

STYLE 929 FIRE HYDRANT



- Time Tested
- Proven Service
- Reliable Performance





MADE IN ANNISTON, ALABAMA USA

The M&H Style 929 Reliant

For over one hundred years, the M&H name has been synonymous with reliability in products for the waterworks industry.

Today, the M&H Style 929 RELIANT fire hydrant offers this same reliability in providing superior fire protection service.

The RELIANT hydrant is engineered to give life-long, maximum performance. Its design features simplify installation and maintenance. It offers trouble-free operation and economy, too. Its rugged construction and unique traffic lug design assure minimal damage on vehicle impact and fast, low cost repair.

From top to bottom, the RELIANT is one tough hydrant. From its tamper-resistant top works to its 5 ¹/₄" main valve opening for high-flow capacity. Plus, the RELIANT meets or exceeds all requirements of the American Waterworks Standard C-502 for fire hydrants. And also is UL listed and approved by Factory Mutual.

Each 929 Reliant Hydrant comes with a five year limited warranty protection on materials and workmanship.

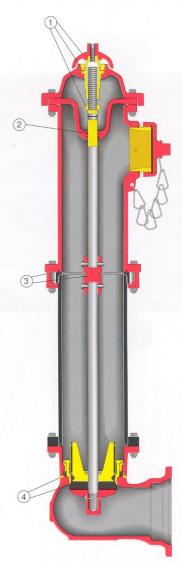
Features and Benefits

Integral Operating Nut and Weather Shield provide tamper resistant top works and protects the operating mechanism from the elements. Ease of operation is assured by a nylon anti-friction thrust bearing. A positive stop stem nut protects the main valve stem, stem coupling and main valve from potential damages occurring from excess input torque in the open position.

2 Factory-lubricated with grease, the "Reliant" hydrant can be greased or oil lubricated in the field. This important maintenance requirement of all fire hydrants can be performed by re-greasing or by simply filling the oil reservoir through the weather shield bolt. These reservoirs are dual "O" ring sealed to provide positive prevention of lubricant leakage into the hydrant or water leakage into the bonnet area.

3 A Unique field-proven lug arrangement provides full 360-degree rotation of nozzle section. Also assures effective breakaway on vehicle impact and fast, low cost repair. Additionally, the stem coupling between the upper and lower main valve stem fractures on a plane below the level of the standpipe flange. This assures that a vehicle tire cannot depress the main valve after impact.

4 The 5 ¹/₄" main valve opening assures high flow capacity. The compression type main valve opens against the pressure and is held shut by this pressure during repair or maintenance. Two drain valves provide quick drainage of the hydrant standpipe following closure of the hydrant. These drains are selfflushing with each cycle of the main valve.



Reliant Style 929 Fire Hydrant

FOR FIRE PROTECTION YOU CAN RELY ON!

1) WEATHER SHIELD

Cast Iron ASTM A-126, Class B One-piece component deflects moisture and dust exposure to bronze operating nut. Affords protection against freezing conditions ensuring operational efficiency.

3) OPERATING NUT Bronze Alloy CDA 84400, ASTM B-584

4) HOLD DOWN NUT "O" RING N.B.R.

8) BONNET

Cast Iron ASTM A-126, Class B Flange ring gives finished appearance at bonnet/nozzle section flange. Prevents dirt build-up between flanges. Allows for ease of repainting. Sealed with heavy-duty gasket.

56) SEAL PLATE

Cast Iron ASTM Includes reservoir for oil lubrication as option to factory applied grease on operating threads. Two O-ring seals at penetration point of operating stem prevent lubricant leakage and exclude water entry of chamber when hydrant is pressurized.

13) BONNET NUTS 1/2-13 -Electro Zinc Plated Steel

58) STEM STOP NUT Bronze

9) BRONZE STEM SLEEVE "O" RING N.B.R.

10) BRONZE STEM SLEEVE

2) LUBRICATION PLUG BOLT 1/2 x2 1/4

Electro Zinc Plated Steel Firmly attaches operating nut/weathershield unit to bronze operating nut and is tamper resistant. Plug is easily removed for field servicing or maintenance.

5) HOLD DOWN NUT

Bronze Alloy CDA 84400, ASTM B-584 Non-corrodible bronze nut secures stem nut for operating thrusts. Hold down nut provides additional weather protection with threading attachment to bonnet and O-ring seal.

6) HOLD DOWN NUT SET SCREW
18-8 SS ASTM F-593 Group 1
Drilled and tapped hole in nozzle with stainless steel set screw. Secures hold down nut to bonnet.

7) THRUST WASHER

Nylon

Nylon anti-friction bearing at thrust collar reduces operating torque for smoother open/close cycles.

12) BONNET BOLTS 1/2-13 x 2 1/4 (3) Electro Zinc Plated Steel

- 59) SEAL PLATE BOLTS 1/2 x 2 (3) Electro Zinc Plated Steel

57) SEAL PLATE GASKET Rubber

. 15) NOZZLE/STAND PIPE "O" RINGS N.B.R. Superior sealing quality of O-rings used on all standpipe flange joints.

16-17) HOSE/PUMPER NOZZLE CAP Cast Iron ASTM A-126, Class B Hose and pumper nozzle are machine threaded into C.I. nozzle outlets, an original M&H design. They are easily removed for field replacement.

18-19) HOSE/PUMPER NOZZLE CAP GASKET Rubber ASTM D2000

20-21) HOSE/PLIMPER NOZZI E SET SCREW

14) SEAL PLATE "O" RINGS N.B.R.

11) UPPER ROD/STEM ASSEMBLY

Steel C1117 HFS w/BRZ Stem Sleeve High strength steel stem has rugged acme threads at top end to match threads in bronze operating nut. Brass stem sleeve is machine fitted on segment that penetrates oil reservoir providing smooth, non-corrodible bearing surface for double O-ring seals. O-ring insert between sleeve and stem provides additional leakage protection.

29) SAFETY STEM COUPLING/BREAK COUPLING Cast Iron ASTM A-126, Class B Designed to break from collision without damage to main valve or lower rod. Bottom half of coupling is square and accepts short disassembly wrench.

35) STAND PIPE UPPER FLANGE -Ductile Iron

30) CLEVIS PIN 3/8 x 2 1/2 (2) 410 Stainless Steel

36) STAND PIPE

Ductile Iron Pipe Fabricated for exceptional strength and support of below ground unit.

43) UPPER DRAIN VALVE/UPPER VALVE PLATE/MAIN VALVE TOP PLATE steel set screw. Prevents turning of brass during hose coupling attachment or removal.

22-23) HOSE/PUMPER NOZZLE Bronze Alloy CDA 84400, ASTM B-584

24-25) HOSE/PUMPER NOZZLE "O" RING N.B.R.

27) "S" HOOK Electro Zinc Plated Steel

28) NOZZLE CAP CHAINS Electro Zinc Plated Steel

26) NOZZLE SECTION

(15)

Cast Iron ASTM A-126, Class B Molded from durable cast iron and available with one pumper nozzle and two hose nozzles.

Above ground hydrant assembly may be rotated full 360° on the standpipe flange to improve alignment to curb. Simply loosen lug bolts/nuts, rotate and retighten.

32) SAFETY LUG BOLTS 5/8-11 x 4 (6) Electro Zinc Plated Steel

34) SAFETY LUGS (6)

Cast Iron ASTM A-126, Class B Upon vehicular impact, safety lugs fractures to allow above ground hydrant assembly to separate cleanly from standpipe without damage to internal parts or loss of water. Repair is easily accomplished with economical field repair kit.

33) SAFETY LUG NUTS 5/8-11 (6) Electro Zinc Plated Steel

31) RETAINING CLIP (2) C1038 Electro Zinc Plated Steel

-37) LOWER ROD/LOWER STEM Steel C117 HFS

44) DRAIN VALVE FACINGS BUNA "S" Aluminum-Bronze Alloy ASTM B-763 Includes two rubber faced bronze drain valves and provides positive closure of two bronze bushed drain ports during operation. After operation, the drain valves automatically drain all water from the standpipe preventing cold weather freeze-up. Drain ports are purged during first three operating turns on opening and again on closing.

45) DRAIN VALVE FACINGS RIVETS Copper

51) BRONZE MAIN VALVE SEAT RING. Aluminum-Bronze Alloy ASTM B-763 Contoured for smooth flow and low pressure drop.

52) VALVE MAIN SEAT RING UPPER⁴ "O" RING N.B.R.

42) DRAIN HOLE BUSHINGS Bronze ASTM B-135 Annular Drain exhausts water through two brass lined ports on either side of shoe. Drain area is corrosion-free.

53) VALVE MAIN SEAT RING LOWER[®] "O" RING N.B.R.

48) MAIN VALVE RUBBER SEAT

Compression designed, opens against system pressure. Pressure against main valve assembly helps keep valve tight even if nozzle section is separated at ground-line flange.

49) LOWER VALVE PLATE/BOTTOM PLATE LOCKING WASHER 18-8 Stainless Steel Type E

60) LOWER STEM CAP NUT Cast Iron ASTM A-126, Class B

D

50) LOWER VALVE PLATE/BOTTOM PLATE Cast Iron ASTM A-126, Class B

15

39) SHOE BOLTS 5/8-11 x 3 1/2 Electro Zinc Plated Steel

38) STAND PIPE LOWER FLANGE Ductile Iron

40) SHOE BOLT NUTS 5/8-11 Electro Zinc Plated Steel

•54) SHOE/SEAT RETAINER RING Bronze Alloy CDA 8440, ASTM B-584 Permanently affixed shoe and O-ring sealed. Provides bronze to bronze interface for main valve seat as standard.

-55) SHOE RETAINER RING "O" RING N.B.R.

46) LOWER STEM PIN 1/2 x 1 3/4
 18-8 Stainless Steel Type E

∼47) LOWER STEM "O" RING SEAL N.B.R.

41) HYDRANT SHOE ELBOW Ductile Iron ASTM A-536, Grade 70-50-5 Fusion bonded epoxy coating inside and out. Meets AWWA C550 standards. 6" flange or mechanical joint shoes available.

500 lbs. hydrostatic test pressure 250 lbs. work pressure

M&H VALVE COMPANY

A DIVISION OF MCWANE, INC. Anniston, Alabama www.mh-valve.com 2005



ACCESSORIES/ORDERING



EXTENSION KIT Conveniently packaged including all necessary parts to raise hydrant in 6" increments. Specify if hydrant size is 4-1/2" or 5-1/4".



TRAFFIC REPAIR KIT Available for 4-1/2" or 5-1/4" hydrant and packaged with all components needed to restore hydrant to service following collision.



MAIN VALVE REPAIR KIT Available for 4-1/2" or 5-1/4" hydrant and packaged with all components needed to repair damaged valve assembly.



HOLD DOWN NUT/STEM STOP NUT REMOVAL TOOL



HOSE NOZZLE WRENCH



PUMPER NOZZLE WRENCH Slots engage drive lugs in nozzle I.D. for removal. Threads are left hand. Specify nozzle size if other than National Standard.

How To Order

Model: M&H Style 929. 5-1/4" valve opening. Traffic Model AWWA C-502 hydrant. Equipped with two 2-1/2" outlets and one 4-1/2" pumper outlet or two 2-1/2" outlets.

SEAT REMOVAL WRENCH

Engages stem drive pin for removing main valve seat.

2Hose and Pumper Nozzle Threading: National Standard Specifications

(As adopted by Nation Board of Fire Underwriters)
Hose Nozzle: 2-1/2" - Threads, 3-1/16" O.D.
7-1/2 threads per inch.
Pumper Nozzle: 4-1/2" - Threads, 5-3/4" O.D.
4 threads per inch.
Operating Nut: Pentagon - 1-1/2" point to flat.
Direction of Opening: Left (counter-clockwise)

If other than NST, specify standard by description or send male coupling from discarded section to hose. Do not send hydrant cap. **3** Size and Type of Shoe Connection: 6" Mechanical Joint or 6" Flanged.

4 Size and Shape of Operating Nut: If other than National Standard pentagon measuring 1-1-2" Point to Flat, give dimension measuring point to flat for pentagon and across center from flat to flat for square and hexagon nuts.

5 Direction of Opening: Specify left (counter-clockwise) or right (clockwise). If not specified, open left will be provided.

Depth of Trench: Distance from ground line to bottom of connecting pipe. "Trench" and "Ditch" are the same as "Bury". "Cover" is distance from ground line to top of connecting pipe.

7 Color: Unless otherwise specified, final paint coat will be fire hydrant red.



M&H VALVE COMPANY

A DIVISION OF MCWANE, INC. Sales Office & Manufacturing Facility www.mh-valve.com 2005 P.O. Box 2088 Anniston, Alabama 36202 Phone (256) 237-3521 Fax 1-888-549-5309

GENERAL FEATURES / SPEC M&H AWWA C502 FIRE HYDRANTS

- ♦ Style 929
- ♦ Traffic Model
- ◆ 250 PSI Working Pressure 500 PSI Hydrostatic Test AWWA
- ♦ UL / FM Approval



Type: Compression type, opening against line pressure. Main valve on Traffic Model will remain closed should hydrant be broken off by traffic accident.

Classification and Size: Hydrants are classified by the main valve size, number and size of hose and pumper nozzles. Hydrant size is designated as a 5 ¹/₄ ", size being the inside diameter of the main valve seat opening.

Length: Hydrant lengths are determined by depth of trench below ground level. Lengths are in multiples of six inches.

Barrel: Upper section of barrel (nozzle section) contains the hose and pumper nozzles. The water way is uniform in diameter for entire length of barrel.

Hydrant Inlet: Hydrant shoe or elbow is provided with flange or mechanical joint connection to fit connecting pipe. All type shoes except flanged are provided with lugs for strapping. The two drain openings in the hydrant shoe are bronze bushed. All shoes are protected from corrosion with fusion bonded epoxy coating.

Hose and Pumper Nozzles: Threaded and screwed into tapped openings in nozzle section of hydrant. Hose and pumper nozzle caps are provided with rubber gaskets and chained to nozzle section.

Operating Mechanism and Working Parts: Main valve rod is made of steel and is bronze sheathed where it passes through a two piece bonnet system. Bronze retainer ring bushing is permanently affixed into shoe. Main valve seat ring is threaded into seat retainer ring providing bronze to bronze assembly. Main valve seat material is rubber. All working parts, including main valve assembly, are removable through the top of hydrant without excavating. Two positive acting non-corrodible drain valves are integral parts of main valve assembly. All parts of hydrant of same size and type are interchangeable with out any special fittings. Integral operating nut and weather shield provide tamper resistant top works and protects the operating mechanism form the elements. Also operating hold down is O-ring sealed for added protection.

Dry Top: Operating threads are isolated from the waterway by a seal plate having double O-rings. Operating nut has lubricating hole in top for lubrication of operating threads and thrust bearing.

Dry Barrel: When the valve of the hydrant is closed, two drain valves in the hydrant shoe automatically open and allow rapid and complete drainage of the hydrant barrel. This dry barrel eliminates danger of damage to the hydrant by freezing.

Materials of Construction: All iron parts are made of high strength gray iron conforming to specification A-126, Class B of the American Society for Testing Materials or ductile iron. All non-corrodible metal parts are made of copper alloys conforming to AWWA Standard C502 requirements. Other materials are also of high quality for their respective uses.

Shop Tests: Tested to 500 pounds hydrostatic pressure supplied from the inlet side, first with main valve closed for testing of valve seat; second, with main valve open for testing of drain valves and entire hydrant.

September 2012 / M&H C502 / Model 929

SUGGESTED SPECIFICATIONS (1 of 2) M&H AWWA C502 FIRE HYDRANTS

- ♦ Model 929
- ♦ Traffic Model
- ♦ 250 PSI Working Pressure 500 PSI Hydrostatic Test AWWA
- ♦ UL / FM Approved

GENERAL	Fire hydrants shall comply in all respects with AWWA Standard C-502, latest revision. Fire hydrants shall be of the compression type, with the main valve opening against the pressure and closing with the pressure. The main valve opening shall be (5 ¼") in diameter. Fire Hydrant shall be of a dry barrel, dry top design. The nozzle section shall consist of two (2) hose nozzles and one (1) pumper nozzle or other as specified.
RATING	Fire hydrants shall be rated at 250 psi water working pressure, tested at 500 pounds hydrostatic for structural soundness in the following manner: 500 pound hydrostatic test supplied from the inlet side, first with the main valve closed for the testing of the valve seat: second, with the main valve open for testing of the drain valves and the hydrant barrel. Testing to be complete in accordance with AWWA C-502 and UL & FM requirements.
END CONFIGURATION	Hydrants shall be connected to the main by a 6" fusion bonded, epoxy coated mechanical joint or flanged shoe. Mechanical joint shoes shall be fitted with strapping lugs.
	The main valve seat of the hydrant shall be made of rubber and be supported by a one-piece bronze top plate / drain valve mechanism. Drain valves shall have replaceable rubber facings.
	The bottom stem threads of the main valve rod shall be fitted with an epoxy coated, cast iron bottom plate, sealing lower rod threads from the water.
	Changes in size or shape of the waterway (hydrant nozzles) shall be accomplished by means of easy curves Exclusive of the main valve opening, the net area of the waterway of the barrel and the foot piece at the smallest part shall not be less than 120% of that of the net opening of the main valve.
	Hose and pumper nozzles shall be threaded and screwed into the nozzle section. And then mechanically locked to prevent turning.
	Hose and pumper caps shall be chained to the hydrant
	The hydrant shall be so designed that when it is in place, no excavation will be required to remove the main valve and movable parts of the drain valve. Further, the hydrant shall be of the type that can be extended without excavating.
	Hydrants shall be so designed that, in the event of accident, or breaking of the hydrant above or near grade level; the main valve will remain closed.
	The main valve rod shall be made in two parts and fitted with breakable coupling at the ground line flange.
	The ground line connection between nozzle section and the barrel shall incorporate the use of breakaway lugs. This connection shall be so designed that the nozzle section can be rotated in any increment of 360°. The ground line connection between the barrel and nozzle sections shall have an o-ring to provide a seal.
	The operating threads of the hydrant shall be so designed as to avoid the working of any iron or steel parts against either iron or steel. The operating stem and operating nut threads shall be square or acme type.

September 2012 / M&H C502 / Model 929

SUGGESTED SPECIFICATIONS (2 of 2)

DESIGN (Continued)

The operating thread shall be lubricated at factory with food grade grease. Access shall be provided to field lubricate the operating mechanism.

The operating thread shall be sealed from water at all times when the valve is either in the opened or closed position. The operating rod shall be bronze sheathed where it passes through the double "O" ring seal in the bonnet.

The bonnet shall be weather proof and utilize a weather shield integral with the external wrench operating nut.

The operating nut shall be made of bronze with a self-lubricating design.

Hydrants shall be of the dry barrel type and hydrant shoe shall have two positive acting non-corrosive drain valves that shall drain the hydrant completely by opening when the main valve is closed, and close tightly in accordance with AWWA C-502 requirements when main valve is open.

The main valve assembly shall be seated in the hydrant with a bronze-to-bronze interface to facilitate removal of the main valve, should maintenance be required. The nozzle section shall consist of two-2 1/2" hose nozzles to the specified thread designation (NST or other, as specified) and one pumper nozzle $4\frac{1}{2}$ " in diameter to the specified thread designation (NST or other, as specified), or other combination of nozzle outlets, including independent hose gate valves, as specified.

Two O-ring seals shall be utilized where the main hydrant rod passes through the 1 piece bonnet.

Hydrant standpipe shall be ductile iron and single piece for all bury depths.

All like parts of hydrants of the same size and model produced by the same manufacturer shall be interchangeable.

Hydrant shall open by turning to the (left or right). Direction of opening to be permanently marked on hydrant bonnet.

Threads on hose and steamer nozzles shall be National Standard unless otherwise specified.

Size and shape of operating nuts cap nuts shall conform to National Standard unless otherwise specified.

Bury shall be (specify depth of bury) measuring depth from grade line to bottom of trench or connecting pipe.

Auxiliary shut-off (isolation) gate valves, when required, shall be of the same manufacture as the hydrant.

COATING Hydrant shoes shall have an interior and exterior thermosetting epoxy coating of 5 to 6 mils meeting AWWA C550. Exterior on hydrant nozzle section shall be Fire Hydrant Red (or as specified).

MARKINGS Hydrant shall be marked with the name of the manufacturer, size of valve opening, direction of opening and the year of manufacture all in accordance with the AWWA C-502. Country of origin to be cast on all major hydrant castings.

SOURCE Hydrants shall be M&H Model 929 or approved equal

