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Solid Carbide Tools

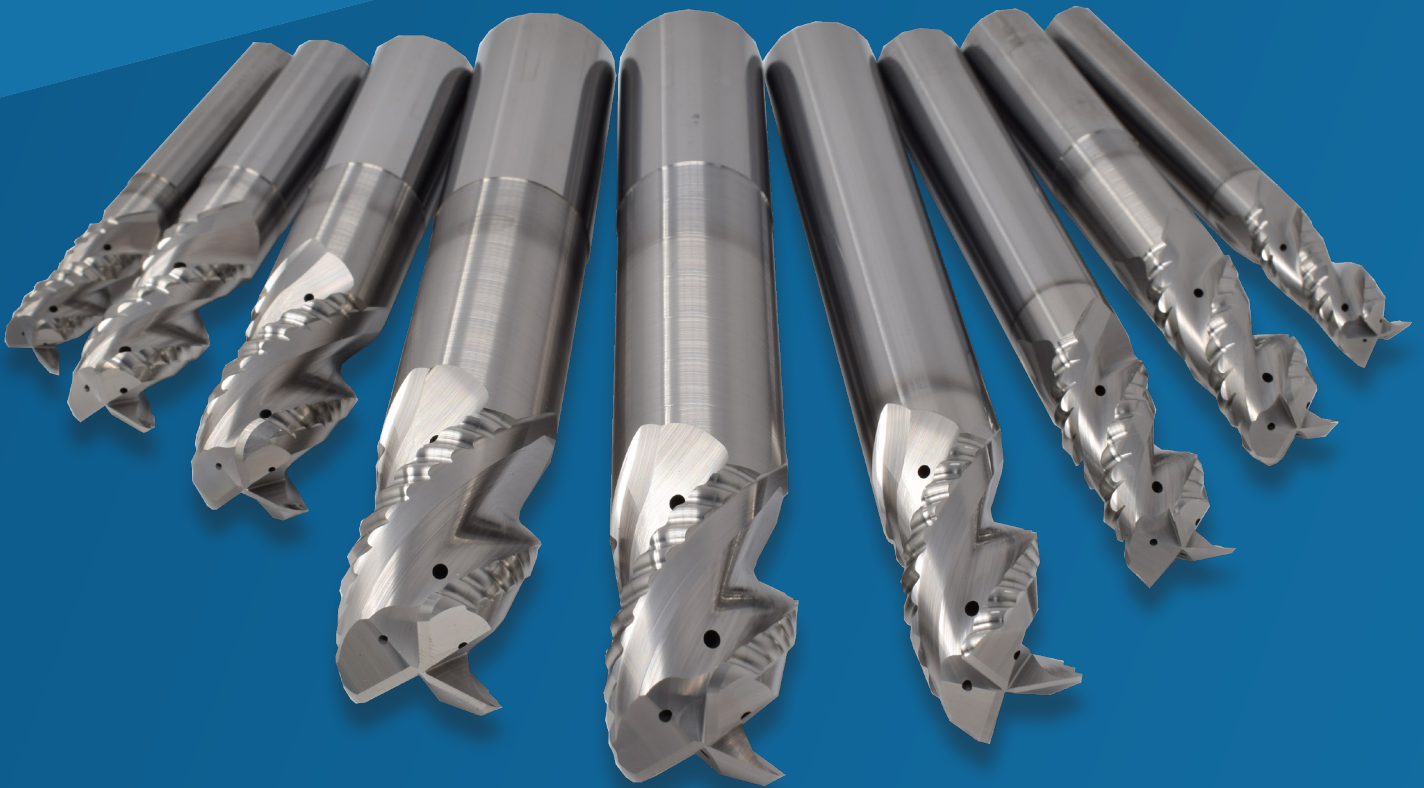
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**NEW EXPANDED APR-3 RANGE**  
Long-Reach  
Roughing Tools for Aluminium



ADVANCED PRODUCTIVITY ROUGHER



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# Introducing the NEW Long-Reach Advanced Productivity Rougher APR-3

Following the success of the S-Carb Advanced Productivity Rougher (APR 3) engineered for high power, high-efficiency machining of Aluminum, we are introducing the new long-reach APR-3.

## Product Features

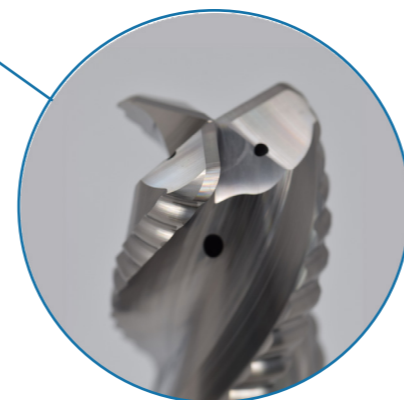
- 3 flute variable pitch geometry for reduced vibration.
- Square-cornered in stock for rapid modifications.
- NEW long-reach geometry for superior stability at up to 5xD.
- High Material Removal Rates (MRR) at long reach.
- Special blank design for MQL and coolant.
- Ti-NAMITE-B coated for extended tool life.

Long-reach range up to 5xD Protrusion



Corner radius & Square

Long-reach diameters available in 12, 16, 20 & 25 mm



Revised coolant holes for MQL applications



Scan this QR code to see our tool in action

## About the Coating

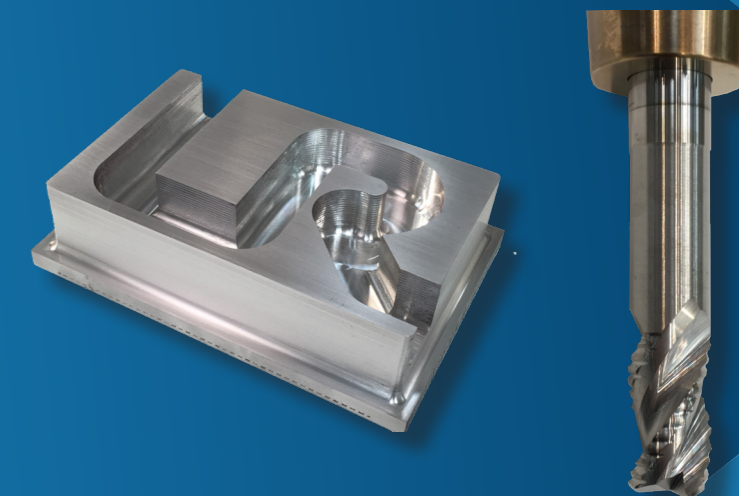


### Ti-NAMITE-B (Titanium DiBoride)

This ceramic based coating ensures a smooth surface and low affinity to cold welding or edge build up, which makes it optimal for aluminium machining. It has high toughness and high hardness.

Colour	Light grey-silver
Layer structure	Monolayer
Thickness	1-2 microns
Hardness (HV)	4000
Coefficient of friction (Fretting)	0.45
Thermal stability	850 ° C / 1562 ° F

## Capabilities



Ø20 APR-3	Profiling
SFM	1050
RPM	16000
FZ	0.17
FEED mm/min	8000
Ap	30
Ae	8


Ø20 APR-3	Slotting
SFM	1050
RPM	16000
FZ	0.12
FEED mm/min	5400
Ap	20
Ae	20

- Shallow slotting @5xD
- 1xD Full slotting @ 5xD
- 1.5xD Full slotting @ 4xD
- 2xD slotting on Ø12 & Ø16

# Tool Specification

Cutting Diameter	Length of Cut	Overall Length	Shank Diameter	Reach	Corner Radius	Coating	Stock Number
12	26	95	12	-	-	Ti-NAMITE –B	44975
12	26	83	12	39	1	Ti-NAMITE –B	44976
12	26	83	12	39	2	Ti-NAMITE –B	44977
12	26	83	12	39	3	Ti-NAMITE –B	44978
12	26	83	12	39	4	Ti-NAMITE –B	44979
16	35	92	16	-	-	Ti-NAMITE –B	44980
16	35	92	16	51	2	Ti-NAMITE –B	44981
16	35	92	16	51	3	Ti-NAMITE –B	44982
16	35	92	16	51	4	Ti-NAMITE –B	44983
16	35	124	16	-	-	Ti-NAMITE –B	44984
16	35	108	16	67	2	Ti-NAMITE –B	44985
16	35	108	16	67	3	Ti-NAMITE –B	44986
16	35	108	16	67	4	Ti-NAMITE –B	44987
20	35	145	20	-	-	Ti-NAMITE –B	45020
20	35	125	20	84	2	Ti-NAMITE –B	45021
20	35	125	20	84	3	Ti-NAMITE –B	45022
20	35	125	20	84	4	Ti-NAMITE –B	45023
25	35	176	25	-	-	Ti-NAMITE –B	45024
25	35	151	25	105	3	Ti-NAMITE –B	45025

# Cutting Guidelines

						Diameter (D1) mm			
Metric	Cut Type	Ae	Ap	Vc (m/min)		12	16	20	25
Aluminium Alloys 6068, 7075	Slot	1	≤1	1000	RPM	26522	19892	15913	12731
				(300-2100)	Fz	0.12	0.12	0.12	0.12
					Feed (mm/min)	9548	7161	5729	4583
	Profile	≤0.5	≤1.5	1200	RPM	31827	23870	19096	15277
				(300-2100)	Fz	0.14	0.14	0.14	0.14
					Feed (mm/min)	13367	10025	8020	6416
	HSM	≤0.1	≤2	1400	RPM	37131	27849	22279	17823
				(300-2100)	Fz	0.16	0.16	0.16	0.16
					Feed (mm/min)	17823	13367	10694	8555

\* RPM stated maybe outside of most machine tools in the smaller sizes, adjust the surface speed but maintain the Fz

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