

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Watertight Hatch

with type designation(s)
N19/34.271

issued to
Fabryka Sprzetu Okretowego MEBLOR S.A.
CZARNKOW, Poland

is found to comply with
DNV rules for classification – Ships

Application:

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

Issued at **Høvik** on **2024-06-06**

This Certificate is valid until **2029-06-05**.

DNV local unit: **Gdansk CMC**

Approval Engineer: **Grzegorz Wolski**

for **DNV**



Digitally Signed By:
Thomas Revheim
Location: DNV Høvik, Norway

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

N19/34.271

Is a hatch fabricated from 6 mm thick steel main plate. Plate is reinforced by 40 x 8 mm stiffeners. Edge of hatch is stiffened by gasket rim welded at 90-degree angle to the main plate.

Hatch is of single acting type with up to six linked toggles and wheel mounted centrally on hatch. Other closing options are available, please see approval documentation for details.

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 per table below.

Model 11V1

Light opening (width) [mm]	Light opening (height) [mm]	Pressure Type KPO [kPa]	Pressure Type KH [kPa]	Pressure Type KW [kPa]
600	600	35	40	40
650	650	30	35	35
700	700	30	35	35

Model 11V2

Light opening (width) [mm]	Light opening (height) [mm]	Pressure Type KPO [kPa]	Pressure Type KH [kPa]	Pressure Type KW [kPa]
800	800	30	40	40
900	900	20	25	25
940	1000	10	20	20
1000	800	15	20	20
1000	1000	10	20	20

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 hatch arrangement determines that tests are not required.

Hatches are calculated with respect to water pressure only, any other loading pattern (wheel loads etc.) is to be assessed on a case-by-case basis.

Hatches cannot be used as emergency exit type.

Dimensions of the light opening of the hatch can be smaller than shown on the drawings, if scantlings, maximum distance between the cleats and fabrication method and material are maintained.

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

Type Approval documentation

Drawing No. N19/34.271 dated 16 Oct 2022 from manufacturer.

Tests carried out

According to DNV rules for classification: Class Programme DNV-CP-0338, September 2022.

Marking of product

The product is to be marked with the following info:

- Manufacturer's name or brand
- DNV Type Approval Certificate No. TAS000047W
- The specific type designation: 1IV1 or 1VI2

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.