



TOTAL COST SAVINGS
\$17,051



Scan Code to See the
HI-PERCARB 143M-S
IN ACTION!

Industry

Aerospace

Material

15-5 PH Stainless Steel
(275-325 Bhn Hardness)

Product

HI-PERCARB® 143M-S

Application

Drilling

Competitor

Comparable HP Drill

Coolant

Flood

Tool Information

5.6mm DIA
28mm LOC
66mm OAL

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.

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

Conclusion

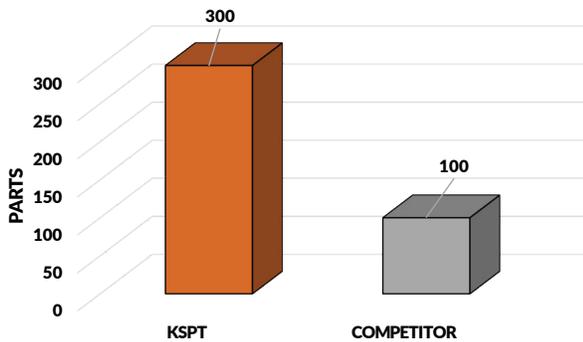
The customer was able to achieve the primary goal of reducing cycle time which lead to a noticeable increase in tool life. With greater tool life comes decreased tool change cost along with a total reduction in machining cost. The efficiencies gained ultimately netted the customer a reduction in total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

Results

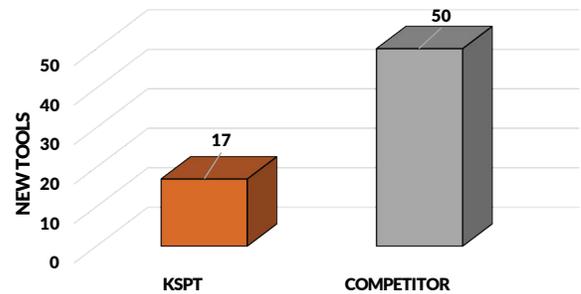
Adding the **Hi-PerCarb® 143M-S** internal coolant drill to the customer's tooling arsenal resulted in an 88% improvement in cycle time. The 143M-S was able to produce over 8 holes for every hole produced by the competitor's drill and the customer saw a 66% improvement in tool life. After the job was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



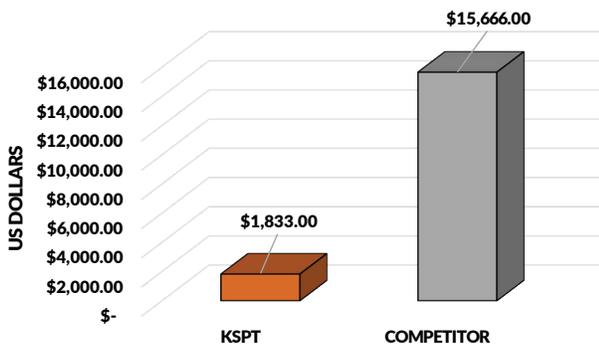
PARTS PRODUCED BY A NEW TOOL



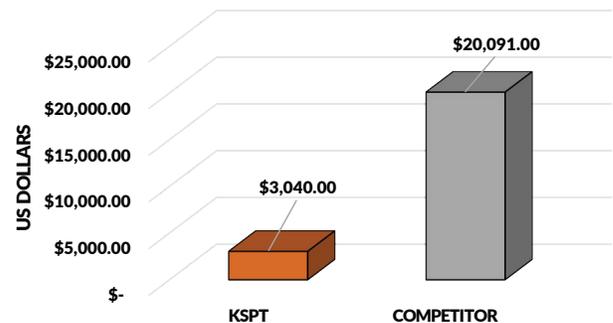
NEW TOOLS REQUIRED TO COMPLETE THE JOB



TOTAL MACHINING COST



TOTAL COST



\$17,051 Annual Cost Savings
88% Improvement in Cycle Time
66% Increase in Tool Life