**AGN4 Straight Wheelhead Grinder**

**Case Study, January, 2008**

**Customer:** Dorma Architectural Hardware  
Reamstown, PA

**Application:** Pinion Grind  
(58-62Rc)

**Configuration:**  
- Straight wheel, ALOX  
- Custom automatic driver, spring loaded  
- 6-axis robot with dual gripper configuration  
- In-process sizing gage  
- Pneumatic operated tailstock  
- Vibratory bowl feeder  
- Pass through part washer

**Process:**  
- Two diameter, single plunge grind cycle  
- Dress every ten (10) parts  
- 150 parts per hour capability

**Attributes:**  
- Diameter tolerance  
  +/- .00025”  
  (1.33 CPk)  
- Surface finish  
  16 to 24  Ra

**Notable:**  
1. Weldon turnkey of machine, tooling, and process; Integration of 6 axis robot, bowl feeder and part washer.  
2. In-process gage arranged to monitor journal run-out and abort cycle on parts with over .007” R/O.

**Featuring:**  
- Schunk gripper tooling, Fanuc 6-axis robot, Fanuc 21i CNC control,  
  Marposs in-process gage, Automation Devices, Inc. bowl feeder.