

CERTIFICATE NUMBER EFFECTIVE DATE EXPIRY DATE ABS TECHNICAL OFFICE 21-2079214-PDA-DUP 08-Feb-2021 07-Feb-2026 Houston ESD - Piping

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

VIEGA LLC

located at

2211 VIEGA AVE., MCPHERSON, KS, United States, 67460

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product:	Piping System and Couplings
Model:	Viega Metric CTS fittings Profipress, Profipress XL
	Viega Imperial CTS fittings ProPress (formerly known as ProPress, ProPress XL, and ProPress
	XL-C)
Endorsements:	
Tier:	3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 07/Feb/2026 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

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 previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping *Jongin Lee* Yongjin Lee,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

Tier: 3 - Type Approved, unit certification not required
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EGA LLC

Product:Piping System and CouplingsModel:Viega Metric CTS fittings Profipress, Profipress XLViega Imperial CTS fittings ProPress (formerly known as ProPress, ProPress XL, and
ProPress XL-C)

Endorsements:

Intended Service:

For use in Class III piping. –Flammable Fluids (flashpoint $< 60^{\circ} \text{ C}$)* : 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), CO² 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.

Rating:

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 Restriction:

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.

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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/Drawing/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-ProPresss 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

Terms of Validity:

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STANDARDS

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

National:

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

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

International:

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

ISO 19921:2005 ISO 19922: 2005

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

EUMED: NA

OTHERS:

Phoenix Fire Resistance Test Certificates: 805300 to 805307 Dated 29 Oct.08 IACS Standard P2 Requirements