

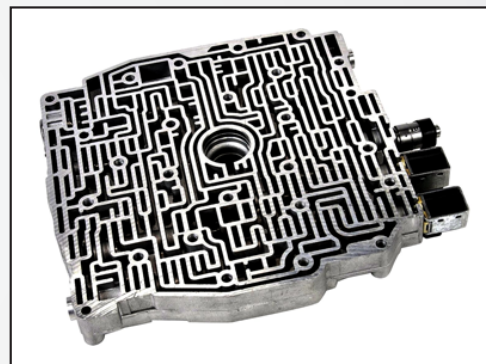


Valve Body: Opening Drill®

The customer manufactures valves for the oil well industry. The customer is machining a valve body made from 4340 alloy steel using a Toshiba Shibaura 15 HP boring mill running with flood coolant.

Unsatisfied with this production process, the customer needed to reduce the cycle time.

The **Opening Drill®** successfully reduced cycle time and also lowered the cost of production.



Product: Opening Drill® Objective: Decrease cycle time Industry: Oil & gas/petrochemical Part: Valve body Material: 4340 alloy steel Hole Ø: 7.9" (200.66 mm) Hole Depth: 21" (533.4 mm)	Measure	Competitor Boring Bars	Opening Drill®
	RPM	125	125
	Speed	259 SFM (78.943 M/min)	259 SFM (78.943 M/min)
	Feed Rate	0.006 IPR (0.152 mm/rev)	0.0037 IPR (0.094 mm/rev)
	Penetration Rate	0.75 IPM (19.050 mm/min)	0.46 IPM (11.684 mm/min)
	Cycle Time	7 hr 20 min	46 min



► Opening Drill®
Holder: 070821-12
Inserts: OP-05T308-H

The Opening Drill® provided:

- ✓ Decreased cycle time
- ✓ Decreased cost of production