TYPE APPROVAL CERTIFICATE

Certificate no.:
TAF00001H2
Revision No:
2

This is to certify:

that the Class A and B Penetration

with type designation(s)
RGP pipe penetration - A-class

issued to
MCT Brattberg AB
Karlskrona, **Sweden**

is found to comply with
DNV's Interpretation of SOLAS 1974 Convention as Amended
DNV rules for classification – Ships
DNV offshore standards

Application:

Approved for use as pipe penetration system in A-class steel and aluminium bulkheads and decks.

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 **2026-06-16**
This Certificate is valid until **2031-06-15**.
DNV local unit: **Sweden CMC**

for **DNV**

Approval Engineer: **Helge Bjørnarå**

Product description

RGP pipe penetration – A-class,
is a circular multi-pipe penetration system composed of a RGP frame inserted into a sleeve. The frame is filled with MCT Insert Blocks (Standard Block, Handiblock, AddBlock, U-Block and Spareblock).

Sleeve type(s): S, L, SF, SFRB and SFRBO.

Sleeve is to be welded to division.

For further details, see drawings listed under Type Approval documentation.

Application/Limitation

Approved for use as pipe penetration system in A-class steel and aluminium bulkheads and decks. Other applications are subject to case-by-case approval.

Class A-0, A-15 and A-30 shall be insulated as for A-60 and the division is to be fitted with A-60 insulation for a minimum distance of 200 mm around the penetration.

Table 1.1: Approved pipe penetration in A-60 steel bulkhead:

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
RGP	50	Steel	24	82	6	Symmetric	Fully insulated on both sides + 100 mm along pipe on one side (1240351 No.1)
RGP	50 – 100	Steel	24 – 50	82	6	Symmetric	Fully insulated on both sides + 350 mm along pipe on one side (1240351 No.2)
RGP	50 – 200	Steel	24 – 114	82	6	Symmetric	Fully insulated on both sides + 450 mm along pipe on one side (1240351 No.3)
RGP	50 – 300	Steel	24 – 160	82 – 85	6 – 7	Symmetric	Fully insulated on both sides + 550 mm along pipe on one side (1240351 No.4)

Table 1.2: Approved pipe penetration in A-60 steel deck:

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
RGP	50	Steel	4 – 24	70	6	Symmetric	Fully insulated on underside (1240351 No.5)
RGP	50 – 100	Steel	4 – 50	70	6	Symmetric	Fully insulated + 400 mm along pipe on underside (1240351 No.6)
RGP	50 – 300	Steel	4 – 160	70	6	Symmetric	Fully insulated + 430 mm along pipe on underside (1240351 No.7)

Table 1.3: Approved pipe penetration in A-0 steel bulkhead:

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
RGP	50	Steel	24	82	6	Symmetric	Fully insulated on both sides + 100 mm along pipe on one side (1240359 No.1)
RGP	50 – 100	Steel	24 – 50	82	6	Symmetric	Fully insulated on both sides + 350 mm along pipe on one side (1240359 No.2)
RGP	50 – 200	Steel	24 – 114	82	6	Symmetric	Fully insulated on both sides + 450 mm along pipe on one side (1240359 No.3)
RGP	50 – 300	Steel	24 – 160	82 – 85	6 – 7	Symmetric	Fully insulated on both sides + 550 mm along pipe on one side (1240359 No.4)

Table 1.4: Approved pipe penetration in A-0 steel deck:

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
RGP	50	Steel	4 – 24	70	6	Symmetric	Fully insulated on underside (1240359 No.5)
RGP	50 – 100	Steel	4 – 50	70	6	Symmetric	Fully insulated + 400 mm along pipe on underside (1240359 No.6)
RGP	50 – 300	Steel	4 – 160	70	6	Symmetric	Fully insulated + 430 mm along pipe on underside (1240359 No.7)

Table 2.1: Approved pipe penetration in A-60 aluminium bulkhead:

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
RGP [1)]	50 – 200	Steel	14 – 30	60	10	Symmetric	Fully insulated on exposed side and partially insulated on unexposed side. (1190522)
RGP	50 – 200	Steel	14 – 30	60	10	Symmetric	Fully insulated on both sides. (1190522)
RGP [1)]	50 – 200	Copper	4 – 14	60	10	Symmetric	Fully insulated on exposed side and partially insulated on unexposed side. (1190522)
RGP	50 – 200	Copper	4 – 14	60	10	Symmetric	Fully insulated on both sides. (1190522)

1) Restricted application, fire against fully insulated side.

Table 2.2: Approved pipe penetration in A-60 aluminium deck:

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation
RGP	50 – 200	Steel	14 – 35	60	10	Symmetric	Fully insulated on underside.
RGP	50 – 200	Copper	4	60	10	Symmetric	Fully insulated on underside.

Each product is to be supplied with its manual for installation/application and maintenance.

Type Approval documentation

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

Test report No. P101462-1002 dated 18 August 2018 from BRE Global, Watford, UK.
Test report No. P101462-1001 dated 14 September 2018 from BRE Global, Watford, UK.
Test report No. P101462-1015 dated 27 November 2019 from BRE Global, Watford, UK.
Test report No. P125338-1001 Issue 1 dated 4 April 2024 from BRE Global, Watford, UK.
Test report No. PGB10366A dated 6 August 2024 from DBI, Hvidovre, Denmark.
Test report No. PGB10367A dated 6 August 2024 from DBI, Hvidovre, Denmark.

Drawing No. 1190522 Rev. A dated 15 October 2007 from manufacturer.
Drawing No. 1240351 Rev. C dated 6 May 2025 from manufacturer.
Drawing No. 1240359 Rev. C dated 6 May 2025 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 Class Programme DNV-CP-0338, Section 4.

Manufactured by:

MCT Brattberg AB, Lyckeåborg 371 92 Karlskrona Sweden.