TYPE APPROVAL CERTIFICATE

Certificate no.:
TAP00001V4
Revision No:
2

This is to certify:

that the Pipe System with Couplings

with type designation(s)
ProPress, ProPress 304 FKM, ProPress 316

issued to
Viega GmbH & Co. KG
Attendorn, **Germany**

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV-OS-D101 – Marine and machinery systems and equipment, Edition July 2021
DNV class programme DNV-CP-0185 – Type approval – Mechanical joints

Application:

Products approved by this certificate are accepted for installation on all vessels classed by DNV.

Type:	Temperature range:	Max. pressure:	Design:
ProPress	see Certificate page 2	232 psi (16 bar)	Compression Coupling- Press Type
ProPress 304 FKM	see Certificate page 2	232 psi (16 bar)	Compression Coupling- Press Type
ProPress 316	see Certificate page 2	232 psi (16 bar)	Compression Coupling- Press Type

Issued at **Hamburg** on **2026-02-23**
This Certificate is valid until **2030-03-27**.
DNV local unit: **Essen**

for **DNV**

Approval Engineer: **Christian Kaemmer**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Pipe system consisting of Viega-fittings and metallic pipes assembled by dedicated pressing tools.

Consisting of

- copper and bronze fittings with copper tubing, product range in Copper Tube Size /CTS **or**
- stainless steel fittings with stainless steel tubing
  utilizing a synthetic sealing element.

The constant compression produces a positive, nondetachable mechanical joint. Pressing is achieved by a press tool. Integral with synthetic sealing element. The fitting with SC-contour provides a visual indication of a non-pressed fitting.

Materials and fitting sizes:

System	Size	Press-fitting material	Pipe material
ProPress 304 FKM **ProPress 316**	Pipe O.D. ½" up to 4"	Stainless Steel AISI 316 / AISI 304	Stainless Steel AISI 316 / AISI 304 acc to ASTM A 312 / A 312M-05a
ProPress	Pipe CTS ½" up to 4"	Copper UNS No. C12200 acc. to ASTM, CuSi4Zn9MnP-C (CC246E acc. to DIN EN 1982)	Copper tube type K acc. to ASTM B88

Approved dimensions and minimum wall-thickness of pipes

Pipe Diameter [inch]	**½"**	**¾"**	**1"**	**1 ¼"**	**1 ½"**	**2"**	**2 ½"**	**3"**	**4"**
For ProPress: Copper pipe, thickness [inch]	0,049	0,065	0,065	0,065	0,072	0,083	0,095	0,109	0,134
For ProPress 304 FKM / ProPress 316: Stainless Steel pipe, thickness [inch]	0,061	0,061	0,061	0,061	0,061	**- -**	0,079	0,079	0,079

Note: "**- -**" pipes lower pipe wall thickness than minimum pipe wall thickness.

For special application and in cases where the pipes may be subject to excessive external loads or are inaccessible during service, greater wall thicknesses may be required.

Sealing material	**EPDM**	**FKM**	**HNBR**
Temperature range	-10°C / +110°C	-5°C / +140°C	-40°C / +82°C
	+14°F / +230°F	+23°F / +284°F	-40°F / +180°F
	ProPress; ProPress 304 FKM; ProPress 316		

Production sites and size range

Viega GmbH & Co. KG, Viega Str. 1, 99518 Großheringen, Germany	**½" to 4"**
Viega GmbH & Co. KG, Zum Langen Acker 7, 57439 Ennest-Attendorn, Germany	**½" to 4"**
Viega LLC, 2211 Viega Ave Mc Phershon, Kansas 67460, USA	**½" to 4"**
Viega LLC, 4400 Beck Road, Mantua, Ohio 44255, USA	**ProPress (Copper) ½" to 1"**

Responsibility

Viega GmbH & Co. KG Attendorn takes the responsibility for the design and the production procedures with relation to ensuring continued consistent production of the type approved products. Reference DNV CP-0338 Type approval scheme, Section 4.

Application / Limitation

The ProPress, ProPress 304 FKM and ProPress 316 press fitting systems are type-approved for pipe class III-piping systems. Fire resistance type. Type of mechanical joint: Compression coupling – Press type.
Refer to DNV Rules "Ships" Pt.4, Ch.6, Sec. 9 – Table 8, 9 and 10.

Approved fire endurance test condition is: "30 min **wet**" or "Fire endurance test not required".
Appropriate Notes 1) to 5) for fire resistance capability are to be observed.

Approved applications

Piping systems		Classification of pipe system	Fire endurance test condition	Notes
Flammable fluids (flash point ≤ 60°C)				
1	Cargo oil lines	dry	30 min /dry	1)
2	Crude oil washing lines	dry		1)
3	Vent lines	dry		3)
Inert gas				
4	Water seal effluent lines	wet	30 min wet	none
5	Scrubber effluent lines	wet		none
6	Main lines	dry	30 min dry	1)
7	Distribution lines	dry		1)
Flammable fluids (flash point > 60 °C)				
8	Cargo oil lines	dry	30 min dry	1), 12)
9	Fuel oil lines	wet	30 min wet	3), 12)
10	Lubricating oil lines	wet		3), 12)
11	Hydraulic oil	wet		3), 12)
12	Thermal oil	wet		3), 12)
Seawater				
13	Bilge lines	dry/wet	8 min dry+22 min wet	4) 10)
14	Water filled fire extinguishing systems (e.g., fire main, sprinkler)	wet	30 min wet	3) 10)
15	Non water filled fire extinguishing systems, e.g., foam, drencher systems	dry/wet	8 min dry+22 min wet	3) 10)
16	Fire main (not permanently filled)	dry/wet	8 min dry+22 min wet	3) 10)
17	Ballast systems	wet	30 min wet	4) 10)
18	Cooling water systems	wet	30 min wet	4) 10)
19	Tank cleaning services	dry	Fire endurance test not required	10)
20	Non-essential systems	wet, dry/wet, dry		10)
Fresh water				
21	Cooling water systems (ensuring main function)	wet	30 min wet	4)
22	Condensate return systems	wet	30 min wet	4)
23	Non-essential piping systems, e.g. cooling water for air condition, sanitary, technical water systems.	wet, dry/wet, dry	Fire endurance test not required	none
Sanitary/drains/scuppers				
24	Deck drains (internal)	dry	Fire endurance test not required	5)
25	Sanitary drains	dry		none
26	Scuppers and discharge (overboard)	dry		none
Sounding/vent				
27	Water tanks/dry spaces	dry/wet	Fire endurance test not required	none
28	Oil tanks (flash point > 60 °C)	dry		3)
Miscellaneous				
29	Starting/control air	dry	30 min dry	4)
30	Service air piping systems (non-essential), e.g., breathable sounding system	dry	Fire endurance test not required	none
31	Brine	wet		11)
32	CO_2 system (outside protected space)	dry	30 min dry	none
33	CO_2 system (inside protected space)	dry		13)
34	Steam	wet	Fire endurance test not required	12)

Footnotes - Fire resistance capability
1) Fire endurance test shall be applied when mechanical joints are installed in pump rooms and open decks.
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) Fire endurance test shall be applied when mechanical joints are installed in machinery spaces of category A.

Footnotes - General:
5) Only above bulkhead deck of passenger ships and freeboard deck of cargo ships.

Footnotes – Product-related:
10) not Type Approved, but CuNiFe systems like Viega “Seapress or Megapress CuNi 90/10” may be considered.
11) not Type Approved, but CuNiFe systems like Viega “Seapress or Megapress CuNi 90/10” may be considered.
12) max 7 bar
13) Melting point of fittings above 925°C.

Pipes with lower pipe wall thickness than minimum pipe wall thickness[1] may be used for the following applications:

- Domestic warm & cold water (potable water), sanitary drains
- Heating systems
- Service Air
- Non essential systems, technical water systems /
  Water-Urea solution (for ProPress 316) up to +40°C / +104°F and 1,0 MPa / 145 psi and a maximum permissible concentration of 40%.

Note 1) Minimum pipe wall thicknesses specified in DNV-Rules “Ships” Pt. 4 Ch.6 Sec. 9, Table 1 “pipes of copper and copper alloys” & Table 3 “pipes of stainless steel”.

The fittings are to be assembled by a pressing tool:

- Pressgun 6 and Ridgid RP350
- or acc. to Viega documentation

Selection of materials
It shall be noted that the selection of the materials considers the intended service condition and installation area of the piping system. In particular, the resistance to corrosion, erosion, oxidation and other deterioration during intended service life. Reference is made to DNV Rules “Ships” Pt.4, Ch.6 – Section 2 – Materials.

Bulkhead and Deck Penetration
Pipe penetration through watertight bulkheads or decks as well as through fire divisions shall be type approved unless the penetration pipe is welded into the bulkhead/deck.
Refer to DNV Rules “Ships” Pt.4, Ch.6 Section 3 – 1.4 Fittings on watertight bulkheads.

Pipe fittings where pressure-tight joints are made on the threads are limited in the application as follows:
Tapered or parallel thread is not approved for toxic or flammable media or services where fatigue, severe erosion or crevice corrosion is expected to occur. Refer to DNV Rules “Ships” Pt.4 Ch.6 – Section 9 – 5.2.6.

Type Approval documentation

Tests carried out

Marking of product

Marking	Example
Manufacturer´s name	Viega
Nominal Diameter	15x1/2

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Programme DNV-CP-0338, Sec.4.

To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com