



TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MERB0001N3Z
Revision no.:
0

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

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, Denmark

is found to comply with the Regulation (UK) **MSN 1874 Amendment 10** for
Item no. **UK/3.26b (Row 1 of 1)**
according to the following requirements:
SOLAS 74 Reg. II-2/9, IMO MSC.1/Circ. 1276/Rev.1, IMO MSC.1/Circ.1655

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

Date of issue: **2025-12-22**

Expiry date: **2030-12-21**

DNV local unit:
Denmark CMC

Approval Engineer:
Kristin Grønnæss Hovden



Approved Body No.: **0097**



for **DNV UK Ltd.**

Digitally Signed By:
Christine Mydlak-Röder
Christine Mydlak-Röder
MER Service Responsible



**Maritime &
Coastguard
Agency**

UK Approved Body Authorised
by the MCA

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.
During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved 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-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. In case limitations of use apply, these should be indicated in the Annex.

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 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 as specified in the appendix below. Other applications are subject to case-by-case approval.

For details of penetration size, pipe size and insulation, please see appendix Application/Limitation.

The drain penetrations insulated to A-60 and A-30 may also be used in A-15 and A-0 class decks if the drain penetrations are insulated as required for A-60 and A-30 class decks 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 Regulation 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 and the Mark of Conformity (see first page).

APPENDIX

Type Examination documentation

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Document No.	Rev.	Title
PGA11554A	0	Test report dated 15 November 2019 from DBI, Hvidovre, Denmark
PGA11555A	0	Test report dated 19 November 2019 from DBI, Hvidovre, Denmark
PGB10011A	1	Test report dated 27 February 2020 from DBI, Hvidovre, Denmark
S-0377-305	C	Drawing from manufacturer
S-0377-323	D	Drawing from manufacturer
S-0377-324	D	Drawing from manufacturer
S-0377-325	D	Drawing from manufacturer
S-0377-327	D	Drawing from manufacturer
S-0377-340	B	Drawing from manufacturer
S-0377-341	B	Drawing from manufacturer
S-0377-342	B	Drawing from manufacturer
S-0377-343	B	Drawing from manufacturer
S-0377-344	B	Drawing from manufacturer
S-0377-350	C	Drawing from manufacturer
S-0377-351	B	Drawing from manufacturer
S-0377-352	C	Drawing from manufacturer
S-0377-355	A	Drawing from manufacturer
S-0377-356	A	Drawing from manufacturer
S-0377-357	A	Drawing from manufacturer
S-0377-358	A	Drawing from manufacturer
S-0377-359	B	Drawing from manufacturer
S-0377-369	A	Drawing from manufacturer
S-0377-370		Drawing from manufacturer

APPENDIX

Application/Limitation

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Table 1: Approved drain penetration in A-60 class steel deck

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Drain depth [mm]	Drain thickness [mm]	Drain position	Drain insulation ¹⁾
470 with water trap	50 – 75	Steel	50 – 75	106 – 385	1.0 – 1.5	Underside	Fully insulated + 450 mm along pipe on underside (S-0377-305)
470 with water trap	110	Steel	110	106 – 385	1.0 – 1.5	Underside	Fully insulated + 600 mm along pipe on underside ²⁾ (S-0377-305)

- 1) Insulation used shall be PAROC Marine Wired Mat 100 (density 100 kg/m³, manufactured by PAROC) with thickness and length according to listed drawings or A-60 approved deck insulation with length according to listed drawings.
- 2) The water traps 503.000.110 M and 503.001.110 installed in drain penetration of dimension 110 mm may be fully insulation + 450 mm along pipe on underside.

Table 2: Approved drain penetration in A-30 class steel deck

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Drain depth [mm]	Drain thickness [mm]	Drain position	Drain insulation ¹⁾
470 with water trap	50 – 110	Steel	50 – 110	106 – 385	1.0 – 1.5	Underside	Fully insulated + 450 mm along pipe on underside (S-0377-305)
470 without water trap	50 – 75	Steel	50 – 75	106 – 385	1.0 – 1.5	Underside	Fully insulated + 450 mm along pipe on underside (S-0377-355)
470 without water trap	110	Steel	110	106 – 385	1.0 – 1.5	Underside	Fully insulated + 600 mm along pipe on underside (S-0377-355)

- 1) Insulation used shall be PAROC Marine Wired Mat 100 (density 100 kg/m³, manufactured by PAROC) with thickness and length according to listed drawings or A-60 approved deck insulation with length according to listed drawings.

Table 3: Approved drain penetration in A-0 class steel deck

Type	Size	Pipe material	Pipe diameter (OD) [mm]	Drain depth [mm]	Drain thickness [mm]	Drain position	Drain insulation ¹⁾
470 with water trap	50 – 110	Steel	50 – 110	106 – 385	1.0 – 1.5	Underside	Fully insulated + 450 mm along pipe on underside ³⁾ (S-0377-305)
470 without water trap ²⁾	50 – 110	Steel	50 – 110	106 – 385	1.0 – 1.5	Underside	None (S-0377-355)

- 1) Insulation used shall be PAROC Marine Wired Mat 100 (density 100 kg/m³, manufactured by PAROC) with thickness and length according to listed drawings or A-60 approved deck insulation with length according to listed drawings.
- 2) Only circle gratings directly installed on drains can be used.
- 3) Deck to be additionally insulated 200 mm around the drain penetration for water traps 503.000.110 M and 503.001.110 installed in drain penetration of dimension 50 – 75 mm.