



TYPE APPROVAL CERTIFICATE

Certificate No:
TAF00000KF
Revision No:
2

This is to certify:

That the Class H Penetration

with type designation(s)
RGP cable penetration - H-class

Issued to
MCT Brattberg AB
Karlskrona, Sweden

is found to comply with
DNV offshore standards

Application :

Approved for use as cable penetration system in H-class bulkheads and decks for approved ship cables.

Issued at **Høvik** on **2021-12-14**

for **DNV**

This Certificate is valid until **2026-12-13**.

DNV local station: **Sweden CMC**

Approval Engineer: **Kristin Grønnæss**

Helene David-Andersen
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 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

RGP cable penetration – H-class, is a circular multi-cable 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 cable penetration system in H-class bulkheads and decks for approved ship cables. Other applications are subject to case-by-case approval.

Class H-0 and H-60 shall be insulated as for H-120 and the division is to be fitted with H-120 insulation for a minimum distance of 200 mm around the penetration.

Table 1: Approved cable penetration in H-120 steel bulkhead:

Type	Size	Max cable diameter [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation	Drawing No.
RGP ¹⁾	70 - 200	30	70	5 - 8	Unexposed side	Partially insulated with H-120 on exposed side.	004242
RGP ¹⁾	50 - 200	30	35 - 80	6	Symmetrical	Fully insulated with H-120 on exposed side.	1210215

1) Restricted application, fire against insulated side.

Table 2: Approved cable penetration in H-60 steel bulkhead:

Type	Size	Max cable diameter [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation	Drawing No.
RGP	50 - 200	40	35 - 80	6	Symmetrical	Fully insulated with H-120 on one side.	1070312

Table 3: Approved cable penetration in H-120 steel deck:

Type	Size	Max cable diameter [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation	Drawing No.
RGP	50 - 200	30	70	5 - 8	Top side	Partially insulated with H-120 on the underside.	004243
RGP	50 - 200	50	35 - 82	6	Symmetrical	Fully insulated with H-120 on the underside.	1210216
RGP	300	50	85	7	Symmetrical	Fully insulated with H-120 and one additional layer on the underside.	1210217

Table 4: Approved cable penetration in H-0 steel deck:

Type	Size	Max cable diameter [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sleeve position	Sleeve insulation	Drawing No.
RGPbtb	200	50	170	6	Top side	None	1210218

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. TE 82004 dated 20 January 1992 from LPC, UK.

Test Report No. TE 82211 dated 12 May 1992 from the LPC, UK.

Test Report No. 220239 dated 8 February 2006 from BRE Testing, Garston, UK.

Test Report No. 223949 dated 7 November 2005 from BRE Testing, Garston, UK.

Test Report No. 232880 dated 7 November 2007 from BRE Testing, Garston, UK.

Test Report No. P101462-1004 dated 30 May 2017 from BRE Global, Watford, UK.

Test Report No. P101462-1012 dated 10 July 2020 from BRE Global, Watford, UK.

Test Report No. P101462-1008 dated 16 November 2020 from BRE Global, Watford, UK.

Test Report No. P101462-1009, Issue 2, dated 16 November 2020 from BRE Global, Watford, UK.

Assessment Report No. CC 241401 dated 13 December 2007 from BRE Testing, UK

Drawing No. 004242 Rev. 0 dated 9 September 1992 from maker.
Drawing No. 004243 Rev. 0 dated 9 September 1992 from maker.
Drawing No. 1070312 Rev. A dated 15 October 2007 from maker.
Drawing No. 1210215 Rev. A dated 2 August 2021 from maker.
Drawing No. 1210216 Rev. A dated 2 August 2021 from maker.
Drawing No. 1210217 Rev. A dated 2 August 2021 from maker.
Drawing No. 1210218 Rev. A dated 4 August 2021 from maker.

Tests carried out

Tested according to IMO FTPC Part 3 (IMO Res. A.754(18)) with the hydrocarbon time-temperature curve specified in ISO 834-3.

Marking of product

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

Periodical assessment

DNV'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.