



# 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

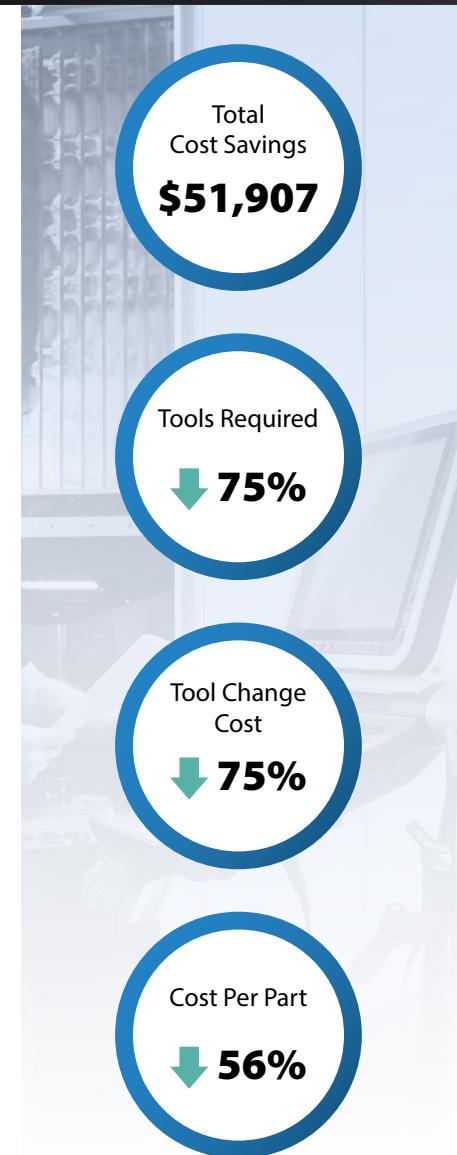
An aerospace parts manufacturer was interested was experiencing poor tool life and sought a tool capable of increasing tool life and decreasing tool cost.

### 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**.

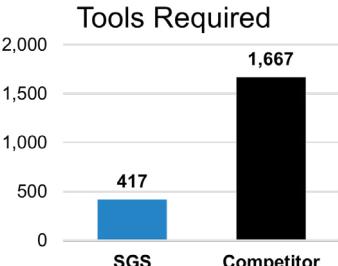


Learn more  
about the  
**Multi-Carb**

| Tools                           | Cutting Dia. (DC) | RPM | SFM | IPM   | IPR    | Radial Depth (AE) | Axial Depth (AP) | Coolant |
|---------------------------------|-------------------|-----|-----|-------|--------|-------------------|------------------|---------|
| <b>SGS Multi-Carb (9-Flute)</b> | 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   |

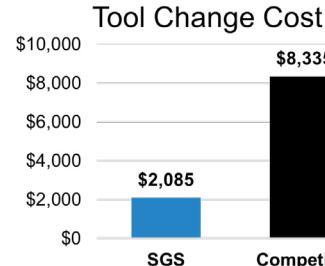
#### Tools Required

**75%**



#### Tool Change Cost

**75%**



#### Cost Per Part

**56%**

