



CASE STUDY. Revolution Drill®

PROJECT PROFILE: 304 Stainless Steel Pumps-Valves Seals

The end-user is manufacturing pumps made out of 304 Stainless Steel using a Mori-Seiki CNC machine, with semi-synthetic coolant.

+ CHALLENGE:

Previously the customer was using a Waukesha IC Drill running at the following parameters: 596 RPM, 0.003 IPR (0,076 mm/rev), which resulted in 1.79 IPM (40,64 mm/min). The tool drilled a 3.5" (88,9 mm) diameter hole to a 7.5" (190,5 mm) depth. The tool had a cycle time of 4 minutes, 12 seconds, and had a life of 8 holes. Looking for improvements, the customer wanted to find a cost effective solution that could also reduce cycle time.

+ OUR SOLUTION:

Allied recommended the Revolution Drill®, using insert item DP-05T308-T and holder R54X25-200L. The tooling ran at a speed of 596 RPM, 0.005 IPR (0.127 mm/rev) which resulted in 2.98 IPM (73,66 mm/min). The outcome was excellent and met the customer's goals of reducing reduce cycle time, as it dropped to 2 minutes, 31 seconds, down from 4 minutes, 12 seconds. The cost per hole also fell from \$10.66 to \$7.68 thanks to the Revolution Drill®

+ PROJECT DATA:

Allied and the Revolution Drill® delivered what the customer wanted: decreased cycle times, resulting in a cost savings of over 28%. In addition to that, the switch to Allied tooling allowed for a 40% savings in cycle time! Whenever an end-user is able to obtain a superior hole finish, along with a significant time savings, he will become a confident, repeat customer.



*REDUCED
CYCLE TIME*