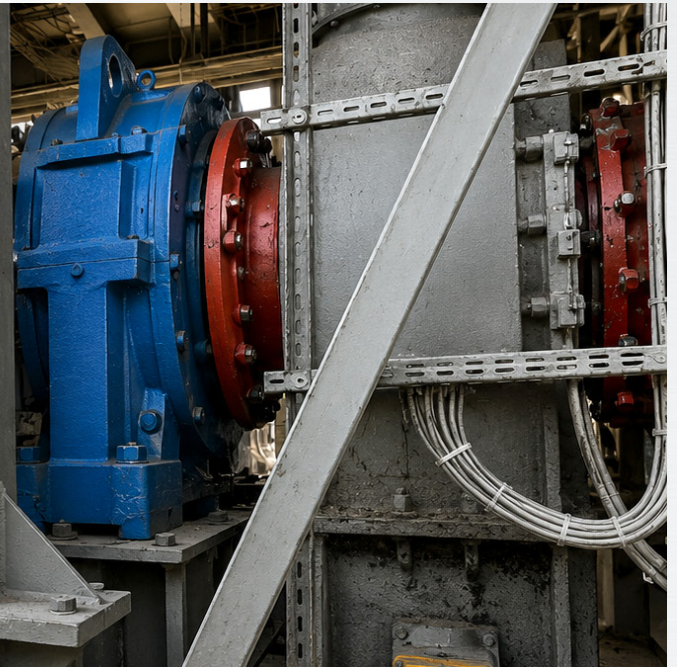


Newsletter

Atlantic Bearing Services 08.2026

Field Assembly by ABS of an ACB Custom-Engineered Bearing Support System for a Plug&Grind® XL Cement Mill

ACB
ATLANTIC CUSTOM BEARINGS



-70%
DOWNTIME

**in Future Bearing
Replacements**

950 mm
BORE

**World's Largest Split
Toroidal Roller Bearing**

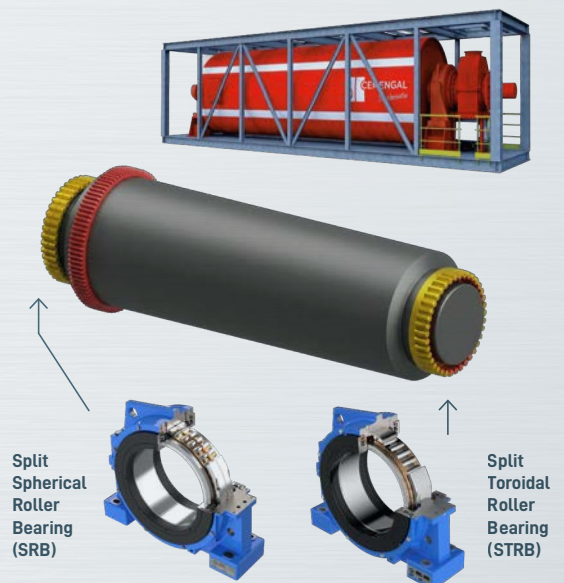
6,000+
OPERATING HOURS
of Proven, Reliable
Performance

220K
TONS/YEAR
Plant capacity

This project involved the field assembly of a custom-engineered bearing support system for a Plug&Grind® XL modular cement mill. The custom-engineered ABS solution replaced the original bearing arrangement with a fully integrated split system comprising custom split housings, a split spherical roller bearing (SRB) on the fixed side, and a split toroidal roller bearing (STRB) on the free side. Specifically engineered to simplify future maintenance, the new configuration enables bearing replacement without removing the shaft or dismantling the support housings, helping reduce future maintenance downtime and improve long-term maintainability.

The field assembly of the complete split bearing support system required detailed dimensional verification, controlled assembly of the housing and bearing components, precise mill positioning and alignment, and preparation for commissioning. Executed in close collaboration with the customer's maintenance and engineering teams, this technically demanding field intervention demonstrated ABS's capability to deliver complex engineered installations under real operating conditions.

THE ABS SUPPORT SYSTEM SOLUTION



FIELD EXECUTION SCOPE

Over approximately 15 days, ABS field engineers and technical specialists carried out the installation under demanding site conditions, following a structured execution plan that included:

- Site inspection and work area preparation.
- Trunnion inspection and precision dimensional verification.
- Surface condition assessment and fit verification.
- Installation of the custom split bearing housings.
- Field assembly of the split spherical roller bearing (SRB) and split toroidal roller bearing (STRB).

- Integration of the complete split bearing support system.
- Mill positioning and precision alignment.
- Lubrication system preparation.
- Final installation checks, assembly verification and preparation for commissioning.



MILL POSITIONING & PRECISION ALIGNMENT

The mill was lifted and positioned on the existing support rails. Final bolting and leveling were carried out after confirming the condition of the base surfaces and completing minor cleaning and adjustments where required. Threaded leveling bolts were used to achieve precise vertical positioning, while additional shims were prepared in case further adjustment was required during final placement.

Because the internal liners had not yet been installed, final drivetrain alignment was deferred until the mill reached its final operating configuration, ensuring accurate coupling geometry under operating conditions.



CONTROLLED COMPONENT HANDLING & BEARING ASSEMBLY

All bearing and housing components were handled following strict cleanliness and alignment protocols throughout the assembly process. Component seating and alignment were progressively verified as the split bearing elements and custom housings were installed.

The controlled assembly process ensured proper seating and seamless integration of the custom split housings and bearing elements, demonstrating the robustness and maintainability of the engineered bearing support system.



LUBRICATION SYSTEM & COMMISSIONING

Both bearings were pre-lubricated using high-performance grease suitable for extreme loads and moderate rotational speeds. Double labyrinth seals were installed and verified on site to ensure long-term contamination control.

The lubrication system was completed by aligning the lubrication lines and adapting the fittings to minimize flow resistance and maintain proper operating pressure throughout commissioning.

Following successful commissioning, the bearing support system entered service as planned. Initial operation confirmed correct lubrication, proper alignment, and stable system performance.



FROM ENGINEERING TO OPERATION

Since commissioning, the system has accumulated more than 6,000 operating hours, maintaining stable and reliable performance under continuous production conditions. Routine maintenance inspections have confirmed that the system continues to operate as expected.

At ABS, engineering does not end with design and manufacturing. It continues through field execution and commissioning, ensuring that every engineered solution is successfully installed and validated for long-term operation. This integrated approach improves maintainability, supports long-term equipment reliability, and maximizes the performance of critical rotating equipment.

