

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB000016W
Revision no.:
9

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

that the **Penetrations through 'A' class divisions: - pipe, duct, trunk, etc. penetrations**

with type designation(s)
BLÜCHER Class A Pipe Penetration

issued to
BLÜCHER Metal A/S
Vildbjerg, Denmark

is found to comply with the Implementing Regulation (EU) 2024/1975 for
Item no. **MED/3.26b** (Row **1 of 1**)
according to the following requirements:
SOLAS 74 Reg. II-2/9, IMO MSC.1/Circ. 1276, IMO Res. MSC.1/Circ.1655

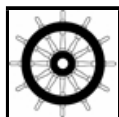
Further details of the equipment and conditions for certification are given overleaf.

Date of issue: **2025-08-06**

Expiry date: **2030-07-06**

DNV local unit:
Denmark CMC

Approval Engineer:
Marcin Tobiasz



Notified Body
no.: **0575**



for **DNV AS**

Digitally Signed By:

Christine Mydlak-Röder

Christine Mydlak-Röder
Head of Notified Body



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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

"BLÜCHER Class A Pipe Penetration"

Penetration system for Blücher pipes type 866, 868 and 870 composed of steel sleeves/flanges welded to the bulkhead/deck and Blücher pipes welded to the sleeve.

Application/Limitation

Approved for use as pipe penetration system in class A-0, A-30 and A-60 in steel bulkheads and steel decks. Other applications are subject to case-by-case approval.

For installation details and coverage, please see Appendix: Application/Limitation.

The pipe penetrations insulated to A-60 and A-30 may also be used in A-15 and A-0 class divisions if the pipe penetrations are insulated as required for A-60 and A-30 class divisions respectively and in addition the division is to be insulated at least 200 mm around the penetration.

The insulation material used has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

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

Please see Appendix: Application/Limitation

Type Examination documentation

Please see Appendix: Type Examination Documentation

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 and address of manufacturer, type designation, fire technical rating, MED Mark of Conformity and USCG approval if applicable (see first page).

APPENDIX

Type Examination documentation

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Document No.	Rev.	Title
PGA11264A		Test report dated 9 August 2018 from DBI, Hvidovre, Denmark
PGA11265A		Test report dated 10 August 2018 from DBI, Hvidovre, Denmark
PGA11554A		Test report dated 3 October 2019 from DBI, Hvidovre, Denmark
PGA11555A		Test report dated 4 October 2019 from DBI, Hvidovre, Denmark
PGB10129A		Test report dated 8 July 2021 from DBI, Hvidovre, Denmark
		Insulation drawing from manufacturer: S-0377-300, S-0377-308, S-0377-363, S0377-301, S-0377-330, S-0377-364, S-0377-302, S-0377-331, S-0377-365, S-0377-334
		Penetration drawings from manufacturer: S-0377-337, S-0377-316, S-0377-317, S-0377-366, S-0377-318, S-0377-338, S-0377-319, S-0377-333, S-0377-309, S-0377-313, S-0377-314, S-0377-367, S-0377-315, S-0377-329, S-0377-335, S-0377-336, S-0377-353, S-0377-310,
PGB10416A		Test report dated 13 November 2024 from DBI, Hvidovre, Denmark
PGB10417A		Test report dated 15 November 2024 from DBI, Hvidovre, Denmark
PGB10419A		Test report dated 13 December 2024 from DBI, Hvidovre, Denmark
PGB10449A		Test report dated 14 March 2025 from DBI, Hvidovre, Denmark
PGB10456A		Test report dated 3 April from DBI, Hvidovre, Denmark
PGA11214A		Test report dated 19 April 2018 from DBI, Hvidovre, Denmark
PGA11317A		Test report dated 13 December 2018 from DBI, Hvidovre, Denmark
PHA11296B		Test report dated 20 January 2020 from DBI, Hvidovre, Denmark
PGA11316A		Test report dated 14 December 2018 from DBI, Hvidovre, Denmark
PHA11296A		Test report dated 9 July 2020 from DBI, Hvidovre, Denmark
PGA11215A		Test report dated 23 April 2018 from DBI, Hvidovre, Denmark

APPENDIX

Application/Limitation

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Table 1: Approved single pipe penetration in A-0, A-30 and A-60 steel bulkhead.

Type	Penetration size [mm]	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sealing type	Sleeve position	Penetration Insulation ^{1), 2), 3), 4)}
866	50 – 210	Stainless steel	40 – 200	50 – 150	5 – 6	SI	Any	S-0377-300 S-0377-308 S-0377-363
866.032	60	Stainless steel	32/50 – 40/50	50	5	EPDM	Symmetric ⁵⁾	S-0377-334
868	90 – 260	Stainless steel	40 – 200	flange	5 – 6	SI	Either	S-0377-301 S-0377-330 S-0377-364

- 1) A-0 penetrations are uninsulated, except for 866.032 Ø32, which shall be fully insulated + 300 mm along pipe.
- 2) A-30 penetrations shall be fully insulated + 450 mm to 1500 mm along pipe according to listed drawings.
- 3) A-60 penetrations shall be fully insulated + 450 mm to 2000 mm along pipe according to listed drawings.
- 4) Insulated used shall be SeaRox WM 640 (density 105 kg/m³, manufactured by Rockwool) with thickness and length according to listed drawings or A-60 approved bulkhead insulation with length according to listed drawings.
- 5) At least 5 mm of sleeve shall protrude on both sides.

Table 2: Approved single pipe penetration in A-0, A-30 and A-60 steel deck.

Type	Penetration size [mm]	Pipe material	Pipe diameter (OD) [mm]	Sleeve length [mm]	Sleeve thickness [mm]	Sealing type	Penetration position	Penetration Insulation ^{1), 2), 3), 4)}
866	50 – 210	Stainless steel	40 – 200	50 – 150	5 – 6	SI	Any	S-0377-300 S-0377-308 S-0377-363
866.032	60	Stainless steel	32/50 – 40/50	50	5	EPDM	Symmetric ⁵⁾	S-0377-334
868	90 – 260	Stainless steel	40 – 200	flange	5 – 6	SI	Underside	S-0377-301 S-0377-330 S-0377-364
870	90 – 235	Stainless steel	40 – 200	100 – 120	5 – 6	SI	Underside	S-0377-302 S-0377-331 S-0377-365

- 1) A-0 penetrations are uninsulated, except for 866.032 Ø32, which shall be fully insulated + 500 mm along pipe.
- 2) A-30 penetrations shall be fully insulated + 400 mm to 1000 mm along pipe according to listed drawings.
- 3) A-60 penetrations shall be fully insulated + 450 mm to 1000 mm along pipe according to listed drawings.
- 4) Insulated used shall be SeaRox WM 640 (density 105 kg/m³, manufactured by Rockwool) with thickness and length according to listed drawings or A-60 approved bulkhead insulation with length according to listed drawings.
- 5) At least 5 mm of sleeve shall protrude on both sides.