



Stacked Plates: Opening Drill®

The customer manufactures steel lift arms for the heavy equipment industry. The customer purchased two new horizontal boring machines in order to produce these parts. Both machines use a single point bore with coated cermet for finish diameters. The work pieces are stacked plates made of A36. They use 430 PSI and synthetic coolant with additives. There were five hole diameters and depths in this complex operation.

The **Opening Drill®** effectively reduced cycle time and increased tool life, accomplishing the customer's goals for this operation.



	Measure	Competitor Boring Bars		Opening Drill®
		First Pass	Second Pass	
Product: Opening Drill®				
Objective: Decrease cycle time				
Industry: Heavy equipment				
Part: Stacked plates				
Material: A36				
Hole Ø: 4.00"				
Hole Depth: 3.07"				
	RPM	528	790	288
	Speed	430 SFM	715 SFM	300 SFM
	Feed Rate	0.015 IPR	0.012 IPR	0.006 IPR
	Cycle Time	4 min		2 min 18 sec
	Tool Life	20 min		30 min



▶ Opening Drill®
Holder: OP3-1S-CV50

50% tool life increase

The Opening Drill® provided:

- ✓ Decreased cycle time
- ✓ Increased tool life
- ✓ Eliminated need for multiple passes

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