



## CASE STUDY.

PROJECT PROFILE:

### Original T-A<sup>®</sup>

A36 Mild Steel Structural Steel Fabrication

The end-user is machining flamecut A36 mild steel plate weldments using a radial arm drill machine, with flood coolant.

#### + CHALLENGE:

Previously the customer was using a Cleveland twist HSS taper shank drill running at the following parameters: 60 RPM, 0.003 IPR, (0.08 mm/rev) which resulted in 0.18 IPM (4.8 mm/min). The tool drilled a 2.5" (63.5 mm) diameter thru hole to a depth of 4.0 inches (102 mm). The tool had a cycle time of 22 minutes, 13 seconds and a tool life of 75 holes.

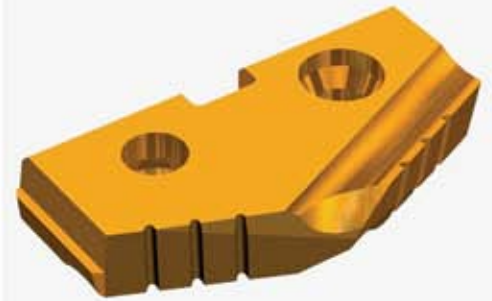
The drilling operation was just too ineffective, so the customer was looking for performance improvements.

#### + OUR SOLUTION:

Allied recommended the Original T-A<sup>®</sup> drill insert, item 135T-0216, coated with TiN, and holder #22050S-0051, while utilizing a 2T-6SR RCA for improved coolant. The tooling ran at a speed of 115 RPM, (restricted by the machine), 0.012 IPR (0.30 mm/rev) which resulted in 1.38 IPM (35 mm/min). It had a cycle time of 2 minutes and 54 seconds and a tool life of 300-plus holes. This operation served as a reminder as to how the Allied T-A<sup>®</sup> drilling system revolutionized the hole-making industry.

#### + PROJECT DATA:

Original T-A<sup>®</sup> delivered a cost per hole that fell from \$28.36 to just \$3.90 for an astounding cost savings of 86.2% while increasing the tool life by 4X over that of the competitive tool. Allied gave the customer precisely what they were looking for: significantly improved tool performance.



*LOWER  
COST PER HOLE*