

INSTALLATION INSTRUCTIONS

US Patents 8,425,145 B2
and 8,425,145 B

Step 1: Measure Dimension A as shown on the drawing below. Measure from the drain channel to the top of the flange in the existing bucket. Write the dimension down. *This dimension must be greater than 10 1/4" for the Emco stainless steel liner to work.*

Emco Supplied Parts

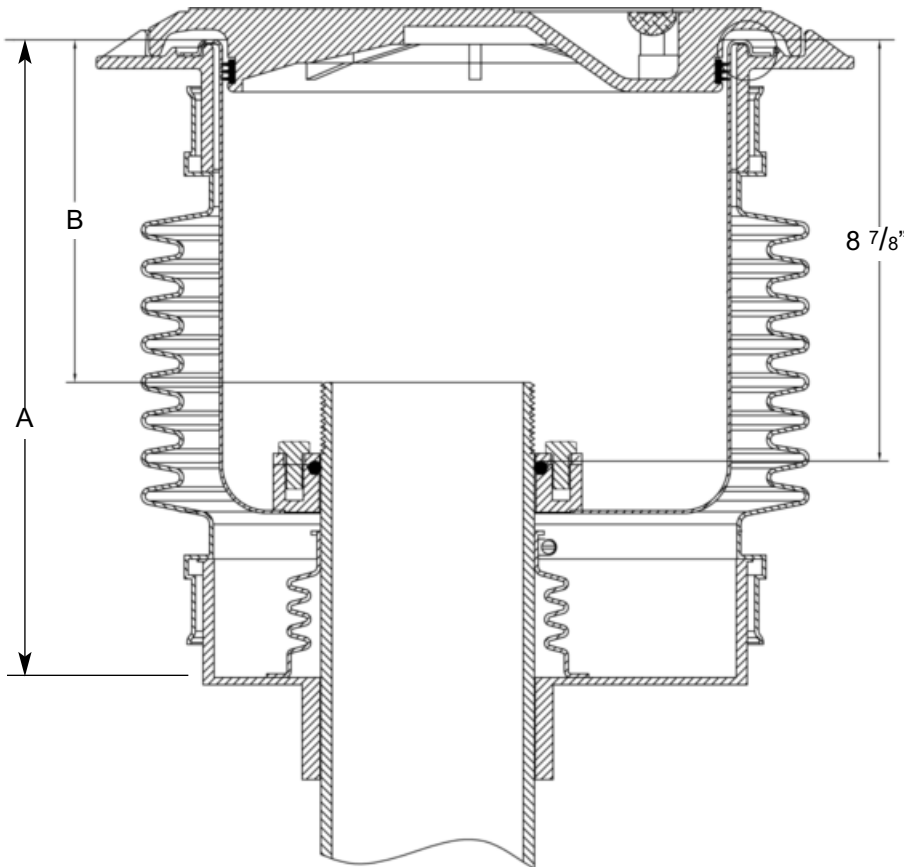
Stainless steel bucket
(2) O-rings
(3) Split flanges
(9) Stainless steel bolts and washers
Offset ring
Lid w/seal

Required Tools

Hammer and chisel
9/16" socket
12" extension and ratchet
Urethane sealant
(such as Emco Z0839-001)
Adapter wrench
Wire brush
Plumbers putty or heavy grease
Scotch Brite (or equivalent pad)

Purchased Separately from Emco

Emco 494833 Test Cover
Emco A1004-210TEST



Step 2: Measure Dimension B from inside the rim (see drawing above) to the top of the existing nipple. This dimension must be greater than 6 3/4" for a vapor application and 6 1/4" for a fill application (using Emco swivel adapters). If the dimensions are less than specified, an alternative nipple, or a low profile cap and/or adapter will be required. May require use of a non-swivel adapter.

Step 3: Loosen top boot clamp and slip down on riser as far as possible. Retighten.



Step 4: Measure to ensure a minimum of 10 1/4" to the boot clamp. If necessary, remove boot to allow clearance for bucket. Measure from the drain channel down 8 7/8". At this dimension, you must have a clean pipe surface. This is where the o-ring will seal. Use Scotch Brite pad to clean the pipe at this height, if necessary.



Step 5: Using a chisel and hammer, remove cast iron lugs from the OPW bucket, leaving the inside of the rim smooth. Care should be taken not to break the rim.



Step 7: Re-test fit the new stainless steel liner to ensure that it sits completely flat on the top of the rim surface. If the riser pipe is not visually straight up and down, it is possible that the liner will not seat properly. Rotate the liner as required to ensure proper alignment with the riser. Remove the liner.



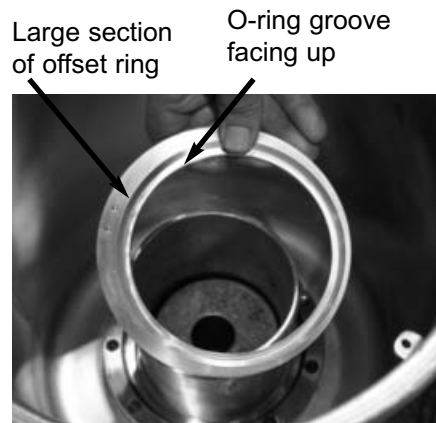
Step 8: Thoroughly clean the existing rim surface with a wire brush, then with a solvent such as lacquer thinner to ensure there is no oily residue on the rim. A bead of urethane sealant, placed on the underside cavity of the stainless steel liner, may be used to prevent groundwater from entering the existing containment.



Step 9: Install the new stainless steel bucket over the nipple, pushing it down completely to ensure that it seats fully on the existing rim.



Step 10: Install the small cross section o-ring in the groove of the lower flange. Make certain o-ring groove is clean and free of debris.



Step 11: Install the aluminum offset ring, with o-ring groove facing up. Align the large section of the ring with largest open area around the nipple as shown.



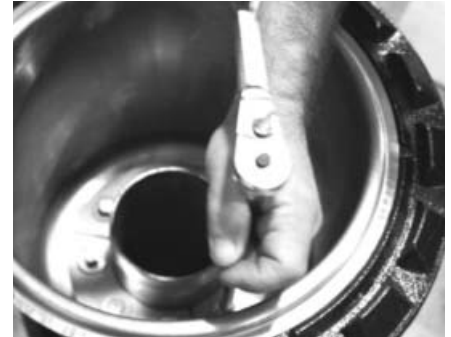
Step 12: Install the large cross section o-ring.



Step 13: Install the three flanges using the nine supplied stainless steel bolts and washers. Ensure that the flanges are tight against the nipple.



Step 14: Hand tighten all nine bolts, ensuring that the bucket is completely down and flat on the rim.



Step 15: Using a 9/16" socket, tighten each of the nine bolts to 15 ft. lbs. Pressure may need to be applied to ensure the liner does not shift while tightening bolts.



Step 16: Install adapter and cap per instructions included with each.

Step 17: Testing - Perform one of the following test procedures as specified by customer:

Integrity Test - perform per following procedure, with customer specified cap and adapter.

Hydrostatic Test - perform if specified per customer or local regulations. Perform per local guidelines.

Integrity Test Procedure

Equipment (not supplied)

Emco A1004-210TEST Vacuum Apparatus w/test adapter 494343

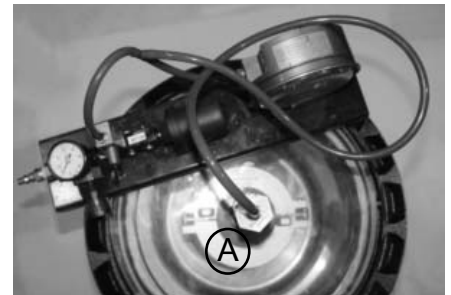
Emco 494833 Test Cover

Timer

Air supply

Procedure

1. Line top surface of stainless steel bucket with plumbers putty. (Heavy grease may be used, but may not work properly on rough surfaces.)
2. Place test cover over plumbers putty or heavy grease.
3. Insert brass plug from test unit into opening in test cover (A).
4. Attach air pressure source to air pressure regulator on vacuum apparatus.
5. Slowly apply vacuum of 30" water column (2.2" mercury) to the interstitial space, by moving the toggle switch. Wait 30 seconds. Reapply 30" water column.
6. Ensure switch is in off (center) position, start timer and record remaining vacuum after 1 minute.
7. If the remaining vacuum after 1 minute is 26" water column (1.9" mercury) or greater, the containment is tight.
8. If the test fails, determine if leak point is at test cover seal, cap or adapter, or base flange o-ring by spraying a soap solution to each area and watching for bubbles. Repair as required and retest.
9. Replace components.



Follow-Up Testing

If follow-up or annual retesting is required by local/state regulation, use the above procedure.

Tank Operator Responsibilities

Tank operator must ensure that all Federal, Provincial and local codes are being met during the filling of the tank.

All operators must be familiar with proper filling procedures.

The operator responsible for transferring product to an above ground storage tank must take all reasonable steps to prevent spillage.

The delivery hose from the tank's fill pipe must not be disconnected before the hose has been drained completely.

When tank vehicles are being unloaded, the vehicle operators must remain

- (a) in constant view of the transfer nozzle and fill pipe; and
- (b) in constant attendance at the discharge control valve.