

# MUELLER 300<sup>™</sup> BALL VALVES

# **Suggested Specifications**

# 1. MATERIAL SPECIFICATIONS

- 1.1. Body, Stem, and Ball Bronze ASTM B584 Alloy C89833/C87850.
- 1.2. Cap Bronze ASTM B584 Alloy C83600/C87850.
- 1.3. Stem O-ring ASTM D2000 EPDM Rubber.
- 1.4. Molded Rubber Seats ASTM D2000 EDPM Rubber Gasket.
- 1.5. Pin/Screw Stainless Steel

# 2. END CONNECTIONS

- 2.1. Iron Pipe Threads Conform to ANSI/ASME B1.20.1.
- 2.2. Copper Service Threads Conform to AWWA Standard C800.
- 2.3. Mueller 110<sup>®</sup> Conductive Compression Connection for type "K" copper tubing, CTS polyethylene (PE) tubing per ASTM D-2737 SDR-9, IPS polyethylene (PE) pipe per ASTM D-2239 SIDR-7, and IPS polyvinylchloride (PVC) per ASTM D1785.
- 2.4. Meter swivel nuts are available for 5/8", 5/8" x 3/4", 3/4", and 1" meters and flanged ends for  $1 \frac{1}{2}$ " and 2" meters.
- 2.5. Mueller Pack Joint Conductive Compression Connection for type "K" copper tubing, CTS polyethylene (PE) tubing per ASTM D-2737 SDR-9, IPS polyethylene (PE) pipe per ASTM D-2239 SIDR-7, and IPS polyvinylchloride (PVC) per ASTM D1785.
- 2.6. Mueller INSTA-TITE<sup>®</sup> Stab Connection for CTS polyethylene (PE) tubing per ASTM D-2737 SDR-9, IPS polyethylene (PE) pipe per ASTM D-2239 SIDR-7.

## 3. DESIGN FEATURES

## 3.1. GENERAL

- a. The Mueller Ball Valves completely conform to the ANSI/AWWA C800 Standard for Underground Service Line Valves.
- b. The Mueller Ball Valve has a blow-out proof stem design. The stem is assembled from inside the body and cannot disengage or blow out because it is secured by a flange on the stem which is an integral part of the inside end of the stem.
- c. The Mueller Ball Valve design will provide full thread depth and drill depth on female iron pipe threads end as required by ANSI/ASME B1.20.1 and by the AWWA C800 Standard for Underground Service Line Valves.
- d. The Mueller Ball Valve Lockwing design accepts bullet locks, without interference.
- e. The Mueller Ball Valve optimizes the strength of the stem and ball operating connections.

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- f. The Mueller Ball Valve offers a 90° operation check design as standard (full 360° turning operation as standard on corporation valves).
- g. The Mueller Ball Valve has full size round port openings for the specified size of valve for low pressure loss. The Mueller Ball Valve is also offered with reduced ports for 3/4" (5/8" port) and 1" (3/4" port) size end connections, which also has low pressure loss characteristics.
- h. All types and sizes of Mueller Ball Valves, including the angle style, will seal full rated pressure.
- i. The complete line of Mueller Ball Valves have a 300 psig water pressure rating and 32°F (min), 180°F (max) temperature rating.

# 3.2. CURB VALVES, AND STRAIGHT METER AND SERVICE VALVES

- a. The Mueller Ball Curb, and Straight Meter and Service Valves are two-directional flow type valves.
- b. The Mueller Ball Curb, and Straight Meter and Service Valves are available in the following sizes:
  - a. 3/4" and 1" Reduced Port
  - b. 3/4" thru 2" Full Port
- c. Mueller Ball Curb Valves are available with the following types of end connections:
  - a. Mueller 110 Compression Connections
  - b. Mueller Pack Joint Compression Connection
  - c. Mueller INSTA-TITE Connection (assembled as a separate coupling)
  - d. Copper Flare Connection
  - e. Iron Pipe Thread Male and Female
  - f. Mueller GRIP
- d. The Mueller Ball Straight Meter Valves are available with the following types of end connections.
  - a. Mueller 110 Compression Connections
  - b. Mueller Pack Joint Compression Connection
  - c. Mueller INSTA-TITE Connection (assembled as a separate coupling)
  - d. Copper Flare Connection
  - e. Iron Pipe Thread Male and Female
  - f. Iron Meter Bar Lock Nut
  - g. Meter Swivel Nut
  - h. Meter Flange
  - i. Mueller GRIP
- e. The Mueller Ball Straight Service Valves are available with the following types of end connections:
  - a. Mueller 110 Compression Connections
  - b. Mueller Pack Joint Compression Connection
  - c. Mueller INSTA-TITE Connection (assembled as a separate coupling)
  - d. Copper Flare Connection
  - e. Iron Pipe Thread Male and Female
  - f. Mueller GRIP

# 3.3. ANGLE METER AND SERVICE VALVES

- a. The Mueller Ball Angle Meter Valve has the same laying dimensions as other types of Mueller Angle Meter Valves. Therefore, Mueller Ball Angle Meter Valves can be used as replacements for other types of Mueller Angle Meter Valves, which have the same end configurations.
- b. The Mueller Ball Angle Meter Valves are available in the following sizes:
  - a. 3/4" and 1" Reduced Port
  - b. 3/4" thru 2" Full Port
- c. The Mueller Ball Angle Meter Valves are available with the following types of connections:
  - a. Mueller 110 Compression Connections



- b. Mueller Pack Joint Compression Connection
- c. Mueller INSTA-TITE Connection (assembled as a separate coupling)
- d. Copper Flare Connection
- e. Iron Pipe Thread Male and Female
- f. Iron Meter Bar Lock Nut
- g. Meter Swivel Nut
- h. Meter Flange
- i. Mueller GRIP
- d. The Mueller Ball Angle Service Valves are available with the following types of connections: Mueller 110 Compression Connections
  - a. Mueller Pack Joint Compression Connection
  - b. Mueller INSTA-TITE Connection (assembled as a separate coupling)
  - c. Copper Flare Connection
  - d. Iron Pipe Thread Male and Female
  - e. Mueller GRIP

# 3.4. CORPORATION VALVES

- a. The Mueller Ball Corporation Valves are a full 360° turn valves.
- b. The Mueller Ball Angle Meter Valves are available in the following sizes:
  - a. <sup>3</sup>/4"
  - b. 1"
  - c.  $1^{1/2}$
  - d. 2"
- c. The Mueller Ball Corporation Valves are available with the following types of inlet connections:
  - a. Mueller 110 Compression Connections
  - b. Mueller Pack Joint Compression Connection
  - c. Mueller INSTA-TITE Connection (assembled as a separate coupling)
  - d. Copper Flare Connection
  - e. Iron Pipe Thread Male and Female
  - f. Mueller GRIP

# 4. WORKING PRESSURE

- 4.1. The Mueller Ball Valves have a maximum water pressure rating of 300 psig.
- 4.2. The Mueller Ball Valves have a water temperature rating of 32°F (min), 180°F (max).

