



OPW 1-3100 Series Thread-On Double Wall Grade Level Spill Containers

Installation and Maintenance Instructions

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 1-3100 Spill Container is preassembled 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: Keep the riser pipe capped at all times when product is in the storage tank, 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 un-

restricted 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 Flex-Works 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 some states it is prohibited to use spill container drain valves on spill containers that are exclusively used for vapor return risers. Install only 1-3100 Series Thread-On spill container models equipped with a drain plug.

WARNING: If the snowplow ring is removed, for any reason, follow the Operation and Maintenance instruction as noted. Replace o-rings and seals and install new ones. Never reuse damaged o-rings or seals as it may result in an improper seal. Only qualified, competent, well-trained technicians should perform maintenance. Common sense and good judgment should always be exercised. The contractor's understanding of all related site conditions prior to starting the project is essential. If the contractor does not have a clear understanding of the required work and site conditions, the contractor is advised to seek clarification prior to starting any portion of the project.

NOTICE TO DELIVERY DRIVER: All delivery drivers MUST inspect the inside of the container for water or contaminants other than fuel prior to delivery. If water or contaminants are present, then they MUST be removed before proceeding. Dispose of towels and debris safely and per all applicable local, state, and federal codes. After delivery is complete, the driver MUST drain any excess fuel that may have spilled into the container from their delivery hose.

1-3100 Series Performance Specifications: This Spill Container drain valve has been manufactured and tested to the following 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.

NOTE: All 4" NPT threads are to be torqued progressively lower from the tank up.

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

Ring and Nipple Adaptor Bolts: 3/8-16 UN, 20 ft-lbs minimum to 25 ft-lbs maximum.

Tools Recommended:

1-3100-TOOL - Torque Installation Tool

DW-VAC-TEST - Vacuum Test Equipment (or 202310 Test Adaptor)

OPW 1-3100 SERIES GRADE LEVEL SPILL CONTAINER INSTALLATION INSTRUCTIONS:

Step 1: (See Figures 1 and 2)

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

NOTE: The spill container height (from riser to grade) is L + 1".

Model Series	"L" Dimension
1-3100, 5 Gal. (Cast Iron Base)	L = 15 5/8" (40 cm)
1-3100, 15 Gal. (Cast Iron Base)	L = 17 3/8" (44 cm)

Step 2:

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

Step 3:

Install gravel guard on riser pipe. Leave band clamp loose.

NOTE: Ground riser pipe to nearest grounding rod.

Step 4:

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

NOTE: Do NOT attempt to completely tighten the container using the mounting ring. Doing so may cause the unit to fail.

Step 5: (See Figure 2)

Finish tightening the spill container secondary base using the wrenching boss or with the 1-3100-TOOL. Torque to 125 ft-lbs min. to 250 ft-lbs max (4" NPT). 1-3100-TOOL can be used to set final torque (see 1-3100-TOOL instructions).

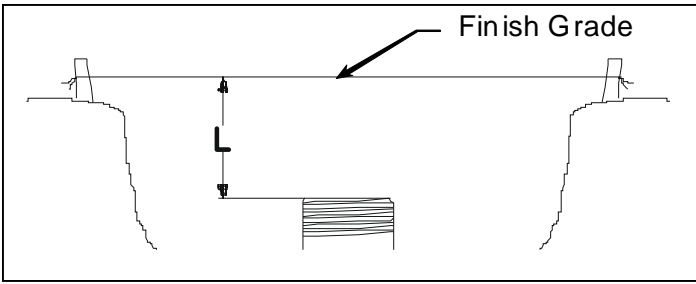


Figure 1

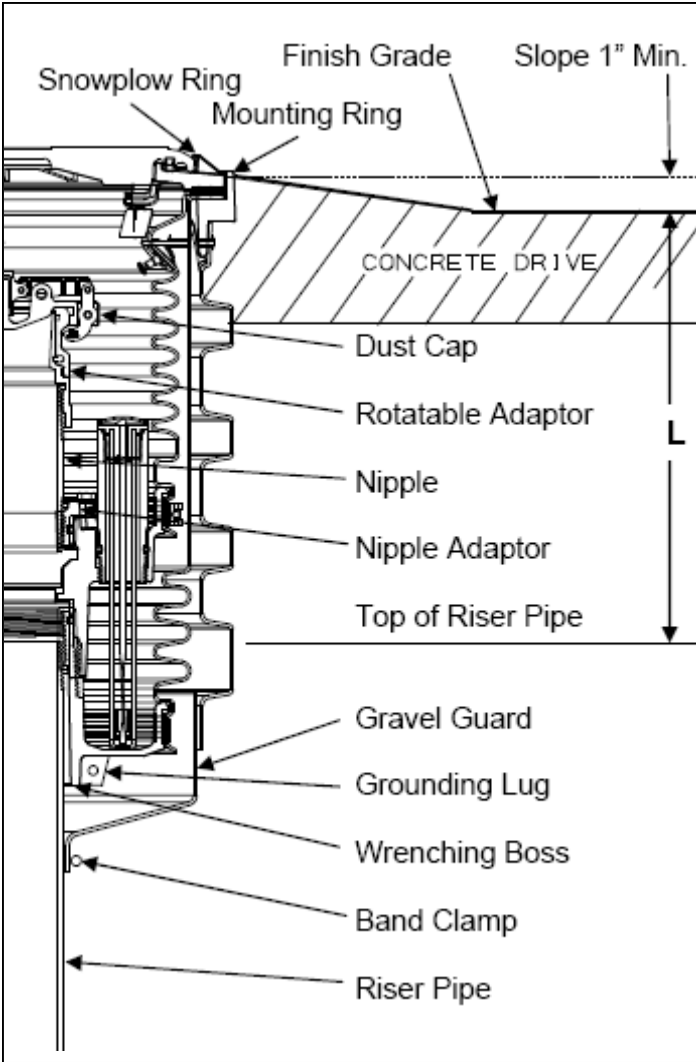


Figure 2

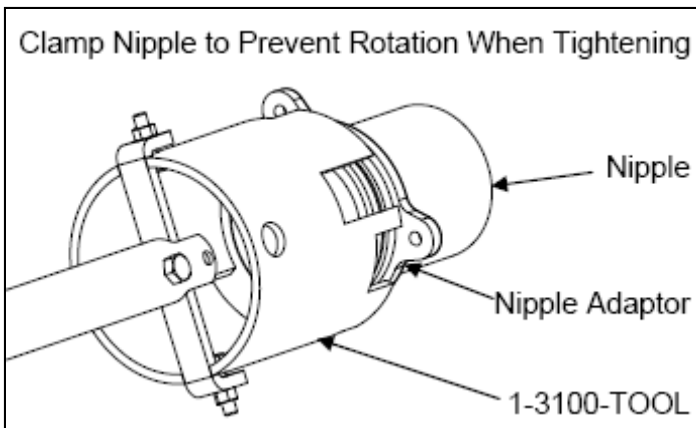


Figure 3

Step 6: (See Figures 2 & 3)

Remove Nipple Adaptor from spill container. Apply pipe dope to nipple and install in Nipple Adaptor. Pipe dope is to be a non-hardening, gasoline resistant pipe thread seal compound. Use only factory made nipples. Torque nipple to 125 ft-lbs min. to 250 ft-lbs max. (4" NPT). 1-3100-TOOL can be used to set final torque. Torque value is based on rotation at the center of pipe. For standard covers install rotatable adaptor and dust cap per manufacturers' instructions. For sealable cover (15C) 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. Install drop tube, overflow prevention valve and/or loose jack screw assembly if used (61JSK-44CB) per manufacturers' instructions. Reinstall the Nipple Adaptor in spill container. Torque Nipple Adaptor bolts to 20 ft-lbs minimum to 25 ft-lbs maximum.

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" minimum 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" min to 9" max. (See Figure 6)

Step 7: (See Figures 4 & 8)

If necessary, the height of the spill container can be adjusted by $\pm 1"$ (2.5cm). If it is necessary to increase height, install adjusting system (sold separately for 5 gallon models, part number H12267) beneath tabs on mounting ring. See Figure 4 for standard cover models and Figure 8 for sealable cover models. Add shims as needed and adjust with screw (shims must be cut to size for sealable cover models).

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

Step 8:

Where applicable, upon preliminary installation perform the CARB Test Procedure TP-201.1C or equivalent. This Test Procedure will check the seals between the drain valve, nipple, bases, and rotatable adapter.

NOTE: Follow all state and local required testing on the primary and secondary buckets.

Step 9: (See Figure 7)

Verify torque on mounting ring bolts. Torque to be 20 ft-lbs minimum to 25 ft-lbs maximum.

Using OPW DW-VAC-TEST (or 202310 Test Adaptor), perform a vacuum test on the spill container. An initial vacuum of 15" of water should be attained and the spill container must retain a vacuum of at least 12" of water after 5 minutes. (See DW-VAC-TEST Instructions.)

Step 10: (See Figure 2)

Install gravel guard at final height as shown in Figure 2 and tighten band clamp to 30 in-lbs. Where applicable, per California SB-989, all metal must be protected from

direct contact with the elements. Coat stainless steel band clamp with the following approved coatings: OPW SL-1100, 3M Underseal 08883 or Polyguard Mastic CA-9.

Step 11: (See Figures 2 & 5)

Before pouring concrete, place plastic over the cover and Mounting Ring protecting them from concrete splash and tighten the clamp on the gravel guard mounted on the riser pipe. Double check that the unit is level and at proper grade height. Pour concrete per Figure 5. Ramp or dome the concrete away from the mounting ring.

There should be a minimum of 1" slope to finish grade.

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

Remove plastic from cover after concrete has dried. Remove adjustment system. Re-test the spill containers for leaks as described in step 9, after the concrete has set up.

Operation and Maintenance:

After each fuel delivery, the operator must remove any standing fuel from the container. Fuel can be removed by actuating the drain valve or with a gasoline absorbing disposable towel. If access to drop tube or overfill valve is required remove Nipple Adaptor from primary bucket.

Weekly: Perform a visual inspection of the interior of the primary containment bucket for water or other contaminants and check the secondary containment bucket by checking the gauge in the base of the spill container. If water or other contaminants are found they must be disposed of with disposable towels. Dispose of towels safely and per all applicable local, state and federal codes. Check that cover is in good condition and properly identified. Replace cover and seal as necessary. Inspect the bucket walls for cracks, bulges or holes. If any exist, have that spill container barricaded and contact maintenance personnel immediately for repairs.

Semiannually: Follow all state and local required hydrostatic or vacuum testing on the primary and secondary buckets. Inspect and clean the interior of the spill container and drain valve screen. Remove accumulated dirt and grit. Where applicable, 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 where applicable, 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 (15C) 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.

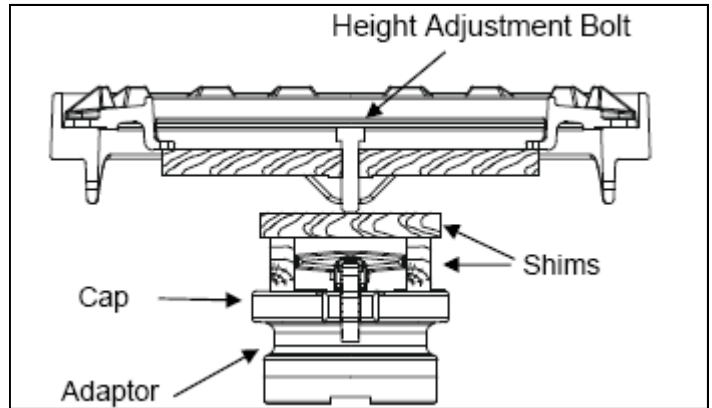


Figure 4

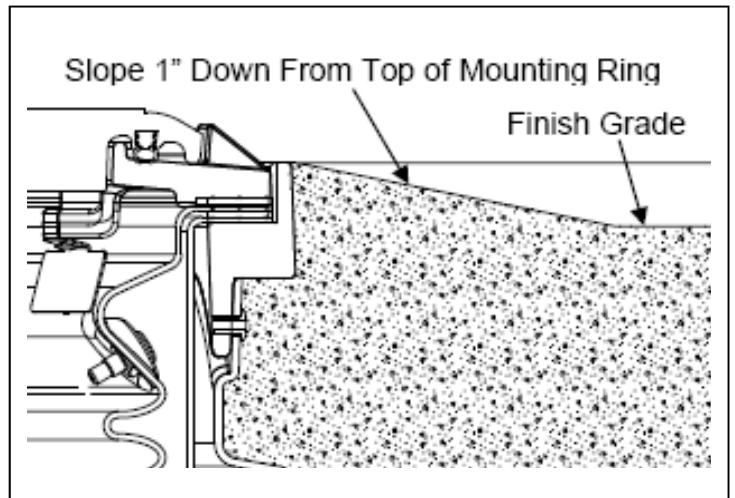


Figure 5

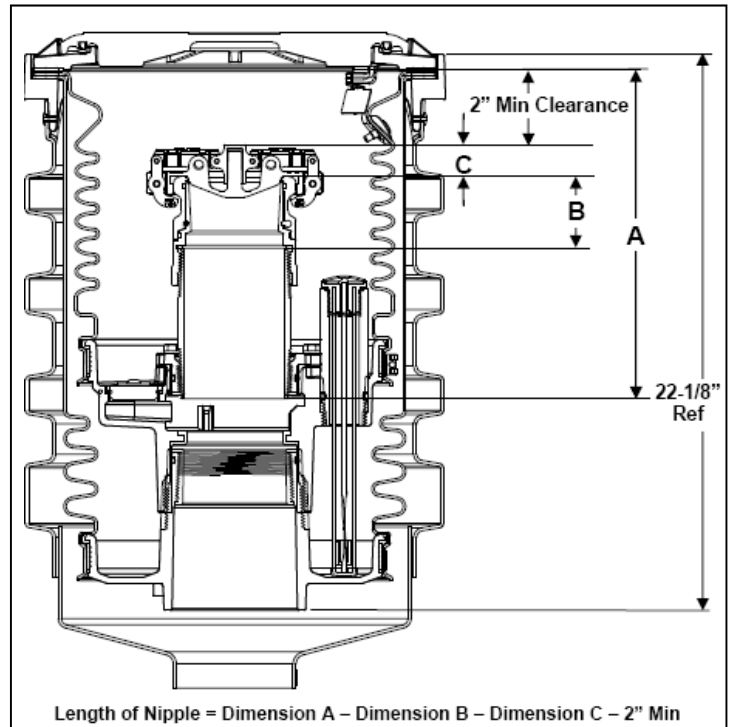


Figure 6

IMPORTANT: Leave these instructions with the Station Operator.

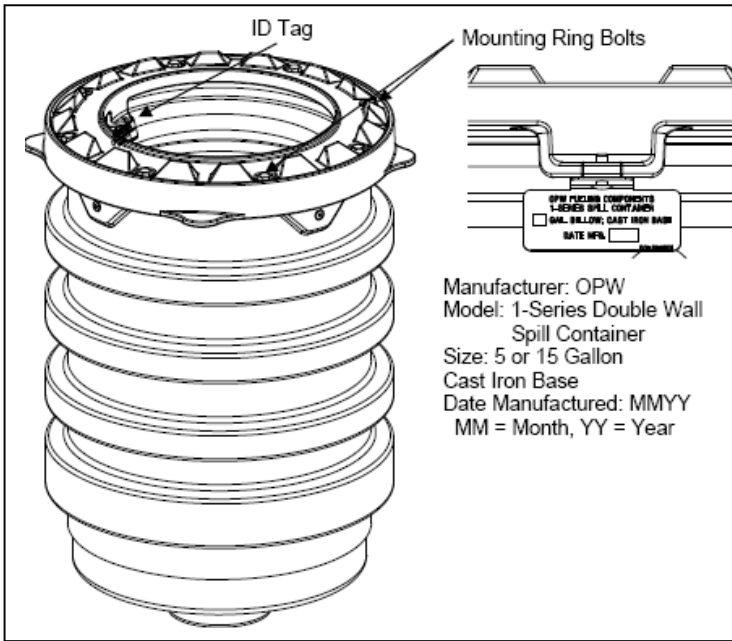


Figure 7

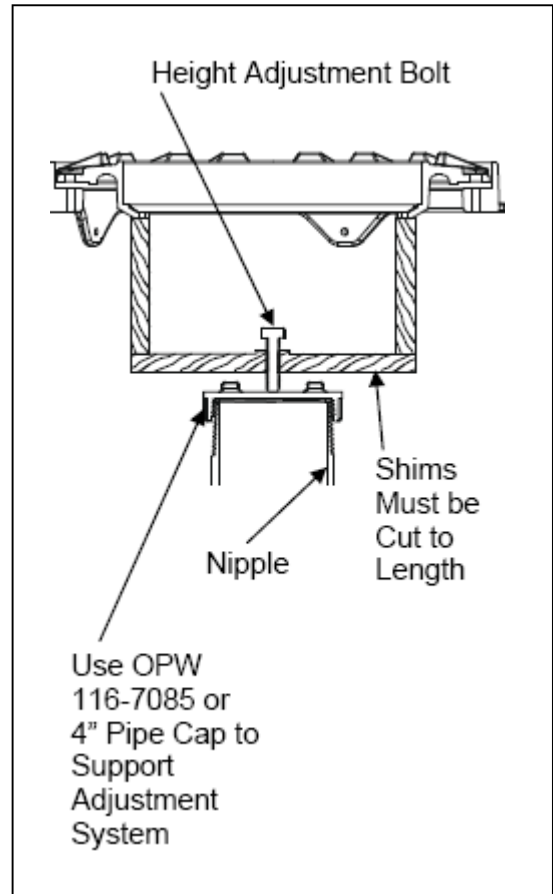


Figure 8



OPW Fueling Containment Systems
 3250 US 70 Business West
 Smithfield, NC 27577
 Customer Service: 1-(800) 422-2525
 Technical Service and Questions:
 1-(877) OPW-TECH
 www.opwglobal.com

Part Number: 202181
 Issue Date: 02-13-13 REV G
 Supersedes: 07-07-12 REV F

Notice: OPW-FCS products must be used in compliance with applicable federal, state, provincial 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. OPW-FCS makes no warranty of fitness for a particular use. 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. For complete OPW-FCS warranty information, visit our web site at www.opwglobal.com.