



Military Components: Opening Drill®

The customer manufactures components for the military industry. The contractor was tasked with drilling and boring large holes into 4150 steel (30 Rc) using a Mazak slant bed lathe with soluble coolant.

The customer needed a new solution that would increase the drilling speed of these large holes.

The solution of the **GEN2 T-A®** and the **Opening Drill®** successfully increased the speed of the hole making process. The solution also decreased cycle time for the customer.



| | | Measure | Competitor Drill | GEN2 T-A | Opening Drill® |
|--------------------|---------------------------|------------------|------------------|---------------|----------------|
| Product: | Opening Drill® & GEN2 T-A | RPM | 100 | 170 | 700 |
| Objective: | Increase speed | Feed Rate | 0.005 IPR | 0.008 IPR | 0.004 IPR |
| Industry: | Military/defense | Penetration Rate | 0.5 IPM | 1.3 IPM | 2.8 IPM |
| Part: | Military components | Cycle Time | 1 hr 26 min | 10 min 27 sec | |
| Material: | 4150 steel | | | | |
| Hole Ø: | 5.625" | | | | |
| Hole Depth: | 10.00" | | | | |



▶ Opening Drill®
Holder: **OP4-1L-SS2.0**
Inserts: **OP-05T308-H**

▶ GEN2 T-A
Insert: **457H-0400**



88% cycle time decrease

The Opening Drill® provided:

- ✓ Decreased cycle time
- ✓ Decreased costs
- ✓ Increased speed

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