



CASE STUDY.

PROJECT PROFILE:

GEN3SYS[®] A36 Structural

The end-user is machining structural plates made from A36 steel using a Quickmill machining center, with 125 PSI, water soluble, through-tool coolant.

+ CHALLENGE:

Previously the customer was using a Kennametal KSEM drill running at the following parameters: 1100 RPM, 0.010 IPR, (0.25 mm/rev) which resulted in 11 IPM (279,4 mm/min). The tool drilled a 1.063" (27 mm) diameter thru hole to a thickness of 1.25" (31,8 mm). The tool had a cost per hole of \$0.573, and a tool life of 1200 holes per insert. The customer was familiar with Allied spade drills where they enjoyed favorable results, so they offered the GEN3SYS High Penetration Drilling System an opportunity to show what it could do against the KSEM drill.

+ OUR SOLUTION:

Allied recommended the GEN3SYS High Penetration Drilling System using insert item 5C126H-0102 and holder 60326S-125F. The tooling ran at a speed of 1300 RPM, 0.014 IPR (0.36 mm/rev) which resulted in 18.2 IPM (462,30 mm/min). The GEN3SYS had a tool life of 1300 holes per insert, which resulted in a \$0.355 cost per hole. The outcome met the customer's goals of improved tool performance, allowing them to complete the application while saving money.

+ PROJECT DATA:

Allied Machine made a difference for the customer. The GEN3SYS High Penetration Drilling System delivered a longer tool life, which was increased by 8%, while reducing the cost per hole from \$0.573 to \$0.355, for a cost savings of over 38%. The pleased customer also noted that the penetration rate was significantly increased by over 39%.



*LOWER
COST PER HOLE*