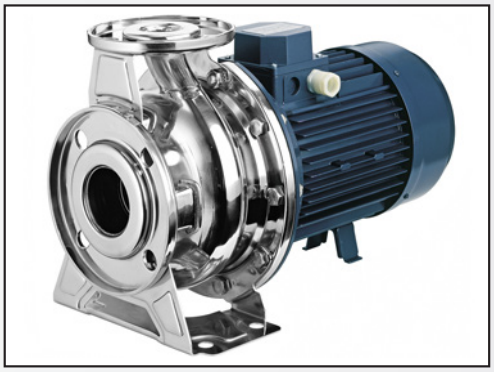
Pumps: Revolution Drill®

The customer manufactures pumps made from 304 stainless steel using a Mori-Seiki CNC machine with semi-synthetic coolant.

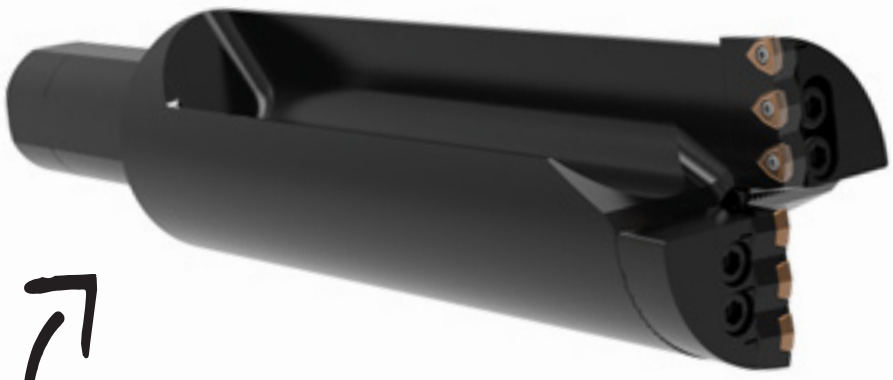
The customer needed to find a cost effective solution that would also reduce cycle time.

The **Revolution Drill®** successfully decreased cycle time and provided a superior hole finish.



Product: Revolution Drill®
Objectives: (1) Decrease cycle time (2) Decrease cost
Industry: Oil & gas/petrochemical
Part: Pumps
Material: 304 stainless steel
Hole Ø: 3.5" *(88.9 mm)*
Hole Depth: 7.5" *(190.5 mm)*

Measure	Competitor Tooling	Revolution Drill®
RPM	596	596
Feed Rate	0.003 IPR *(0.076 mm/rev)*	0.005 IPR *(0.127 mm/rev)*
Penetration Rate	1.79 IPM *(45.466 mm/min)*	2.98 IPM *(75.692 mm/min)*
Cycle Time	4 min 12 sec	2 min 31 sec
Tool Life	8 holes	8 holes
The Revolution Drill offered *27.95%* cost per hole savings over the competitor tooling.		



- Revolution Drill Holder: ***R54X25-200L***
  Inserts: ***OP-05T308-T***

40% cycle time decrease

The Revolution Drill® provided:

- ✓ Decreased cost per hole
- ✓ Decreased cycle time
- ✓ Superior hole finish