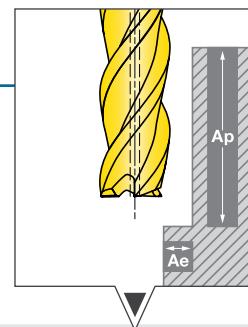


## Operating Guidelines



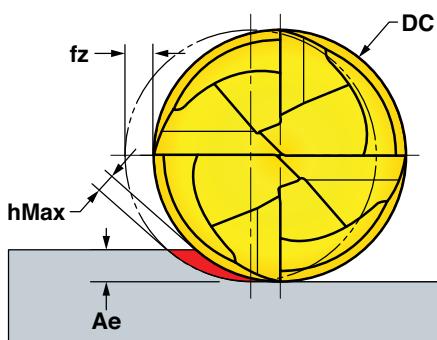
Materials				Vc Cutting Speed SFM	DC Cutting Diameter (inch)	Finish Shoulder Milling *fz Feed Per Tooth (ipt)			
ISO	Material Group #VDI 3323	Type	Examples			Ap ≤ 7xD			
						Ae ≤ 0.02xD			
N	21-30	Aluminum alloys	7075, 6061	490-3300	.125	.0012-.0024			
					.156	.0012-.0024			
					.187	.0012-.0024			
					.250	.0016-.0031			
					.312	.0016-.0031			
					.375	.0020-.0039			
					.500	.0020-.0047			
					.625	.0020-.0047			
					.750	.0024-.0059			
					1.00	.0024-.0059			

\*fz = chip thinning calculations are included in the chip load above, especially when  $Ae \leq .25xD$ .

- High pressure coolant is highly recommended, as it will provide optimal chip evacuation and performance.
- A coolant thru (CX series) shrink fit holder is recommended for clamping and ideal coolant flow. Using a inferior holder could impact performance.

Note: Feed and speed recommendations are starting operating parameters. They are only guidelines from which further optimization should take place. Operating parameters are influenced by many machining variables. These variables may necessitate adjustments in speed or feed. Additionally, DOC and WOC may need to be revised to optimize the tools performance.

## Chip Thinning



- Due to the lower radial engagement, *chip thinning* is accentuated, and a much higher feed-per-tooth (fz) can be applied in order to arrive at the true chip thickness (hMax).
- When  $Ae \leq .25xD$ , recommend use of **Chip Thinning Calculator** to ensure hMax is within fz range.
- If needed, Chip Thinning Calculator can be found on our website Machining App.

