

Metso:Outotec

Polymer HSB System

The Metso Outotec Polymer Hydrostatic Shoe Bearing (HSB) system significantly improves radial and axial bearing reliability and longevity. It maximizes grinding mill availability and simplifies maintenance, increasing revenue and reducing maintenance costs.

Benefits

- Longer bearing-pad service life and easier maintenance
- Improved hydrostatic efficiency
- Superior load distribution in all operating conditions
- Accurate mill load measurement
- Increased revenue and reduced maintenance costs
- Best-in-industry bearing warranty



Maximize mill availability, maximize revenue

The Metso Outotec Polymer HSB system ensures optimal performance of your grinding mill. The system improves the durability and serviceability of both radial and axial hydrostatic bearing pads compared to bronze or white-metal pad bearing systems, thereby minimizing failures and unscheduled downtime due to bearing failure.

Reduce lost production time due to bearing system failure

Bearing lubrication system and/or bearing pad failure is a common cause of mill stoppages and can result in costly damage to the mill-side bearing journal. The Metso Outotec Polymer HSB system minimizes failures and unscheduled down time associated with surface-to-surface contact caused by journal defects, lock-charge starts, or hydraulic system failures. It uses a specially developed polymer pad material to ensure smooth operation even in the most difficult operating scenarios.

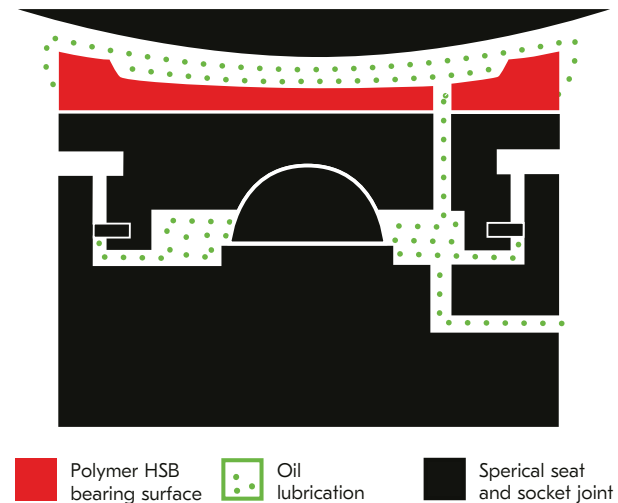
Reduce operational and maintenance costs

Metso Outotec Premier Grinding mills are fitted with the Polymer HSB system. The system can also be retrofitted to existing mills with bronze or white-metal pad-based systems. The Polymer HSB system has self-lubricating properties, which eliminates the need for an emergency lubrication delivery system, simplifying and improving the robustness of the entire mill bearing system.

Protect mill longevity while reducing maintenance demands

The Polymer HSB system's state-of-the-art self-aligning capability ensures that the pads are always precisely aligned with the mill journal. This helps to increase load measurement accuracy and protect the longevity of the mill by distributing stresses more evenly across the support structure and mill body. The self-aligning capability is provided through detailed design of the bearing oil galleries, which distributes oil and provides unparalleled flexibility for the bearing alignment to the mill journal. The oil gallery and distribution setup is maintenance free and requires no adjustment over the lifetime of the mill.

With over 10 million hours of production, the Metso Outotec Polymer HSB system is a proven way to maximize mill availability.



Spherical seat and socket joint allows the upper bearing component to self-rotate and align to the journal surface. The elasticity of the material ensures an adequate oil film is maintained at all times and allows the pad surface to self-adjust to accommodate journal defects and other common causes of failure.