



CASE STUDY.

Opening Drill[®]

PROJECT PROFILE: **625 Inconel Sub-Sea Gas/Oil Production**

The end-user is machining sub-sea petroleum manifolds using a Giddings & Lewis Boring mill, with 250 PSI water soluble coolant.

+ CHALLENGE:

Previously the customer was using a series of boring bars and boring heads, running at the following parameters: 125 RPM, 0.003 IPR, (0.08 mm/rev) which resulted in 0.375 IPM (9.53 mm/min). The need was to bore to 3.80" (96.52 mm) diameter with finish bore bars.

Starting with a hole measuring 2.8" (71.12 mm) in diameter, the tool cut through a cross hole to a depth of 9" (228.60 mm). The tool had a cycle time of 4 hours as it had to complete 20 passes. Half the work day was consumed by this operation. Looking for performance improvements, the customer asked if Allied could provide a better solution. He recalled seeing a tool at the Allied booth while visiting IMTS: a new tool appropriately named the Opening Drill[®].

+ OUR SOLUTION:

Allied recommended the Opening Drill[®] using insert item OPOST308-IH and holder OP3-IL-CV50. The tool ran at a speed of 150 RPM, 0.004 IPR (0.102 mm/rev) which resulted in 0.6 IPM (15.24 mm/min). The outcome was amazing, as the cycle time was only 15 minutes as compared to the 4 hours consumed by the boring bars.

+ PROJECT DATA:

Opening Drill[®] helped to drastically reduce the costly machine run time resulting in the cost per hole dropping from \$600.00 to \$37.50, for an incredible cost savings of \$562.50, or 93.7%.



*INCREASED
PRODUCTION
EFFICIENCY*