



Steel Part: Revolution Drill®

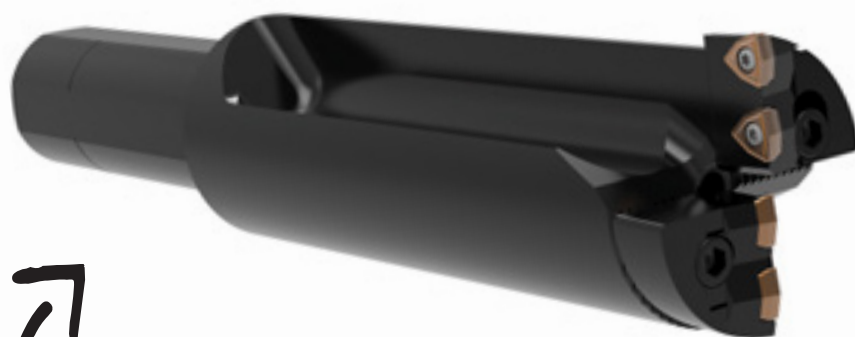
The customer is machining a steel component made from H13 using a horizontal Okuma L106 lathe with 200 PSI (13.79 bar) internal coolant.

The customer was unhappy with the long cycle times and short tool life. They needed a better solution to solve these issues.

The **Revolution Drill®** provided good chip formation and could drill the hole without adding time for pecking cycles.



| | | Measure | Competitor Indexable Drill | Revolution Drill® |
|--------------------|---|------------------|----------------------------|--------------------------|
| Product: | Revolution Drill® | RPM | 900 | 1000 |
| Objectives: | (1) Decrease cycle time (2) Increase tool life | Feed Rate | 0.002 IPR (0.051 mm/rev) | 0.004 IPR (0.102 mm/rev) |
| Industry: | Tool, mold, & die | Penetration Rate | 1.8 IPM (45.72 mm/min) | 4.0 IPM (101.60 mm/min) |
| Part: | Steel component | Cycle Time | 3 min 17 sec | 1 min 28 sec |
| Material: | H13 | Tool Life | 6 holes | 15 holes |
| Hole Ø: | 1.96" (49.784 mm) | Pecking Cycle? | Yes | No |
| Hole Depth: | 5.9" (149.860 mm) | | | |



► Revolution Drill®
Holder: R34X35-40M
Inserts: OP-05T308-H

250% tool life increase

The Revolution Drill® provided:

- ✓ Good chip formation
- ✓ Decreased cycle time
- ✓ Increased tool life

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