

Z-CARB HPR

Kyocera SGS Precision Tools Case Study



INDUSTRY



ENGINEERING

MATERIAL

6Al4V (>35HRC hardness)

PRODUCT

KSPT Z-CARB HPR

APPLICATION

PROFILING

COMPETITOR

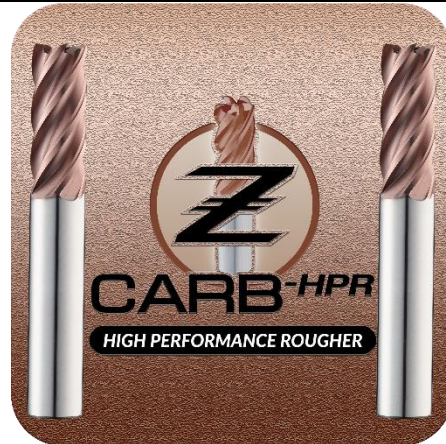
COMPARABLE END MILL

COOLANT

FLOOD

TOOL INFORMATION

1 DIA / 2.0" LOC / 4.5" OAL



GOALS

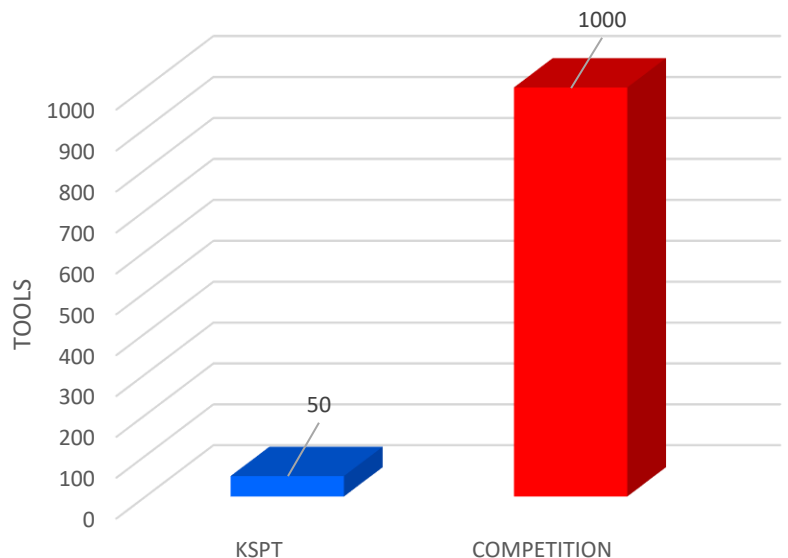
The goals of this study were to significantly reduce job cost through the use of a higher quality tool which increases tool life.

STRATEGY

KSPT approached this job with a 5 flute Z-Carb high performance rougher (HPR) end mill. KSPT's Z-Carb HPR ideal for achieving high metal removal rates, while at the same time achieving an optimal surface finish. The specialized five flute design is engineered for increased productivity over three and four flute end mills.

	KSPT	COMPETITOR
TOOL DIAMETER	1"	3"
SPEED	850 RPM	3300 RPM
FEED	12.8 IPM	66 IPM
RADIAL CUT (AE)	.4"	2.5"
AXIAL CUT (AP)	2"	.045"

NEW TOOLS REQUIRED TO COMPLETE JOB



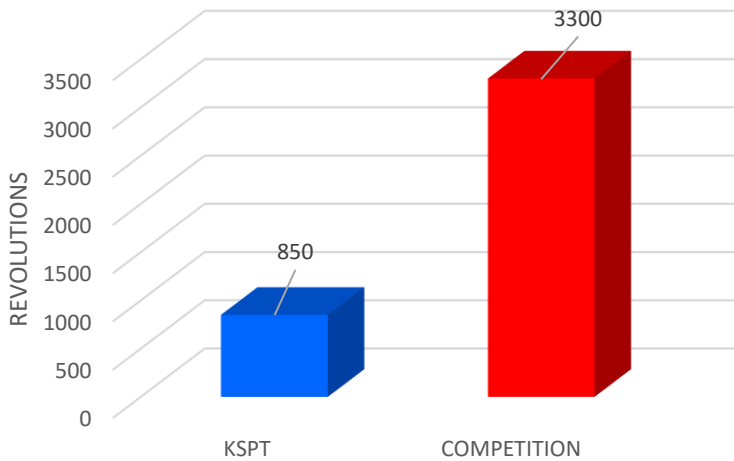
For every 1 HPR needed to complete the job, the competitor used 20 of their tools!!



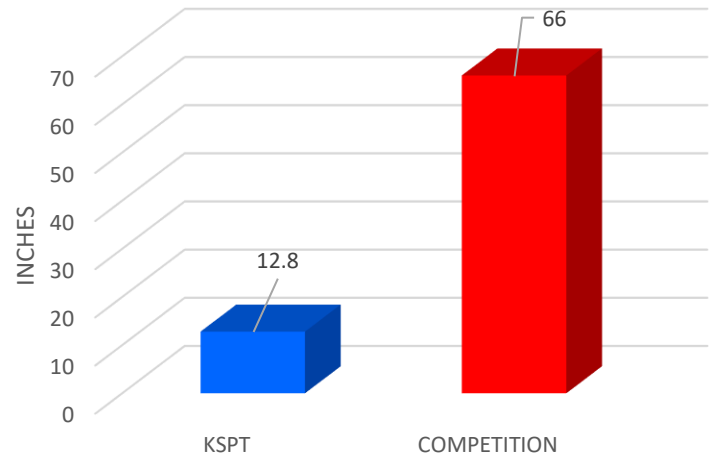
RESULTS

Tool quality goes a long way, even if it cost's you more up front. This case is proof of that. In this case, with the employ of the Z-Carb HPR, the KSPT sales engineer was able prove **the superiority of the HPR and its unsurpassed quality and precision**. Even with the competitor's tool having a higher speed and feed rate, they proved inconsequential. **The customer needed to produce 100 parts to complete this job and the HPR was able to accomplish that with the use of only 50 tools**. The competitor's tool accomplished the same feat but had to use 2,000 new tools to do it. So, **for every 1 HPR the customer would have needed to use 20 of the competitor's tool**. The KSPT sales engineer was able to **save the customer over\$200,000 in total new tool cost**. **The cost per part was reduced by over 90%, and when all was said and done the customer had saved a total of \$204,487.45**

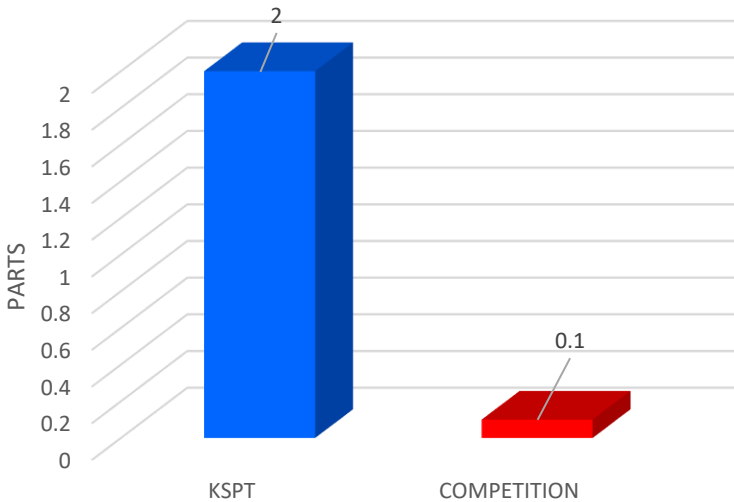
SPEED (RPM)



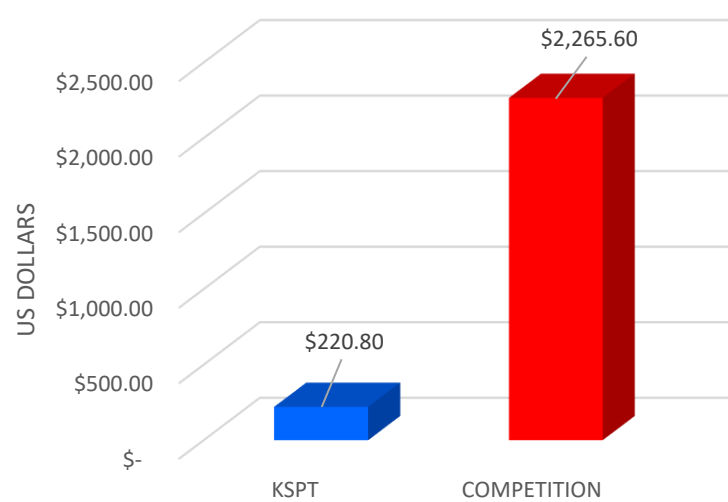
FEED (IPM)



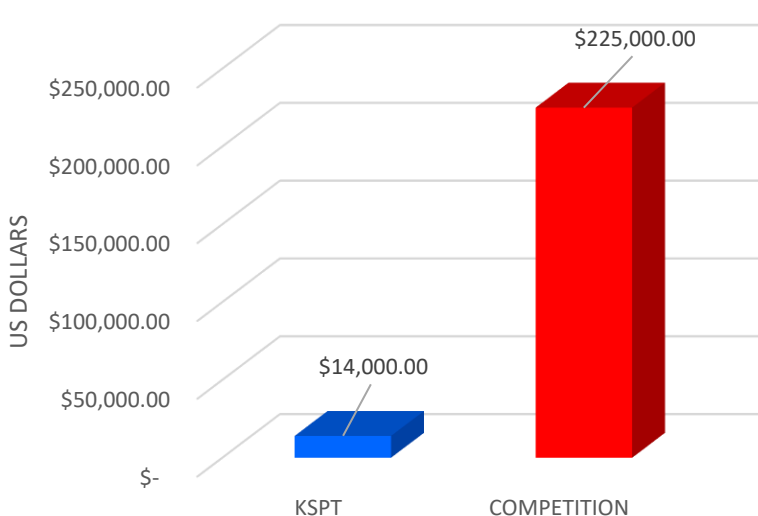
TOTAL PARTS PRODUCED BY A NEW TOOL



TOTAL COST / PART



TOTAL NEW TOOL COST



TOTAL COST

