

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Weathertight Door**with type designation(s)
Weathertight steel door WR100/WR30- A60

Issued to

Libra-Plast A/S
HAREID, Norwayis found to comply with
DNV GL rules for classification – Ships**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2019-03-18**This Certificate is valid until **2024-02-03**.

DNV GL local station:

for **DNV GL**Approval Engineer: **Alessandro Russo**

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.



Product description

Type	Light opening (mm)	Number of stiffeners 30x8	Corner radius (mm)	Toggles + Hinges	Max designpressure as Weathertight p (kN/m ²)
WR100/30	600 x 1200	4	30 or 100	4 + 2	44,5
WR100/30	600 x 1400	4	30 or 100	5 + 3	41,0
WR100/30	750 x 1400	4	30 or 100	5 + 3	29,5
WR100/30	850 x 1400	4	30 or 100	5 + 3	24,5
WR100/30	910 x 1400	4	30 or 100	5 + 3	22,5
WR100/30	600 x 1600	5	30 or 100	5 + 3	40,0
WR100/30	750 x 1600	5	30 or 100	5 + 3	27,5
WR100/30	850 x 1600	5	30 or 100	5 + 3	23,0
WR100/30	910 x 1600	5	30 or 100	5 + 3	22,5
WR100/30	600 x 1800	5	30 or 100	5 + 4	40,0
WR100/30	750 x 1800	5	30 or 100	5 + 4	26,0
WR100/30	850 x 1800	5	30 or 100	5 + 4	22,5
WR100/30	910 x 1800	5	30 or 100	5 + 4	22,5
WR100/30	600 x 1900	5	30 or 100	5 + 4	40,0
WR100/30	750 x 1900	5	30 or 100	5 + 4	25,5
WR100/30	850 x 1900	5	30 or 100	5 + 4	22,5
WR100/30	910 x 1900	5	30 or 100	5 + 4	22,5
WR100/30	600 x 2000	6	30 or 100	5 + 4	40,0
WR100/30	750 x 2000	6	30 or 100	5 + 4	25,5
WR100/30	850 x 2000	6	30 or 100	5 + 4	22,5
WR100/30	910 x 2000	6	30 or 100	5 + 4	22,5
WR100/30	580 x 1360	4	30 or 100	5 + 3	44,0
WR100/30	660 x 1460	4	30 or 100	5 + 3	35,0
WR100/30	810 x 1460	4	30 or 100	5 + 3	26,0
WR100/30	660 x 1660	5	30 or 100	5 + 3	33,0
WR100/30	810 x 1660	5	30 or 100	5 + 3	24,0
WR100/30	660 x 1860	5	30 or 100	5 + 4	33,0
WR100/30	810 x 1860	5	30 or 100	5 + 4	23,0

Application/Limitation

The weathertight doors are found to comply with DNVGL-RU-SHIP July 2018 Pt.3 Ch.12 Sec.2 [6] for Weathertight doors.

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

Doors with side scuttles are to be fitted with a dead light if located in a position where dead light is required for sides scuttles.

The Type Approval does not cover the supporting structure of the doors, which is subject to approval. Interface showing door frame and bulkhead shall be submitted for case-by-case approval by yard/end user.

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

The door frame may be welded or bolted to the bulkhead (ref. drawing no. LG-3-00142 rev. B).

Job Id: **262.1-009323-3**
Certificate No: **TAS00001X9**

We refer to separate type approval certificate with respect to the watertight properties of the door design.

Fire safety:

With respect to fire safety properties please see separate DNV GL certificate MEDB00004K8 (expiring 03-02-2024) for these doors.

Type Approval documentation

Tests to be carried out

The complete installation shall be function and leak tested according to DNVGL-RU-SHIP-Pt2 Ch4 Sec.8 July 2018.

Marking of product

The product is to be marked with the following info:

- Manufacturer's name or brand
- DNVGL Type Approval Certificate No. TAS00001X9
- The specific type designation
- Max allowable design pressure as specified above

Periodical assessment

DNV GL 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 DNVGL-CP-0338.