



## CASE STUDY.

# GEN3SYS®

PROJECT PROFILE: **Cast Iron 200 Bhn Automotive**

The end-user is manufacturing Electric Brake Spiders made out of Cast Iron, 200 Bhn using a Toyoda machining center, with water soluble through-tool coolant, at 200 PSI.

### + CHALLENGE:

Previously the customer was using a Cline Tool, a special IC counter bore tool with a carbide drill locked down in center, running at the following parameters: 1290 RPM, 0.012 IPR (3.05 mm/rev), which resulted in 15.48 IPM (393.19 mm/min). The tool drilled a 0.740" (18.8 mm) diameter thru-hole to a 1.0" (25.4 mm) depth, with a cycle time of 4 seconds.

They needed to adjust tool offsets every time the tool was changed, plus, the tool life was very inconsistent with the best averaging approximately 200 parts. The cost per hole was \$0.508, based on \$300 for the holder and \$160 for the drill tip.

Looking for improvements in tool life, the customer contacted Allied Machine & Engineering Corp.

### + OUR SOLUTION:

Allied recommended GEN3SYS® using insert item #5C218H-.740-CI and special holder #080922-20. The tooling ran at identical speeds and feeds as the Cline tool, but the outcome was much different. GEN3SYS® was able to drill 1000 holes, versus the competitive tool's 200, which gave the customer the extended tool life he was looking for.

### + PROJECT DATA:

Allied delivered 5X the tool life, as well as a real consistency in the total drilling operation. The spike in tool life greatly reduced the cost per hole to \$0.151, down from \$0.508, for a total cost savings of \$10,717.50, or 70.2%, for 30,000 processed holes.



*EXTENDED  
TOOL LIFE*