

Valve Body: Original T-A®

The customer manufactures valves for the oil field industry using a custom-made spotting drill machine running with 60 PSI (4.137 bar) water soluble oil coolant. They are machining a valve body made from WCC cast steel.

In order to improve the production process, the customer needed to eliminate the costly tool regrinds and reduce the large amount of tool set-up time.

The Original T-A eliminated tool regrinds, reduced tool set up time, and increased the tool life.

Product:	Original T-A®	Measure	Competitor	Original T-A [®]
Objectives:	(1) Eliminate tool regrinds (2) Increase tool life (3) Reduce set-up time	RPM	430	430
		Speed	141 SFM (42.977 mm)	141 SFM (42.977 mm)
Industry:	Oil & gas/petrochemical	Feed Rate	0.005 IPR (0.127 mm)	0.005 IPR (0.127 mm)
Part:	Valve body	Penetration Rate	2.15 IPM (54.61 mm)	2.15 IPM (54.61 mm)
Material:	WCC cast steel	Tool Set Up Time	29 min	4 min
Hole Ø:	1.25 " (31.75 mm)	Cycle Time	10.5 sec	10.5 sec
Hole Depth:	0.375 " (9.525 mm)	Cycle Time	10.3 Sec	10.3 Sec
·		Tool Life	75 holes	138 holes



