



# MARINE BEARINGS

**THORDON**

ZERO POLLUTION | HIGH PERFORMANCE | BEARING SYSTEMS

# MARINE BEARINGS FOR LONGER LIFE

Thordon Bearings is a pioneer in manufacturing high performance, long lasting bearing systems that include a 15-Year Wear Life Guarantee\*.

Our polymers offer the best combination of strength/stiffness with flexibility/elasticity, along with high abrasion resistance. Regardless of grade or configuration, Thordon bearings operate without grease or oil lubrication in dry or wet environments.

- Self-lubrication eliminates pollution and the risk of criminal, civil or administrative liability
- Long wear life and lower maintenance costs mean predictable, lower life-cycle costs
- Global availability provides superior customer service and quick turnaround
- Full-cycle technical support includes system design, machining, installation and after-sales service
- Certification to ISO 9001:2008 ensures consistent quality custom and stock solutions

Around the world, ship owners and managers know Thordon bearings are the proven choice for performance and value. Thordon bearings are manufactured to last, with no threat to the environment or your reputation.

# PROVEN TRACK RECORD FOR JOURNAL BEARING SOLUTIONS

For over 35 years, Thordon Bearings have produced non-polluting marine bearings, seals and shaftline components that can now be found in thousands of vessel applications across the globe. Customers include over 40 Navies and Coast Guards, cruise ships, tankers, bulk carriers, cargo, ferries, supply vessels, dredgers, workboats and many other types of commercial ships.

We have the solution for you – above and below the waterline.

- No oil or grease lubrication
- Grades to fit all water environments and operating conditions
- Long wear life backed by a 15-Year Wear Life Guarantee for SXL rudder and COMPAC propeller shaft bearings\*
- Low friction, high resilience
- Excellent abrasive resistance



## Rolls-Royce Supplier Since 1987

*"Thordon are a little more expensive than other bearings, but they offer technical advantages that we feel are worth the extra money. We have had a good track record with the bearings."*

*Jan Pahnke, Strategic Sourcing Specialist  
Rolls-Royce Marine, Sweden*

## Carnival Continues to use COMPAC

*"To date, our experience is that COMPAC bearings with Inconel journals will mean worry free shaft lines for the life of the vessel."*

*Chris Joly, Principal Manager, Marine Engineering  
Corporate Shipbuilding, Carnival plc, United Kingdom*

\*Thordon's industry-leading 15-Year Wear Life Guarantee is available on our COMPAC propeller shaft bearings and SXL rudder bearings. Visit our website for details.



# THORDON PROPELLER SHAFT BEARINGS

## Open Propeller Shaft Bearing Systems

With increasingly stringent environmental regulations, Thordon's open, seawater lubricated propeller shaft bearings are replacing oil-lubricated, metal bearings in new builds and conversions.

Thordon Bearings zero-pollution systems eliminate stern tube oil and the aft seal. In dirty water applications, performance is superior to rubber and provides long wear life and high abrasion resistance.

Proven in the toughest marine environments since 1983, Thordon bearings offer:

- Zero pollution risk (no oil required)
- 15-Year Wear Life Guarantee for COMPAC in bluewater operation\*
- Turnkey engineering and installation support
- Easy fitting
- Reduced seal maintenance costs
- Inspections without shaft withdrawal
- Resistance to shock and edge loading
- Survivability (our non-catastrophic failure mode allows ship to get to port)
- Global availability

Thordon's propeller shaft bearings include COMPAC, SXL, XL and RiverTough elastomer grades - each offering specific advantages in different water environments and operating conditions.

## COMPAC Bearing Systems...Built to Last

Thordon's pollution-free COMPAC bearing systems are backed by an industry leading 15-year Wear Life guarantee.

Installed on more than 600 ships worldwide, the COMPAC system typically includes COMPAC bearings, carrier, shaft liners, a Water Quality Package and Thor-Coat shaft coating.



Our Water Quality Package is a self-contained pumping unit which removes abrasive solids from the water supply (down to 40-50 microns). As water enters the forward seal, it flows through the COMPAC bearings and exits at the stern. Flow rate is monitored by low flow alarms.

The Thor-Coat propeller shaft coating provides 10-year corrosion protection against seawater. This toughened, 2-part epoxy coating is up to nine times more flexible than existing shaft coating products.

## Sealed Stern Tube Bearing Systems

Thor-Lube is a sealed stern tube bearing system that eliminates pollution concerns relating to stern tube oil. Similar in principle to oil-lubricated systems, the Thor-Lube stern tube bearing system consists of proven non-metallic Thordon XL bearings, a biodegradable water-based lubricant specifically formulated to replace stern tube oil, and a Thor-Lube circulation and monitoring package.



## Thordon XL Solves Icebreaker Stern Tube Problem

*"The Thordon element went pretty much like clockwork and the sea trials went well, showing no signs of problems. Underwater divers were also positive about the installation."*

James Happe  
U.S. Coast Guard

## Towboat Performance Opens More Opportunities

*"Thordon RiverTough bearings have shown excellent performance... We plan on continuing to use Thordon prop shaft bearings and we have started to specify grease-free Thordon SXL rudder and ThorPlas jockey arm bearings."*

Mitch Jones, Maintenance Manager  
Blessey Marine Services, Inc., Louisiana, U.S.A.

\* Thordon's industry-leading 15-Year Wear Life Guarantee is available on our COMPAC propeller shaft bearings and SXL rudder bearings.

# GREASE-FREE RUDDER BEARINGS

Thordon SXL self-lubricating rudder bearings operate grease-free, above and below the waterline. Used dry or water-lubricated, our rudder bearings offer long-life performance, proven through more than 4,000 installations over the last 25 years. Thordon backs this claim with a 15-Year Wear Life Guarantee for newbuilds or twice the life of the replaced bearing in conversions.†

- Industry-leading wear life guarantees
- Dry and water lubrication eliminates grease usage
- High abrasion resistance
- Superior resistance to shock loading and vibration

Thordon offers SXL pintle, stock and carrier disc bearings. HPSXL TRAXL and ThorPlas are also available for grease-free steering and linkage applications and fin stabilizers.

Self-lubricating Thorseal rudder stock seals offer positive sealing and exceptional wear life.

# BEARINGS FOR DECK EQUIPMENT, OFFSHORE OIL AND DREDGE APPLICATIONS

The versatility of Thordon technology provides ship owners and builders pollution-free, low-maintenance and long lasting solutions for on deck, offshore oil and dredge bearing applications using ThorPlas, SXL, Composite or HPSXL TRAXL bearings.

Our clean, low-friction, easily machined polymers offer outstanding wear life and eliminate grease or oil, reduce downtime and lower life cycle costs.

## On Deck:

- Davit bearings
- Fairlead, sheave and pivot bushings
- Crane bearings
- Winch bearings
- Water tight door bearings
- Replacement for all greased bronze bearing applications

## Dredgers:

- Cutterhead bearings
- Intermediate shaft bearings
- Ladder trunnion bearings
- Drive-shaft bearings

## Offshore Applications:

- FPSO turret and slewing bearing systems
- AHTS stern roller bearings and seals
- Riser tubes, net catchers and fire pump bearings



## Thordon SXL a Crucial Solution for FPSO

"Our selection of bearing material was crucial. Not only did it have to perform well under the sea, it also needed to be relatively low maintenance and have a design life of 15 years!"

Jon Dunstan, Director  
London Marine Consultants (LMC), United Kingdom

## Thordon Outperforms Rubber

"These bearings last longer than rubber bearings. We have installed Thordon Composite and plan to continue using Thordon Composite bearings and staves."

Panos Zoglopitis, Mechanical Engineer  
Archirodon Dredging Division, United Arab Emirates

† Thordon offers a 15 year Rudder Bearing Guarantee for newbuilds, and on conversions, SXL is guaranteed to last twice the life of the replaced material to a maximum of 10 years.

# CUSTOMER FOCUSED TO QUICKLY MEET YOUR NEEDS

## **Quick and Responsive Service**

It takes quality products to be globally successful in the marine bearing industry. It also takes great service to keep customers coming back.

Thordon Bearings Inc. is geared to respond quickly to new shipbuilding and conversion projects. Thordon bearings arrive quickly, fit right and last!

## **Extensive Distribution Network**

Thordon Bearings has an extensive distribution network to supply our global customers. More than 70 distributors in 100 countries carry extensive inventories of Thordon's common bearing sizes which are backed by large regional and head office inventories. Non-standard requests are met with responsive design, quick machining and speedy delivery.

## **Application Engineering**

Thordon engineers work closely with customers to provide innovative bearing system designs and solutions. We offer in-house design, CAD and the proprietary Thordon Bearing Sizing Calculation Program to help correctly size our bearings.

Our decades of experience mean that we offer the right technical support during design, machining, installation and operation.

## **Manufacturing Quality**

Thordon Bearings Inc. is a family-owned company that operates a state-of-the-art polymer processing plant and new product development facilities in Burlington, Ontario, Canada.

We manufacture to ISO 9001:2008 Quality System requirements. Contact us for references for our installations.

## **High Performance Bearings and Shaftline Products; Industry-Leading Service**

Thordon Bearings is an industry leader in the design, manufacture, supply and installation of high performance, marine bearings systems.

**Your Authorized Thordon Distributor**

# THORDON

**Thordon Bearings Inc.**

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