

Insert Part Number		3521-12.00X2.0D
Insert Thread Form		Metric Fine
Nominal Thread Size		M12 X 1.50
Insert Length Q (installed)	D	2.0D
Insert Length Q (installed)	mm	24.00
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	3521-12.00MIT		
Mandrel Installation Tool	-		
Captive Prewinder Tool	3521-12.00HIP		
Non-Captive Prewinder Tool	-		
Spring Loaded tang Break Tool	3500-STB12		
Pneumatic Front end assembly (FEA)	3521-12.00MIP		
FEA Mandrel	3521-12.00MIPM		
FEA Nozzle	3521-12.00MIPN		
Pneumatic Tool	3500-MIP2		

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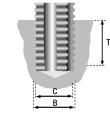


DRILLED HOLE DIMENSIONS INTERMEDIATE/PLUG TAP				
mm	12.40			
	2007-12.40			
inch	31/64			
	2006-31/64			
mm	12.325			
mm	12.561			
mm	30.75			
	inch mm mm			

TAPPED HOLE DIMENSIONS					
Tap Size	STI		M12 X 1.50		
Tap Size	-		-		
<b>B</b> Major Diameter		mm	13.949		
C Pitch Diameter MIN		mm	12.974		
C Pitch Diameter MAX	5H	mm	13.067		
C Pitch Diameter MAX	6H	mm	13.099		
T Tapping Depth MIN		mm	29.25		
Power Coil Tap Part Number	STI	Taper	3521-12.00T		
Power Coil Tap Part Number	STI	Intermediate	3521-12.001		
Power Coil Tap Part Number	STI	Bottoming	3521-12.00B		
Power Coil Tap Part Number	STI	SpiralPoint	3521-12.00SP		
Power Coil Tap Part Number	STI	SpiralFlute	3521-12.00SF		

INSERT SPECIFICATIONS				
E Fitted Minor Diameter	mm	10.376		
Q Nominal Length Installed	mm	24.00		
Free Coil Diameter minimum	mm	14.09		
Free Coil Diameter maximum	mm	15.20		
Free Coils minimum	#	12.70		
Free Coils maximum	#	13.80		





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.

