

Series 135 Hi-PerCarb



Kyocera SGS Precision Tools Case Study

INDUSTRY



ENGINEERING

MATERIAL

A36 Steel

PRODUCT

KSPT series 135 HI-PERCARB Drill

APPLICATION

Hole Drilling

COMPETITOR

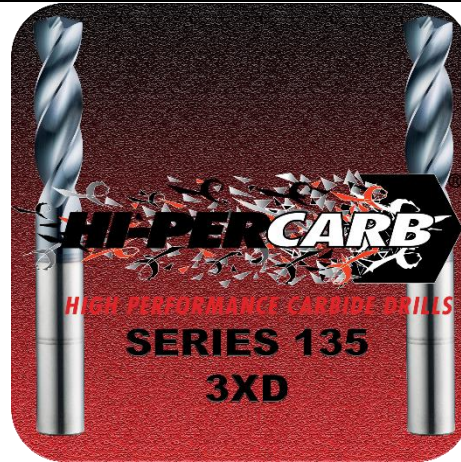
COMPARABLE 2 FLUTE DRILL

COOLANT

SEMI- SYNTHETIC

TOOL INFORMATION

6.8mm DIA / 34mm LOC / 79mm OAL



GOALS

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

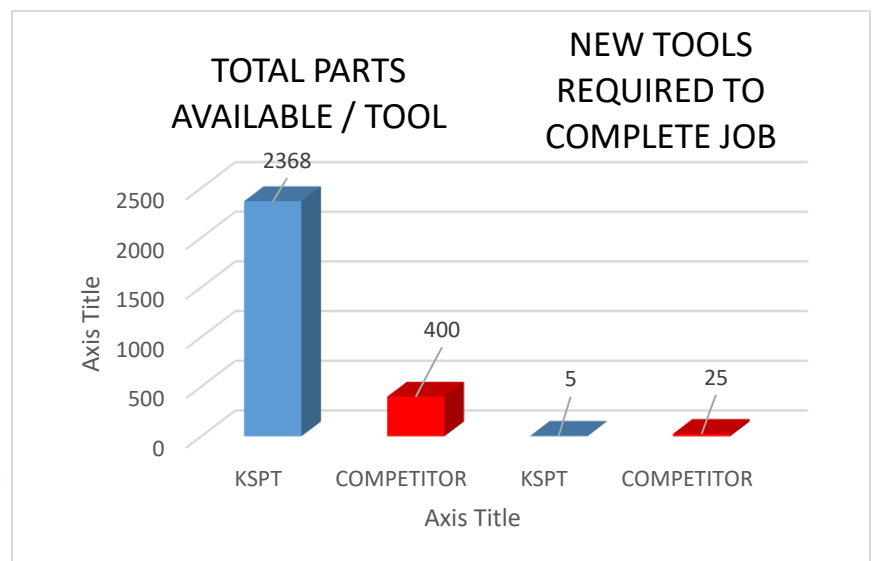
STRATEGY

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	6.8mm	6.8mm
SPEED	5600 RPM	850 RPM
FEED	47.6 IPM	9.2 IPM
RADIAL CUT (AE)	N/A	N/A
AXIAL CUT (AP)	.7500	.7500
CYCLE TIME	1:04	5:31



KSPT's series 135 HI-PERCARB was able to produce almost 6 times the parts with 1/5 of the tools!!



RESULTS

The overall findings of this study show that despite KSPT's HI-PERCARB having a **list price that was more than 4 times the cost of the competitor's tool**. With improved processes and a higher quality tool, the customer ultimately saved significantly in the long run. The HI-PERCARB drill was able to be run at a speed **more than 6 times faster** and had more than **5 times the feed rate**. This provided value in two ways: 1) The tool life of the HI-PERCARB was significantly higher and 2) the HI-PERCARB only **required 19% of the machining time**. Additionally, with less tools used, less tool change needs to occur, and the tool change cost was **98% less than the competition's**. Despite having a higher list price, the HI-PERCARB's total new tool cost to the customer was **significantly less than the competition's**. When you combine the tool change cost with the machining cost, you get a **total job cost savings of \$49,567.53**

