



CASE STUDY.

PROJECT PROFILE:

GEN3SYS[®] A516-70 Tubesheet

The end-user is machining steel plates made from A516-70 using an Anayak Horizontal Boring Mill with 125 PSI of coolant pressure.

+ CHALLENGE:

Previously the customer was using a Sumitomo drill, running at the following parameters: 1250 RPM, 0.012 IPR, (0,30 mm/rev) which resulted in 15 IPM (381 mm/min). The tool drilled a 1.01" (25,68 mm) diameter hole to a depth of 1.25" (31,8 mm). The tool had a cycle time of 5.0 seconds and a tool life of 390 holes.

The Sumitomo drill offered inconsistent tool life and poor chip control. Looking for performance improvements, the customer asked if Allied had a better solution.

+ OUR SOLUTION:

Allied recommended the GEN3SYS High Penetration Drilling System, using insert item 5G124-1.011 and holder 60324S-100F. The tooling ran at a speed of 1300 RPM, 0.012 IPR, (0,30 mm/rev) which resulted in 15.6 IPM (396 mm/min). The tool had a cycle time of 4.8 seconds and a tool life of 630 holes. The outcome met the customer's goals of extended tool life, and better consistency.

+ PROJECT DATA:

Allied Machine made a significant difference for the customer. The tool life improved from 390 to 630, for a 61.5% increase. Not only did the GEN3SYS provide increased and more consistent tool life, the actual cost per hole dropped from \$0.37 to \$0.29, for a cost savings of 21%.



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