

SERIES 131N HI-PERCARB



Kyocera SGS Precision Tools Case Study

INDUSTRY

AUTOMOTIVE

MATERIAL

6061 ALUMINUM

PRODUCT

KSPT SERIES 131N HI-PERCARB DRILL

APPLICATION

DRILLING

COMPETITOR

2 Flute Drill

COOLANT

FLOOD

TOOL INFORMATION

4.1mm DIA / 44mm LOC / 82mm OAL

GOALS

The goals of this study were to significantly reduce job cost through increasing tool life, reducing machining time and improving overall manufacturing efficiency.

STRATEGY

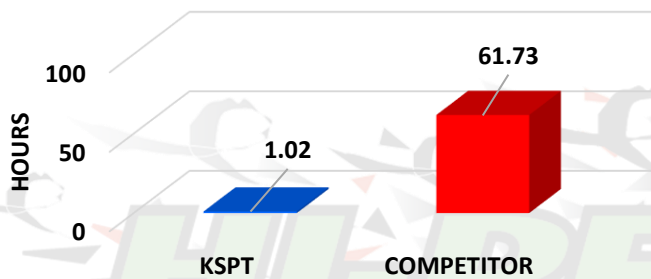
KSPT approached this job with a 3 flute HI-PERCARB aluminum drill. The tri-margin design offers superior surface finish and hole cylindricity. Additionally, the sculpted gash allows for a reduction of cutting forces over competitive three-flute designs.

	KSPT	COMPETITOR
TOOL DIAMETER	4.1mm	4.1mm
SPEED	8100 RPM	4500 RPM
FEED	81 IPM	1.4 IPM
RADIAL CUT (AE)	4.1mm	4.1mm
AXIAL CUT (AP)	1.1"	1.1"
CYCLE TIME	.01 MINUTES	.74 MINUTES

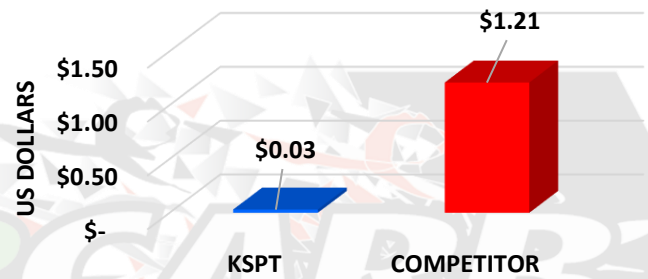
RESULTS

The overall findings of this study indicate although KSPT's HI-PERCARB aluminum drill has a **40% higher list price**, our tools operated **80% more efficiently** than the competition's. This was accomplished by being able to capacitate a **44% higher speed and a giant improvement in feed rate**. This resulted in a **massive improvement in machining time**, and **reduction in cost per part by 75%**. Our tool and knowledge of how to run that tool **reduced machining cost to the customer by over \$5,700** and an overall job cost savings of **\$5,906.46!!! That's a 97% VALUE AT THE SPINDLE®**

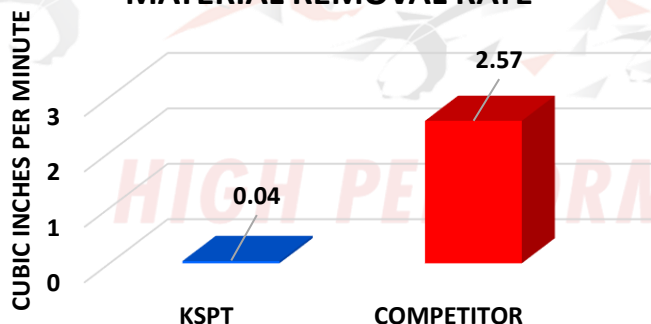
TOTAL MACHINING TIME



TOTAL COST / PART



MATERIAL REMOVAL RATE



TOTAL COST

