

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00004MD
Revision No:
1

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)

Marine drains Type 480, 485 and Marine pipe penetrations 878 in Aluminium division

Issued to

Blücher Metal A/S
Vildbjerg, Midtjylland, Denmark

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2022/1157,

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

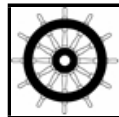
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2028-02-16**.

Issued at **Høvik** on **2023-02-17**

DNV local unit:
Denmark CMC

Approval Engineer:
Marcin Tobiasz



Notified Body
No.: **0575**



for **DNV AS**

Digitally Signed By:
Øyvind Hoff

Location: DNV Høvik, Norway
on behalf of

Sverre Olav Bergli
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 1/2019 dated February 22nd, 2019.

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

“Marine drains Type 480, 485 and Marine pipe penetrations 878 in Aluminium division”

Penetration system for Blücher pipes type 878 (Ø40-110) composed of bimetal flange of thickness 5 mm welded to the bulkhead/deck. The pipe penetrations are fitted with SI sealings.

Drains 480 and 485 (Ø50-110)), composed of a lower part and/or an upper part, welded into a flange/sleeve, which are welded to a deck.

Application/Limitation

Approved for use as in class A-0, A-30 and A-60 in aluminium bulkheads and decks as follows:

Table 1 Approved pipe penetration in A-0, A-30 and A-60 aluminium bulkhead

Type	Size (OD) [mm]	Pipe material	Pipe diameter (OD) [mm]	Flange thickness [mm]	Sealing type	Penetration position	Insulation drawing
878	112 - 172	Stainless steel	40 - 110	5	SI	Either	S-0392-301 Rev. A S-0392-317 Rev. B

Table 2 Approved pipe penetration in A-0, A-30 and A-60 aluminium deck

Type	Size (OD) [mm]	Pipe material	Pipe diameter (OD) [mm]	Flange thickness [mm]	Sealing type	Penetration position	Insulation drawing
878	112 - 172	Stainless steel	40 - 110	5	SI	Underside	S-0392-301 Rev. A S-0392-317 Rev. B

Table 3 Approved drain penetration in A-0, A-30 and A-60 aluminium deck

Type	Size (OD) [mm]	Pipe material	Pipe diameter (OD) [mm]	Flange thickness	Drain depth [mm]	Drain position	Insulation drawing
Drain 480	140	Stainless steel	50 - 110	5	168 - 199	Underside	S-0392-305 Rev. A.
Drain 485	140	Stainless steel	50 - 110	5	168 - 199	Underside	S-0392-305 Rev. A.

Pipes penetration systems and drains are to be insulated with approved insulation (e.g. Paroc Wired Mat 100 or Rockwool Marine Wire Mat 105) according to drawings S-0392-301 Rev. A, S-0392-317 Rev. B and S-0392-305 Rev. A.

For A-0, A-15 and A-30 applications, the penetration 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. 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. PG 11807, Serial No. 11490 dated 23 June 2008 from DIFT, Denmark.

Test report No. PG12302 dated 27 January 2011 from DBI, Denmark.

Test report No. PG12303 dated 27 January 2011 from DBI, Denmark.

Test report No. PGA11214A dated 19 April 2018 from DBI, Denmark.

Test report No. PGA11215A dated 23 April 2018 from DBI, Denmark.

Test report No. PGA11264A dated 9 August 2018 from DBI, Denmark.

Test report No. PGA11265A dated 10 August 2018 from DBI, Denmark.

Assessment report No. PH13466 dated 2 March 2011 from DBI, Denmark.

Assessment report No. PH13644 dated 25 March 2011 from DBI, Denmark.

Assessment report No. PHA11036A dated 25 September 2018 from DBI, Denmark (valid until 24 September 2023)

Drawing No. S-0392-301 Rev. A from Blücher Metal A/S.

Drawing No. S-0392-317 Rev. B from Blücher Metal A/S.

Drawing No. S-0392-305 Rev. A from Blücher Metal A/S.

Drawing No. S-0392-302 Rev. B from Blücher Metal A/S.

Drawing No. S-0392-303 Rev. A from Blücher Metal A/S.

Drawing No. S-0392-304 Rev. B from Blücher Metal A/S.

Drawing No. S-0392-306 Rev. B from Blücher Metal A/S.

Drawing No. S-0392-318 Rev. A from Blücher Metal A/S.

Drawing No. S-0392-307 Rev. B from Blücher Metal A/S.

Drawing No. S-0392-308 Rev. B from Blücher Metal A/S.

Drawing No. S-0392-350 from Blücher Metal A/S.

Drawing No. S-0392-351 from Blücher Metal A/S.

Drawing No. S-0392-352 from Blücher Metal A/S.

Tests carried out

Tested according to IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8, and in accordance with 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).