Certificate no.:
TAS00003S4

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Watertight Door

with type designation(s)
SPMS-WT-PH-LH-DOOR

issued to
Spectoms Engineering Pvt Ltd
Baroda, Gujarat, India

is found to comply with
DNV rules for classification – Ships
DNV rules for classification – High speed and light craft
DNV-OS-C301 – Stability and watertight integrity, Edition July 2020 (Amended August 2021)

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2025-08-04**
This Certificate is valid until **2030-08-03**.
DNV local unit: **India CMC & NB**

for **DNV**

Approval Engineer: **Grzegorz Wolski**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

SPMS-WT-PH-LH-DOOR
Is a single leaf door constructed of a door leaf fabricated from 8.0 mm thick steel main plate, which is reinforced by six stiffeners 40 mm x 40 mm x 3 mm welded with it. The edge of the door is stiffened by gasket rim welded at 90-degree angle to the main plate. The depth of the door is 180 mm from inside the main plate to the top cover.

The door is of single acting type with up to ten linked toggles and handle mounted close to non-hinged edge of the door.

Door leaf is attached to the door frame by four hinges. Door frame is welded to the bulkhead with double continuous weld.

Door with width 600 mm or more can be equipped with porthole of Ø250 mm.
Door with width 700 mm or more can be equipped with porthole of Ø360 mm.
Door with width 1200 mm or more can be equipped with porthole of Ø450 mm.

For further details see the drawings listed under Type Approval documentation below.

Application/Limitation
The application is limited to vessels built to DNV rules and for a design pressure as below.

Maximum light opening: 1650 mm x 1350 mm (W x H)
Maximum pressure: 100 kPa
Maximum clearance of porthole: Ø450 mm

Watertight appliances are subject to hydrostatic pressure test that can be done before installation on board of the vessel and shall be witnessed by a DNV surveyor. This test is to be made from the side that is most prone to leakage.

Watertight appliances are subject for hose and function testing after installation onboard the vessel, witnessed by a DNV surveyor, except in cases where plan approval of the door arrangement determines that tests are not required.

The watertight doors are found to comply with DNV-RU-SHIP July 2024 Pt.3 Ch.12 Sec.3 [4.3].

The design pressure at the location where the doors are to be fitted shall be equal or less than the pressure above.

Doors with side scuttle is to be fitted with a dead light if located in a position where dead light is required for sides scuttle.

The Type Approval does not cover the supporting structure of the doors, which is subject to approval. Interface showing door frame reinforcements and bulkhead shall be submitted for case-by-case approval by yard/end user if needed.

Consideration shall be given if located in highly stressed areas or in areas critical to fatigue from global hull loads.

Indication open/closed for the watertight door shall be fitted on the bridge.

Type Approval documentation
Drawing no. SEPL-DW-61447 Rev. 00 dated 01 March 2025 from manufacturer.
Drawing no. SEPL-DW-61449 Rev. 00 dated 01 March 2025 from manufacturer.
Drawing no. SEPL-DW-61450 Rev. 00 dated 01 March 2025 from manufacturer.

Tests carried out
Each door is to be tested for tightness through hydrostatic testing to design pressure.

Marking of product
The product is to be marked with the following info:
- Manufacturer's name: Spectoms Marine Systems
- DNV Type Approval Certificate No. TAS00003S4
- The specific type designation: SPMS-WT-PH-LH-DOOR

Periodical assessment
DNV surveyor has the permission to perform Certification Retention Survey at any time during the validity period of this certificate. Periodical assessment will be required after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.

Manufactured by:
Spectoms Marine Systems PVT. LTD., Vadodara, India

Manufacturers/production sites not listed here shall be assessed by DNV in accordance with DNV CP-0338 prior to manufacturing of products to this TA certificate, and a request for update of the TA certificate shall be submitted to DNV for addition/change of production sites as relevant.