CUSTOMER SUCCESS

Medical | Titanium Alloy - 6Al4v

T-Carb

Series 51CR

Material
Titanium Alloy - 6Al4v

Part Type
Implants

SGS Product
1/2" Dia, 6 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: 35115

Learn more about the **T-Carb**

Goal

This manufacturer was interested in a cost effective end mill capable of increasing tool life and decreasing tool costs.

Strategy

The SGS application engineer recommended testing a six-flute T-Carb series end mill. The trial was successful, delivering a lower tooling cost while increasing tool life. The improvement in tool life was achieved through chip thinning enabled by the six-flute design, without requiring any increase in feed rate compared to the previous four-flute tool.

Result

The implementation of the T-Carb resulted in a **29%** reduction in the number of tools required. Tool changing costs were reduced by **29%**, and total new tool costs were reduced by **39%**. Overall, the customer generated an annual savings of more than $3,900.

Total Cost Savings **$2,859**

Tools Required ↓ **29%**

Tool Change Cost ↓ **29%**

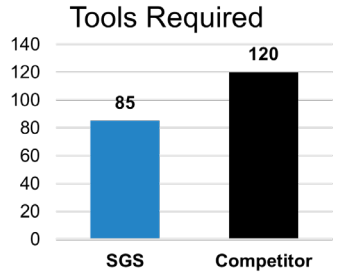
New Tool Cost ↓ **39%**

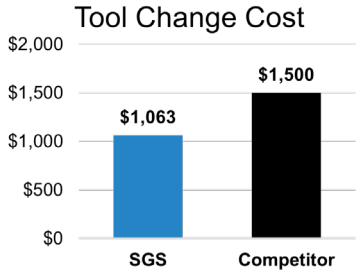
Tools	Cutting Dia. (DC)	RPM	SFM	IPM	IPR	Axial Depth (AE)	Axial Depth (AP)	Coolant
SGS T-Carb (6-Flute)	0.5000"	2750	360	58.33	0.0212	0.0350"	1.2000"	Flood
Competitor (4-Flute)	0.5000"	2750	360	58.30	0.0212	0.0350"	1.2000"	Flood

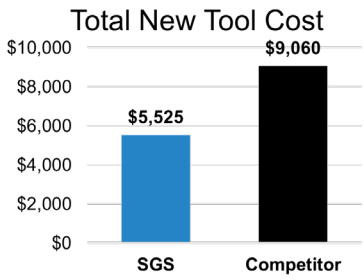
Tools Required ↓ **29%**

Tool Change Cost ↓ **29%**

New Tool Cost ↓ **39%**







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