



Multi-Carb Series 66C

Material
Cast Iron - Ni-Resist

Part Type
2201-2461

SGS Product
1/2" Dia, 9 Flute, Corner Radius End Mill

Competitor Product
0.5000" Dia. 4 Flute

Application
Milling_Semi Rough-Profiling
33-5 Ae

SGS Tool Information

- 0.5000" Cutting Dia.
- 1.2500" Length of Cut
- 3.0000" Overall Length
- TX (Ti-NAMITE-X) Coating
- EDP: [36630](#)

Goal

An aerospace parts manufacturer was interested was experiencing poor tool life and seeked a tool capable of increasing tool life and decreasing tool cost.

Strategy

The customer was machining the surface of a fixture holding six parts using a 4-flute Z-Carb end mill at a 0.050" axial depth of cut and seven radial passes. Tool failure was traced to an incorrectly programmed conventional milling path, which was corrected to climb milling. After switching to a Multi-Carb end mill, the increased flute count enabled higher feed rates and extended tool life from one load (six parts) to six loads (24 parts).

Result

The implementation of the Multi-Carb resulted in a **75%** reduction in the number of tools required. Tool change costs decreased by **75%**, and the cost per part was reduced by **56%**. Overall, the customer achieved a total cost reduction of **56%**, generating annual savings of more than **\$51,000**.



Learn more
about the
Multi-Carb

Total
Cost Savings
\$51,907

Tools Required
↓ 75%

Tool Change
Cost
↓ 75%

Cost Per Part
↓ 56%

Tools	Cutting Dia. (DC)	RPM	SFM	IPM	IPR	Radial Depth (AE)	Axial Depth (AP)	Coolant
SGS Multi-Carb (9-Flute)	0.5000"	917	120	15.68	0.0171	0.0350"	0.0500"	Flood
Competitor (4-Flute)	0.5000"	911	119	10.93	0.0120	0.0350"	0.0500"	Flood

Tools Required

↓ 75%

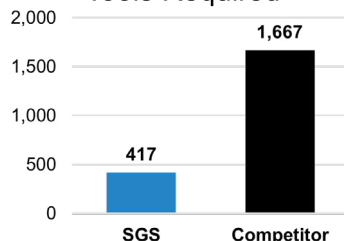
Tool Change Cost

↓ 75%

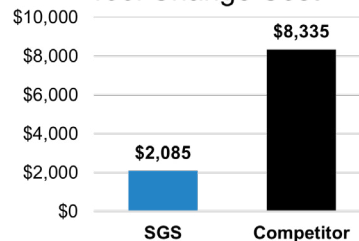
Cost Per Part

↓ 56%

Tools Required



Tool Change Cost



Total Cost Per Part

