

TYPE APPROVAL CERTIFICATE

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, Swedenis found to comply with
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations
DNV GL rules for classification – Ships
DNV GL 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 GL.**Issued at **Høvik** on **2021-02-23**for **DNV GL**This Certificate is valid until **2026-02-22**.DNV GL local station: **Sweden CMC**Approval Engineer: **Helge Bjørnarå**

Mårten Schei-Nilsson
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

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 and SFRB

Sleeve is to be welded to division. SFRB may be bolted to the division.

For further details, see drawing 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: 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	Sleeve insulation
RGP ¹⁾	200 - 300	Steel	6 - 30	82 - 85	6	Symmetric	Fully insulated on exposed side.	

1) Restricted application, fire against fully insulated side.

Table 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	Sleeve insulation
RGP	200 - 300	Steel	6 - 30	70	6	Symmetric	Partially insulated on underside.	

Table 3: 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	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.

Job Id: **262.1-034723-1**
Certificate No: **TAF00001H2**

Table 4: 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	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 DNVGL-CP-0338, September 2018.

Test Report No. 301124C dated 2 March 2016 from BRE Global, Watford, UK.

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.

Drawing No. 1190522 Rev. A dated 15 October 2007 from maker.

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.

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.