

MUELLER® SUPER CENTURION 250™ FIRE HYDRANT-AWWA

PRODUCT SPECIFICATIONS

1. GENERAL CLASSIFICATION

- 1.1 MUELLER SUPER CENTURION 250 Hydrants are suitable for general waterworks service.
- 1.2 MUELLER SUPER CENTURION 250 Hydrants are dry barrel, post type with compression main valve closing with the inlet pressure.
- 1.3 MUELLER SUPER CENTURION 250 Hydrants have a replaceable Safety Stem Coupling and a replaceable Safety Flange at the ground line to minimize traffic damage.
- 1.4 MUELLER SUPER CENTURION 250 Hydrants comply with AWWA Standard C502, and Underwriters Laboratories listed, and are Factory Mutual Systems approved.

2. SELECTIVE SPECIFICATIONS (TO BE SELECTED BY CUSTOMER)

- 2.1 Size of Hydrant -- 4-1/2" or 5-1/4" hydrants are sized by seat ring internal diameters.
- 2.2 Size and type of inlet connections
 - 2.2.1 Mueller AquaGrip™ Connection -- Stab compression connection with integral restraint. Furnished ready to install with all hardware and O-ring seal assembled. Use on Ductile Iron, C900 PVC, or DIPS PE (DR9 through DR17). 6" size.
 - 2.2.2 Flange -- Horizontal or vertical in relation to hydrant barrel -- American Standard complying to ANSI B16.1 Class 125 (ISO PN10/PN16 drilling optional). 4" and 6" sizes.
 - 2.2.3 Standardized Mechanical Joint -- Dimensions comply with ANSI/AWW C111/A21.11. Furnished with integral anti-rotation pads on all bolt holes (allowing use of standard tee-head bolts), and with two strapping lugs. 4", 6" and 8" sizes.
 - 2.2.4 D-150 Mechanical Joint -- With two specially designed gaskets to fit either of two diameters of Cast Iron or Ductile Iron pipe: duck-tipped rubber gasket for Class 150 pipe or plain rubber gasket for Class D pit cast pipe. 4" and 6" sizes.
 - 2.2.5 Slip-On Joint* -- Complete with Mueller Slip-On Gasket, complies with ANSI/AWWA C111/A21.11. Fits Ductile Iron pipe manufactured to ANSI/AWWA C151/A21.51; including the plain end of all makes of Cast Iron or Ductile Iron of the slip connection type. Also fits Classes 150 and 200 Ductile Iron O.D. PVC plastic pipe. ** 6" size
- 2.3 Operating nut and nozzle cap nut -- shape and dimension according to customer selection.
- 2.4 Opening direction -- Open left or right. Arrow on bonnet indicates opening direction.
- 2.5 Nozzle arrangement -- Furnished 3-way, with 2 hose nozzles 180 degrees apart, 1 pumper in between, and all on the same horizontal plane.
 - 2.5.1 Hose nozzle threading -- Regularly furnished with 2-1/2" National Standard Hose Thread. Other 2-1/2" or 3" hose threads to customer specifications.
 - 2.5.2 Pumper nozzle threading -- Regularly furnished with 4-1/2" National Standard Pumper Hose Thread. Other 3-1/2", 4", 4-1/4", 4-1/2", and 5" pumper hose threads to customer specifications. Integral 4" or 5" Storz pumper connection available.

3. WORKING AND TEST PRESSURES

- 3.1 Working pressure 250 psi.
- 3.2 MUELLER SUPER CENTURION 250 Hydrants are subjected to two hydrostatic tests per AWWA C502 Standard.
 - 3.2.1 First test at 500 psi is made with the main valve closed with pressure applied through the inlet of the shoe.
 - 3.2.2 Second test is made with the main valve open and entire hydrant subject to a pressure of 500 psi.

During the above tests, no indication of leakage is permitted through castings, joints, main valve, or stem packing. Drain valve leakage cannot exceed five fluid ounces per minute.

* Design and dimensions of the joint are manufactured under license of U.S. Pipe and Foundry Company.

** When using DI O.D. PVC pipe, the gaskets supplied by Mueller must be used with this hydrant connection.

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4. DESIGN FEATURES

- 4.1 Bonnet assembly -- Dry top, factory lubricated. Oil level checked by removing the oil filter plug on outside of bonnet. Cannot be overfilled with oil.
- 4.2 Upper operating system -- Bronze encased for O-ring seal surface contact.
- 4.3 Nozzles -- Interchangeable, threaded in place and retained by stainless steel locks.
- 4.4 Nozzle caps -- Attached to upper barrel with individual non-kinking chains.
- 4.5 Lower barrel flange -- Concealed for improved appearance.
- 4.6 Interchangeable design permits the upper barrel assembly to be used with existing MUELLER Improved or 107® Hydrants. (For 107 hydrant, use upper barrel assembly with stop-in-bonnet option.)
- 4.7 Safety flange -- Breaks cleanly upon impact, yet strong enough for normal handling, shipping, and use. Permits full 360 degree rotation of upper barrel to position nozzles in any desired direction. Extension sections or upper barrel with different nozzle size or arrangement can easily be added. Full size unnotched steel bolts used to retain safety flange and connect the upper and lower barrels.
- 4.8 Stem coupling -- Stainless steel, connects the upper and lower stems and is retained with stainless steel clevis and cotter pins. When traffic damage occurs, the coupling breaks cleanly, flush with the lower stem. Lower stem retains bottom clevis and cotter pin with no loose parts to fall into hydrant barrel. Upper end of lower stem is located below lower barrel flange surface to prevent it from being held open by vehicle wheel after traffic damage.
- 4.9 Lower barrel -- Heavy wall sections where flange joins the barrel section for added strength.
- 4.10 Shoe -- Has lugs for strapping anchors on Mechanical Joint, D-150 and Slip-On Joint ends. Bottom has a support pad and side opposite inlet has a backing support pad.
- 4.11 Seat ring -- Bronze ring threads into bronze drain ring, which has two drain holes to provide an all bronze drain way.
- 4.12 Double drain valves (with replaceable plastic drain valve facings) operate automatically to force flush the drain way each time the hydrant is opened or closed. No toggles, springs, or adjustable mechanisms are required and the drain valve facings can be replaced when seat ring and main valve assembly is removed.
- 4.13 Main valve -- Molded rubber, reversible, compression type, closes with inlet pressure and remains closed during any above ground repairs or changes to upper barrel or bonnet assemblies.
- 4.14 Main valve opening -- Controlled by lug in bottom of shoe. Stop in bonnet also available.
- 4.15 Main valve and seat ring -- Removable from above ground with seat removal wrench.
- 4.16 Lower stem end threads -- Covered with an epoxy coated iron cap nut and sealed with rubber washer to protect them from corrosion. The cap nut is retained with a stainless steel lock washer.
- 4.17 Shoe and upper valve plate design -- Permits maximum flow by minimizing friction loss.
- 4.18 Shoe interior, lower valve plate and cap nut -- Epoxy coated to resist corrosion.

5. MATERIAL SPECIFICATION

- 5.1 Bonnet, nozzle caps, barrels, safety flange, drain ring housing, lower valve plate, cap nut and shoe (Flanged, 8" Mechanical Joint and Slip-On) -- Cast Iron, ASTM A-126, Grade B.
 - 5.1.1 AquaGrip Shoe -- Ductile Iron, ASTM A-536, Grade 65-45-12.
 - 5.1.2 4" and 6" Mechanical Joint Shoe -- Ductile Iron, ASTM A-536, Grade 65-45-12.
 - 5.1.3 D-150 Mechanical Joint Shoe -- Ductile Iron, ASTM A-536, Grade 65-45-12.
- 5.2 Operating nut, hold down nut, nozzles, upper valve plate, seat ring and drain ring -- Bronze, in compliance with AWWA Standard C502.
- 5.3 Oil filter plug -- Brass, ASTM B-16, half hard.
- 5.4 O-ring seals -- Buna N, ASTM D2000 3CH720.
- 5.5 Weather seal -- EPDM, ASTM D2000 2AA910.
- 5.6 Anti-friction washer -- Thermoplastic polymer with high resistance to dynamic and static wear.
- 5.7 Bolts for bonnet, safety flange, shoe and drain ring housing -- Steel, ElectroGalvanized, ANSI B18.2 -- ASTM A-307 Grade B

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5. MATERIAL SPECIFICATION (cont.)

- 5.8 Cap chains -- Steel, ElectroGalvanized.
- 5.9 Upper and lower stems -- Steel, ASTM A-576.
- 5.10 Stem pin -- Stainless Steel, ASTM A-276 Type 302.
- 5.11 Drain valve facing screws -- Stainless Steel, ASTM A-276 Type 305.
- 5.12 Nozzle lock -- Stainless Steel, ASTM A-276 Type 410.
- 5.13 O-rings for bonnet and barrel flanges -- Buna N, ASTM D2000.
- 5.14 O-ring for drain ring housing flange -- Buna N, ASTM D2000.
- 5.15 Gaskets for nozzle caps -- Neoprene, ASTM D2000, 3BC720.
- 5.16 Safety stem coupling -- Stainless Steel, ASTM A-890.
- 5.17 Safety stem coupling clevis pins -- Stainless Steel, ASTM A-276 Type 305.
- 5.18 Safety stem coupling cotter pins -- Stainless Steel, ASTM A-276 Type 302.
- 5.19 Drain valve facings -- Resilient precision molded thermoplastic with unique sealing characteristics.
- 5.20 Reversible main valve -- Molded rubber, ASTM D2000.
- 5.21 Lower valve plate -- Cast Iron, ASTM A-126 Class B coated with high performance 2-part epoxy. NSF61 listed and AWWA C550 compliant.
- 5.22 Lock washer -- Stainless Steel, ASTM A-276 Type 302.
- 5.23 Cap nut -- Cast Iron ASTM A-126 Class B coated with high performance 2-part epoxy. NSF61 listed and AWWA C550 compliant.
- 5.24 Cap nut seal -- Rubber, ASTM D2000, 4AA715.
- 5.25 Shoe coating -- Interior and exterior coated with high performance 2-part epoxy. NSF61 listed and AWWA C550 compliant.
- 5.26 Paint -- Interior and exterior above and below ground line coated with high performance 2-part epoxy. Exterior above ground line -- one coat UV resistant high gloss 2-part polyurethane enamel, color as specified.



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