CASE STUDY. Revolution Drill®

PROJECT PROFILE: **A36 Structural Steel Construction Machinery**

The end-user is manufacturing turrets made out of A36 structural steel, using a Giddings & Lewis Horizontal Machining Center, MC60 with high pressure flood coolant.

REDUCED COST OF PRODUCTION

+ CHALLENGE:

Previously the customer used an HSS twist drill to make the holes, followed up by a Komet Twin Bore tool running at the following parameters: 100 RPM, .010 IPR (0,25 mm/rev), which resulted in 1.0 IPM (25,4 mm/min).

The tool drilled two 2.1" (53,34 mm) diameter through holes to a depth of 2.5" (63,5 mm). The tool had a total cycle time of 5.03 minutes per part (2 minutes and 30 seconds per hole) and a life of 15 holes. Looking for improvements, the customer wanted to reduce the cost of this drilling operation.

+ OUR SOLUTION:

Allied recommended the Revolution Drill® using insert item OP-05T308-H and holder R36x22-150L. The tooling ran at a speed of 825 RPM, .003 IPR (0,076mm/rev), which resulted in 2.475 IPM (62,87 mm/min). The outcome was clearly in favor of the Revolution Drill®, which completed the job with an appreciably shorter cycle time of 1.02 minutes per part while the tool life increased to 22 holes.

+ PROJECT DATA:

The cost per finished part was reduced from Komet's $10.71 to Allied's $4.54, for a substantial bottom line dollar savings of 57.6%. The Revolution Drill® did what it does best, and won its place in this account.