



Landing Gears: Opening Drill®

The customer manufactures landing gears made from 4340 alloy steel (269 Bhn) using a Mazak horizontal lathe with water soluble oil coolant. They were opening a 2.125" (53.975 mm) hole to 3.75" (95.25 mm).

To improve production, the customer needed to decrease the cycle time.

The **Opening Drill®** provided significant time savings. The cost per hole decreased beyond the customer's expectations.



		Measure	Competitor Boring Bar	Opening Drill®
Product:	Opening Drill®	RPM	400	509
Objective:	Decrease cycle time	Feed Rate	0.012 IPR (0.305 mm/rev)	0.004 IPR (0.102 mm/rev)
Industry:	Aerospace	Penetration Rate	4.8 IPM (121.92 mm/min)	2.04 IPM (51.816 mm/min)
Part:	Landing Gears	Cycle Time	19 min	3 min 30 sec
Material:	4340 alloy steel, 269 Bhn	Tool Life	30 parts	30 parts
Hole Ø:	3.75" (95.25 mm)	The Opening Drill offered 73.84% cost per hole savings over the competitor tooling.		
Hole Depth:	7.00" (177.8 mm)			



▶ Opening Drill®
Holder: OP3-1L-SS1.5

The Opening Drill® provided:

- ✓ Decreased cycle time
- ✓ Decreased cost per hole
- ✓ Eliminated need for multiple passes

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