Model RFH1 Wet Barrel Fire Hydrants

cULus Listed, FM Approved

Product Description

The Reliable RFH1 Wet Barrel Fire Hydrant is intended for direct connection to water supply lines in regions where above-ground freezing damage is not a concern for municipalities or facilities that require the ability to connect fire hoses.

The Reliable RFH1 Wet Barrel Fire Hydrant is equipped with two 2-1/2" hose nozzles and one pumper nozzle that is either 4" or 4-1/2"; each configuration is also available with a plain top (2H1P) or an ASME 4" Class 125 / 150 monitor flange top (2H1PM) for connecting additional equipment. Each RFH1 wet-barrel fire hydrant includes a 6" (150mm) ASME class 125 / 150 flange for connection to water supply line. All Reliable RFH1 Wet Barrel Fire Hydrants are provided with a red epoxy powder coat finish and utilize a wire rope to connect the nozzle caps to the body for convenience of fire departments.

Model RFH1 Wet Barrel Fire Hydrant

Maintenance

The owner is responsible for maintaining the fire protection system in proper operating condition. Any system maintenance or testing that involves placing a control valve out of service will eliminate the fire protection that is provided by the fire protection system.

The Reliable RFH1 Wet Barrel Fire Hydrants and associated equipment shall periodically be given a thorough inspection and test. NFPA 25, "Inspection, Testing and Maintenance of Water Based Fire Protection Systems," provides minimum maintenance requirements.

Guarantee

For Reliable Automatic Sprinkler Co., Inc. guarantee, terms, and conditions, visit www.reliablesprinkler.com.

Ordering Information

Specify the following when ordering:

- Size of pumper nozzle: 4" or 4-1/2"
- Plain top (2H1P) or Monitor Flange top (2H1PM)

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Technical Specifications

Pressure Rating:
250 psi (17.2 bar)

Temperature Range:
14 °F to 248 °F (-10 °C to 120 °C)

Inlet Flange Size: 6” (150mm)
Monitor Flange (if equipped): 4”)100mm)
Hose Nozzle Size: 2-1/2”
Pumper Nozzle Size: 4” or 4-1/2”

Material Specifications

Body: ASTM A536 Gr 65-45-12 Ductile Iron
Pumper Nozzle Cap: ASTM A536 Gr 65-45-12 Ductile Iron
Pumper Nozzle Body: ASTM B505 Gr C84400 Brass
Pumper Nozzle Shaft: ASTM A276 Gr 304 or Gr 420 Stainless Steel
Pumper Nozzle Disc: ASTM A351 Gr CF8 Stainless Steel
Pumper Nozzle Gasket: EPDM Elastomer
Pumper Nozzle Operating Nut: ASTM A351 Gr CF8 Stainless Steel
Hose Nozzle Cap: ASTM A536 Gr 65-45-12 Ductile Iron
Hose Nozzle Body: ASTM B505 Gr C84400 Brass
Hose Nozzle Shaft: ASTM A276 Gr 304 or Gr 420 Stainless Steel
Hose Nozzle Disc: ASTM A351 Gr CF8 Stainless Steel
Hose Nozzle Gasket: EPDM Elastomer
Hose Nozzle Operating Nut: ASTM A351 Gr CF8 Stainless Steel
O-rings: EPDM Elastomer
Wire Rope: ASTM A492 Gr 304 Stainless Steel

Design / Performance Specifications

- UL 246 / FM 1511 / AWWA C503
- Nozzle Threads: NFPA 1960 / NFPA 1963
- Inlet Flange & Monitor Flange (if equipped):
  ASME B1.42 class 125/150 or
  BS EN 1092-2 PN10/PN16

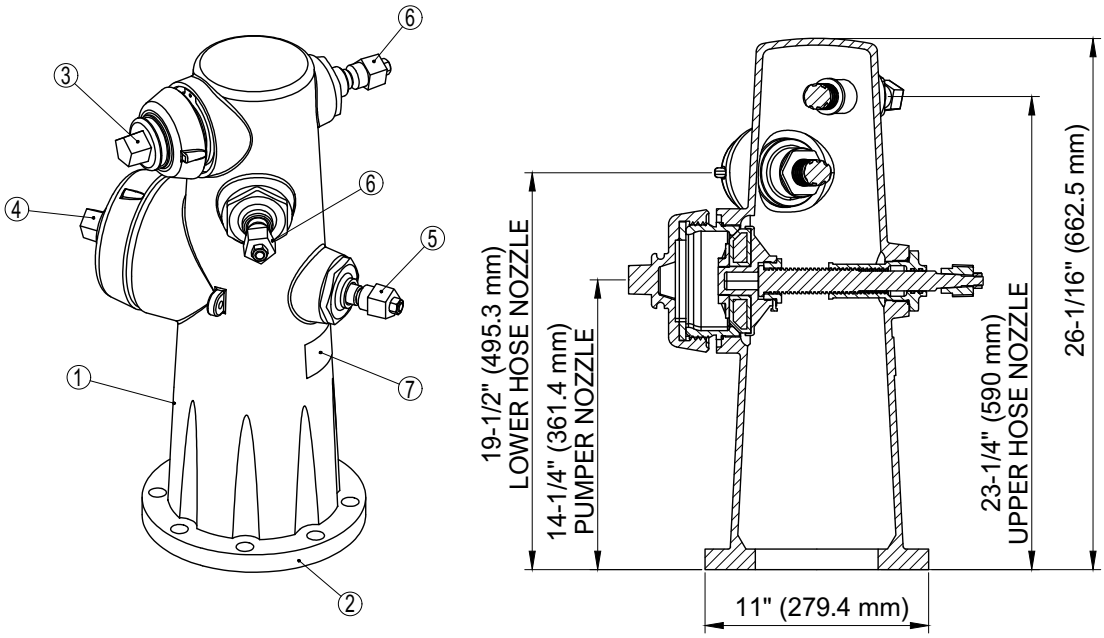
Component Surface Treatments

- Red Epoxy Powder Coat (per AWWA C550)

Applications

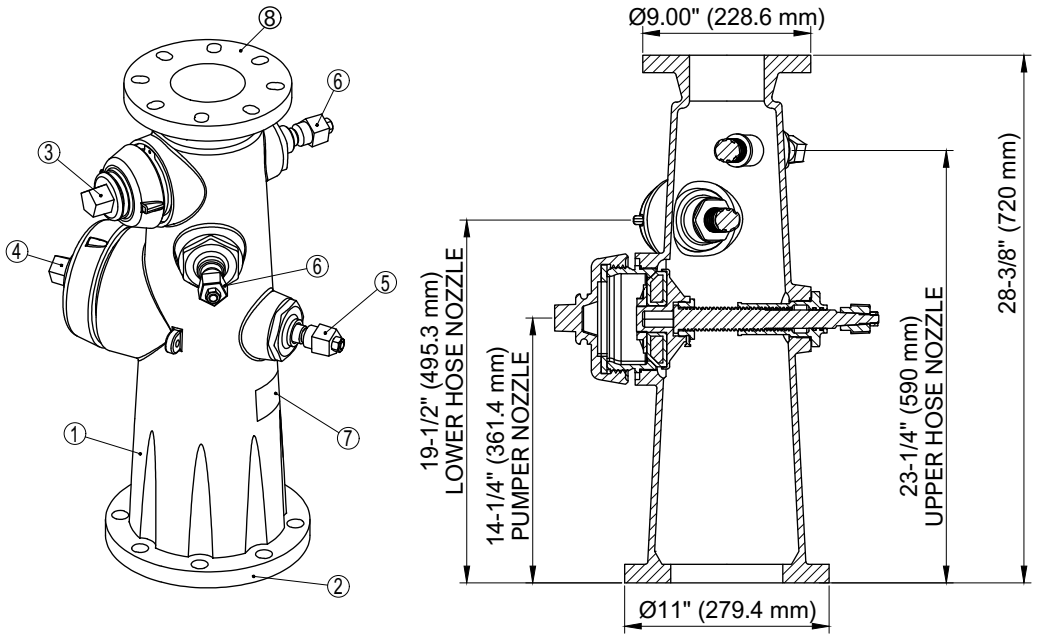
- Aboveground use only
- Indoor / outdoor use

Model RFH1 Wet Barrel Fire Hydrant 2H1P Components — **Figure 1**



Item No.	Component
1	Fire Hydrant Body
2	Fire Hydrant Inlet Flange
3	2-1/2” Hose Nozzle Cap
4	4” or 4-1/2” Pumper Nozzle Cap
5	Pumper Nozzle Operating Nut
6	Hose Nozzle Operating Nut
7	Nameplate

Model RFH1 Wet Barrel Fire Hydrant 2H1PM Components **Figure 2**



Item No.	Component
1	Fire Hydrant Body
2	Fire Hydrant Inlet Flange
3	2-1/2” Hose Nozzle Cap
4	4” or 4-1/2” Pumper Nozzle Cap
5	Pumper Nozzle Operating Nut
6	Hose Nozzle Operating Nut
7	Nameplate
8	Monitor Flange

Installation Guidelines

1. Ensure that hydrant will be installed in a manner compliant with all relevant NFPA requirements and any relevant national, regional, municipal guidelines or regulations. It is recommended that the hydrant be installed a minimum distance of 2’ (0.6 m) from the roadway, unless local national, regional, or municipal regulations require a longer distance.

2. The lowest nozzle on the hydrant should be installed a minimum of 18” (457 mm) aboveground to ensure operability of a hydrant wrench.

3. An isolation valve (e.g. a gate valve) should be installed between the hydrant and the water supply line, to allow pressure testing, maintenance, repair, or replacement of the hydrant without requiring shutdown of the water supply line. The size, style, location, and installation method should follow all NFPA requirements.

4. Hydrant should be solidly supported using a stone or concrete base to prevent unwanted stresses or deformation of the hydrant or its support piping due to subsidence or settling of soil.

5. When closing the valves, care should be taken to visually inspect for debris that can damage the hydrant valves or nozzles.

Pressure Test Using Water Line Pressure

Note: Each hydrant is pressure tested at the factory prior to shipping.

1. Before testing, ensure that each nozzle valve and the isolation valve are all fully closed.

2. Remove the upper-most nozzle cover and slightly open the nozzle valve using the operating nut.

3. Slowly open the isolation valve to allow any trapped air to escape the system. **WARNING:** This trapped air may be pressurized, so ensure that the hazard zone in front of the nozzle is free of people, vehicles, and other things that could be damaged by a release of energy from pressurized air.

4. When water is flowing from the nozzle, the water line and hydrant are free of air. Close the nozzle valve using the operating nut.

5. After closing the nozzle valve, open the isolation valve to the "FULL OPEN" position.

6. Remove all nozzle covers and ensure that the hydrant is fully pressurized to water line pressure. Visually inspect both sides of each nozzle valve (the nozzle connection side and the stem / operating nut side) to visually confirm that there are no leaks.

7. If any leaks are found, they should be repaired by qualified personnel, or the hydrant should be replaced. If no leaks are observed, replace all nozzle covers and put the hydrant into service.

Pressure Test up to Rated Working Pressure 250 psi (17.2 bar)

Note: Each hydrant is pressure tested at the factory prior to shipping.

1. Before testing, ensure that each nozzle valve is fully closed. Also ensure that the isolation valve are all fully closed.

2. Remove all nozzle covers and connect the test pump to the hydrant's lowest outlet nozzle. After connecting the pump, open this nozzle's valve slightly using the operating nut.

3. Slightly open the upper-most nozzle valve on the hydrant using the operating nut. Use the test pump to apply pressure to the hydrant in order to allow any trapped air to escape the hydrant. **WARNING:** This trapped air may be pressurized, so ensure that the hazard zone in front of the open nozzle is free of people, vehicles, and other things that could be damaged by a release of energy from pressurized air. When water begins to flow out of the open nozzle valve, tighten the operating nut to close the nozzle valve.

4. Use the test pump to apply desired test pressure to the hydrant. **WARNING:** Do not exceed the rated working pressure of 250 psi (17.2 bar). After reaching the desired test pressure, close nozzle valve that is connected to the test pump and turn off the test pump; this will leave internal pressure in the hydrant and allow evaluation of each nozzle valve's performance at the test pressure.

5. Disconnect the test pump and visually inspect both sides of each nozzle valve (the nozzle connection side and the stem / operating nut side) for leaks.

6. If any leaks are found, they should be repaired by qualified personnel, or the hydrant should be replaced. If no leaks are observed, slowly re-open the upper-most nozzle valve slightly using the operating nut and allow pressure in the hydrant to bleed off.

7. Open the isolation valve. When water flows out of the open nozzle valve, tighten the operating nut to close it. Ensure that no leaks are present, and then replace all nozzle covers and put the hydrant into service.

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