RodasRam

Case Study

Longer life for PF mill cylinders - 30,000+ hours “maintenance free”

Operating life extended from 2,000 to over 30,000 hours

About RodasRam™

RodasRam is a nitrogen-actuated cylinder designed and developed to replace existing hydraulic/pneumatic cylinders currently in use on Babcock 'E' type mills. These mills were designed for coal pulverization at power stations and cement works worldwide.

RodasRam cylinders work on an oil-free system. This reduces the cost of maintenance and repair, with the effect of significantly improving the operational reliability of plants.

A further advantage of RodasRam is the ability to test while in operation, and perform full diagnostic tests on each individual cylinder thanks to individual isolating valves.

The Client

The client for this critical project was Budge Budge Power Station, operated by the Calcutta Electric Supply Corporation (CESC Limited), and a key supplier of power to the West Bengal region of India. CESC Budge Budge Power Station is a coal-based thermal power plant, with an installed capacity of 750 MW (3x250MW).

Existing unreliable hydro-pneumatic loading system cylinders

100% mill availability to provide uninterrupted power supply to end users

The Challenge

CESC Budge Budge Power Station had in service 12 Babcock Type 10.9E10 coal pulverizing mills. They were operating a hydro-pneumatic loading system for these mills, with an average life expectancy of just 2,000 hours.

A disruption to the reliable operation of this incumbent system would result in a loss of power generation capability for the entire power plant.

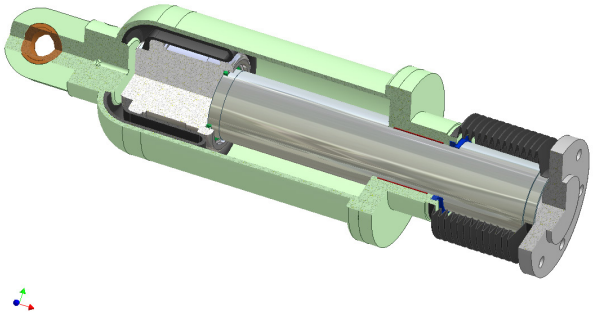
Operators for the power plant were searching for a more reliable method which did not have the same vulnerabilities to unscheduled downtime, enabling a more predictable supply of power to the wider community.

The Solution

FTL worked closely with the team at Budge Budge, identifying the advantages of implementing a RodasRam-based solution.

As a result of this consultation with FTL, all 12 of Budge Budge Power Station's Babcock 10E Mills have been converted to the nitrogen-only loading system.

Furthermore, RodasRam has been introduced into the West Bengal Power Development Corporation Ltd (WBPDCL) Stations at Kolaghat and Bakreswar.



RodasRam nitrogen-only loading system cylinder

3000+ RodasRams currently operating worldwide

The Benefit

Following installation, the RodasRam cylinders have run 'maintenance free' for over 30,000 hours. As a result, the plant has enjoyed 100% mill availability during this period, significantly improving the reliability and efficiency of the plant.

Retrofitting of the RodasRam mill loading system has eradicated the need for any hydraulic oil, and eliminated all associated leakages, with all associated environmental benefits.

FTL has installed similar RodasRam retrofits for high profile clients across the UK, and as far afield as the Netherlands, Mexico and South Africa. Subsequent performance of these installations has been consistently high.

"We see the [RodasRam] installation as a big winner. Maintenance costs will drop, and no oil leaks makes everything look cleaner while removing a possible fire risk."
Ratcliffe-on-Soar Power Station

In-depth Solutions

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