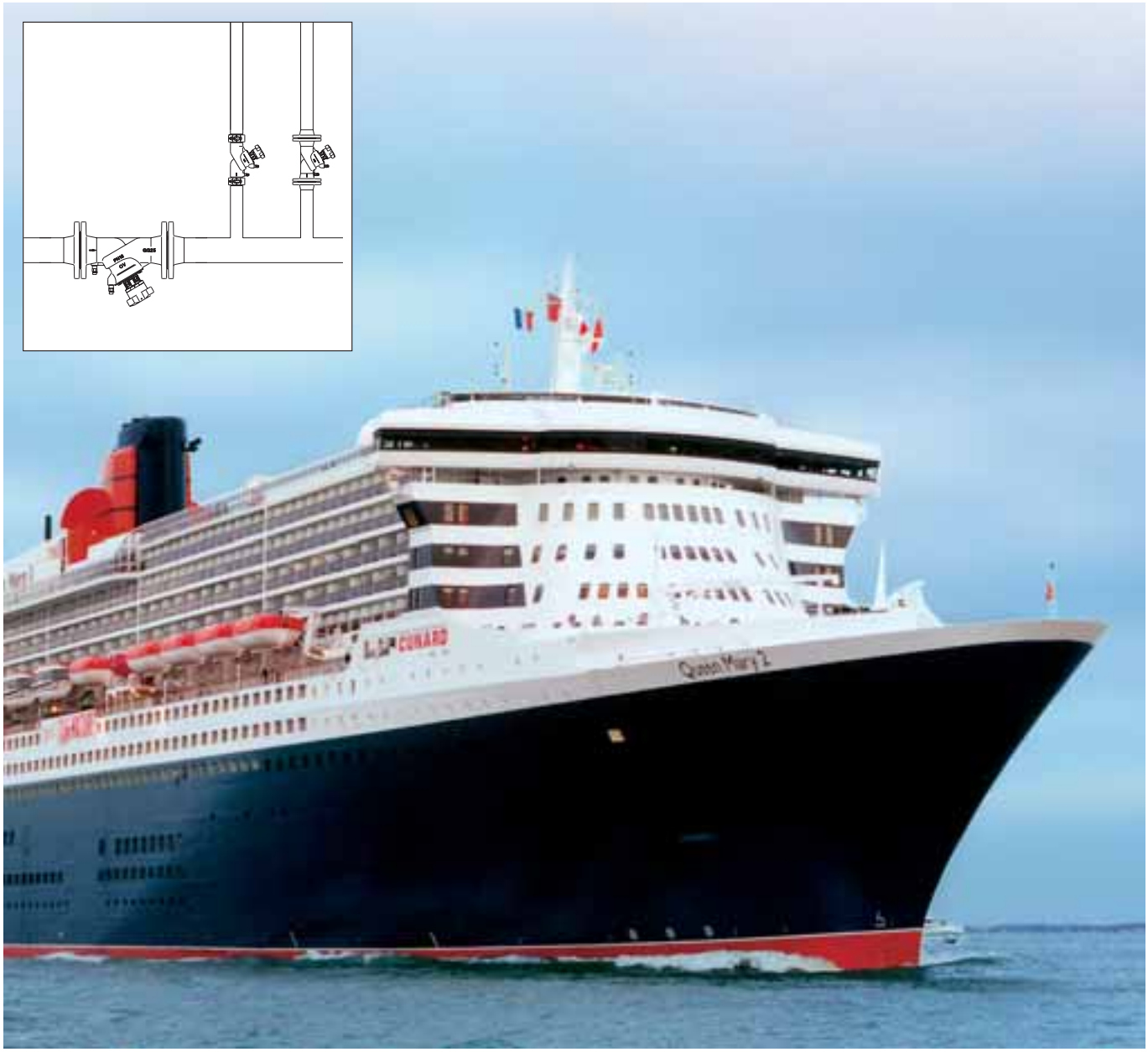
oventrop

Valves, controls + Systems

# Isolating and regulating valves for the shipbuilding industry

Product range




Illustr.: “Queen Mary 2”
(Photo: Alstom Marine, Bernard Biger)

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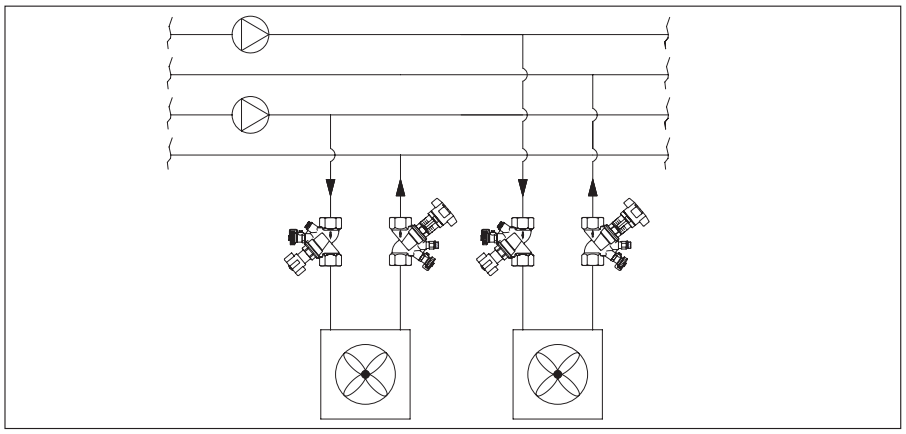

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With the hydronic balancing system, Oventrop offers to the specifying engineer and installer almost all valves and valve combinations necessary to achieve a hydronic balance of heating and cooling systems.

The products can be delivered separately or as a system. Thus the appropriate valves and valve combinations are available for any possible specification.

For the shipbuilding industry Oventrop offers seawater resistant valves for hydronic balancing approved by DNV (Det Norske Veritas).

**1** E.g. cruise liners and luxury liners
Illustr.: “Millenium”
(Photo: Alstom Marine, Bernard Biger)

**2** E.g. cargo boats and ferries
Illustr: “MS Eilbek”
(Photo: Unkel, Leer)

**3** Installation example of an Oventrop double regulating and commissioning valve “Hydrocontrol FS” DN 200 in a heating circuit.

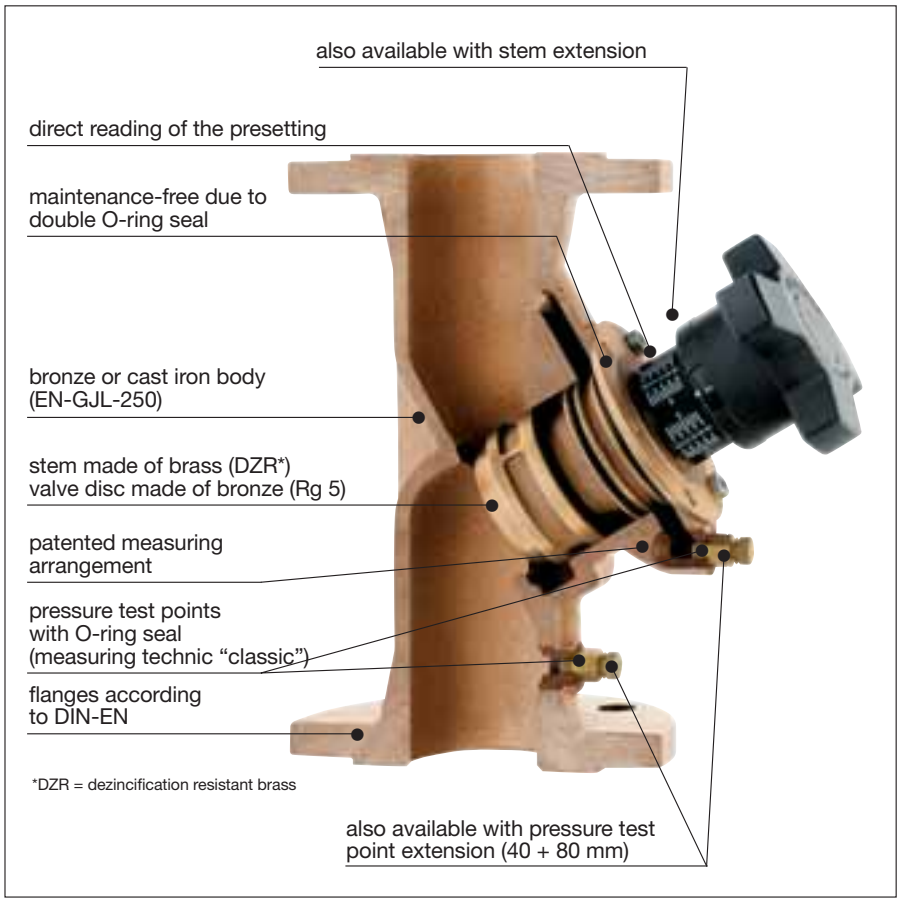
**4** Installation example of an Oventrop double regulating and commissioning valve “Hydrocontrol F” DN 150 in a chilled water circuit.

**5** Pipework scheme heating/cooling
Control of air-conditioned rooms for Fan-Coil or succeeding heat exchangers.

**6** CAD and technical data of the Oventrop double regulating and commissioning valves “Hydrocontrol F, R, FR, FS and G” edited for the shipbuilding industry can be found on the internet under www.tribon.com of the manufacturer “Tribon Solutions”.

The company “Tribon Solution” is a worldwide distributor of software for the design and calculation of ships and shipbuilding engineering. The Oventrop data is three-dimensional CAD data which can easily be integrated into the Tribon Software free of charge e.g. for an exact design of pipework (heating, cooling, potable water conditioning) in a ship.

**7** On demand, Oventrop also offers to the shipbuilding industry special models, e.g. valves with stem and pressure test point extensions or a bonnet protected against twisting by a fixing plate.

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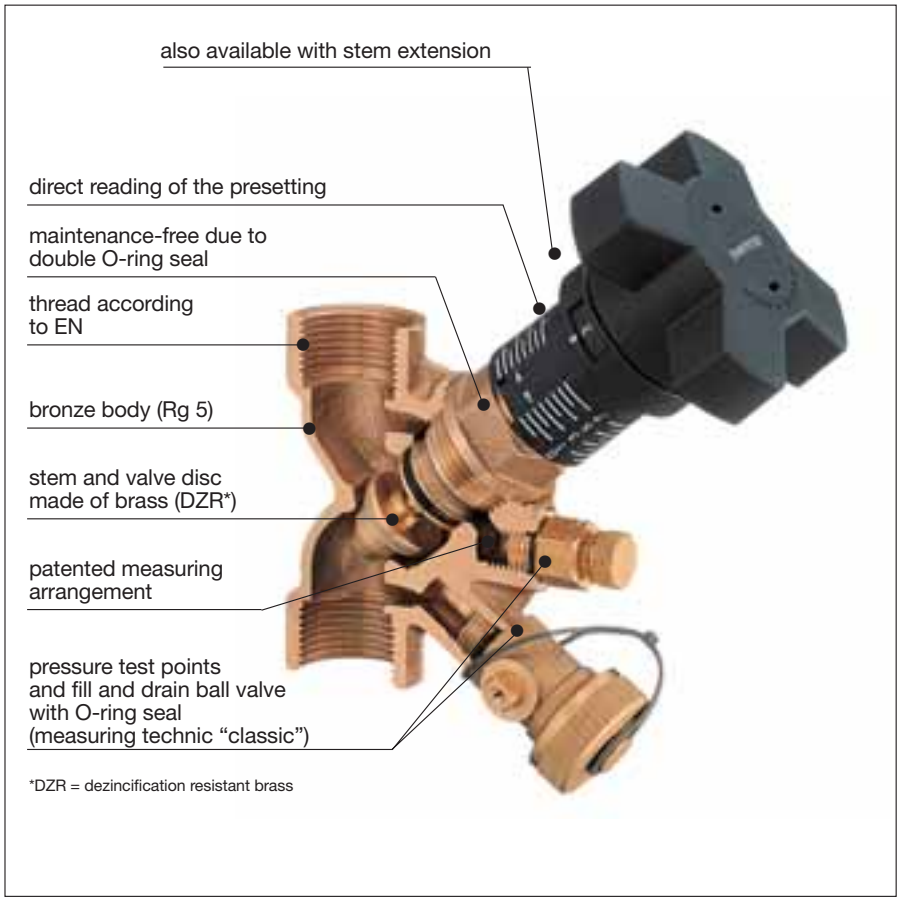


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The bronze double regulating and commissioning valves “Hydrocontrol R/ Hydrocontrol FR” are installed in hot water central heating systems (“Hydrocontrol R: PN 25/150°C, “Hydrocontrol FR”: PN 16/150°C) and cooling systems in order to provide a hydronic balance between the various circuits of the system. The bronze double regulating and commissioning valves “Hydrocontrol FR” are also suitable for cold salt water (38°C max.) and domestic water. The calculated flow rate or pressure loss can be preset for each individual circuit, thus making the hydronic balance easy to achieve.

They can be installed in either the supply or the return pipe.

Advantages:

– the location of functioning components on one level allows a simple assembly and easy operation
– only one valve for 5 functions:
  • presetting
  • measuring
  • isolating
  • filling
  • draining
– low pressure loss (oblique pattern)
– infinitely adjustable presetting, exact measurement of pressure loss and flow by using the pressure test points
– thread of “Hydrocontrol R” according to EN 10226 suitable for Oventrop compression fittings (one edge olive) for copper pipes with a max. diameter of 22 mm
– flanges of “Hydrocontrol F”, “Hydrocontrol FS” and “Hydrocontrol FR”: round flanges according to DIN EN 1092-2 or ANSI, lengths according to DIN EN 558-1, basic series 1
– groove connections for couplings of the “Hydrocontrol G” suitable for couplings of the systems Victaulic and Grinnell
– fill and drain ball valve with internal stop and pressure test point with O-ring seal between valve body and pressure test point (no additional seals required)
– patented measuring channel led around the stem assembly to the pressure test points ensures the best possible accuracy between the differential pressure measured at the pressure test points and the actual differential pressure of the valve
- simple insulation by using the stem and pressure test point extensions.

**1** “Double regulating and commissioning valve “Hydrocontrol FR” (cut illustration)

**2** Double regulating and commissioning valve “Hydrocontrol R” (cut illustration)

Awards:

International Design Award Baden-Württemberg

Good Design Award Japan

International Forum Design Hanover Award iF

# Further products for the shipbuilding industry

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**1** Double regulating and commissioning valves
– "Hydrocontrol R" PN 25/PN 16
both ports with female thread, sizes DN 10 – DN 50 and
both ports with male thread and collar nut, sizes DN 10 – DN 50.
Body and bonnet made of bronze Rg 5, valve disc with PTFE seat, stem and valve disc made of brass resistant to dezincification).
Approval for shipbuilding according to DNV (Det Norske Veritas) as well as DVGW and SVGW approval for DN 15 – DN 32.
– "Hydrocontrol FR" PN 16
both ports flanged, sizes DN 50 – DN 200.
Body, bonnet and disc made of bronze, stem made of stainless steel.
Flanges identical with "Hydrocontrol F": Round flanges according to DIN EN 1092-2, lengths according to DIN EN 558-1, basic series 1.
– "Hydrocontrol FS" PN 25
both ports flanged, sizes DN 65 – DN 300.
Body made of nodular cast iron EN-GJS-500.
Round flanges according to DIN EN 1092-2, lengths according to DIN EN 558-1, basic series 1.

**2** Cast iron gate valve PN 16
Sizes DN 40 – DN 300, both ports flanged, non-rising stem, handwheel operated.
Bronze gate valve PN 16 (not illustrated)
Sizes DN 10 – DN 80, both ports female thread, non-rising stem, handwheel operated.

**3** Butterfly valves PN 16
Sizes DN 50 – DN 400

**4** Ball valves "Optibal"
with full flow, are used for the isolation of pipes transporting fluids.
The brass ball valves "Optibal" can be used for a nominal pressure PN 16 or PN 25 for cold water and for fluids with a temperature of 100°C or 150°C.
The bronze ball valves "Optibal" are suitable for a nominal pressure PN 40 for flow temperatures up to 150°C (aluminium lever) or up to 120°C (plastic handle).

**5** Metering station PN 16/PN 25
as wafer type to fit between flanges made of stainless steel or cast iron.
Sizes DN 65 – DN 900

**6** Bronze strainer PN 16
Sizes DN 8 – DN 80, with simple or double (for fine straining) wire basket made of stainless chromium steel.

**7** Automatic airvent PN 10
made of brass, with automatic shutoff; angle pattern without automatic shutoff or precision airvent with automatic shutoff.

**8** The bronze valves "Aquastrom C" and "Aquastrom T plus" PN 16 are installed in circulation pipes of potable water systems and serve to achieve a hydronic balance between the various circuits of the system. The "Aquastrom T plus" additionally supports the thermal disinfection within a temperature range T > 72°C. The components of both valves coming into contact with the fluid are made of bronze.


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Product range 3
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