



## CASE STUDY.

PROJECT PROFILE: **Ductile Iron Contract Manufacturing**

# GEN3SYS<sup>®</sup>

The end-user is manufacturing wheel hubs made out of Ductile Iron using a Vertical Machining Center, with through-tool, 250 PSI water soluble coolant.

### + CHALLENGE:

Previously the customer was using a KSEM drill running at the following parameters: 1250 RPM, .010 IPR (0,25 mm/rev), which resulted in 12.5 IPM (317,5 mm/min). The tool drilled a 0.669" (17 mm) diameter hole through 4.35" (110,49 mm). The tool had a cycle time of 20.9 seconds, and a tool life of 150 holes. The customer was looking for ways to lower their cost per hole on a large volume part. They had heard about the success Allied was having versus KSEM, so they decided it was time to investigate.

### + OUR SOLUTION:

Allied recommended GEN3SYS<sup>®</sup> using insert item 5C217H-17-C1 and holder 60717H-075F. The tooling ran at a speed of 1450 RPM, 0.0103 IPR(0,262 mm/rev), which resulted in 15.0 IPM (381 mm/min). GEN3SYS<sup>®</sup> delivered a cycle time of 17.4 seconds, and an extraordinary tool life of 1067 holes. The outcome was excellent and met the customer's goals of lowering the cost per hole.

### + PROJECT DATA:

The cost per hole was reduced from \$0.997 to \$0.556, providing a savings of over 44%. This operation went from 653 linear inches to an astounding 4341 linear inches, for an 85% increase in tool life.



*LOWER  
COST PER HOLE*