



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

25-0261160-PDA
05-Dec-2025
04-Dec-2030
London Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

MCT BRATTBERG AB

located at

SE-371 92 KARLSKRONA, , KARLSKRONA, Sweden

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Fire Stop System
Model: Fire Stop Cable Transit System, "H" Class Penetrations
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 04/Dec/2030 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

mohammed abbas

Mohammed K.M. Abbas,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

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Product: Fire Stop System
Model: Fire Stop Cable Transit System, "H" Class Penetrations
Endorsements:

Intended Service:

Cable penetrations in bulkheads up to H120 & cable and pipe penetrations in decks up to H120 for Marine & Offshore Applications. Penetrations of watertight and gastight bulkheads and decks up to the specified pressure.

Description:

Transit frame types RGS, RGSO, RGSF, RGSFO, RGSFOB, RGS btb, RGSC, RGSFB, RGSK, RGSR.
Modular firestop transit systems for cables and pipes, installed in bulkheads and decks, utilizing halogen-free Lycron Standard, AddBlock, Handi-block, U-block and E-Series modules and accessories.
Steel framed transits for welding to steel plate; standard frame for marine applications; 120mm internal width, 60 mm depth, 10mm frame thickness; four size designations based on height - 2, 4, 6 and 8; mounted singly or in multiples.
Thick flange with or without removable end; used when hole in the bulkhead or deck is larger than the frame and when cables are already in place.

Rating:

a) Fire Resistance
H60 & H120 for bulkheads and for Decks.

b) Watertightness:
RGS Frames - 6 bar g. hydrostatic test
RGS Frames (machine blocks to suit non-circular cables), - 5 bar g. hydrostatic test.

c) Gastightness:
RGS Frames ,- 4 bar g. pneumatic test
RGS Frames (machine blocks to suit non-circular cables)- 3 bar g. pneumatic test.

Service Restriction:

- 1) Maximum tested size for approved Marine/ Offshore braided Cables: 96 mm outside diameter.
- 2) Maximum tested size of continuously welded aluminium clad cables, CLX Type: 84mm outside diameter
- 3) Maximum tested size of Metal clad hazardous area (MCHL) cable : 101.1mm outside diameter.
- 4) Maximum tested size of Steel pipes on deck : 156 mm diameter
- 5) Maximum tested size of copper pipes on deck: 15 mm diameter.
- 6) Maximum tested frame size:
 - a) Single - 8x1 (One frame of size 8)
 - b) Multiple Frames - see Below:
 - For decks up to H60 & H120) rating- size 8+8x7
 - For bulkheads up to H60 rating, size 8x7
 - For Bulkheads up to H120 rating 8+8x7
- 7) Minimum Tested Frame Size, Size 1
- 8) Not for use in tank boundaries.
- 9) For detail information about insulation arrangement, please see ABS approved drawings specified in the Notes, Drawings and Documentation section of this Certificate..
- 10) Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

1) The bulkhead or deck in way of the penetration is to be properly insulated in accordance with Hydrocarbon Fire Resistance Test for Elements of Construction for Offshore Installations; Dept. of Energy (UK) Test Specification - Issue 1 (Jan.1990). The rating of the transit is to be the same or better than the bulkhead or deck in which it is

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installed.

2) Installation is to be as per manufacturer's instructions in accordance with approved drawings.

3) Watertight or fire rated cable penetrations are to be tested as required by ABS Marine Vessel Rules 3-7-1/table 1 and 4-8-4/29.15.

4) When requested to be used in watertight bulkheads on passenger ships or special purpose ships, the penetration system has to comply with the requirements given in SOLAS Ch. II -1 Reg. 13.2.3 (2024 consolidated edition). This approval of penetrations passing through watertight bulkhead is not to be construed as a substitute for flag Administration's approval for the purpose of SOLAS 1974 (2024 Consolidated Edition).

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

6) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

1) BRE test reports: 271349 dated 20 February 2012, 271350B dated 20 January 2012

2) BRE Global Ltd. H Class Comparison Test Reports P101462-1012 Issue 1, dated 10 July 2020

3) BRE Global Ltd. H Class Comparison Test Reports P101462-1003 Issue 1, dated 24 November 2016 and P10462-1004 Issue 1, dated 30 May 2017

4) MCT Brattberg AB test report nos: 11201G, 11201W, 11202G, 11202W, 11213G, 11213W, witnessed by Lloyd's Register, dated 15 June '11.

5) MCT Brattberg drawing nos 1120054 rev A, 1120055 rev A, 1120056 rev A, 1120067 rev A, 1120068 rev A, 1120069 rev A, 1120070 rev A.

Terms of Validity:

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This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

STANDARDS**ABS Rules:**

2025 ABS Rules for Building and Classing Marine Vessels : 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, 4-6-2/9.7, 4-8-4/21.13, 4-8-4/29.15

2025 ABS Rules for Building and Classing Mobile Offshore Units: 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, 4-2-1/11.15.1, 4-3-3/5.13

National:

NA

International:

IMO Resolution A.754(18) (Adopted 4 November 1993) & FTP Code 2010 (2012 Edition) with the exception of the furnace heating curve.

Government:

NA

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EUMED:

NA

OTHERS:

Hydrocarbon Fire Resistance Test for Elements of Construction for Offshore Installations; Dept. of Energy (UK) Test Specification - Issue 1 (Jan.1990)