



Certificate No:
TAS000041R

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Weathertight Door

with type designation(s)
Weathertight door.

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 **2023-10-09**

for **DNV**

This Certificate is valid until **2028-10-08**.

DNV local unit: **Gdansk CMC**

Approval Engineer: **Grzegorz Wolski**

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Thomas Revheim
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

Model 3V1

Single leaf, steel door, made of 6.0 mm 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 for 6 mm plate [kN/m ²]	Pressure for 8 mm plate [kN/m ²]
1600	750	6 or 8	5	3	25x5	375x500	Ø375	25	40
	800	6 or 8	5	3	25x5	400x500	Ø400	25	40
	850	6 or 8	5	3	25x5	425x500	Ø400	25	40
	900	6 or 8	5	3	25x5	450x500	Ø400	25	40
	950	6 or 8	5	3	25x5	475x500	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x500	Ø400	25	40
1650	750	6 or 8	5	3	25x5	375x525	Ø375	25	40
	800	6 or 8	5	3	25x5	400x525	Ø400	25	40
	850	6 or 8	5	3	25x5	425x525	Ø400	25	40
	900	6 or 8	5	3	25x5	450x525	Ø400	25	40
	950	6 or 8	5	3	25x5	475x525	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x525	Ø400	25	40
1700	750	6 or 8	5	3	25x5	375x550	Ø375	25	40
	800	6 or 8	5	3	25x5	400x550	Ø400	25	40
	850	6 or 8	5	3	25x5	425x550	Ø400	25	40
	900	6 or 8	5	3	25x5	450x550	Ø400	25	40
	950	6 or 8	5	3	25x5	475x550	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x550	Ø400	25	40
1750	750	6 or 8	5	3	25x5	375x575	Ø375	25	40
	800	6 or 8	5	3	25x5	400x575	Ø400	25	40
	850	6 or 8	5	3	25x5	425x575	Ø400	25	40
	900	6 or 8	5	3	25x5	450x575	Ø400	25	40
	950	6 or 8	5	3	25x5	475x575	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x575	Ø400	25	40
1800	750	6 or 8	5	3	25x5	375x600	Ø375	25	40
	800	6 or 8	5	3	25x5	400x600	Ø400	25	40
	850	6 or 8	5	3	25x5	425x600	Ø400	25	40
	900	6 or 8	5	3	25x5	450x600	Ø400	25	40
	950	6 or 8	5	3	25x5	475x600	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x600	Ø400	25	40

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 for 6 mm plate [kN/m ²]	Pressure for 8 mm plate [kN/m ²]
1850	750	6 or 8	5	3	25x5	375x600	Ø375	25	40
	800	6 or 8	5	3	25x5	400x600	Ø400	25	40
	850	6 or 8	5	3	25x5	425x600	Ø400	25	40
	900	6 or 8	5	3	25x5	450x600	Ø400	25	40
	950	6 or 8	5	3	25x5	475x600	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x600	Ø400	25	40
1900	750	6 or 8	5	3	25x5	375x600	Ø375	25	40
	800	6 or 8	5	3	25x5	400x600	Ø400	25	40
	850	6 or 8	5	3	25x5	425x600	Ø400	25	40
	900	6 or 8	5	3	25x5	450x600	Ø400	25	40
	950	6 or 8	5	3	25x5	475x600	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x600	Ø400	25	40
1950	750	6 or 8	5	3	25x5	375x600	Ø375	25	40
	800	6 or 8	5	3	25x5	400x600	Ø400	25	40
	850	6 or 8	5	3	25x5	425x600	Ø400	25	40
	900	6 or 8	5	3	25x5	450x600	Ø400	25	40
	950	6 or 8	5	3	25x5	475x600	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x600	Ø400	25	40
2000	750	6 or 8	5	3	25x5	375x600	Ø375	25	40
	800	6 or 8	5	3	25x5	400x600	Ø400	25	40
	850	6 or 8	5	3	25x5	425x600	Ø400	25	40
	900	6 or 8	5	3	25x5	450x600	Ø400	25	40
	950	6 or 8	5	3	25x5	475x600	Ø400	25	40
	1000	6 or 8	5	3	25x5	500x600	Ø400	25	40

Model 3III

Single leaf, steel door, made of 6.0 mm 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 for 6 mm plate [kN/m ²]	Pressure for 8 mm plate [kN/m ²]
1600	600	6 or 8	3	3	25x5	300x500	Ø300	25	40
	650	6 or 8	3	3	25x5	325x500	Ø325	25	40
	700	6 or 8	3	3	25x5	350x500	Ø350	25	40
1650	600	6 or 8	3	3	25x5	300x525	Ø300	25	40
	650	6 or 8	3	3	25x5	325x525	Ø325	25	40
	700	6 or 8	3	3	25x5	350x525	Ø350	25	40

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 for 6 mm plate [kN/m ²]	Pressure for 8 mm plate [kN/m ²]
1700	600	6 or 8	3	3	25x5	300x550	Ø300	25	40
	650	6 or 8	3	3	25x5	325x550	Ø325	25	40
	700	6 or 8	3	3	25x5	350x550	Ø350	25	40
1750	600	6 or 8	3	3	25x5	300x550	Ø300	25	40
	650	6 or 8	3	3	25x5	325x550	Ø325	25	40
	700	6 or 8	3	3	25x5	350x550	Ø350	25	40
1800	600	6 or 8	3	3	25x5	300x575	Ø300	25	40
	650	6 or 8	3	3	25x5	325x575	Ø325	25	40
	700	6 or 8	3	3	25x5	350x575	Ø350	25	40
1850	600	6 or 8	3	3	25x5	300x600	Ø300	25	40
	650	6 or 8	3	3	25x5	325x600	Ø325	25	40
	700	6 or 8	3	3	25x5	350x600	Ø350	25	40
1900	600	6 or 8	3	3	25x5	300x600	Ø300	25	40
	650	6 or 8	3	3	25x5	325x600	Ø325	25	40
	700	6 or 8	3	3	25x5	350x600	Ø350	25	40
1950	600	6 or 8	3	3	25x5	300x600	Ø300	25	40
	650	6 or 8	3	3	25x5	325x600	Ø325	25	40
	700	6 or 8	3	3	25x5	350x600	Ø350	25	40
2000	600	6 or 8	3	3	25x5	300x600	Ø300	25	40
	650	6 or 8	3	3	25x5	325x600	Ø325	25	40
	700	6 or 8	3	3	25x5	350x600	Ø350	25	40

Model 2IV1

Single leaf, steel door, made of 6.0 mm 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 for 6 mm plate [kN/m ²]	Pressure for 8 mm plate [kN/m ²]
1300	750	6 or 8	4	2	25x5	375x400	Ø375	25	40
	800	6 or 8	4	2	25x5	400x400	Ø400	25	40
	850	6 or 8	4	2	25x5	425x400	Ø400	25	40
	900	6 or 8	4	2	25x5	450x400	Ø400	25	40
	950	6 or 8	4	2	25x5	475x400	Ø400	25	40
	1000	6 or 8	4	2	25x5	500x400	Ø400	25	40

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 for 6 mm plate [kN/m ²]	Pressure for 8 mm plate [kN/m ²]
1350	750	6 or 8	4	2	25x5	375x425	Ø375	25	40
	800	6 or 8	4	2	25x5	400x425	Ø400	25	40
	850	6 or 8	4	2	25x5	425x425	Ø400	25	40
	900	6 or 8	4	2	25x5	450x425	Ø400	25	40
	950	6 or 8	4	2	25x5	475x425	Ø400	25	40
	1000	6 or 8	4	2	25x5	500x425	Ø400	25	40
1400	750	6 or 8	4	2	25x5	375x450	Ø375	25	40
	800	6 or 8	4	2	25x5	400x450	Ø400	25	40
	850	6 or 8	4	2	25x5	425x450	Ø400	25	40
	900	6 or 8	4	2	25x5	450x450	Ø400	25	40
	950	6 or 8	4	2	25x5	475x450	Ø400	25	40
	1000	6 or 8	4	2	25x5	500x450	Ø400	25	40
1450	750	6 or 8	4	2	25x5	375x475	Ø375	25	40
	800	6 or 8	4	2	25x5	400x475	Ø400	25	40
	850	6 or 8	4	2	25x5	425x475	Ø400	25	40
	900	6 or 8	4	2	25x5	450x475	Ø400	25	40
	950	6 or 8	4	2	25x5	475x475	Ø400	25	40
	1000	6 or 8	4	2	25x5	500x475	Ø400	25	40
1500	750	6 or 8	4	2	25x5	375x500	Ø375	25	40
	800	6 or 8	4	2	25x5	400x500	Ø400	25	40
	850	6 or 8	4	2	25x5	425x500	Ø400	25	40
	900	6 or 8	4	2	25x5	450x500	Ø400	25	40
	950	6 or 8	4	2	25x5	475x500	Ø400	25	40
	1000	6 or 8	4	2	25x5	500x500	Ø400	25	40
1550	750	6 or 8	4	2	25x5	375x500	Ø375	25	40
	800	6 or 8	4	2	25x5	400x500	Ø400	25	40
	850	6 or 8	4	2	25x5	425x500	Ø400	25	40
	900	6 or 8	4	2	25x5	450x500	Ø400	25	40
	950	6 or 8	4	2	25x5	475x500	Ø400	25	40
	1000	6 or 8	4	2	25x5	500x500	Ø400	25	40

Model 2II

Single leaf, steel door, made of 6.0 mm 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 for 6 mm plate [kN/m ²]	Pressure for 8 mm plate [kN/m ²]
1300	600	6 or 8	2	2	25x5	300x400	Ø300	25	40
	650	6 or 8	2	2	25x5	325x400	Ø325	25	40
	700	6 or 8	2	2	25x5	350x400	Ø350	25	40
1350	600	6 or 8	2	2	25x5	300x425	Ø300	25	40
	650	6 or 8	2	2	25x5	325x425	Ø325	25	40
	700	6 or 8	2	2	25x5	350x425	Ø350	25	40
1400	600	6 or 8	2	2	25x5	300x450	Ø300	25	40
	650	6 or 8	2	2	25x5	325x450	Ø325	25	40
	700	6 or 8	2	2	25x5	350x450	Ø350	25	40
1450	600	6 or 8	2	2	25x5	300x475	Ø300	25	40
	650	6 or 8	2	2	25x5	325x475	Ø325	25	40
	700	6 or 8	2	2	25x5	350x475	Ø350	25	40
1500	600	6 or 8	2	2	25x5	300x500	Ø300	25	40
	650	6 or 8	2	2	25x5	325x500	Ø325	25	40
	700	6 or 8	2	2	25x5	350x500	Ø350	25	40
1550	600	6 or 8	2	2	25x5	300x525	Ø300	25	40
	650	6 or 8	2	2	25x5	325x525	Ø325	25	40
	700	6 or 8	2	2	25x5	350x525	Ø350	25	40

Application/Limitation

The weathertight doors are found to comply with DNV-RU-SHIP January 2023 Pt.3 Ch.12 Sec.2 [4] for Weathertight doors and Sec. 6 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 toughened safety glass, is approved for a max design pressure of 40 kN/m².

The doors have been Type Approved with respect to weathertightness 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, provided that scantlings, maximum distance between the cleats and fabrication method and material are maintained.

Particular 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. N19/34.132 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. TAS000041R
- 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.