

XAL5F Series Recommended Cutting Data - 4xD Cutting Length - Inch

Workpiece Material Group	I S O	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	 Floor Finish	≤ 0.75 x D	.005 - .015	980-6500	.0030	.0040	.0050	.0060
		 Wall Finish	.004 - .010	≤ 4 x D	980-6500	.0017	.0023	.0029	.0035
Aluminum - Cast (> 10 Si)		 Floor Finish	≤ 0.75 x D	.005 - .015	785-5000	.0030	.0040	.0050	.0060
		 Wall Finish	.004 - .010	≤ 4 x D	785-5000	.0017	.0023	.0029	.0035

Notes:

- Technical data provided should be considered advisory only. Adjustments may be necessary depending on the application, workpiece rigidity, machine tool, etc.
- The XAL5F should only be used in tool holders with a high level of accuracy. ER collet type holders are not recommended.
- When finishing at full feed rate into corners, care should be taken to ensure that the stock allowance is consistent, and the feature radius is at least .02" larger than the tool radius to avoid over-engagement.
- Recommended stock allowance for wall finishing is .004" to .010"
- This tool can also be used for light roughing, semi-finishing, and corner reduction operations. For these applications, do not exceed a radial cut (ae) of more than 10% of the tool diameter, and use the chip correction factor in the table shown below.

RWOC (ae)	Chip Thickness Compensation Factor	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.
5%	2.30	
10%	1.67	

Safety Note

Always wear the appropriate personal protective equipment such as safety glasses and protective clothing when using solid carbide or HSS cutting tools. Machines should be fully guarded.

⚠ WARNING: This product can expose you to chemicals including cobalt, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.