

Hutchinson Marine Propulsion Sealing Solutions

BULKHEAD SHAFT SEALS BUILT FOR PERFORMANCE AND RELIABILITY

Bulkhead Seals Designed to Protect Crew and Vessel Integrity



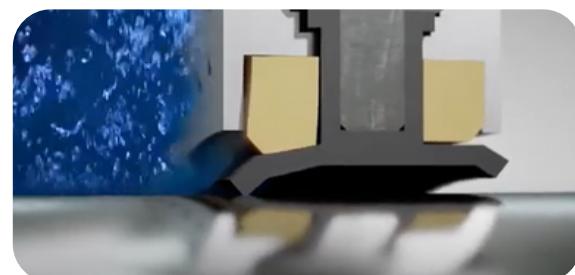
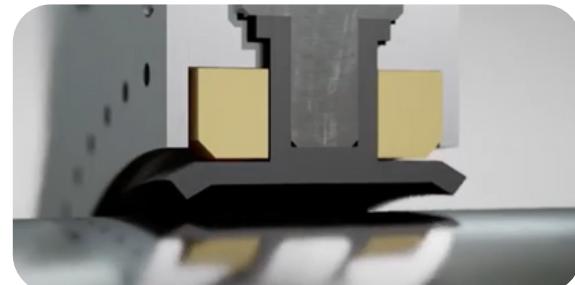
Hutchinson designs and manufactures three types of bulkhead seals that meet the highest standards of reliability and safety. Each seal has been rigorously tested under U.S. Naval and Class Certification guidelines to ensure outstanding performance in the most demanding environments.

HydroActive™ Technology

At the core of Hutchinson's sealing systems is our proprietary HydroActive™ technology. This advanced design uses specifically-engineered foam inside a lip seal that normally does not touch the shaft.

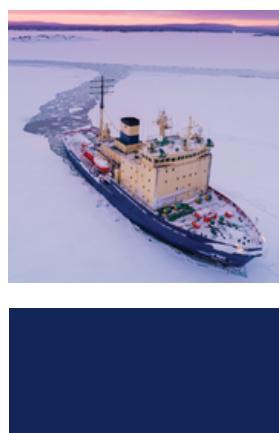
During a flooding event, the foam absorbs water, swells, and pushes the lip seal into contact with the shaft to form a watertight barrier. Under normal operating conditions, the seal remains non-contacting, eliminating wear and allowing for unrestricted shaft rotation.

Hutchinson's patented HydroActive™ bulkhead seals engage only during flooding, providing a dependable layer of protection when it is needed most. This non-contacting design virtually eliminates wear, minimizes maintenance, and ensures long-term reliability and performance for vessels operating in demanding marine environments.



HYDROACTIVE™ BENEFITS

- Improved Safety
- Reduced Total Ownership Cost
- High Shaft Angle and Vertical Operation
- Easy Customization



Hutchinson Marine Propulsion Sealing Solutions

BULKHEAD SHAFT SEALS BUILT FOR PERFORMANCE AND RELIABILITY

MARKETS AND APPLICATIONS

Hutchinson's Marine Propulsion Sealing Solutions are engineered for both **commercial** and **military** vessels. Whether protecting crew, cargo, or critical systems, our seals deliver safety, performance, and confidence.

OMNI SERIES: Commercial Craft & Small Boats

- Tugs
- Ferries
- Dredge (Pump & Propulsion)
- Offshore Wind Support Vessels (OSVs)
- Military Patrol Boats
- Coast Guard Vessels
- Fishing and Processing Vessels
- Ice Breakers

RELIANT SERIES: Military & Harsh Environment Vessels

- Surface Combatants
- Ice Breakers
- Coast Guard Vessels
- Mine Sweepers
- Crew and Support Vessels
- Reconnaissance and Unmanned Vessels
- Amphibious Platforms

Reliant YM

The Reliant YM series represents the next evolution in seal design. This model reduces total system weight and simplifies maintenance by using flat interface plates bolted to the bulkhead instead of a full housing.

The seal "floats" on these plates, allowing for large radial shaft movements. Reliant YM seals are successfully operating on numerous vessels worldwide.

- Non-contacting, non-rotating floating design
- Withstands large axial and radial shaft movements (up to 50 mm radial, unlimited axial)
- Self-centering seal for consistent performance
- Dirt excluder or dust exclusion skirt
- Lightweight, corrosion-resistant components



Reliant HD

The Reliant HD series of bulkhead seals are used where large shaft motions, in excess of three (3) inches, are required.

This configuration uses a large machined housing and cartridge style arrangement, while maintaining the benefits of HydroActive technology which allows the Reliant HD series seals to be deployed in the most challenging conditions.



Omni

Omni seals are ideal for vessels that do not experience the large shaft deflections typical of naval ships.

With fewer components and a simplified, non-floating design, Omni seals are easier to install, maintain, and procure, making them a reliable and cost-effective solution for commercial and small craft applications.

