DNV·GL

Certificate No:
**TAF00001H0**

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Class A and B Penetration**

with type designation(s)
**RGP cable penetration - A-class**

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

is 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 cable penetration system in A-class steel and aluminium bulkheads and decks for approved ship cables.**

**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**

This Certificate is valid until **2026-02-22**.
DNV GL local station: **Sweden CMC**

Approval Engineer: **Helge Bjørnarå**

for **DNV GL**

Digitally Signed By: Schei-Nilsson, Mårten
Location: DNV Høvik, Norway

**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.

## Product description

RGP cable penetration – A-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 A-class steel and aluminium bulkheads and decks for approved ship cables. 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 cable penetration in A-60 steel bulkhead:

| Type | Size | Max cable diameter [mm] | Sleeve length [mm] | Sleeve thickness [mm] | Sleeve position | Sleeve insulation | Dwg. No. |
|---|---|---|---|---|---|---|---|
| RGP [1)] | 50 - 200 | 40 | 35 - 82 | 6 | Symmetrically | Partially insulated on exposed side. | 1190523 |
| RGP [1)] | 50 - 200 | 50 | 35 - 82 | 6 | Unexposed side | Partially insulated on exposed side. | 1190524 |
| RGP [1)] | 50 - 300 | 50 | 35 - 85 | 6 – 7 | Symmetrically | Fully insulated on exposed side. | 1190526 |
| RGP [1)] | 300 | 110 | 85 | 7 | Symmetrically | Fully insulated + 50 mm on exposed side. | 1190525 |
| RGP | 100 - 200 | 50 | 70 - 82 | 6 | Symmetrically | Fully insulated on one side. | |

1) Restricted application, fire against insulated side.

Table 2: Approved cable penetration in A-60 steel deck:

| Type | Size | Max cable diameter [mm] | Sleeve length [mm] | Sleeve thickness [mm] | Sleeve position | Sleeve insulation | Dwg. No. |
|---|---|---|---|---|---|---|---|
| RGP | 50 - 300 | 60 | 70 | 6 | Symmetrically | Partially insulated on underside. | 1190521 |

Table 3: Approved cable penetration in A-60 aluminium bulkhead:

| Type | Size | Max cable diameter [mm] | Sleeve length [mm] | Sleeve thickness [mm] | Sleeve position | Sleeve insulation | Dwg. No. |
|---|---|---|---|---|---|---|---|
| RGP | 100 - 200 | 32 | 60 | 10 | Symmetrically | Fully insulated on both sides. | |
| RGP [1)] | 100 - 200 | 32 | 60 | 10 | Symmetrically | Fully insulated on exposed side and partially insulated on unexposed side. | 1190522 |

1) Restricted application, fire against fully insulated side.

Table 4: Approved cable penetration in A-60 aluminium deck:

| Type | Size | Max cable diameter [mm] | Sleeve length [mm] | Sleeve thickness [mm] | Sleeve position | Sleeve insulation | Dwg. No. |
|---|---|---|---|---|---|---|---|
| RGP | 100 - 200 | 32 | 60 | 10 | Symmetrically | Fully insulated on underside. | 1190520 |

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 Marsh 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. P101462-1014 dated 22 November 2019 from BRE Global, Watford, UK.
Test Report No. P101462-1010 dated 27 November 2019 from BRE Global, Watford, UK.
Test Report No. P101462-1015 dated 27 November 2019 from BRE Global, Watford, UK.

Drawing No. 1190520 Rev. A dated 9 September 1992 from maker.
Drawing No. 1190521 Rev. A dated 15 October 2007 from maker.
Drawing No. 1190522 Rev. A dated 15 October 2007 from maker.
Drawing No. 1190523 Rev. A dated 15 October 2007 from maker.
Drawing No. 1190524 Rev. A dated 15 October 2007 from maker.
Drawing No. 1190525 Rev. A dated 15 October 2007 from maker.
Drawing No. 1190526 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.