Certificate no.:
TAF000020S

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Class A and B Penetration

with type designation(s)
SR gland, MSR gland, and D & B gland

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

is found to comply with
DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021
DNV rules for classification – Ships
DNV offshore standards

Application:

Approved for use as pipe penetration system in A-60 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 **2025-09-05**

This Certificate is valid until **2030-09-04**.
DNV local unit: **Denmark CMC**

Approval Engineer: **Helge Bjørnarå**

for **DNV**

Digitally Signed By:
Jowita Permoda
Location: DNV Høvik, Norway

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

"SR gland",
consists of a circular steel sleeve and a seal. Compression screws are tightened to compress the seal around the inserted pipe(s) and sleeve.

The sleeve is welded to the division.

"MSR gland",
comprises a steel casing (sleeve) housing a central silicone core 20 mm deep. The casing includes a threaded spigot that passes through the division and is secured in place with a locknut. After pipe installation, hex screws on the top of the internal sealing mechanism are tightened to compress the silicone, sealing the pipes securely in place.

The sleeve is held in place in the division with a locknut.

"D & B gland",
consists of a steel sleeve threaded at both ends and incorporating a flange, which is seated on the division. A brass nut is located on the top of the gland to compress the internal silicone seal, while another brass nut and washer beneath the flange secure the gland to the division. When the top nut is tightened, the silicone seal compresses around the pipe. The gland seals against the division using an EPDM closed-cell foam gasket.

The sleeve is held in place in the division with a brass nut and washer.

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

Application/Limitation

Approved for use as pipe penetration system in A-60 class steel 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:

Frame type	Size	Pipe material	Pipe diameter (OD) [mm]	Frame length [mm]	Frame thickness [mm]	Frame position	Penetration insulation
SR	25 – 62	Steel	4 – 30	60	4 – 5.5	Any	Fully insulated on both sides. (7250234_1)
SR	25 – 200	Steel	4 – 114	60	4 – 7.5	Any	Fully insulated on both sides + 500 mm along pipe on one side. (7250234_2)
MSR*	20	Steel	4 – 12	65	4.5	Either	Fully insulated on the exposed side. (7250241_1)
MSR	20	Steel	4 – 12	65	4.5	Either	Fully insulated on both sides. (7250241_2)
MSR	20 – 63	Steel	4 – 20	65 – 72	4.5 – 7.5	Either	Fully insulated on both sides. (7250241_3)
D & B	16	Steel	4 – 16	75 or 150	8	Either	Partially insulated on one side and fully insulated on the opposite side. (7250244_1)
D & B	16 – 60	Steel	4 – 50	75 or 150	8	Either	Fully insulated on both sides. (7250244_2)
D & B*	16 – 35	Steel	4 – 30	75 or 150	8	Either	Fully insulated on the exposed side. (7250244_4)
D & B*	16 – 60	Steel	4 – 50	75 or 150	8	Either	Fully insulated on the exposed side. (7250244_5)

* Restricted application, i.e. fire against insulated side.

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
SR	25 – 62	Steel	4 – 30	60	4	Symmetric	Fully insulated on the underside. (7250234_3)
SR	25 – 200	Steel	4 – 114	60	4 – 7	Symmetric	Fully insulated + 480 mm along pipe on the underside. (7250234_4)
MSR	20 – 63	Steel	4 – 30	65 – 72	4.5 – 7.5	Either	Fully insulated on the underside. (7250241_4)
D & B	16 – 60	Steel	4 – 50	75 or 150	8	Either	Fully insulated on the underside. (7250244_3)

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
SR	25 – 62	Steel	4 – 30	60	4 – 5.5	Any	Fully insulated on both sides. (7250349_1)
SR	25 – 200	Steel	4 – 114	60	4 – 7.5	Any	Fully insulated on both sides + 500 mm along pipe on one side. (7250349_2)
MSR*	20	Steel	4 – 12	65	4.5	Either	Fully insulated on the exposed side. (7250350_1)
MSR	20	Steel	4 – 12	65	4.5	Either	Fully insulated on both sides. (7250350_2)
MSR	20 – 63	Steel	4 – 20	65 – 72	4.5 – 7.5	Either	Fully insulated on both sides. (7250350_3)
D & B	16	Steel	4 – 16	75 or 150	8	Either	Partially insulated on one side and fully insulated on the opposite side. (7250351_1)
D & B	16 – 60	Steel	4 – 50	75 or 150	8	Either	Fully insulated on both sides. (7250351_2)
D & B*	16 – 35	Steel	4 – 30	75 or 150	8	Either	Fully insulated on the exposed side. (7250351_4)
D & B*	16 – 60	Steel	4 – 50	75 or 150	8	Either	Fully insulated on the exposed side. (7250351_5)

* Restricted application, i.e. fire against insulated side.

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
SR	25 – 62	Steel	4 – 30	60	4	Symmetric	Fully insulated on the underside. (7250349_3)
SR	25 – 200	Steel	4 – 114	60	4 – 7	Symmetric	Fully insulated + 480 mm along pipe on the underside. (7250349_4)
MSR	20 – 63	Steel	4 – 30	65 – 72	4.5 – 7.5	Either	Fully insulated on the underside. (7250350_4)
D & B	16 – 60	Steel	4 – 50	75 or 150	8	Either	Fully insulated on the underside. (7250351_3)

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. P101462-1022, Issue 3, dated 14 February 2023 from BRE Global, Watford, UK.
Test report No. P101462-1023, Issue 1, dated 7 December 2020 from BRE Global, Watford, UK.
Test report No. P101462-1025, Issue 1, dated 9 August 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. O100409-1156471-1 dated 20 October 2023 from RISE, Borås, Sweden.
Test report No. P125338-1001, Issue 1, dated 4 April 2024 from BRE Global, Watford, UK.
Test report No. PGB10366A , Rev.0, dated 18 April 2024 from DBI, Hvidovre, Denmark.
Test report No. PGB10367A , Rev.0, dated 25 April 2024 from DBI, Hvidovre, Denmark.

Drawing No. 7250234, Rev. A dated 4 June 2024 from manufacturer.
Drawing No. 7250241, Rev. A dated 4 June 2024 from manufacturer.
Drawing No. 7250244, Rev. A dated 4 June 2024 from manufacturer.
Drawing No. 7250351, Rev. A dated 4 September 2025 from manufacturer.
Drawing No. 7250350, Rev. A dated 4 September 2025 from manufacturer.
Drawing No. 7250349, Rev. A dated September 2025 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:
MCT Brattberg AB, Karlskrona, Sweden.