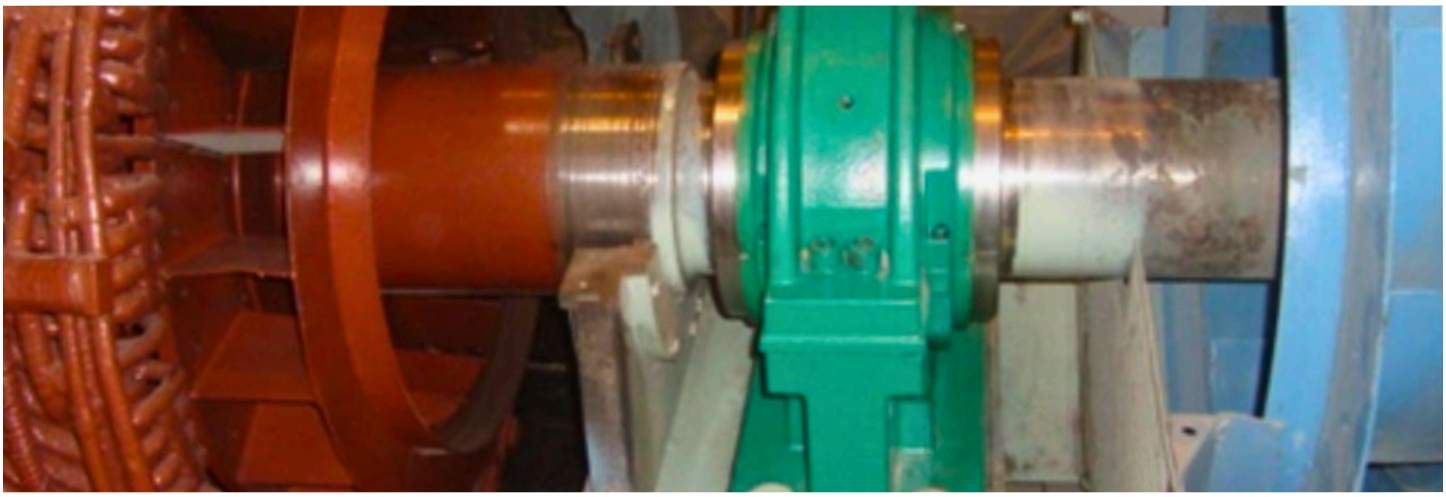
TIMKEN



TIMKEN'S RELIABILITY & CUSTOM SOLUTIONS DRIVE LONG-TERM SAVINGS FOR A CEMENT MANUFACTURER

CHALLENGE

One of India's leading cement companies faced ongoing challenges with its 2200 kW mill motors powering cement mills that grind clinker. The motors, in service for over 20 years, relied on OEM Drive end & non-drive end oil lubricated white metal bearing units, which were failing prematurely due to lubrication problems. The existing oil lubrication system was complex and costly, requiring pumps, coolers and filters. Excessive lubricant was lost through the ineffective sealing rings.
Further challenges included:

- 180 mm motorshaft bearing journals worn undersized.
- The customer wanted to replace the complicated lubricant system with a single-point greasing facility that would mount on the existing undersized motor shaft.

TIMKEN SOLUTION

Timken worked closely with the customer to develop a customized bearing solution tailored to their specific needs. By switching to Timken Split Cylindrical Roller Bearing, the customer gained a more durable and maintenance-friendly solution:

- Inner races custom made to 179.75 mm to fit the undersized shaft.
- Single lipped outer races to enable the motor rotor to float on its magnetic centre.
- Special S33 support pedestals with custom base to centre height to match their existing housings.
- Insulated housing packing plates & bolt sleeves to electrically isolate the bearings, preventing electrical erosion.
- High-speed aluminum triple labyrinth seal.
- Grease lubrication.



RESULTS THAT MATTER

By switching to Timken's custom bearing solution, the customer achieved significant operational and financial benefits:

- 7 years of trouble-free operation to date.
- Fast bearing replacement if change out required.
- Significant maintenance cost savings.

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.

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