



Hi-PerCarb 143M-S Series 143

Material
Cast Iron - Ni-Resist

Part Type
Turbo Housing

SGS Product
8.10mm Dia, 135 Degree Point, Solid Carbide Drill

Competitor Product
0.3188" Dia. 1 Flute

Application
Drilling

SGS Tool Information

- 0.3188" Cutting Dia.
- 1.3780" Usable Length
- 1.8504" Flute Length
- AlTiN (Ti-NAMITE-A) Coating
- EDP: [69171](#)

Goal

This automotive parts manufacturer was interested in increasing tool life and decreasing tool cost.

Strategy

SGS application engineers tested the Hi-PerCarb 143M-S drill using the same cutting parameters as the competitor drill. Despite being designed to perform best in stainless steel and super alloys, the 143 M-S drill performed extremely well in the cast iron due to the single margin design.

Result

The implementation of the Hi-PerCarb 143M-S resulted in a **54%** reduction in the number of tools required. Tool change costs decreased by **54%**, and the cost per part was reduced by **9%**. Overall, the customer achieved a total cost reduction of **9%**, generating annual savings of more than **\$11,000**.



Learn more about the **143M-S**

Total
Cost Savings
\$11,943

Tools Required
↓ 54%

Tool Change
Cost
↓ 54%

New Tool Cost
↓ 67%

Tools	Cutting Dia. (DC)	RPM	SFM	IPM	IPR	Radial Depth (AE)	Axial Depth (AP)	Coolant
SGS Hi-PerCarb 143M-S (1-Flute)	0.3188"	2800	234	27.16	0.0097	0.0000"	1.0000"	Coolant Through
Competitor (1-Flute)	0.3188"	2800	234	27.16	0.0097	0.0000"	1.0000"	Coolant Through

Tools Required

↓ 54%

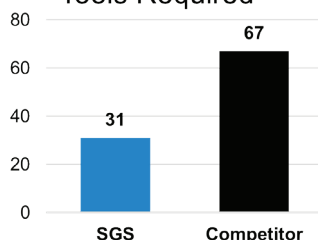
Tool Change Cost

↓ 54%

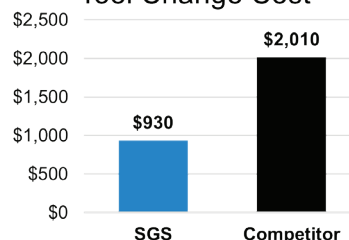
New Tool Cost

↓ 67%

Tools Required



Tool Change Cost



Total New Tool Cost

