



S-Carb Series 43CR



Material
Aluminum Alloy - 6061

Part Type
Aluminum Rails

SGS Product
1/2" Dia, 3 Flute, Corner Radius End Mill

Competitor Product
0.5000" Dia. 3 Flute

Application
Milling_Heavy Roughing
90-33 Ae

SGS Tool Information

- 0.5000" Cutting Dia.
- 1.0000" Length of Cut
- 3.0000" Overall Length
- TIB2 (Ti-NAMITE-B) Coating
- EDP: [35694](#)

Goal

This manufacturer was interested in an end mill capable of decreasing cycle time while increasing tool life, part quality and finish.

Strategy

Using the S-Carb at recommended APEX rates allowed the part to be produced faster with reduced machine stress, while improving part quality, shortening cycle time, and increasing tool life.



Learn more
about the
S-Carb

Result

The implementation of the S-Carb resulted in a **39%** reduction in required cycle time. Tool changing costs were reduced by **40%**, and total new tool costs were reduced by **32%**. Overall, the customer generated an annual savings of more than \$9,300.

Total
Cost Savings
\$9,334

Machining
Cycle Time
↓ 39%

Tool Change
Cost
↓ 40%

New
Tool Cost
↓ 32%

Tools	Cutting Dia. (DC)	RPM	SFM	IPM	IPR	Axial Depth (AE)	Axial Depth (AP)	Coolant
SGS S-Carb (3-Flute)	0.5000"	4900	642	69.97	0.0143	0.4000"	0.5000"	Flood
Competitor (3-Flute)	0.5000"	4900	642	44.98	0.0092	0.4000"	0.5000"	Flood

Machining Cycle Time

↓ 39%

Tool Change Cost

↓ 40%

New Tool Cost

↓ 32%

