



Certificate no.:
TAS000047C

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Watertight Door

with type designation(s)
N19/34.173W

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**

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

DNV local unit: **Gdansk CMC**

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 300,000 USD.



Form code: TA 251

Revision: 2023-09

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Page 1 of 6

Product description

Model 4XII2

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 (H)	Toggle (T)	Gasket Rim [mm]	Pressure [kN/m ²]
1800	800	8	3	12	L70x20x3	90
	850	8	3	12	L70x20x3	90
	900	8	3	12	L70x20x3	90
	950	8	3	12	L70x20x3	90
	1000	8	3	12	L70x20x3	90
1850	800	8	3	12	L70x20x3	90
	850	8	3	12	L70x20x3	90
	900	8	3	12	L70x20x3	90
	950	8	3	12	L70x20x3	90
	1000	8	3	12	L70x20x3	90
1900	800	8	3	12	L70x20x3	90
	850	8	3	12	L70x20x3	90
	900	8	3	12	L70x20x3	90
	950	8	3	12	L70x20x3	90
	1000	8	3	12	L70x20x3	90
1950	800	8	3	12	L70x20x3	90
	850	8	3	12	L70x20x3	90
	900	8	3	12	L70x20x3	90
	950	8	3	12	L70x20x3	90
	1000	8	3	12	L70x20x3	90

Model 4X1

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 (H)	Toggle (T)	Gasket Rim [mm]	Pressure for Type "I" [kN/m ²]
1800	600	8	3	10	L70x20x3	90
	650	8	3	10	L70x20x3	90
	700	8	3	10	L70x20x3	90
	750	8	3	10	L70x20x3	90
1850	600	8	3	10	L70x20x3	90
	650	8	3	10	L70x20x3	90
	700	8	3	10	L70x20x3	90
	750	8	3	10	L70x20x3	90

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Hinge (H)	Toggle (T)	Gasket Rim [mm]	Pressure for Type "I" [kN/m ²]
1900	600	8	3	10	L70x20x3	90
	650	8	3	10	L70x20x3	90
	700	8	3	10	L70x20x3	90
	750	8	3	10	L70x20x3	90
1950	600	8	3	10	L70x20x3	90
	650	8	3	10	L70x20x3	90
	700	8	3	10	L70x20x3	90
	750	8	3	10	L70x20x3	90

Model 3X2

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 (H)	Toggle (T)	Gasket Rim [mm]	Pressure for Type "I" [kN/m ²]
1500	800	8	3	10	L70x20x3	90
	850	8	3	10	L70x20x3	90
	900	8	3	10	L70x20x3	90
	950	8	3	10	L70x20x3	90
	1000	8	3	10	L70x20x3	90
1550	800	8	3	10	L70x20x3	90
	850	8	3	10	L70x20x3	90
	900	8	3	10	L70x20x3	90
	950	8	3	10	L70x20x3	90
	1000	8	3	10	L70x20x3	90
1600	800	8	3	10	L70x20x3	90
	850	8	3	10	L70x20x3	90
	900	8	3	10	L70x20x3	90
	950	8	3	10	L70x20x3	90
	1000	8	3	10	L70x20x3	90
1650	800	8	3	10	L70x20x3	90
	850	8	3	10	L70x20x3	90
	900	8	3	10	L70x20x3	90
	950	8	3	10	L70x20x3	90
	1000	8	3	10	L70x20x3	90
1700	800	8	3	10	L70x20x3	90
	850	8	3	10	L70x20x3	90

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Hinge (H)	Toggle (T)	Gasket Rim [mm]	Pressure for Type "I" [kN/m ²]
	900	8	3	10	L70x20x3	90
	950	8	3	10	L70x20x3	90
	1000	8	3	10	L70x20x3	90
1750	800	8	3	10	L70x20x3	90
	850	8	3	10	L70x20x3	90
	900	8	3	10	L70x20x3	90
	950	8	3	10	L70x20x3	90
	1000	8	3	10	L70x20x3	90

Model 3VIII1

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 (H)	Toggle (T)	Gasket Rim [mm]	Pressure for Type "I" [kN/m ²]
1500	600	8	3	8	L70x20x3	90
	650	8	3	8	L70x20x3	90
	700	8	3	8	L70x20x3	90
	750	8	3	8	L70x20x3	90
1550	600	8	3	8	L70x20x3	90
	650	8	3	8	L70x20x3	90
	700	8	3	8	L70x20x3	90
	750	8	3	8	L70x20x3	90
1600	600	8	3	8	L70x20x3	90
	650	8	3	8	L70x20x3	90
	700	8	3	8	L70x20x3	90
	750	8	3	8	L70x20x3	90
1650	600	8	3	8	L70x20x3	90
	650	8	3	8	L70x20x3	90
	700	8	3	8	L70x20x3	90
	750	8	3	8	L70x20x3	90
1700	600	8	3	8	L70x20x3	90
	650	8	3	8	L70x20x3	90
	700	8	3	8	L70x20x3	90
	750	8	3	8	L70x20x3	90
1750	600	8	3	8	L70x20x3	90

Light opening (H) [mm]	Light opening (B) [mm]	Leaf cover [mm]	Hinge (H)	Toggle (T)	Gasket Rim [mm]	Pressure for Type "I" [kN/m ²]
	650	8	3	8	L70x20x3	90
	700	8	3	8	L70x20x3	90
	750	8	3	8	L70x20x3	90

Model 2VIII2

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 (H)	Toggle (T)	Gasket Rim [mm]	Pressure for Type "I" [kN/m ²]
1400	800	8	2	8	L70x20x3	90
	850	8	2	8	L70x20x3	90
	900	8	2	8	L70x20x3	90
	950	8	2	8	L70x20x3	90
	1000	8	2	8	L70x20x3	90
1450	800	8	2	8	L70x20x3	90
	850	8	2	8	L70x20x3	90
	900	8	2	8	L70x20x3	90
	950	8	2	8	L70x20x3	90
	1000	8	2	8	L70x20x3	90

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]	Hinge (H)	Toggle (T)	Gasket Rim [mm]	Pressure for Type "I" [kN/m ²]
1400	600	8	2	6	L70x20x3	90
	650	8	2	6	L70x20x3	90
	700	8	2	6	L70x20x3	90
	750	8	2	6	L70x20x3	90
1450	600	8	2	6	L70x20x3	90
	650	8	2	6	L70x20x3	90
	700	8	2	6	L70x20x3	90
	750	8	2	6	L70x20x3	90

Application/Limitation

The watertight doors are found to comply with DNV-RU-SHIP January 2023 Pt.3 Ch.12 for Watertight doors.

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

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, 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.

The door frame is to be welded to the bulkhead.

Type Approval documentation

Drawing no. N19/34.173W dated 08 Oct 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. TAS000047C
- 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.