

IMPORTANT

Read these instructions completely before attempting to install this system. Failure to follow these instructions could result in damage to the manhole or tank and will void any warranty. Installation of the A1005 manhole on risers other than 4" NPT or use of equipment other than Emco Wheaton Retail could require modifications. Prior to any modifications or if you have any questions, please call Emco Wheaton Retail Customer Service at 800-234-4394.

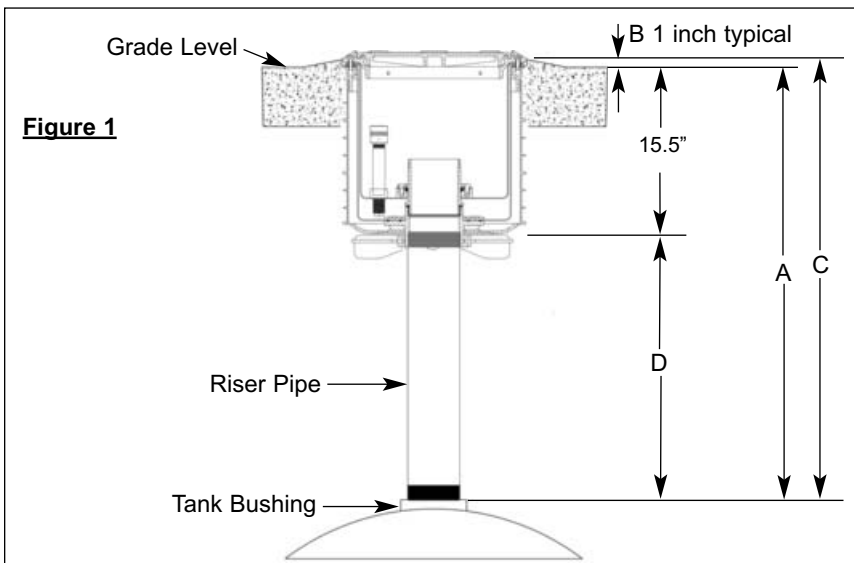
INSTALLATION INSTRUCTIONS

Step 1 Tank Riser Pipe Length

1. Measure from top of tank bushing to grade = length A (Figure 1).
2. Add crown height, length B to length A = length C.
Note: Length B should be 1" minimum for proper run-off.
3. Manhole height = 15.5"
4. Subtract manhole height, 15.5" from length C = distance between the tank bushing and manhole body, length D.
5. Cut and finish riser pipe to length D plus .5".
Thread riser pipe to 4.00 - 8 NPT requirements.
6. Tighten riser pipe/tank joint using a permanent thread lock sealant.

Example

1. A buried tank measures 36" from the top of the tank bushing to grade level. Length A is 36".
2. The site requires 1" crown above grade to manhole rim for water run-off. Length B is 1".
3. Length A + length B = length C; $36" + 1" = 37"$
4. Length C - 15.5" = length D; $37" - 15.5" = 21.5"$
5. The 4" riser pipe should be $21.5" + .5" = 22.0"$



Step 2 Manhole to Riser

1. Tighten manhole to riser joint using a thread sealant such as Emco Wheaton Z0838.
Using a fabric strap wrench, tighten the manhole onto the riser pipe until snug.

Caution: Excessive tightening of the manhole may result in damage to the manhole which may cause leakage.

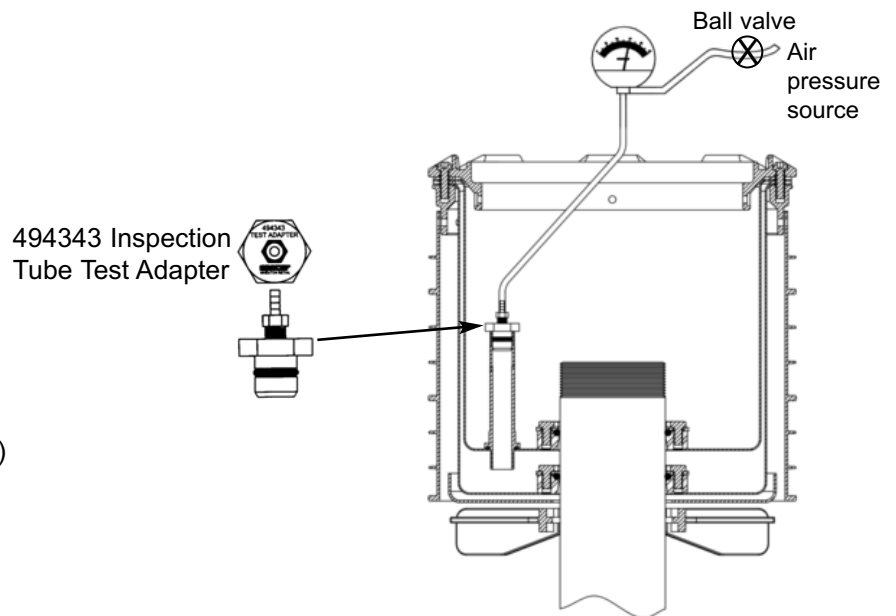
Step 3 Cap and Adapter

1. After installing drop tube or overflow prevention valve, install adapter and cap as per manufacturer's instructions.
2. Replace lid on manhole.

Step 4 Integrity Testing Options

- A) Pressure Test - see below
- B) Vacuum Test - see next page
- C) Hydrostatic Test - Many local regulators require a hydrostatic test. If required, perform per state or local requirements.

Step 4A Pressure Test



Equipment

- Emco 494343 Inspection Tube Test Adapter
(Procured separately from spill containment)
- Air pressure gauge, scale 0-10 psi
- Air pressure gauge, scale 0-50" water column
- Soap & water solution

Procedure

1. Attach Emco Wheaton 494343 Inspection Tube Test Adapter in inspection port.
2. Pressurize the secondary containment interstitial space to 30" WC. Wait 30 seconds for the pressure to stabilize. The pressure supply must then be turned off (using a ball valve) to isolate the pressurized interstitial space. Record the pressure, then wait one minute and record the pressure again. The pressure decay should be less than 4" WC in one minute.
3. If the unit does not pass the pressure decay test, pressurize the interstitial space to 30" WC in order to assist in locating the problem area.
4. Apply soap solution to rim and bolts, around base of gauge tube and flange base. Observe for leakage.
5. If leakage/bubbles appear in any of these areas, check the torque value on bolts and retest. If leaks persist, remove gaskets. Clean, reassemble and retest.

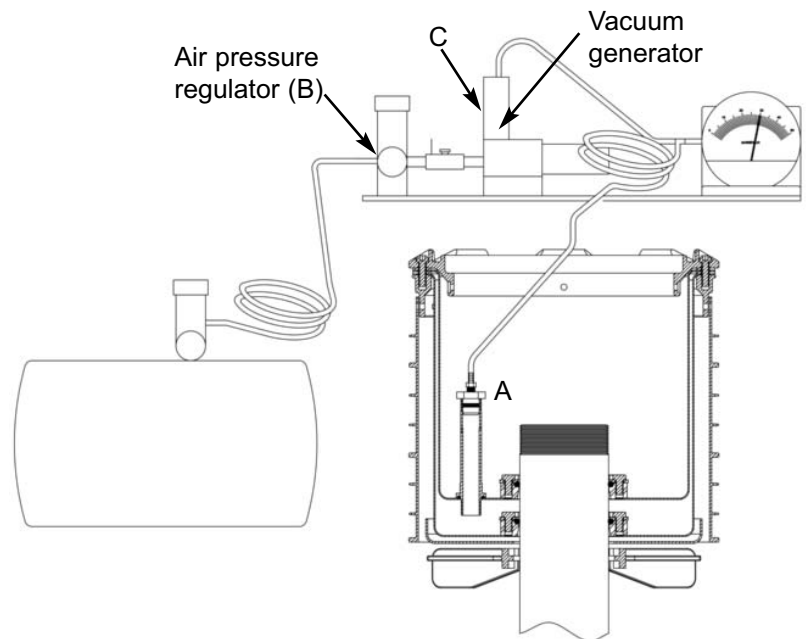
Step 4B Vacuum Test

Equipment

Emco A1004-210TEST Vacuum apparatus w/test adapter 494343 (or supplied by other)

Timer

Air supply



Procedure

1. Remove the gauge from the inspection port and install the test adapter p/n 494343 (A, included with the vacuum apparatus), otherwise purchase separately.

Note: On CM (sensor) models, remove the gauge to test the interstitial space. Do not remove the “push to test” cap used for sensor testing. This cap must be in place to vacuum test.

2. Attach air pressure source to air pressure regulator (B) on vacuum apparatus.

3. Slowly apply vacuum of 30” water column (2.2” mercury) to the interstitial space. (On the Emco tester, this is accomplished by moving the toggle switch, C). Wait 30 seconds for the vacuum reading to stabilize, then reapply 30” water column as required.

4. Ensure that the vacuum source is off (C switch on Emco tester to center position), and start timer. Record vacuum after 1 minute.

5. If the vacuum after 1 minute is 26” water column (1.9” mercury) or greater, both the primary and the secondary containment vessels are tight.

6. If test fails, perform Pressure Test (Step 4A) for confirmation.

7. Replace components or repair as necessary.

8. Reinstall gauge.

Step 5 Backfill and Finish

1. Replace lid. Finish back filling over tank and around manhole to depth required for concrete pad.

2. Concrete must completely fill around and under manhole rim to insure proper anchoring. Be sure to allow a 1” crown above grade to manhole rim for water run-off.

3. After concrete has set, remove excess concrete from inside of rim and the runoff channels.

4. Paint lid as required by product color code.

Maintenance

1. Keep rim and lid free of debris.
2. Replace any damaged part at once.

Replacement Items

A1004-316LID Lid and Seal
A1004-210TEST Vacuum Test Apparatus
494343 Test Adapter

Tank Operator Responsibilities

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

2. All operators must be familiar with proper filling procedures.

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

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

5. 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.