

Z-CARB

Kyocera SGS Precision Tools Case Study



INDUSTRY



ENGINEERING

MATERIAL

1018 STEEL (23HRc hardness)

PRODUCT

KSPT Z-CARB END MILL

APPLICATION

MILLING

COMPETITOR

4 FLUTE SQUARE END MILL

COOLANT

EMULSION

TOOL INFORMATION

.3125 DIA / .813" LOC / 2.5" OAL



GOALS

The goals of this study were to significantly reduce job cost through an increase in tool life, a reduction in machining time, and an improvement in manufacturing efficiency.

STRATEGY

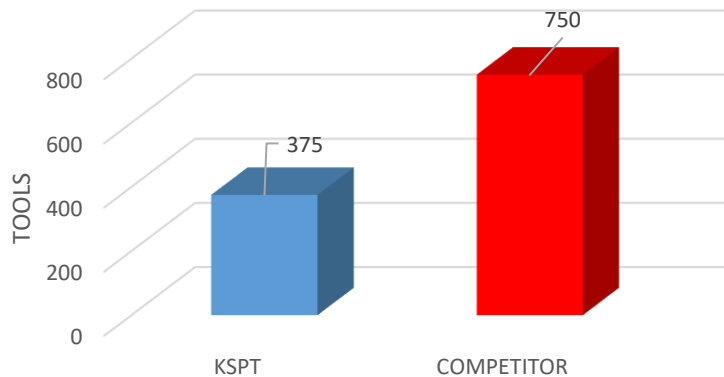
KSPT approached this job with a 4 flute Z-Carb high performance end mill. KSPT's Z-Carb was able to capacitate higher speed and feed rates, while still producing an optimal finish.

	KSPT	COMPETITOR
TOOL DIAMETER	.325"	.325"
SPEED	4500 RPM	2700 RPM
FEED	36 IPM	16.2 IPM
RADIAL CUT (AE)	.325"	.325"
AXIAL CUT (AP)	.1750"	.1750"
CYCLE TIME	.03 seconds	.08 seconds



KSPT's Z-Carb reduced the total tools needed to complete the job by 50%

NEW TOOLS REQUIRED TO COMPLETE JOB



RESULTS

The overall findings of this study indicate although KSPT's Z-Carb has a higher list price, it was able to reduce the tools needed to complete the job by **50%**. This was done through an increase in speed and feed capacity. Additionally, with **50% fewer tools used**, we were able to **reduce the total new tool cost by \$11,250**. This, when combined with the **\$1300.00 saved in machining cost**, produced a **Total Job Savings of \$14,398.15!!**

