-8	8777-8-10	8777-8-15	NONE
	M10x1.5	8751-10		8769-10		8757-10	8777-10-10	8777-10-15	REQ'D
	M12x1.75	8751-12		8769-12		8757-12	8777-12-10	8777-12-15	
<b>METRIC FINE</b>									
Large Adapter	M8x1	8755-8		8770-8		8764-8	8777-8-10	8777-8-15	
	M10x1	8755-10		8770-10		8764-10	8777-10-10	8777-10-15	NONE
	M10x1.25	8756-10		8758-10		8759-10	8777-10-10	8777-10-15	REQ'D
	M12x1.25	8756-12		8758-12		8759-12	8777-12-10	8777-12-15	
	M12x1.5	8753-12		8773-12		8774-12	8777-12-10	8777-12-15	

\* Tools for larger sizes or special applications are available upon request.

For evaluating space required for installing Heli-Coil inserts with standard manual, pneumatic and electronic inserting tools and tang break-off tools, the diagrams on p. 29 & 31 give dimensions of standard Heli-Coil tooling.

For special variations or adaptations, contact our Applications Engineers at (866) 364-2781.



## PNEUMATIC POWER TOOL DIMENSIONS

SIZE		A	B	A	B	C	D	E	F	G	H
INCH	METRIC	FOR BULK INSERTS		FOR STRIP FEED INSERTS							
2	M2.2			5/16	7/16	23/32	1-1/8	1-3/8	3-3/16	1-1/4	4-7/16
4	M2.5			3/8	15/16	23/32	1-1/8	1-3/8	3-3/16	1-1/4	4-7/16
5	M3			3/8	15/16	23/32	1-1/8	1-3/8	3-3/16	1-1/4	4-7/16
6	M3.5			1/2	15/16	23/32	1-1/8	1-3/8	3-3/16	1-1/4	4-7/16
8	M4			1/2	15/16	23/32	1-1/8	1-3/8	3-3/16	1-1/4	4-7/16
10	M5			1/2	15/16	23/32	1-1/8	1-3/8	3-3/16	1-1/4	4-7/16
1/4"	M6			5/8	1-3/8	23/32	1-1/8	1-3/8	3-3/16	1-1/4	4-7/16
5/16"	M7 & M8			11/16	1-1/8	1"	1-9/16	1-3/8	4-7/16	1-1/4	5-3/4
3/8"		11/16	1-11/32			1"	1-9/16	1-7/8	4-3/4	1-1/4	6-1/32
7/16"	M10	3/4	1-17/32			1"	1-9/16	2-1/4	5-1/8	1-1/4	6-13/32
1/2"	M12	13/16	1-25/32			1"	1-9/16	1-1/2	5-13/32	1-1/4	6-11/16

# HeliCoil® Tanged Power Installation Tools

## Electronic Power Installation Tool

Heli-Coil offers an electronic power tool where electric power is preferred over air. The slender configuration of the mandrels allows them to reach into constricted areas. Electric power meets the requirements of clean room operations. Operators prefer electric power because it is quieter. The electronic tool is lighter to minimize operator fatigue. Mandrel assemblies are available to install the sizes of Heli-Coil inserts listed in the chart.

*Application Note: Variations in Mandrel Assembly dimensions and threads are available on a special order basis. Please contact Heli-Coil Applications Engineering Department at (866) 364-2781 to discuss your application.*

### Electronic Tool Mandrel Assembly

Insert Thread Size (UNC)	Mandrel Assembly (for bulk inserts)
2 (.086)-56	8051-02
4 (.112)-40	8051-04
6 (.138)-32	8051-06
8 (.164)-32	8051-2
10 (.190)-24	8051-3
10 (.190)-32	10089-3
1/4-20	8051-4

*Note: Only available in inch. 10-32 and 1/4-20 require larger driver (P/N 8050-650C).*



## Pneumatic Power Tool Installation Kit

This Heli-Coil power tool installation kit (8522) contains an Air Motor (8510-1), adapter, tools, a filter-regulator-lubricator, oil, two quick disconnect fittings, and wrenches. All are packed in a portable molded box with easy-to-follow operating instructions. Front End Assemblies may be ordered separately to fit the sizes of Heli-Coil inserts to be installed.

Power Tools Kit Types	Kit Part#	Small Adapter	Large Adapter
Small Adapter Set	8522	✓	
Large Adapter Set	8521		✓
Combination Set	8520	✓	✓

## Cordless Electronic Tool

The Heli-Coil Cordless Tool is a complete kit (7200) that includes a driver, 2 batteries (7200-20) and mandrel chuck all in a durable metal box. The cordless tool is portable, lightweight, has adjustable torque and uses standard Heli-Coil electronic tool installation mandrels for quick setup.



## Power Tool Holder

The Power Tool Holder 23537 is mounted on a bench and the appropriate air motor is attached to a movable arm. A mounting arm is also provided for attaching reels of strip-feed inserts.

This configuration ensures accurate vertical (square to work surface) installations of Heli-Coil inserts in relatively large parts. The tool holder is capable of installing inserts within a radius of 26 inches as well as on multiple planes.



**Note:** Recommended for use with the 2-56, M2.2x0.45 and M2.5x0.45 air tools. It also may be used with the Heli-Coil Electronic Inserting Tool.

## Heli-Coil Tang Break-Off Tools

The driving tangs of Heli-Coil tanged inserts must be removed to eliminate their interference with the end of the assembled bolt.

Heli-Coil tang break-off tools are available for use with inserts through 1/2 inch and 12mm metric nominal diameter. Their operation is automatic, having a spring loaded, easily triggered punch that strikes a sharp, uniform blow against the tang of the installed insert. The tool can be operated with one hand.



Nominal Thread Size	Tool Part No.	Replacement Punch Part No.	Nominal Thread Size	Tool Part No.	Replacement Punch Part No.
<b>UNIFIED COARSE THREAD (UNC)</b>			<b>METRIC COARSE</b>		
1 (.073)-64	3695-01	3697-01	M2x0.4	4238-2	3697-01
2 (.086)-56	3695-02	3697-02	M2.2x0.45	4238-2.2	3697-02
3 (.099)-48	3695-02	3697-02	M2.5x0.45	4238-2.2	3697-02
4 (.112)-40	3695-04	3697-04	M3x0.5	4238-3	3697-04
5 (.125)-40	3695-04	3697-04	M3.5x0.6	4238-3	3697-04
6 (.138)-32	3695-06	3697-06	M4x0.7	4238-4	3697-2
8 (.164)-32	3695-2	3697-2	M5x0.8	4238-5	3697-3
10 (.190)-24	3695-3	3697-3	M6x1	4238-6	3697-4
12 (.216)-24	3695-3	3697-3	M7x1	4238-7	4436-7
1/4 (.2500)-20	3695-4	3697-4	M8x1.25	4238-8	3643-5
5/16 (.3125)-18	3695-5	3643-5	M10x1.25	4238-10	4436-10
3/8 (.3750)-16	3695-6	3643-6	M12x1.75	4238-12	4436-12
7/16 (.4375)-14	3695-7	3643-7	<b>METRIC FINE</b>		
1/2 (.5000)-13	3695-8	3643-8	M8x1	4238-8	3643-5
<b>UNIFIED FINE THREAD (UNF)</b>			M10x1	4238-10	4436-10
2 (.086)-64	3695-02	3697-02	M10x1.25	4238-10	4436-10
3 (.099)-56	3695-02	3697-02	M12x1.25	4238-12	4436-12
4 (.112)-48	3695-04	3697-04	M12x1.5	4238-12	4436-12
6 (.138)-40	3695-06	3697-06	<p><b>Note:</b> Tang break-off tools will break-off tangs thru 2 diameter lengths.</p> <p>For sizes larger than 1/2" or 12mm, use long nose pliers. Bend tang up and down to snap off at notch.</p>		
8 (.164)-36	3695-2	3697-2			
10 (.190)-32	3695-3	3697-3			
1/4 (.2500)-28	3695-4	3697-4			
5/16 (.3125)-24	3692-5	3645-5			
3/8 (.3750)-24	3692-6	3645-6			
7/16 (.4375)-20	3692-7	3645-7			
1/2 (.5000)-20	3692-8	3645-8			

## Heli-Coil Extracting Tools

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

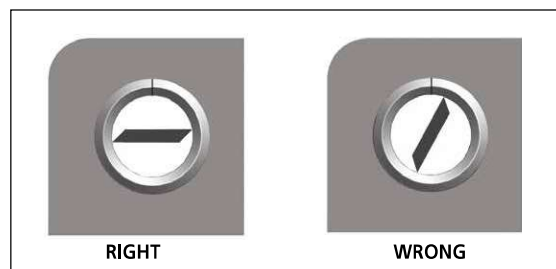


Strike the head of the tool with a light blow. Maintaining a steady pressure of blade against insert, turn the extracting tool counterclockwise until the insert is removed.

Right & wrong blade positions of insert extracting tool.

Nominal Thread Size		Extracting Tool Part No.
Inch	Metric	
1	M2	1227-01
2	M2.2	1227-02
3 thru #8	M2.5 thru M4	1227-06
10 thru 3/8"	M5 thru M10	1227-6
7/16" thru 1"	M11 thru M24	1227-16
1-1/8" thru 1-1/2"	M27 thru M39	1227-24

### Top View Shown



## Tangless Installation Tools

### Power Tool - Pneumatic

#### Complete Power Tool

For rapid installation of Heli-Coil inserts. A range of front end assemblies are available for use with the power tool, to suit both bulk and strip feed inserts.

Component parts sold separately:

Adapter, Sm (<1/4") 8550R

Adapter, Lg (>1/4") 8550-1R



8510-1

### Power Tool - Electronic

#### Electronic Power Inserting Tool

A quieter, lighter Installation Tool - especially suitable for clean room operations. The slender configuration of the gage style mandrel allows easy access to constricted areas.



8050-50

8050-400C  
8050-650C

## Tangless® Hand Installation Tooling

Nominal Thread Size	Hand Installation Tool Crank Style Gage Style†	Replacement Installation Blade Kit** Crank Style Gage Style	Removal Tool (with handles)	Electronic Driver*
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### UNIFIED COARSE THREAD (UNC)

2-56	17551-02	7571-02B	17551-02-5	7571-02-5	7570-02	8050-400C	18551-02-15	18551-02-30	18551-02-2
4-40	17551-04	7571-04B	17551-04-5	7571-04-5	7570-04	8050-400C	18551-04-15	18551-04-30	18551-04-2
6-32	17551-06	7571-06B	17551-06-5	7571-06-5	7570-06	8050-400C	18551-06-15	18551-06-30	18551-06-2
8-32	17551-2	7571-2B	17551-2-5	7571-2-5	7570-2	8050-400C	18551-2-15	18551-2-30	18551-2-2
10-24	17551-3	7571-3B	17551-3-5	7571-3-5	7570-3	8050-650C	18551-3-15	18551-3-30	18551-3-2
1/4-20	17551-4	7571-4B	17551-4-5	7571-4-5	7570-4	8050-650C	18551-4-15	18551-4-30	18551-4-2

### UNIFIED FINE THREAD (UNF)

10-32	17552-3	7572-3B ††	17552-3-5	7572-3-5	7560-3	8050-650C	18552-3-15	18552-3-30	18552-3-2
1/4-28	17552-4	N/A	17552-4-5	N/A	7560-4	8050-650C	18552-4-15	18552-4-30	18552-4-2

\* An electronic driver requires a power supply, part number 8050-50.

\*\* Includes blade, spring and pin.

† Gage style tools must be used with electronic tool. Handle must be removed prior to use with electronic or battery operated drivers.

†† 10-32 gage style tool not recommended for use with electronic driver.

## Tangless® Power Tooling

Nominal Thread Size	Hand Installation Tool Crank Style Gage Style†	Replacement Installation Blade Kit** Crank Style Gage Style	Removal Tool (with handles)	Electronic Driver*	Front End Assembly	Replacement Mandrel Assembly	Replacement Blade
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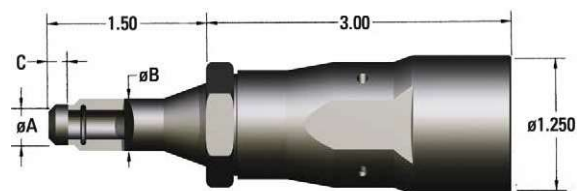
### Front End Assembly Dimensions

Nominal Thread Size	A Nose Diameter	B Body Diameter	C Prewinder Tip Length
2-56	.32	.32	.09
4-40	.25	.40	.13
6-32	.32	.50	.14
8-32	.35	.51	.15
10-24	.38	.51	.19
1/4-20	.42	.63	.22
10-32	.38	.51	.15
1/4-28	.42	.63	.22

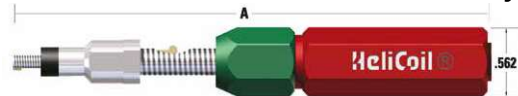
### Installation Tool Dimensions

Nominal Thread Size	A Overall Length (reference)	B Mandrel Length	C Spinner Diameter
2-56	5.33	2.80	.240
4-40	5.43	2.90	.240
6-32	5.53	3.00	.360
8-32	5.68	3.15	.360
10-24	5.53	3.00	.370
1/4-20	5.53	3.00	.370
10-32	5.53	3.00	.370
1/4-28	5.53	3.00	.370

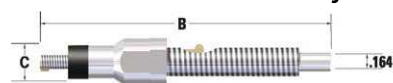
### Front End Assembly



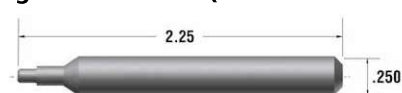
#### Installation mandrel w/handle assembly



#### Installation mandrel only



#### Adjusting/removal tool (shown w/o handle)



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

## Hand Tools

Range includes Prewinder for finer pitch inserts and Threaded Mandrel tools for coarse pitch inserts.



## Taps & Gages

Taps and gages are key to ensuring accurate insert installation.



## Tangless® Hand Installation Tooling

## Tangless® Power Tooling

Nominal Thread Size	Hand Installation Tool		Replacement Installation Blade Kit**		Removal Tool (with handles)	Electronic Driver	Front End Assembly	Replacement Mandrel Assembly	Replacement Blade
	Crank Style	Gage Style(†)	Crank Style	Gage Style					
<b>METRIC FREE RUNNING</b>									
M2.5x0.45	17751-2.5	7587-2.5	17743-2.5	7587-2.5-2	7595-2.5	8050-400C	38751-2.5-15	38751-2.5-30	38757-2.5
M3x0.5	17751-3	7587-3	17743-3	7587-3-2	7595-3	8050-400C	38751-3-15	38751-3-30	38757-3
M4x0.7	17751-4	7587-4	17743-4	7587-4-2	7595-4	8050-400C	38751-4-15	38751-4-30	38757-4
M5x0.8	17751-5	7587-5	17743-5	7587-5-2	7595-5	8050-400C	38751-5-15	38751-5-30	38757-5
M6x1.0	17751-6	7587-6	17743-6	7587-6-2	7595-6	8050-400C	38751-6-15	38751-6-30	38757-6

## METRIC SCREW-LOCKING

M2.5x0.45	17751-2.5	7587-2.5S	17743-2.5	7587-2.5-2	7595-2.5	8050-400C	38751-2.5-15	38751-2.5-30	38757-2.5
M3x0.5	17751-3	7587-3S	17743-3	7587-3-2	7595-3	8050-400C	38751-3-15	38751-3-30	38757-3
M4x0.7	17751-4	7587-4S	17743-4	7587-4-2	7595-4	8050-400C	38751-4-15	38751-4-30	38757-4
M5x0.8	17751-5	7587-5S	17743-5	7587-5-2	7595-5	8050-400C	38751-5-15	38751-5-30	38757-5
M6x1.0	17751-6	7587-6S	17743-6	7587-6-2	7595-6	8050-400C	38751-6-15	38751-6-30	38757-6

\* An electronic driver requires a power supply, part number 8050-50.

\*\* Includes blade, spring and pin.

(†) Gage style tools must be used with electronic tool. Handle must be removed prior to use with electronic or battery operated drivers.

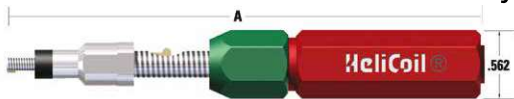
## Front End Assembly



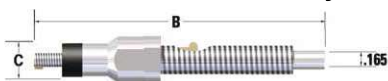
## Front End Assembly Dimensions

Nominal Thread Size	A Nose Diameter	B Body Diameter	C Prewinder Tip Length	D Prewinder Length
M2.5	0.250	0.375	0.095	1.375
M3	0.281	0.375	0.103	1.375
M4	0.344	0.500	0.139	1.375
M5	0.375	0.500	0.157	1.500
M6	0.422	0.625	0.192	1.625

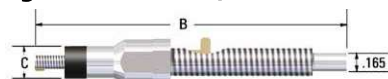
## Installation mandrel w/handle assembly



## Installation mandrel only



## Adjusting/removal tool (shown w/o handle)



## Installation Tool Dimensions

Nominal Thread Size	A Overall Length (reference)	B Mandrel Length	C Spinner Diameter
M2.5	5.063	2.716	0.240
M3	5.125	2.705	0.250
M4	5.312	3.985	0.360
M5	5.500	3.094	0.380
M6	5.500	3.094	0.433

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