

S-CARB



Kyocera SGS Precision Tools Case Study

INDUSTRY



POWER GENERATION

MATERIAL

6061 ALUMINUM BRONZE

PRODUCT

KSPT S-CARB

APPLICATION

PROFILING

COMPETITOR

COMPARABLE END MILL

COOLANT

Flood

TOOL INFORMATION

.5" DIA / 2" LOC / 3" OAL



GOALS

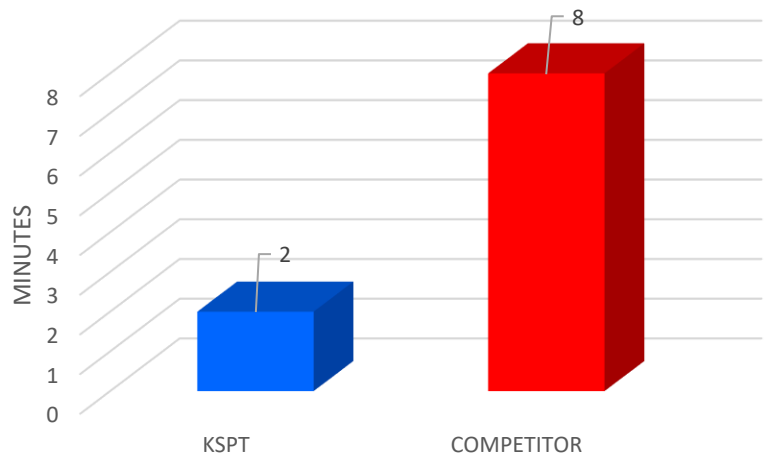
The goals of this study were to significantly reduce cost through an increase tool life.

STRATEGY

KSPT approached this job with the S-Carb. The S-Carb has an engineered flute form that provides high-performance results through a full range of machining conditions. These tools are designed for aggressive aluminum, non-ferrous, and non-metallic machining requiring a high level of material removal.

	KSPT	COMPETITOR
TOOL DIAMETER	.5	.5
SPEED	10,000 RPM	4,000 RPM
FEED	60 IPM	8 IPM
RADIAL CUT (AE)	.2	.2
AXIAL CUT (AP)	.5	.5
CYCLE TIME	2 minutes	8 minutes

CYCLE TIME

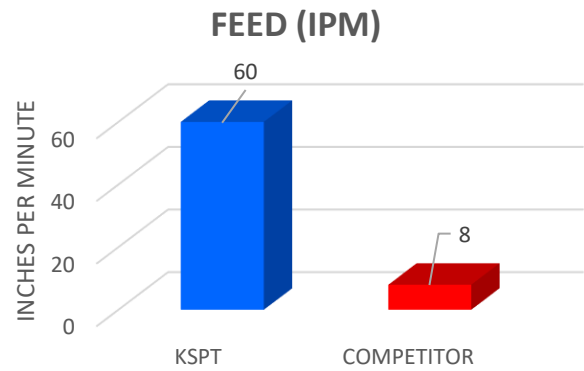
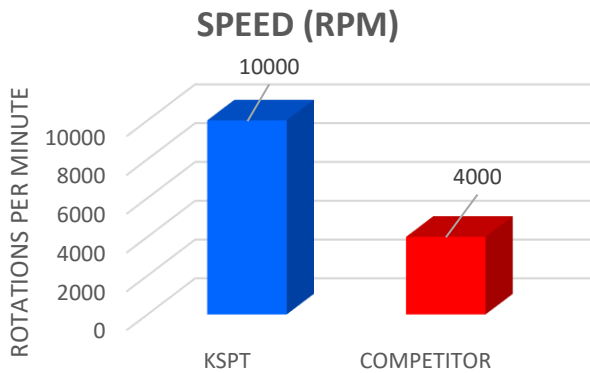


KSPT's S-Carb reduced cycle time by 75%!!

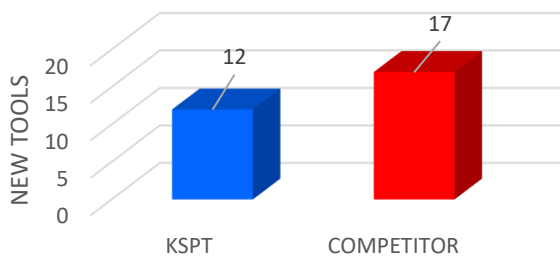


RESULTS

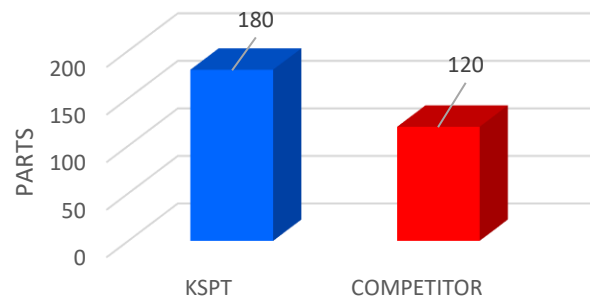
The overall findings of this study indicate that although KSPT's S-Carb exceedingly outperformed the competitor's tool in every statistical category. Through a **60% increase in speed and an 86% increase in feed rate, the cycle time per part was reduced by 75%!** The S-Carb was also able to **produce an extra 60 parts with 30% less new tools.** The total new tool cost to the customer was reduced by almost 20%. Where the customer saw the greatest disparity in cost was in machining cost. When the S-Carb was implemented, it produced a **cost savings of over \$13,000 in machining cost.** When you combine the savings in machining cost with the savings in the reduced number of new tools needed, the customer is left with a **total cost savings of \$13,918.92!!**



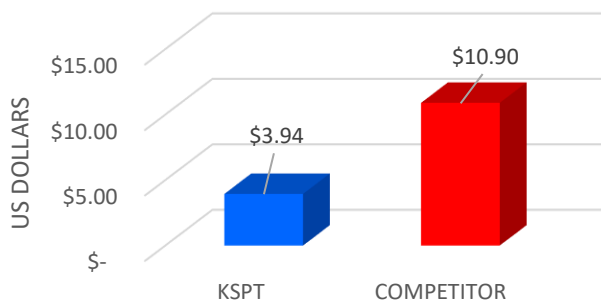
NEW TOOLS NEEDED TO COMPLETE JOB



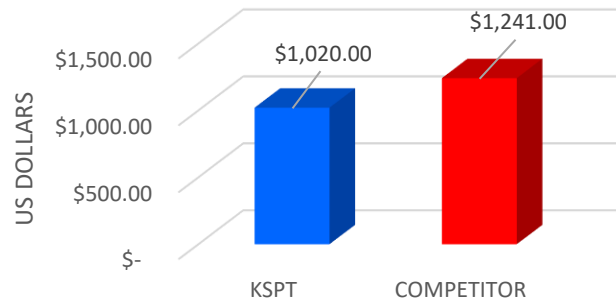
TOTAL PARTS PER TOOL



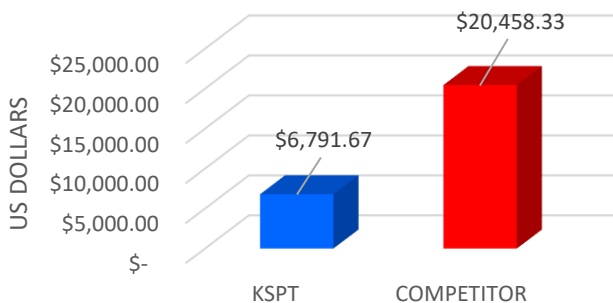
TOTAL COST PER PART



TOTAL NEW TOOL COST



TOTAL MACHINING COST



TOTAL COST

