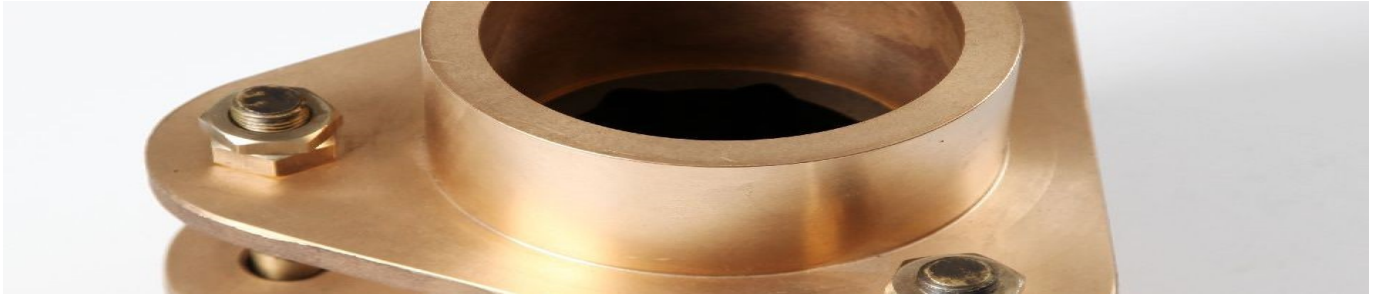


SELF ALIGNING SHAFT SEAL & PACKED GLANDS



SureSeal Shaft Seals

Complementing the more conventional shaft seals that are still widely used in the industry, Clements Engineering provide a complete range of non-metallic self-aligning shaft seals designed and produced by Tides Marine Inc.

Benefits

- Dripless and wear free performance over a guaranteed 2000 hour, or 2 year operating life
- Manufactured using non-metallic composite materials
- Dimensionally un-affected by temperature changes
- Will not become damaged by water absorption
- Over 100,000 units sold and used by boat builders all over the world

Spare Seal Carriers

This product can be installed at the same time the Strong SureSeal is fitted. This means a spare seal clamped on to the propeller shaft next to the seal assembly is safely and conveniently stored. The lip seal can be replaced if required without uncoupling the shaft from the transmission, and if necessary, whilst the vessel is still in the water.

Key Features of the SureSeal:

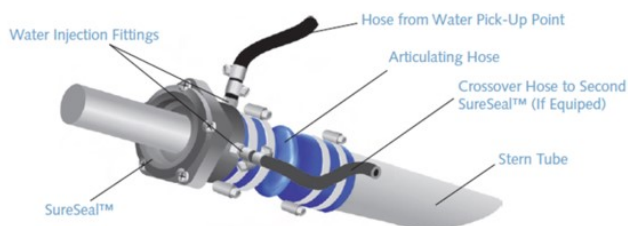
Housing – made from fibre reinforced composite material, means it is stronger, smaller and more durable. Dimensionally unaffected by temperature change, the SureSeal will not absorb water.

Bearing – The integral PTFE bearing extends the useful operational life of the SureSeal under normal operating conditions. Should the water injection system fail to provide lubrication to the lip seal and bearing surface the integrity of the SureSeal PTFE bearing and fibre-reinforced house is unaffected for many hours. This allows the vessel operation to simply replace the worn lip seal, restoring the 100% watertight characteristics of the SureSeal

Hose –The SureSeal is connected to the boat via an articulating hose. Matched to each housing size, the hose design positions the unit relative to the stern tube so that the required operating clearance is achieved without measurement, simplifying installation. The new hose greatly reduces the side loads to the SureSeal when shaft misalignment occurs (as much as 6mm in any direction), extending the lip seal and bearing life.

Hose Clamps– The hose clamps are designed not to tear or mark the hose surfaces, requiring less tightening force and thus adjusting for the changes in the hose diameter caused by variations in temperature and pressure.

Seal Replacement - The design incorporates a removable front cap which allows access to the lip seal making it easy to remove and replace.



Quality Assured

The SureSeal shaft seal products are built to ABS (American Bureau of Shipping) standards and are manufactured in an ISO (International Standards Organisation) facility.

All Clements Engineering products are manufactured to the highest standards as well as to classification society requirements.

Clements Engineering (St Neots) Limited

The Industrial Park, Little Staughton, Bedfordshire, MK44 2BN

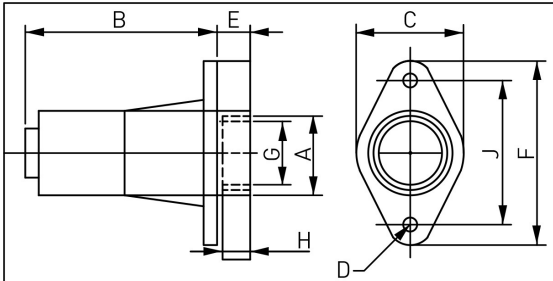
Tel: +44 (0)1234 378814 sales@clementsmarine.co.uk

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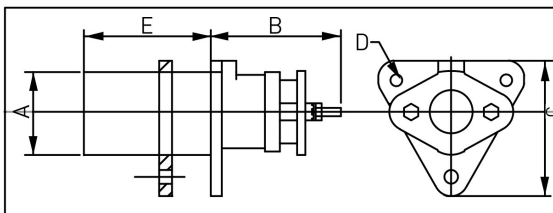
Medium Duty Conventional Packed Glands

Clements Engineering manufactures a complete range of cast EN1982 LG2 gunmetal and HTB standard forward terminals and standard outer terminals for power craft and sailing auxiliaries. These types of shaft glands are fitted with the latest PTFE packing material which will not abrade the surface of the rotating prop shaft.



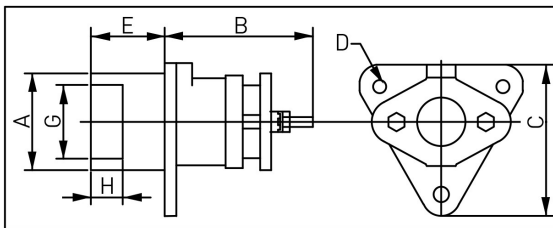
Standard Outrigger Bearing (1)

Designed to give maximum stand-proud from the deadwood, having water feed from a bleed from the engine cooling system. A portion of the bearing stands proud in order to facilitate removal.



Half Cutless Gland (Hull) (2)

Designed to bolt to a box construction in the hull (power boat) as a support bearing with gland, complete with water feed. Supplied with a loose flange to mate with the integral flange on the main body and a nitrile water lubricated bearing arranged for forward extraction.

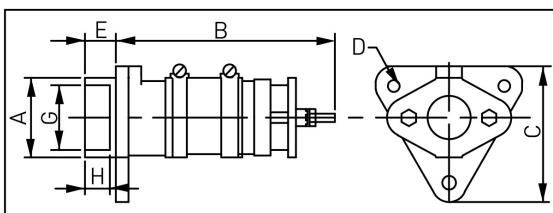


Forward Solid Gland (Tube) (3)

Waterfed type allows free flow of water from the lubrication point to aft of the bearing.

Half-Cutless Gland (Tube)

Similarly designed (3) to mate with a tube installation when a forward support bearing is required. Water fed from an internal bleed from the engine cooling system and includes a cutless bearing.



Forward Flexible Gland (4)

Usually employed in close coupled installations or when the natural elasticity of the shaft does not compensate for engine movement. Throughout the size range the gland carrier is dogged to the main body. Supplied with rubber gaiter and stainless steel clips.

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