



## CASE STUDY.

### PROJECT PROFILE:

## AccuPort 432<sup>®</sup>

Low Carbon Steel

The customer is a contract machine shop producing specialized manifold blocks made out of low carbon steel. They are using a KIWA HMC with 1000 PSI through-spindle coolant. 16 blocks are mounted on one tombstone at a time.

### + CHALLENGE:

The customer was drilling with a Guhring solid carbide drill. It was reground after 3600 hits with a three-day turn around. It was formed with a Hartland T-15 port forming tool which was reground after 2500 hits with a three to five day turn around. The customer wanted to reduce the cost of machining the manifold blocks.

### + OUR SOLUTION:

AMEC suggested using a special AccuPort432<sup>®</sup> #4 port with pilot length (L1) of .512" versus our standard length of .551". They achieved a .512" port pilot length by providing a special length Y series Super Cobalt TiAlN coated insert and modified J1926-04Y-063F AccuPort432<sup>®</sup> holder. The machine port was run at 2000 RPM, 202 SFM and .005 IPR. The results were a success. The cycle time was improved from 16 blocks in 24 minutes to 16 blocks in 16 minutes, a 33% reduction in cycle time. The customer also saved \$1,836.81 for every 14,000 holes processed.

### + PROJECT DATA:

The AMEC tooling succeeded in meeting the customer's goals. The drill and finish port forms were completed in one operation. No pre-drilling was required anymore. Finally, replaceable insert design eliminated regrinding and tool float time.



*REDUCED COST  
OF PRODUCTION*