ASSE Standard #1061-2015

ASSE Board Approved: May 2015
ANSI Approved: June 2015

ASSE International

Performance Requirements for

Push-Fit Fittings

An American National Standard

General Information

No product may be said to be listed by ASSE unless the manufacturer has applied to ASSE International, has had its product tested according to the applicable standards and, when the product has passed the test, displays the ASSE Seal on the product.

Instructions for receiving the authorization to display the seal are available from the ASSE International office. Organizations wishing to adopt or list any ASSE standard should print the ASSE standard number on the cover page first and in equal or larger type to that of the adopting or listing organization.

ASSE International
Mokena, Illinois

Foreword

This foreword shall not be considered a part of the standard. However, it is offered to provide background information.

ASSE standards are developed in the interest of consumer safety. This standard was developed to establish minimum performance requirements for push-fit fittings; an alternative method of connecting fittings with valves and tubing on potable water distribution systems and hydronic heat systems.

There are other applications for push-fit fittings, including compressed air systems and gas piping systems. However, the performance requirements and tests in ASSE Standard #1061 were developed for fittings installed in potable water distribution systems and hydronic heat systems only.

Pressurized (compressed) air, which is used for laboratory testing, contains large amounts of stored energy that could present serious safety hazards should a system fail for any reason. It is the responsibility of the user of this standard to establish appropriate safety requirements prior to performing any of the tests contained in this standard.

Recognition is made of the time and support of those who participated in the development of this standard.

This standard does not imply ASSE's endorsement of a product that conforms to these requirements.

Compliance with this standard does not imply acceptance by any code body.

It is recommended that these devices be installed consistent with local codes.

This standard was promulgated in accordance with procedures developed by ASSE International and approved by the American National Standards Institute (ANSI).

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Performance Requirements for Push-Fit Fittings

Section I

1.0 General

1.1 Application

The purpose of this standard is to establish minimum performance requirements for push-fit fittings and push-fit connections that are integrated into plumbing devices (herein referred to as the “fitting”). The fittings described in this standard are intended for use in hot and cold potable water distribution and hydronic heating systems in residential and commercial applications.

1.2 Scope

1.2.1 Description

This standard applies to push-fit fittings that can be used with one or more of the following materials:

1) PEX tubing complying with ASTM F876 or CSA B137.5.
2) Copper tubing, hard drawn Type K, L and M and annealed Type M not to exceed 3/8 nominal, complying with ASTM B 88.
3) CPVC tubing complying with ASTM D2846 or CSA B137.6.
4) PE-RT tubing complying with ASTM F2769 or CSA B137.18.

1.2.2 Size

These fittings shall have a nominal size not to exceed 2” CTS.

1.2.3 Minimum Pressure and Temperature Ratings

These fittings shall be designed for a continuous water service up to and including 100.0 psi (689.5 kPa) at 180.0 °F (82.22 °C). Push-fit fittings are not intended to be used in temperature/pressure relief valve drain lines unless they are tested and rated for excessive conditions of 210.0 °F (98.89 °C) and 150.0 psi (1034 kPa), per ASME A112.4.1 or ASTM F877.

1.3 Reference Standards

Listed below are the industry standards referenced within this ASSE standard. ASSE 1061 specifically references the revision of each standard given.

- ASME A112.4.1–2009(R2014), *Water Heater Relief Valve Drain Tubes*
- ASME B1.20.1–2013, *Pipe Threads, General Purpose, Inch*
- ASME B1.20.3–1976(R2013), *Dryseal Pipe Threads, Inch*
- ASME B16.18–2012, *Cast Copper Alloy Solder Joint Pressure Fittings*
- ASME B16.22–2013, *Wrought Copper and Copper Alloy Solder Joint Pressure Fittings*
- ASTM A240/A240M–2014, *Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications.*
- ASTM B88–2009, *Standard Specification for Seamless Copper Water Tube*
- ASTM B858–2014, *Standard Test Method for Ammonia Vapor Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys*