

## DEPARTMENT OF THE NAVY NAVAL SEA SYSTEMS COMMAND 1333 ISAAC HULL AVE SE WASHINGTON NAVY YARD DC 20376-0001

IN REPLY REFER TO
9505
Ser 05Z/191
March 29, 2021

Mr. Jesus Herrero Marine Program Manager Viega, LLC 585 Interlocken Blvd. Broomfield, CO 80021

Dear Mr. Herrero:

 $\verb"SUBJECT: VIEGA PRO-PRESS@ PIPE COUPLING APPROVAL FOR LIMITED USE ON$ 

SURFACE SHIPS

Naval Sea Systems Command (NAVSEA) is in receipt of General Dynamics Bath Iron Works (GDBIW) report of March 12, 2021, titled "ASTM F1387 Testing for Mechanically Attached Fittings". This document provides discussion and shock test results performed in conjunction with a National Shipbuilding Research Program (NSRP) on the Viega Pro-Press® pipe coupling, ½" OD, copper, Class 200 PSIG, for use with ½" OD copper tubing, ASTM B88, Type K (0.049 wall), 250°F.

Viega Pro-Press® couplings are press-connect fittings, Grade C (copper), Class 2 (200 PSIG), Type 1 (Ethylene Propylene Diene Monomer (EPDM) o-ring) as described in ASTM Specification F3226, titled "Metallic Press-Connect Fittings for Piping and Tubing Systems". There are very limited approved uses for ASTM F3226 fittings on U.S. Navy Surface Combatant piping systems, primarily due to press-connect fitting liabilities with respect to shock resistance.

The purpose of the NSRP with respect to the Viega Pro-Press®  $\frac{1}{2}''$  OD pipe coupling was to determine whether this coupling would pass shock testing, with the goal of approving it for use in shipboard potable water systems. NAVSEA has reviewed the submitted test results and finds that the Viega Pro-Press®  $\frac{1}{2}''$  OD pipe coupling passed shock testing and, as such, demonstrates superior performance to the "typical" ASTM F3226 press-connect fitting.

Based on these test results, NAVSEA considers the Viega Pro-Press® ½" OD pipe coupling acceptable for use on Non-Nuclear U.S. Navy Surface Combatants with the following restrictions:

The approved Viega Pro-Press® piping components is limited to the  $\frac{1}{2}$ " OD, copper, Class 200 PSIG coupling, for use with  $\frac{1}{2}$ " OD copper tubing, ASTM B88, Type K (0.049 wall), 250°F, as identified below:

Coupling, Model 2915 (P/N 78047)

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NOTE: Model Number and Part Number apply to 2020 Viega Product Catalog, Tab 1.1, ProPress, available at www.viega.us. Subject Model Number and Part Number comply with NSF/ANSI/CAN 61 certification for Drinking Water System Components and NSF/ANSI 372 certification for "lead-free" plumbing components.

The approved Viega Pro-Press® pipe coupling is acceptable for use in the following Non-Nuclear U.S. Navy Surface Combatant piping systems that use  $\frac{1}{2}$ " OD copper tubing, ASTM B88, Type K (0.049 wall), 250°F (max.):

- a. Potable Water Service, Distribution and Disinfection.
- b. Condensate (Non-Oily) Vents and Drains.
- c. Interior Spaces Deck Drains.
- d. Plumbing Vents and Drains.

NOTE: The Viega Pro-Press® pipe coupling is not approved for usage on submarine piping systems, aircraft carrier (CVN) propulsion plant piping systems or on any other piping systems and platforms where MAFs or press-connect fittings are prohibited by other direction.

The approved Figure 19 form for the 1/2-inch coupling is available to Navy personnel and Navy contractors who have access to eShock, under item 2021-T-00228.

NAVSEA does not specify the requirements for Military Sealift Command (MSC) and U.S. Coast Guard platforms. It is suggested that Viega, LLC seek reciprocity if Viega, LLC intends to market these fittings to MSC and Coast Guard platforms. Points-of-Contact can be provided upon request.

Any questions concerning the technical aspects of this letter may be referred to Ms. Erin Babik at erin.babik@navy.mil, (202) 781-0439.

Sincerely,

W. R. CALVERT
Technical Warrant Holder
Fluids - Machinery - Ships

Copy to:

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