



# WATER LUBRICATED BEARINGS

**THORDON**

ZERO POLLUTION | HIGH PERFORMANCE | BEARING SYSTEMS



# WORLD LEADER IN WATER LUBRICATED BEARING SOLUTIONS

## Pollution Free Bearings for Renewable Energy

The world's oceans, seas and rivers are a vast global resource of non-polluting, endlessly renewable energy and with the ever increasing demand for electrical power, harnessing this force has become a major priority.

Many companies and countries have invested heavily in developing systems that will generate power and yet still withstand the harsh underwater environment.

## Experts in Manufacturing Water Lubricated Bearings

Thordon Bearings is the world's leading manufacturer of high performance, long lasting bearing systems that require no oil or grease. Our polymers offer the best combination of strength/stiffness with flexibility/elasticity, along with high abrasion resistance.

We also have global technical support and experienced application engineers who can work with you to deliver innovative bearing solutions and provide CAD design and engineering services.

For over 35 years, Thordon Bearings have been supplying environmentally friendly bearing solutions for thousands of hydro turbine and marine applications across the globe. Our customers include Hydro Power Generating Plants as well as Navy and Coast Guard vessels, cruise ships, tankers, ferries, dredgers and many other types of commercial ships.

## Reliable. Durable. Environmentally Responsible.

Harnessing renewable ocean energy demands bearings that are reliable, durable and environmentally responsible.

Thordon's non-polluting and maintenance free bearings are available worldwide through our factory trained distributor network that spans more than 100 countries.

## Thordon Bearings - High Performance Solutions

Thordon offers a choice of water lubricated bearings, each delivering specific advantages in unique water environments and operating conditions. Bearing diameters available in sizes over 2m (6.5') and bearing with multiple pad segments over 1.5m (50').

### Thordon SXL

- Working pressure to 10 MPa (1450 psi)
- Friction coefficient typically 0.10-0.20 dynamic
- Wet or dry operation
- High resistance to abrasion, shock loading and vibration

### Thordon ThorPlas

- Engineered thermoplastic for high pressure applications up to 31.0 MPa (4500 psi) dynamic or 45MPa (6500 psi) static.
- Full-form tubular configuration
- Very low wear in non-abrasive environments



### Thordon HPSXL TRAXL

- For high pressure applications up to 55 MPa (8000 psi) dynamic or 70 MPa (10,000 psi) static peak.
- Friction coefficient typically 0.06-0.12 dynamic
- High resistance to shock loading and vibration

### Thordon Composite

- Made specifically for use in very abrasive water environments
- Stiffer and at least twice the abrasion resistance of rubber
- Lower friction coefficient than rubber

### Thordon COMPAC

- Groove configuration induces early hydrodynamic film between shaft and bearing
- Long bearing wear life in clean water applications
- Withstands high shock loads and edge loading
- Friction coefficient typically 0.10-0.20 dynamic

### Thordon SXL Main Guide Bearings Reduce Maintenance and Downtime

*"Thordon has lasted twice as long as the previous phenolic bearing. And the longer lifespan has kept labor and material costs down while expanding uptime."*

Claude Mailloux, Planner/Supervisor  
Inco Hydro Generating Plant,  
Spanish River, Northern Ontario, Canada

### 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

# CUSTOMER FOCUSED TO QUICKLY MEET YOUR NEEDS

## **Quick and Responsive Service**

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

Thordon Bearings Inc. is geared to respond quickly to supply high performance bearing solutions. 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; Industry-Leading Service**

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

**Your Authorized Thordon Distributor**

# THORDON

**Thordon Bearings Inc.**

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