



## Installation and Maintenance Instructions

### OPW 1-2100 Series Thread-On Grade Level Spill Containers

Please read these warnings and assembly instructions completely and carefully before starting. Failure to do so may cause product failure, or result in environmental contamination due to liquid leakage into the soil, creating hazardous spill conditions.

**IMPORTANT:** The OPW 1-2100 Spill Container is pre-assembled for your convenience and ease of installation. Check to make sure the unit is intact and undamaged and all parts have been supplied. Never substitute parts for those supplied. Doing so may cause product failure.

**WARNING-DANGER:** Using electrically operated equipment near gasoline or gasoline vapors may result in a 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.

**NOTE:** At all times when product is in the storage tank keep the riser pipe capped, so the vapors cannot escape into the environment.

**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.

**OPW Standard Product Warranty Tag:** Notice: FlexWorks by OPW, Inc., VAPORSAVER™ and all other OPW products must be used in compliance with all applicable federal, state, provincial and local laws, rules and regulations. Product selection is the sole responsibility of the customer and/or its agents and must be based on physical specifications and limitations, 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 specifications are subject to change at any time, and models may be discontinued at any time, in either case, without notice or obligation.

OPW warrants solely to its customer (the initial purchaser and any subsequent purchasers within the warranty period) that the following products sold by OPW will be free from defects in materials and workmanship under normal use and conditions for the periods indicated:

PRODUCT	WARRANTY PERIOD
FlexWorks Primary Pipe	10 years from date of manufacture
All Products and replacement parts installed in the State of California Certified to California CP-201 and/or CP-206 Standards*	1 year from date of installation (proof of purchase from certified contractors/technicians required) OPW warrants ongoing compliance with the standards and specifications for the duration of the warranty period required by the State of California; this limited warranty is under the condition the equipment was installed and maintained by trained and certified contractors/technicians unless noted in Installation Manual.
All other Products and replacement parts	1 year from date of manufacture**
*Products certified to California CP-201 and/or CP-206 Standards have been factory tested and met all applicable performance standards and specifications and will have an OPW registration card enclosed/attached to the product.	

OPW's exclusive obligation under this limited warranty is, at its option, to repair, replace or issue credit (in an amount not to exceed the list price for the product) for future orders for any product that may prove defective within the applicable warranty period. (Parts repaired or replaced under warranty are subject to prorated warranty coverage for remainder of the original warranty period). Complete and proper warranty claim documentation and proof of purchase required. All warranty claims must be made in writing and delivered during the applicable warranty period to OPW at OPW 9393 Princeton-Glendale Road Hamilton, Ohio, USA 45011, Attention: Customer Service Manager. No products may be returned to OPW without its prior written authority.

This limited warranty shall not apply to any FlexWorks or VAPORSAVER™ product unless it is installed by an OPW attested installer and all required site and warranty registration forms are completed and received by OPW within 60 days of installation. This limited warranty also shall not apply to any FlexWorks, VAPORSAVER™

or other OPW product: unless all piping connections are installed with a nationally-recognized or state-approved leak detection device in each tank and dispenser sump (which are not for storage and from which all discharge hydrocarbons must be removed, and the systems completely cleaned, within 24 hours); unless testable sumps utilize FlexWorks pipe and access fittings; unless a sump inspection log or an EPA recommended/required checklist is maintained and the results are furnished to OPW upon request; and unless OPW is notified within 24 hours of any known or suspected product failure and is provided with unrestricted access to the product and the site. This limited warranty also shall not apply to any product which has been altered in any way, which has been repaired by anyone other than a service representative authorized by OPW, or when failure or defect is due to: improper installation or maintenance (including, without limitation, failure to follow FlexWorks Quick Reference Manual Installation Guide and all product warning labels); abuse or misuse; violation of health or safety requirements; use of another manufacturer's, or otherwise unauthorized, substances or components; soil or other surface or subsurface conditions; or fire, flood, storm, lightning, earthquake, accident or any other conditions, events or circumstances beyond OPW's control .

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

OPW shall have no other liability whatsoever, whether based on breach of contract, negligence, gross negligence, strict liability or any other claim, including, without limitation, for special, incidental, consequential or exemplary damages or for the cost of labor, freight, excavation, clean-up, downtime, removal, reinstallation, loss of profit, or any other cost or charges. No person or entity is authorized to assume on behalf of OPW any liability beyond this limited warranty. This limited warranty is not assignable.

**\*\* Date of manufacture on this product is located on the mounting ring of the bucket.**

In California it is prohibited to use spill container drain valves on spill containers that are exclusively used for vapor return risers. Install only 1-2100 Series Thread-On spill container models equipped with a drain plug.

### 1-2100 Series Performance Specifications:

This Spill Container drain valve has been manufactured and tested to the following California specifications: Leak Rate to be less than or equal to 0.17 CFH @ 2.0 "

W.C.

### Torque Specification:

**Spill Container 4" NPT**, 125 ft-lbs minimum to 250 ft-lbs maximum.

**4" Nipple, 4" NPT**, 125 ft-lbs minimum to 250 ft-lbs maximum.

**Drain Valve clamps:** 5/16-18 UN thread, 11.5 ft-lbs minimum to 13.5 ft-lbs maximum.

## OPW No. 1-2100 SERIES GRADE LEVEL SPILL CONTAINER INSTALLATION INSTRUCTIONS

### Step 1:

Per California SB-989, all metal must be protected from direct contact with the elements. Coat stainless steel band clamps with the following approved coatings. OPW SL-1100, 3M Underseal 08883 or Polyguard Mastic CA-9. Only the threaded hardware needs to be coated in the field.

### Step 2: (See Figure 1 & 2)

Set riser pipe. "L" is the distance between the top of the riser pipe and finish grade.

**Note: The "L" dimensions below factors in a 1" slope to grade.**

<u>Model Series</u>	<u>"L" Dimension</u>
1-2100, 5 Gal. (Comp. Base)	L=15 5/8" (40cm)
1-2100E, 7.5 Gal (Comp. Base)	L=19 5/8" (50cm)
1-2115, 15 Gal. (Comp. Base)	L=19 5/8" (50cm)
1-2100C, 5 Gal (Cast Iron Base)	L=14 1/2" (37cm)
1-2100EC, 7.5 Gal (Cast Iron Base)	L=18 1/2" (47cm)
1-2115C, 15 Gal (Cast Iron Base)	L=18 1/2" (47cm)

**NOTE: If using OPW FSA-400, add 3-1/4" to Dimension "L". If using OPW FSA-400-S, add 1-3/4 to Dimension "L".**

**NOTE: FSA-400-S will only work with Cast Iron Base.**

### Step 3:

Deburr and thoroughly clean riser pipe. Apply pipe dope to riser threads. Pipe dope to be a non-hardening, gasoline resistant pipe thread seal compound.

### Step 4:

Install OPW FSA-400 Face Seal Adapter onto riser using the OPW 61SA-TOOL. Torque to 125 ft-lbs min. to 250 ft-lbs max.( 4" NPT). Apply pipe dope to FSA-400. Pipe

dope should be a non-hardening, gasoline resistant pipe thread seal compound.

**Step 5:**

Install spill container by rotating the mounting ring until hand tight.

**NOTE:** Do not attempt to completely tighten the container by using the mounting ring.

**Step 6:**

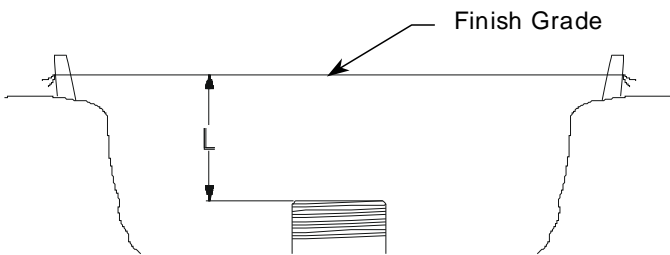
Finish tightening the spill container with the OPW 61SA-TOOL. Torque to 125 ft-lbs min. to 250 ft. Lbs. max. (4" NPT)

**NOTE:** Ground riser pipe to nearest grounding rod.

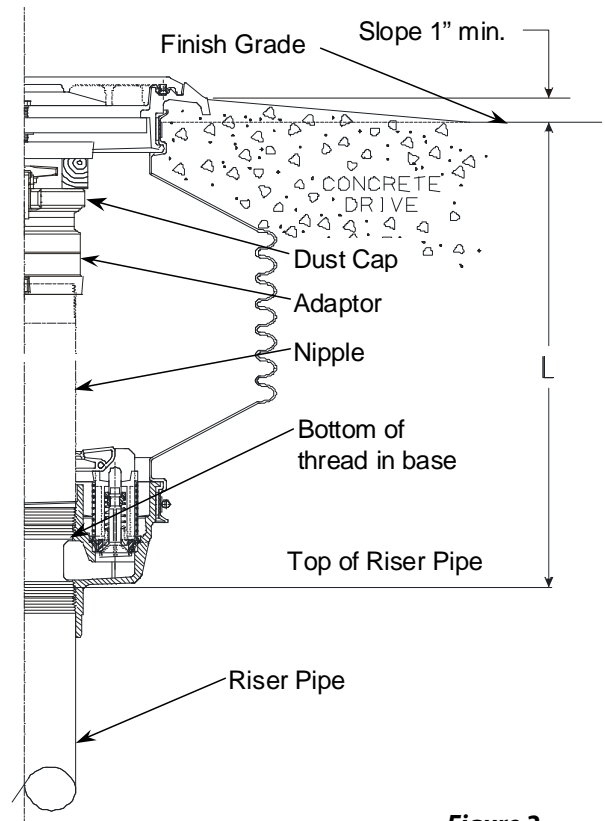
**Step 7:** (See Figure 2)

Apply pipe dope to nipple and install. Pipe dope to be a non-hardening, gasoline resistant pipe thread seal compound. Use only factory made nipples. Nipples must be cut square and deburred. Torque to 125 ft-lbs min. to 250 ft-lbs max. (4" NPT). Torque value is based on rotation at the center of pipe. For standard cover models install adaptor and dust cap. For sealable cover (1SC) models, install a standard 4" pipe cap to support adjustment system. (Adaptor and dust cap must be installed in sealable cover (SC) models after concrete has dried.

**NOTE: Nipple length is determined by measuring from the bottom of the threaded portion of the base to the bottom of the cover. Then subtract 2" for clearance, height of adaptor and height of cap. Range of nipple lengths that can be used in all of the OPW spill containers: 4" minimum to 14" maximum.**



**Figure 1**



**Figure 2**

**Step 8:** (See Figure 3 & 4)

Install adjusting system (sold separately, part number H12267) beneath tabs on mounting ring. See Figure 3 for standard cover models. See Figure 4 for sealable cover models. Add shims as needed and adjust with screw. (Shims must be cut to size for sealable cover models.) The height can be increased up to 1" (2.5cm).

**NOTE: The adjustment should not be more than 1" from the initial length of the unit.**

**Step 9:**

Upon preliminary installation perform the California Test Procedures TP-201.1C or equivalent. Their Test Procedures will check the seals between the drain valve, nipple and rotatable adapter. To test the spill containers base and bellows fill the container with water. A drop in the water level of 1/16" or greater after one hour means that a leak exists. To determine where the leak is, look for a steady stream of bubbles coming from one of the joints or water leaking on the outside of the bucket. **NOTE: Do not drain the water into the UST after the test is complete. Water must be disposed of per local requirements for hazardous waste. If the leak cannot be corrected the spill container should be replaced with another.**

**Step 10:** (See Figure 2)

Before pouring concrete, place plastic over the cover

and mounting ring protecting them from concrete splash. Double check that the unit is level and at proper grade height. Pour concrete per figure 2. Ramp or dome the concrete away from the mounting ring. There should be a minimum of 1" slope to finish grade. The concrete surface should start at the bottom edge of the watershed slots and tapered down to grade level.

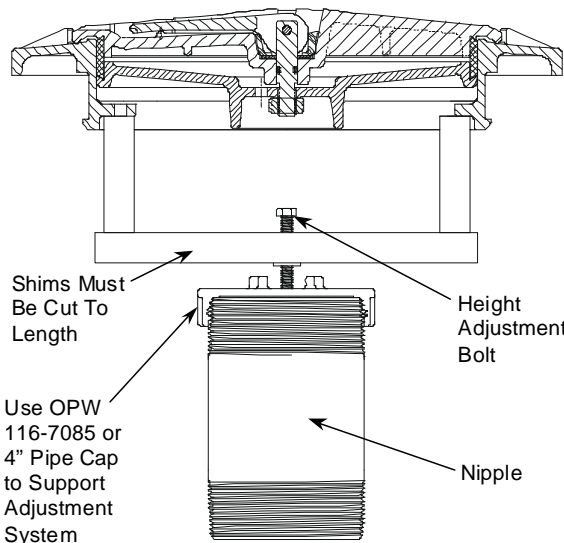
**NOTE: Do not stand on spill container before concrete sets up.**

Remove plastic from cover after concrete has dried. Remove adjustment system. Adaptor and tight fill cap can now be installed in sealable cover models. Re-test the spill containers for leaks as described in step 9, after the concrete has set up.

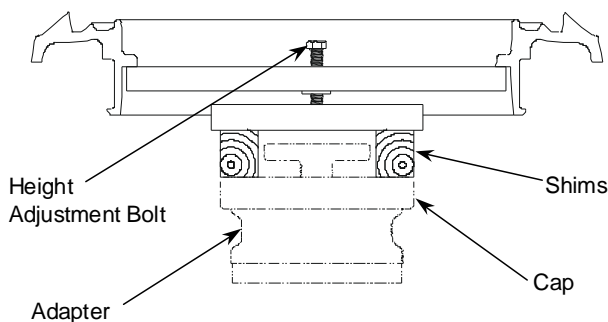
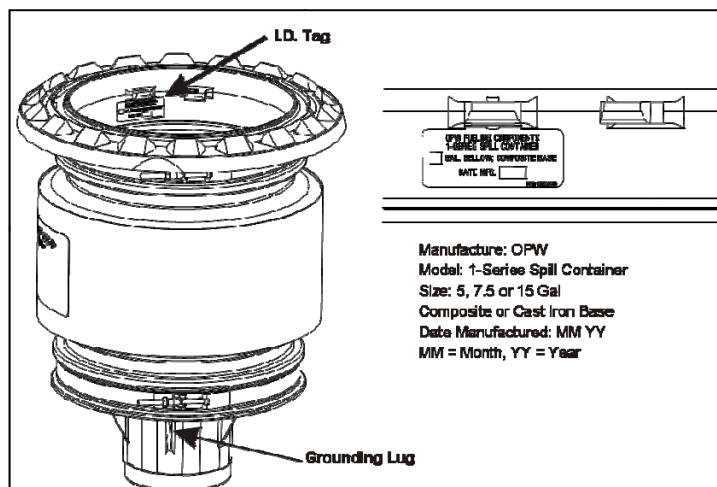
**OPERATION AND MAINTENANCE:**

**Annually:** Inspect and clean the interior of the spill container and drain valve screen. Remove accumulated dirt and grit. Test the drain valve using CARB procedure TP-201.1C or TP-201.1D. If the drain valve passes testing no further maintenances required. If the drain valve fails testing, remove the valve, soak in water and use high-pressure air, if needed, to clean. Reinstall the drain valve to its proper position and test the valve with CARB procedure TP-201.1C or TP-201.1D. If problems persist, replace the drain valve with P/N 1DK-2100-EVR (specified torque 11.5 ft-lbs min to 13.5 ft-lbs max, 5/16-18 UN thread). The sealable cover (1SC) adjustment nut is set at the factory, but due to environmental conditions it may be necessary to adjust it to either improve sealing or ease cover removal.

**IMPORTANT: Leave these instructions with the Station Operator.**



**Figure 4 - Sealable Cover Model Height Adjustment**



**Figure 3 - Standard Cover Model Height Adjustment**

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