



Z-Carb HPR

Series Z5C



Material

Cast Iron - Ductile Cast Iron

Part Type

Actuator

SGS Product

3/4" Dia, 5 Flute, Corner Radius End Mill

Competitor Product

0.7500" Dia. 2 Flute End Mill

Application

Milling_Slotting 100 Ae

SGS Tool Information

- 0.7500" Cutting Dia.
- 0.8750" Length of Cut
- 4.0000" Overall Length
- TM (Ti-NAMITE-M) Coating
- EDP: [37096](#)

Goal

This manufacturer was interested in improving part quality and finish.

Strategy

The customer was originally running a two-flute indexable end mill with four inserts, achieving about 60 parts per insert but frequently destroying an average of three tool bodies per month, an added cost factored into the evaluation. After testing the Z-Carb HPR, we were able to run more aggressively while significantly increasing tool life. The improved performance and reduced tooling costs led to a highly satisfied customer and a clear win for the HPR solution.

Result

The implementation of the Z-Carb HPR resulted in a **70%** reduction in the number of tools required. Cycle time reduced by **18%**, and total machining costs were reduced by **18%**. Overall, the customer achieved a total cost reduction of **34%**, generating annual savings of more than \$17,000.



Learn more about the Z-Carb HPR

Total Cost Savings
\$17,355

Tools Required
↓ 70%

Machining Cycle Time
↓ 18%

Total Machining Cost
↓ 18%

Tools	Cutting Dia. (DC)	RPM	SFM	IPM	IPR	Radial Depth (AE)	Axial Depth (AP)	Coolant
SGS Z-Carb-HPR (5-Flute)	0.7500"	2000	393	50.00	0.0250	0.7500"	0.4320"	Flood
Competitor (2-Flute)	0.7500"	1000	197	15.00	0.0150	0.7500"	0.4320"	Flood

Tools Required

↓ 70%

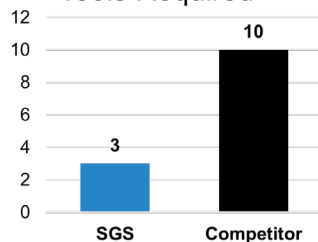
Machining Cycle Time

↓ 18%

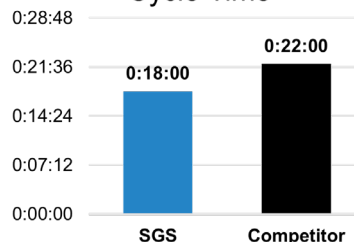
Total Machining Cost

↓ 18%

Tools Required



Cycle Time



Total Machining Cost

