

**MSS SP-116-2011**

**Service-Line  
Valves and Fittings  
for  
Drinking Water Systems**

**Standard Practice  
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**This Standard Practice has been substantially revised from the previous 2003 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.**

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Originally Published: April 1996

Current Edition Approved: August 2011

Current Edition Published: October 2011

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## **FOREWORD**

In the mid 1990's, 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 decided to fill this need in the water works industry by creating this Standard Practice, 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 Standard Practice.

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

The 2003 version was substantially revised from the original 1996 version.

This 2011 version has been substantially updated and revised from the 2003 version; including an update of Sections 2, 4, 9, multiple Tables, and Annex A.

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## SERVICE-LINE VALVES AND FITTINGS FOR DRINKING WATER SYSTEMS

### 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 Practice covers valves and fittings in sizes NPS ½ through 2, for use in drinking water system service-lines 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:

- a) 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:

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.