



Certificate no.:  
**TAF00001WB**

# TYPE APPROVAL CERTIFICATE

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## This is to certify:

that the **Class A and B Penetration**

with type designation(s)  
**HK-500/B15/C**

issued to

**Shanghai Huoke New Material Co., Ltd.**  
**Shanghai, China**

is found to comply with

**DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021**  
**DNV rules for classification – Ships**  
**DNV offshore standards**

## Application:

**Approved for use as pipe penetration system in class B-15 wall panels B25A from Huanan Building Materials (Shenzhen)**

**This certificate is recognized by Transport Canada.**

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

Issued at **Høvik** on **2024-03-05**

This Certificate is valid until **2029-03-04**.

for **DNV**

DNV local unit: **Shanghai**

Approval Engineer: **Marcin Tobiasz**

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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

"HK-500/B15/C",

is a single (circular) pipe penetration composed of a firestop collar made of 0.75 mm thick stainless steel and HK-S type fire stop material (manufactured by Shanghai Huoke New Material). The collar is fixed on B-15 class bulkhead by steel tapping screws on one side (in either position) or both sides - for details see Table 1.

For further details see drawings listed under Type Approval documentation.

## Application/Limitation

Approved for use as pipe penetration system in class B-15 wall panels B25A from Huanan Building Materials (Shenzhen) or wall panels of similar or better construction and materials. The wall panel B25A was constructed as follows: 0.6 mm steel, 23.8 mm insulation (with density 150 kg/m<sup>3</sup>) and 0.6 mm steel. Wall panel has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Table 1: Approved pipe penetration in B-15 wall panels.

| Type         | Pipe material | Pipe diameter (OD) [mm] | Collar size (OD) [mm] | Collar length [mm] | Collar Thickness [mm] | Installation position | Sleeve insulation |
|--------------|---------------|-------------------------|-----------------------|--------------------|-----------------------|-----------------------|-------------------|
| HK-500/B15/C | PE-100        | 20 – 50                 | 36 – 66               | 80                 | 0.75                  | Either                | None              |
| HK-500/B15/C | PE-100        | 50 - 160                | 66 - 191              | 80                 | 0.75                  | Both sides            | None              |
| HK-500/B15/C | PE-100        | 160 - 225               | 191 - 257             | 100                | 0.75                  | Both sides            | None              |
| HK-500/B15/C | PP-FR         | 48.3                    | 66                    | 80                 | 0.75                  | Either                | None              |
| HK-500/B15/C | PP-FR         | 48.3 – 168.3            | 66 - 200              | 80                 | 0.75                  | Both sides            | None              |

The structural integrity and thermal integrity shall be maintained after fitting the penetrations. The arrangement is subject for approval in each case by attending surveyor/authority as per IMO 2010 FTP Code part 3, appendix 1, 1.14.

Each product shall be supplied with its manual for installation and maintenance.

## Type Approval documentation

Certification in accordance with Class Programmes DNV-CP-0338, September 2021.

Test report no. FT23326 dated 25 September 2023 from Far East Fire Testing Centre, Shanghai, China.

Drawing Nos. from C02 to C09 and from C23 to C31 dated 8 May 2023 from manufacturer.

## Tests carried out

Tested according to IMO 2010 FTP Code part 3.

## Marking of product

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

## Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Procedures for Approval of Life-Saving Appliances, Fire Safety Systems, Equipment and Products (TP14612)", DNV confirms that the product/s listed in this certificate is/are in accordance with Transport Canada's requirements.

## Periodical assessment

DNV'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 DNV-CP-0338, Section 4.