

# SERIES 103 DRILL



Kyocera SGS Precision Tools Case Study

## INDUSTRY



## ENGINEERING

### MATERIAL

TITANIUM (38 HRc hardness)

### PRODUCT

KSPT SERIES 103 General Purpose Drill

### APPLICATION

Drilling

### COMPETITOR

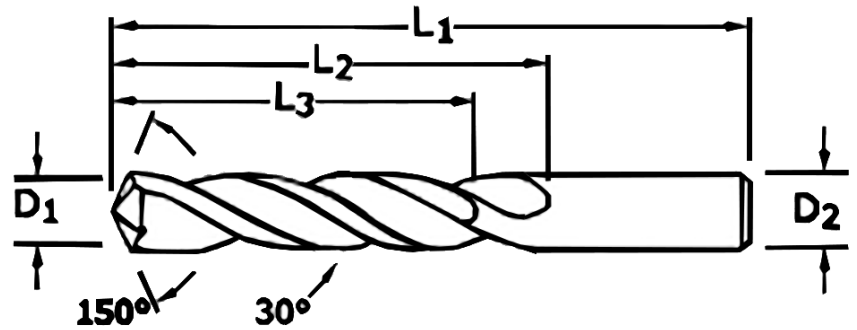
2 FLUTE General Purpose Drill Uncoated

### COOLANT

Semi-Synthetic

### TOOL INFORMATION

.3860 DIA / 2.875" LOC / 4.5" OAL



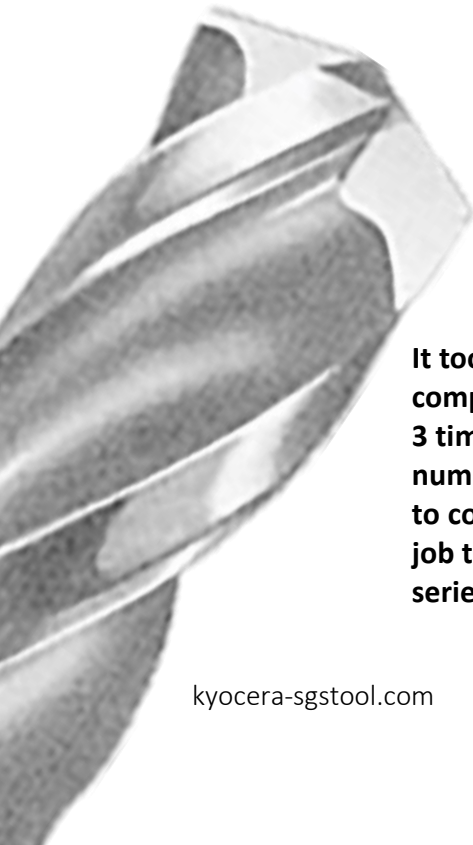
### GOALS

The goals of this study were to significantly reduce job cost through an increase in tool life, a reduction in machining time, and an improvement in manufacturing efficiency.

### STRATEGY

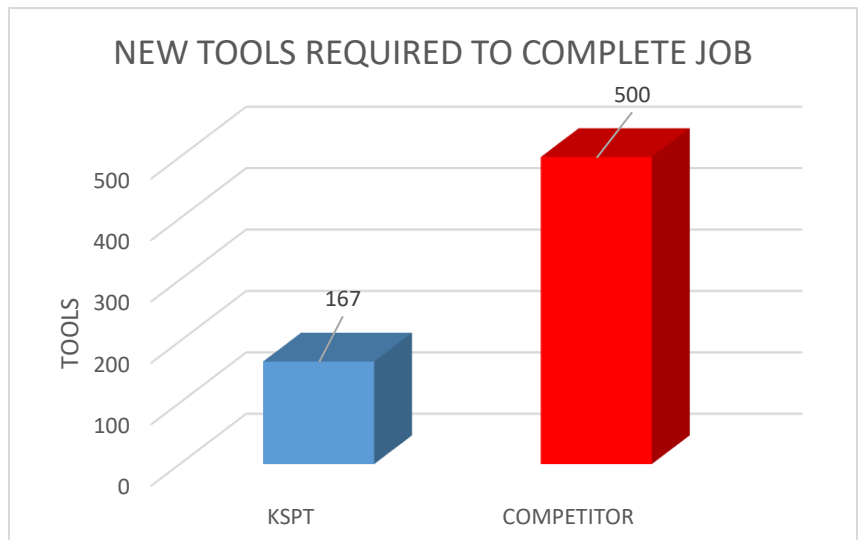
KSPT approached this job with a 3 flute series 103 general purpose drill. KSPT's series 103 drill allowed for a change in the method of cut. The addition of a peck drill allowed for a significantly better performance.

	KSPT	COMPETITOR
<b>TOOL DIAMETER</b>	.3860"	.3860"
<b>SPEED</b>	663 RPM	445 RPM
<b>FEED</b>	3.3 IPM	1.3 IPM
<b>RADIAL CUT (AE)</b>	N/A	N/A
<b>AXIAL CUT (AP)</b>	2.0"	2.0"
<b>CYCLE TIME</b>	0.754 MINUTES	1.684 MINUTES



**It took the competitor almost 3 times the number of tools to complete the job than KSPT's series 103 drill!!!**

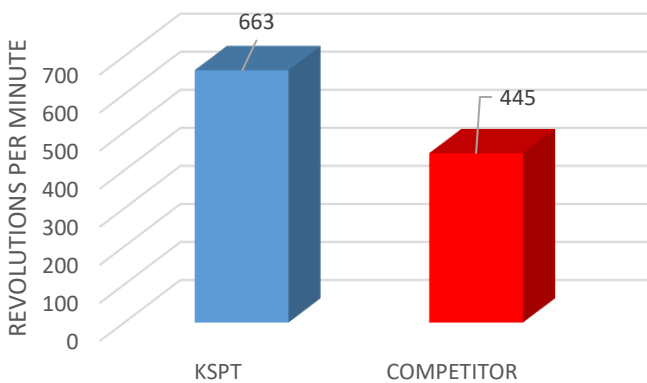
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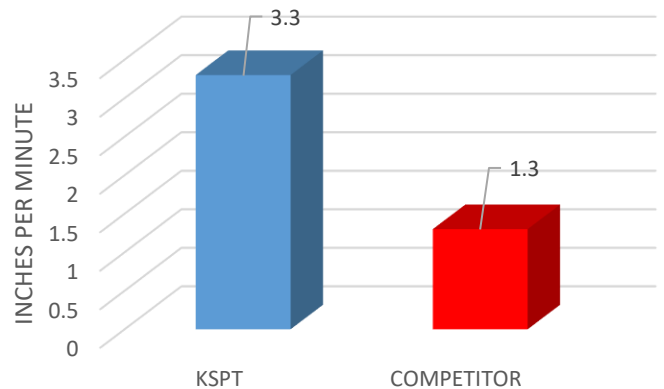
## RESULTS

The overall findings of this study indicate that KSPT's general purpose drill was able to significantly improve performance of the job at hand. This was done through an **increase in speed and feed capacity** as well as the use of a **higher quality tool**. Given the vastly smaller number of tools used, the **new tool cost was reduced by over \$38,000**, as well as an obvious savings in machining cost. Our drill was able to reduce the cost per part to the customer by over **\$75 per part**. When you combine the savings in new tool cost with machining cost savings, you get a **total cost savings of \$39,473.75**

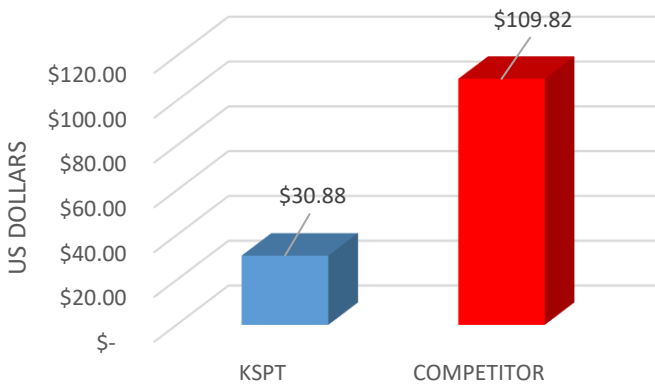
### SPEED (RPM)



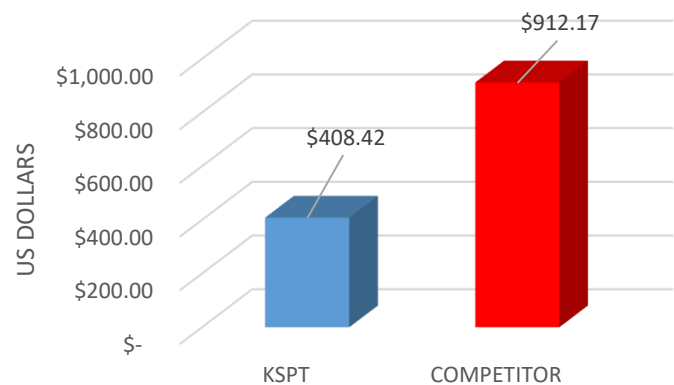
### FEED (IPM)



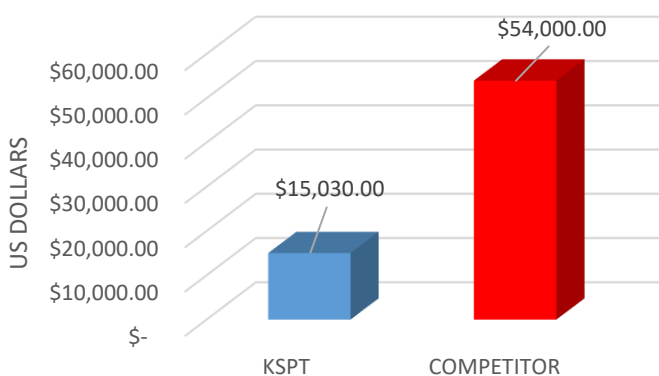
### COST PER PART



### TOTAL MACHINING COST



### TOTAL NEW TOOL COST



### TOTAL COST

