



CASE STUDY. **AccuThread 856[®]**

PROJECT PROFILE: **4140 Valves & Fittings Contract Shop**

The end-user is machining valves made from 4140, using an DKK HM800S horizontal machining center, with 800 PSI water soluble coolant.

+ CHALLENGE:

Previously the customer was using an Xactform, running at the following parameters: 1300 RPM, 0.004 IPR, (0,10 mm/rev) which resulted in 2.6 IPM* (66 mm/min). The tool produced a 2 ½ - 14 UN thread, 2.0 inches deep (50,8 mm).

The tool had a cycle time of 6 minutes, 2 seconds and a tool life of 475 holes. The customer was having issues with the thread quality and invited Allied to test its thread mill against Xactform.

+ OUR SOLUTION:

Allied recommended the AccuThread 856[®] indexable thread mill, using insert item TN150K-UN14I and holder THP-1116-3F150. The tooling ran at a speed of 1800 RPM, 0.006 IPR (0,15 mm/rev) which resulted in 5.98 IPM* (151,89 mm/min). The AccuThread had a cycle time of 1 minute, 19 seconds and a tool life of 1000 holes, more than double that of the Xactform tool.

+ PROJECT DATA:

The Allied AccuThread 856[®] made a significant difference for the customer by meeting the goals of improved thread quality.

As a bonus to this overall operation, Allied helped to reduce the costly machine run time. The results showed a drop in the cost from \$10.35 to \$2.30, for a remarkable cost savings of 78%. This is a success story that illustrates how improved quality doesn't have to come at a higher price.



***TOOL
PERFORMANCE
CONSISTENCY***

* Final feed rates are adjusted for thread milling, not linear feed rates