



Axle Weldment: Opening Drill®

The customer is manufacturing automotive components for a specialty truck manufacturer. They are using a Giddings & Lewis 35 HP Boring Mill with minimal coolant pressure to machine an axle weldment made from 1018 low carbon steel.

Unsatisfied with this process, the customer needed to reduce the number of tools used to complete the operation and also lower their tooling costs.

The **Opening Drill®** easily achieved the customer's goals.



Product: Opening Drill® Objective: Reduce steps in process Industry: Automotive Part: Axle weldment Material: 1018 low carbon steel Hole Ø: 2.48" (62.992 mm) Hole Depth: 6.00" (152.4 mm)	Measure	Competitor	Opening Drill®
	RPM	The customer previously used 3 different twin cutters with different diameters to open the hole to 2.48" (62.992 mm)	462
	Speed		300 SFM (91.44 M/min)
	Feed Rate		0.006 IPR (0.152 mm/rev)
	Penetration Rate		2.77 IPM (70.358 mm/min)
	Cycle Time	3 min 25 sec	2 min 10 sec



► Opening Drill®
Holder: **OP1-1L-SS1.5**
Inserts: **O-05T308-H**

The Opening Drill® provided:

- ✓ Decreased cycle time
- ✓ Reduced required tooling
- ✓ Decreased costs

41% cycle time decrease