



## CASE STUDY.

### PROJECT PROFILE:

## AccuPort 432<sup>®</sup>

Cast Iron

An automotive supplier is manufacturing a diesel engine front cover made out of grey cast iron for the automotive industry. They are using a Mitsubishi 800mm HMC with 300 PSI thru-tool coolant to produce their products.

### + CHALLENGE:

Previously the customer was using three tools in their production process including a spot drill, a solid carbide drill, and a solid carbide port form tool. To meet their client's specifications, the customer needed to make a special angled insert. With their cycle time not keeping pace with production demands, the customer was looking to streamline their manufacturing process. Additionally, the solid carbide tooling was too expensive due to the cost of setup time, regrind and recoat, and extra inventory.

### + OUR SOLUTION:

AMEC suggested using a special AccuPort432<sup>®</sup> tool, a modified ISO-6149 #8 port contour cutter. They also recommended a modified port form insert and a cast iron T-A<sup>®</sup> blade, item #1C30A-16.2-CI. The suggested running parameters for this tool were 1765 RPM, 300 SFM, .009 IPR, and 15.75 IPM. The results were excellent; the part was now able to be produced with only one tool instead of three. With the operation no longer a bottleneck, the customer was able to produce their products more efficiently. By using the AccuPort432<sup>®</sup> tool to lower the cycle time, the customer saved 7 minutes on each piece. This resulted in a savings of 2090 labor hours per year.

### + PROJECT DATA:

Using the AccuPort432<sup>®</sup> tooling, the customer was able to add 9000 pieces per year to their production capability. Additionally, they saved \$35,000 per year due to cycle time reductions.



*REDUCED  
CYCLE TIME*