



## Installation, Operation & Maintenance Instructions for the PRIER P-RH4 Sanitary Roof Hydrant and Universal Bracket

### Build With Purpose

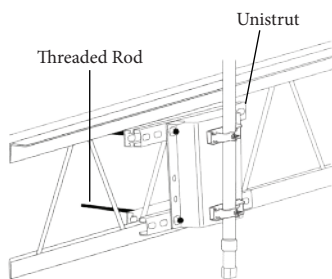
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The PRIER Heavy Commercial Sanitary Roof Hydrant provides a wide variety of installation options suitable for all types of roofs and structures. The PRIER Universal Roof Hydrant Mounting Bracket (P-RMB) attaches to a structural member of the building, not simply the skin of the building; this provides a stronger and safer installation. Additionally, the hydrant is installed through a small single hole penetration in the roof, ensuring a simple installation and years of leak-free operation. The PRIER design is adjustable for all types of roofs up to a 2/12 pitch.

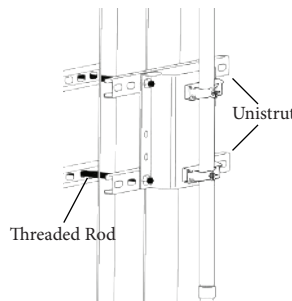
Depending on your installation, standard building materials may be required, including Unistrut, threaded rod, and additional fasteners.

### TYPICAL INSTALLATIONS

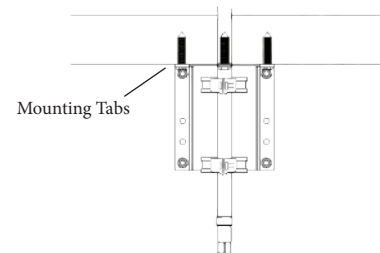
#### Truss (Purlin) Installation



#### I-Beam (Column) Installation



#### Concrete Roof Installation



### BRACKET INSTALLATION INSTRUCTIONS

1. Select a location for the installation of your PRIER Roof Hydrant. A good location is near rooftop equipment requiring water and within proximity of structural members under the roof.
2. Determine the type of installation you will use to install the Universal Roof Hydrant Mounting Bracket (P-RMB) to the structure of the building. Typical installations are shown above. The P-RMB can be installed on any of the structural supports on the building. \* Some installations may require additional strut, threaded rod, and fasteners.
3. If mounting to a concrete roof, assure that the vertical mounting tabs are in the “UP” position.
4. Mount the P-RMB to the desired structure.

#### Truss (Purlin) Installation Instructions:

1. For a truss installation, you will need to use strut and fasteners that are not provided with the P-RMB.
2. Cut two sections of the strut that are approximately 24” in length, making sure the strut is long enough to cover enough of the webbing to ensure a secure connection. Using threaded rods, secure the pieces on either side of the truss (purlin).
3. Mount the P-RMB to the struts using the ½” bolts provided.

#### I-Beam (Column) Installation Instructions:

1. For a column I-beam installation, you’ll need to use strut, threaded rod, washers and nuts that aren’t provided with P-RMB.
2. Cut four sections of the strut that are approximately 8” longer than the width of the I-beam. Using threaded rods, secure the strut pieces on either side of the I-beam.
3. Mount the P-RMB to the struts using the ½” bolts provided.

#### Concrete Roof Installation Instructions:

1. For a concrete roof, use ½” concrete wedge anchors, not provided with the P-RMB.
2. Using the top tabs on the P-RMB as a template, mark the concrete where the holes for the concrete wedge anchors should be drilled. Drill and install concrete wedge anchors per manufacturer’s instructions.
3. Mount the P-RMB to the wedge anchors installed in step two and torque to manufacturer requirements.



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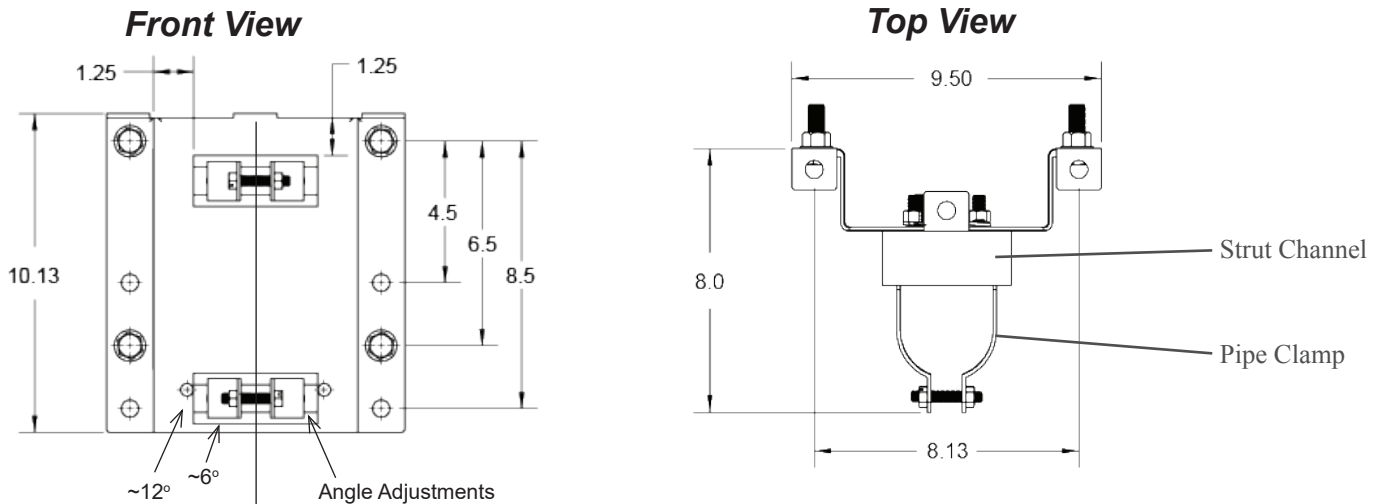
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## ROOF PITCH OPTIONS

The Sanitary Roof Hydrant should be perpendicular to the floor (plumb) for proper operation. These adjustments have been accounted for in the P-RMB design.

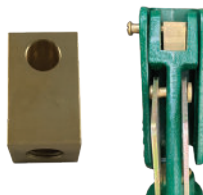
The angle of the roof hydrant can be adjusted by changing the position of the strut channel according to the pitch of the roof. Simply loosen or remove the bolt securing each of the strut channels to the P-RMB.



## HYDRANT INSTALLATION INSTRUCTIONS

1. Loosely install the pipe clamps and mark the roof directly above the pipe clamps. Use a laser pointer, weight and string or scrap pipe through the pipe clamps to ensure the hole in the roof is marked in the proper location. Using a long 1/4" drill bit, drill a small pilot hole through the roof. Insert a rod through the roof extending through the loosely mounted pipe clamps to ensure proper location. If there is misalignment, re-drill pilot hole. Drill a 3 5/8" hole through the roof at the marked location.
2. If using an adapter to connect to the 1" Female NPT inlet, install this adapter on the ground before inserting the hydrant into the drilled hole. Use some form of thread sealant when installing adapter. When tightening the adapter to the hydrant, use the hex provided at the inlet of the hydrant to prevent damage.
3. Install the hydrant from the rooftop through the hole drilled in step one. If a one-man-install, let the hydrant rest at the cast iron cap or use a 2 1/2" riser clamp mounted directly below the cast iron cap to set the hydrant height. If a two-man-install, the hydrant can be held to the correct height while the pipe clamps are tightened underneath. Make sure the bottom of the cast iron cap is 1-2" above the roof line, as marked by the label, for future hydrant servicing.
4. Secure the hydrant to the P-RMB by tightening the bolts through the pipe clamps, make sure to rotate the hydrant to the desired orientation before tightening. In some cases, a pipe clamp might need to be tightened around the brass canister. In this case wrap the canister with thin metal or thick tape to increase the diameter by 1/8" (about 2 7/8" diameter.)
5. Make the inlet water connection using the 1" Female NPT inlet or the adapter installed in step 2.
6. There is no need to install a drain line to the hydrant as water is drained and stored in a sanitary canister in the heated portion of building.

A code stamped into the handle stem pivot nut (right) corresponds to the month and year the hydrant was manufactured.





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### **ROOF SEAL**

Roof penetration should be sealed by a roofing contractor with acceptable roofing construction methods. PRIER recommends either a poured in place pitch box, leaded roof flashing, or roof putty sealed by the roofing contractor, as they would for any other rooftop pipe penetrations. As mentioned previously, the bottom of the cast iron cap needs to be 1-2" above the roof line as marked by the label and a seal must be made around hydrant body not cast iron cap for ease of future hydrant servicing.

### **OPERATION**

Unlike many roof hydrants, this sanitary hydrant is designed so that a drain line installation is not required. When the valve is turned to the off position, water from the valve drains into the sanitary canister below the roof line.

The head is marked "L" for Low Flow and "H" for High Flow. Close the hydrant handle slightly to reduce flow or close completely to stop flow and re-open the sanitary canister. This allows water to drain and be stored below the roof line.

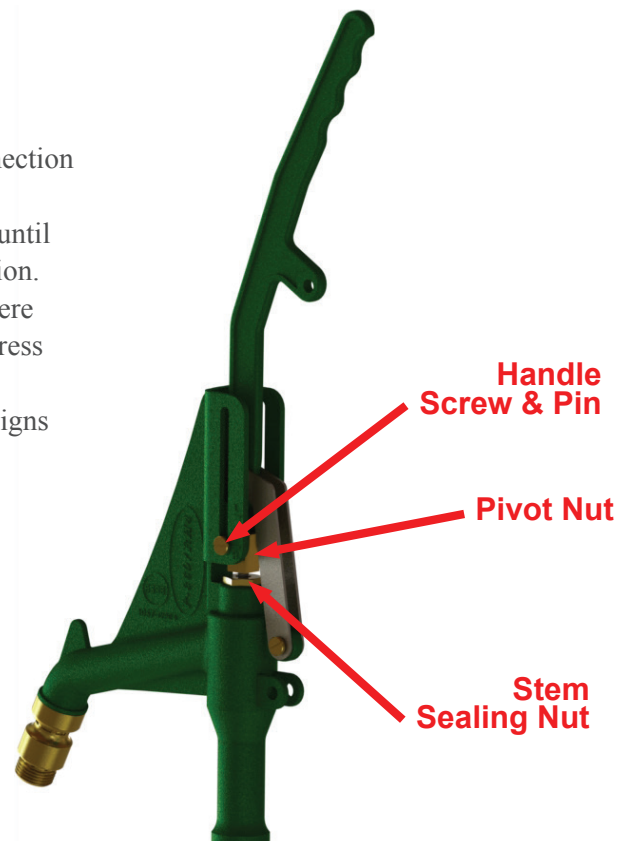
\*Water stored in the sanitary canister is the first to exit when re-opening the hydrant.

### **MAINTENANCE (TROUBLESHOOTING)**

This hydrant does NOT have to be winterized. Drain water stored in the sanitary canister is pumped back into the copper stem and hydrant head before flowing. PRIER's sanitary roof hydrant is fully maintainable from the roof without deconstructing the hydrant from the roof structure.

#### **If the hydrant has poor flow, the stem travel may need to be adjusted:**

1. Turn off water to the hydrant and fully open hydrant.
2. Remove the Handle Pin Screw and handle pin at the handle stem connection to disengage the handle.
3. Unscrew the Pivot Nut a few revolutions and press down on the stem until it does not go any further. The hydrant is in its' completely open position. Ensure that the Pivot Nut is not contacting the Stem Sealing Nut. If there is no space between the two nuts, unscrew the Pivot Nut further and press down on the stem again.
4. Screw the Pivot Nut back down so the through-hole in the pivot nut aligns with the bottom of the slot in the hydrant head.
5. Reinstall the handle pin and handle screw.
6. Turn on water and test operation.





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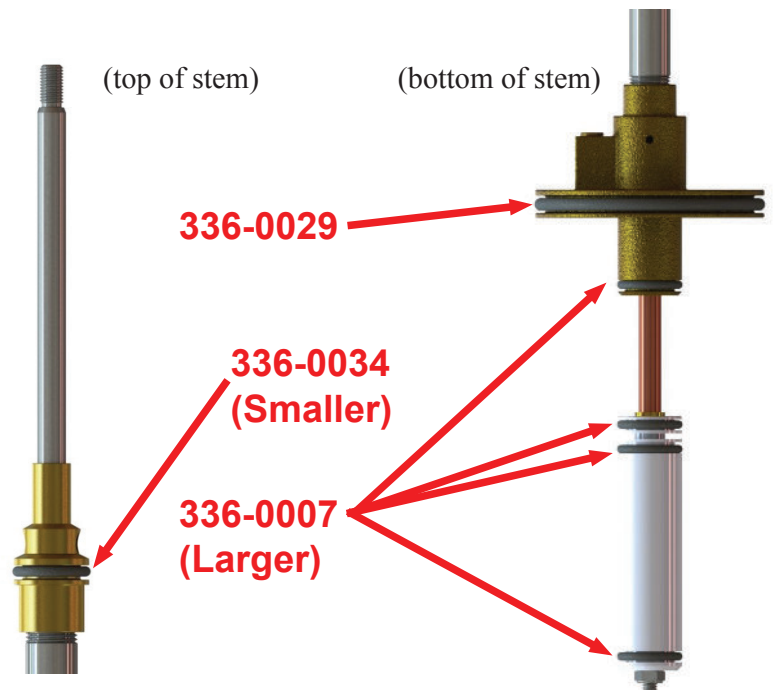
## Installation, Operation & Maintenance Instructions for the PRIER P-RH4 Sanitary Roof Hydrant and Universal Bracket

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### MAINTENANCE (CONTINUED)

If water leaks out where the galvanized pipe connects to the head during normal operation or the hydrant does not shut off when closed, it may be necessary to remove the stem and replace the seals:

1. Turn off water to the hydrant.
2. Unscrew the cast iron Pipe Cap from the hydrant body that is below the roof line.
3. Lay the stem and body assembly on a flat surface. Remove the Handle Pin Screw and handle pin to disengage the handle.
4. Unscrew the Pivot Nut and remove.
5. Carefully pull the pipe cap, upper galvanized pipe, head, and inner stem straight out from the below roof line portion of the hydrant. \*The stem below the roof line is around 2' long so pull straight up to avoid damaging the stem.
6. Once the stem is removed, cover or plug the opening to the below roof portion of the hydrant to prevent any debris from entering the bottom of the hydrant.
7. Replace all O-rings using the seal kit. Lubricate the O-rings with the provided silicone grease, as some other types of grease can damage the O-rings.
8. If there is water at the bottom of the lower galvanized pipe, vacuum the water before installing the stem.
9. Reinstall the stem into the head. Reinstall the Pivot Nut but leave the handle pin and screw apart until later.
10. Apply thread sealant to the threads of the hydrant body protruding from the roof.
11. Reinstall the stem into the head. Reinstall the pivot nut, but leave the handle pin and screw apart until later.
12. Screw the Earth Guard Cap using the hex provided until it doesn't turn anymore and tighten.
13. Follow the stem travel adjustment procedure on the previous page to correctly set the stem length.
14. Turn on the water and test hydrant for leaks and proper operation.



If water is leaking from the stem sealing nut on the top of the head:

1. Remove the handle pin screw and handle pin to disengage the handle.
2. Remove the Pivot Nut completely.
3. Remove the Stem Sealing Nut and replace the two o-rings, one outside and one inside. Lubricate o-rings.
4. Reinstall components, refer to the stem travel adjustment above when reinstalling the Pivot Nut.



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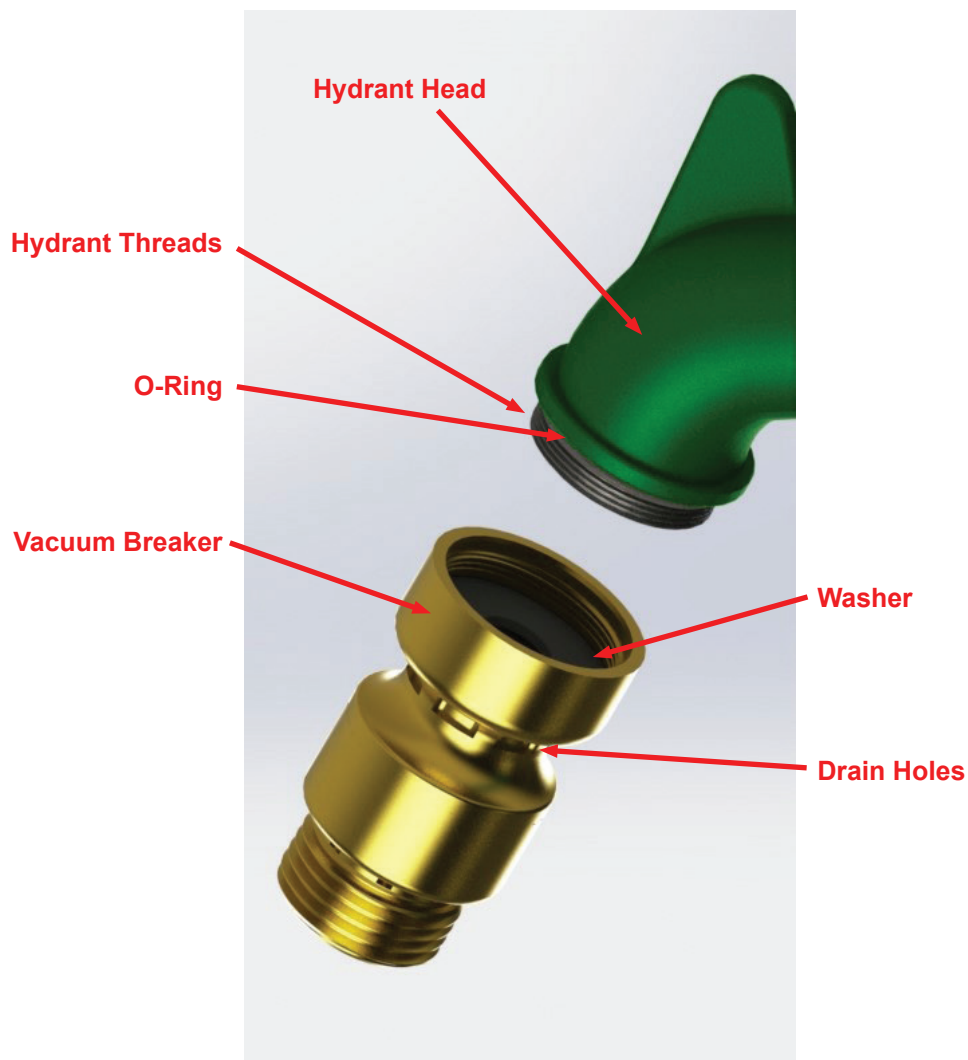
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### **MAINTENANCE (CONTINUED)**

**If water is leaking through the drain holes, you might need to clean/replace the washer or replace the Vacuum Breaker:**

- 1. Remove the Vacuum Breaker:** Use pliers or a similar tool to remove the old Vacuum Breaker from the hydrant head (turn the vacuum breaker clockwise). If it is difficult to remove, you may need to use a torch to heat the head around the threads.
- 2. Clean the Threads:** After removing the Old Vacuum Breaker, take off the O-ring at the end of the thread. Wipe and clean the threads thoroughly.
- 3. Install new O-ring:** Place a new O-ring provided with the Kit on the hydrant head thread end.
- 4. Apply Loctite:** Apply small amount of white 567 Loctite to the threads on the hydrant head.
- 5. Install the New Vacuum Breaker:** Push the washer at the top of the new Vacuum Breaker down to make sure it's seated on the bottom shelf/ledge covering the drain holes. Then carefully screw the new Vacuum Breaker onto the hydrant head, make sure the Vacuum Breaker is screwed all the way up to the hydrant.



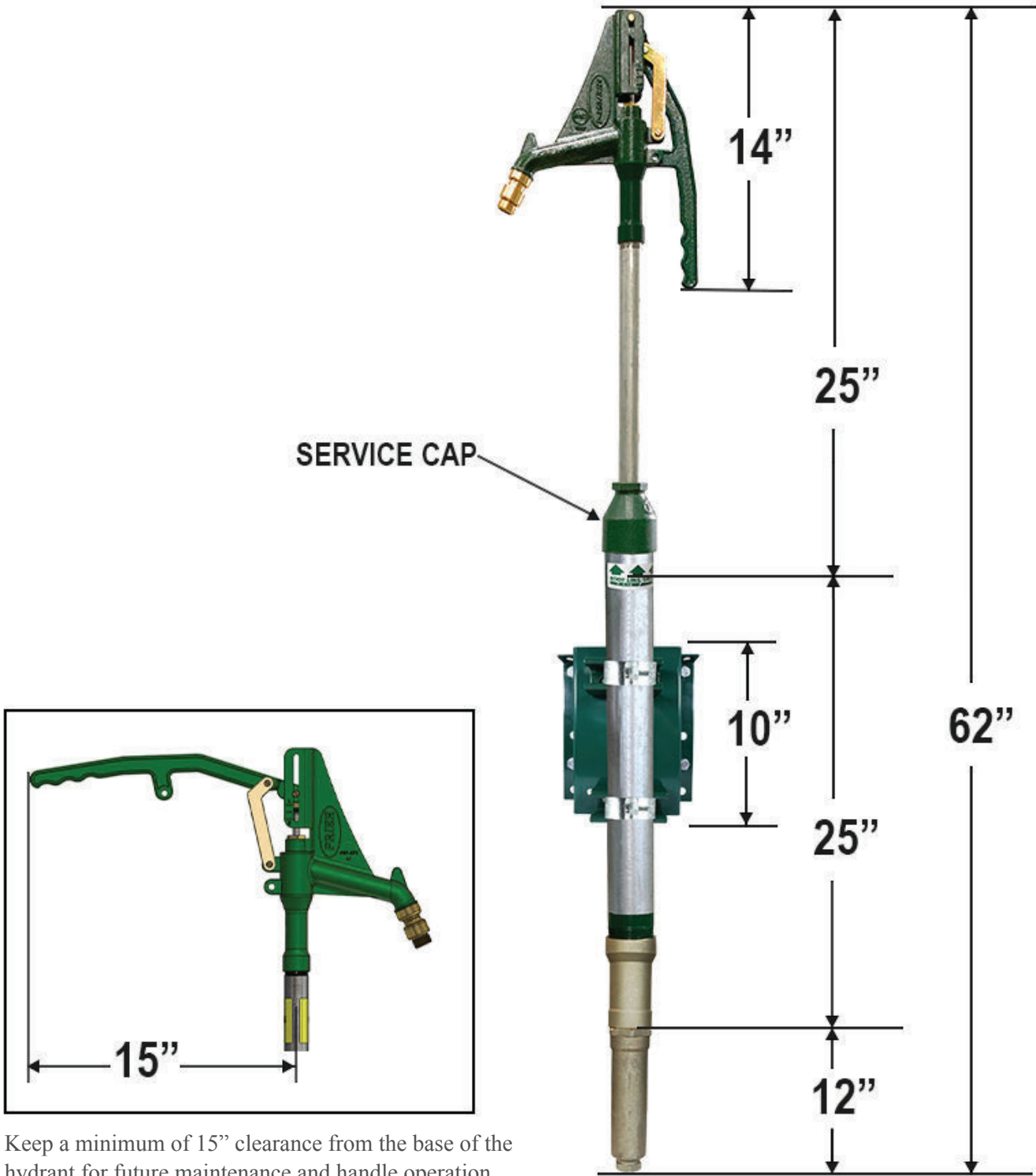


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## MEASUREMENTS

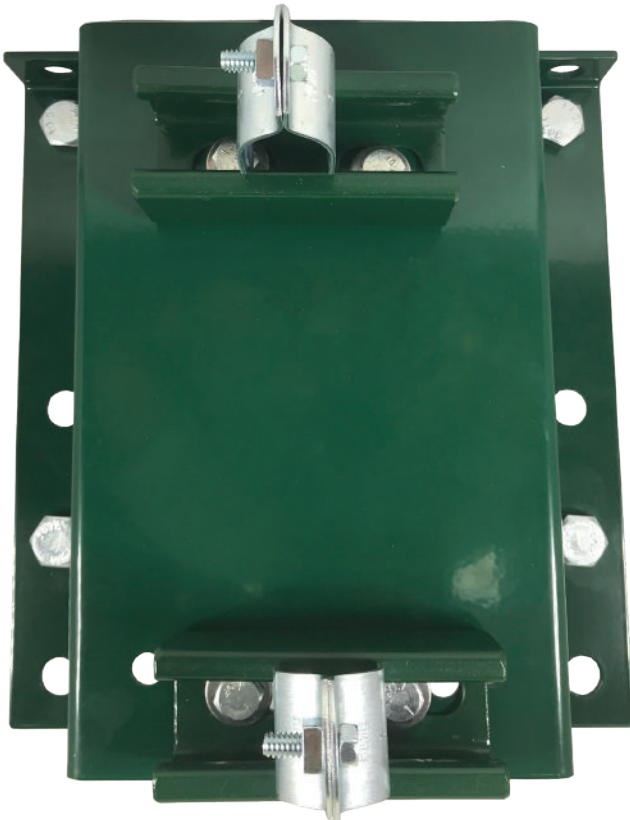


Keep a minimum of 15" clearance from the base of the hydrant for future maintenance and handle operation.



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# P-RMB Universal Mounting Bracket



PRIER's P-RMB Universal Roof Hydrant Mounting Bracket provides a secure way to attach any 1" or 2 1/2" pipe to a roof structure, thus providing a simple water source on the roof of a building. PRIER's Mounting Bracket is compatible with any roof hydrant, including PRIER's P-RH1, P-RH2, P-RH3 and P-RH4 Commercial Roof Hydrants.

The Roof Mounting Bracket enables the hydrant to be mounted to any structural frame of a building with rigid support, unlike other brackets which attach to the skin of the building.

This bracket requires only a single penetration point of 1 3/4" or 3 5/8", and can be mounted to concrete, wood, steel, I-beams, truss, perlints or other structural members with standard construction materials (Unistrut, threaded rods, or other).

- **Mounts To Any Roof Structure**
- **Single Hole Penetration**
- **Works w/ Any 1" or 2 1/2" Pipe**
- **Powder Coated Steel Design**

## FEATURES

- Mounts to structure beneath roof surface for more secure installation
- Includes 1" and 2 1/2" conduit clamps to secure hydrant to bracket
- Mounts to any roof structural member (truss, I-beam, concrete roof, or other)
- Compatible with PRIER's P-RH1, P-RH2, P-RH3 and P-RH4 roof hydrants
- Single hole penetration of 1 3/4" (P-RH1, P-RH2, P-RH3) or 3 5/8" (P-RH4)
- Single person installation with standard tools
- Bracket can be installed during or after construction of building
- Designed to be installed with standard construction materials (Unistrut, threaded rods, or other)
- Seals with standard roofing materials or rubber flashing products
- Works with any 1" or 2 1/2" pipe
- Powder coated steel design
- Bracket struts are adjustable to accommodate roof angles up to 2/12 pitch or 9°
- Works with any roof hydrant

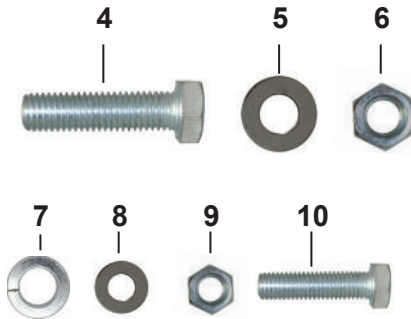
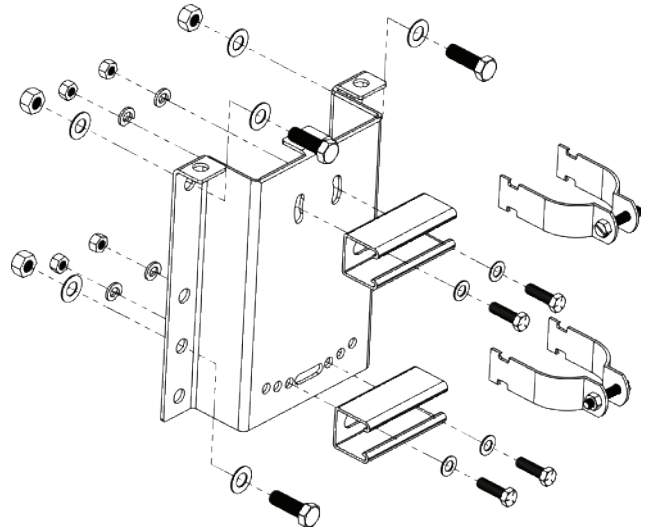
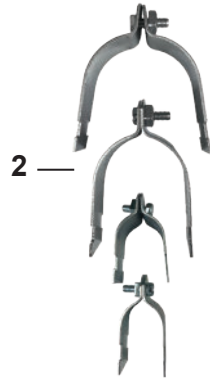
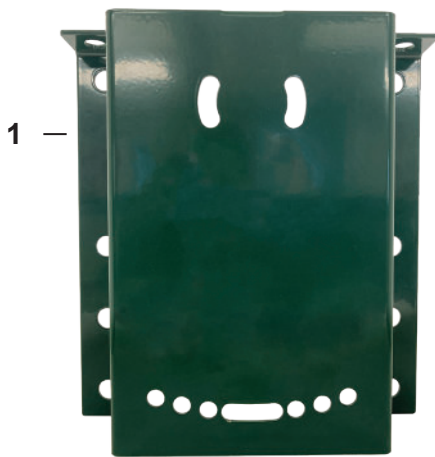
## ORDERING

Part No.	Description
P-RMB	Roof Hydrant Mounting Bracket



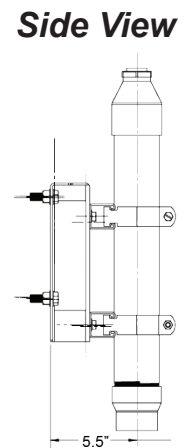
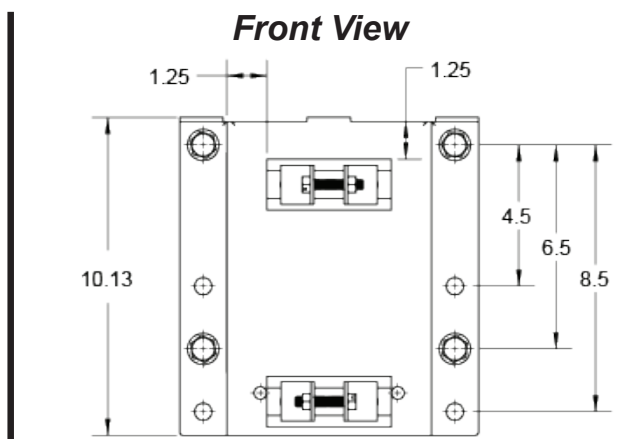
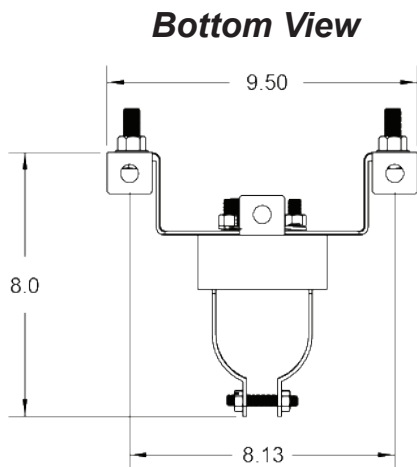
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## P-RMB REPLACEMENT PARTS AND STEMS



ID	Part No.	Description
1	314-0021	Mounting Bracket
2	399-7002	1" Pipe Clamp Assembly for P-RH1, P-RH2, P-RH3
2	399-7003	2 1/2" Pipe Clamp Assembly for P-RH4
3	314-7012	Unistrut Steel Struts
4	314-0028	1/2" Mounting Bolt
5	314-0029	1/2" Flat Washer
6	314-0030	1/2" Mounting Nut
7	314-0025	3/8" Lock Washer
8	324-1003	3/8" Flat Washer
9	314-0027	3/8" Hex Nut
10	314-0035	3/8" Bolt

## ROUGH-IN DIMENSIONS



## SPECS

Furnish and install Model P-RMB Universal Roof Hydrant Mounting Bracket manufactured by PRIER Products. Bracket must be manufactured of heavy gauge powder coated steel. This bracket is to be installed inside the structure and must have a single penetration through the roof. This bracket must allow for adjustment to meet roof angles up to 2/12 pitch and secure pipes either 1" or 2 1/2". It also must connect to I-beams, steel, truss, wood or concrete with standard construction materials. The roof penetration is to be sealed by the roofing contractor in accordance with roofing codes and conditions in their municipality.