



# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAF00000TJ**  
Revision No:  
**5**

## This is to certify:

that the **Class A and B Penetration**

with type designation(s)  
**RGS cable 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 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.**

Issued at **Høvik** on **2026-07-03**

This Certificate is valid until **2028-05-09**.

DNV local unit: **Sweden CMC**

Approval Engineer: **Katarzyna Baczewska**

for **DNV**



Digitally Signed By:  
**Marcin Tobiasz**

Location: **DNV Gdynia, Poland**

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 USD 300 000.

## Product description

"RGS cable penetration - A-class",  
is a rectangular multi-cable penetration system consisting of a frame filled with MCT Insert Blocks (Standard Block, Handiblock, AddBlock, U-Block, Spareblock, and EMC variants), Stayplates and STG Endpacking with compression plate or PTG Presswedge.

RGS series consisting mild steel, stainless steel, and aluminium of RGS series transit frames (RGS, RGSF, RGSFB, RGSC, RGSK, RGSbtb, RGSr, and RGSFBO) in sizes 1-8, and combinations thereof.

Frame type(s): RGS (incl. RGSF, RGSC, RGSK and RGSr)

Frame type(s): RGSF(B) (incl. RGSFBO)

Frame type(s): RGSbtb

Frame is to be welded to the division. RGSFB and RGSFBO may also 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] | Frame length [mm] | Frame thickness [mm] | Frame position | Frame insulation                                                  | Dwg. No.   |
|-------------------|-------------|-------------------------|-------------------|----------------------|----------------|-------------------------------------------------------------------|------------|
| RGS <sup>1)</sup> | 1 – 8x3     | 50                      | 60                | 10                   | Symmetrically  | Partially insulated on one side                                   | 1240040; 1 |
| RGS               | 2 – 8x5     | 76                      | 60                | 10                   | Symmetrically  | Partially insulated on both sides                                 | 1240040; 3 |
| RGS               | 8x5 – 8+8x5 | 76                      | 60                | 10                   | Symmetrically  | Partially insulated on both sides                                 | 1240040; 4 |
| RGS               | 2 – 8x5     | 76                      | 60                | 10                   | Symmetrically  | Fully insulated on one side                                       | 1240040; 2 |
| RGS               | 1 – 8+8x7   | 76                      | 60                | 10                   | Symmetrically  | Fully insulated on one side                                       | 1220138    |
| RGS               | 240         | 150                     | 60                | 10                   | Symmetrically  | Fully insulated on one side                                       | 1240039; 1 |
| RGSF(B)           | 1 – 8x3     | 50                      | 65                | 10                   | Either         | Partially insulated on both sides                                 | 1220143    |
| RGSF(B)           | 1 – 8x3     | 50                      | 65                | 10                   | Either         | Partially insulated on one side and fully insulated on other side | 1220144    |
| RGSFB             | 1 – 8x2     | 50                      | 65                | 10                   | Insulated side | Partially insulated on one side                                   | 1230026; 3 |
| RGSFB             | 1 – 8+8x3   | 68                      | 65                | 10                   | Insulated side | Fully insulated on one side                                       | 1230026; 1 |
| RGSFB             | 8+8x3       | 68                      | 65                | 10                   | Insulated side | Fully insulated on one side                                       | 1230026; 2 |
| RGSbtb            | 1 – 8+8x7   | 50                      | 100               | 10                   | Insulated side | Partially insulated on one side                                   | 1220136    |
| RGSbtb            | 1 – 8+8x7   | 50                      | 100               | 10                   | Insulated side | Partially insulated on one side                                   | 1220159    |

1) Restricted application, fire against insulated side

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

| Type    | Size                  | Max cable diameter [mm] | Frame length [mm] | Frame thickness [mm] | Frame position       | Frame insulation                 | Dwg. No.           |
|---------|-----------------------|-------------------------|-------------------|----------------------|----------------------|----------------------------------|--------------------|
| RGS     | 1 – 8x9               | 76                      | 60                | 10                   | Top or symmetrically | Partially insulated on underside | 1220132            |
| RGS     | 1 – 8+8+8x9           | 110                     | 60                | 10                   | Top or symmetrically | Fully insulated on underside     | 1220141            |
| RGS     | 240                   | 150                     | 60                | 10                   | Top or symmetrically | Partially insulated on underside | 1240039; 2         |
| RGSF(B) | 1 – 8+8x5<br>1 – 8x10 | 76                      | 60                | 10                   | Top                  | Partially insulated on underside | 1220145<br>1220162 |
| RGSF(B) | 1 – 8+8x7<br>1 – 8x10 | 76                      | 60                | 10                   | Top                  | Fully insulated on underside     | 1220146            |

Table 3: Approved cable penetration in A-0 steel bulkhead:

| Type              | Size      | Max cable diameter [mm] | Frame length [mm] | Frame thickness [mm] | Frame position | Frame insulation                    | Dwg. No.   |
|-------------------|-----------|-------------------------|-------------------|----------------------|----------------|-------------------------------------|------------|
| RGS               | 1 – 8x1   | 39                      | 60                | 10                   | Symmetrically  | Uninsulated                         | 1240044; 4 |
| RGS <sup>1)</sup> | 1 – 8+8x7 | 50                      | 60                | 10                   | Symmetrically  | Partially insulated on exposed side | 1240044; 2 |
| RGS               | 1 – 8+8x7 | 76                      | 60                | 10                   | Symmetrically  | Partially insulated on both side    | 1240044; 1 |
| RGS               | 180 – 240 | 150                     | 60                | 10                   | Symmetrically  | Partially insulated on both sides   | 1240039; 3 |
| RGSFB             | 8x1       | 36                      | 65                | 10                   | Unexposed      | Uninsulated                         | 1240044; 3 |
| RGSbtb            | 1 – 8+8x7 | 100                     | 60                | 10                   | Symmetrically  | Uninsulated                         | 1220153    |

1) Restricted application, fire against insulated side

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

| Type    | Size    | Max cable diameter [mm] | Frame length [mm] | Frame thickness [mm] | Frame position       | Frame insulation                 | Dwg. No.   |
|---------|---------|-------------------------|-------------------|----------------------|----------------------|----------------------------------|------------|
| RGS     | 1 – 8x3 | 36                      | 60                | 10                   | Top or symmetrically | Uninsulated                      | 1220155    |
| RGS     | 1 – 8x9 | 76                      | 60                | 10                   | Top or symmetrically | Partially insulated on underside | 1220147    |
| RGS     | 240     | 150                     | 60                | 10                   | Top or symmetrically | Partially insulated on underside | 1240039; 4 |
| RGSF(B) | 1 – 8x3 | 36                      | 60                | 10                   | Top                  | Uninsulated                      | 1220157    |
| RGSbtb  | 1 – 8x3 | 36                      | 60                | 10                   | Top                  | Uninsulated                      | 1220156    |

Table 5: Approved cable penetration in A-60 aluminium bulkhead:

| Type              | Size      | Max cable diameter [mm] | Frame length [mm] | Frame thickness [mm] | Frame position | Frame insulation                                                          | Dwg. No. |
|-------------------|-----------|-------------------------|-------------------|----------------------|----------------|---------------------------------------------------------------------------|----------|
| RGS               | 1 – 8+8x7 | 50                      | 60                | 10                   | Symmetrically  | Fully insulated on both sides                                             | 1220134  |
| RGS <sup>1)</sup> | 1 – 8+8x5 | 50                      | 60                | 10                   | Symmetrically  | Fully insulated on exposed side and partially insulated on unexposed side | 1220133  |

1) restricted application, fire against fully insulated side

Table 6: Approved cable penetration in A-60 aluminium deck:

| Type | Size      | Max cable diameter [mm] | Frame length [mm] | Frame thickness [mm] | Frame position       | Frame insulation                 | Dwg. No. |
|------|-----------|-------------------------|-------------------|----------------------|----------------------|----------------------------------|----------|
| RGS  | 1 – 8x9   | 50                      | 60                | 10                   | Top or symmetrically | Partially insulated on underside | 1220158  |
| RGS  | 1 – 8+8x7 | 50                      | 60                | 10                   | Top or symmetrically | Fully insulated on underside     | 1220135  |

Each product is to be supplied with its manual for installation and use.

## Type Approval documentation

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

Test report No. 241204, dated 13 June 2008 from BRE Global, Watford, UK.  
Test report No. 241205, dated 1 August 2008 from BRE Global, Watford, UK.  
Test report No. 259264A dated 3 June 2010 from BRE Global, Watford, UK.  
Test report No. 259264B, dated 3 June 2010 from BRE Global, Watford, UK.  
Test report No. 260191, dated 22 September 2010 from BRE Global, Watford, UK.  
Test report No. 262822 dated 1 October 2010 from BRE Global, Watford, UK.  
Test report No. 266413 dated 10 March 2011 from BRE Global, Watford, UK.  
Test report No. 267923 dated 1 June 2011 from BRE Global, Watford, UK.  
Test report No. 271351 dated 7 August 2012 from BRE Global, Watford, UK.

Test report No. 271353A dated 30 July 2012 from BRE Global, Watford, UK.  
Test report No. 271353B dated 5 September 2012 from BRE Global, Watford, UK.  
Test report No. 282342 dated 15 February 2013 from BRE Global, Watford, UK.  
Test report No. 290298 dated 15 May 2015 from BRE Global, Watford, UK.  
Test report No. 301124C dated 2 March 2016 from BRE Global, Watford, UK.  
Test report No. P101462-1000 dated 8 September 2016 from BRE Global, Watford, UK.  
Test report No. P101462-1002 dated 8 August 2018 from BRE Global, Watford, UK.  
Test report No. P101462-1001 dated 14 September 2018 from BRE Global, Watford, UK.  
Test report No. P101462-1010 dated 27 November 2019 from BRE Global, Watford, UK.  
Test report No. P101462-1021, issue 1, dated 17 April 2020 from BRE Global, Watford, UK.  
Test report No. P101462-1013, issue 1, dated 1 May 2020 from BRE Global, Watford, UK.  
Test report No. P101462-1022, issue 1, dated 12 May 2021 from BRE Global, Watford, UK.  
Test report No. O100409-170218-1 dated 25 February 2022 from RISE, Borås, Sweden.  
Test report No. P101462-1026, issue 1, dated 8 November 2022 from BRE Global, Watford, UK.  
Test report No. P101462-1027, issue 1, dated 4 January 2023 from BRE Global, Watford, UK.  
Test report No. P101462-1028, issue 1, dated 10 February 2023 from BRE Global, Watford, UK.  
Test report No. PGB10227A, Rev.0, dated 31 March 2023 from DBI, Hvidovre, Denmark.  
Test report No. P101462-1030, issue 1, dated 31 October 2023 from BRE Global, Watford, UK.  
Test report No. P125338-1001, issue 1, dated 4 April 2024 from BRE Global, Watford, UK.

Assessment report No. CC 269831 dated 21 April 2011 from BRE Global, Watford, UK.

Drawing No. 1220132, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220133, Rev. B dated 3 November 2022 from manufacturer.  
Drawing No. 1220134, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220135, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220136, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220138, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220141, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220143, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220144, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220145, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220146, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220147, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220153, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220155, Rev. B dated 3 November 2022 from manufacturer.  
Drawing No. 1220156, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220157, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220158, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220159, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1220162, Rev. A dated 2 May 2022 from manufacturer.  
Drawing No. 1230026, Rev. D dated 6 March 2025 from manufacturer.  
Drawing No. 1240039, Rev. B dated 4 April 2025 from manufacturer.  
Drawing No. 1240040, Rev. A dated 1 March 2024 from manufacturer.  
Drawing No. 1240044, Rev. A dated 22 April 2024 from manufacturer.

## Tests carried out

Tested in accordance with IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8 and 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 DNV-CP-0338 Section 4.



Job ID: **262.1-037877-4**  
Certificate no.: **TAF00000TJ**  
Revision No: **5**

**Manufactured by:**

**MCT Brattberg AB**, Lyckeåborgsvägen 61, 371 92 Karlskrona, Sweden.

**Kyung Nam Precision Co.**, 41, Mieumsandan 2-ro 24beon-gil, Gangseo-gu, Busan, Republic of Korea.