

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 ¼", 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 from 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.

SUGGESTED SPECIFICATIONS (1 of 2)

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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 1/4") 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.

DESIGN

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.

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 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