powercoil®

Insert Part Number		3534-1/2X2.0DP
Insert Thread Form		Unified National Fine - UNF
Nominal Thread Size		1/2 X 20
Insert Length Q (installed)	D	2.0D
Insert Length Q (installed)	inch	1.000
Insert Material		304 Stainless Steel
Insert Coating/Plating		-
Military Standard	#	
National Aerospace Standard	#	
Federal Stock	#	
National Stock / NATO	#	

Optimum thread performance with Wire Thread Inserts is achieved when the inserts are installed 1/2 to 1 pitch below the surface of the tapped hole. This means that the actual length of an installed insert is equal to dimension Q less 1/2 to 1 pitch. Dimensions S and T allow for tap end clearance of intermediate taps. When using Bottoming and Spiral Flute Taps these dimensions maybe reduced by an amount equal to 2 thread pitches. Any countersink depths must be added to these dimensions.

COMPATIBLE POWERCOIL INSTALLATION AND REMOVAL TOOLS	
TOOL TYPE	Part #
Hand Installation Tool	3500-HIT15
Tang Break Tool	3500-TB15
Removal Tool	3500-RT3
Machine Installation Tool	3534-1/2MIT
Mandrel Installation Tool	-
Captive Prewinder Tool	3534-1/2HIP
Non-Captive Prewinder Tool	-
Spring Loaded tang Break Tool	3500-STB12
Pneumatic Front end assembly (FEA)	3534-1/2MIP
FEA Mandrel	3534-1/2MIPM
FEA Nozzle	3534-1/2MIPN
Pneumatic Tool	3500-MIP2

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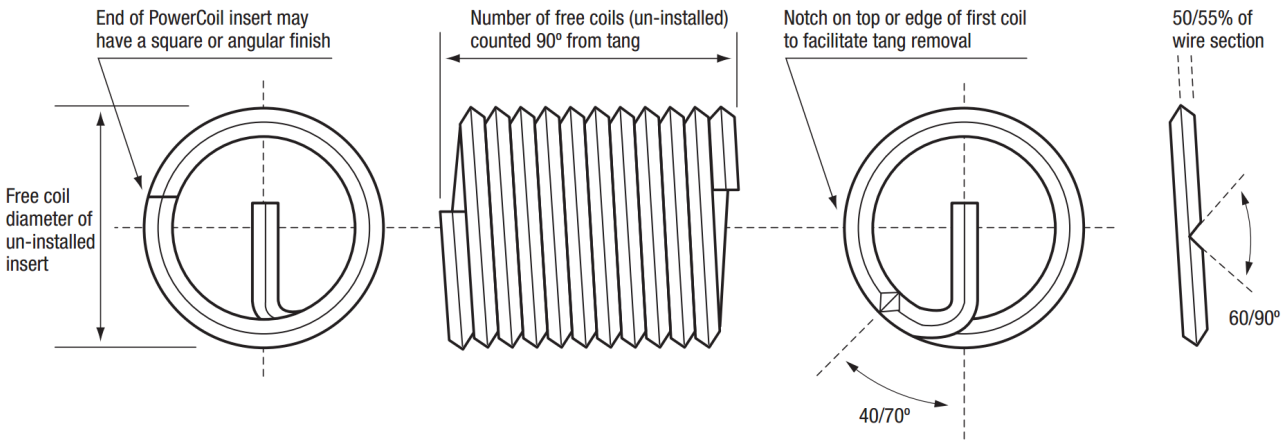
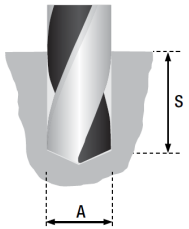
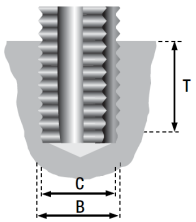


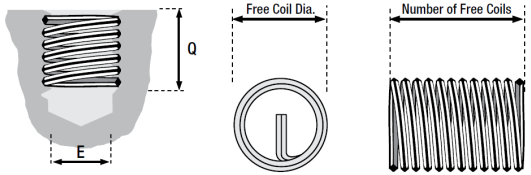
DRILLED HOLE DIMENSIONS INTERMEDIATE/PLUG TAP		
Drill Size	mm	13.00
Drill Part Number		2007-13.00
Drill Size inch	inch	33/64
Drill Part Number inch		-
A Minor Diameter inimum	inch	0.511
A Minor Diameter maximum	inch	0.518
S Drilling Depth minimum	inch	1.225



TAPPED HOLE DIMENSIONS			
Tap Size	STI		UNF 1/2 X 20
Tap Size	-		-
B Major Diameter		inch	0.565
C Pitch Diameter MIN		inch	0.533
C Pitch Diameter MAX	2B	inch	0.536
C Pitch Diameter MAX	1B	inch	0.537
T Tapping Depth MIN		inch	1.175
Power Coil Tap Part Number	STI	Taper	3534-1/2T
Power Coil Tap Part Number	STI	Intermediate	3534-1/2I
Power Coil Tap Part Number	STI	Bottoming	3534-1/2B
Power Coil Tap Part Number	STI	SpiralPoint	3534-1/2SP
Power Coil Tap Part Number	STI	SpiralFlute	3534-1/2SF



INSERT SPECIFICATIONS		
E Fitted Minor Diameter	inch	0.4459
Q Nominal Length Installed	inch	1.000
Free Coil Diameter minimum	inch	0.57
Free Coil Diameter maximum	inch	0.62
Free Coils minimum	#	16.30
Free Coils maximum	#	17.80



IMPORTANT The success of any drilling and tapping operation is dependant upon many factors -type of material being cut, cutting speed, coolant, equipment being used - and it is not possible to give specific drill sizes for each material. Drill sizes shown are recommendations only and PowerCoil would strongly suggest that independent testing be performed for specific and critical applications.
When using wire thread inserts it is important that the drilling and tapping diameters and lengths shown are adhered to.
The figures outlined in these tables encompass effective free coil tolerances for most globally recognized standards and manufacturers, including those of reduced diameter wire thread inserts.

Number of Free Coils – the number of coils on an un-installed insert counted along the insert length 90° from the tang.