

## 2+6 Flutes CNC Compression Spiral Flute with Platinum (PLX) Coating

Depth of Cut: 1 x Tool Diameter †

Material	3/8"				1/2"			
	Feed IPM	Max RPM	Chip Load Per Tooth	Pass Depth	Feed IPM	Max RPM	Chip Load Per Tooth	Pass Depth
Plywood	120-180	18000	0.003" - 0.0045"	0.10" - 0.20"	160-240	18000	0.003" - 0.0045"	0.12" - 0.25"
Melamine	100-160	18000	0.0025" - 0.004"	0.06" - 0.15"	140-200	18000	0.0025" - 0.004"	0.06" - 0.15"
MDF	110-160	18000	0.0025" - 0.004"	0.06" - 0.15"	150-220	18000	0.0025" - 0.004"	0.12" - 0.25"
Hardwood	130-180	18000	0.003" - 0.004"	0.10" - 0.20"	150-220	18000	0.003" - 0.004"	0.12" - 0.25"

Tool Reference #'s	Dia.
59174-PLX	3/8"
59176-PLX	1/2"

- † **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%

### General Guidelines:

1. **Ramp/Lead-In:** Use gradual ramping to avoid splintering.
2. **Plunge Rate:** 50-70% of feed rate is safe for plunge cuts.
3. **Cooling/Dust:** Keep dust extraction strong; coating reduces friction, but heat still builds.
4. **Avoid Hard Plastics/Metals:** Multi-flue + compression is not designed for these.
5. **Upcut/Downcut Zones:** The compression action ensures top & bottom surfaces stay clean; always ensure the bit is long enough for full panel thickness.

### 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
- \* **IPM** Inches per minute