Confirmation of Product Type Approval

Company Name: VIEGA GMBH & CO. KG

Address: VIEGA STRASEE 1, D-99518 GROSSHERINGEN, Germany

Product: Piping System and Couplings

Model(s): Viega Metric CTS fittings Profipress, Profipress XL Viega Imperial CTS fittings ProPress (formerly known as ProPress, ProPress XL, and ProPress XL-C)

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	21-2079214-PDA-DUP	08-FEB-2021	07-FEB-2026
Manufacturing Assessment (MA)	16-AG3180761	04-AUG-2016	03-AUG-2021
Product Quality Assurance (PQA)	NA	NA	NA

Tier
3 - Type Approved, unit certification not required

Intended Service
For use in Class III piping. –Flammable Fluids (flashpoint < 60° C)* : cargo oil lines (1), crude oil washing lines (2), vent lines (3), Inert Gas: water seal effluent lines (4), scrubber effluent lines (5), main lines (6), distribution lines (7), Flammable Fluids (flashpoint > 60° C)*: cargo oil lines (8), fuel oil lines (9), lubricating oil lines (10), hydraulic oil (11), thermal oil (12), Sea Water: bilge lines (13), water filled fire extinguishing systems (14), non-water filled extinguishing systems (15), fire main (not permanently filled)(16), ballast system (17), cooling water system (18), tank cleaning services (19), non-essential systems (20), Fresh Water: cooling water systems (21), condensate return (22), non-essential system (23), Sanitary/Drains/Scuppers: deck drains (internal)(24), sanitary drains (25), scuppers and discharge (overboard)(26), Sounding/Vent: water tanks/dry spaces (27), oil tanks (f.p.>60°C)(28), Miscellaneous: starting/control air (29), service air (non-essential)(30), brine (31), CO^2 system (32), steam (33)
*Flammable fluid applications require a HNBR or FKM sealing element. Sealing elements are interchangeable.

Description
Copper and Bronze fittings with copper tubing, utilizing a synthetic sealing element. Pressing is achieved by a press tool per the fitting manufacturer’s installation instructions.

Product range in nominal tube size Viega US and Metric systems: ProPress (1/2" - 4"), Profipress (12mm - 54mm) & Profipress XL (64mm - 108 mm). ProPress & Profipress, Profipress XL Material: CC499K, Cu-DHP(CW024A) or CuZn10Si4MnP.

Integral with EPDM sealing elements and SC - Feature. (*Flammable fluid applications require a HNBR or FKM sealing element. Sealing elements are interchangeable).

The fittings are an approved fire resistant type. Applications per Tables 9 &10 of the MVR for compression couplings/IACS P2.7.4 Rev. 9, Mechanical Joints Tables 6 & 7.

*Flammable fluid applications require a HNBR or FKM sealing element. Sealing elements are interchangeable. - Slip on joint requirements shall not apply to ProPress/Profipress fittings.

Ratings
M.A.W.P. 16 bar (232 psi), 1.6 MPa

Vacuum lines up to 170 mbar absolute (-12.04 psi/-24.5 in Hg/-0.083 MPa) acc. to the IACS test methods P2.11.5.5.7.

Maximum Operating Temperature

FKM: 23°F – 284°F (-5°C - 140°C)

EPDM: 14°F – 230°F (-10°C - 110°C)

HNBR: -40°F – 180°F (-40°C - 82°C)

-The fittings are an approved fire resistant type.

- Slip on joint requirements shall not apply to ProPress/Profipress fittings.

Service Restrictions
1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

2. The fittings are to be installed in accordance with the manufacturer's recommendation / limitations / requirements.

3. EPDM should not be used in flammable fluid applications.

4. *Flammable fluid applications require a HNBR or FKM sealing element.

Comments
1. Above pressure ratings are based upon connecting of subject components with tube made of copper according to BS EN 1057 or equivalent for metric sizes and to ASTM B88 for U. S. sizes. Drawings: Per Manufacturer's catalog K 14 1/98. Material Specifications: Copper: SF-Cu according to BS EN 1057, Bronze: G-CuSn5ZnPb-C-GS according to DIN EN 1982. Seal: EPDM O-ring. For Part Description and Model No. refer to ABS Type Approval Certificate.

2. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes, Drawings and Documentation
Drawing No. 805300, FLAMMPRUFUNG IACS PROFIPRESS

Drawing No. 12 0003163, MPA ERGANZUNGSPRFUNG CUNIFE BERSTDRUCK1

Drawing No. 12 000462, TEST CERTIFICATE

Drawing No. 120002578-1, MPA PPXL

Drawing No. 120001641, PRUFBERICHT VIEGA PULL OUT TEST ENG

Drawing No. 120002370, Profipress-ProPressss Vibration test IACS 2005

Drawing No. 120197098, Tests Cert Profipress-ProPress XL DVGW

Drawing No. 120004725, Test Report dated 28.01.2016

Drawing No. FIre, Fire Testing, Revision: 1, Pages: 1

Drawing No. MPA, IACS Testing, Revision: 1, Pages: 1

Drawing No. IHA, Testing, Revision: 1, Pages: 1

Term of Validity
NA

ABS Rules
Rules for Conditions of Classification, Part 1 - 2021 Rules for Building and Classing Marine Vessels 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2021 Marine Vessel Rules: 4-6-1/Table 1, 4-6-1/Table 2, 4-6-2/5.9 and 4-6-2/Table 4/Table 10/Table 11/Table 12

Rules for Conditions of Classification, Part 1 - 2021 Rules for Building and Classing Mobile Offshore Units 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2021 Mobile Offshore Units Rules:4-2-1/5, 4-2-1/11.13

Rules for Conditions of Classification, Part 1 - 2021 High Speed Craft 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:

2021 High Speed Naval Craft Rules: 4-6-2/5.9

International Standards
BS EN1057; DIN EN 1982; Technical Regulation Spec. W534

ISO 19921:2005

ISO 19922: 2005

EU-MED Standards
NA

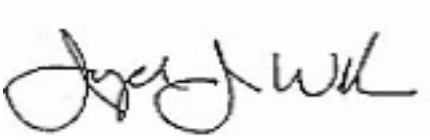
National Standards
UL 213- 2019; NSF 61- 2019; NSF 372- 2016; FM Class 1920- 2007; ICC-ES IC 1002-2013

IAPMO PS 117- 2019; ASME B16.51- 2013; ASME B31.1- 2018; ASME B31.3- 2018; ASME B31.9- 2017

Government Standards
USCG LTR 16714 (2019-3650) dtd 07May 19

Other Standards
Phoenix Fire Resistance Test Certificates: 805300 to 805307 Dated 29 Oct.08 IACS

Standard P2 Requirements



Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 07-Jul-2021 6:59

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the “Intended Service” details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.