SERIES 51 T-CARB

Kyocera SGS Precision Tools Case Study

INDUSTRY

ENGINEERING

MATERIAL

17-4 STAINLESS STEEL
(>35 HRc Hardness)

PRODUCT

KSPT SERIES 51 T-CARB

APPLICATION

HIGH SPEED MACHINING

COMPETITOR

Comparable End Mill

COOLANT

Flood

TOOL INFORMATION

.7500 DIA / 1.625” LOC / 4.0” OAL

KSPT’s T-Carb 50 times the parts per tool than the competition!

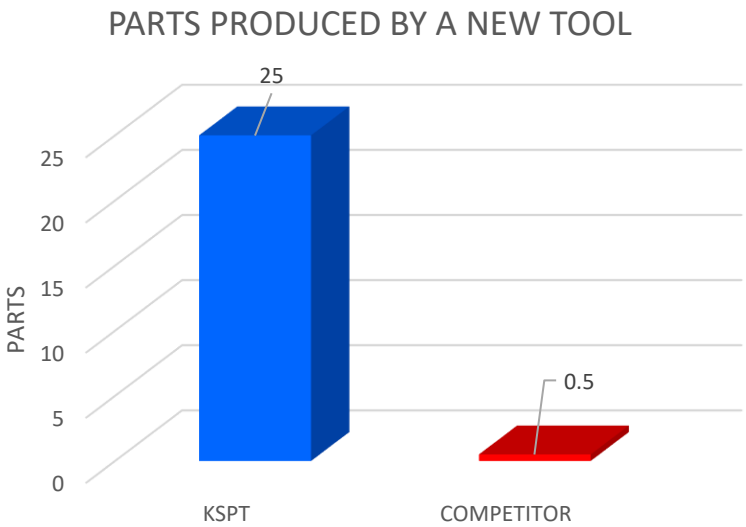
GOALS

The goals of this study were to significantly reduce job cost through increased manufacturing efficiencies thus increasing tool life.

Features

KSPT approached this job with a 6 flute T-Carb end mill. KSPT’s T-Carb excels at high-speed machining. Specifically, trochoidal and peel milling, the T-Carb's 6 flute design with eccentric relief provides strength and supreme chip control at high speeds, and with surprising finish results.

	KSPT	COMPETITOR
TOOL DIAMETER	.7500”	.7500”
SPEED	3300 RPM	2500 RPM
FEED	79.2 IPM	50 IPM
RADIAL CUT (AE)	.0150"	.0150"
AXIAL CUT (AP)	1.625"	1.625"
Material Removal Rate	1.93 Cubic inches / Minute	1.22 Cubic Inches / Minute



RESULTS

The overall findings of this study indicate that **KSPT's T-Carb heavily outperformed the competitor's tool** in almost every statistical category. The T-Carb, being a **higher quality tool**, was able to handle a **24% increase in speed and a 37% increase in feed rate** over the competitor. With the use of a higher quality tool at a more efficient speed and feed, the **customer was able to produce 50 times the parts for every new T-Carb used**. The customer's goal for this job was 100 parts and because every T-Carb was able to produce 25 tools, the customer only needed to use 4 T-Carbs to complete the job. The competitor's tool could only produce .5 parts for ever new tool of theirs which means the customer had to use 200 of their tools to do what 4 T-Carbs could do! **The savings in new tool cost alone was north of $36,000, which in this case was over a 97% reduction! When all was said and done the sales engineer, with use of the T-Carb, saved the customer a total of $36.300.1!!!**