

Series 22 Performance Router



Kyocera SGS Precision Tools Case Study

INDUSTRY



ENGINEERING

MATERIAL

ULTEM THERMOPLASTIC

PRODUCT

SERIES 22 PERFORMANCE ROUTER

APPLICATION

Slotting at 53% cutting depth

COMPETITOR

COMPARABLE 2 FLUTE ROUTER

COOLANT

DRY

TOOL INFORMATION

.1875" DIA / .75" LOC / 2.5" OAL



GOALS

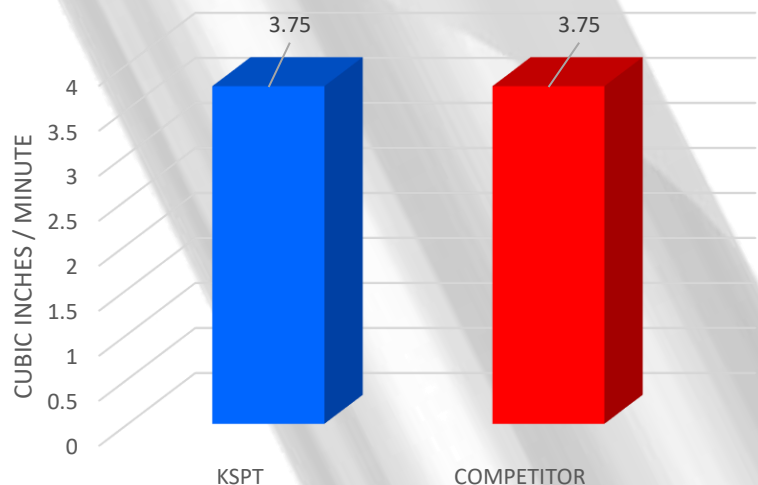
The goals of this study were to significantly reduce job cost through increasing tool life and maximizing operating efficiencies.

STRATEGY

Because of Ultem's high dielectric strength and inherent flame resistance, the Series 22 was used. All KSPT's performance routers are manufactured right alongside our high-performance products and undergo the same rigorous testing and quality control. We use the same machines, the same diamond grinding wheels, and the same metallurgical lab inspected raw material.

	KSPT	COMPETITOR
TOOL DIAMETER	0.1875"	0.1875"
SPEED	12000 RPM	12000 RPM
FEED	200 IPM	200 IPM
RADIAL CUT (AE)	0.1875	0.1875
AXIAL CUT (AP)	0.1	0.1
CYCLE TIME	2:12 MINUTES	2:12 MINUTES

MATERIAL REMOVAL RATE

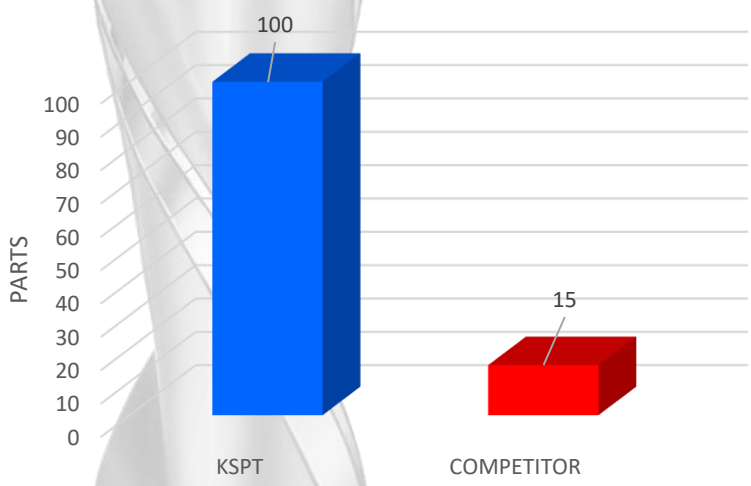


The Series 22 Performance router and the competitor's tool had identical material removal rates

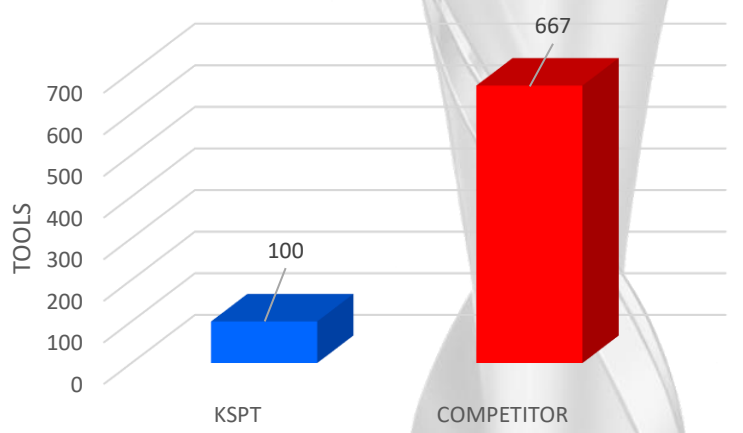
RESULTS

In this case, the KSPT sales engineer employed the Series 22 Performance Router. The customer ran both the Series 22 and the competitor's tool at identical speeds and feeds. The material removal rates were also identical. The differences appeared in tool life. The Series 22 was coated in titanium di-boride (TiB2) and because of this fact, and along with being a higher quality tool, **heavily outlasted the competitor's tool**. One single Series 22 router **produced more than 6 times as many parts**. Given that the customer needed 10,000 parts, it only took 100 new Series 22 routers versus 667 needed competitor tools. With less tools needed it produced multiple cost savings. **The customer saved nearly \$6,000 in tool change cost. They also saved over \$10,000 in new tool cost.** **When the job was all said and done. KSPT had saved the customer a grand total of \$16,616.25!!**

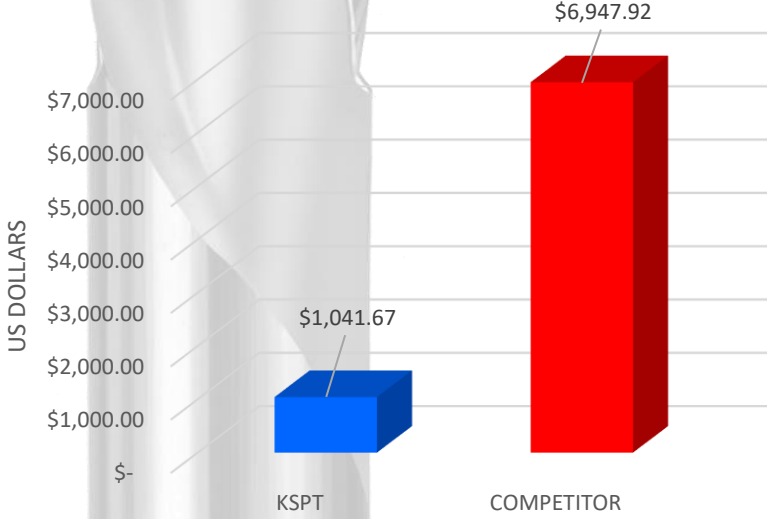
TOTAL PARTS PRODUCED BY A NEW TOOL



NEW TOOLS REQUIRED TO COMPLETE THE JOB



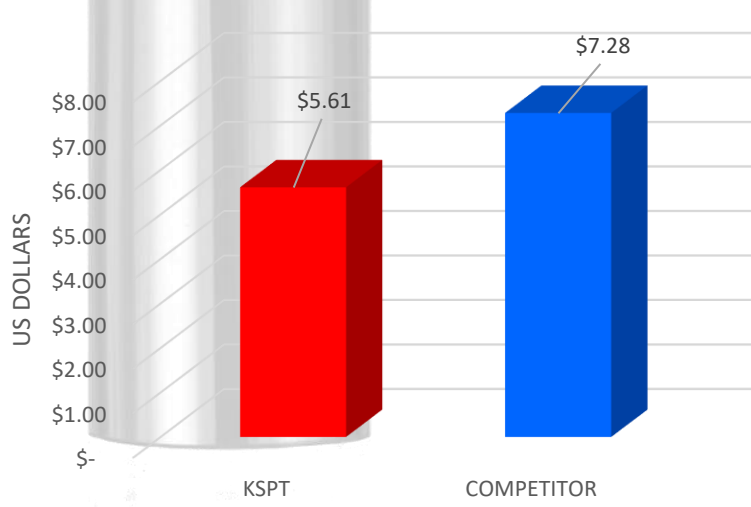
TOOL CHANGE COST



TOTAL NEW TOOL COST



TOTAL COST PER PART



TOTAL COST

