



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 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.



		Measure	Competitor Drill	Opening Drill® & Revolution Drill®
Product:	Opening Drill® & Revolution Drill®	RPM	1400	306
Objective:	Decrease cycle time	Feed Rate	0.003 IPR (0.076 mm/rev)	0.0045 IPR (0.114 mm/rev)
Industry:	Oil & gas/petrochemical	Penetration Rate	4.2 IPM (106.68 mm/min)	1.377 IPM (34.976 mm/min)
Part:	Fluid transfer line fittings	Cycle Time	43 min	14 min
Material:	304 Stainless steel	Tool Life	5 holes	8 holes
Hole Ø:	5.0" (127 mm)	Allied offered 86.11% cost per hole savings over the competitor tooling.		
Hole Depth:	9.5" (241.3 mm)			

► 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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