

Tools and Materials Needed

1. Freeze Protection Assembly (#108710)
 - Model 407 Dedicated Freeze Protection Wellhead
 - 3/8" (9.5 mm) OD Teflon® lined LDPE tubing
 - 2 x 3/8" (9.5 mm) red Push Fit Plugs
 - 3/8" (9.5 mm) OD Push Fit 'Y' Connector
2. Tubing Cutters

Installation

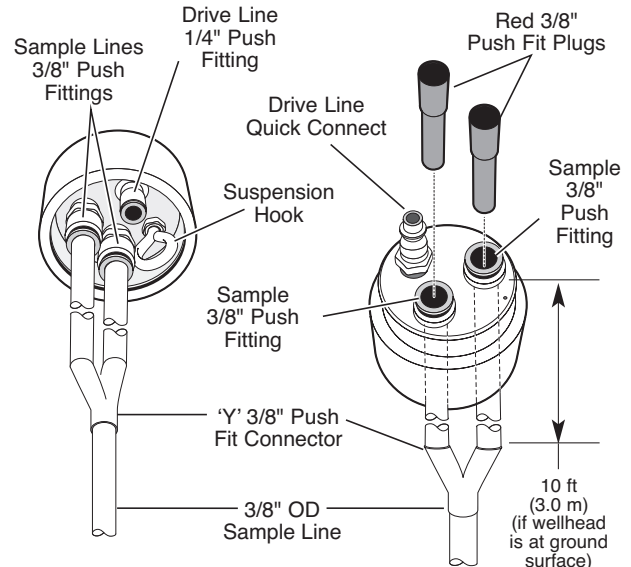
1. Prepare and install the Bladder Pump to the desired sampling depth in the well, as described in the Dedicated Bladder Pump Operating Instructions.
2. Pull the pump assembly back up the well by about 15 ft (4.5 m), as this will provide a comfortable length of sample tubing to work with. Make sure to secure the pump so that it does not fall back down the well while working with the tubing and wellhead assembly.

Notes:

1. Pay careful attention not to cut the 1/4" (6.3 mm) drive line.
2. Ensure that the 'Y' Connector is below the frost line. These instructions use 10 ft (3.0 m) below ground surface as a guideline for installing the 'Y' Connector. You may choose to install the Connector lower or higher, depending on the frost line in your area.

3. Use the tubing cutters to cut the 3/8" (9.5 mm) OD sample tubing at the point where it is 10 ft (3.0 m) below ground surface when the pump assembly is lowered back to the desired sampling depth. For example: if the well casing extends to 3 ft (0.9 m) above ground surface, cut the sample tubing at 13 ft (4.0 m) from the underside of the wellhead.
4. With the 'Y' connector facing upwards (i.e. 'Y'), push the lower stem of the 'Y' into the down-hole 3/8" (9.5 mm) OD sample line you have just cut. Push-connect the length of sample tubing attached to the underside of the wellhead onto one of the upper stems of the 'Y' connector.
5. From the Freeze Protection Kit, cut an equal length of 3/8" (9.5 mm) OD tubing, and connect one end to the remaining stem on the 'Y' connector and the other end to the adaptor on the underside of the wellhead. When completed, a 'U Tube' with the 3/8" (9.5 mm) OD tubing is formed.
6. Carefully lower the pump assembly back to the sampling depth, and place the wellhead assembly in its final position on the well casing.
7. Using the two red Push Fit Plugs included in the Freeze Protection Kit, plug the two 3/8" (9.5 mm) push fit openings on the top of the wellhead. Cover the wellhead with the well cap.

407 Dedicated Freeze Protection Wellhead Setup



Wellheads come with two Push-Fit Adaptors so that either 1/4" or 3/8" sample tubing can be used, as preferred.



To attach tubing just push into Push Fitting. To release tubing push down on both sides of the Top Ring and pull tubing out.

Operation

1. When sampling, remove one of the red Push Fit Plugs from the top of the wellhead and attach a short (3ft or 1 m) 3/8" OD sample discharge line to the 3/8" Push Fitting on the wellhead.
2. Refer to the operating instructions in the lid of the Model 466 Pump Controller for detailed pumping instructions.
3. When sampling is complete, remove the other red Push Fit Plug from the wellhead. Use a peristaltic pump, hand pump, or compressed air source, to apply approximately 5 to 10 psi of air pressure to the open 3/8" (9.5 mm) Push Fitting on the top of the wellhead. Water will be pushed through the 3/8" (9.5 mm) OD lines above the 'Y' connector and discharged at the wellhead through the short sample line. This evacuates all of the water above the 'Y' connector at 10 ft (3.0 m) below ground surface.
4. After purging water above the 'Y' Connector, remove the short sample line and immediately replace both red Push Fit Plugs to prevent water from re-entering the sample tubing.
5. Replace Well Cap

Note: The drive line on a Bladder Pump will always be dry.