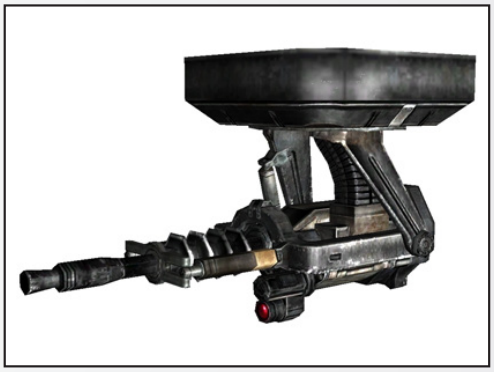
Turrets: Revolution Drill®

The customer manufactures turrets made from A36 structural steel using a Giddings & Lewis horizontal machining center MC60 with high pressure flood coolant.

To improve production, the customer needed to reduce the cost of this drilling operation.

The **Revolution Drill®** accomplished the cusomer's needs by reducing cycle time and increasing tool life.



Product: Revolution Drill®
Objective: Decrease cost per part
Industry: Heavy equipment
Part: Turrets
Material: A36 structural steel
Hole Ø: 2.1" *(53.34 mm)*
Hole Depth: 2.5" *(63.5 mm)*

Measure	Competitor Tooling	Revolution Drill®
RPM	100	825
Feed Rate	0.010 IPR *(0.254 mm/rev)*	0.003 IPR *(0.073 mm/rev)*
Penetration Rate	1.0 IPM *(25.4 mm/min)*	2.475 IPM *(62.865 mm/min)*
Cycle Time	5 min	1 min
Tool Life	15 holes	22 holes
The Revolution Drill offered *57.61%* cost per part savings over the competitor tooling.		

- Revolution Drill Holder: ***R36X22-150L***
  Inserts: ***OP-05T308-H***

80% cycle time decrease

The Revolution Drill® provided:

- ✓ Decreased cost per part
- ✓ Decreased cycle time
- ✓ Increased tool life