

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Window and Glass Partition**with type designation(s)
H-120 Window

Issued to

C.C. Jensen Window A/S
Svendborg, Syddanmark, Denmarkis found to comply with
DNV GL offshore standards**Application :****Approved for use as an integrated part of fire retarding bulkheads of class H-120.****Fire against 8 mm toughened pressure glass (from outside/weather side).****Maximum size of exposed fire technical glazing unit: 1200 x 1500 mm (W x H).**Issued at **Høvik** on **2020-08-04**This Certificate is valid until **2025-08-03**.for **DNV GL**DNV GL local station: **Denmark CMC**Approval Engineer: **Helge Bjørnara**

Øyvind Hoff
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

H-120 rectangular window,

The window unit is composed of (starting from the exposed side):

- 8 mm toughened glass manufactured by Glaseksperten A/S
- 8 mm spacer
- 43 mm fire resistant glass manufactured by Vetrotech Saint-Gobain
- 10 mm spacer
- 71 mm fire resistant glass manufactured by Vetrotech Saint-Gobain

Total glass thickness is 140 mm.

The frame is consisting of three steel profiles. On the exposed side a 100 mm wide and 8 mm thick steel profile, with ø8 studs cc 150 on the unexposed and exposed side. The profile also has 90° extensions (towards the unexposed side) three places along the bottom length. There are also 2 extensions for lifting on the top length. A 6 mm thick steel L-profile (80x60 mm) is fixed to the first profile on the exposed side with nuts on ø8 mm studs. A 8 mm thick steel L-profile (60x94 mm) is fixed on the unexposed side with nuts and washers on ø8 mm studs.

Between the glazing and the steel profiles as well as between the steel profiles on the exposed side it is insulated with 50 x 3 mm strips of Fiberfrax.

It was insulated according to class H-120 outside the glazing along all edges and on top of the frame on the unexposed side, fixed with pins, washers and wire.

The 6 mm steel L-profile of the window frame was fully welded to the steel bulkhead on the exposed side.

For more details see approved drawing listed under "Type Approval documentation".

Application/Limitation

The window is approved for installation in steel bulkheads of class H-120. Other applications are subject to case-by-case approval.

Restricted application: Fire against 8 mm toughened pressure glass (from outside/weather side).

Maximum size of exposed fire technical glazing unit: 1200 x 1500 mm (W x H).

The window has only been evaluated with respect to fire technical properties (e.g. strength requirements have not been considered). Arrangement and location of any window is subject to approval from relevant authority in each case (Ref. DNVGL-OS-C301 Ch. 2 Sec. 2, 8.2).

The product is to be supplied with its manual for installation, use and maintenance.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, September 2018.

Test report No. PGA10528 dated 3 December 2014, from DBI, Hvidovre, Denmark.

Drawing No. VA911300102, Rev. 01 (p.1-2) dated 6 February 2014 from manufacturer.
Drawing No. VA911300102a, Rev. 01 (p.1-2) dated 5 February 2014 from manufacturer.
Drawing No. VA911300102g, Rev. 06-02-2014 dated 6 February 2014 from manufacturer.
Drawing No. VA911300102S, Rev. 01 dated 5 February 2014 from manufacturer.
Drawing No. VA911300102-1, Rev. 01 dated 5 February 2014 from manufacturer.
Drawing No. VA911300102-2, Rev. 01 dated 5 February 2014 from manufacturer.
Drawing No. VA911300102-3, Rev. 01 dated 5 February 2014 from manufacturer.



Job Id: **262.1-019208-2**
Certificate No: **TAF000018Z**

Tests carried out

Tested according to IMO FTP Code Part 3 (IMO Res. A.754(18)) and HC time-temperature curve according to ISO 834-3.

Marking of product

The product is to be marked with name and address of manufacturer, type designation and fire-technical rating.

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNVGL-CP-0338, Section 4.