



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

25-0256893-PDA
05-Dec-2025
04-Dec-2030
London Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

MCT BRATTBERG AB

located at

SE-371 92 KARLSKRONA, , KARLSKRONA, Sweden

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Penetration Device for Steel Bulkhead/Deck
Model: SR, MSR, DB
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 04/Dec/2030 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

mohammed abbas

Mohammed K.M. Abbas,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

MCT BRATTBERG AB
SE-371 92 KARLSKRONA
KARLSKRONA
Sweden

Telephone: +46 455 37 52 00

Fax: +46 455 37 52 90

Email: Ola.fagerberg@mctbrattberg.se

Web: www.mctbrattberg.se

Tier: 3 - Type Approved, unit certification not required

Product: Penetration Device for Steel Bulkhead/Deck

Model: SR, MSR, DB

Endorsements:

Intended Service:

Marine & Offshore Applications - Cable and Pipe penetrations in bulkheads and decks of fire Class A-0 through A-60 for Steel Bulkheads and Decks. Penetrations of watertight and gastight bulkheads and decks up to the specified pressure.

Description:

MCT Brattberg round cable and pipe glands with cylindrical silicone rubber bung tightened with two semicircular compression plates either bolted (MSR) or welded (SR) to the deck or bulkhead. DB single cable variant bolted to the bulkhead. Gland types MSR 20-63, SR 25-200 & DB 16-60. DB also available as EMC variant.

Rating:

Water tightness for SR and DB glands: Maximum test pressure 5 bar

Gas Tightness for SR and DB glands: Maximum test pressure 5 bar

See attachment for fire ratings

Service Restriction:

- a) Minimum and Maximum frame sizes fire tested are MSR 20-63, SR 25-200 & DB 16-60
- b) Refer attached table for all tested combinations and cable and pipe sizes for all frame types. Other applications are subject to case-by-case approval.
- c) Not for use in tank boundaries
- d) Tested with Marine Power/ Instrumentation/Control Cables.
- e) Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

- a) All seal type should be installed in accordance with the manufacturers instructions in accordance with ABS approved installation drawings.
- b) Watertight or fire rated bulkheads or decks for cable and pipe penetrations are to be examined and tested as per ABS Marine Vessels Rules 3-7-1/Table1 and 4-8-4/29.15.
- c) When requested to be used in watertight bulkheads on passenger ships or special purpose ships, the penetration system has to comply with the requirements given in SOLAS Ch. II -1 Reg. 13.2.3 (Consolidated Edition 2024). This approval of penetrations passing through watertight bulkhead is not to be construed as a substitute for flag Administration's approval for the purpose of SOLAS.
- d) The product or packing is to be marked with name of manufacturer, type designation and fire rating.
- e) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawings

Drawing No. 1250003-A A60 STEEL BULKHEAD - MSR GLANDS

Drawing No. 1250004-A A0 STEEL BULKHEAD/DECK - SR GLANDS

Drawing No. 1250005-A A60 STEEL BULKHEAD - D & B GLANDS

Drawing No. 1250006-A A60 STEEL BULKHEAD/DECK - SR GLANDS

Drawing No. 1250007-A A0 STEEL BULKHEAD - MSR GLANDS

Drawing No. 1250008-A A0 STEEL BULKHEAD - D & B GLANDS

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Drawing No. 7250234-A A60 STEEL BULKHEAD- SR PIPE GLANDS

Drawing No. 7250241-A A60 STEEL BULKHEAD- MSR PIPE GLANDS

Drawing No. 7250244-A A60 STEEL BULKHEAD- D&B PIPE GLANDS

Drawing No. 7250349-A A0 STEEL BULKHEAD- SR PIPE GLANDS

Drawing No. 7250350-A A0 STEEL BULKHEAD- MSR PIPE GLANDS

Drawing No. 7250351-A A0 STEEL BULKHEAD- D&B PIPE GLANDS

Fire Test Reports

BRE Global Ltd Fire test report No. P101462-1022, Issue 1 dated 7 July 2020

BRE Global Ltd Fire test report No. P101462-1023, Issue 1 dated 7 December 2020

BRE Global Ltd Fire test report No. P101462-1025, Issue 1 dated 9 August 2020

BRE Global Ltd Fire test report No. P101462-1026, Issue 1 dated 8 November 2022

BRE Global Ltd Fire test report No. P101462-1027, Issue 1 dated 4 January 2023

BRE Global Ltd Fire test report No. P101462-1030, Issue 1 dated 31 October 2023

BRE Global Ltd Fire test report No. O100409-1156471-1, dated 20 October 2023

RI.SE report No: O100409-1156471-1, dated 20 October 2023

BRE Global Ltd Fire test report No. P101462-1023, Issue 1, dated 07 December 2020

BRE Global Ltd Fire test report No. P101462-1025, Issue 1, dated 09 August 2022

BRE Global Ltd Fire test report No. P101462-1027, Issue 1, dated 04 January 2023

BRE Global Ltd Fire test report No. P125338-1001, Issue 1, dated 04 April 2024

DBI fire report No. PGB10366A , Rev 0, dated 18 April 2024

DBI fire report No. PGB10367A , Rev 1, dated 25 April 2024

Tightness Reports

Document No. QR14-11212G, Pneumatic pressure test report

Document No. QR14-11212W, Hydrostatic pressure test report

Document No. QR14-5065, Pneumatic pressure test report

Document No. QR14-5092, Pneumatic pressure test report

Document No. QR14-11211W, Hydrostatic pressure test report

Document No. QR14-11211G, Pneumatic pressure test report

Terms of Validity:

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STANDARDS**ABS Rules:**

2025 Rules for Conditions of Classification, Part 1A Ships: 1A-1-4/7.7, 1A-1-A3, 1A-1-A4 which covers the following

2025 Rules for Building and Classing Marine Vessels: 4-8-4/21.13, 4-8-4/29.15

2025 Rules for Conditions of Classification, Part 1B Offshore: 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, which covers the

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following:

2025 Rules for Building and Classing Offshore Units (Offshore Rules): 4-3-3/5.13

National:

NA

International:

SOLAS (2024 Consolidated Edition), Chapter II-2 Pt.C/Reg.9.3

IMO Resolution MSC.307(88) - (2010 FTP Code), Annex I: Part 3

Government:

NA

EUMED:

NA

OTHERS:

NA

Company Name: MCT BRATTBERG AB (603226), SE-371 92 KARLSKRONA, KARLSKRONA, Sweden

Model: SR, MSR, DB

Certificate no: 25-0256893-PDA

Issue Date: 05 Dec 2025

Expire date: 04 Dec 2030

Revision: 0

TABLE 1: A0 AND A60 PENETRATION TEST RESULTS

SEAL	Max Cable Dia	Application	Penetration Position	Rating	Drawing
MSR GLANDS	4mm- 32mm	Steel Bulkhead	Restricted to fire unexposed side	A60	1250003-A
MSR GLANDS	4mm- 12mm	Steel Bulkhead	Unrestricted	A60	1250003-A
MSR GLANDS	13mm- 32mm	Steel Bulkhead	Unrestricted	A60	1250003-A
MSR GLANDS	4mm- 32mm	STEEL BULKHEAD	Restricted to fire unexposed side	A0	1250007-A
MSR GLANDS	4mm- 12mm	STEEL BULKHEAD	Unrestricted	A0	1250007-A
MSR GLANDS	13mm- 32mm	STEEL BULKHEAD	Unrestricted	A0	1250007-A
SR GLANDS	4mm- 50mm	Steel Bulkhead	Restricted to fire unexposed side	A0	1250004-A
SR GLANDS	51mm- 110mm	Steel Bulkhead	Restricted to fire unexposed side	A0	1250004-A
SR GLANDS	4mm- 110mm	Steel Deck	Unrestricted	A0	1250004-A
SR GLANDS	4mm- 50mm	STEEL BULKHEAD	Restricted to fire unexposed side	A60	1250006-A
SR GLANDS	51mm- 110mm	STEEL BULKHEAD	Restricted to fire unexposed side	A60	1250006-A
SR GLANDS	4mm- 110mm	STEEL DECK	Unrestricted	A60	1250006-A
DB GLANDS	4mm- 16mm	STEEL BULKHEAD	Unrestricted	A60	1250005-A
DB GLANDS	17mm- 60mm	STEEL BULKHEAD	Unrestricted	A60	1250005-A
DB GLANDS	4mm- 16mm	STEEL BULKHEAD	Unrestricted	A0	1250008-A
DB GLANDS	17mm- 60mm	STEEL BULKHEAD	Unrestricted	A0	1250008-A
DB GLANDS	4mm- 60mm	STEEL DECK	Unrestricted	A0	1250008-A

TABLE 2: PIPE PENETRATION TEST RESULTS

SEAL	Max Pipe Dia	Application	Penetration Position	Rating	Drawing
SR GLANDS	4-30mm	Steel Deck & Bulkhead	Unrestricted	A60	7250234-A
SR GLANDS	4-114.3 mm	Steel Deck & Bulkhead	Unrestricted	A60	7250234-A
MSR GLANDS	4-12mm	Steel Bulkhead	Unrestricted	A60	7250241-A
MSR GLANDS	4-20mm	Steel Deck & Bulkhead	Unrestricted	A60	7250241-A
DB GLANDS	4-16mm	Steel Bulkhead	Unrestricted	A60	7250244-A
DB GLANDS	4-50mm	Steel Deck & Bulkhead	Unrestricted	A60	7250244-A
DB GLANDS	4-30mm	Steel Bulkhead	Unrestricted	A60	7250244-A
SR GLANDS	4-30mm	Steel Deck & Bulkhead	Unrestricted	A0	7250349-A
SR GLANDS	4-114.3 mm	Steel Deck & Bulkhead	Unrestricted	A0	7250349-A
MSR GLANDS	4-12mm	Steel Bulkhead	Unrestricted	A0	7250350-A
MSR GLANDS	4-20mm	Steel Deck & Bulkhead	Unrestricted	A0	7250350-A
DB GLANDS	4-16mm	Steel Bulkhead	Unrestricted	A0	7250351-A
DB GLANDS	4-50mm	Steel Deck & Bulkhead	Unrestricted	A0	7250351-A
DB GLANDS	4-30mm	Steel Bulkhead	Unrestricted	A0	7250351-A