Fluid Transfer Line Fittings: Opening Drill® / Revolution Drill®

The customer manufactures fittings for fluid transfer lines made from 304 Stainless Steel. They are using an Okuma lathe with synthetic coolant at 75 PSI.

The customer wanted to expedite the holemaking process because once the drilling was finished, they needed several boring bars to complete the job.

The combination of the **Revolution Drill®** and the **Opening Drill®** eliminated the need for boring bars, which decreased the cycle time. This also greatly reduced the customer's cost per hole.

Product: Opening Drill® & Revolution Drill®
Objective: Decrease cycle time
Industry: Oil & gas/petrochemical
Part: Fluid transfer line fittings
Material: 304 Stainless steel
Hole Ø: 5.0"
Hole Depth: 9.5"

Measure	Competitor Drill	Opening Drill® & Revolution Drill®
RPM	1400	306
Feed Rate	0.003 IPR	0.0045 IPR
Penetration Rate	4.2 IPM	1.377 IPM
Cycle Time	43 min	14 min
Cost Per Hole	$936.13	$130.02
Tool Life	5 holes	8 holes

- Opening Drill® Holder: ***OP4-1L-SS2.0***
- Revolution Drill® Holder: ***R46X35-150L***

Opening Drill

Revolution Drill

The Opening Drill® & Revolution Drill® provided:

- ✓ Decreased cycle time
- ✓ Decreased cost per hole
- ✓ Increased tool life
- ✓ Eliminated multiple boring passes