



## Blade Rings: Revolution Drill®

The customer manufactures blade rings made from 410 Stainless Steel for the power generation industry. They are using a horizontal machining center with flood coolant.

Unsatisfied with this process, the customer asked Allied Machine for a solution to reduce cycle time and decrease the overall production cost.

The **Revolution Drill®** significantly decreased production time by eliminating the two additional boring passes.



<b>Product:</b> Revolution Drill® <b>Objectives:</b> (1) Decrease cycle time (2) Decrease cost per hole <b>Industry:</b> Renewable energy/wind <b>Part:</b> Blade rings <b>Material:</b> 410 stainless steel <b>Hole Ø:</b> 2.00" <b>Hole Depth:</b> 7.00"	Measure	Competitor Drill	Revolution Drill®
	RPM	550	1200
	Feed Rate	0.0035 IPR	0.003 IPR
	Penetration Rate	1.9 IPM	4.3 IPM
	Cycle Time	3 min 40 sec	2 min
	Tool Life	15 holes	30 holes
	Cost per hole	\$11.88	\$3.91



► Revolution Drill®  
Holder: **R36X35-150L**  
Inserts: **OP-05T308-H**

2x the tool life

The Revolution Drill® provided:

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

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