

MUELLER® SUPER CENTURION® 350 FIRE HYDRANT



1. GENERAL CLASSIFICATION

- 1.1 Suitable for general waterworks service.
- 1.2 Dry barrel, post type with compression main valve closing with the inlet pressure.
- 1.3 Replaceable Safety Stem Coupling and replaceable Safety Flange at the ground line to prevent or minimize traffic damage.
- 1.4 Comply with AWWA Standard C502 are UL Listed and FM approved.
- 1.5 Certified to ANSI/NSF 372.

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 diameter).
- 2.2 **Size and type of inlet connections.**
 - 2.2.1 **Ductile Iron Flange** – Horizontal or vertical in relation to hydrant barrel - American Standard complying to ANSI/ASME B16.1 Class 125 (4", 6" and 8") and ISO PN10/16 (4" & 6" size).
 - 2.2.2 **Standardized Mechanical Joint** – Dimensions comply with ANSI/AWWA C111/A21.11. Furnished with integral anti-rotational pads on all bolt holes (allowing use of standard tee-head bolts), and with two strapping lugs. 4", 6" and 8" size.
 - 2.2.3 **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 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 available per 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 available per customer specs.

* 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.

3. WORKING AND TEST PRESSURES

- 3.1 Working pressure is 350 psi.
- 3.2 Hydrants are subjected to two hydrostatic tests per AWWA C502 Standard.
 - 3.2.1 700 PSI Shell test (hydrant pressurized with main valve open).
 - 3.2.2 700 PSI Seat test (shoe pressurized with main valve closed).

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.

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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 **Thrust Bearing** – Designed to reduce opening torque in high pressure applications.
- 4.3 **Upper operating system** – Bronze encased for O-ring stem seal surface contact.
- 4.4 **Nozzles** – Interchangeable, threaded in place and retained by stainless steel locks.
- 4.5 **Nozzle caps** – Attached to upper barrel with individual non-kinking chains.
- 4.6 **Lower barrel flange** – Concealed for improved appearance.
- 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 un-notched 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 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 a bronze drain ring, which has two drain holes to provide an all bronze drain way.
- 4.12 **Double drain valves** (with replaceable thermoplastic 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** – Encapsulated 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 Coating to resist corrosion.

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5. MATERIAL SPECIFICATIONS

- 5.1 **Bonnet, nozzle caps, barrels, safety flange, drain ring housing, lower valve plate, cap nut and slip-on shoe** – Cast Iron, ASTM A-126, Grade B
 - 5.1.1 **6” Mechanical Joint and Flanged Shoe** – ASTM A-536.
- 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 filler plug** – Brass, ASTM B-16.
- 5.4 **O-ring seals** – Buna N, ASTM D2000.
- 5.5 **Weather seal** – EPDM, ASTM D2000.
- 5.6 **Bolts for bonnet, safety flange, shoe and drain ring housing** – Steel, Electrogalvanized – SAE J429 Grade 5.
- 5.7 **Cap chains** – Steel, Electrogalvanized.
- 5.8 **Upper and lower stems** – Steel, ASTM A-576.
- 5.9 **Stem pin** – Stainless Steel, ASTM A-276, Type 302.
- 5.10 **Drain valve facing screws** – Stainless Steel, ASTM A-276, Type 305.
- 5.11 **Nozzle locks** – Stainless Steel, ASTM A-276, Type 410.
- 5.12 **O-rings for bonnet and barrel flanges** – Buna N, ASTM D2000.
- 5.13 **O-ring for drain ring housing flange** – Buna N, ASTM D2000.
- 5.14 **Gaskets for nozzle caps** – Neoprene, ASTM D2000.
- 5.15 **Safety stem coupling** – Stainless Steel, ASTM A-890.
- 5.16 **Safety stem coupling clevis pins** – Stainless Steel, ASTM A-276 Type 305.
- 5.17 **Safety stem coupling cotter pins** – Stainless Steel, ASTM A-276 Type 302.
- 5.18 **Drain valve facings** – resilient precision molded thermoplastic with unique sealing characteristics.
- 5.19 **Reversible main valve** – Encapsulated molded rubber, ASTM D2000.
- 5.20 **Lower valve plate** – Cast Iron ASTM A-126, Class B and coated with high performance 2-part epoxy, NSF61 listed and AWWA C550 complaint.
- 5.21 **Lock washer** – Stainless Steel, ASTM A-276 Type 302.
- 5.22 **Cap nut** – Cast Iron ASTM A-126 Class B coated with high performance 2-part epoxy, NSF61 listed and AWWA C550 complaint.
- 5.23 **Cap nut seal** – Rubber, ASTM D2000.
- 5.24 **Shoe coating** – Interior and exterior coated with high performance 2-part epoxy. NSF61 listed and AWWA C550 complaint.
- 5.25 **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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