

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pipe System with Couplings**with type designation(s)
MEGAPRESS

Issued to

Viega Technology GmbH & Co. KG
Attendorn Nordrhein-Westfalen, Germany

is found to comply with

DNV GL class programme DNVGL-CP-0185 – Type approval – Mechanical joints
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV GL rules for classification – Ships**Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.****Temperature range:** EPDM, 0 [°C] up to 110 [°C]; HNBR, - 40 [°C] up to 80 [°C]
Max. pressure: up to 1,6 Mpa
Design:Issued at **Hamburg** on **2017-08-23**This Certificate is valid until **2022-08-22**.DNV GL local station: **Essen**Approval Engineer: **Peter Gierhan**for **DNV GL**

Digitally Signed By: Drews, Olaf

Location: DNVGL Hamburg

Signing Date: 2017-08-25

Olaf Drews
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

Specially shaped carbon steel fittings (exterior zinc nickel coating, thickness = 3 µm up to 5 µm) sealed with a grip ring, separator ring and sealing element.

Application/Limitation

PRODUCTION PLACE

Viega Supply Chain GmbH & Co. KG
Sanitär- und Heizungssysteme
Viegastraße 1
99518 Großheringen
Germany

TECHNICAL DATA

Fittings: Specially shaped carbon steel fittings (exterior zinc nickel coating, thickness = 3 µm up to 5 µm) sealed with a grip ring, separator ring and sealing element
Material: Carbon steel E235 (1.0308/ St 35)
Pipes: Black, complete galvanized, industrially coated, powder-coated
Pipes according to DIN EN 10255, DIN EN 10220, DIN EN 10216-1, DIN EN 10217-1
Material: Carbon steel E195T (1.0026)
Pipe O.D.: DN 10, (D 17.2 mm); DN 15, (D 21.3 mm); DN 20, (D 26.9 mm); DN 25, (D 33.7 mm);
DN 32, (D 42.4 mm, 44.5 mm), DN 40, (D 48.3 mm); DN 50, (D 57.0 mm,
D 60,3 mm)

Minimum wall thickness acc. DNV GL-RU-SHIP Pt.4 Ch.6, table 3

M.A.W.P.: 1,6 Mpa

M.A.W.T.: EPDM, 0 [°C] up to 110 [°C]; HNBR, - 40 [°C] up to 80 [°C]

Application

(not for potable water)

Approved for Class III piping systems in the following systems:

- Fresh water: water spray systems, cooling water systems, condensate return, foam-, wet-sprinkler-systems and non-essential systems [swimming pool, whirlpool and so forth].
- Sanitary/drains/scuppers: deck and pool drains [internal]; sanitary drains, scuppers and discharge [overboard]; closed domestic warm water heating.
- Sounding/vent: water tanks, dry spaces, oil tanks [flash point >60 °C].
- Flammable fluids: cargo oil lines, fuel oil lines, lubricating oil lines, hydraulic oil lines, thermal oil. (flash point > 60 [°C]) (temperature ≤ 60 [°C]).
- Inert gas: water seal effluent lines, scrubber effluent lines, main lines, distributions lines.
- Miscellaneous: brine, control air, service air [non-essential], air conditioning systems, low pressure steam, water mist system, [media: condensed water, ethylene glycol].

Limitations

- To be used in Class III piping systems only
- Max working pressure 7 bar for flammable fluids and steam.
- The components are to be mounted according to manufacturer's instructions.
- The approval is only valid when the couplings are assembled with tubing of correct temper and tolerances as recommended by the manufacturer.

Type Approval documentation

- MPA Test Report 120003993, dated: 2012-07-30
- IHA Fire Resistance Test 006-12, 007-12, dated: 2012-07-04
Fire Resistance Test 0086-12, dated: 2012-07-05
- Operating and Installation Guidelines, Technical Documentation
- MPA NRW Report-No.: 130002758, dated: 2012-11-23
- IACS-Test-Report, System Megapress 3/8", dated: 2015-10-06
- MPA NRW Report-No.: 120004876, dated: 2016-10-25

Tests carried out

- Burst, Fire, Vibration, Pressure Impulse, Leakage, Vacuum tests

Marking of product

Each device shall bear legible and durable marking on the body or on a plate fixed securely to the body as follows:

- Manufacturer`s Mark • Type • Nominal Diameter •

Periodical assessment

The scope of the Periodical Assessment is to verify that the conditions stipulated for the Type Approval is complied with and that no alterations are made to the product design or choice of materials.

Periodical Assessment to be performed after two and a half year (2.5 years, certificate retention) and prior to renewal after five (5 years, certificate renewal).

The objective of the periodical assessment is to verify that the design and production conditions for the hose assemblies covered by this type approval have not been altered.

Main scope of the assessment:

- verification of the production and quality control system
- review of quality control documentation of recent deliveries
- review of the type approval documentation and that this is still the basis for the production
- review of design changes , pre- material and performance of the product
- verification of the product marking

END OF CERTIFICATE