

# Carboplan Surface – water-lubricated fwd seal

# General description

- Mechanical face-type seal for water-lubricated sterntubes
- Silicon carbide sealing ring material: corrosion- and wear-resistant
- Equipped with an additional inflatable static seal (Pneumostop)
- No wear to the shaft
- Housing material is bronze

# **Advantages**

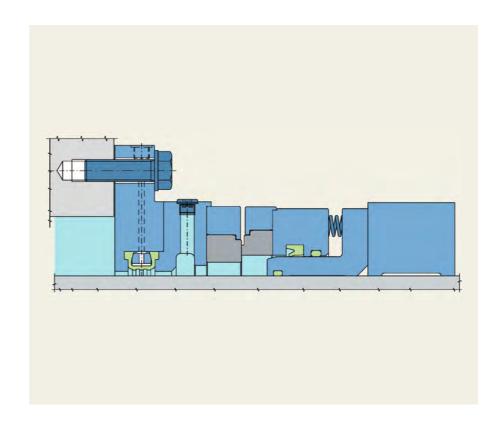
#### Design

Sealing rings made of silicon carbide (SIC) → harder than sand → extremely wear-resistant

Pneumostop made of NBR with excellent mechanical properties → reliable operation at very low water temperatures, exact recovery when vented for no shaft contact

#### Installation

Delivered fully assembled and tested  $\rightarrow$  easy installation by the shipyard



### Operation

No wear to the shaft → practically maintenance-free

Easy handling due to uncomplicated setup 
→ reduced risk of operating failure

Constant sealing pressure by pressure springs → absorbs axial shaft movements

## Services

Designed for in-situ overhaul as per certified and approved Simplex repair standards

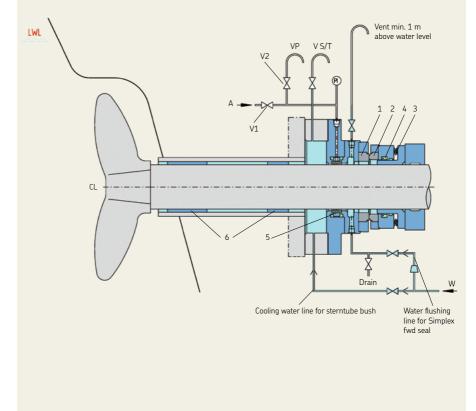
Worldwide service network and availability of spares



## **Function**

- A stationary ring (1) and a rotating sealing ring (2) are pressed against each other by pressure springs (3) and form the axial seal.
- The static part of the seal unit is bolted against the sterntube flange and supplied pre-assembled.
- The rotating part of the seal unit consists of liner, spring support ring with slide ring, secondary sealing ring (4) and clamp ring. The rotating part is also supplied pre-assembled.
- The seal is equipped with a pneumatically actuated standstill seal (Pneumostop) (5) to assist during inspection (no docking of the vessel required) and as an emergency seal with the shaft at standstill.
- The Pneumostop can be inflated by an air supply line (V1 open, V2 shut).
- During seal operation, the Pneumostop is always vented (V1 shut, V2 open).
- A water supply line provides the sterntube bushes (6) with a constant supply of water.
- A small amount of fresh water is needed for flushing the permanently vented seal chamber.

PI = Pressure indicator
VP = Vent for Pneumostop
V S/T = Vent for sterntube
CL = Shaft centre line
A = Air supply for Pneumostop
W = Water supply line



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