Service-Line
Valves and Fittings
for
Drinking Water Systems
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 resulting efforts of competent and experienced volunteers to provide an effective, clear, and non-exclusive standard that will benefit the industry as a whole. This MSS Standard Practice describes minimal requirements and 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 to this Standard Practice is established only by reference in other documents such as a code, specification, sales contract, or public law, as applicable. MSS has no power, nor does it undertake, to enforce or certify compliance with this document. Any certification or other statement of compliance with the requirements of this Standard Practice shall not be attributable to MSS and is solely the responsibility of the certifier or maker of the statement.

"Unless indicated otherwise within this MSS Standard Practice, other standards documents referenced to herein are identified by the date of issue that was applicable to this Standard Practice at the date of approval of this MSS Standard Practice (see Annex A). This Standard Practice shall remain silent on the validity of those other standards of prior or subsequent dates of issue even though applicable provisions may not have changed."

By publication of this Standard Practice, no position is taken with respect to the validity of any potential claim(s) or of any patent rights in connection therewith. MSS shall not be held responsible for identifying any patent rights. Users are expressly advised that determination of patent rights and the risk of infringement of such rights are entirely their responsibility.

In this Standard Practice, all text, notes, annexes, tables, figures, and references are construed to be essential to the understanding of the message of the standard, and are considered normative unless indicated as “supplemental”. All appendices, if included, that appear in this document are construed as “supplemental”. Note that supplemental information does not include mandatory requirements.

U.S. customary units in this Standard Practice are the standard; (SI) metric units are for reference only.

This Standard Practice has been substantially revised from the previous 2011 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.

Non-toleranced dimensions in this Standard Practice are nominal unless otherwise specified.

Excerpts of this Standard Practice may be quoted with permission. Credit lines should read ‘Extracted from MSS SP-116-2014 with permission of the publisher, Manufacturers Standardization Society of the Valve and Fittings Industry.’ Reproduction and/or electronic transmission or dissemination is prohibited under copyright convention unless written permission is granted by the Manufacturers Standardization Society of the Valve and Fittings Industry Inc. All rights reserved.

Originally Approved: February (April) 1996
Originally Published: May 1996
Current Edition Approved: September 2014
Current Edition Published: December 2014

MSS is a registered trademark of Manufacturers Standardization Society of the Valve and Fittings Industry, Inc.

Copyright © 2014 by
Manufacturers Standardization Society
of the
Valve and Fittings Industry, Inc.
Printed in U.S.A.
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.

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

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

This 2014 version includes minor editing of the text, formatting adjustments, the addition of several new definitions in Section 2, approved revisions to Sections 1, 5, 6, and 9, errata corrections in Table 10 through 13, the movement of the optional field testing instructions in Section 6 from the body of the Standard Practice to the Appendix, and updating of references in Annex A.
TABLE OF CONTENTS

SECTION | PAGE
--- | ---
PURPOSE | 1
1 SCOPE | 1
2 DEFINITIONS | 1
3 INFORMATION THAT MAY BE REQUESTED OF THE MANUFACTURER | 3
4 MATERIALS | 3
5 DESIGN | 4
6 INSPECTION AND TESTING | 9
7 MARKINGS | 9
8 PREPARATION FOR SHIPMENT | 9
9 INSTALLATION | 9

TABLE

1 Drill Clearance through Corporation Valves | 14
2 Maximum Swing Radius | 14
3 Maximum Length for Corporation Valves | 15
4 Standard AWWA Corporation Valve Inlet External Threads | 15
5 NPT Corporation Valve Inlet External Threads | 16
6 NPT Corporation Valve Outlet External Threads | 16
7 External Outlet Threads for Use with Flared Copper Tubing | 17
8 Coupling Nuts for Use with Flared Copper Tubing | 17
9 Corporation Valve Outlet External Special Purpose Coupling Threads | 18
10 Coupling Nut for Connecting to Corporation Valve Outlet Special Purpose Coupling Threads | 18
11 Internal Driving Threads for Corporation Valves | 19
12 Meter Coupling | 19
13 Oval Flange Meter Connections | 20
14 Standard AWWA Threads for Service Saddle Clamps | 20

FIGURE

1 Straight Design Meter Valve/Angle Design Meter Valve | 10
2 NPS 1/2 through NPS 2 Curb Valve Keyhead Compatible with Shut-off Rod | 11
3 NPS 1/2 through NPS 1 1/4 Curb Valve Keyhead Compatible with Both NPS Shut-off Rod and NPS 1/2 through NPS 1 1/4 Stationary Rod | 12
4 NPS 1 1/2 through NPS 2 Curb Valve Keyhead Compatible with Both NPS Shut-off Rod and NPS 1 1/2 through NPS 2 Stationary Rod | 13

ANNEX

A Referenced Standards and Applicable Dates | 21

APPENDIX

X1 Field Testing | 23