



Z-Carb-HPR

Series Z5C

Material
Stainless Steel - 304SS

Part Type
Plates

SGS Product
1/2" Dia, 5 Flute, Corner Radius End Mill

Competitor Product
0.5000" Dia. 5 Flute

Application
Milling Semi Rough-Profiling
33-5 Ae

SGS Tool Information

- 0.5000" Cutting Dia.
- 1.0000" Length of Cut
- 3.0000" Overall Length
- ALTiN (Ti-NAMITE-A) Coating

Goal

The customer aimed to increase tool life, reduce tool cost, and improve part quality and surface finish on a stainless steel plate application. They were open to evaluating an alternative end mill that could deliver better performance and value.

Strategy

SGS was given the opportunity to test a Z-Carb HPR against a competitor's 5-flute endmill. The Z-Carb HPR was run at the same axial and radial depths of cut while increasing speed and feed rates, allowing for improved performance without changing the customer's existing process.

Result

The Z-Carb HPR increased tool life while reducing milling time and improving overall part quality. Machining cycle time was reduced by **33%**, new tool cost decreased by **51%**, and cost per part dropped by **38%**, resulting in total cost savings of **\$12,822**.

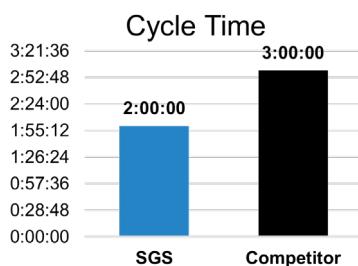


Learn more
about the
Z-Carb-HPR

Tools	Cutting Dia. (DC)	RPM	SFM	IPM	IPR	Radial Depth (AE)	Axial Depth (AP)	Coolant
SGS Z-Carb-HPR (5-Flute)	0.5000"	3000	393	43.95	0.0147	0.0500"	0.8050"	Flood
Competitor (5-Flute)	0.5000"	2000	262	36.00	0.0180	0.0500"	0.8050"	Flood

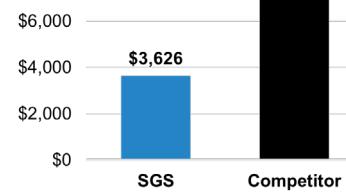
Cycle Time

33%



Total New Tool Cost

\$7,448



Total Cost Per Part

\$418

