



RILEY POWER INC.

## BALL TUBE MILLS Coal Pulverizers with Unique Benefits

### OVERVIEW

Riley Power Inc. (RPI), a Babcock Power Inc. Company, offers the Riley Ball Tube Mill System for large coal pulverizing applications from abrasive petroleum coke to high moisture content sub bit. coal, such as PRB coal. This type of mill, with the dependable Riley components provides a flexible, high availability installation with relatively low maintenance. Total capacity of RPI's Ball Tube Mills in service feed pulverized coal to power plants generating over 15,000 MW of power.

### FEATURES / BENEFITS

#### High throughput capability

- Minimizes the total number of mills required.

#### Pulverizes a wide range of coals

- Best choice for very high to severely abrasive coals.

- Well suited to handle high moisture coals.

#### Minimum wear components that require replacement

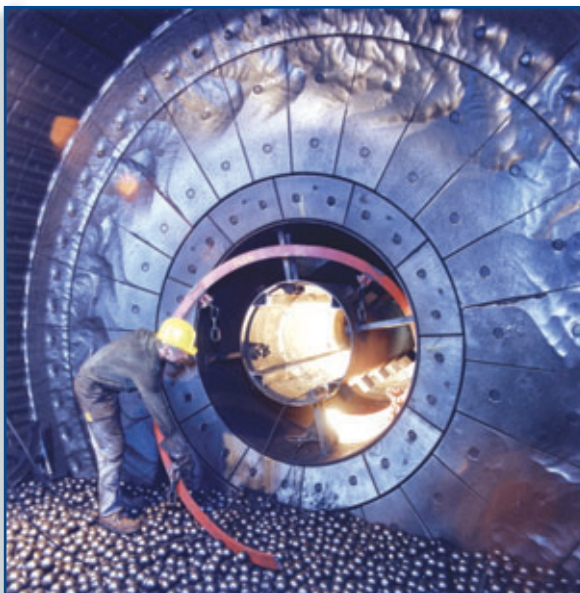
- Mill liners require replacement approximately every 15-20 years, depending upon the coal being used.
- Ball charge can be replenished with mill on-line.

#### Periodic inspections and/or adjustments are minimized

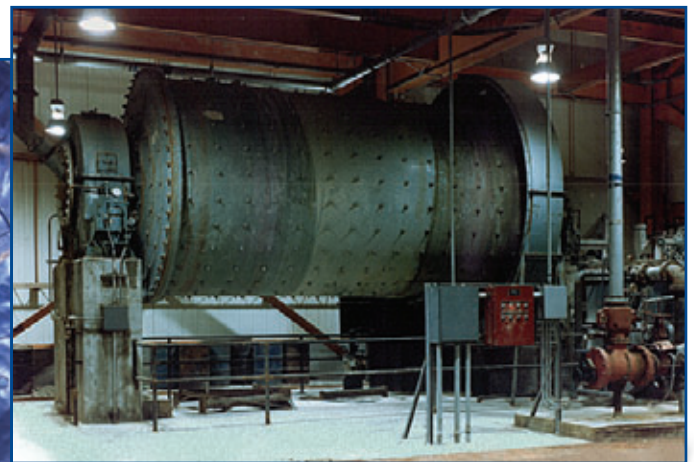
- Lower maintenance cost vs any other type pulverizer.

#### Each unit includes two feeders & two crusher dryers

- Components are oversized so that the feeder and crusher dryer at one end can maintain full mill load if the feeder and crusher dryer at the other end are out of service.



INSIDE A TYPICAL BALL TUBE MILL



BALL TUBE MILL INSTALLATION



## RILEY POWER INC.

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### Two stage pulverization - primary crushing and drying is accomplished in the crusher-dryer

- Lower power consumption than competitor's Ball Tube Mill.

### Impervious to tramp metal

- Requires no iron/pyrite removal system.

### High temperature primary air introduced to raw, wet coal just prior to the crusher-dryer

- Virtually all surface moisture evaporated reducing the coal/air mixture temperature before entering the mill, thus lessening the potential for fires.

### Power Sonic™ Mill Conditioning system

- Monitors and regulates coal inventory without the need for internal probes or sensors.

- Uses mill drive motor power consumption and sound within the mill as inputs.

- Optimize coal inventory to maximize mill capacity.

### All major components are designed by Riley Power – feeder, crusher dryer, classifier and coal shut-off valves

- Single source for all major components using proven in-house system expertise to insure a reliable system.

- Gravimetric feeders also available.

### High on-line availability

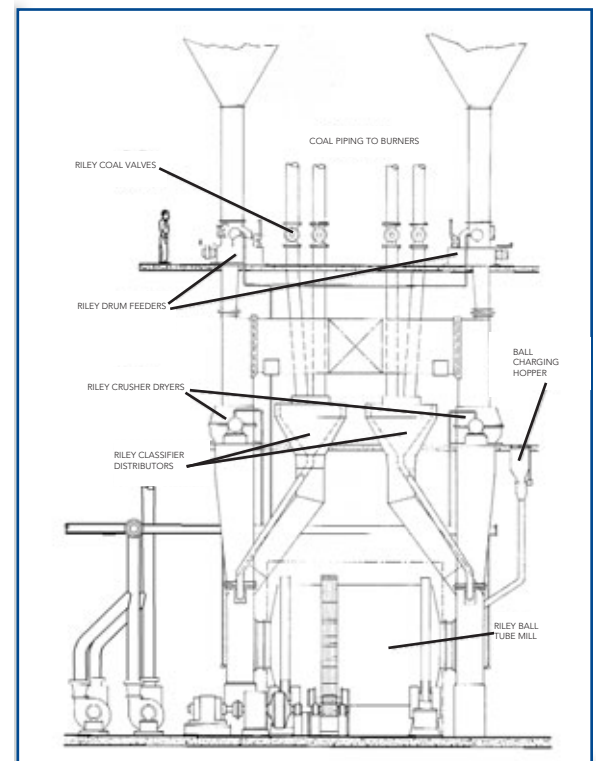
- No unscheduled shut-downs to replace grinding components.

- No need for spare mills.

**RPI DOUBLE-ENDED PRESSURIZED BALL TUBE MILL  
STANDARD CAPACITIES, TON/HR\***

LENGTH, ft.	9	10	11	12	13	14	15	16	17	18	19	20	21
DIAMETER, ft.													
9	17.4	19.4	21.3	23.2									
10		25.6	28.1	30.7	33.2	35.8							
11				39.4	42.7	46.0	49.3						
11.5				44.2	47.9	51.5	55.3	59.0					
12							61.8	66.0	70.1	74.1			
13							76.2	81.2	86.3	91.4	96.5		
14								98.5	104.6	110.8	116.9		
15									125.1	132.4	139.8	147.1	154.5

\* Based on Coal HGI=50, Product Fineness=70% thru 200 Mesh, 98% thru 50 mesh, Coal feed size=3/4" x 0, and 0% Coal Moisture



**BALL TUBE MILL**