DNV·GL

Certificate No:
TAF000008F

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class H Door

with type designation(s)
Fire Door (H-120 Class Double Door), Model SM-H120-WTD

Issued to
Sung Mi Co., Ltd.
Gimhae-si Gyeongsangnam-do, Republic of Korea

is found to comply with
DNV GL offshore standards

Application :

Approved for use as an integrated part of fire retarding divisions of class H-120.

Max.clear door opening: 2000 x 2100 mm (width x height).

Restricted application: Fire from hinged side of the door.

This Certificate is valid until **2020-12-31**.

Issued at **Høvik** on **2016-03-17**

for **DNV GL**

DNV GL local station: **Gimhae MC & FIS**

Approval Engineer: **Synnøve Bolstad Eri**

Petter Langnes
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.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

"Fire Door (H-120 Class Double Door), Model SM-H120-WTD"
double leaf door made from 3mm SPHC inner steel plate and 3mm SPHC exterior steel panel, insulated with 2 x 50mm + 25mm Cerakwool, nominal density 128 kg/m^3 from KCC Corporation, Korea.

Three hinges on each door leaf(exposed side) and door handels with 2-point latch locking pins to door frame.

The doors may be fitted with a window with 111 mm thick fire glass(61+Gap 5-45mm), type Contraflam marine H120, manufactured by Vetrotech Saint-Gobain, Germany, using stainless steel window frame and ceramic gasket.

The door frame is made of 5 mm thick SPHC steel and may be bolted by M10x35 bolts (spacing between 250-300 mm) or welded to the bulkhead.

The door leaf is internally strengthened with stiffeners. The grooves along frame and door edges are fittef with gaskets (ceramic fiber).

For further details see approved drawing listed under Type Approval documentation.

Application/Limitation

The door is approved for installation in steel bulkheads of class H-120. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover strength evaluations related to watertightness, weathertightness, etc.).

Max. thickness of door, approx:	120 mm
Max. clear opening:	2000 x 2100 mm (Width x Height).
Max. clear opening of the window:	250 x 400 mm (Width x Height).

Each door leaf is to be of equal size.

External windows to comply with ISO 3903 (Ref. DNV Rules Pt. 3, Ch.3, Sec. 6 L104).

Any surface materials used on door leaf and door frame have to be approved for smoke and toxicity and low flame-spread characteristics (IMO 2010 FTP Code parts 2 and 5 or IMO FTPC Parts 2 and 5 when in compliance with the 2010 FTP Code Ch. 5.2 and 8) when required according to relevant rules.

The construction and installation is to be in accordance with the Type Approval documents listed below and with the manufacturer's manual for installation.

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338, October 2015.

Test report No. KOMERI-0402-11T482 dated 7 October 2011 from Korea Marine Equipment Research Institute, Busan, Korea.

Drawing No. D-110326-1,2,3 and 8 dated 26 March 2011 from Sung Mi Co Ltd., Kyungnam, Korea.

Tests carried out

Tested according to IMO FTPC Part 3 and the furnace HC time-temperature curve specified in EN1363-2:1999, and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product is to be marked with name 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 Standard for certification No. 1.2 Type Approval Item 4.