



TYPE APPROVAL CERTIFICATE
No. MAC285119XG

This is to certify that the product identified below is in compliance with the regulations herewith specified.

| | |
|-----------------------------|--|
| <i>Description</i> | Metallic pipes |
| <i>Type</i> | EuroPipe sanitary discharge system |
| <i>Applicant</i> | BLUCHER METAL A/S Pugdalvej 1 DK-7480 Vildbjerg DENMARK |
| <i>Manufacturer</i> | BLUCHER METAL A/S |
| <i>Place of manufacture</i> | Pugdalvej 1 DK-7480 Vildbjerg DENMARK |
| <i>Reference standards</i> | RINA Rules for the Classification of Ships Part C, Chapter 1, Section 10. |

Issued in **HAMBURG** on **November 20, 2019**. This Certificate is valid until **November 19, 2024**


RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 1 enclosure.



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EuroPipe sanitary discharge system

Reference documents:

Blucher Catalogue filed for information under RINA dwg no. HMMC-14898.

Materials/Components:

Pipes and fitting of stainless steel AISI 304 or AISI 316L

Technical characteristics:

Pipe dimensions as per the following table:

| External Diameter of pipe (mm) | Thickness (mm) |
|-----------------------------------|-------------------|
| 40 | 1.0 |
| 50 | 1.0 |
| 75 | 1.0 |
| 110 | 1.0 |
| 125 | 1.0 |
| 160 | 1.25 |
| 200 | 1.50 |

Fields of application:

This system may be used for the following non-pressurized and vacuum piping systems:

- Sanitary discharge systems above freeboard deck and in enclosed spaces below (including machinery rooms),
- Vent pipes for sanitary discharge systems and for central vacuum cleaning system - CVC,
- Lines in tanks not forming part of the ship structure,
- Outside drainage (scupper and pipes which are located on weather decks or balconies).

Acceptance conditions:

1. The arrangement of this system is to be in compliance with RINA Rules Part C, Chapter 1, Section 10, Article 8.
2. Pipe penetrations through watertight bulkheads, fire bulkheads or shell plating shall be approved case-by-case. When penetrating a watertight bulkhead, there shall be remotely operated valves secured to each bulkhead. The valves and control system shall be located outside the damage zone of the ship.
3. All pipes shall be retained by clamps or clips against movements in all directions and are to be adequately supported and protected from mechanical damages.

Remarks:

1. The installation on board is to be carried out in accordance with the Manufacturer's instructions.
2. This Certificate is a revalidation of the previous one no. MAC128714XG.

HAMBURG November 20, 2019



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