



CASE STUDY.

PROJECT PROFILE: **A572 Structural Steel Industry**

GEN3SYS[®]

The end-user is machining flat plates made from A572 using a Controlled Automation Plate Drilling Machine, with air mist coolant.

+ CHALLENGE:

Previously the customer was using a spade drill, running at the following parameters: 431 RPM, 0.010 IPR, (0.25 mm/rev) which resulted in 4.31 IPM (109,5 mm/min). The tool drilled a 1.062" (27 mm) diameter thru hole to a thickness of 0.5" (12,7 mm). The tool had a cycle time of 7 seconds and a tool life of 500 holes.

Looking for improved tool life, the customer asked if Allied could provide a solution.

+ 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 863 RPM, 0.010 IPR (0,254 mm/rev) which resulted in 8.63 IPM (219,2 mm/min). The tool had a cycle time of 3.5 seconds and a tool life of 3000 holes. The outcome met the customer's goals of improved tool life.

+ PROJECT DATA:

Allied Machine made a significant difference for the customer. The GEN3SYS High Penetration Drilling System helped to reduce the machine run time while delivering 6 times the tool life at twice the speed. This resulted in the cost per hole dropping from \$0.235 to \$0.105, for a considerable cost savings of 55.3%.



*EXTENDED
TOOL LIFE*