Pulverizer Optimization Components

STORM® Summary of Achieving Optimum Pulverizer Performance

- Pipe to pipe clean air balance within ±2% of the mean pipe velocity.
- Pipe to pipe fuel balance within ±10% of the pulverizer’s mean pipe fuel flow.
- Pipe to pipe dirty air velocity balance within ±5% of the pulverizer’s mean pipe dirty air velocity.
- Air to fuel ratio of 1.8 pounds of air per pound of fuel (baseline - once minimum airflow is achieved).
- Minimum coal fineness level of 75% passing 200 mesh and less than 0.1% remaining on 50 mesh.
- Pulverizer to pulverizer mass air and fuel balance within ±5%.
- Pulverizer outlet temperature of 155°F or higher (Except on high-moisture Western fuels, then 135°F minimum).
- Minimum fuel line velocity of 3,300fpm.

- Achieve optimum vane wheel throat velocities to minimize or eliminate coal rejects, while allowing acceptable air-fuel ratios to be attained.
- Optimum mechanical tolerances set for the lowest quality fuel fired (i.e. spring pressures, grinding element condition, etc.).

A. Airflow Venturi (Airflow Measurement and Management Systems) for improved measuring accuracy.
B. Throat and deflector modification for reduced rejects, optimum primary classification, and reduced mill rumbling.
C. High spin classifier vanes for improved circulation and air/fuel distribution.
D. Modified outlet cylinder for improved homogenization and 50 mesh particle rejection.
E. Inverted cone for coarse particle rejection.
F. Orifices and housings for achieving optimum clean air system resistance.

Note: STORM® is neither a manufacturer of nor affiliated with the OEM of the pulverizer system above.

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