

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Bilge Water Chest**with type designation(s)
Bilge water and change over chests

Issued to

PTM Industrier AS
Leksvik, Norwayis found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems**Application :****Product(s) approved by this certificate is/are accepted for installation on vessels classed by DNV GL.****Max. working press.:** 10 bar**Sizes:** 50, 80, 100, 125 and 150 mmIssued at **Høvik** on **2020-09-11**This Certificate is valid until **2024-08-31**.for **DNV GL**DNV GL local station: **Trondheim**Approval Engineer: **Andreas Hansen**

Zeinab Sharifi
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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.



Product description

Bilge water and change over chests cast in one piece and fitted with removable valve seats. Products are delivered with two or three valve cells.

Materials:

Body:	Grey cast iron, GJL-250
Bonnet:	Cast copper alloy, G-CuSn7ZnP
Valve seat:	Cast copper alloy, CuSn5ZnPb
Valve:	Cast copper alloy, G-CuSn7ZnP
Spindle:	Cast copper alloy CuSn5ZnPb

Manufacturing location:

PTM Industrier AS
Kråkmoen 21
7120 Leksvik, Norway

Application/Limitation

Bilge water and change over chests for use onboard ships in bilge, ballast water and fuel oil systems pertaining to class III piping.

For other applications than stated, approval shall be obtained in each case with due consideration to the limitation for use of cast iron in valve bodies as given in DNVGL-RU-SHIP Pt.4 Ch.6 Sec.2 [1.4].

The approval is valid for manual and pneumatic operated valves.

Valves for bilge water systems shall be screw-down non-return types and shall be locked to the spindle. The valves for change over chest shall be locked to the spindle.

The housing of each valve chest shall be hydrostatically tested at a pressure of 1.5 times the maximum working pressure and be delivered with the pressure test report with reference to this type approval certificate.

The valves mounted in the bilge water and change over chests are not covered by this approval.

Production testing

The valve chest assembly shall be subjected to a hydrostatic seat leakage test. The test pressure shall at least be equal to the design pressure. The test shall be performed with closed valve with the other end open to atmosphere. The pressure shall be applied independently on each side of the closed disc.

Holding time:	5 min. for all sizes
Acceptance criteria:	Drop tight

Type Approval documentation

Marking of product

For traceability to this type approval, each valve chest is to be marked with:

- Manufacturer's trademark;
- Type designation;
- Size;
- Maximum allowable design pressure.

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform a periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.