



# TG100

*Seals For Water Lubricated Propeller Shafts*



**THORDON**

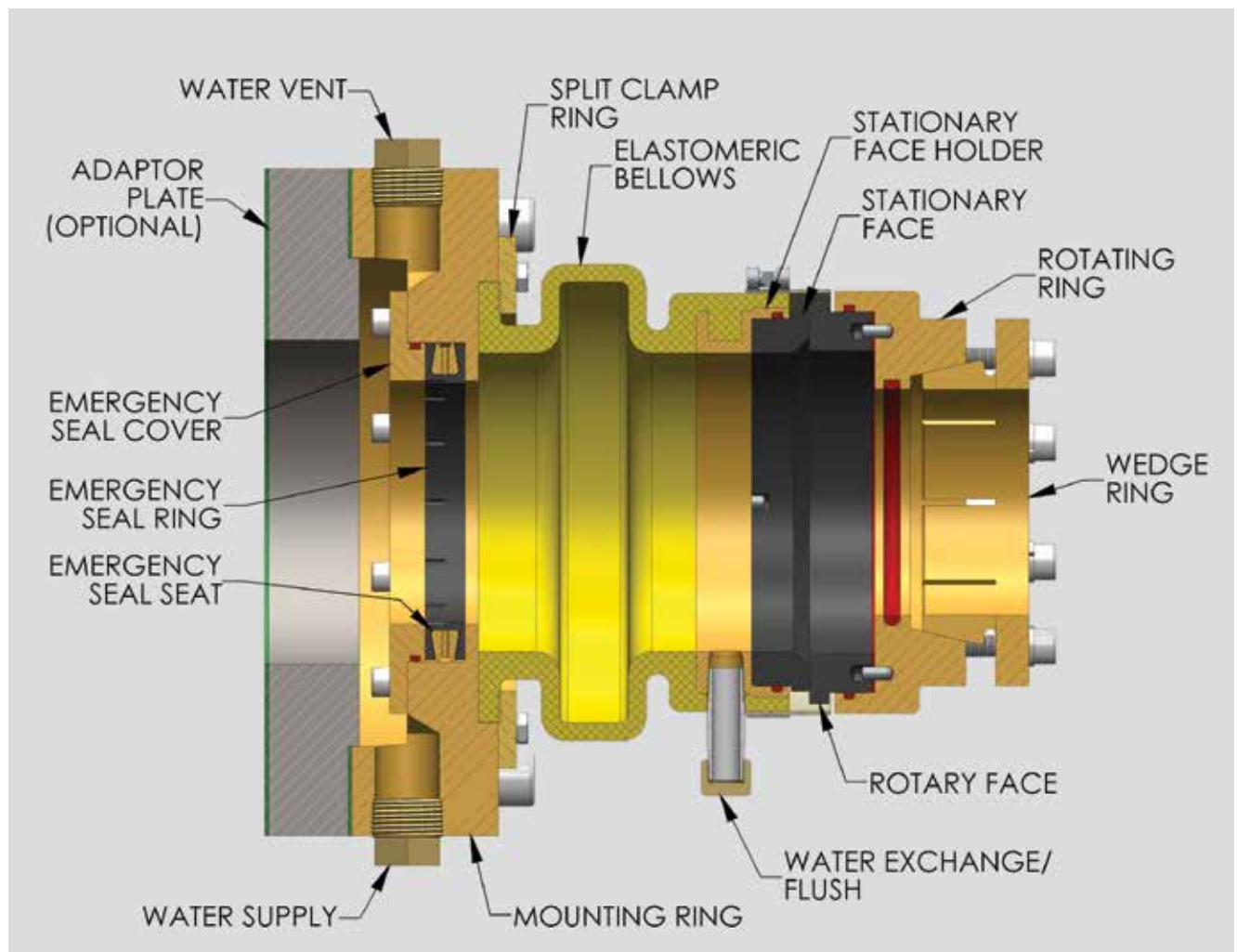
ZERO POLLUTION | HIGH PERFORMANCE | BEARING & SEAL SYSTEMS

# SHAFT SEALS FOR ABRASIVE WATER CONDITIONS

The Thordon TG100 is a new mechanical seal for 86mm (3.375") to 305mm (12") propeller shafts found in workboats, dredgers, tugs, yachts, patrol craft and other coastal vessels operating in either clean or dirty, abrasive-laden water.

Manufactured to the same exacting standards as our high performing range of Thordon bearings, the TG100 seal uses the highest quality, hard wearing, silicon carbide faces and our proprietary elastomeric polymers to offer the best combination of strength/stiffness and flexibility/elasticity.

- Unlimited shelf life on elastomeric bellows
- Unique emergency seal allows stand-alone operation to get you back to port without damaging the seal
- Elastomeric bellows accept axial/radial shaft movement and compensate for alignment issues
- Manufactured for long wear life providing lowest life cycle costs
- Wedge "lock" design ensures the rotary face is perfectly square to the shaft
- Hydraulically balanced to accommodate various drafts





*TG100 seal can be fitted to all vessels operating in abrasive waters including workboats, harbour tugs, offshore supply vessels, yachts, ferries, fishing trawlers, self-propelled dredgers, as well as navy, coast guard and police vessels.*

### **Thordon High Performance Solutions**

Ship owners and managers know Thordon products are the proven choice for performance and value. TG100 shaft seals are manufactured to last and are designed for use in newbuild construction and retrofits. Our parent company has decades of experience in industrial mechanical seal design and manufacturing, so we are not new to shaft seal technology.

### **Proprietary Elastomeric Bellows**

The exclusive omega “Ω” shape of the elastomeric bellow was FEA computer designed and manufactured by Thordon using a proprietary elastomer. This design minimizes torsional vibration and maintains the required spring force throughout the allowable range of axial shaft movement. Unlike rubber, Thordon elastomer bellows have an unlimited shelf life.

### **Unique Emergency Seal**

A unique feature of the TG100 is the emergency seal that permits stand-alone operation to allow the vessel to safely return to the nearest port and prevent permanent seal damage.

### **Maintenance-Free Shaft Seals**

The TG100 seal can operate without maintenance and should not require spare parts within 5-year drydock intervals. However, dirt and abrasives can accumulate in the bellows depending on the quality of water in which the vessel operates. As a result, periodic cleaning/flushing can be done via a special “water exchange/flush” port located at the bottom of the seal.

### **Most Effective Combination**

Using silicon carbide for both sealing faces provides the most effective solution for vessels operating in dirty water. Elastomeric bellows and the hard silicon carbide surface provide the perfect combination to ensure abrasive particles cannot cause problems.



### **TG100 Seals Installed on Mississippi Workboat**

A New Orleans shipyard installed TG100 seals on the *John 3:16*, a 21m (69'), 96 tons, 1700 hp towboat with twin screw 152mm (6") shafts in 2012.

Vessel Owner: Marquette Transportation Company, Kentucky, USA

# CUSTOMER FOCUSED TO QUICKLY MEET YOUR NEEDS

## Quick and Responsive Service

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

Thordon Bearings Inc. is geared to respond quickly to supply high performance seal and bearing solutions. Our products arrive quickly, fit right and last!

## Extensive Distribution Network

Thordon Bearings has an extensive distribution network of more than 85 distributors in 100 countries to supply and service our global customer base. 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 and shaft seal system designs and solutions.

While TG100 seals are designed as a standard product that will virtually bolt into place, global installation technical support is available for those cases where specific application engineering is required.

## 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. In addition, we own a new leading edge machining and polymer production plant in Slupsk, Poland that can also source metal parts for seals.

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

## High Performance Bearings; Industry-Leading Service

Thordon Bearings is an industry leader in the design, manufacture, supply and installation of high performance, pollution-free, shaft seal and bearing systems. We design all our products to last for the life of the vessel.

**Your Authorized Thordon Distributor**

# THORDON

**Thordon Bearings Inc.**

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