

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB000016W
Revision No:
7

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, Midtjylland, Denmark

is found to comply with the requirements in the following Regulations/Standards:
Regulation (EU) 2023/1667,
item No. MED/3.26b. SOLAS 74 as amended, Regulation II-2/9, IMO MSC.1/Circ.1276, IMO 2010 FTP Code and IMO MSC.1/1488

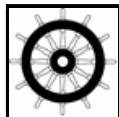
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-07-13**.

Issued at **Høvik** on **2024-03-04**

DNV local unit:
Denmark CMC

Approval Engineer:
Helge Bjørnara



Notified Body
No.: **0575**



for **DNV AS**

Digitally Signed By:
Tessa Biever
Location: **DNV Høvik, Norway**
on behalf of

Mydlak-Röder, Christine
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2023 dated August 21st, 2023.



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 300,000 USD.



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 as follows:

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*
866.025	50 - 210	Stainless steel	40 - 200	50 - 150	5 - 6	SI	Symmetrical**	S-0377-300 S-0377-308 S-0377-363
866.032	60	Stainless steel	32/50 - 40/50	50	5	EPDM	Symmetrical**	S-0377-334
868	90 - 260	Stainless steel	40 - 200	flange	5 - 6	SI	Either	S-0377-301 S-0377-330 S-0377-364

*) Insulated with Paroc Wired Mat 100 or Rockwool Marine Wired Mat 105 or A-60 approved deck insulation with length and thickness according to drawings.

***) At least 20 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*
866.025	50 - 210	Stainless steel	40 - 200	50 - 150	5 - 6	SI	Symmetrical**	S-0377-300 S-0377-308 S-0377-363
866.032	60	Stainless steel	32/50 - 40/50	50	5	EPDM	Symmetrical**	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

*) Insulated with Paroc Wired Mat 100 or Rockwool Marine Wired Mat 105 or A-60 approved deck insulation with length and thickness according to drawings.

***) At least 20 mm of sleeve shall protrude on both sides.

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.

Other applications are subject to case-by-case approval.

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.

Type Examination documentation

Test report No. PGA11214A, Ver. 2, dated 14 September 2018 from DBI, Hvidovre, Denmark.
 Test report No. PGA11215A, Ver. 2, dated 8 July 2020 (initial 20 June 2018) from DBI, Hvidovre, Denmark.
 Test report No. PGA11264A, Rev. 0, dated 28 August 2018 from DBI, Hvidovre, Denmark.
 Test report No. PGA11265A, Rev. 0, dated 29 August 2018 from DBI, Hvidovre, Denmark.
 Test report No. PGA11316A, Rev. 1, dated 8 July 2020 (initial 12 March 2018) from DBI, Hvidovre, Denmark.
 Test report No. PGA11317A, Rev. 0, dated 12 March 2018 from DBI, Hvidovre, Denmark.
 Test report No. PGA11554A, Rev. 0, dated 15 November 2019 from DBI, Hvidovre, Denmark.
 Test report No. PGA11555A, Rev. 0, dated 19 November 2019 from DBI, Hvidovre, Denmark.
 Test report No. PGB10129A, Rev. 0, dated 17 August 2021 from DBI, Hvidovre, Denmark

Assessment report No. PHA11296A, Rev. 1, dated 9 July 2020 (initial 20 January 2020) from DBI, Hvidovre, Denmark.
Assessment report No. PHA11296B, Rev. 0, dated 20 January 2020 from DBI, Hvidovre, Denmark.

Insulation drawings

Drawing No. S-0377-300 Rev. B from Blücher Metal A/S.
Drawing No. S-0377-301 Rev. B from Blücher Metal A/S.
Drawing No. S-0377-302 Rev. B from Blücher Metal A/S.
Drawing No. S-0377-308 Rev. C from Blücher Metal A/S.
Drawing No. S-0377-330 Rev. A from Blücher Metal A/S.
Drawing No. S-0377-331 Rev. B from Blücher Metal A/S.
Drawing No. S-0377-334 from Blücher Metal A/S.
Drawing No. S-0377-363 from Blücher Metal A/S.
Drawing No. S-0377-364 from Blücher Metal A/S.
Drawing No. S-0377-365 from Blücher Metal A/S.

Covered products:

Drawing No. S-0377-309 Rev. A from Blücher Metal A/S.
Drawing No. S-0377-310 Rev. D from Blücher Metal A/S.
Drawing No. S-0377-311 Rev. C from Blücher Metal A/S.
Drawing No. S-0377-312 Rev. C from Blücher Metal A/S.
Drawing No. S-0377-313 Rev. E from Blücher Metal A/S.
Drawing No. S-0377-314 Rev. D from Blücher Metal A/S.
Drawing No. S-0377-315 Rev. D from Blücher Metal A/S.
Drawing No. S-0377-316 Rev. E from Blücher Metal A/S.
Drawing No. S-0377-317 Rev. D from Blücher Metal A/S.
Drawing No. S-0377-318 Rev. D from Blücher Metal A/S.
Drawing No. S-0377-319 Rev. D from Blücher Metal A/S.
Drawing No. S-0377-329 Rev. A from Blücher Metal A/S.
Drawing No. S-0377-333 Rev. C from Blücher Metal A/S.
Drawing No. S-0377-335 Rev. B from Blücher Metal A/S.
Drawing No. S-0377-336 Rev. A from Blücher Metal A/S.
Drawing No. S-0377-337 Rev. A from Blücher Metal A/S.
Drawing No. S-0377-338 Rev. A from Blücher Metal A/S.
Drawing No. S-0377-339 from Blücher Metal A/S.
Drawing No. S-0377-345 from Blücher Metal A/S.
Drawing No. S-0377-346 from Blücher Metal A/S.
Drawing No. S-0377-347 from Blücher Metal A/S.
Drawing No. S-0377-348 Rev. A from Blücher Metal A/S.
Drawing No. S-0377-353 from Blücher Metal A/S.
Drawing No. S-0377-366 from Blücher Metal A/S.
Drawing No. S-0377-367 from Blücher Metal A/S.
Drawing No. S-0377-368 from Blücher Metal A/S.

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).