



Real-Life Stories

## Case Study: SGS HI-PERCARB® 143M-S

Brought To You by KYOCERA SGS Precision Tools | Apr 01, 2022

### Goals

The goal of this study was to significantly reduce job cost by increasing tool life and decreasing cycle time per part.

### Strategy

SGS provided the new *Hi-PerCarb® 143M-S internal coolant drill* due to its proven performance and chip control in stainless steel applications. The single margin design was engineered to combat many of the issues commonly encountered during high production drilling.

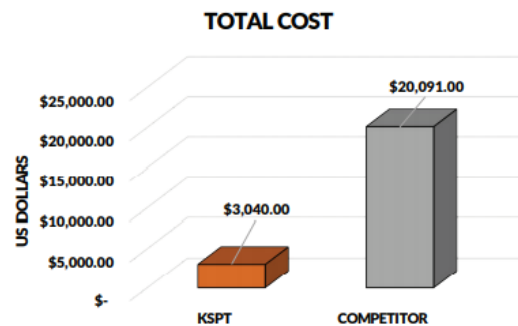
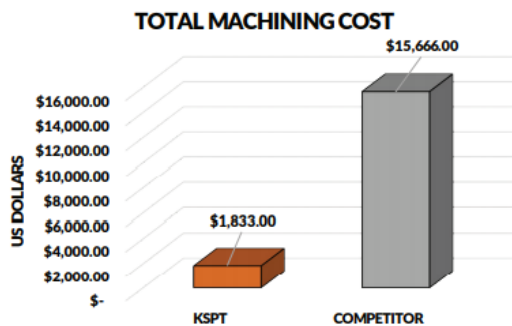
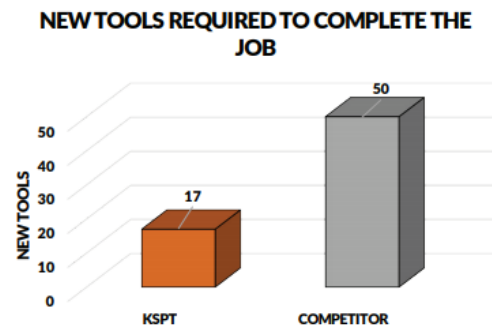
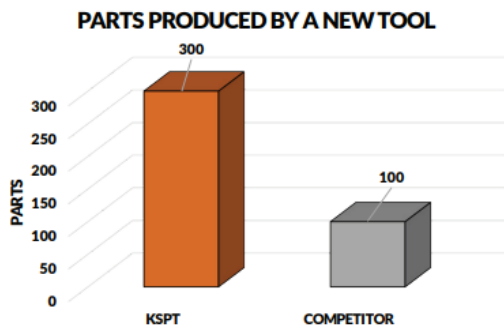
	<b>KSPT</b>	<b>Competitor</b>
<b>TOOL DIAMETER</b>	.2200	.2200
<b>SPEED</b>	2365 RPM	1500 RPM
<b>FEED</b>	7.3 IPM	2.3 IPM
<b>AXIAL DEPTH (AP)</b>	.7500	.3000
<b>CYCLE TIME</b>	1:34 MINUTES	0:11 MINUTES

## Conclusion

The customer was able to achieve the primary goal of reducing cycle time which lead to a noticeable increase in tool life. With greater tool life comes decreased tool change cost along with a total reduction in machining cost. The efficiencies gained ultimately netted the customer a reduction in total machining cost per part of over 84%.

## Results

Adding the Hi-PerCarb® 143M-S internal coolant drill to the customer’s tooling arsenal resulted in an 88% improvement in cycle time. The 143M-S was able to produce over 8 holes for every hole produced by the competitor’s drill and the customer saw a 66% improvement in tool life. After the job was complete, the customer saw a total cost savings of over \$17,000 and a total cost reduction of 84%.



*Download a PDF of the case study here.*