TYPE APPROVAL CERTIFICATE

Certificate no.:
TAP00000EK
Revision No:
3

This is to certify:

that the Mechanically Operated Control Valve

with type designation(s)
HydroControl VTR, HydroControl VFC

issued to
Oventrop GmbH & Co. KG
Olsberg, Nordrhein-Westfalen, **Germany**

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV class programme DNV-CP-0186 – Type approval – Valves

Application:

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

The valves may be used in the following systems as regulation valves: Potable Water (only HydroControl VTR, DN15-32) Heating and Chilled Water

Type:	Temperature range:	Max. working press.:	Sizes:
HydroControl VTR	0 °C up to 150 °C	16 bar / 25 bar	DN 10 - DN 50
HydroControl VFC	0°C to 150°C	16 bar	DN 20 - DN 50

Issued at **Hamburg** on **2023-11-16**
This Certificate is valid until **2027-01-24**.
DNV local unit: **Essen**

for **DNV**

Approval Engineer: **Ana Cristina Do Carmo Insfran**

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 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

Double regulating and commissioning valves.
Valve body materials and end connections:

Type	End connection	Body material
HydroControl VTR	Male and female threads	Bronze, B-Norm 566 (acc DIN EN 1982 with restrictions acc. DIN 50930-6)
HydroControl VFC	Flanged, PN16	Cast Iron, EN-GJL-250 acc. DIN EN 1561

Application/Limitation

Each valve assembly shall be subjected to a hydrostatic pressure test at minimum 1.5 times the design pressure.

Holding time: 2 min. for sizes up to 100 mm/4"
5 min. for sizes 125 - 250 mm/5" -10"

Acceptance criterion: No leakage

The valve assembly shall be subjected to a hydrostatic seat leakage test. The test pressure shall be at least equal to the design pressure. The test shall be performed after closing the valve with normal closing torque without application of external forces.

Holding time: 5 min. for all sizes

Acceptance criterion: Drop tight

Each product/delivery is to be accompanied by the following documents:

For valves delivered under this type approval, DNV product certificates are required for valves with DN > 100 mm and PN > 16 bar. For other valves manufacturer's certificate may be accepted.

Test reports for material used in valve bodies

Type Approval documentation
Tests carried out

Burst test of valve body, testing based on Document B-Norm 590

Production site

Oventrop GmbH & Co. KG
Paul-Oventrop-Str. 1,
59939 Olsberg Germany

Oventrop Polen Systeme Sp. z o.o.
Leśna 3,
26-500 Szydłowiec, Polen

Oventrop GmbH & Co. KG
Hinterm Gallberg 5, 5
9929 Brilon, Germany

Marking of product

For traceability to this type approval the products are to be marked in particular with:

- Manufacturer's name or trademark
- Type designation
- Size
- Maximum design pressure

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the Type Approval are complied with. Refer to DNV-CP-0338, Sec.4.

The certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com

END OF CERTIFICATE