Service-Line Valves and Fittings for Drinking Water Systems

Standard Practice
Developed and Approved by the
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This MSS Standard Practice was developed under the consensus of the MSS Technical Committee 112 and the MSS Coordinating Committee. The content of this Standard Practice is the result of the efforts of competent and concerned volunteers to provide an effective, clear, and non-exclusive specification that will benefit the industry as a whole. This MSS Standard Practice is intended as a basis for common practice by the manufacturer, the user, and the general public. The existence of an MSS Standard Practice does not in itself preclude the manufacture, sale, or use of products not conforming to the Standard Practice. Mandatory conformance is established only by reference in a code, specification, sales contract, or public law, as applicable.

Non-toleranced dimensions in this Standard Practice are nominal, and unless otherwise specified, shall be considered "for reference only".

This document has been substantially revised from the previous 1996 edition. It is suggested that if the user is interested in knowing what changes have been made, that direct page by page comparison should be made of this document.

Unless otherwise specifically noted in this MSS SP, any standard referred to herein is identified by the date of issue that was applicable to the referenced standard(s) at the date of issue of this MSS SP. (See Annex A)

Originally Approved April 1996

FOREWORD

The Manufacturers Standardization Society was requested to develop a Standard Practice for line valves and assigned this as a project to the **MSS** Committee 112, Water Works Valves and Fittings. Many of the significant components of service lines for drinking water systems have not been specifically covered by standards. The **MSS** Committee 112, Water Works Valves and Fittings Committee, decided to fill this need in the water works industry by creating this Standard Practice (SP), which has a broader scope than previous drinking water service line standards. However, the tubing, pipe, water main, water meter, and machines associated with drinking water service lines are not covered by this SP.

Field testing information is provided in Section **6.4** but is not a part **of** this Standard Practice.

The Annex at the back of this Standard Practice is an official part **of** this Standard Practice.

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SERVICE-LINE VALVES AND FITTINGS FOR DRINKING WATER SYSTEMS

0. PURPOSE

To provide a Standard Practice covering most of the significant valves and fittings used in drinking water service-line systems including both buried and non-buried valves, fittings, meter settings, and service saddle clamps.

1. SCOPE

1.1 This standard covers valves and fittings in sizes 1/2" through 2" *NPS* for use in drinking water system service-line between the main and the meter.

Included are:

a) Buried valves and fittings that are designed to be in direct contact with the soil (corporation valves, service saddle clamps, and curb valves).

b) Non-buried valves and fittings that are not designed to be in direct contact with the soil (meter valves, check valves, meter fittings, and meter settings).

c) Fittings include various types of couplings and adapters.

Not included **is:**

d) Reduced pressure backflow preventers.

1.2 This Standard Practice establishes the minimum requirements that a drinking water service-line valve or fitting must possess at the time of manufacture. Details of design and manufacture, other than those stated in this standard, including such design and production tests to ensure that each valve or fitting will have these capabilities, remain the responsibility of the manufacturer.

2. DEFINITIONS

2.1 Under this Standard Practice the following definitions shall apply. Other definitions **may** be found in **MSS** SP-96.

2.1.1 ***Angle Design Meter Valve*** **A** meter valve in which the two body ends and the inlet and outlet flow ways are at right angles (i.e., 90°) to each other.

2.1.2 ***Adapter*** Facilitates the connection of an item to a size or type of tubing, pipe, or fitting, which is different from that to which the item was designed to be connected.

2.1.3 ***Body*** The principal pressure containing shell of a valve or fitting which has ends adapted for connection to tubing or piping.

2.1.4 ***Body End*** That portion of the body which is adapted for connection to tubing or piping components.

2.1.5 ***Clamp*** See "Service Saddle Clamp."

2.1.6 ***Check Valve*** **A** unidirectional valve which is opened by the fluid flow in one direction and which closes automatically to prevent flow in the reverse direction.

2.1.7 ***Compression Fitting*** **A** fitting for tube or pipe which seals and grips by radial deformation of circumferential sealing elements.

2.1.8 ***Corporation Valve*** Buried valve which connects to a water main or service saddle to prevent water flow while installing or maintaining service line components.

2.1.9 ***Coupling*** **A** fitting used to make a linear connection between two lengths of tubing or piping.

2.1.10 ***Curb Valve*** Water service line valve located partway between the main and meter, generally buried near the curb of the street and usually with a curb box installed over it for convenient operation from above ground.

2.1.11 ***Driving Thread*** Thread in an outlet end of a corporation stop to attach the valve to a tapping machine adapter during the valve installation.