



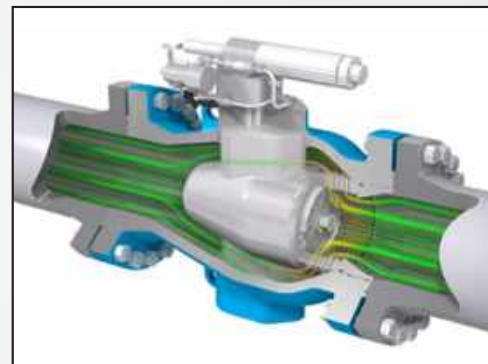
# ALVAN® Cutting Ring Reamer

## Body Relief Valve: ALVAN® Reamer

The customer manufactures hydraulic rams and cylinders, and they are machining a body relief valve made from 4140 alloy steel. They are using a Nakamura TW-10 lathe running with synthetic thru-tool coolant.

Unsatisfied with their current production process, the customer needed a solution to increase tool life.

The **ALVAN® Reamer** helped the customer in multiple areas: it increased tool life, decreased cycle time, and improved the surface finish.



		Measure	Competitor Reamer	ALVAN® Reamer
<b>Product:</b>	ALVAN® Cutting Ring Reamer	RPM	650	2000
<b>Objectives:</b>	Increase tool life	Speed	62 SFM (18.898 M/min)	190 SFM (57.912 M/min)
<b>Industry:</b>	Heavy equipment	Feed Rate	0.003 IPR (0.0762 mm/rev)	0.003 IPR (0.0762 mm/rev)
<b>Part:</b>	Body relief valve	Penetration Rate	1.95 IPM (49.53 mm/min)	6.0 IPM (152.4 mm/min)
<b>Material:</b>	4140 Alloy steel	Cycle Time	1 min	23 sec
<b>Hole Ø:</b>	0.3625" (9.2075 mm)	Tool Life	80 parts	400 parts
<b>Hole Depth:</b>	1.800" (45.72 mm)			



61% cycle time decrease

▶ ALVAN® Cutting Ring Reamer  
Item No. AL3610I02797

**The ALVAN® Cutting Ring Reamer provided:**

- ✓ Increased tool life
- ✓ Decreased cycle time
- ✓ Decreased production costs

Copyright © 2021 Allied Machine and Engineering Corp.- All rights reserved.