DEPTH OF CUT GUIDELINES

## Finishing

1. Shoot for around 3%-to-5% of dia. RDOC, no matter how many flutes are on the tool

2. Quick Troubleshooting
   a. Are you experiencing poor surface finish?
      > Check your RDOC, it may be too light of a cut (see #1 above)
      > Lower your IPM, Increase your RPM

   > Check your tool runout (at end/corner of tool — with tool mounted in the holder, in the machine) shoot for .0005 TIR max.

   b. Tool Life Issues
      > Spring passes allow for tool rubbing (lowers tool life) and material work hardening — avoid (or at least minimize # of) if possible.

Ramping Angles

NXG-2: 5-10°
NXG-3: 5-10°
NXG-4: 1-10°
NXG-5: 1-8°
NXG-6: 1-5°
NXG-7: 1-3° (caution here)
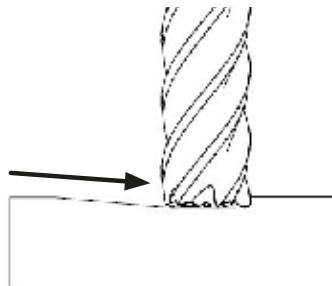
Note: Lower angles will experience chip thinning and thus allow for higher feed adjustments.

Radial (RDOC) & Axial (ADOC) Depth of Cut

	Traditional		HEM	
	RDOC	ADOC	RDOC	ADOC
NXG-2:	5% to 50%xD	up to 1.00xD	NR	NR
NXG-3:	5% to 50%xD	up to 1.00xD	8% to 40%xD	up to 3.00xD
NXG-4:	5% to 50%xD	up to 1.00xD	NR	NR
NXG-5:	5% to 40%xD	up to 1.50xD	8% to 30%xD	up to 3.50xD
NXG-6:	5% to 30%xD	up to 1.75xD	8% to 20%xD	up to 3.75xD
NXG-7:	5% to 10%xD	up to 2.00xD	7% to 10%xD	up to 4.00XD

D = Tool Cut Diameter

Heavy Profiling

Light Profiling
(Finishing/HEM)

Slot Depth Ranges

NXG-2: up to 2.00xD
NXG-3: up to 2.00xD
NXG-4: up to 1.50xD
NXG-5: up to 0.50xD
NXG-6: up to 0.25xD
NXG-7: Not Recommended

Tips for slotting:

1. Follow the chart above.
2. Use chip-breaker tools to manage chip evacuation.
3. Ensure good coolant flush, in direction of the tool's chip throw.
4. Are you less then these listed ranges? If so, then there could be room for feed increase adjustments.

Slotting