

**BUILDING MATERIALS EVALUATION COMMISSION
(BMEC)
AUTHORIZATION REPORT**

DATE OF AUTHORIZATION
BMEC AUTHORIZATION
BMEC Application

August 30, 2001
BMEC # 01-16-268
A 2001-16

PROGRESS™

1. Applicant

Viega NA
Plumbing and Heating Systems
17545 Daleview Drive
Lakewood, Ohio
U.S.A.
44107

Tel: (216) 228-5224
Fax: (216) 228-9574

2. Manufacturing Facilities

Viega
Franz Viegener II
Ennester Weg 9
Attendorn, Germany
57439

3. Description

The ProPress™ System is designed and manufactured by Viega Inc. It is a copper joining technology without the use of traditional practice of soldering. This system utilizes 12.7 mm to 50.8 mm (½" to 2") copper or bronze fittings having an elastomeric seal incorporated within the socket's fitting. The fitting is designed to be pressed with the use of a special design power tool (i.e. electro-hydraulic crimping tool fitted with interchangeable crimping jaws) under substantial pressure to form a watertight sealed joint. In addition, this special tool must be maintained and calibrated in order to perform as suggested by the manufacturer.

The manufacturer has stated that, the fittings are rated for 1479 Kpa (200 psi) and tested to 4135 Kpa (600 psi) of pressure at temperatures between -17 °C to 121 °C (0 °F - 250 °F); and they can resist all forces normally encountered in a plumbing system.

4. Authorization Requested

The applicant sought authorization for the use of the Viega ProPress™ System in lieu of traditional practice of soldering pipes in a hot and cold water plumbing system as required by Article 7.2.7.6. "Solder-Joint Water Fittings" and Article 7.3.2.7. "Mechanical Joints" of the 1997 Ontario Building Code as amended (OBC).

5. Assessment

Reports and assessments provided by the applicant indicate that if the Viega ProPress™ System is designed, performance tested and installed in accordance with the manufacturer's instructions and limitations, and the specific terms and conditions stated in this authorization, the level of performance required by the 1997 Ontario Building Code as amended will be provided.

Reports, assessments and information reviewed included the following:

1. Viega / Rigid manufacturer's information "Turn off Your Torch, Toss out Your Solder, Introducing A Better Way to Join Copper", dated 1999 Ridgid Tool Company.
2. Viega / Rigid manufacturer's information "Product Catalogue: A Better Way to Join Copper", dated 2000 Ridgid Tool Company.
3. Technical Background Information Memo relating to Viega ProPress™ System dated 23 July 2001.
4. CSA International Certificate of Compliance, Compliance #1116260, Project #1116260, Master Contract # 205817, issued to: Viega NA: Plumbing and Heating Systems, 17545 Daleview Drive, Lakewood, OH, 44107 issued January 2, 2001.
5. CSA International Certificate Record, file #2058170000, submitted by: Viega NA: Plumbing and Heating Systems, 17545 Daleview Drive, Lakewood, OH, 44107, dated January 2, 2001.
6. CSA International Supplement to Certificate Record, file #1116260, Project #1116260, Master Contract # 205817, issued to: Viega NA: Plumbing and Heating Systems, 17545 Daleview Drive, Lakewood, OH, 44107 issued January 2, 2001.
7. IAPMO Research and Testing, Inc., Certificate of Listing, accepted January 2001, file # 3965, Applicant: Viega, Franz Viegenger II, Ennester Weg 9, Attendorn, Germany, 57439.
8. NSF International Report, Issuance date 23 September 1999, client: Viega, Franz Viegenger II, Ennester Weg 9, Attendorn, Germany, 57439.
9. Viega / Rigid manufacturer's information "Ridgid: CT 400."
10. Viega / Rigid manufacturer's information "ProPress™ Components."
11. Viega / Rigid specification "COPPER TUBING AND FITTINGS: Section #15125", dated 08/29/01

6. Authorization

The Viega ProPress™ System is authorized in lieu of the traditional practice of soldering pipes in a hot and cold plumbing system as required by Article 7.2.7.6. "Solder-Joint Water Fittings" and Article 7.3.2.7. "Mechanical Joints" of the 1997 Ontario Building Code as amended. All other requirements pertaining to the installation of the Viega ProPress™ System shall conform to the requirements of the 1997 Ontario Building Code as amended, and subject to the following terms and conditions:

A. Specific Terms and Conditions

1. This authorization is valid only for the Viega ProPress™ System.
2. The Viega ProPress™ System shall only be used in hot and cold water plumbing systems in above ground applications.
3. The Viega ProPress™ System shall not be used in a fire protection system.
4. The Viega ProPress™ System shall only be used in conjunction with:
 - (a) Ridged CT 400 electro-hydraulic crimping tool, and
 - (b) Viega ProPress™ Jaw Sets sizes: ½", ¾", 1", 1 ¼", 1 ½" and 2".
5. Each fitting shall be permanently marked with the manufacturer's name and the nominal size.
4. The Viega ProPress™ System shall only be used with 12.7 mm to 50.8 mm (½" to 2") copper or bronze tubing.
6. The Viega ProPress™ System elastomeric seal, (an EPDM o-ring) shall be made of a non-toxic synthetic rubber that meets the requirements of ASTM D2000.
7. The Viega ProPress™ System copper fittings shall comply with the material requirements of ANSI/ASME B16.22 and the chemical components requirements ASTM B88.
8. The Viega ProPress™ System shall comply with NSF 61.
9. Fittings used in the Viega ProPress™ System shall be manufactured by Viega, Franz Viegner II, Ennester Weg 9, Attendorn, Germany, 57439; and distributed by an authorized dealer(s).
10. Viega ProPress™ System fittings shall not be used with oils or lubricants, and shall be kept protected and free from moisture, damage, and dirt.
11. Viega ProPress™ System connection shall be made in accordance with the manufacturer's installation instructions:

- (a) the tubing shall be fully inserted into the fitting and the tubing marked at the shoulder of the fitting,
- (b) the fitting alignment shall be checked against the mark on the tubing to assure the tubing is fully inserted in the fitting, and
- (c) the joint shall be pressed using the tool(s) referred to in Specific Term and Condition # 4.

B. General Conditions

1. The use of the Viega ProPress™ System shall comply with the *Building Code Act, 1992* as amended or re-enacted from time to time and except as specifically authorized herein, with the Ontario Building Code as amended or remade from time to time.
2. A copy of this Authorization shall accompany each application for a building permit and shall be maintained on the site of the construction with the building permit.
3. The Applicant named in Part 1 hereof shall promptly notify the BMEC of:
 - (a) the failure of the Applicant, or of the material, system or building design that is the subject matter of this Authorization, to comply with any of the terms and conditions set out in 6. A. above; or
 - (b) the occurrence of any of the events described in Conditions 6. B. 4. (a) and (b) (ii) below.
4. The BMEC may amend or revoke this Authorization where it determines that:
 - (a) any change has been made to:
 - (i) the material, system or building design that is the subject matter of this Authorization;
 - (ii) the address of the applicant specified in Part 1 of this Authorization; or,
 - (iii) the ownership of the applicant specified in Part 1 of this Authorization.
 - (b) the use of the material, system or building design authorized herein;
 - (i) does not comply with the *Building Code Act, 1992* or any relevant legislation as they may be amended or re-enacted from time to time; or
 - (ii) provides an unsatisfactory level of performance, in situ.

- (c) the Applicant, or the material, system or building design that is the subject matter of this Authorization, has failed to comply with any of the terms and conditions set out in this Authorization; or
- (d) any Ontario Building Code provision relevant to this Authorization has been amended or remade.

Dated at Toronto on this 30th day of August 2001

BUILDING MATERIALS EVALUATION COMMISSION

per: Rashmi Nathwani, Chairman