TYPE APPROVAL CERTIFICATE

Certificate no.:
TAF000020R
Revision No:
1

This is to certify:

that the Class A and B Penetration

with type designation(s)
RGS 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 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 **2026-07-03**

This Certificate is valid until **2030-08-21**.
DNV local unit: **Denmark 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.

Product description

"RGS pipe penetration - A-class",
is a rectangular multi pipe 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.

Frame is to be welded to the division.

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

Application/Limitation

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

Class 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:

Frame type	Size	Pipe material	Pipe diameter (OD) [mm]	Frame length [mm]	Frame thickness [mm]	Frame position	Penetration insulation
RGS	1 – 8	Steel	4 – 30	60	10	Symmetric	Fully insulated on both sides. (1240350_3)
RGS	1 – 8	Steel	4 – 50	60	10	Symmetric	Fully insulated on both sides + 250 mm along pipe on one side. (1240350_1)
RGS	1 – 8	Steel	50 – 114	60	10	Symmetric	Fully insulated on both sides + 400 mm along pipe on one side. (1240350_2)

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

Frame type	Size	Pipe material	Pipe diameter (OD) [mm]	Frame length [mm]	Frame thickness [mm]	Frame position	Penetration insulation
RGS	8	Steel	4 – 30	60	10	Symmetric	Partially insulated on underside. (1240350_7)
RGS	1 – 8	Steel	4 – 30	60	10	Symmetric	Fully insulated on underside. (1240350_4)
RGS	1 – 8	Steel	4 – 50	60	10	Symmetric	Fully insulated on underside + 320 mm along pipe. (1240350_5)
RGS	1 – 8	Steel	50 – 114	60	10	Symmetric	Fully insulated on underside + 480 mm along pipe on. (1240350_6)

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

Frame type	Size	Pipe material	Pipe diameter (OD) [mm]	Frame length [mm]	Frame thickness [mm]	Frame position	Penetration insulation
RGS	1 – 8	Steel	4 – 30	60	10	Symmetric	Fully insulated on both sides. (1240358_3)
RGS	1 – 8	Steel	4 – 50	60	10	Symmetric	Fully insulated on both sides + 250 mm along pipe on one side. (1240358_1)
RGS	1 – 8	Steel	50 – 114	60	10	Symmetric	Fully insulated on both sides + 400 mm along pipe on one side. (1240358_2)

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

Frame type	Size	Pipe material	Pipe diameter (OD) [mm]	Frame length [mm]	Frame thickness [mm]	Frame position	Penetration insulation
RGS	8	Steel	4 – 30	60	10	Symmetric	Partially insulated on underside. (1240358_7)
RGS	1 – 8	Steel	4 – 30	60	10	Symmetric	Fully insulated on underside.

							(1240358_4)
RGS	1 – 8	Steel	4 – 50	60	10	Symmetric	Fully insulated on underside + 320 mm along pipe. (1240358_5)
RGS	1 – 8	Steel	50 – 114	60	10	Symmetric	Fully insulated on underside + 480 mm along pipe on. (1240358_6)

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. P125338-1001, Issue 1, dated 4 April 2024 from BRE Global, Watford, UK.
Test report No. PGB10367A, Rev.0, dated 25 April 2024 from DBI, Hvidovre, Denmark.

Drawing No. 1240350, Rev. A dated 16 October 2024 from manufacturer.
Drawing No. 1240358, Rev. A dated 16 October 2024 from manufacturer.

Tests carried out
Tested in accordance with 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.

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