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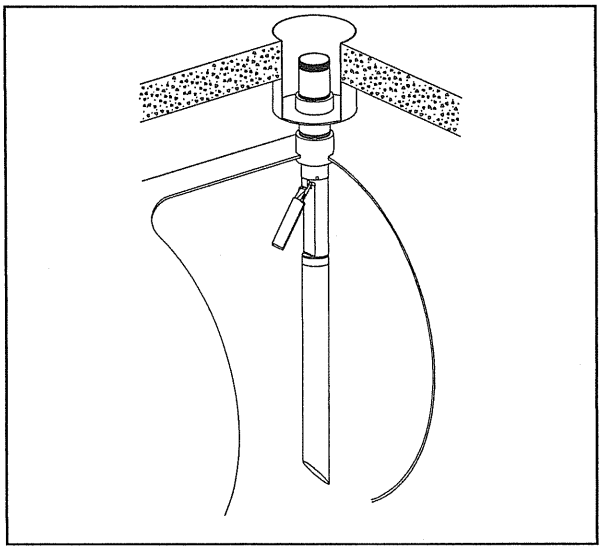
OPW Installation & Maintenance Instructions



ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR OPW 61SOC COAXIAL OVERFILL PERVENTION VALVE

IMPORTANT:
Please read these assembly and installation instructions completely and carefully before starting.

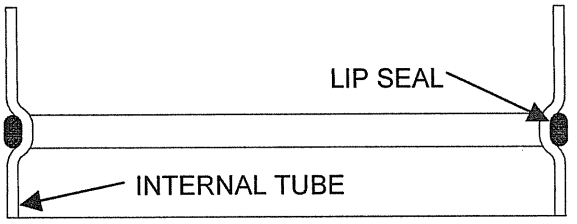
61SOC Coaxial Overfill Prevention Valves

IMPORTANT: Please read all warnings and follow the installation instructions completely and carefully. Failure to do so will void all warranties and may cause product failure, or result in environmental contamination due to liquid leakage into the soil, creating hazardous spill conditions.

WARNING - DANGER: Using electrically- operated equipment near gasoline or gasoline vapors may result in fire or explosion, causing personal injury and property damage. Be sure that the working area is free from such hazards, and always use proper precautions.

CAUTION: Proper operation is dependent on proper installation and regular maintenance. The following instructions are provided to assist you in properly installing and maintaining your 61SOC Series Valve.

IMPORTANT: This product is designed with a shut-off valve to prevent storage tank overfill. It is important to check during each loading that the lip seal in the delivery elbow is properly in place. Failure to do so may defeat the shut-off feature and permit storage tank overfill.



GENERAL INSTRUCTIONS

The OPW 61SO Coaxial Overfill Prevention Valve is designed to be installed in the 4" fill riser pipe of service station underground storage tanks with single point vapor recovery systems. It is designed to close when the liquid level is within 8" of tank capacity to help prevent accidental or intentional overfilling.

A small bypass valve will allow draining of the delivery hose at approximately 3-5 gallons per minute, until the liquid level is within 3" of tank capacity. Above this level the bypass valve closes.

CAUTION

Do not remove elastic band from around float until instructed to do so, as damage to valve may result.

WARNING

Failure to properly connect delivery hose and elbow, and/or disconnecting a liquid filled delivery hose or elbow will result in a hazardous spill, which may result in personal injury, property damage, fire, explosion, and water and soil pollution.

- Make sure all connections, including the hose and elbow connections, between storage tank and transport are securely coupled.
- Make sure the lip seal and/or all gaskets in the delivery elbow are properly in place to prevent spills.
- Do not operate with damaged or missing parts that prevent tight connections.

Normal Operation: A Hose "Kick" and reduced flow signals that the tank is full.

Close transport delivery valve and drain hose into tank before disconnecting any hose fitting.

Overfilled Tank: Failure of the hose to drain after closing the delivery valve signals an overfilled tank. Do Not Disconnect any delivery hose fitting until the liquid level in the tank has been lowered to allow the hose to drain into the tank. **Attention**: In the event you are splashed, remove all wetted clothing immediately. Do not go into an enclosed area and stay away from ignition sources.

IMPORTANT

Determine if the underground storage tank is equipped with a ball float vent valve similar to the OPW 53VM, as illustrated in *Figure 16, page 7.* To permit proper operation of the OPW 61SO, the ball float vent valve nipple MUST NOT EXTEND more than 6" into the tank. If it does, either remove the ball float vent valve or adjust the installation of the 61SO by adding the difference between 6" and the actual installed length of the ball float vent valve nipple in STEP 2. In all cases, the shut-off point of the 61SO must be reached before the ball float reduces flow to ensure proper overfill valve operation.

TOOLS NEEDED FOR INSTALLATION AND ASSEMBLY:

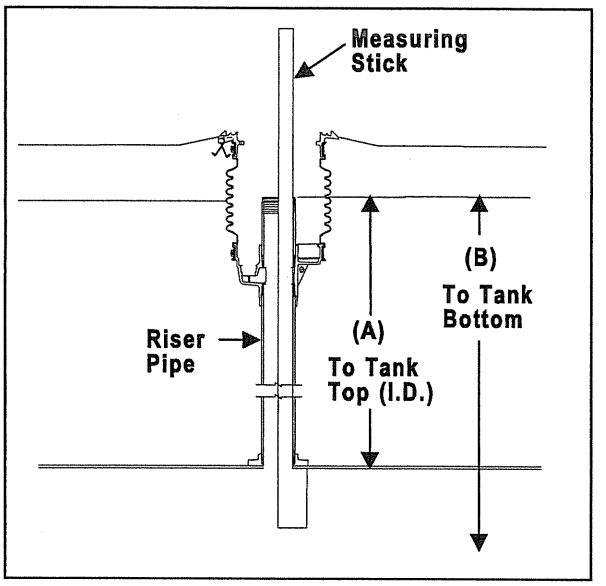
1. Drill
2. A new or sharp 1/16" pilot drill bit
3. A new or sharp 21/64" drill bit
4. Tape measure
5. Hacksaw or cut-off saw, fine tooth; 24 teeth/inch
6. Fine half round file
7. Common bearing grease
8. Screwdriver – flat blade
9. Two-part ½" wrenches

ASSEMBLY INSTRUCTIONS

IMPORTANT: Each of the numbered steps in the installation instructions are designed to be your CHECKLIST for proper installation and trouble free operation of the OPW 61-SOC Coaxial Overfill Prevention Valve.

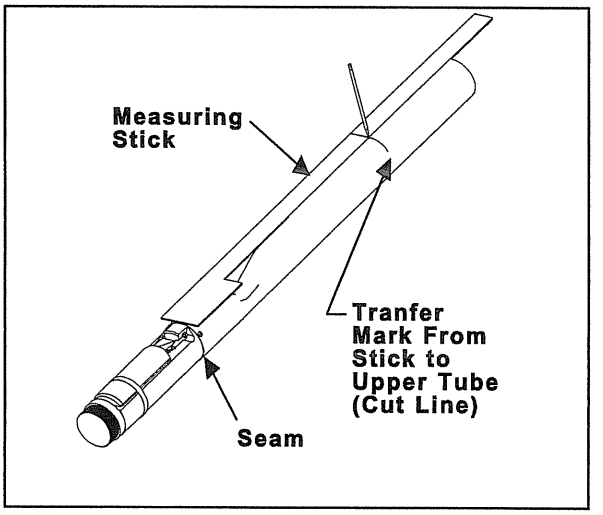
Read and follow these steps carefully, checking them off as you proceed.

STEP 1 □ MEASURE
Remove the tight fill cap and adaptor and the existing drop tube from the tank riser pipe. Measure the distance from the top of the riser pipe to the inside of the tank (Dim. "A") using the measuring "stick" supplied. For new construction, make the measurement of dimension "A", after the manhole or spill container and cap and adaptor have been installed. Insert the measuring "stick" through the riser pipe and hook it under the inside of the tank in the lengthwise direction. Make a mark on the "stick" at the top of the riser pipe. Measure the distance from the top of the riser to the bottom of the tank (Dim. "B'). For riser pipe configurations other than that shown, consult installation drawings or use other necessary means to measure dimension "A".



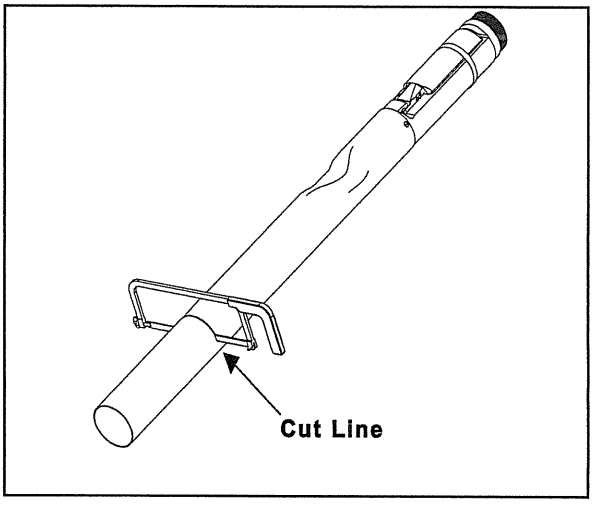
IMPORTANT: Inspect the riser pipe for any foreign material. Over-spray from tank relining or any internal burrs inside of pipe must be removed prior to installation. Failure to have an unobstructed riser pipe may prevent proper installation or operation of the valve.

STEP 2 □ MARK THE TUBE
Align the end of the measuring "stick" with seam where upper tube and valve body meet. Mark the tube at the mark on the measuring "stick" made in Step 1.

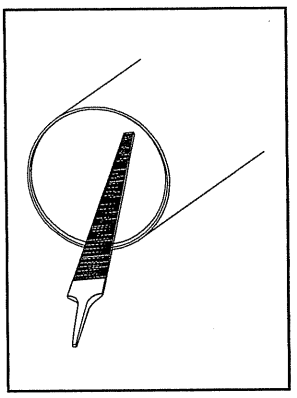


STEP 3 □ SECURE THE TEMPLATE
Remove the template from the back of this instruction sheet. Using the tape supplied to secure the drilling template to the drop tube, wrap the template TIGHTLY around the drop tube aligning the top of the template with the mark made in Step 2. Be sure the reference line and cut line of the template are lined up so they overlap to ensure a square cut-off. The "arrow" on the drilling template must point towards the valve.

CAUTION: **DO NOT** use a pipe or tubing cutter to cut the upper drop tube, this may damage the tube, causing it to be out of round thereby prohibiting assembly of the unit. **DO NOT** use the tie rap supplied if a power cutoff saw is used – use the "cut line" of the drilling template to reference the location of the cut.



STEP 4 □ CUT THE DROP TUBE
Slide the tie rap over the upper drop tube and over the drilling template so it is aligned between the tie rap locating lines marked on the drilling template and tighten securely. Using the tie rap as a guide carefully saw through the drop tube at the "cut line" mark. Use a hacksaw with a new fine tooth blade. Rotating the upper tube as the sawing progresses, will minimize run-out.



STEP 5 □ FILE THE DROP TUBE
File the upper tube flush with the hose clamp to remove rough edges. Remove the burrs caused by sawing from the inside of the drop tube with a fine half round file or other appropriate de-burring tool. Make sure the cut end of the tube is flat and square.

STEP 6 □ INSTALL THE INLET TUBE
Generously apply any common grease to the o-ring and install in the o-ring groove on the inlet tube. Carefully push the inlet tube into the upper tube until it seats onto the three welded lugs. Rotate the inlet tube until the welded lugs align with 21/64" holes shown on the drilling template.

STEP 7 □ DRILL HOLES
With the inlet tube in place, carefully drill (3) 1/16" diameter pilot holes through the drop tube and inlet tube at the positions marked on the drilling template. Then drill (3) 21/64" diameter holes in the same location.

STEP 8 □ REMOVE DRILLING TEMPLATE
Remove the tie rap and drilling template from the upper tube. Remove the burrs from the drilling operation from the inside of the drop tube assembly with a fine half round file or other appropriate de-burring tool.

STEP 9 □ INSTALL BOLTS
Install the (3) 5/16" bolts provided with the nuts to the INSIDE of the tube. Tighten SECURELY with two ½" wrenches. Use only the stainless steel locking bolts that are supplied with the kit.

STEP 10 □ INSTALL LOWER TUBE
Slide the drilled and dimpled end of the lower tube onto the bottom of the valve body, aligning the (3) dimpled holes with the tapped holes in the body. Install the (3) flathead screws into the dimpled holes and tighten securely. Use only the stainless steel locking screws supplied with the kit. The screw heads must be flush with or below the outside surface of the lower drop tube.

STEP 11 □ CUT DROP TUBE AT 45° ANGLE
Measuring from the underside of the welded lugs, mark the overall length of the drop tube a minimum distance of "B" minus 6" or as per local codes or requirements. Determine dimension "B" from the measurements taken in Step 1, Figure 1a. Saw off the excess material at an angle of 45 degrees and remove sharp burrs.

STEP 12 □ REMOVE THE FILL ADAPTOR AND EXISTING DROP TUBE
Remove the tight fill adaptor and existing drop tube from the tank riser pipe.

IMPORTANT: Inspect the riser pipe for any foreign material. Over-spray from tank relining or any internal burrs inside of pipe must be removed prior to installation. Failure to have an unobstructed riser pipe may prevent proper installation or operation of the valve.

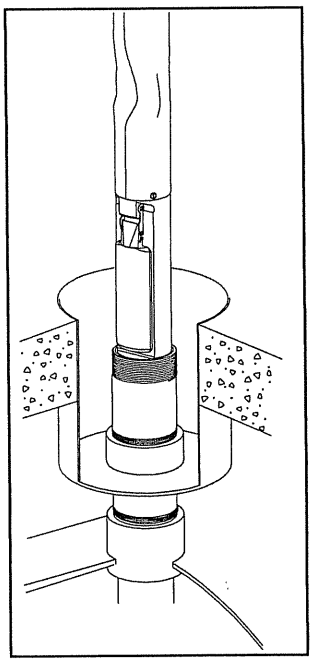
STEP 13 □ REMOVE ELASTIC BAND
IMPORTANT: Remove the elastic band securing the float to the valve body. The float will move into an outward position.

STEP 14 □ INSERT DROP TUBE
Hold the float down into the valve body and insert the drop tube overfill valve into the riser pipe. Some resistance from the support springs will be noticed. Do not force valve into riser if foreign matter from tank relining, or any obstruction, creates an interference. The riser will have to be cleaned before insertion of the valve.

WARNING:
Failure to follow the assembly and installation instructions or use of excessive force to install the OPW 61-SOC will VOID THE WARRANTY!

Difficulty in removing the existing fill tube (if there is one) means there may be an obstruction in the riser pipe. Look for burrs, deformations, and excess tank lining material or other projections that may interfere with easy insertion of the OPW 61-SO. If welded, seamed pipe has been used for the riser, the internal weld bead may interfere with the OPW 61-SO and prevent installation. If the OPW 61-SO won't slip in easily, DO NOT FORCE IT! Damage to the valve may result if excess force is used. Examine the riser pipe carefully, determine the nature of the obstructions and take appropriate steps to remove it.

STEP 15 □ CHECK INSTALLATION
Insert the drop tube all the way into the tank until the flange of the welded lugs seat onto the riser pipe. Some resistance may be felt due to fiction of the support springs. The float will swing out into the operating position as it passes into the tank. Make sure that the float is aligned with the length of the tank. The length of the tank can easily be determined by locating other manholes or pump boxes that are installed around other fittings, etc. that are attached to the top of the underground tank. Look into the drop tube and align the deflector with the length of the tank.

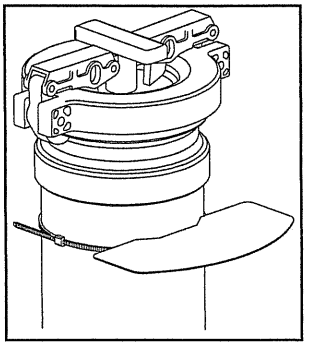


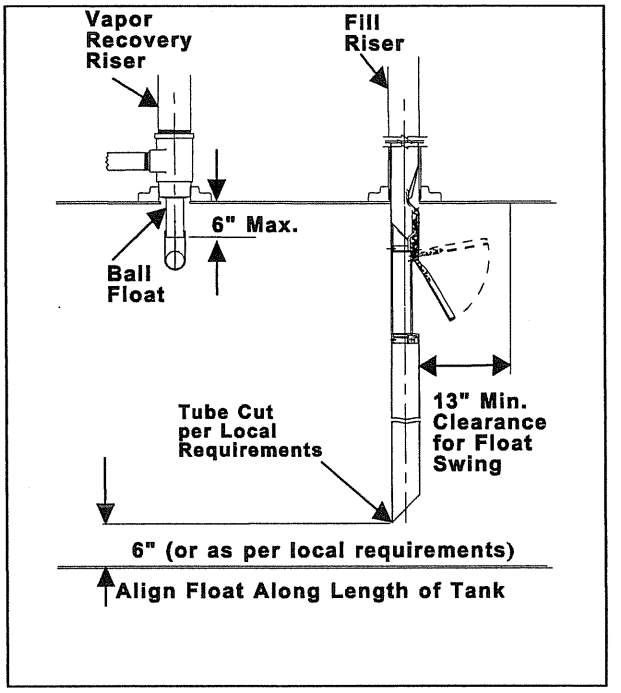
CAUTION: No obstruction can be within 13" from the center of the riser pipe or the valve will not operate properly.

STEP 16 □ TIE RAP
Slide tie rap used in Step 4 over riser pipe. Clamp should be loose and move freely.

STEP 17 □ ALIGN VALVE
Reinstall the tight fill adaptor and tighten. Make sure that the valve does not rotate while tightening the adaptor by observing the position of the deflector. The valve must remain aligned with the length of the tank as in Step 15. Repeat this step as necessary to assure proper alignment of the valve. Install appropriate cap.

STEP 18 □ INSTALL WARNING PLATE
Position the warning plate against riser pipe approximately 1" below the adaptor. Slide clamp over warning plate ears so they are located between clamp and riser pipe. Tighten clamp securely. The valve is now fully installed and in operation position.





STEP 19 □ VALVE REMOVAL
The valve can be removed for tank leak testing, inspection, etc., like any ordinary coaxial drop tube. Reinstall per the above instructions.

PREVENATIVE MAINTENANCE
No maintenance is required for the valve for normal operating conditions. It is advisable to periodically inspect the valve for damage and freedom of movement of the float. It is also advisable to check the welded lugs on the upper drop tube for weakening due to wear or corrosion. Please leave these instructions and maintenance procedures with the owner/operator of the station.

IMPORTANT: Leave these installation instructions and maintenance procedures with the station operator.

Notice: OPW products must be used in compliance with applicable federal, state, and local laws and regulations. Product selection should be based on physical specifications and limitations and compatibility with the environment and material to be handled. All illustrations and specifications in this literature are based on the latest production information available at the time of publication. Prices, materials, and specification are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

Product Warranty

OPW warrants that products sold by it are free from defects in materials and workmanship for a period of one year from the date of shipment by OPW. As the exclusive remedy under this limited warranty, OPW, will at its sole discretion, repair, replace, or issue credit for future orders for any product that may prove defective within the one-year period. This warranty shall not apply to any product that has been altered in any way, which has been repaired by any party other than a service representative authorized by OPW, or when failure is due to misuse, conditions of use, or improper installation or maintenance. OPW shall in no instance have any liability whatsoever for special, incidental or consequential damages to any party and shall have no liability for the cost of labor, freight, excavation, clean up, downtime, removal, reinstallation, loss of profit, or any other cost or charges in excess of the amount of the original invoice for the products.

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OPW 61SOC
DRILLING
TEMPLATE

FOLD or CUT ALONG
DOTTED LINE
BEFORE USING