



MARINE DIVISION

Certificate number: 09081/C0 BV

File number: ACM 135/0325/001

Product code: 2170H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

CHIBRO SPA

Como - ITALY

for the type of product

PIPE COUPLING WITH O-RING SEAL

90/10 Cupronickel piping system with NBR O-ring - CUNIPRESS

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 21 Jul 2015

For BUREAU VERITAS,

At BV GENOA, on 21 Jul 2010,

Carlo Bozzetti



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

90/10 Cupronickel piping system with NBR O-ring - CUNIPRESS

1.1 Design (press type)

Copper nickel alloy pipes used as pipes couplings. Fittings have at each end a toroidal groove with an O-ring seal, in synthetic rubber, which, deformed by a pressing tool, provides the tightness of the coupling.

1.2 Range

Pipe diameter (mm)	15	18	22	28	35	42	54	76.1	88.9	108
Wall thickness (mm)	1	1	1	1.5	1.5	1.5	1.5	2	2	2.5
Insertion length (mm)	21	22	23	24	28	32	36	58	62	78

Max. working pressure: 16 bar

Max. working temperature: 95 °C

1.3 Material

Pipes and fittings: Cupronickel alloy 90/10 according to UNS C 70600

O-ring: NBR

2. DOCUMENTS AND DRAWINGS

- Manufacturer's catalogue
- Installation instructions

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

- Qualification tests performed in CHIBRO's laboratory: Static pressure test, vibration test, flame resistance test and subsequent pressure test, burst test, test without O-ring and vacuum test. Test report N° L.R.004/97/PM/rb/1 dated 20/07/1998.

4. APPLICATION / LIMITATION

4.1 May be used for the following services on board:

- Domestic fresh water, domestic warm water heating, fresh and sea water cooling, compressed air (maximum 10 bar), conventional wet sprinkler, fire main and deck washing, bilge and ballast systems, brine systems and non essential oily bilge system

4.2 Assembly instructions given by the manufacturer are to be complied with.

4.3 In all cases, the associated pipes are to be suitably supported and anchored. The couplings are to be at any time accessible, excepting inside tanks where permitted by the Rules.

4.4 Associated pipes can be used as penetrations in watertight and A-Class fire divisions (using steel sleeves) when mounted in accordance with drawing N° 2.39.192.933 dated 09/02/1998 from manufacturer (continuous welding on both sides of the division and insulation subject to the Society's approval).

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The products are to be manufactured, examined and tested by the manufacturer in accordance with the approved type described in this certificate and Requirements stated on the front page of this certificate.

5.2 Production sites are to be recognized by Bureau Veritas as per NR 320 for HBV products. To this end, the manufacturer has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 The manufacturer has declared to Bureau Veritas that the products detailed in this certificate are manufactured at the production site stated on the front page of this certificate.

5.4 Bureau Veritas certificate is not required for the product to be fitted on board units to be classed with Bureau Veritas.

6. MARKING OF PRODUCT

Each coupling is to be clearly marked with at least:

- Manufacturer's name or logo
- Type designation
- Size



7. OTHERS

This approval is given on the understanding that the manufacturer will accept full responsibility for informing shipbuilders or their sub-contractors of the proper method of fittings and general maintenance of the products and of the conditions of this approval.

This certificate supersedes the Type Approval Certificate N° 09081/B0 BV issued on 22/03/2005 by the Society.

*** END OF CERTIFICATE ***

