

SERIES 33



Kyocera SGS Precision Tools Case Study

INDUSTRY



AEROSPACE

MATERIAL

440C STAINLESS STEEL

PRODUCT

KSPT SERIES 33 END MILL (CUSTOMER SPECIAL)

APPLICATION

SLOTING

COMPETITOR

4-Flute HIGH PERFORMANCE END MILL

COOLANT

N/A

TOOL INFORMATION

.093 DIA / .375 LOC / 2.5 OAL



GOALS

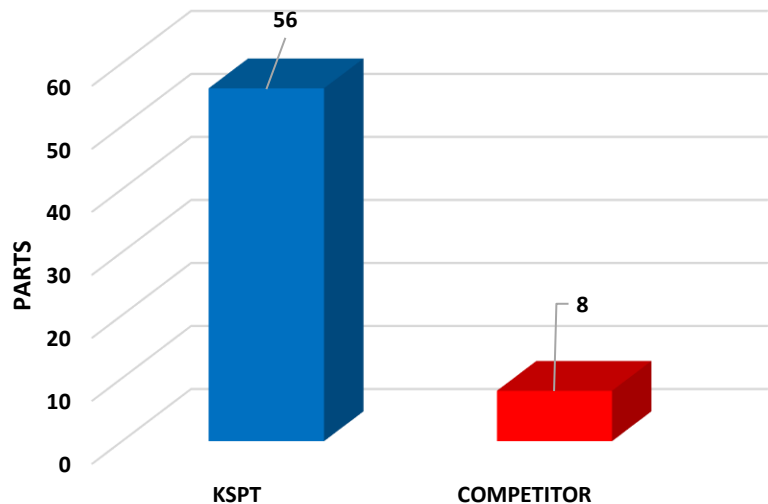
The goals of this study were to significantly reduce job cost while employing a tool designed specifically for that customer. This would hopefully dramatically increase tool life.

STRATEGY

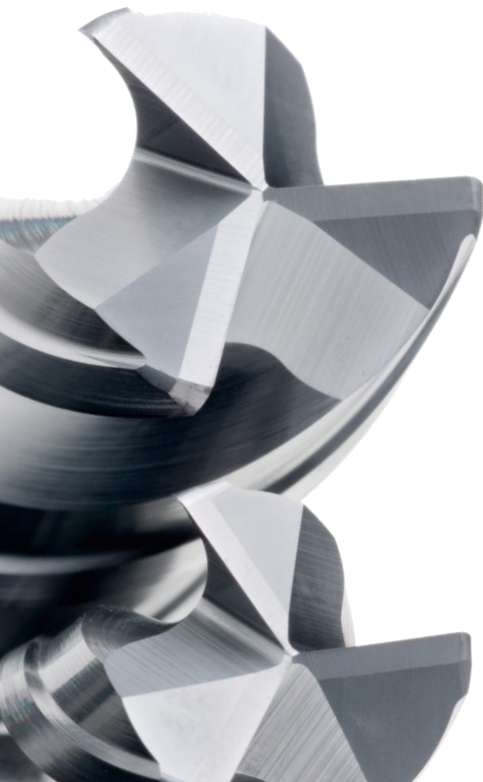
KSPT approached this job with a 3 flute Series 33 end mill. KSPT's Series 33 are ideal for aggressive ramping, pocketing, and slotting in difficult to machine materials such as stainless steel. Designed for applications challenged by heavy chip evacuation, this 3-flute design offers increased chip clearance and a reduction in harmful harmonics.

	KSPT	COMPETITOR
TOOL DIAMETER	.093	.093
SPEED	5500 RPM	5500 RPM
FEED	5.0 IPM	5.0 IPM
RADIAL CUT (AE)	.093	.093
AXIAL CUT (AP)	.1	.1

PARTS PRODUCED BY A NEW TOOL

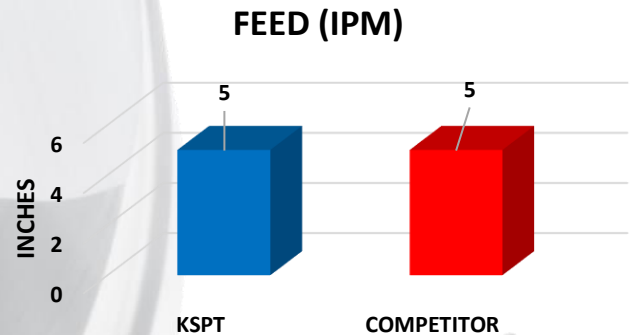
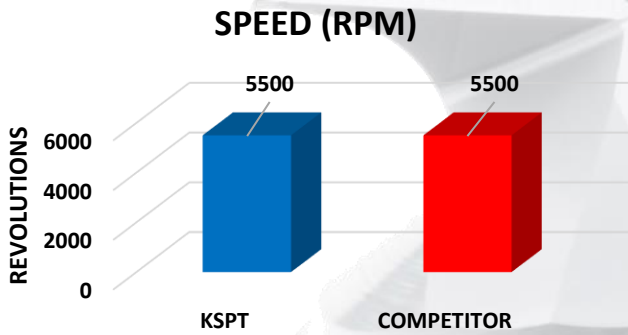


KSPT's series 33 produced 23% more parts with 22% less tools!!

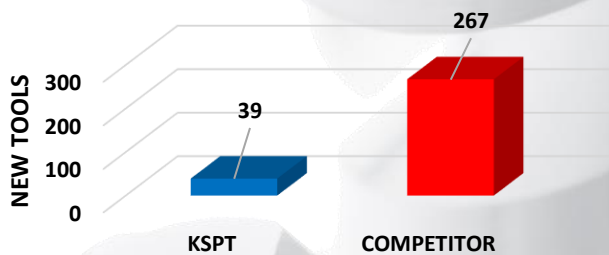


RESULTS

Certain stainless steels can be challenging to work with due to the varying carbon content. This can make the material gummy and difficult to create a proper chip. The use of the proper tool becomes so crucial that you may need a modified version of an existing tool to get the job done. This was the case for this application, and in this case, the modified KSPT Series 33 outperformed the competition's tool. The speeds and feeds between both tools were identical, but where the separation occurred was in tool life. **One Series 33 was able to produce 7 times the parts as the competition's tool.** This dramatically reduced the number of tools needed to complete the job, which reduced the tool change cost as well as the total new tool cost. The total cost per part cut in half and after all was said and done, **the Series 33 had saved the customer a grand total of \$9,873.25**



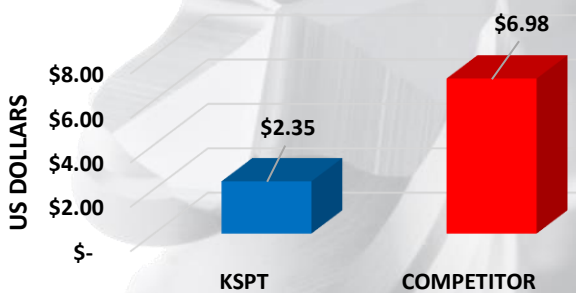
NEW TOOLS REQUIRED TO COMPLETE THE JOB



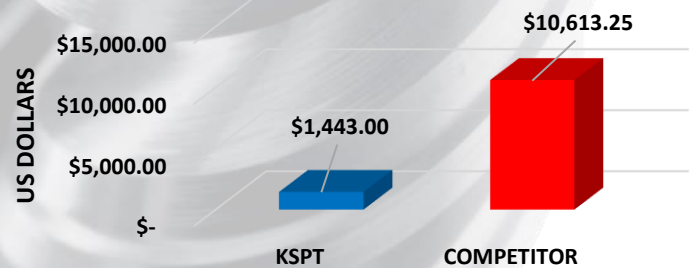
TOOL CHANGE COST



TOTAL COST PER PART



TOTAL NEW TOOL COST



TOTAL COST

