



Certificate no.:
TAS000044E

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Watertight Door

with type designation(s)
N19/34.130W

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

is found to comply with
DNV rules for classification – Ships
DNV rules for classification – High speed and light craft

Application:

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

Issued at **Høvik** on **2024-06-05**

for **DNV**

This Certificate is valid until **2029-06-04**.

DNV local unit: **Gdansk CMC**

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 300,000 USD.



Product description

Model 2IV

Single leaf, steel door, made of 8.0 mm plate, see table below for details:

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Hinge	Toggle	Gasket Rim for ST, SN [mm]	window max. size [mm]	porthole max. diameter [mm]	Pressure [kN/m ²]
1300	600	8	2	4	40x6	250x350	Ø250	30
	650	8	2	4	40x6	300x350	Ø300	30
	700	8	2	4	40x6	350x350	Ø350	30
1350	600	8	2	4	40x6	250x375	Ø250	30
	650	8	2	4	40x6	300x375	Ø300	30
	700	8	2	4	40x6	350x375	Ø350	30
1400	600	8	2	4	40x6	250x425	Ø250	30
	650	8	2	4	40x6	300x425	Ø300	30
	700	8	2	4	40x6	350x425	Ø350	30
1450	600	8	2	4	40x6	250x450	Ø250	30
	650	8	2	4	40x6	300x450	Ø300	30
	700	8	2	4	40x6	350x450	Ø350	30

Model 2VI1

Single leaf, steel door, made of 8.0 mm plate, see table below for details:

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Toggle (T)	Hinge (H)	Gasket Rim [mm]	Window Max. size (W x H) [mm]	Porthole Max diameter [mm]	Pressure [kN/m ²]
1300	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
	750	8	6	2	40x6	375x500	Ø375	30
	800	8	6	2	40x6	400x500	Ø400	30
	850	8	6	2	40x6	400x500	Ø400	30
	900	8	6	2	40x6	400x500	Ø400	30
	950	8	6	2	40x6	400x500	Ø400	30
1400	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
	750	8	6	2	40x6	375x500	Ø375	30
	800	8	6	2	40x6	400x500	Ø400	30
	850	8	6	2	40x6	400x500	Ø400	30
	900	8	6	2	40x6	400x500	Ø400	30
	950	8	6	2	40x6	400x500	Ø400	30

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Toggle (T)	Hinge (H)	Gasket Rim [mm]	Window Max. size (W x H) [mm]	Porthole Max diameter [mm]	Pressure [kN/m ²]
1500	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
	750	8	6	2	40x6	375x500	Ø375	30
	800	8	6	2	40x6	400x500	Ø400	30
	850	8	6	2	40x6	400x500	Ø400	30
	900	8	6	2	40x6	400x500	Ø400	30
	950	8	6	2	40x6	400x500	Ø400	30
	1000	8	6	2	40x6	400x500	Ø400	30
1600	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
	750	8	6	2	40x6	375x500	Ø375	30
	800	8	6	2	40x6	400x500	Ø400	30
	850	8	6	2	40x6	400x500	Ø400	30
	900	8	6	2	40x6	400x500	Ø400	30
	950	8	6	2	40x6	400x500	Ø400	30
	1000	8	6	2	40x6	400x500	Ø400	30
1700	750	8	6	2	40x6	375x500	Ø375	30
	800	8	6	2	40x6	400x500	Ø400	30
	850	8	6	2	40x6	400x500	Ø400	30
	900	8	6	2	40x6	400x500	Ø400	30
	950	8	6	2	40x6	400x500	Ø400	30
	1000	8	6	2	40x6	400x500	Ø400	30
1750	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
	750	8	6	2	40x6	375x500	Ø375	30
	800	8	6	2	40x6	400x500	Ø400	30
	850	8	6	2	40x6	400x500	Ø400	30
	900	8	6	2	40x6	400x500	Ø400	30
	950	8	6	2	40x6	400x500	Ø400	30
	1000	8	6	2	40x6	400x500	Ø400	30

Model 3VI

Single leaf, steel door, made of 8.0 mm plate, see table below for details:

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Toggle (T)	Hinge (H)	Gasket Rim [mm]	Window Max. size (W x H) [mm]	Porthole Max diameter [mm]	Pressure [kN/m ²]
1500	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
1600	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
1700	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
1750	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
1800	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
1850	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
1900	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
1950	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30
2000	600	8	6	2	40x6	300x500	Ø300	30
	650	8	6	2	40x6	325x500	Ø325	30
	700	8	6	2	40x6	350x500	Ø350	30

Model 3VIII1

Single leaf, steel door, made or 8.0 mm plate, see table below for details:

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Toggle (T)	Hinge (H)	Gasket Rim [mm]	Window Max. size (W x H) [mm]	Porthole Max diameter [mm]	Pressure [kN/m ²]
1800	600	8	8	2	40x6	300x500	Ø300	30
	650	8	8	2	40x6	325x500	Ø325	30
	700	8	8	2	40x6	350x500	Ø350	30
	750	8	8	2	40x6	375x500	Ø375	30
	800	8	8	2	40x6	400x500	Ø400	30
	850	8	8	2	40x6	400x500	Ø400	30
	900	8	8	2	40x6	400x500	Ø400	30

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Toggle (T)	Hinge (H)	Gasket Rim [mm]	Window Max. size (W x H) [mm]	Porthole Max diameter [mm]	Pressure [kN/m ²]
	950	8	8	2	40x6	400x500	Ø400	30
	1000	8	8	2	40x6	400x500	Ø400	30
1850	600	8	8	2	40x6	300x500	Ø300	30
	650	8	8	2	40x6	325x500	Ø325	30
	700	8	8	2	40x6	350x500	Ø350	30
	750	8	8	2	40x6	375x500	Ø375	30
	800	8	8	2	40x6	400x500	Ø400	30
	850	8	8	2	40x6	400x500	Ø400	30
	900	8	8	2	40x6	400x500	Ø400	30
	950	8	8	2	40x6	400x500	Ø400	30
	1000	8	8	2	40x6	400x500	Ø400	30
1900	600	8	8	2	40x6	300x500	Ø300	30
	650	8	8	2	40x6	325x500	Ø325	30
	700	8	8	2	40x6	350x500	Ø350	30
	750	8	8	2	40x6	375x500	Ø375	30
	800	8	8	2	40x6	400x500	Ø400	30
	850	8	8	2	40x6	400x500	Ø400	30
	900	8	8	2	40x6	400x500	Ø400	30
	950	8	8	2	40x6	400x500	Ø400	30
	1000	8	8	2	40x6	400x500	Ø400	30
1950	600	8	8	2	40x6	300x500	Ø300	30
	650	8	8	2	40x6	325x500	Ø325	30
	700	8	8	2	40x6	350x500	Ø350	30
	750	8	8	2	40x6	375x500	Ø375	30
	800	8	8	2	40x6	400x500	Ø400	30
	850	8	8	2	40x6	400x500	Ø400	30
	900	8	8	2	40x6	400x500	Ø400	30
	950	8	8	2	40x6	400x500	Ø400	30
	1000	8	8	2	40x6	400x500	Ø400	30
2000	600	8	8	2	40x6	300x500	Ø300	30
	650	8	8	2	40x6	325x500	Ø325	30
	700	8	8	2	40x6	350x500	Ø350	30
	750	8	8	2	40x6	375x500	Ø375	30
	800	8	8	2	40x6	400x500	Ø400	30
	850	8	8	2	40x6	400x500	Ø400	30
	900	8	8	2	40x6	400x500	Ø400	30
	950	8	8	2	40x6	400x500	Ø400	30
	1000	8	8	2	40x6	400x500	Ø400	30

Application/Limitation

The watertight doors are found to comply with DNV-RU-SHIP January 2023 Pt.3 Ch.12 for Watertight doors and for doors with installed windows or side scuttles.

Doors without windows are approved for the maximum design pressures as specified in the table above.

The window, with 12.0 mm thick toughened safety glass, is approved for a max design pressure of 80 kN/m².

The doors have been Type Approved with respect to water and weather tightness only, i.e. fire integrity has not been considered.

The door may not be fitted in a bulkhead where the design pressure is higher than indicated in the table above.

Dimensions of the light opening of the doors 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.

The complete installation shall be function and leak tested according to DNV-RU-SHIP-Pt.2 Ch.4 Sec.8 July 2023.

A door with window may not protect openings into enclosed superstructures or below freeboard deck.

A door with side scuttle/window is to be fitted with a dead light if located in a position where dead light is required for windows and side scuttles.

The side scuttle Ø250 mm with dead light as indicated on the drawing may be fitted on any of the doors without imposing any additional limitations to the use of the door.

The door frame may be welded or bolted to the bulkhead.

Type Approval documentation

Drawing no. N19/34.130W dated 26 Aug 2022 from manufacturer.

Tests carried out

As per rule requirements.

Marking of product

The product is to be marked with the following info:

- Manufacturer's name or brand
- DNV Type Approval Certificate No. TAS000044E
- The specific type designation

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.