

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Ball Valve**with type designation(s)
Cim 11CRNL

Issued to

Cav. Uff. Giacomo Cimperio S.p.A.
San Maurizio d'Opaglio NO, Italy

is found to comply with

DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNVGL-OS-D101 – Marine and machinery systems and equipment, Edition January 2018
DNV GL class programme DNVGL-CP-0186 – Type approval – Valves**Application :****Product(s) approved by this certificate is/are accepted for installation on vessels classed by DNV GL.****Temperature range:** -20 °C to 150 °C**Max. working press.:** 40 bar (DN10 to DN32) , 32 bar(DN40 and DN50) - See page 2**Sizes:** DN10 to DN50 (1/4" to 2"), see page 2Issued at **Høvik** on **2018-02-02**This Certificate is valid until **2022-07-09**.for **DNV GL**DNV GL local station: **Milan**Approval Engineer: **Maheshraja Venkatesan****Marianne Spæren Marveng**
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.



Product description

Design:

Full way ball valves, female threaded end couplings. Two piece body of hot pressed brass.

Sizes covered	Max. allowable pressure
DN10, DN15, DN20, DN25 and DN32	40 bar
DN40 and DN50	32 bar

Material of construction:

Body : EN12165-CW511L
Ball : EN12165-CW511L (DN10 to DN32)
EN1982-CC752S (DN40 and DN50)
Stem : EN12164-CW510L
Seat : P.T.F.E.

Application/Limitation

Valves covered under the certificate are approved to be used in the following ship/ ordinary machinery piping systems - fresh water, sanitary, compressed air and saturated steam.

Threaded joints for direct connectors of pipe lengths with tapered thread shall be allowed for:

- Class I, outside diameter not more than 33.7 mm
- Class II and Class III, outside diameter not more than 60.3 mm.

Threaded joints with parallel thread shall be allowed for Class III, outside diameter not more than 60.3 mm.

For temperatures below 0 °C and above 45 °C the pressure rating is to be reduced according to the Pressure/Temperature ratings from the manufacturer's specification.(Document no. 11CRNL dated 2013-07-04)

Valves covered by this certificate are not fire-safe & shall not be installed in systems where fire safe application is required.

The approval does not include any operating gear for remote control of the valves.

The valves may not be used as shut off or quick closing valve.

Production testing

All valve bodies shall be subjected by the manufacturer to a hydrostatic test at a pressure equal to 1.5 times the nominal pressure (The nominal pressure is the maximum allowable working pressure at room temperature).

All valve assemblies shall be subjected to seat leakage test at 1.1 times maximum working pressure at closed position.

Production Testing and acceptance criteria shall be in accordance with EN 12266-1 (leakage rate A).

Certification

Valve bodies shall be delivered with test report in accordance with DNV GL-RU-SHIP Pt.4 Ch.6 Sec.2 Table 3.

Each valve is to be delivered with a manufacturer's product certificate.



Job Id: **262.1-027463-1**
Certificate No: **TAP000016R**

Type Approval documentation

Tests carried out

Burst testing as per DNV TAP No. 5-794.40

Marking of product

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

- manufacturer's name or trade mark
- valve type designation & size
- maximum design pressure and temperature
- arrow to indicate direction of flow on one way flow valves

Periodical assessment

For retention of the Type Approval, a DNV GL Surveyor shall perform 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.