



RILEY POWER INC.

## The Riley Power MPS Vertical Spindle Coal Pulverizer

### OVERVIEW

Riley Power Inc. (RPI), a Babcock Power Inc. Company, is the exclusive licensee in North America for the latest MPS mill technology. With over 2000 MPS mills installed in the USA and abroad burning a wide variety of coals, there is no other vertical spindle mill with more combined grinding capacity and range of proven experience in the world. Since its introduction to the power generation industry in the 1960's, many improvements and upgrades in design and material selections have been incorporated to improve each unit's performance, reliability and availability. In addition to offering new MPS mills, RPI also offers a comprehensive array of services for parts replacement, upgrading and rebuilding of the existing fleet of MPS mills installed in North America, regardless of the OEM.

### FEATURES / BENEFITS

#### MPS technology/boiler OEM

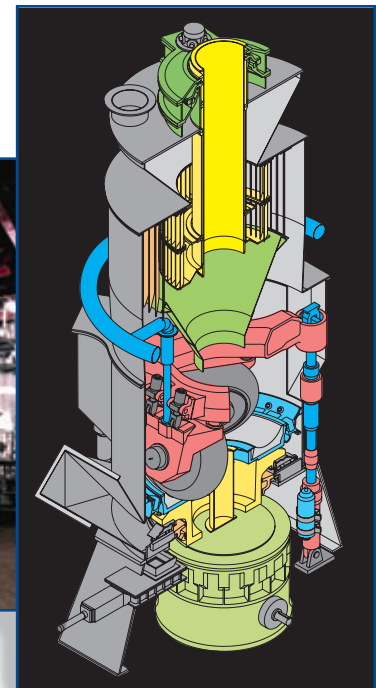
- You get the benefit of the latest MPS technology combined with the more than 90 years of expertise in fuel firing, boiler design, and boiler modifications from the boiler OEM, Riley Power Inc.

#### Unique Hydraulic Roller Loading

- Provides optimum characterization of grinding force with different coals and coal feed rates.
- Grinding load automatically adjusted as a function of mill throughput.
- Adapts instantly to fuel changes.
- Lower power starts.



MPS MILLS



MPS PULVERIZER WITH DYNAMIC CLASSIFIER AND HYDRAULICALLY LOADED ROLLERS



### RILEY POWER INC.

5 NEPONSET STREET  
P.O. BOX 15040  
WORCESTER, MA 01615-0040  
TEL 508-852-7100 • FAX 508-852-7548

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

- Increases wear life by eliminating metal-to-metal contact.
- Can be retrofitted to existing MPS mills with spring roller loading systems.
- Provides easier unloading of a tripped pulverizer.
- Easier maintenance of the grinding roller.

#### SLS Dynamic Classifier

- Optimizes coal fineness approaching the micronized range.
- Equalizes distribution of coal flow between burner lines.
- Lower NO<sub>x</sub> with minimal levels of UBC in the ash.
- Speed controlled automatically; also makes immediate accommodation of fuel changes possible.
- Grinding power reduced.
- Can be retrofitted on any existing vertical spindle pulverizer design.

#### Planetary Gear Drive Unit vs triple reduction gear unit

- High reduction capability in a relatively small space, utilizing less space.

- Lower weight and cost.
- Higher efficiency.
- Significantly less lubricating oil volume required.
- Optimum thrust bearing support.
- Can be removed without dismantling the pulverizer.

#### Rotating Nozzle Ring or Throat

- Uniform air and coal distribution to reduce wear and minimize spillage.
- Customized design to reduce primary air flow.
- Improves coal fineness.
- Service life extended by utilizing wear-resistant materials.

#### Roller Tires

- Stepped roller shaft for higher grinding load capability.
- Tapered tire bore.
  - Avoids tire cracking typically experienced with straight bore designs.
  - Easy disassembly and assembly.
- Eliminate tire slippage.



SLS DYNAMIC CLASSIFIER ASSEMBLY



PLANETARY GEAR DRIVE