Certificate No:
TAS000042G

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Watertight Door

with type designation(s)
Offshore Albatros mWc30 - FD

Issued to
Winel B.V.
Assen, **Netherlands**

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

Application :

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

Issued at **Høvik** on **2023-10-04**
This Certificate is valid until **2028-10-03**.
DNV local unit: **Netherlands CMC**

Approval Engineer: **Xiaolu Wu**

for **DNV**

Arild Rogne
Head of Section

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 300,000 USD.

Product description

Watertight sliding doors.

Type	Size	Pressure (kN/m²)
Offshore Albatros mWc30 - FD	2250 x 1350 mm	294

Application/Limitation

The door has been Type Approved with respect to watertightness only. The door has not been considered with respect to fire protection.

The watertight door is found to comply with DNV-RU-SHIP Pt.3 Ch.12 Sec.3 (July 2022) and DNV-OS-C301 Ch.2 Sec.2 (July 2020 amended August 2021), for the maximum design pressures specified above.

The strip defined in Table 1 on the drawings, based on the design pressure, is applicable for offshore units only.

These doors may be fitted in watertight bulkheads where the use of watertight doors is accepted.

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

Dimensions of the light opening of the doors can be smaller than shown on the drawings, provided that scantlings, maximum distance between the cleats and fabrication method and material are maintained. The Type Approval does not cover the support of the doors in the bulkheads, which is subject to approval. Drawings showing connection between door frame and bulkhead shall be submitted by yard/end user for a case-by-case approval.

Particular consideration shall be given if located in highly stressed areas or in areas critical to fatigue.

The hydraulic system, control system and fire safety of the watertight door are to be approved on a case-by-case basis, unless a valid DNV type approval certificate/product certificate for these items is presented by the manufacturer.

Each door, intended to be installed on Ships, is to be tested for tightness through hydrostatic testing at the design pressure according to DNV-RU-SHIP Pt.2 Ch.4 (July 2022), at the manufacturer.

Each door, intended to be installed on Offshore units, is to be tested for tightness through hydrostatic testing at the design pressure plus an additional pressure of 50 kN/m2 according to DNV-OS-C310 Ch.2 Sec.2 [9] (July 2020 amended August 2021) at the manufacturer.

The complete installation shall be function and leak tested according to DNV-RU-SHIP, Pt.2, Ch.4, Sec.8 (July 2022) and DNV-OS-C301, Ch.2, Sec.2, [9] (July 2020 amended August 2021).

The tests are to be witnessed by a DNV surveyor.

Installation procedures:

To be in accordance with manufacturer's procedures for the door specified.

Indication, showing whether the door is open/closed, shall be fitted on the bridge of the ship.

Type Approval documentation

Winel drawings:

4422.21 co 2250x1350-8, Rev.A, Offshore C301 Albatros 30mWc Low-sill LC

4422.51 co 2250x1350-8, Rev.A, Offshore C301 Albatros 30mWc LC

Tests carried out

Prototype test was carried out on 13.04.2015, witnessed by DNV Rotterdam.

Marking of product

The product is to be marked with the following info:

- Manufacturer's name or brand

- DNV Type Approval Certificate No. TAS000042G

- Type designation

- Max allowable design pressure as specified above

Periodical assessment

DNV 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.