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# TuffCut<sup>®</sup> X-AL

## Series 137TWF

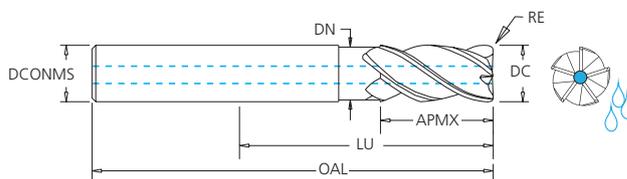
5 Flute End Mill

Aluminium Thin Wall Finisher



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# TuffCut® X-AL Series 137TWF



Tool No.	DC	DCONMS	OAL	APMX	LU	DN	RE
137TWF 0604-ALCC	6.0	6.0	64.0	24.0	30.0	5.8	-
137TWF 0804-ALCC	8.0	8.0	80.0	32.0	40.0	7.8	-
137TWF 0804-2.0RALCC	8.0	8.0	80.0	32.0	40.0	7.8	2.0
137TWF 1004-ALCC	10.0	10.0	95.0	40.0	50.0	9.8	-
137TWF 1004-3.0RALCC	10.0	10.0	95.0	40.0	50.0	9.8	3.0
137TWF 1204-ALCC	12.0	12.0	108.0	48.0	54.0	11.6	-
137TWF 1204-3.0RALCC	12.0	12.0	108.0	48.0	54.0	11.6	3.0
137TWF 1604-ALCC	16.0	16.0	125.0	64.0	70.0	15.6	-
137TWF 1604-3.0RALCC	16.0	16.0	125.0	64.0	70.0	15.6	3.0
137TWF 1604-4.0RALCC	16.0	16.0	125.0	64.0	70.0	15.6	4.0

# TuffCut® X-AL Series 137TWF - Profile Milling with 4xD APMX

Recommended Cutting Data · Conditions de coupe recommandées · Empfohlene Schnittdaten · Dati di taglio Raccomandati · Zalecane Parametry

Workpiece Material Group	ISO	Coolant			RWOC (Ae)	End Mill Diameter (mm)					
		Emulsion	Air	MQL		Finishing		6	8	10	12
					5%	10%					
					N/A	2.3	1.67				
Vc - M/Min					fz - mm/tooth						
Aluminium (≤ 10 Si)	N	●	○	●	300 - 2000		0.030	0.040	0.050	0.060	0.080
Aluminium (> 10 Si)		●	○	●	250 - 1000		0.030	0.040	0.050	0.060	0.080
Aluminium Lithium		●	○	●	300 - 1500		0.030	0.040	0.050	0.060	0.080

● Preferred ○ Possible x Not Possible

### Notes

- Cutting data provided should be considered advisory only. Adjustments may be necessary depending on the application, workpiece rigidity,
- The 137TWF should only be used in accurate tool holders with adequate gripping power. 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 0.5mm larger than the tool radius to avoid over-engagement.
- Recommended stock allowance for finishing is 0.1 to 0.2mm
- This tool can also be used for light roughing, semi-finishing, and corner reduction operations. For these applications, please use the chip correction factor in the table shown below.

RWOC (ae)	Chip Thickness Compensation Factor
1%	5.00
2%	3.57
3%	2.93
5%	2.30
7%	1.96
8%	1.84
10%	1.67

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 feed per tooth (fz). The accompanying table shows the increase in fz by given radial width percentage to adjust for chip thinning. Multiply your recommended fz by the appropriate feed factor to establish the correct feed rate.



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