

### Rebuilding Pulverizer Wear Parts



**BABCOCK POWER  
SERVICES INC.**

#### OVERVIEW

Babcock Power Services Inc. (BPS) now provides a new technology for weld overlay resurfacing for vertical spindle mill pulverizer grinding rolls and tables. Using a patented process developed by Cladding Technology, now owned by BPS, a special tungsten carbide material is applied during the overlay process that increases the life cycle of the refurbished part to beyond that of the original OEM part. This process has been utilized on multiple manufacturers' pulverizers, including Alstom (Raymond) and Babcock & Wilcox, with Ni-Hard and high chrome rolls.

Babcock Power Services' patented process has a proven track record of providing superior wear life with hundreds of rolls in service grinding some of the most abrasive fuels. Tungsten carbide particles are embedded during the final overlay process providing the superior wear resistance of tungsten carbide in the highest wear area on the roll.

#### FEATURES / BENEFITS

Our patented Tungsten Carbide Overlay Process more than doubles the life compared to other overlay rebuilding processes or new cast OEM rolls.

##### Reduce material and maintenance costs

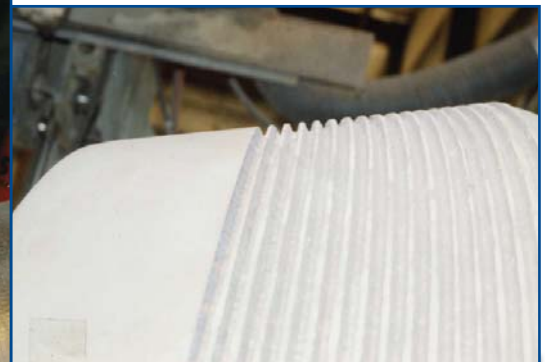
- Resurfaced rolls typically cost less than new parts.
- Lower net cost as a result of less frequent overhauls.

##### Minimize downtime

- Resurfacing rolls takes only 2-3 weeks, compared to original OEM production that often exceeds 12 weeks - a net time savings of 2 months.
- Outage schedule flexibility for pulverizer overhauls
- Increased wear life allows for longer periods of operation.
- Overhauls can be scheduled during low demand seasons.



**TUNGSTEN CARBIDE OVERLAY MINIMIZES WEAR  
EVEN AFTER 2,000,000 TONS OF LIGNITE.**



**850 POUNDS OF MATERIAL ADDED TO BRING  
ROLL WITHIN THE OEM'S SPECIFICATION.  
THE ROLL IS GROOVED AND READY FOR  
THE ADDITION OF TUNGSTEN CARBIDE.**



### BABCOCK POWER SERVICES INC.

5 NEPONSET STREET  
P.O. BOX 15040  
WORCESTER, MA 01615-0040  
TEL 508-852-7100 • FAX 508-852-7548  
FOR REPLACEMENT PARTS • 800-541-3843

[www.babcockpower.com](http://www.babcockpower.com)

#### Increase life cycle

- "New" pulverizer performance for more operating hours.
- Maximum grinding capacity is maintained for longer periods between overhauls; fineness remains higher for a longer period of time.
- Pulverizer differential pressure remains low, preserving primary air system margins.
- Power consumption stays lower.
- Severely worn rolls can be overlaid.

#### PROVEN EXPERIENCE – CUSTOMER TESTIMONIALS

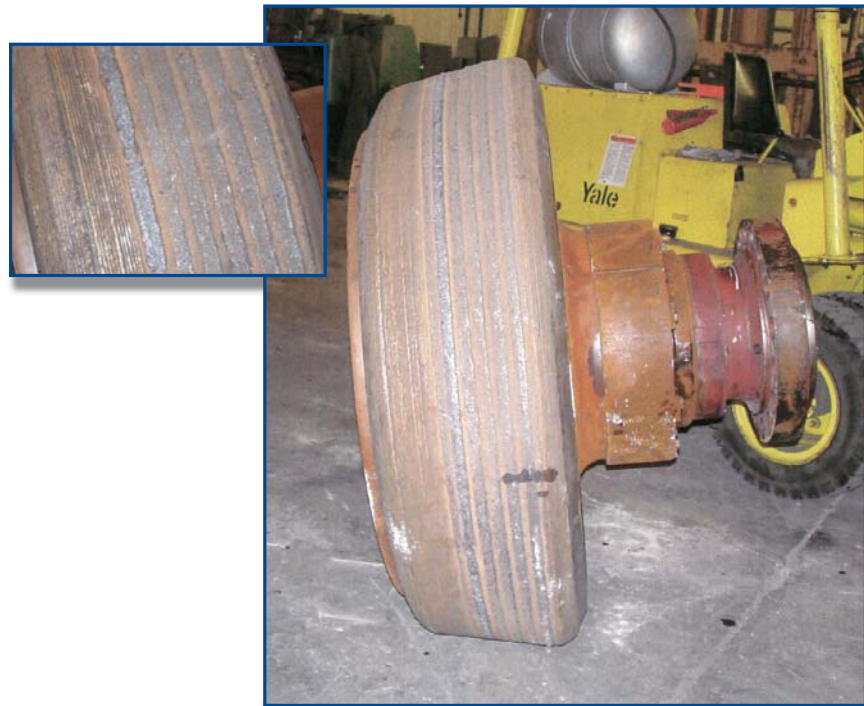
##### Central U.S. Power Producer

"These rolls required 56% less welding material to rebuild back to the original configuration using the carbide technology."—Boiler Core Leader

##### Northwest U.S. Power Producer

"We installed our first set of 743 journal rolls, rebuilt using your technology... . To date, they only have 1/4" wear on the profile after 14,016 hours of operation, approximately 319,775 tons of Lignite coal. We are normally changing out our rolls every 14,000 hours. Given the wear that we have at present on the Tungsten (Carbide) rolls, I estimate that we could receive double the life from the Tungsten (Carbide) compared to the other wear materials that we have tried."

—Production Support Coordinator



**REBUILD IS COMPLETE.  
INSET SHOWS OVERLAY WITH  
TUNGSTEN CARBIDE EMBEDDED.**