



# VALVE & HYDRANT



Solid design and features to meet any municipal requirement.



## **Product Features**

That meet any municipal requirement.

### Operating Nut

Shields the hold down nut from tampering and from weather, and includes relubrication plug.

#### **2** Hold-Down Nut

O-ring sealed and locked to the bonnet for security.

#### 3 Ductile Iron Bonnet

No bolts to disassemble—one tamper-resistant screw locks bonnet in place. A quick twist removes the bonnet for access to the main valve and drain assembly.

#### Anti-Friction Bearing

Tough, reliable, and easy operation.

#### 5 Travel Stop

Provides a sure stop and positive feel when hydrant is fully opened. (Located on upper end of stem, under the operating nut.)

#### Sealed Lubricant Reservoir

Improved design provides positive grease action each time hydrant is opened or closed. Strategically placed holes and grooves in Revolving Nut allow thorough grease distribution to all critical areas of hydrant operating mechanism. Operating hydrant forces grease inside Revolving Nut to flow to Thrust Collar and Thrust Bearings, renewing lubrication. Any grease added during periodic preventive maintenance is directed to all key areas: Stem Threads, Bonnet/Revolving Nut O-rings and Thrust Collar.

## Dual O-Ring Seals

Seal in lubricant; prevents water from entering; glide smoothly on bronze stem sleeve.

## Field Replaceable Hose & Pumper Nozzles

Threaded in place, sealed with O-rings and held securely in place by stainless steel locks.

## Full Flow Openings

Large, smooth radius hose and pumper openings on the ductile iron upper barrel reduce friction loss.

## Stainless Steel Safety Stem Coupling

Simple design provides a solid, corrosion-resistant connection under normal conditions; with traffic impact it tears cleanly with no loose pieces to fall into the main valve.

## Standpipe Coupling

Simple, two-piece design uses only two bolts to connect upper and lower barrels; dependable traffic impact protection is quick and economical to replace. Also allows easy upper barrel facing adjustment, or addition of extension barrels for grade adjustment.

### **12 Lower Barrel**

Cast iron construction.

## Drain Valve Facings

Long-life plastic facings seal reliably.



#### **14** Bronze Upper Valve Plate

Conical design reduces turbulence.

#### **15** Bronze Seat Ring

Threaded into a bronze drain ring with O-ring seals; can be removed and re-installed from above ground.

#### **16** Reversible Compressrion-Type Main Valve

Closes under pressure for tight seal; reversible design provides a convenient replacement.

#### **17** Lower Valve Plate

One-piece design locks in main valve and seals stem threads from water contact.

#### O-Ring Flange Seals

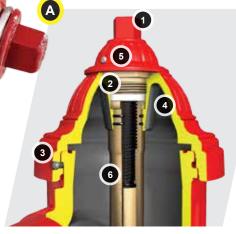
Designed to perform best under pressure; contributes to ease of disassembly and maintenance.

#### Contour Shoe

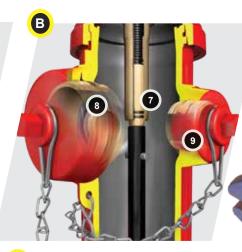
Designed for superior flow; extended neck and anti-rotation pads allow use of standard tee-head bolts (on MJ shoe).

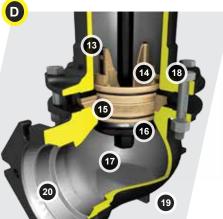
#### 20 Superior Coatings

Epoxy primer covers all iron surfaces inside and out, top to bottom to inhibit corrosion; upper standpipe, bonnet and operating nut top coated with UV resistant polyurethane enamel for superior resistance to fading and the environment.









Fully conforms to AWWA Standard 502 Underwriters Laboratories Listed Factory Mutual Approved

## **Sentinel® 250™ Fire Hydrant**

Solid performance and proven design.



The U.S. Pipe Valve & Hydrant Sentinel 250™ Fire Hydrant features a design that uses fewer bolts than other hydrants. Because it has fewer bolts, both installation and routine maintenance are made easier. Fewer bolts also means fewer parts to replace during maintenance—a feature that could amount to signicant time and cost savings over the long term. With just a single screw to lock the bonnet in place, installation or disassembly requires only a simple twist to remove the bonnet and gain access to the operating mechanism and main valve. Replacement of the breakaway coupling is simple, too. Should the hydrant be struck, there are no bolts to remove and only two to reset the hydrant's upper barrel. And since the Sentinel 250™ hydrant is similar to our other hydrants, maintenance and installation training is greatly simplifed.

The lower barrel, main valve and drain mechanism are taken from field-proven designs. The design features an easy-to-remove main valve and reliable drain valves. Smoothly contoured, large passages through the main valve, lower and upper barrels and nozzles give this hydrant superior flow characteristics. The Sentinel 250™ hydrant is available with mechanical joint, flanged, and slip-on shoe connections. Its maximum working pressure is 250 psig (1723 kPa). It is manufactured by Mueller Co. in it's Albertville, AL plant with ISO 9001 Certication, and comes with a 10-year limited warranty.



#### **Available Options**

- 4-1/2" main valve opening, 3-way with one pumper, and 2 hose nozzles \*
- 5-1/4" main valve opening, 3-way with one pumper, and 2 hose nozzles \*
- Flange inlet 4" & 6" (vertical or horizontal)
- MJ inlet 4", 6", or 8" (only available on 5-1/4")
- D150 MJ inlet 4" & 6"
- Slip-on inlet 6" only
- Drain holes tapped or plugged
- Storz pumper nozzle
- Municipal options: Nozzle threads, paint color, and operating nut size.
- \* Contact Customer Service regarding special nozzle configurations.

#### **Available Accessories & Parts**

- Safety flange repair kit
- Main valve kit
- Extension kit
- A359-00 seat wrench
- Bonnet spanner / Stop wrench nut
- Allen wrenches

## **Simplified Design Features**

Provide easy maintenance and repair.



#### **Easy Maintenance**

With removal of one Allen screw and a twist with the spanner wrench, the bonnet comes off for easy maintenance, without having to remove a lot of bolts.



#### **Quick Repair**

Simple, two-piece coupling using just two bolts allows quick, economical resetting of hydrant in the event of traffic impact. Reliably protects hydrant and shoe connection from traffic impact forces.

### **Main Valve Operation**



The main valve is kept closed by the operating nut and water pressure, keeping the inside of the barrel dry.



Opening the main valve allows water pressure to force-flush double drain valves and drain openings and initiates water flow into drain field around the hydrant.



When fully open, the main valve guides seal off the drain valves, preventing water from escaping through the drain valves.



In closing the main valve, water pressure again force-flushes the drain valves.



Once the main valve is fully closed, drain valves are left open, allowing excess water to drain from the barrel.



#### **Our Products**

Mueller Co. manufactures U.S. Pipe® Valve & Hydrant branded fire hydrants and gate valves, as well as for a variety of other water distribution and fire protection products. Our valves and hydrants are manufactured in the United States at plants that are ISO 9001 certified, your assurance they operate under the highest quality standards.

All of our hydrant and valve manufacturing takes place at locations in the United States at plants set-up and operated specifically to make only these products.

#### **Our People**

Our customer service representatives are dedicated to helping you with your water distribution flow control needs. Their experience and thorough understanding of valves and hydrants means you can count on getting the assistance you are looking for when you call our toll-free number.

For more information about U.S. Pipe Valve & Hydrant water products, please visit www.uspvh.com or call customer service at 1.800.871.2194.

## ther Innovative Products

#### **USP-1 350psi Resilient Wedge Gate Valve**

- 350 psig (2400 kPa/24 Barg) working pressure, 700 psig (4800 kPa/48 Barg) test pressure
- Dual-purpose lifting lugs provide stability for the valve box
- Unique pressure-assist wedge geometry
- T-head bolt retention eliminates need for anti-rotation bolts
- Certified to ANSI/NSF 61 & 372, UL Listed, FM Approved, and exceeds applicable requirements of ANSI/AWWA C515 Standard
- 10-year limited warranty



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