

**EC-TYPE EXAMINATION
CERTIFICATE (MODULE B)**

Certificate No:
MEDB00000MA
Revision No:
3

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 GL 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 Drain Penetration

Issued to
Blücher Metal A/S
Vildbjerg, Midtjylland, Denmark

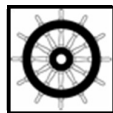
is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
item No. MED/3.26b. SOLAS 74 as amended, Regulation II-2/9, IMO MSC.1/Circ.1276, IMO 2010 FTP Code and IMO MSC.1/1488

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

This Certificate is valid until **2026-01-04.**

Issued at **Høvik** on **2021-01-05**

DNV GL local station:
Denmark CMC



for **DNV GL AS**

Approval Engineer:
Marcin Tobiasz

Notified Body
No.: **0575**

Roald Vårheim
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 GL 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.



Job Id: **344.1-000332-50**
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Product description

"BLÜCHER Class A Drain Penetration"

The BLÜCHER Drain Penetration system compose of a lower part with or without an upper part. The Lower parts comes with outlet from Ø50 to Ø110 (connected to steel pipe) and with a welding flange/sleeve (with max. outer diameter of Ø200/Ø150 mm) for welding into ship construction. The penetration system may be installed with or without a water trap.

For further details, see drawings listed under Type Examination documentation below.

Application/Limitation

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

When insulation is required, the penetrations are to be insulated with PAROC Marine Wired Mat 100 (or equally) with length and thickness according to drawings S-0377-305 Rev. B and S-0377-355. Alternatively, class A-0 (when insulation is required), A-15 and A-30 may be insulated as Class A-60 with using an approved A-60 insulation similar to the approved deck (thickness) - length should be according drawings S-0377-305 Rev. B and S-0377-355 with sufficient density and in addition the division is to be insulated at least 200 mm around the penetration.

Table 1: Approved drain penetration in A-class steel deck

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Drain depth [mm]	Drain thickness [mm]	Drain position	Drain insulation
470 with water trap	50 - 110	Steel	50 - 110	106 - 385	1.0 - 1.5	Exposed	S-0377-305 Rev. B
470 without water trap ¹⁾	50 - 110	Steel	50 - 110	106 - 385	1.0 - 1.5	Exposed	S-0377-355 ²⁾

1) Only circle gratings directly installed on drains can be used for A-0.

2) Covers A-0 and A-30 only.

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. 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. PGB10011A Rev. 0 dated 27 February 2020 from DBI, Hvidovre, Denmark.

Insulation drawings:

Drawing No. S-0377-305 Rev. B from maker.

Drawing No. S-0377-355 from maker.

Part drawings:

Drawing No. S-0377-323 Rev. C from maker.

Drawing No. S-0377-324 Rev. C from maker.

Drawing No. S-0377-340 Rev. A from maker.

Drawing No. S-0377-341 Rev. A from maker.


Drawing No. S-0377-342 Rev. A from maker.

Drawing No. S-0377-356 from maker.

Drawing No. S-0377-327 Rev. C from maker.

Drawing No. S-0377-343 Rev. A from maker.

Drawing No. S-0377-357 from maker.



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Drawing No. S-0377-325 Rev. C from maker.
Drawing No. S-0377-344 Rev. A from maker.
Drawing No. S-0377-350 Rev. A from maker.
Drawing No. S-0377-351 Rev. A from maker.
Drawing No. S-0377-352 Rev. A from maker.
Drawing No. S-0377-358 from maker.
Drawing No. S-0377-359 from Maker.

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).