



# A1005-505CPWE

Stainless Steel Spill Containment  
Double Wall Replacement Insert  
For OPW 3100 Series

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

## INSTALLATION INSTRUCTIONS

### Emco Supplied Parts

Primary & secondary stainless steel inserts  
Adapter ring  
(2) Offset ring/o-ring/bolt/flange kits  
Lid w/seal  
Primary rim  
(4) 3/8" x 3/4" socket head cap screws  
(8) 3/8" x 3/4" long bolts  
Bellows gasket  
Jack bolt kit  
Riser extension  
(4) 3/8" x 4" studs

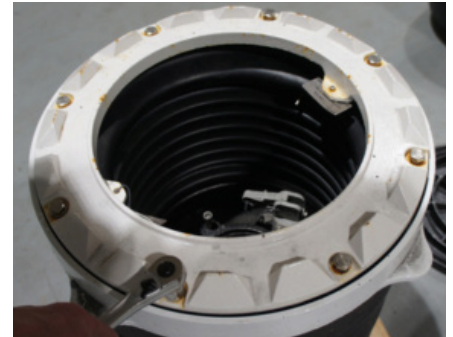
### Required Tools

5/16" Allen Wrench  
Utility knife  
9/16" socket  
3/8" socket  
12" extension and ratchet  
Chain wrench or strap wrench  
Adapter wrench  
Plumbers putty or heavy grease  
Emco A0081-001H Primary  
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:** Remove lid, cap, and adapter. Disconnect drain chain.

**Step 2:** Remove the 8 rim bolts, rim and gasket. Discard.



**Step 3:** Use a 5/16" Allen wrench to remove the 3 bolts from the bottom flange. Remove flange and discard. Remove riser seal, if equipped. Remove drop tube.



**Step 4:** Use the Emco A0081-001H Primary Removal Wrench to loosen the primary.



**Step 5:** Remove the primary unit and discard.



**Step 6:** Using a utility knife, cut away the top lip (approximately 2" down), of the secondary bellows. Discard.

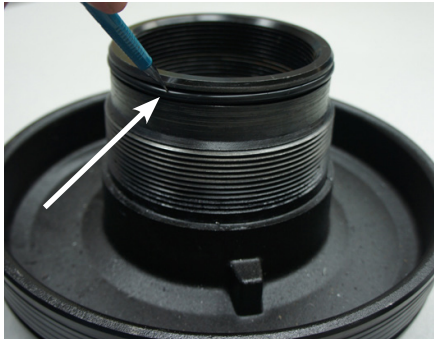


**Step 7:** Install adapter ring, lining up the 4 counterbored holes with the 4 holes in rim. Use a 5/16" Allen wrench to install and tighten the 4 socket head cap screws into the counterbored holes.

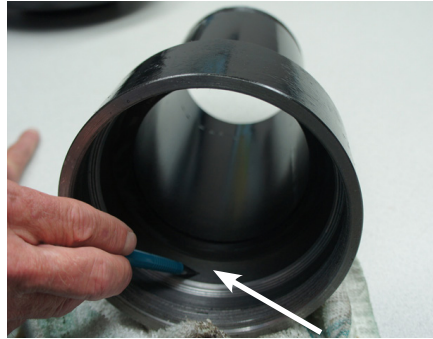


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**Step 8:** Prior to installation, heavily lubricate the o-ring on bottom flange, and the sealing surface on riser extension.



**Step 9:** Install the riser extension onto base flange. Tighten securely.

**NOTE:** Once the riser extension stops, you must make two full turns in order to make certain the o-ring seals.



**Step 10:** Install the 4 studs into 4 of the tapped holes using every other hole.



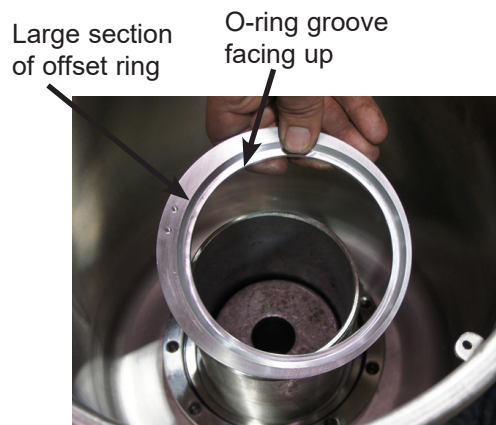
**Step 11:** Install the secondary unit, using studs to assist with alignment.



**Step 12:** Place new bellows gasket onto lip of secondary unit, using studs to assist with alignment.



**Step 13:** 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 14:** 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 15:** Install the large cross section o-ring on top of the aluminum offset ring.



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**Step 16:** Install the three flanges using the nine supplied stainless steel bolts and washers. Ensure that the flanges are tight against the nipple.



**Step 17:** Hand tighten all nine bolts, ensuring that the bucket is completely down and flat on the rim.



**Step 18:** 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.



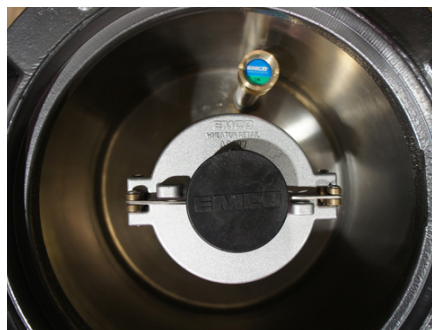
**Step 19:** Install the new primary unit, using studs to assist with alignment. If necessary, use jack bolts to draw down rim, to get bolts started.



**Step 20:** Using a 3/8" socket, loosely install 4 of the 3/8" x 3/4" bolts into the 4 open bolt holes in rim.



**Step 21:** Remove studs and replace with the 4 remaining 3/8" x 3/4" bolts. Tighten all 8 bolts to 20 ft. lbs., alternating in a star pattern.



**Step 22:** Repeat steps 13 to 18 to install the second o-ring/bolt/flange kit.

**Step 23:** Install adapter and cap per instructions included with each.

**Step 24: Testing:** Perform one of the following test procedures as specified by customer.

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

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



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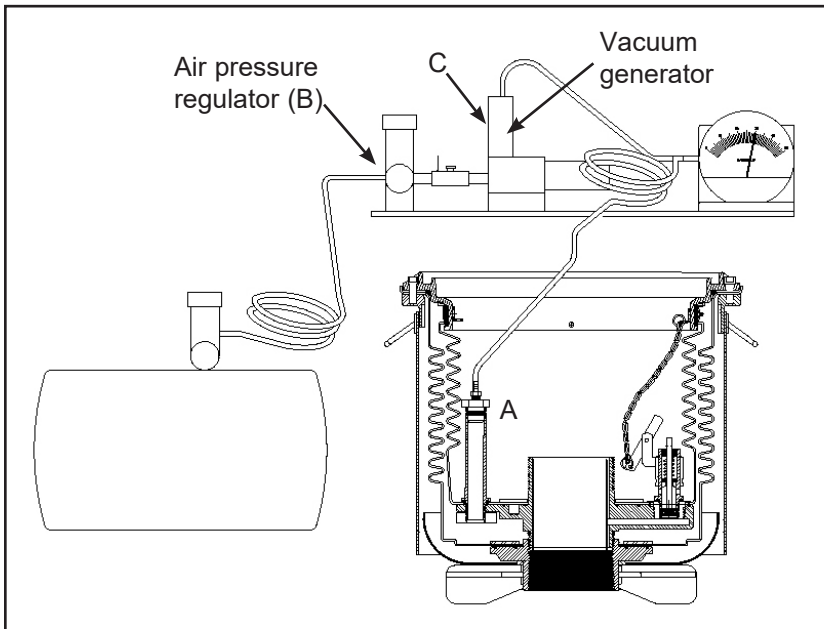
## Integrity Test

### Equipment

Vacuum apparatus w/test adapter 494343, available from Emco Wheaton Retail, p/n A1004-210TEST  
Timer  
Air supply, 30 psi

### Procedure

1. Remove the gauge from the inspection port and install the test adapter p/n 494343 (included with the vacuum apparatus) (A).
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, by moving the toggle switch (C). Wait 30 seconds. Reapply 30" water column.
4. Ensure switch is in off (center) position, start timer and record remaining vacuum after 1 minute.
5. If the remaining 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 the test fails, allow the bellows to equalize for one minute and repeat test, starting at step 3.
7. If test fails a second time, refer to Emco Wheaton Retail Test Procedures TP-160 and TP-161.
8. Replace components or repair as necessary.



### Maintenance

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

### Replacement Items

|               |                       |
|---------------|-----------------------|
| 494551        | Drain Kit             |
| 494343        | Test Adapter          |
| 494641        | Dipstick              |
| A1004-210TEST | Vacuum Test Apparatus |
| A1004-210GAGE | Interstitial Gauge    |
| A1004-316CLID | Lid and Seal          |



494343 Test Adapter

### 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.

Emco Wheaton Retail

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