



## Cylinders: BT-A

The customer machines cylinders made from 1045 steel using a Technidrill BTA machine operating at 900 PSI (62 bar) with semi-synthetic coolant.

The Ingersoll tools had difficulty drilling a straight hole, and the customer produced few parts that had the drill actually come out the side of the cylinder.

The **BT-A Drill** delivered a much straighter hole with less than 0.010" (0.254 mm) variance in cylinder wall thickness.



		Measure	Competitor	BT-A
<b>Product:</b>	BT-A	RPM	800	750
<b>Objectives:</b>	Improve process	Feed Rate	0.0074 IPR (0.190 mm/rev)	0.0118 IPR (0.299 mm/rev)
<b>Industry:</b>	General machining	Penetration Rate	5.9 IPM (149.86 mm/min)	8.85 IPM (224.79 mm/min)
<b>Part:</b>	Cylinders	Cycle Time	2 min 43 sec	1 min 59 sec
<b>Material:</b>	1045 steel	Tool Life	750 linear inches (19.05 M)	900 linear inches (22.86 M)
<b>Hole Ø:</b>	1.375" (34.925 mm)	BT-A offered <b>15%</b> cost per hole savings compared to competitor tooling.		
<b>Hole Depth:</b>	17.7" blind hole (449.58 mm)			



- ▶ BT-A Drill Head  
1.375" 807 series
- ▶ T-A® GEN2 Insert  
Item No. 4C12H-0112-HE

20% tool life increase

The BT-A provided:

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