CASE STUDY.

ASC 320®
Stainless Steel

INCREASED PRODUCTIVITY

PROJECT PROFILE:

A MANUFACTURER OF HELICOPTER COMPONENTS IS MACHINING THE ID OF A PRESSURE-SEALED ROTOR HOUSING MADE OUT OF STAINLESS STEEL. THEY ARE USING AN EMCO TURN CNC LATHE WITH 300 PSI COOLANT THROUGH THE TOOL TO MANUFACTURE THEIR PRODUCTS.

+ CHALLENGE:

PREVIOUSLY, THE CUSTOMER WAS USING A 7 STEP PROCESS WHICH INCLUDED DRILLING WITH 0.300" DIAMETER SOLID CARBIDE DRILL, 4 GRADUATED ROUGH BORES, AND 2 FINISH BORE OPERATIONS. EACH BORING STEP REQUIRED HOLE FLUSHING. THE TOTAL CYCLE TIME FOR THIS ENTIRE PROCESS, INCLUDING POSITIONING AND TOOL CHANGES, WAS 17 MINUTES. SEEKING TO IMPROVE THEIR PRODUCTION, THE CUSTOMER NEEDED TO REDUCE CYCLE TIME AND ELIMINATE PART DISTORTION.

+ OUR SOLUTION:

AMEC RECOMMENDED USING THE ASC 320® DRILL, WHICH WAS LARGER THAN THE EXISTING 0.300" DIAMETER DRILL AND THEREFORE REDUCED THE NUMBER OF BORING PASSES NEEDED. THE ASC 320® 0.3438" DIAMETER DRILL ITEM #360E03438A21M WAS RUN AT A SPEED OF 1893 RPM, 170 SFM, .006 IPR, AND 11.4 IPM. THE RESULTS WERE OUTSTANDING. WITH THE ASC 320® TOOL THE CUSTOMER RECEIVED BETTER CHIP CONTROL, BETTER SIZE, A CLEANER FINISH AND NO PART DISTORTION. ADDITIONALLY THE CYCLE TIME, INCLUDING POSITIONING AND TOOL CHANGES, WAS REDUCED BY 10.8 MINUTES TO ONLY 6.2 MINUTES.

+ PROJECT DATA:

THANKS TO THE SUCCESS OF THE ASC 320® TOOLING, THE CUSTOMER DRAMATICALLY REDUCED THEIR CYCLE TIME. FURTHERMORE, THEY RECEIVED BETTER CHIP CONTROL, BETTER HOLE SIZE, AND A CLEANER FINISH ON THEIR PRODUCT.