



Marine & Offshore

Certificate number: 72611/A0 BV File number: ACM 135/2210/12 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 Viega GmbH & Co. KG

Attendorn - GERMANY

for the type of product

MECHANICAL JOINTS - COMPRESSION COUPLINGS - PRESS TYPE

Temponox

Requirements:

BUREAU ERITAS Rules for the Classification of Steel Ships BUREAU ERITAS Rules for the Classification of Offshore Units BUREAU ERITAS 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: 26 Jul 2027

For Bureau Veritas Marine & Offshore, At BV HAMBURG, on 26 Jul 2022, Adama Diene

This certificate was created electronically and is valid without signature



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.

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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

VIEGA Temponox system

1.1 Design:

- Compression couplings, press type
- Thin walled pipes made of stainless steel pipes
- Fittings made of stainless steel with a synthetic sealing element
- SC-Contur (safety connection) for visible testing security
- The crimping is achieved with a special crimping tool

1.2 Range:

| Туре | Temponox |
|---------------------------------|--|
| Pipe O.D. x wall thickness [mm] | 15x1.0; 18x1.0; 22x1.2; 28x1.2; 35x1.5;42x1.5; 54x1.5 64.0x1.5; 76.1x1.5; 88.9x1.5; 108x1.5 |
| Max. working pressure [MPa] | 1.6 |
| Max. working temperature [°C] | 110 |

1.3 Raw material:

| Tubes | 1.4520; Stainless steel acc. to DIN EN 10088-2 and DIN EN 10312 |
|----------|---|
| Fittings | 1.4301; Stainless steel acc. to DIN EN 10088-2 and DIN EN 10312 |
| O-ring | EPDM |

2. DOCUMENTS AND DRAWINGS:

According to the following document:

| Document no. | Rev. | Designation |
|--------------|--------------|--|
| DE 1/22 | Katalog 2022 | Manufacturer's catalogue: Temponox Rohrleitungstechnik |

3. TEST REPORTS:

3.1 Qualification tests performed in MPA's laboratory in Dortmund / GERMANY: assembly test, hydraulic tightness test, pneumatic tightness test, burst pressure test, pull-out test, vibration (fatigue strength) / pressure impuls test, vacuum test. Test report n°: 122000358, dated 23.06.2022

4. APPLICATION / LIMITATION:

- 4.1 May be used on board for services of class III piping systems:
 - Domestic warm water heating
 - Cooling water systems
 - Service air (non-essential)
 - Wet sprinkler
 - Non essential systems
- 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 joints are to be at any time accessible, excepting inside tanks where permitted by the BUREAU VERITAS Rules.
- 4.5 The use of the Temponox system for combustible media is to be restricted on case by case ship basis.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The Temponox system is to be supplied by **Viega GmbH & Co. KG** 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 BUREAU VERITAS product certificate.
- 5.3 Viega GmbH & Co. KG 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, **Viega GmbH & Co. KG** has declared to BUREAU VERITAS the following production site: **Viega GmbH & Co. KG**, **Grossheringen / GERMANY**

6. MARKING OF PRODUCT:

Each fitting is to be clearly marked with at least:

- Manufacturer's name or logo
- Type designation
- Size
- Nominal pressure
- Batch information

7. OTHERS:

7.1 It is **Viega GmbH & Co. KG**'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.

*** END OF CERTIFICATE ***