



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 (5.171 bar).

The customer wanted to expedite the holmaking 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" (127 mm) Hole Depth: 9.5" (241.3 mm)	Measure	Competitor Drill	Opening Drill® & Revolution Drill®
	RPM	1400	306
	Feed Rate	0.003 IPR (0.076 mm/rev)	0.0045 IPR (0.114 mm/rev)
	Penetration Rate	4.2 IPM (106.68 mm/min)	1.377 IPM (34.976 mm/min)
	Cycle Time	43 min	14 min
	Tool Life	5 holes	8 holes
	Allied offered 86.11% cost per hole savings over the competitor tooling.		

► 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

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