



Aerospace Gears: Opening Drill®

The customer manufactures aerospace gears made from 4340 (28 Rc) using a Mazak Lathe with oil-based water soluble coolant.

The customer realized this process was not optimal, and they contacted Allied for a solution.

The **Opening Drill®** paid for itself after only 60 parts. The customer also makes a number of aerospace gears from of 15-5 stainless and 4340 (ranging from 1.00" ID to 4.50" ID), and they plan to utilize the Opening Drill in these additional applications.



		Measure	Competitor Boring Bar	Opening Drill®
Product:	Opening Drill®	RPM	400	509
Objective:	Improve process	Feed Rate	0.012 IPR	0.004 IPR
Industry:	Aerospace	Penetration Rate	4.8 IPM	2.037 IPM
Part:	Gears	Cycle Time	19 min	3 min 30 sec
Material:	4340	Tool Life	30 parts	30 parts
Hole Ø:	3.75"			
Hole Depth:	7.00"			



▶ Opening Drill®
Holder: **OP3-1L-SS1.5**

The Opening Drill® provided:

- ✓ Decreased cycle time
- ✓ Reduced boring passes
- ✓ Decreased cost per hole

82% cycle time decrease

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