PSS swivel joint shaft 45 mm stern 83 mm



Réf : **JTPSS4583**

A Pressure Balanced Seal System (PSS) is a mechanical device used to seal and protect rotating shafts against leakage of liquids or gases. These rotary seals, which are equipped with a water inlet, are 100% leakproof and require no maintenance. They have a long service life.

Classic delivery

Public price TTC
830.59 €

CARACTERISTICS

PSS SWIVEL JOINT SHAFT 45 MM STERN 83 MM

Réf. **JTPSS4583**

Dangerous material : non
Weight :

- External diameter : 96 mm
- Stern tube diameter : 83 mm
- Length : 203-209 mm
- Model : PSS Type A

SPECIFICATION

The **PSS mechanical shaft seal** is the industry-leading solution for ensuring a perfectly watertight propeller shaft. Installed as original equipment by many boat manufacturers and widely used in retrofit applications, it stands out for its reliability, durability, and virtually maintenance-free operation.

Unlike traditional stuffing boxes, the PSS seal eliminates the need for regular adjustments, reduces maintenance costs, and guarantees a 100% leak-free seal while protecting the propeller shaft from wear.

Operating Principle

The system is based on a mechanical face seal design:

- A 316L stainless steel rotor mounted on and rotating with the shaft
- A stationary carbon flange (stator)
- An elastomer bellows that provides compression and sealing

The continuous contact between the stainless steel rotor and the carbon flange creates a perfectly watertight sealing surface. The compression of the bellows absorbs vibrations and compensates for movement within the propulsion system.

Key Benefits of the PSS Seal

- Total sealing: zero leakage at the propeller shaft
- Maintenance-free: no adjustments required, unlike stuffing boxes

- No shaft wear: no direct friction on the shaft
- Proven reliability: trusted by professionals and boatyards worldwide
- Exceptional durability: up to 40,000 operating hours recorded
- High tolerance: compatible with slightly worn or corroded shafts
- Resilient design: handles abrasive water and temporary cooling interruptions

Performance and Safety

Thanks to its advanced design, the PSS seal maintains consistent sealing performance even under demanding conditions. The O-rings integrated into the rotor rotate with the shaft, preventing wear typically associated with lip seals. The carbon flange is engineered for long life and generally does not require replacement under normal operating conditions.

Compatibility

The PSS seal is available for a wide range of shaft diameters, ensuring precise fitment and optimal performance for your specific installation.

Certifications

This product is certified by internationally recognized organizations:

- RINA
- Bureau Veritas
- ABS