



2 & 3 Flute Solid Carbide Spektra™ Extreme Tool Life Coated Low Helix Spiral Finisher Router Bits

CNC Operating Spindle Speed: 18,000 RPM / Depth of Cut: 1 x Tool Diameter †



Up-Cut Tool No.	Down-Cut Tool No.	Softwood		Hardwood		Plastic		Solid Surface		Composite Plastic	
		Feed Rate IPM*	Chip Load Per Tooth	Feed Rate IPM*	Chip Load Per Tooth	Feed Rate IPM*	Chip Load Per Tooth	Feed Rate IPM*	Chip Load Per Tooth	Feed Rate IPM*	Chip Load Per Tooth
51631-K	51731-K	220" - 330"	.004" - .006"	160" - 270"	.003" - .005"	220" - 330"	.004" - .006"	110" - 220"	.002" - .004"	110" - 220"	.002" - .004"
51633-K	51733-K	330" - 430"	.006" - .008"	220" - 330"	.004" - .006"	220" - 330"	.004" - .006"	110" - 220"	.002" - .004"	110" - 330"	.002" - .006"
51639-K	51734-K	220" - 330"	.004" - .006"	160" - 270"	.003" - .005"	220" - 330"	.004" - .006"	110" - 220"	.002" - .004"	110" - 220"	.002" - .004"
51635-K	51735-K	380" - 490"	.007" - .009"	270" - 380"	.005" - .007"	330" - 540"	.006" - .010"	110" - 330"	.002" - .006"	110" - 330"	.002" - .006"
51637-K	51737-K	380" - 490"	.007" - .009"	270" - 380"	.005" - .007"	330" - 540"	.006" - .010"	110" - 330"	.002" - .006"	110" - 330"	.002" - .006"

* **IPM:** Inches Per Minute

Note: Always have sufficient spoil-board chip clearance when utilizing down spiral tooling.

† **Depth of Cut:** 1 x D Use recommended feed rate
 2 x D Reduce feed rate by 25%
 3 x D Reduce feed rate by 50%

Simple Machining Calculations:

To find **RPM:** (SFM x 3.82) / diameter of tool

To find **SFM:** 0.262 x diameter of tool x RPM

To find **Feed Rate IPM:** RPM x # of flutes x chip load

To find **Chip Load:** Feed Rate IPM / (RPM x # of flutes)

To find **Ramp Down:** Feed Rate IPM / # of flutes

Disclaimer: It is important to understand that these values are only recommendations.