



## CASE STUDY.

PROJECT PROFILE:

# Opening Drill<sup>®</sup> Cast Iron 220 Bhn Compressors

The end-user is manufacturing compressor petroleum pumps using a 40 HP lathe, with 50 PSI thru-tool coolant.

### + CHALLENGE:

Previously the customer was using a boring bar which was required to make at least 11 boring passes. The material is Cast Iron, 220 Bhn, and the depth of the hole is 4.5". The cast hole diameter was 3.25", so the enlarging of the hole required the removal of 2.37" (mm 60.2) on diameter of material. The time needed to get to the finished diameter was 30 minutes. The end-user was unaware at this point that there was a better way to perform this operation, but thanks to an Allied call for this type of application opportunity, the 'better way' was delivered directly to the manufacturing facility for testing.

### + OUR SOLUTION:

Allied recommended OP4-IS-SS2.0, a tool that the end-user had never seen, nor even heard of. The Opening Drill<sup>®</sup> ran at a speed of 449 RPM, 0.003 IPR (0.076 mm/rev) which resulted in 1.35 IPM (00.0 mm/min). In just one pass, the Allied tool opened the 3.25" hole to the required 5.62", and in only 4 minutes, not 30 minutes as the machine operators had been accustomed to.

### + PROJECT DATA:

The Opening Drill<sup>®</sup> attracted the attention it deserved. By the time the third test part was cut, the president of the company came to the machine to see what the excitement was all about. The impressive chip formation and the speed at which the operation was completed convinced the president to 'modernize' his facility with one signature. While focused on the performance of the Allied Opening Drill<sup>®</sup>, he reached out and said "Give me something to sign." What a great testimonial to the value and performance of Allied Machine & Engineering Corp. tooling.



**INCREASED  
PRODUCTION  
EFFICIENCY**