



## S-Carb

### Series 43B

**Material**  
Aluminum Alloy - 7050-T74

**Part Type**  
Thrust Cone

**SGS Product**  
3/4" Dia, 3 Flute, Ball Nose End Mill

**Competitor Product**  
0.7500" Dia. 3 Flute

**Application**  
Milling Semi Rough-Profiling  
33-5 Ae

**SGS Tool Information**

- 0.7500" Cutting Dia.
- 2.2500" Length of Cut
- 5.0000" Overall Length
- Bright/Uncoated Coating
- EDP: [34931](#)

#### Goal

The customer was looking to evaluate an alternative tooling solution to replace their current supplier while reducing cycle time and increasing tool life.

#### Strategy

The customer requested a tooling solution that could reduce overall costs by decreasing cycle time and increasing tool life. SGS recommended testing an S-Carb end mill to evaluate its performance against the existing process.



Learn more  
about the  
**S-Carb**

Total  
Cost Savings  
**\$12,318**

Machining  
Cycle Time  
**25%**

Machining  
Cost  
**25%**

Cost  
Per Part  
**27%**

#### Result

Using the same cutting parameters with only an increase in feed rate, the SGS S-Carb reduced machining cycle time by **25%** while doubling tool life. Machining cost was reduced by **25%** and cost per part decreased by **27%**, resulting in total savings of **\$12,318**.

Tools	Cutting Dia. (DC)	RPM	SFM	IPM	IPR	Radial Depth (AE)	Axial Depth (AP)	Coolant
<b>SGS S-Carb (3-Flute)</b>	0.7500"	11500	2260	174.92	0.0152	0.1500"	0.1500"	Flood
Competitor (3-Flute)	0.7500"	11500	2260	144.90	0.0126	0.1500"	0.1500"	Flood

Cycle Time  
**25%**  
Machining Cost  
**25%**  
Cost Per Part  
**27%**

