



MAPA Products

MPH-24-FP:24/9 Pedestal Hydrant

January 2024

Installation Instructions – Parts List

Description of the Hydrant:

The MAPA MPH-24-FP:24/9 Pedestal Hydrant is a hydrant assembly based on the venturi principle utilizing a globe valve within a fully insulated stainless steel or grey powder coated shroud.

Meets ASSE 1057 Sanitary Yard Hydrant Standard.

This assembly is ideally suited for applications where there is concern for potential damage to the hydrant assembly due to severe cold weather.

The Shroud and Base allow the contractor to make a positive, weather tight flashing to the Hydrant.

The Under-deck Flange prevents the Hydrant from becoming dislodged from the roof membrane during operation. The Weather-Guard Domed Handle prevents moisture from entering the assembly when the valve is in the OFF position.

Supply connection is made at the ¾" fitting on the reservoir located at the base of the Hydrant.

Unpacking the Hydrant:

Parts Included:

- Hydrant Assembly
- Under-deck flange
- Assembly Hardware
- Installation Instructions

Assembly Hardware is located in a plastic bag that is attached to the underside of the under-deck flange.

Parts:

- 4 – ¼" X 2" set screws
- 4 – ¼" X 1 ½" hex head bolts

Verify that all assembly parts are present.

How the Hydrant Works:

The design of the hydrant assembly is based on a venturi principle. When the hydrant is OFF, the stopper seals against the nozzle and stops flow. The water remaining in the riser drains back into the reservoir tank below the roofline. When the hydrant is ON, the flow through the nozzle creates a vacuum in the reservoir evacuating the water out through the hydrant. A brass valve float assembly located on the shroud allows air to escape from the reservoir as the tank fills and allows air to enter the tank as the vacuum force evacuates the water from the tank.

Caution: During freezing conditions, this hydrant requires the user to operate the hydrant at full flow without this assembly for approximately (120) seconds, to ensure proper evacuation of the reservoir tank.



Recommended Installation Procedures:

Support Framing: We strongly recommend that prior to the installation of this Roof mounted Pedestal Hydrant that a field provided welded angle frame be installed at the bottom surface of the roof decking. This framing should be of sufficient size to permit the provided under-deck flange to slide freely yet firmly into the frame and rest firmly against its top. The framing should be of sufficient strength to prevent any dislodging of the Hydrant during normal operation. Refer to **Figure 1**.

Installation Sequencing:

We recommend that the Hydrant not be installed until the roof decking and all roof insulation is in place. A round hole should be cut in the roof insulation and deck to permit the hydrant to pass from the roof surface through this opening to below the roofline with the base resting squarely on the insulation. We do not recommend making final piping connections to the Hydrant until all roof work associated with making the hydrant base watertight to the roof is completed and then not until the under-deck clamp has been installed.

Connections to the Water Source:

We recommend that a valve be installed on the supply piping serving the hydrant. This valve should be in a convenient and easily accessible location. In order for the venturi to properly operate, we recommend that the supply piping be minimum $\frac{3}{4}$ ". To prevent debris from entering the valve and causing valve failure, MAPA Products recommends a field provided #20 Mesh Y-Strainer be placed on the supply side immediately prior to the shut off valve. Optimal water pressure at the hydrant supply should be 60 PSI (typical city water pressure), however it will still operate properly at a minimum of 20 PSI.

Installation of the Hydrant: A hole approximately seven inches (7") in diameter should be cut in the roof decking. The hole should be centered on an angle frame welded to the roof structure below the decking. Once roof insulation is in place, cut through the insulation and place the Hydrant base squarely onto the roof surface. Square the Hydrant, pointing the outlet nozzle in the desired direction.

Refer to **Figure 2** of the Instructions.

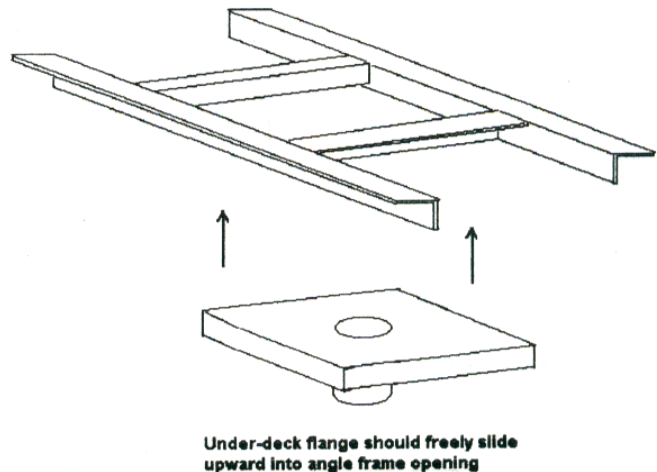
MAPA Products MPH - 24 Pedestal Hydrant

Figure 1

Welded Angle Frame Detail

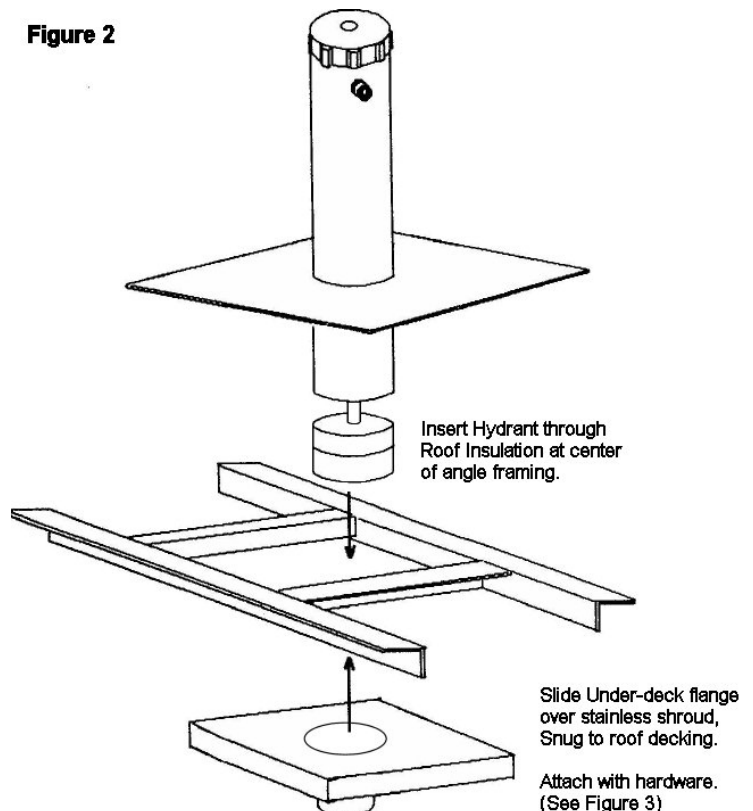
ID Dimension 12 1/2" □

Secure angle framing to support structure



Under-deck flange should freely slide upward into angle frame opening

Figure 2





Caution should be taken to assure that the Hydrant is vertically level above the roof. We do not recommend installing the Hydrant within four feet of the edge of the roof or within three feet of other roof top equipment or on any sloping surfaces of the roof. If recommended by the roofing manufacturer, holes can be drilled along the outer edge of the flange to permit anchoring of the hydrant to the roof membrane prior to final flashing of the hydrant to the roofing surface.

Installation of the Under-deck Flange: Once roofing work at the Hydrant has been completed, the under-deck flange should be installed. Slide the under-deck flange from below, over the reservoir tank and onto the lower portion of the hydrant's shroud allowing equal distance from the shroud to the inside of the under-deck flange. Snug the flange securely to the deck and angle framing. Using four (4) $\frac{1}{4}$ " X $1\frac{1}{2}$ " bolts, secure the flange to the angle framing. Care should be taken to insure that the under-deck flange is firm against the bottom of the roof deck while tightening these set screws.

See **Figure 3**

Next, using the four - (4) $\frac{1}{4}$ " X 2" set screws, securely fasten the under-deck flange to the flange. Refer to **Figure 3** of the Instructions.

Installation of the Supply Piping: Make water supply connection only after the under-deck flange is securely attached to the Hydrant. Remove the plastic plug from the end of the brass nozzle and connect appropriate piping connections. We recommend that a minimum $\frac{3}{4}$ " supply piping be used to make this connection within the heated conditioned space. To prevent debris from entering the valve and causing valve failure, MAPA Products recommends a field provided #20 Mesh Y-Strainer be placed on the supply side immediately prior to the shut off valve.

Water Supply Test: It is recommended that the water supply be thoroughly tested prior to activating the Hydrant. To avoid damage to the valve seat, the water supply system should also be purged of all foreign materials before the supply valve to the Hydrant is opened.

Operation of the Hydrant: To prevent potential cross-contamination of the water supply system, it is not recommended that any other type of hose connection be made to the hydrant than as stated here.

Winterizing for Severe Weather: It is recommended that to avoid possible damage to the Hydrant due to exposure to extreme cold weather that during freezing conditions, operate the hydrant at full flow without the hose for approximately (120) seconds to ensure proper evacuation of the reservoir tank.

Maintenance:

A periodic test of the Hydrant should be performed. The dome handle should be opened and closed to assure that no foreign material has entered the cavity within the dome. Difficulty in turning the handle is a possible indication of the presence of foreign matter within. To remove this matter, first remove the plastic cap at the top of the handle. Second, loosen and remove the $\frac{1}{4}$ " lock nut and washers inside the cavity below this cap. After removal of any foreign material, replace the handle and attachment hardware.

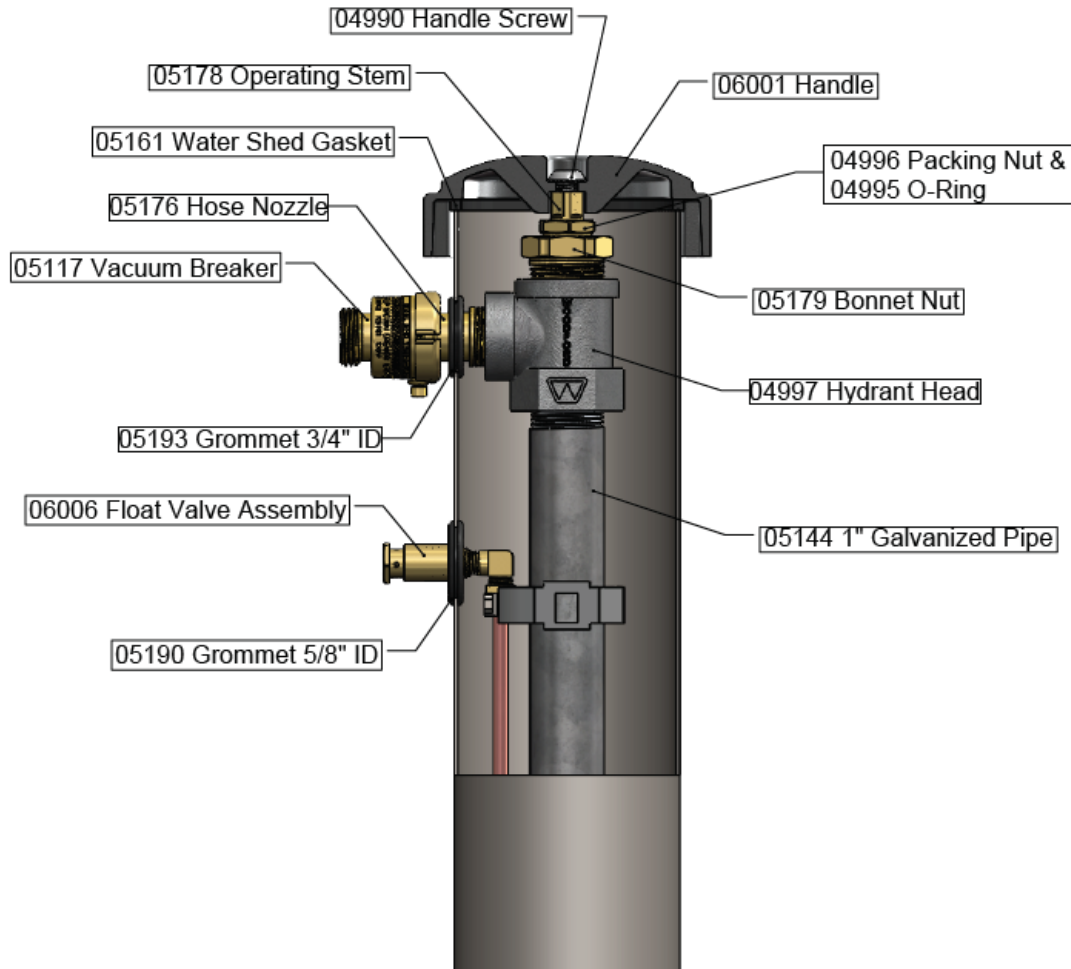
Repairing the Angle Valve Assembly and Shaft:

(The water supply to the Hydrant should be OFF prior to any repairs) Remove the dome handle, the lock nut and washers to expose the interior cavity. Remove the valve bonnet using a basin or other appropriate wrench. The valve stem and shaft will lift out of the top of the hydrant. Replace the defective parts and reassemble the valve. Replacement parts should be ordered from MAPA Products. After repairing the valve, replace the handle and attachment hardware.

Replacing the Dome Handle:

If the dome handle is broken, replacements are available. Please contact your local MAPA Representative to obtain repair parts.

MAPA FP Roof Hydrant Parts List



MAPA Products, LLC

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