Bearing Problems? We can solve ...Ask us how?

- Rapid Bearing Degradation
- Composite Wiping or Smearing
- Vibration Issues
- In Ordinate Runout
- Overheating
- Constant Bearing Adjustments
- Current Bearing Life Less than 10 years

Replaces all brands of bearings including:
Kaplan, Pelton, Leffel, Francis, GE, S. Morgan Smith, Westinghouse, Allis Chalmers, and International

Operating Characteristics:
We currently service over 10,000 MW. Only hydro bearing with over 130 years of successful continuous operation in hundreds of plants. Requires “ZERO” tolerance - Especially important for older turbines with some wear or instability, unlike composite bearings that require inordinate clearance for fear of touching and wiping or smearing the shaft.

- Contains guaiac gum that acts as the lubricant. This water impervious gum glazes the bearing surface, which stays intact for decades, even in dirty or silty water. Unlike other lubricants that are free to flow away from the bearing, guaiac gum is bound in a homogeneous fiber that cannot drain away.
- Contains no abrasives or composites requiring shaft treatments or special coatings.
- Known as the most steel friendly material in use. No moving parts, Nothing to rust or corrode.
- Nature’s perfect combination of hardness and lubricity for running against steel.
- “ZERO” wiping or smearing of material onto the shaft, thereby eliminating residual buildup and “thumping.”
- Excellent startup ability.
- Excellent performance in dirty and silty water, with documented cases of 67 years of service on original bearing sets in Army Corps of Engineers’ plants.
- Requires no costly additional shaft treatments or coatings to keep the bearing from cutting the shaft.
- No need to filter the water or add lubricants required by some composites.
- Easy to install, even when replacing old bearings in remote or crude conditions.

The Environment:
- The only renewable, natural, industrial underwater bearing.
- Requires no grease, oil or other lubricants, which may spill in surrounding water.
- No threat to air, water, or soil, with nothing going into landfill.
- No manufacturing pollution, toxic metals, PCBs, Plastic, VOCs, or exotic chemicals.
- The forest is actively managed to preserve the supply of Lignum Vitae into perpetuity through an internationally recognized agency.

Services Available:
Value Engineering, Reverse Engineering, Hone & Lap shaft in place, Installation & Supervision On-Site, Immediate Delivery for unplanned Outages. Shaft and Bearing Assessment.
Lignum Vitae Water Lubricated bearings commonly replace composite, plastic, bronze, babbitt and oil filmed bearings. The material is the oldest bearing in service with unmatched longevity in water applications. It has tremendous load bearing qualities and unique shock absorbing qualities that no other material can match.

**Benefits of the Material**
- Self lubricating
- 100% bearing material
- Low maintenance
- Run of the river or salt water appl.
- Low friction
- High shock load
- High edge load
- Easy to machine
- Non conducting
- Easy installation
- Custom made to your specs

**Shaft Sizes and Bearing Useful Life:**
Lignum vitae bearings currently support shafts of any diameter, with a bearing useful life in excess of 60 years.

**Operating Characteristics:**
Only hydro bearing with over 130 years of successful continuous operation in hundreds of plants. Requires “ZERO” tolerance - Especially important for older turbines with some wear or instability, unlike composite bearings that require inordinate clearance for fear of touching and smearing the shaft.

**History:**
Thomas Edison first specified lignum vitae bearings in the Appleton Wisconsin hydro plant in 1882, which are still in service today. In 1900, approximately 70% of the world’s power was hydro power, 100% of which ran on lignum vitae bearings. WWII placed a huge demand on the supply of lignum vitae for stern tubes of every destroyer, submarine and carrier for the US Navy.

**Availability:**
With a sustainable harvesting program in place, Lignum Vitae North America has a sustainable supply of lignum vitae that will last into perpetuity. Bearings can typically be shipped in one to two days.