



CASE STUDY.

GEN3SYS[®]

PROJECT PROFILE: **Grey Cast Iron** Power Transmission Components

The end-user is machining Grey Cast Iron using a RoboDrill machining center, with 200 PSI through tool coolant

+ CHALLENGE:

Previously the customer was using Iscar ChamJet running at the following parameters: 1765 RPM, 0.008 IPR, (0.20 mm/rev) which resulted in 14.12 IPM (358.65 cm mm/min). The tool drilled a 0.563 " (14.29 mm) diameter thru hole to a depth of 1.88 inches (47.75 mm). The tool had a cycle time of 8 seconds and a tool life of 1100 holes.

Looking for performance improvements, specifying tool life and cycle times, the customer asked if Allied could do any better.

+ OUR SOLUTION:

Allied recommended GEN3SYS[®] using insert 5C214H-0018-CI and holder 60514S-075F. The tooling ran at a speed of 2030 RPM, 0.011 IPR (0.28 mm/rev) which resulted in 22.33 IPM (567.18 mm/min). GEN3SYS[®] had a cycle time of 5 seconds and a tool life of 2600 holes, more than double that of the competitor's tool.

+ PROJECT DATA:

The outcome met the customer's goals of tool performance improvements by reducing cycle time by over 60%. In addition, GEN3SYS[®] more than doubled the tool life which helped to reduce the costly machine run time, resulting in the cost per hole dropping from \$.30 to \$.17, for a considerable cost savings of 42%.



*EXTENDED
TOOL LIFE*