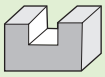
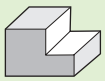
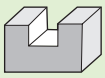
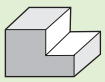
XAL5R Series Recommended Cutting Data - 3xD Cutting Length - Inch

Workpiece Material Group	ISO	Application	Type of cut		Vc (SFM)	Tool Diameter (inch)			
			Radial (Ae)	Axial (Ap)		3/8	1/2	5/8	3/4
						fz - in/tooth			
Aluminum - Wrought (≤ 10 Si)	**N**	 Slotting	1 x D	≤ 1.5 x D	980-6500	.0030	.0040	.0050	.0060
		 Profiling	≤ 0.3 x D	≤ 3 x D	980-6500	.0041	.0055	.0069	.0083
Aluminum - Cast (> 10 Si)		 Slotting	1 x D	≤ 1.5 x D	785-5000	.0030	.0040	.0050	.0060
		 Profiling	≤ 0.3 x D	≤ 3 x D	785-5000	.0041	.0055	.0069	.0083

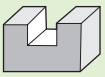
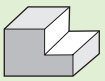
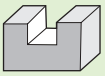
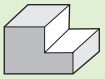
Notes:
- Techincal data provided should be considered advisory only. Adjustments may be necessary depending on the application, workpiece rigidity, machine tool, etc.
- The XAL5R should only be used in accurate tool holders with high gripping power. ER collet type holders are not recommended.

Helical interpolation recommendations:
- Under optimal conditions, with proper through-coolant flow, up to 10° helical ramp angles are achievable with the XAL5R. Without through-coolant, up to 5° helical ramp angles are recommended.
- A reduction of 30-50% in feed per tooth (fz) are recommended.
- Recommended hole diameter = 1.9 x D

RWOC (ae)	Chip Thickness Compensation Factor
10%	1.67
15%	1.40
20%	1.25
25%	1.15
30%	1.09

During profile milling with a radial width of less than 50% of the cutter diameter, the actual chip thickness at the cutting edge is less than the programmed chipload. The accompanying table shows the increase in chipload by given radial width percentage to adjust for chip thinning. Multiply your recommended chip thickness by the appropriate feed factor to establish the correct feed rate.

XAL5R Series Recommended Cutting Data - 4xD Cutting Length - Inch

Workpiece Material Group	ISO	Application	Type of cut		Vc (SFM)	Tool Diameter (inch)			
						3/8	1/2	5/8	3/4
			Radial (Ae)	Axial (Ap)		fz - in/tooth			
Aluminum - Wrought (≤ 10 Si)	N	 Slotting	1 x D	≤ 1 x D	980-6500	.0030	.0040	.0050	.0060
		 Profiling	≤ 0.2 x D	≤ 4 x D	980-6500	.0036	.0048	.0060	.0072
Aluminum - Cast (> 10 Si)		 Slotting	1 x D	≤ 1 x D	785-5000	.0030	.0040	.0050	.0060
		 Profiling	≤ 0.2 x D	≤ 4 x D	785-5000	.0036	.0048	.0060	.0072

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