

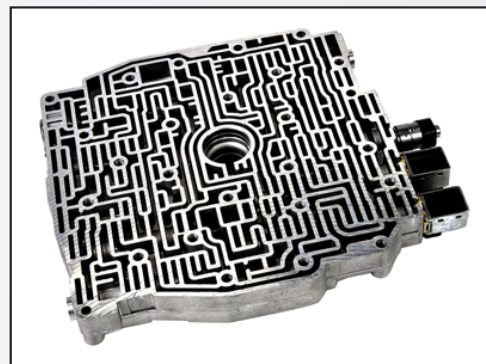


## Valve Body: Opening Drill®

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.



<b>Product:</b> Opening Drill® <b>Objective:</b> Decrease cycle time <b>Industry:</b> Oil & gas/petrochemical <b>Part:</b> Valve body <b>Material:</b> 4340 alloy steel <b>Hole Ø:</b> 7.9" <b>Hole Depth:</b> 21"	Measure	Competitor Boring Bars	Opening Drill®
	RPM	125	125
	Speed	259 SFM	259 SFM
	Feed Rate	0.006 IPR	0.0037 IPR
	Penetration Rate	0.75 IPM	0.46 IPM
	Cycle Time	7 hr 20 min	46 min



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

89% cycle time decrease

The Opening Drill® provided:

- ✓ Decreased cycle time
- ✓ Decreased cost of production