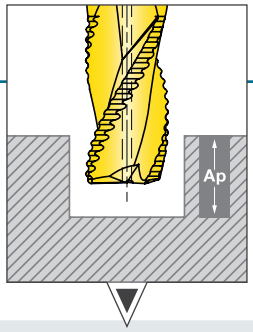
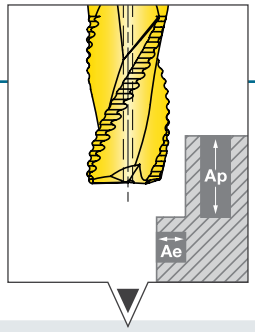
Operating Guidelines





Materials				Vc Cutting Speed SFM	DC Cutting Diameter (inch)	Slotting fz Feed Per Tooth (ipt)		Shoulder Milling fz Feed Per Tooth (ipt)	
ISO	Material Group #VDI 3323	Type	Examples			Ap=1xD	Ap=1.5xD to 2xD*	Max Ap ≤ 2xD*	
								Ae ≤ 0.4xD**	Ae > 0.4xD
N	21-30	Aluminum alloys	7075, 6061	700-3300	.250	.0012-.0020	.0008-.0016	.0020-.0039	.0012-.0018
					.312	.0016-.0024	.0008-.0020	.0020-.0039	.0012-.0020
					.375	.0016 - .0028	.0012-.0024	.0020-.0047	.0016-.0024
					.500	.0016-.0047	.0016-.0031	.0031-.0079	.0020-.0047
					.625	.0020-.0047	.0020-.0055	.0031-.0079	.0031-.0055
					.750	.0024-.0063	.0024-.0059	.0031-.0079	.0031-.0059
					1.00	.0024-.0063	.0024-.0063	.0031-.0079	.0031-.0063

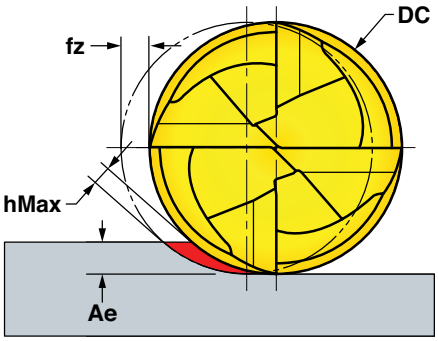
*Ap ≤ 1.5xD for tools .375" DC or less

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

- High pressure coolant is highly recommended, as it will provide optimal chip evacuation and performance.
- A power milling chuck, or coolant thru (CX series) holder (for tools with Weldon flats) is highly recommended, starting at .500" DC or larger. Using a weak holder impacts 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 zmachining 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 ≤ .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.