



Exceeding Expectations.

Our customer, who manufactures couplers for the heavy equipment industry, was facing supply chain issues from their current supplier and began looking for options that met their current process while also satisfying their supply needs.

Knowing that Allied took pride in having quick turnaround solutions, this customer asked Allied for help. We immediately got to work testing, tweaking, and developing the perfect drill that met the exact penetration rate our customer was previously running. Using the HPS **Superion solid carbide drill**—designed with AM420 coating for enhanced heat thresholds and tool life—the customer received the support they were looking for.

In addition to consistent speed and feeds and a decreased lead time from 12 weeks to 6 weeks, the Superion drill also dramatically increased the tool life from 2400 linear inches to 5000 linear inches—an almost 108% increase. Overall, the customer received the shorter lead time they needed with the added benefit of over double the tool life they were previously experiencing. **Call us to help you find the right tool for the job.**



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|------------------------|--|-------------------------|--------------------------|--------------------------|
| Product: | Superion HPS solid carbide drill | Measure | Competitor Drill | Superion Drill |
| Objective: | Quicker lead time | RPM | 4500 | 4500 |
| Industry: | Heavy equipment | Speed | 287.8 SFM (87.72 m/min) | 287.8 SFM (87.72 m/min) |
| Part: | Coupler | Feed Rate | 0.0036 IPR (0.09 mm/rev) | 0.0036 IPR (0.09 mm/rev) |
| Material: | Nodular iron (220 Bhn) | Penetration Rate | 16 IPM (406.4 mm/min) | 16 IPM (406.4 mm/min) |
| Hole Ø: | 0.244" (6.2 mm) | Cycle Time | 20.7 sec | 20.7 sec |
| Hole Depth: | 5.512" (140.0 mm) | Tool Life | 2400" (60.96 m) | 5000" (127 m) |
| Tolerance: | + 0.008" (0.2 mm) - 0.004" (0.1 mm) | | | |
| Surface Finish: | 125 Ra | | | |

▶ Superion Solid Carbide Drill
Item No. 200303-11



108%
increase in tool life

The Superion solid carbide drill provided:

- ✓ Quicker lead times
- ✓ Increased tool life
- ✓ Maintained cycle time

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