

## INSTALLATION INSTRUCTIONS

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

### Emco Supplied Parts

Stainless steel secondary bucket  
(2) o-rings  
(3) split flanges  
(9) stainless steel bolts  
Offset ring  
Stainless steel primary bucket  
(2) o-rings  
(3) split flanges  
(9) stainless steel bolts  
Offset ring  
Insert support ring  
Lid w/seal  
Primary rim  
Protective gasket  
(8) 3/8" x 1" long bolts  
(2) Rim gaskets  
(4) 3/8" x 4" studs  
A0031-825 Riser Extension

### Required Tools

9/16" socket  
12" extension and ratchet  
Strap wrench  
Adapter wrench  
Plumbers putty or heavy grease  
3/8" socket  
5/16" Allen wrench  
1/4" Allen wrench  
Emco A0081-001H Primary  
Removal Wrench  
Emco A0081-001S Secondary  
Removal Wrench

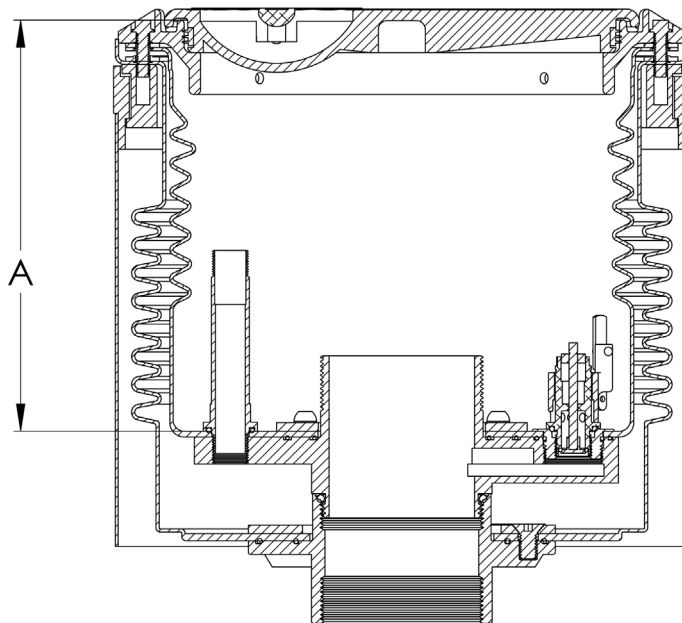
### Purchased Separately from Emco

Emco 494833 Test Cover  
Emco A1004-210TEST

*Refer to your local regulations and Authority Having  
Jurisdiction before installation of this product.*

**Step 1:** Measure Dimension A as shown on the drawing below. Measure from drain channel lip to the flat area adjacent to drain base. **This dimension must be greater than 9" for the Emco stainless steel insert to work.**

An A0031-825 Riser Extension is included with this unit. For buckets that have been installed with the bellows in a stretched position, a taller riser extension, may be required.



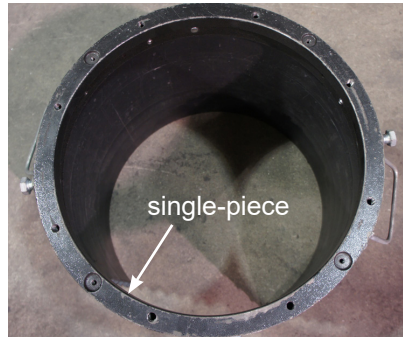
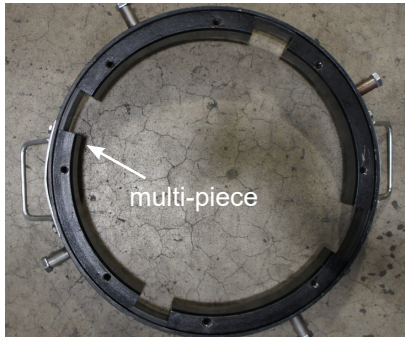
**Step 2:** Remove lid, cap, adapter and dipstick or gauge. Disconnect drain chain.



**Step 3:** Remove bolts from the primary rim. Remove rim and seal.



**Step 4:** Remove primary unit using the A0081-001H Wrench.



**Step 5:** Determine whether secondary rim consists of multi-piece construction or single piece construction by peeling back the lip of secondary bellows. If secondary is multi-piece, proceed to Step 7.

**Step 6:** Using a razor knife or similar tool, cut the bellows so that it can be removed through the secondary rim.



**Step 7:** Remove flat head screws from bottom of bellows using 1/4" Allen head wrench.



**Step 8:** Using the Emco A0081-001S, remove the secondary iron. If single piece secondary rim construction, proceed to step 12 after removal.



**Step 9:** Lay insert support ring into outer rim of bucket.



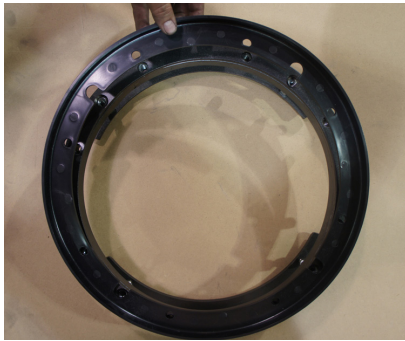
**Step 10:** Install clamp segments using the 4 nuts located under the 4 countersunk holes. Tighten, alternating from one bolt to the other to prevent binding the bolts.



**Step 11:** Tighten lock nuts.



**Step 12:** Cut tie strap to separate rim, secondary and primary inserts.



**Step 13:** Install protective gasket, lining up slots with countersunk or counterbored holes. Then install the (4) studs into (4) countercross holes. This will assist in alignment for the following steps.



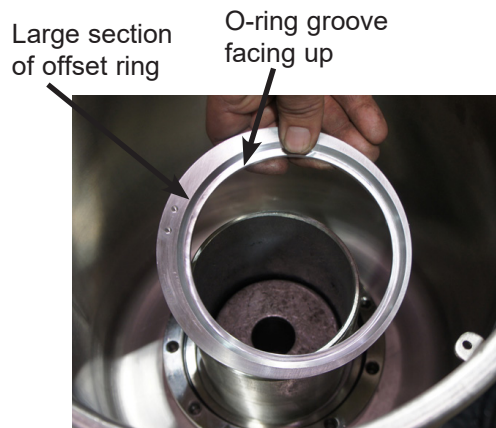
**Step 14:** Insert the (4) 3/8" x 4" studs into every other hole in the lip of the secondary bellows.



**Step 15:** Install the A0031-825 Riser Extension. Then install stainless steel secondary insert over riser adapter. Tapered holes on lip of liner must be lined up with the countersunk holes in the support ring or the counterbored holes (shown) in the secondary rim.



**Step 16:** 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 17:** 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.



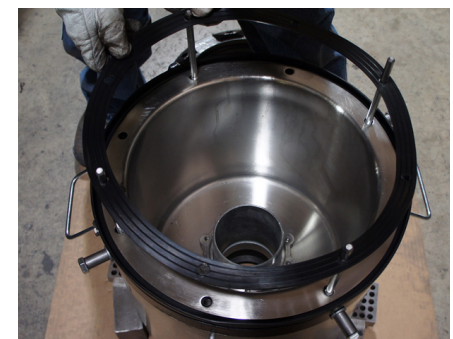
**Step 18:** Install the large cross section o-ring.



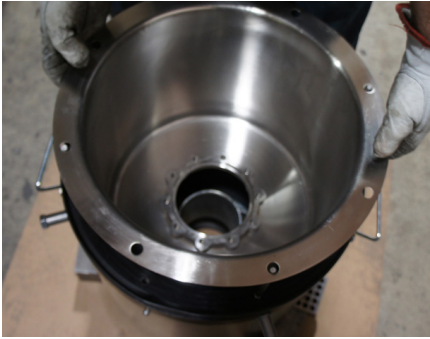
**Step 19:** Install the three flanges using the nine supplied stainless steel bolts and washers. Ensure that the flanges are tight against the nipple.



**Step 20:** Hand tighten all nine bolts. Using a 9/16" socket, tighten each of the nine bolts to 15 ft. lbs.



**Step 21:** Place one new rim gasket onto lip of secondary insert, using studs to assist with alignment.



**Step 22:** Install the primary insert.



**Step 23:** Install the second new rim gasket and then place primary rim over studs.



**Step 24:** Loosely install (4) 3/8" x 1" bolts into open holes in rim.



**Step 25:** Remove studs and replace with the 4 remaining 3/8" x 1" bolts. Tighten all 8 bolts to 20 ft. lbs., alternating in a star pattern.

**Step 26:** Repeat steps 15 through 19 to install the o-rings, eccentric ring and flanges on the primary bucket.

**Step 27:** Install adapter and cap per instructions included with each.

**Step 28: 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

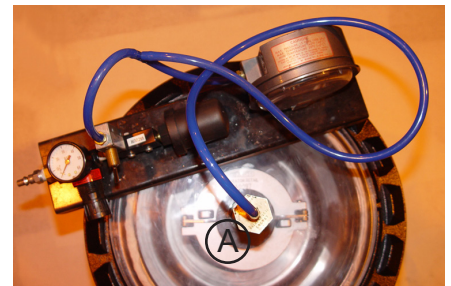
Emco 494833 Test Cover

Timer

Air supply

**Procedure**

1. Line top surface of stainless steel bucket with plumbers putty as shown.  
(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

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.