



Marine & Offshore

Certificate number: 49810/B0 BV

File number: ACM 135/2210/6

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

MEGAPRESS PRESS-FITTING SYSTEM

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships

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 is a renewal of certificate N° 49810/A2 BV expiring on 16/06/2022

This certificate will expire on: 16 Jun 2027

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 11 Feb 2022,

Udo Storm



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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BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Megapress pressfitting system

1.1 Design:

- Carbon steel cold press system
- Press-fittings with O-ring seal
- The crimping is achieved with a special crimping tool
- An SC-contour on the fittings provides a visual indication of a non-pressed fitting

1.2 Technical data:

| Sealing materials | EPDM | HNBR | FKM |
|--------------------------|---------------|---------------|---------------|
| Size range | 3/8" up to 2" | 1/2" up to 4" | 3/8" up to 4" |
| Temperature range [°C] | -10 / + 110 | -10 / + 70 | -5 / +140 |
| Temperature range [°F] | 14 / 230 | 14 / 158 | 23 / 284 |
| Nominal pressure [MPa] | 1.6 | | |

1.3 Material specification:

| | |
|-----------------------------|--|
| Tubes | Steel pipes as per ASTM A53/A53M-18 Schedule 10 to 40 Steel pipes as per DIN EN 10216 respectively DIN EN 10217 |
| Fittings | Specially shaped galvanized fittings (Zinc-Nickel coating) |
| O-ring DN10 to DN50 | EPDM / HNBR / FKM |
| O-ring DN65 to DN100 | HNBR / FKM |

2. DOCUMENTS AND DRAWINGS:

- 2.1 Manufacturer's catalogue "Megapress G mit SC – Contour / F4" - DE 3/16 Katalog 2016
- 2.2 Manufacturer's catalogue "Megapress S XL" - DE Katalog 10/2017
- 2.3 Manufacturer's Megapress drawings attached to following test reports no.:
122000040 dated: 26.08.2019,
122000070 dated: 20.08.2019 and
122000076 dated: 05.09.2019.

3. TEST REPORTS:

- 3.1 Test report no.: 006-12, fire resistance of pipeline components according ISO 19921 carried out at "Internationale Hydraulik Akademie GmbH" in Dresden - Weixdorf / GERMANY on 09/07/2012.
- 3.2 Test report no.: 007-12, fire resistance of pipeline components according ISO 19921 carried out at "Internationale Hydraulik Akademie GmbH" in Dresden - Weixdorf / GERMANY on 09/07/2012.
- 3.3 Test report no.: 008-12, fire resistance of pipeline components according ISO 19921 carried out at "Internationale Hydraulik Akademie GmbH" in Dresden - Weixdorf / GERMANY on 09/07/2012.
- 3.4 Test report no.: 001-13, fire resistance of pipeline components according ISO 19921 carried out at "Internationale Hydraulik Akademie GmbH" in Dresden - Weixdorf / GERMANY on 09/07/2012.
- 3.5 Test report no.: 051-17, fire resistance of pipeline components according ISO 19921 carried out at "Internationale Hydraulik Akademie GmbH" in Dresden - Weixdorf / GERMANY on 04/10/2017.
- 3.6 Test report no.: 052-17, fire resistance of pipeline components according ISO 19921 carried out at "Internationale Hydraulik Akademie GmbH" in Dresden - Weixdorf / GERMANY on 04/10/2017.
- 3.7 Test report no.: 120003993, tightness-, vibration-, pressure pulsation-, burst pressure, pull-out and vacuum test in accordance with IACS Test Rule P2.11.5, carried out at "Materialprüfungsamt Nordrhein-Westfalen" in Dortmund / GERMANY on 30/07/2012.

- 3.8 Test report no.: 120005114, carried out at “Materialprüfungsamt Nordrhein-Westfalen” in Dortmund / GERMANY on 04/12/2017.
- 3.9 Test report no.: 122000040, carried out at “Materialprüfungsamt Nordrhein-Westfalen” in Dortmund / GERMANY dated: 26.08.2019.
- 3.10 Test report no.: 122000070, carried out at “Materialprüfungsamt Nordrhein-Westfalen” in Dortmund / GERMANY dated: 20.08.2019.
- 3.11 Test report no.: 122000076, carried out at “Materialprüfungsamt Nordrhein-Westfalen” in Dortmund / GERMANY dated: 05.09.2019.

4. APPLICATION / LIMITATION:

- 4.1 The couplings with O-ring may be used for class III piping systems. The application of the couplings and their acceptable use for each service is indicated in the table below.

Application:

| Flammable fluids (flash point $\leq 60^{\circ}\text{C}$) | |
|--|-----|
| Cargo oil lines | (4) |
| Crude oil washing lines | (4) |
| Vent lines | (3) |

| Inert gas | |
|---------------------------|--------|
| Water seal effluent lines | |
| Scrubber effluent lines | |
| Main lines | (2)(4) |
| Distribution lines | (4) |

| Flammable fluids (flash point $> 60^{\circ}\text{C}$) | |
|--|--------|
| Cargo oil lines | (4) |
| Fuel oil lines | (2)(3) |
| Lubricating oil lines | (2)(3) |
| Hydraulic oil | (2)(3) |
| Thermal oil | (2)(3) |

| Sea water | |
|--|-----|
| Bilge lines | (1) |
| Water filled fire extinguishing systems, e.g. sprinkler systems | (3) |
| Non water filled fire extinguishing systems, e.g. foam, drencher systems | (3) |
| Fire main (not permanently filled) | (3) |
| Ballast systems | (1) |
| Cooling water system | (1) |
| Tank cleaning services | |
| Non-essential systems | |

| Fresh water | |
|-----------------------|-----|
| Cooling water system | (1) |
| Condensate return | (1) |
| Non-essential systems | |

| Sanitary/Drains/Scuppers | |
|------------------------------------|-----|
| Deck drains (internal) | (6) |
| Sanitary drains | |
| Scuppers and discharge (overboard) | |

| Sounding/Vent | |
|---|--------|
| Water tanks/Dry spaces | |
| Oil tanks (flash point $> 60^{\circ}\text{C}$) | (2)(3) |

| | |
|-----------------------------|-----|
| Miscellaneous | |
| Starting/Control air | (1) |
| Service air (non-essential) | |
| Brine | |
| CO2 system | (1) |
| Steam | (5) |

Footnotes:

- (1): Inside machinery spaces of category A - only approved fire resistant types
(2): Not inside machinery spaces of category A or accommodation spaces. May be accepted in other machinery spaces provided the joints are located in easily visible and accessible positions.
(3): Approved fire resistant types except in cases where such mechanical joints are installed on exposed open decks, as defined in SOLAS II-2/Reg. 9.2.3.3.2.2(10) and not used for fuel oil lines.
(4): Only in pump rooms and open decks – only approved fire resistant types.
(5): Slip type slip-on joints may be used for pipes on deck with a design pressure of 10 bar or less.
(6): Only above bulkhead deck of passenger ships and freeboard deck of cargo ships.

- 4.2 The sealing material is to 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 approval does not cover any pipes penetration through watertight bulkheads and fire divisions.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The fittings are 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

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.
- 7.2 This certificate supersedes the Type Approval Certificate N° 49810/A2 BV issued on 11 Jan 2021 by the Society.

*** END OF CERTIFICATE ***