# CASE STUDY.

## AccuPort 432®

PROJECT PROFILE:

Wrought Aluminum

A production job shop is manufacturing hydraulic manifolds for various companies. They are using a Mazak 15HP horizontal CNC machining center with CAT 40 taper spindle and 200 PSI water soluble oil coolant through the spindle. The part being machined is a hydraulic manifold port block made out of non heat treated wrought bar aluminum.

*REDUCED TOOL INVENTORY*

### + CHALLENGE:

Previously, the customer did an initial spot drill in five locations with a 90° drill point. Then they drilled a hole 20.5 mm deep using a carbide tipped drill. Finally, they produced a spot face O-ring seat contour with a special Metcut carbide tipped form tool. Seeking a better way to produce the hydraulic manifolds, the customer wanted to manufacture their products at a lower cost with fewer tools.

### + OUR SOLUTION:

AMEC suggested using an AccuPort432® item #X1926-101-100F with an extended length port contour cutter outfitted with a CPM-M4 TiN coated drill insert and a port form insert item #J1926-07-C5A. The results were outstanding. Using the AccuPort432® process, the customer was able to produce the entire port form in one step. Receiving a total cost savings of $1,544.01 or 67.78%, the customer was exceptionally satisfied with the AMEC tooling.

### + PROJECT DATA:

Using the AccuPort432® tool, the customer was able to produce their products at a very low cost. They were also able to reduce their tooling to just one tool instead of the previous three.