

Series 135 Hi-PerCarb

Kyocera SGS Precision Tools Case Study

INDUSTRY



ENGINEERING

MATERIAL

4140 WROGHT

PRODUCT

KSPT series 135 HI-PERCARB Drill

APPLICATION

Hole Drilling

COMPETITOR

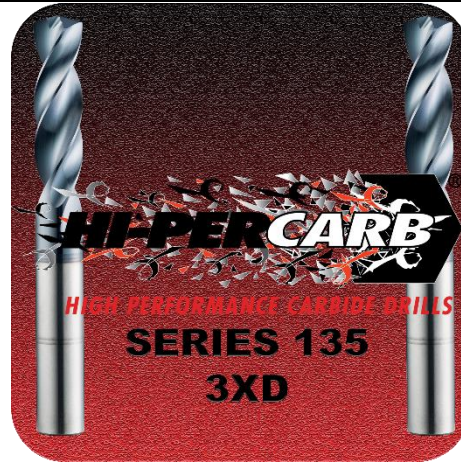
COMPARABLE 2 FLUTE POINT DRILL

COOLANT

SEMI- SYNTHETIC

TOOL INFORMATION

.812" DIA / 3.685" LOC / 6.0" OAL



GOALS

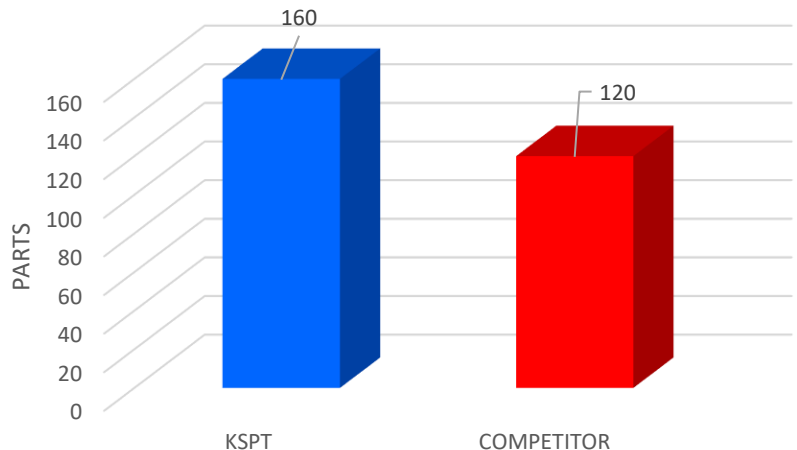
The goals of this study were to significantly reduce cost through an increase tool life.

STRATEGY

KSPT approached this job with a series 135 HI-PERCARB drill. KSPT's series 135 HI-PERCARB, with its double margin design is ideal for improving surface finish without sacrificing speed and feed rates.

	KSPT	COMPETITOR
TOOL DIAMETER	.812 INCHES	.812 INCHES
SPEED	860 RPM	1000 RPM
FEED	14.4 IPM	10 IPM
RADIAL CUT (AE)	N/A	N/A
AXIAL CUT (AP)	1.5"	1.5"
CYCLE TIME	.104 MINUTES	.15 MINUTES

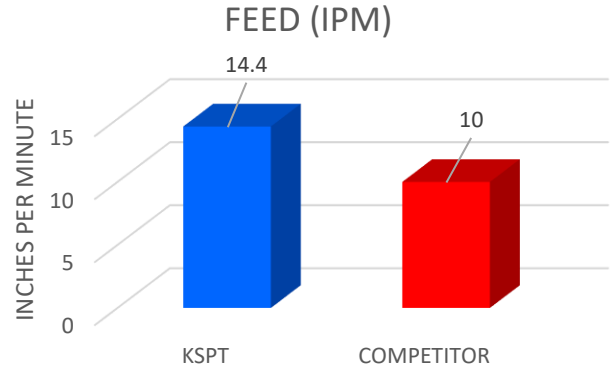
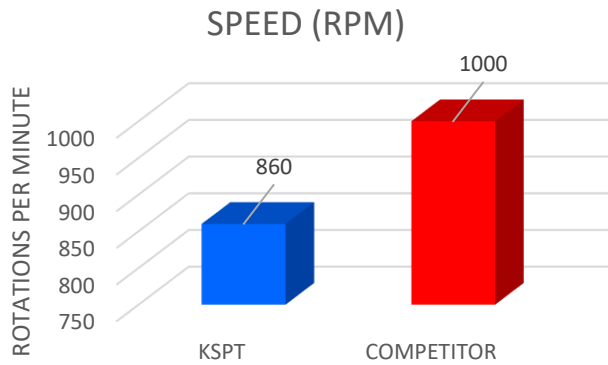
TOTAL PARTS AVAILABLE PER TOOL



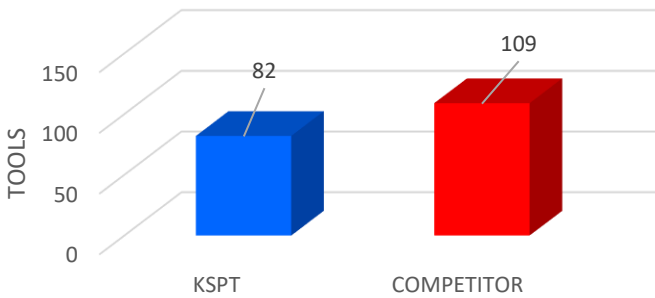
KSPT's series 135 HI-PERCARB was able to produce 25% more parts with 30% less tools!!

RESULTS

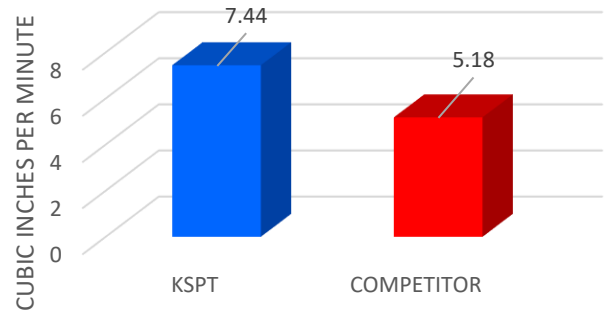
The overall findings of this study show that despite KSPT's **HI-PERCARB** outperformed the competitor's tool in almost every statistical category. The engineer was able to run the tool at a slightly lower RPM but increased the feed rate and this optimized the part making process. **The cycle time was improved by 30% with the HI-PERCARB.** The tool life was also improved with the operation optimization, the **HI-PERCARB** was able to produce 25% more parts with 32% less tools than the competition. Given all the improved efficiencies, **KSPT** was able to reduce the cost per part by almost 60%. The reduced number of HI-PERCARBS needed saved the customer over \$43,000 and when you combine that savings with the machining cost savings, the customer experienced a total cost savings of **\$44,214.83!**



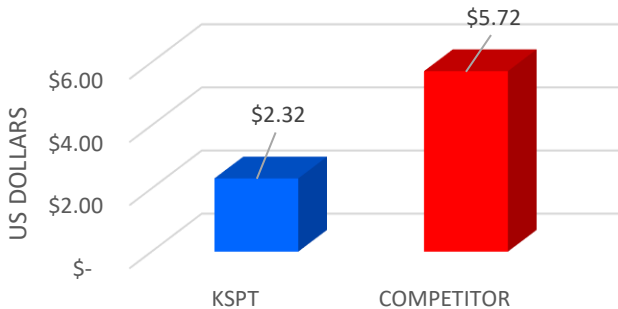
NEW TOOLS REQUIRED TO COMPLETE JOB



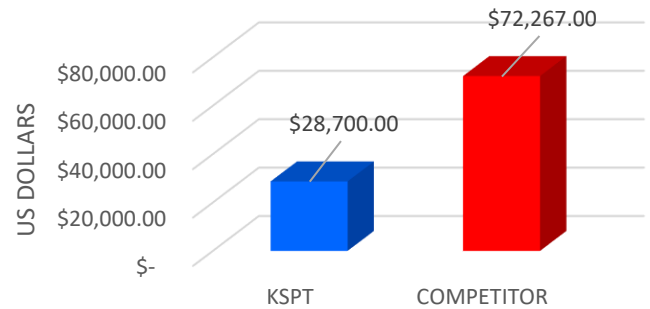
MATERIAL REMOVAL RATE



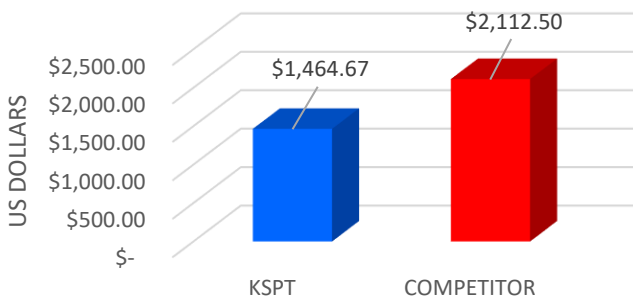
COST PER PART MADE



TOTAL NEW TOOL COST



TOTAL MACHINING COST



TOTAL COST

