



## CASE STUDY.

### GEN3SYS®

Low Carbon Steel

#### PROJECT PROFILE:

AN END-USER IS A CONTRACT MACHINE SHOP THAT SUPPLIES EQUIPMENT TO A HEAVY EQUIPMENT MANUFACTURER. THE CUSTOMER IS MACHINING A MOUNTING BRACKET MADE OUT OF LOW CARBON STEEL USING A MAZAK WITH FLOOD COOLANT.

#### + CHALLENGE:

PREVIOUSLY THE CUSTOMER WAS USING A CJT COOL TIP DRILL RUNNING AT A SPEED OF 800 RPM AND 0.0056 IPR. DRILLING TO A DEPTH OF 2.55" THE TOOL CREATED A HOLE WITH A 0.656" DIAMETER. THE TOOL HAD A CYCLE TIME OF 40.0 SECONDS WITH A PECK CYCLE AND A TOOL LIFE OF 100 HOLES. SEEKING TO IMPROVE THEIR PRODUCTION PROCESS, THE CUSTOMER WANTED TO IMPROVE PRODUCTIVITY BY INCREASING TOOL LIFE AND INCREASING PENETRATION RATE.

#### + OUR SOLUTION:

AMEC SUGGESTED USING THE GEN3SYS® HIGH PENETRATION DRILLING SYSTEM WITH INSERT ITEM #5C116H-0021 AND HOLDER #60516H-075F. IT WAS ADVISED THAT THE TOOL BE RUN AT A SPEED OF 1000 RPM AND 0.008 IPR. THE RESULTS WERE OUTSTANDING. THE GEN3SYS® TOOL LOWERED THE CYCLE TIME TO 19 SECONDS AND ELIMINATED THE PECK PROCESS. THE TOOL ALSO INCREASED THE TOOL LIFE TO 1200 HOLES. ADDITIONALLY, THE CUSTOMER WAS ABLE TO INCREASE TOOL OUTPUT WHILE LOWERING THEIR COST OF PRODUCTION. THE CUSTOMER RECEIVED A TOTAL COST SAVINGS OF \$4,855.58 OR 41.92%.

#### + PROJECT DATA:

DUE TO THE SUCCESSFUL PERFORMANCE OF THE GEN3SYS® TOOL, AMEC NOT ONLY ENABLED THE CUSTOMER TO REDUCE THEIR CYCLE TIME AND IMPROVE TOOL LIFE, BUT THE CUSTOMER ALSO LOWERED THEIR COST OF PRODUCTION BY 41.92%.



*EXTENDED  
TOOL LIFE*