



## CASE STUDY.

### PROJECT PROFILE:

## ASC 320<sup>®</sup>

1020 Steel

A manufacturer and distributor of threaded fasteners is machining forged bolts out of 1020 forged steel. They are using a Haas VF-3 VMC with 300 PSI coolant through the spindle to manufacture their products.

### + CHALLENGE:

Previously, the customer was using a carbide center drill that started the hole in the threaded area of the bolt. Then a Nachi HSS twist drill finished the hole. The cycle time for the drill alone was 30.5 seconds and the drill's tool life was 140 parts. Being a small shop whose clients demand short lead times, the customer wanted to reduce cycle time, improve throughput, and cut costs.

### + OUR SOLUTION:

In response to the customer's desire for improvement, AMEC suggested using an ASC 320<sup>®</sup> tool combined with both previous processes. They suggested running the tool at a reduced speed of 200 SFM and .006 IPR. Due to the inconsistency of the forged steel material, the tool was inspected after every 50 parts. The results were quite stunning. With a cycle time of only 1.78 seconds, the ASC 320<sup>®</sup> tool lowered the machine's cycle time by 28.72 seconds. At 500 parts the drill was pulled because it showed a small amount of wear and they wanted to be sure they could get several regrinds. For a 2,000 part run, the cost savings were rather high. The customer saved \$1,094.33 or 83.48% with the ASC 320<sup>®</sup> tool.

### + PROJECT DATA:

Not only was the customer able to dramatically reduce their cycle time and cost of production, but they were also able to improve throughput.



*REDUCED  
CYCLE TIMES*