



CASE STUDY.

PROJECT PROFILE:

EcoCut[®] FlyWheels

An End-user is manufacturing flywheels made out of cast iron for the automotive industry. They are using a CNC Hessapp Inverted VTL with a standard stick style boring bar.

+ CHALLENGE:

To manufacture their products, the customer bore a center hole with a flat bottom and radius at the top. The entire process was done in 3 passes, taking 15 seconds to complete. Each year 150,000 parts were manufactured using this process. Looking to AMEC to improve their production, the customer wanted to reduce the number of passes required to complete the operation and reduce the cycle time. In creating the flywheels, they were having difficulty achieving consistent finish requirements. Also, the large amount of chatter from the machine was becoming a problem.

+ OUR SOLUTION:

AMEC recommended using the EcoCut tooling item #EC 20R-2.25D 10-E with cast iron grade inserts running at a speed of 500 SFM, .009 IPR, and 21.8 IPM. The results exceeded the customer's expectations. By eliminating one complete pass the cycle time was reduced to less than 8 seconds. Additionally, AMEC eliminated the chatter and consistently achieved the desired finish requirements.

+ PROJECT DATA:

By reducing the cycle time, AMEC saved the customer 292 machine hours annually. Additionally, the customer was able to achieve the desired finish requirements and eliminate chatter.

