



Marine & Offshore

Certificate number: 38059/B0 BV

File number: ACM 135/2734/01

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

RACCORDERIE METALLICHE S.p.A.
CAMPITELLO DI MARCARIA MN - ITALY

for the type of product

MECHANICAL JOINTS - COMPRESSION COUPLINGS - PRESS TYPE
MARINEPRES System

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units
- BUREAU VERITAS Rules for the Classification of Yachts

This certificate is issued to attest that Bureau Veritas Marine & Offshore 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 Feb 2024

For Bureau Veritas Marine & Offshore,

At BV VENEZIA, on 21 Feb 2019,

Sandro BRUSEGAN



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 Marine & Offshore. 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 & Offshore 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 Marine & Offshore 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

MARINEPRES System pipe couplings with O-ring seal

1.1 Design

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.

Size range: Ø15 to 108 mm

Max. working pressure*: 16 bar

Max. working temperature*: -20/+120 °C

*Depending on sealing material

1.2 Material

Pipes and fittings: Cupronickel WL 2.1972 - CuNi10Fe1.6Mn

O-ring: EPDM: TIMO-70 EPDM black (-20/+120°C & 16 bar) for generic use

NBR: TEC N31-70 yellow (-20/+70°C & 5 bar)

FKM: FKM AL V70 green (-20/+220°C & 16 bar)

VMQ: S2-70VMQ red silicone (-20/+180°C & 16 bar) specific for fire resistance applications

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

- Manufacturer's catalogue dated February 2014
- Technical specification for Cupronickel pipe N°CQMP027-01-CuNi Rev.A dated 29/07/2009
- Technical Data Sheet for FKM dated 27/04/1999
- Technical Data Sheet for VMQ dated 21/02/2007
- Technical Data Sheet for NBR dated 18/10/2005
- Technical Data Sheet for EPDM dated 04/09/2007

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 TTR Institute laboratory: Pressure pulsation test and vibration test. Test reports N° 1102526 to 1102528 dated 12/11/2013.
- Qualification tests performed in CETENA laboratory: Tightness test, Burst test, Pull-out test and vacuum test. Test report N° 11729 dated 25/10/2013.
- Fire resistance test reports conducted by RINA Laboratory acc. to ISO 19921/19922 N° 2014CS01204/1-2-3 dated 29/01/2014 and N°2014CS01204/4 dated 30/01/2014.

4. APPLICATION / LIMITATION

- 4.1 May be used for services of class III piping systems for marine and offshore applications.
- 4.2 The sealing material must be compatible with the fluid to be conveyed and the maximum working temperature.
- 4.3 Assembly instructions given by the manufacturer are to be complied with.
- 4.4 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.

5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 - The products are to be supplied by **RACCORDERIE METALLICHE S.p.A.** in compliance with the type described in this certificate.
- 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
- 5.3 - **RACCORDERIE METALLICHE S.p.A.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **RACCORDERIE METALLICHE S.p.A.** has declared to Bureau Veritas the following production site:
RACCORDERIE METALLICHE S.p.A.: Strada Sabbionetana, 59, 46010 CAMPITELLO DI MARCARIA MN, (MN), ITALY

6. MARKING OF PRODUCT

Each coupling shall be clearly marked with at least:

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

7. OTHERS

It is **RACCORDERIE METALLICHE S.p.A.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

This certificate supersedes the Type Approval Certificate No. 38059/A0 BV issued by the Society.

***** END OF CERTIFICATE *****