



## CASE STUDY.

# GEN3SYS<sup>®</sup>

PROJECT PROFILE: **A516 Grade 70 Heat Exchanger**

The end-user is manufacturing structural components made from A516 steel using a Vertical Machining Center, with 75 PSI through tool synthetic coolant.

### + CHALLENGE:

Previously the customer was using a Sandvik 880 Drill running at the following parameters: 3800 RPM, 0.003 IPR (0.08 mm/rev), which resulted in 11.4 IPM (295 mm/min). The tool drilled a 0.688" (17.5 mm) diameter hole to a 1.5" (38.1 mm) depth. The tool had a cycle time of 7.9 seconds. The cost per hole of the competitive tool came in at \$1.11, which was higher than the customer was comfortable with having to pay. They shopped around for equal or greater tool quality, but wanted a lower cost per hole.

### + OUR SOLUTION:

Allied recommended the GEN3SYS<sup>®</sup> using insert item 5C117H-0022-LR and holder 60317S-075F. The tooling ran at a speed of 2100 RPM, 0.009 IPR (0.23 mm/rev), which resulted in 18.9 IPM (480 mm/min). GEN3SYS<sup>®</sup> had a cycle time of 4.8 seconds, 3 seconds per hole less than the competitive tool, nearly 40% less than the competitive cycle time.

### + PROJECT DATA:

The outcome was in favor of Allied and the GEN3SYS<sup>®</sup> High Penetration Drilling System, as the penetration rates increased from 11.6 to 18.9 IPM. The cost per hole dropped from \$1.11 to \$0.75. Utilizing the 880 drill for the 1,200-hole job cost the customer \$1,332.00, but the Allied GEN3SYS<sup>®</sup> solution reduced that cost to \$900.00, for a cost savings of over 32%.



*LOWER  
COST PER  
HOLE*